120.494

URS

September 19, 2003

Ms. eva chu
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: Third Quarter 2003 Groundwater Monitoring Report
ARCO Service Station # 2111
1156 Davis Street
San Leandro, California
URS Project #38486321

Dear Ms. chu:

On behalf of Atlantic Richfield Company (ARCO – an affiliated company of the Group Environmental Management Company), URS Corporation (URS) is submitting the *Third Quarter 2003 Groundwater Monitoring Report* for ARCO Service Station #2111, located at 1156 Davis Street, San Leandro, California.

If you have any questions regarding this submission, please call (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: Third Quarter 2003 Groundwater Monitoring Report

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

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

Atlantic Richfield Company
(a BP affiliated company)

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

September 19, 2003

RE: Third Quarter 2003 Groundwater Monitoring Report
ARCO Service Station #2111
1156 Davis Street
San Leandro, CA
URS Project# 38486321

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

Submitted by:

Paul Supple
Environmental Business Manager

REPORT

THIRD QUARTER 2003 GROUNDWATER MONITORING

ARCO SERVICE STATION #2111
1156 DAVIS STREET
SAN LEANDRO, CALIFORNIA

Prepared for
Atlantic Richfield Company

September 19, 2003

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

38486321

Date: September 19, 2003

Quarter: 3Q 03

ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Former Facility No.:	2111	Address:	1156 Davis Street, San Leandro, California
Atlantic Richfield Co. Environmental Engineer:			Paul Supple
Consulting Co./Contact Person:			URS Corporation / Scott Robinson
Consultant Project No.:			38486321
Primary Agency:			Alameda County Health Care Services Agency (ACHCSA)

WORK PERFORMED THIS QUARTER (Third – 2003):

1. Performed third quarter groundwater monitoring event on July 9, 2003.
2. Well MW-2 checked monthly for free product.
3. Prepared and submitted third quarter 2003 groundwater monitoring report.
4. Prepared and submitted Remedial Action Plan Addendum on July 15, 2003.
5. Preliminary remediation system design developed and bud package sent to several equipment suppliers.

WORK PROPOSED FOR NEXT QUARTER (Fourth – 2003):

1. Perform fourth quarter 2003 groundwater monitoring event.
2. Prepare and submit fourth quarter 2003 groundwater monitoring report.
3. Check MW-2 monthly for free product.
4. Secure PG&E electrical service and discharge/air permits
5. Select equipment supplier.
6. Final remediation design
7. Install DPE remedial design.

Current Phase of Project:	GW monitoring/sampling
Frequency of Groundwater Sampling:	Quarterly: Wells MW-1 through MW-7
Frequency of Groundwater Monitoring:	Quarterly
Is Free Product (FP) Present On-Site:	FP in MW-2 (see Table 3)
FP recovered this quarter:	0.075 gallons
Cumulative FP Recovered from 6/28/99 to 9/4/03 :	0.604 gallons
Current Remediation Techniques:	Bailing free product as needed
Approximate Depth to Groundwater:	13.61 (MW-6) to 17.27 (MW-1) feet
Groundwater Gradient (direction):	West – Northwest
Groundwater Gradient (magnitude):	0.004 feet per foot

DISCUSSION:

TPH-g was detected in four of the six wells sampled this quarter at concentrations ranging from 100 µg/L (MW-3) to 66,000 µg/L (MW-7). Benzene was not detected in any of the wells sampled this quarter. MTBE was detected in five wells at concentrations ranging from 34 µg/L (MW-4) to 36,000 µg/L (MW-7). Tert-Amyl methyl ether was detected in two wells at concentrations of 4.2 µg/L (MW-3) to 9.8 µg/L (MW-4).

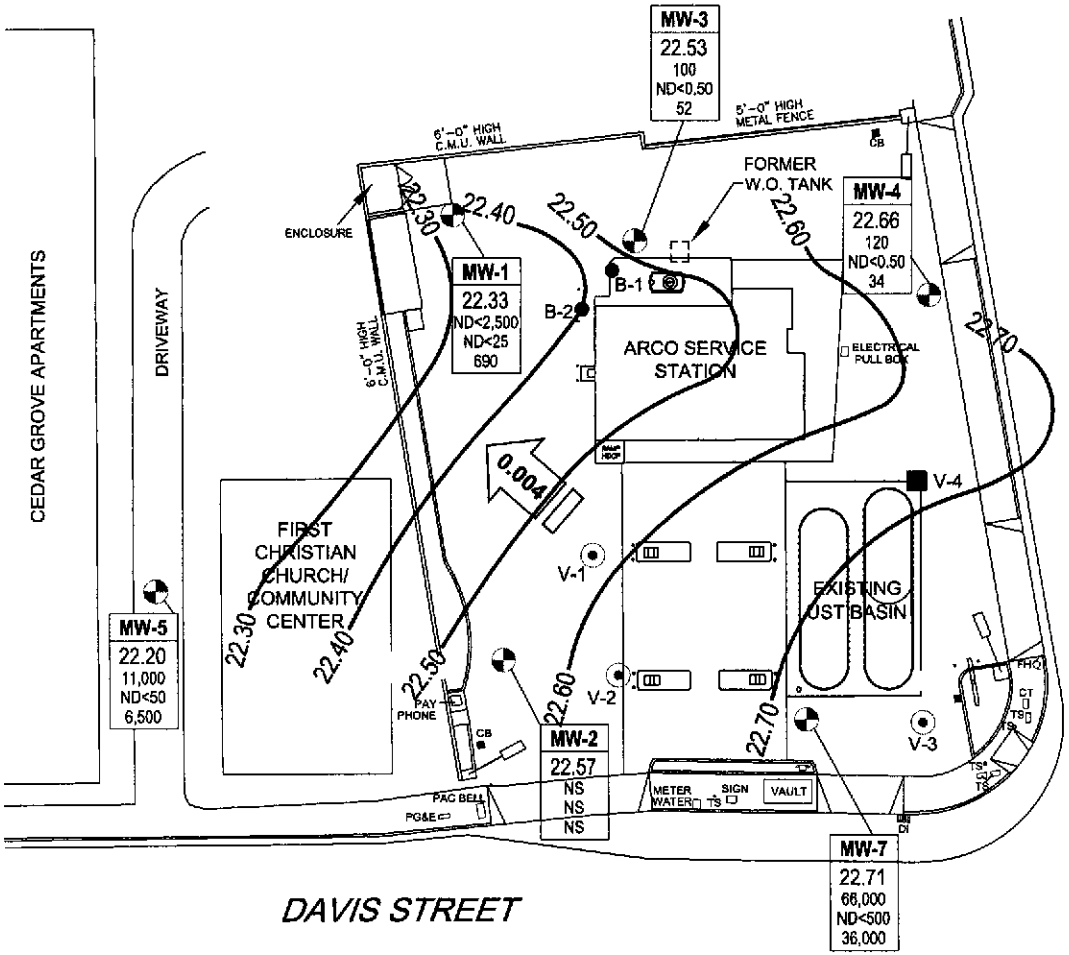
RECOMMENDATIONS:

We recommend reducing the sampling frequency of well MW-6 from quarterly to annually. This well is cross gradient and up-gradient with no detection of the constituents of concern. This well would continue to be gauged quarterly for groundwater elevation.

ATTACHMENTS:

- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Fuel Oxygenates Analytical Data
- Table 4 – Approximate Cumulative Floating Product Recovered (1999 – Present)
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – July 9, 2003
- 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 and EDF/Geowell Submittal Confirmation

X:\x_env_waste\BP GEM\Sites\Scott Robinson\Paul Supple\2111\Monitoring\Qtr. 3, 2003\Drawings\GWEC-AS_7-9.dwg, 09/16/2003 09:05:47 AM, JKMT, URS



LEGEND

- MONITORING WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- SOIL BORING LOCATION
- DESTROYED WELL LOCATION
- Well — WELL DESIGNATION
- ELEV — GROUNDWATER ELEVATION (FT/MSL)
- TPH-g, Benzene, MTBE — CONCENTRATIONS OF TPH-g, BENZENE & MTBE IN MICROGRAMS PER LITER (µg/L)
- ND< — NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT
- 0.004 — GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)
- 22.40 — GROUNDWATER ELEVATION CONTOUR (FT/MSL)

NORTH

0 40 80

SCALE IN FEET

NOTE: SITE MAP ADAPTED FROM DELTA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

URS	Project No. 38486321 Arco Service Station #2111 1156 Davis Street San Leandro, California	GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP Third Quarter 2003 (July 9, 2003)	FIGURE 1

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station # 2111
1156 Davis Street
San Leandro, California

Well Number	Date Sampled		Top of Riser Elevation (feet, MSL)	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, MSL)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Dissolved Oxygen [o] (mg/L)	pH Level [o]
MW-1	06/26/00		39.60	16.46	23.14	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00			16.89	22.71	360	110	<0.5	<0.5	2.7	2,100	NA	NA	NA
	09/19/00			17.62	21.98	290	76	<0.5	<0.5	2.3	1,500	NA	NA	NA
	12/21/00			17.39	22.21	257	64	2.89	1.31	4.57	1,080	1,060	NA	NA
	03/13/01			15.7	23.90	<500	52.5	<5.0	<5.0	<5.0	1,430	1,370	NA	NA
	09/18/01			18.24	21.36	<500	64	7.3	<5.0	52	810	1,100	NA	NA
	12/28/01			15.95	23.65	<500	<5.0	<5.0	5.00	22	1,200	1,100	NA	NA
	03/14/02			16.01	23.59	<50	<0.5	<0.5	<0.5	<0.5	34	40	NA	NA
	04/23/02			15.43	24.17	<50	<0.5	<0.5	<0.5	<0.5	30	NA	NA	NA
	07/17/02	NP		17.50	22.10	<50	1.2	<0.50	<0.50	<0.50	29	NA	1.6	6.9
	10/09/02			18.27	21.33	240[c]	4.9	<1.0	4.1	7.0	290	310	1.2	6.5
	01/13/03			15.37	24.23	760 [c]	34	11	17	56	300	NA	1.0	6.8
	04/07/03 [n]			16.61	22.99	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	22	1.5	6.8
	07/09/03	**NP**		**17.27**	**22.33**	**ND<2,500**	**ND<25**	**ND<25**	**ND<25**	**ND<25**	**NA**	**690**	**1.9**	**6.7**
MW-2	06/26/00		37.99	14.60	23.39[a]	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00			15.14	22.85	95,000	2,300	18,000	2,500	19,000	13,000	NA	NA	NA
	09/19/00			15.95	22.04	63,000	1,200	6,300	2,000	14,000	19,000	NA	NA	NA
	12/21/00			15.60	22.39	45,900		2,130	1,160	9,460	22,400	24,700	NA	NA
	12/21/00[b]			NM	NC	5,010	360	189	213	626	54,300	89,200	NA	NA
	03/13/01			13.77	23.9	3,650	98.1	<5.0	<5.0	6.42	3,590	3,260	NA	NA
	3/13/2001[b]			NM	NC	<20,000	525	466	408	1,460	91,700	76,000	NA	NA
	9/18/2001[a]			16.86	21.13	NS	NS	NS	NS	NS	NS	NS	NA	NA
	12/28/01			14.28	23.71	31,000	1,500	3,800	1,300	4,800	9,300	8,800	NA	NA
	03/14/02			14.15	23.84	1,800	25	43	43	270	990	960	NA	NA
	04/23/02			13.60	24.39	9,000	220	110	470	2,500	8,500	NA	NA	NA
	07/17/02	NP	SHEEN	15.75	22.24	74,000 [c]	280	290	820	10,000	19,000	NA	0.4	6.8
	10/9/02 [g]	NP		16.69	21.30	NS	NS	NS	NS	NS	NS	NS	NA	NA
	01/13/03 [g]		FREE PRODUCT	13.59	24.61 [h]	NS	NS	NS	NS	NS	NS	NA	NA	NA
	04/07/03 [g]		FREE PRODUCT	14.70	23.69 [h]	NS	NS	NS	NS	NS	NA	NS	NA	NA
	07/09/03 [g]		**FREE PRODUCT**	**15.48**	**22.57 [h]**	**NS**	**NS**	**NS**	**NS**	**NS**	**NA**	**NS**	**NA**	**NA**

Table 1
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ARCO Service Station # 2111
1156 Davis Street
San Leandro, California

Well Number	Date Sampled		Top of Riser Elevation (feet, MSL)	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, MSL)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Dissolved Oxygen [o] (mg/L)	pH Level [o]
MW-3	06/26/00		39.32	15.96	23.36	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00			16.42	22.90	<50	<0.5	<0.5	<0.5	<1.0	130	NA	NA	NA
	09/19/00			17.18	22.14	190	17	<0.5	1.4	2.4	160	NA	NA	NA
	12/21/00			16.97	22.35	187	17.8	<0.5	2.47	2.5	143	125	NA	NA
	03/13/01			15.17	24.15	72.4	2.83	<0.5	<0.5	<0.5	126	122	NA	NA
	09/18/01			17.81	21.51	140	6.4	<0.5	3.5	1.6	110	75	NA	NA
	12/28/01			15.44	23.88	130	5.9	<0.5	0.99	0.55	90	63	NA	NA
	03/14/02			15.50	23.82	<50	<0.5	<0.5	<0.5	<0.5	100	88	NA	NA
	04/23/02			14.96	24.36	<50	<0.5	<0.5	<0.5	<0.5	77	NA	NA	NA
	07/17/02	NP		17.09	22.23	<50	<0.50	<0.50	<0.50	<0.50	47	NA	0.8	7.2
	10/09/02	NP		17.87	21.45	<50	<0.50	<0.50	<0.50	<0.50	26	29	1.3	7.2
	01/13/03	NP		14.78	24.54	ND<50	ND<0.50	ND<0.50 [l]	ND<0.50	ND<0.50	59 l	NA	0.8	6.8
	04/07/03 [n]	NP		16.15	23.17	88	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	75	1.1	7.0
	07/09/03	**NP**		**16.79**	**22.53**	**100**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**52**	**1.1**	**6.5**
MW-4	06/26/00		38.10	14.59	23.51	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00			15.04	23.06	97	7.9	<0.5	<0.5	1.1	51	NA	NA	NA
	09/19/00			15.83	22.27	110	7.0	<0.5	<0.5	<1.0	60	NA	NA	NA
	12/21/00			15.59	22.51	120	5.6	<0.5	1.72	<0.5	46.3	48.6	NA	NA
	03/13/01			13.73	24.37	76	0.796	<0.5	<0.5	<0.5	53.7	50.0	NA	NA
	09/18/01			16.50	21.60	<50	<0.5	<0.5	<0.5	<0.5	25	26.0	NA	NA
	12/28/01			14.03	24.07	<50	<0.5	<0.5	<0.5	<0.5	15	11.0	NA	NA
	03/14/02			14.10	24.00	<50	<0.5	<0.5	<0.5	<0.5	31	28	NA	NA
	04/23/02			13.57	24.53	<50	3	<0.5	<0.5	<0.5	42	NA	NA	NA
	07/17/02	NP		15.76	22.34	<50	<0.50	<0.50	<0.50	<0.50	16	NA	1.2	7.1
	10/09/02	NP		16.59	21.51	<50	2.2	<0.50	<0.50	<0.50	20	23	0.8	7.1
	01/13/03	NP		13.43	24.67	52 [d]	ND<0.50	1.6	ND<0.50	ND<0.50	22	NA	0.6	6.6
	04/07/03 [n]	NP		14.74	23.36	65	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	24	0.7	6.6
	07/09/03	**NP**		**15.44**	**22.66**	**120**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**34**	**1.4**	**6.6**

Table 1
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1156 Davis Street
San Leandro, California

Well Number	Date Sampled		Top of Riser Elevation (feet, MSL)	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, MSL)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Dissolved Oxygen [o] (mg/L)	pH Level [o]
MW-5	06/26/00		37.21	14.27	22.94	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00			14.69	22.52	55	<0.5	<0.5	<0.5	<1.0	14,000	NA	NA	NA
	09/19/00			15.36	21.85	54	<0.5	<0.5	<0.5	<1.0	13,000	NA	NA	NA
	12/21/00			15.15	22.06	72.9	2.51	<0.5	<0.5	0.961	19,200	21,200	NA	NA
	03/13/01			13.5	23.71	<500	<5	<5	<5	<5	15,900	20,000	NA	NA
	09/18/01			15.94	21.27	<10,000	<100	<100	<100	<1,000	22,000	20,000	NA	NA
	12/28/01			13.45	23.76	<10,000	<100	<100	<100	<100	10,000	10,000	NA	NA
	03/14/02			13.82	23.39	<5,000	<50	<50	<50	<50	7,100	7,700	NA	NA
	04/23/02			13.25	23.96	<5,000	<50	<50	<50	<50	8,900	NA	NA	NA
	07/17/02	NP		15.27	21.94	7,900 [d]	<50	<50	<50	<50	13,000	NA	1.1	7.5
	10/09/02	NP		16.02	21.19	2,400[e]	<20	<20	<20	<20	7,300	7,500	1.2	6.7
	01/13/03	NP		13.20	24.01	6,400 [e]	ND<50 [j]	ND<50	ND<50	ND<50 [j]	8,900 [k]	NA	1.3	6.8
	04/07/03 [n]	NP		14.42	22.79	ND<10,000	ND<100	ND<100	ND<100	ND<100	NA	3,700	0.9	6.8
	07/09/03	**NP**		**15.01**	**22.20**	**11,000**	**ND<50**	**ND<50**	**ND<50**	**ND<50**	**NA**	**6,500**	**2.4**	**6.9**
MW-6	06/26/00		37.11	13.46	23.65	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00			13.94	23.17	<50	<0.5	<0.5	<0.5	<1.0	<3.0	NA	NA	NA
	09/19/00			14.41	22.70	<50	<0.5	<0.5	<0.5	<1.0	<3.0	NA	NA	NA
	12/21/00			14.53	22.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	03/13/01			12.67	24.44	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	09/18/01			15.42	21.69	<50	<0.5	<0.5	<0.5	<0.5	<2.5	<2.0	NA	NA
	12/28/01			12.96	24.15	<50	<0.5	<0.5	<0.5	<0.5	12	<0.5	NA	NA
	03/14/02			12.98	24.13	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	04/23/02			12.44	24.67	<50	<0.5	<0.5	<0.5	<0.5	3	NA	NA	NA
	07/17/02	NP		14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	1.3	7.3
	10/09/02	NP		15.51	21.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	NA	1.3	7.1
	01/13/03	NP		12.27	24.84	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	NA	1.1	6.8
	04/07/03 [n]	NP		13.61	23.50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	ND<0.50	2.0	6.6
	07/09/03	**NP**		**14.34**	**22.77**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**ND<0.50**	**1.6**	**7.0**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station # 2111
1156 Davis Street
San Leandro, California

Well Number	Date Sampled		Top of Riser Elevation (feet, MSL)	Depth to Groundwater (feet, TOC)	Groundwater Elevation (feet, MSL)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (8020) (µg/L)	MTBE (8260) (µg/L)	Dissolved Oxygen [o] (mg/L)	pH Level [b]
MW-7	06/26/00		38.68	14.34	24.34	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/20/00			15.26	23.42	14,000	5.4	<0.5	2.8	5.9	71,000	NA	NA	NA
	09/19/00			15.70	22.98	8,400	420	38	470	220	5,600	NA	NA	NA
	12/21/00			16.02	22.66	NS[a]	NS[a]	NS[a]	NS[a]	NS[a]	NS[a]	NS[a]	NA	NA
	03/13/01			14.18	24.50	<2,000	154	63	46.3	127	175,000	160,000	NA	NA
	09/18/01			17.02	21.66	<100,000	1,900	<1,000	<1,000	2,800	190,000	370,000	NA	NA
	12/28/01			14.81	23.87	<20,000	<200	<200	<200	<200	84,000	72,000	NA	NA
	03/14/02			14.60	24.08	<50,000	<500	<500	<500	<500	85,000	85,000	NA	NA
	04/23/02			13.94	24.74	<20,000	530	200	220	800	67,000	NA	NA	NA
	07/17/02	NP		16.27	22.41	26,000 [d]	720	<250	<250	860	120,000	NA	1.0	6.9
	10/09/02	NP		17.16	21.52	110,000[d]	1,500	4,400	820	5,400	97,000	120,000	0.9	6.8
	01/13/03	NP		13.82	24.86	ND<50,000 [f]	ND<500 [f]	ND<500 [f]	ND<500 [f]	2,200 [f]	33,000 [f]	NA	0.8	6.6
	04/07/03 [n]	NP		14.52	24.16	ND<2,500	30	ND<25	ND<25	ND<25	NA	710	1.0	7.0
	07/09/03	**NP**		**15.97**	**22.71**	**66,000**	**ND<500**	**ND<500**	**ND<500**	**ND<500**	**NA**	**36,000**	**1.6**	**6.7**

Table 1
Groundwater Elevation and Analytical Data

ARCO Service Station #2111
1156 Davis Street
San Leandro, California

Notes:

TPH	= Total Petroleum Hydrocarbons analyzed by EPA method 8260B. (Prior to 04/07/03, analyzed by EPA method 8015 modified.)
BTEX	= Benzene, Toluene, Ethyl-benzene, and Total Xylenes analyzed by EPA method 8260B. (Prior to 04/07/03, analyzed by EPA method 8021B.)
MTBE	= Methyl tertiary butyl ether analyzed by EPA Method 8260B. (Prior to 04/07/03, analyzed by EPA method 8021B unless otherwise noted.)
µg/L	= Micrograms per liter
mg/L	= Milligrams per liter
NA	= Not available
NM	= Not measured
NC	= Not calculated
NP	= Well not purged before sampling
MSL	= Mean sea level
TOC	= Top of casing
ND<	= Not detected at or above specified laboratory method detection limit
a	= Product sheen noted
b	= Well was sampled after batch extraction event.
c	= Chromatogram Pattern: Gasoline C6-C10
d	= Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel
e	= Discrete peak @C6-C7
f	= This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose.
g	= Well not sampled due to the detection of free product.
h	= Groundwater elevation adjusted for free product: (thickness of free product x 0.8) + measured groundwater elevation
j	= The closing calibration was outside acceptance limits by 1%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggests that calibration linearity is not a factor.
k	= The closing calibration was outside acceptance limits by 6%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggests that calibration linearity is not a factor.
l	= This analyse was not confirmed using a secondary column in accordance to client contract.
n	= TPH-g, BTEX, and MTBE analyzed by EPA method 8260B beginning on the second quarter 2003 sampling event (04/07/03).
o	=Dissolved Oxygen and pH levels are field measurements.
Source :	The data within this table collected prior to July 2002 was provided to URS by Group Environmental Management Company and their previous consultants. URS has not verified the accuracy of this information.

Table 2

Groundwater Flow Direction and Gradient

ARCO Service Station #2111
1156 Davis Street
San Leandro, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
07/20/00	West-Northwest	0.006
09/19/00	West-Northwest	0.004
12/21/00	West-Northwest	0.004
03/13/01	West-Northwest	0.005
05/30/01	West-Northwest	0.004
09/18/01	West-Northwest	0.003
12/28/01	West-Northwest	0.003
03/14/02	West	0.004
04/23/02	West	0.006
07/17/02	West	0.003
10/09/02	West	0.002
01/13/03	Southwest	0.004
04/07/03	West-Northwest	0.009-0.011
07/09/03	**West-Northwest**	**0.004**

Note: The data within this table collected prior to July 2002 was provided to URS by Group Environmental Management Company and their previous consultants. URS has not verified the accuracy of this information.

Table 3
Oxygenate Analytical Data

ARCO Service Station #2111
1156 Davis Street
San Leandro, California

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
MW-1	04/07/03	ND<100	ND<20	22	ND<0.50	ND<0.50	ND<0.50
	07/09/03	**ND<5,000**	**ND<1,000**	**690**	**ND<25**	**ND<25**	**ND<25**
MW-3	04/07/03	ND<100	ND<20	75	ND<0.50	ND<0.50	6.5
	07/09/03	**ND<100**	**ND<20**	**52**	**ND<0.50**	**ND<0.50**	**4.2**
MW-4	04/07/03	ND<100	ND<20	24	ND<0.50	ND<0.50	7.3
	07/09/03	**ND<100**	**ND<20**	**34**	**ND<0.50**	**ND<0.50**	**9.8**
MW-5	04/07/03	ND<20,000	ND<4,000	3,700	ND<100	ND<100	ND<100
	07/09/03	**ND<10,000**	**ND<2,000**	**6,500**	**ND<50**	**ND<50**	**ND<50**
MW-6	04/07/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	07/09/03	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**
MW-7	04/07/03	ND<5,000	ND<1,000	710	ND<25	ND<25	ND<25
	07/09/03	**ND<100,000**	**ND<20,000**	**36,000**	**ND<500**	**ND<500**	**ND<500**

Note = All fuel oxygenate compounds analyzed using EPA Method 8260B
TBA = tert-Butyl alcohol
MTBE = Methyl tert-butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert butyl ether
TAME = tert-Amyl methyl ether
µg/L = micrograms per liter
ND< = Less than laboratory reporting limit
NA = Data not available, not analyzed, or not applicable
NS = Not Sampled

Table 4
Approximate Cumulative Floating Product Recovered
1999 - present

ARCO Service Station 2153
2800 Homestead Road, Santa Clara, California

Well Designation	Product Recovery Field Date	Floating Product Thickness (feet)	Floating Product Recovered (gallons)
MW-2	06/28/99	0.45	0.300
MW-2	06/30/99	0.015	0.010
MW-2	07/07/99	0.06	0.040
MW-2	07/23/99	0.008	0.005
MW-2	08/25/99	0.02	0.013
MW-2	09/21/99	0.01	0.013
MW-2	11/10/99	ND	0.000
MW-2	02/09/00	ND	0.000
MW-2	04/23/02	ND	0.000
MW-2	07/17/02	Sheen	0.000
MW-2	10/9/2002*	NA	0.000
MW-2	01/13/03	0.26	0.132
MW-2	02/14/03	ND	0.000
MW-2	03/24/03	ND	0.000
MW-2	04/07/03	0.05	0.003
MW-2	05/23/03	ND	0.000
MW-2	06/24/03	0.03	0.012
MW-2	**07/09/03**	**0.07**	**0.028**
MW-2	**07/31/03**	**0.05**	**0.034**
MW-2	**09/04/03**	**0.02**	**0.013**
Approximate Cumulative Floating Product:			**0.604**

* = Free product encountered, but unable to gauge.

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 # 030709-MR-1 Date 7/9/03 Client Arco 211

Site 1156 Davis St., San Leandro

	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	NP @
4	MW-1	4					17.27	26.22	TOC	12.5'
7	MW-2	4	SPH Detected	15.41	.07	106	15.48	26.68		12.0'
3	MW-3	4					16.79	26.65		11.9'
2	MW-4	4					15.44	21.63		10'
5	MW-5	2					15.01	23.85		9.4'
1	MW-6	2					14.34	24.82		10'
6	MW-7	4					15.97	27.18		12'

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030709-MM1	Station # Arco 2111
Sampler: MM	Date: 7/9/03
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 26.22	Depth to Water: 17.27
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: NP (@) 12.5'

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	Specified Volumes	=	Calculated Volume
_____	X	3	=	_____ Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
	No Purge @	12.5' →	DTW = 17.27		
824	67.8	6.7	704	—	clear

Did well dewater? Yes No		Gallons actually evacuated:	
Sampling Time: 825		Sampling Date: 7/9/03	
Sample I.D.: MW-1		Laboratory: Pace (Sequoia) Other_____	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D		Other: Oxy's + Ethanol (all by 8260)	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: 1.9 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030709-MM1	Station # Arco 2111
Sampler: MM	Date: 7/9/03
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: — 26.68	Depth to Water: 15.48
Depth to Free Product: 15.41	Thickness of Free Product (feet): .07
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: SPH

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

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
	Bailed 106 ml + 1.5 gal's H_2O from well into steel drum				
	NO SAMPLE (PRODUCT SPH)				

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

Sampling ~~Time~~: ~~Sampling~~ Date: 7/9/03

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

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxy's + Ethanol / all by 8260

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

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030703-MM1	Station # Arco 2111
Sampler: MM	Date: 7/9/03
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 26.65	Depth to Water: 15.94
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: NP @ 10' No purge

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	=	Calculated Volume Gals.
___	X	3	=	___ Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
	No purge @ 10' →			DTW = 15.44 ✓	
749	67.1	6.5	710	—	clear

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: 750 Sampling Date: 7/9/03

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

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: OXY'S + Ethanol (all by 8260)

D.O. (if req'd):	Pre-purge:		mg/L	(Post-purge:)	1.1 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030703-MM1	Station # Arco 2111
Sampler: MM	Date: 7/9/03
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 21.63	Depth to Water: 15.44
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: NP (a) 10' — No purge

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

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

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
	No purge (a)	10' →		DTW = 15.44'	
809	67.6	6.6	789	—	clear

Did well dewater? Yes No		Gallons actually evacuated:	
Sampling Time: 810		Sampling Date: 7/9/03	
Sample I.D.: MW-4		Laboratory: Pace (Sequoia) Other___	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D		Other: Oxy's + Ethanol / all by 8260	
D.O. (if req'd):	Pre-purge: ___ mg/L	(Post-purge):	1.4 mg/L
O.R.P. (if req'd):	Pre-purge: ___ mV	Post-purge:	___ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030709-MM1	Station # Arco 2111
Sampler: MM	Date: 7/9/03
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 23.85	Depth to Water: 15.01
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	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: NP (9) 9.4' If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
	No purge (9)	9.4'	→	DTW = 15.01	
844	67.4	6.9	682	—	

Did well dewater? Yes No Gallons actually evacuated:

Sampling Time: 845 Sampling Date: 7/9/03

Sample I.D.: MW-5 Laboratory: Pace (Sequoia) Other ___

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxy's + Ethanol (all by 8260)

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	2.4	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030709-MM1	Station # Arco 2111
Sampler: MM	Date: 7/9/03
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 24.92	Depth to Water: 14.34
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: NP @ 10'

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

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
	No purge @	10'	→		DTW = 14.34
924	67.8	7.0	785	—	

Did well dewater? Yes No — Gallons actually evacuated:

Sampling Time: 928 — Sampling Date: 7/9/03

Sample I.D.: MW-6 — Laboratory: Pace (Sequoia) Other ___

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxy's + Ethanol (all by 8260)

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

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030709-MM1	Station # Arco 2111
Sampler: MM	Date: 7/9/03
Well I.D.: MW-7	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth:	Depth to Water: 15.97
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: NP(a) 12'

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

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

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
	No purge (a)		12'	→	DTW = 15.97 ✓
909	67.1	6.7	1140	—	

Did well dewater? Yes No — Gallons actually evacuated:

Sampling Time: 910 — Sampling Date: 7/9/03

Sample I.D.: MW-7 — Laboratory: Pace (Sequoia) Other ___

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D — Other: oxy's + Ethanol / all by 8260

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

WELLHEAD INSPECTION CHECKLIST

Client Arco 2111 Date 7/9/03

Site Address 1156 Davis St., San Leandro

Job Number 030709-MM1 Technician MM

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

NOTES: MW-4 - apron cracked (no repair order sheet)

MW-2, ~~4~~, 3, 7 BOLTS MISSING

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

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

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

Arco 2111

Station #

1156 Davis St., San Leandro

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

added equip. rinse water —

any other adjustments —

TOTAL GALS. RECOVERED —

loaded onto BTS vehicle # 12

BTS event #	time	date
030709-MM1	—	7/9/03

signature

* *

REC'D AT	time	date
BTS	1150	7/9/03

unloaded by signature

WELL GAUGING DATA

Project # 030731-BA2 Date 7/31/03 Client Arco 2111

Site 1156 Davis St, San Leandro

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	
MW-2	4		15.76	.05		15.81	—	TOC	

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030731-BA2	Station # 2111
Sampler: Brian Accord	Date: 7/31/03
Well I.D.: MW2	Well Diameter: 2 3 4 6 8 ___
Total Well Depth: —	Depth to Water: 15.81
Depth to Free Product: 15.76	Thickness of Free Product (feet): .05
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.

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

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
	Bailed 130 mL SPH w/ 3 gallons H2O				

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

WELLHEAD INSPECTION CHECKLIST

Client Arco 7111 Date 7/31/03

Site Address 1156 Davis St, San Leandro

Job Number 030731-BA-1 Technician Brian Arcon

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-2						No Bolts		✓

NOTES:

WELL GAUGING DATA

Project # 070704-MM2 Date 9/4/07 Client ARCO 2111

Site 1657 Davis St., San Leandro

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	
MW-2	4		16.15	.02	49	16.17	—	TOC	

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030904-MM2	Station # ARCO 2111
Sampler: MM	Date: 9/4/03
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: —	Depth to Water: 16.17
Depth to Free Product: 16.15	Thickness of Free Product (feet): .02
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: NP @ 12'

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	=	Calculated Volume
_____	X	3	=	_____ Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
	SPH in well (.02 or greater)				
	⇒ NO SAMPLE				
	Bailed 49 ml from well MW-2				

Did well dewater? Yes / No		Gallons actually evacuated:	
Sampling Time:		Sampling Date: 9/4/03	
Sample I.D.: MW-2		Laboratory: Pace (Sequoia) Other _____	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D		Other: Oxy's + Ethanol (all by 8260)	
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

WELLHEAD INSPECTION CHECKLIST

Client Arco 2111 Date 4/4/03

Site Address 1156 Davis St., San Leandro

Job Number 030304-MM1 Technician MM

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-2								X

NOTES:

ATTACHMENT B

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

LABORATORY PROCEDURES

Laboratory Procedures

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

Sequoia Analytical

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29 July, 2003

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

RE: ARCO #2111, San Leandro, CA
Work Order: MMG0243

Enclosed are the results of analyses for samples received by the laboratory on 07/10/03 14:42. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tim Costello For Theresa Allen
Project Manager

CA ELAP Certificate #1210

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URS Corporation [Arco]	Project: ARCO #2111, San Leandro, CA	MMG0243
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/29/03 13:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MMG0243-01	Water	07/09/03 08:25	07/10/03 14:42
MW-3	MMG0243-02	Water	07/09/03 07:50	07/10/03 14:42
MW-4	MMG0243-03	Water	07/09/03 08:10	07/10/03 14:42
MW-6	MMG0243-04	Water	07/09/03 09:28	07/10/03 14:42
MW-7	MMG0243-05	Water	07/09/03 09:10	07/10/03 14:42
MW-5	MMG0243-06	Water	07/09/03 08:45	07/10/03 14:42

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

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URS Corporation [Arco]	Project: ARCO #2111, San Leandro, CA	MMG0243
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/29/03 13:50

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMG0243-01) Water Sampled: 07/09/03 08:25 Received: 07/10/03 14:42									
Ethanol	ND	5000	ug/l	50	3G22007	07/22/03	07/23/03	EPA 8260B	
tert-Butyl alcohol	ND	1000	"	"	"	"	"	"	
Methyl tert-butyl ether	**690**	25	"	"	"	"	"	"	
Di-isopropyl ether	ND	25	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	25	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	25	"	"	"	"	"	"	
Benzene	ND	25	"	"	"	"	"	"	
Toluene	ND	25	"	"	"	"	"	"	
Ethylbenzene	ND	25	"	"	"	"	"	"	
Xylenes (total)	ND	25	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	2500	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*105 %*	*78-129*		"	"	"	"	
MW-3 (MMG0243-02) Water Sampled: 07/09/03 07:50 Received: 07/10/03 14:42									
Ethanol	ND	100	ug/l	1	3G23001	07/23/03	07/23/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**52**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	**4.2**	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	**100**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #2111, San Leandro, CA	MMG0243
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/29/03 13:50

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (MMG0243-03) Water Sampled: 07/09/03 08:10 Received: 07/10/03 14:42									
Ethanol	ND	100	ug/l	1	3G23001	07/23/03	07/23/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**34**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	**9.8**	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	**120**	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*78-129*		"	"	"	"	
MW-6 (MMG0243-04) Water Sampled: 07/09/03 09:28 Received: 07/10/03 14:42									
Ethanol	ND	100	ug/l	1	3G23001	07/23/03	07/23/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
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		*107 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #2111, San Leandro, CA	MMG0243
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/29/03 13:50

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-7 (MMG0243-05) Water Sampled: 07/09/03 09:10 Received: 07/10/03 14:42									
Ethanol	ND	100000	ug/l	1000	3G23001	07/23/03	07/23/03	EPA 8260B	
tert-Butyl alcohol	ND	20000	"	"	"	"	"	"	
Methyl tert-butyl ether	**36000**	500	"	"	"	"	"	"	
Di-isopropyl ether	ND	500	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	500	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	500	"	"	"	"	"	"	
Benzene	ND	500	"	"	"	"	"	"	
Toluene	ND	500	"	"	"	"	"	"	
Ethylbenzene	ND	500	"	"	"	"	"	"	
Xylenes (total)	ND	500	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	**66000**	50000	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*78-129*		"	"	"	"	
MW-5 (MMG0243-06) Water Sampled: 07/09/03 08:45 Received: 07/10/03 14:42									
Ethanol	ND	10000	ug/l	100	3G23001	07/23/03	07/23/03	EPA 8260B	
tert-Butyl alcohol	ND	2000	"	"	"	"	"	"	
Methyl tert-butyl ether	**6500**	50	"	"	"	"	"	"	
Di-isopropyl ether	ND	50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	50	"	"	"	"	"	"	
Benzene	ND	50	"	"	"	"	"	"	
Toluene	ND	50	"	"	"	"	"	"	
Ethylbenzene	ND	50	"	"	"	"	"	"	
Xylenes (total)	ND	50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	**11000**	5000	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*109 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #2111, San Leandro, CA	MMG0243
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/29/03 13:50

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 3G22007 - EPA 5030B P/T										
Blank (3G22007-BLK1)				Prepared & Analyzed: 07/22/03						
Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.37*		"	*5.00*		*107*	*78-129*			
Laboratory Control Sample (3G22007-BS1)				Prepared & Analyzed: 07/22/03						
Methyl tert-butyl ether	9.71	0.50	ug/l	10.0		97.1	63-137			
Benzene	9.98	0.50	"	10.0		99.8	78-124			
Toluene	10.8	0.50	"	10.0		108	78-129			
Surrogate: 1,2-Dichloroethane-d4	*5.37*		"	*5.00*		*107*	*78-129*			
Laboratory Control Sample (3G22007-BS2)				Prepared & Analyzed: 07/22/03						
Methyl tert-butyl ether	9.29	0.50	ug/l	9.92		93.6	63-137			
Benzene	6.50	0.50	"	6.40		102	78-124			
Toluene	35.7	0.50	"	29.7		120	78-129			
Gasoline Range Organics (C6-C10)	435	50	"	440		98.9	70-113			
Surrogate: 1,2-Dichloroethane-d4	*5.52*		"	*5.00*		*110*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #2111, San Leandro, CA	MMG0243
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/29/03 13:50

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 3G22007 - EPA 5030B P/T										
Laboratory Control Sample Dup (3G22007-BSD1)				Prepared & Analyzed: 07/22/03						
Methyl tert-butyl ether	10.0	0.50	ug/l	10.0		100	63-137	2.94	13	
Benzene	10.1	0.50	"	10.0		101	78-124	1.20	12	
Toluene	11.0	0.50	"	10.0		110	78-129	1.83	10	
Surrogate: 1,2-Dichloroethane-d4	*5.21*		"	*5.00*		*104*	*78-129*			
Laboratory Control Sample Dup (3G22007-BSD2)				Prepared & Analyzed: 07/22/03						
Methyl tert-butyl ether	9.23	0.50	ug/l	9.92		93.0	63-137	0.648	13	
Benzene	6.08	0.50	"	6.40		95.0	78-124	6.68	12	
Toluene	34.2	0.50	"	29.7		115	78-129	4.29	10	
Gasoline Range Organics (C6-C10)	437	50	"	440		99.3	70-113	0.459	9	
Surrogate: 1,2-Dichloroethane-d4	*5.34*		"	*5.00*		*107*	*78-129*			
Matrix Spike (3G22007-MS1)	**Source: MMG0386-10**			Prepared & Analyzed: 07/22/03						
Methyl tert-butyl ether	30600	500	ug/l	9920	21000	96.8	63-137			
Benzene	9180	500	"	6400	2300	108	78-124			
Toluene	52000	500	"	29700	17000	118	78-129			
Gasoline Range Organics (C6-C10)	887000	50000	"	440000	280000	138	70-113			QM-07
Surrogate: 1,2-Dichloroethane-d4	*5.36*		"	*5.00*		*107*	*78-129*			
Matrix Spike Dup (3G22007-MSD1)	**Source: MMG0386-10**			Prepared & Analyzed: 07/22/03						
Methyl tert-butyl ether	30700	500	ug/l	9920	21000	97.8	63-137	0.326	13	
Benzene	7550	500	"	6400	2300	82.0	78-124	19.5	12	QR-02
Toluene	46700	500	"	29700	17000	100	78-129	10.7	10	QR-02
Gasoline Range Organics (C6-C10)	661000	50000	"	440000	280000	86.6	70-113	29.2	9	QR-07
Surrogate: 1,2-Dichloroethane-d4	*5.28*		"	*5.00*		*106*	*78-129*			
Batch 3G23001 - EPA 5030B P/T										
Blank (3G23001-BLK1)				Prepared & Analyzed: 07/23/03						
Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							

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URS Corporation [Arco]	Project: ARCO #2111, San Leandro, CA	MMG0243
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/29/03 13:50

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 3G23001 - EPA 5030B P/T										
Blank (3G23001-BLK1)				Prepared & Analyzed: 07/23/03						
Toluene	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.33*		"	*5.00*		*107*	*78-129*			
Laboratory Control Sample (3G23001-BS1)				Prepared & Analyzed: 07/23/03						
Methyl tert-butyl ether	10.8	0.50	ug/l	10.0		108	63-137			
Benzene	10.4	0.50	"	10.0		104	78-124			
Toluene	10.9	0.50	"	10.0		109	78-129			
Surrogate: 1,2-Dichloroethane-d4	*5.39*		"	*5.00*		*108*	*78-129*			
Laboratory Control Sample (3G23001-BS2)				Prepared & Analyzed: 07/23/03						
Methyl tert-butyl ether	9.49	0.50	ug/l	9.92		95.7	63-137			
Benzene	6.35	0.50	"	6.40		99.2	78-124			
Toluene	35.7	0.50	"	29.7		120	78-129			
Gasoline Range Organics (C6-C10)	452	50	"	440		103	70-113			
Surrogate: 1,2-Dichloroethane-d4	*5.38*		"	*5.00*		*108*	*78-129*			
Matrix Spike (3G23001-MS1)	**Source: MMG0244-01**			Prepared & Analyzed: 07/23/03						
Methyl tert-butyl ether	132	5.0	ug/l	99.2	39	93.8	63-137			
Benzene	217	5.0	"	64.0	170	73.4	78-124			QM-07
Toluene	354	5.0	"	297	4.5	118	78-129			
Gasoline Range Organics (C6-C10)	7990	500	"	4400	3900	93.0	70-113			
Surrogate: 1,2-Dichloroethane-d4	*5.58*		"	*5.00*		*112*	*78-129*			
Matrix Spike Dup (3G23001-MSD1)	**Source: MMG0244-01**			Prepared & Analyzed: 07/23/03						
Methyl tert-butyl ether	134	5.0	ug/l	99.2	39	95.8	63-137	1.50	13	
Benzene	220	5.0	"	64.0	170	78.1	78-124	1.37	12	
Toluene	364	5.0	"	297	4.5	121	78-129	2.79	10	
Gasoline Range Organics (C6-C10)	8280	500	"	4400	3900	99.5	70-113	3.56	9	
Surrogate: 1,2-Dichloroethane-d4	*5.38*		"	*5.00*		*108*	*78-129*			

Sequoia Analytical

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URS Corporation [Arco]	Project: ARCO #2111, San Leandro, CA	MMG0243
500 12th Street, Suite 100	Project Number: N/P	**Reported:**
Oakland CA, 94607	Project Manager: Scott Robinson	07/29/03 13:50

Notes and Definitions

QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

bp

Chain of Custody Record

Project Name 030709 - MH(
BP BU/GEM CO Portfolio:
BP Laboratory Contract Number:
Date: 7/9/03
Requested Due Date (mm/dd/yy) MHG0243

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

Send To:
Lab Name: SEQUOIA
Lab Address: 885 Jarvis Dr.
Morgan Hill, CA 95037
Lab PM: Latonya Pelt
Tele/Fax: 408-776-9600 / 408-782-6308
Report Type & QC Level: Send EDF Reports
BP/GEM Account No.:
Lab Bottle Order No:

BP/GEM Facility No.:
BP/GEM Facility Address: 1156 DAVIS ST, San Leandro, CA
Site ID No. ARCO 2111
Site Lat/Long:
California Global ID #: T0600101784
BP/GEM PM Contact: PAUL SUPPLE
Address:
Tele/Fax:

Consultant/Contractor: URS
Address: 500 12th St., Ste. 200
Oakland, CA 94609-4014
e-mail EDD: syed_rehan@urscorp.com
Consultant/Contractor Project No.: 15-00002111.01 00427
Consultant Tele/Fax: 510-874-1735/510-874-3268
Consultant/Contractor PM: Scott Robinson
Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Work Release No: INTRIM -50277

Item No.	Sample Description	Time	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Sediments	Matrix: Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl			Requested Analysis: TPH-G / BTEX 8015 / 8021 (8260)	TPH-D (8015)	MTBE (8021)	MTBE, TAME, ETBE DIPE, TBA (8260)	1,2-DCA & EDB (8260)	Ethanol (8260)				Sample Point Lat/Long and Comments
1	MW-1	825		X			01	3				X			X			X		X				
2	MW-3	750		X			02	3				X			X			X		X				
3	MW-4	810		X			03	3				X			X			X		X				
4	MW-6	[illegible]		X			04	3				X			X			X		X				
5	MW-7	9[illegible]		X			05	3				X			X			X		X				
6																								
7																								
8																								
9																								
10																								

Sampler's Name: Mike McNamara
Sampler's Company: Blaine Tech Services
Shipment Date:
Shipment Method:
Shipment Tracking No:

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
[signature]	7/10/03	1125	[signature]	7/10/03	1125
[signature]	7/10/03	1442	[signature]	7/10/03	1442

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

Custody Seals In Place Yes ___ No ✓   Temperature Blank Yes ___ No ✓   Cooler Temperature on Receipt 2 °F/C   Trip Blank Yes ___ No ✓

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

BP COC Rev. 1 2/3/03

Chain of Custody Record

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

Project Name 030704-MA1

BP BU/GEM CO Portfolio:

BP Laboratory Contract Number:

Date: 7/9/03 Requested Due Date (mm/dd/yy)

end To:	BP/GEM Facility No.:	Consultant/Contractor: URS
ab Name: SEQUOIA	BP/GEM Facility Address: 1156 DAVIS ST, San Leandro, CA	Address: 500 12th St., Ste. 200
ab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. ARCO 2111	Oakland, CA 94609-4014
	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #: T0600101764 (MNG 0243)	Consultant/Contractor Project No.: 15-00002111.01 00427
ab PM: Latonya Pelt	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-1735/510-874-3268
ele/Fax: 408-778-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: Send EDF Reports		Invoice to: Consultant/Contractor or BP/GEM (circle one)
BP/GEM Account No.:	Tele/Fax:	BP/GEM Work Release No: INYRIM-50277

ab Bottle Order No:

Item No.	Sample Description	Time	Matrix: Soil/Solid	Water/Liquid	Sediments	Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	Requested Analysis: TPH-G / BTEX (8015+8020)	TPH-D (8015)	MTBE (8021)	MTBE, TAME, ETBE DIPE, TBA (8260)	1,2-DCA & EDB (8260)	Ethanol (8260)	Sample Point Lat/Long and Comments
1	MW-5	845		X			04	3				X	X			X	X	X	
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sampler's Name: Mike McNamara	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date / Time
Sampler's Company: Blaine Tech Services		7/9/03	1125		7/9/03 1125
Shipment Date:		7/9/03	1442		7/10/03 1442
ipment Method:					
ment Tracking No:					

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

Seals In Place Yes ___ No ✓ Temperature Blank Yes ___ No ✓ Cooler Temperature on Receipt 2 °F/C Trip Blank Yes ___ No ✓

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: VRS
REC. BY (PRINT): TL
WORKORDER: MMG6293

DATE REC'D AT LAB: 7/10/03
TIME REC'D AT LAB: 1442
DATE LOGGED IN: 7-11-03

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

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s): Present / (Absent); Intact / Broken*			MW-1	(2) VOA	HCl	L	7/9/03	
2. Chain-of-Custody: (Present) / Absent*			-3					
3. Traffic Reports or Packing List: Present / (Absent)			-4					
4. Airbill: Airbill / Sticker Present / (Absent)			-6					
5. Airbill #:			-7					
6. Sample Labels: (Present) / Absent			-5					
7. Sample IDs: (Listed) / Not Listed on Chain-of-Custody								
8. Sample Condition: (Intact) / Broken* / Leaking*								
9. Does information on custody reports, traffic reports and sample labels agree? (Yes) / No*								
10. Sample received within hold time: (Yes) / No*								
11. Proper Preservatives used: (Yes) / No*								
12. Temp Rec. at Lab: 2°C; Is temp 4 +/-2°C? (Yes) / No**								

(Acceptance range for samples requiring thermal pres.)

**Exception (if any): Metals / DFF (Direct From Field) or Problem COC

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

Sample Receipt Log
Revision 3 (03/18/03)
Replaces Revision 2.3 (12/24/02)

ATTACHMENT C

HISTORIC GROUNDWATER DATA

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

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	**TPHG** LUFT Method µg/L	**Benzene** EPA 8021B* µg/L	**Toluene** EPA 8021B* µg/L	**Ethylbenzene** EPA 8021B* µg/L	**Total Xylenes** EPA 8021B* µg/L	**MTBE** EPA 8021B* µg/L	**MTBE** EPA 8260 µg/L	**TRPH** EPA 418.1 µg/L	**TPHD** LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-1	08-01-95	39.60	17.45	ND	22.15	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--		
MW-1	12-14-95	39.60	17.09	ND	22.51	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	03-21-96	39.60	14.72	ND	24.88	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	05-24-96	39.60	15.94	ND	23.66	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	08-09-96	39.60	17.89	ND	21.71	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	11-06-96	39.60	18.66	ND	20.94	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	03-24-97	39.60	16.13	ND	23.47	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	05-27-97	39.60	17.23	ND	22.37	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	08-07-97	39.60	18.68	ND	20.92	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	11-10-97	39.60	19.19	ND	20.41	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	02-16-98	39.60	12.61	ND	26.99	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	04-15-98	39.60	14.30	ND	25.30	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	07-24-98	39.60	16.40	ND	23.20	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	10-19-98	39.60	17.90	ND	21.70	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-1	01-28-99	39.60	16.85	ND	22.75	01-28-99	<20,000	580	<200	<200	320	14,000	--	--	--		
MW-1	06-25-99	39.60	17.35	ND	22.25	06-25-99	730	140	5	3	2	7,700	--	--	--	0.79	NP
MW-1	08-25-99	39.60	18.20	ND	21.40	08-25-99	390	66	8.5	<2.5	8.6	3,700	--	--	--	1.56	NP
MW-1	11-10-99	39.60	17.77	ND	21.83	11-10-99	360	70	13	2.2	13	980	--	--	--	0.30	NP
MW-1	02-09-00	39.60	16.25	ND	23.35	02-09-00	190	4.5	0.9	<0.5	12	3,500	--	--	--	0.53	NP
MW-2	08-01-95	37.99	15.67	ND	22.32	08-01-95	23,000	1,300	310	500	3,500	--	--	--	--		
MW-2	12-14-95	37.99	15.36	ND	22.63	12-14-95	7,300	900	25	180	1,000	<200	--	--	--		
MW-2	03-21-96	37.99	12.84	ND	25.15	03-21-96	9,600	850	30	280	1,400	250	--	--	--		
MW-2	05-24-96	37.99	14.03	ND	23.96	05-24-96	2,300	300	<5	73	310	<25	--	--	--		
MW-2	08-09-96	37.99	16.10	ND	21.89	08-09-96	2,800	290	6	75	320	50	--	--	--		

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Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	**TPHG** LUFT Method µg/L	**Benzene** EPA 8021B* µg/L	**Toluene** EPA 8021B* µg/L	**Ethylbenzene** EPA 8021B* µg/L	**Total Xylenes** EPA 8021B* µg/L	**MTBE** EPA 8021B* µg/L	**MTBE** EPA 8260 µg/L	**TRPH** EPA 418.1 µg/L	**TPHD** LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-2	11-06-96	37.99	16.98	ND	21.01	11-06-96	750	76	<1	15	51	110	--	--	--		
MW-2	03-24-97	37.99	14.22	ND	23.77	03-24-97	790	18	<1	2	6	280	--	--	--		
MW-2	05-27-97	37.99	15.42	ND	22.57	05-28-97	750	14	<1	<1	10	150	--	--	--		
MW-2	08-07-97	37.99	16.92	ND	21.07	08-07-97	360	31	<2.5	<2.5	15	260	--	--	--		
MW-2	11-10-97	37.99	17.52	ND	20.47	11-10-97	1,300	82	<5	14	49	550	--	--	--		
MW-2	02-16-98	37.99	12.04	ND	25.95	02-16-98	<2,500	<25	<25	<25	<25	4,200	--	--	--		
MW-2	04-15-98	37.99	12.34	ND	25.65	04-15-98	<10,000	<100	<100	<100	<100	7,300	--	--	--		
MW-2	07-24-98	37.99	14.45	ND	23.54	07-24-98	<2,500	<25	<25	<25	<25	1,500	--	--	--		
MW-2	10-19-98	37.99	16.08	ND	21.91	10-19-98	<1,000	18	<10	<10	<10	1,100	--	--	--		
MW-2	01-28-99	37.99	15.59	0.02	22.41 [1]	01-28-99	160,000	3,000	24,000	4,400	31,000	23,000	--	--	--		
MW-2	06-25-99	37.99	19.20	3.73[4]	21.51 [1]	06-25-99	120,000	6,900	21,000	2,600	19,000	18,000	17,000[3]	--	--	0.49	NP
MW-2	08-25-99	37.99	16.49	0.02	21.51 [1]	08-25-99	92,000	2,200	16,000	3,200	19,000	11,000	9,400[3]	--	--	0.84	NP
MW-2	11-10-99	37.99	16.08	ND	21.91	11-10-99	56,000	2,400	5,900	1,500	10,000	17,000	21,000[3]	--	--	0.41	NP
MW-2	02-09-00	37.99	14.85	ND	23.14	02-09-00	1,700	270	14	17	21	70,000	55,000[3]	--	--	0.97	NP
MW-3	08-01-95	39.32	17.00	ND	22.32	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	600	76[2]		
MW-3	12-14-95	39.32	16.70	ND	22.62	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	<50		
MW-3	03-21-96	39.32	14.17	ND	25.15	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	<50		
MW-3	05-24-96	39.32	15.30	ND	24.02	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	<50		
MW-3	08-09-96	39.32	17.58	ND	21.74	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	<500	--		
MW-3	11-06-96	39.32	18.33	ND	20.99	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	03-24-97	39.32	15.44	ND	23.88	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	05-27-97	39.32	16.75	ND	22.57	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	08-07-97	39.32	18.35	ND	20.97	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	11-10-97	39.32	18.83	ND	20.49	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		

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Historical Groundwater Elevation and Analytical Data
Petroleum Hydrocarbons and Their Constituents

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	**TPHG** LUFT Method µg/L	**Benzene** EPA 8021B* µg/L	**Toluene** EPA 8021B* µg/L	**Ethylbenzene** EPA 8021B* µg/L	**Total Xylenes** EPA 8021B* µg/L	**MTBE** EPA 8021B* µg/L	**MTBE** EPA 8260 µg/L	**TRPH** EPA 418.1 µg/L	**TPHD** LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-3	02-16-98	39.32	11.99	ND	27.33	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	04-15-98	39.32	13.75	ND	25.57	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	07-24-98	39.32	15.90	ND	23.42	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	10-19-98	39.32	17.45	ND	21.87	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-3	01-28-99	39.32	16.40	ND	22.92	01-28-99	<100	14	4	<1	6	100	--	--	--	1.11	NP
MW-3	06-25-99	39.32	17.92	ND	21.40	06-25-99	83	9.0	1.4	<0.5	2.5	220	--	--	--	1.13	NP
MW-3	08-25-99	39.32	17.79	ND	21.53	08-25-99	240	41	12	3.7	9.9	160	--	--	--	0.24	NP
MW-3	11-10-99	39.32	17.37	ND	21.95	11-10-99	620	100	9.7	4.1	21	150	--	--	--	0.62	NP
MW-3	02-09-00	39.32	15.77	ND	23.55	02-09-00	<50	<0.5	0.7	<0.5	<1	180	--	--	--		
MW-4	08-01-95	38.10	15.65	ND	22.45	08-01-95	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--		
MW-4	12-14-95	38.10	15.35	ND	22.75	12-14-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	03-21-96	38.10	12.74	ND	25.36	03-21-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	05-24-96	38.10	14.03	ND	24.07	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	08-09-96	38.10	16.10	ND	22.00	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	11-06-96	38.10	17.00	ND	21.10	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	03-24-97	38.10	14.21	ND	23.89	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	05-27-97	38.10	15.38	ND	22.72	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	08-07-97	38.10	16.95	ND	21.15	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	11-10-97	38.10	17.53	ND	20.57	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	02-16-98	38.10	10.65	ND	27.45	02-16-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	04-15-98	38.10	12.20	ND	25.90	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	07-24-98	38.10	14.47	ND	23.63	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	10-19-98	38.10	16.20	ND	21.90	10-19-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-4	01-28-99	38.10	15.02	ND	23.08	01-28-99	340	52	5.5	<0.5	74	31	--	--	--		

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ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8021B* µg/L	Toluene EPA 8021B* µg/L	Ethylbenzene EPA 8021B* µg/L	Total Xylenes EPA 8021B* µg/L	MTBE EPA 8021B* µg/L	MTBE EPA 8260 µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-4	06-25-99	38.10	15.57	ND	22.53	06-25-99	510	78	4.1	0.5	18	94	--	--	--	0.90	NP
MW-4	08-25-99	38.10	16.43	ND	21.67	08-25-99	660	130	21	6.4	39	110	--	--	--	1.01	NP
MW-4	11-10-99	38.10	16.02	ND	22.08	11-10-99	510	98	5.1	3.1	15	69	--	--	--	0.28	NP
MW-4	02-09-00	38.10	14.30	ND	23.80	02-09-00	<50	<0.5	0.9	<0.5	<1	55	--	--	--	0.67	NP
MW-5	03-21-96	37.21	12.60	ND	24.61	03-22-96	<50	<0.5	<0.5	<0.5	<0.5	82	--	--	--		
MW-5	05-24-96	37.21	13.71	ND	23.50	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	7	--	--	--		
MW-5	08-09-96	37.21	15.60	ND	21.61	08-09-96	<50	<0.5	<0.5	<0.5	<0.5	8	--	--	--		
MW-5	11-06-96	37.21	16.36	ND	20.85	11-06-96	<50	<0.5	<0.5	<0.5	<0.5	100	--	--	--		
MW-5	03-24-97	37.21	13.87	ND	23.34	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	460	--	--	--		
MW-5	05-27-97	37.21	14.71	ND	22.50	05-28-97	<100	<1	<1	<1	<1	120	--	--	--		
MW-5	08-07-97	37.21	16.90	ND	20.31	08-07-97	<250	<2.5	<2.5	<2.5	<2.5	250	--	--	--		
MW-5	11-10-97	37.21	16.88	ND	20.33	11-10-97	<1,000	<10	<10	<10	<10	770	--	--	--		
MW-5	02-16-98	37.21	10.56	ND	26.65	02-16-98	<200	<2	<2	<2	<2	230	--	--	--		
MW-5	04-15-98	37.21	12.20	ND	25.01	04-15-98	<500	<5	<5	<5	<5	900	--	--	--		
MW-5	07-24-98	37.21	14.20	ND	23.01	07-24-98	<500	<5	<5	<5	<5	570	--	--	--		
MW-5	10-19-98	37.21	15.74	ND	21.47	10-19-98	<250	<2.5	<2.5	<2.5	<2.5	300	--	--	--		
MW-5	01-28-99	37.21	14.60	ND	22.61	01-28-99	<500	8	<5	<5	<5	290	--	--	--		
MW-5	06-25-99	37.21	15.10	ND	22.11	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	1,300	--	--	--	0.76	NP
MW-5	08-25-99	37.21	15.91	ND	21.30	08-25-99	<50	<0.5	<0.5	<0.5	<0.5	6,700	--	--	--	0.98	NP
MW-5	11-10-99	37.21	15.52	ND	21.69	11-10-99	130	2.0	7.0	1.3	21	5,000	--	--	--	0.21	NP
MW-5	02-09-00	37.21	14.03	ND	23.18	02-09-00	92	<0.5	0.8	<0.5	1.0	7,900	--	--	--	0.51	NP
MW-6	03-21-96	37.11	11.55	ND	25.56	03-22-96	<50	<0.5	1.9	<0.5	<0.5	<3	--	--	--		
MW-6	05-24-96	37.11	12.80	ND	24.31	05-24-96	<50	<0.5	<0.5	<0.5	<0.5	6	--	--	--		

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

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	**TPHG** LUFT Method µg/L	**Benzene** EPA 8021B* µg/L	**Toluene** EPA 8021B* µg/L	**Ethylbenzene** EPA 8021B* µg/L	**Total Xylenes** EPA 8021B* µg/L	**MTBE** EPA 8021B* µg/L	**MTBE** EPA 8260 µg/L	**TRPH** EPA 418.1 µg/L	**TPHD** LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-6	08-09-96	37.11	Not surveyed			08-09-96	Not sampled: Car parked on well										
MW-6	11-06-96	37.11	Not surveyed			11-06-96	Not sampled: Car parked on well										
MW-6	03-24-97	37.11	13.06	ND	24.05	03-24-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	05-27-97	37.11	14.30	ND	22.81	05-28-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	08-07-97	37.11	16.40	ND	20.71	08-07-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	11-10-97	37.11	16.53	ND	20.58	11-10-97	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	02-16-98	37.11	Not surveyed			02-16-98	Not sampled: Car parked on well										
MW-6	04-15-98	37.11	10.95	ND	26.16	04-15-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	07-24-98	37.11	13.30	ND	23.81	07-24-98	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	10-19-98	37.11	Not surveyed			10-19-98	Not sampled: Car parked on well										
MW-6	01-28-99	37.11	13.92	ND	23.19	01-28-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--		
MW-6	06-25-99	37.11	15.47	ND	21.64	06-25-99	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	0.74	NP
MW-6	08-25-99	37.11	15.39	ND	21.72	08-25-99	<50	<0.5	3.4	0.6	3.7	<3	--	--	--	0.92	NP
MW-6	11-10-99	37.11	14.92	ND	22.19	11-10-99	<50	<0.5	<0.5	<0.5	<1	<3	--	--	--	0.31	NP
MW-6	02-09-00	37.11	13.30	ND	23.81	02-09-00	<50	<0.5	0.9	<0.5	1.3	<3	--	--	--	0.79	NP
MW-7	03-21-96	38.68	13.32	ND	25.36	03-22-96	32,000	870	450	970	4,900	280	--	--	--		
MW-7	05-24-96	38.68	14.58	ND	24.10	05-24-96	22,000	570	40	42	1,900	<200[2]	--	--	--		
MW-7	08-09-96	38.68	15.33	ND	23.35	08-09-96	14,000	390	<10	180	470	<200[2]	--	--	--		
MW-7	11-06-96	38.68	16.95	ND	21.73	11-06-96	9,500	440	<10	210	150	<100[2]	--	--	--		
MW-7	03-24-97	38.68	14.65	ND	24.03	03-24-97	6,400	420	<10	260	13	480	--	--	--		
MW-7	05-27-97	38.68	15.58	ND	23.10	05-28-97	5,000	420	<5	230	10	460	--	--	--		
MW-7	08-07-97	38.68	17.10	ND	21.58	08-07-97	3,900	350	<5	200	10	330	--	--	--		
MW-7	11-10-97	38.68	18.05	ND	20.63	11-10-97	5,600	590	10	370	43	540	--	--	--		
MW-7	02-16-98	38.68	12.03	ND	26.65	02-16-98	<5,000	390	<50	<50	61	4,300	--	--	--		

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

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Water Level Field Date	Top of Casing Elevation ft-MSL	Depth to Water feet	Free Product Thickness feet	Groundwater Elevation ft-MSL	Water Sample Field Date	**TPHG** LUFT Method µg/L	**Benzene** EPA 8021B* µg/L	**Toluene** EPA 8021B* µg/L	**Ethylbenzene** EPA 8021B* µg/L	**Total Xylenes** EPA 8021B* µg/L	**MTBE** EPA 8021B* µg/L	**MTBE** EPA 8260 µg/L	**TRPH** EPA 418.1 µg/L	**TPHD** LUFT Method µg/L	Dissolved Oxygen mg/L	Purged/ Not Purged P/NP
MW-7	04-15-98	38.68	13.02	ND	25.66	04-15-98	<10,000	<100	<100	<100	<100	8,900	--	--	--		
MW-7	07-24-98	38.68	14.18	ND	24.50	07-24-98	5,800	180	<50	74	<50	4,200	--	--	--		
MW-7	10-19-98	38.68	15.99	ND	22.69	10-19-98	<2,500	54	<25	72	<25	3,000	--	--	--		
MW-7	01-28-99	38.68	15.69	ND	22.99	01-28-99	4,500	560	250	<50	94	6,200	--	--	--		
MW-7	06-25-99	38.68	15.36	ND	23.32	06-25-99	3,900	520	160	46	100	45,000	63,000[3]	--	--	0.56	NP
MW-7	08-25-99	38.68	16.71	ND	21.97	08-25-99	3,400	730	77	51	110	62,000	76,000[3]	--	--	0.90	NP
MW-7	11-10-99	38.68	16.76	ND	21.92	11-10-99	15,000	340	19	13	20	55,000	91,000[3]	--	--	0.37	NP
MW-7	02-09-00	38.68	14.45	0.03	24.25 [1]	02-09-00	Not sampled: free product present										

ft-MSL: elevation in feet, relative to mean sea level
TPHG: total petroleum hydrocarbons as gasoline, California DHS LUFT Method
MTBE: Methyl tert-butyl ether
TRPH: total recoverable petroleum hydrocarbons
TPHD: total petroleum hydrocarbons as diesel, California DHS LUFT Method
*: EPA method 8020 prior to 11/10/99
EPA: United States Environmental Protection Agency
µg/L: micrograms per liter
mg/L: milligrams per liter
ND: none detected
-- : not available or not analyzed
<: less than laboratory detection limit stated to the right
[1]: [corrected elevation (Z')] = Z + (h * 0.73) where: Z = measured elevation, h = floating product thickness, 0.73 = density ratio of oil to water
[2]: chromatogram fingerprint is not characteristic of diesel
[3]: also analyzed for fuel oxygenates
[4]: this value is suspected to be erroneous based on subsequent check by bailer (following day). See discussion

Table 2
Groundwater Flow Direction and Gradient

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
08-01-95	NR	NR
12-14-95	West	0.002
03-21-96	West-Southwest	0.005
05-24-96	West	0.003
08-09-96	West-Northwest	0.01
11-06-96	West-Northwest	0.007
03-24-97	West	0.005
05-27-97	North-Northwest	0.006
08-07-97	West	0.009
11-10-97	West	0.002
02-16-98	South-Southwest	0.013
04-15-98	West-Southwest	0.014
07-24-98	Northwest	0.01
10-19-98	West	0.008
01-28-99	Southwest	0.01
06-25-99	North-Northwest	0.017
08-25-99	West-Northwest	0.005
11-10-99	West-Southwest	0.002
02-09-00	**West-Northwest**	**0.015**

NR: not recorded

Table 3
Fuel Oxygenates

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well I.D. Number	Field Date	TBA EPA 8260 ug/L	MTBE EPA 8260 ug/L	DIPE EPA 8260 ug/L	ETBE EPA 8260 ug/L	TAME EPA 8260 ug/L
MW-2	06-25-99	<25,000	17,000	<2,500	<2,500	<2,500
MW-2	08-25-99	<10,000	9,400	<1,000	<1,000	<1,000
MW-2	11-10-99	<25,000	21,000	<2,500	<2,500	<2,500
MW-2	02-09-00	<50,000	55,000	<5,000	<5,000	<5,000
MW-7	06-25-99	<50,000	63,000	<5,000	<5,000	<5,000
MW-7	08-25-99	<50,000	76,000	<5,000	<5,000	<5,000
MW-7	11-10-99	<50,000	91,000	<5,000	<5,000	<5,000
MW-7	02-09-00	Not sampled: free product present				

TBA = Tert-butyl alcohol
MTBE = Methyl-tert-Butyl Ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
TAME = Tert-amyl methyl ether
EPA = Environmental Protection Agency
ug/L = Microgram per liter
< = less than laboratory detection limit to the right

Table 4
Approximate Cumulative Floating Product Recovered

ARCO Service Station 2111
1156 Davis Street, San Leandro, California

Well Designation	Product Recovery Field Date	Floating Product Thickness (feet)	Floating Product Recovered (gallons)
MW-2	06/28/99	0.45	0.3
MW-2	06/30/99	0.015	0.01
MW-2	07/07/99	0.06	0.04
MW-2	07/23/99	0.008	0.005
MW-2	08/25/99	0.02	0.013
MW-2	09/21/99	0.01	0.013
MW-2	11/10/99	ND	0.00
MW-2	02/09/00	ND	0.00
MW-7	02/09/00	0.03	0.00
Cumulative Floating Product recoverd (gallons):			**0.381**

ND: not detected

Table 5
High Vacuum Extraction Pilot Test
Extracted Groundwater Analytical Data

ARCO Service Station No. 2111
1156 Davis Street, San Leandro, California

Date (mm/dd/yy)	Sample No. (GW#)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzen (ug/L)	Xylene (ug/L)	MtBE[1] (ug/L)	tBA[2] (ug/L)
11/15/1999	GW1	33000	1300	4500	890	4700	18000	<25000
11/15/1999	GW2	30000	14000	1200	4400	760	14000	<10000
11/16/1999	GW3	5500	260	620	74	980	5700	<5000
11/17/1999	GW4	4700	200	500	38	830	3700	410
11/18/1999	GW5	230	5.2	18	2.9	46	2100	340
11/19/1999	GW6	1500	36	120	28	160	3100	<2500

[1] MtBE and tBA analysis by EPA Method 8260

[2] tBA MRL was elevated due to high MtBE concentration requiring sample dilution

Table 6
High Vacuum Extraction Pilot Test
Mass Removal from Groundwater

ARCO Service Station No. 2111
1156 Davis Street, San Leandro, California

Date (mm/dd/yy)	Sample No. (GW#)	Volume (gal)	TPHg (lbs)[3]	Benzene (lbs)	Toluene (lbs)	Ethylbenzene (lbs)	Xylene (lbs)	MtBE[1] (lbs)	tBA[2] (lbs)
11/15/99	GW1	395.2	0.109	0.004	0.015	0.003	0.015	0.059	0.082
11/16/99	GW2	346.3	0.087	0.040	0.003	0.013	0.002	0.040	0.029
11/17/99	GW3	631.5	0.029	0.001	0.003	0.000	0.005	0.030	0.026
11/18/99	GW4	281.1	0.011	0.000	0.001	0.000	0.002	0.009	0.001
11/19/99	GW5	77.4	0.000	0.000	0.000	0.000	0.000	0.001	0.000
11/19/99	GW6	757.8	0.009	0.000	0.001	0.000	0.001	0.020	0.016
12/07/99	GW6	1400	0.017	0.000	0.001	0.000	0.002	0.036	0.029
Total		3889	0.262	0.047	0.025	0.017	0.028	0.195	0.183

[1] MtBE and tBA analysis by EPA Method 8260

[2] tBA MRL was elevated due to high MtBE concentration requiring sample dilution

[3] Mass, lbs = (Concentration, ug/L)(10-6 g/ug)(2.2x10-3 lbs/g)(3.785 L/gal)(Volume, gal)

12/07/99: Extracted 1400-gallons from MW2 and MW7 by Vac Truck

Table 7
High Vacuum Extraction Pilot Test
Extracted Vapor Analytical Data

ARCO Service Station No. 2111
1156 Davis Street, San Leandro, California

Date (mm/dd/yy)	Sample No. (V#)	TPHg (ppmv)	Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylene (ppmv)	MtBE (ppmv)
11/15/1999	V1	1900	21	58	12	44	58
11/15/1999	V2	2200	24	69	14	51	61
11/16/1999	V3	1400	13	48	10	37	50
11/17/1999	V4	760	3.4	23	5.5	20	28
11/18/1999	V5	590	7.8	22	4.8	18	31
11/19/1999	V6	830	7.2	29	7.1	25	NA

Analysis by EPA Method 8015M and 8020

Table 8
High Vacuum Extraction Pilot Test
Mass Removal from Vapor

ARCO Service Station No. 2111
1156 Davis Street, San Leandro, California

Date (mm/dd/yy)	Air Flow (cfm)	TPHg (lbs)[1]	Benzene (lbs)	Toluene (lbs)	Ethylbenzene (lbs)	Xylene (lbs)	MtBE (lbs)
11/15/1999	22	1.06	0.010	0.031	0.008	0.028	0.030
11/15/1999	23.5	4.51	0.040	0.137	0.032	0.117	0.116
11/16/1999	10.9	3.00	0.023	0.100	0.024	0.089	0.099
11/17/1999	30	9.78	0.036	0.287	0.079	0.288	0.335
11/18/1999	32	5.08	0.055	0.184	0.046	0.173	0.248
11/19/1999	32	11.2	0.080	0.379	0.107	0.377	NA
Total		34.6	0.244	1.12	0.296	1.07	0.828

[1] Mass, lbs = [(Flow, cfm)(Concentration, ppmv)(g/mole)(Time, min)(28.3 L/cf)] / [(10^6)(24.45 moles/L)(453.6 g/lb)]

where MW, g/mole: TPHg (C6-C12) = 95; Benzene = 78.1; Toluene = 92.1; Ethylbenzene = 106.2; Xylene = 106.2; MtBE = 88.2

ATTACHMENT D

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

07/31/03

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #2111, San Leandro,
Work Order Number:	MMG0243
Global ID:	T0600101764
Lab Report Number:	MMG0243072920031350

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
MMG02430729200 31350	MW-1	MMG024301	W	CS	8260FAB	SW5030B	07/09/03	07/22/03	07/23/03	3G22007	1	
MMG02430729200 31350	MW-3	MMG024302	W	CS	8260FAB	SW5030B	07/09/03	07/23/03	07/23/03	3G23001	1	
MMG02430729200 31350	MW-4	MMG024303	W	CS	8260FAB	SW5030B	07/09/03	07/23/03	07/23/03	3G23001	1	
MMG02430729200 31350	MW-5	MMG024306	W	CS	8260FAB	SW5030B	07/09/03	07/23/03	07/23/03	3G23001	1	
MMG02430729200 31350	MW-6	MMG024304	W	CS	8260FAB	SW5030B	07/09/03	07/23/03	07/23/03	3G23001	1	
MMG02430729200 31350	MW-7	MMG024305	W	CS	8260FAB	SW5030B	07/09/03	07/23/03	07/23/03	3G23001	1	
		MMG024401	W	NC	8260FAB	SW5030B	/ /	07/23/03	07/23/03	3G23001	1	
		MMG038610	W	NC	8260FAB	SW5030B	/ /	07/22/03	07/22/03	3G22007	1	
		3G22007BSD1	WQ	BD1	8260FAB	SW5030B	/ /	07/22/03	07/22/03	3G22007	1	
		3G22007BSD2	WQ	BD2	8260FAB	SW5030B	/ /	07/22/03	07/22/03	3G22007	1	
		3G22007BS1	WQ	BS1	8260FAB	SW5030B	/ /	07/22/03	07/22/03	3G22007	1	
		3G22007BS2	WQ	BS2	8260FAB	SW5030B	/ /	07/22/03	07/22/03	3G22007	1	
		3G22007BLK1	WQ	LB1	8260FAB	SW5030B	/ /	07/22/03	07/22/03	3G22007	1	
		3G22007MS1	W	MS1	8260FAB	SW5030B	/ /	07/22/03	07/22/03	3G22007	1	
		3G22007MSD1	W	SD1	8260FAB	SW5030B	/ /	07/22/03	07/22/03	3G22007	1	
		3G23001BS1	WQ	BS1	8260FAB	SW5030B	/ /	07/23/03	07/23/03	3G23001	1	
		3G23001BS2	WQ	BS2	8260FAB	SW5030B	/ /	07/23/03	07/23/03	3G23001	1	
		3G23001BLK1	WQ	LB1	8260FAB	SW5030B	/ /	07/23/03	07/23/03	3G23001	1	
		3G23001MS1	W	MS1	8260FAB	SW5030B	/ /	07/23/03	07/23/03	3G23001	1	
		3G23001MSD1	W	SD1	8260FAB	SW5030B	/ /	07/23/03	07/23/03	3G23001	1	

EDFSAMP: Error Summary Log

07/31/03

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

EDFTEST: Error Summary Log

07/31/03

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

EDFRES: Error Summary Log

07/31/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3G22007MS1	MS1	W	8260FAB	PR	07/22/03	1	DCA12D4
Warning: extra parameter	3G22007MS1	MS1	W	8260FAB	PR	07/22/03	1	GROC6C10
Warning: extra parameter	3G22007MSD1	SD1	W	8260FAB	PR	07/22/03	1	DCA12D4
Warning: extra parameter	3G22007MSD1	SD1	W	8260FAB	PR	07/22/03	1	GROC6C10
Warning: extra parameter	3G23001MS1	MS1	W	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	3G23001MS1	MS1	W	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	3G23001MSD1	SD1	W	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	3G23001MSD1	SD1	W	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	MMG024301	CS	W	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	MMG024301	CS	W	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	MMG024302	CS	W	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	MMG024302	CS	W	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	MMG024303	CS	W	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	MMG024303	CS	W	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	MMG024304	CS	W	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	MMG024304	CS	W	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	MMG024305	CS	W	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	MMG024305	CS	W	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	MMG024306	CS	W	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	MMG024306	CS	W	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	MMG024401	NC	W	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	MMG024401	NC	W	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	MMG038610	NC	W	8260FAB	PR	07/22/03	1	DCA12D4
Warning: extra parameter	MMG038610	NC	W	8260FAB	PR	07/22/03	1	GROC6C10
Warning: extra parameter	3G22007BLK1	LB1	WQ	8260FAB	PR	07/22/03	1	DCA12D4
Warning: extra parameter	3G22007BLK1	LB1	WQ	8260FAB	PR	07/22/03	1	GROC6C10

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3G22007BS1	BS1	WQ	8260FAB	PR	07/22/03	1	DCA12D4
Warning: extra parameter	3G22007BS2	BS2	WQ	8260FAB	PR	07/22/03	1	DCA12D4
Warning: extra parameter	3G22007BS2	BS2	WQ	8260FAB	PR	07/22/03	1	GROC6C10
Warning: extra parameter	3G22007BSD1	BD1	WQ	8260FAB	PR	07/22/03	1	DCA12D4
Warning: extra parameter	3G22007BSD2	BD2	WQ	8260FAB	PR	07/22/03	1	DCA12D4
Warning: extra parameter	3G22007BSD2	BD2	WQ	8260FAB	PR	07/22/03	1	GROC6C10
Warning: extra parameter	3G23001BLK1	LB1	WQ	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	3G23001BLK1	LB1	WQ	8260FAB	PR	07/23/03	1	GROC6C10
Warning: extra parameter	3G23001BS1	BS1	WQ	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	3G23001BS2	BS2	WQ	8260FAB	PR	07/23/03	1	DCA12D4
Warning: extra parameter	3G23001BS2	BS2	WQ	8260FAB	PR	07/23/03	1	GROC6C10

EDFQC: Error Summary Log

07/31/03

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

EDFCL: Error Summary Log

07/31/03

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

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UPLOADING A GEO_WELL FILE

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

Submittal Title:	**Third Quarter 03 Geowell for site # 2111**
Submittal Date/Time:	**7/31/2003 12:48:03 PM**
Confirmation Number:	**2564381241**

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Your EDF file has been succcessfully uploaded!

Confirmation Number: 6961503505
Date/Time of Submittal: 7/31/2003 12:49:44 PM
Facility Global ID: T0600101764
Facility Name: ARCO # 02111
Submittal Title: Third Quarter 03 Ground Water Monitoring for site 2111
Submittal Type: GW Monitoring Report

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CONTACT SITE ADMINISTRATOR.