



October 3, 2003

Alameda County  
OCT 1 2003  
Environmental Health

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

**Re: Third Quarter 2003 Groundwater Monitoring Report  
ARCO Service Station #5387  
20200 Hesperian Blvd  
Hayward, California  
URS Project #38486333**

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 *Third Quarter 2003 Groundwater Monitoring Report* for ARCO Service Station #5387, located at 20200 Hesperian Boulevard, Hayward, California.

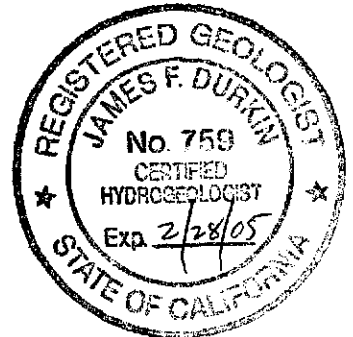
If you have any questions regarding this submission, please call me at (510) 874-3280.

Sincerely,

URS CORPORATION

Scott Robinson  
Project Manager

James F. Durkin, C.Hg.  
Senior Geologist



Enclosure: Third Quarter 2003 Groundwater Monitoring Report

cc: Mr. Paul Supple, ARCO, (electronic copy uploaded to ENFOS)

**R E P O R T**

Alameda County

2003-1-2300

Environmental Health

**THIRD QUARTER 2003  
GROUNDWATER MONITORING**

ARCO SERVICE STATION #5387  
2020 HESPERIAN BOULEVARD  
HAYWARD, CALIFORNIA

*Prepared for*  
Atlantic Richfield Company

October 3, 2003

**URS**

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

38486333

Alameda County  
 OCT 1 2003  
 Environmental Health

Date: October 3, 2003  
 Quarter: 3Q 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.: 38486333  
 Primary Agency: Alameda County Health Care Services Agency (ACHCSA)

**WORK PERFORMED THIS QUARTER (Third – 2003):**

1. Performed third quarter groundwater monitoring event on September 4, 2003.
2. Prepared and submitted third quarter 2003 groundwater monitoring report.
3. Prepared and submitted workplan for hydrogen peroxide injections on August 11, 2003.

**WORK PROPOSED FOR NEXT QUARTER (Fourth – 2003):**

1. Perform fourth quarter 2003 groundwater monitoring event.
2. Prepare and submit fourth quarter 2003 groundwater monitoring report.
3. Perform hydrogen peroxide injections.
4. Perform well repairs on MW-1, AR-1 and AR-2.

Current Phase of Project:	<u>GW monitoring/sampling</u>
Frequency of Groundwater Sampling:	<u>Quarterly: Wells MW-1 through MW-3, A-4 through A-10, AR-1 and AR-2</u>
Frequency of Groundwater Monitoring:	<u>Quarterly</u>
Is Free Product (FP) Present On-Site:	<u>No</u>
Current Remediation Techniques:	<u>Natural Attenuation</u>
Approximate Depth to Groundwater:	<u>9.85 ft (MW-3) to 13.59 ft (A-7)</u>
Groundwater Gradient (direction):	<u>West</u>
Groundwater Gradient (magnitude):	<u>0.005 feet per foot</u>

**DISCUSSION:**

TPH-g was detected in one of the eight wells sampled this quarter at a concentration of 500 µg/L (MW-2). Benzene was not detected in any of the wells sampled this quarter. MTBE was detected in four wells at concentrations ranging from 0.50 µg/L (A-5) to 28 µg/L (MW-2). TAME was detected in two wells at concentrations of 0.86 µg/L (A-7) and 3.8 µg/L (MW-2). Wells MW-1, AR-1 and AR-2 could not be sampled or gauged because the bolt on the well head was warped; field sheets indicate that the bolts appear to have melted. Well A-4 was not sampled because a parked vehicle prevented access to the well.

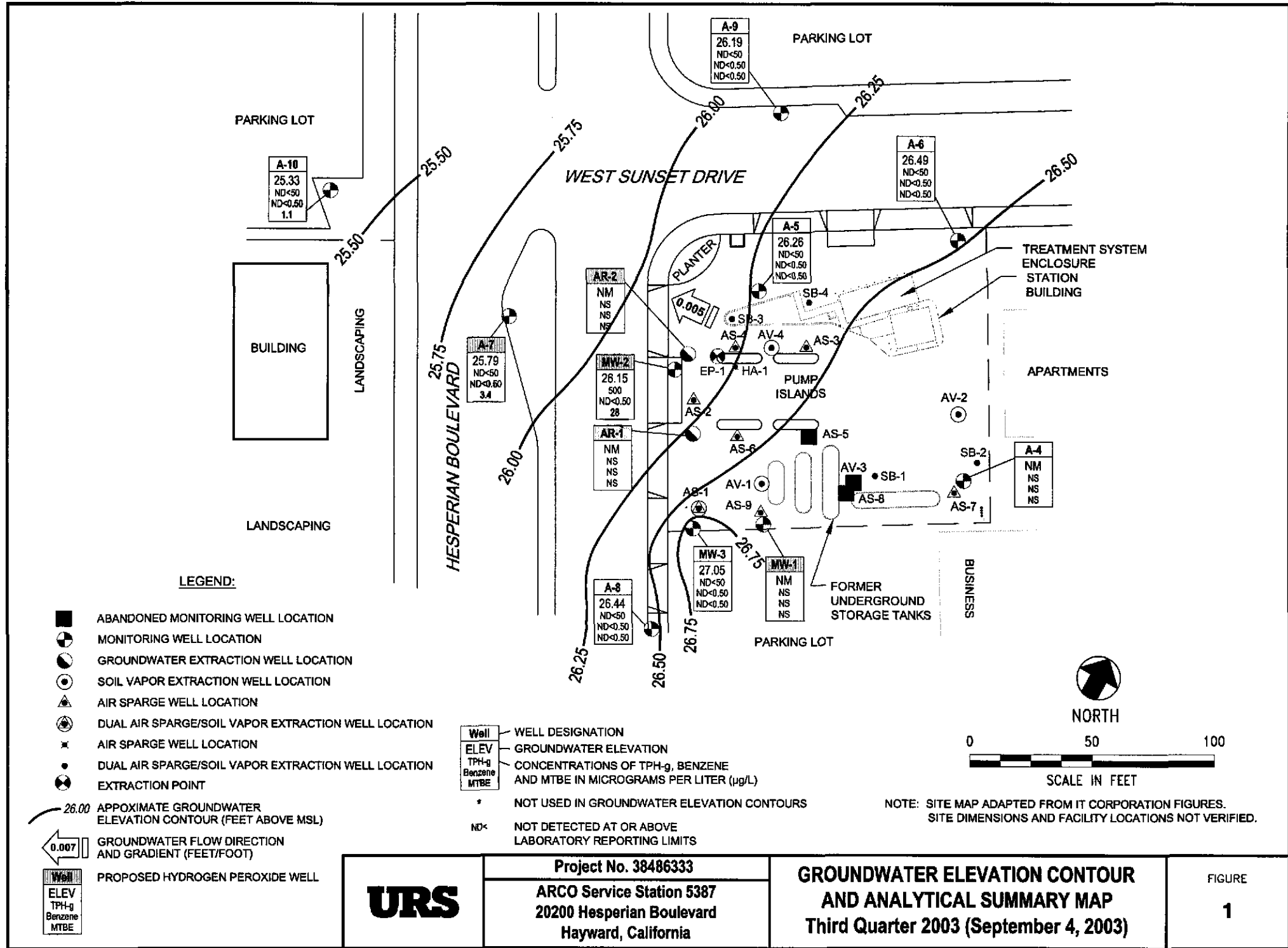
During this quarter, this site became available to URS in the Geotracker system. This report includes upload confirmation sheets for the first, second and third quarter of 2003 (Attachment C).

**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:**

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – September 4, 2003
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Fuel Oxygenate Analytical Data
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports and Chain-of-Custody Records
- Attachment C – EDCC Report and EDF/Geowell Submittal Confirmation (1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> Quarters, 2003)



**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					MTBE (µg/L)	DO (mg/L)	pH	
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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	6.9
	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	1.8	6.9
	02/11/03 <sup>o</sup>	P		9.91	27.55	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.7	1.2	6.7
	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	7.0
	09/04/03 <sup>l</sup>			---	---	---	---	---	---	---	---	---	---

**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					MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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	7.1
	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	1.1	7.0
	02/11/03 <sup>o</sup>	P	10.80	27.18	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.75	1.8	6.9
	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	6.4
	09/04/03 <sup>f</sup>		---	---	---	---	---	---	---	---	---	---

**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					MTBE (µg/L)	DO (mg/L)	pH
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)			
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	---	---



**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			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/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 <sup>a</sup>		---	---	---	---	---	---	---	---	---	---
	12/09/02	P	11.22	26.04	998	ND<0.50	ND<0.50	ND<0.50	1.37 (b)	855(d)/ 1310*	2.2	7.0
	02/11/03 <sup>b</sup>	P	9.70	27.56	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	76	1.6	6.7
	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	6.8
	09/04/03 <sup>f</sup>		--	--	--	--	--	--	--	--	--	--

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Groundwater Elevation and Analytical Data**

ARCO Service Station #5387  
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Well Number	Date Sampled	Casing Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TPH					MTBE (µg/L)	DO (mg/L)	pH
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)			
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	---	---

**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					MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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	6.9
	12/09/02	P	12.20	25.79	1,770	8.08	0.694	2.47	3.79 (b)	529(d)/ 902*	6.2	6.7
	02/11/03 <sup>o</sup>	P	10.79	27.20	1,100	ND<0.50	ND<0.50	ND<0.50	0.53	71	1.2	6.8
	06/27/03	P	11.20	26.79	520	ND<0.50	ND<0.50	ND<0.50	ND<0.50	45	0.8	6.8
	09/04/03	P	11.84	26.15	500	ND<0.50	ND<0.50	ND<0.50	ND<0.50	28	1.2	6.9

**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			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/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			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/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	6.9
	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	1.7	6.7
	02/11/03 <sup>e</sup>	P	8.85	27.95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.6	6.7
	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	6.8
	09/04/03	P	9.85	27.05	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.0	6.9

**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					MTBE (µg/L)	DO (mg/L)	pH
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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				Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/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 <sup>a</sup>		---	---	---	---	---	---	---	---	---	---
	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	2.4	6.6
	02/11/03 <sup>b</sup>	P	11.82	27.71	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.53	1.8	6.6
	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	6.7
	09/04/03 <sup>a</sup>		---	---	---	---	---	---	---	---	---	---

**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			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/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	---	---



**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			Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/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	6.7
	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	1.9	6.6
	02/11/03 <sup>e</sup>	P	11.37	27.10	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.97	1.2	6.7
	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	6.8
	09/04/03	P	12.21	26.26	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.50	3.1	7.0

**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					MTBE (µg/L)	DO (mg/L)	pH
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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	---	---

**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					MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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	6.8
	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	2.6	6.7
	02/11/03 <sup>o</sup>	P	11.21	27.57	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.0	6.7
	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	6.9
	09/04/03	P	12.29	26.49	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.8	6.9

**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				Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/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	---	---

**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					MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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	6.7
	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	2.2	6.8
	02/11/03 <sup>a</sup>	P	12.35	27.03	54	ND<0.50	ND<0.50	ND<0.50	ND<0.50	21	1.7	6.3
	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	6.8
	09/04/03	P	13.59	25.79	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.4	2.6	6.9

**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					MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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	6.8
	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	2.1	6.6
	02/11/03 <sup>e</sup>	P	9.90	26.86	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.4	6.5
	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	6.8
	09/04/03	P	10.32	26.44	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.1	6.9

**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					MTBE (µg/L)	DO (mg/L)	pH
					Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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	6.8
	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	3.2	7.1
	02/11/03 <sup>o</sup>	P	10.97	27.22	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.0	6.7
	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	6.7
	09/04/03	P	12.00	26.19	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.3	6.9

**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					MTBE (µg/L)	DO (mg/L)	pH
					as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/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		---	---	NS	NS	NS	NS	NS	NS	---	---
	09/23/02		DRY	DRY	NS	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 <sup>o</sup>	P	12.21	26.45	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.9	1.3	6.7
	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	7.2
	09/04/03	P	13.31	25.35	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	0.9	6.9



**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).
DO	= Dissolved oxygen
ND <	= Not detected at or above the laboratory reporting limits.
P	= Purge
NP	= No Purge
" ... "	= Not analyzed/Not Measured/Not available
µg/L	= Micrograms per liter
mg/L	= Milligrams 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)
(f)	= Unable to gauge because the bolt was warped on the well head
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

<b>Date Measured</b>	<b>Average Flow Direction</b>	<b>Average Hydraulic Gradient</b>
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
<b>09/04/03</b>	<b>West</b>	<b>0.005</b>

**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
	06/27/03	ND<1,000	ND<200	170	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	09/04/03	NS	NS	NS	NS	NS	NS	NS	NS
MW-2	02/11/03	ND<100	ND<20	71	ND<0.50	ND<0.50	13	NA	NA
	06/27/03	ND<100	ND<20	45	ND<0.50	ND<0.50	5.4	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	28	ND<0.50	ND<0.50	3.8	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
	06/27/03	ND<100	ND<20	0.61	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	ND<0.50	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
	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
	09/04/03	NS	NS	NS	NS	NS	NS	NS	NS
A-5	02/11/03	ND<100	ND<20	0.97	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100	ND<20	0.98	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/04/03	ND<100	ND<20	0.50	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
	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
	09/04/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

**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)
A-7	02/11/03	ND<100	ND<20	21	ND<0.50	6.5	ND<0.50	NA	NA
	06/27/03	ND<100	ND<20	9.4	ND<0.50	ND<0.50	2.1	ND<0.50	ND<0.50
	<b>09/04/03</b>	<b>ND&lt;100</b>	<b>ND&lt;20</b>	<b>3.4</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>0.86</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>
A-8	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	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
	<b>09/04/03</b>	<b>ND&lt;100</b>	<b>ND&lt;20</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>
A-9	02/11/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	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
	<b>09/04/03</b>	<b>ND&lt;100</b>	<b>ND&lt;20</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>
A-10	02/11/03	ND<100	ND<20	1.9	ND<0.50	ND<0.50	ND<0.50	NA	NA
	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
	<b>09/04/03</b>	<b>ND&lt;100</b>	<b>ND&lt;20</b>	<b>1.1</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>	<b>ND&lt;0.50</b>
AR-1	02/11/03	ND<100	ND<20	4.7	ND<0.50	ND<0.50	ND<0.50	NA	NA
	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
	<b>09/04/03</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>
AR-2	02/11/03	ND<100	ND<20	0.75	ND<0.50	ND<0.50	ND<0.50	NA	NA
	06/27/03	ND<100 (a)	ND<20	6.0	ND<0.50	ND<0.50	2.6	ND<0.50	ND<0.50
	<b>09/04/03</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>

### Table 3

#### Fuel Oxygenate Analytical Data ARCO Service Station #5387 20200 Hesperian Blvd Hayward, California

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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
NS	= Not sampled
(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.

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**ATTACHMENT A**

**FIELD PROCEDURES AND FIELD DATA SHEETS**

## **FIELD PROCEDURES**

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### **Sampling Procedures**

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

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

WELL GAUGING DATA

Project # D30904-MA3 Date 9/4/07 Client Arco 5387

Site 20200 Hesperian Blvd.

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MM-1	2		unable to gauge		(Bolt warped)			TOC	6/ft
MW-2	2					11.94	28.39		
MW-3	2					9.85	27.98		
A-4	3		unable to gauge		(parked over)				
A-5	3					12.21	29.52		
A-6	3					12.29	34.40		
A-7	3					13.59	35.03		
A-8	2					10.32	33.45		
A-9	2					12.00	33.13		
A-10	2					13.31	33.33		
AR-1	6		unable to gauge		(Bolt warped)				
AR-2	6		unable to gauge		(Bolt warped)				



## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM3	Station # Arco 5283
Sampler: MM	Date: 9/4/03
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8
Total Well Depth: 28.39	Depth to Water: 11.84
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 <sup>2</sup> * 0.163

Purge Method: Bailer Disposable Bailer (Positive Air Displacement) Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer (Disposable Bailer) Extraction Port Other: _____
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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.

$\frac{2.6}{1 \text{ Case Volume (Gals.)}}$	X	$\frac{3}{\text{Specified Volumes}}$	=	$\frac{7.8}{\text{Calculated Volume}}$	Gals.
---	---	--------------------------------------	---	--	-------

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
1312	66.9	6.4	1046	2.6	cloudy, brown, odor
1819	67.5	6.9	1027	5.2	clear, strong odor
1822	67.3	6.9	1026	7.8	slightly cloudy, odor

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 7.8
Sampling Time: 1827	Sampling Date: 9/4/03
Sample I.D.: MW-2	Laboratory: Pace Sequoia Other _____
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: OX9's + Ethanol (all by B266)	
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 #: 030904-MM3	Station # Arco 5383
Sampler: MM	Date: 9/4/03
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 27.98	Depth to Water: 9.85
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 <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer

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

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

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

2.9	x	3	=	8.7	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
1653	68.7	6.9	1056	2.9	cloudy, brown
1701	69.0	6.9	1003	5.8	cloudy, light brown
1704	68.9	6.9	1041	8.7	" "

Did well dewater? Yes  No       Gallons actually evacuated: 8.7

Sampling Time: 1709      Sampling Date: 9/4/03

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: DXG's + Ethanol (all by B266)

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.0	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM3	Station # Arco 5385
Sampler: MM	Date: 9/4/03
Well I.D.: MW-4	Well Diameter: 2 (3) 4 6 8
Total Well Depth:	Depth to Water:
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 <sup>2</sup> * 0.163

Purge Method: Bailer      Sampling Method: Bailer

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

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

I Case Volume (Gals.)	X	3	=	Gals.
		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
					unable to sample ⇒ parked over

Did well dewater? Yes  No  Gallons actually evacuated: \_\_\_\_\_

Sampling Time: \_\_\_\_\_ Sampling Date: 9/4/03

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: D&G's + Ethanol (all by 6266)

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

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM3	Station # Arco 5300
Sampler: MM	Date: 9/4/03
Well I.D.: A-5	Well Diameter: 2 (3) 4 6 8
Total Well Depth: 29.52	Depth to Water: 12.21
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): VSI HACH

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

Purge Method:  Bailer      Sampling Method:  Bailer

Disposable Bailer       Disposable Bailer

Positive Air Displacement       Extraction Port

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

Extraction Pump

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

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

6.4	x	3	=	19.2	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
1744	66.9	7.3	977	6.4	slightly cloudy
1751	66.4	7.3	987	12.8	clear
1758	66.3	7.0	994	19.2	clear

Did well dewater? Yes  No  Gallons actually evacuated: 19.2

Sampling Time: 1803      Sampling Date: 9/4/03

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Dxs + Ethanol (all by H266)

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	3.1	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030704-MM3	Station # Arco 5283
Sampler: MM	Date: 9/4/03
Well I.D.: A-6	Well Diameter: 2 (3) 4 6 8
Total Well Depth: 34.40	Depth to Water: 12.29
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 <sup>2</sup> * 0.163

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

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

<del>7.5</del> 8.2	x	3	=	<del>10.5</del> 24.6	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1725	68.5	7.0	801	8.2	cloudy, brown
1727	66.4	6.9	824	16.4	cloudy, light brown
1729	66.0	6.4	855	24.6	clear

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 24.6
Sampling Time: 1734	Sampling Date: 9/4/03
Sample I.D.: A-6	Laboratory: Pace Sequoia Other _____
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: OXYS + Ethanol (all by h266)	
D.O. (if req'd):	Pre-purge: _____ mg/L Post-purge: 2.8 mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM3	Station # Arco 5283
Sampler: MM	Date: 9/4/03
Well I.D.: A-7	Well Diameter: 2 <u>3</u> 4 6 8
Total Well Depth: 35.03	Depth to Water: 13.59
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

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

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.

7.9	X	3	=	23.7	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u> )	Gals. Removed	Observations
1427	73.2	6.8	1080	8.0	Clear
1429	71.0	6.9	1082	16.0	clear
1431	70.6	6.9	1085	24.0	clear

Did well dewater? Yes  No       Gallons actually evacuated: 24.0

Sampling Time: 1431      Sampling Date: 9/4/03

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: OK4's + Ethanol (cell by B266)

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.6	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM3	Station # Arco 5385
Sampler: MM	Date: 9/4/03
Well I.D.: A-8	Well Diameter: (2) 3 4 6 8
Total Well Depth: 33.45	Depth to Water: 10.32
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 <sup>2</sup> * 0.163

Purge Method: Bailer	Sampling Method: Bailer
<input type="checkbox"/> Disposable Bailer <input checked="" type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	<input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> 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.

3.7	x	3	=	11.1	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
1631	68.8	7.0	1017	3.7	cloudy, brown
1635	68.5	6.9	1006	7.4	Slightly cloudy
1639	68.2	6.9	1010	11.1	Slightly cloudy

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 11.1
Sampling Time: 1643	Sampling Date: 9/4/03
Sample I.D.: A-8	Laboratory: Pace Sequoia Other _____
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: dxg's + Ethanol (all by H200)	
D.O. (if req'd):	Pre-purge: _____ mg/L Post-purge: <del>0.1</del> 3.1 mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM3	Station # Arco 5387
Sampler: MM	Date: 9/4/03
Well I.D.: A-9	Well Diameter: (2) 3 4 6 8
Total Well Depth: 33.13	Depth to Water: 12.00
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 <sup>2</sup> * 0.163

Purge Method: Bailer Disposable Bailer (Positive Air Displacement) Electric Submersible Extraction Pump Other: _____	Sampling Method: Bailer (Disposable Bailer) Extraction Port Other: _____
---	---

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

3.4	x	3	=	10.2	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
1525	70.6	7.0	862	3.4	cloudy, brown, silty
1527	69.0	6.8	851	6.8	cloudy, brown
1523	68.8	6.9	855	10.2	slightly cloudy

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 10.2
Sampling Time: 1527	Sampling Date: 9/4/03
Sample I.D.: A-9	Laboratory: Pace Sequoia Other _____
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: DxyS + Ethanol (all by #210)	
D.O. (if req'd):	Pre-purge: _____ mg/L Post-purge: (2.3) mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV Post-purge: _____ mV



# ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM3	Station # Arco 5300
Sampler: MM	Date: 9/4/03
Well I.D.: A-10	Well Diameter: (2) 3 4 6 8
Total Well Depth: 13.31	Depth to Water: 3 3.33
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 <sup>2</sup> * 0.163

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

<u>3.2</u>	X	<u>3</u>	=	<u>9.6</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
1603	69.1	7.1	1149	3.2	cloudy, debris in H <sub>2</sub> O
1606	68.4	6.9	1089	6.4	" "
1609	68.0	6.9	1064	9.6	Slightly cloudy, debris in H <sub>2</sub> O

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 9.6
Sampling Time: 1614	Sampling Date: 9/4/03
Sample I.D.: A-10	Laboratory: Pace Sequoia Other _____
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: OXYS + Ethanol (all by #266)	
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 #: 030904-MM3	Station # Arco 5383
Sampler: MM	Date: 9/4/03
Well I.D.: AR-1	Well Diameter: 2 3 4 6 8 _____
Total Well Depth:	Depth to Water:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grnde	D.O. Meter (if req'd): <u>YSI</u> HACH

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

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

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

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
					unable to sample (bolts warped) looks melted

Did well dewater? Yes <input type="checkbox"/> No <input type="checkbox"/>	Gallons actually evacuated: _____
Sampling Time: _____	Sampling Date: 9/4/03
Sample I.D.: AR-1	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>TPH-G</u> <u>BTEX</u> MTBE TPH-D Other: <u>dxg's + Ethanol (all by B266)</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L <u>Post-purge:</u> _____ mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV <u>Post-purge:</u> _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM3	Station # Arco 5383
Sampler: MM	Date: 9/4/03
Well I.D.: AR-2	Well Diameter: 2 3 4 6 8
Total Well Depth:	Depth to Water:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

Purge Method: Bailer      Sampling Method: Bailer

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

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

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
					Unable to sample (Bolts warped) looks melted

Did well dewater? Yes  No  Gallons actually evacuated: \_\_\_\_\_

Sampling Time: \_\_\_\_\_ Sampling Date: 9/4/03

Sample I.D.: AR-2 Laboratory: Pace Sequoia Other \_\_\_\_\_

Analyzed for: TPH-G BTEX MTBE TPH-D Other: DXGS + Ethanol (all by B266)

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

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM3	Station # Arco 5385
Sampler: MM	Date: 9/4/03
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8
Total Well Depth:	Depth to Water:
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 <sup>2</sup> * 0.163

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

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

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

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
					unable to sample
					⇒ bolt warped. concrete
					↳ looks melted

Did well dewater? Yes  No  Gallons actually evacuated: \_\_\_\_\_

Sampling Time: \_\_\_\_\_ Sampling Date: 9/4/03

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

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: OXYS + Ethanol (all by 8266)

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

# WELLHEAD INSPECTION CHECKLIST

Client Arlo 5387 Date 9/4/07  
 Site Address 20200 Hesperian Blvd., Hayward  
 Job Number 070904-MH3 Technician MH

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				MH			X	MH
MW-2								X
MW-3				X				X
A-4							X	
A-5								X
A-6								X
A-7								X
A-8								X
A-9								X
A-10	MH			X	MH			
AR-1							X	
AR-2							X	

NOTES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# Chain of Custody Record

Project Name S387GWM  
 BP BU/GEM CO Portfolio Retail  
 BP Laboratory Contract Number: Atlantic Richfield Company

On-site Time: 1300 Temp: 75  
 Off-site Time: 1645 Temp: 75  
 Sky Conditions: Blue skies  
 Meteorological Events:  
 Wind Speed: 5 Direction: SW

Date: 7/14/03 Requested Due Date (mm/dd/yy) 14 day TAT

Send To:	BP/GEM Facility No.: <u>ARCO 5387</u>	Consultant/Contractor: <u>URS</u>
Lab Name: <u>SEQUOIA</u>	BP/GEM Facility Address: <u>20200 Hesperian Blvd, HAYWARD, CA</u>	Address: <u>500 12th St, Ste. 200</u>
Lab Address: <u>885 Jarvis Dr.</u>	Site ID No. <u>ARCO 5387</u>	<u>Oakland, CA 94609-4014</u>
<u>Morgan Hill, CA 95037</u>	Site Lat/Long:	e-mail EDD: <u>donna.cosper@URSCorp.com</u>
	California Global ID #:	Consultant/Contractor Project No.: <u>J5-00005387.01 00427</u>
Lab PM <u>Theresa Allen</u>	BP/GEM PM Contact: <u>PAUL SUPPLE</u>	Consultant Tele/Fax: <u>510-893-3600/510-874-3268</u>
Phone: <u>408-776-9600 / 408-782-6308</u>	Address: <u>P.O. Box 6549</u>	Consultant/Contractor PM: <u>Scott Robinson</u>
Spec. Type & QC Level: <u>1 Send EDF Reports</u>	<u>Moraga, CA 94570</u>	Invoice to: Consultant/Contractor of <u>BP/GEM</u> (Circle one)
BP/GEM Account No.:	Tele/Fax: <u>925-299-8891/925-299-8872</u>	BP/GEM Work Release No: <u>INTRIM -50591</u>

Sam No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Requested Analysis							Sample Point Lat/Long and Comments		
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	TPH-G/BTEX (8015/8021/8260)	TPH-D (8015)	MTBE (8021)	MTBE (8260)	MTBE, TAME, ETBE (8260)	DIPE, TBA (8260)	1,2-DCA & EDB (8260)		Eluhalol (8260)	
1	A-5	1303	X				3				X				X							
2	A-6	1734	X				3				X				X							
3	A-7	1736	X				3				X				X							
4	A-8	1643	X				3				X				X							
5	A-9	1527	X				3				X				X							
	A-10	1614	X				3				X				X							
7	Mw-2	1827	X				3				X				X							
8	Mw-3	1709	X				3				X				X							
9	Temp Blank		X				1															
10	Trip Blank		X				2															"CN HOLD"

Sampler's Name: <u>Mike McNamara</u>	Relinquished By / Affiliation: <u>URS</u>	Date:	Time:	Accepted By / Affiliation:	Date:	Time:
Sampler's Company: <u>Blaine Tech Services</u>	<u>URS</u>					
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						
Special Instructions: <u>Address Invoice to BP/GEM but send to URS for approval</u>						

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

**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:

Arco 5387  
 Station #

2020 Kesperien Blvd, Hayward  
 Station Address

Total Gallons Collected From Groundwater Monitoring Wells:  
 115

added equip. 10 any other  
 rinse water adjustments

TOTAL GALS. RECOVERED 125 loaded onto  
 BTS vehicle # 22

BTS event# time date  
 D30904-MM3 1845 914103

signature [Signature]

\*\*\*\*\*

REC'D AT time date  
 BTS 914103  
 unloaded by [Signature]  
 signature

**ATTACHMENT B**

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



## **LABORATORY PROCEDURES**

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### **Laboratory Procedures**

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



19 September, 2003

Scott Robinson  
URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland, CA 94607

RE: ARCO #5387, Hayward, CA  
Work Order: MMI0155

Enclosed are the results of analyses for samples received by the laboratory on 09/05/03 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa Allen  
Project Manager

CA ELAP Certificate #1210

URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: ARCO #5387, Hayward, CA  
Project Number: N/P  
Project Manager: Scott Robinson

MMI0155  
**Reported:**  
09/19/03 15:51

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-5	MMI0155-01	Water	09/04/03 18:03	09/05/03 17:00
A-6	MMI0155-02	Water	09/04/03 17:34	09/05/03 17:00
A-7	MMI0155-03	Water	09/04/03 17:36	09/05/03 17:00
A-8	MMI0155-04	Water	09/04/03 16:43	09/05/03 17:00
A-9	MMI0155-05	Water	09/04/03 15:27	09/05/03 17:00
A-10	MMI0155-06	Water	09/04/03 16:14	09/05/03 17:00
MW-2	MMI0155-07	Water	09/04/03 18:27	09/05/03 17:00
MW-3	MMI0155-08	Water	09/04/03 17:09	09/05/03 17:00
Trip Blank	MMI0155-09	Water	09/04/03 00:00	09/05/03 17:00

There were custody seals received with this project.

URS Corporation [Arco]  
 500 12th Street, Suite 200  
 Oakland CA, 94607

 Project: ARCO #5387, Hayward, CA  
 Project Number: N/P  
 Project Manager: Scott Robinson

 MMI0155  
 Reported:  
 09/19/03 15:51

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

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>A-5 (MMI0155-01) Water    Sampled: 09/04/03 18:03    Received: 09/05/03 17:00</b>										
Ethanol	ND	100		ug/l	1	3116025	09/16/03	09/17/03	EPA 8260B	
tert-Butyl alcohol	ND	20		"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>0.50</b>	<b>0.50</b>		"	"	"	"	"	"	
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		"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>93.6 %</i>		<i>78-129</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<b>A-6 (MMI0155-02) Water    Sampled: 09/04/03 17:34    Received: 09/05/03 17:00</b>										
Ethanol	ND	100		ug/l	1	3116025	09/16/03	09/17/03	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		"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>92.0 %</i>		<i>78-129</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: ARCO #5387, Hayward, CA  
Project Number: N/P  
Project Manager: Scott Robinson

MMI0155  
Reported:  
09/19/03 15:51

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

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>A-7 (MMI0155-03) Water    Sampled: 09/04/03 17:36    Received: 09/05/03 17:00</b>										
Ethanol	ND	100		ug/l	1	3116025	09/16/03	09/17/03	EPA 8260B	
tert-Butyl alcohol	ND	20		"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>3.4</b>	<b>0.50</b>		"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50		"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50		"	"	"	"	"	"	
<b>tert-Amyl methyl ether</b>	<b>0.86</b>	<b>0.50</b>		"	"	"	"	"	"	
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		"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>			89.4 %		78-129		"	"	"	"
<b>A-8 (MMI0155-04) Water    Sampled: 09/04/03 16:43    Received: 09/05/03 17:00</b>										
Ethanol	ND	100		ug/l	1	3116025	09/16/03	09/17/03	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		"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>			91.2 %		78-129		"	"	"	"

URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: ARCO #5387, Hayward, CA  
Project Number: N/P  
Project Manager: Scott Robinson

MMI0155  
Reported:  
09/19/03 15:51

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**A-9 (MMI0155-05) Water**    **Sampled: 09/04/03 15:27**    **Received: 09/05/03 17:00**

Ethanol	ND	100	ug/l	1	3116025	09/16/03	09/17/03	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*

91.6 %    78-129

"    "    "    "

**A-10 (MMI0155-06) Water**    **Sampled: 09/04/03 16:14**    **Received: 09/05/03 17:00**

Ethanol	ND	100	ug/l	1	3116025	09/16/03	09/17/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>1.1</b>	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*

93.0 %    78-129

"    "    "    "

URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: ARCO #5387, Hayward, CA  
Project Number: N/P  
Project Manager: Scott Robinson

MMI0155  
Reported:  
09/19/03 15:51

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**MW-2 (MMI0155-07) Water** Sampled: 09/04/03 18:27 Received: 09/05/03 17:00

Ethanol	ND	100	ug/l	1	3116025	09/16/03	09/17/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	28	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	3.8	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	"	"	"	"	"	"	
<b>Gasoline Range Organics (C6-C10)</b>	<b>500</b>	<b>50</b>	"	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4*

90.0 % 78-129 " " " "

**MW-3 (MMI0155-08) Water** Sampled: 09/04/03 17:09 Received: 09/05/03 17:00

Ethanol	ND	100	ug/l	1	3116025	09/16/03	09/17/03	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	"	"	"	"	"	"	
<b>Gasoline Range Organics (C6-C10)</b>	<b>ND</b>	<b>50</b>	"	"	"	"	"	"	

*Surrogate: 1,2-Dichloroethane-d4*

91.2 % 78-129 " " " "

URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: ARCO #5387, Hayward, CA  
Project Number: N/P  
Project Manager: Scott Robinson

MMI0155  
Reported:  
09/19/03 15:51

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3I16025 - EPA 5030B P/T**
**Blank (3I16025-BLK1)**

Prepared &amp; Analyzed: 09/16/03

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	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.38		"	5.00		87.6	78-129			

**Laboratory Control Sample (3I16025-BS1)**

Prepared &amp; Analyzed: 09/16/03

Ethanol	164	100	ug/l	200		82.0	31-186			
tert-Butyl alcohol	52.2	20	"	50.0		104	0-206			
Methyl tert-butyl ether	9.79	0.50	"	10.0		97.9	63-137			
Di-isopropyl ether	9.70	0.50	"	10.0		97.0	76-130			
Ethyl tert-butyl ether	9.55	0.50	"	10.0		95.5	61-141			
tert-Amyl methyl ether	9.62	0.50	"	10.0		96.2	56-140			
1,2-Dichloroethane	10.0	0.50	"	10.0		100	77-136			
1,2-Dibromoethane (EDB)	10.7	0.50	"	10.0		107	77-132			
Benzene	9.90	0.50	"	10.0		99.0	78-124			
Toluene	10.6	0.50	"	10.0		106	78-129			
Ethylbenzene	10.4	0.50	"	10.0		104	84-117			
Xylenes (total)	32.4	0.50	"	30.0		108	83-125			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.59		"	5.00		91.8	78-129			

Sequoia Analytical - Morgan Hill

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





URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: ARCO #5387, Hayward, CA  
Project Number: N/P  
Project Manager: Scott Robinson

MMI0155  
Reported:  
09/19/03 15:51

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 3I16025 - EPA 5030B P/T**

**Laboratory Control Sample (3I16025-BS2)**

Prepared & Analyzed: 09/16/03

Methyl tert-butyl ether	8.68	0.50	ug/l	10.1		85.9	63-137			
Benzene	5.29	0.50	"	6.48		81.6	78-124			
Toluene	34.2	0.50	"	29.7		115	78-129			
Ethylbenzene	7.87	0.50	"	7.20		109	84-117			
Xylenes (total)	40.0	0.50	"	33.7		119	83-125			
Gasoline Range Organics (C6-C10)	445	50	"	440		101	70-113			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.61</i>		<i>"</i>	<i>5.00</i>		<i>92.2</i>	<i>78-129</i>			

**Laboratory Control Sample Dup (3I16025-BSD1)**

Prepared & Analyzed: 09/16/03

Ethanol	146	100	ug/l	200		73.0	31-186	11.6	37	
tert-Butyl alcohol	50.0	20	"	50.0		100	0-206	4.31	22	
Methyl tert-butyl ether	9.88	0.50	"	10.0		98.8	63-137	0.915	13	
Di-isopropyl ether	9.71	0.50	"	10.0		97.1	76-130	0.103	9	
Ethyl tert-butyl ether	9.60	0.50	"	10.0		96.0	61-141	0.522	9	
tert-Amyl methyl ether	9.52	0.50	"	10.0		95.2	56-140	1.04	12	
1,2-Dichloroethane	9.75	0.50	"	10.0		97.5	77-136	2.53	13	
1,2-Dibromoethane (EDB)	10.6	0.50	"	10.0		106	77-132	0.939	9	
Benzene	9.94	0.50	"	10.0		99.4	78-124	0.403	12	
Toluene	10.9	0.50	"	10.0		109	78-129	2.79	10	
Ethylbenzene	11.0	0.50	"	10.0		110	84-117	5.61	10	
Xylenes (total)	33.7	0.50	"	30.0		112	83-125	3.93	11	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.55</i>		<i>"</i>	<i>5.00</i>		<i>91.0</i>	<i>78-129</i>			

**Laboratory Control Sample Dup (3I16025-BSD2)**

Prepared & Analyzed: 09/16/03

Methyl tert-butyl ether	8.53	0.50	ug/l	10.1		84.5	63-137	1.74	13	
Benzene	5.47	0.50	"	6.48		84.4	78-124	3.35	12	
Toluene	35.3	0.50	"	29.7		119	78-129	3.17	10	
Ethylbenzene	8.26	0.50	"	7.20		115	84-117	4.84	10	
Xylenes (total)	41.5	0.50	"	33.7		123	83-125	3.68	11	
Gasoline Range Organics (C6-C10)	485	50	"	440		110	70-113	8.60	9	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>4.63</i>		<i>"</i>	<i>5.00</i>		<i>92.6</i>	<i>78-129</i>			



URS Corporation [Arco]  
500 12th Street, Suite 200  
Oakland CA, 94607

Project: ARCO #5387, Hayward, CA  
Project Number: N/P  
Project Manager: Scott Robinson

MMI0155  
**Reported:**  
09/19/03 15:51

### Notes and Definitions

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

Project Name 5387GWM  
BP BU/GEM CO Portfolio Retail

BP Laboratory Contract Number: Atlantic Richfield Company

Date: 9/14/03

Requested Due Date (mm/dd/yy) 14 day TAT

On-site Time: <u>1300</u>	Temp: <u>75</u>
Off-site Time: <u>1845</u>	Temp: <u>75</u>
Sky Conditions: <u>Blue Skies</u>	
Meteorological Events:	
Wind Speed: <u>5</u>	Direction: <u>SW</u>

Send To:	BP/GEM Facility No.: <u>ARCO 5387</u>	Consultant/Contractor: <u>URS</u>
Lab Name: <u>SEQUOIA</u>	BP/GEM Facility Address: <u>20200 Hesperian Blvd, HAYWARD, CA</u>	Address: <u>500 12th St, Ste. 200</u>
Lab Address: <u>885 Jarvis Dr.</u>	Site ID No. <u>ARCO 5387</u>	<u>Oakland, CA 94609-4014</u>
<u>Morgan Hill, CA 95037</u>	Site Lat/Long:	e-mail BDD: <u>domna.cosp@URSCorp.com</u>
	California Global ID #:	Consultant/Contractor Project No.: <u>15-00005387.01 00427</u>
Lab PM: <u>Theresa Allen</u>	BP/GEM PM Contact: <u>PAUL SUPPLE</u>	Consultant Tele/Fax: <u>510-893-3600/510-874-3268</u>
Tele/Fax: <u>408-770-9800 / 408-782-6308</u>	Address: <u>P.O. Box 6549</u>	Consultant/Contractor PM: <u>Scott Robinson</u>
Report Type & QC Level: <u>1-Send EDF Reports</u>	<u>Moraga, CA 94570</u>	Invoice to: <u>Consultant/Contractor - of BP/GEM (Circle one)</u>
BP/GEM Account No.:	Tele/Fax: <u>925-288-8881/925-288-8872</u>	BP/GEM Work Release No: <u>INTRIM -50591</u>

Item No.	Sample Description	Time	Matrix			Laboratory No.	No. of containers	Preservatives				Requested Analysis					Sample Point Lat/Long and Comments
			Soil/Solid	Water/Liquid	Sediments			Air	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	TPH-G / BTEX 58015/8021/8260	TPH-D (8015)	MTBE (8021)	MTBE (8260)	
1	A-5	1303	X			01	3				X					X	WR0155
2	A-6	1754	X			02	3				X					X	
3	A-7	1736	X			03	3				X					X	
4	A-8	1643	X			04	3				X					X	
5	A-9	1527	X			05	3				X					X	
6	A-10	1614	X			06	3				X					X	
7	MW-2	1827	X			07	3				X					X	
8	MW-3	1709	X			08	3				X					X	
9	Temp Blank			X			1										
10	Trip Blank			X		09	2										

Sampler's Name: <u>Mike McNamara</u>	Relinquished By / Signature: <u>[Signature]</u>	Date: <u>9/15/03</u>	Time: <u>1344</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>9/15/03</u>	Time: <u>1344</u>
Sampler's Company: <u>Delaware Tech Services</u>	<u>[Signature]</u>	<u>9/15/03</u>	<u>1700</u>	<u>[Signature]</u>	<u>9/15/03</u>	<u>1700</u>
Shipment Date:						
Shipment Method:						
Shipment Tracking No:						

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

Seals In Place Yes  No  Temperature Blank Yes  No  Cooler Temperature on Receipt 3 °F  Trip Blank Yes  No

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

## SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS  
 REC. BY (PRINT) EB  
 WORKORDER: MHT0155

DATE REC'D AT LAB: 9-5-03  
 TIME REC'D AT LAB: 1700  
 DATE LOGGED IN: 9-6-03

Drinking water for regulatory purposes: YES/NO  YES /  NO  
 Wastewater for regulatory purposes: YES/NO  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) <input checked="" type="radio"/> Present / <input type="radio"/> Absent <input checked="" type="radio"/> Intact / <input type="radio"/> Broken*			A-5	3 WWS	RU	L	9-4-03	2205090
2. Chain-of-Custody <input checked="" type="radio"/> Present / <input type="radio"/> Absent*			↓ 6					
3. Traffic Reports or Packing List: <input checked="" type="radio"/> Present / <input type="radio"/> Absent			↓ 7					
4. Airbill: <input checked="" type="radio"/> Airbill / <input type="radio"/> Sticker <input checked="" type="radio"/> Present / <input type="radio"/> Absent			↓ 8					
5. Airbill #: <input checked="" type="radio"/> Present / <input type="radio"/> Absent			↓ 9					
6. Sample Labels: <input checked="" type="radio"/> Present / <input type="radio"/> Absent			↓ 10					
7. Sample IDs: <input checked="" type="radio"/> Listed / <input type="radio"/> Not Listed on Chain-of-Custody.			MW-2					
8. Sample Condition: <input checked="" type="radio"/> Intact / <input type="radio"/> Broken* / <input type="radio"/> Leaking*			↓ 3					
9. Does information on custody reports, traffic reports and sample labels agree? <input checked="" type="radio"/> Yes / <input type="radio"/> No*			TB	2 WWS				
10. Sample received within hold time: <input checked="" type="radio"/> Yes / <input type="radio"/> No*								
11. Proper Preservatives used: <input checked="" type="radio"/> Yes / <input type="radio"/> No*								
12. Temp Rec. at Lab: <input checked="" type="radio"/> Yes / <input type="radio"/> No** Is temp 4 +/- 2°C? (Acceptance range for samples requiring thermal pres.)								

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

**ATTACHMENT C**

**EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION**

---

## Error Summary Log

09/26/03

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:	MMI0155
Global ID:	T0600101368
Lab Report Number:	MMI0155091920031551

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotct	Run	Sub
MMI01550919200 31551	A-10	MMI015506	W	CS	8260TPH	SW5030B	09/04/03	09/16/03	09/17/03	3I16025	1	
MMI01550919200 31551	A-5	MMI015501	W	CS	8260TPH	SW5030B	09/04/03	09/16/03	09/17/03	3I16025	1	
MMI01550919200 31551	A-6	MMI015502	W	CS	8260TPH	SW5030B	09/04/03	09/16/03	09/17/03	3I16025	1	
MMI01550919200 31551	A-7	MMI015503	W	CS	8260TPH	SW5030B	09/04/03	09/16/03	09/17/03	3I16025	1	
MMI01550919200 31551	A-8	MMI015504	W	CS	8260TPH	SW5030B	09/04/03	09/16/03	09/17/03	3I16025	1	
MMI01550919200 31551	A-9	MMI015505	W	CS	8260TPH	SW5030B	09/04/03	09/16/03	09/17/03	3I16025	1	
MMI01550919200 31551	MW-2	MMI015507	W	CS	8260TPH	SW5030B	09/04/03	09/16/03	09/17/03	3I16025	1	
MMI01550919200 31551	MW-3	MMI015508	W	CS	8260TPH	SW5030B	09/04/03	09/16/03	09/17/03	3I16025	1	
		3I16025BSD1	WQ	BD1	8260TPH	SW5030B	//	09/16/03	09/16/03	3I16025	1	
		3I16025BSD2	WQ	BD2	8260TPH	SW5030B	//	09/16/03	09/16/03	3I16025	1	
		3I16025BS1	WQ	BS1	8260TPH	SW5030B	//	09/16/03	09/16/03	3I16025	1	
		3I16025BS2	WQ	BS2	8260TPH	SW5030B	//	09/16/03	09/16/03	3I16025	1	
		3I16025BLK1	WQ	LB1	8260TPH	SW5030B	//	09/16/03	09/16/03	3I16025	1	

# EDFSAMP: Error Summary Log

09/26/03

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



# EDFTEST: Error Summary Log

09/26/03

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

# EDFRES: Error Summary Log

09/26/03

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

# EDFQC: Error Summary Log

09/26/03

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

# EDFCL: Error Summary Log

09/26/03

Error type	Clevdate	Anmcode	Exmcode	Parlabel	Cicode
There are no errors in this data file	11				

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**Confirmation Number:** 8935682833

**Date/Time of Submittal:** 9/26/2003 4:48:53 PM

**Facility Global ID:** T0600101368

**Facility Name:** ARCO

**Submittal Title:** Third Quarter 03 Ground Water Monitoring Site #5387

**Submittal Type:** GW Monitoring Report

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**Facility Global ID:** T0600101368

**Facility Name:** ARCO

**Submittal Title:** Second Quarter 03 Groundwater Monitoring Report for site #5387

**Submittal Type:** GW Monitoring Report

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**Confirmation Number:** 8568984091

**Date/Time of Submittal:** 9/29/2003 9:31:23 AM

**Facility Global ID:** T0600101368

**Facility Name:** ARCO

**Submittal Title:** Second Quarter 03 Groundwater Monitoring Report for site #5387

**Submittal Type:** GW Monitoring Report

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**Date/Time of Submittal:** 9/29/2003 9:48:31 AM

**Facility Global ID:** T0600101368

**Facility Name:** ARCO

**Submittal Title:** First Quarter 03 Groundwater Monitoring Report for site # 5387

**Submittal Type:** GW Monitoring Report

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**Submittal Title: First Quarter 03 Geowell for site #5387**

**Submittal Date/Time: 9/29/2003 9:51:19 AM**

**Confirmation Number: 8241703629**

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