Atlantic Richfield Company

Chuck Carmel
Remediation Management Project Manager

PO Box 1257
San Ramon, CA 94583
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RECEIVED

11:50 am, May 02, 2011
Alameda County
Environmental Health

April 29, 2011

Re: First Quarter 2011 Monitoring Report
Atlantic Richfield Company Station #2035
1001 San Pablo Avenue, Albany, California
ACEH Case #RO0000100

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
Remediation Management Project Manager

Attachment:

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
Voice (530) 566-1400
Fax (530) 566-1401

BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

April 29, 2011

Project No. 06-88-610

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

Attn.: Mr. Chuck Carmel

Re: First Quarter 2011 Monitoring Report, Atlantic Richfield Company Station #2035, 1001 San Pablo Avenue, Albany, California; ACEH Case #RO0000100

Dear Mr. Carmel:

Attached is the First Quarter 2011 Monitoring Report for the Atlantic Richfield Company Station #2035 located at 1001 San Pablo Avenue, Albany, California. Should you have questions regarding the work performed or results obtained, please do not hesitate to contact me at 530-566-1400.

Sincerely,
BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, PE
Senior Engineer

REGISTERED PROFESSIONAL ENGINEER
THOMAS A. VENUS
No. 54698
Expires 12-31-11
CIVIL
STATE OF CALIFORNIA

Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (submitted via ACEH ftp site)
Electronic copy uploaded to GeoTracker

FIRST QUARTER 2011
MONITORING REPORT
ARCO STATION #2035, ALBANY, CALIFORNIA

Broadbent & Associates, Inc. (BAI) is pleased to present this *First Quarter 2011 Monitoring Report* on behalf of Atlantic Richfield Company (a BP affiliated company) for ARCO Station #2035 located in Albany, Alameda County, California. Quarterly reporting is being submitted to the Alameda County Environmental Health Services Agency (ACEH) consistent with their requirements under the legal authority of the California Regional Water Quality Control Board, as codified by the California Code of Regulations Title 23, Section 2652(d). Details of work performed, discussion of results, and recommendations are provided below.

Facility Name / Address:	ARCO Station #2035 / 1001 San Pablo Avenue, Albany
Client Project Manager / Title:	Mr. Chuck Carmel / Remediation Management Project Manager
BAI Contact:	Mr. Tom Venus, PE / (530) 566-1400
BAI Project No.:	06-88-610
Primary Regulatory Agency / ID No.:	ACEH, Case #RO0000100
Current phase of project:	Monitoring / Vapor Intrusion Assessment
List of Acronyms / Abbreviations:	See end of report text for list of acronyms/abbreviations used in report.

WORK PERFORMED THIS QUARTER (First Quarter 2011):

1. Submitted *Fourth Quarter 2010 Monitoring Report* (BAI, 1/31/2011).
2. Conducted groundwater monitoring/sampling for First Quarter 2011 on February 16, 2011.
3. Performed Vapor Intrusion Assessment soil gas sampling (third attempt) on March 31, 2011.

WORK SCHEDULED FOR NEXT QUARTER (Second Quarter 2011):

1. Submit *First Quarter 2011 Monitoring Report* (contained herein).
2. Conduct regularly scheduled semi-annual groundwater monitoring for Second Quarter 2011.
3. Submit revised Vapor Intrusion Assessment report for sampling of soil gas implants performed during First Quarter 2011.

GROUNDWATER MONITORING PLAN SUMMARY:

Groundwater level gauging:	MW-1 through MW-9, RW-1, S-5	(2Q & 4Q)
Groundwater sample collection:	MW-4, MW-7, MW-8, MW-9, RW-1, S-5	(2Q & 4Q)
	MW-5, MW-6	(4Q)
Biodegradation indicator parameter monitoring:	MW-4, MW-7, MW-8, MW-9, RW-1, S-5	(2Q & 4Q)
	MW-5, MW-6	(4Q)

QUARTERLY RESULTS SUMMARY:

LNAPL

LNAPL observed this quarter:	No	(yes\no)
LNAPL recovered this quarter:	None	(gal)
Cumulative LNAPL recovered:	N/A	(gal)

Groundwater Elevation and Gradient:

Depth to groundwater:	5.44 (MW-7) to 11.95 (MW-6)	(ft below TOC)
Gradient direction:	West	(compass direction)
Gradient magnitude:	0.03	(ft/ft)
Average change in elevation:	+0.62	(ft since last measurement)

Laboratory Analytical Data

Summary: GRO, Benzene, Ethylbenzene were detected in MW-7, MW-8, RW-1 and S-5. Toluene was detected in MW-7 and RW-1. Total Xylenes were detected in MW-7, RW-1, and S-5. MTBE was detected in MW-4, MW-9, and S-5.

ACTIVITIES CONDUCTED & RESULTS:

First Quarter 2011 groundwater monitoring was conducted on February 16, 2011 by BAI personnel. Monitoring was performed during the First Quarter to make up for sampling problems which occurred during Fourth Quarter 2010. No irregularities were noted during water level gauging. Light, Non-Aqueous Phase Liquid (LNAPL, or free product) was not noted to be present in the wells monitored during this event. Depth to water measurements ranged from 5.44 ft at MW-7 to 11.95 ft at MW-6. Resulting groundwater surface elevations ranged from 35.12 ft at MW-9 to 30.36 ft at MW-6. Groundwater elevations are summarized in Table 1. Water level elevations yielded a potentiometric groundwater flow direction and horizontal gradient to the west at approximately 0.03 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 presented as Drawing 1. Potentiometric groundwater elevation contours are presented in Drawing 2.

Groundwater samples were collected on February 16, 2011. No irregularities were reported during sampling. Samples were submitted under chain-of-custody protocol to Calscience Environmental Laboratories, Inc. (Garden Grove, California) for analysis of Gasoline-Range Organics (GRO, C6-C12) by EPA Method 8015M; for Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary 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 8260. No significant irregularities were encountered during analysis of the samples with the following exception: The laboratory flagged the MW-7 and MW-8 GRO concentrations with "LW = Quantitation of unknown hydrocarbon(s) in sample 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 four wells sampled at concentrations up to 2,700 micrograms per liter (µg/L, parts per billion, ppb) in well S-5. Benzene was detected above the laboratory reporting limit in four wells sampled at concentrations up to 370 µg/L in well RW-1. Toluene was detected above the laboratory reporting limit in two wells sampled at concentrations up to 2.9 µg/L in well RW-1. Ethylbenzene was detected above the laboratory reporting limit in four wells sampled at concentrations up to 50 µg/L in well MW-8. Total Xylenes was detected above the laboratory reporting limit in three wells sampled at concentrations up to 3.2 µg/L in well S-5. MTBE was detected above the laboratory reporting limit in three wells sampled at concentrations up to 3.8 µg/L in well MW-9. 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 also 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.

Other Activities:

BAI and subcontractor TEG performed another round of soil gas sampling from the vapor intrusion implants at ARCO Station #2035 on March 31, 2011. Higher than normal groundwater elevations at the site prevented collection of soil gas samples from implants SG-3 and SG-4, located east and north of the northern pump island. During purging at SG-3 and SG-4, groundwater was drawn up into the sampling train. The depth to water within nearby well MW-7 was subsequently measured at 2.5 ft, above the monitoring intervals of each soil gas implant, constructed between 3.0 to 3.5 ft below ground surface (bgs). Soil gas samples were able to be collected from vapor intrusion implants SG-1 and SG-2,near the Station Building, and SG-5 located in the northwest portion of the property. In addition, another *'Ambient'* sample was collected outside the entrance door into the Station building. At the time this *First Quarter 2011 Monitoring Report* was prepared, the analytical results for samples SG-1, SG-2, SG-5 and Ambient collected on March 31, 2011 had not yet been received.

DISCUSSION:

Groundwater levels were between historic minimum and maximum elevations for wells MW-1, MW-3, MW-5, and RW-1. New historic maximum groundwater elevations were established in wells MW-2, MW-4, MW-6, MW-7, MW-8, MW-9, and S-5. Significantly above average precipitation over the winter is a possible reason for the high groundwater levels. Groundwater elevations yielded a potentiometric groundwater flow direction and horizontal gradient to the west at approximately 0.03 ft/ft, generally consistent with the historic flow direction and gradient data presented in Table 3.

This event's detected analytical concentrations were within the historic minimum and maximum ranges recorded for each well, with the following exceptions: The sample from well MW-8 contained new minimum concentrations of GRO (960 µg/L) and Benzene (270 µg/L); the sample from well S-5 contained new minimum concentrations of GRO (2,700 µg/L), Benzene (26 µg/L), Ethylbenzene (11 µg/L), and Total Xylenes (3.2 µg/L). A possible reason for the new historic minimum concentrations might be dilution due to new historically high groundwater elevations. Conversely, concentrations of GRO and BTEX were higher in the First Quarter 2011 sample from well RW-1 than in many previous sampling events although MTBE remained low. Recent and historic laboratory analytical results are summarized in Table 1 and Table 2.

RECOMMENDATIONS:

Groundwater monitoring and sampling is scheduled to be conducted at ARCO Station #2035 during Second Quarter 2011, consistent with the normal sampling plan. Monitoring and sampling is being coordinated again with the consultant conducting the Second Quarter 2011 monitoring and sampling at the Shell Station across Marin Avenue at 999 San Pablo Avenue. These observations and results will be combined in the forthcoming Second Quarter 2011 Monitoring Report.

In addition, a revised Vapor Intrusion Assessment report will be submitted to ACEH upon receipt and analysis of the laboratory analytical report for the soil gas samples collected on March 31, 2011.

LIMITATIONS:

The findings presented in this report are based upon observations of field personnel, points investigated, results of laboratory tests performed by Calscience Environmental Laboratories, Inc. (Garden Grove, California), 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 the 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:

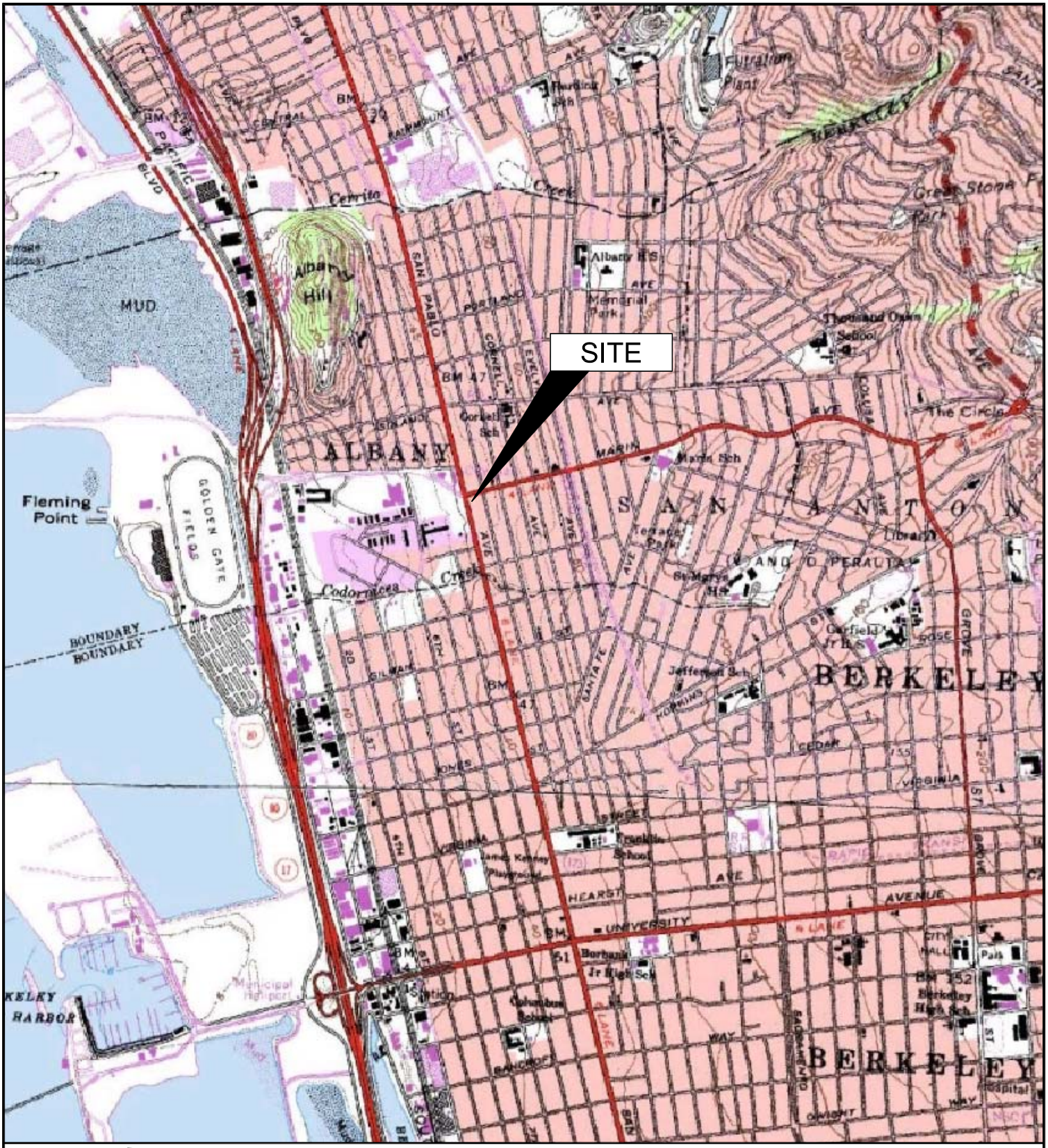
Drawing 1: Site Location Map
Drawing 2: First Quarter 2011 Groundwater Elevation Contours and Analytical Summary Map

Table 1: Summary of Groundwater Monitoring Data: Water Elevations and Laboratory Analyses
Table 2: Summary of Fuel Additives Analytical Data
Table 3: Historic Groundwater Flow Direction and Gradient

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	ft/ft:	feet per foot
BAI:	Broadbent & Associates, Inc.	gal:	Gallons
BTEX:	Benzene, Toluene, Ethylbenzene, Total Xylenes	GRO:	Gasoline-Range Organics
1,2-DCA:	1,2-Dichloroethane	LNAPL:	Light Non-Aqueous Phase Liquid
DIPE:	Di-Isopropyl Ether	MTBE:	Methyl Tertiary Butyl Ether
DO:	Dissolved Oxygen	NO_3:	Nitrate as Nitrogen
DRO:	Diesel-Range Organics	ppb:	parts per billion
EDB:	1,2-Dibromomethane	SO_4:	Sulfate
Eh:	Oxidation Reduction Potential	TAME:	Tert-Amyl Methyl Ether
EPA:	Environmental Protection Agency	TBA:	Tertiary Butyl Ether
ETBE:	Ethyl Tertiary Butyl Ether	TOC:	Top of Casing
Fe^{2+}:	Ferrous Iron	µg/L:	micrograms per liter



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0 2000 4000

APPROXIMATE SCALE (ft)

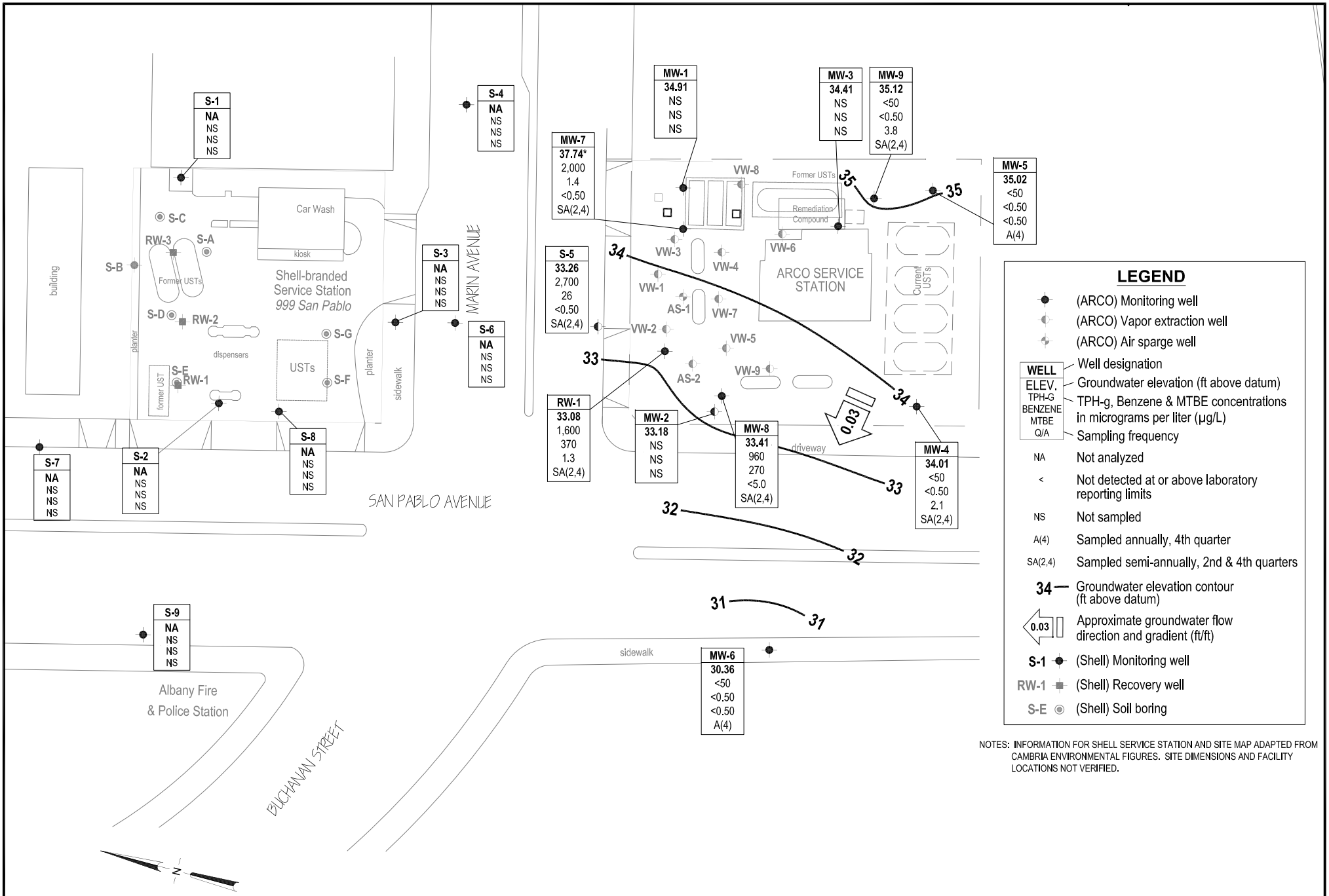
IMAGE SOURCE: USGS

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, CA 95926
Project No.: 06-88-610 Date: 08/7/09

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

Site Location Map

Drawing
1



LEGEND

- (ARCO) Monitoring well
- (ARCO) Vapor extraction well
- (ARCO) Air sparge well
- WELL — Well designation
- ELEV. — Groundwater elevation (ft above datum)
- TPH-G / BENZENE / MTBE — TPH-g, Benzene & MTBE concentrations in micrograms per liter (µg/L)
- Q/A — Sampling frequency
- NA — Not analyzed
- < — Not detected at or above laboratory reporting limits
- NS — Not sampled
- A(4) — Sampled annually, 4th quarter
- SA(2,4) — Sampled semi-annually, 2nd & 4th quarters
- 34 — Groundwater elevation contour (ft above datum)
- 0.03 — Approximate groundwater flow direction and gradient (ft/ft)
- S-1 — (Shell) Monitoring well
- RW-1 — (Shell) Recovery well
- S-E — (Shell) Soil boring

NOTES: INFORMATION FOR SHELL SERVICE STATION AND SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212 Chico 95926
Project No.: 06-88-610 Date: 3/16/2011

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

Groundwater Elevation Contours
and Analytical Summary Map
16 February 2011

Drawing
2

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

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-1															
4/11/2002	P	41.41	10.73	--	30.68	800	360	<5.0	<5.0	<5.0	<50	--	--	--	
11/27/2002	P	41.41	10.22	--	31.19	<50	<0.50	<0.50	<0.50	<0.50	1.7	1.1	--	--	
6/3/2003	--	41.41	9.14	--	32.27	1,700	430	<5.0	24	11	8.6	1.7	--	--	
11/13/2003	P	43.55	10.17	--	33.38	<50	<0.50	<0.50	<0.50	<0.50	0.95	2.3	SEQM	6.5	a
05/12/2004	P	43.55	9.28	--	34.27	120	7.2	<0.50	<0.50	<0.50	3.0	1.6	SEQM	6.0	
12/01/2004	P	43.55	9.16	--	34.39	<50	0.94	<0.50	<0.50	1.1	2.4	5.2	SEQM	6.6	
05/02/2005	P	43.55	8.58	--	34.97	1,300	390	<5.0	12	6.4	8.8	2.8	SEQM	6.5	
11/16/2005	P	43.55	9.50	--	34.05	<50	<0.50	<0.50	<0.50	0.54	0.92	1.7	SEQM	6.4	
5/31/2006	P	43.55	7.36	--	36.19	850	200	<2.5	5.4	<2.5	4.0	2.4	SEQM	6.5	
12/6/2006	P	43.55	9.91	--	33.64	<50	0.52	<0.50	<0.50	<0.50	0.72	4.50	TAMC	6.99	
5/15/2007	P	43.55	9.65	--	33.90	67	6.6	<0.50	<0.50	<0.50	1.8	2.43	TAMC	6.96	
11/29/2007	P	43.55	9.11	--	34.44	<50	<0.50	<0.50	<0.50	<0.50	0.98	4.51	TAMC	6.81	
5/6/2008	P	43.55	8.25	--	35.30	890	140	0.53	5.4	5.8	<0.50	1.89	CEL	6.61	
11/24/2008	P	43.55	10.55	--	33.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.83	CEL	6.67	
4/9/2009	--	43.55	9.02	--	34.53	--	--	--	--	--	--	--	--	--	d
11/24/2009	--	43.55	9.24	--	34.31	--	--	--	--	--	--	--	--	--	
5/26/2010	--	43.55	8.47	--	35.08	--	--	--	--	--	--	--	--	--	
11/30/2010	--	43.55	8.62	--	34.93	--	--	--	--	--	--	--	--	--	
2/16/2011	**P**	**43.55**	**8.64**	**--**	**34.91**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	
MW-2 Cont.															
4/11/2002	P	40.38	11.05	--	29.33	<50	<0.50	<0.50	<0.50	<0.50	24	--	--	--	
11/27/2002	P	40.38	10.51	--	29.87	<50	<0.50	<0.50	<0.50	<0.50	5.4	2.6	--	--	
6/3/2003	--	40.38	9.78	--	30.60	<50	<0.50	<0.50	<0.50	<0.50	23	1.7	--	--	
11/13/2003	P	42.52	10.69	--	31.83	<50	<0.50	<0.50	<0.50	<0.50	9.5	2.3	SEQM	6.5	a
05/12/2004	P	42.52	10.34	--	32.18	<250	<2.5	<2.5	<2.5	<2.5	27	2.2	SEQM	6.6	
12/01/2004	P	42.52	10.28	--	32.24	<50	<0.50	<0.50	<0.50	0.70	17	3.9	SEQM	6.6	
05/02/2005	P	42.52	9.50	--	33.02	<50	<0.50	<0.50	<0.50	<0.50	25	3.1	SEQM	6.6	
11/16/2005	P	42.52	10.50	--	32.02	<50	<0.50	<0.50	<0.50	0.50	7.6	2.8	SEQM	6.4	
5/31/2006	P	42.52	10.03	--	32.49	<50	<0.50	<0.50	<0.50	<0.50	24	2.0	SEQM	6.6	
12/6/2006	P	42.52	10.28	--	32.24	<50	<0.50	<0.50	<0.50	<0.50	1.6	3.72	TAMC	6.91	

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

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-2 Cont.															
5/15/2007	P	42.52	10.00	--	32.52	<50	<0.50	<0.50	<0.50	<0.50	44	2.90	TAMC	6.69	
11/29/2007	P	42.52	10.13	--	32.39	<50	<0.50	<0.50	<0.50	<0.50	1.9	4.83	TAMC	6.89	
5/6/2008	P	42.52	9.55	--	32.97	<50	<0.50	<0.50	<0.50	<0.50	35	1.88	CEL	6.62	
11/24/2008	P	42.52	10.70	--	31.82	<50	<0.50	<0.50	<0.50	<0.50	4.3	1.83	CEL	6.74	
4/9/2009	--	42.57	9.68	--	32.89	--	--	--	--	--	--	--	--	--	d
11/24/2009	--	42.57	10.48	--	32.09	--	--	--	--	--	--	--	--	--	
5/26/2010	--	42.57	9.65	--	32.92	--	--	--	--	--	--	--	--	--	
11/30/2010	--	42.57	9.84	--	32.73	--	--	--	--	--	--	--	--	--	
2/16/2011	**P**	**42.57**	**9.39**	--	**33.18**	--	--	--	--	--	--	--	--	--	
MW-3 Cont.															
4/11/2002	P	41.44	11.05	--	30.39	250	9.4	<0.50	<0.50	<0.50	120	--	--	--	
11/27/2002	P	41.44	10.49	--	30.95	<100	<1.0	<1.0	<1.0	2.5	56	2.2	--	--	
6/3/2003	--	41.44	9.44	--	32.00	130	<0.50	<0.50	<0.50	<0.50	47	4.1	--	--	
11/13/2003	P	43.62	10.68	--	32.94	53	<0.50	<0.50	<0.50	<0.50	36	3.8	SEQM	6.8	a
05/12/2004	P	43.62	9.95	--	33.67	65	<0.50	<0.50	<0.50	<0.50	39	4.2	SEQM	6.9	
12/01/2004	P	43.62	10.32	--	33.30	140	<0.50	<0.50	<0.50	<0.50	37	4.3	SEQM	6.9	
05/02/2005	P	43.62	9.12	--	34.50	140	<0.50	<0.50	<0.50	<0.50	23	3.1	SEQM	6.7	
11/16/2005	P	43.62	10.58	--	33.04	<50	<0.50	<0.50	<0.50	<0.50	32	4.1	SEQM	6.5	
5/31/2006	P	43.62	9.41	--	34.21	<50	<0.50	<0.50	<0.50	<0.50	20	4.3	SEQM	6.8	
12/6/2006	P	43.62	10.25	--	33.37	<50	<0.50	<0.50	<0.50	<0.50	20	2.71	TAMC	7.00	
5/15/2007	P	43.62	9.70	--	33.92	<50	<0.50	<0.50	<0.50	<0.50	40	5.89	TAMC	7.07	
11/29/2007	P	43.62	10.08	--	33.54	90	<0.50	<0.50	<0.50	<0.50	35	4.74	TAMC	6.61	
5/6/2008	P	43.62	10.02	--	33.60	<50	<0.50	<0.50	<0.50	<0.50	14	2.05	CEL	6.61	
11/24/2008	P	43.62	10.80	--	32.82	<50	<1.0	<1.0	<1.0	<1.0	28	1.98	CEL	6.77	
4/9/2009	--	43.63	9.55	--	34.08	--	--	--	--	--	--	--	--	--	d
11/24/2009	--	43.63	10.29	--	33.34	--	--	--	--	--	--	--	--	--	
5/26/2010	--	43.63	9.76	--	33.87	--	--	--	--	--	--	--	--	--	
11/30/2010	--	43.63	10.15	--	33.48	--	--	--	--	--	--	--	--	--	
2/16/2011	**P**	**43.63**	**9.22**	--	**34.41**	--	--	--	--	--	--	--	--	--	

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

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-4															
4/11/2002	NP	40.33	10.81	--	29.52	<50	<0.50	<0.50	<0.50	<0.50	11	--	--	--	
11/27/2002	NP	40.33	10.09	--	30.24	<50	<0.50	<0.50	<0.50	<0.50	6.5	1.8	--	--	
6/3/2003	--	40.33	8.62	--	31.71	<250	<2.5	<2.5	<2.5	<2.5	120	1.1	--	--	
11/13/2003	NP	42.48	9.98	--	32.50	<50	<0.50	<0.50	<0.50	<0.50	20	1.3	SEQM	6.2	a
05/12/2004	P	42.48	9.48	--	33.00	<250	<2.5	<2.5	<2.5	<2.5	79	2.9	SEQM	6.6	
12/01/2004	NP	42.48	9.60	--	32.88	<50	<0.50	<0.50	<0.50	<0.50	1.8	1.9	SEQM	6.7	
05/02/2005	NP	42.48	8.67	--	33.81	<50	<0.50	<0.50	<0.50	<0.50	11	2.8	SEQM	6.6	
11/16/2005	NP	42.48	10.00	--	32.48	<50	<0.50	<0.50	<0.50	<0.50	0.93	1.7	SEQM	6.3	
5/31/2006	NP	42.48	8.52	--	33.96	<50	<0.50	<0.50	<0.50	<0.50	2.4	1.0	SEQM	7.0	
12/6/2006	NP	42.48	9.90	--	32.58	<50	<0.50	<0.50	<0.50	<0.50	7.8	0.85	TAMC	7.10	
5/15/2007	NP	42.48	9.18	--	33.30	<50	<0.50	<0.50	<0.50	<0.50	2.2	1.37	TAMC	6.85	
11/29/2007	NP	42.48	9.10	--	33.38	<50	<0.50	<0.50	<0.50	<0.50	9.1	1.81	TAMC	7.14	
5/6/2008	P	42.48	9.40	--	33.08	<50	<0.50	<0.50	<0.50	<0.50	10	2.61	CEL	6.91	
11/24/2008	NP	42.48	10.20	--	32.28	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.67	CEL	6.88	
4/9/2009	P	42.51	9.00	--	33.51	<50	<0.50	<0.50	<0.50	<0.50	12	2.51	CEL	7.11	d
11/24/2009	P	42.51	9.89	--	32.62	<50	<0.50	<0.50	<0.50	<0.50	1.7	0.80	CEL	6.58	
5/26/2010	P	42.51	8.79	--	33.72	<50	<0.50	<0.50	<0.50	<0.50	1.4	0.98	CEL	6.0	
11/30/2010	P	42.51	9.31	--	33.20	--	--	--	--	--	--	1.40	--	6.4	f
2/16/2011	**P**	**42.51**	**8.50**	**--**	**34.01**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2.1**	**0.91**	**CEL**	**7.1**	
MW-5 Cont.															
4/11/2002	NP	41.84	10.63	--	31.21	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	
11/27/2002	NP	41.84	10.65	--	31.19	--	--	--	--	--	--	--	--	--	
6/3/2003	--	41.84	8.92	--	32.92	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	--	--	
11/13/2003	NP	44.03	10.58	--	33.45	<50	<0.50	<0.50	<0.50	<0.50	0.79	1.4	SEQM	5.7	a
05/12/2004	--	44.03	9.95	--	34.08	--	--	--	--	--	--	--	--	--	
12/01/2004	NP	44.03	10.05	--	33.98	<50	<0.50	<0.50	<0.50	<0.50	0.55	1.8	SEQM	6.3	
05/02/2005	--	44.03	8.75	--	35.28	--	--	--	--	--	--	--	--	--	
11/16/2005	NP	44.03	10.37	--	33.66	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	SEQM	6.2	
5/31/2006	--	44.03	9.07	--	34.96	--	--	--	--	--	--	--	--	--	
12/6/2006	NP	44.03	10.25	--	33.78	<50	<0.50	<0.50	<0.50	<0.50	0.99	1.24	TAMC	6.88	

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

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
MW-5 Cont.															
5/15/2007	--	44.03	9.51	--	34.52	--	--	--	--	--	--	--	--	--	
11/29/2007	NP	44.03	9.95	--	34.08	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.93	TAMC	6.98	
5/6/2008	--	44.03	9.67	--	34.36	--	--	--	--	--	--	--	--	--	
11/24/2008	NP	44.03	10.62	--	33.41	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.43	CEL	6.52	
4/9/2009	--	44.03	12.00	--	32.03	--	--	--	--	--	--	--	--	--	d
11/24/2009	P	44.03	10.34	--	33.69	<50	<0.50	1.4	<0.50	<0.50	0.89	0.94	CEL	6.1	
5/26/2010	--	44.03	9.21	--	34.82	--	--	--	--	--	--	--	--	--	
11/30/2010	P	44.03	9.85	--	34.18	--	--	--	--	--	--	--	--	6.17	f
2/16/2011	**P**	**44.03**	**9.01**	**--**	**35.02**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.23**	**CEL**	**6.9**	
MW-6 Cont.															
4/11/2002	NP	40.13	11.42	--	28.71	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	
11/27/2002	NP	40.13	13.11	--	27.02	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.3	--	--	
6/3/2003	--	40.13	12.48	--	27.65	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1	--	--	
11/13/2003	NP	42.26	13.11	--	29.15	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	SEQM	6.8	a
05/12/2004	--	42.26	12.68	--	29.58	--	--	--	--	--	--	--	--	--	
12/01/2004	NP	42.26	12.68	--	29.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	SEQM	7.3	
05/02/2005	--	42.26	12.25	--	30.01	--	--	--	--	--	--	--	--	--	
11/16/2005	NP	42.26	12.98	--	29.28	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	SEQM	6.7	
5/31/2006	--	42.26	12.35	--	29.91	--	--	--	--	--	--	--	--	--	
12/6/2006	NP	42.26	12.98	--	29.28	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.24	TAMC	6.86	
5/15/2007	--	42.26	12.55	--	29.71	--	--	--	--	--	--	--	--	--	
11/29/2007	NP	42.26	12.75	--	29.51	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	TAMC	6.93	
5/6/2008	--	42.26	12.91	--	29.35	--	--	--	--	--	--	--	--	--	
11/24/2008	NP	42.26	13.20	--	29.06	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.28	CEL	7.25	
4/9/2009	--	42.31	12.52	--	29.79	--	--	--	--	--	--	--	--	--	d
11/24/2009	P	42.31	12.90	--	29.41	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.83	CEL	6.59	
5/26/2010	--	42.31	12.17	--	30.14	--	--	--	--	--	--	--	--	--	
11/30/2010	P	42.31	12.45	--	29.86	--	--	--	--	--	--	1.20	--	7.2	f
2/16/2011	**P**	**42.31**	**11.95**	**--**	**30.36**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.02**	**CEL**	**6.9**	

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ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	MTBE				
MW-7															
4/9/2009	P	43.18	6.73	--	36.45	4,100	5.2	1.7	21	21	<0.50	8.41	CEL	7.79	d
11/24/2009	P	43.18	8.31	--	34.87	2,700	4.1	1.1	3.3	3.0	<0.50	0.60	CEL	6.8	c
5/26/2010	P	43.18	6.62	--	36.56	1,800	1.2	0.53	2.2	0.84	<0.50	0.71	CEL	6.6	
11/30/2010	P	43.18	6.84	--	36.34	--	--	--	--	--	--	0.79	--	6.7	f
2/16/2011	**P**	**43.18**	**5.44**	**--**	**37.74**	**2,000**	**1.4**	**0.84**	**8.0**	**1.4**	**<0.50**	**0.56**	**CEL**	**7.0**	**g**
MW-8 Cont.															
4/9/2009	P	42.36	9.50	--	32.86	4,300	940	260	150	590	110	2.09	CEL	7.62	d
11/24/2009	P	42.36	10.25	--	32.11	28,000	9,900	670	1,300	2,200	<100	0.64	CEL	6.48	c
5/26/2010	P	42.36	9.25	--	33.11	1,400	420	<10	21	<10	<10	0.78	CEL	6.6	
11/30/2010	P	42.36	9.68	--	32.68	--	--	--	--	--	--	2.26	--	6.6	f
2/16/2011	**P**	**42.36**	**8.95**	**--**	**33.41**	**960**	**270**	**<5.0**	**50**	**<5.0**	**<5.0**	**3.35**	**CEL**	**6.9**	**g**
MW-9 Cont.															
4/9/2009	P	43.77	8.95	--	34.82	<50	<0.50	<0.50	<0.50	<0.50	2.1	2.81	CEL	7.58	d
11/24/2009	P	43.77	10.11	--	33.66	<50	<0.50	<0.50	<0.50	<0.50	3.8	--	CEL	6.3	
5/26/2010	P	43.77	8.88	--	34.89	<50	<0.50	<0.50	<0.50	<0.50	1.9	0.66	CEL	5.7	
11/30/2010	P	43.77	9.56	--	34.21	--	--	--	--	--	--	0.64	--	6.3	f
2/16/2011	**P**	**43.77**	**8.65**	**--**	**35.12**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**3.8**	**0.55**	**CEL**	**6.6**	
RW-1 Cont.															
4/11/2002	P	40.33	9.20	--	31.13	15,000	750	2,000	380	2,000	1,500	--	--	--	
11/27/2002	P	40.33	10.31	--	30.02	<2,500	720	<25	<25	<25	<25	1.8	--	--	
6/3/2003	--	40.33	9.54	--	30.79	470	78	0.97	4.3	9	48	1.4	--	--	
11/13/2003	P	42.35	10.35	--	32.00	130	29	<0.50	<0.50	<0.50	44	1.3	SEQM	6.6	a
05/12/2004	P	42.35	9.80	--	32.55	<250	66	<2.5	<2.5	<2.5	<2.5	1.9	SEQM	6.9	
09/02/2004	--	42.35	10.42	--	31.93	--	--	--	--	--	--	--	--	--	
10/07/2004	--	42.35	10.36	--	31.99	--	--	--	--	--	--	--	--	--	
11/04/2004	--	42.35	9.93	--	32.42	--	--	--	--	--	--	--	--	--	
12/01/2004	P	42.35	10.02	--	32.33	<250	96	<2.5	<2.5	<2.5	16	1.8	SEQM	6.7	
05/02/2005	P	42.35	9.20	--	33.15	230	100	<1.0	<1.0	<1.0	50	2.5	SEQM	6.6	
11/16/2005	P	42.35	10.96	--	31.39	<100	28	<1.0	<1.0	<1.0	32	1.0	SEQM	6.5	

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ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
RW-1 Cont.															
5/31/2006	P	42.35	9.34	--	33.01	320	32	<0.50	<0.50	<0.50	28	1.3	SEQM	6.8	
12/6/2006	P	42.35	10.10	--	32.25	50	27	<0.50	<0.50	<0.50	19	1.49	TAMC	7.54	
5/15/2007	P	42.35	9.42	--	32.93	280	32	<0.50	<0.50	<0.50	18	2.61	TAMC	7.10	
11/29/2007	P	42.35	9.75	--	32.60	<50	14	<0.50	<0.50	<0.50	18	4.86	TAMC	8.14	
5/6/2008	P	42.35	9.71	--	32.64	610	110	<2.5	<2.5	<2.5	2.6	2.48	CEL	6.95	
11/24/2008	P	42.35	10.48	--	31.87	73	31	<0.50	<0.50	<0.50	11	2.53	CEL	6.88	
4/9/2009	P	42.23	9.46	--	32.77	720	36	<0.50	1.0	1.2	4.0	2.58	CEL	7.73	d
11/24/2009	P	42.23	10.15	--	32.08	<50	2.0	<0.50	<0.50	<0.50	6.5	0.85	CEL	6.6	
5/26/2010	P	42.23	9.12	--	33.11	90	11	<0.50	<0.50	<0.50	0.94	1.46	CEL	6.4	
11/30/2010	P	42.23	9.38	--	32.85	--	--	--	--	--	--	2.10	--	7.2	f
2/16/2011	**P**	**42.23**	**9.15**	**--**	**33.08**	**1,600**	**370**	**2.9**	**2.6**	**2.9**	**1.3**	**0.76**	**CEL**	**7.0**	
S-5 Cont.															
4/11/2002	P	40.33	10.17	--	30.16	30,000	390	1,400	410	7,400	<500	--	--	--	
11/27/2002	P	40.33	9.77	--	30.56	55,000	1,300	450	1,400	13,000	<50	4.3	--	--	
6/3/2003	--	40.33	9.03	--	31.30	44,000	680	260	1,100	9,900	<25	1.9	--	--	
6/3/2003	--	40.33	9.12	--	31.21	--	--	--	--	--	<25	1.4	--	--	
11/13/2003	P	41.83	9.12	--	32.71	31,000	520	120	690	5,900	<50	1.4	SEQM	6.5	a
05/12/2004	P	41.83	9.95	--	31.88	28,000	760	79	910	5,000	<50	1.9	SEQM	6.6	
12/01/2004	P	41.83	9.61	--	32.22	26,000	1,500	64	1,400	4,000	<25	--	SEQM	6.5	b
05/02/2005	P	41.83	8.80	--	33.03	13,000	700	18	260	1,300	<5.0	1.8	SEQM	6.4	
11/16/2005	P	41.83	9.80	--	32.03	15,000	1,400	25	570	850	<5.0	1.1	SEQM	6.3	
5/31/2006	P	41.83	8.89	--	32.94	9,800	170	<5.0	490	390	<5.0	1.4	SEQM	6.6	
12/6/2006	P	41.83	9.65	--	32.18	16,000	1,100	<25	1,700	970	<25	1.23	TAMC	6.95	
5/15/2007	P	41.83	8.89	--	32.94	10,000	140	<5.0	340	310	<5.0	3.63	TAMC	7.10	
11/29/2007	P	41.83	9.48	--	32.35	13,000	770	8.6	500	360	<2.5	5.42	TAMC	7.28	c (Benzene)
5/6/2008	P	41.83	9.30	--	32.53	7,400	320	2.8	580	130	<0.50	3.37	CEL	6.88	
11/24/2008	P	41.83	10.00	--	31.83	7,700	400	<10	390	14	<10	3.22	CEL	6.43	
4/9/2009	P	41.83	8.90	--	32.93	7,700	230	<10	370	35	<10	3.14	CEL	7.77	
11/24/2009	--	41.83	--	--	--	--	--	--	--	--	--	--	--	--	e
5/26/2010	--	41.83	--	--	--	--	--	--	--	--	--	--	--	--	e

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

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	P/NP	TOC Elevation (feet)	Depth to Water (feet bgs)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	Lab	pH	Comments
						GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE				
S-5 Cont.															
11/30/2010	P	41.83	8.92	--	32.91	--	--	--	--	--	--	0.62	--	6.6	f
2/16/2011	**P**	**41.83**	**8.57**	**--**	**33.26**	**2,700**	**26**	**<0.50**	**11**	**3.2**	**<0.50**	**1.34**	**CEL**	**7.5**	

ABBREVIATIONS & SYMBOLS:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above laboratory reporting limit
ft bgs = Feet below ground surface
BTEX = Benzene, toluene, ethylbenzene and xylenes
DO = Dissolved oxygen
DTW = Depth to water in ft bgs
GRO = Gasoline range organics, range C4-C12
GWE = Groundwater elevation measured in ft
mg/L = Milligrams per liter
MTBE = Methyl tert butyl ether
NP = Not purged before sampling
P = Purged before sampling
TOC = Top of casing measured in ft
TPH-g = Total petroleum hydrocarbons as gasoline, analyzed using EPA Method 8015, Modified
µg/L = Micrograms per liter
SEQ/SEQM = Sequoia Analytical/Sequoia Morgan Hill Laboratories

FOOTNOTES:
a = Site resurveyed by URS on 10/15/03 to NAVD '88
b = Sheen in well
c = Sample taken from VOA vial with air bubble >6mm
d = Well surveyed on 4/20/09
e = Well not monitored or sampled due to traffic control safety concerns
f = Samples were collected on 11/30/2010 but not able to be analyzed (frozen). Subsequent re-sampling could not occur in 4Q 2010
g = Quantitation of unknown hydrocarbon(s) in sample based on gasoline

NOTES:
No sampling occurs at this site during the first and third quarters of each calendar year.

TPH-g analyzed using EPA Method 8015, Modified and BTEX and MTBE by EPA method 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 #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
4/11/2002	--	--	<50	--	--	--	--	--	
11/27/2002	--	--	1.7	--	--	--	--	--	
6/3/2003	<1000	<200	8.6	<5.0	<5.0	<5.0	<5.0	<5.0	
11/13/2003	<100	<20	0.95	<0.50	<0.50	<0.50	--	--	
05/12/2004	<100	<20	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	
12/01/2004	<100	<20	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	
05/02/2005	<1,000	220	8.8	<5.0	<5.0	<5.0	<5.0	<5.0	
11/16/2005	<100	<20	0.92	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/31/2006	<1,500	<100	4.0	<2.5	<2.5	<2.5	<2.5	<2.5	a
12/6/2006	<300	<20	0.72	<0.50	<0.50	<0.50	<0.50	<0.50	
5/15/2007	<300	<20	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2007	<300	<20	0.98	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-2									
4/11/2002	--	--	24	--	--	--	--	--	
11/27/2002	--	--	5.4	--	--	--	--	--	
6/3/2003	<100	<20	23	<0.50	<0.50	<0.50	0.94	<0.50	
11/13/2003	<100	<20	9.5	<0.50	<0.50	<0.50	--	--	
05/12/2004	<500	<100	27	<2.5	<2.5	<2.5	<2.5	<2.5	
12/01/2004	<100	<20	17	<0.50	<0.50	<0.50	0.74	<0.50	
05/02/2005	<100	75	25	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	7.6	<0.50	<0.50	<0.50	0.79	<0.50	a
5/31/2006	<300	<20	24	<0.50	<0.50	<0.50	0.66	<0.50	a
12/6/2006	<300	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/15/2007	<300	<20	44	<0.50	<0.50	<0.50	1.2	<0.50	
11/29/2007	<300	<20	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<300	<10	35	<0.50	<0.50	<0.50	0.93	<0.50	
11/24/2008	<300	<10	4.3	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-3									
4/11/2002	--	--	120	--	--	--	--	--	
11/27/2002	--	--	56	--	--	--	--	--	
6/3/2003	<100	<20	47	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	36	<0.50	<0.50	<0.50	--	--	
05/12/2004	<100	<20	39	<0.50	<0.50	<0.50	<0.50	<0.50	
12/01/2004	<100	<20	37	<0.50	<0.50	<0.50	<0.50	<0.50	
05/02/2005	<100	<20	23	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	32	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/31/2006	<300	<20	20	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	20	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/15/2007	<300	<20	40	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2007	<300	<20	35	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<300	<10	14	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<600	<20	28	<1.0	<1.0	<1.0	<1.0	<1.0	
MW-4									
4/11/2002	--	--	11	--	--	--	--	--	
11/27/2002	--	--	6.5	--	--	--	--	--	
6/3/2003	<500	<100	120	<2.5	<2.5	<2.5	<2.5	<2.5	
11/13/2003	<100	<20	20	<0.50	<0.50	<0.50	--	--	
05/12/2004	<500	<100	79	<2.5	<2.5	<2.5	<2.5	<2.5	
12/01/2004	<100	<20	1.8	<0.50	<0.50	<0.50	<0.50	<0.50	
05/02/2005	<100	75	11	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	0.93	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/31/2006	<300	<20	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	7.8	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/15/2007	<300	<20	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2007	<300	<20	9.1	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<300	<10	10	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
4/9/2009	<300	<10	12	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-4 Cont.									
11/24/2009	<300	<10	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	
5/26/2010	<300	<10	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	**<300**	**<10**	**2.1**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-5									
4/11/2002	--	--	<5.0	--	--	--	--	--	
6/3/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	0.79	<0.50	<0.50	<0.50	--	--	
12/01/2004	<100	<20	0.55	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	0.99	<0.50	<0.50	<0.50	<0.50	<0.50	a
11/29/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	**<300**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-6									
4/11/2002	--	--	<5.0	--	--	--	--	--	
11/27/2002	--	--	<0.50	--	--	--	--	--	
6/3/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	
12/01/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/16/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	a
11/29/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	**<300**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-7									
4/9/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-7 Cont.									
5/26/2010	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	**<300**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-8									
4/9/2009	<300	330	110	5.5	<0.50	<0.50	34	<0.50	
11/24/2009	<60,000	<2,000	<100	<100	<100	<100	<100	<100	b
5/26/2010	<6,000	<200	<10	<10	<10	<10	<10	<10	
2/16/2011	**<3000**	**<100**	**<5.0**	**<5.0**	**<5.0**	**<5.0**	**<5.0**	**<5.0**	
MW-9									
4/9/2009	<300	<10	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	3.8	<0.50	<0.50	<0.50	<0.50	<0.50	
5/26/2010	<300	<10	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	**<300**	**<10**	**3.8**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
RW-1									
4/11/2002	--	--	1,500	--	--	--	--	--	
11/27/2002	--	--	<25	--	--	--	--	--	
6/3/2003	<100	22	48	<0.50	<0.50	<0.50	<0.50	<0.50	
11/13/2003	<100	<20	44	<0.50	<0.50	<0.50	--	--	
05/12/2004	<500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
12/01/2004	<500	<100	16	<2.5	<2.5	<2.5	<2.5	<2.5	
05/02/2005	<200	<40	50	<1.0	<1.0	<1.0	<1.0	<1.0	
11/16/2005	<200	<40	32	<1.0	<1.0	<1.0	<1.0	<1.0	a
5/31/2006	<300	<20	28	<0.50	<0.50	<0.50	<0.50	<0.50	a
12/6/2006	<300	<20	19	<0.50	<0.50	<0.50	<0.50	<0.50	a
5/15/2007	<300	<20	18	<0.50	<0.50	<0.50	<0.50	<0.50	
11/29/2007	<300	<20	18	<0.50	<0.50	<0.50	<0.50	<0.50	
5/6/2008	<1,500	<50	2.6	<2.5	<2.5	<2.5	<2.5	<2.5	
11/24/2008	<300	<10	11	<0.50	<0.50	<0.50	<0.50	<0.50	
4/9/2009	<300	<10	4.0	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2009	<300	<10	6.5	<0.50	<0.50	<0.50	<0.50	<0.50	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #2035, 1001 San Pablo Ave., Albany, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
RW-1 Cont.									
5/26/2010	<300	<10	0.94	<0.50	<0.50	<0.50	<0.50	<0.50	
2/16/2011	**<300**	**<10**	**1.3**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
S-5									
4/11/2002	--	--	<500	--	--	--	--	--	
11/27/2002	--	--	<50	--	--	--	--	--	
6/3/2003	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
6/3/2003	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
11/13/2003	<10,000	<2,000	<50	<50	<50	<50	--	--	
05/12/2004	<10,000	<2,000	<50	<50	<50	<50	<50	<50	
12/01/2004	<5,000	<1,000	<25	<25	<25	<25	<25	<25	
05/02/2005	<1,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
11/16/2005	<1,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	a
5/31/2006	<3,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	a
12/6/2006	<15,000	<1,000	<25	<25	<25	<25	<25	<25	a
5/15/2007	<3,000	<200	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
11/29/2007	<1,500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
5/6/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
11/24/2008	<6,000	<200	<10	<10	<10	<10	<10	<10	
4/9/2009	<6,000	<200	<10	<10	<10	<10	<10	<10	
2/16/2011	**<300**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	

ABBREVIATIONS & SYMBOLS:
-- = Not analyzed/applicable/measured/available
< = Not detected at or above the 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

FOOTNOTE:
a = Calibration verification for ethanol was within method limits but outside contract limits.
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 #2035, 1001 San Pablo Ave., Albany, CA

Date Measured	Approximate Groundwater Flow Direction	Approximate Hydraulic Gradient (ft/ft)
4/11/2002	Southwest	0.012
11/27/2002	West	0.021
6/3/2003	West	0.024
11/13/2003	West (offsite Northwest)	0.015
5/12/2004	West	0.020
12/1/2004	West	0.030
5/2/2005	West	0.02
11/16/2005	West	0.03
5/31/2006	West	0.04
12/6/2006	West	0.01
5/15/2007	West	0.02
11/29/2007	West	0.02
5/6/2008	West	0.007
11/24/2008	West	0.02
4/9/2009	West	0.02
11/24/2009	West	0.03
5/26/2010	West	0.02
11/30/2010	West-Southwest	0.02
2/16/2011	**West**	**0.03**

Notes:
Site resurveyed by URS on 10/15/03 by datum NAVD '88

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 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

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

DAILY REPORT
Page 1 of 1

Project: BP/ARCO 2035 Project No.: 06-88-610

Field Representative(s): SB & DD Day: Wednesday Date: 2/16/11

Time Onsite: From: 0815 To: 1400 ; From: _____ To: _____ ; From: _____ To: _____

X Signed HASP X Safety Glasses X Hard Hat X Steel Toe Boots X Safety Vest

X UST Emergency System Shut-off Switches Located X Proper Gloves

X Proper Level of Barricading X Other PPE (describe) Rain Gear

Weather: Rain / Wind

Equipment In Use: _____

Visitors: _____

TIME:	WORK DESCRIPTION:
0815	on-site filling out paperwork and conducting Safety
	meeting. Flash Safety on site went over
	& TSEA. Brandon Macfarlane (Statewide)
0925	Finish paperwork and all sign in.
0940	Set up on S-5 Sample @ 1000
1005	Set up on MW-7 Sample @ 1020
1025	Set up on MW-9 & MW-5
1030	Brandon Macfarlane (Statewide) off-site
1050	Sampled MW-9
1110	Sampled MW-5
1115	Set up on MW-4. MW-4 is in a low spot
	and is full of water, ~~Pue over~~ After we bailed
	the water it will fill up again, so move on to
	MW-6
1130	Set up MW-6 Sample @ 1145
1150	Set up on KW-1 Sample @ 1220
1247	Set up on MW-4 Sample @ 1315
1322	Set up on MW-6 Sample @ 1340
1400	left site

Signature: _____

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW4
Project Name/Location: ARCO 2035 / Albany, CA Project #: 06-88-610
Sampler's Name: SB + DB Date: 2/16/11
Purging Equipment: bailer
Sampling Equipment: bailer
Casing Type: PVC

Casing Diameter:	4	inch	
Total Well Depth:	25.02	feet	
Depth to Water:	- 8.50	feet	
Water Column Thickness:	= 16.52	feet	
Unit Casing Volume*:	x 0.65	gallon / foot	
Casing Water Volume:	= 10.7	gallons	
Casing Volume:	x 3	each	
Estimated Purge Volume:	= 32.2	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	1258	0.91	—	—	460	55.9	7.6	
5.0	1304	X	X	X	470	60.9	7.2	
10.0	1309	X	X	X	410	61.4	7.1	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 10.0 gallons
Depth to Water at Sample Collection: ____ feet
Sample Collection Time: 1315 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-5
Project Name/Location: ARCO 2035 / Albany, CA Project #: 06-88-610
Sampler's Name: SB & DD Date: 2/16/11
Purging Equipment: bailer
Sampling Equipment: bailer
Casing Type: PVC

Casing Diameter:		4	inch
Total Well Depth:		24.34	feet
Depth to Water:	-	9.01	feet
Water Column Thickness:	=	15.30	feet
Unit Casing Volume*:	x	0.65	gallon / foot
Casing Water Volume:	=	9.96	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	29.9	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	1057	1.23	—	—	680	61.9	6.5	
3.0	1100	X	X	X	670	60.4	6.8	
5.0	1103	X	X	X	630	62.5	6.8	
7.0	1105	X	X	X	640	61.3	6.9	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 7.5 gallons
Depth to Water at Sample Collection: ____ feet
Sample Collection Time: 1110 Purged Dry? (Y / ~~N~~)

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-6
Project Name/Location: ARCO 2035/Albany, Ca Project #: 06-88-610
Sampler's Name: SB & DB Date: 2/16/11
Purging Equipment: bailer
Sampling Equipment: bailer
Casing Type: PVC

Casing Diameter:	2	inch	
Total Well Depth:	24.23	feet	
Depth to Water:	- 11.95	feet	
Water Column Thickness:	= 12.28	feet	
Unit Casing Volume*:	x 0.16	gallon / foot	
Casing Water Volume:	= 1.96	gallons	
Casing Volume:	x 3	each	
Estimated Purge Volume:	= 5.89	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	1309	1.02	—	—	670	62.6	6.9	
1.0	1331	X	X	X	670	64.2	6.9	
2.0	1332	X	X	X	710	64.2	6.9	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 12.0 gallons
Depth to Water at Sample Collection: ____ feet
Sample Collection Time: 1340 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-7
Project Name/Location: ARCO 2035 / Albany, CA Project #: 06-88-610
Sampler's Name: SB + DO Date: 7/16/11
Purging Equipment: bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		4	inch
Total Well Depth:		16.00	feet
Depth to Water:	-	5.44	feet
Water Column Thickness:	=	10.56	feet
Unit Casing Volume*:	x	0.65	gallon / foot
Casing Water Volume:	=	6.86	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	20.6	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	1004	0.56	—	—	900	59.9	7.2	
3.0	1012	X	X	X	870	60.6	7.0	
5.0	1013	X	X	X	840	61.8	7.0	
7.0	1015	X	X	X	840	61.3	7.0	
9.0	1018	X	X	X	840	62.5	7.0	
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 9.0 gallons
Depth to Water at Sample Collection: _____ feet
Sample Collection Time: 1020 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-8
Project Name/Location: ARCO 2035 / Albany, CA Project #: 06-88-602
Sampler's Name: SB + DO Date: 7/16/11
Purging Equipment: Bailer
Sampling Equipment: bailer
Casing Type: PVC

Casing Diameter:	4	inch	
Total Well Depth:	19.00	feet	
Depth to Water:	- 8.95	feet	
Water Column Thickness:	= 10.05	feet	
Unit Casing Volume*:	x 0.65	gallon / foot	
Casing Water Volume:	= 6.53	gallons	
Casing Volume:	x 3	each	
Estimated Purge Volume:	= 19.5	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	1139	3.35	—	—	750	60.8	7.1	
3.0	1137	X	X	X	780	59.9	6.9	
7.0	1141	X	X	X	740	62.6	6.9	
9.0	1143	X	X	X	770	63.0	6.9	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 9.0 gallons
Depth to Water at Sample Collection: ____ feet
Sample Collection Time: 1145 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: MW-9

Project Name/Location: Aldi 2035 / Albany, GA Project #: 06-88-610

Sampler's Name: SB + DO Date: 2/10/10

Purging Equipment: bailer

Sampling Equipment: bailer

Casing Type: PVC

Casing Diameter:		4	inch
Total Well Depth:		16.00	feet
Depth to Water:	-	8.65	feet
Water Column Thickness:	=	7.35	feet
Unit Casing Volume*:	x	0.65	gallon / foot
Casing Water Volume:	=	4.77	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	14.3	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	1037	0.55	—	—	540	62.6	7.3	
3.0	1039	X	X	X	530	62.9	6.6	
5.0	1042	X	X	X	530	62.9	6.6	
7.0	1044	X	X	X	530	63.2	6.6	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 7.0 gallons

Depth to Water at Sample Collection: _____ feet

Sample Collection Time: 1050 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: RW-2
Project Name/Location: ARCO 2035 Project #: 06-88-616
Sampler's Name: SB & MD Date: 2/16/11
Purging Equipment: bailers
Sampling Equipment: bailer
Casing Type: PVC

Casing Diameter:	6	inch	
Total Well Depth:	22.56	feet	
Depth to Water:	- 9.15	feet	
Water Column Thickness:	= 13.41	feet	
Unit Casing Volume*:	x 1.47	gallon / foot	
Casing Water Volume:	= 19.71	gallons	
Casing Volume:	x 3	each	
Estimated Purge Volume:	= 59.1	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	1203	0.74	—	—	840	62.5	7.2	
5.0	1207	X	X	X	840	63.6	7.2	
15.0	1211	X	X	X	720	64.3	7.0	
25.0	1213	X	X	X	880	64.2	7.0	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 25.0 gallons
Depth to Water at Sample Collection: feet
Sample Collection Time: 1220 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

Groundwater Sampling Data Sheet

Well I.D.: S-5
Project Name/Location: @ARCO 2035 / Albany, CA Project #: 06-88-610
Sampler's Name: SB & DD Date: 7/16/11
Purging Equipment: bailer
Sampling Equipment: bailer
Casing Type: PVC

Casing Diameter:		3	inch
Total Well Depth:		15.67	feet
Depth to Water:	-	8.57	feet
Water Column Thickness:	=	7.1	feet
Unit Casing Volume*:	x	0.37	gallon / foot
Casing Water Volume:	=	2.62	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	7.8	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	0948	1.34	—	—	360	62.1	7.7	
1.0	0952	X	X	X	360	61.8	7.7	
2.0	0953	X	X	X	370	62.8	7.6	
3.0	0955	X	X	X	370	62.7	7.5	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.0 gallons
Depth to Water at Sample Collection: _____ feet
Sample Collection Time: 1000 Purged Dry? (Y / (N))

Comments:

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL

FIELD DATA REPORT

DATE: 2/16/11
PERSONNEL: SB & DD
WEATHER: Sunny with chance of Rain

PROJECT NO.: 06-88-610
COMMENTS: ARCO 2035

Equip:	Geosquirt	Tubing	Bailers	DO	wli	Ec/pH

Well ID	Time	MEASURING POINT	DTW (FT)	PRODUCT THICKNESS	pH	Cond. (X100)	Temp. (C/F)	DO (mg/l)	Redox (mV)	Iron (mg/l)	Alk. (mg/l)	WELL HEAD CONDITION: VAULT, BOLTS, CAP, LOCK, ETC
MW-1	0933	TOC	8.64									
MW-2	0938	↓	9.39									
MW-3	1029	↓	9.22									
MW-4	1256	↓	8.50									
MW-5	1056	↓	9.01									
MW-6	1326	↓	11.95									
MW-7	1004	↓	5.44									
MW-8	1132	↓	8.95									
MW-9	1034	↓	8.65									
RW-1	1158	↓	9.15									
S-5	0845	↓	8.57									

Wellhead Observation Form

Site: ARCO 2035 Sampled by: SS / DD Date: 2/16/11

Well ID	Well Box Condition		Bolts		Bolt Hole Condition		Water in Box		Well Cap Lock		Well Cap		Additional Notes
	Cracked or broken lid	Cracked box	Missing	Replaced	Stripped	Cracked	Yes*	No	Missing	Replaced	Missing	Replaced	
MW-1					2		B						
MW-2					1			X					
MW-3					2			X					
MW-4		X			2		A						
MW-5					2			X	X				Cap Broken one lock goes
MW-6					2			X					
MW-7								X	X				
MW-8								X					
MW-9							A						
RW-1			2				B						Pump air point in well
S-5			3					X					

* A = Above casing
B = Below casing
C = Level with casing

NO. 857385

NON-HAZARDOUS WASTE DATA FORM

1. BESI #

GENERATOR

2. Generator's Name and Mailing Address

BP WEST COAST PRODUCTS, LLC
P.O. BOX 80249
RANCHO SANTA MARGARITA, CA 92688

Generator's Site Address (if different than mailing address)

BP 2035
1001 San Pablo ave
Albany, CA

Generator's Phone: (949) 460-5200

24-HOUR EMERGENCY PHONE: (949) 699-3706

3. Transporter 1 Company Name: Broadbent & Associates, Inc. — Phone #: (530) 566-1400

4. Transporter 2 Company Name: Gomes Excavating — Phone #: (707) 374-2881

5. Designated Facility Name and Site Address

INTRAT, INC.
1105 AIRPORT RD #C
RIO VISTA, CA 94571

Phone #: (530) 753-1629

6. Waste Shipping Name and Description	7. Containers No.	7. Containers Type	8. Total Quantity	9. Unit Wt/Vol	10. Profile No.
A. NON-HAZARDOUS WATER	1	TT	72.5	G	
B.					
C.					
D.					

11. Special Handling Instructions and Additional Information

WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

WELL PURGING / DECON WATER

12. GENERATOR'S CERTIFICATION: I certify the materials described above on this data form are non-hazardous.

Generator's/Offeror's Printed/Typed Name: BAT — Signature — Month: 2 Day: 23 Year: 11

TRANSPORTER

13. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: BAT — Signature — Month: 2 Day: 23 Year: 11

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

FACILITY

14. Designated Facility Owner or Operator: Certification of receipt of materials covered by this data form.

Printed/Typed Name — Signature — Month — Day — Year

GENERATOR (ORIGINAL)

APPENDIX C

LABORATORY REPORT
AND CHAIN-OF-CUSTODY DOCUMENTATION

Calscience
Environmental
Laboratories, Inc.

March 02, 2011

Tom Venus
Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico , CA 95926-2642

Subject: **Calscience Work Order No.: 11-02-1162**
Client Reference: BP 2035

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/17/2011 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,

Calscience Environmental
Laboratories, Inc.
Richard Villafania
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.	Date Received: 02/17/11
1324 Mangrove Ave, Ste 212	Work Order No: 11-02-1162
Chico , CA 95926-2642	Preparation: EPA 5030C
	Method: EPA 8015B (M)

Project: BP 2035 Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**11-02-1162-1-D**	**02/16/11 13:15**	**Aqueous**	**GC 22**	**02/23/11**	**02/24/11 01:42**	**110223B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	79	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	**11-02-1162-2-D**	**02/16/11 11:10**	**Aqueous**	**GC 22**	**02/23/11**	**02/24/11 02:15**	**110223B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	81	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**11-02-1162-3-E**	**02/16/11 13:40**	**Aqueous**	**GC 22**	**02/24/11**	**02/24/11 21:36**	**110224B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	79	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**11-02-1162-4-D**	**02/16/11 10:20**	**Aqueous**	**GC 22**	**02/23/11**	**02/24/11 03:54**	**110223B01**

Comment(s): -LW = Quantitation of unknown hydrocarbon(s) in sample based on gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	2000	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	109	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico , CA 95926-2642

Date Received: 02/17/11
Work Order No: 11-02-1162
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: BP 2035

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	**11-02-1162-5-E**	**02/16/11 11:45**	**Aqueous**	**GC 22**	**02/24/11**	**02/25/11 03:39**	**110224B01**

Comment(s): -LW = Quantitation of unknown hydrocarbon(s) in sample based on gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	960	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	84	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-9	**11-02-1162-6-E**	**02/16/11 10:50**	**Aqueous**	**GC 22**	**02/24/11**	**02/25/11 01:27**	**110224B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	75	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW-1	**11-02-1162-7-D**	**02/16/11 12:20**	**Aqueous**	**GC 22**	**02/23/11**	**02/24/11 04:27**	**110223B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	1600	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
S-5	**11-02-1162-8-D**	**02/16/11 10:00**	**Aqueous**	**GC 22**	**02/23/11**	**02/24/11 05:00**	**110223B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	2700	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.	Date Received: 02/17/11
1324 Mangrove Ave, Ste 212	Work Order No: 11-02-1162
Chico , CA 95926-2642	Preparation: EPA 5030C
	Method: EPA 8015B (M)

Project: BP 2035

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-1,016**	**N/A**	**Aqueous**	**GC 22**	**02/23/11**	**02/23/11 17:39**	**110223B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	78	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-1,017**	**N/A**	**Aqueous**	**GC 22**	**02/24/11**	**02/24/11 13:21**	**110224B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	79	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/17/11
1324 Mangrove Ave, Ste 212		Work Order No:	11-02-1162
Chico , CA 95926-2642		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: BP 2035			Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**11-02-1162-1-A**	**02/16/11 13:15**	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11 13:28**	**110219L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	2.1	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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	105	80-128			Dibromofluoromethane	98	80-127		
Toluene-d8	105	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-5	**11-02-1162-2-A**	**02/16/11 11:10**	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11 14:50**	**110219L01**

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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	111	80-128			Dibromofluoromethane	104	80-127		
Toluene-d8	102	80-120			1,4-Bromofluorobenzene	95	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**11-02-1162-3-A**	**02/16/11 13:40**	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11 15:17**	**110219L01**

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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	105	80-128			Dibromofluoromethane	100	80-127		
Toluene-d8	104	80-120			1,4-Bromofluorobenzene	94	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/17/11
1324 Mangrove Ave, Ste 212		Work Order No:	11-02-1162
Chico , CA 95926-2642		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: BP 2035			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**11-02-1162-4-A**	**02/16/11 10:20**	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11 15:45**	**110219L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	1.4	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	8.0	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	0.84	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	1.4	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	109	80-128			Dibromofluoromethane	103	80-127		
Toluene-d8	107	80-120			1,4-Bromofluorobenzene	103	68-120		

MW-8	**11-02-1162-5-B**	**02/16/11 11:45**	**Aqueous**	**GC/MS L**	**02/22/11**	**02/22/11 17:28**	**110222L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	270	5.0	10		Methyl-t-Butyl Ether (MTBE)	ND	5.0	10	
1,2-Dibromoethane	ND	5.0	10		Tert-Butyl Alcohol (TBA)	ND	100	10	
1,2-Dichloroethane	ND	5.0	10		Diisopropyl Ether (DIPE)	ND	5.0	10	
Ethylbenzene	50	5.0	10		Ethyl-t-Butyl Ether (ETBE)	ND	5.0	10	
Toluene	ND	5.0	10		Tert-Amyl-Methyl Ether (TAME)	ND	5.0	10	
Xylenes (total)	ND	5.0	10		Ethanol	ND	3000	10	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	117	80-128			Dibromofluoromethane	105	80-127		
Toluene-d8	100	80-120			1,4-Bromofluorobenzene	96	68-120		

MW-9	**11-02-1162-6-A**	**02/16/11 10:50**	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11 16:39**	**110219L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	3.8	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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	110	80-128			Dibromofluoromethane	103	80-127		
Toluene-d8	106	80-120			1,4-Bromofluorobenzene	97	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	02/17/11
1324 Mangrove Ave, Ste 212		Work Order No:	11-02-1162
Chico , CA 95926-2642		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: BP 2035			Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW-1	**11-02-1162-7-A**	**02/16/11 12:20**	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11 17:07**	**110219L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	370	10	20		Methyl-t-Butyl Ether (MTBE)	1.3	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	2.6	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	2.9	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
Xylenes (total)	2.9	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	110	80-128			Dibromofluoromethane	106	80-127		
Toluene-d8	102	80-120			1,4-Bromofluorobenzene	98	68-120		

S-5	**11-02-1162-8-A**	**02/16/11 10:00**	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11 17:34**	**110219L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	26	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	11	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)	3.2	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	103	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	105	80-120			1,4-Bromofluorobenzene	104	68-120		

Method Blank	**099-12-703-1,611**	**N/A**	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11 13:01**	**110219L01**

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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	109	80-128			Dibromofluoromethane	102	80-127		
Toluene-d8	100	80-120			1,4-Bromofluorobenzene	96	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.	Date Received:	02/17/11
1324 Mangrove Ave, Ste 212	Work Order No:	11-02-1162
Chico , CA 95926-2642	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	ug/L

Project: BP 2035

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-1,613**	**N/A**	**Aqueous**	**GC/MS L**	**02/22/11**	**02/22/11 12:27**	**110222L01**

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	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	107	80-128			Dibromofluoromethane	98	80-127		
Toluene-d8	103	80-120			1,4-Bromofluorobenzene	96	68-120		

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico , CA 95926-2642

Date Received: 02/17/11
Work Order No: 11-02-1162
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project BP 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-02-1452-3	**Aqueous**	**GC 22**	**02/23/11**	**02/23/11**	**110223S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	99	97	38-134	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico , CA 95926-2642

Date Received: 02/17/11
Work Order No: 11-02-1162
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project BP 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-02-1455-3	**Aqueous**	**GC 22**	**02/24/11**	**02/24/11**	**110224S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	98	101	38-134	4	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico , CA 95926-2642

Date Received: 02/17/11
Work Order No: 11-02-1162
Preparation: EPA 5030C
Method: EPA 8260B

Project BP 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-4	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11**	**110219S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	103	101	76-124	2	0-20	
Carbon Tetrachloride	125	126	74-134	1	0-20	
Chlorobenzene	96	93	80-120	3	0-20	
1,2-Dibromoethane	98	96	80-120	2	0-20	
1,2-Dichlorobenzene	90	94	80-120	4	0-20	
1,2-Dichloroethane	111	108	80-120	3	0-20	
Ethylbenzene	97	97	78-126	0	0-20	
Toluene	97	97	80-120	0	0-20	
Trichloroethene	95	96	77-120	2	0-20	
Methyl-t-Butyl Ether (MTBE)	95	97	67-121	1	0-49	
Tert-Butyl Alcohol (TBA)	101	107	36-162	6	0-30	
Diisopropyl Ether (DIPE)	104	104	60-138	0	0-45	
Ethyl-t-Butyl Ether (ETBE)	101	104	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	101	99	65-120	2	0-20	
Ethanol	116	129	30-180	11	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico , CA 95926-2642

Date Received: 02/17/11
Work Order No: 11-02-1162
Preparation: EPA 5030C
Method: EPA 8260B

Project BP 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-02-1172-2	**Aqueous**	**GC/MS L**	**02/22/11**	**02/22/11**	**110222S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	104	111	76-124	6	0-20	
Carbon Tetrachloride	134	145	74-134	8	0-20	
Chlorobenzene	98	103	80-120	5	0-20	
1,2-Dibromoethane	97	104	80-120	7	0-20	
1,2-Dichlorobenzene	92	103	80-120	11	0-20	
1,2-Dichloroethane	112	123	80-120	9	0-20	LM,AY
Ethylbenzene	102	105	78-126	3	0-20	
Toluene	104	111	80-120	6	0-20	
Trichloroethene	101	107	77-120	6	0-20	
Methyl-t-Butyl Ether (MTBE)	93	106	67-121	13	0-49	
Tert-Butyl Alcohol (TBA)	117	107	36-162	9	0-30	
Diisopropyl Ether (DIPE)	99	111	60-138	11	0-45	
Ethyl-t-Butyl Ether (ETBE)	100	113	69-123	12	0-30	
Tert-Amyl-Methyl Ether (TAME)	99	110	65-120	11	0-20	
Ethanol	129	118	30-180	9	0-72	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico , CA 95926-2642

Date Received: N/A
Work Order No: 11-02-1162
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: BP 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-1,016	**Aqueous**	**GC 22**	**02/23/11**	**02/23/11**	**110223B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	96	98	78-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.		Date Received:	N/A
1324 Mangrove Ave, Ste 212		Work Order No:	11-02-1162
Chico , CA 95926-2642		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)

Project: BP 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-1,017	**Aqueous**	**GC 22**	**02/24/11**	**02/24/11**	**110224B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	95	99	78-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico , CA 95926-2642

Date Received: N/A
Work Order No: 11-02-1162
Preparation: EPA 5030C
Method: EPA 8260B

Project: BP 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,611	**Aqueous**	**GC/MS L**	**02/19/11**	**02/19/11**	**110219L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	108	108	80-120	73-127	1	0-20	
Carbon Tetrachloride	139	140	74-134	64-144	1	0-20	
Chlorobenzene	100	101	80-120	73-127	1	0-20	
1,2-Dibromoethane	101	101	79-121	72-128	0	0-20	
1,2-Dichlorobenzene	95	98	80-120	73-127	3	0-20	
1,2-Dichloroethane	112	113	80-120	73-127	1	0-20	
Ethylbenzene	104	105	80-120	73-127	1	0-20	
Toluene	106	106	80-120	73-127	0	0-20	
Trichloroethene	103	101	79-127	71-135	1	0-20	
Methyl-t-Butyl Ether (MTBE)	99	99	69-123	60-132	0	0-20	
Tert-Butyl Alcohol (TBA)	95	94	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	108	109	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	105	107	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	103	101	70-120	62-128	2	0-20	
Ethanol	115	117	28-160	6-182	2	0-57	

Total number of LCS compounds : 15
Total number of ME compounds : 1
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Broadbent & Associates, Inc.
1324 Mangrove Ave, Ste 212
Chico , CA 95926-2642

Date Received: N/A
Work Order No: 11-02-1162
Preparation: EPA 5030C
Method: EPA 8260B

Project: BP 2035

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,613	**Aqueous**	**GC/MS L**	**02/22/11**	**02/22/11**	**110222L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	115	100	80-120	73-127	14	0-20	
Carbon Tetrachloride	137	131	74-134	64-144	5	0-20	
Chlorobenzene	103	92	80-120	73-127	11	0-20	
1,2-Dibromoethane	108	97	79-121	72-128	10	0-20	
1,2-Dichlorobenzene	104	89	80-120	73-127	15	0-20	
1,2-Dichloroethane	120	110	80-120	73-127	9	0-20	
Ethylbenzene	105	95	80-120	73-127	11	0-20	
Toluene	105	98	80-120	73-127	7	0-20	
Trichloroethene	103	94	79-127	71-135	9	0-20	
Methyl-t-Butyl Ether (MTBE)	103	98	69-123	60-132	6	0-20	
Tert-Butyl Alcohol (TBA)	96	91	63-123	53-133	6	0-20	
Diisopropyl Ether (DIPE)	125	100	59-137	46-150	23	0-37	
Ethyl-t-Butyl Ether (ETBE)	115	100	69-123	60-132	14	0-20	
Tert-Amyl-Methyl Ether (TAME)	110	100	70-120	62-128	9	0-20	
Ethanol	102	108	28-160	6-182	5	0-57	

Total number of LCS compounds : 15
Total number of ME compounds : 1
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-02-1162

Qualifier	Definition
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.

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

Page 1 of 1

BP/ARC Project Name: BP 2035
BP/ARC Facility No: 2035
Req Due Date (mm/dd/yy): ~~1162~~
Rush TAT: Yes ___ No X
Lab Work Order Number:

Lab Name:	Calscience	BP/ARC Facility Address:	1001 San Pablo Avenue	Consultant/Contractor:	Broadbent & Associates, Inc.
Lab Address:	7440 Lincoln Way	City, State, ZIP Code:	Albany, CA	Consultant/Contractor Project No:	06-88-610-5-822
Lab PM:	Richard Villafania	Lead Regulatory Agency:	ACEH	Address:	1324 Mangrove Ave. Ste. 212, Chico, CA 95926
Lab Phone:	714-895-5494	California Global ID No.:	T0600100081	Consultant/Contractor PM:	Tom Venus
Lab Shipping Accnt:	9225	Enfos Proposal No:	000P9-0006	Phone:	530-566-1400
Lab Bottle Order No:		Accounting Mode:	Provision X OOC-BU ___ OOC-RM ___	Email EDD To:	tvenus@broadbentinc.com
Other Info:		Stage: Operate (5)	Activity: Monitoring/MNA (22)	Invoice To:	BP/ARC X Contractor ___
BP/ARC EBM:	Chuck Carmel				
EBM Phone:					
EBM Email:					

Lab No.	Sample Description	Date	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	Matrix:	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol		Requested Analyses: GRO (8015)	BTEX (8260)	5 Oxys (8260)	EDB (8260)	1,2-DCA (8260)	Ethanol (8260)				
1	MW-4	2/16/11	1315		X			6				X			X	X	X	X	X	X				
2	MW-5		1150		X			6				X			X	X	X	X	X	X				
3	MW-6		1340		X			6				X			X	X	X	X	X	X				
4	MW-7		1020		X			6				X			X	X	X	X	X	X				
5	MW-8		1145		X			6				X			X	X	X	X	X	X				
6	MW-9		1050		X			6				X			X	X	X	X	X	X				
7	RW-1		1220		X			6				X			X	X	X	X	X	X				
8	S-5		1000		X			6				X			X	X	X	X	X	X				
9	TB - 2035 - 110216		1345																					

Report Type & QC Level: Standard X; Full Data Package ___

Comments: Note: If sample not collected, indicate "No Sample" in comments and single-strike out and initial any preprinted sample description.

		Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name:	Sam Barkley						
Sampler's Company:	~~GSO~~ BAI		2/16/11				
Shipment Method:	GSO	Ship Date: 2/16/11				2/17/11	0940
Shipment Tracking No:	106840331						

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

1162

DATE 2/10/11

COMPANY BAE

ADDRESS 875 Cotting Ln

ADDRESS STE/ ROOM G

CITY Vacaville ZIP CODE 95688

SENDERS NAME S. Berkley PHONE NUMBER 530-588-2770

COMPANY CAL SCIENCE

NAME PHONE NUMBER 714) 895-5494

ADDRESS 7440 LINCOLN WAY

ADDRESS STE/ ROOM

CITY GARDEN GROVE ZIP CODE 92841

YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE

CIAL TRUCTIONS

GSO GOLDEN STATE OVERNIGHT

1-800-322-5555

WWW.GSO.COM

SHIPPING AIR BILL

PACKAGE LABEL

4 PACKAGE INFORMATION

☐ LETTER (MAX 8 OZ)

☒ PACKAGE (WT) _____

☐ DECLARED VALUE $_____

☐ COD AMOUNT $_____ (CASH NOT ACCEPTED)

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 #

106840331 PEEL OFF HERE 106840331

9 GSO TRACKING NUMBER

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-02-1 1 6 2

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Broadbent DATE: 02/17/11

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

Temperature 3.1 °C + 0.5 °C (CF) = 3.6 °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: _____

CUSTODY SEALS INTACT:

☑ Cooler	☐_____	☐ No (Not Intact)	☐ Not Present	☐ N/A	Initial: _____
☐ Sample	☐_____	☐ No (Not Intact)	☑ Not Present		Initial: WSC

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

CONTAINER TYPE:

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

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na**

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 110121A **Labeled/Checked by:** WSC

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

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **znna:** $ZnAc_2$+NaOH **f:** Field-filtered **Scanned by:** _____

APPENDIX D

GEOTRACKER UPLOAD CONFIRMATION RECEIPTS

STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER ESI

UPLOADING A GEO_WELL FILE

SUCCESS

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

Submittal Type:	**GEO_WELL**
Submittal Title:	**1Q11 GEO_WELL 2035**
Facility Global ID:	**T0600100081**
Facility Name:	**ARCO #02035**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**3/16/2011 10:43:11 AM**
Confirmation Number:	**4278394341**

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!

Submittal Type:	**EDF - Monitoring Report - Quarterly**
Submittal Title:	**1Q11 GW Monitoring**
Facility Global ID:	**T0600100081**
Facility Name:	**ARCO #02035**
File Name:	**11021162.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**3/16/2011 10:44:06 AM**
Confirmation Number:	**7826638758**

VIEW QC REPORT

VIEW DETECTIONS REPORT