Atlantic Richfield Company

Shannon Couch
Project Manager

PO Box 1257
San Ramon, CA 94583
Phone: (925) 275-3804
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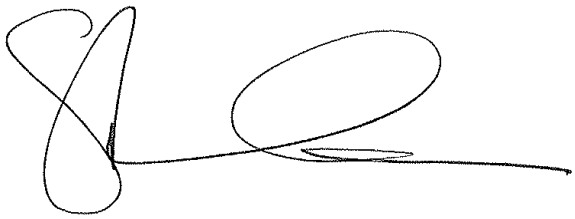
July 29, 2011

Re: Second Quarter 2011 Semi-Annual Groundwater Monitoring Report
Atlantic Richfield Company Service Station #498
286 South Livermore Avenue, Livermore, California
ACEH Case No. RO0002873

"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,



Shannon Couch
Project Manager

Attachment

SECOND QUARTER 2011 SEMI-ANNUAL GROUNDWATER MONITORING REPORT

Atlantic Richfield Company Station #498
286 South Livermore Avenue, Livermore, California
ACEH Case #RO0002873

Prepared for

Ms. Shannon Couch
Project Manager
Atlantic Richfield Company
P.O. Box 1257
San Ramon, California 94583

Prepared by

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

1324 Mangrove Avenue, Suite 212
Chico, California 95926
(530) 566-1400
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July 29, 2011

Project No. 08-82-603

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
Chico, CA 95926
Voice (530) 566-1400
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July 29, 2011

Project No. 08-82-603

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

Attn.: Ms. Shannon Couch

Re: Second Quarter 2011 Semi-Annual Groundwater Monitoring Report, Atlantic Richfield Company Station #498, 286 South Livermore Avenue, Livermore, California; ACEH Case #RO0002873

Dear Ms. Couch:

Attached is the Second Quarter 2011 Semi-Annual Groundwater Monitoring Report for Atlantic Richfield Company Station #498 located at 286 South Livermore Avenue, Livermore, California. Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,
BROADBENT & ASSOCIATES, INC.

Jason Duda
Project Scientist

Matthew G. Herrick, P.G., C.HG
Senior Hydrogeologist

Enclosure

cc: Mr. Paresh Khatri, Alameda County Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 84502 (Submitted via ACEH ftp Site)
Electronic copy uploaded to GeoTracker

SECOND QUARTER 2011
SEMI-ANNUAL GROUNDWATER MONITORING REPORT
STATION #498, LIVERMORE, CALIFORNIA

Broadbent & Associates, Inc. (BAI) is pleased to present this *Second Quarter 2011 Semi-Annual Groundwater Monitoring Report* on behalf of Atlantic Richfield Company (a BP affiliated company) for Station #498 located in Livermore, Alameda County, California. Reporting is being submitted to Alameda County Environmental Health consistent with the 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 #498 / 286 South Livermore Avenue
Client Project Manager / Title:	Ms. Shannon Couch / Project Manager
BAI Contact:	Jason Duda, (530) 566-1400
BAI Project No.:	08-82-603
Primary Regulatory Agency / ID No.:	ACEH, Case #RO0002873
Current phase of project:	Monitoring and Assessment
List of Acronyms / Abbreviations:	See end of report text for list of acronyms/abbreviations used in report.

WORK PERFORMED THIS QUARTER (Second Quarter 2011):

1. Prepared and submitted *First Quarter 2011 Status Report*.
2. Conducted groundwater monitoring/sampling for Second Quarter 2011 on May 25, 2011.

WORK SCHEDULED FOR NEXT QUARTER (Third Quarter 2011):

1. Prepare and submit *Second Quarter 2011 Semi-Annual Groundwater Monitoring Report* (contained herein).
2. Conduct off-site soil and groundwater investigation activities upon acquisition of off-site property access agreement.

GROUNDWATER MONITORING PLAN SUMMARY:

Groundwater level gauging:	MW-1 through MW-4	(2Q and 4Q)
Groundwater sample collection:	MW-1 through MW-4	(2Q and 4Q)
Biodegradation indicator parameter monitoring:	NA	

QUARTERLY RESULTS SUMMARY:

LNAPL

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

Groundwater Elevation and Gradient:

Depth to groundwater:	26.69 (MW-1) to 28.19 (MW-2)	(ft below TOC)
Gradient direction:	West-Northwest	(compass direction)
Gradient magnitude:	0.02	(ft/ft)
Average change in elevation:	9.585	(ft since last measurement)

Laboratory Analytical Data

Summary: GRO were detected in three of the four wells sampled at a maximum concentration of 4,500 µg/L in well MW-3. Benzene was detected in two of the four wells sampled at a maximum concentration of 560 µg/L in well MW-3. MTBE was detected in three of the four wells sampled at a maximum concentration of 74 µg/L in well MW-3.

ACTIVITIES CONDUCTED & RESULTS:

Second Quarter 2011 groundwater monitoring was conducted on May 25, 2011 by BAI personnel in accordance with the monitoring plan summary detailed above. 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 26.69 ft at MW-1 to 28.19 ft at MW-2. Resulting groundwater surface elevations ranged from 467.16 ft at MW-2 to 470.03 ft at MW-1. Groundwater elevations are summarized in Table 1. Water level elevations yielded a horizontal groundwater gradient to the west-northwest at approximately 0.02 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 May 25, 2011 from wells MW-1 through MW-4, consistent with the current monitoring schedule. 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. The GRO concentrations observed in the samples collected from wells MW-1, MW-3, and MW-4 were "quantitated against gasoline." No other significant irregularities were encountered during analysis of the samples. 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 three of the four wells sampled at concentrations up to 4,500 micrograms per liter (µg/L) in well MW-3. Benzene was detected above the laboratory reporting limit in two of the four wells sampled at concentrations up to 560 µg/L in well MW-3. Toluene was detected above the laboratory reporting limit in well MW-1 at a concentration of 3.1 µg/L. Ethylbenzene was detected above the laboratory reporting limit in two of the four wells sampled at concentrations up to 210 µg/L in well MW-3. Total Xylenes were detected above the laboratory reporting limit in two of the four wells sampled at concentrations up to 22 µg/L in well MW-3. MTBE was detected above the laboratory reporting limit in three of the four wells sampled at concentrations up to 74 µg/L in well MW-3. TBA was detected above the laboratory reporting limit in two of the four wells sampled at concentrations up to 230 µg/L in well MW-4. 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.

DISCUSSION:

Groundwater levels reached historic maximum elevations for each well gauged this quarter. Groundwater elevations yielded a horizontal groundwater gradient to the west-northwest at approximately 0.020 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: GRO reached a historic maximum concentration in well MW-1, Total Xylenes reached a historic minimum concentration in well MW-3, and TBA reached a historic minimum concentration in well MW-4. Recent and historic laboratory analytical results are

summarized in Table 1 and Table 2. The next semi-annual groundwater monitoring and sampling event is scheduled to be conducted during the Fourth Quarter 2011.

RECOMMENDATIONS:

In their letter dated August 12, 2010, ACEH approved the Soil and Ground-Water Investigation Work Plan Addendum submitted by BAI on April 12, 2010. Off-site property access is required in order to complete the scope of work detailed in the Work Plan. Contact with the owner of the property located immediately northwest of the Site has been made. However, the property owner has recently sought legal advice and requested additional information relating to the investigation. Further communication with the property owner will be conducted during the Third Quarter 2011. In email correspondence dated November 4, 2010, ACEH approved a request to postpone the previous deadline of November 10, 2010 established for the submittal of the Soil and Water Investigation Report until official property access is obtained.

LIMITATIONS:

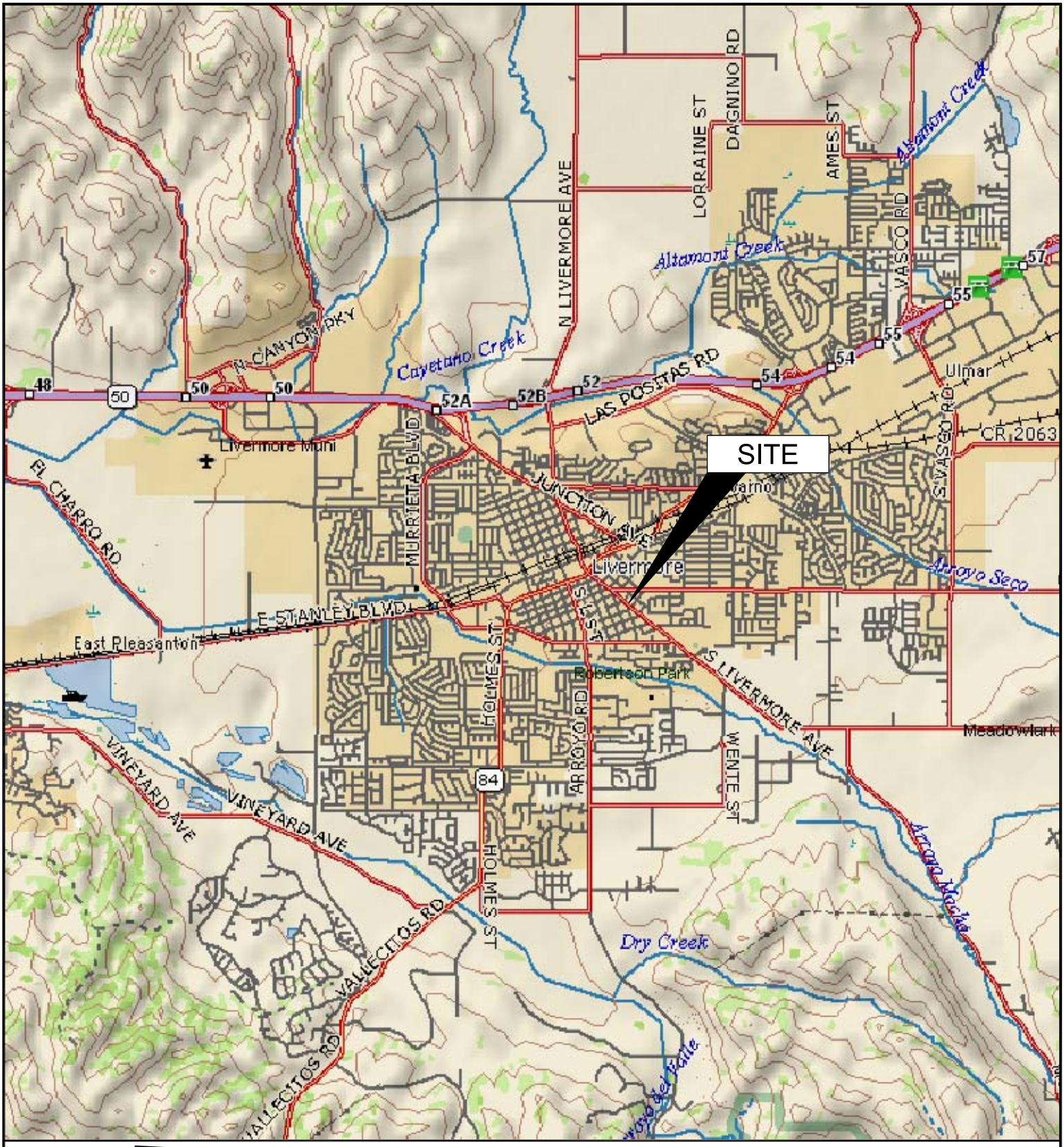
The findings presented in this report are based upon observations of field personnel, points investigated, and results of laboratory tests performed by Calscience Environmental Laboratories, Inc. (Garden Grove, California). Our services were performed in accordance with the generally accepted standard 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:	Groundwater Elevation Contours and Analytical Summary Map, May 25, 2011
Table 1:	Summary of Groundwater Monitoring Data: Relative Water Elevations and Laboratory Analyses
Table 2:	Summary of Fuel Additives Analytical Data
Table 3:	Historic Groundwater Gradient – Direction and Magnitude
Appendix A:	Field Methods
Appendix B:	Field Data Sheets and Non-Hazardous Waste Data Form
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



0 1 2

APPROXIMATE SCALE (mi)

IMAGE SOURCE: DELORME

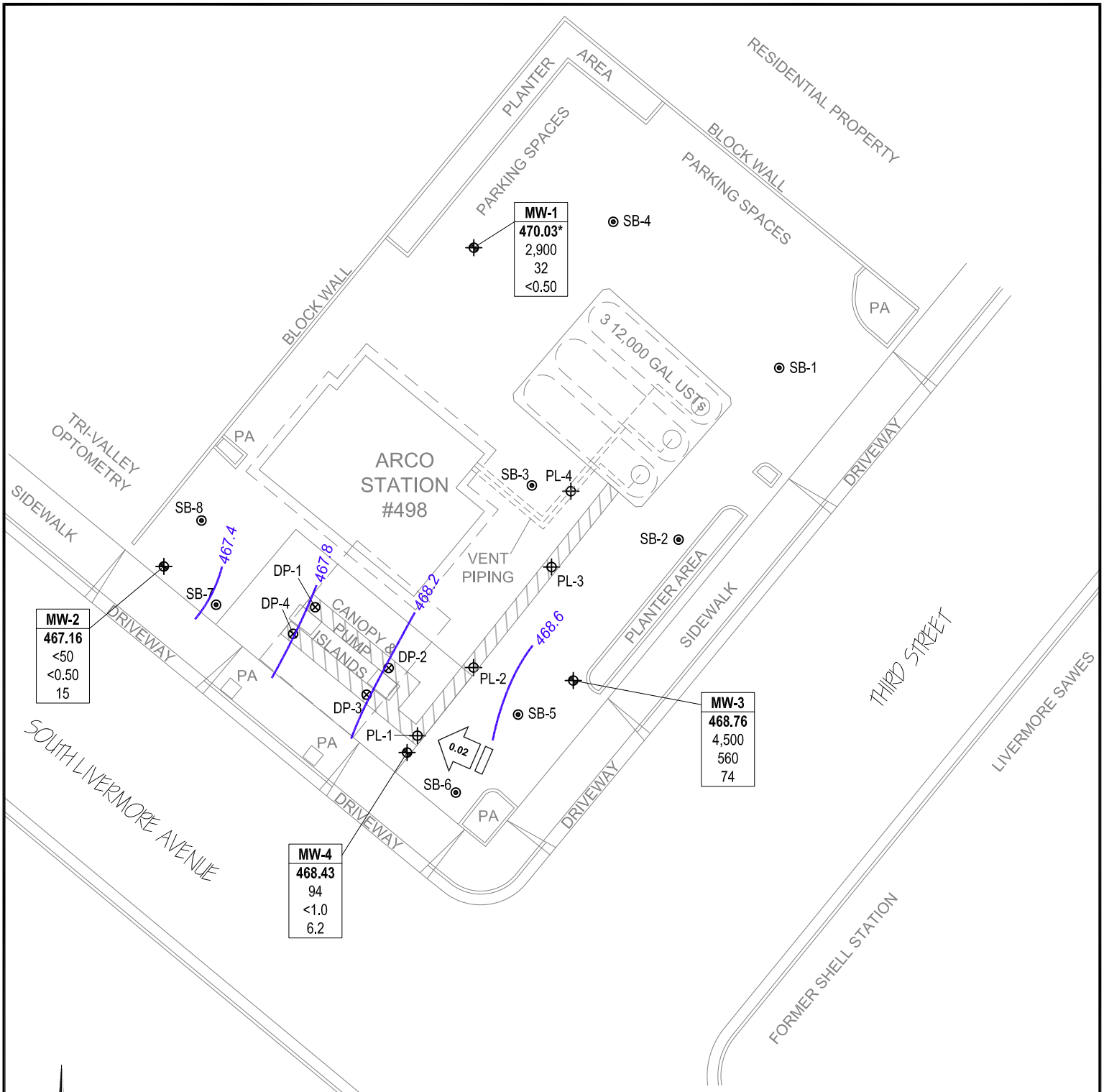
BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926

Project No.: 08-82-603 Date: 6/22/2010

Station #498
286 South Livermore Avenue
Livermore, California

Site Location Map

Drawing
1



LEGEND

- Monitoring well
- Soil Boring (URS 2005)
- Product Line Soil Sample (Delta 2001)
- Dispenser Pump Soil Sample (Delta 2001)
- Well designation
- Ground-water elevation
- Concentration of GRO, Benzene, MTBE and DRO in ground water (µg/L)
- < Not detected at or above laboratory reporting limits
- NS Not sampled
- * Not used in contour interval
- Product Line Excavation Trench
- Groundwater Elevation Contour (Feet Above Site Datum)
- 0.03 Groundwater Gradient (ft/ft)

NOTES: SITE MAP ADAPTED FROM WATSON WEST, DELTA ENVIRONMENTAL AND WOOD RODGERS FIGURES. WOOD RODGERS SURVEY COMPLETED DECEMBER 2, 2008.

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926
Project No.: 08-82-603 Date: 6/17/2011

Station #498
286 South Livermore Avenue
Livermore, California

Groundwater Elevation Contours and Analytical Summary Map
May 25, 2011

Drawing
2

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

ARCO Service Station #498, 286 South Livermore Avenue, Livermore, CA

Well and Sample Date	P/NP	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH	Footnote
								GRO/ TPHg	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	MTBE			
MW-1																
12/29/2008	P	496.72	20.00	40.00	28.81	0.00	467.91	1,100	38	1.2	4.0	3.3	17	2.72	6.83	
3/20/2009	P		20.00	40.00	28.95	0.00	467.77	640	9.1	<0.50	4.1	<0.50	21	0.35	7.28	
6/2/2009	P		20.00	40.00	30.90	0.00	465.82	600	1.6	<0.50	<0.50	<0.50	32	0.59	7.17	
9/2/2009	P		20.00	40.00	32.00	0.00	464.72	570	<0.50	<0.50	<0.50	<0.50	5.3	1.02	7.38	
11/9/2009	P		20.00	40.00	31.82	0.00	464.90	1,000	130	12	35	39	140	1.39	7.02	
5/20/2010	P		20.00	40.00	28.94	0.00	467.78	1,000	4.4	<0.50	0.76	0.73	22	0.59	6.6	
11/2/2010	P		20.00	40.00	32.03	0.00	464.69	1,300	83	20	40	61	39	0.72	6.0	b (GRO), c
5/25/2011	**P**		**20.00**	**40.00**	**26.69**	**0.00**	**470.03**	**2,900**	**32**	**3.1**	**20**	**2.9**	**<0.50**	**0.68**	**7.0**	**lw (GRO)**
MW-2																
12/29/2008	P	495.35	37.00	57.00	48.76	0.00	446.59	110	7.1	<0.50	<0.50	0.76	16	1.04	7.67	
3/20/2009	P		37.00	57.00	38.78	0.00	456.57	200	3.9	<1.0	<1.0	<1.0	56	0.41	7.51	
6/2/2009	P		37.00	57.00	43.98	0.00	451.37	110	5.1	<1.0	<1.0	<1.0	44	1.87	7.42	
9/2/2009	P		37.00	57.00	50.25	0.00	445.10	88	0.79	<0.50	<0.50	<0.50	12	1.55	6.91	
11/9/2009	P		37.00	57.00	43.79	0.00	451.56	58	2.0	<0.50	<0.50	<0.50	13	0.86	7.14	
5/20/2010	P		37.00	57.00	32.07	0.00	463.28	<50	<0.50	<0.50	<0.50	<0.50	27	0.61	6.8	
11/2/2010	P		37.00	57.00	39.23	0.00	456.12	<50	<0.50	<0.50	<0.50	<0.50	57	1.34	6.8	
5/25/2011	**P**		**37.00**	**57.00**	**28.19**	**0.00**	**467.16**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**15**	**3.74**	**7.1**	
MW-3																
12/29/2008	P	496.32	37.00	57.00	48.21	0.00	448.11	28,000	310	200	840	6,200	71	1.95	7.39	
3/20/2009	P		37.00	57.00	38.48	0.00	457.84	11,000	360	84	600	1,500	71	0.56	7.25	
6/2/2009	P		37.00	57.00	43.33	0.00	452.99	5,100	310	14	180	310	66	2.06	7.18	a
9/2/2009	P		37.00	57.00	49.60	0.00	446.72	25,000	380	150	930	2,900	75	1.35	6.93	
11/9/2009	P		37.00	57.00	43.25	0.00	453.07	6,900	390	27	480	680	69	0.54	6.9	
5/20/2010	P		37.00	57.00	31.56	0.00	464.76	9,400	690	<10	300	83	77	0.36	6.8	
11/2/2010	P		37.00	57.00	38.68	0.00	457.64	4,400	420	<10	110	33	70	0.59	6.8	b (GRO)
5/25/2011	**P**		**37.00**	**57.00**	**27.56**	**0.00**	**468.76**	**4,500**	**560**	**<10**	**210**	**22**	**74**	**0.70**	**9.8**	**lw (GRO)**
MW-4																
12/29/2008	--	496.01	20.00	40.00	--	--	--	--	--	--	--	--	--	--	--	Dry
3/20/2009	P		20.00	40.00	37.82	0.00	458.19	410	0.78	<0.50	<0.50	0.64	16	0.52	7.16	

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

ARCO Service Station #498, 286 South Livermore Avenue, Livermore, CA

Well and Sample Date	P/NP	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Product Thickness (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH	Footnote
								GRO/ TPHg	Benzene	Toluene	Ethyl- Benzene	Total Xylenes	MTBE			
MW-4 Cont.																
6/2/2009	--	496.01	20.00	40.00	--	--	--	--	--	--	--	--	--	--	--	Dry
9/2/2009	--		20.00	40.00	--	--	--	--	--	--	--	--	--	--	--	Dry
11/9/2009	--		20.00	40.00	--	--	--	--	--	--	--	--	--	--	--	Dry
5/20/2010	P		20.00	40.00	31.29	0.00	464.72	290	<2.0	<2.0	<2.0	<2.0	10	0.82	6.6	
11/2/2010	NP		20.00	40.00	38.42	0.00	457.59	51	<2.0	<2.0	<2.0	<2.0	5.1	1.12	6.4	b (GRO), c
5/25/2011	**P**		**20.00**	**40.00**	**27.58**	**0.00**	**468.43**	**94**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**6.2**	**0.86**	**6.9**	**lw (GRO)**

Symbols & Abbreviations:
-- = Not sampled/analyzed/applicable/measured/ available
< = Not detected at or above specified laboratory reporting limit
DO = Dissolved oxygen
DTW = Depth to water in ft bgs
ft bgs= feet below ground surface
ft MSL= feet above mean sea level
GRO = Gasoline range organics
GWE = Groundwater elevation measured in ft MSL
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 MSL
µg/L = Micrograms per liter

Footnotes:
a = Sample preserved improperly
b = Quantitation of unknown hydrocarbon(s) in sample based on gasoline
c = Hydrocarbon odor
lw = Quantitated against gasoline

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #498, 286 South Livermore Avenue, Livermore, CA

Well and Sample Date	Concentrations in (µg/L)								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
12/29/2008	<300	<10	17	<0.50	<0.50	<0.50	<0.50	<0.50	
3/20/2009	<300	25	21	<0.50	<0.50	<0.50	<0.50	<0.50	
6/2/2009	<300	28	32	<0.50	<0.50	<0.50	<0.50	<0.50	
9/2/2009	<300	17	5.3	<0.50	<0.50	<0.50	<0.50	<0.50	
11/9/2009	<300	47	140	<0.50	<0.50	3.1	<0.50	<0.50	
5/20/2010	<300	75	22	<0.50	<0.50	<0.50	<0.50	<0.50	
11/2/2010	<300	50	39	<0.50	<0.50	<0.50	<0.50	<0.50	
5/25/2011	**<300**	**32**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-2									
12/29/2008	<300	22	16	<0.50	<0.50	<0.50	<0.50	<0.50	
3/20/2009	<600	62	56	<1.0	<1.0	<1.0	<1.0	<1.0	
6/2/2009	<600	83	44	<1.0	<1.0	<1.0	<1.0	<1.0	
9/2/2009	<300	37	12	<0.50	<0.50	<0.50	<0.50	<0.50	
11/9/2009	<300	41	13	<0.50	<0.50	<0.50	<0.50	<0.50	
5/20/2010	<300	22	27	<0.50	<0.50	<0.50	<0.50	<0.50	
11/2/2010	<300	26	57	<0.50	<0.50	<0.50	<0.50	<0.50	
5/25/2011	**<300**	**<10**	**15**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	
MW-3									
12/29/2008	<30,000	<1,000	71	<50	<50	<50	<50	<50	
3/20/2009	<7,500	<250	71	<12	<12	<12	<12	<12	
6/2/2009	<3,000	100	66	<5.0	<5.0	<5.0	<5.0	<5.0	
9/2/2009	<7,500	<250	75	<12	<12	<12	<12	<12	
11/9/2009	<3,000	<100	69	<5.0	<5.0	<5.0	<5.0	<5.0	
5/20/2010	<6,000	<200	77	<10	<10	<10	<10	<10	
11/2/2010	<6,000	<200	70	<10	<10	<10	<10	<10	
5/25/2011	**<6000**	**<200**	**74**	**<10**	**<10**	**<10**	**<10**	**<10**	
MW-4									
3/20/2009	<300	2,000	16	<0.50	<0.50	<0.50	<0.50	<0.50	
5/20/2010	<1,200	1,000	10	<2.0	<2.0	<2.0	<2.0	<2.0	
11/2/2010	<1,200	500	5.1	<2.0	<2.0	<2.0	<2.0	<2.0	

Table 2. Summary of Fuel Additives Analytical Data

ARCO Service Station #498, 286 South Livermore Avenue, Livermore, CA

Well and Sample Date	Concentrations in (µg/L)								Footnote
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-4 Cont.									
5/25/2011	<600	230	6.2	<1.0	<1.0	<1.0	<1.0	<1.0	

Symbols & Abbreviations:
--/--- = Not sampled/analyzed/applicable/measured/avaliable
< = Not detected at or above specified laboratory reporting limit
1,2-DCA = 1,2-Dichloroethane
DIPE = Di-isopropyl ether
EDB= 1,2-Dibromoethane
ETBE = Ethyl tert-butyl ether
MTBE = Methyl tert-butyl ether
TAME = tert-Amyl methyl ether
TBA = tert-Butyl alcohol
µg/L = Micrograms per liter

Table 3. Historical Groundwater Gradient - Direction and Magnitude

ARCO Service Station #498, 286 South Livermore Avenue, Livermore, CA

Date Measured	Approximate Gradient Direction	Approximate Gradient Magnitude (ft/ft)
12/29/2008	NA	NA
3/20/2009	North-Northwest	0.02
6/2/2009	NA	NA
9/2/2009	NA	NA
11/9/2009	NA	NA
5/20/2010	West-Northwest	0.02
11/2/2010	West-Northwest	0.02
5/25/2011	**West-Northwest**	**0.02**

Symbols & Abbreviations:
NA = Not Available

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, groundwater sample collection, transportation and laboratory analysis. Discussion of these protocols is provided below.

A.1.1 Water Level & Free-Product Measurement

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

A.1.3 Groundwater 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 groundwater 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 AND NON-HAZARDOUS WASTE DATA FORM

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

FIELD DATA REPORT

DATE: 5-25-11
PERSONNEL: JR & SB
WEATHER: OVERCAST

PROJECT NO.: 08-82-003
COMMENTS:

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
		TOC										
MW-1	0932		26.69									
MW-2	1043		28.19									
MW-3	0955		27.56									
MW-4	1021		27.58									

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

Groundwater Sampling Data Sheet

Well I.D.: MW-1
Project Name/Location: BP 498 Project #: 08-82-603
Sampler's Name: JR/SB Date: 5/25/11
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 2 inch
Total Well Depth: 40.00 feet
Depth to Water: - 26.69 feet
Water Column Thickness: = 13.31 feet
Unit Casing Volume*: x 0.16 gallon / foot
Casing Water Volume: = 2.12 gallons
Casing Volume: x 3 each
Estimated Purge Volume: = 6.38 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	0936	0.68	—	—	834	19.3	6.8	
1	0938	x	x	x	853	19.4	7.0	
2	0941	x	x	x	833	19.2	7.0	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 2.0 gallons
Depth to Water at Sample Collection: — feet
Sample Collection Time: 0945 Purged Dry? (Y / (N))

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-2
Project Name/Location: BP 498 Project #: 05-82-603
Sampler's Name: JR/SB Date: 5-25-11
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		58.00	feet
Depth to Water:	-	28.19	feet
Water Column Thickness:	=	29.81	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	4.76	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~~ C)	pH	Observations
0	1047	3.74	—	—	917	19.5	7.1	
1	1049	X	X	X	909	19.7	7.2	
2	1051	X	X	X	942	19.9	7.2	
3	1056	X	X	X	1008	19.9	7.1	
		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: 1105 Purged Dry? (Y / (N))

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-3
Project Name/Location: BP 298 Project #: 08-82-603
Sampler's Name: JR & SB Date: 5-25-11
Purging Equipment: Bailer
Sampling Equipment: Bailer
Casing Type: PVC
Casing Diameter: 2 inch
Total Well Depth: 57.00 feet
Depth to Water: - 27.56 feet
Water Column Thickness: = 29.44 feet
Unit Casing Volume*: x 0.16 gallon / foot
Casing Water Volume: = 4.71 gallons
Casing Volume: x 3 each
Estimated Purge Volume: = 14.1 gallons
Free product measurement (if present):

***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.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (~~Fahrenheit~~)	pH	Observations
0	0959	0.70	—	—	433.3	19.5	9.5	
1	1001	X	X	X	431.4	19.7	9.9	
2	1003	X	X	X	436.4	20.2	9.9	
3	1007	X	X	X	431.8	20.1	9.8	
		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: 1010 Purged Dry? (Y / (N))

Comments:

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

Groundwater Sampling Data Sheet

Well I.D.: MW-4
Project Name/Location: BP 495 Project #: 08-82-603
Sampler's Name: JR/SB Date: 5-25-4
Purging Equipment: Baker
Sampling Equipment: Baker
Casing Type: PVC

Casing Diameter:		2	inch
Total Well Depth:		40.00	feet
Depth to Water:	-	27.58	feet
Water Column Thickness:	=	12.42	feet
Unit Casing Volume*:	x	0.16	gallon / foot
Casing Water Volume:	=	1.99	gallons
Casing Volume:	x	3	each
Estimated Purge Volume:	=	6.0	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~~ C)	pH	Observations
0	1024	0.86	—	—	1210	19.8	6.7	
1	1026	x	x	x	1250	20.3	6.8	
2	1029	x	x	x	1270	20.6	6.9	
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				
		x	x	x				

Total Water Volume Purged: 2.0 gallons
Depth to Water at Sample Collection: — feet
Sample Collection Time: 1035 Purged Dry? (Y / N)

Comments:

NO. 689992

NON-HAZARDOUS WASTE DATA FORM

BES! #

GENERATOR

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 498
286 South Livermore Ave.
Livermore, CA

Generator's Phone: 949-460-5200

Container type removed from site:

☐ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity 10

Container type transported to receiving facility:

☐ Drums ☐ Vacuum Truck ☐ Roll-off Truck ☐ Dump Truck

☐ Other _____

Quantity _____ Volume _____

WASTE DESCRIPTION NON-HAZARDOUS WATER

GENERATING PROCESS WELL PURGING / DECON WATER

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. WATER		99-100%	3.		
2. TPH		<1%	4.		

Waste Profile _____ PROPERTIES: pH 7-10 ☐ SOLID ☒ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.

Generator Printed/Typed Name | Signature | Month | Day | Year

The Generator certifies that the waste as described is 100% non-hazardous

TRANSPORTER

Transporter 1 Company Name: BROADBENT & ASSOCIATES, INC> | Phone#: 530-566-1400

Transporter 1 Printed/Typed Name: James Ramos | Signature: James Ram | Month: 6 | Day: 22 | Year: 11

Transporter Acknowledgment of Receipt of Materials

Transporter 2 Company Name | Phone#

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

Transporter Acknowledgment of Receipt of Materials

RECEIVING FACILITY

Designated Facility Name and Site Address

INSTRAT, INC.
1105 AIRPORT RD.
RIO VISTA, CA 94571

Phone#: 530-753-1629

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

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

APPENDIX C

LABORATORY REPORT
AND CHAIN-OF-CUSTODY DOCUMENTATION

Calscience
Environmental
Laboratories, Inc.

June 09, 2011

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

Subject: **Calscience Work Order No.: 11-05-1632**
Client Reference: BP 498

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 5/26/2011 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.
1324 Mangrove Ave, Ste 212
Chico, CA 95926-2642

Date Received: 05/26/11
Work Order No: 11-05-1632
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: BP 498

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**11-05-1632-1-D**	**05/25/11 09:45**	**Aqueous**	**GC 57**	**05/27/11**	**05/27/11 17:36**	**110527B01**

Comment(s): -LW Quantitated against gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	2900	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	133	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**11-05-1632-2-D**	**05/25/11 11:05**	**Aqueous**	**GC 57**	**05/27/11**	**05/27/11 18:08**	**110527B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**11-05-1632-3-D**	**05/25/11 10:10**	**Aqueous**	**GC 57**	**05/27/11**	**05/27/11 22:18**	**110527B01**

Comment(s): -LW Quantitated against gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	4500	250	5		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	97	38-134	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**11-05-1632-4-D**	**05/25/11 10:35**	**Aqueous**	**GC 57**	**05/27/11**	**05/27/11 18:39**	**110527B01**

Comment(s): -LW Quantitated against gasoline.

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	94	50	1		ug/L

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.	Date Received: 05/26/11
1324 Mangrove Ave, Ste 212	Work Order No: 11-05-1632
Chico, CA 95926-2642	Preparation: EPA 5030C
	Method: EPA 8015B (M)

Project: BP 498 Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-1,086**	**N/A**	**Aqueous**	**GC 57**	**05/27/11**	**05/27/11 11:20**	**110527B01**

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

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	86	38-134	

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	05/26/11
1324 Mangrove Ave, Ste 212		Work Order No:	11-05-1632
Chico, CA 95926-2642		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: BP 498			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**11-05-1632-1-C**	**05/25/11 09:45**	**Aqueous**	**GC/MS FFF**	**06/02/11**	**06/02/11 21:16**	**110602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	32	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Tert-Butyl Alcohol (TBA)	32	10	1	
1,2-Dichloroethane	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
Ethylbenzene	20	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	3.1	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	100	80-128			Dibromofluoromethane	101	80-127		
Toluene-d8	105	80-120			1,4-Bromofluorobenzene	103	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**11-05-1632-2-C**	**05/25/11 11:05**	**Aqueous**	**GC/MS FFF**	**06/02/11**	**06/02/11 21:44**	**110602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	15	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	99	80-128			Dibromofluoromethane	96	80-127		
Toluene-d8	100	80-120			1,4-Bromofluorobenzene	102	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**11-05-1632-3-A**	**05/25/11 10:10**	**Aqueous**	**GC/MS FFF**	**05/27/11**	**05/28/11 08:34**	**110527L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	560	10	20		Methyl-t-Butyl Ether (MTBE)	74	10	20	
1,2-Dibromoethane	ND	10	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
1,2-Dichloroethane	ND	10	20		Diisopropyl Ether (DIPE)	ND	10	20	
Ethylbenzene	210	10	20		Ethyl-t-Butyl Ether (ETBE)	ND	10	20	
Toluene	ND	10	20		Tert-Amyl-Methyl Ether (TAME)	ND	10	20	
Xylenes (total)	22	10	20		Ethanol	ND	6000	20	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	102	80-128			Dibromofluoromethane	95	80-127		
Toluene-d8	101	80-120			1,4-Bromofluorobenzene	102	68-120		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Broadbent & Associates, Inc.		Date Received:	05/26/11
1324 Mangrove Ave, Ste 212		Work Order No:	11-05-1632
Chico, CA 95926-2642		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: BP 498			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**11-05-1632-4-C**	**05/25/11 10:35**	**Aqueous**	**GC/MS FFF**	**06/02/11**	**06/02/11 22:39**	**110602L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.0	2		Methyl-t-Butyl Ether (MTBE)	6.2	1.0	2	
1,2-Dibromoethane	ND	1.0	2		Tert-Butyl Alcohol (TBA)	230	20	2	
1,2-Dichloroethane	ND	1.0	2		Diisopropyl Ether (DIPE)	ND	1.0	2	
Ethylbenzene	ND	1.0	2		Ethyl-t-Butyl Ether (ETBE)	ND	1.0	2	
Toluene	ND	1.0	2		Tert-Amyl-Methyl Ether (TAME)	ND	1.0	2	
Xylenes (total)	ND	1.0	2		Ethanol	ND	600	2	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	94	80-128			Dibromofluoromethane	94	80-127		
Toluene-d8	100	80-120			1,4-Bromofluorobenzene	101	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-1,729**	**N/A**	**Aqueous**	**GC/MS FFF**	**05/27/11**	**05/28/11 04:54**	**110527L03**

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	93	80-128			Dibromofluoromethane	92	80-127		
Toluene-d8	102	80-120			1,4-Bromofluorobenzene	102	68-120		

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-1,733**	**N/A**	**Aqueous**	**GC/MS FFF**	**06/02/11**	**06/02/11 13:52**	**110602L01**

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	108	80-128			Dibromofluoromethane	103	80-127		
Toluene-d8	101	80-120			1,4-Bromofluorobenzene	100	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: 05/26/11
Work Order No: 11-05-1632
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project BP 498

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-05-1384-1	**Aqueous**	**GC 57**	**05/27/11**	**05/27/11**	**110527S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	88	85	38-134	3	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: 05/26/11
Work Order No: 11-05-1632
Preparation: EPA 5030C
Method: EPA 8260B

Project BP 498

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-05-1637-10	**Aqueous**	**GC/MS FFF**	**05/27/11**	**05/27/11**	**110527S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	100	94	76-124	7	0-20	
Carbon Tetrachloride	93	87	74-134	6	0-20	
Chlorobenzene	99	94	80-120	5	0-20	
1,2-Dibromoethane	102	94	80-120	8	0-20	
1,2-Dichlorobenzene	99	93	80-120	6	0-20	
1,2-Dichloroethane	103	94	80-120	8	0-20	
Ethylbenzene	98	93	78-126	5	0-20	
Toluene	100	94	80-120	7	0-20	
Trichloroethene	95	89	77-120	6	0-20	
Methyl-t-Butyl Ether (MTBE)	105	98	67-121	4	0-49	
Tert-Butyl Alcohol (TBA)	129	138	36-162	7	0-30	
Diisopropyl Ether (DIPE)	101	95	60-138	7	0-45	
Ethyl-t-Butyl Ether (ETBE)	101	93	69-123	8	0-30	
Tert-Amyl-Methyl Ether (TAME)	103	94	65-120	9	0-20	
Ethanol	101	104	30-180	3	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: 05/26/11
Work Order No: 11-05-1632
Preparation: EPA 5030C
Method: EPA 8260B

Project BP 498

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-06-0104-4	**Aqueous**	**GC/MS FFF**	**06/02/11**	**06/02/11**	**110602S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	96	76-124	7	0-20	
Carbon Tetrachloride	103	96	74-134	7	0-20	
Chlorobenzene	100	96	80-120	4	0-20	
1,2-Dibromoethane	101	96	80-120	5	0-20	
1,2-Dichlorobenzene	98	95	80-120	4	0-20	
1,2-Dichloroethane	102	94	80-120	8	0-20	
Ethylbenzene	100	96	78-126	4	0-20	
Toluene	101	95	80-120	6	0-20	
Trichloroethene	100	94	77-120	7	0-20	
Methyl-t-Butyl Ether (MTBE)	103	94	67-121	9	0-49	
Tert-Butyl Alcohol (TBA)	106	106	36-162	0	0-30	
Diisopropyl Ether (DIPE)	106	97	60-138	9	0-45	
Ethyl-t-Butyl Ether (ETBE)	108	98	69-123	9	0-30	
Tert-Amyl-Methyl Ether (TAME)	103	96	65-120	7	0-20	
Ethanol	115	109	30-180	6	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: 11-05-1632
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: BP 498

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-1,086	**Aqueous**	**GC 57**	**05/27/11**	**05/27/11**	**110527B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	88	87	78-120	0	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: 11-05-1632
Preparation: EPA 5030C
Method: EPA 8260B

Project: BP 498

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,729	**Aqueous**	**GC/MS FFF**	**05/27/11**	**05/28/11**	**110527L03**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	102	99	80-120	73-127	3	0-20	
Carbon Tetrachloride	88	87	74-134	64-144	2	0-20	
Chlorobenzene	102	97	80-120	73-127	4	0-20	
1,2-Dibromoethane	103	100	79-121	72-128	3	0-20	
1,2-Dichlorobenzene	104	95	80-120	73-127	9	0-20	
1,2-Dichloroethane	103	99	80-120	73-127	3	0-20	
Ethylbenzene	101	97	80-120	73-127	4	0-20	
Toluene	101	98	80-120	73-127	3	0-20	
Trichloroethene	98	96	79-127	71-135	2	0-20	
Methyl-t-Butyl Ether (MTBE)	102	99	69-123	60-132	3	0-20	
Tert-Butyl Alcohol (TBA)	98	101	63-123	53-133	2	0-20	
Diisopropyl Ether (DIPE)	104	101	59-137	46-150	3	0-37	
Ethyl-t-Butyl Ether (ETBE)	103	100	69-123	60-132	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	103	101	70-120	62-128	3	0-20	
Ethanol	108	108	28-160	6-182	0	0-57	

Total number of LCS compounds : 15
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

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: 11-05-1632
Preparation: EPA 5030C
Method: EPA 8260B

Project: BP 498

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-1,733	**Aqueous**	**GC/MS FFF**	**06/02/11**	**06/02/11**	**110602L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	103	107	80-120	73-127	4	0-20	
Carbon Tetrachloride	107	112	74-134	64-144	5	0-20	
Chlorobenzene	103	106	80-120	73-127	3	0-20	
1,2-Dibromoethane	103	107	79-121	72-128	3	0-20	
1,2-Dichlorobenzene	103	108	80-120	73-127	5	0-20	
1,2-Dichloroethane	102	106	80-120	73-127	4	0-20	
Ethylbenzene	103	107	80-120	73-127	4	0-20	
Toluene	103	107	80-120	73-127	4	0-20	
Trichloroethene	102	107	79-127	71-135	5	0-20	
Methyl-t-Butyl Ether (MTBE)	105	108	69-123	60-132	3	0-20	
Tert-Butyl Alcohol (TBA)	100	102	63-123	53-133	2	0-20	
Diisopropyl Ether (DIPE)	108	111	59-137	46-150	3	0-37	
Ethyl-t-Butyl Ether (ETBE)	109	113	69-123	60-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	104	107	70-120	62-128	3	0-20	
Ethanol	107	106	28-160	6-182	1	0-57	

Total number of LCS compounds : 15
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 11-05-1632

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

1632

Page ____ of ____

BP/ARC Project Name: BP 498
BP/ARC Facility No: 498
Req Due Date (mm/dd/yy): ____ Rush TAT: Yes ____ No X
Lab Work Order Number: ____

Lab Name:	Calscience	BP/ARC Facility Address:	286 South Livermore Avenue	Consultant/Contractor:	Broadbent & Associates, Inc.
Lab Address:	7440 Lincoln Way	City, State, ZIP Code:	Livermore, CA	Consultant/Contractor Project No:	08-82-603-401-880
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.:	T0600124081	Consultant/Contractor PM:	Jason Duda
Lab Shipping Accnt:	9225	Enfos Proposal No:	0056X-0001	Phone:	530-566-1400
Lab Bottle Order No:		Accounting Mode:	Provision X OOC-BU ____ OOC-RM ____	Email EDD To:	jduda@broadbentinc.com
Other Info:		Stage: Execute (4)	Activity: Project Spend (80)	Invoice To:	BP/ARC X Contractor ____

BP/ARC EBM: ~~Chuck Carmel~~ Shannon Couch
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-1	5-25-11	0945		X			6				X			X	X	X	X	X	X				
2	MW-2	5-25-11	1105		X			6				X			X	X	X	X	X	X				
3	MW-3	5-25-11	1010		X			6				X			X	X	X	X	X	X				
4	MW-4	5-25-11	1035		X			6				X			X	X	X	X	X	X				
5	TB - 498 - 110525	5-25-11	1110		X			2																

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.

Hold

Sampler's Name: James Ramos / Sam Barkley
Sampler's Company: BAI
Shipment Method: GSO Ship Date: 5-25-11
Shipment Tracking No: 107158264

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
James Ramos	5-25-11	1600	[illegible]	5/26/11	11:00

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

PLEASE PRESS FIRMLY

GSO
GOLDEN STATE OVERNIGHT

1-800-322-5555
WWW.GSO.COM

1632

1 FROM
DATE 5-25-11
COMPANY Broadbent & Associates, Inc.
ADDRESS 875 Cotting Lane, Suite G
ADDRESS
CITY Vacaville STE/ ROOM
SENDERS NAME James Ramos Sam Buckley ZIP CODE 95688
PHONE NUMBER 707-455-7290

2 TO
COMPANY CAL SCIENCE
NAME Kristina PHONE NUMBER 714-895-5494
ADDRESS 7440 LINCOLN WAY
ADDRESS STE/ ROOM
CITY GARDEN GROVE ZIP CODE 92841

3 YOUR INTERNAL BILLING REFERENCE WILL APPEAR ON YOUR INVOICE
SPECIAL INSTRUCTIONS RMT # 4161900

4 [ ]
[ ] P
[ ] DE
[ ] CO (CASH

5 DELIVERY SERVICE
[X] PRIORITY OVERNIGHT BY 10:30 AM
[ ] EARLY PRIORITY BY 8:00 AM
[ ] S D
*DELIVERY TIMES MAY BE LATER IN SOME AREAS • CONSULT YOUR SERVICE GUIDE OR CALL GOLD

6 RELEASE SIGNATURE
SIGN TO AUTHORIZE DELIVERY WITHOUT OBTAINING SIGNATURE

7

8 PICK UP INFORMATION
TIME DRIVER #
107158264
PEEL OFF HERE
1071582

9 GSO TRACKING NUMBER

4

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 11-05-1632

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: BAI DATE: 05/26/11

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

Temperature 1.7 °C + 0.5 °C (CF) = 2.2 °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: RS

CUSTODY SEALS INTACT:

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

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: mw

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 / Res. Chlorine / Diss. Sulfide / Diss. Oxygen 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#:** 110425A **Labeled/Checked by:** mw

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

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:** YL

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:	**2Q11 GEO_WELL 498**
Facility Global ID:	**T0600124081**
Facility Name:	**ARCO #0498**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**6/16/2011 10:36:11 AM**
Confirmation Number:	**4564122021**

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 - Semi-Annually**
Submittal Title:	**2Q11 GW Monitoring**
Facility Global ID:	**T0600124081**
Facility Name:	**ARCO #0498**
File Name:	**11051632.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**6/16/2011 10:34:42 AM**
Confirmation Number:	**7688212096**

VIEW QC REPORT

VIEW DETECTIONS REPORT