



Atlantic Richfield Company
(a BP affiliated company)

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Alameda County
JUL 29 2003
Environmental Health

July 25, 2003

RE: Second Quarter 2003 Monitoring and Remediation System Performance Report
ARCO Service Station # 2035
101 San Pablo Avenue
Albany, CA
URS Project # 38486169

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



July 11, 2003

Barney Chan
Alameda Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Alameda County
JUL 29 2003
Environmental Health

**Re: Second Quarter 2003 Monitoring and Remediation System Performance Report
ARCO Service Station #2035
1001 San Pablo Avenue
Albany, California
URS Project #38486169**

Dear Mr. Chan:

On behalf of Atlantic Richfield Company (ARCO – an affiliated company of the Group Environmental Management Company), URS Corporation (URS) is submitting the *Second Quarter 2003 Site Status and Remediation System Performance Report* for the ARCO Service Station #2035, which is located at 1001 San Pablo Avenue, Albany, California.

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

Sincerely,

URS CORPORATION

Scott Robinson
Project Manager

James Durkin, C.Hg.
Project Geologist



Enclosure: Second Quarter 2003 Monitoring and Remediation System Performance Report

cc: Mr. Paul Supple, ARCO, PO Box 6549, Moraga, CA 94570
Barbara and James A. LeStrange, Property Owner, 6 La Canada Court, St. Helena, CA 94574
Muriel & Emile Turpin, Trustees, 957 Arlington Ave., Berkeley, CA 94707
Robert Cave, BAAQMD – Permit Division, 939 Ellis St., San Francisco, CA 94109

URS Corporation
500 12th Street, Suite 200
Oakland, CA 94607-4014
Tel: 510.893.3600
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R E P O R T

**SECOND QUARTER 2003
MONITORING AND
REMEDIATION SYSTEM
PERFORMANCE**

**ARCO SERVICE STATION #2035
1001 SAN PABLO AVENUE
ALBANY, CALIFORNIA**

Prepared for
Atlantic Richfield Company

July 11, 2003

URS

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

38486169

Date: July 11, 2003
 Quarter: 2Q 03

ATLANTIC RICHFIELD COMPANY QUARTER GROUNDWATER MONITORING AND REMEDIATION SYSTEM REPORT

Facility No.:	<u>2035</u>	Address:	<u>1001 San Pablo Avenue, Albany, California</u>
Atlantic Richfield Co. Environmental Engineer:			<u>Paul Supple</u>
Consulting Co./Contact Person:			<u>URS Corporation / Scott Robinson</u>
Consultant Project No.:			<u>38486169</u>
Primary Agency/Regulatory ID No.:			<u>Alameda County Health Care Services Association</u> <u>ACHCSA</u>

WORK PERFORMED THIS QUARTER (Second – 2003):

1. Performed second quarter monitoring event on June 3, 2003.
2. Prepared 2nd Quarter 2003 Monitoring and Remedation System Performance Report.
3. Completed blower installation, cleaned and retrofitted air/water separator knockout tank on soil vapor extraction (SVE) remediation system. ThermTech Oxidizer has been maintained and started up. Testing is in process.

WORK PROPOSED FOR NEXT QUARTER (Third – 2003):

1. Submit second quarter 2003 monitoring and remediation system performance report.
2. Prepare and submit third quarter 2003 Status Report.
3. Evaluate performance of SVE system and AS remediation system to bring to full operational status (restart and sample).

Current Phase of Project:	<u>Remediation/GW monitoring/sampling</u>
Frequency of Groundwater Sampling:	<u>Annually (2nd quarter): MW-5</u> <u>Semi-Annually (2nd /4th quarter): MW-1 through MW-4, MW-6, RW-1, and S-5</u>
Frequency of Groundwater Monitoring:	<u>Semi-annual</u>
Is Free Product (FP) Present On-Site:	<u>No</u>
Current Remediation Techniques:	<u>AS/SVE (under repair)</u>
Approximate Depth to Groundwater:	<u>8.62 (MW-4) to 12.48 (MW-6) feet</u>
Groundwater Gradient (direction):	<u>West</u>
Groundwater Gradient (magnitude):	<u>0.024 feet per foot</u>
Equipment Inventory:	<u>Therm Tech Model VAC-10 Thermal/Catalytic Oxidizer</u>
Operating Mode:	<u>Catalytic Oxidation</u>
BAAQMD Permit #:	<u>8694</u>
TPH Conc. End of Period (lab):	<u>NA</u>
Benzene Conc. End of Period (lab):	<u>NA</u>
SVE Flowrate End of Period:	<u>NA</u>
Total HC Destroyed This Period:	<u>NA</u>



Total HC Destroyed to Date:	3,967 pounds
Utility Usage	
Electric (kWh):	0
Gas (Therms):	0
Operating Hours This Period (SVE):	0
Operating Hours to Date (SVE):	18,789 Hours
Percent Operational This Period (SVE):	0%
Unit Maintenance:	Currently optimizing SVE system performance
Number of Auto Shut Downs:	2
Destruction Efficiency Permit Requirement:	98.5% (POC >2,000 ppmv); 97% (POC >200 ppmv); 90% (POC <200 ppmv)
Percent TPH Conversion:	Not calculated/Currently optimizing SVE system performance
Average Stack Temperature:	Not Measured/ Currently optimizing SVE system performance
Average SVE Source Flow:	Not Measured/ Currently optimizing SVE system performance
Average SVE Process Flow:	Not Measured/ Currently optimizing SVE system performance
Average Source Vacuum:	Not Measured/ Currently optimizing SVE system performance

DISCUSSION:

TPHg was detected in four of the eight wells sampled this quarter at concentrations from 130 $\mu\text{g/L}$ (MW-3) to 44,000 $\mu\text{g/L}$ (S-5). Benzene was detected in three wells at concentrations ranging from 78 $\mu\text{g/L}$ in RW-1 to 680 $\mu\text{g/L}$ in S-5. MTBE was detected in five wells, at concentrations ranging from 8.6 $\mu\text{g/L}$ in MW-1 to 120 $\mu\text{g/L}$ in MW-4. Tert-Butyl alcohol was detected in RW-1 at a concentration of 22 $\mu\text{g/L}$. Tert-Amyl methyl ether was detected in RW-1 at a concentration of 48 $\mu\text{g/L}$. 1,2 Dichloroethane was detected in MW-2 at a concentration of 0.94 $\mu\text{g/L}$.

System influent and effluent vapor samples were last collected on April 2, 2002. The SVE system has been inoperable since the site was transitioned from Cambria Environmental Technology, Inc. (Cambria) on May 31, 2002. The blower, repaired by Cambria, became inoperable again soon after being started up by URS. The blower has been repaired, the AWS knock-out tank has been retrofitted and the oxidizer is operational. A URS Technician is currently optimizing system operation before bringing system to full operation.

RECOMMENDATIONS:

We recommend changing the sampling frequency of well MW-6 from semi-annually to annually. The concentrations in this well have consistently been low to non-detect for the constituents of concern. This well will continue to be gauged semi-annually.

ATTACHMENTS:

- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Oxygenate Analytical Data
- Table 4 – SVE System Operational Uptime Information
- Table 5 – SVE System Flow Rate and Analytical Results of Air Samples
- Table 6 – SVE System Extraction Rates, Emission Rates, Destruction Efficiency and Mass Removed
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – June 3, 2003
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment C – Historical Groundwater Data Tables
- Attachment D – EDCC Report and EDF/Geowell Submittal Confirmation

Table 1
Grounwater Elevation and Analytical Data
 ARCO Service Station #2035
 1001 San Pablo Avenue,
 Albany, CA

Well Number	Date Sampled		Well Elevation ^a (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
MW-1	04/11/02	P	41.41	10.73	30.68	800	360	ND <5.0	ND <5.0	ND <5.0	ND <5.0	NA
	11/27/02	P		10.22	31.19	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.7	1.1
	06/03/03	P		9.14	32.27	1,700	430	ND <5.0	24	11	8.6	1.7
MW-2	04/11/02	P	40.38	11.05	29.33	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	24	NA
	11/27/02	P		10.51	29.87	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	5.4	2.6
	06/03/03	P		9.78	30.60	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	23	1.7
MW-3	04/11/02	P	41.44	11.05	30.39	250	9.4	ND <0.50	ND <0.50	ND <0.50	120	NA
	11/27/02	P		10.49	30.95	ND <100	ND <1.0	ND <1.0	ND <1.0	2.5	56	2.2
	06/03/03	P		9.44	32.00	130	ND<0.50	ND<0.50	ND<0.50	ND<0.50	47	4.1
MW-4	04/11/02	NP	40.33	10.81	29.52	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	11	NA
	11/27/02	NP		10.09	30.24	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	6.5	1.8
	06/03/03	NP		8.62	31.71	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	120	1.1
MW-5	04/11/02	NP	41.84	10.63	31.21	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <5.0	NA
	11/27/02	NP		10.65	31.19	NS	NS	NS	NS	NS	NS	NA
	06/03/03	NP		8.92	32.92	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8
MW-6	04/11/02	NP	40.13	11.42	28.71	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <5.0	NA
	11/27/02	NP		13.11	27.02	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.3
	06/03/03	NP		12.48	27.65	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.1
RW-1	04/11/02	P	40.33	9.20	31.13	15,000	750	2,000	380	2,000	1,500	NA
DUP	04/11/02	--		--	--	24,000	840	2,300	500	2,800	970	NA
	11/27/02	P		10.31	30.02	ND <2,500	720	ND <25	ND <25	ND <25	ND <25	1.8
	06/03/03	P		9.54	30.79	470	78	0.97	4.3	9.0	48	1.4

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 ARCO Service Station #2035
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 Albany, CA

Well Number	Date Sampled	Well Elevation ^a (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)
S-5	04/11/02	P --	10.17	--	30,000	390	1,400	410	7,400	ND <500	NA
	11/27/02	P	9.77	--	55,000	1,300	450	1,400	13,000	ND <50	4.3
	06/03/03	P	9.03	--	44,000	680	260	1,100	9,900	ND<25	1.9

Note: First and third quarter not monitored or sampled

BTEX = Benzene, toluene, ethyl benzene, and total xylenes analyzed using EPA Method 8260B

TPH = Total petroleum hydrocarbons (Gasoline Range Organics C6-C10) analyzed using EPA Method 8260B

MTBE =Methyl tertiary butyl ether analyzed using EPA Method 8260B.

DO =Dissolved Oxygen

µg/L = Micrograms per liter equivalent to parts per billion (ppb)

mg/L = Milligrams per liter equivalent to parts per billion (ppb)

P = Purge

NP = Not Purge

MSL = Mean sea level

TOC = Top of casing

ND < = Not detected at or above specified laboratory method detection limit

NS = Not sampled

NA = Not Available

a = Well elevation data obtained from historical groundwater elevation tables, Attachment D

b = Chromatogram Pattern: Unidentified Hydrocarbons C6-C10

Source: The data within this table collected prior to November 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 #2035
1001 San pablo Avenue
Albany, CA

Date Measured	Average Flow Direction	Average Hydraulic Gradient
04-11-02	Southwest	0.012
11-27-02	West	0.021
06-03-03	West	0.024

Source:

The data within this table collected prior to November 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 #2035
1001 San Pablo Ave, Richmond, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-Dichloroethane (µg/L)	1,2 Dibromoethane (EDB) (µg/L)
MW-1	06/03/03	ND<1000	ND<200	8.6	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
MW-2	06/03/03	ND<100	ND<20	23	ND<0.50	ND<0.50	ND<0.50	0.94	ND<0.50
MW-3	06/03/03	ND<100	ND<20	47	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-4	06/03/03	ND<500	ND<100	120	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
MW-5	06/03/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-6	06/03/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
RW-1	06/03/03	ND<100	22	48	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
S-5	06/03/03	ND<5,000	ND<1,000	ND<25	ND<25	ND<25	ND<25	ND<25	ND<25

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< = Not Detected below laboratory detection limits

**Table 4
Soil Vapor Extraction System
Operational Uptime Information**

ARCO Service Station #2035
1001 San Pablo Avenue, Albany, California

Date	Meter (hours)	Period Operation				Cumulative Operation				
		Total (days)	Uptime (days)	Downtime (days)	Uptime (%)	Total (days)	Uptime (days)	Downtime (days)	Uptime (%)	Total Operating Time (hours)
11/01/97						1425	335	1090	24%	6873
12/01/97	11484	30	14	16	47	1455	349	1106	24%	7211
01/27/98	11484	57	0	57	0	1512	349	1163	23%	7211
08/12/98	11484	197	0	197	0	1709	349	1360	20%	7211
09/02/98	11485	21	0	21	0	1730	349	1381	20%	7211
10/19/98	12280	47	33	14	70	1777	382	1395	22%	8006
11/10/98	12809	22	22	0	100	1799	404	1395	22%	8536
01/22/99	12809	73	0	73	0	1872	404	1468	22%	8536
02/11/99	12810	20	0	20	0	1892	404	1488	21%	8536
04/01/99	12810	49	0	49	0	1941	404	1537	21%	8536
06/10/99	12810	70	0	70	0	2011	404	1607	20%	8537
06/24/99	13146	14	14	0	100	2025	418	1607	21%	8873
08/17/99	13146	54	0	54	0	2079	418	1661	20%	8873
09/09/99	13147	23	0	23	0	2102	418	1684	20%	8873
09/21/99	13435	12	12	0	100	2114	430	1684	20%	9162
10/06/99	13450	15	1	14	4	2129	431	1698	20%	9177
10/20/99	13475	14	1	13	7	2143	432	1711	20%	9202
11/03/99	13812	14	14	0	100	2157	446	1711	21%	9538
11/17/99	14148	14	14	0	100	2171	460	1711	21%	9875
12/01/99	14391	14	10	4	72	2185	470	1715	22%	10118
12/16/99	14751	15	15	0	100	2200	485	1715	22%	10478
01/05/00	14751	20	0	20	0	2220	485	1735	22%	10478
01/19/00	15087	14	14	0	100	2234	499	1735	22%	10814
02/21/00	15087	33	0	33	0	2267	499	1768	22%	10814
03/01/00	15303	9	9	0	100	2276	508	1768	22%	11030
03/23/00	15831	22	22	0	100	2298	530	1768	23%	11557

Table 4
Soil Vapor Extraction System
Operational Uptime Information

ARCO Service Station #2035
1001 San Pablo Avenue, Albany, California

Date	Meter (hours)	Period Operation			Cumulative Operation					
		Total (days)	Uptime (days)	Downtime (days)	Uptime (%)	Total (days)	Uptime (days)	Downtime (days)	Uptime (%)	Total Operating Time (hours)
10/17/00	15832	208	0	208	0	2506	530	1976	21%	11559
10/24/00	15998	7	7	0	99	2513	537	1976	21%	11725
11/13/00	16319	20	13	7	67	2533	551	1982	22%	12045
11/28/00	16319	15	0	15	0	2548	551	1997	22%	12046
12/20/00	16319	22	0	22	0	2570	551	2019	21%	12046
01/17/01	16324	28	0	28	1	2598	551	2047	21%	12050
02/14/01	16346	28	1	27	3	2626	552	2074	21%	12072
02/26/01	16458	12	5	7	39	2638	556	2082	21%	12185
03/13/01	16466	15	0	15	2	2653	557	2096	21%	12193
03/30/01	16872	17	17	0	99	2670	574	2096	21%	12599
04/19/01	17029	20	7	13	33	2690	580	2110	22%	12756
04/30/01	17292	11	11	0	99	2701	591	2110	22%	13018
05/14/01	17601	14	13	1	92	2715	604	2111	22%	13327
05/22/01	17793	8	8	0	100	2723	612	2111	22%	13520
06/05/01	18126	14	14	0	99	2737	626	2111	23%	13852
06/25/01	18305	20	7	13	37	2757	633	2124	23%	14032
07/06/01	18569	11	11	0	100	2768	644	2124	23%	14296
07/18/01	18856	12	12	0	100	2780	656	2124	24%	14583
07/31/01	19166	13	13	0	99	2793	669	2124	24%	14893
08/09/01	19388	9	9	0	103	2802	643	2159	23%	15115
08/23/01	19720	14	14	0	99	2816	656	2160	23%	15447
09/05/01	20029	13	13	0	99	2829	655	2174	23%	15756
09/17/01	20321	12	12	0	101	2841	668	2173	23%	16048
09/24/01	20420	7	4	3	59	2848	672	2176	24%	16146
10/01/01	20425	7	0	7	3	2855	672	2183	24%	16152

**Table 4
Soil Vapor Extraction System
Operational Uptime Information**

ARCO Service Station #2035
1001 San Pablo Avenue, Albany, California

Date	Meter (hours)	Period Operation			Cumulative Operation					
		Total (days)	Uptime (days)	Downtime (days)	Uptime (%)	Total (days)	Uptime (days)	Downtime (days)	Uptime (%)	Total Operating Time (hours)
10/09/01	20621	8	8	0	102	2863	680	2183	24%	16347
10/15/01	20762	6	6	0	98	2869	686	2183	24%	16489
11/07/01	21320	23	23	0	101	2892	709	2183	25%	17047
11/21/01	21650	14	14	0	98	2906	723	2183	25%	17377
12/05/01	21986	14	14	0	100	2920	737	2183	25%	17713
12/27/01	22514	22	22	0	100	2942	759	2183	26%	18241
01/09/02	22516	13	0	13	1	2955	759	2196	26%	18242
01/21/02	22803	12	12	0	100	2967	771	2196	26%	18530
02/05/02	23063	15	11	4	72	2982	782	2200	26%	18789
6/31/02						-----System Not Operating-----				
12/31/02						-----System Not Operating-----				

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

Table 5
Soil Vapor Extraction System
Flow Rates and Analytical Results of Air Samples

ARCO Service Station #2035
1001 San Pablo Avenue, Albany, California

Date	Sample Location	Velocity			Hydrocarbon Concentrations (ppmv)					
		Vacuum (in. H2O)	/Actual Flow (fpm/acfm)	Flowrate ^{1,2} (scfm)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE
12/01/97	Influent			221	160	0.6	ND<0.1	1.6	2.5	
	Effluent				8	ND<0.1	0.1	ND<0.1	0.3	
01/27/98	Influent	NA	NA	NA	NA	NA	NA	NA	NA	
	Effluent									
08/12/98	Influent	NA	NA	NA	NA	NA	NA	NA	NA	
	Effluent									
09/02/98	Influent	30.0	600	27	610	ND<1	ND<1	2	3	
	Effluent		1050	92	9	ND<0.1	ND<0.1	0.1	ND<0.2	
10/19/98	Influent	20.0	500	23	64	ND<0.1	0.7	ND<0.1	ND<0.2	
	Effluent		1200	106	ND<5	ND<0.1	ND<0.1	ND<0.1	ND<0.2	
11/10/98	Influent	20.0	500	23	8	ND<0.1	0.1	ND<0.1	ND<0.2	
	Effluent		1200	106	ND<5	ND<0.1	ND<0.1	ND<0.1	ND<0.2	
06/10/99	Influent	35.0	1500	67	100	0.5	3	ND<0.1	0.9	ND<1
	Effluent		975	75	ND<5	ND<0.1	ND<0.1	ND<0.1	ND<0.2	ND<1
09/09/99	Influent	15.4	1900	90	ND<49	0.7	1.1	ND<0.1	ND<0.2	33
	Effluent		1200	92	ND<5	ND<0.1	ND<0.1	ND<0.1	ND<0.2	ND<0.8
10/06/99	Influent	16.0	1825	86	240	1	2.9	ND<0.1	0.7	67
	Effluent		900	69	9	ND<0.1	0.1	0.1	ND<0.2	ND<0.8
12/01/99	Influent	11.0	1900	91	210	0.7	0.8	ND<0.2	0.2	61
	Effluent		1500	115	ND<5	ND<0.1	ND<0.1	ND<0.1	ND<0.2	1.4
01/05/00	Influent	9.8	800	38	90	0.4	0.7	0.1	ND<0.2	33
	Effluent		1450	111	ND<5	ND<0.1	ND<0.1	ND<0.1	ND<0.2	ND<0.8
03/01/00	Influent	9.8	2000	96	54	1.3	4.8	1.1	7.2	19
	Effluent		1500	115	ND<5	ND<0.1	ND<0.1	ND<0.1	ND<0.2	ND<0.8
10/17/00	Influent	10.0	--	27	77	1.4	1.8	0.33	1.4	20
	Effluent		--	103	6.0	0.044	0.16	0.055	0.38	0.59

Table 5
Soil Vapor Extraction System
Flow Rates and Analytical Results of Air Samples

ARCO Service Station #2035
1001 San Pablo Avenue, Albany, California

Date	Sample Location	Vacuum (in. H2O)	Velocity		Flowrate ^{1,2} (scfm)	Hydrocarbon Concentrations (ppmv)				
			/Actual Flow (fpm/acfm)			TPHg	Benzene	Toluene	Ethylbenzene	Xylene
02/26/01	Influent	60.0	180	153	50.4	0.850	3.84	0.390	2.02	11.6
	Effluent		180	153	ND<2.84	ND<0.0314	0.0769	ND<0.0230	0.754	0.132
04/19/01	Influent	45.0	124	110	180	2.0	2.6	0.25	2.0	ND<1.5
	Effluent		124	110	ND<10.0	ND<0.15	0.24	ND<0.15	0.79	ND<1.5
05/14/01	Influent	40.0	76	69	41.0	0.511	0.299	0.0357	0.293	0.492
	Effluent		76	69	ND<2.84	ND<0.0314	ND<0.0266	ND<0.0230	ND<0.0230	ND<0.111
06/05/01	Influent	45.0	108	96	6.6	ND<0.31	0.41	0.072	0.32	2.2
	Effluent		108	96	ND<2.4	ND<0.31	ND<0.027	ND<0.023	0.068	ND<0.14
08/09/01	Influent	40.0	98.5	89	4.3	0.034	0.19	ND<0.024	0.15	0.20
	Effluent		98.5	89	ND<2.8	ND<0.032	0.026	ND<0.024	0.13	ND<0.11
09/05/01	Influent	50.0	113	99	5.2	0.038	0.39	0.025	0.14	0.83
	Effluent		113	99	ND<2.8	ND<0.032	ND<0.026	ND<0.024	0.027	ND<0.11
10/01/01	Influent	40.0	218	197	31	0.23	0.56	0.077	0.30	2.1
	Effluent		218	197	ND<2.8	ND<0.032	0.071	ND<0.024	0.036	ND<0.11
11/07/01	Influent	48.0	221	195	6.4	ND<0.032	0.33	0.029	0.14	1.4
	Effluent		221	195	ND<2.8	ND<0.032	ND<0.026	ND<0.024	ND<0.024	ND<0.11
12/05/01	Influent	61.0	200	170	7.5	0.16	0.52	ND<0.024	0.11	
	Effluent		200	170	ND<2.8	ND<0.032	ND<0.026	ND<0.024	ND<0.024	
01/09/02	Influent	65.0	203	171	45	0.52	2.4	0.22	1.3	5.6
	Effluent		203	171	ND<2.8	ND<0.032	0.049	ND<0.024	0.052	ND<0.11
02/05/02	Influent	64.0	200	169	23	0.16	1.4	0.15	0.84	4.8
	Effluent		200	169	ND<2.8	ND<0.032	0.076	ND<0.024	0.059	ND<0.11
04/02/02	Influent	NA	NA	NA	45	0.38	1.00	0.18	1.50	20.00
	Effluent		NA	NA	NA	ND<2.4	ND<0.031	ND<0.027	ND<0.023	0.05

Table 5
Soil Vapor Extraction System
Flow Rates and Analytical Results of Air Samples

ARCO Service Station #2035
1001 San Pablo Avenue, Albany, California

¹ Influent Flow Rate previous to 10/17/00, cfm = (Velocity, fpm)(Influent Pipe Area, sq. ft.)(406.8 in.H20 - Vacuum, in.H20) / (406.8 in.H20)

where Influent Pipe Diameter = 3"

Effluent Flow Rate, cfm = (Velocity, fpm)(Effluent Pipe Area, sq.ft.)[(460° R + 77° F) / (460° R + Vapor Temp F)]

where Effluent (after blower) Pipe Diameter = 4"

² Influent Flow Rate 10/17/00 to present, cfm = (Actual flow, acfm)(406.8 in.H20 - Vacuum, in.H20) / (406.8 in.H20)

Effluent Flow Rate 10/17/00 to present, scfm = (Actual flow, acfm)[(460° R + 77° F) / (460° R + Vapor Temp F)]

when dilution valve is open. If dilution valve is closed, influent flow = effluent flow

ND< = Not detected at or above the specified laboratory reporting limit

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

Table 6
Soil Vapor Extraction System
Extraction Rates, Emission Rates, Destruction Efficiency, and Mass Removed

ARCO Service Station #2035
1001 San Pablo Avenue, Albany, California

Date	Extraction Rate from Wellfield ¹		Emission Rate to Atmosphere ²		Destruction Efficiency ³		Period Removal ⁴		Cumulative Removal			
	TPHg (lbs/day)	Benzene (lbs/day)	TPHg (lbs/day)	Benzene (lbs/day)	TPHg (%)	Benzene (%)	TPHg (lbs)	Benzene (lbs)	TPHg (lbs)	Benzene (lbs)		
12/01/97	13.0	0.0381	0.651	ND<0.0064	95	NC	183.3	0.5	3022.6	250.5		
09/02/98	6.11	0.0000	0.306	ND<0.0027	95	NC	0.1	0.0	3022.7	250.5		
10/19/98	0.55	0.0000	ND<0.196	ND<0.0031	NC	NC	18.2	0.0	3040.8	250.5		
11/10/98	0.07	0.0000	ND<0.196	ND<0.0031	NC	NC	1.5	0.0	3042.3	250.5		
06/10/99	2.47	0.0097	ND<0.0138	ND<0.0021	NC	NC	0.1	0.0	3042.4	250.5		
09/09/99	1.61	0.0180	ND<0.0169	ND<0.0026	NC	NC	22.6	0.3	3065.0	250.8		
10/06/99	7.59	0.0247	0.229	ND<0.0020	97	NC	95.9	0.3	3160.9	251.1		
12/01/99	7.00	0.0182	ND<0.212	ND<0.0033	NC	NC	274.4	0.7	3435.3	251.8		
01/05/00	1.27	0.0044	ND<0.205	ND<0.0032	NC	NC	19.0	0.1	3454.3	251.9		
03/01/00	1.90	0.0357	ND<0.212	ND<0.0033	NC	NC	43.7	0.8	3498.0	252.7		
10/17/00	0.77	0.0110	ND<0.226	ND<0.0013	71	88	17.0	0.2	3515.0	252.9		
02/26/01	2.84	0.0374	ND<0.160	ND<0.0014	NC	NC	74.1	1.0	3589.2	253.9		
04/19/01	7.29	0.0633	ND<0.405	ND<0.0047	NC	NC	173.6	1.5	3762.8	255.4		
05/14/01	1.03	0.0100	ND<0.0715	ND<0.0006	NC	NC	24.6	0.2	3787.4	255.7		
06/25/01	0.23	ND<0.0085	ND<0.0847	ND<0.0085	NC	NC	6.8	0.3	3794.2	255.9		
08/09/01	0.14	0.0009	ND<0.0914	ND<0.0008	NC	NC	6.3	0.0	3800.5	256.0		
09/05/01	0.19	0.0011	ND<0.1020	ND<0.0009	NC	NC	5.1	0.0	3805.6	256.0		
10/01/01	2.24	0.0130	ND<0.2022	ND<0.0018	NC	NC	36.9	0.2	3842.5	256.2		
11/07/01	0.46	0.0018	ND<0.2005	ND<0.0018	NC	NC	17.1	0.1	3859.6	256.3		
12/05/01	0.47	0.0078	ND<0.1749	ND<0.0016	NC	NC	13.0	0.2	3872.6	256.5		
01/09/02	2.82	0.0255	ND<0.1755	ND<0.0016	NC	NC	62.2	0.6	3934.8	257.0		
02/05/02	1.42	0.0077	ND<0.1734	ND<0.0015	NC	NC	32.5	0.2	3967.3	257.2		
6/31/02					----System Not Operating----							
12/31/02					-----System Not Operating-----							

Table 6
Soil Vapor Extraction System
Extraction Rates, Emission Rates, Destruction Efficiency, and Mass Removed

ARCO Service Station #2035
1001 San Pablo Avenue, Albany, California

¹ Extraction Rate, lbs/day = (Influent Flow, cfm)(Influent conc., ppmv)(g/mole)(60 min/hr)(24 hr/day)(28.3 L/cf) / (10⁶)(24.45 moles/L)(453.6 g/lb)
where TPHg = 100 g/mole and Benzene = 78.1 g/mole; Influent conc. = 0, if reported as non-detect

² Emission Rate, lbs/day = (Effluent Flow, cfm)(Effluent conc., ppmv)(g/mole)(60 min/hr)(24 hr/day)(28.3 L/cf) / (10⁶)(24.45 moles/L)(453.6 g/lb)
where TPHg = 100 g/mole and Benzene = 78.1 g/mole; Effluent conc. = Method Reporting Limit, if reported as non-detect

³ Destruction Efficiency, % = (Extraction Rate - Emission Rate)(100) / (Extraction Rate); NC = Not Calculated due to non-detection.

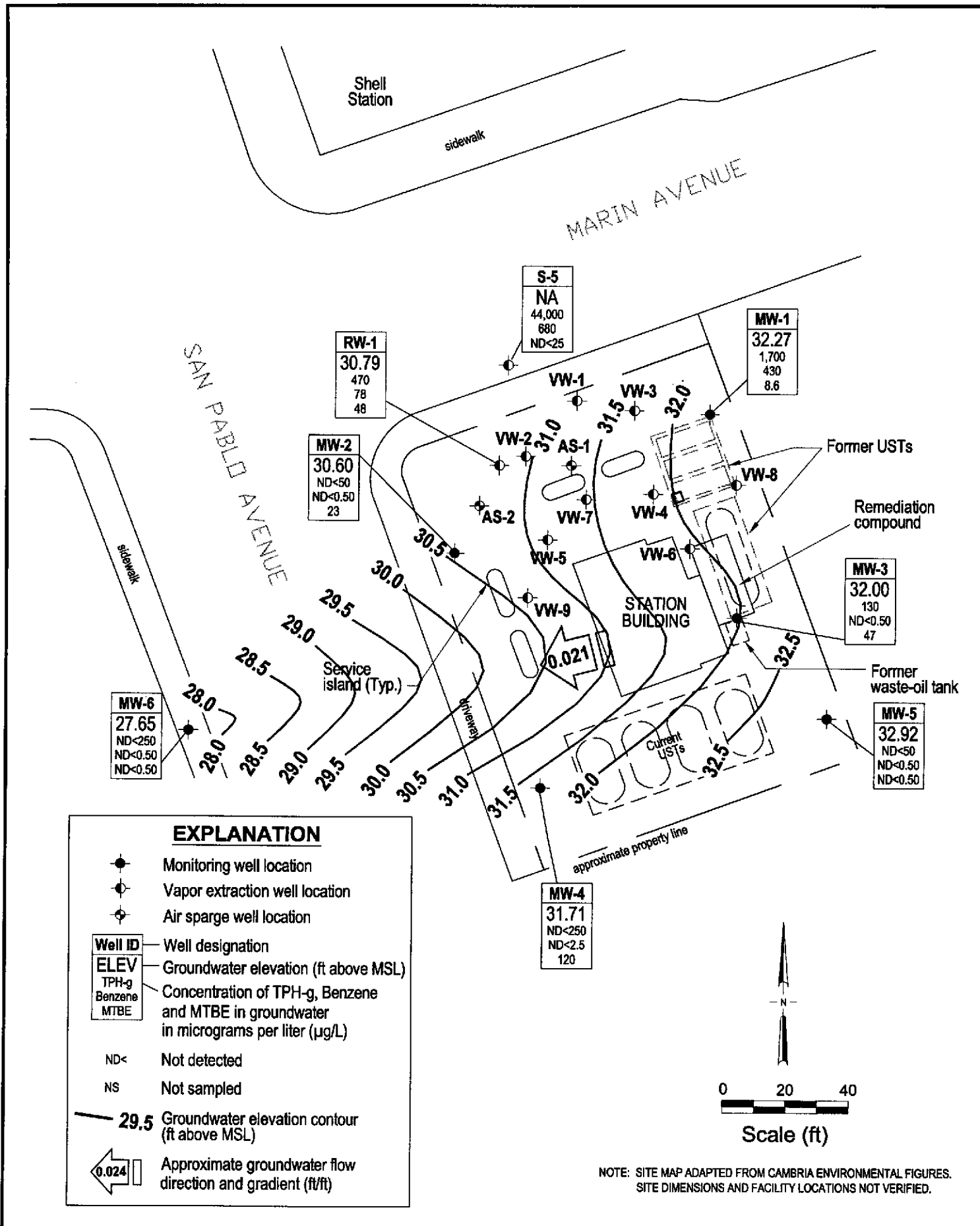
⁴ Period Removal, lbs = (Extraction Rate)(Uptime)

NC = Not Calculated

ND< = Not detected at or above the specified laboratory reporting limit

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

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EXPLANATION

- Monitoring well location
- Vapor extraction well location
- ⊕ Air sparge well location

Well ID	Well designation
ELEV	Groundwater elevation (ft above MSL)
TPH-g	Concentration of TPH-g, Benzene and MTBE in groundwater in micrograms per liter (µg/L)
Benzene	
MTBE	

ND< Not detected
NS Not sampled

— 29.5 Groundwater elevation contour (ft above MSL)

← 0.024 Approximate groundwater flow direction and gradient (ft/ft)

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 TeflonTM 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 # 030603-BAR Date 6/3/03 Client ARCO 2035

Site 1001 SAN PABLO AVE, ALBANY

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	All ✓ Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	4					9.14	29.64	TOC	
MW-2	4					9.78	28.73		
MW-3	4					9.44	32.44		
5' MW-4	4					8.62	25.05		
5' MW-5	4					8.92	24.29		
8' MW-6	2					12.48	24.21		
RW-1	6					9.54	25.49		
S-5	3					9.03	15.68		→

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030603-BA2	Station # 2035
Sampler: BRIAN ALCOAN	Date: 6/3/03
Well I.D.: MW-1	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 29.64	Depth to Water: 9.14
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

Purge Method: Bailer Sampling Method: Bailer

Disposable Bailer Disposable Bailer

Middleburg Extraction Port

Electric Submersible Other: _____

Extraction Pump

Other: _____

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

<u>13.3</u>	x	<u>3</u>	=	<u>39.9</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1414	68.1	6.6	751	13.5	brown, turbid
1415	67.8	6.5	667	27	"
1418	67.1	6.5	703	40	"

Did well dewater? Yes Gallons actually evacuated: 40

Sampling Time: 1422 Sampling Date: 6/3/03

Sample I.D.: MW-1 Laboratory: Pace Sequon Other _____

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	<u>1.7</u>	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030603-BA2	Station # 2035
Sampler: BRIAN ALCOAN	Date: 6/3/03
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8
Total Well Depth: 28.73	Depth to Water: 9.78
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH

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

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

Sampling Method: Bailer
 Disposable Bailer
 Extraction Port
 Other: _____

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

12.5	x	3	=	37.5	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1451	67.0	6.7	734	12.5	clear
1453	66.9	6.7	738	25.0	"
1455	66.6	6.7	739	37.5	"

Did well dewater? Yes No Gallons actually evacuated: 37.5

Sampling Time: 1500 Sampling Date: 6/3/03

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Oxys + Ethanol by 8260 ^{ALL}

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.7	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030603-BA2	Station # 2035
Sampler: BRIAN ALCORN	Date: 6/3/03
Well I.D.: MW-3	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 32.94	Depth to Water: 9.44
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

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

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

<u>15.5</u>	x	<u>3</u>	=	<u>46.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (inS or <u>µS</u>)	Gals. Removed	Observations
1449	65.4	6.7	631	15.5	cloudy, slight odor
1452	64.9	6.8	623	31	"
1455	65.4	6.8	615	46.5	"

Did well dewater? Yes <input type="checkbox"/> <u>No</u> <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>46.5</u>
Sampling Time: <u>1500</u>	Sampling Date: <u>6/3/03</u>
Sample I.D.: <u>MW-3</u>	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: TPH-G BTEX MTBE TPH-D Other: <u>See Scope</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: <u>1.1</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030603-BA2	Station # 2035
Sampler: BRIAN ALVARO	Date: 6/3/03
Well I.D.: MW-4	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 25.05	Depth to Water: 8.62
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

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

Top of Screen: 8.5' 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 <u>No Purge</u>	= _____ Gals.
	Specified Volumes	Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1225	66.0	6.5	496	—	clear

Did well dewater? Yes No	Gallons actually evacuated: _____
Sampling Time: 1225	Sampling Date: 6/3/03
Sample I.D.: MW-4	Laboratory: Pace <u>Sequoia</u> Other _____
Analyzed for: <u>TPH-G BTEX</u> MTBE TPH-D Other: <u>OPRS + Ethanol All by 8260</u>	
D.O. (if req'd):	Pre-purge: _____ mg/L <u>Post-purge:</u> 1.1 mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030603-BA2	Station # 2035
Sampler: BRIAN ALCOEN	Date: 6/3/03
Well I.D.: MW-5	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 24.29	Depth to Water: 8.92
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

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

Sampling Method: Bailer
Disposable Bailer
 Extraction Port
 Other: _____

Top of Screen: 8.5 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	<u>No Purge</u>	=	_____ Gals.
		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or <u>µS</u>)	Gals. Removed	Observations
1155	63.9	7.5	624	—	clear

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Time: 1155 Sampling Date: 6/3/03

Sample I.D.: MW-5 Laboratory: Pace Sequoia Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Onyx + Ethanol All by S260

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.8 mg/L
	O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030603-BA2	Station # 2035
Sampler: BRIAN ALCOBA	Date: 6/3/03
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8
Total Well Depth: 24.21	Depth to Water: 12.48
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

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

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

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

Top of Screen: 7.5' 8' 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 <u>No Purge</u>	=	_____ Gals.
	Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or (μS))	Gals. Removed	Observations
1310	67.0	6.4	678	—	clear

Did well dewater? Yes No Gallons actually evacuated: _____

Sampling Time: 1310 Sampling Date: 6/3/03

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

Analyzed for: (TPH-G BTEX) MTBE TPH-D Other: OXYS + Ethanol 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 #: 030603-BA2	Station # 2035
Sampler: BRIAN ALCOX	Date: 6/3/03
Well I.D.: RW-1	Well Diameter: 2 3 4 <u>6</u> 8
Total Well Depth: 25.49	Depth to Water: 9.54
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YSI</u> HACH

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

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

Other: _____

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

<u>23.5</u>	x	<u>3</u>	=	<u>70.5</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μ S)	Gals. Removed	Observations
1337	67.9	6.0	900	23.5	cloudy, odor
1341	68.0	6.7	893	47	"
1346	67.7	6.8	838	70.5	"

Did well dewater? Yes No Gallons actually evacuated: 70.5

Sampling Time: 1350 Sampling Date: 6/3/03

Sample I.D.: RW-1 Laboratory: Pace Sequoia Other _____

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

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	6.4	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:		mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 030603-BA2	Station # 2035
Sampler: BRIAN ALCOAN	Date: 6/3/03
Well I.D.: 5-5	Well Diameter: 2 <u>(3)</u> 4 6 8
Total Well Depth: 15.68	Depth to Water: 9.03
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> HACH

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

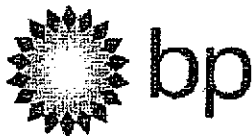
Purge Method: <u>(Bailer)</u> Disposable Bailer <u>(Middleburg)</u> Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>(Bailer)</u> Disposable Bailer Extraction Port Other: _____
--	--

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

2.5	x	3	=	7.5	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>(US)</u>)	Gals. Removed	Observations
1418	67.7	7.0	562	2.5	clear, strong odor
1420	WELL DEWATERED			2.0	14.32
1425	66.6	6.5	584	—	cloudy gray, debris, strong slight odor, sheer

Did well dewater? <u>(Yes)</u> No	Gallons actually evacuated: 4
Sampling Time: 1425 TRAFFIC WELL	Sampling Date: 6/3/03
Sample I.D.: 5-5	Laboratory: Pace <u>(Sequoia)</u> Other: _____
Analyzed for: <u>(TPH-G BTEX)</u> MTBE TPH-D Other: OMS + Ethanol ALL by 8260	
D.O. (if req'd):	Pre-purge: _____ mg/L Post-purge: <u>(1.9)</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV Post-purge: _____ mV



Chain of Custody Record

Project Name _____
 BP BU/GEM CO Portfolio: _____
 BP Laboratory Contract Number: _____
 Date: 6/5/03 Requested Due Date (mm/dd/yy) _____

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

end To:	BP/GEM Facility No.:	Consultant/Contractor: URS
ab Name: SEQUOIA	BP/GEM Facility Address: 1001 SAN PABLO AVE, ALBANY, CA	Address: 500 12th St., Ste. 200
ab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. ARCO 2035	Oakland, CA 94609-4014
	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #: T0600100081	Consultant/Contractor Project No.: J5-00002035.01 00427
ab PM: Latonya Pelt	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-1735/510-874-3268
ele/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Scott Robinson
eport Type & QC Level: Send EDF Reports	Tele/Fax:	Invoice to: Consultant/Contractor or <u>BP/GEM</u> (Circle one)
BP/GEM Account No.:		BP/GEM Work Release No: INTRIM -50231

em No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Requested Analysis				Sample Point Lat/Long and Comments
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	TPH-G/BTEX (8015)	TPH-D (8015)	MTBE (8021)	MTBE, TAME, ETBE, DIPE, TBA (8260)	
1	MW-1	1422	X				3					X			X		
2	MW-2	1500	X				3					X			X		
3	MW-3	1500	X				3					X			X		
4	MW-4	1225	X				3					X			X		
5	MW-5	1155	X				3					X			X		
6	MW-6	1310	X				3					X			X		
7	RW-1	1350	X				3					X			X		
8	S-5	1425	X				3					X			X		
9																	
10																	

ampler's Name: <u>Blaine Accord</u>	Relinquished By / Affiliation: _____	Date: _____	Time: _____	Accepted By / Affiliation: _____	Date: _____	Time: _____
ampler's Company: <u>Blaine Tech Services</u>	_____					
ipment Date:	_____					
ipment Method:	_____					
ipment Tracking No:	_____					

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

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

WELLHEAD INSPECTION CHECKLIST

Client Arco 2035 Date 6/3/03

Site Address 1001 SAN PABLO AVE, ALBANY

Job Number 030603-BA2 Technician Brian Allen

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	✗							✓
MW-2				✓	✓			✓
MW-3	✓							
MW-4		✓						✓
MW-5				✓	✓			
MW-6								✓
RW-1								✓
S-5								✓

NOTES: _____

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:

2035

Station #

1001 SAN PABLO AVE, ALBANY

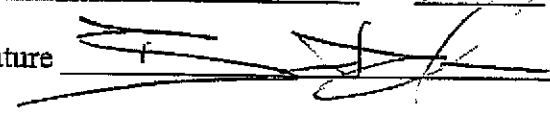
Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

added equip. _____ any other adjustments _____
 rinse water _____

TOTAL GALS. RECOVERED 198 loaded onto BTS vehicle # 23/49

BTS event # _____ time _____ date _____
030603-BA2 1530 6/3/03

signature 

REC'D AT _____ time _____ date _____
 _____ / _____ / _____

unloaded by _____
 signature _____

ATTACHMENT B

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

LABORATORY PROCEDURES

Laboratory Procedures

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



**Sequoia
Analytical**

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

23 June, 2003

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

RE: ARCO #2035, Albany, CA
Sequoia Work Order: MMF0098

Enclosed are the results of analyses for samples received by the laboratory on 06/04/03 14:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt
Project Manager

CA ELAP Certificate #1210



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

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MMF0098-01	Water	06/03/03 14:22	06/04/03 14:40
MW-2	MMF0098-02	Water	06/03/03 15:00	06/04/03 14:40
MW-3	MMF0098-03	Water	06/03/03 15:00	06/04/03 14:40
MW-4	MMF0098-04	Water	06/03/03 12:25	06/04/03 14:40
MW-5	MMF0098-05	Water	06/03/03 11:55	06/04/03 14:40
MW-6	MMF0098-06	Water	06/03/03 13:10	06/04/03 14:40
RW-1	MMF0098-07	Water	06/03/03 13:50	06/04/03 14:40
S-5	MMF0098-08	Water	06/03/03 14:25	06/04/03 14:40

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



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

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MMF0098-01) Water Sampled: 06/03/03 14:22 Received: 06/04/03 14:40									
Ethanol	ND	1000	ug/l	10	3F17009	06/17/03	06/17/03	EPA 8260B	
tert-Butyl alcohol	ND	200	"	"	"	"	"	"	
Methyl tert-butyl ether	8.6	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	430	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	24	5.0	"	"	"	"	"	"	
Xylenes (total)	11	5.0	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	1700	500	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.8 %		78-129	"	"	"	"	
MW-2 (MMF0098-02) Water Sampled: 06/03/03 15:00 Received: 06/04/03 14:40									
Ethanol	ND	100	ug/l	1	3F17009	06/17/03	06/17/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	23	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	0.94	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.4 %		78-129	"	"	"	"	



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

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MMF0098-03) Water Sampled: 06/03/03 15:00 Received: 06/04/03 14:40									
Ethanol	ND	100	ug/l	1	3F17009	06/17/03	06/17/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	47	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)	130	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.6 %		78-129	"	"	"	"	
MW-4 (MMF0098-04) Water Sampled: 06/03/03 12:25 Received: 06/04/03 14:40									
Ethanol	ND	500	ug/l	5	3F17009	06/17/03	06/17/03	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	120	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	ND	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	ND	2.5	"	"	"	"	"	"	
Xylenes (total)	ND	2.5	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	250	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.4 %		78-129	"	"	"	"	



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

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-5 (MMF0098-05) Water Sampled: 06/03/03 11:55 Received: 06/04/03 14:40

Ethanol	ND	100	ug/l	1	3F17033	06/17/03	06/17/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	O-09
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	50	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 105 % 78-129 " " " "

MW-6 (MMF0098-06) Water Sampled: 06/03/03 13:10 Received: 06/04/03 14:40

Ethanol	ND	100	ug/l	1	3F17033	06/17/03	06/17/03	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	O-09
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 104 % 78-129 " " " "



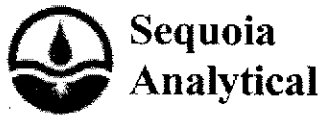
URS Corporation [Arco]
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-1 (MMF0098-07) Water Sampled: 06/03/03 13:50 Received: 06/04/03 14:40									
Ethanol	ND	100	ug/l	1	3F17033	06/17/03	06/17/03	EPA 8260B	
tert-Butyl alcohol	22	20	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	48	0.50	"	"	"	"	"	"	O-09
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	78	0.50	"	"	"	"	"	"	
Toluene	0.97	0.50	"	"	"	"	"	"	
Ethylbenzene	4.3	0.50	"	"	"	"	"	"	
Xylenes (total)	9.0	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	470	50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %		78-129	"	"	"	"	
S-5 (MMF0098-08) Water Sampled: 06/03/03 14:25 Received: 06/04/03 14:40									
Ethanol	ND	5000	ug/l	50	3F17033	06/17/03	06/17/03	EPA 8260B	
tert-Butyl alcohol	ND	1000	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	25	"	"	"	"	"	"	O-09
Di-isopropyl ether	ND	25	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	25	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	25	"	"	"	"	"	"	
1,2-Dichloroethane	ND	25	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	25	"	"	"	"	"	"	
Benzene	680	25	"	"	"	"	"	"	
Toluene	260	25	"	"	"	"	"	"	
Ethylbenzene	1100	25	"	"	"	"	"	"	
Xylenes (total)	9900	25	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	44000	2500	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.2 %		78-129	"	"	"	"	



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

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

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3F17009 - EPA 5030B P/T

Blank (3F17009-BLK1)

Prepared & Analyzed: 06/17/03

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 4.63 " 5.00 92.6 78-129

Laboratory Control Sample (3F17009-BS1)

Prepared & Analyzed: 06/17/03

Methyl tert-butyl ether	8.30	0.50	ug/l	10.0		83.0	63-137			
Benzene	9.73	0.50	"	10.0		97.3	78-124			
Toluene	9.87	0.50	"	10.0		98.7	78-129			

Surrogate: 1,2-Dichloroethane-d4 4.70 " 5.00 94.0 78-129

Laboratory Control Sample (3F17009-BS2)

Prepared & Analyzed: 06/17/03

Methyl tert-butyl ether	8.25	0.50	ug/l	9.92		83.2	63-137			
Benzene	5.52	0.50	"	6.40		86.2	78-124			
Toluene	32.4	0.50	"	29.7		109	78-129			
Gasoline Range Organics (C6-C10)	487	50	"	440		111	70-113			

Surrogate: 1,2-Dichloroethane-d4 4.70 " 5.00 94.0 78-129

Sequoia Analytical - Morgan Hill

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885 Jarvis Dr
Morgan Hill, CA 95037
(408) 776-9600
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URS Corporation [Arco]
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3F17009 - EPA 5030B P/T

Laboratory Control Sample Dup (3F17009-BSD1)

Prepared: 06/17/03 Analyzed: 06/18/03

Methyl tert-butyl ether	8.82	0.50	ug/l	10.0		88.2	63-137	6.07	13	
Benzene	9.77	0.50	"	10.0		97.7	78-124	0.410	12	
Toluene	9.61	0.50	"	10.0		96.1	78-129	2.67	10	

Surrogate: 1,2-Dichloroethane-d4 4.89 " 5.00 97.8 78-129

Laboratory Control Sample Dup (3F17009-BSD2)

Prepared: 06/17/03 Analyzed: 06/18/03

Methyl tert-butyl ether	8.02	0.50	ug/l	9.92		80.8	63-137	2.83	13	
Benzene	5.76	0.50	"	6.40		90.0	78-124	4.26	12	
Toluene	32.6	0.50	"	29.7		110	78-129	0.615	10	
Gasoline Range Organics (C6-C10)	482	50	"	440		110	70-113	1.03	9	

Surrogate: 1,2-Dichloroethane-d4 4.75 " 5.00 95.0 78-129

Matrix Spike (3F17009-MS1)

Source: MMF0172-01

Prepared: 06/17/03 Analyzed: 06/18/03

Methyl tert-butyl ether	1230	25	ug/l	496	840	78.6	63-137			
Benzene	274	25	"	320	6.0	83.8	78-124			
Toluene	1550	25	"	1480	3.5	104	78-129			
Gasoline Range Organics (C6-C10)	25000	2500	"	22000	1300	108	70-113			

Surrogate: 1,2-Dichloroethane-d4 4.79 " 5.00 95.8 78-129

Matrix Spike Dup (3F17009-MSD1)

Source: MMF0172-01

Prepared: 06/17/03 Analyzed: 06/18/03

Methyl tert-butyl ether	1240	25	ug/l	496	840	80.6	63-137	0.810	13	
Benzene	290	25	"	320	6.0	88.8	78-124	5.67	12	
Toluene	1640	25	"	1480	3.5	111	78-129	5.64	10	
Gasoline Range Organics (C6-C10)	25500	2500	"	22000	1300	110	70-113	1.98	9	

Surrogate: 1,2-Dichloroethane-d4 4.85 " 5.00 97.0 78-129

Batch 3F17033 - EPA 5030B P/T

Blank (3F17033-BLK1)

Prepared & Analyzed: 06/17/03

Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							

O-09

Sequoia Analytical - Morgan Hill

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

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

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 3F17033 - EPA 5030B P/T										
Blank (3F17033-BLK1) Prepared & Analyzed: 06/17/03										
Methyl tert-butyl ether	ND	0.50	ug/l							O-09
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.16		"	5.00		103	78-129			
Laboratory Control Sample (3F17033-BS1) Prepared: 06/17/03 Analyzed: 06/18/03										
tert-Butyl alcohol	167	20	ug/l	200		83.5				O-09
Methyl tert-butyl ether	9.52	0.50	"	10.0		95.2	63-137			
Benzene	10.1	0.50	"	10.0		101	78-124			
Toluene	10.2	0.50	"	10.0		102	78-129			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	4.80		"	5.00		96.0	78-129			
Laboratory Control Sample (3F17033-BS2) Prepared: 06/17/03 Analyzed: 06/18/03										
Methyl tert-butyl ether	8.65	0.50	ug/l	9.92		87.2	63-137			
Benzene	5.55	0.50	"	6.40		86.7	78-124			
Toluene	32.8	0.50	"	29.7		110	78-129			
Gasoline Range Organics (C6-C10)	446	50	"	440		101	70-113			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.06		"	5.00		101	78-129			
Matrix Spike (3F17033-MS1) Source: MMF0098-08 Prepared: 06/17/03 Analyzed: 06/18/03										
Methyl tert-butyl ether	440	25	ug/l	496	ND	88.7	63-137			
Benzene	870	25	"	320	680	59.4	78-124			QM-07
Toluene	1850	25	"	1480	260	107	78-129			QM-07
Gasoline Range Organics (C6-C10)	55500	2500	"	22000	44000	52.3	70-113			QM-07

Sequoia Analytical - Morgan Hill

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Oakland CA, 94607

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3F17033 - EPA 5030B P/T

Matrix Spike (3F17033-MS1) Source: MMF0098-08 Prepared: 06/17/03 Analyzed: 06/18/03

Surrogate: 1,2-Dichloroethane-d4 4.88 ug/l 5.00 97.6 78-129

Matrix Spike Dup (3F17033-MSD1) Source: MMF0098-08 Prepared: 06/17/03 Analyzed: 06/18/03

Methyl tert-butyl ether	458	25	ug/l	496	ND	92.3	63-137	4.01	13	
Benzene	910	25	"	320	680	71.9	78-124	4.49	12	QM-07
Toluene	1940	25	"	1480	260	114	78-129	4.75	10	QM-07
Gasoline Range Organics (C6-C10)	58200	2500	"	22000	44000	64.5	70-113	4.75	9	QM-07

Surrogate: 1,2-Dichloroethane-d4 4.94 " 5.00 98.8 78-129

Batch 3F20022 - EPA 5030B P/T

Blank (3F20022-BLK1) Prepared & Analyzed: 06/20/03

Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							O-09
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	5.14		"	5.00		103	78-129			

Sequoia Analytical - Morgan Hill

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

 Project: ARCO #2035, Albany, CA
 Project Number: INTRIM-50231
 Project Manager: Scott Robinson

 MMF0098
 Reported:
 06/23/03 14:37

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3F20022 - EPA 5030B P/T
Laboratory Control Sample (3F20022-BS1)

Prepared & Analyzed: 06/20/03

Methyl tert-butyl ether	11.6	0.50	ug/l	10.0		116	63-137			
Benzene	10.4	0.50	"	10.0		104	78-124			
Toluene	10.0	0.50	"	10.0		100	78-129			

Laboratory Control Sample (3F20022-BS2)

Prepared & Analyzed: 06/20/03

Methyl tert-butyl ether	9.41	0.50	ug/l	9.92		94.9	63-137			
Benzene	5.40	0.50	"	6.40		84.4	78-124			
Toluene	31.5	0.50	"	29.7		106	78-129			
Gasoline Range Organics (C6-C10)	408	50	"	440		92.7	70-113			

Surrogate: 1,2-Dichloroethane-d4	5.28		"	5.00		106	78-129			
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Matrix Spike (3F20022-MS1)

Source: MMF0098-08REI Prepared & Analyzed: 06/20/03

Methyl tert-butyl ether	464	25	ug/l	496	ND	93.5	63-137			
Benzene	925	25	"	320	710	67.2	78-124			QM-07
Toluene	1730	25	"	1480	250	100	78-129			
Gasoline Range Organics (C6-C10)	59000	2500	"	22000	41000	81.8	70-113			

Surrogate: 1,2-Dichloroethane-d4	5.23		"	5.00		105	78-129			
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Matrix Spike Dup (3F20022-MSD1)

Source: MMF0098-08REI Prepared & Analyzed: 06/20/03

Methyl tert-butyl ether	486	25	ug/l	496	ND	98.0	63-137	4.63	13	
Benzene	962	25	"	320	710	78.8	78-124	3.92	12	
Toluene	1850	25	"	1480	250	108	78-129	6.70	10	
Gasoline Range Organics (C6-C10)	61000	2500	"	22000	41000	90.9	70-113	3.33	9	

Surrogate: 1,2-Dichloroethane-d4	5.29		"	5.00		106	78-129			
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URS Corporation [Arco]
500 12th Street, Suite 100
Oakland CA, 94607

Project: ARCO #2035, Albany, CA
Project Number: INTRIM-50231
Project Manager: Scott Robinson

MMF0098
Reported:
06/23/03 14:37

Notes and Definitions

- O-09 The result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.
- O-12 "The continuing calibration verification was outside of client contractual acceptance limits by 5.8% high. However, it was within method acceptance limits. The data should still be useful for its intended purpose."
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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.
- 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 _____
 BP BU/GEM CO Portfolio: _____
 BP Laboratory Contract Number: _____
 Date: 6/3/03 Requested Due Date (mm/dd/yy) _____

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 BDF Reports
 BP/GEM Account No.: _____
 Lab Bottle Order No.: _____

BP/GEM Facility No.: _____
 BP/GEM Facility Address: 1001 SAN FABLO AVE, ALBANY, CA
 Site ID No. ARCO 2035
 Site Lat/Long: _____
 California Global ID #: T0800100081
 BP/GEM PM Contact: PAUL SUPPLE
 Address: _____
 Tele/Fax: _____

Consultant/Contractor: URS
 Address: 500 12th St., Ste. 200
Oakland, CA 94609-4014
 e-mail BDD: syed_rehan@urscorp.com
 Consultant/Contractor Project No.: 15-00002035.01 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 - 50231

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Requested Analysis					Sample Point Lat/Long and Comments		
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	TPH-G/BTEX (8657-9924) (2260)	TPH-D (8015)	MTBE (3021)	MIBE, TAMB, ETBE (2260)	DIPE, TBA (2260)		1,2-DCA & EDB (2260)	Etanol (2260)
1	MW-1	1422		X			01	3					X							
2	MW-2	1500		X			02	3					X							
3	MW-3	1500		X			03	3					X							
4	MW-4	1225		X			04	3					X							
5	MW-5	1155		X			05	3					X							
6	MW-6	1310		X			06	3					X							
7	R20-1	1350		X			07	3					X							
8	S5	1425		X			08	3					X							
9																				
10																				

Sampler's Name: Brian Auer Relinquished By / Affiliation: _____ Date: 6/4/03 Time: 1135
 Sampler's Company: BRAIN TREN SERVICES Date: 6/4/03 Time: 1440
 Shipment Date: _____ Date: 6/4/03 Time: 1135
 Shipment Method: _____ Date: 6/4/03 Time: 1440
 Shipment Tracking No.: _____

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

Seals In Place Yes No X Temperature Blank Yes No X Cooler Temperature on Receipt 5.0°C Trip Blank Yes No X

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP
 REC. BY (PRINT) [Signature]
 WORKORDER: PMF0098

DATE REC'D AT LAB: 6/4/03
 TIME REC'D AT LAB: 19:40
 DATE LOGGED IN: 6-4-03

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 / <input checked="" type="checkbox"/> Absent Intact / Broken*	01		MW-1	B) vials	HCL	L	6/3/03	
2. Chain-of-Custody <input checked="" type="checkbox"/> Present / Absent*	02		2	↓	↓	↓	↓	
3. Traffic Reports or Packing List: Present <input checked="" type="checkbox"/> Absent	03		3	↓	↓	↓	↓	
4. Airbill: Airbill / Sticker Present <input checked="" type="checkbox"/> Absent	04		4	↓	↓	↓	↓	
5. Airbill #: Present <input checked="" type="checkbox"/> Absent	05		5	↓	↓	↓	↓	
6. Airbill #: Present <input checked="" type="checkbox"/> Absent	06		KV-1	↓	↓	↓	↓	
7. Sample Labels: Present <input checked="" type="checkbox"/> Absent	07		S-5	↓	↓	↓	↓	
8. Sample IDs: <input checked="" type="checkbox"/> Listed / Not Listed on Chain-of-Custody								
9. Sample Condition: <input checked="" type="checkbox"/> Intact / Broken* / Leaking*								
10. Does information on custody reports, traffic reports and sample labels agree? <input checked="" type="checkbox"/> Yes / No*								
11. Sample received within hold time: <input checked="" type="checkbox"/> Yes / No*								
12. Proper Preservatives used: <input checked="" type="checkbox"/> Yes / No*								
13. Temp Rec. at Lab: <u>5°C</u> Is temp 4 +/-2°C? <input checked="" type="checkbox"/> 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.**

ATTACHMENT C

HISTORICAL GROUNDWATER DATA TABLES

Table 3
 Historical Groundwater Analytical Data
 Petroleum Hydrocarbons and Their Constituents
 1994 - Present*

ARCO Service Station 2035
 1001 San Pablo Avenue, Albany, California

Date: 06-26-03

Well Designation	Water Sample Field Date	TPHG LUFT Method	Benzene EPA 8020	Toluene EPA 8020	Ethylbenzene EPA 8020	Total Xylenes EPA 8020	MTBE EPA 8020	MTBE EPA 8240	Oil and Grease SM 5520B&F	Oil and Grease SM 5520C	Oil and Grease SM 5520F	TPPH EPA 418.1	TPHD LUFT Method
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1	01-31-90	<50	13	<0.5	0.5	0.6	--	--	--	--	--	--	--
MW-1	04-25-90	990	290	3.5	18	14	--	--	--	--	--	--	--
MW-1	07-28-90	760	280	<2.5	7.1	<2.5	--	--	--	--	--	--	--
MW-1	11-14-90	570	150	7.3	<2.5	30	--	--	--	--	--	--	--
MW-1	03-23-91	8800	3600	<50	62	99	--	--	--	--	--	--	--
MW-1	05-23-91	4800	2000	<20	52	<20	--	--	--	--	--	--	--
MW-1	08-21-91	780	310	<2.5	12	<2.5	14	--	--	--	--	--	--
MW-1	11-08-91	58	14	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-1	02-26-92	2700	930	12	18	32	51	--	--	--	--	--	--
MW-1	04-21-92	2700	1000	<10	22	<10	<60	--	--	--	--	--	--
MW-2	01-31-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	04-25-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	11-14-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-2	05-23-91	Not sampled: not scheduled for chemical analysis											
MW-2	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-2	11-08-91	Not sampled: not scheduled for chemical analysis											
MW-2	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-2	04-21-92	Not sampled: not scheduled for chemical analysis											
MW-3	01-31-90	<50	1.9	<0.5	2.1	<0.5	--	--	--	<500	<500	--	--
MW-3	04-25-90	<50	1.1	<0.5	2.4	0.9	--	--	--	--	--	<600	--
MW-3	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	600	--
MW-3	11-14-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<500	--
MW-3	03-23-91	51	0.8	<0.5	2.4	<0.5	--	--	--	--	--	<500	--
MW-3	05-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<500	--
MW-3	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	79	--	--	--	--	<500	--
MW-3	11-08-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	600	--
MW-3	02-26-92	120	3.6	<0.5	2.2	3.7	90	--	--	--	--	<0.5	--
MW-3	04-21-92	<50	<0.5	<0.5	<0.5	<0.5	90	--	--	--	--	--	--
MW-4	01-31-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	04-25-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	11-14-90	220	12	19	0.9	39	--	--	--	--	--	--	--
MW-4	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	05-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-4	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	99	--	--	--	--	--	--
MW-4	11-08-91	<50	<0.5	<0.5	<0.5	<0.5	--	89	--	--	--	--	--
MW-4	02-26-92	<50	0.8	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-4	04-21-92	Not sampled: not scheduled for chemical analysis											

Table 3
 Historical Groundwater Analytical Data
 Petroleum Hydrocarbons and Their Constituents
 1994 - Present*

ARCO Service Station 2035
 1001 San Pablo Avenue, Albany, California

Date: 06-26-03

Well Designation	Water Sample Field Date	TPHG LUFT Method µg/L	Benzene EPA 8020 µg/L	Toluene EPA 8020 µg/L	Ethylbenzene EPA 8020 µg/L	Total Xylenes EPA 8020 µg/L	MTBE EPA 8020 µg/L	MTBE EPA 8240 µg/L	Oil and Grease SM 5520B&F µg/L	Oil and Grease SM 5520C µg/L	Oil and Grease SM 5520F µg/L	TRPH EPA 418.1 µg/L	TPHD LUFT Method µg/L
MW-5	01-31-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	04-25-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	11-14-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-5	05-23-91	Not sampled: not scheduled for chemical analysis											
MW-5	08-21-91	Not sampled: not scheduled for chemical analysis											
MW-5	11-08-91	Not sampled: not scheduled for chemical analysis											
MW-5	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-5	04-21-92	Not sampled: not scheduled for chemical analysis											
MW-6	01-31-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	04-25-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	07-28-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	11-14-90	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--
MW-6	05-23-91	Not sampled: not scheduled for chemical analysis											
MW-6	08-21-91	Not sampled: not scheduled for chemical analysis											
MW-6	11-08-91	Not sampled: not scheduled for chemical analysis											
MW-6	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	--	--	--
MW-6	04-21-92	Not sampled: not scheduled for chemical analysis											
RW-1	01-31-90	Not sampled: well connected to the remediation system											
RW-1	04-25-90	Not sampled: well contained floating product											
RW-1	07-28-90	Not sampled: well contained floating product											
RW-1	11-14-90	Not sampled: well contained floating product											
RW-1	03-23-91	11000	560	660	150	1700	--	--	--	--	--	--	--
RW-1	05-23-91	Not sampled: well contained floating product											
RW-1	08-21-91	Not sampled: well contained floating product											
RW-1	11-08-91	1600	79	46	13	240	--	--	--	--	--	--	--
RW-1	02-26-92	210	44	7.5	2.5	24	29	--	--	--	--	--	--
RW-1	04-21-92	36000	7400	3700	580	3400	<300	--	--	--	--	--	--

TPHG: total petroleum hydrocarbons as gasoline, California DHS LUFT Method
 µg/L: micrograms per liter

EPA: United States Environmental Protection Agency

MTBE: Methyl-tert-butyl ether

SM: standard method

TRPH: total recoverable petroleum hydrocarbons

TPHD: total petroleum hydrocarbons as diesel, California DHS LUFT Method

--: not analyzed

*: For previous historical analytical data please refer to *Fourth Quarter 1995 Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, ARCO Service Station 2035, Albany, California*, (EMCON, March 25, 1996).

Table 1
Groundwater Monitoring Data
ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC	Depth	FP	Groundwater		TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)
		Elevation (ft-MSL)	to Water (feet)	Thickness (feet)	Elevation [1] (ft-MSL)	Date Sampled									
MW-1	03-23-91	41.41	6.21	0.00	35.20	03-23-91	8,800	3,600	<50	62	99	--	--	--	--
MW-1	05-23-91	41.41	9.37	0.00	32.04	05-23-91	4,800	2,000	<20	52	<20	--	--	--	--
MW-1	08-21-91	41.41	10.30	0.00	31.11	08-21-91	780	310	<2.5	12	<2.5	14	--	--	--
MW-1	11-08-91	41.41	12.25	0.00	29.16	11-08-91	58	14	<0.5	<0.5	<0.5	--	--	--	--
MW-1	02-26-92	41.41	9.08	0.00	32.33	02-26-92	2,700	930	12	18	32	51	--	--	--
MW-1	04-21-92	41.41	9.11	0.00	32.30	04-21-92	2,700	1,000	<10	22	<10	<60	--	--	--
MW-1	08-14-92	41.41	10.37	0.00	31.04	08-14-92	300	52	<0.5	0.9	<0.5	22	--	--	--
MW-1	12-09-92	41.41	8.79	0.00	32.62	12-09-92	270	63	0.7	<0.5	1	25	--	--	--
MW-1	03-26-93	41.41	9.80	0.00	31.61	03-26-93	1,500	610	<5	15	7	56	--	--	--
MW-1	05-21-93	41.41	9.65	0.00	31.76	05-21-93	110	6	<0.5	<0.5	0.7	10	--	--	--
MW-1	09-03-93	41.41	10.22	0.00	31.19	09-03-93	180	40	<0.5	1.2	0.5	26	--	--	--
MW-1	11-02-93	41.41	10.68	0.00	30.73	11-02-93	83	8	<0.5	<0.5	<0.5	13	--	--	--
MW-1	02-19-94	41.41	6.92	0.00	34.49	02-19-94	1,800	540	7	27	31	46	--	--	--
MW-1	05-17-94	41.41	9.28	0.00	32.13	05-17-94	4,500	1,300	20	57	20	<60	--	--	--
MW-1	08-19-94	41.41	10.05	0.00	31.36	08-20-94	530	110	<5	<5	<5	400	--	--	--
MW-1	10-19-94	41.41	10.42	0.00	30.99	10-19-94	66	9.1	<0.5	<0.5	<0.5	8	--	--	--
MW-1	02-15-95	41.41	8.10	0.00	33.31	02-15-95	1,200	390	<5	<5	6	45	--	--	--
MW-1	05-23-95	41.41	9.53	0.00	31.88	05-23-95	1,300	600	3	13	3	26	--	--	--
MW-1	08-23-95	41.41	10.03	0.00	31.38	08-23-95	100	21	1.3	<0.5	<0.5	8	--	0.55	P
MW-1	11-15-95	41.41	9.80	0.00	31.61	11-15-95	99	10	0.6	<0.5	<1	7	--	2.1	P
MW-1	01-31-96	41.41	8.82	0.00	32.59	02-01-96	400	93	1.6	3.6	3.7	19	--	1.0	P
DUP 1	06-20-96	--	--	--	--	06-20-96	416	88.4	<2.50	4.61	1.56	<5.00	--	--	--
MW-1	06-20-96	41.41	9.60	0.00	31.81	06-20-96	444	100	<2.50	4.15	<2.50	15.9	--	1.7	P
MW-1	11-05-96	41.41	9.50	0.00	31.91	11-05-96	73.2	17.8	<0.500	<0.500	<0.500	7.80	--	1.04	P
MW-1	05-03-97	41.41	9.28	0.00	32.13	05-03-97	714	392	<5.00	<5.00	<5.00	26.1	--	--	P
MW-1	10-02-97	41.41	10.50	0.00	30.91	10-02-97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	0.59	P
DUP 1	10-02-97	--	--	--	--	10-02-97	<50	<0.50	<0.50	<0.50	0.52	<2.5	--	--	--

Table 1
Groundwater Monitoring Data
ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC	Depth	FP	Groundwater		Ethyl- benzene	Total Xylenes	MTBE 8021B*	MTBE 8240/8260	Dissolved Oxygen	Purged/ Not Purged (P/NP)		
		Elevation (ft-MSL)	to Water (feet)	Thickness (feet)	Elevation [1] (ft-MSL)	Date Sampled							TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)
MW-2	03-23-91	40.38	6.96	0.00	33.42	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	
MW-2	05-23-91	40.38	10.02	0.00	30.36	05-23-91	Not sampled: well sampled semi-annually, during the first and third quarters						--	
MW-2	08-21-91	40.38	10.87	0.00	29.51	08-21-91	<50	<0.5	<0.5	<0.5	<3	--	--	
MW-2	11-08-91	40.38	13.12	0.00	27.26	11-08-91	Not sampled: well sampled semi-annually, during the first and third quarters						--	
MW-2	02-26-92	40.38	10.25	0.00	30.13	02-26-92	<50	<0.5	<0.5	<0.5	<3	--	--	
MW-2	04-21-92	40.38	9.98	0.00	30.40	04-21-92	Not sampled: well sampled semi-annually, during the first and third quarters						--	
MW-2	08-14-92	40.38	11.10	0.00	29.28	08-14-92	<50	<0.5	<0.5	<0.5	4	--	--	
MW-2	12-09-92	40.38	10.00	0.00	30.38	12-09-92	Not sampled: well sampled semi-annually, during the first and third quarters						--	
MW-2	03-26-93	40.38	10.38	0.00	30.00	03-26-93	<50	<0.5	<0.5	<0.5	12	--	--	
MW-2	05-21-93	40.38	10.65	0.00	29.73	05-21-93	Not sampled: well sampled semi-annually, during the first and third quarters						--	
MW-2	09-03-93	40.38	10.87	0.00	29.51	09-03-93	<50	<0.5	<0.5	<0.5	19	--	--	
MW-2	11-02-93	40.38	11.25	0.00	29.13	11-02-93	<50	<0.5	<0.5	<0.5	18	--	--	
MW-2	02-19-94	40.38	7.69	0.00	32.69	02-19-94	<50	0.5	<0.5	<0.5	12	--	--	
MW-2	05-17-94	40.38	9.88	0.00	30.50	05-17-94	<50	<0.5	<0.5	<0.5	10	--	--	
MW-2	08-19-94	40.38	10.62	0.00	29.76	08-20-94	<50	<0.5	<0.5	<0.5	3	--	--	
MW-2	10-19-94	40.38	11.00	0.00	29.38	10-19-94	<50	<0.5	<0.5	<0.5	31	--	--	
MW-2	02-15-95	40.38	9.04	0.00	31.34	02-15-95	<50	<0.5	<0.5	<0.5	13	--	--	
MW-2	05-23-95	40.38	9.90	0.00	30.48	05-23-95	<50	0.6	<0.5	<0.5	47	--	--	
MW-2	08-23-95	40.38	10.60	0.00	29.78	08-23-95	<50	<0.5	<0.5	<0.5	20	--	0.88 P	
MW-2	11-15-95	40.38	10.45	0.00	29.93	11-15-95	<50	<0.5	<0.5	<0.5	<1	<3	--	2.5 P
MW-2	01-31-96	40.38	9.49	0.00	30.89	02-01-96	<50	<0.5	<0.5	<0.5	<1	59	--	1.0 P
MW-2	06-20-96	40.38	10.30	0.00	30.08	06-20-96	<50.0	<0.500	<0.500	<0.500	<0.500	4.17	--	1.5 P
MW-2	11-05-96	40.38	10.19	0.00	30.19	11-05-96	<50.0	<0.500	<0.500	<0.500	<0.500	30.6	--	1.27 P
MW-2	05-03-97	40.38	10.15	0.00	30.23	05-03-97	<50.0	<0.500	<0.500	<0.500	<0.500	32.7	--	P
DUP	05-03-97	--	--	--	--	05-03-97	<50.0	<0.500	<0.500	<0.500	1.18	31.5	--	--
MW-2	10-02-97	40.38	10.97	0.00	29.41	10-02-97	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	0.63 P

Table 1
Groundwater Monitoring Data
ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl-benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MTBE 8021B* ($\mu\text{g/L}$)	MTBE 8240/8260 ($\mu\text{g/L}$)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)
MW-3	03-23-91	41.44	7.29	0.00	34.15	03-23-91	51	0.8	<0.5	2.4	<0.5	--	--	--	--
MW-3	05-23-91	41.44	9.53	0.00	31.91	05-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-3	08-21-91	41.44	11.19	0.00	30.25	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	79	--	--	--
MW-3	11-08-91	41.44	12.77	0.00	28.67	11-08-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
MW-3	02-26-92	41.44	9.41	0.00	32.03	02-26-92	120	3.6	<0.5	2.2	3.7	90	--	--	--
MW-3	04-21-92	41.44	9.63	0.00	31.81	04-21-92	<50	<0.5	<0.5	<0.5	<0.5	90	--	--	--
MW-3	08-14-92	41.44	11.12	0.00	30.32	08-14-92	<50	<0.5	<0.5	<0.5	<0.5	54	--	--	--
MW-3	12-09-92	41.44	10.34	0.00	31.10	12-09-92	71	<0.5	<0.5	<0.5	<0.5	130	--	--	--
MW-3	03-26-93	41.44	10.28	0.00	31.16	03-26-93	<100	<1	<1	<1	<1	170	--	--	--
MW-3	05-21-93	41.44	10.40	0.00	31.04	05-21-93	<100	<1	<1	<1	<1	95	--	--	--
MW-3	09-03-93	41.44	10.75	0.00	30.69	09-03-93	<50	<0.5	<0.5	<0.5	<0.5	37	--	--	--
MW-3	11-02-93	41.44	11.44	0.00	30.00	11-02-93	<200	<2	<2	<2	<2	130	--	--	--
MW-3	02-19-94	41.44	7.48	0.00	33.96	02-19-94	<200	<2	5	<2	8	140	--	--	--
MW-3	05-17-94	41.44	9.87	0.00	31.57	05-17-94	<100	<1	<1	<1	<1	150	--	--	--
MW-3	08-19-94	41.44	10.72	0.00	30.72	08-20-94	<200	<2	<2	<2	<2	210	--	--	--
MW-3	10-19-94	41.44	11.30	0.00	30.14	10-19-94	<200	<2	<2	<2	<2	270	--	--	--
MW-3	02-15-95	41.44	8.60	0.00	32.84	02-15-95	<500	<5	<5	<5	<5	700	--	--	--
MW-3	05-23-95	41.44	9.87	0.00	31.57	05-23-95	<50	<0.5	<0.5	<0.5	<0.5	150	140	--	--
MW-3	08-23-95	41.44	10.83	0.00	30.61	08-23-95	<50	<0.5	<0.5	<0.5	<0.5	54	71	0.41	P
MW-3	11-15-95	41.44	10.54	0.00	30.90	11-15-95	100	<0.5	3.3	<0.5	<1	500	--	6.2	P
MW-3	01-31-96	41.44	5.69	0.00	35.75	02-01-96	18,000	1,000	45	1,500	940	100	--	2.12	P
MW-3	06-20-96	41.44	9.99	0.00	31.45	06-20-96	90.9	1.52	<0.500	<0.500	<0.500	187	--	2.6	P
MW-3	11-05-96	41.44	10.15	0.00	31.29	11-05-96	138	2.37	<0.500	<0.500	<0.500	216	--	0.47	P
MW-3	05-03-97	41.44	10.17	0.00	31.27	05-03-97	316	15.7	1.14	<0.500	<0.500	178	--	--	P
MW-3	10-02-97	41.44	10.99	0.00	30.45	10-02-97	120	<0.50	<0.50	<0.50	<0.50	120	--	0.47	P

Table 1
Groundwater Monitoring Data
ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl-benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MTBE 8021B* ($\mu\text{g/L}$)	MTBE 8240/8260 ($\mu\text{g/L}$)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)	
MW-4	03-23-91	40.33	5.92	0.00	34.41	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-4	05-23-91	40.33	9.23	0.00	31.10	05-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-4	08-21-91	40.33	10.61	0.00	29.72	08-21-91	<50	<0.5	<0.5	<0.5	<0.5	99	--	--	--	
MW-4	11-08-91	40.33	11.97	0.00	28.36	11-08-91	<50	<0.5	<0.5	<0.5	<0.5	--	89	--	--	
MW-4	02-26-92	40.33	8.84	0.00	31.49	02-26-92	<50	0.8	<0.5	<0.5	<0.5	<3	--	--	--	
MW-4	04-21-92	40.33	9.15	0.00	31.18	04-21-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-4	08-14-92	40.33	10.35	0.00	29.98	08-14-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-4	12-09-92	40.33	8.70	0.00	31.63	12-09-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-4	03-26-93	40.33	9.75	0.00	30.58	03-26-93	<5,000	<50	<50	<50	<50	4,200	--	--	--	
MW-4	05-21-93	40.33	9.91	0.00	30.42	05-21-93	Not sampled: well sampled annually, during the first quarter								--	--
MW-4	09-03-93	40.33	10.25	0.00	30.08	09-03-93	Not sampled: well sampled annually, during the first quarter								--	--
MW-4	11-02-93	40.33	10.79	0.00	29.54	11-02-93	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-4	02-19-94	40.33	6.78	0.00	33.55	02-19-94	<2,000	<20	<20	<20	<20	3,300	--	--	--	
MW-4	05-17-94	40.33	9.26	0.00	31.07	05-17-94	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-4	08-19-94	40.33	10.10	0.00	30.23	08-20-94	<50	<0.5	<0.5	<0.5	<0.5	9	--	--	--	
MW-4	10-19-94	40.33	10.43	0.00	29.90	10-19-94	<50	<0.5	<0.5	<0.5	<0.5	17	--	--	--	
MW-4	02-15-95	40.33	8.56	0.00	31.77	02-15-95	<500	<5	<5	<5	<5	400	--	--	--	
MW-4	05-23-95	40.33	9.52	0.00	30.81	05-23-95	<50	<0.5	<0.5	<0.5	<0.5	10	7.6	--	--	
MW-4	08-23-95	40.33	9.99	0.00	30.34	08-23-95	<2,500	<25	<25	<25	<25	1,200	1,300	0.84	NP	
MW-4	11-15-95	40.33	9.80	0.00	30.53	11-15-95	<50	<0.5	<0.5	<0.5	<1	<3	--	0.0	NP	
MW-4	01-31-96	40.33	9.11	0.00	31.22	02-01-96	<50	<0.5	<0.5	<0.5	<1	1,200	--	1.0	NP	
MW-4	06-20-96	40.33	9.60	0.00	30.73	06-20-96	<50.0	<0.500	<0.500	<0.500	<0.500	60.5	--	1.3	NP	
MW-4	11-05-96	40.33	9.53	0.00	30.80	11-05-96	<50.0	<0.500	<0.500	<0.500	<0.500	14.0	--	0.71	NP	
MW-4	05-03-97	40.33	9.21	0.00	31.12	05-03-97	<50.0	<0.500	<0.500	<0.500	<0.500	83.6	--	--	NP	
MW-4	10-02-97	40.33	10.74	0.00	29.59	10-02-97	<50	<0.50	<0.50	<0.50	<0.50	260	--	0.59	NP	

Table 1
Groundwater Monitoring Data
ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl-benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MTBE 8021B* ($\mu\text{g/L}$)	MTBE 8240/8260 ($\mu\text{g/L}$)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)	
MW-5	03-23-91	41.84	6.23	0.00	35.61	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-5	05-23-91	41.84	9.61	0.00	32.23	05-23-91	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	08-21-91	41.84	11.12	0.00	30.72	08-21-91	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	11-08-91	41.84	12.52	0.00	29.32	11-08-91	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	02-26-92	41.84	9.52	0.00	32.32	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-5	04-21-92	41.84	9.44	0.00	32.40	04-21-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	08-14-92	41.84	10.83	0.00	31.01	08-14-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	12-09-92	41.84	9.20	0.00	32.64	12-09-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	03-26-93	41.84	10.10	0.00	31.74	03-26-93	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-5	05-21-93	41.84	10.28	0.00	31.56	05-21-93	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	09-03-93	41.84	10.73	0.00	31.11	09-03-93	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	11-02-93	41.84	11.23	0.00	30.61	11-02-93	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	02-19-94	41.84	6.67	0.00	35.17	02-19-94	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-5	05-17-94	41.84	9.61	0.00	32.23	05-17-94	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	08-19-94	41.84	10.58	0.00	31.26	08-20-94	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	10-19-94	41.84	10.66	0.00	31.18	10-19-94	Not sampled: well sampled annually, during the first quarter								--	--
MW-5	02-15-95	41.84	8.35	0.00	33.49	02-15-95	Not sampled								--	--
MW-5	05-23-95	41.84	9.95	0.00	31.89	05-23-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-5	08-23-95	41.84	10.51	0.00	31.33	08-23-95	<50	<0.5	<0.5	<0.5	<0.5	<3	--	0.79	NP	
MW-5	11-15-95	41.84	10.37	0.00	31.47	11-15-95	Not sampled: well sampled annually, during the second quarter								--	--
MW-5	01-31-96	41.84	9.35	0.00	32.49	02-01-96	<50	<0.5	<0.5	<0.5	<1	<3	--	1.0	NP	
MW-5	06-20-96	41.84	10.03	0.00	31.81	06-20-96	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--	3.1	NP	
MW-5	11-05-96	41.84	9.89	0.00	31.95	11-05-96	Not sampled: well sampled annually, during the second quarter								--	--
MW-5	05-03-97	41.84	9.42	0.00	32.42	05-03-97	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--	--	NP	
MW-5	10-02-97	41.84	10.55	0.00	31.29	10-02-97	Not sampled: well sampled annually, during the second quarter								--	--

Table 1
Groundwater Monitoring Data
ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC	Depth	FP	Groundwater		Ethyl-TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE 8021B*	MTBE 8240/8260	Dissolved Oxygen	Purged/Not Purged (P/NP)	
		Elevation (ft-MSL)	to Water (feet)	Thickness (feet)	Elevation [1] (ft-MSL)	Date Sampled										
MW-6	03-23-91	40.13	9.03	0.00	31.10	03-23-91	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--	
MW-6	05-23-91	40.13	12.45	0.00	27.68	05-23-91	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	08-21-91	40.13	13.32	0.00	26.81	08-21-91	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	11-08-91	40.13	14.13	0.00	26.00	11-08-91	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	02-26-92	40.13	11.86	0.00	28.27	02-26-92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-6	04-21-92	40.13	12.35	0.00	27.78	04-21-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	08-14-92	40.13	13.18	0.00	26.95	08-14-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	12-09-92	40.13	11.94	0.00	28.19	12-09-92	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	03-26-93	40.13	13.10	0.00	27.03	03-26-93	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--	--	
MW-6	05-21-93	40.13	13.00	0.00	27.13	05-21-93	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	09-03-93	40.13	13.30	0.00	26.83	09-03-93	Not sampled: well sampled annually, during the first quarter								--	--
MW-6	11-02-93	40.13	13.42	0.00	26.71	11-02-93	<50	<0.5	<0.5	<0.5	<0.5	19	--	--	--	
MW-6	02-19-94	40.13	10.57	0.00	29.56	02-19-94	<100	<1	<1	<1	<1	95	--	--	--	
MW-6	05-17-94	40.13	12.64	0.00	27.49	05-17-94	<100	<1	<1	<1	<1	180	--	--	--	
MW-6	08-19-94	40.13	13.13	0.00	27.00	08-20-94	<100	<1	<1	<1	<1	180	--	--	--	
MW-6	10-19-94	40.13	13.48	0.00	26.65	10-19-94	<100	<1	<1	<1	<1	180	--	--	--	
MW-6	02-15-95	40.13	11.92	0.00	28.21	02-15-95	<200	<2	<2	<2	<2	200	--	--	--	
MW-6	05-23-95	40.13	12.80	0.00	27.33	05-23-95	<50	<0.5	<0.5	<0.5	<0.5	120	--	--	--	
MW-6	08-23-95	40.13	13.03	0.00	27.10	08-23-95	<50	<0.5	<0.5	<0.5	<0.5	44	--	0.46	NP	
MW-6	11-15-95	40.13	12.70	0.00	27.43	11-15-95	<50	<0.5	<0.5	<0.5	<1	17	17	0.0	NP	
MW-6	01-31-96	40.13	8.61	0.00	31.52	02-01-96	<50	<0.5	<0.5	<0.5	<1	6	--	1.0	NP	
MW-6	06-20-96	40.13	12.88	0.00	27.25	06-20-96	<50.0	<0.500	<0.500	<0.500	<0.500	2.57	--	2.8	NP	
MW-6	11-05-96	40.13	12.74	0.00	27.39	11-05-96	<50.0	<0.500	<0.500	<0.500	<0.500	3.77	--	1.51	NP	
DUP	11-05-96	--	--	--	--	11-05-96	<50.0	<0.500	<0.500	<0.500	<0.500	4.03	--	--	--	
MW-6	05-03-97	40.13	11.29	0.00	28.84	05-03-97	<50.0	<0.500	<0.500	<0.500	<0.500	10.5	12.3	--	NP	
MW-6	10-02-97	40.13	11.35	0.00	28.78	10-02-97	<50	<0.50	<0.50	<0.50	<0.50	5.8	4.8	0.61	NP	

Table 1
Groundwater Monitoring Data
ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California

Well Number	Date Gauged	TOC	Depth to Water (feet)	FP Thickness (feet)	Groundwater		Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8240/8260 (µg/L)	Dissolved Oxygen (mg/L)	Purged/ Not Purged (P/NP)			
		Elevation (ft-MSL)			Elevation [1] (ft-MSL)	Date Sampled							TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)
RW-1	03-23-91	40.33	9.32	0.01	31.02	03-23-91	11,000	560	660	150	1,700	--	--	--	--
RW-1	05-23-91	40.33	9.75	0.03	30.60	05-23-91	Not sampled: well contained floating product					--	--		
RW-1	08-21-91	40.33	10.86	0.02	29.48	08-21-91	Not sampled: well contained floating product					--	--		
RW-1	11-08-91	40.33	20.61	0.00	19.72	11-08-91	1,600	79	46	13	240	--	--	--	--
RW-1	02-26-92	40.33	16.56	0.00	23.77	02-26-92	210	44	7.5	2.5	24	29	--	--	--
RW-1	04-21-92	40.33	9.65	0.00	30.68	04-21-92	36,000	7,400	3,700	580	3,400	<300	--	--	--
RW-1	08-14-92	40.33	10.60	0.00	29.73	08-14-92	1,800	31	38	15	150	<30	--	--	--
RW-1	12-09-92	40.33	8.72	0.00	31.61	12-09-92	25,000	1,900	1,000	330	3,200	<100	--	--	--
RW-1	03-26-93	40.33	10.33	0.00	30.00	03-26-93	7,200	1,900	59	95	240	480	--	--	--
RW-1	05-21-93	40.33	10.10	0.00	30.23	05-21-93	3,000	630	84	45	340	<60	--	--	--
RW-1	09-03-93	40.33	10.42	0.00	29.91	09-03-93	7,100	120	55	14	160	<60	--	--	--
RW-1	11-02-93	40.33	9.10	0.00	31.23	11-02-93	<200	14	19	3	19	140	--	--	--
RW-1	02-19-94	40.33	7.49	0.00	32.84	02-19-94	3,800	1,000	85	64	220	950	--	--	--
RW-1	05-17-94	40.33	8.90	0.00	31.43	05-17-94	<200	45	<2	2	4	220	--	--	--
RW-1	08-19-94	40.33	11.06	0.00	29.27	08-20-94	480	200	<2	<2	30	180	--	--	--
RW-1	10-19-94	40.33	11.12	0.00	29.21	10-19-94	110	36	2.9	<0.5	4.1	5	--	--	--
RW-1	02-15-95	40.33	7.70	0.00	32.63	02-16-95	250	61	2	2	19	94	--	--	--
RW-1	05-23-95	40.33	11.12	0.00	29.21	05-23-95	4,500	2,000	7	<2	180	35	--	--	--
RW-1	08-23-95	40.33	10.15	0.00	30.18	08-23-95	2,600	1,100	6.3	2.3	17	39	--	0.52	NP
RW-1	11-15-95	40.33	9.95	0.00	30.38	11-15-95	1,200	2,600	16	86	41	140	--	1.4	P
RW-1	01-31-96	40.33	11.88	0.00	28.45	02-01-96	11,000	980	230	200	1,400	38	--	1.0	NP
RW-1	06-20-96	40.33	9.83	0.00	30.50	06-20-96	899	278	<2.50	8.70	8.46	61.1	--	1.3	NP
RW-1	11-05-96	40.33	8.45	0.00	31.88	11-05-96	156,000	3,260	28,800	4,570	25,700	26,200	--	0.63	P
RW-1	05-03-97	40.33	8.57	0.00	31.76	05-03-97	244,000	8,420	56,000	5,660	36,200	23,400	11,000	--	P
RW-1	10-02-97	40.33	9.13	0.00	31.20	10-02-97	120,000	2,500	33,000	3,800	21,000	3,300	--	0.38	P
S-5	05-30-97	--	--	--	--	05-30-97	310,000	3,000	11,000	4,000	34,000	<2,500	--	--	--
S-5	10-02-97	--	10.00	--	--	10-02-97	70,000	1,800	7,800	1,400	20,000	<120	--	0.25	NP

**Table 1
Groundwater Monitoring Data**

**ARCO Service Station No. 2035
1001 San Pablo Avenue, Albany, California**

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (feet)	Groundwater Elevation [1] (ft-MSL)	Date Sampled	TPHg ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethyl-benzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	MTBE 8021B* ($\mu\text{g/L}$)	MTBE 8240/8260 ($\mu\text{g/L}$)	Dissolved Oxygen (mg/L)	Purged/Not Purged (P/NP)
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TOC: top of casing

ft-MSL: elevation in feet, relative to mean sea level

TPH: total petroleum hydrocarbons as gasoline, California DHS LUFT Method

BTEX: benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 11/16/99).

MTBE: Methyl tert-butyl ether

$\mu\text{g/L}$: micrograms per liter

mg/L: milligrams per liter

--: not analyzed or not applicable

<: denotes concentration not present at or above laboratory detection limit stated to the right.

[1] = Computed by adding correction factor to groundwater elevation. Correction factor = free product thickness times 0.73 (approximate specific gravity of gasoline).

*: EPA method 8020 prior to 11/16/99

** : For previous historical groundwater elevation and analytical data please refer to *Fourth Quarter 1995 Groundwater Monitoring Program Results and Remediation System Performance Evaluation Report, ARCO Service Station 2035, Albany, California*, (EMCON, March 25, 1996).

DUP: duplicate sample

ATTACHMENT D

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

06/27/03

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #2035, Albany, CA
Work Order Number:	MMF0098
Global ID:	T0600100081
Lab Report Number:	MMF0098062320031437

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Labiocf	Run	Sub
MMF00980623200	MW-1	MMF009801	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17009	1	
31437												
MMF00980623200	MW-2	MMF009802	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17009	1	
31437												
MMF00980623200	MW-3	MMF009803	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17009	1	
31437												
MMF00980623200	MW-4	MMF009804	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17009	1	
31437												
MMF00980623200	MW-5	MMF009805	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17033	1	
31437												
MMF00980623200	MW-6	MMF009806	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17033	1	
31437												
MMF00980623200	RW-1	MMF009807	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17033	1	
31437												
MMF00980623200	S-5	MMF009808	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17033	1	
31437												
		MMF009808R1	W	NC	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1	
		MMF017201	W	NC	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1	
		3F17009BSD1	WQ	BD1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1	
		3F17009BSD2	WQ	BD2	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1	
		3F17009BS1	WQ	BS1	8260+OX	SW5030B	//	06/17/03	06/17/03	3F17009	1	
		3F17009BS2	WQ	BS2	8260+OX	SW5030B	//	06/17/03	06/17/03	3F17009	1	
		3F17009BLK1	WQ	LB1	8260+OX	SW5030B	//	06/17/03	06/17/03	3F17009	1	
		3F17009MS1	W	MS1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1	
		3F17009MSD1	W	SD1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1	
		3F17033BS1	WQ	BS1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17033	1	
		3F17033BS2	WQ	BS2	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17033	1	
		3F17033BLK1	WQ	LB1	8260+OX	SW5030B	//	06/17/03	06/17/03	3F17033	1	
		3F17033MS1	W	MS1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17033	1	
		3F17033MSD1	W	SD1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17033	1	
		3F20022BS1	WQ	BS1	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1	
		3F20022BS2	WQ	BS2	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1	
		3F20022BLK1	WQ	LB1	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1	
		3F20022MS1	W	MS1	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1	
		3F20022MSD1	W	SD1	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1	

EDFSAMP: Error Summary Log

06/27/03

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

EDFTEST: Error Summary Log

06/27/03

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

EDFRES: Error Summary Log

06/27/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Error: The specified CLREVDATE needs both precision and accuracy entries.	3F17033BS1	BS1	WQ	8260+OX	PR	06/18/03	1	TBA
Warning: extra parameter	3F17009MS1	MS1	W	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F17009MSD1	SD1	W	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F17033MS1	MS1	W	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F17033MSD1	SD1	W	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F20022MS1	MS1	W	8260+OX	PR	06/20/03	1	GROC6C10
Warning: extra parameter	3F20022MSD1	SD1	W	8260+OX	PR	06/20/03	1	GROC6C10
Warning: extra parameter	MMF009801	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009801	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009802	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009802	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009803	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009803	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009804	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009804	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009805	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009805	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009806	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009806	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009807	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009807	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009808	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009808	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009808R1	NC	W	8260+OX	PR	06/20/03	1	GROC6C10
Warning: extra parameter	MMF017201	NC	W	8260+OX	PR	06/18/03	1	GROC6C10

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3F17009BLK1	LB1	WQ	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	3F17009BLK1	LB1	WQ	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	3F17009BS2	BS2	WQ	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	3F17009BSD2	BD2	WQ	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F17033BLK1	LB1	WQ	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	3F17033BLK1	LB1	WQ	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	3F17033BS2	BS2	WQ	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F20022BLK1	LB1	WQ	8260+OX	PR	06/20/03	1	GROC6C10
Warning: extra parameter	3F20022BLK1	LB1	WQ	8260+OX	PR	06/20/03	1	XYLENES
Warning: extra parameter	3F20022BS2	BS2	WQ	8260+OX	PR	06/20/03	1	GROC6C10

EDFQC: Error Summary Log

06/27/03

Error type	Lablctcl	Anmcode	Parlabel	Qccode	Labqid
There are no errors in this data files					

EDFCL: Error Summary Log

06/27/03

Error type	Cirevdate	Anmcode	Exmcode	Parlabel	Cicode
There are no errors in this data file	//				

T0600100081	MW-1	ACT	6/3/03	9.14	0	29.64
T0600100081	MW-2	ACT	6/3/03	9.78	0	28.73
T0600100081	MW-3	ACT	6/3/03	9.44	0	32.94
T0600100081	MW-4	ACT	6/3/03	8.62	0	25.05
T0600100081	MW-5	ACT	6/3/03	8.92	0	24.29
T0600100081	MW-6	ACT	6/3/03	12.48	0	24.21
T0600100081	RW-1	ACT	6/3/03	9.54	0	25.49
T0600100081	S-5	ACT	6/3/03	9.03	0	15.68

↑
 Excel edited
 this, the .txt
 file has date
 format 06/03/2003

check
 Geomell format
 & I will
 submit w/ EDF
 -Ken

Error Summary Log

07/01/03

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #2035, Albany, CA
Work Order Number:	MMF0098
Global ID:	T0600100081
Lab Report Number:	MMF0098062320031437

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotcti	Run Sub
MMF00980623200	MW-1 31437	MMF009801	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17009	1
MMF00980623200	MW-2 31437	MMF009802	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17009	1
MMF00980623200	MW-3 31437	MMF009803	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17009	1
MMF00980623200	MW-4 31437	MMF009804	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17009	1
MMF00980623200	MW-5 31437	MMF009805	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17033	1
MMF00980623200	MW-6 31437	MMF009806	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17033	1
MMF00980623200	RW-1 31437	MMF009807	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17033	1
MMF00980623200	S-5 31437	MMF009808	W	CS	8260+OX	SW5030B	06/03/03	06/17/03	06/17/03	3F17033	1
		MMF009808R1	W	NC	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1
		MMF017201	W	NC	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1
		3F17009BSD1	WQ	BD1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1
		3F17009BSD2	WQ	BD2	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1
		3F17009BS1	WQ	BS1	8260+OX	SW5030B	//	06/17/03	06/17/03	3F17009	1
		3F17009BS2	WQ	BS2	8260+OX	SW5030B	//	06/17/03	06/17/03	3F17009	1
		3F17009BLK1	WQ	LB1	8260+OX	SW5030B	//	06/17/03	06/17/03	3F17009	1
		3F17009MS1	W	MS1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1
		3F17009MSD1	W	SD1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17009	1
		3F17033BS1	WQ	BS1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17033	1
		3F17033BS2	WQ	BS2	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17033	1
		3F17033BLK1	WQ	LB1	8260+OX	SW5030B	//	06/17/03	06/17/03	3F17033	1
		3F17033MS1	W	MS1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17033	1
		3F17033MSD1	W	SD1	8260+OX	SW5030B	//	06/17/03	06/18/03	3F17033	1
		3F20022BS1	WQ	BS1	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1
		3F20022BS2	WQ	BS2	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1
		3F20022BLK1	WQ	LB1	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1
		3F20022MS1	W	MS1	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1
		3F20022MSD1	W	SD1	8260+OX	SW5030B	//	06/20/03	06/20/03	3F20022	1

EDFSAMP: Error Summary Log

07/01/03

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

EDFTEST: Error Summary Log

07/01/03

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

EDFRES: Error Summary Log

07/01/03

Error type	Labsampid	Qcocode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Error: The specified CLREVDATA needs both precision and accuracy entries.	3F17033BS1	BS1	WQ	8260+OX	PR	06/18/03	1	TBA
Warning: extra parameter	3F17009MS1	MS1	W	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F17009MSD1	SD1	W	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F17033MS1	MS1	W	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F17033MSD1	SD1	W	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F20022MS1	MS1	W	8260+OX	PR	06/20/03	1	GROC6C10
Warning: extra parameter	3F20022MSD1	SD1	W	8260+OX	PR	06/20/03	1	GROC6C10
Warning: extra parameter	MMF009801	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009801	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009802	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009802	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009803	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009803	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009804	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009804	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009805	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009805	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009806	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009806	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009807	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009807	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009808	CS	W	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	MMF009808	CS	W	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	MMF009808R1	NC	W	8260+OX	PR	06/20/03	1	GROC6C10
Warning: extra parameter	MMF017201	NC	W	8260+OX	PR	06/18/03	1	GROC6C10

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	3F17009BLK1	LB1	WQ	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	3F17009BLK1	LB1	WQ	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	3F17009BS2	BS2	WQ	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	3F17009BSD2	BD2	WQ	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F17033BLK1	LB1	WQ	8260+OX	PR	06/17/03	1	GROC6C10
Warning: extra parameter	3F17033BLK1	LB1	WQ	8260+OX	PR	06/17/03	1	XYLENES
Warning: extra parameter	3F17033BS2	BS2	WQ	8260+OX	PR	06/18/03	1	GROC6C10
Warning: extra parameter	3F20022BLK1	LB1	WQ	8260+OX	PR	06/20/03	1	GROC6C10
Warning: extra parameter	3F20022BLK1	LB1	WQ	8260+OX	PR	06/20/03	1	XYLENES
Warning: extra parameter	3F20022BS2	BS2	WQ	8260+OX	PR	06/20/03	1	GROC6C10

EDFQC: Error Summary Log

07/01/03

Error type	Labiocfl	Anmcode	Parlabel	Qccode	Labqid
There are no errors in this data files					

EDFCL: Error Summary Log

07/01/03

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