

Atlantic Richfield Company

Chuck Carmel
Project Manager

PO Box 1257
San Ramon, CA 94583
Phone: (925) 275-3803
Fax: (925) 275-3815
E-Mail: charles.carmel@bp.com

RECEIVED

8:49 am, May 03, 2011

Alameda County
Environmental Health

April 29, 2011

Re: First Quarter 2011 Monitoring Report
Atlantic Richfield Company Station #2111
1156 Davis Street, San Leandro, California
ACEH Case #RO0000494

"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,



Chuck Carmel
Project Manager

Attachment:

April 29, 2011

Project No. 06-88-615

Atlantic Richfield Company
P.O. Box 1257
San Ramon, CA 94583
Submitted via ENFOS

Attn.: Mr. Chuck Carmel

Re: First Quarter Monitoring Report, Atlantic Richfield Company Station #2111, 1156 Davis Street, San Leandro, Alameda County, California;
ACEH Case #RO0000494

Dear Mr. Carmel:

Attached is the *First Quarter 2011 Monitoring Report* for Atlantic Richfield Company (a BP affiliated company) Station #2111 located at 1156 Davis Street, San Leandro, California (Site). This report presents a status update and the results of groundwater monitoring conducted at the Site during the First Quarter 2011.

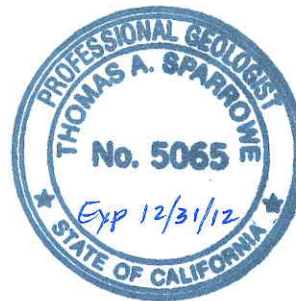
Should you have questions regarding the work performed or results obtained, please do not hesitate to contact me at (707) 455-7290.

Sincerely,

BROADBENT & ASSOCIATES, INC.


James C. Ramos
Staff Engineer


Thomas A. Sparrowe, P.G. #5065 (exp. 12/31/12)
Senior Geologist



Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp site)
Mr. Karl Busche, City of San Leandro Environmental Services Division, 835 East 14th Street,
San Leandro, California 94577 (Submitted via GeoTracker)
Electronic copy uploaded to GeoTracker

**FIRST QUARTER 2011
MONITORING REPORT
ATLANTIC RICHFIELD COMPANY STATION #2111
SAN LEANDRO, CALIFORNIA**

Broadbent & Associates, Inc. (BAI) is pleased to present this *First Quarter 2011 Monitoring Report* on behalf of Atlantic Richfield Company (ARC, a BP affiliated company) Station #2111 (ARCO #2111) located at 1156 Davis Street, San Leandro, Alameda County, California. Monitoring activities at the site were performed in accordance with an agency directive issued by the Alameda County Environmental Health (ACEH). Details of work performed, discussion of results, and recommendations are provided below.

Facility Name / Address:	<u>ARCO Station #2111 / 1156 Davis Street, San Leandro, California</u>
Client Project Manager / Title:	<u>Mr. Chuck Carmel / Project Manager</u>
BAI Contact:	<u>Mr. Tom Sparrowe, (707) 455-7290</u>
BAI Project No.:	<u>06-88-615</u>
Primary Regulatory Agency / ID No.:	<u>Alameda County Environmental Health (ACEH) / ACEH Case #RO0000078</u>
Current phase of project:	<u>Assessment</u>
List of Acronyms / Abbreviations:	<u>See end of report text for list of acronyms/abbreviations used in report.</u>

WORK PERFORMED THIS QUARTER (First Quarter 2011):

1. Prepared and submitted *Fourth Quarter 2010 Status Report*.
2. Conducted groundwater monitoring/sampling for First Quarter 2011. Work performed on February 10, 2011 by BAI.

WORK SCHEDULED FOR NEXT QUARTER (Second Quarter 2011):

1. Submit *First Quarter 2011 Monitoring Report* (contained herein).
2. No environmental field activities are presently scheduled for Second Quarter 2011.

ADDITIONAL WORK RECOMMENDED FOR NEXT QUARTER (Second Quarter 2011)

1. Negotiate an access agreement to adjacent property to install one monitor well.

QUARTERLY MONITORING PLAN SUMMARY:

Groundwater level gauging:	<u>MW-1 through MW-8</u>	(Semi-Annually, 1Q & 3Q)
Groundwater sample collection:	<u>MW-1 through MW-5, MW-7 and MW-8</u>	(Semi-Annually, 1Q & 3Q)
	<u>MW-6</u>	(Annually, 3Q)
Biodegradation indicator parameter monitoring:	<u>NA</u>	

QUARTERLY RESULTS SUMMARY:

LNAPL

LNAPL observed this quarter:	<u>No</u>	(yes\no)
LNAPL recovered this quarter:	<u>None</u>	(gal)
Cumulative LNAPL recovered:	<u>None</u>	(gal)

Groundwater Elevation and Gradient:

Depth to groundwater:	<u>13.15 (MW-6) to 16.42 (MW-1)</u>	(ft below TOC)
Gradient direction:	<u>West</u>	(compass direction)
Gradient magnitude:	<u>0.002</u>	(ft/ft)
Average change in elevation:	<u>0.80</u>	(ft since last measurement)

Laboratory Analytical Data

Summary:

GRO and MTBE were detected above the California Regional Water Quality Control Board-San Francisco Bay Region (RWQCB) Environmental Screening Levels (ESLs) in MW-2 and MW-7. GRO concentrations increased in MW-2 and MW-7 relative to Fourth Quarter 2010. MTBE concentrations decreased in MW-7 and increased in MW-2 relative to Fourth Quarter 2010.

ACTIVITIES CONDUCTED & RESULTS:

First Quarter 2011 groundwater monitoring was on February 10, 2011 by BAI personnel in accordance with the monitoring plan summary detailed above. No other irregularities were noted during water level gauging. Depth to water measurements ranged from 13.15 ft at MW-6 to 16.42 ft at MW-1. Resulting groundwater surface elevations ranged from 22.88 ft above datum (NAVD88) in well MW-5 to 23.56 ft in well MW-3. Groundwater elevations are summarized in Table 1. Water level elevations yielded a potentiometric groundwater flow direction and horizontal gradient to the west at approximately 0.002 ft/ft. Field methods used during groundwater monitoring are provided in Appendix A. Field data sheets are included in Appendix B. A Site Location Map is provided as Drawing 1. Potentiometric groundwater elevation contours are presented in Drawing 2.

Groundwater samples were collected on February 10, 2011, consistent with the current monitoring schedule. No irregularities were reported during sampling this quarter. Samples were submitted under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. (Calscience) of Garden Grove, California, for analysis of gasoline range organics (GRO, C6-12) by the EPA Method 8015B; for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260B; and methyl tert-butyl ether (MTBE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), di-isopropyl ether (DIPE), 1,2-dibromomethane (EDB), 1,2-dichloroethane (1,2-DCA), tert-butyl alcohol (TBA), and ethanol by EPA Method 8260B. No significant irregularities were encountered during analysis of the samples with the following exceptions: the laboratory noted that the samples from wells MW-2 and MW-7 included quantitation of unknown hydrocarbon(s) based on gasoline. The laboratory analytical report, including chain-of-custody documentation, is provided in Appendix C.

Hydrocarbons in the GRO range were detected above the laboratory reporting limit in two wells sampled at concentrations up to 960 micrograms per liter ($\mu\text{g/L}$) in well MW-2. MTBE was detected above the laboratory reporting limit in six wells sampled at concentrations up to 310 $\mu\text{g/L}$ in well MW-7. TBA, a bio-degradation by product of MTBE, was detected above the laboratory reporting limit in wells MW-2 (2,800 $\mu\text{g/L}$), MW-6 (15 $\mu\text{g/L}$), MW-7 (9,900 $\mu\text{g/L}$) and MW-8 (23 $\mu\text{g/L}$). The remaining analytes were not detected above their laboratory reporting limits in the wells sampled this last monitoring event. Groundwater monitoring laboratory analytical results are summarized in Table 1 and Table 2. The most recent GRO, benzene, and MTBE concentrations are presented in Drawing 2. Groundwater monitoring data (GEO_WELL) and laboratory analytical results (EDF) were uploaded to the GeoTracker AB2886 database. Upload confirmation receipts are provided in Appendix D.

DISCUSSION:

Groundwater level elevations were between historic minimum and maximum ranges for each well. Groundwater elevations yielded a potentiometric groundwater flow direction and horizontal gradient to the west at approximately 0.002 ft/ft, generally consistent with the historic flow direction and gradient data presented in Table 3. This event's detected analyte concentrations were within the historic minimum and maximum ranges recorded for each well, with the following exceptions: MTBE reached historic minimum concentrations in wells MW-1 (1.1 µg/L) and MW-8 (4.5 µg/L).

RECOMMENDATIONS:

Offsite investigation should continue to determine if a plume of petroleum hydrocarbons in groundwater presents an exposure hazard to down gradient receptors. In the ACEH letter dated September 29, 2009, ACEH requested the submittal of an Addendum to the work plan for offsite monitoring well installation. In the BAI email to ACEH dated 11 September 2009, and as discussed in the Conclusions & Recommendations section of the *Third Quarter 2009 Groundwater Monitoring and Remediation System Status Report* (BAI, 10/30/2009), BAI noted that it has been unsuccessful in obtaining offsite access to the down gradient strip mall at 1290 Davis Street. The September 11, 2009 email provided ACEH with evidence of this offsite access stalemate and requested that ACEH assist in obtaining offsite access if they were interested in determining whether an exposure hazard exists for the strip mall employees and visitors. A BAI email dated November 24, 2009, requested that ACEH assist with obtaining access at 1290 Davis Street, or inform BP and BAI that offsite access in this down gradient direction will not be required. BP and BAI received an email response from the ACEH on December 4, 2009 stating that ACEH would send a letter to the offsite property owner. ACEH's letter to the offsite property owner was dated February 10, 2010 and at this time BP and BAI are awaiting further correspondence from ACEH or access from the offsite property owner.

LIMITATIONS:

The findings presented in this report are based upon observations of field personnel, the points investigated, and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. and our understanding of ACEH requirements. Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. It is possible that variations in soil or groundwater conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

ATTACHMENTS:

- Drawing 1. Site Location Map, Station #2111, 1156 Davis Street, San Leandro, California
Drawing 2. Groundwater Elevation Contour and Analytical Summary Map, February 10, 2011, Station #2111, 1156 Davis Street, San Leandro, California
- Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #2111, 1156 Davis Street, San Leandro, California
Table 2. Summary of Fuel Additives Analytical Data, Station #2111, 1156 Davis Street, San Leandro, California

Table 3. Historical Groundwater Flow Direction and Gradient, Station #2111, 1156 Davis Street, San Leandro, California

- Appendix A. Field Methods
- Appendix B. Field Data Sheets
- Appendix C: Laboratory Report and Chain of Custody Documentation
- Appendix D: GeoTracker Upload Confirmation Receipts

LIST OF COMMONLY USED ACCRONYMS/ABBREVIATIONS:

ACEH:	Alameda County Environmental Health	gal:	gallons
ARC:	Atlantic Richfield Company	GRO:	gasoline range organics (C6-12)
BAI:	Broadbent & Associates, Inc.	LNAPL:	light non-aqueous phase liquid
BTEX:	benzene, toluene, ethylbenzene, total xylenes	MTBE:	methyl tertiary butyl ether
1,2-DCA:	1,2-dichloroethane	RWQCB:	California Regional Water Quality Control Board-San Francisco Bay Region
DIPE:	di-isopropyl ether		
DO:	dissolved oxygen	TAME:	tert-amyl methyl ether
ESLs:	RWQCB Environmental Screening Levels (revised May 2008)	TBA:	tert-butyl alcohol
EDB:	1,2-dibromomethane	TOC:	total organic carbon
ft/ft	feet per foot	µg/L:	micrograms per liter

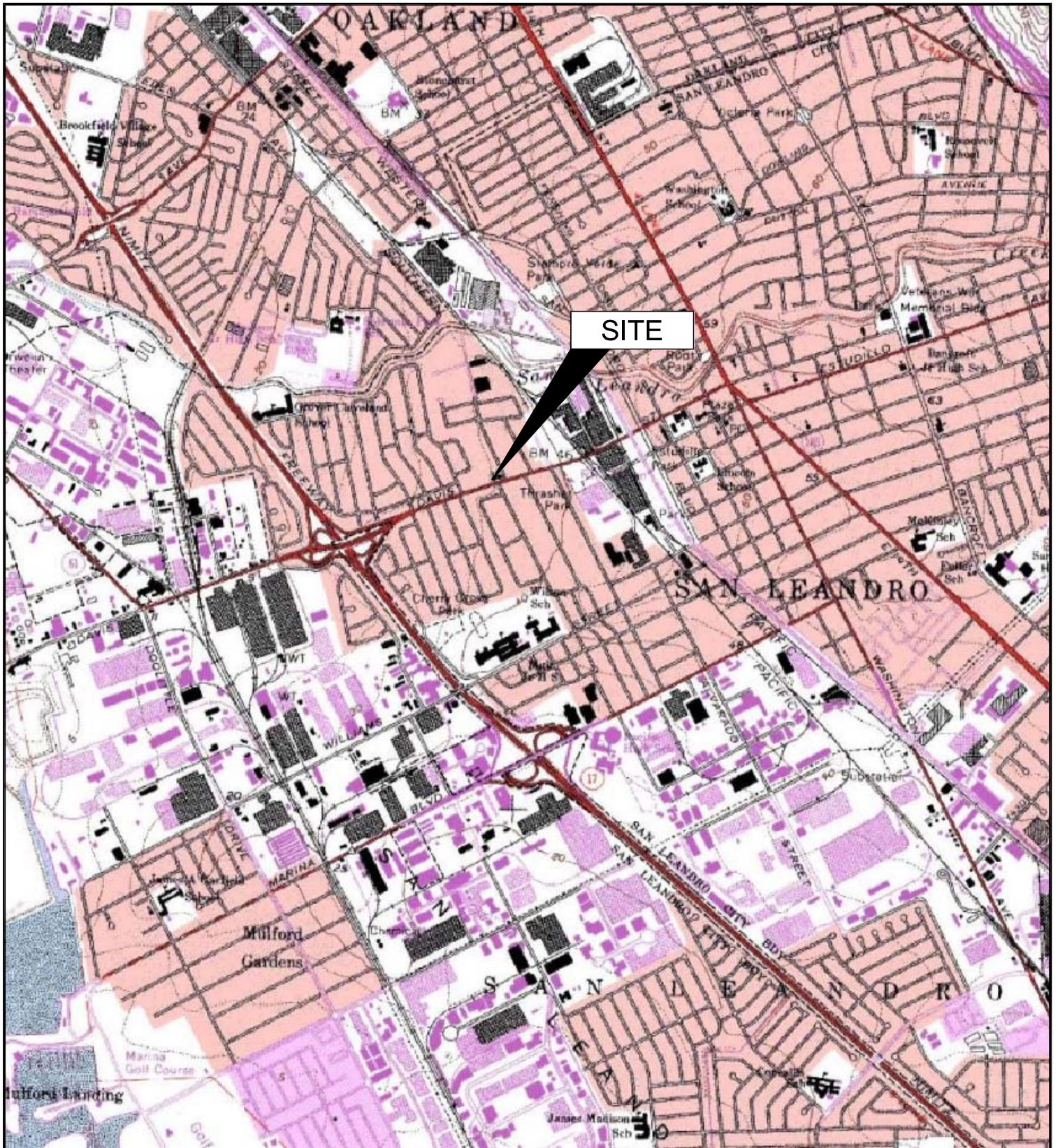


IMAGE SOURCE: USGS

PARKING

H-4

H-5

SB-1

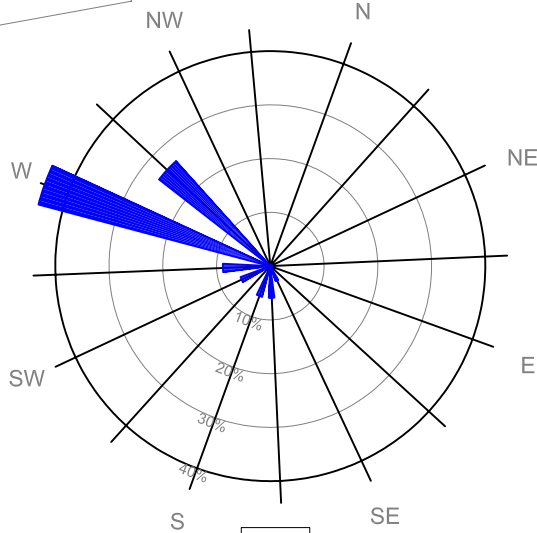
0 40 80

SCALE (ft)



LEGEND

- MONITORING WELL LOCATION
- VAPOR EXTRACTION WELL LOCATION
- DESTROYED WELL LOCATION
- Well** WELL DESIGNATION
- ELEV** GROUND-WATER ELEVATION (FT)
- GRO** CONCENTRATIONS OF GRO, BENZENE & MTBE IN MICROGRAMS PER LITER (µg/L)
- MTBE**
- A/Q** SAMPLING FREQUENCY
- GROUND-WATER FLOW DIRECTION AND GRADIENT (FT/FT)
- 23.0** GROUND-WATER ELEVATION CONTOUR (FT)
- SA(1,3) SAMPLED SEMI-ANNUALLY
- A(3) SAMPLED ANNUALLY, THIRD QUARTER
- < NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT
- NS NOT SAMPLED
- NM NOT MEASURED
- * WELL NOT USED TO GENERATE CONTOURS



MW-1
23.07
<50
<0.50
1.1
SA(1,3)

MW-3
23.56
<50
<0.50
0.51
SA(1,3)

MW-4
23.45
<50
<0.50
<0.50
SA(1,3)

MW-8
23.63
<50
<0.50
4.5
SA(1,3)

MW-6
23.96
NS
NS
NS
A(3)

MW-5
22.88
<50
<0.50
0.73
SA(1,3)

MW-2
23.33
960
<4.0
12
SA(1,3)

MW-7
23.63
440
<25
310
SA(1,3)

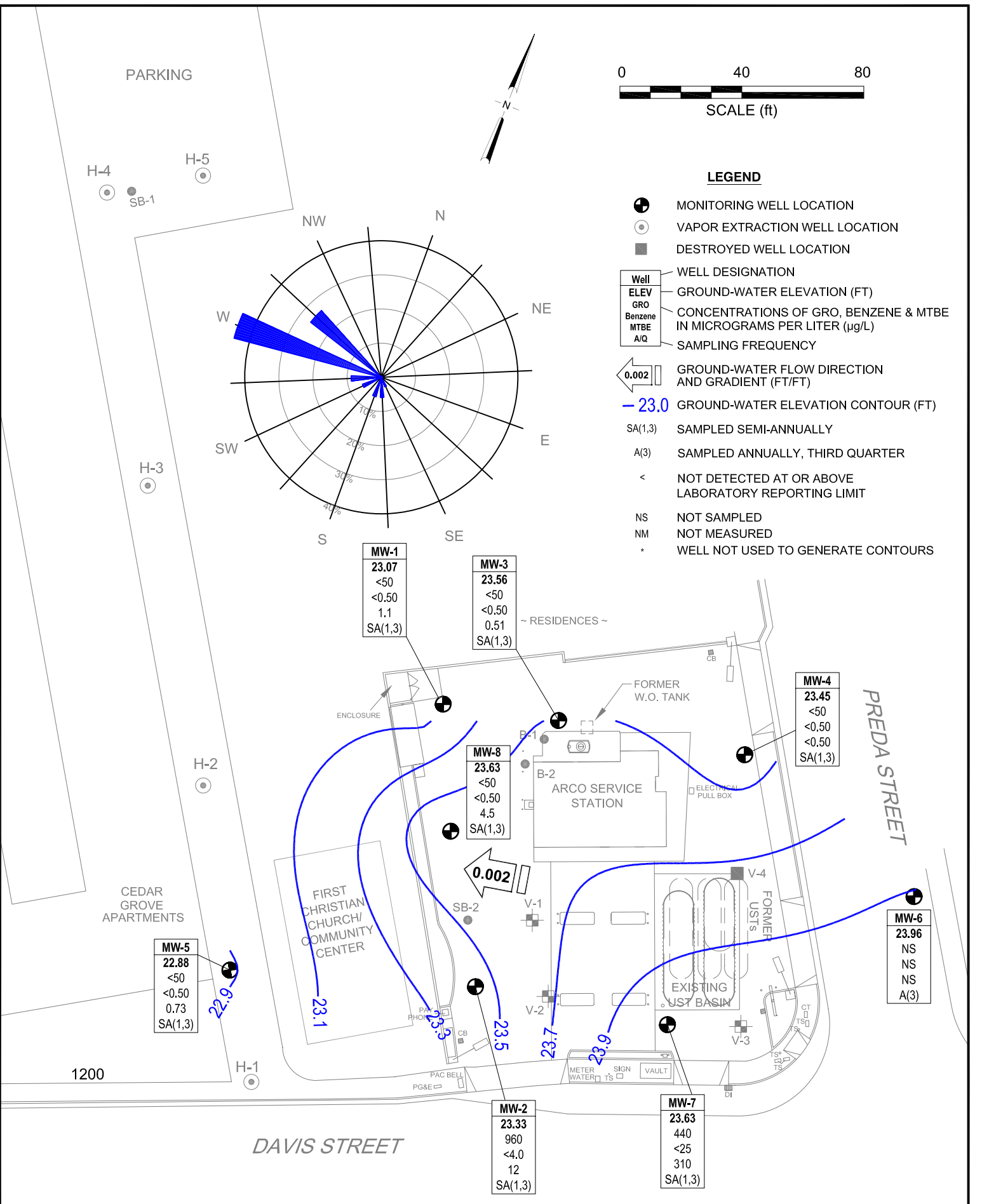


Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses

ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-1															
6/26/2000	--		39.60	12.50	26.00	16.46	23.14	--	--	--	--	--	--	--	--
7/20/2000	--		39.60	12.50	26.00	16.89	22.71	360	110	<0.5	<0.5	2.7	2,100	--	--
9/19/2000	--		39.60	12.50	26.00	17.62	21.98	290	76	<0.5	<0.5	2.3	1,500	--	--
12/21/2000	--		39.60	12.50	26.00	17.39	22.21	257	64	2.89	1.31	4.57	1,080/1,060	--	--
3/13/2001	--		39.60	12.50	26.00	15.70	23.90	<500	52.5	<5.0	<5.0	<5.0	1,430/1,370	--	--
9/18/2001	--		39.60	12.50	26.00	18.24	21.36	<500	64	7.3	<5.0	52	810/1,100	--	--
12/28/2001	--		39.60	12.50	26.00	15.95	23.65	<500	<5.0	<5.0	5	22	1,200/1,100	--	--
3/14/2002	--		39.60	12.50	26.00	16.01	23.59	<50	<0.5	<0.5	<0.5	<0.5	34/40	--	--
4/23/2002	--		39.60	12.50	26.00	15.43	24.17	<50	<0.5	<0.5	<0.5	<0.5	30	--	--
7/17/2002	NP		39.60	12.50	26.00	17.50	22.10	<50	1.2	<0.50	<0.50	<0.50	29	6.9	6.9
10/9/2002	--	c	39.60	12.50	26.00	18.27	21.33	240	4.9	<1.0	4.1	7.0	290	6.5	6.5
1/13/2003	--	c	39.60	12.50	26.00	15.37	24.23	760	34	11	17	56	300	6.8	6.8
04/07/03	--		39.60	12.50	26.00	16.61	22.99	<50	<0.50	<0.50	<0.50	<0.50	22	6.8	6.8
7/9/2003	--		39.60	12.50	26.00	17.27	22.33	<2,500	<25	<25	<25	<25	690	6.7	6.7
02/05/2004	NP	m	39.49	12.50	26.00	16.28	23.21	2,800	31	<25	<25	<25	1,100	0.9	6.5
04/05/2004	NP		39.49	12.50	26.00	16.25	23.24	5,800	46	<25	<25	<25	1,700	1.0	--
07/13/2004	NP		39.49	12.50	26.00	17.57	21.92	<1,000	<10	<10	<10	<10	730	0.5	6.6
11/04/2004	NP		39.49	12.50	26.00	17.78	21.71	560	<5.0	<5.0	<5.0	<5.0	380	0.8	6.5
01/20/2005	NP		39.49	12.50	26.00	15.50	23.99	670	<5.0	<5.0	<5.0	<5.0	570	0.6	6.0
04/11/2005	NP		39.49	12.50	26.00	14.82	24.67	<2,500	<25	<25	<25	25	1,100	0.9	6.9
08/01/2005	NP		39.49	12.50	26.00	16.77	22.72	2,200	33	<10	110	<10	1,400	1.27	7.3
10/21/2005	NP		39.49	12.50	26.00	17.71	21.78	<2,500	<25	<25	<25	<25	970	1.17	6.6
01/18/2006	NP	n	39.49	12.50	26.00	14.70	24.79	300	<2.5	<2.5	<2.5	<2.5	330	1.07	6.6
04/14/2006	NP		39.49	12.50	26.00	13.41	26.08	330	<2.5	<2.5	<2.5	<2.5	310	0.79	6.6
7/19/2006	NP	q	39.49	12.50	26.00	15.86	23.63	<250	<2.5	<2.5	<2.5	<2.5	180	1.2	6.7
10/24/2006	P		39.49	12.50	26.00	17.15	22.34	710	4.2	<2.5	19	13	360	--	6.68
1/15/2007	P		39.49	12.50	26.00	16.81	22.68	470	2.8	<2.5	14	8.4	220	1.14	7.12
4/18/2007	NP		39.49	12.50	26.00	16.69	22.80	100	<2.5	<2.5	<2.5	<2.5	150	1.20	6.85
7/17/2007	NP		39.49	12.50	26.00	20.85	18.64	<50	<1.0	<1.0	<1.0	<1.0	94	1.91	6.98
10/11/2007	NP		39.49	12.50	26.00	18.10	21.39	66	<0.50	<0.50	<0.50	<0.50	62	1.60	7.00

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-1 Cont.															
1/8/2008	NP	n	39.49	12.50	26.00	15.97	23.52	140	<0.50	<0.50	<0.50	<0.50	90	1.19	5.60
4/8/2008	NP		39.49	12.50	26.00	16.53	22.96	88	<0.50	<0.50	<0.50	<0.50	110	1.73	6.89
8/20/2008	NP		39.49	12.50	26.00	18.32	21.17	<50	<0.50	<0.50	<0.50	<0.50	3.3	2.37	6.95
11/17/2008	NP		39.49	12.50	26.00	18.38	21.11	<50	<0.50	<0.50	<0.50	<0.50	21	0.94	6.96
2/3/2009	NP		39.49	12.50	26.00	18.08	21.41	<50	<0.50	<0.50	<0.50	<0.50	16	1.66	6.95
5/12/2009	NP		39.49	12.50	26.00	17.05	22.44	<50	<0.50	<0.50	<0.50	<0.50	9.3	0.88	6.88
8/13/2009	NP	u	39.49	12.50	26.00	18.01	21.48	<50	<0.50	<0.50	<0.50	<0.50	5.5	0.14	7.02
2/18/2010	NP		39.49	12.50	26.00	16.14	23.35	<50	<0.50	<0.50	<0.50	<0.50	1.4	2.22	6.69
7/23/2010	NP		39.49	12.50	26.00	17.11	22.38	<50	<0.50	<0.50	<0.50	<0.50	1.3	0.77	6.7
2/10/2011	NP		39.49	12.50	26.00	16.42	23.07	<50	<0.50	<0.50	<0.50	<0.50	1.1	1.19	7.2
MW-2															
6/26/2000	--	a	37.99	12.0	26.00	14.60	23.39	--	--	--	--	--	--	--	--
7/20/2000	--		37.99	12.0	26.00	15.14	22.85	95,000	2,300	18,000	2,500	19,000	13,000	--	--
9/19/2000	--		37.99	12.0	26.00	15.95	22.04	63,000	1,200	6,300	2,000	14,000	19,000	--	--
12/21/2000	--		37.99	12.0	26.00	15.60	22.39	45,900	--	2,130	1,160	9,460	22,400/24,700	--	--
12/21/00	--	b	37.99	12.0	26.00	--	--	5,010	360	189	213	626	54,300/89,200	--	--
3/13/2001	--		37.99	12.0	26.00	13.77	24.22	3,650	98.1	<5.0	<5.0	6.42	3,590/3,260	--	--
3/13/2001	--	b	37.99	12.0	26.00	--	--	<20,000	525	466	408	1,460	91,700/76,000	--	--
9/18/2001	--	a	37.99	12.0	26.00	16.86	21.13	--	--	--	--	--	--	--	--
12/28/2001	--		37.99	12.0	26.00	14.28	23.71	31,000	1,500	3,800	1,300	4,800	9,300/8,800	--	--
3/14/2002	--		37.99	12.0	26.00	14.15	23.84	1,800	25	43	43	270	990/960	--	--
4/23/2002	--		37.99	12.0	26.00	13.60	24.39	9,000	220	110	470	2,500	8,500	--	--
7/17/2002	NP	a, c	37.99	12.0	26.00	15.75	22.24	74,000	280	290	820	10,000	19,000/0.4	6.8	6.8
10/9/02	NP	g	37.99	12.0	26.00	16.69	21.30	--	--	--	--	--	--	--	--
1/13/03	--	g, h	37.99	12.0	26.00	13.59	24.40	--	--	--	--	--	--	--	--
04/07/03	--	g, h	37.99	12.0	26.00	14.70	23.29	--	--	--	--	--	--	--	--
07/09/03	--	g, h	37.99	12.0	26.00	15.48	22.51	--	--	--	--	--	--	--	--
02/05/2004	NP	g,m	37.86	12.0	26.00	14.43	23.43	--	--	--	--	--	--	--	--
04/05/2004	NP		37.86	12.0	26.00	14.35	23.51	2,300	33	<5.0	<5.0	200	750	0.6	--
07/13/2004	NP		37.86	12.0	26.00	15.79	22.07	59,000	380	<50	2,100	7,900	5,800	0.3	6.4

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-2 Cont.															
08/31/2004	--		37.86	12.0	26.00	15.89	21.97	--	--	--	--	--	--	--	--
11/04/2004	--	g, h	37.86	12.0	26.00	15.92	21.94	--	--	--	--	--	--	--	--
01/20/2005	NP	o	37.86	12.0	26.00	13.71	24.15	30,000	450	<50	1,300	3,300	7,000	0.7	6.2
04/11/2005	NP		37.86	12.0	26.00	12.70	25.16	11,000	170	<50	580	630	2,700	0.9	6.8
08/01/2005	NP		37.86	12.0	26.00	14.89	22.97	24,000	170	<50	1,100	2,700	2,700	0.64	6.9
10/21/2005	--	a	37.86	12.0	26.00	16.05	21.81	--	--	--	--	--	--	--	--
01/18/2006	NP	a	37.86	12.0	26.00	12.81	25.05	21,000	71	<50	470	1,400	1,600	1.18	6.6
04/14/2006	NP	a	37.86	12.0	26.00	12.24	25.62	7,800	78	<50	94	130	2,100	0.81	6.7
7/19/2006	NP	q	37.86	12.0	26.00	14.00	23.86	4,900	31	<10	98	75	930	1.1	6.5
10/24/2006	--	g	37.86	12.0	26.00	15.38	22.48	--	--	--	--	--	--	--	6.45
1/15/2007	P		37.86	12.0	26.00	15.00	22.86	5,000	51	<10	49	34	1,400	1.85	7.13
4/18/2007	NP		37.86	12.0	26.00	14.82	23.04	3,000	39	<10	32	22	1,100	1.95	7.10
7/17/2007	NP	n	37.86	12.0	26.00	18.00	19.86	1,100	53	<10	28	<10	1,300	4.84	7.09
10/11/2007	NP		37.86	12.0	26.00	16.38	21.48	1,800	17	<10	<10	11	1,000	1.52	7.05
1/8/2008	NP	n	37.86	12.0	26.00	14.10	23.76	1,900	65	<10	37	28	1,300	1.06	4.22
4/8/2008	NP		37.86	12.0	26.00	14.70	23.16	200	34	<0.50	<0.50	<0.50	690	3.24	6.95
8/20/2008	NP		37.86	12.0	26.00	16.66	21.20	990	21	<10	<10	<10	190	1.54	6.91
11/17/2008	NP		37.86	12.0	26.00	19.28	18.58	290	9.3	<5.0	<5.0	<5.0	89	0.71	6.75
2/3/2009	NP		37.86	12.0	26.00	16.45	21.41	86	3.5	<2.5	<2.5	<2.5	31	2.71	6.96
5/12/2009	NP		37.86	12.0	26.00	15.30	22.56	390	1.3	<0.50	<0.50	0.82	25	0.82	6.96
8/13/2009	NP	u	37.86	12.0	26.00	16.88	20.98	330	<10	<10	<10	<10	39	0.81	7.12
2/18/2010	NP		37.86	12.0	26.00	14.20	23.66	950	<5.0	<5.0	<5.0	<5.0	<5.0	1.18	6.94
7/23/2010	NP	v (GRO)	37.86	12.0	26.00	15.37	22.49	330	<2.0	<2.0	<2.0	<2.0	6.5	1.70	6.7
2/10/2011	NP	LW	37.86	12.0	26.00	14.53	23.33	960	<4.0	<4.0	<4.0	<4.0	12	0.58	6.8
MW-3															
6/26/2000	--		39.32	12.00	26.00	15.96	23.36	--	--	--	--	--	--	--	--
7/20/2000	--		39.32	12.00	26.00	16.42	22.90	<50	<0.5	<0.5	<0.5	<1.0	130	--	--
9/19/2000	--		39.32	12.00	26.00	17.18	22.14	190	17	<0.5	1.4	2.4	160	--	--
12/21/2000	--		39.32	12.00	26.00	16.97	22.35	187	17.8	<0.5	2.47	2.5	143/125	--	--
3/13/2001	--		39.32	12.00	26.00	15.17	24.15	72.4	2.83	<0.5	<0.5	<0.5	126/122	--	--

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-3 Cont.															
9/18/2001	--		39.32	12.00	26.00	17.81	21.51	140	6.4	<0.5	3.5	1.6	110/75	--	--
12/28/2001	--		39.32	12.00	26.00	15.44	23.88	130	5.9	<0.5	0.99	0.55	90/63	--	--
3/14/2002	--		39.32	12.00	26.00	15.50	23.82	<50	<0.5	<0.5	<0.5	<0.5	100/88	--	--
4/23/2002	--		39.32	12.00	26.00	14.96	24.36	<50	<0.5	<0.5	<0.5	<0.5	77	--	--
7/17/2002	NP		39.32	12.00	26.00	17.09	22.23	<50	<0.50	<0.50	<0.50	<0.50	47	7.2	7.2
10/9/2002	NP		39.32	12.00	26.00	17.87	21.45	<50	<0.50	<0.50	<0.50	<0.50	26/29	7.2	7.2
1/13/2003	NP	l	39.32	12.00	26.00	14.78	24.54	<50	<0.50	<0.50	<0.50	<0.50	59	6.8	6.8
04/07/03	NP		39.32	12.00	26.00	16.15	23.17	88	<0.50	<0.50	<0.50	<0.50	75	7.0	7.0
7/9/2003	--		39.32	12.00	26.00	16.79	22.53	100	<0.50	<0.50	<0.50	<0.50	52	6.5	6.5
02/05/2004	NP	m	39.19	12.00	26.00	15.66	23.53	240	<0.50	<0.50	<0.50	<0.50	37	0.5	--
04/05/2004	NP		39.19	12.00	26.00	15.78	23.41	140	<0.50	<0.50	<0.50	0.60	53	1.0	6.6
07/13/2004	NP		39.19	12.00	26.00	17.20	21.99	120	<0.50	<0.50	<0.50	<0.50	35	0.8	6.7
11/04/2004	NP		39.19	12.00	26.00	17.32	21.87	160	<0.50	<0.50	<0.50	<0.50	25	0.8	6.5
01/20/2005	NP		39.19	12.00	26.00	15.07	24.12	160	<0.50	<0.50	<0.50	<0.50	27	0.6	6.1
04/11/2005	NP		39.19	12.00	26.00	14.24	24.95	<50	<0.50	<0.50	<0.50	<0.50	21	0.6	6.1
08/01/2005	NP		39.19	12.00	26.00	16.29	22.90	<50	<0.50	<0.50	<0.50	<0.50	23	1.04	7.2
10/21/2005	NP		39.19	12.00	26.00	17.41	21.78	88	<0.50	<0.50	<0.50	<0.50	19	1.9	6.6
01/18/2006	NP		39.19	12.00	26.00	13.80	25.39	73	<0.50	<0.50	<0.50	<0.50	13	1.13	6.6
04/14/2006	NP		39.19	12.00	26.00	12.55	26.64	<50	<0.50	<0.50	<0.50	<0.50	6.7	0.71	6.6
7/19/2006	NP	q	39.19	12.00	26.00	15.04	24.15	<50	<0.50	<0.50	<0.50	<0.50	11	2.0	6.6
10/24/2006	P		39.19	12.00	26.00	16.45	22.74	<50	<0.50	<0.50	<0.50	<0.50	33	--	6.77
1/15/2007	P		39.19	12.00	26.00	16.00	23.19	<50	<0.50	<0.50	0.61	<0.50	29	1.11	7.03
4/18/2007	NP		39.19	12.00	26.00	15.87	23.32	<50	<0.50	<0.50	<0.50	<0.50	9.5	1.67	7.07
7/17/2007	NP		39.19	12.00	26.00	19.40	19.79	<50	<0.50	<0.50	<0.50	<0.50	19	4.25	7.27
10/11/2007	NP		39.19	12.00	26.00	17.43	21.76	<50	<0.50	<0.50	<0.50	<0.50	5.3	1.62	7.10
1/8/2008	NP		39.19	12.00	26.00	15.16	24.03	<50	<0.50	<0.50	<0.50	<0.50	8.9	2.02	6.94
4/8/2008	NP		39.19	12.00	26.00	15.75	23.44	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.98	6.80
8/20/2008	NP		39.19	12.00	26.00	17.65	21.54	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.85	7.62
11/17/2008	NP		39.19	12.00	26.00	17.76	21.43	<50	<0.50	<0.50	<0.50	<0.50	3.6	1.36	6.90
2/3/2009	NP		39.19	12.00	26.00	17.36	21.83	<50	<0.50	<0.50	<0.50	<0.50	2.1	2.55	7.04

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-3 Cont.															
5/12/2009	NP		39.19	12.00	26.00	16.30	22.89	<50	<0.50	<0.50	<0.50	<0.50	2.1	1.68	6.98
8/13/2009	NP		39.19	12.00	26.00	18.75	20.44	<50	<0.50	<0.50	<0.50	<0.50	2.7	0.15	7.03
2/18/2010	NP	v (GRO)	39.19	12.00	26.00	15.31	23.88	<50	<0.50	<0.50	<0.50	<0.50	0.59	2.07	6.83
7/23/2010	NP		39.19	12.00	26.00	16.34	22.85	<50	<0.50	<0.50	<0.50	<0.50	0.85	1.23	7.4
2/10/2011	NP		39.19	12.00	26.00	15.63	23.56	<50	<0.50	<0.50	<0.50	<0.50	0.51	2.11	6.9
MW-4															
6/26/2000	--		38.10	10.0	24.00	14.59	23.51	--	--	--	--	--	--	--	--
7/20/2000	--		38.10	10.0	24.00	15.04	23.06	97	7.9	<0.5	<0.5	1.1	51	--	--
9/19/2000	--		38.10	10.0	24.00	15.83	22.27	110	7	<0.5	<0.5	<1.0	60	--	--
12/21/2000	--		38.10	10.0	24.00	15.59	22.51	120	5.6	<0.5	1.72	<0.5	46.3/48.6	--	--
3/13/2001	--		38.10	10.0	24.00	13.73	24.37	76	0.796	<0.5	<0.5	<0.5	53.7/50	--	--
9/18/2001	--		38.10	10.0	24.00	16.50	21.60	<50	<0.5	<0.5	<0.5	<0.5	25/26	--	--
12/28/2001	--		38.10	10.0	24.00	14.03	24.07	<50	<0.5	<0.5	<0.5	<0.5	15/11	--	--
3/14/2002	--		38.10	10.0	24.00	14.10	24.00	<50	<0.5	<0.5	<0.5	<0.5	31/28	--	--
4/23/2002	--		38.10	10.0	24.00	13.57	24.53	<50	2.8	<0.5	<0.5	<0.5	42	--	--
7/17/2002	NP		38.10	10.0	24.00	15.76	22.34	<50	<0.50	<0.50	<0.50	<0.50	16	7.1	7.1
10/9/2002	NP		38.10	10.0	24.00	16.59	21.51	<50	2.2	<0.50	<0.50	<0.50	20/23	7.1	7.1
1/13/2003	NP	d	38.10	10.0	24.00	13.43	24.67	52	<0.50	1.6	<0.50	<0.50	22	6.6	6.6
04/07/03	NP		38.10	10.0	24.00	14.74	23.36	65	<0.50	<0.50	<0.50	<0.50	24	6.6	6.6
7/9/2003	--		38.10	10.0	24.00	15.44	22.66	120	<0.50	<0.50	<0.50	<0.50	34	6.6	6.6
02/05/2004	NP	m	37.99	10.0	24.00	14.39	23.60	120	<0.50	<0.50	<0.50	<0.50	22	0.5	6.6
04/05/2004	NP		37.99	10.0	24.00	14.37	23.62	110	<0.50	<0.50	<0.50	<0.50	27	1.1	6.5
07/13/2004	NP		37.99	10.0	24.00	15.96	22.03	77	<0.50	<0.50	<0.50	<0.50	27	0.6	6.6
11/04/2004	NP		37.99	10.0	24.00	16.02	21.97	<50	<0.50	<0.50	<0.50	<0.50	19	1.2	6.7
01/20/2005	NP		37.99	10.0	24.00	13.72	24.27	65	<0.50	<0.50	<0.50	<0.50	18	0.6	6.1
04/11/2005	NP		37.99	10.0	24.00	12.80	25.19	51	<0.50	<0.50	<0.50	<0.50	14	0.7	6.2
08/01/2005	NP		37.99	10.0	24.00	14.88	23.11	<50	<0.50	<0.50	<0.50	<0.50	18	1.46	7.3
10/21/2005	NP		37.99	10.0	24.00	15.01	22.98	<50	<0.50	<0.50	<0.50	<0.50	15	1.24	7.6
01/18/2006	NP		37.99	10.0	24.00	12.92	25.07	<50	<0.50	<0.50	<0.50	<0.50	8.9	0.77	6.5
04/14/2006	NP		37.99	10.0	24.00	11.41	26.58	<50	<0.50	<0.50	<0.50	<0.50	4.2	0.84	6.6

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-4 Cont.															
7/19/2006	NP		37.99	10.0	24.00	13.86	24.13	<50	<0.50	<0.50	<0.50	<0.50	3.4	1.0	6.7
10/24/2006	P		37.99	10.0	24.00	15.35	22.64	<50	<0.50	<0.50	2.0	<0.50	3.5	--	6.90
1/15/2007	P		37.99	10.0	24.00	14.96	23.03	<50	<0.50	<0.50	0.96	<0.50	3.8	--	7.04
4/18/2007	NP		37.99	10.0	24.00	14.80	23.19	<50	<0.50	<0.50	<0.50	<0.50	5.6	5.33	6.93
7/17/2007	NP		37.99	10.0	24.00	16.10	21.89	<50	<0.50	<0.50	<0.50	<0.50	6.6	3.73	6.87
10/11/2007	NP		37.99	10.0	24.00	16.45	21.54	<50	<0.50	<0.50	<0.50	<0.50	0.81	2.68	7.07
1/8/2008	NP		37.99	10.0	24.00	14.10	23.89	<50	<0.50	<0.50	<0.50	<0.50	1.2	3.50	6.74
4/8/2008	NP		37.99	10.0	24.00	14.68	23.31	<50	<0.50	<0.50	<0.50	<0.50	1.7	2.54	6.80
8/20/2008	NP		37.99	10.0	24.00	16.65	21.34	<50	<0.50	<0.50	<0.50	<0.50	0.70	2.36	6.90
11/17/2008	NP		37.99	10.0	24.00	16.73	21.26	<50	<0.50	<0.50	<0.50	<0.50	0.73	1.07	6.83
2/3/2009	NP		37.99	10.0	24.00	16.36	21.63	<50	<0.50	<0.50	<0.50	<0.50	0.67	3.92	7.34
5/12/2009	NP		37.99	10.0	24.00	15.26	22.73	<50	<0.50	<0.50	<0.50	<0.50	0.62	0.81	6.98
8/13/2009	NP	u	37.99	10.0	24.00	16.87	21.12	<50	<0.50	<0.50	<0.50	<0.50	0.65	0.94	7.12
2/18/2010	NP		37.99	10.0	24.00	14.22	23.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.20	6.25
7/23/2010	NP		37.99	10.0	24.00	15.36	22.63	<50	<0.50	<0.50	<0.50	<0.50	0.52	0.68	7.0
2/10/2011	NP		37.99	10.0	24.00	14.54	23.45	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.52	6.8
MW-5															
6/26/2000	--		37.21	9.50	23.50	14.27	22.94	--	--	--	--	--	--	--	--
7/20/2000	--		37.21	9.50	23.50	14.69	22.52	55	<0.5	<0.5	<0.5	<1.0	14,000	--	--
9/19/2000	--		37.21	9.50	23.50	15.36	21.85	54	<0.5	<0.5	<0.5	<1.0	13,000	--	--
12/21/2000	--		37.21	9.50	23.50	15.15	22.06	72.9	2.51	<0.5	<0.5	0.961	19,200/21,200	--	--
3/13/2001	--		37.21	9.50	23.50	13.50	23.71	<500	<5	<5	<5	<5	15,900/20,000	--	--
9/18/2001	--		37.21	9.50	23.50	15.94	21.27	<10,000	<100	<100	<100	<1,000	22,000/20,000	--	--
12/28/2001	--		37.21	9.50	23.50	13.45	23.76	<10,000	<100	<100	<100	<100	10,000/10,000	--	--
3/14/2002	--		37.21	9.50	23.50	13.82	23.39	<5,000	<50	<50	<50	<50	7,100/7,700	--	--
4/23/2002	--		37.21	9.50	23.50	13.25	23.96	<5,000	<50	<50	<50	<50	8,900	--	--
7/17/2002	NP	d	37.21	9.50	23.50	15.27	21.94	7,900	<50	<50	<50	<50	13,000	7.5	7.5
10/9/2002	NP	e	37.21	9.50	23.50	16.02	21.19	2,400	<20	<20	<20	<20	7,300/7,500	6.7	6.7
1/13/2003	NP	e, k, j	37.21	9.50	23.50	13.20	24.01	6,400	<50	<50	<50	<50	8,900	6.8	6.8
04/07/03	NP		37.21	9.50	23.50	14.42	22.79	<10,000	<100	<100	<100	<100	3,700	6.8	6.8

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-5 Cont.															
7/9/2003	--		37.21	9.50	23.50	15.01	22.20	11,000	<50	<50	<50	<50	6,500	6.9	6.9
02/05/2004	NP	m	37.12	9.50	23.50	14.10	23.02	8,100	<50	<50	<50	<50	7,900	1.5	--
04/05/2004	NP		37.12	9.50	23.50	14.14	22.98	4,000	<25	<25	<25	<25	2,000	1.0	6.6
07/13/2004	NP		37.12	9.50	23.50	15.37	21.75	<5,000	<50	<50	<50	<50	4,000	0.8	6.7
11/04/2004	NP		37.12	9.50	23.50	15.53	21.59	7,400	<50	<50	<50	<50	6,300	3.5	6.7
01/20/2005	NP	n	37.12	9.50	23.50	13.51	23.61	6,500	<50	<50	<50	<50	6,900	0.7	6.5
04/11/2005	NP		37.12	9.50	23.50	12.75	24.37	<5,000	<50	<50	<50	<50	2,600	0.5	7.0
08/01/2005	NP		37.12	9.50	23.50	14.59	22.53	110	<1.0	<1.0	<1.0	<1.0	130	1.36	7.5
10/21/2005	NP		37.12	9.50	23.50	15.57	21.55	<250	<2.5	<2.5	<2.5	<2.5	86	1.53	6.8
01/18/2006	NP		37.12	9.50	23.50	12.60	24.52	<250	<2.5	<2.5	<2.5	<2.5	100	1.2	6.7
04/14/2006	NP		37.12	9.50	23.50	11.74	25.38	310	<2.5	<2.5	<2.5	<2.5	240	0.93	6.6
7/19/2006	NP		37.12	9.50	23.50	13.78	23.34	<50	<2.5	<2.5	<2.5	<2.5	84	1.2	6.6
10/24/2006	P		37.12	9.50	23.50	14.95	22.17	61	<0.50	<0.50	<0.50	<0.50	17	--	6.69
1/15/2007	P		37.12	9.50	23.50	14.63	22.49	73	<0.50	<0.50	<0.50	<0.50	36	2.8	6.73
4/18/2007	NP	n, EBZ present in method blank	37.12	9.50	23.50	14.50	22.62	93	<2.5	<2.5	<2.5	<2.5	16	1.66	6.84
7/17/2007	NP	n	37.12	9.50	23.50	15.55	21.57	53	<2.5	<2.5	<2.5	<2.5	6.6	5.02	7.02
10/11/2007	NP		37.12	9.50	23.50	15.83	21.29	<50	<0.50	<0.50	<0.50	<0.50	4.8	2.92	7.23
1/8/2008	NP		37.12	9.50	23.50	13.82	23.30	<50	<0.50	<0.50	<0.50	<0.50	5.6	1.80	6.91
4/8/2008	NP		37.12	9.50	23.50	14.38	22.74	<50	<0.50	<0.50	<0.50	<0.50	8.0	1.14	6.76
8/20/2008	NP		37.12	9.50	23.50	16.11	21.01	<50	<1.0	<1.0	<1.0	<1.0	3.6	1.65	6.86
11/17/2008	NP		37.12	9.50	23.50	16.15	20.97	<50	<0.50	<0.50	<0.50	<0.50	1.3	0.66	6.93
2/3/2009	NP		37.12	9.50	23.50	15.83	21.29	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.38	6.77
5/12/2009	NP		37.12	9.50	23.50	14.48	22.64	<50	<0.50	<0.50	<0.50	<0.50	2.5	0.41	6.83
8/13/2009	NP	u	37.12	9.50	23.50	16.30	20.82	<50	<1.0	<1.0	<1.0	<1.0	1.3	0.78	7.06
2/18/2010	NP		37.12	9.50	23.50	13.95	23.17	<50	<0.50	<0.50	<0.50	<0.50	2.2	1.36	6.40
7/23/2010	NP		37.12	9.50	23.50	14.98	22.14	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.75	7.2
2/10/2011	NP		37.12	9.50	23.50	14.24	22.88	<50	<0.50	<0.50	<0.50	<0.50	0.73	0.83	6.7
MW-6															
6/26/2000	--		37.11	10.00	25.00	13.46	23.65	--	--	--	--	--	--	--	--
7/20/2000	--		37.11	10.00	25.00	13.94	23.17	<50	<0.5	<0.5	<0.5	<1.0	<3.0	--	--

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-6 Cont.															
9/19/2000	--		37.11	10.00	25.00	14.41	22.70	<50	<0.5	<0.5	<0.5	<1.0	<3.0	--	--
12/21/2000	--		37.11	10.00	25.00	14.53	22.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
3/13/2001	--		37.11	10.00	25.00	12.67	24.44	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
9/18/2001	--		37.11	10.00	25.00	15.42	21.69	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.0	--	--
12/28/2001	--		37.11	10.00	25.00	12.96	24.15	<50	<0.5	<0.5	<0.5	<0.5	12/<0.5	--	--
3/14/2002	--		37.11	10.00	25.00	12.98	24.13	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	--
4/23/2002	--		37.11	10.00	25.00	12.44	24.67	<50	<0.5	<0.5	<0.5	<0.5	3.1	--	--
7/17/2002	NP		37.11	10.00	25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.3	7.3
10/9/2002	NP		37.11	10.00	25.00	15.51	21.60	<50	<0.50	<0.50	<0.50	<0.50	<2.5	7.1	7.1
1/13/2003	NP		37.11	10.00	25.00	12.27	24.84	<50	<0.50	<0.50	<0.50	<0.50	<2.5	6.8	6.8
04/07/03	NP		37.11	10.00	25.00	13.61	23.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.6	6.6
7/9/2003	--		37.11	10.00	25.00	14.34	22.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	7	7.0
02/05/2004	--	m	37.11	10.00	25.00	13.38	23.73	--	--	--	--	--	--	--	--
04/05/2004	--		37.11	10.00	25.00	13.31	23.80	--	--	--	--	--	--	--	--
07/13/2004	NP		37.11	10.00	25.00	14.65	22.46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	6.8
11/04/2004	--		37.11	10.00	25.00	14.95	22.16	--	--	--	--	--	--	--	--
01/20/2005	--		37.11	10.00	25.00	12.57	24.54	--	--	--	--	--	--	--	--
04/11/2005	--		37.11	10.00	25.00	12.05	25.06	--	--	--	--	--	--	--	--
08/01/2005	NP		37.11	10.00	25.00	13.79	23.32	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.15	7.6
10/21/2005	--		37.11	10.00	25.00	14.60	22.51	--	--	--	--	--	--	--	--
01/18/2006	--		37.11	10.00	25.00	11.80	25.31	--	--	--	--	--	--	--	--
04/14/2006	--		37.11	10.00	25.00	10.92	26.19	--	--	--	--	--	--	--	--
7/19/2006	NP		37.11	10.00	25.00	12.92	24.19	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	6.9
10/24/2006	--		37.11	10.00	25.00	14.23	22.88	--	--	--	--	--	--	--	--
1/15/2007	--		37.11	10.00	25.00	13.80	23.31	--	--	--	--	--	--	--	--
4/18/2007	--		37.11	10.00	25.00	13.67	23.44	--	--	--	--	--	--	--	--
7/17/2007	NP		37.11	10.00	25.00	14.08	23.03	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.40	7.02
10/11/2007	--		37.11	10.00	25.00	15.28	21.83	--	--	--	--	--	--	--	--
1/8/2008	--		37.11	10.00	25.00	13.08	24.03	--	--	--	--	--	--	--	--
4/8/2008	--		37.11	10.00	25.00	13.52	23.59	--	--	--	--	--	--	--	--

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-6 Cont.															
8/20/2008	NP		37.11	10.00	25.00	15.59	21.52	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.66	6.83
11/17/2008	--		37.11	10.00	25.00	15.61	21.50	--	--	--	--	--	--	--	--
2/3/2009	--		37.11	10.00	25.00	15.23	21.88	--	--	--	--	--	--	--	--
5/12/2009	--		37.11	10.00	25.00	14.09	23.02	--	--	--	--	--	--	--	--
8/13/2009	NP	u	37.11	10.00	25.00	15.80	21.31	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.85	7.02
2/18/2010	--		37.11	10.00	25.00	12.96	24.15	--	--	--	--	--	--	--	--
7/23/2010	NP		37.11	10.00	25.00	13.91	23.20	210	<0.50	<0.50	<0.50	<0.50	<0.50	0.65	6.73
2/10/2011	--		37.11	10.00	25.00	13.15	23.96	--	--	--	--	--	--	--	--
MW-7															
6/26/2000	--		38.68	12.0	27.00	14.34	24.34	--	--	--	--	--	--	--	--
7/20/2000	--		38.68	12.0	27.00	15.26	23.42	14,000	5.4	<0.5	2.8	5.9	71,000	--	--
9/19/2000	--		38.68	12.0	27.00	15.70	22.98	8,400	420	38	470	220	5,600	--	--
12/21/2000	--		38.68	12.0	27.00	16.02	22.66	--	--	--	--	--	--	--	--
3/13/2001	--		38.68	12.0	27.00	14.18	24.50	<2,000	154	63	46.3	127	75,000/160,000	--	--
9/18/2001	--		38.68	12.0	27.00	17.02	21.66	<100,000	1,900	<1,000	<1,000	2,800	90,000/370,000	--	--
12/28/2001	--		38.68	12.0	27.00	14.81	23.87	<20,000	<200	<200	<200	<200	84,000/72,000	--	--
3/14/2002	--		38.68	12.0	27.00	14.60	24.08	<50,000	<500	<500	<500	<500	85,000/85,000	--	--
4/23/2002	--		38.68	12.0	27.00	13.94	24.74	<20,000	530	200	220	800	67,000	--	--
7/17/2002	NP	d	38.68	12.0	27.00	16.27	22.41	26,000	720	<250	<250	860	120,000	6.9	6.9
10/9/2002	NP	d	38.68	12.0	27.00	17.16	21.52	110,000	1,500	4,400	820	5,400	97,000/120,000	6.8	6.8
1/13/2003	NP	f	38.68	12.0	27.00	13.82	24.86	<50,000	<500	<500	<500	2,200	33,000	6.6	6.6
04/07/03	NP		38.68	12.0	27.00	14.52	24.16	<2,500	30	<25	<25	<25	710	7.0	7.0
7/9/2003	--		38.68	12.0	27.00	15.97	22.71	66,000	<500	<500	<500	<500	36,000	6.7	6.7
02/05/2004	NP	m	38.54	12.0	27.00	14.75	23.79	55,000	300	<250	<250	<250	34,000	1.0	6.7
04/05/2004	NP		38.54	12.0	27.00	14.63	23.91	62,000	520	<250	<250	380	37,000	1.0	6.7
07/13/2004	NP		38.54	12.0	27.00	16.31	22.23	<100,000	<1,000	<1,000	<1,000	<1,000	56,000	0.7	6.7
11/04/2004	--		38.54	12.0	27.00	16.46	22.08	70,000	<500	<500	<500	<500	71,000	2.0	6.6
01/20/2005	NP	n	38.54	12.0	27.00	14.05	24.49	34,000	<250	<250	<250	<250	36,000	0.6	6.3
04/11/2005	NP		38.54	12.0	27.00	12.55	25.99	<2,500	46	<25	<25	<25	1,200	0.7	6.8
08/01/2005	NP		38.54	12.0	27.00	15.11	23.43	<25,000	<250	<250	<250	<250	4,800	1.78	7.3

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-7 Cont.															
10/21/2005	NP	p	38.54	12.0	27.00	15.65	22.89	14,000	350	<100	<100	110	12,000	1.41	6.6
01/18/2006	NP		38.54	12.0	27.00	12.60	25.94	16,000	310	<100	<100	110	13,000	0.87	6.7
04/14/2006	NP		38.54	12.0	27.00	12.09	26.45	<10,000	<100	<100	<100	<100	4,700	0.88	6.9
7/19/2006	NP	q	38.54	12.0	27.00	13.58	24.96	1,300	23	<10	18	26	1,600	1.1	6.8
10/24/2006	P		38.54	12.0	27.00	15.13	23.41	6,800	100	<5.0	16	15	14,000	--	6.93
1/15/2007	P	n	38.54	12.0	27.00	14.43	24.11	2,500	<100	<100	<100	<100	3,900	2.12	7.44
4/18/2007	NP	n	38.54	12.0	27.00	14.30	24.24	3,000	50	<50	<50	<50	2,700	4.47	7.22
7/17/2007	NP	n	38.54	12.0	27.00	23.75	14.79	560	<25	<25	<25	<25	890	4.23	7.41
10/11/2007	NP	t (GRO)	38.54	12.0	27.00	16.18	22.36	210	<2.5	<2.5	<2.5	<2.5	370	2.99	7.33
1/8/2008	NP	n	38.54	12.0	27.00	13.90	24.64	5,100	45	<25	<25	<25	6,100	2.50	7.23
4/8/2008	NP		38.54	12.0	27.00	14.22	24.32	270	0.50	<0.50	1.2	0.66	1,200	1.67	7.17
8/20/2008	NP		38.54	12.0	27.00	16.57	21.97	<50	<0.50	<0.50	<0.50	<0.50	39	2.12	7.04
11/17/2008	NP		38.54	12.0	27.00	22.91	15.63	68	1.8	1.9	0.54	2.0	28	1.14	6.95
2/3/2009	NP		38.54	12.0	27.00	17.86	20.68	<50	<0.50	<0.50	<0.50	<0.50	18	2.58	6.97
5/12/2009	NP		38.54	12.0	27.00	15.36	23.18	110	2.0	<0.50	<0.50	2.9	390	0.72	7.14
8/13/2009	NP	u	38.54	12.0	27.00	24.10	14.44	<50	<0.50	<0.50	<0.50	<0.50	21	0.84	7.11
2/18/2010	NP	v (GRO)	38.54	12.0	27.00	14.21	24.33	190	<25	<25	<25	<25	1,300	1.52	7.06
7/23/2010	NP	v (GRO)	38.54	12.0	27.00	15.50	23.04	<50	<0.50	<0.50	<0.50	<0.50	1,000	0.57	6.89
2/10/2011	P	LW	38.54	12.0	27.00	14.44	24.10	440	<25	<25	<25	<25	310	0.76	7.0
MW-8															
02/05/2004	P	m	38.91	--	--	15.61	23.30	3,600	<25	<25	<25	<25	1,900	6.9	6.8
04/05/2004	P		38.91	--	--	15.64	23.27	1,900	<10	<10	<10	<10	1,200	3.2	6.7
07/13/2004	P		38.91	--	--	17.22	21.69	<1,000	<10	<10	<10	<10	760	1.6	6.7
11/04/2004	P		38.91	--	--	17.19	21.72	960	<5.0	<5.0	<5.0	<5.0	820	1.8	6.7
01/20/2005	P		38.91	--	--	15.25	23.66	<2,500	<25	<25	<25	<25	1,400	1.5	6.4
04/11/2005	P		38.91	--	--	14.17	24.74	700	<5.0	<5.0	<5.0	<5.0	610	1.1	7.1
08/01/2005	P		38.91	--	--	16.10	22.81	<1,000	<10	<10	<10	<10	900	2.58	7.7
10/21/2005	P	n	38.91	--	--	17.18	21.73	530	<5.0	<5.0	<5.0	<5.0	490	1.4	6.7
01/18/2006	P		38.91	--	--	13.60	25.31	<500	<5.0	<5.0	<5.0	<5.0	500	2.28	6.6
04/14/2006	P		38.91	--	--	12.36	26.55	<500	<5.0	<5.0	<5.0	<5.0	300	1.97	6.6

Table 1. Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-8 Cont.															
7/19/2006	P		38.91	--	--	14.75	24.16	4,500	<25	<25	<25	<25	4,200	1.2	6.6
10/24/2006	--	s	--	--	--	--	--	--	--	--	--	--	--	--	--
1/15/2007	P		38.91	--	--	15.67	23.24	<50	<0.50	<0.50	<0.50	<0.50	67	1.35	6.68
4/18/2007	P	n	38.91	--	--	15.53	23.38	100	0.51	<0.50	<0.50	<0.50	130	1.49	6.86
7/17/2007	NP	n	38.91	--	--	16.76	22.15	63	<0.50	<0.50	<0.50	<0.50	96	1.85	6.97
10/11/2007	P		38.91	--	--	16.99	21.92	100	0.52	<0.50	<0.50	<0.50	130	1.67	7.18
1/8/2008	P	n	38.91	--	--	14.83	24.08	51	<0.50	<0.50	<0.50	<0.50	49	1.30	6.88
4/8/2008	P		38.91	--	--	15.38	23.53	<50	<0.50	<0.50	<0.50	<0.50	32	1.60	6.77
8/20/2008	P		38.91	--	--	17.80	21.11	<50	<0.50	<0.50	<0.50	<0.50	13	1.18	6.94
11/17/2008	P		38.91	--	--	17.47	21.44	<50	<0.50	<0.50	<0.50	<0.50	14	3.74	6.63
2/3/2009	P		38.91	--	--	16.96	21.95	<50	<0.50	<0.50	<0.50	<0.50	16	0.83	6.9
5/12/2009	P		38.91	--	--	15.93	22.98	<50	<0.50	<0.50	<0.50	<0.50	30	0.31	6.90
8/13/2009	P		38.91	--	--	17.50	21.41	<50	<0.50	<0.50	<0.50	<0.50	7.5	0.65	7.44
2/18/2010	P		38.91	--	--	14.93	23.98	<50	<0.50	<0.50	<0.50	<0.50	12	0.64	6.62
7/23/2010	P		38.91	--	--	16.02	22.89	<50	<0.50	<0.50	<0.50	<0.50	8.2	0.94	6.7
2/10/2011	P		38.91	--	--	15.28	23.63	<50	<0.50	<0.50	<0.50	<0.50	4.5	1.08	6.8

ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available
< = Not detected at or above specified laboratory reporting limit
DO = Dissolved oxygen
DTW = Depth to water in ft bgs
ft bgs = feet below ground surface
ft MSL = feet above mean sea level
GRO = Gasoline range organics
GWE = Groundwater elevation in ft MSL
mg/L = Milligrams per liter
MTBE = Methyl tert-butyl ether
NP = Well not purged prior to sampling
P = Well purged prior to sampling
TOC = Top of casing elevation in ft MSL
TPH-g = Total petroleum hydrocarbons as gasoline
µg/L = Micrograms per liter

FOOTNOTES:

a = Product sheen noted.
b = Well was sampled after batch extraction event.
c = Chromatogram Pattern: Gasoline C6-C10 for GRO/TPH-g.
d = Hydrocarbon pattern was present in the requested fuel quantitation range but did not resemble the pattern of the requested fuel for GRO/TPH-g.
e = Discrete peak @C6-C7 for GRO/TPH-g.
f = This sample was analyzed beyond the EPA recommended holding time for TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE. The results may still be useful for their intended purpose.
g = Well not sampled due to the detection of free product (FP).
h = GWE adjusted for FP: (thickness of FP x 0.8) + measured GWE.
j = The closing calibration for benzene and total xylenes was outside acceptance limits by 1%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggested that calibration linearity was not a factor.
k = The closing calibration was outside acceptance limits by 6%. This should be considered in evaluating the result. The average % difference for all analytes met the 15% requirement and the QC suggested that calibration linearity was not a factor.
l = Toluene and MTBE were not confirmed using a secondary column in accordance to client contract.
m = TOC elevations re-surveyed to NAVD '88 on February 23, 2004.
n = Hydrocarbon result for GRO partly due to indiv. peak(s) in quantitative range.
o = Light to moderate sheen.
p = Result for MTBE partly due to individual peak(s) in quant. range.
q = Gauged with tubing in well.
r = Calib. verif. is within method limits but outside contract limits.
s = Well inaccessible.
t = Initial analysis within holding time but required dilution.
u = Sample taken from VOA vial with air bubble > 6mm diameter.
v = Quantitation of unknown hydrocarbon(s) in sample based on gasoline.

NOTES:

Beginning with the second quarter 2003 sampling event (04/07/03), TPH-g, BTEX, and MTBE analyzed by EPA method 8260B. Prior to 04/07/03, TPH-g was analyzed by EPA method 8015 modified and MTBE was analyzed by EPA methods 8020/ 8260B.

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

Values for DO and pH were obtained through field measurements.

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008. The analysis for GRO was changed to EPA method 8015B (C6

C12) for samples collected from the time period February 5, 2008 through the present.

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
7/20/2000	--	--	2,100	--	--	--	--	--	
9/19/2000	--	--	1,500	--	--	--	--	--	
12/21/2000	--	--	1,080/1,060	--	--	--	--	--	
3/13/2001	--	--	1,430/1,370	--	--	--	--	--	
9/18/2001	--	--	810/1,100	--	--	--	--	--	
12/28/2001	--	--	1,200/1,100	--	--	--	--	--	
3/14/2002	--	--	34/40	--	--	--	--	--	
4/23/2002	--	--	30	--	--	--	--	--	
7/17/2002	--	--	29	--	--	--	--	--	
10/9/2002	--	--	290	--	--	--	--	--	
1/13/2003	--	--	300	--	--	--	--	--	
04/07/03	<100	<20	22	<0.50	<0.50	<0.50	--	--	
7/9/2003	<5,000	<1,000	690	<25	<25	<25	--	--	
02/05/2004	<5,000	<1,000	1,100	<25	<25	32	<25	<25	
04/05/2004	<5,000	<1,000	1,700	<25	<25	38	<25	<25	a
07/13/2004	<2,000	780	730	<10	<10	19	<10	<10	a
11/04/2004	<1,000	<200	380	<5.0	<5.0	12	<5.0	<5.0	
01/20/2005	<1,000	<200	570	<5.0	<5.0	17	<5.0	<5.0	a
04/11/2005	<5,000	<1,000	1,100	<25	<25	34	<25	<25	
08/01/2005	<2,000	<400	1,400	<10	<10	40	<10	<10	
10/21/2005	<5,000	<1,000	970	<25	<25	<25	<25	<25	
01/18/2006	<1,500	<100	330	<2.5	<2.5	9.7	<2.5	<2.5	
04/14/2006	<1,500	<100	310	<2.5	<2.5	9.3	<2.5	<2.5	
7/19/2006	<1,500	<100	180	<2.5	<2.5	3.2	<2.5	<2.5	
10/24/2006	<1,500	<100	360	<2.5	<2.5	10	<2.5	<2.5	
1/15/2007	<1,500	<100	220	<2.5	<2.5	6.8	<2.5	<2.5	
4/18/2007	<1,500	<100	150	<2.5	<2.5	<2.5	<2.5	<2.5	
7/17/2007	<600	<40	94	<1.0	<1.0	2.3	<1.0	<1.0	
10/11/2007	<300	<20	62	<0.50	<0.50	<0.50	<0.50	<0.50	
1/8/2008	<300	74	90	<0.50	<0.50	2.5	<0.50	<0.50	a
4/8/2008	<300	57	110	<0.50	<0.50	2.6	<0.50	<0.50	
8/20/2008	<300	<10	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1 Cont.									
11/17/2008	<300	<10	21	<0.50	<0.50	0.52	<0.50	<0.50	
2/3/2009	<300	<10	16	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	<10	9.3	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	<10	5.5	<0.50	<0.50	<0.50	<0.50	<0.50	b
2/18/2010	<300	<10	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	<10	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	<10	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-2									
7/20/2000	--	--	13,000	--	--	--	--	--	
9/19/2000	--	--	19,000	--	--	--	--	--	
12/21/2000	--	--	22,400/24,700	--	--	--	--	--	
12/21/00	--	--	54,300/89,200	--	--	--	--	--	
3/13/2001	--	--	3,590/3,260	--	--	--	--	--	
3/13/2001	--	--	91,700/76,000	--	--	--	--	--	
12/28/2001	--	--	9,300/8,800	--	--	--	--	--	
3/14/2002	--	--	990/960	--	--	--	--	--	
4/23/2002	--	--	8,500	--	--	--	--	--	
7/17/2002	--	--	19,000/0.4	--	--	--	--	--	
04/05/2004	<1,000	<200	750	<5.0	<5.0	<5.0	<5.0	<5.0	
07/13/2004	<10,000	12,000	5,800	<50	<50	<50	<50	<50	a
08/31/2004	--	--	--	--	--	--	--	--	a
01/20/2005	<10,000	<2,000	7,000	<50	<50	<50	<50	<50	a
04/11/2005	<10,000	<2,000	2,700	<50	<50	<50	<50	<50	
08/01/2005	<10,000	<2,000	2,700	<50	<50	<50	<50	<50	
01/18/2006	<30,000	<2,000	1,600	<50	<50	<50	<50	<50	
04/14/2006	<30,000	<2,000	2,100	<50	<50	<50	<50	<50	
7/19/2006	<6,000	<400	930	<10	<10	<10	<10	<10	
1/15/2007	<6,000	1,900	1,400	<10	<10	<10	<10	<10	
4/18/2007	<6,000	1,200	1,100	<10	<10	<10	<10	<10	
7/17/2007	<6,000	1,000	1,300	<10	<10	<10	<10	<10	
10/11/2007	<6,000	1,300	1,000	<10	<10	<10	<10	<10	

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-2 Cont.									
1/8/2008	<6,000	2,600	1,300	<10	<10	<10	<10	<10	a
4/8/2008	<300	970	690	<0.50	<0.50	3.3	<0.50	<0.50	
8/20/2008	<6,000	470	190	<10	<10	<10	<10	<10	
11/17/2008	<3,000	740	89	<5.0	<5.0	<5.0	<5.0	<5.0	
2/3/2009	<1,500	230	31	<2.5	<2.5	<2.5	<2.5	<2.5	
5/12/2009	<300	590	25	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<6,000	2,300	39	<10	<10	<10	<10	<10	b
2/18/2010	<3,000	1,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
7/23/2010	<1,200	410	6.5	<2.0	<2.0	<2.0	<2.0	<2.0	
2/10/2011	<2400	2800	12	<4.0	<4.0	<4.0	<4.0	<4.0	
MW-3									
7/20/2000	--	--	130	--	--	--	--	--	
9/19/2000	--	--	160	--	--	--	--	--	
12/21/2000	--	--	143/125	--	--	--	--	--	
3/13/2001	--	--	126/122	--	--	--	--	--	
9/18/2001	--	--	110/75	--	--	--	--	--	
12/28/2001	--	--	90/63	--	--	--	--	--	
3/14/2002	--	--	100/88	--	--	--	--	--	
4/23/2002	--	--	77	--	--	--	--	--	
7/17/2002	--	--	47	--	--	--	--	--	
10/9/2002	--	--	26/29	--	--	--	--	--	
1/13/2003	--	--	59	--	--	--	--	--	
04/07/03	<100	<20	75	<0.50	<0.50	6.5	--	--	
7/9/2003	<100	<20	52	<0.50	<0.50	4.2	--	--	
02/05/2004	<100	<20	37	<0.50	<0.50	3.1	<0.50	<0.50	
04/05/2004	<100	<20	53	<0.50	<0.50	3.7	<0.50	<0.50	a
07/13/2004	<100	44	35	<0.50	<0.50	3.2	<0.50	<0.50	
11/04/2004	<100	<20	25	<0.50	<0.50	2.2	<0.50	<0.50	
01/20/2005	<100	<20	27	<0.50	<0.50	2.6	<0.50	<0.50	
04/11/2005	<100	<20	21	<0.50	<0.50	2.0	<0.50	<0.50	
08/01/2005	<100	<20	23	<0.50	<0.50	1.9	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3 Cont.									
10/21/2005	<100	<20	19	<0.50	<0.50	2.0	<0.50	<0.50	
01/18/2006	<300	<20	13	<0.50	<0.50	1.3	<0.50	<0.50	
04/14/2006	<300	<20	6.7	<0.50	<0.50	0.61	<0.50	<0.50	
7/19/2006	<300	<20	11	<0.50	<0.50	0.72	<0.50	<0.50	r
10/24/2006	<300	<20	33	<0.50	<0.50	2.8	<0.50	<0.50	
1/15/2007	<300	<20	29	<0.50	<0.50	2.9	<0.50	<0.50	
4/18/2007	<300	<20	9.5	<0.50	<0.50	0.90	<0.50	<0.50	
7/17/2007	<300	<20	19	<0.50	<0.50	1.5	<0.50	<0.50	
10/11/2007	<300	<20	5.3	<0.50	<0.50	<0.50	<0.50	<0.50	
1/8/2008	<300	<20	8.9	<0.50	<0.50	0.84	<0.50	<0.50	a
4/8/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/17/2008	<300	<10	3.6	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	<10	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	<10	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	<10	2.7	<0.50	<0.50	<0.50	<0.50	<0.50	
2/18/2010	<300	<10	0.59	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	14	0.85	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	<10	0.51	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4									
7/20/2000	--	--	51	--	--	--	--	--	
9/19/2000	--	--	60	--	--	--	--	--	
12/21/2000	--	--	46.3/48.6	--	--	--	--	--	
3/13/2001	--	--	53.7/50	--	--	--	--	--	
9/18/2001	--	--	25/26	--	--	--	--	--	
12/28/2001	--	--	15/11	--	--	--	--	--	
3/14/2002	--	--	31/28	--	--	--	--	--	
4/23/2002	--	--	42	--	--	--	--	--	
7/17/2002	--	--	16	--	--	--	--	--	
10/9/2002	--	--	20/23	--	--	--	--	--	
1/13/2003	--	--	22	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-4 Cont.									
04/07/03	<100	<20	24	<0.50	<0.50	7.3	--	--	
7/9/2003	<100	<20	34	<0.50	<0.50	9.8	--	--	
02/05/2004	<100	<20	22	<0.50	<0.50	6.2	<0.50	<0.50	
04/05/2004	<100	<20	27	<0.50	<0.50	7.2	<0.50	<0.50	a
07/13/2004	<100	26	27	<0.50	<0.50	7.4	<0.50	<0.50	a
11/04/2004	<100	<20	19	<0.50	<0.50	5.1	<0.50	<0.50	
01/20/2005	<100	<20	18	<0.50	<0.50	5.2	<0.50	<0.50	
04/11/2005	<100	<20	14	<0.50	<0.50	4.0	<0.50	<0.50	
08/01/2005	<100	<20	18	<0.50	<0.50	3.9	<0.50	<0.50	
10/21/2005	<100	<20	15	<0.50	<0.50	4.6	<0.50	<0.50	
01/18/2006	<300	<20	8.9	<0.50	<0.50	2.5	<0.50	<0.50	
04/14/2006	<300	<20	4.2	<0.50	<0.50	1.3	<0.50	<0.50	
7/19/2006	<300	<20	3.4	<0.50	<0.50	0.69	<0.50	<0.50	r
10/24/2006	<300	<20	3.5	<0.50	<0.50	0.91	<0.50	<0.50	
1/15/2007	<300	<20	3.8	<0.50	<0.50	0.98	<0.50	<0.50	
4/18/2007	<300	<20	5.6	<0.50	<0.50	1.1	<0.50	<0.50	
7/17/2007	<300	<20	6.6	<0.50	<0.50	1.7	<0.50	<0.50	
10/11/2007	<300	<20	0.81	<0.50	<0.50	<0.50	<0.50	<0.50	
1/8/2008	<300	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	a
4/8/2008	<300	<10	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	<10	0.70	<0.50	<0.50	<0.50	<0.50	<0.50	
11/17/2008	<300	<10	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	<10	0.67	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	<10	0.62	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	<10	0.65	<0.50	<0.50	<0.50	<0.50	<0.50	b
2/18/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	<10	0.52	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-5									
7/20/2000	--	--	14,000	--	--	--	--	--	
9/19/2000	--	--	13,000	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-5 Cont.									
12/21/2000	--	--	19,200/21,200	--	--	--	--	--	
3/13/2001	--	--	15,900/20,000	--	--	--	--	--	
9/18/2001	--	--	22,000/20,000	--	--	--	--	--	
12/28/2001	--	--	10,000/10,000	--	--	--	--	--	
3/14/2002	--	--	7,100/7,700	--	--	--	--	--	
4/23/2002	--	--	8,900	--	--	--	--	--	
7/17/2002	--	--	13,000	--	--	--	--	--	
10/9/2002	--	--	7,300/7,500	--	--	--	--	--	
1/13/2003	--	--	8,900	--	--	--	--	--	
04/07/03	<20,000	<4,000	3,700	<100	<100	<100	--	--	
7/9/2003	<10,000	<2,000	6,500	<50	<50	<50	--	--	
02/05/2004	<10,000	<2,000	7,900	<50	<50	<50	<50	<50	a
04/05/2004	<5,000	<1,000	2,000	<25	<25	<25	<25	<25	a
07/13/2004	<10,000	3,200	4,000	<50	<50	<50	<50	<50	a
11/04/2004	<10,000	<2,000	6,300	<50	<50	<50	<50	<50	
01/20/2005	<10,000	<2,000	6,900	<50	<50	<50	<50	<50	a
04/11/2005	<10,000	3,600	2,600	<50	<50	<50	<50	<50	
08/01/2005	<200	1,600	130	<1.0	<1.0	<1.0	<1.0	<1.0	
10/21/2005	<500	1,400	86	<2.5	<2.5	<2.5	<2.5	<2.5	
01/18/2006	<1,500	2,200	100	<2.5	<2.5	<2.5	<2.5	<2.5	
04/14/2006	<1,500	2,100	240	<2.5	<2.5	<2.5	<2.5	<2.5	
7/19/2006	<1,500	2,800	84	<2.5	<2.5	<2.5	<2.5	<2.5	r
10/24/2006	<300	1,200	17	<0.50	<0.50	<0.50	<0.50	<0.50	a
1/15/2007	<300	990	36	<0.50	<0.50	<0.50	<0.50	<0.50	
4/18/2007	<1,500	2,000	16	<2.5	<2.5	<2.5	<2.5	<2.5	
7/17/2007	<1,500	1,100	6.6	<2.5	<2.5	<2.5	<2.5	<2.5	
10/11/2007	<300	750	4.8	<0.50	<0.50	<0.50	<0.50	<0.50	
1/8/2008	<300	220	5.6	<0.50	<0.50	<0.50	<0.50	<0.50	a
4/8/2008	<300	300	8.0	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<600	520	3.6	<1.0	<1.0	<1.0	<1.0	<1.0	
11/17/2008	<300	160	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	94	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-5 Cont.									
5/12/2009	<300	29	2.5	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<600	180	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	b
2/18/2010	<300	17	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	<10	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-6									
7/20/2000	--	--	<3.0	--	--	--	--	--	
9/19/2000	--	--	<3.0	--	--	--	--	--	
12/21/2000	--	--	<2.5	--	--	--	--	--	
3/13/2001	--	--	<2.5	--	--	--	--	--	
9/18/2001	--	--	<2.5/<2.0	--	--	--	--	--	
12/28/2001	--	--	12/<0.5	--	--	--	--	--	
3/14/2002	--	--	<2.5	--	--	--	--	--	
4/23/2002	--	--	3.1	--	--	--	--	--	
7/17/2002	--	--	<2.5	--	--	--	--	--	
10/9/2002	--	--	<2.5	--	--	--	--	--	
1/13/2003	--	--	<2.5	--	--	--	--	--	
04/07/03	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
7/9/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
07/13/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
08/01/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
7/19/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	r
7/17/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
7/23/2010	<300	15	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-7									
7/20/2000	--	--	71,000	--	--	--	--	--	
9/19/2000	--	--	5,600	--	--	--	--	--	
3/13/2001	--	--	75,000/160,000	--	--	--	--	--	

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-7 Cont.									
9/18/2001	--	--	90,000/370,000	--	--	--	--	--	
12/28/2001	--	--	84,000/72,000	--	--	--	--	--	
3/14/2002	--	--	85,000/85,000	--	--	--	--	--	
4/23/2002	--	--	67,000	--	--	--	--	--	
7/17/2002	--	--	120,000	--	--	--	--	--	
10/9/2002	--	--	7,000/120,000	--	--	--	--	--	
1/13/2003	--	--	33,000	--	--	--	--	--	
04/07/03	<5,000	<1,000	710	<25	<25	<25	--	--	
7/9/2003	<100,000	<20,000	36,000	<500	<500	<500	--	--	
02/05/2004	<50,000	<10,000	34,000	<250	<250	<250	<250	<250	
04/05/2004	<50,000	<10,000	37,000	<250	<250	<250	<250	<250	
07/13/2004	<200,000	<40,000	56,000	<1,000	<1,000	1,300	<1,000	<1,000	
11/04/2004	<100,000	<20,000	71,000	<500	<500	<500	<500	<500	
01/20/2005	<50,000	<10,000	36,000	<250	<250	<250	<250	<250	a
04/11/2005	<5,000	<1,000	1,200	<25	<25	<25	<25	<25	
08/01/2005	<50,000	<10,000	4,800	<250	<250	<250	<250	<250	
10/21/2005	<20,000	24,000	12,000	<100	<100	<100	<100	<100	
01/18/2006	<60,000	15,000	13,000	<100	<100	<100	<100	<100	
04/14/2006	<60,000	<4,000	4,700	<100	<100	<100	<100	<100	
7/19/2006	<6,000	720	1,600	<10	<10	<10	<10	<10	
10/24/2006	<3,000	10,000	14,000	<5.0	<5.0	31	<5.0	<5.0	a
1/15/2007	<60,000	9,300	3,900	<100	<100	<100	<100	<100	
4/18/2007	<30,000	<2,000	2,700	<50	<50	<50	<50	<50	
7/17/2007	<15,000	<1,000	890	<25	<25	<25	<25	<25	
10/11/2007	<1,500	150	370	<2.5	<2.5	<2.5	<2.5	<2.5	
1/8/2008	<15,000	1,400	6,100	<25	<25	32	<25	<25	
4/8/2008	<300	700	1,200	<0.50	<0.50	5.1	<0.50	<0.50	
8/20/2008	<300	34	39	<0.50	<0.50	<0.50	<0.50	<0.50	
11/17/2008	<300	44	28	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	66	18	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	75	390	<0.50	<0.50	1.2	<0.50	<0.50	
8/13/2009	<300	19	21	<0.50	<0.50	<0.50	<0.50	<0.50	b

Table 2. Summary of Fuel Additives Analytical Data
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-7 Cont.									
2/18/2010	<15,000	2,300	1,300	<25	<25	<25	<25	<25	
7/23/2010	<300	7,800	1,000	<0.50	<0.50	3.6	<0.50	<0.50	
2/10/2011	<15000	9900	310	<25	<25	<25	<25	<25	
MW-8									
02/05/2004	<5,000	<1,000	1,900	<25	<25	<25	<25	<25	
04/05/2004	<2,000	<400	1,200	<10	<10	12	<10	<10	a
07/13/2004	<2,000	770	760	<10	<10	<10	<10	<10	a
11/04/2004	<1,000	<200	820	<5.0	<5.0	9.6	<5.0	<5.0	
01/20/2005	<5,000	<1,000	1,400	<25	<25	<25	<25	<25	a
04/11/2005	<1,000	<200	610	<5.0	<5.0	8.1	<5.0	<5.0	
08/01/2005	<2,000	<400	900	<10	<10	<10	<10	<10	
10/21/2005	<1,000	<200	490	<5.0	<5.0	<5.0	<5.0	<5.0	
01/18/2006	<3,000	<200	500	<5.0	<5.0	5.2	<5.0	<5.0	
04/14/2006	<3,000	<200	300	<5.0	<5.0	<5.0	<5.0	<5.0	
7/19/2006	<15,000	<1,000	4,200	<25	<25	45	<25	<25	
1/15/2007	<300	52	67	<0.50	<0.50	0.88	<0.50	<0.50	
4/18/2007	<300	120	130	<0.50	<0.50	1.9	<0.50	<0.50	
7/17/2007	<300	110	96	<0.50	<0.50	1.2	<0.50	<0.50	
10/11/2007	<300	350	130	<0.50	<0.50	1.7	<0.50	<0.50	
1/8/2008	<300	59	49	<0.50	<0.50	0.80	<0.50	<0.50	
4/8/2008	<300	110	32	<0.50	<0.50	<0.50	<0.50	<0.50	
8/20/2008	<300	62	13	<0.50	<0.50	<0.50	<0.50	<0.50	
11/17/2008	<300	24	14	<0.50	<0.50	<0.50	<0.50	<0.50	
2/3/2009	<300	17	16	<0.50	<0.50	<0.50	<0.50	<0.50	
5/12/2009	<300	18	30	<0.50	<0.50	<0.50	<0.50	<0.50	
8/13/2009	<300	28	7.5	<0.50	<0.50	<0.50	<0.50	<0.50	
2/18/2010	<300	37	12	<0.50	<0.50	<0.50	<0.50	<0.50	
7/23/2010	<300	53	8.2	<0.50	<0.50	<0.50	<0.50	<0.50	
2/10/2011	<300	23	4.5	<0.50	<0.50	<0.50	<0.50	<0.50	

ABBREVIATIONS:

-- = Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

µg/L = Micrograms per Liter

FOOTNOTES:

a = The continuing calibration verification for ethanol was outside of client contractual acceptance limits. However, it was within method acceptance limits. The data should still be considered useful for its intended purpose.

b = Sample taken from VOA vial with air bubble > 6mm diameter.

NOTES:

All volatile organic compounds analyzed using EPA Method 8260B.

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

**Table 3. Historical Groundwater Flow Direction and Gradient
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA**

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
7/20/2000	West-Northwest	0.006
9/19/2000	West-Northwest	0.004
12/21/2000	West-Northwest	0.004
3/13/2001	West-Northwest	0.005
5/30/2001	West-Northwest	0.004
9/18/2001	West-Northwest	0.003
12/28/2001	West-Northwest	0.003
3/14/2002	West	0.004
4/23/2002	West	0.006
7/17/2002	West	0.003
10/9/2002	West	0.002
1/13/2003	Southwest	0.0043
4/7/2003	West-Northwest	0.009 to 0.011
7/9/2003	West-Northwest	0.004
10/1/2003	West	0.002
2/5/2004	West	0.004
4/5/2004	West-Southwest	0.004
7/13/2004	West-Southwest	0.003
11/4/2004	West	0.003
1/20/2005	West	0.009
4/11/2005	North to West	0.009 to 0.01
8/1/2005	West to Northwest	0.006 to 0.004
10/21/2005	West	0.008
1/18/2006	North and West	0.01
4/14/2006	South	0.008
7/19/2006	Northwest to Southwest	0.004 to 0.008
10/24/2006	West	0.003
1/15/2007	Southwest	0.004
4/18/2007	West	0.009
7/17/2007	Southeast	0.05
10/11/2007	West	0.01
1/8/2008	West	0.008
4/8/2008	West	0.006
8/20/2008	West	0.006
11/17/2008	South-Southeast	0.05
2/3/2009	South-Southeast	0.01
5/12/2009	North to West	0.004
8/13/2009	South	0.006
2/18/2010	West-Southwest	0.001
7/23/2010	West-Southwest	0.002
2/10/2011	West	0.002

Table 3. Historical Groundwater Flow Direction and Gradient
ARCO Service Station #2111, 1156 Davis St, San Leandro, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
---------------------	-----------------------------------	---------------------------------------

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

APPENDIX A
FIELD METHODS

BROADBENT & ASSOCIATES INC. FIELD PROCEDURES

A.1 QUALITY ASSURANCE/QUALITY CONTROL FIELD PROTOCOLS

Field protocols have been implemented to enhance the accuracy and reliability of data collection, ground-water sample collection, transportation and laboratory analysis. Discussion of these protocols is provided below.

A.1.1 Water Level & Free-Product Measurement

Prior to ground-water sample collection from each monitoring well, the presence of separate-phase hydrocarbons (SPH or free product, FP) and depth to ground water shall be measured. Depth to ground water will be measured with a standard water level indicator that has been decontaminated prior to its use in accordance with procedures discussed below. Depth to groundwater will be gauged from a saw cut notch at the top of the well casing on each well head. Where FP is suspected, the initial gauging will be done with an oil-water interface probe. Once depth to water has been measured, the first retrieval of a new disposable bailer will be scrutinized for the presence of SPH/FP.

A.1.2 Monitoring Well Purging

Subsequent to measuring depth to ground water and prior to the collection of ground-water samples, purging of standing water within the monitoring well will be performed if called for. Consistent with the American Society for Testing and Materials (ASTM) Standard D6452-99, Section 7.1, the well will be purged of approximately three wetted-casing volumes of water, or until the well is dewatered, or until monitored field parameters indicate stabilization. The well will be purged using a pre-cleaned disposable bailer or submersible pump and disposable plastic tubing dedicated to each individual well. The well will be purged at a low flow rate to minimize the possibility of purging the well dry. So that the sample collected is representative of formation water, several field parameters will be monitored during the purging process. The sample will not be collected until these parameters (i.e. temperature, pH, and conductivity) have stabilized to within 10% of the previously measured value. If a well is purged dry, the sample should not be collected until the well has recovered to a minimum 50% of its initial volume.

A.1.3 Ground-Water Sample Collection

Once the wells are satisfactorily purged, water samples will be collected from each well. Water samples for organic analyses will be collected using a pre-cleaned, new, disposable bailer and transferred into the appropriate, new, laboratory-prepared containers such that no head space or air bubbles are present in the sample container (if appropriate to the analysis). The samples will be properly labeled (i.e. sample identification, sampler initials, date/time of collection, site location, requested analyses), placed in an ice chest with bagged ice or ice substitute, and delivered to the contracted analytical laboratory.

A.1.4 Surface Water Sample Collection

Unless specified otherwise, surface water samples will be collected from mid-depth in the central area of the associated surface water body. Water samples will be collected into appropriate, new, laboratory-prepared containers by dipping the container into the surface water unless the container has a preservative present. If a sample preservative is present, a new, cleaned non-preserved surrogate container will be used to obtain the sample which will then be directly transferred into a new, laboratory-provided, preserved container. Samples will be properly labeled and transported as described above.

A.1.5 Decontamination Protocol

Prior to use in each well, re-usable ground-water sampling equipment (e.g., water level indicator, oil-interface probe, purge pump, etc.) will be decontaminated. Decontamination protocol will include thoroughly cleaning with a solution of Liquinox, rinsing with clean water, and final rinsing with control water (potable water of known quality, distilled, or de-ionized water). Pre-cleaned new disposable bailers and disposable plastic tubing will be dedicated to each individual well.

A.1.6 Chain of Custody Procedures

Sample identification documents will be carefully prepared so identification and chain of custody can be maintained and sample disposition can be controlled. The sample identification documents include Chain-of-Custody (COC) records and Daily Field Report forms. Chain of custody procedures are outlined below.

Field Custody Procedures

The field sampler is individually responsible for the care and custody of the samples collected until they are properly transferred.

Samples will have unique labels. The information on these labels will correspond to the COC which shows the identification of individual samples and the contents of the shipping container. The original COC will accompany the shipment and a copy will be retained by the field sampler.

Transfer of Custody and Shipment

A COC will accompany samples during transfer and shipment. When transferring samples, the individual relinquishing and the individual receiving the samples will each sign, date, and note the time on the COC. This documents the sample custody transfer.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis, with a separate COC accompanying each shipment. Shipments will be accompanied by the original COC. Samples will be delivered by BAI personnel to the laboratory, or shipped by responsible courier. When a shipping courier is utilized, the sample shipment number will be identified on the COC.

A.1.7 Field Records

In addition to sample identification numbers and COC records, Daily Field Report records will be maintained by field staff to provide daily records of significant events, observations, and measurements during field investigations. These documents will contain observed information such as: the personnel present, site conditions, sampling procedures, measurement procedures, calibration records, equipment used, supplies used, etc. Field measurements will be recorded on the appropriate forms. Entries on the data forms will be signed and dated. The data forms will be kept as permanent file records.

APPENDIX B

FIELD DATA SHEETS



Groundwater Sampling Data Sheet

Well I.D.: MW-1
 Project Name/Location: 2111 Project #: 06886D
 Sampler's Name: E. F. ... A. ... Date: 110310
 Purging Equipment: _____
 Sampling Equipment: BTL

Casing Type: PVC
 Casing Diameter: 4 inch
 Total Well Depth: _____ feet
 Depth to Water: 16.47 feet
 Water Column Thickness: = _____ feet
 Unit Casing Volume*: x _____ gallon / foot
 Casing Water Volume: = _____ gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = _____ gallons

***UNIT CASING VOLUMES**
 2" = 0.16 gal/lin ft.
 3" = 0.37 gal/lin ft.
 4" = 0.65 gal/lin ft.
 6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
<u>0</u>	<u>1048</u>	<u>1.19</u>	<u>182</u>		<u>750</u>	<u>64.9</u>	<u>7.2</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
 Depth to Water at Sample Collection: _____ feet
 Sample Collection Time: 1041
 Purged Dry? (Y/N) (N)

Comments: NP

Groundwater Sampling Data Sheet

Well I.D.: MW-2
 Project Name/Location: 211 Project #: 0688615
 Sampler's Name: EFAS Date: 10/21/10
 Purging Equipment: _____
 Sampling Equipment: _____

Casing Type: PVC
 Casing Diameter: _____ inch
 Total Well Depth: _____ feet
 Depth to Water: 14.53 feet
 Water Column Thickness: = _____ feet
 Unit Casing Volume*: x _____ gallon / foot
 Casing Water Volume: = _____ gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = _____ gallons

***UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.
 3" = 0.37 gal/lin ft.
 4" = 0.65 gal/lin ft.
 6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
<u>0</u>	<u>1157</u>	<u>0.58</u>	<u>-6</u>		<u>810</u>	<u>67.4</u>	<u>6.8</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
 Depth to Water at Sample Collection: _____ feet
 Sample Collection Time: 1157 Purged Dry? (Y/N)

Comments: NP

Groundwater Sampling Data Sheet

Well I.D.: MW-3
 Project Name/Location: 2111 Project #: 0688615
 Sampler's Name: EFAS Date: 110210
 Purging Equipment: _____
 Sampling Equipment: B.V.

Casing Type: PVC
 Casing Diameter: 2 inch
 Total Well Depth: _____ feet
 Depth to Water: 15.63 feet
 Water Column Thickness: = _____ feet
 Unit Casing Volume*: x _____ gallon / foot
 Casing Water Volume: = _____ gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = _____ gallons

***UNIT CASING VOLUMES**
 2" = 0.16 gal/lin ft.
 3" = 0.37 gal/lin ft.
 4" = 0.65 gal/lin ft.
 6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
<u>0</u>	<u>1103</u>	<u>2.11</u>	<u>187</u>		<u>690</u>	<u>65.3</u>	<u>6.9</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
 Depth to Water at Sample Collection: - feet
 Sample Collection Time: 1103
 Purged Dry? (Y/N) (N)

Comments: NP

Groundwater Sampling Data Sheet

Well I.D.: MW-4
 Project Name/Location: 2111 Project #: 06-89-615
 Sampler's Name: EFAS Date: 11/2/10
 Purging Equipment: -
 Sampling Equipment: Bur

Casing Type: PVC

Casing Diameter: 2 inch

***UNIT CASING VOLUMES**

Total Well Depth: _____ feet

2" = 0.16 gal/lin ft.

Depth to Water: 14.54 feet

3" = 0.37 gal/lin ft.

Water Column Thickness: = _____ feet

4" = 0.65 gal/lin ft.

Unit Casing Volume*: x _____ gallon / foot

6" = 1.47 gal/lin ft.

Casing Water Volume: = _____ gallons

Casing Volume: x 3 each

Estimated Purge Volume: = _____ gallons

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
<u>0</u>	<u>1120</u>	<u>0.52</u>	<u>200</u>		<u>690</u>	<u>65.1</u>	<u>6.8</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons

Depth to Water at Sample Collection: - feet

Sample Collection Time: 1120

Purged Dry? (Y/N) (N)

Comments: NP

Groundwater Sampling Data Sheet

Well I.D.: MW-5
 Project Name/Location: 2111 Project #: 0688615
 Sampler's Name: EFAS Date: 1/02/10
 Purging Equipment: -
 Sampling Equipment: Burke

Casing Type: PVC
 Casing Diameter: _____ inch
 Total Well Depth: _____ feet
 Depth to Water: 14.24 feet
 Water Column Thickness: = _____ feet
 Unit Casing Volume*: x _____ gallon / foot
 Casing Water Volume: = _____ gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = _____ gallons

***UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.
 3" = 0.37 gal/lin ft.
 4" = 0.65 gal/lin ft.
 6" = 1.47 gal/lin ft.

Free product measurement (if present): _____

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
<u>0</u>	<u>1220</u>	<u>0.93</u>	<u>97</u>		<u>610</u>	<u>68.4</u>	<u>6.7</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons

Depth to Water at Sample Collection: _____ feet

Sample Collection Time: 1220

Purged Dry? (Y/N) (N)

Comments: NP

Groundwater Sampling Data Sheet

Well I.D.: MW-7
 Project Name/Location: 2111 Project #: 068860
 Sampler's Name: EPAS Date: 1/02/10
 Purging Equipment: —
 Sampling Equipment: Boiler

Casing Type: PVC
 Casing Diameter: 4 inch
 Total Well Depth: — feet
 Depth to Water: 14.44 feet
 Water Column Thickness: = — feet
 Unit Casing Volume*: x — gallon / foot
 Casing Water Volume: = — gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = — gallons

***UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.
 3" = 0.37 gal/lin ft.
 4" = 0.65 gal/lin ft.
 6" = 1.47 gal/lin ft.

Free product measurement (if present): —

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
<u>0</u>	<u>1143</u>	<u>0.76</u>	<u>14</u>		<u>820</u>	<u>66.6</u>	<u>7.0</u>	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 0 gallons
 Depth to Water at Sample Collection: — feet
 Sample Collection Time: 1143

Purged Dry? (Y/N) (N)

Comments:



Groundwater Sampling Data Sheet

Well I.D.: MW-8
 Project Name/Location: BP 2/11 Project #: CE 84615
 Sampler's Name: E. Ferrer A. Sanchez Date: 11/02/10
 Purging Equipment: Bur
 Sampling Equipment: Bur

Casing Type: PVC
 Casing Diameter: 2 inch
 Total Well Depth: 39.90 feet
 Depth to Water: - 15.28 feet
 Water Column Thickness: = 24.62 feet
 Unit Casing Volume*: x 0.16 gallon / foot
 Casing Water Volume: = 3.93 gallons
 Casing Volume: x 3 each
 Estimated Purge Volume: = 11.81 gallons

***UNIT CASING VOLUMES**

- 2" = 0.16 gal/lin ft.
- 3" = 0.37 gal/lin ft.
- 4" = 0.65 gal/lin ft.
- 6" = 1.47 gal/lin ft.

Free product measurement (if present):

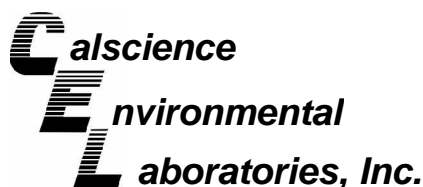
Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1030	1.08	182		680	65.6	6.8	
2.5	1033	X	X	X	690	66.3	6.9	
5	1034	X	X	X	680	66.0	6.7	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 5 gallons
 Depth to Water at Sample Collection: - feet
 Sample Collection Time: 1034 Purged Dry? (Y/N) (N)

Comments:

APPENDIX C

LABORATORY REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION



February 25, 2011

Tom Sparrowe
Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Subject: **CalScience Work Order No.: 11-02-0760**
Client Reference: ARCO 2111

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/11/2011 and analyzed in accordance with the attached chain-of-custody.

CalScience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard CalScience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'Richard Villafania'.

CalScience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Analytical Report



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 02/11/11
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ARCO 2111

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	11-02-0760-1-E	02/10/11 10:51	Aqueous	GC 11	02/12/11	02/12/11 16:58	110212B01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	80	38-134			

MW-2	11-02-0760-2-E	02/10/11 11:57	Aqueous	GC 11	02/12/11	02/12/11 19:46	110212B01
-------------	-----------------------	---------------------------	----------------	--------------	-----------------	---------------------------	------------------

Comment(s): -LW = Quantitated against gasoline.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Gasoline Range Organics (C6-C12)	960	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	93	38-134			

MW-3	11-02-0760-3-E	02/10/11 11:03	Aqueous	GC 11	02/12/11	02/12/11 20:20	110212B01
-------------	-----------------------	---------------------------	----------------	--------------	-----------------	---------------------------	------------------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	78	38-134			

MW-4	11-02-0760-4-E	02/10/11 11:20	Aqueous	GC 11	02/12/11	02/12/11 20:54	110212B01
-------------	-----------------------	---------------------------	----------------	--------------	-----------------	---------------------------	------------------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	78	38-134			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 02/11/11
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ARCO 2111

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	11-02-0760-5-E	02/10/11 12:20	Aqueous	GC 11	02/12/11	02/12/11 21:27	110212B01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	81	38-134			

MW-7	11-02-0760-6-E	02/10/11 11:43	Aqueous	GC 11	02/12/11	02/12/11 22:01	110212B01
-------------	-----------------------	---------------------------	----------------	--------------	-----------------	---------------------------	------------------

Comment(s): -LW = Quantitated against gasoline.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Gasoline Range Organics (C6-C12)	440	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	85	38-134			

MW-8	11-02-0760-7-E	02/10/11 10:38	Aqueous	GC 11	02/12/11	02/12/11 22:35	110212B01
-------------	-----------------------	---------------------------	----------------	--------------	-----------------	---------------------------	------------------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	78	38-134			

Method Blank	099-12-695-1,002	N/A	Aqueous	GC 11	02/12/11	02/12/11 16:24	110212B01
---------------------	-------------------------	------------	----------------	--------------	-----------------	---------------------------	------------------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	79	38-134			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 02/11/11
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ARCO 2111

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	11-02-0760-1-A	02/10/11 10:51	Aqueous	GC/MS L	02/14/11	02/14/11 12:08	110214L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	1.1	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,2-Dichloroethane-d4	106	80-128			Dibromofluoromethane	98	80-127		
Toluene-d8	99	80-120			1,4-Bromofluorobenzene	93	68-120		

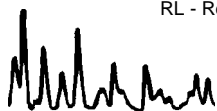
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	11-02-0760-2-A	02/10/11 11:57	Aqueous	GC/MS L	02/14/11	02/14/11 14:51	110214L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	4.0	8		Methyl-t-Butyl Ether (MTBE)	12	4.0	8	
1,2-Dibromoethane	ND	4.0	8		Tert-Butyl Alcohol (TBA)	2800	400	40	
1,2-Dichloroethane	ND	4.0	8		Diisopropyl Ether (DIPE)	ND	4.0	8	
Ethylbenzene	ND	4.0	8		Ethyl-t-Butyl Ether (ETBE)	ND	4.0	8	
Toluene	ND	4.0	8		Tert-Amyl-Methyl Ether (TAME)	ND	4.0	8	
Xylenes (total)	ND	4.0	8		Ethanol	ND	2400	8	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,2-Dichloroethane-d4	111	80-128			Dibromofluoromethane	100	80-127		
Toluene-d8	100	80-120			1,4-Bromofluorobenzene	97	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	11-02-0760-3-A	02/10/11 11:03	Aqueous	GC/MS L	02/14/11	02/14/11 15:19	110214L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	0.51	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,2-Dichloroethane-d4	103	80-128			Dibromofluoromethane	95	80-127		
Toluene-d8	102	80-120			1,4-Bromofluorobenzene	93	68-120		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 02/11/11
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ARCO 2111

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	11-02-0760-4-A	02/10/11 11:20	Aqueous	GC/MS L	02/14/11	02/14/11 15:46	110214L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,2-Dichloroethane-d4	113	80-128			Dibromofluoromethane	100	80-127		
Toluene-d8	100	80-120			1,4-Bromofluorobenzene	93	68-120		

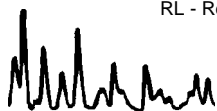
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	11-02-0760-5-A	02/10/11 12:20	Aqueous	GC/MS L	02/14/11	02/14/11 16:14	110214L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	0.73	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,2-Dichloroethane-d4	117	80-128			Dibromofluoromethane	104	80-127		
Toluene-d8	97	80-120			1,4-Bromofluorobenzene	93	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	11-02-0760-6-A	02/10/11 11:43	Aqueous	GC/MS L	02/14/11	02/14/11 16:41	110214L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	25	50		Methyl-t-Butyl Ether (MTBE)	310	25	50	
1,2-Dibromoethane	ND	25	50		Tert-Butyl Alcohol (TBA)	9900	500	50	
1,2-Dichloroethane	ND	25	50		Diisopropyl Ether (DIPE)	ND	25	50	
Ethylbenzene	ND	25	50		Ethyl-t-Butyl Ether (ETBE)	ND	25	50	
Toluene	ND	25	50		Tert-Amyl-Methyl Ether (TAME)	ND	25	50	
Xylenes (total)	ND	25	50		Ethanol	ND	15000	50	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,2-Dichloroethane-d4	111	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	100	80-120			1,4-Bromofluorobenzene	93	68-120		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 02/11/11
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: ARCO 2111

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	11-02-0760-7-A	02/10/11 10:38	Aqueous	GC/MS L	02/14/11	02/14/11 17:08	110214L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	4.5	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	23	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,2-Dichloroethane-d4	111	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	99	80-120			1,4-Bromofluorobenzene	94	68-120		


Method Blank	099-12-703-1,599	N/A	Aqueous	GC/MS L	02/14/11	02/14/11 11:41	110214L01
--------------	------------------	-----	---------	---------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,2-Dichloroethane-d4	109	80-128			Dibromofluoromethane	103	80-127		
Toluene-d8	98	80-120			1,4-Bromofluorobenzene	94	68-120		

Method Blank	099-12-703-1,601	N/A	Aqueous	GC/MS L	02/15/11	02/15/11 12:25	110215L01
--------------	------------------	-----	---------	---------	----------	-------------------	-----------

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	ND	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>		<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>	<u>Qual</u>	
1,2-Dichloroethane-d4	107	80-128			Dibromofluoromethane	104	80-127		
Toluene-d8	99	80-120			1,4-Bromofluorobenzene	93	68-120		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Spike/Spike Duplicate



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 02/11/11
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project ARCO 2111

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	Aqueous	GC 11	02/12/11	02/12/11	110212S01

<u>Parameter</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	92	93	38-134	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 02/11/11
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8260B

Project ARCO 2111

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	Aqueous	GC/MS L	02/14/11	02/14/11	110214S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	95	98	76-124	3	0-20	
Carbon Tetrachloride	121	125	74-134	3	0-20	
Chlorobenzene	99	101	80-120	2	0-20	
1,2-Dibromoethane	97	101	80-120	4	0-20	
1,2-Dichlorobenzene	97	99	80-120	3	0-20	
1,2-Dichloroethane	109	112	80-120	3	0-20	
Ethylbenzene	96	99	78-126	3	0-20	
Toluene	96	99	80-120	3	0-20	
Trichloroethene	95	97	77-120	2	0-20	
Methyl-t-Butyl Ether (MTBE)	92	96	67-121	4	0-49	
Tert-Butyl Alcohol (TBA)	129	89	36-162	37	0-30	BA,AY
Diisopropyl Ether (DIPE)	95	99	60-138	4	0-45	
Ethyl-t-Butyl Ether (ETBE)	99	102	69-123	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	95	100	65-120	5	0-20	
Ethanol	120	106	30-180	12	0-72	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: 02/11/11
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8260B

Project ARCO 2111

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-02-0751-2	Aqueous	GC/MS L	02/15/11	02/15/11	110215S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	101	99	76-124	2	0-20	
Carbon Tetrachloride	134	130	74-134	3	0-20	
Chlorobenzene	101	100	80-120	1	0-20	
1,2-Dibromoethane	99	97	80-120	2	0-20	
1,2-Dichlorobenzene	102	100	80-120	2	0-20	
1,2-Dichloroethane	111	111	80-120	0	0-20	
Ethylbenzene	100	98	78-126	2	0-20	
Toluene	101	100	80-120	1	0-20	
Trichloroethene	96	95	77-120	2	0-20	
Methyl-t-Butyl Ether (MTBE)	101	99	67-121	1	0-49	
Tert-Butyl Alcohol (TBA)	118	111	36-162	7	0-30	
Diisopropyl Ether (DIPE)	102	102	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	104	104	69-123	0	0-30	
Tert-Amyl-Methyl Ether (TAME)	98	99	65-120	1	0-20	
Ethanol	106	105	30-180	1	0-72	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: N/A
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: ARCO 2111

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-1,002	Aqueous	GC 11	02/12/11	02/12/11	110212B01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Gasoline Range Organics (C6-C12)	102	99	78-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: N/A
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8260B

Project: ARCO 2111

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-703-1,599	Aqueous	GC/MS L	02/14/11	02/14/11	110214L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	96	98	80-120	73-127	2	0-20	
Carbon Tetrachloride	123	128	74-134	64-144	4	0-20	
Chlorobenzene	101	104	80-120	73-127	3	0-20	
1,2-Dibromoethane	99	101	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	98	106	80-120	73-127	8	0-20	
1,2-Dichloroethane	108	111	80-120	73-127	2	0-20	
Ethylbenzene	98	102	80-120	73-127	4	0-20	
Toluene	102	102	80-120	73-127	1	0-20	
Trichloroethene	95	98	79-127	71-135	3	0-20	
Methyl-t-Butyl Ether (MTBE)	94	98	69-123	60-132	4	0-20	
Tert-Butyl Alcohol (TBA)	103	104	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	97	99	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	101	103	69-123	60-132	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	101	102	70-120	62-128	1	0-20	
Ethanol	118	116	28-160	6-182	2	0-57	

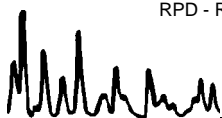
Total number of LCS compounds : 15

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



Broadbent & Associates, Inc
875 Cotting Lane, Suite G
Vacaville, CA 95688-9299

Date Received: N/A
Work Order No: 11-02-0760
Preparation: EPA 5030C
Method: EPA 8260B

Project: ARCO 2111

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number		
099-12-703-1,601	Aqueous	GC/MS L	02/15/11	02/15/11	110215L01		
Parameter	LCS %REC	LCSD %REC	%REC CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	96	91	80-120	73-127	5	0-20	
Carbon Tetrachloride	128	121	74-134	64-144	5	0-20	
Chlorobenzene	103	96	80-120	73-127	6	0-20	
1,2-Dibromoethane	101	95	79-121	72-128	6	0-20	
1,2-Dichlorobenzene	104	94	80-120	73-127	10	0-20	
1,2-Dichloroethane	111	104	80-120	73-127	7	0-20	
Ethylbenzene	100	94	80-120	73-127	6	0-20	
Toluene	99	93	80-120	73-127	6	0-20	
Trichloroethene	97	92	79-127	71-135	5	0-20	
Methyl-t-Butyl Ether (MTBE)	98	93	69-123	60-132	6	0-20	
Tert-Butyl Alcohol (TBA)	104	101	63-123	53-133	3	0-20	
Diisopropyl Ether (DIPE)	99	91	59-137	46-150	8	0-37	
Ethyl-t-Butyl Ether (ETBE)	103	97	69-123	60-132	7	0-20	
Tert-Amyl-Methyl Ether (TAME)	98	96	70-120	62-128	1	0-20	
Ethanol	108	107	28-160	6-182	0	0-57	

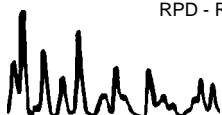
Total number of LCS compounds : 15

Total number of ME compounds : 0

Total number of ME compounds allowed : 1

LCS ME CL validation result : Pass

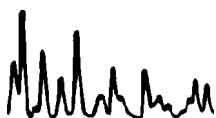
RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 11-02-0760

<u>Qualifier</u>	<u>Definition</u>
AX	Sample too dilute to quantify surrogate.
BA	Relative percent difference out of control.
BA,AY	BA = Relative percent difference out of control. AY = Matrix interference suspected.
BB	Sample > 4x spike concentration.
BF	Reporting limits raised due to high hydrocarbon background.
BH	Reporting limits raised due to high level of non-target analytes.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
BY	Sample received at improper temperature.
BZ	Sample preserved improperly.
CL	Initial analysis within holding time but required dilution.
CQ	Analyte concentration greater than 10 times the blank concentration.
CU	Surrogate concentration diluted to not detectable during analysis.
DF	Reporting limits elevated due to matrix interferences.
DU	Insufficient sample quantity for matrix spike/dup matrix spike.
ET	Sample was extracted past end of recommended max. holding time.
ET	Sample was extracted past end of recommended maximum holding time.
EY	Result exceeds normal dynamic range; reported as a min est.
GR	Internal standard recovery is outside method recovery limit.
IB	CCV recovery abovelimit; analyte not detected.
IH	Calibrtn. verif. recov. below method CL for this analyte.
IJ	Calibrtn. verif. recov. above method CL for this analyte.
J,DX	J=EPA Flag -Estimated value; DX= Value < lowest standard (MQL), but > than MDL.
LA	Confirmatory analysis was past holding time.
LG,AY	LG= Surrogate recovery below the acceptance limit. AY= Matrix interference suspected.
LH,AY	LH= Surrogate recovery above the acceptance limit. AY= Matrix interference suspected.
LM,AY	LM= MS and/or MSD above acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LN,AY	LN= MS and/or MSD below acceptance limits. See Blank Spike (LCS). AY= Matrix interference suspected.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
LW	Quantitation of unknown hydrocarbon(s) in sample based on gasoline.
LX	Quantitation of unknown hydrocarbon(s) in sample based on diesel.
MB	Analyte present in the method blank.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
PC	Sample taken from VOA vial with air bubble > 6mm diameter.
PI	Primary and confirm results varied by > than 40% RPD.
RB	RPD exceeded method control limit; % recoveries within limits.
SG	A silica gel cleanup procedure was performed.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.





Laboratory Management Program LaMP Chain of Custody Record

0760

BP/ARC Project Name: ARCO 2111
 BP/ARC Facility No: 2111

Req Due Date (mm/dd/yy): STD-TAT Rush TAT: Yes No
 Lab Work Order Number: _____

Lab Name: Cal science	BP/ARC Facility Address: 1156 Davis Street	Consultant/Contractor: Broadbent & Associates, Inc.
Lab Address: 7440 Lincoln Way	City, State, ZIP Code: San Leandro, CA 94577	Consultant/Contractor Project No: 06-88-615-5-822
Lab PM: Richard Villafania	Lead Regulatory Agency: ACEH	Address: 875 Cotting Ln., Suite G, Vacaville, CA 95688
Lab Phone: 714-895-5494 / 714-895-7501 (fax)	California Global ID No.: T0600101764	Consultant/Contractor PM: Tom Sparrowe
Lab Shipping Acct: 9255	Enfos Proposal No: 000TV-0006	Phone: 707-455-7290 / 707-455-7295 (fax)
Lab Bottle Order No:	Accounting Mode: Provision <input checked="" type="checkbox"/> OOC-BU <input type="checkbox"/> OOC-RM <input type="checkbox"/>	Email EDD To: tsparrowe@broadbentinc.com
Other Info:	Stage: Operate (5) Activity: Monitoring/MNA (22)	Invoice To: BP/ARC <input checked="" type="checkbox"/> Contractor <input type="checkbox"/>

BP/ARC EBM: Chuck Carmel				Matrix		No. Containers / Preservative						Requested Analyses						Report Type & QC Level		
EBM Phone: 925-275-3803				Soil / Solid	Water / Liquid	Air / Vapor	Total Number of Containers	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	Methanol	GRO (8015)	BTEX (8260)	5 Oxys (8260)	EDB (8260)	1,2-DCA (8260)	Ethanol (8260)	Standard <input checked="" type="checkbox"/>	
EBM Email: charles.carmel@bp.com																			Full Data Package <input type="checkbox"/>	
Lab No.	Sample Description	Date	Time																Comments	
1	MW-1	110210	1051	X			6					X	X	X	X	X	X			
2	MW-2		1157	X			6			X		X	X	X	X	X	X			
3	MW-3		1103	X			6			X		X	X	X	X	X	X			
4	MW-4		1120	X			6			X		X	X	X	X	X	X			
5	MW-5		1220	X			6			X		X	X	X	X	X	X			
6	MW-7		1143	X			6			X		X	X	X	X	X	X			
7	MW-8		1038	X			6			X		X	X	X	X	X	X			
8	TB - 2111 - 110210				X			2			X									ON HOLD

Sampler's Name: <u>Eric Farn</u>	Relinquished By / Affiliation		Date	Time	Accepted By / Affiliation		Date	Time
Sampler's Company: BAI			110210	1248			2/11/11	1000
Shipment Method: <u>60</u>	Ship Date: 110210							
Shipment Tracking No: <u>106840760</u>								

Special Instructions:

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No Temp Blank: Yes / No Cooler Temp on Receipt: _____ °F/C Trip Blank: Yes / No MS/MSD Sample Submitted: Yes / No

Page 14 of 16

DATE 11/07/10

COMPANY BAT

ADDRESS 875 Cottage Lane

ADDRESS

CITY Vero Beach

SENDERS NAME Eric Ferrer

COMPANY CAT SCIENCE

NAME

ADDRESS 7400 LINCOLN WAY

ADDRESS

CITY GARDEN GROVE

YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE

INSTRUCTIONS

STE/ROOM 6

ZIP CODE 32988

PHONE NUMBER 785-247-7101

PHONE NUMBER 781-098-4444

STE/ROOM

ZIP CODE 32147



SHIPPING AIR BILL

4 PACKAGE INFORMATION

LETTER (MAX 8 OZ)

PACKAGE (WT) 30

DECLARED VALUE \$

COD AMOUNT \$ (CASH NOT ACCEPTED)

PACKAGE LABEL

5 DELIVERY SERVICE PRIORITY OVERNIGHT BY 10:30 AM EARLY PRIORITY BY 8:00 AM SATURDAY DELIVERY

*DELIVERY TIMES MAY BE LATER IN SOME AREAS • CONSULT YOUR SERVICE GUIDE OR CALL GOLDEN STATE OVERNIGHT.

6 RELEASE SIGNATURE

SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNATURE

7

8 PICK UP INFORMATION

TIME DRIVER # ROUTE #

106840260

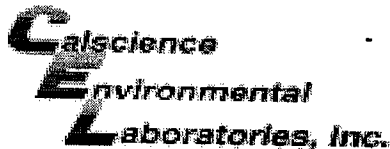
PEEL OFF HERE



106840260

9 GSO TRACKING NUMBER

0760



WORK ORDER #: 11-02-0760

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Broadbent

DATE: 02/11/11

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.4 °C + 0.5 °C (CF) = 2.9 °C Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____).

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter

Initial: JP

CUSTODY SEALS INTACT:

Cooler _____ No (Not Intact) Not Present N/A Initial: JP

Sample _____ No (Not Intact) Not Present Initial: JP

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> No analysis requested. <input type="checkbox"/> Not relinquished. <input type="checkbox"/> No date/time relinquished.			
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® TerraCores® _____

Water: VOA VOA^h VOAn₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna

250PB 250PBn 125PB 125PBz_{na} 100PJ 100PJna₂ _____ _____ _____

Air: Tedlar® Summa® Other: _____ Trip Blank Lot#: 1101038 Labeled/Checked by: JP

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: WSC

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ z_{na}: ZnAc₂+NaOH f: Field-filtered Scanned by: WSC

APPENDIX D

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

STATE WATER RESOURCES CONTROL BOARD
GEOTRACKER ESI

UPLOADING A EDF FILE

SUCCESS

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

<u>Submittal Type:</u>	EDF - Monitoring Report - Semi-Annually
<u>Submittal Title:</u>	1Q11 GW Monitoring
<u>Facility Global ID:</u>	T0600101764
<u>Facility Name:</u>	ARCO #2111
<u>File Name:</u>	11020760.zip
<u>Organization Name:</u>	Broadbent & Associates, Inc.
<u>Username:</u>	BROADBENT-C
<u>IP Address:</u>	67.118.40.90
<u>Submittal Date/Time:</u>	3/16/2011 12:54:43 PM
<u>Confirmation Number:</u>	2186808288

[VIEW QC REPORT](#)

[VIEW DETECTIONS REPORT](#)