URS

April 6, 2004

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

Re: First Quarter 2004 Groundwater Monitoring Report
ARCO Service Station #5387
20200 Hesperian Blvd
Hayward, California
URS Project #38486726

Dear Mr. Seery:

On behalf of Atlantic Richfield Company (ARCO – a BP affiliated company), URS Corporation (URS) is submitting the *First Quarter 2004 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

REGISTERED GEOLOGIST
JAMES F. DURKIN
No. 759
CERTIFIED HYDROGEOLOGIST
Exp. 2/28/05
STATE OF CALIFORNIA

Scott Robinson
Project Manager

James F. Durkin, C.Hg.
Senior Geologist

Enclosure: First Quarter 2004 Groundwater Monitoring Report

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

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612-1924
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

April 6, 2004

RE: First Quarter 2004 Groundwater Monitoring Report
ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, CA
URS Project #38486726

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

ARCO Products Company

4 Centerpointe Drive
La Palma, California 90623-1066
Telephone 714 670 5300

Mailing Address: P.O. Box 6549
Moraga, California 94570

April 6, 2004

Re: ARCO Station # 5387 • 20200 Hesperian Boulevard • Hayward, CA
First Quarter 2004 Groundwater Monitoring Report

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

Submitted by:

Paul Supple
Environmental Business Manager

REPORT

FIRST QUARTER 2004 GROUNDWATER MONITORING

ARCO SERVICE STATION #5387
20200 HESPERIAN BOULEVARD
HAYWARD, CALIFORNIA

Prepared for
Atlantic Richfield Company

April 6, 2004

URS
URS Corporation
1333 Broadway, Suite 800
Oakland, California 94612

38486726

Date: April 6, 2004

Quarter: 1Q 04

ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Former Facility No.:	5387	Address:	20200 Hesperian Boulevard, Hayward, California
ARCO Environmental Business Manager:			Paul Supple
Consulting Co./Contact Person:			URS Corporation / Scott Robinson
Consultant Project No.:			38486726
Primary Agency:			Alameda County Health Care Services Agency (ACHCSA)

WORK PERFORMED THIS QUARTER (First – 2004):

1. Performed first quarter groundwater monitoring event on March 1, 2004.
2. Prepared and submitted first quarter 2004 groundwater monitoring report.
3. Performed well survey at the site on February 23, 2004 (Attachment D).

WORK PROPOSED FOR NEXT QUARTER (Second – 2004):

1. Perform second quarter 2004 groundwater monitoring event.
2. Prepare and submit second quarter 2004 groundwater monitoring report.
3. Perform well repairs on A-5.

Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	Quarterly: Wells MW-1, MW-2, AR-1, AR-2, A-7 Semi-annually (1st and 3rd Quarters): Wells A-4, A-5, A-8, and A-9 Annually (3rd Quarter): Wells MW-3, A-6, and A-10
Frequency of Groundwater Monitoring:	Quarterly
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	Natural Attenuation
Approximate Depth to Groundwater:	7.95 ft (MW-3) to 12.65 ft (A-7)
Groundwater Gradient (direction):	West
Groundwater Gradient (magnitude):	0.008 feet per foot

DISCUSSION:

Gasoline range organics (GRO) was detected above the laboratory reporting limit in one of the nine wells sampled this quarter at a concentration of 890 µg/L (MW-2). Benzene was not detected above the laboratory reporting limit in any of the wells sampled this quarter. Methyl-tert-butyl ether (MTBE) was detected above the laboratory reporting limit in seven of the nine wells sampled this quarter at concentrations ranging from 0.50 µg/L (A-9) to 36 µg/L (MW-2). Tert-amyl methyl ether (TAME) was detected above the laboratory reporting limit in one well at a concentration of 6.2 µg/L (MW-2). Tert-butyl ether (TBA) was detected above the laboratory reporting limit in one well at a concentration of 49 µg/L (MW-2).

Hydrogen Peroxide Injections were conducted in wells AR-1, AR-2, MW-1, MW-2, and A-7 on December 16, 2003. Baseline Natural Attenuation Parameters for these wells were collected on November 17, 2003 and again on March 1, 2004 (Table 4). Peroxide injections were conducted under pressure for wells MW-1 and MW-2. Field notes for the injection event are presented as Attachment F.

Hydrogen peroxide injection did not have a uniform effect on contaminant concentrations in the injection wells:

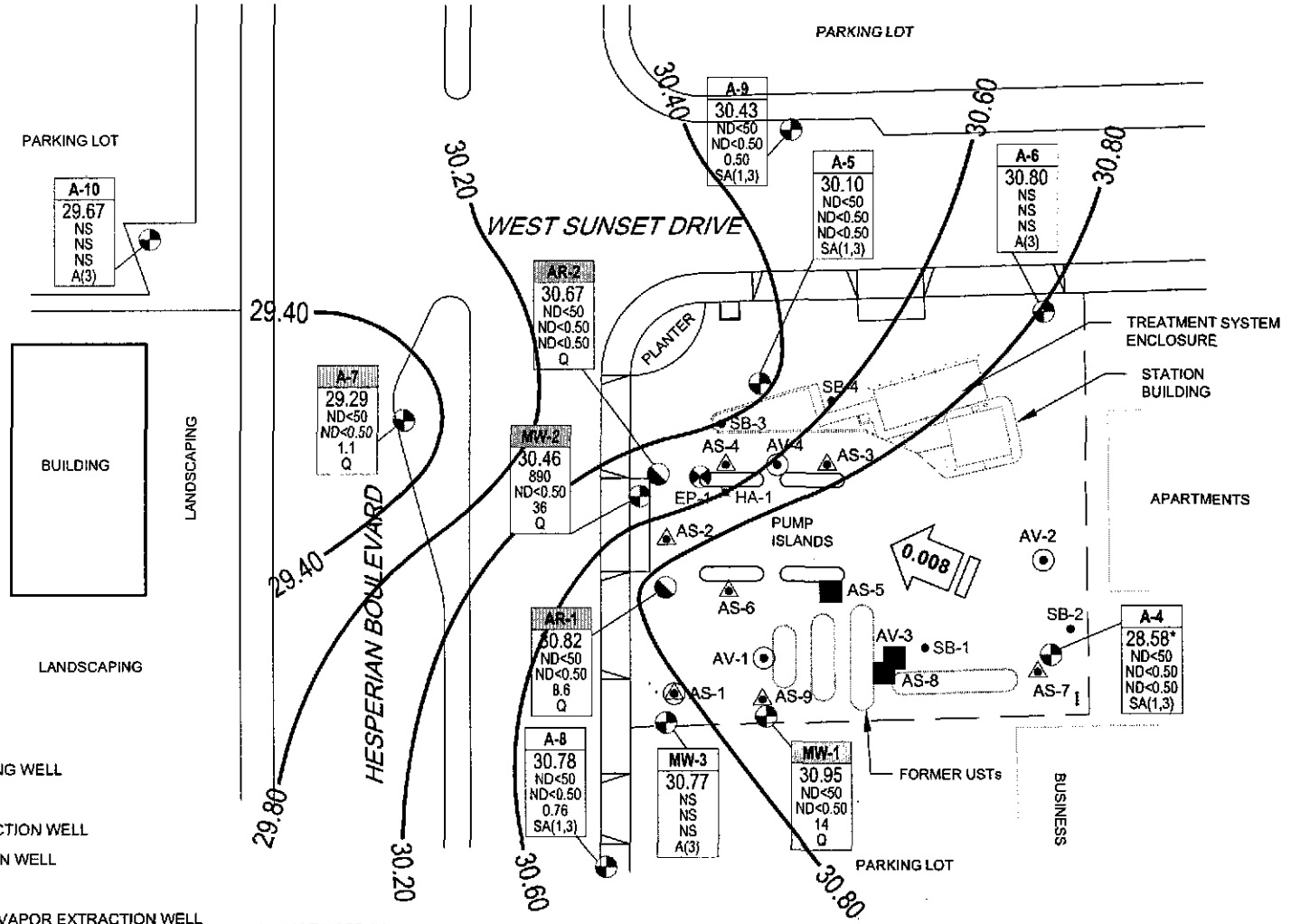
- MW-1: GRO and MTBE decreased.
- MW-2: GRO increased, MTBE decreased, TBA increased and TAME did not change.
- AR-1: MTBE increased.
- AR-2: MTBE decreased slightly
- A-7: MTBE decreased slightly

Natural attenuation parameters did not exhibit any conclusive trends. Dissolved oxygen concentrations increased for AR-2 and MW-1, decreased for AR-1 and stayed constant for MW-2 and A-7. With the exception of AR-1 during the March 2004 monitoring event, aerobic conditions prevailed in all injection wells.

ATTACHMENTS:

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – March 1, 2004
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Fuel Oxygenate Analytical Data
- Table 4 – Groundwater Analytical Data Bioremediation Parameters
- 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
- Attachment D – Well Survey Data Sheets
- Attachment E – Hydrogen Peroxide Injection Field Notes

Apr 02, 2004 - 4:00pm
X:\x_env_waste\BP GEM\Sites\Scott Robinson\Paul Supple\5387\Monitoring\Qtr. 1, 2004\GWEC-AS_3-1.dwg



LEGEND:

- ABANDONED MONITORING WELL
- MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- SOIL VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL
- AIR SPARGE WELL
- DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL
- EXTRACTION POINT
- 26.00 APPOXIMATE GROUNDWATER ELEVATION CONTOUR (FEET ABOVE MSL)
- 0.008 GROUNDWATER FLOW DIRECTION AND GRADIENT (FEET/FOOT)
- WELL HYDROGEN PEROXIDE WELLS
- Well — WELL DESIGNATION
- ELEV — GROUNDWATER ELEVATION
- GRO / Benzene / MTBE — GRO, BENZENE & MTBE CONCENTRATIONS IN MICROGRAMS PER LITER (µg/L)
- A/SA/Q — SAMPLING FREQUENCY

* NOT USED IN GROUNDWATER ELEVATION CONTOURS (SURVEYED TO DIFFERENT DATUM)

ND< NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS

NS NOT SAMPLED

A(3) SAMPLED ANNUALLY, 3RD QUARTER

SA(1,3) SAMPLED SEMI-ANNUALLY, 1ST & 3RD QUARTERS

Q SAMPLED QUARTERLY

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

NORTH

0 50 100

SCALE IN FEET

"Please note that beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list. Total Petroleum Hydrocarbons as Gasoline (TPHg) has been changed to Gasoline Range Organics (GRO). The resulting data may be impacted by the potential inclusion of non-TPHg analytes within the requested fuel range resulting in a higher concentration being reported."

URS

Project No. 38486726

ARCO Service Station 5387
20200 Hesperian Boulevard
Hayward, California

GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP First Quarter 2004 (March 1, 2004)

FIGURE 1

Table 1
Groundwater Elevation and Analytical Data

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
AR-1	09/14/92		38.11	10.0	35.0	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[e]	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[f]					---	---	---	---	---	---	---	---	---	---
	11/17/03	P				11.13	26.33	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.4	1.8	6.7
	03/01/04[i]	**P**	**39.82**			**9.00**	**30.82**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**8.6**	**0.6**	**7.0**

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Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
AR-2	03/30/93		38.39	5.0	35.0	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[e]	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[f]					---	---	---	---	---	---	---	---	---	---
	11/17/03	P				12.08	25.90	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.86	1.8	6.8
	03/01/04[i]	**P**	**40.68**			**10.01**	**30.67**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**4.2**	**6.9**

Table 1
Groundwater Elevation and Analytical Data

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
MW-1	08/08/86		38.36	5.0	30.0	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	---	---
	01/15/02					---	---	ND<50	ND<0.05	ND<0.5	ND<0.5	ND<0.5	21	---	---
	04/24/02					---	---	160	1.5	ND<0.50	ND<0.50	ND<0.50	770*	---	---
	09/23/02[a]					---	---	---	---	---	---	---	---	---	---
	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[e]	P				9.70	27.56	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	76	1.6	6.7

Table 1
Groundwater Elevation and Analytical Data

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
MW-1	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
(Cont'd)	09/04/03[f]					---	---	---	---	---	---	---	---	---	---
	11/17/03	P				10.94	26.32	420	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140	1.7	6.7
	03/01/04[i]	**P**	**39.80**			**8.85**	**30.95**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**14**	**2.1**	**6.5**
MW-2	08/08/86		38.58	5.0	30.0	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	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
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[e]	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
	11/17/03	P				11.98	26.15	530	ND<0.50	ND<0.50	ND<0.50	ND<0.50	50	3.1	6.7
	03/01/04[i]	**P**	**40.51**			**10.05**	**30.46**	**890**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**36**	**3.1**	**6.6**
MW-3	08/08/86		37.77	5.0	30.0	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	---	---

Table 1
Groundwater Elevation and Analytical Data

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
MW-3	04/22/98					12.30	24.50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<20	---	---
(Cont'd)	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	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.9	---	---
	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[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	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
	11/17/03[h]		36.63			9.93	26.70	---	---	---	---	---	---	---	---
	03/01/04[i]		**38.72**			**7.95**	**30.77**	---	---	---	---	---	---	---	---
A-4	03/06/91		39.46	10.0	35.0	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	---	---

Table 1
Groundwater Elevation and Analytical Data

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-4	04/30/97					13.97	25.56	ND<20	ND<0.3	ND<0.3	ND<0.3	ND<0.5	ND<50	---	---
(Cont'd)	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	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.2	---	---
	04/24/02					---	---	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50*	---	---
	09/23/02[a]					---	---	---	---	---	---	---	---	---	---
	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[e]	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[a]					---	---	---	---	---	---	---	---	---	---
	11/17/03					13.09	26.44	---	---	---	---	---	---	---	---
	03/01/04[l]	**P**				**10.95**	**28.58**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.2**	**6.7**
A-5	12/24/91		38.94	10.0	31.5	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	---	---	---

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-5	12/06/95					12.92	25.55	ND	ND	ND	ND	ND	---	---	---
(Cont'd)	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	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.0	---	---
	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[e]	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
	11/17/03					12.37	26.10	---	---	---	---	---	---	---	---
	03/01/04[i]	**P**	**41.00**			**10.90**	**30.10**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**0.77**	**3.2**	**6.7**
A-6	12/24/91		39.07	NA	NA	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	---	---	---

Table 1
Groundwater Elevation and Analytical Data

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[9] (mg/L)	pH[9]
A-6	08/17/94		38.78			14.34	24.44	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
(Cont'd)	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	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.7	---	---
	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[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	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
	11/17/03					12.44	26.34	---	---	---	---	---	---	---	---
	03/01/04[l]		**41.25**			**10.45**	**30.80**	---	---	---	---	---	---	---	---
A-7	12/24/91		39.95	10.0	35.0	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	---	---	---

Table 1
Groundwater Elevation and Analytical Data

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-7	08/12/93					15.54	24.41	360	9.0	ND<0.50	13	9.0	---	---	---
(Cont'd)	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	---	---
	01/15/02					---	---	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.8	---	---
	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[e]	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
	11/17/03	P				13.84	25.54	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.4	3.5	6.5
	03/01/04[l]	**P**	**41.94**			**12.65**	**29.29**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.1**	**3.5**	**6.7**
A-8	09/14/92		37.23	10.0	35.0	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	---	---	---

Table 1
Groundwater Elevation and Analytical Data

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-8	04/14/93					12.33	24.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
(Cont'd)	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[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	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
	11/17/03					10.55	26.21	---	---	---	---	---	---	---	---
	03/01/04[i]	**P**	**39.29**			**8.51**	**30.78**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**0.76**	**3.6**	**6.8**
A-9	09/14/92		38.71	10.0	35.0	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	---	---	---

Table 1
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ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[9] (mg/L)	pH[9]
A-9	02/11/93					12.31	26.40	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---
(Cont'd)	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[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	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
	11/17/03					12.18	26.01	---	---	---	---	---	---	---	---
	03/01/04[l]	**P**	**40.73**			**10.30**	**30.43**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**0.50**	**3.1**	**6.7**
A-10	12/07/92		38.94	NA	NA	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	---	---	---

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

Well Number	Date Sampled	Purge/ Not Purged	Casing Elevation (ft, MSL)	Top of Screen (ft, bgs)	Bottom of Screen (ft., bgs)	Depth to Groundwater (ft)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO[g] (mg/L)	pH[g]
A-10	04/14/93					12.19	26.75	770	ND<0.5	3.0	0.76	1.9	---	---	---
(Cont'd)	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[e]	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
	11/17/03					13.27	25.39	---	---	---	---	---	---	---	---
	03/01/04[i]		**41.22**			**11.55**	**29.67**	---	---	---	---	---	---	---	---

Table 1
Groundwater Elevation and Analytical Data

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

Notes: Please note that beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list. Total Petroleum Hydrocarbons as Gasoline (TPHg) has been changed to Gasoline Range Organics (GRO). The resulting data may be impacted by the potential inclusion of non-TPHg analytes within the requested fuel range resulting in a higher concentration being reported.

" --- "	= Not analyzed/Not Measured/Not available.
DO	= Dissolved oxygen.
GRO	= Gasoline Range Organics, C6 - C10 Range
µg/L	= Micrograms per liter.
mg/L	= Milligrams per liter.
MSL	= Mean Sea Level.
MTBE	= Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted (prior to 2/11/03).
ND <	= Not detected at or above the laboratory reporting limits.
NP	= No Purge.
P	= Purge.
TPH	= Total Petroleum Hydrocarbons analyzed using EPA Method 8015B Modified (prior to 2/11/03).
*	= 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.
(g)	= DO and pH are field measurements.
(h)	= Well MW-3 top of casing was lowered by 0.17 feet during repairs on 11/14/03.
(i)	= Well Surveyed to NAVD'88 datum on 2/23/04.
Source	=The data in this table prior to September 2002 was provided to URS by ARCO 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
09/04/03	West	0.005
11/17/03	West	0.003
03/01/04	**West**	**0.008**

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
	11/17/03	ND<100	ND<20 (b)	140	ND<0.50	ND<0.50	1.7	NA	NA
	03/01/04	**ND<100 (a)**	**ND<20**	**14**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
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
	11/17/03	ND<100	30 (b)	50	ND<0.50	ND<0.50	6.2	NA	NA
	03/01/04	**ND<100 (a)**	**49**	**36**	**ND<0.50**	**ND<0.50**	**6.2**	**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
	03/01/04	**ND<100 (a)**	**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
	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
	03/01/04	**ND<100 (a)**	**ND<20**	**0.77**	**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
	09/04/03	ND<100	ND<20	3.4	ND<0.50	ND<0.50	0.86	ND<0.50	ND<0.50
	11/17/03	ND<100	ND<20 (b)	1.4	ND<0.50	ND<0.50	ND<0.50	NA	NA
	03/01/04	**ND<100 (a)**	**ND<20**	**1.1**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**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
	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
	03/01/04	**ND<100 (a)**	**ND<20**	**0.76**	**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
	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
	03/01/04	**ND<100 (a)**	**ND<20**	**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
	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
	09/04/03	ND<100	ND<20	1.1	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
	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
	09/04/03	NS	NS	NS	NS	NS	NS	NS	NS
	11/17/03	ND<100	ND<20 (b)	1.4	ND<0.50	ND<0.50	ND<0.50	NA	NA
	03/01/04	**ND<100 (a)**	**ND<20**	**8.6**	**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
	06/27/03	ND<100 (a)	ND<20	6.0	ND<0.50	ND<0.50	2.6	ND<0.50	ND<0.50
	09/04/03	NS	NS	NS	NS	NS	NS	NS	NS
	11/17/03	ND<100	ND<20 (b)	0.86	ND<0.50	ND<0.50	ND<0.50	NA	NA
	03/01/04	**ND<100 (a)**	**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

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

Abbreviations:

1,2-DCA	= 1,2-Dichloroethane
DIPE	= Di-isopropyl ether
EDB	= 1,2-Dibromoethane
ETBE	= Ethyl tert butyl ether
µg/L	= micrograms per liter
MTBE	= Methyl tert-butyl ether
NA	= Data not available, not analyzed, or not applicable
ND<	= Less than laboratory reporting limit
NS	= Not sampled
TAME	= tert-Amyl methyl ether
TBA	= tert-Butyl alcohol
(a)	= The continuing calibration verification was outside of client contractual acceptance limits. However, it was within method acceptance limits. The data should be useful for its intended purpose.
(b)	= The result was reported with a possible low bias due to continuing calibration verification falling outside the acceptance criteria

Table 4
Groundwater Analytical Data
Bioremediation Parameters
ARCO Service Station #5387
20200 Hesperian Blvd.
Hayward, California

Sample ID	Sampling Date	Temperature (°F)	pH	Conductivity (mS)	DO (mg/L)	Ferrous Iron (ug/L)	Ferric Iron (ug/L)	Total Iron (ug/L)	Total Alkalinity (ug/L)	Nitrate as NO_3 (ug/L)	Sulfate as SO_4 (ug/L)
AR-1	11/17/2003	67.8	6.8	1,078	1.8	2800	NM	NM	450,000	23,000	40,000
	3/1/2004	66.5	7.0	1,055	0.6	ND<100	56,000	56,000	380,000	ND<5000	81,000
AR-2	11/17/2003	68.2	6.9	1,121	1.8	130	NM	NM	460,000	31,000	44,000
	3/1/2004	65.9	6.9	1,310	4.2	ND<100	140,000	140,000	440,000	30,000	100,000
MW-1	11/17/2003	67.6	6.7	1,048	1.7	250	NM	NM	420,000	900	39,000
	3/1/2004	63.4	6.5	188	2.1	250	99,000	100,000	64,000	ND<5000	25,000
MW-2	11/17/2003	67.9	6.7	1,061	3.1	2700	NM	NM	480,000	ND<500	20,000
	3/1/2004	69.2	6.6	1,000	3.1	660	110,000	110,000	390,000	ND<5000	60,000
A-7	11/17/2003	68.0	6.4	1,114	3.5	150	NM	NM	380,000	33,000	45,000
	3/1/2004	65.5	6.7	1,089	3.5	ND<100	88,000	89,000	410,000	28,000	54,000

Abreviations:

NM =Not Measured

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 # 090301-SS1 Date 3/1/04 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.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
V	MW-1	2					8.85	28.70		
V	MW-2	2					10.05	27.80		↓ ?
	MW-3	2					7.95	27.60		G.O.
	A-4	3					10.95	34.60		
	A-5	3					10.90	29.60		
	A-6	3					10.45	34.50		G.O.
*	A-7	3					12.65	35.05		
	A-8	2					8.51	33.52		
	A-9	2					10.30	33.35		
	A-10	2	cleared obstruction. ~~OBSTRUCTION @ 13.95'~~ BS				11.55	33.55 ~~13.95~~		G.O.
*	AP-1	6					9.00	33.60		
V	AP-2	6					10.01	35.20	V	

* ADDITIONAL ANALYSIS

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040301-SS1	Station # 5387
Sampler: Scott	Date: 3/1/04
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 28.70	Depth to Water: 6.85
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^2 * 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.

3.2 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 9.6 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1143	62.9	6.7	156	3.2	Brown
1147	63.0	6.6	169	6.9	"
1151	63.4	6.5	188	10.0	"
					Fe^{2+} = 0.0

Did well dewater? Yes (No) Gallons actually evacuated: 10

Sampling Time: 1155 Sampling Date: 3/1/04

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C-O-C.

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.1 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040301-SS1	Station # 5387
Sampler: Scott	Date: 3/1/04
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 27.80	Depth to Water: 10.05
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) / 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.

2.8 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 8.4 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1100	63.3	6.6	989	2.8	ORANGE TINT
1105	64.0	6.5	1027	5.6	"
1109	64.2	6.4	1000	8.5	-1
					Fe^{2+} = 0.0

Did well dewater? Yes (No) Gallons actually evacuated: 8.5

Sampling Time: 1113 Sampling Date: 3/1/04

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C-O-C.

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 #: 040301-SS1	Station # 5387
Sampler: Scott	Date: 3/1/04
Well I.D.: A-4	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 34.60	Depth to Water: 10.95
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 / 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.

9	x	3	=	27 Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1317	65.6	6.8	992	9	TURBID
1319	65.6	6.8	988	18	clear
1321	65.6	6.7	988	27	"
					~~TD 24~~

Did well dewater? Yes (No) Gallons actually evacuated: 27

Sampling Time: 1325 Sampling Date: 3/1/04

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C.O.C.

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 #: 040301-SS1	Station # 5387
Sampler: Scott	Date: 3/1/04
Well I.D.: A-5	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 29.60	Depth to Water: 10.90
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 / 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.

7	X	3	=	21 Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1036	64.2	6.6	992	7	TURBID
1038	65.0	6.7	995	14	"
1040	65.2	6.7	1001	21	"
					~~Fe2+~~

Did well dewater? Yes (No)		Gallons actually evacuated: 21	
Sampling Time: 1045		Sampling Date: 3/1/04	
Sample I.D.: A-5		Laboratory: Pace (Sequoia) Other_____	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other: SEE C-O-C.	
D.O. (if req'd):	Pre-purge: ____ mg/L	(Post-purge:)	3.2 mg/L
O.R.P. (if req'd):	Pre-purge: ____ mV	Post-purge:	____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040301-SS1	Station # 5387
Sampler: Scott	Date: 3/1/04
Well I.D.: A-7	Well Diameter: 2 (3) 4 6 8 ____
Total Well Depth: 35.05	Depth to Water: 12.65
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 / 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.

8.3 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 24.9 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
918	64.5	6.6	1056	8.3	ORANGE TINT
920	65.3	6.6	1099	16.6	"
922	65.5	6.7	1089	25.0	"
					Fe^{2+} = 0.0

Did well dewater? Yes (No) Gallons actually evacuated: 25

Sampling Time: 928 Sampling Date: 3/1/04

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C.O.C.

D.O. (if req'd):	Pre-purge:		mg/L	(Post-purge):	3.5 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040301-SS1	Station # 5387
Sampler: Scott	Date: 3/1/04
Well I.D.: A-8	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 33.52	Depth to Water: 8.51
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) / 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.

4 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 12 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
945	63.5	6.7	1067	4	turbid
950	63.5	6.7	1047	8	"
955	63.8	6.8	1039	12	"
					~~Fe2+~~

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

Sampling Time: 1000 Sampling Date: 3/1/04

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C-O-C.

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	3.6 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040301-SS1	Station # 5387
Sampler: Scott	Date: 3/1/04
Well I.D.: A-9	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 33.35	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) / 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.

3.6 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 10.8 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1008	62.1	6.6	896	3.6	TURB 10
1012	62.6	6.7	881	7.2	"
1016	62.7	6.7	874	11.0	"
					Fe^{2+} =

Did well dewater? Yes (No) Gallons actually evacuated: 11

Sampling Time: 1020 Sampling Date: 3/1/04

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C.O.C.

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 #: 040301-SS1	Station # 5387
Sampler: Scott	Date: 3/1/04
Well I.D.: MW-1	Well Diameter: 2 3 4 (6) 8 ____
Total Well Depth: 33.60	Depth to Water: 9.00
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	radius² * 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.

36 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 108 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1242	65.6	6.9	977	36	ORANGE TINT
1249	66.5	7.0	1020	72	" "
1256	66.5	7.0	1055	108	" "
					Fe^{2+} = 0.0

Did well dewater? Yes (No) Gallons actually evacuated: 108

Sampling Time: 1300 Sampling Date: 3/1/04

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C.O.C.

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge):	0.6	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040301-SS1	Station # 5387
Sampler: SCOTT	Date: 3/1/04
Well I.D.: MW-2	Well Diameter: 2 3 4 (6) 8 ____
Total Well Depth: 35.20	Depth to Water: 10.01
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 / 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.

37 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 111 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1103	65.9	7.1	1286	37	ORANGE TINT
1110	66.0	7.0	1257	74	"
1117	65.9	6.9	1310	111	"
					Fe^{2+} = 0.0

Did well dewater? Yes (No) Gallons actually evacuated: 111

Sampling Time: 1122 Sampling Date: 3/1/04

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE C.O.C.

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge):	4.2 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

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

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

The contractor performing this work is 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 350 loaded onto BTS vehicle # 54

BTS event # 040301-SS1 time 1400 date 3/1/04

signature

* *

REC'D AT BTS time 1430 date 3/1/04

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 Atlantic Richfield Company have been reviewed and verified by that laboratory.

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	MNC0054
1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MNC0054-01	Water	03/01/04 11:55	03/01/04 17:05
MW-2	MNC0054-02	Water	03/01/04 11:13	03/01/04 17:05
A-4	MNC0054-03	Water	03/01/04 13:25	03/01/04 17:05
A-5	MNC0054-04	Water	03/01/04 10:45	03/01/04 17:05
A-7	MNC0054-05	Water	03/01/04 09:28	03/01/04 17:05
A-8	MNC0054-06	Water	03/01/04 10:00	03/01/04 17:05
A-9	MNC0054-07	Water	03/01/04 10:20	03/01/04 17:05
AR-1	MNC0054-08	Water	03/01/04 13:00	03/01/04 17:05
AR-2	MNC0054-09	Water	03/01/04 11:22	03/01/04 17:05

Samples were received with no custody seals.

Sequoia Analytical

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Total Metals by EPA 200 Series Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNC0054-01) Water	**Sampled: 03/01/04 11:55**	**Received: 03/01/04 17:05**							
Iron	**100000**	100	ug/l	1	4C04016	03/04/04	03/04/04	EPA 200.7	
MW-2 (MNC0054-02) Water	**Sampled: 03/01/04 11:13**	**Received: 03/01/04 17:05**							
Iron	**110000**	100	ug/l	1	4C04016	03/04/04	03/04/04	EPA 200.7	
A-7 (MNC0054-05) Water	**Sampled: 03/01/04 09:28**	**Received: 03/01/04 17:05**							
Iron	**89000**	100	ug/l	1	4C04016	03/04/04	03/04/04	EPA 200.7	
AR-1 (MNC0054-08) Water	**Sampled: 03/01/04 13:00**	**Received: 03/01/04 17:05**							
Iron	**56000**	100	ug/l	1	4C04016	03/04/04	03/04/04	EPA 200.7	
AR-2 (MNC0054-09) Water	**Sampled: 03/01/04 11:22**	**Received: 03/01/04 17:05**							
Iron	**140000**	100	ug/l	1	4C04016	03/04/04	03/04/04	EPA 200.7	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MNC0054
1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNC0054-01) Water Sampled: 03/01/04 11:55 Received: 03/01/04 17:05									
Ethanol	ND	100	ug/l	1	4C10001	03/10/04	03/10/04	EPA 8260B	O-12
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**14**	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		*100 %*	*78-129*		"	"	"	"	
MW-2 (MNC0054-02) Water Sampled: 03/01/04 11:13 Received: 03/01/04 17:05									
Ethanol	ND	100	ug/l	1	4C09005	03/09/04	03/09/04	EPA 8260B	O-12a
tert-Butyl alcohol	**49**	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**36**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	**6.2**	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)	**890**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MNC0054
1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-4 (MNC0054-03) Water Sampled: 03/01/04 13:25 Received: 03/01/04 17:05									
Ethanol	ND	100	ug/l	1	4C09005	03/09/04	03/09/04	EPA 8260B	O-12a
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*	"	"	"	"	
A-5 (MNC0054-04) Water Sampled: 03/01/04 10:45 Received: 03/01/04 17:05									
Ethanol	ND	100	ug/l	1	4C09005	03/09/04	03/09/04	EPA 8260B	O-12a
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.77**	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		*109 %*		*78-129*	"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MNC0054
1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-7 (MNC0054-05) Water Sampled: 03/01/04 09:28 Received: 03/01/04 17:05									
Ethanol	ND	100	ug/l	1	4C09005	03/09/04	03/09/04	EPA 8260B	O-12a
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**1.1**	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		*108 %*		*78-129*	"	"	"	"	
A-8 (MNC0054-06) Water Sampled: 03/01/04 10:00 Received: 03/01/04 17:05									
Ethanol	ND	100	ug/l	1	4C09005	03/09/04	03/09/04	EPA 8260B	O-12a
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.76**	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	MNC0054
1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-9 (MNC0054-07) Water Sampled: 03/01/04 10:20 Received: 03/01/04 17:05									
Ethanol	ND	100	ug/l	1	4C09005	03/09/04	03/10/04	EPA 8260B	O-12a
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.50**	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*	"	"	"	"	
AR-1 (MNC0054-08) Water Sampled: 03/01/04 13:00 Received: 03/01/04 17:05									
Ethanol	ND	100	ug/l	1	4C09005	03/09/04	03/10/04	EPA 8260B	O-12a
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**8.6**	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		*105 %*		*78-129*	"	"	"	"	

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AR-2 (MNC0054-09) Water Sampled: 03/01/04 11:22 Received: 03/01/04 17:05									
Ethanol	ND	100	ug/l	1	4C10001	03/10/04	03/10/04	EPA 8260B	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		*98.2 %*		*78-129*	"	"	"	"	

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNC0054-01) Water	**Sampled: 03/01/04 11:55**	**Received: 03/01/04 17:05**							
Bicarbonate Alkalinity	**64000**	5000	ug/l	1	4C09007	03/09/04	03/09/04	SM 2320B	
Carbonate Alkalinity	ND	5000	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	5000	"	"	"	"	"	"	
Total Alkalinity	**64000**	5000	"	"	"	"	"	"	
Ferric Iron	**99000**	100	"	"	4C04016	03/04/04	03/04/04	EPA 200.7	
MW-2 (MNC0054-02) Water	**Sampled: 03/01/04 11:13**	**Received: 03/01/04 17:05**							
Bicarbonate Alkalinity	**390000**	5000	ug/l	1	4C09007	03/09/04	03/09/04	SM 2320B	
Carbonate Alkalinity	ND	5000	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	5000	"	"	"	"	"	"	
Total Alkalinity	**390000**	5000	"	"	"	"	"	"	
Ferric Iron	**110000**	100	"	"	4C04016	03/04/04	03/04/04	EPA 200.7	
A-7 (MNC0054-05) Water	**Sampled: 03/01/04 09:28**	**Received: 03/01/04 17:05**							
Bicarbonate Alkalinity	**410000**	5000	ug/l	1	4C09007	03/09/04	03/09/04	SM 2320B	
Carbonate Alkalinity	ND	5000	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	5000	"	"	"	"	"	"	
Total Alkalinity	**410000**	5000	"	"	"	"	"	"	
Ferric Iron	**88000**	100	"	"	4C04016	03/04/04	03/04/04	EPA 200.7	
AR-1 (MNC0054-08) Water	**Sampled: 03/01/04 13:00**	**Received: 03/01/04 17:05**							
Bicarbonate Alkalinity	**380000**	5000	ug/l	1	4C09007	03/09/04	03/09/04	SM 2320B	
Carbonate Alkalinity	ND	5000	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	5000	"	"	"	"	"	"	
Total Alkalinity	**380000**	5000	"	"	"	"	"	"	
Ferric Iron	**56000**	100	"	"	4C04016	03/04/04	03/04/04	EPA 200.7	

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AR-2 (MNC0054-09) Water	**Sampled: 03/01/04 11:22**	**Received: 03/01/04 17:05**							
Bicarbonate Alkalinity	**440000**	5000	ug/l	1	4C09007	*03/09/04*	*03/09/04*	SM 2320B	
Carbonate Alkalinity	ND	5000	"	"	"	"	"	"	
Hydroxide Alkalinity	ND	5000	"	"	"	"	"	"	
Total Alkalinity	**440000**	5000	"	"	"	"	"	"	
Ferric Iron	**140000**	100	"	"	4C04016	03/04/04	03/04/04	EPA 200.7	

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Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Ferrous Iron by Hach method 8146/1;10 Phenanthroline Method

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNC0054-01) Water	**Sampled: 03/01/04 11:55**	**Received: 03/01/04 17:05**							
Ferrous Iron	**250**	100	ug/l	1	4C03041	03/02/04	03/02/04	Hach Co. 8146	
MW-2 (MNC0054-02) Water	**Sampled: 03/01/04 11:13**	**Received: 03/01/04 17:05**							
Ferrous Iron	**660**	100	ug/l	1	4C03041	03/02/04	03/02/04	Hach Co. 8146	
A-7 (MNC0054-05) Water	**Sampled: 03/01/04 09:28**	**Received: 03/01/04 17:05**							
Ferrous Iron	ND	100	ug/l	1	4C03041	03/02/04	03/02/04	Hach Co. 8146	
AR-1 (MNC0054-08) Water	**Sampled: 03/01/04 13:00**	**Received: 03/01/04 17:05**							
Ferrous Iron	ND	100	ug/l	1	4C03041	03/02/04	03/02/04	Hach Co. 8146	
AR-2 (MNC0054-09) Water	**Sampled: 03/01/04 11:22**	**Received: 03/01/04 17:05**							
Ferrous Iron	ND	100	ug/l	1	4C03041	03/02/04	03/02/04	Hach Co. 8146	

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Anions by EPA Method 300.0

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNC0054-01) Water Sampled: 03/01/04 11:55 Received: 03/01/04 17:05									
Nitrate as NO3	ND	5000	ug/l	10	4C04032	03/01/04	03/01/04	EPA 300.0	
Sulfate as SO4	**25000**	5000	"	"	"	"	"	"	
MW-2 (MNC0054-02) Water Sampled: 03/01/04 11:13 Received: 03/01/04 17:05									
Nitrate as NO3	ND	5000	ug/l	10	4C04032	03/01/04	03/01/04	EPA 300.0	
Sulfate as SO4	**60000**	5000	"	"	"	"	"	"	
A-7 (MNC0054-05) Water Sampled: 03/01/04 09:28 Received: 03/01/04 17:05									
Nitrate as NO3	**28000**	5000	ug/l	10	4C04032	03/01/04	03/01/04	EPA 300.0	
Sulfate as SO4	**54000**	5000	"	"	"	"	"	"	
AR-1 (MNC0054-08) Water Sampled: 03/01/04 13:00 Received: 03/01/04 17:05									
Nitrate as NO3	ND	5000	ug/l	10	4C04032	03/01/04	03/01/04	EPA 300.0	
Sulfate as SO4	**81000**	5000	"	"	"	"	"	"	
AR-2 (MNC0054-09) Water Sampled: 03/01/04 11:22 Received: 03/01/04 17:05									
Nitrate as NO3	**30000**	5000	ug/l	10	4C04032	03/01/04	03/01/04	EPA 300.0	
Sulfate as SO4	**100000**	5000	"	"	"	"	"	"	

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Total Metals by EPA 200 Series Methods - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4C04016 - EPA 3005A										
Blank (4C04016-BLK1)				Prepared & Analyzed: 03/04/04						
Iron	ND	100	ug/l							
Laboratory Control Sample (4C04016-BS1)				Prepared & Analyzed: 03/04/04						
Iron	1060	100	ug/l	1000		106	91-116			
Matrix Spike (4C04016-MS1)	**Source: MNC0043-14**			Prepared & Analyzed: 03/04/04						
Iron	2960	100	ug/l	1000	1900	106	70-130			
Matrix Spike Dup (4C04016-MSD1)	**Source: MNC0043-14**			Prepared & Analyzed: 03/04/04						
Iron	2880	100	ug/l	1000	1900	98.0	70-130	2.74	20	

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

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 4C09005 - EPA 5030B Modified										
Blank (4C09005-BLK1)				Prepared & Analyzed: 03/09/04						
Ethanol	ND	100	ug/l							O-12a
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	*5.13*		"	*5.00*		*103*	*78-129*			
Laboratory Control Sample (4C09005-BS1)				Prepared & Analyzed: 03/09/04						
Ethanol	233	100	ug/l	200		116	31-143			O-12a
tert-Butyl alcohol	40.8	20	"	50.0		81.6	56-131			
Methyl tert-butyl ether	10.1	0.50	"	10.0		101	63-137			
Di-isopropyl ether	9.37	0.50	"	10.0		93.7	76-130			
Ethyl tert-butyl ether	9.66	0.50	"	10.0		96.6	81-121			
tert-Amyl methyl ether	8.91	0.50	"	10.0		89.1	82-140			
1,2-Dichloroethane	8.81	0.50	"	10.0		88.1	77-136			
1,2-Dibromoethane (EDB)	8.95	0.50	"	10.0		89.5	77-132			
Benzene	9.73	0.50	"	10.0		97.3	78-124			
Toluene	10.0	0.50	"	10.0		100	78-129			
Ethylbenzene	9.47	0.50	"	10.0		94.7	84-117			
Xylenes (total)	29.7	0.50	"	30.0		99.0	83-125			
Surrogate: 1,2-Dichloroethane-d4	*4.88*		"	*5.00*		*97.6*	*78-129*			

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

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 4C09005 - EPA 5030B Modified										
Laboratory Control Sample (4C09005-BS2)				Prepared & Analyzed: 03/09/04						
Methyl tert-butyl ether	8.92	0.50	ug/l	10.1		88.3	63-137			
Benzene	5.77	0.50	"	6.48		89.0	78-124			
Toluene	34.5	0.50	"	29.7		116	78-129			
Ethylbenzene	7.64	0.50	"	7.20		106	84-117			
Xylenes (total)	39.9	0.50	"	33.7		118	83-125			
Gasoline Range Organics (C6-C10)	408	50	"	440		92.7	70-113			
Surrogate: 1,2-Dichloroethane-d4	*5.16*		"	*5.00*		*103*	*78-129*			
Laboratory Control Sample Dup (4C09005-BSD1)				Prepared & Analyzed: 03/09/04						
Ethanol	247	100	ug/l	200		124	31-143	5.83	20	O-12a
tert-Butyl alcohol	43.1	20	"	50.0		86.2	56-131	5.48	20	
Methyl tert-butyl ether	12.2	0.50	"	10.0		122	63-137	18.8	13	QR-02
Di-isopropyl ether	11.1	0.50	"	10.0		111	76-130	16.9	9	QR-02
Ethyl tert-butyl ether	11.5	0.50	"	10.0		115	81-121	17.4	9	QR-02
tert-Amyl methyl ether	10.8	0.50	"	10.0		108	82-140	19.2	12	QR-02
1,2-Dichloroethane	10.9	0.50	"	10.0		109	77-136	21.2	13	QR-02
1,2-Dibromoethane (EDB)	10.5	0.50	"	10.0		105	77-132	15.9	9	QR-02
Benzene	11.5	0.50	"	10.0		115	78-124	16.7	12	QR-02
Toluene	11.2	0.50	"	10.0		112	78-129	11.3	10	QR-02
Ethylbenzene	10.6	0.50	"	10.0		106	84-117	11.3	10	QR-02
Xylenes (total)	33.5	0.50	"	30.0		112	83-125	12.0	11	QR-02
Surrogate: 1,2-Dichloroethane-d4	*5.05*		"	*5.00*		*101*	*78-129*			
Laboratory Control Sample Dup (4C09005-BSD2)				Prepared & Analyzed: 03/09/04						
Methyl tert-butyl ether	10.2	0.50	ug/l	10.1		101	63-137	13.4	13	QR-02
Benzene	6.09	0.50	"	6.48		94.0	78-124	5.40	12	
Toluene	37.4	0.50	"	29.7		126	78-129	8.07	10	
Ethylbenzene	8.11	0.50	"	7.20		113	84-117	5.97	10	
Xylenes (total)	42.2	0.50	"	33.7		125	83-125	5.60	11	
Gasoline Range Organics (C6-C10)	439	50	"	440		99.8	70-113	7.32	9	
Surrogate: 1,2-Dichloroethane-d4	*5.32*		"	*5.00*		*106*	*78-129*			

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

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 4C10001 - EPA 5030B P/T										
Blank (4C10001-BLK1)				Prepared & Analyzed: 03/10/04						
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	*5.00*		"	*5.00*		*100*	*78-129*			
Laboratory Control Sample (4C10001-BS1)				Prepared & Analyzed: 03/10/04						
Ethanol	236	100	ug/l	200		118	31-143			O-12
tert-Butyl alcohol	50.7	20	"	50.0		101	56-131			
Methyl tert-butyl ether	10.1	0.50	"	10.0		101	63-137			
Di-isopropyl ether	9.16	0.50	"	10.0		91.6	76-130			
Ethyl tert-butyl ether	10.2	0.50	"	10.0		102	81-121			
tert-Amyl methyl ether	10.4	0.50	"	10.0		104	82-140			
1,2-Dichloroethane	10.2	0.50	"	10.0		102	77-136			
1,2-Dibromoethane (EDB)	10.5	0.50	"	10.0		105	77-132			
Benzene	9.59	0.50	"	10.0		95.9	69-124			
Toluene	10.1	0.50	"	10.0		101	78-129			
Ethylbenzene	9.21	0.50	"	10.0		92.1	84-132			
Xylenes (total)	28.5	0.50	"	30.0		95.0	83-137			
Surrogate: 1,2-Dichloroethane-d4	*4.75*		"	*5.00*		*95.0*	*78-129*			

Sequoia Analytical

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Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

URS Corporation [Arco]	Project: ARCO #5387, Hayward, CA	MNC0054
1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

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 4C10001 - EPA 5030B P/T										
Laboratory Control Sample (4C10001-BS2)				Prepared & Analyzed: 03/10/04						
Methyl tert-butyl ether	9.30	0.50	ug/l	10.1		92.1	63-137			
Benzene	5.52	0.50	"	6.48		85.2	69-124			
Toluene	34.4	0.50	"	29.7		116	78-129			
Ethylbenzene	6.94	0.50	"	7.20		96.4	84-132			
Xylenes (total)	36.2	0.50	"	33.7		107	83-137			
Gasoline Range Organics (C6-C10)	360	50	"	440		81.8	70-124			
Surrogate: 1,2-Dichloroethane-d4	*4.95*		"	*5.00*		*99.0*	*78-129*			
Laboratory Control Sample Dup (4C10001-BSD1)				Prepared & Analyzed: 03/10/04						
Ethanol	239	100	ug/l	200		120	31-143	1.26	20	O-12b
tert-Butyl alcohol	51.1	20	"	50.0		102	56-131	0.786	20	
Methyl tert-butyl ether	10.4	0.50	"	10.0		104	63-137	2.93	13	
Di-isopropyl ether	9.39	0.50	"	10.0		93.9	76-130	2.48	9	
Ethyl tert-butyl ether	10.5	0.50	"	10.0		105	81-121	2.90	9	
tert-Amyl methyl ether	10.8	0.50	"	10.0		108	82-140	3.77	12	
1,2-Dichloroethane	11.0	0.50	"	10.0		110	77-136	7.55	13	
1,2-Dibromoethane (EDB)	11.0	0.50	"	10.0		110	77-132	4.65	9	
Benzene	9.97	0.50	"	10.0		99.7	78-124	3.89	12	
Toluene	10.3	0.50	"	10.0		103	78-129	1.96	10	
Ethylbenzene	9.35	0.50	"	10.0		93.5	84-117	1.51	10	
Xylenes (total)	29.6	0.50	"	30.0		98.7	83-125	3.79	11	
Surrogate: 1,2-Dichloroethane-d4	*4.95*		"	*5.00*		*99.0*	*78-129*			
Laboratory Control Sample Dup (4C10001-BSD2)				Prepared & Analyzed: 03/10/04						
Methyl tert-butyl ether	9.64	0.50	ug/l	10.1		95.4	63-137	3.59	13	
Benzene	5.83	0.50	"	6.48		90.0	78-124	5.46	12	
Toluene	36.5	0.50	"	29.7		123	78-129	5.92	10	
Ethylbenzene	7.72	0.50	"	7.20		107	84-117	10.6	10	QR-07
Xylenes (total)	39.2	0.50	"	33.7		116	83-125	7.96	11	
Gasoline Range Organics (C6-C10)	382	50	"	440		86.8	70-113	5.93	9	
Surrogate: 1,2-Dichloroethane-d4	*4.95*		"	*5.00*		*99.0*	*78-129*			

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Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4C04016 - EPA 3005A										
Blank (4C04016-BLK1)				Prepared & Analyzed: 03/04/04						
Ferric Iron	ND	100	ug/l							
Batch 4C09007 - General Preparation										
Blank (4C09007-BLK1)				Prepared & Analyzed: 03/09/04						
Bicarbonate Alkalinity	ND	5000	ug/l							
Carbonate Alkalinity	ND	5000	"							
Hydroxide Alkalinity	ND	5000	"							
Total Alkalinity	ND	5000	"							
Laboratory Control Sample (4C09007-BS1)				Prepared & Analyzed: 03/09/04						
Total Alkalinity	98900	5000	ug/l	100000		98.9	80-120			
Matrix Spike (4C09007-MS1)	**Source: MNC0153-05**			Prepared & Analyzed: 03/09/04						
Total Alkalinity	202000	5000	ug/l	100000	100000	102	75-125			
Matrix Spike Dup (4C09007-MSD1)	**Source: MNC0153-05**			Prepared & Analyzed: 03/09/04						
Total Alkalinity	202000	5000	ug/l	100000	100000	102	75-125	0.00	20	

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Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Ferrous Iron by Hach method 8146/1;10 Phenanthroline Method - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4C03041 - General Preparation										
Blank (4C03041-BLK1)				Prepared & Analyzed: 03/02/04						
Ferrous Iron	ND	100	ug/l							
Laboratory Control Sample (4C03041-BS1)				Prepared & Analyzed: 03/02/04						
Ferrous Iron	425	100	ug/l	400		106	87-118			
Matrix Spike (4C03041-MS1)	**Source: MNC0054-09**			Prepared & Analyzed: 03/02/04						
Ferrous Iron	513	100	ug/l	400	42	118	87-118			
Matrix Spike Dup (4C03041-MSD1)	**Source: MNC0054-09**			Prepared & Analyzed: 03/02/04						
Ferrous Iron	509	100	ug/l	400	42	117	87-118	0.783	10	

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Anions by EPA Method 300.0 - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	*Reporting* Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD *Limit*	*Notes*
Batch 4C04032 - General Preparation										
Blank (4C04032-BLK1)				Prepared & Analyzed: 03/01/04						
Nitrate as NO3	ND	500	ug/l							
Sulfate as SO4	ND	500	"							
Laboratory Control Sample (4C04032-BS1)				Prepared & Analyzed: 03/01/04						
Nitrate as NO3	10000	500	ug/l	10000		100	90-110			
Sulfate as SO4	10100	500	"	10000		101	90-110			
Matrix Spike (4C04032-MS1)	**Source: MNC0061-01**			Prepared & Analyzed: 03/01/04						
Nitrate as NO3	104000	5000	ug/l	100000	ND	104	80-124			
Sulfate as SO4	148000	5000	"	100000	47000	101	72-140			
Matrix Spike Dup (4C04032-MSD1)	**Source: MNC0061-01**			Prepared & Analyzed: 03/01/04						
Nitrate as NO3	104000	5000	ug/l	100000	ND	104	80-124	0.00	10	
Sulfate as SO4	147000	5000	"	100000	47000	100	72-140	0.678	10	

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1333 Broadway, Suite 800	Project Number: INTRIM-50591	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	03/15/04 16:16

Notes and Definitions

O-12	The continuing calibration verification was outside of client contractual acceptance limits by 13.5% high. However, it was within method acceptance limits. The data should still be useful for its intended purpose.
O-12a	The continuing calibration verification was outside of client contractual acceptance limits by 16 % high. However, it was within method acceptance limits. The data should still be useful for its intended purpose.
O-12b	The continuing calibration verification was outside of client contractual acceptance limits by 27% high. However, it was within method acceptance limits. The data should still be useful for its intended purpose.
QR-02	The RPD result exceeded the control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR-07	The RPD was outside control limits. The results may still be useful for their intended purpose.
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

MNC0054

Project Name 5387 GWM
BP BU/GEM CO Portfolio Retail
BP Laboratory Contract Number: Atlantic Richfield Company
Requested Due Date (mm/dd/yy) 14 day TAT

Date: 3/1/04

On-site Time: 800 Temp: 50°
Off-site Time: 1400 Temp: 55°
Sky Conditions: cloudy
Meteorological Events: rain
Wind Speed: — Direction: —

Send To:	BP/GEM Facility No.: ARCO 5387	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 20200 Hesperian Blvd, HAYWARD, CA	Address: 1333 Broadway, Suite 800
Lab Address: 885 Jarvis Dr.	Site ID No. ARCO 5387	Oakland, CA 94612
Morgan Hill, CA 95037	Site Lat/Long:	e-mail EDD: donna.cosper@URSCorp.com
	California Global ID #:	Consultant/Contractor Project No.: 35-00005387.01 00427
Lab PM Lisa Race	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-893-3600/510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address: P.O. Box 6549	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: 1 Send EDF Reports	Moraga, CA 94570	Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Account No.:	Tele/Fax: 925-299-8891/925-299-8872	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 8260	Requested Analysis: MTBE, TAME, ETBE DIPE, TBA (8260)	Requested Analysis: 1,2-DCA & EDB (8260)	Requested Analysis: Ethanol (8260)	Requested Analysis: Alkalinity (SM2320B)	Requested Analysis: Nitrate, Sulfate (300.0)	Requested Analysis: Ferrous Iron (Hach 8146)	Requested Analysis: Ferric Iron (200.7)	Requested Analysis: Total Iron (200.7)	Sample Point Lat/Long and Comments
1	MW-1	1105		X			01	6	2		1	3	X	X	X	X	X	X	X	X	X	
2	MW-2	1113		X			02	6	2		1	3	X	X	X	X	X	X	X	X	X	
3	A-4	1325		X			03	3				3	X	X	X	X						
4	A-5	1015		X			04	3				3	X	X	X	X						
5	A-7	928		X			05	6	2		1	3	X	X	X	X	X	X	X	X	X	
6	A-8	1000		X			06	3				3	X	X	X	X						
7	A-9	1020		X			07	3		HCl		3	X	X	X	X						
8	MW-1	1300		X			08	6	2	HCl	1	3	X	X	X	X	X	X	X	X	X	
9	MW-2	1122		X			09	6	2		1	3	X	X	X	X	X	X	X	X	X	
10	TB-030104.5387	—		X			10															

Sampler's Name: Suchitra Sule	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date / Time
Sampler's Company: Burns Tech		3/1/04	1300		3/1/04 1500
Shipment Date:		3/1/04	1705	Helen Hernandez	3-1-04 1705
Shipment Method:					
Shipment Tracking No:					

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

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

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: bP/URS
REC.-BY (PRINT) WW
WORKORDER: MNC0054

DATE REC'D AT LAB: 3-1-04
TIME REC'D AT LAB: 1705
DATE LOGGED IN: 3-3-04

DRINKING WATER for regulatory purposes: YES / (NO)
WASTE WATER 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) Intact / Broken*	01		MW-1	(3) VOAs	HCL	L	3-1-04	
2. Chain-of-Custody (Present) / Absent*				(1) 1/2 Poly	HNO3			
3. Traffic Reports or Packing List: Present / (Absent)				(1) 1/2 Poly	—			
4. Airbill: Airbill / Sticker Present / (Absent)	02		-2	(1) 250 Poly	—			
5. Airbill #:	03		A-4	same	same			
6. Sample Labels: (Present) / Absent	04		-5	(3) VOAs	HCL			
7. Sample IDs: (Listed) / Not Listed on Chain-of-Custody	05		-7	(3)				
8. Sample Condition: (Intact) / Broken* / Leaking*				(1) 1/2 Poly	HNO3			
	06		-8	(1) 1/2 Poly	—			
	07		-9	(1) 250 Poly	—			
9. Does information on chain-of-custody, traffic reports and sample labels agree? (Yes) / No*	08		AR-1	(3) VOAs	HCL			
				(1) 1/2 Poly	HNO3			
				(1) 1/2 Poly	—			
				(1) 250 Poly	—			
10. Sample received within hold time: (Yes) / No*	09		-2	(3) VOAs	HCL			
	10			(1) 1/2 Poly	HNO3			
11. Adequate sample volume received? (Yes) / No*	11			(1) 1/2 Poly	—			
	12			(1) 250 Poly	—			
12. Proper Preservatives used: (Yes) / No*	13		TB-030104-5387	(3) VOAs	HCL	↓	↓	
13. Temp Rec. at Lab: 4								
Is temp 4 +/-2°C? (Yes) / No**			"	3-1-04	HH			
(Acceptance range for samples requiring thermal pres.)								
**Exception (if any): METALS / OFF ON ICE								
or Problem COC								

SRL rv 4.xls
Version 4 (11/10/03)
Access Revision 3 (03/18/03)
Date 11/10/03

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

ATTACHMENT C

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

03/16/04

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:	MNC0054
Global ID:	NA
Lab Report Number:	MNC0054031520041616

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
MNC0054031520 041616	A-4	MNC005403	W	CS	8260TPH	SW5030B	03/01/04	03/09/04	03/09/04	4C09005	1
MNC0054031520 041616	A-5	MNC005404	W	CS	8260TPH	SW5030B	03/01/04	03/09/04	03/09/04	4C09005	1
MNC0054031520 041616	A-7	MNC005405	W	CS	8260TPH	SW5030B	03/01/04	03/09/04	03/09/04	4C09005	1
MNC0054031520 041616	A-7	MNC005405	W	CS	A2320B	METHOD	03/01/04	03/09/04	03/09/04	4C09007	1
MNC0054031520 041616	A-7	MNC005405	W	CS	CALCFE2	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
MNC0054031520 041616	A-7	MNC005405	W	CS	E200.7	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
MNC0054031520 041616	A-7	MNC005405	W	CS	E300.0	METHOD	03/01/04	03/01/04	03/01/04	4C04032	1
MNC0054031520 041616	A-7	MNC005405	W	CS	H8146	METHOD	03/01/04	03/02/04	03/02/04	4C03041	1
MNC0054031520 041616	A-8	MNC005406	W	CS	8260TPH	SW5030B	03/01/04	03/09/04	03/09/04	4C09005	1
MNC0054031520 041616	A-9	MNC005407	W	CS	8260TPH	SW5030B	03/01/04	03/09/04	03/10/04	4C09005	1
MNC0054031520 041616	AR-1	MNC005408	W	CS	8260TPH	SW5030B	03/01/04	03/09/04	03/10/04	4C09005	1
MNC0054031520 041616	AR-1	MNC005408	W	CS	A2320B	METHOD	03/01/04	03/09/04	03/09/04	4C09007	1
MNC0054031520 041616	AR-1	MNC005408	W	CS	CALCFE2	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
MNC0054031520 041616	AR-1	MNC005408	W	CS	E200.7	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
MNC0054031520 041616	AR-1	MNC005408	W	CS	E300.0	METHOD	03/01/04	03/01/04	03/01/04	4C04032	1
MNC0054031520 041616	AR-1	MNC005408	W	CS	H8146	METHOD	03/01/04	03/02/04	03/02/04	4C03041	1
MNC0054031520 041616	AR-2	MNC005409	W	CS	8260TPH	SW5030B	03/01/04	03/10/04	03/10/04	4C10001	1
MNC0054031520 041616	AR-2	MNC005409	W	CS	A2320B	METHOD	03/01/04	03/09/04	03/09/04	4C09007	1
MNC0054031520 041616	AR-2	MNC005409	W	CS	CALCFE2	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
MNC0054031520 041616	AR-2	MNC005409	W	CS	E200.7	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
MNC0054031520	AR-2	MNC005409	W	CS	E300.0	METHOD	03/01/04	03/01/04	03/01/04	4C04032	1

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
041616											
MNC0054031520	AR-2	MNC005409	W	CS	H8146	METHOD	03/01/04	03/02/04	03/02/04	4C03041	1
041616											
MNC0054031520	MW-1	MNC005401	W	CS	8260TPH	SW5030B	03/01/04	03/10/04	03/10/04	4C10001	1
041616											
MNC0054031520	MW-1	MNC005401	W	CS	A2320B	METHOD	03/01/04	03/09/04	03/09/04	4C09007	1
041616											
MNC0054031520	MW-1	MNC005401	W	CS	CALCFE2	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
041616											
MNC0054031520	MW-1	MNC005401	W	CS	E200.7	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
041616											
MNC0054031520	MW-1	MNC005401	W	CS	E300.0	METHOD	03/01/04	03/01/04	03/01/04	4C04032	1
041616											
MNC0054031520	MW-1	MNC005401	W	CS	H8146	METHOD	03/01/04	03/02/04	03/02/04	4C03041	1
041616											
MNC0054031520	MW-2	MNC005402	W	CS	8260TPH	SW5030B	03/01/04	03/09/04	03/09/04	4C09005	1
041616											
MNC0054031520	MW-2	MNC005402	W	CS	A2320B	METHOD	03/01/04	03/09/04	03/09/04	4C09007	1
041616											
MNC0054031520	MW-2	MNC005402	W	CS	CALCFE2	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
041616											
MNC0054031520	MW-2	MNC005402	W	CS	E200.7	SW3005A	03/01/04	03/04/04	03/04/04	4C04016	1
041616											
MNC0054031520	MW-2	MNC005402	W	CS	E300.0	METHOD	03/01/04	03/01/04	03/01/04	4C04032	1
041616											
MNC0054031520	MW-2	MNC005402	W	CS	H8146	METHOD	03/01/04	03/02/04	03/02/04	4C03041	1
041616											
		MNC004314	W	NC	E200.7	SW3005A	/ /	03/04/04	03/04/04	4C04016	1
		MNC006101	W	NC	E300.0	METHOD	/ /	03/01/04	03/01/04	4C04032	1
		MNC015305	W	NC	A2320B	METHOD	/ /	03/09/04	03/09/04	4C09007	1
		4C03041BS1	WQ	BS1	H8146	METHOD	/ /	03/02/04	03/02/04	4C03041	1
		4C03041BLK1	WQ	LB1	H8146	METHOD	/ /	03/02/04	03/02/04	4C03041	1
		4C03041MS1	W	MS1	H8146	METHOD	/ /	03/02/04	03/02/04	4C03041	1
		4C03041MSD1	W	SD1	H8146	METHOD	/ /	03/02/04	03/02/04	4C03041	1
		4C04016BS1	WQ	BS1	E200.7	SW3005A	/ /	03/04/04	03/04/04	4C04016	1
		4C04016BLK1	WQ	LB1	CALCFE2	SW3005A	/ /	03/04/04	03/04/04	4C04016	1
		4C04016BLK1	WQ	LB1	E200.7	SW3005A	/ /	03/04/04	03/04/04	4C04016	1
		4C04016MS1	W	MS1	E200.7	SW3005A	/ /	03/04/04	03/04/04	4C04016	1
		4C04016MSD1	W	SD1	E200.7	SW3005A	/ /	03/04/04	03/04/04	4C04016	1

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
		4C04032BS1	WQ	BS1	E300.0	METHOD	/ /	03/01/04	03/01/04	4C04032	1
		4C04032BLK1	WQ	LB1	E300.0	METHOD	/ /	03/01/04	03/01/04	4C04032	1
		4C04032MS1	W	MS1	E300.0	METHOD	/ /	03/01/04	03/01/04	4C04032	1
		4C04032MSD1	W	SD1	E300.0	METHOD	/ /	03/01/04	03/01/04	4C04032	1
		4C09005BSD1	WQ	BD1	8260TPH	SW5030B	/ /	03/09/04	03/09/04	4C09005	1
		4C09005BSD2	WQ	BD2	8260TPH	SW5030B	/ /	03/09/04	03/09/04	4C09005	1
		4C09005BS1	WQ	BS1	8260TPH	SW5030B	/ /	03/09/04	03/09/04	4C09005	1
		4C09005BS2	WQ	BS2	8260TPH	SW5030B	/ /	03/09/04	03/09/04	4C09005	1
		4C09005BLK1	WQ	LB1	8260TPH	SW5030B	/ /	03/09/04	03/09/04	4C09005	1
		4C09007BS1	WQ	BS1	A2320B	METHOD	/ /	03/09/04	03/09/04	4C09007	1
		4C09007BLK1	WQ	LB1	A2320B	METHOD	/ /	03/09/04	03/09/04	4C09007	1
		4C09007MS1	W	MS1	A2320B	METHOD	/ /	03/09/04	03/09/04	4C09007	1
		4C09007MSD1	W	SD1	A2320B	METHOD	/ /	03/09/04	03/09/04	4C09007	1
		4C10001BSD1	WQ	BD1	8260TPH	SW5030B	/ /	03/10/04	03/10/04	4C10001	1
		4C10001BSD2	WQ	BD2	8260TPH	SW5030B	/ /	03/10/04	03/10/04	4C10001	1
		4C10001BS1	WQ	BS1	8260TPH	SW5030B	/ /	03/10/04	03/10/04	4C10001	1
		4C10001BS2	WQ	BS2	8260TPH	SW5030B	/ /	03/10/04	03/10/04	4C10001	1
		4C10001BLK1	WQ	LB1	8260TPH	SW5030B	/ /	03/10/04	03/10/04	4C10001	1

EDFSAMP: Error Summary Log

03/16/04

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

EDFTEST: Error Summary Log

03/16/04

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

EDFRES: Error Summary Log

03/16/04

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	4C04032MS1	MS1	W	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	4C04032MSD1	SD1	W	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	MNC005401	CS	W	A2320B	PR	03/09/04	1	ALKB
Warning: extra parameter	MNC005401	CS	W	A2320B	PR	03/09/04	1	ALKC
Warning: extra parameter	MNC005401	CS	W	A2320B	PR	03/09/04	1	ALKH
Warning: extra parameter	MNC005401	CS	W	CALCFE2	PR	03/04/04	1	FE3
Warning: extra parameter	MNC005401	CS	W	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	MNC005402	CS	W	A2320B	PR	03/09/04	1	ALKB
Warning: extra parameter	MNC005402	CS	W	A2320B	PR	03/09/04	1	ALKC
Warning: extra parameter	MNC005402	CS	W	A2320B	PR	03/09/04	1	ALKH
Warning: extra parameter	MNC005402	CS	W	CALCFE2	PR	03/04/04	1	FE3
Warning: extra parameter	MNC005402	CS	W	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	MNC005405	CS	W	A2320B	PR	03/09/04	1	ALKB
Warning: extra parameter	MNC005405	CS	W	A2320B	PR	03/09/04	1	ALKC
Warning: extra parameter	MNC005405	CS	W	A2320B	PR	03/09/04	1	ALKH
Warning: extra parameter	MNC005405	CS	W	CALCFE2	PR	03/04/04	1	FE3
Warning: extra parameter	MNC005405	CS	W	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	MNC005408	CS	W	A2320B	PR	03/09/04	1	ALKB
Warning: extra parameter	MNC005408	CS	W	A2320B	PR	03/09/04	1	ALKC
Warning: extra parameter	MNC005408	CS	W	A2320B	PR	03/09/04	1	ALKH
Warning: extra parameter	MNC005408	CS	W	CALCFE2	PR	03/04/04	1	FE3
Warning: extra parameter	MNC005408	CS	W	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	MNC005409	CS	W	A2320B	PR	03/09/04	1	ALKB
Warning: extra parameter	MNC005409	CS	W	A2320B	PR	03/09/04	1	ALKC
Warning: extra parameter	MNC005409	CS	W	A2320B	PR	03/09/04	1	ALKH

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	MNC005409	CS	W	CALCFE2	PR	03/04/04	1	FE3
Warning: extra parameter	MNC005409	CS	W	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	MNC006101	NC	W	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	4C04016BLK1	LB1	WQ	CALCFE2	PR	03/04/04	1	FE3
Warning: extra parameter	4C04032BLK1	LB1	WQ	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	4C04032BS1	BS1	WQ	E300.0	PR	03/01/04	1	NO3
Warning: extra parameter	4C09007BLK1	LB1	WQ	A2320B	PR	03/09/04	1	ALKB
Warning: extra parameter	4C09007BLK1	LB1	WQ	A2320B	PR	03/09/04	1	ALKC
Warning: extra parameter	4C09007BLK1	LB1	WQ	A2320B	PR	03/09/04	1	ALKH

EDFQC: Error Summary Log

03/16/04

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

EDFCL: Error Summary Log

03/16/04

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

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Submittal Title:	**QMR 1 Q 2004 Site 5387**
Submittal Date/Time:	**3/16/2004 4:37:11 PM**
Confirmation Number:	**1716099381**

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Confirmation Number: 9476587295
Date/Time of Submittal: 3/16/2004 4:41:03 PM
Facility Global ID: T0600101368
Facility Name: ARCO
Submittal Title: QMR 1 Q 2004 SIte 5387
Submittal Type: GW Monitoring Report

Logged in as URSCORP-OAKLAND (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

ATTACHMENT D

WELL SURVEY DATA SHEETS

BP/ARCO Survey Sheet

Site: **5387**
Date: 2/23/2004

Well ID	X-coord (NAD'83)	Y-coord (NAD'83)	Top of Casing (NAVD'88)	Top of Lid (NAVD'88)	Ground Surface (NAVD'88)	Comments
MW-1	-122.1182548	37.6665337	39.80	40.82	40.82	
MW-2	-122.1184540	37.6666447	40.51	41.07	41.07	
MW-3	-122.1183411	37.6664978	38.72	40.31	40.31	
A-4	-122.1180338	37.6666530		42.26	42.26	Welded
A-5	-122.1184033	37.6667602	41.00	41.45	41.45	
A-6	-122.1181784	37.6669050	41.25	41.70	41.70	
A-7	-122.1186692	37.6665991	41.94	42.46	42.46	
A-8	-122.1183273	37.6663709	39.29	39.74	39.74	
A-9	-122.1184837	37.6669441	40.73	41.18	41.18	
A-10	-122.1189825	37.6666516	41.22	41.48	41.48	
AS-1	-122.1183387	37.6665219	39.66	40.46	40.46	
AS-2	-122.1184161	37.6666248		40.79	40.79	Welded
AS-3						
AS--4	-122.1184090	37.6666954		41.01	41.01	Welded
AS-6	-122.1183303	37.6665937	40.54	40.92	40.92	
AS-7						
AS-9	-122.1182631	37.6665455		40.87	40.87	Welded
AR-1	-122.1183939	37.6665906	39.82	40.68	40.68	
AR-2	-122.1184411	37.6666707	40.68	41.03	41.03	
AV-1	-122.1182747	37.6665728		40.85	40.85	Welded
AV-2	-122.1180666	37.6667264	41.59	42.20	42.20	
AV-4	-122.1183521	37.6667124		41.12	41.12	Welded
EP-1 (?)	-122.1184329	37.6666987		41.21	41.21	6 - 6"PVC. No measure down.

Number	Latitude dec.	Longitude dec.	shot elevation-ft	Raw desc	Feature	Desc	diff. To casing	casing elev -ft	casing type
1	37.6664715	-122.1183432	40.239	CP1				40.239	
2	37.6667694	-122.1184556	41.319	CP2				41.319	
15	37.666905	-122.1181784	41.697	MW-A6	CTR LID		-0.450	41.247	4"PVC
16	37.6669441	-122.1184837	41.175	MW-A9	CTR LID		-0.450	40.725	2"PVC
17	37.6666516	-122.1189825	41.476	MW-A10	CTR LID		-0.260	41.216	2"PVC
18	37.6665991	-122.1186692	42.458	MW-A7	CTR LID		-0.520	41.938	4"PVC
19	37.6665745	-122.1183563	40.769	MW	CTR LID			40.769	LID
20	37.6665937	-122.1183303	40.917	AS-6	CTR LID		-0.380	40.537	2"PVC
21	37.6665728	-122.1182747	40.853	EW-AV1	CTR LID			40.853	LID
22	37.6665455	-122.1182631	40.865	AS-9	CTR LID			40.865	LID
23	37.6665337	-122.1182548	40.818	MW-1	CTR LID		-1.020	39.798	2"PVC
24	37.666653	-122.1180338	42.259	MW-A4	CTR LID			42.259	LID
25	37.6667264	-122.1180666	42.203	EW-AV2	CTR LID		-0.610	41.593	4"PVC
26	37.6663709	-122.1183273	39.742	MW-A8	CTR LID		-0.450	39.292	2"PVC
27	37.6664978	-122.1183411	40.305	MW-3	CTR LID		-1.590	38.715	2"PVC
28	37.6665219	-122.1183387	40.463	AS-1	CTR LID		-0.800	39.663	2"PVC
29	37.6665906	-122.1183939	40.676	EW-AR1	CTR LID		-0.860	39.816	6"PVC
30	37.6666248	-122.1184161	40.789	AS-2	CTR LID			40.789	LID
31	37.6666447	-122.118454	41.068	MW-2	CTR LID		-0.560	40.508	2"PVC
32	37.6666707	-122.1184411	41.029	EW-AR2	CTR LID		-0.350	40.679	6"PVC
33	37.6666987	-122.1184329	41.205	EP-1	CTR LID			41.205	LID
34	37.6666954	-122.118409	41.006	AS-4	CTR LID			41.006	LID
35	37.6667124	-122.1183521	41.122	EW-AV4	CTR LID			41.122	LID
36	37.6667602	-122.1184033	41.447	MW-A5	CTR LID		-0.450	40.997	4"PVC

GLOBAL_ID	FIELD_PT_NAME	FIELD_PT_CLASS	XY_SURVEY_DATE	LATITUDE	LONGTITUDE	XY_METHOD	XY_DATUM	XY_ACC_VAL	XY_SURVEY_ORG	GPS_EQUIP_TYPE	XY_SURVEY_DESC	SITE
	CP1	BM	2/19/2004	37.6664715	-122.1183432	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	CP2	BM	2/19/2004	37.6667694	-122.1184556	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-A6	MW	2/19/2004	37.6669050	-122.1181784	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-A9	MW	2/19/2004	37.6669441	-122.1184837	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-A10	MW	2/19/2004	37.6666516	-122.1189825	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-A7	MW	2/19/2004	37.6665991	-122.1186692	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW	MW	2/19/2004	37.6665745	-122.1183563	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	AS-6	MW	2/19/2004	37.6665937	-122.1183303	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	EW-AV1	MW	2/19/2004	37.6665728	-122.1182747	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	AS-9	MW	2/19/2004	37.6665455	-122.1182631	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-1	MW	2/19/2004	37.6665337	-122.1182548	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-A4	MW	2/19/2004	37.6666530	-122.1180338	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	EW-AV2	MW	2/19/2004	37.6667264	-122.1180666	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-A8	MW	2/19/2004	37.6663709	-122.1183273	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-3	MW	2/19/2004	37.6664978	-122.1183411	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	AS-1	MW	2/19/2004	37.6665219	-122.1183387	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	EW-AR1	MW	2/19/2004	37.6665906	-122.1183939	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	AS-2	MW	2/19/2004	37.6666248	-122.1184161	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-2	MW	2/19/2004	37.6666447	-122.1184540	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	EW-AR2	MW	2/19/2004	37.6666707	-122.1184411	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	EP-1	MW	2/19/2004	37.6666987	-122.1184329	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	AS-4	MW	2/19/2004	37.6666954	-122.1184090	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	EW-AV4	MW	2/19/2004	37.6667124	-122.1183521	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387
	MW-A5	MW	2/19/2004	37.6667602	-122.1184033	CGPS	NAD83	0.02	URS	T48	0.0000000	BP5387

GLOBAL_ID	FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION ft	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER_HT	ELEV_DESC	SITE
	CP1	2/19/2004	40.24	CGPS	88	0.02	URS	0.00	0	BP5387
	CP2	2/19/2004	41.32	CGPS	88	0.02	URS	0.00	0	BP5387
	MW-A6	2/19/2004	41.25	CGPS	88	0.02	URS	-0.45	4"PVC	BP5387
	MW-A9	2/19/2004	40.73	CGPS	88	0.02	URS	-0.45	2"PVC	BP5387
	MW-A10	2/19/2004	41.22	CGPS	88	0.02	URS	-0.26	2"PVC	BP5387
	MW-A7	2/19/2004	41.94	CGPS	88	0.02	URS	-0.52	4"PVC	BP5387
	MW	2/19/2004	40.77	CGPS	88	0.02	URS	0.00	LID	BP5387
	AS-6	2/19/2004	40.54	CGPS	88	0.02	URS	-0.38	2"PVC	BP5387
	EW-AV1	2/19/2004	40.85	CGPS	88	0.02	URS	0.00	LID	BP5387
	AS-9	2/19/2004	40.87	CGPS	88	0.02	URS	0.00	LID	BP5387
	MW-1	2/19/2004	39.80	CGPS	88	0.02	URS	-1.02	2"PVC	BP5387
	MW-A4	2/19/2004	42.26	CGPS	88	0.02	URS	0.00	LID	BP5387
	EW-AV2	2/19/2004	41.59	CGPS	88	0.02	URS	-0.61	4"PVC	BP5387
	MW-A8	2/19/2004	39.29	CGPS	88	0.02	URS	-0.45	2"PVC	BP5387
	MW-3	2/19/2004	38.72	CGPS	88	0.02	URS	-1.59	2"PVC	BP5387
	AS-1	2/19/2004	39.66	CGPS	88	0.02	URS	-0.80	2"PVC	BP5387
	EW-AR1	2/19/2004	39.82	CGPS	88	0.02	URS	-0.86	6"PVC	BP5387
	AS-2	2/19/2004	40.79	CGPS	88	0.02	URS	0.00	LID	BP5387
	MW-2	2/19/2004	40.51	CGPS	88	0.02	URS	-0.56	2"PVC	BP5387
	EW-AR2	2/19/2004	40.68	CGPS	88	0.02	URS	-0.35	6"PVC	BP5387
	EP-1	2/19/2004	41.21	CGPS	88	0.02	URS	0.00	LID	BP5387
	AS-4	2/19/2004	41.01	CGPS	88	0.02	URS	0.00	LID	BP5387
	EW-AV4	2/19/2004	41.12	CGPS	88	0.02	URS	0.00	LID	BP5387
	MW-A5	2/19/2004	41.00	CGPS	88	0.02	URS	-0.45	4"PVC	BP5387

ATTACHMENT E

HYDROGEN PEROXIDE INJECTION FIELD NOTES

Field Notes for Site 5387 H_2O_2 injections on 12/16/03
Alex Fortin

10:00 AM Precision did not bring cones to the site. The technician drove to a store to get cones.

10:45 AM: Tailgate meeting.
Mike (the technician) advised me about a better way to inject peroxide. He proposed injection through the use of a hydraulic pump in combination with pneumatic pressure. First, pressure would be applied to the site to create preferential pathways in soil. Then, injection would take place with a hydraulic pump being used to allow the peroxide to be released out of the well.

10:50 AM: A-7 is found to be in the middle of the road. Injection cannot be done under pressure.

10:55 AM: MW-1 is covered with rainwater. Water is pumped out to allow access to the well.

11:05 AM: 15 lbs of ferrous sulfate heptahydrated and 15 gallons of water in 4 buckets.

Injections:

MW-1 (2")
4 gallons injected of ferrous sulfate, 1 gallon to clean well wall, then well pressurized to 300 psi, 10 gallons of H_2O_2 added, pressurized to 300-psi max. No reactions seen on top of the well casing. Breakthrough pressure that preferential pathways were created and the well was emptied was 22 psi.

AR-1 and AR-2 (6")
4 gallons of ferrous sulfate solution, plus 1 gallon to clean well wall then 10 gallons of H_2O_2 added. No pressure applied since there were no fittings for a 6" well.

MW-2 (2")
4 gallons injected of ferrous sulfate, 1 gallon to clean well wall, 10 gallons of H_2O_2 added, pressurized to 300-psi max. A bit of reaction was seen on top of the well casing. Breakthrough pressure that preferential pathways were created and the well was emptied was 12 psi. Pressure was not applied between ferrous sulfate and hydrogen peroxide injections because there was not any gas (nitrogen) left in the tank. Tank was 80% emptied.

A-7 (3")
Another solution made with 3.5 lbs of ferrous sulfate and 4 gallons of water. Mixture was added, 1 gallon of water to clean water well and then 10 gallons of hydrogen peroxide. No pressure applied. Reaction was seen on the top of the well casing. No spills.