R072

URS

Alameda County
JUL 02 2004
Environmental Health

June 28, 2004

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

Re: Second Quarter 2004 Groundwater Monitoring Report
Atlantic Richfield Company Service Station #2169
889 West Grand Avenue
Oakland, California
URS Project #38486719

Dear Mr. Schultz:

On behalf of Atlantic Richfield Company (RM), a BP affiliated company, URS Corporation (URS) is submitting the *Second Quarter 2004 Groundwater Monitoring Report* for Atlantic Richfield Company Service Station #2169, located at 889 West Grand Avenue, Oakland, California.

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

Sincerely,

URS CORPORATION

Scott Robinson
Project Manager

James F. Durkin, C.Hg.
Senior Geologist

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

Enclosure: Second Quarter 2004 Groundwater Monitoring Report

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

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612-1924
Tel: 510.893.3600
Fax: 510.874.3268

REPORT

SECOND QUARTER 2004 GROUNDWATER MONITORING

ATLANTIC RICHFIELD COMPANY
SERVICE STATION #2169
889 WEST GRAND AVENUE
OAKLAND, CALIFORNIA

Prepared for
Atlantic Richfield Company

June 28, 2004

URS Corporation
1333 Broadway, Suite 800
Oakland, California 94612

38486719

Date: June 28, 2004

Quarter: 2Q 04

ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Facility No.:	2169	Address:	889 West Grand Avenue, Oakland, California
RM Environmental Business Manager:			Paul Supple
Consulting Co./Contact Person:			URS Corporation / Scott Robinson
Consultant Project No.:			38486719
Primary Agency:			Alameda County Health Care Services Agency (ACHCSA)

WORK PERFORMED THIS QUARTER (Second – 2004):

1. Performed second quarter 2004 groundwater monitoring event on May 6, 2004.
2. Prepared and submitted second quarter 2004 groundwater monitoring report.
3. Replaced Oxygen Releasing Compound (ORC) socks in wells on May 6, 2004.

WORK PROPOSED FOR NEXT QUARTER (Third – 2004):

1. Perform third quarter 2004 groundwater monitoring event.
2. Prepare and submit third quarter 2004 groundwater monitoring report.
3. Permanently remove all ORC socks.

Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	Beginning fourth quarter 2003: Annual: (3rd Quarter): A-2, AR-1, AR-2, ADR-2 Quarterly: A-1, A-5, A-6 and ADR-1
Frequency of Groundwater Monitoring:	Quarterly
Is Free Product (FP) Present On-Site:	No
FP Recovered this Quarter:	None
Cumulative FP Recovered to Date:	4.8 gallons, wells ADR-1 and ADR-2
Bulk Soil Removed This Quarter:	None
Bulk Soil Removed to Date:	2,196 cubic yards of TPH impacted soil
Current Remediation Techniques:	Natural Attenuation / ORC: A-1, A-5, A-6, AR-2, and ADR-1
Approximate Depth to Groundwater:	10.03 (AR-6) to 11.75 (A-3) feet
Groundwater Gradient (direction):	Southwest
Groundwater Gradient (magnitude):	0.004 feet per foot

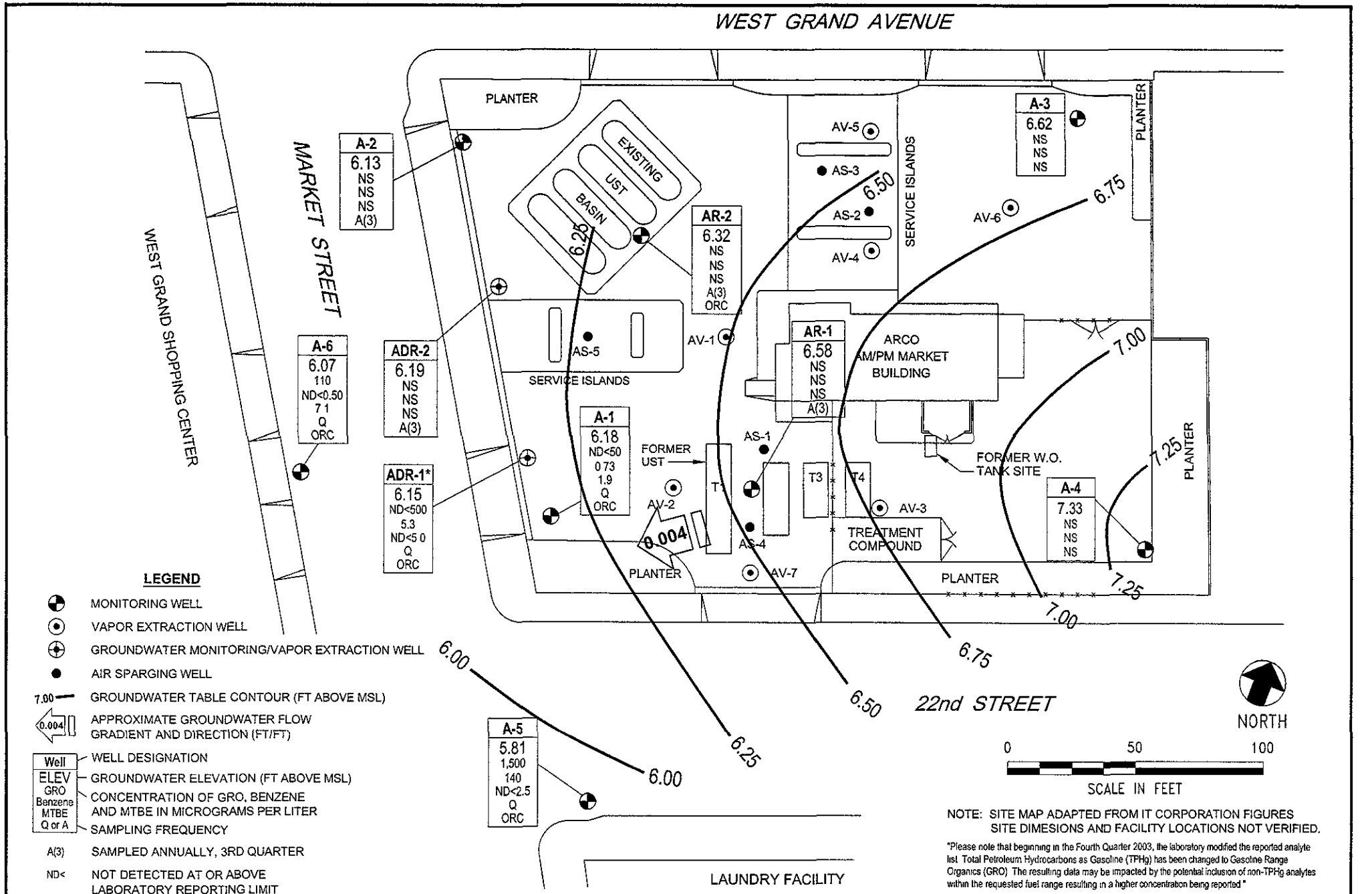
DISCUSSION:

Gasoline range organics (GRO) were detected above the laboratory reporting limit in two of the four wells sampled this quarter at concentrations of 110 micrograms per liter (µg/L) (A-6) and 1,500 µg/L (A-5). Benzene was detected above the laboratory reporting limit in three wells at concentrations ranging from 0.73 µg/L (A-1) to 140 µg/L (A-5). Methyl tert-butyl ether (MTBE) was detected above the laboratory reporting limit in two wells at concentrations of 1.9 µg/L (A-1) and 7.1 µg/L (A-6).

Due to lower concentrations of the constituents of concern, ORC socks will be permanently removed from wells A-1, A-5, A-6, AR-2, and ADR-1 during the third quarter monitoring event.

ATTACHMENTS:

- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – May 6, 2004
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 - Fuel Oxygenate Analytical Data
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports and Chain-of-Custody Records
- Attachment C – Historic Groundwater Data
- Attachment D – EDCC Report and EDF/GEOWELL Submittal Confirmation



LEGEND

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

Well	WELL DESIGNATION
ELEV	GROUNDWATER ELEVATION (FT ABOVE MSL)
GRO Benzene MTBE	CONCENTRATION OF GRO, BENZENE AND MTBE IN MICROGRAMS PER LITER
Q or A	SAMPLING FREQUENCY
A(3)	SAMPLED ANNUALLY, 3RD QUARTER
ND<	NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT
NS	NOT SAMPLED
Q	SAMPLED QUARTERLY
*	WELL SAMPLED AND GUAGED ON 5/7/04
ORC	OXYGEN RELEASING COMPOUND SOCK

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

"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. 38486719

Atlantic Richfield Company Service Station 2169
889 West Grand Avenue
Oakland, California

GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP Second Quarter 2004 (May 6, 2004)

FIGURE 1

Table 1
Groundwater Elevation and Analytical Data

Atlantic Richfield Company Service Station #2169
889 West Grand Avenue
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft., MSL)	Top of Screen (ft., bgs)	Bottom of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Groundwater (ft TOC)	Groundwater Elevation (ft)	GRO/TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen[e] (mg/L)	pH[e]
AR-1	06/26/00	15.61	5.0	NA	30.0	11.59	4.02	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00					12.06	3.55	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	6	NA	NA
	09/19/00					11.89	3.72	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<3	NA	NA
	12/26/00					11.95	3.66	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/20/01[a]					NM	NM	NS	NS	NS	NS	NS	NS	NS	NS
	06/12/01					11.87	3.74	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	NA	NA
	09/23/01					12.42	3.19	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					7.62	7.99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/21/02					9.37	6.24	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/02					10.43	5.18	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	08/14/02					12.08	3.53	ND<50	ND<0.5	ND<0.5	ND<0.5	1.3	ND<2.5	2.2	7.9
	11/27/02					12.00	3.61	NS	NS	NS	NS	NS	NS	NS	NS
	02/12/03 [d]					10.89	4.72	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	7.9
	05/22/03					11.18	4.43	NS	NS	NS	NS	NS	NS	NS	NS
	07/23/03					11.73	3.88	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**1.3**	**7.7**
	11/13/03					12.05	3.56	----------Sampled Annually, 3rd Quarter----------							
	02/16/04[i]	18.18				10.35	7.83	----------Sampled Annually, 3rd Quarter----------							
	05/06/04					**11.60**	**6.58**	----------Sampled Annually, 3rd Quarter----------							
AR-2	06/26/00	15.28	5.0	NA	28.5	11.79	3.49	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00					12.07	3.21	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<3	NA	NA
	09/19/00					12.08	3.2	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<3	NA	NA
	12/26/00					11.95	3.33	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/20/01					10.50	4.78	NS	NS	NS	NS	NS	NS	NS	NS
	06/12/01					11.73	3.55	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	82	NA	NA
	09/23/01					12.43	2.85	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					8.60	6.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	30	NA	NA
	03/21/02					9.49	5.79	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/02					10.37	4.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.2	NA	NA
	08/14/02					12.13	3.15	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	1.4	7.9
	11/27/02					12.08	3.20	NS	NS	NS	NS	NS	NS	NS	NS
	02/12/03 [d]					11.15	4.13	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.2	7.5
	05/22/03					11.18	4.10	NS	NS	NS	NS	NS	NS	NS	NS
	07/23/03					11.85	3.43	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.3	8.2
	11/13/03[f]					11.98	3.30	----------Sampled Annually, 3rd Quarter----------							
	02/16/04[fi]	17.87				10.69	7.18	----------Sampled Annually, 3rd Quarter----------							
	05/06/04					**11.55**	**6.32**	----------Sampled Annually, 3rd Quarter----------							

Table 1
Groundwater Elevation and Analytical Data

Atlantic Richfield Company Service Station #2169
889 West Grand Avenue
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft., MSL)	Top of Screen (ft., bgs)	Bottom of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Groundwater (ft TOC)	Groundwater Elevation (ft)	GRO/TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen[e] (mg/L)	pH[e]
ADR-1	06/26/00	13.95	9.0	29.5	29.5	10.55	3.40	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00					10.85	3.10	180	29	ND<0.5	0.8	ND<1.0	22	NA	NA
	09/19/00					11.08	2.87	120	7.4	ND<0.5	1.2	ND<1.0	22	NA	NA
	12/26/00					10.93	3.02	ND<50	1.29	ND<0.5	ND<0.5	ND<0.5	14.7	NA	NA
	03/20/01					9.32	4.63	225	23.4	ND<0.5	8.71	4.13	10.8	NA	NA
	06/12/01					10.65	3.30	250	23	0.5	13	4.2	7.5	NA	NA
	09/23/01					11.25	2.70	ND<50	1.4	ND<0.5	ND<0.5	0.57	2.8	NA	NA
	12/28/01					8.43	5.52	250	16	ND<0.5	1.2	4.1	6.8	NA	NA
	03/21/02					8.27	5.68	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	04/17/02					9.17	4.78	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	08/14/02					11.88	2.07	ND<50	1.1	ND<0.5	ND<0.5	ND<0.5	ND<2.5	3.4	6.7
	11/27/02					10.91	3.04	ND<50	0.54	ND<0.5	ND<0.5	ND<0.5	1.1	1.8	6.8
	02/12/03[d]					9.95	4.00	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.73	1.9	7.2
	05/22/03					9.86	4.09	ND<50	0.96	ND<0.50	ND<0.50	ND<0.50	3.5	1.2	7.3
	07/23/03					10.59	3.36	ND<50	2.5	ND<0.50	0.56	ND<0.50	4.0	>20	9.4
	11/13/03[f]					11.15	2.80	ND<50	0.60	ND<0.50	ND<0.50	ND<0.50	1.6	8.5	8.2
	02/16/04[f,i]	16.56				9.43	7.13	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.6	5.5	9.6
	05/07/04					**10.41**	**6.15**	**ND<500**	**5.3**	**ND<5.0**	**ND<5.0**	**ND<5.0**	**ND<5.0**	**1.72**	**7.00**
ADR-2	06/26/00	14.64	8.0	28.0	28.0	11.22	3.42	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00					11.60	3.04	12,000	410	2.5	540	720	23	NA	NA
	09/19/00					11.81	2.83	1,400	530	5	680	740	34	NA	NA
	12/26/00					11.52	3.12	901	26.6	ND<5.0	21.4	32.5	32.8	NA	NA
	03/20/01					10.10	4.54	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen
	06/12/01					11.41	3.23	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen	Sheen
	09/23/01					11.98	2.66	5,300	370	ND<5.0	550	96	60	NA	NA
	12/28/01					9.48	5.16	2,600	190	ND<5.0	160	29	61	NA	NA
	03/21/02					9.1	5.54	180	6	ND<0.5	4.5	3.2	15	NA	NA
	04/17/02					9.93	4.71	730	86	ND<0.5	13	ND<0.5	ND<25	NA	NA
	08/14/02					12.09	2.55	1,300[b]	170	ND<10	100	47	ND<50	0.9	7.0
	11/27/02					11.66	2.98	1,800[b]	240	3.1	120	14	74	0.6	6.9
	02/12/03[d]					10.74	3.90	760	120	ND<5.0	15	5.2	22	1.3	7.1
	05/22/03					10.67	3.97	520	110	ND<5.0	7.1	ND<5.0	9.7	0.7	7.6
	07/23/03					11.38	3.26	140	2.8	ND<0.50	5.0	0.98	8.4	>20	9.4
	11/13/03[f]					11.68	2.96	----------Sampled Annually, 3rd Quarter----------							
	02/16/04[f,i]	17.24				10.26	6.98	----------Sampled Annually, 3rd Quarter----------							
	05/06/04					**11.05**	**6.19**	----------Sampled Annually, 3rd Quarter----------							

Table 1
Groundwater Elevation and Analytical Data

Atlantic Richfield Company Service Station #2169
889 West Grand Avenue
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft., MSL)	Top of Screen (ft., bgs)	Bottom of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Groundwater (ft TOC)	Groundwater Elevation (ft)	GRO/TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen[e] (mg/L)	pH[e]
A-1	06/26/00	14.16	8.0	28.0	28.0	10.75	3.41	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00					11.01	3.15	3,900	1,100	28	12	46	25	NA	NA
	09/19/00					11.26	2.90	4,800	2,400	27	20	57	32	NA	NA
	12/26/00					10.96	3.20	429	104	2.85	12.2	9.91	18.7	NA	NA
	03/20/01					9.59	4.57	ND<500	13.9	7.12	13.9	23.2	ND<25	NA	NA
	06/12/01					10.83	3.33	140	2.2	ND<0.5	8.7	9.2	25	NA	NA
	09/23/01					11.43	2.73	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.5	NA	NA
	12/28/01					8.66	5.50	930	250.0	7.6	21	13	ND<25	NA	NA
	03/21/02					8.43	5.73	ND<50	ND<0.5	ND<0.5	ND<0.5	1.2	ND<2.5	NA	NA
	04/17/02					9.36	4.80	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	08/14/02					11.12	3.04	170[b]	8.4	ND<0.5	ND<0.5	1.4	4.9	5.7	7.4
	11/27/02					11.11	3.05	98[b]	2.9	0.75	ND<0.5	ND<0.5	6.4	1.6	7.0
	02/12/03[d]					10.10	4.06	73	9.3	ND<0.50	1.0	0.53	2.9	2.1	7.2
	05/22/03					10 18	3.98	400	88	1.6	4.6	11	4.9	1.3	7.4
	07/23/03					10.85	3.31	140	3.2	ND<0.50	ND<0.50	0.56	10	10.8	7.4
	11/13/03[f]					11.35	2.81	ND<50	0.64	ND<0.50	ND<0.50	ND<0.50	4.2	4.3	7.8
	02/16/04[fi]	16.75				9.65	7.10	99	18	ND<0.50	1.2	0.96	3.2	7.2	7.6
	05/06/04					**10.57**	**6.18**	**ND<50**	**0.73**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.9**	**1.23**	**6.93**
A-2	06/26/00	14.55	8.5	28.5	29.3	11.27	3.28	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00					11.52	3.03	ND<50	ND<0 5	ND<0.5	ND<0.5	ND<1.0	ND<3	NA	NA
	09/19/00					11.63	2.92	NS	NS	NS	NS	NS	NS	NS	NS
	12/26/00					11.44	3.11	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/20/01					10.08	4.47	NS	NS	NS	NS	NS	NS	NS	NS
	06/12/01					11.35	3.2	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	09/23/01					11.92	2.63	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					9.31	5.24	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/21/02					9.05	5.5	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/02					9.88	4.67	52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	26	NA	NA
	08/14/02					11.62	2.93	ND<50	ND<0.5	ND<0.5	ND<0.5	1.2[c]	ND<2.5	3.7	7.2
	11/27/02					11.56	2.99	NS	NS	NS	NS	NS	NS	NS	NS
	02/12/03[d]					10.75	3.80	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	12	2.9	7.1
	05/22/03					10.72	3.83	NS	NS	NS	NS	NS	NS	NS	NS
	07/23/03					11.39	3.16	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.6	1.3	6.8
	11/13/03					11.60	2.95	----------Sampled Annually, 3rd Quarter----------							
	02/16/04[f]	17.18				10.27	6.91	----------Sampled Annually, 3rd Quarter----------							
	05/06/04					**11.05**	**6.13**	----------Sampled Annually, 3rd Quarter----------							

Table 1
Groundwater Elevation and Analytical Data

Atlantic Richfield Company Service Station #2169
889 West Grand Avenue
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft., MSL)	Top of Screen (ft., bgs)	Bottom of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Groundwater (ft TOC)	Groundwater Elevation (ft)	GRO/TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen[e] (mg/L)	pH[e]
A-3	06/26/00	15.75	5.0	NA	21.9	11.98	3.77	NS	NS	NS	NS	NS	NS	NS	NS
	07/20/00					12.21	3.54	NS	NS	NS	NS	NS	NS	NS	NS
	09/19/00					12.50	3.25	NS	NS	NS	NS	NS	NS	NS	NS
	12/26/00					12.17	3.58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/20/01					10.70	5.05	NS	NS	NS	NS	NS	NS	NS	NS
	06/12/01					12.09	3.66	NS	NS	NS	NS	NS	NS	NS	NS
	09/23/01					12.65	3.1	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					9.94	5.81	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/21/02					9.69	6.06	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/02					10.61	5.14	NS	NS	NS	NS	NS	NS	NS	NS
	08/14/02					12.27	3.48	NS	NS	NS	NS	NS	NS	NS	NS
	11/27/02					12.22	3.53	NS	NS	NS	NS	NS	NS	NS	NS
	02/12/03 [d]					11.40	4.35	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.2	6.9
	05/22/03					11.42	4.33	---------- Well Removed from Sampling Program ----------							
	07/23/03					12.00	3.75	---------- Well Removed from Sampling Program ----------							
	11/13/03[g]					NM	NC	---------- Well Removed from Sampling Program ----------							
	02/16/04[i]	18.37				10.94	7.43	---------- Well Removed from Sampling Program ----------							
	05/06/04					**11.75**	**6.62**	---------- Well Removed from Sampling Program ----------							
A-4	06/26/00	15.25	5.0	NA	26.3	10.99	4.26	NS	NS	NS	NS	NS	NS	NS	NS
	07/20/00					11.16	4.09	NS	NS	NS	NS	NS	NS	NS	NS
	09/19/00					11.97	3.28	NS	NS	NS	NS	NS	NS	NS	NS
	12/26/00					11.19	4.06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/20/01					9.81	5.44	NS	NS	NS	NS	NS	NS	NS	NS
	06/12/01					11.12	4.13	NS	NS	NS	NS	NS	NS	NS	NS
	09/23/01					11.63	3.62	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					8.41	6.84	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.5	NA	NA
	03/21/02					8.63	6.62	NS	NS	NS	NS	NS	NS	NS	NS
	04/17/02					9.68	5.57	NS	NS	NS	NS	NS	NS	NS	NS
	08/14/02					11.31	3.94	NS	NS	NS	NS	NS	NS	NS	NS
	11/27/02					11.25	4.00	NS	NS	NS	NS	NS	NS	NS	NS
	02/12/03 [d]					10 37	4.88	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.9	7.1
	05/22/03					10.42	4.83	---------- Well Removed from Sampling Program ----------							
	07/23/03					11.02	4.23	---------- Well Removed from Sampling Program ----------							
	11/13/03[g]					NM	NC	---------- Well Removed from Sampling Program ----------							
	02/16/04[i]	18.01				9.65	8.36	---------- Well Removed from Sampling Program ----------							
	05/06/04					**10.68**	**7.33**	---------- Well Removed from Sampling Program ----------							

Table 1
Groundwater Elevation and Analytical Data

Atlantic Richfield Company Service Station #2169
889 West Grand Avenue
Oakland, California

Well Number	Date Sampled	TOC Elevation (ft., MSL)	Top of Screen (ft., bgs)	Bottom of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Groundwater (ft TOC)	Groundwater Elevation (ft)	GRO/TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Dissolved Oxygen[e] (mg/L)	pH[e]
A-5	06/26/00	13.51	9.0	NA	25.0	10.04	3.47	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00					10.31	3.20	730	140	11	ND<0.5	8.9	3	NA	NA
	09/19/00					10.55	2.96	160	13	ND<0.5	2.8	1.9	ND<3	NA	NA
	12/26/00					10.37	3.14	8,120	465	108	659	1,450	ND<250	NA	NA
	03/20/01					8.81	4.70	7,990	1110	473	611	1,580	ND<250	NA	NA
	06/12/01					10.13	3.38	450	91	18	35	95	ND<5.0	NA	NA
	09/23/01					10.80	2.71	110	20	ND<0.5	5.0	5.0	2.7	NA	NA
	12/28/01					8.17	5.34	320	24	2	20	27	5	NA	NA
	03/21/02					7.78	5.73	2,500	420	85	130	350	31	NA	NA
	04/17/02					8.68	4.83	1,300	190	36	67	210	ND<25	NA	NA
	08/14/02					10.41	3.10	840[b]	150	ND<5.0	68	41	ND<25	1.4	6.8
	11/27/02					10.50	3.01	300[b]	26	2.3	17	6	ND<0.5	1.2	7.2
	02/12/03[d]					10.81	2.70	ND<500	74	7.0	34	45	ND<5.0	1.0	7.3
	05/22/03					9.46	4.05	500	100	9.0	28	47	ND<5.0	1.0	7.6
	07/23/03					10.29	3.22	900	100	5.7	65	57	ND<5.0	4.5	8.4
	11/13/03[f]					11.24	2.27	1,800	210	5.1	190	140	ND<5.0	4.3	7.3
	02/16/04[h,i]	16.09				9.45	6.64	680	52	15	50	77	ND<0.50	5.0	7.8
	05/06/04					**10.28**	**5.81**	**1,500**	**140**	**13**	**72**	**110**	**ND<2.5**	**1.03**	**6.93**
A-6	06/26/00	13.51	10.0	NA	25.0	10.09	3.42	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00					10.91	2.60	170	ND<0.5	ND<0.5	0.6	2.0	6	NA	NA
	09/19/00					11.27	2.24	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	6	NA	NA
	12/26/00					10.65	2.86	56.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.17	NA	NA
	03/20/01					8.72	4.79	216	ND<0.5	ND<0.5	ND<0.5	1.8	19.9	NA	NA
	06/12/01					10.80	2.71	80	0.62	ND<0.5	ND<0.5	ND<0.5	15	NA	NA
	09/23/01					10.79	2.72	450	1.7	1.9	2.3	3.3	53	NA	NA
	12/28/01					8.05	5.46	270	0.98	3.5	0.77	1.4	26	NA	NA
	03/21/02					7.83	5.68	130	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19	NA	NA
	04/17/02					8.73	4.78	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	NA	NA
	08/14/02					10.43	3.08	980[b]	4.8	2.6	2.0	4.9	75	1.5	7.1
	11/27/02					10.47	3.04	280[b]	ND<0.5	0.74	ND<0.5	ND<0.5	16	0.9	6.9
	02/12/03[d]					10.44	3.07	51	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.9	0.8	7.1
	05/22/03					9.43	4.08	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	11	1.2	8.2
	07/23/03					10.27	3.24	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	14	>20	9.6
	11/13/03[f]					11.20	2.31	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.3	6.2	9.0
	02/16/04[h,i]	16.10				9.76	6.34	50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.9	6.5	8.3
	05/06/04					**10.03**	**6.07**	**110**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**7.1**	**1.01**	**7.02**

Table 1
Groundwater Elevation and Analytical Data

Atlantic Richfield Company Service Station #2169
889 West Grand Avenue
Oakland, California

Note: Please note that beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list. Total Petroleum Hydrocarbons as Gasoline (TPH-g) has been changed to Gasoline Range Organics (GRO). The resulting data may be impacted by the potential inclusion of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported. Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

ft	= Feet
GRO	= Gasoline Range Organics
mg/L	= Milligrams per liter
µg/L	= Micrograms per liter
MSL	= Mean Sea Level
MTBE	= Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted
NA	= Not analyzed, not available, not applicable
NC	= Not calculated
ND<	= Not detected at or above specified laboratory reporting limit
NM	= Not measured
NS	= Not sampled
TOC	= Top of Casing
TPH -g	= Total Petroleum Hydrocarbons as gasoline
a	= Well was covered by stockpiled soil and not accessible
b	= Chromatogram Pattern: Gasoline C6-C10
c	= Primary and confirmation results varied by greater than 40% RPD. The values may still be useful for their intended purpose
d	= TPH-g, BTEX, and MTBE analyzed using EPA Method 8260B starting first quarter 2003
e	= Dissolved oxygen and pH values are field measurements
f	= ORC sock in well
g	= Well removed from annual sampling schedule
h	= ORC sock removed prior to gauging
i	= Site re-survey to NAV'88 datum on January 30, 2004
Source:	The data within this table collected prior to August 2002 was provided to URS by Atlantic Richfield Company and their previous consultants. URS has not verified the accuracy of this information.

Table 2
Groundwater Flow Direction and Gradient

Atlantic Richfield Company Service Station #2169
889 West Grand Avenue
Oakland, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
07/20/00	Northwest	0.004
09/19/00	West-Northwest	0.003
12/26/00	Northwest	0.004
03/20/01	Northwest	0.003
06/12/01	Northwest	0.004
09/23/01	Northwest	0.004
12/28/01	Variable	Variable
03/21/02	Northwest	0.004
04/17/02	Northwest	0.003
08/14/02	West	0.003
11/27/02	West	0.003
02/12/03	South	0.005
05/22/03	West to Northwest	0.002 to 0.003
07/23/03	Southwest to Northwest	0.005 to 0.004
11/13/03	Southwest	0.009
02/16/04	Southwest	0.009
05/06/04	**Southwest**	**0.004**

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

Table 3
Fuel Additive Analytical Data

Atlantic Richfield Company Service Station #2169
889 West Grand Avenue
Oakland, 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)
AR-1	02/12/03	ND<40	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	07/23/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
AR-2	02/12/03	ND<40	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
	07/23/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
ADR-1	02/12/03	ND<40	ND<20	0.73	ND<0.50	ND<0.50	ND<0.50	NA	NA
	05/22/03	ND<100	ND<20	3.5	ND<0.50	ND<0.50	ND<0.50	NA	NA
	07/23/03	ND<100	ND<20	4.0	ND<0 50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	11/13/03	ND<100	ND<20	1.6	ND<0 50	ND<0.50	ND<0.50	NA	NA
	02/16/04	ND<100	ND<20	1.6	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	05/07/04	**ND<1,000**	**ND<200**	**ND<5.0**	**ND<5.0**	**ND<5.0**	**ND<5.0**	**ND<5.0**	**ND<5.0**
ADR-2	02/12/03	ND<400	ND<200	22	ND<5.0	ND<5.0	ND<5.0	NA	NA
	05/22/03	ND<1,000	ND<200	9.7	ND<5.0	ND<5.0	ND<5.0	NA	NA
	07/23/03	ND<100	ND<20	8.4	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-1	02/12/03	ND<40	ND<20	2 9	ND<0.50	ND<0.50	ND<0.50	NA	NA
	05/22/03	ND<100	ND<20	4.9	ND<0.50	ND<0.50	ND<0.50	NA	NA
	07/23/03	ND<100	ND<20	10	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	11/13/03	ND<100	ND<20	4.2	ND<0.50	ND<0.50	ND<0.50	NA	NA
	02/16/04	ND<100	ND<20	3.2	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	05/06/04	**ND<100**	**ND<20**	**1.9**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
A-2	02/12/03	ND<40	ND<20	12	ND<0.50	ND<0.50	ND<0.50	NA	NA
	07/23/03	ND<100	ND<20	2.6	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
A-3	02/12/03	ND<40	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
A-4	02/12/03	ND<40	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	NA
A-5	02/12/03	ND<400	ND<200	ND<5.0	ND<5.0	ND<5.0	ND<5.0	NA	NA
	05/22/03	ND<1,000	ND<200	ND<5.0	ND<5.0	ND<5.0	ND<5.0	NA	NA
	07/23/03	ND<1,000	ND<200	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/13/03	ND<1,000	ND<200	ND<5.0	ND<5.0	ND<5.0	ND<5.0	NA	NA
	02/16/04	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	05/06/04	**ND<500**	**ND<100**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**ND<2.5**
A-6	02/12/03	ND<40	ND<20	9.9	ND<0.50	ND<0.50	ND<0.50	NA	NA
	05/22/03	ND<100	ND<20	11	ND<0.50	ND<0.50	0.60	NA	NA
	07/23/03	ND<100	ND<20	14	ND<0.50	ND<0.50	0.54	ND<0 50	ND<0.50
	11/13/03	ND<100	ND<20	2.3	ND<0.50	ND<0.50	ND<0.50	NA	NA
	02/03/04	ND<100	ND<20	3.9	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	05/06/04	**ND<100**	**ND<20**	**7.1**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**

Note = All fuel oxygenate compounds analyzed using EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane
DIPE = Di-isopropyl ether
EDB = 1,2-Dibromoethane
ETBE = Ethyl tert butyl ether
MTBE = Methyl tert-butyl ether
NA = Not analyzed
ND< = Not detected at or above the laboratory reporting limit
TAME = tert-Amyl methyl ether
TBA = tert-Butyl alcohol
µg/L = micrograms per liter

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 # 040506-MT3 Date 5-6-04 Client 2169

Site 889 W. GRAND AVE., OAKLAND, CA

	Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or ~~TOC~~	
*	A-1	3					10.57	23.71		
	A-2	3					11.05	24.60		
	A-3	3					11.75	28.30		
	A-4	3					10.68	27.57		
**	A-5	2					10.28	24.10		
**	A-6	2					10.03	26.95		
	AR-1	6					11.60	27.61		
*	AR-2	4					11.55	28.60		
*	ADR-1	—					—	—		
	ADR-2	4					11.05	26.30	TOB	
5/7	ADR-1	4					10.41	21.90		
			* = Ganged w/ ORC's in well							
			** = Removed ORC's Prior to Gauging							

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040506-MT3	Station # 2169
Sampler: M.T.	Date: 5/6/04
Well I.D.: A-1	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 23.71	Depth to Water: 10.57
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: ___

E.S. won't fit.

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.

4.9 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 14.7 Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1440	70.3	6.92	1420	4.9	
1445	70.4	6.90	1199	9.8	
1450	70.7	6.93	1156	14.7	

Did well dewater? Yes (No) Gallons actually evacuated: 14.7

Sampling Time: 1455 Sampling Date: 5/6/04

Sample I.D.: A-1 Laboratory: Pace (Sequoia) Other ___

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: Ethanol

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.23 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040506-MT3	Station # 2169
Sampler: M.T.	Date: 5/16/04
Well I.D.: A-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 24.10	Depth to Water: 10.28
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.

2.2 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 6.6 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1424	70.3	7.00	1170	2.2	
1427	69.9	6.95	1159	4.4	
1430	70.1	6.93	1140	6.6	

Did well dewater? Yes (No) Gallons actually evacuated: 6.6

Sampling Time: 1435 Sampling Date: 5/16/04

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

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: Ethanol

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.03 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040506-MT3	Station # 2169
Sampler: M.T.	Date: 5/6/04
Well I.D.: A-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 26.95	Depth to Water: 10.03
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.

2.7 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 8.1 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1412	64.7	7.61	1276	2.7	
1415	69.3	6.99	1302	5.4	
1417	70.1	7.02	1304	8.1	

Did well dewater? Yes (No) Gallons actually evacuated: 8.1

Sampling Time: 1420 Sampling Date: 5/6/04

Sample I.D.: A-6 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: Ethanol

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.01 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040500-MT3	Station # 2169
Sampler: M.TOLL	Date: 5-7-04
Well I.D.: ADR-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 21.90	Depth to Water: 10.41
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

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

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

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: _____

Top of Screen: 5'

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

_____ (1 Case Volume (Gals.)) X N/Purge (Specified Volumes) = _____ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
0835	64.3	7.00	1200	—	

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

Sampling Time: 0835 Sampling Date: 5/7/04

Sample I.D.: ADR-1 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: Ethanol

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.72 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040506-MT3	Station # 2169
Sampler: M.T.	Date: 5/6/04
Well I.D.: ADR-1	Well Diameter: 2 3 4 6 8 ___
Total Well Depth: —	Depth to Water: —
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	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.

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
	INACCESSIBLE:		ONE of four Allen Bolts stripped out		
			Unable to remove to Release Vault Lid.		

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: Sampling Date:

Sample I.D.: Laboratory: Pace Sequoia Other_____

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

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

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:

2169

Station #

889 W. GRAND AVE., Oakland

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

30

added equip. rinse water 2

any other adjustments

TOTAL GALS. RECOVERED 32

loaded onto BTS vehicle # 55

BTS event # D405D6-MT3

time 1515

date 5/6/04

signature

* *

REC'D AT BTS

time

date 5/6/04

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
(408) 776-9600
FAX (408) 782-6308
www sequoialabs com

28 May, 2004

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

RE: ARCO #2169, Oakland, CA
Work Order: MNE0255

Enclosed are the results of analyses for samples received by the laboratory on 05/10/04 15:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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

URS Corporation [Arco]	Project: ARCO #2169, Oakland, CA	MNE0255
1333 Broadway, Suite 800	Project Number: INTRIM-50325	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/28/04 15:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-1	MNE0255-01	Water	05/06/04 14:55	05/10/04 15:53
A-5	MNE0255-02	Water	05/06/04 14:35	05/10/04 15:53
A-6	MNE0255-03	Water	05/06/04 14:20	05/10/04 15:53
ADR-1	MNE0255-04	Water	05/07/04 08:35	05/10/04 15:53
TB-2169-562004	MNE0255-05	Water	05/07/04 00:00	05/10/04 15:53

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

These samples were received with no custody seals.

Sequoia Analytical

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

URS Corporation [Arco]	Project: ARCO #2169, Oakland, CA	MNE0255
1333 Broadway, Suite 800	Project Number: INTRIM-50325	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/28/04 15:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-1 (MNE0255-01) Water Sampled: 05/06/04 14:55 Received: 05/10/04 15:53									
Ethanol	ND	100	ug/l	1	4E19032	05/19/04	05/20/04	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**1.9**	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	**0.73**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*78-129*		"	"	"	"	
A-5 (MNE0255-02) Water Sampled: 05/06/04 14:35 Received: 05/10/04 15:53									
Ethanol	ND	500	ug/l	5	4E19032	05/19/04	05/20/04	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.5	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	
Benzene	**140**	2.5	"	"	"	"	"	"	
Toluene	**13**	2.5	"	"	"	"	"	"	
Ethylbenzene	**72**	2.5	"	"	"	"	"	"	
Xylenes (total)	**110**	2.5	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**1500**	250	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*78-129*		"	"	"	"	

Sequoia Analytical

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

URS Corporation [Arco]	Project: ARCO #2169, Oakland, CA	MNE0255
1333 Broadway, Suite 800	Project Number: INTRIM-50325	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/28/04 15:19

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-6 (MNE0255-03) Water Sampled: 05/06/04 14:20 Received: 05/10/04 15:53									
Ethanol	ND	100	ug/l	1	4E19032	05/19/04	05/20/04	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**7.1**	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 (C4-C12)	**110**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*		*78-129*		"	"	"	
ADR-1 (MNE0255-04) Water Sampled: 05/07/04 08:35 Received: 05/10/04 15:53									
Ethanol	ND	1000	ug/l	10	4E19032	05/19/04	05/20/04	EPA 8260B	
tert-Butyl alcohol	ND	200	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Benzene	**5.3**	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	ND	5.0	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	500	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*		*78-129*		"	"	"	

Sequoia Analytical

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

URS Corporation [Arco]	Project: ARCO #2169, Oakland, CA	MNE0255
1333 Broadway, Suite 800	Project Number: INTRIM-50325	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/28/04 15:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4E19032 - EPA 5030B P/T										
Blank (4E19032-BLK1)				Prepared: 05/19/04 Analyzed: 05/20/04						
Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.50*		"	*5.00*		*110*	*78-129*			
Laboratory Control Sample (4E19032-BS1)				Prepared & Analyzed: 05/19/04						
Ethanol	251	100	ug/l	200		126	31-186			
tert-Butyl alcohol	44.2	20	"	50.0		88.4	0-206			
Methyl tert-butyl ether	9.16	0.50	"	10.0		91.6	63-137			
Di-isopropyl ether	8.78	0.50	"	10.0		87.8	76-130			
Ethyl tert-butyl ether	10.1	0.50	"	10.0		101	61-141			
tert-Amyl methyl ether	9.26	0.50	"	10.0		92.6	56-140			
1,2-Dichloroethane	10.4	0.50	"	10.0		104	77-136			
1,2-Dibromoethane (EDB)	9.54	0.50	"	10.0		95.4	77-132			
Benzene	9.08	0.50	"	10.0		90.8	78-124			
Toluene	9.22	0.50	"	10.0		92.2	78-129			
Ethylbenzene	9.72	0.50	"	10.0		97.2	84-117			
Xylenes (total)	28.8	0.50	"	30.0		96.0	83-125			
Surrogate: 1,2-Dichloroethane-d4	*5.09*		"	*5.00*		*102*	*78-129*			

Sequoia Analytical

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

URS Corporation [Arco]	Project: ARCO #2169, Oakland, CA	MNE0255
1333 Broadway, Suite 800	Project Number: INTRIM-50325	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/28/04 15:19

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4E19032 - EPA 5030B P/T										
Laboratory Control Sample (4E19032-BS2)				Prepared: 05/19/04 Analyzed: 05/20/04						
Methyl tert-butyl ether	8.22	0.50	ug/l	9.92		82.9	63-137			
Benzene	5.31	0.50	"	6.40		83.0	78-124			
Toluene	32.5	0.50	"	29.7		109	78-129			
Ethylbenzene	7.77	0.50	"	6.96		112	84-117			
Xylenes (total)	39.5	0.50	"	33.7		117	83-125			
Gasoline Range Organics (C4-C12)	418	50	"	440		95.0	70-124			
Surrogate: 1,2-Dichloroethane-d4	*4.98*		"	*5.00*		*99.6*	*78-129*			
Laboratory Control Sample Dup (4E19032-BSD1)				Prepared & Analyzed: 05/19/04						
Ethanol	278	100	ug/l	200		139	31-186	10.2	37	
tert-Butyl alcohol	45.2	20	"	50.0		90.4	0-206	2.24	22	
Methyl tert-butyl ether	9.47	0.50	"	10.0		94.7	63-137	3.33	13	
Di-isopropyl ether	9.04	0.50	"	10.0		90.4	76-130	2.92	9	
Ethyl tert-butyl ether	10.2	0.50	"	10.0		102	61-141	0.985	9	
tert-Amyl methyl ether	9.67	0.50	"	10.0		96.7	56-140	4.33	12	
1,2-Dichloroethane	10.9	0.50	"	10.0		109	77-136	4.69	13	
1,2-Dibromoethane (EDB)	*9.99*	*0.50*	"	*10.0*		99.9	77-132	4.61	9	
Benzene	9.94	0.50	"	10.0		99.4	78-124	9.04	12	
Toluene	9.42	0.50	"	10.0		94.2	78-129	2.15	10	
Ethylbenzene	10.2	0.50	"	10.0		102	84-117	4.82	10	
Xylenes (total)	29.9	0.50	"	30.0		*99.7*	*83-125*	3.75	*11*	
Surrogate: 1,2-Dichloroethane-d4	*5.18*		"	*5.00*		*104*	*78-129*			
Laboratory Control Sample Dup (4E19032-BSD2)				Prepared: 05/19/04 Analyzed: 05/20/04						
Methyl tert-butyl ether	*8.12*	*0.50*	*ug/l*	9.92		81.9	63-137	1.22	13	
Benzene	5.07	0.50	"	6.40		79.2	78-124	4.62	12	
Toluene	30.9	0.50	"	29.7		104	78-129	5.05	10	
Ethylbenzene	7.52	0.50	"	6 96		108	84-117	3.27	10	
Xylenes (total)	38.9	0.50	"	33.7		*115*	*83-125*	*1.53*	*11*	
Gasoline Range Organics (C4-C12)	411	50	"	440		93.4	70-124	1.69	20	
Surrogate: 1,2-Dichloroethane-d4	*5.35*		"	*5.00*		*107*	*78-129*			

Sequoia Analytical

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

URS Corporation [Arco]	Project: ARCO #2169, Oakland, CA	MNE0255
1333 Broadway, Suite 800	Project Number: INTRIM-50325	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/28/04 15:19

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

Project Name GWM
BP BU/GEM CO Portfolio Retail # 2169 MPE 6255
BP Laboratory Contract Number: Atlantic Richfield Company
Date: 5/6/04 Requested Due Date (mm/dd/yy) 14 day TAT

On-site Time:	1255	Temp:	70°
Off-site Time:	1515	Temp:	72°
Sky Conditions:	Clear		
Meteorological Events:	NONE		
Wind Speed:	0	Direction:	0

Send To:	BP/GEM Facility No.: ARCO 2169	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 889 W. GRAND AVE, OAKLAND, CA	Address: 1333 Broadway, Suite 800
Lab Address: 885 Jarvis Dr.	Site ID No. ARCO 2169	Oakland, CA 94612
Morgan Hill, CA 95037	Site Lat/Long:	e-mail EDD: donna_cosper@URSCorp.com
	California Global ID #: T0600100112	Consultant/Contractor Project No.: 35-00002169.01 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 -50325

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: GRO / BTEX (8260)	Requested Analysis: DRO w/SGC (8015)	Requested Analysis: MTBE (8021)	Requested Analysis: MTBE (8260)	Requested Analysis: MTBE, TAME, ETBE, DIPE, TBA (8260)	Requested Analysis: 1,2-DCA & EDB (8260)	Requested Analysis: Ethanol (8260)	Sample Point Lat/Long and Comments
1	A-1	1455		X			01	3				X	X				X	X	X	
2	A-5	1435		X			02	3				X	X				X	X	X	
3	A-6	1420		X			03	3				X	X				X	X	X	
4	ADL-1	0935		X			04	3				X	X				X	X	X	5/7/04
5	TB-LBG-5620A	—		X			05	2				X	X				X	X	X	ON HOLD
6																				
7																				
8																				
9																				
10																				

Sampler's Name: Michael Dill	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date / Time
Sampler's Company: Blaine Tech Services	Dill / BTS	5/6/04	9:17A	MAURICE SEALS/SEQUOIA	5/10/04 9:17A
Shipment Date:	MAURICE SEALS	5/10/04	3:53		5/10/04 1553
Shipment Method:					
Shipment Tracking No:					

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

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

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

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS
REC. BY (PRINT): EB
WORKORDER: MNE 6255

DATE REC'D AT LAB: 5-10-04
TIME REC'D AT LAB: 15:53
DATE LOGGED IN: 5-11-04

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*			A-1	3 VOA	HCl	L	5-6-04	
2. Chain-of-Custody	Present / Absent*			5					
3. Traffic Reports or Packing List:	Present / Absent			4					
4. Airbill:	Airbill / Sticker Present / Absent			ADR-1				5-7-04	
5. Airbill #:				TB 021491620 04					
6. Sample Labels:	Present / Absent								
7. Sample IDs:	Listed / Not Listed on Chain-of-Custody								
8. Sample Condition:	Intact / Broken* / Leaking*								
9. Does information on chain-of-custody, traffic reports and sample labels agree?	Yes / No*								
10. Sample received within hold time:	Yes / No*								
11. Adequate sample volume received?	Yes / No*								
12. Proper Preservatives used:	Yes / No*								
13. Temp Rec. at Lab: 5°C Is temp 4 +/-2°C?	Yes / No**								

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

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

SRL rv 4.xls
Revision 4 (11/10/03)
Faces Revision 3 (03/18/03)
Ve 11/18/03

ATTACHMENT C

HISTORICAL GROUNDWATER DATA

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
A-1	03-24-95	14.16	8.10	ND	6.06	03-24-95	1,200	230	39	34	66	--	--	160		
A-1	06-05-95	14.16	11.13	ND	3.03	06-05-95	1,500	310	27	36	76	--	--	710		
A-1	08-17-95	14.16	11.71	ND	2.45	08-18-95	1,600	470	35	48	110	120	--	240		
A-1	12-04-95	14.16	12.28	ND	1.88	12-04-95	1,200	240	17	25	56	--	120	--		
A-1	03-01-96	14.16	8.78	ND	5.38	03-13-96	1,300	300	74	29	73	100	--	--		
A-1	05-29-96	14.16	9.85	ND	4.31	05-29-96	Not sampled: well sampled semi-annually, during the first and third quarters									
A-1	08-29-96	14.16	11.08	ND	3.08	08-29-96	1,200	320	5.9	25	27	110	--	--		
A-1	11-21-96	14.16	10.54	ND	3.62	11-21-96	Not sampled: well sampled semi-annually, during the first and third quarters									
A-1	03-26-97	14.16	10.55	ND	3.61	03-26-97	<50	0.8	<0.5	<0.5	<0.5	64	--	--		
A-1	05-21-97	14.16	11.10	ND	3.06	05-21-97	Not sampled: well sampled semi-annually, during the first and third quarters									
A-1	08-08-97	14.16	11.32	ND	2.84	08-08-97	91	7	<0.5	0.5	3.9	<60	--	--		
A-1	11-18-97	14.16	3.46	ND	10.70	11-18-97	54	<0.5	<0.5	<0.5	0.6	27	--	--		
A-1	02-20-98	14.16	7.10	ND	7.06	02-23-98	590	160	22	15	28	70	--	--		
A-1	05-11-98	14.16	9.87	ND	4.29	05-11-98	280	26	<0.5	0.8	2.3	6	--	--		
A-1	07-30-98	14.16	10.73	ND	3.43	07-30-98	1,000	210	5	<5	38	<30	--	--		
A-1	10-08-98	14.16	11.15	ND	3.01	10-08-98	3,100	740	11	<10	24	<60	--	--		
A-1	02-18-99	14.16	8.00	ND	6.16	02-18-99	510	87	7.1	6.4	13	52	--	--		
A-1	05-26-99	14.16	10.60	ND	3.56	05-26-99	240	26	<0.5	1.2	6.2	34	--	--		
A-1	08-23-99	14.16	11.22	ND	2.94	08-23-99	79	3.9	0.6	<0.5	1.7	38	--	--		
A-1	10-27-99	14.16	11.37	ND	2.79	10-27-99	110	2.2	<0.5	<0.5	<1	25	--	--	0.68	NP
A-1	01-31-00	14.16	9.44	ND	4.72	01-31-00	<50	<0.5	<0.5	<0.5	<1	<3	--	--	0.80	NP
															1.0	NP

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
A-2	03-24-95	14.55	8.64	ND	5.91	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-2	06-05-95	14.55	11.72	ND	2.83	06-05-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-2	08-17-95	14.55	12.35	ND	2.20	08-17-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-2	12-04-95	14.55	12.74	ND	1.81	12-04-95	<50	<0.5	<0.5	<0.5	<0.5	12	--	--		
A-2	03-01-96	14.55	9.34	ND	5.21	03-13-96	<50	<0.5	0.6	<0.5	1.3	<9	--	--		
A-2	05-29-96	14.55	10.40	ND	4.15	05-29-96	<50	<0.5	<0.5	<0.5	<0.5	<20	--	--		
A-2	08-29-96	14.55	11.50	ND	3.05	08-29-96	<50	<0.5	<0.5	<0.5	<0.5	<39	--	--		
A-2	11-21-96	14.55	11.06	ND	3.49	11-21-96	<50	<0.5	<0.5	<0.5	<0.5	<30	--	--		
A-2	03-26-97	14.55	11.12	ND	3.43	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	<20	--	--		
A-2	05-21-97	14.55	11.58	ND	2.97	05-21-97	Not sampled: well sampled semi-annually, during the first and third quarters									
A-2	08-08-97	14.55	11.82	ND	2.73	08-08-97	<50	<0.5	<0.5	<0.5	<0.5	<20	--	--		
A-2	11-18-97	14.55	3.33	ND	11.22	11-18-97	Not sampled: well sampled semi-annually, during the first and third quarters									
A-2	02-20-98	14.55	7.68	ND	6.87	02-20-98	<50	<0.5	<0.5	<0.5	<0.5	17	--	--		
A-2	05-11-98	14.55	10.45	ND	4.10	05-11-98	Not sampled									
A-2	07-30-98	14.55	11.23	ND	3.32	07-30-98	Not sampled: well sampled semi-annually, during the first and second quarters									
A-2	10-08-98	14.55	11.62	ND	2.93	10-08-98	Not sampled: well sampled semi-annually, during the first and second quarters									
A-2	02-18-99	14.55	8.62	ND	5.93	02-18-99	93	<0.5	<0.5	<0.5	<1	26	--	--		
A-2	05-26-99	14.55	11.16	ND	3.39	05-26-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-2	08-23-99	14.55	11.69	ND	2.86	08-23-99	Not sampled: well sampled semi-annually, during the first and second quarters									
A-2	10-27-99	14.55	11.88	ND	2.67	10-27-99	Not sampled: well sampled semi-annually, during the first and second quarters									
A-2	01-31-00	14.55	10.17	ND	4.38	01-31-00	<50	<0.5	<0.5	<0.5	<1	<3	--	--	0.59	
															0.59	
															1.0	NP

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
A-3	03-24-95	15.75	8.83	ND	6.92	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-3	06-05-95	15.75	12.44	ND	3.31	06-05-95	Not sampled: well sampled annually									
A-3	08-17-95	15.75	13.04	ND	2.71	08-17-95	Not sampled: well sampled annually									
A-3	12-04-95	15.75	13.57	ND	2.18	12-04-95	Not sampled: well sampled annually									
A-3	03-01-96	15.75	9.90	ND	5.85	03-13-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-3	05-29-96	15.75	11.08	ND	4.67	05-29-96	Not sampled: well sampled annually									
A-3	08-29-96	15.75	12.38	ND	3.37	08-29-96	Not sampled: well sampled annually									
A-3	11-21-96	15.75	11.86	ND	3.89	11-21-96	Not sampled: well sampled annually									
A-3	03-26-97	15.75	11.81	ND	3.94	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-3	05-21-97	15.75	12.35	ND	3.40	05-21-97	Not sampled: well sampled annually									
A-3	08-08-97	15.75	12.62	ND	3.13	08-08-97	Not sampled: well sampled annually									
A-3	11-18-97	15.75	3.75	ND	12.00	11-18-97	Not sampled: well sampled annually									
A-3	02-20-98	15.75	8.06	ND	7.69	02-20-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-3	05-11-98	15.75	11.19	ND	4.56	05-11-98	Not sampled: well sampled annually									
A-3	07-30-98	15.75	12.05	ND	3.70	07-30-98	Not sampled: well sampled annually									
A-3	10-08-98	15.75	12.43	ND	3.32	10-08-98	Not sampled: well sampled annually									
A-3	02-18-99	15.75	9.05	ND	6.70	02-18-99	Not sampled: well sampled annually									
A-3	05-26-99	15.75	11.93	ND	3.82	05-26-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-3	08-23-99	15.75	12.57	ND	3.18	08-23-99	Not sampled: well sampled annually									
A-3	10-27-99	15.75	12.65	ND	3.10	10-27-99	Not sampled: well sampled annually									
A-3	01-31-00	15.75	9.55	ND	6.20	01-31-00	<50	<0.5	<0.5	<0.5	<1	9	--	--	0.88	
															1.0	NP

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
A-4	03-24-95	15.25	7.20	ND	8.05	03-24-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-4	06-05-95	15.25	11.70	ND	3.55	06-05-95	Not sampled: well sampled annually									
A-4	08-17-95	15.25	12.28	ND	2.97	08-17-95	Not sampled: well sampled annually									
A-4	12-04-95	15.25	12.63	ND	2.62	12-04-95	Not sampled: well sampled annually									
A-4	03-01-96	15.25	8.55	ND	6.70	03-13-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-4	05-29-96	15.25	10.32	ND	4.93	05-29-96	Not sampled: well sampled annually									
A-4	08-29-96	15.25	11.55	ND	3.70	08-29-96	Not sampled: well sampled annually									
A-4	11-21-96	15.25	10.83	ND	4.42	11-21-96	Not sampled: well sampled annually									
A-4	03-26-97	15.25	10.97	ND	4.28	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-4	05-21-97	15.25	11.51	ND	3.74	05-21-97	Not sampled: well sampled annually									
A-4	08-08-97	15.25	11.73	ND	3.52	08-08-97	Not sampled: well sampled annually									
A-4	11-18-97	15.25	4.37	ND	10.88	11-18-97	Not sampled: well sampled annually									
A-4	02-20-98	15.25	6.25	ND	9.00	02-20-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-4	05-11-98	15.25	10.33	ND	4.92	05-11-98	Not sampled: well sampled annually									
A-4	07-30-98	15.25	11.25	ND	4.00	07-30-98	Not sampled: well sampled annually									
A-4	10-08-98	15.25	11.62	ND	3.63	10-08-98	Not sampled: well sampled annually									
A-4	02-18-99	15.25	7.12	ND	8.13	02-18-99	Not sampled: well sampled annually									
A-4	05-26-99	15.25	11.12	ND	4.13	05-26-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
A-4	08-23-99	15.25	11.62	ND	3.63	08-23-99	Not sampled: well sampled annually									
A-4	10-27-99	15.25	11.74	ND	3.51	10-27-99	Not sampled: well sampled annually									
A-4	01-31-00	15.25	9.45	ND	5.80	01-31-00	<50	<0.5	<0.5	<0.5	<1	4	--	--	0.54	
															1.0	NP

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
A-5	03-24-95	13.51	7.40	ND	6.11	03-24-95	3,300	200	310	130	460	--	--	--		
A-5	06-05-95	13.51	10.43	ND	3.08	06-05-95	57,000	2,700	4,600	1,500	6,800	--	--	--		
A-5	08-17-95	13.51	11.15	ND	2.36	08-18-95	34,000	1,600	2,700	1,100	5,100	<28	--	--		
A-5	12-04-95	13.51	11.42	ND	2.09	12-04-95	61	<0.5	<0.5	<0.5	<0.5	--	--	--		
A-5	03-01-96	13.51	8.11	ND	5.40	03-13-96	11,000	860	960	380	1,600	<100	--	--		
A-5	05-29-96	13.51	9.30	ND	4.21	05-29-96	19,000	1,600	1,900	880	3,300	<100	--	--		
A-5	08-29-96	13.51	10.60	ND	2.91	08-29-96	7,700	490	450	260	990	<30	--	--		
A-5	11-21-96	13.51	10.05	ND	3.46	11-21-96	8,000	450	550	340	1,100	<30	--	--		
A-5	03-26-97	13.51	9.87	ND	3.64	03-26-97	3,100	190	140	130	340	<30	--	--		
A-5	05-21-97	13.51	10.25	ND	3.26	05-21-97	16,000	1,500	900	700	2,700	<120	--	--		
A-5	08-08-97	13.51	10.42	ND	3.09	08-08-97	9,000	690	240	440	1,300	<30	--	--		
A-5	11-18-97	13.51	Not surveyed: well inaccessible													
A-5	02-20-98	13.51	Not surveyed: well inaccessible													
A-5	05-11-98	13.51	Not surveyed: well inaccessible													
A-5	07-30-98	13.51	Not surveyed: well inaccessible													
A-5	10-08-98	13.51	Not surveyed: well inaccessible													
A-5	02-18-99	13.51	7.63	ND	5.88	02-18-99	<50	0.8	<0.5	<0.5	1.5	<10	--	--		
A-5	05-26-99	13.51	9.85	ND	3.66	05-26-99	1,700	240	41	110	330	<12	--	--		
A-5	08-23-99	13.51	10.60	ND	2.91	08-23-99	560	65	3	30	52	<6	--	--	0.73	NP
A-5	10-27-99	13.51	10.72	ND	2.79	10-27-99	480	93	1.0	16	19	<3	--	--	0.65	NP
A-5	01-31-00	13.51	9.37	ND	4.14	01-31-00	Not sampled: well was inaccessible									

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
A-6	03-24-95	13.51	7.89	ND	5.62	03-24-95	120	<0.5	<1	<0.5	<1.5	--	--	--		
A-6	06-05-95	13.51	10.06	ND	3.45	06-05-95	160	<0.5	<0.6	<0.5	<0.5	--	--	--		
A-6	08-17-95	13.51	11.10	ND	2.41	08-18-95	530	<0.5	<0.5	<2.4	<4.2	6	--	--		
A-6	12-04-95	13.51	11.52	ND	1.99	12-04-95	28,000	1,600	1,800	880	3,600	--	--	--		
A-6	03-01-96	13.51	8.21	ND	5.30	03-13-96	1,400	<3	<15	<7	<10	<20	--	--		
A-6	05-29-96	13.51	9.25	ND	4.26	05-29-96	410	<2	<2	<2	<2	3	--	--		
A-6	08-29-96	13.51	10.52	ND	2.99	08-29-96	80	<0.5	<0.5	<0.5	<0.5	6	--	--		
A-6	11-21-96	13.51	10.54	ND	2.97	11-21-96	62	<0.5	<0.5	<0.5	<0.5	12	--	--		
A-6	03-26-97	13.51	9.93	ND	3.58	03-26-97	110	<0.5	0.8	1	1.4	15	--	--		
A-6	05-21-97	13.51	10.54	ND	2.97	05-21-97	600	0.6	0.6	<2	2.7	<3	--	--		
A-6	08-08-97	13.51	10.77	ND	2.74	08-08-97	850	<0.5	<0.5	6.1	<0.5	<4	--	--		
A-6	11-18-97	13.51	3.41	ND	10.10	11-18-97	690	<1	<1	3	2	7	--	--		
A-6	02-20-98	13.51	6.73	ND	6.78	02-20-98	60	<0.5	0.6	1.3	0.5	4	--	--		
A-6	05-11-98	13.51	9.26	ND	4.25	05-11-98	140	<0.5	0.7	0.6	<0.5	6	--	--		
A-6	07-30-98	13.51	10.12	ND	3.39	07-30-98	910	<2	<2	3	7	34	--	--		
A-6	10-08-98	13.51	10.53	ND	2.98	10-08-98	1,300	<2	4	3	4	21	--	--		
A-6	02-18-99	13.51	7.50	ND	6.01	02-18-99	150	<0.5	<0.5	1.4	1.7	35	--	--		
A-6	05-26-99	13.51	10.00	ND	3.51	05-26-99	100	<0.5	<0.5	<0.5	<0.5	17	--	--		
A-6	08-23-99	13.51	10.70	ND	2.81	08-23-99	98	0.6	<0.5	1.1	4.3	13	--	--	2.42	NP
A-6	10-27-99	13.51	11.00	ND	2.51	10-27-99	<50	<0.5	<0.5	<0.5	<1	7	--	--	13.23	NP
A-6	01-31-00	13.51	9.31	ND	4.20	01-31-00	<50	<0.5	<0.5	<0.5	<1	9	--	--	1.0	NP

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
AR-1	03-24-95	15.61	7.25	ND	8.36	03-24-95	270	14	0.6	2.5	2.1	--	--	130		
AR-1	06-05-95	15.61	11.37	ND	4.24	06-05-95	190	10	<0.5	0.8	0.5	--	--	580		
AR-1	08-17-95	15.61	12.40	ND	3.21	08-17-95	960	110	12	4.5	150	14	--	<50		
AR-1	12-04-95	15.61	12.90	ND	2.71	12-04-95	<50	1.5	<0.5	<0.5	0.8	--	--	--		
AR-1	03-01-96	15.61	8.19	ND	7.42	03-13-96	150	3.8	0.5	1.4	1.3	<3	--	--		
AR-1	05-29-96	15.61	10.41	ND	5.20	05-29-96	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-1	08-29-96	15.61	12.12	ND	3.49	08-29-96	<50	<0.5	<0.5	<0.5	0.8	<3	--	--		
AR-1	11-21-96	15.61	11.52	ND	4.09	11-21-96	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-1	03-26-97	15.61	11.33	ND	4.28	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
AR-1	05-21-97	15.61	12.02	ND	3.59	05-21-97	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-1	08-08-97	15.61	12.31	ND	3.30	08-08-97	<50	0.7	<0.5	1	<0.5	<3	--	--		
AR-1	11-18-97	15.61	3.97	ND	11.64	11-18-97	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-1	02-20-98	15.61	6.42	ND	9.19	02-23-98	<200	<2	<2	<2	<2	160	--	--		
AR-1	05-11-98	15.61	10.93	ND	4.68	05-11-98	<50	<0.5	<0.5	<0.5	<0.5	4	--	--		
AR-1	07-30-98	15.61	11.82	ND	3.79	07-30-98	<50	<0.5	<0.5	<0.5	<0.5	6	--	--		
AR-1	10-08-98	15.61	12.24	ND	3.37	10-08-98	<50	<0.5	<0.5	<0.5	<0.5	6	--	--		
AR-1	02-18-99	15.61	7.75	ND	7.86	02-18-99	<50	<0.5	<0.5	<0.5	<1.0	<10	--	--		
AR-1	05-26-99	15.61	11.62	ND	3.99	05-26-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
AR-1	08-23-99	15.61	9.32	ND	6.29	08-23-99	Not sampled: well sampled semi-annually, during the first and second quarters									
AR-1	10-27-99	15.61	12.14	ND	3.47	10-27-99	Not sampled: well sampled semi-annually, during the first and second quarters									
AR-1	01-31-00	15.61	Not surveyed; well inaccessible													

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
AR-2	03-24-95	15.28	9.13	ND	6.15	03-24-95	<50	6.2	<0.5	<0.5	0.6	--	--	<50		
AR-2	06-05-95	15.28	12.09	ND	3.19	06-05-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	<50		
AR-2	08-17-95	15.28	12.78	ND	2.50	08-18-95	<50	<0.5	<0.5	<0.5	<0.5	4	--	<50		
AR-2	12-04-95	15.28	11.44	ND	3.84	12-13-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--		
AR-2	03-01-96	15.28	9.83	ND	5.45	03-13-96	190	26	2.6	3.3	13	200	--	--		
AR-2	05-29-96	15.28	10.97	ND	4.31	05-29-96	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-2	08-29-96	15.28	12.20	ND	3.08	08-29-96	<50	<0.5	<0.5	<0.5	<0.5	95	--	--		
AR-2	11-21-96	15.28	11.57	ND	3.71	11-21-96	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-2	03-26-97	15.28	11.60	ND	3.68	03-26-97	<50	<0.5	<0.5	<0.5	<0.5	9	--	--		
AR-2	05-21-97	15.28	12.12	ND	3.16	05-21-97	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-2	08-08-97	15.28	12.35	ND	2.93	08-08-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
AR-2	11-18-97	15.28	3.48	ND	11.80	11-18-97	Not sampled: well sampled semi-annually, during the first and third quarters									
AR-2	02-20-98	15.28	8.00	ND	7.28	02-20-98	<50	<0.5	<0.5	<0.5	<0.5	43	--	--		
AR-2	05-11-98	15.28	10.97	ND	4.31	05-11-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
AR-2	07-30-98	15.28	11.76	ND	3.52	07-30-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
AR-2	10-08-98	15.28	12.17	ND	3.11	10-08-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
AR-2	02-18-99	15.28	9.17	ND	6.11	02-18-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--		
AR-2	05-26-99	15.28	11.72	ND	3.56	05-26-99	<50	<0.5	<0.5	<0.5	<1.0	<10	--	--		
AR-2	08-23-99	15.28	12.31	ND	2.97	08-23-99	Not sampled: well sampled semi-annually, during the first and second quarters									
AR-2	10-27-99	15.28	12.42	ND	2.86	10-27-99	Not sampled: well sampled semi-annually, during the first and second quarters									
AR-2	01-31-00	15.28	10.31	ND	4.97	01-31-00	Not sampled								0.61	

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
ADR-1	03-24-95	13.95	8.04	0.01	** 5.92	03-24-95	Not sampled: well contained floating product									
ADR-1	06-05-95	13.95	11.02	ND	2.93	06-05-95	23,000	310	420	300	1,900	--	--	13,000		
ADR-1	08-17-95	13.95	11.86	ND	2.09	08-18-95	4,400	150	120	95	620	120	--	4,500		
ADR-1	12-04-95	13.95	10.05	ND	3.90	12-13-95	8,800	100	130	120	990	--	--	--		
ADR-1	03-01-96	13.95	8.76	ND	5.19	03-13-96	89,000	370	1,000	840	8,100	<500	--	--		
ADR-1	05-29-96	13.95	9.74	ND	4.21	05-30-96	27,000	230	380	370	2,700	<100	--	--		
ADR-1	08-29-96	13.95	10.77	ND	3.18	08-29-96	5,300	190	58	76	470	85	--	--		
ADR-1	11-21-96	13.95	10.49	ND	3.46	11-21-96	1,900	82	21	32	270	110	--	--		
ADR-1	03-26-97	13.95	10.37	ND	3.58	03-26-97	1,300	260	6	39	27	95	--	--		
ADR-1	05-21-97	13.95	10.90	ND	3.05	05-21-97	2,100	300	18	37	200	79	--	--		
ADR-1	08-08-97	13.95	11.12	ND	2.83	08-08-97	3,900	620	49	110	470	<200	--	--		
ADR-1	11-18-97	13.95	3.47	ND	10.48	11-18-97	18,000	900	140	360	2,700	<60	--	--		
ADR-1	02-20-98	13.95	Not surveyed: well inaccessible													
ADR-1	05-11-98	13.95	Not surveyed: well inaccessible													
ADR-1	07-30-98	13.95	Not surveyed: well inaccessible													
ADR-1	10-08-98	13.95	Not surveyed: well inaccessible													
ADR-1	02-18-99	13.95	7.80	ND	6.15	02-18-99	200	4.4	<0.5	1.3	1.3	43	--	--		
ADR-1	05-26-99	13.95	10.40	ND	3.55	05-26-99	160	10	<0.5	1.7	1.8	43	--	--		
ADR-1	08-23-99	13.95	10.70	ND	3.25	08-23-99	7,400	310	16	210	970	18	--	--		
ADR-1	10-27-99	13.95	10.82	ND	3.13	10-27-99	5,000	210	6.3	180	490	5	--	--	0.37	NP
ADR-1	01-31-00	13.95	9.21	ND	4.74	01-31-00	290	3.6	<0.5	1.1	<1	26	--	--	0.73	NP
															1.0	NP

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
ADR-2	03-24-95	14.64	8.41	>3.00	NR[1]	03-24-95	Not sampled: well contained floating product									
ADR-2	06-05-95	14.64	11.45	>3.00	NR[1]	06-05-95	Not sampled: well contained floating product									
ADR-2	08-17-95	14.64	12.10	0.03	** 2.56	08-17-95	Not sampled: well contained floating product									
ADR-2	12-04-95	14.64	10.93	0.03	** 3.73	12-13-95	Not sampled: well contained floating product									
ADR-2	03-01-96	14.64	8.74	ND	5.90	03-13-96	29,000	1,100	1,200	710	3,800	<500	--	--		
ADR-2	05-29-96	14.64	10.43	ND	4.21	05-29-96	33,000	510	500	470	2,300	120	--	--		
ADR-2	08-29-96	14.64	11.64	ND	3.00	08-29-96	8,000	230	180	150	730	53	--	--		
ADR-2	11-21-96	14.64	11.23	ND	3.41	11-21-96	15,000	630	440	390	2,100	75	--	--		
ADR-2	03-26-97	14.64	11.13	ND	3.51	03-26-97	6,100	320	23	180	460	32	--	--		
ADR-2	05-21-97	14.64	11.64	ND	3.00	05-21-97	6,100	380	22	210	320	<30	--	--		
ADR-2	08-08-97	14.64	11.85	ND	2.79	08-08-97	8,400	380	35	230	910	<30	--	--		
ADR-2	11-18-97	14.64	3.33	ND	11.31	11-18-97	11,000	230	29	300	1,200	<60	--	--		
ADR-2	02-20-98	14.64	7.67	ND	6.97	02-20-98	4,700	320	30	130	360	20	--	--		
ADR-2	05-11-98	14.64	10.47	ND	4.17	05-11-98	Not sampled									
ADR-2	07-30-98	14.64	Not surveyed: well inaccessible													
ADR-2	10-08-98	14.64	11.67	ND	2.97	10-08-98	Not sampled									
ADR-2	02-18-99	14.64	Not surveyed: well inaccessible													
ADR-2	05-26-99	14.64	11.02	ND	3.62	05-26-99	5,900	670	5	340	104	16	--	--		
ADR-2	08-23-99	14.64	9.82	ND	4.82	08-23-99	9,100	570	12	410	1,000	28	--	--		
ADR-1	10-27-99	14.64	9.85	Sheen	4.79	10-27-99	Not sampled: sheen present									
ADR-2	01-31-00	14.64	10.15	ND	4.49	01-31-00	7,700	280	3.4	370	390	23	--	--	0.50	NP
															0.65	NP
															2.0	NP

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

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

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation (ft-MSL)	Date Sampled	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	TPH Diesel (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)

TOC: top of casing
ft-MSL: elevation in feet, relative to mean sea level
TPH: total petroleum hydrocarbons, California DHS LUFT Method
BTEX: benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 10/27/99).
MTBE: Methyl tert-butyl ether
µg/L: micrograms per liter
mg/L: milligrams per liter
ND: none detected
NR: not reported; data not available or not measurable
- -: not analyzed or not applicable
< denotes concentration not present at or above laboratory detection limit stated to the right.
(1): well contained more than 3 feet of floating product; exact product thickness and groundwater elevation could not be measured
*: EPA method 8020 prior to 10/27/99
**: [corrected elevation (Z')] = Z + (h * 0.73) where: Z = measured elevation, h = floating product thickness, 0.73 = density ratio of oil to water
***: For previous historical groundwater elevation data please refer to *Fourth Quarter 1995 Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, ARCO Service Station 2169, 889 West Grand Avenue, Oakland, California, (EMCON, March 4, 1996).*

Table 2
Groundwater Flow Direction and Gradient

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

Date Measured	Average Flow Direction	Average Hydraulic Gradient
03-24-95	Northwest	0.009
06-05-95	Northwest	0.002
08-17-95	West	0.001
12-04-95	North-Northwest	0.002
03-01-96	Northwest	0.003
05-29-96	Northwest	0.002
08-29-96	West	0.002
11-21-96	West-Northwest	0.002
03-26-97	Northwest	0.002
05-21-97	North-Northwest	0.002
08-08-97	North-Northwest	0.002
11-18-97	North-Northwest	0.003
02-20-98	North	0.013
05-11-98	North	0.03
07-30-98	North	0.002
10-08-98	North-Northwest	0.002
02-18-99	Northwest	0.008
05-26-99	North-Northwest	0.003
08-23-99	Variable	Variable
10-27-99	Variable	Variable
01-31-00	West-Northwest	0.006

ATTACHMENT D

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

06/03/04

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #2169, Oakland, CA
Work Order Number:	MNE0255
Global ID:	T0600100112
Lab Report Number:	MNE0255052820041519

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
MNE02550528200 41519	A-1	MNE025501	W	CS	8260FA	SW5030B	05/06/04	05/19/04	05/20/04	4E19032	1	
MNE02550528200 41519	A-5	MNE025502	W	CS	8260FA	SW5030B	05/06/04	05/19/04	05/20/04	4E19032	1	
MNE02550528200 41519	A-6	MNE025503	W	CS	8260FA	SW5030B	05/06/04	05/19/04	05/20/04	4E19032	1	
MNE02550528200 41519	ADR-1	MNE025504	W	CS	8260FA	SW5030B	05/07/04	05/19/04	05/20/04	4E19032	1	
		4E19032BSD1	WQ	BD1	8260FA	SW5030B	/ /	05/19/04	05/19/04	4E19032	1	
		4E19032BSD2	WQ	BD2	8260FA	SW5030B	/ /	05/19/04	05/20/04	4E19032	1	
		4E19032BS1	WQ	BS1	8260FA	SW5030B	/ /	05/19/04	05/19/04	4E19032	1	
		4E19032BS2	WQ	BS2	8260FA	SW5030B	/ /	05/19/04	05/20/04	4E19032	1	
		4E19032BLK1	WQ	LB1	8260FA	SW5030B	/ /	05/19/04	05/20/04	4E19032	1	

EDFSAMP: Error Summary Log

06/03/04

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

EDFTEST: Error Summary Log

06/03/04

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

EDFRES: Error Summary Log

06/03/04

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	MNE025501	CS	W	8260FA	PR	05/20/04	1	BZ
Warning: extra parameter	MNE025501	CS	W	8260FA	PR	05/20/04	1	BZME
Warning: extra parameter	MNE025501	CS	W	8260FA	PR	05/20/04	1	DCA12D4
Warning: extra parameter	MNE025501	CS	W	8260FA	PR	05/20/04	1	EBZ
Warning: extra parameter	MNE025501	CS	W	8260FA	PR	05/20/04	1	GROC4C12
Warning: extra parameter	MNE025501	CS	W	8260FA	PR	05/20/04	1	XYLENES
Warning: extra parameter	MNE025502	CS	W	8260FA	PR	05/20/04	1	BZ
Warning: extra parameter	MNE025502	CS	W	8260FA	PR	05/20/04	1	BZME
Warning: extra parameter	MNE025502	CS	W	8260FA	PR	05/20/04	1	DCA12D4
Warning: extra parameter	MNE025502	CS	W	8260FA	PR	05/20/04	1	EBZ
Warning: extra parameter	MNE025502	CS	W	8260FA	PR	05/20/04	1	GROC4C12
Warning: extra parameter	MNE025502	CS	W	8260FA	PR	05/20/04	1	XYLENES
Warning: extra parameter	MNE025503	CS	W	8260FA	PR	05/20/04	1	BZ
Warning: extra parameter	MNE025503	CS	W	8260FA	PR	05/20/04	1	BZME
Warning: extra parameter	MNE025503	CS	W	8260FA	PR	05/20/04	1	DCA12D4
Warning: extra parameter	MNE025503	CS	W	8260FA	PR	05/20/04	1	EBZ
Warning: extra parameter	MNE025503	CS	W	8260FA	PR	05/20/04	1	GROC4C12
Warning: extra parameter	MNE025503	CS	W	8260FA	PR	05/20/04	1	XYLENES
Warning: extra parameter	MNE025504	CS	W	8260FA	PR	05/20/04	1	BZ
Warning: extra parameter	MNE025504	CS	W	8260FA	PR	05/20/04	1	BZME
Warning: extra parameter	MNE025504	CS	W	8260FA	PR	05/20/04	1	DCA12D4
Warning: extra parameter	MNE025504	CS	W	8260FA	PR	05/20/04	1	EBZ
Warning: extra parameter	MNE025504	CS	W	8260FA	PR	05/20/04	1	GROC4C12
Warning: extra parameter	MNE025504	CS	W	8260FA	PR	05/20/04	1	XYLENES
Warning: extra parameter	4E19032BLK1	LB1	WQ	8260FA	PR	05/20/04	1	BZ

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	4E19032BLK1	LB1	WQ	8260FA	PR	05/20/04	1	BZME
Warning: extra parameter	4E19032BLK1	LB1	WQ	8260FA	PR	05/20/04	1	DCA12D4
Warning: extra parameter	4E19032BLK1	LB1	WQ	8260FA	PR	05/20/04	1	EBZ
Warning: extra parameter	4E19032BLK1	LB1	WQ	8260FA	PR	05/20/04	1	GROC4C12
Warning: extra parameter	4E19032BLK1	LB1	WQ	8260FA	PR	05/20/04	1	XYLENES
Warning: extra parameter	4E19032BS1	BS1	WQ	8260FA	PR	05/19/04	1	BZ
Warning: extra parameter	4E19032BS1	BS1	WQ	8260FA	PR	05/19/04	1	BZME
Warning: extra parameter	4E19032BS1	BS1	WQ	8260FA	PR	05/19/04	1	DCA12D4
Warning: extra parameter	4E19032BS1	BS1	WQ	8260FA	PR	05/19/04	1	EBZ
Warning: extra parameter	4E19032BS1	BS1	WQ	8260FA	PR	05/19/04	1	XYLENES
Warning: extra parameter	4E19032BS2	BS2	WQ	8260FA	PR	05/20/04	1	BZ
Warning: extra parameter	4E19032BS2	BS2	WQ	8260FA	PR	05/20/04	1	BZME
Warning: extra parameter	4E19032BS2	BS2	WQ	8260FA	PR	05/20/04	1	DCA12D4
Warning: extra parameter	4E19032BS2	BS2	WQ	8260FA	PR	05/20/04	1	EBZ
Warning: extra parameter	4E19032BS2	BS2	WQ	8260FA	PR	05/20/04	1	GROC4C12
Warning: extra parameter	4E19032BS2	BS2	WQ	8260FA	PR	05/20/04	1	XYLENES
Warning: extra parameter	4E19032BSD1	BD1	WQ	8260FA	PR	05/19/04	1	BZ
Warning: extra parameter	4E19032BSD1	BD1	WQ	8260FA	PR	05/19/04	1	BZME
Warning: extra parameter	4E19032BSD1	BD1	WQ	8260FA	PR	05/19/04	1	DCA12D4
Warning: extra parameter	4E19032BSD1	BD1	WQ	8260FA	PR	05/19/04	1	EBZ
Warning: extra parameter	4E19032BSD1	BD1	WQ	8260FA	PR	05/19/04	1	XYLENES
Warning: extra parameter	4E19032BSD2	BD2	WQ	8260FA	PR	05/20/04	1	BZ
Warning: extra parameter	4E19032BSD2	BD2	WQ	8260FA	PR	05/20/04	1	BZME
Warning: extra parameter	4E19032BSD2	BD2	WQ	8260FA	PR	05/20/04	1	DCA12D4
Warning: extra parameter	4E19032BSD2	BD2	WQ	8260FA	PR	05/20/04	1	EBZ
Warning: extra parameter	4E19032BSD2	BD2	WQ	8260FA	PR	05/20/04	1	GROC4C12
Warning: extra parameter	4E19032BSD2	BD2	WQ	8260FA	PR	05/20/04	1	XYLENES

EDFQC: Error Summary Log

06/03/04

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

EDFCL: Error Summary Log

06/03/04

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

AB2886 Electronic Delivery

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been succcessfully uploaded!

Confirmation Number: 5761025607

Date/Time of Submittal: 6/3/2004 1:06:34 PM

Facility Global ID: T0600100112

Facility Name: ARCO # 02169

Submittal Title: Second Quarter 2004 Groundwater Monitoring Report Site #2169

Submittal Type: GW Monitoring Report

Logged in as URSCORP-OAKLAND (CONTRACTOR) CONTACT SITE ADMINISTRATOR.

AB2886 Electronic Delivery

Main Menu | View/Add Facilities | Upload EDD | Check EDD

UPLOADING A GEO_WELL FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title:	**Second Quarter 2004 Geowell Report Site #2169**
Submittal Date/Time:	**6/3/2004 1:06:59 PM**
Confirmation Number:	**6756332218**

Back to Main Menu

Logged in as URSCORP-OAKLAND
(CONTRACTOR)

CONTACT SITE ADMINISTRATOR.