Atlantic Richfield Company
(a BP affiliated company)

P.O. Box 1257
San Ramon, CA 94583
Phone: (925) 275-3801
Fax: (925) 275-3815

July 27, 2009

Re: Second Quarter, 2009 Semi-Annual Ground-Water Monitoring Report
Atlantic Richfield Company Station #6113
785 East Stanley Boulevard
Livermore, CA
ACEH Case No. RO0000393

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

Submitted by:

Paul Supple
Environmental Business Manager

Second Quarter, 2009 Semi-Annual Ground-Water Monitoring Report
Atlantic Richfield Company Station #6113
785 East Stanley Boulevard
Livermore, California

Prepared for

Mr. Paul Supple
Environmental Business 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 2009

Project No. 06-82-637

Broadbent & Associates, Inc.
1324 Mangrove Ave., Suite 212
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BROADBENT & ASSOCIATES, INC
ENVIRONMENTAL, WATER RESOURCES & ENGINEERING

July 27, 2009

Project No. 06-82-637

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

Attn.: Mr. Paul Supple

Re: Second Quarter, 2009 Semi-Annual Ground-Water Monitoring Report, Atlantic Richfield Company (a BP affiliated company) Station #6113, 785 East Stanley Boulevard, Livermore, CA. ACEH Case No. RO0000393.

Dear Mr. Supple:

Attached is the *Second Quarter, 2009 Semi-Annual Ground-Water Monitoring Report* for Atlantic Richfield Company Station #6113 (herein referred to as Station #6113) located at 785 East Stanley Boulevard, Livermore, CA (Property). This report presents a summary of Second Quarter, 2009 ground-water monitoring results.

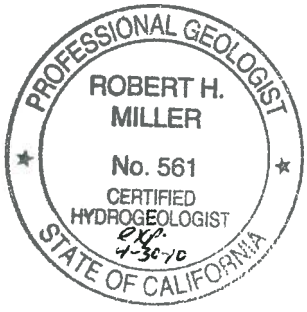
Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

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

Robert H. Miller, P.G., C.HG.
Principal Hydrogeologist



Enclosures

cc: Mr. Paresh Khatri, Alameda County Environmental Health (submitted via ACEH ftp site)
Mr. Paul M. Smith/Ms. Danielle Stefani, Livermore-Pleasanton Fire Department (submitted via GeoTracker)
GeoTracker

STATION # 6113 SEMI-ANNUAL GROUND-WATER MONITORING REPORT

Facility: 6113 Address:	785 East Stanley Boulevard, Livermore, CA
Station 6113 Environmental Business Manager:	Mr. Paul Supple
Consulting Co./Contact Persons:	Broadbent & Associates, Inc. (BAI) / Rob Miller & Matt Herrick
Primary Agency/Regulatory ID No.:	Alameda County Environmental Health (ACEH) / ACEH Case No. RO0000393
Consultant Project No.:	06-82-637
Facility Permits/Permitting Agency.:	NA

WORK PERFORMED THIS QUARTER (Second Quarter, 2009):

1. Submit First Quarter, 2009 Status Report. Report completed by BAI.
2. Conducted ground-water monitoring/sampling for Second Quarter, 2009. Work performed by Stratus Environmental, Inc. (Stratus).

WORK PROPOSED FOR NEXT QUARTER (Third Quarter, 2009):

1. Submit Second Quarter, 2009 Report (contained herein).
2. No ground-water monitoring/sampling activities are scheduled to be completed on the Property during the Third Quarter, 2009.
3. Field verify site layout and completion of workplan for replacement well locations.

QUARTERLY RESULTS SUMMARY:

Current phase of project:	**Groundwater monitoring/sampling**
Frequency of ground-water sampling:	**Wells MW-4, MW-7, MW-11, MW-12, VW-1: Semi Annually (2Q and 4Q)** **Well MW-9: Annually (4Q)**
Frequency of ground-water monitoring:	**Semi-Annually (2Q and 4Q)**
Is free product (FP) present on-site:	**No**
FP recovered this quarter:	**NA**
Bulk Soil Removed to Date:	**288 cubic yards TPH impacted soil**
Current remediation techniques:	**Air Diffusion (discontinued in September 2008 as a result of station raze and rebuild activities)**
Depth to ground water (below TOC):	**31.06 (VW-1) to 33.30 (MW-2)**
General ground-water flow direction:	**Northeast**
Approximate hydraulic gradient:	**0.008 feet per foot**

DISCUSSION:

Gasoline range organics were detected in well VW-1 at a concentration of 3,500 micrograms per liter (µg/L). Benzene was detected in well VW-1 at a concentration of 140 µg/L. Methyl tert-butyl ether was detected in wells MW-11, MW-12, and VW-1 at concentrations ranging from 1.4 µg/L (MW-12) to 19 µg/L (VW-1). No other analytes were detected in samples collected during the Second Quarter, 2009.

Ground-water samples were not colleted from well MW-4 during Second Quarter, 2009 as the well was dry. The ground-water level was not gauged from wells MW-4 and VW-4 during Second Quarter, 2009 as the wells were dry.

Analytes detected during Second Quarter, 2009 were all within the historic minimum and maximum concentration ranges recorded for each well. Ground-water elevations measured during the Second Quarter, 2009 were within historic minimum and maximum ranges for each well with the following exception: the ground-water elevation in MW-12 was at its lowest level historically measured in the well. It is important to note that MW-12 has been dry in past quarters.

Drawing 1 depicts a site location map. Drawing 2 shows the ground-water elevation contour and an analytical summary map for the Second Quarter, 2009. Table 1 includes a summary of ground-water monitoring data including relative water elevations and laboratory analyses. Table 2 provides a summary of fuel additives analytical data. Table 3 lists historical ground-water flow direction and gradient data.

CONSLUSION AND RECOMMENDATION:

Results of Second Quarter, 2009 ground-water sampling activities indicate dissolved constituent concentrations remain relatively consistent with those observed during previous quarters. Ground-water elevations increased approximately 10 feet across the property relative to the Fourth Quarter, 2008 monitoring event. The ground-water flow direction remains generally consistent with prior directions (northeasterly) and the gradient magnitude has returned to a value consistent with those observed prior to Fourth Quarter, 2008.

As stated in prior reports, Station #6113 has been sold. The new property owner has recently completed raze and rebuild activities. With approval from the ACEH (email dated June 5, 2008) wells MW-1 and MW-8 were properly abandoned in June 2008 as these wells were within the footprint of the new station building. With approval from the ACEH (email dated August 18, 2008) wells MW-3, MW-6, MW-10, and MW-13 were properly abandoned in September 2008 to facilitate construction activities associated with the raze and rebuild. Abandonment of wells MW-6, MW-10, and MW-13 were required to allow for the widening of East Stanley Boulevard and abandonment of MW-3 was necessary as the well was within the construction demolition area of the Property. Field verification of the new site layout was completed earlier this month. A work plan for replacement well locations is scheduled to be competed during the Third Quarter, 2009.

It is recommended that ground-water monitoring/sampling continue on a semi-annual basis in accordance with the plan detailed on page 1 (frequency of ground-water monitoring and sampling).

CLOSURE:

The findings presented in this report are based upon: observations of Stratus Environmental, Inc. and/or their subcontractors' field personnel (see Appendix A and B), the points investigated, and results of laboratory tests performed by Calscience (Garden Grove, CA). Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of Atlantic Richfield Company. It is possible that variations in soil or ground-water conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

ATTACHMENTS:

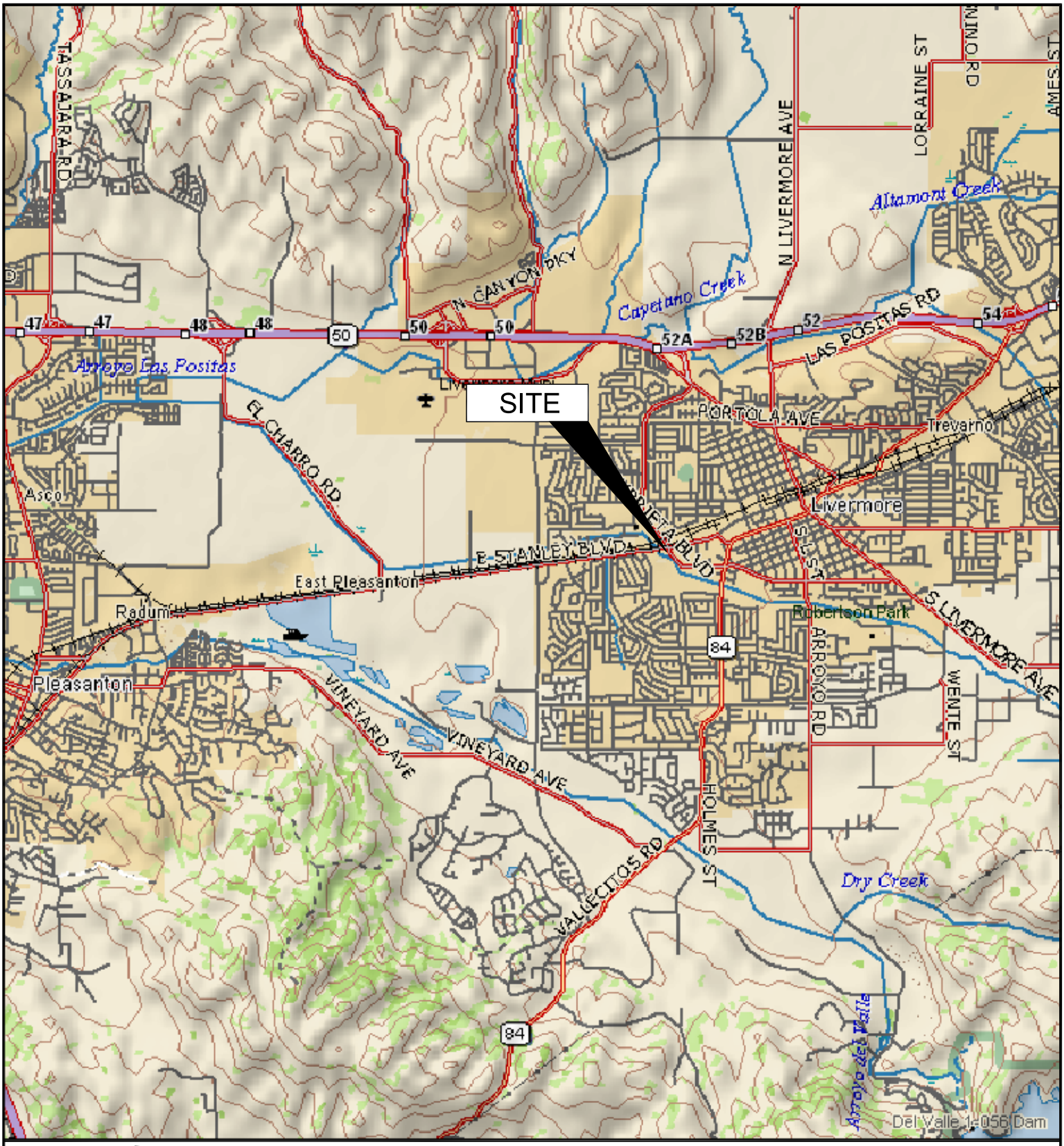
Drawing 1. Site Location Map, Station #6113, Livermore, CA
Drawing 2. Ground-Water Elevation Contour and Analytical Summary Map, Station #6113, Livermore, CA

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #6113, Livermore CA
Table 2. Summary of Fuel Additives Analytical Data, Station #6113, Livermore, CA

Table 3. Historical Ground-Water Flow Direction and Gradient, Station #6113, Livermore, CA

Appendix A. Stratus Environmental, Inc. Groundwater Sampling Data Package (Field Data Sheets, Non-Hazardous Waste Data Form, Chain of Custody Documentation, Certified Analytical Results, and Field Procedures for Groundwater Sampling).

Appendix B. GeoTracker Upload Confirmation.



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0 1 2

APPROXIMATE SCALE (mi)

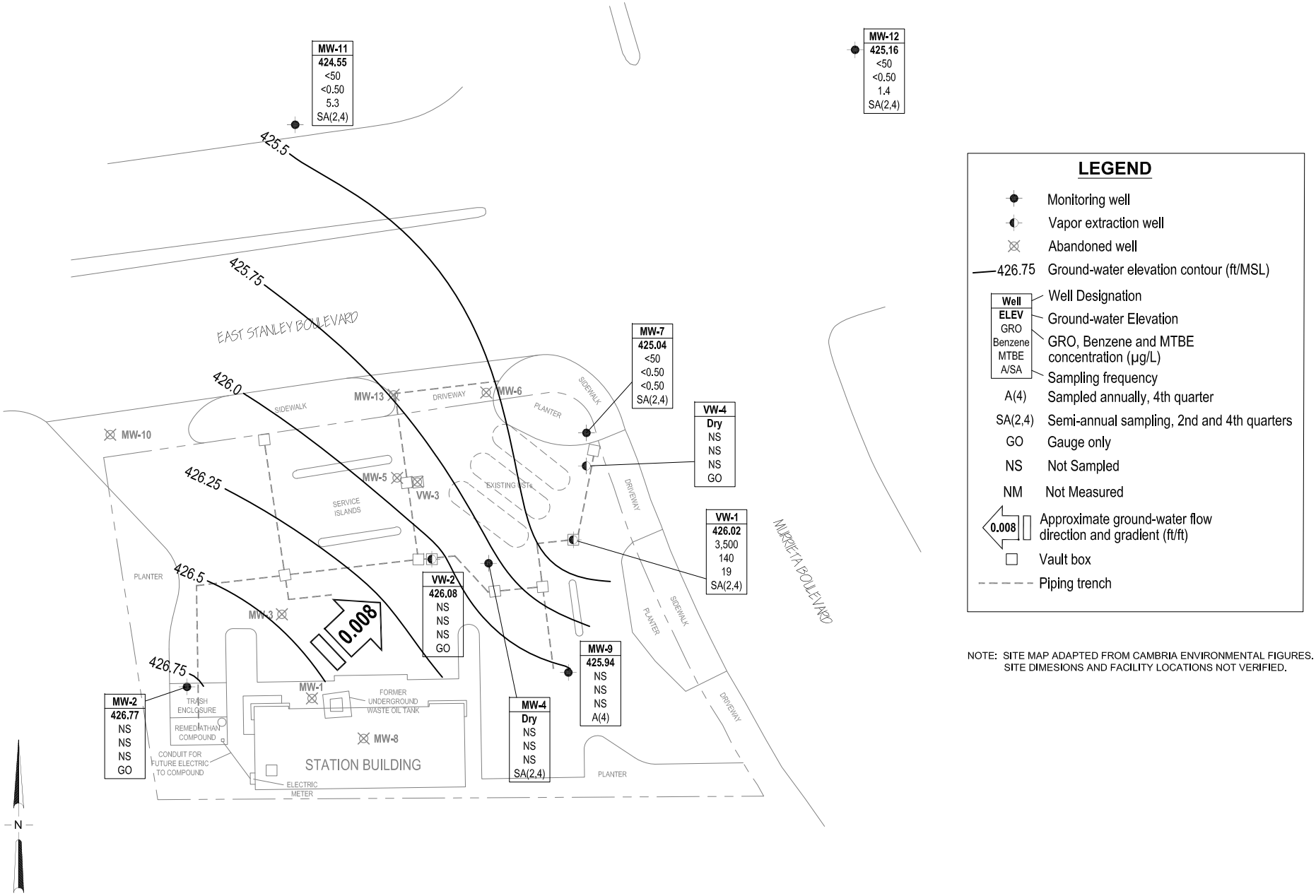
IMAGE SOURCE: DELORME

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave. Suite 212, Chico, California 95926
Project No.: 06-82-637 Date: 7/27/2009

Station #6113
785 East Stanley Boulevard
Livermore, California

Site Location Map

Drawing
1



LEGEND

- Monitoring well
- Vapor extraction well
- Abandoned well
- 426.75 — Ground-water elevation contour (ft/MSL)
- Well Designation / ELEV / GRO / Benzene / MTBE / A/SA — Ground-water Elevation; GRO, Benzene and MTBE concentration (µg/L); Sampling frequency
- A(4) — Sampled annually, 4th quarter
- SA(2,4) — Semi-annual sampling, 2nd and 4th quarters
- GO — Gauge only
- NS — Not Sampled
- NM — Not Measured
- 0.008 — Approximate ground-water flow direction and gradient (ft/ft)
- Vault box
- Piping trench

NOTE: SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES. SITE DIMESIONS AND FACILITY LOCATIONS NOT VERIFIED.

0 50 100
SCALE (ft)

BROADBENT & ASSOCIATES, INC.
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL
1324 Mangrove Ave, Suite 212, Chico, California 95926
Project No.: 06-82-637 Date: 6/4/2009

Station #6113
785 East Stanley Boulevard
Livermore, California

Ground-Water Elevation Contour and Analytical Summary Map
April 28, 2009

Drawing
2

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-1															
3/23/1995	--	e	457.04	29.0	**44.0**	14.12	442.92	--	--	--	--	--	--	--	--
5/31/1995	--	e	457.04	29.0	**44.0**	14.45	442.59	--	--	--	--	--	--	--	--
8/31/1995	--	e	457.04	29.0	**44.0**	17.12	439.92	--	--	--	--	--	--	--	--
11/28/1995	--		457.04	29.0	**44.0**	16.34	440.70	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	457.04	29.0	**44.0**	13.23	443.81	--	--	--	--	--	--	--	--
5/23/1996	--	e	457.04	29.0	**44.0**	14.02	443.02	--	--	--	--	--	--	--	--
8/8/1996	--	e	457.04	29.0	**44.0**	16.13	440.91	--	--	--	--	--	--	--	--
11/7/1996	--		457.04	29.0	**44.0**	17.28	439.76	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	e	457.04	29.0	**44.0**	14.91	442.13	--	--	--	--	--	--	--	--
5/19/1997	--	e	457.04	29.0	**44.0**	16.47	440.57	--	--	--	--	--	--	--	--
5/18/1998	--	e	457.04	29.0	**44.0**	14.69	442.35	--	--	--	--	--	--	--	--
11/2/1998	--		457.04	29.0	**44.0**	25.94	431.10	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	--	e	457.04	29.0	**44.0**	17.38	439.66	--	--	--	--	--	--	--	--
11/11/1999	P		457.04	29.0	**44.0**	18.63	438.41	<50	<0.5	<0.5	<0.5	<1	<3	1.03	--
6/20/2000	--	e	457.04	29.0	**44.0**	17.09	439.95	--	--	--	--	--	--	3.1	--
8/29/2000	--	e	457.04	29.0	**44.0**	18.20	438.84	--	--	--	--	--	--	2.66	--
11/29/2000	P		457.04	29.0	**44.0**	20.30	436.74	<50.0	<0.500	<0.500	<0.500	1.36	<2.50	0.71	--
5/2/2001	--	e	457.04	29.0	**44.0**	22.39	434.65	--	--	--	--	--	--	--	--
8/15/2001	--	e	457.04	29.0	**44.0**	24.97	432.07	--	--	--	--	--	--	--	--
10/5/2001	P		457.04	29.0	**44.0**	25.09	431.95	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.78	--
1/21/2002	--	e	457.04	29.0	**44.0**	24.58	432.46	--	--	--	--	--	--	--	--
4/26/2002	--	e	457.04	29.0	**44.0**	24.19	432.85	--	--	--	--	--	--	--	--
10/7/2002	--		457.04	29.0	**44.0**	20.13	436.91	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	--
05/01/2003	--	r	457.04	29.0	**44.0**	17.98	439.06	--	--	--	--	--	--	--	--
10/27/2005	--		459.41	29.0	44.0	18.45	440.96	--	--	--	--	--	--	--	--
04/12/2006	--		459.41	29.0	44.0	15.18	444.23	--	--	--	--	--	--	--	--
10/31/2006	--		459.41	29.0	44.0	19.18	440.23	--	--	--	--	--	--	--	--
4/19/2007	--		459.41	29.0	44.0	23.20	436.21	--	--	--	--	--	--	--	--
10/16/2007	--		459.41	29.0	44.0	38.28	421.13	--	--	--	--	--	--	--	--
4/24/2008	--		459.41	29.0	44.0	25.97	433.44	--	--	--	--	--	--	--	--
6/18/2008	--	k	--	29.0	44.0	--	--	--	--	--	--	--	--	--	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-1															
MW-2															
3/23/1995	--		457.74	28.0	38.0	14.15	443.59	--	--	--	--	--	--	--	--
5/31/1995	--	e	457.74	28.0	38.0	14.67	443.07	--	--	--	--	--	--	--	--
8/31/1995	--	e	457.74	28.0	38.0	17.24	440.50	--	--	--	--	--	--	--	--
11/28/1995	--		457.74	28.0	38.0	16.40	441.34	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	457.74	28.0	38.0	13.55	444.19	--	--	--	--	--	--	--	--
5/23/1996	--	e	457.74	28.0	38.0	14.29	443.45	--	--	--	--	--	--	--	--
8/8/1996	--	e	457.74	28.0	38.0	16.19	441.55	--	--	--	--	--	--	--	--
11/7/1996	--		457.74	28.0	38.0	17.50	440.24	65	0.6	7.4	2.1	12	5	--	--
3/27/1997	--	e	457.74	28.0	38.0	15.32	442.42	--	--	--	--	--	--	--	--
5/19/1997	--	e	457.74	28.0	38.0	16.62	441.12	--	--	--	--	--	--	--	--
5/18/1998	--	e	457.74	28.0	38.0	15.12	442.62	--	--	--	--	--	--	--	--
11/2/1998	--		457.74	28.0	38.0	26.66	431.08	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	--	e	457.74	28.0	38.0	17.74	440.00	--	--	--	--	--	--	--	--
11/11/1999	P		457.74	28.0	38.0	18.75	438.99	<50	<0.5	<0.5	<0.5	<1	<3	0.82	--
6/20/2000	--	e	457.74	28.0	38.0	17.21	440.53	--	--	--	--	--	--	2.6	--
8/29/2000	--	e	457.74	28.0	38.0	18.25	439.49	--	--	--	--	--	--	2.65	--
11/29/2000	P		457.74	28.0	38.0	20.69	437.05	<50.0	<0.500	0.581	0.827	4.38	<2.50	0.88	--
5/2/2001	--	e	457.74	28.0	38.0	22.69	435.05	--	--	--	--	--	--	--	--
8/15/2001	--	e	457.74	28.0	38.0	25.15	432.59	--	--	--	--	--	--	--	--
10/5/2001	P		457.74	28.0	38.0	25.22	432.52	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.8	--
1/21/2002	--	e	457.74	28.0	38.0	24.70	433.04	--	--	--	--	--	--	--	--
4/26/2002	--	e	457.74	28.0	38.0	24.53	433.21	--	--	--	--	--	--	--	--
10/7/2002	--		457.74	28.0	38.0	19.45	438.29	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	--
05/01/2003	--	r	457.74	28.0	38.0	18.18	439.56	--	--	--	--	--	--	--	--
10/27/2005	--	t	460.07	28.0	38.0	--	--	--	--	--	--	--	--	--	--
04/12/2006	--		460.07	28.0	38.0	15.30	444.77	--	--	--	--	--	--	--	--
10/31/2006	--		460.07	28.0	38.0	19.48	440.59	--	--	--	--	--	--	--	--
4/19/2007	--		460.07	28.0	38.0	23.85	436.22	--	--	--	--	--	--	--	--
10/16/2007	--		460.07	28.0	38.0	36.78	423.29	--	--	--	--	--	--	--	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-2 Cont.															
4/24/2008	--		460.07	28.0	38.0	26.38	433.69	--	--	--	--	--	--	--	--
10/15/2008	--		460.07	28.0	38.0	37.21	422.86	--	--	--	--	--	--	--	--
4/28/2009	--		**460.07**	**28.0**	**38.0**	**33.30**	**426.77**	--	--	--	--	--	--	--	--
MW-3															
3/23/1995	--	e	456.97	28.5	38.5	14.13	442.84	--	--	--	--	--	--	--	--
5/31/1995	--	e	456.97	28.5	38.5	14.46	442.51	--	--	--	--	--	--	--	--
8/31/1995	--	e	456.97	28.5	38.5	17.06	439.91	--	--	--	--	--	--	--	--
11/28/1995	--		456.97	28.5	38.5	16.27	440.70	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	456.97	28.5	38.5	13.14	443.83	--	--	--	--	--	--	--	--
5/23/1996	--	e	456.97	28.5	38.5	13.95	443.02	--	--	--	--	--	--	--	--
8/8/1996	--	e	456.97	28.5	38.5	16.03	440.94	--	--	--	--	--	--	--	--
11/7/1996	--		456.97	28.5	38.5	17.26	439.71	<50	<0.5	0.9	<0.5	1.5	<3	--	--
3/27/1997	--	e	456.97	28.5	38.5	14.85	442.12	--	--	--	--	--	--	--	--
5/19/1997	--	e	456.97	28.5	38.5	16.40	440.57	--	--	--	--	--	--	--	--
5/18/1998	--	e	456.97	28.5	38.5	14.66	442.31	--	--	--	--	--	--	--	--
11/2/1998	--		456.97	28.5	38.5	25.85	431.12	<1,000	<10	<10	<10	<10	1,700	--	--
6/4/1999	--	e	456.97	28.5	38.5	17.35	439.62	--	--	--	--	--	--	--	--
11/11/1999	P		456.97	28.5	38.5	18.58	438.39	<50	<0.5	<0.5	<0.5	<1	<3	0.79	--
6/20/2000	--	e	456.97	28.5	38.5	17.03	439.94	--	--	--	--	--	--	2.8	--
8/29/2000	--	e	456.97	28.5	38.5	18.25	438.72	--	--	--	--	--	--	3.39	--
11/29/2000	--		456.97	28.5	38.5	20.27	436.70	<50.0	<0.500	<0.500	1.08	3.34	<2.50	0.67	--
5/2/2001	--	e	456.97	28.5	38.5	22.33	434.64	--	--	--	--	--	--	--	--
8/15/2001	--	e	456.97	28.5	38.5	25.03	431.94	--	--	--	--	--	--	--	--
10/5/2001	P		456.97	28.5	38.5	25.17	431.80	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.79	--
1/21/2002	--	e	456.97	28.5	38.5	24.79	432.18	--	--	--	--	--	--	--	--
4/26/2002	--	e	456.97	28.5	38.5	24.27	432.70	--	--	--	--	--	--	--	--
10/7/2002	--		456.97	28.5	38.5	20.20	436.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.2	--
05/01/2003	--	c, e	456.97	28.5	38.5	18.27	438.70	--	--	--	--	--	--	--	--
10/03/2003	P	d	456.97	28.5	38.5	20.07	436.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.2	7.3
04/06/2004	--	e	459.32	28.5	38.5	17.24	442.08	--	--	--	--	--	--	--	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-3 Cont.															
10/28/2004	P		459.32	28.5	38.5	19.38	439.94	<50	<0.50	<0.50	<0.50	<0.50	<0.50	8.1	7.3
04/13/2005	--		459.32	28.5	38.5	16.02	443.30	--	--	--	--	--	--	--	--
10/27/2005	--	t	459.32	28.5	38.5	--	--	--	--	--	--	--	--	--	--
04/12/2006	--		459.32	28.5	38.5	15.12	444.20	--	--	--	--	--	--	--	--
10/31/2006	P		459.32	28.5	38.5	19.14	440.18	400	5.5	<0.50	5.5	9.6	22	--	7.64
4/19/2007	--		459.32	28.5	38.5	23.07	436.25	--	--	--	--	--	--	--	--
10/16/2007	--	f	459.32	28.5	38.5	--	--	--	--	--	--	--	--	--	--
4/24/2008	--		459.32	28.5	38.5	25.65	433.67	--	--	--	--	--	--	--	--
9/10/2008	--	k	459.32	28.5	38.5	--	--	--	--	--	--	--	--	--	--
MW-4															
3/23/1995	--		456.55	21.0	**27.0**	15.39	441.16	210	2.1	0.6	0.8	2.1	--	--	--
5/31/1995	--		456.55	21.0	**27.0**	15.32	441.23	190	1.6	<0.5	0.7	0.9	--	--	--
8/31/1995	--		456.55	21.0	**27.0**	17.86	438.69	160	1.2	0.7	<0.5	<2	<3	--	--
11/28/1995	--		456.55	21.0	**27.0**	17.18	439.37	150	0.7	<0.5	0.7	1.4	<3	--	--
2/22/1996	--		456.55	21.0	**27.0**	14.80	441.75	100	<0.5	<0.5	<0.6	0.8	<3	--	--
5/23/1996	--		456.55	21.0	**27.0**	14.43	442.12	86	<0.5	<0.5	<0.5	<0.7	<3	--	--
8/8/1996	--		456.55	21.0	**27.0**	16.80	439.75	98	<0.5	<0.5	<0.5	1.3	<3	--	--
11/7/1996	--		456.55	21.0	**27.0**	17.90	438.65	140	<0.5	<0.5	<0.9	1.3	<3	--	--
3/27/1997	--		456.55	21.0	**27.0**	15.22	441.33	<50	1.1	<0.5	<0.5	1.6	<3	--	--
5/19/1997	--		456.55	21.0	**27.0**	16.98	439.57	62	<0.5	<0.5	<0.5	0.6	<3	--	--
5/18/1998	--		456.55	21.0	**27.0**	14.99	441.56	<50	<0.5	<0.5	<0.5	<0.5	64	--	--
11/2/1998	--		456.55	21.0	**27.0**	25.29	431.26	74	<0.5	<0.5	<0.5	<0.5	96	--	--
6/4/1999	P		456.55	21.0	**27.0**	17.95	438.60	100	<0.5	<0.5	<0.5	<0.5	38	--	--
11/11/1999	P		456.55	21.0	**27.0**	19.25	437.30	88	<0.5	<0.5	<0.5	<1	10	0.77	--
6/20/2000	--	q	456.55	21.0	**27.0**	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	62.3	--	--
6/20/2000	P		456.55	21.0	**27.0**	17.79	438.76	<50.0	<0.500	<0.500	<0.500	<0.500	82.4	1.3	--
8/29/2000	P		456.55	21.0	**27.0**	18.90	437.65	56	<0.500	<0.500	<0.500	<0.500	47.9	0.97	--
11/29/2000	P	s	456.55	21.0	**27.0**	20.50	436.05	<50.0	<0.500	<0.500	<0.500	<0.500	9.88/10.4	0.59	--
5/2/2001	--	s	456.55	21.0	**27.0**	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	59.4/68.4	--	--
5/2/2001	P	q, s	456.55	21.0	**27.0**	22.65	433.90	<50.0	<0.500	<0.500	<0.500	<0.500	61.1/70.9	0.74	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-4 Cont.															
8/15/2001	--	f	456.55	21.0	**27.0**	--	--	--	--	--	--	--	--	--	--
10/5/2001	--	f	456.55	21.0	**27.0**	--	--	--	--	--	--	--	--	--	--
1/21/2002	--	f	456.55	21.0	**27.0**	--	--	--	--	--	--	--	--	--	--
4/26/2002	P		456.55	21.0	**27.0**	20.15	436.40	110	<0.50	<0.50	<0.50	<0.50	150	0.21	--
10/7/2002	P	a	456.55	21.0	**27.0**	20.76	435.79	96	<0.50	<0.50	0.54	<0.50	260	1.0	--
05/01/2003	P	c	456.55	21.0	**27.0**	19.67	436.88	120	1.3	<0.50	<0.50	<0.50	86	1.7	--
10/03/2003	P	d	456.55	21.0	27.0	20.23	436.32	<50	<0.50	<0.50	<0.50	<0.50	22	13.5	6.8
04/06/2004	P		458.88	21.0	27.0	18.13	440.75	96	<0.50	<0.50	<0.50	<0.50	17	1.6	6.8
10/28/2004	P		458.88	21.0	27.0	20.02	438.86	<50	<0.50	<0.50	<0.50	<0.50	4.5	1.2	6.7
04/13/2005	P		458.88	21.0	27.0	16.68	442.20	<50	<0.50	<0.50	<0.50	<0.50	2.8	0.8	6.7
10/27/2005	P		458.88	21.0	27.0	19.05	439.83	400	14	<0.50	11	1.8	22	1.0	6.9
04/12/2006	P		458.88	21.0	27.0	15.47	443.41	100	<0.50	<0.50	<0.50	<0.50	1.9	1.6	7.2
10/31/2006	P		458.88	21.0	27.0	19.67	439.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.63
4/19/2007	NP		458.88	21.0	27.0	22.72	436.16	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.92	7.36
10/16/2007	--	f	458.88	21.0	27.0	--	--	--	--	--	--	--	--	--	--
4/24/2008	--	f	458.88	21.0	27.0	--	--	--	--	--	--	--	--	--	--
10/15/2008	--	f	458.88	21.0	27.0	--	--	--	--	--	--	--	--	--	--
4/28/2009	--	**f**	**458.88**	**21.0**	**27.0**	--	--	--	--	--	--	--	--	--	--
MW-5															
3/23/1995	--		455.84	43.0	**63.0**	13.97	441.87	68	4.2	3.4	2.3	12	--	--	--
5/31/1995	--	g	455.84	43.0	**63.0**	--	--	--	--	--	--	--	--	--	--
8/31/1995	--	g	455.84	43.0	**63.0**	--	--	--	--	--	--	--	--	--	--
11/28/1995	--		455.84	43.0	**63.0**	16.46	439.38	960	41	24	38	210	<5	--	--
2/22/1996	--	f	455.84	43.0	**63.0**	13.34	442.50	--	--	--	--	--	--	--	--
5/23/1996	--		455.84	43.0	**63.0**	14.36	441.48	7,100	440	180	270	1,700	<50	--	--
8/8/1996	--	f	455.84	43.0	**63.0**	16.38	439.46	--	--	--	--	--	--	--	--
11/7/1996	--		455.84	43.0	**63.0**	17.26	438.58	5,600	230	86	210	1,100	<80	--	--
3/27/1997	--	f	455.84	43.0	**63.0**	15.95	439.89	--	--	--	--	--	--	--	--
5/19/1997	--		455.84	43.0	**63.0**	16.64	439.20	7,600	480	140	400	1,200	<40	--	--
5/18/1998	--		455.84	43.0	**63.0**	14.75	441.09	990	46	13	45	180	4	--	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-5 Cont.															
11/2/1998	--		455.84	43.0	63.0	27.83	428.01	14,000	690	140	550	2,200	100	--	--
6/4/1999	P		455.84	43.0	63.0	17.47	438.37	8,300	690	370	90	440	1,400	--	--
11/11/1999	P		455.84	43.0	63.0	18.80	437.04	18,000	900	190	1,100	3,200	72	0.86	--
6/20/2000	P		455.84	43.0	63.0	17.14	438.70	10,200	618	122	832	2,020	<50.0	1.6	--
8/29/2000	P		455.84	43.0	63.0	18.60	437.24	12,300	436	166	711	2,120	517	0.79	--
11/29/2000	P	s	455.84	43.0	63.0	20.57	435.27	26,000	491	149	1,090	3,810	671/<20.0	0.51	--
5/2/2001	--	k	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6															
3/23/1995	--		454.93	48.0	68.0	13.38	441.55	<50	1.5	<0.5	<0.5	0.9	--	--	--
5/31/1995	--		454.93	48.0	68.0	13.96	440.97	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/31/1995	--		454.93	48.0	68.0	16.71	438.22	150	9	1.8	4	12	<3	--	--
11/28/1995	--		454.93	48.0	68.0	15.65	439.28	<50	0.6	<0.5	<0.5	0.8	<3	--	--
2/22/1996	--		454.93	48.0	68.0	12.53	442.40	<50	1.9	<0.5	0.8	2.1	<3	--	--
5/23/1996	--		454.93	48.0	68.0	13.24	441.69	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/8/1996	--		454.93	48.0	68.0	16.65	438.28	<50	0.5	<0.5	<0.5	0.5	<3	--	--
11/7/1996	--		454.93	48.0	68.0	16.65	438.28	110	5.3	1.3	3.1	6.6	<3	--	--
3/27/1997	--		454.93	48.0	68.0	14.25	440.68	<50	2.3	<0.5	0.9	3.5	4	--	--
5/19/1997	--		454.93	48.0	68.0	15.87	439.06	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/18/1998	--		454.93	48.0	68.0	14.00	440.93	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/2/1998	--		454.93	48.0	68.0	24.95	429.98	<50	1.2	<0.5	<0.5	<0.5	3	--	--
6/4/1999	P		454.93	48.0	68.0	16.68	438.25	310	41	3.8	11	19	33	--	--
11/11/1999	P		454.93	48.0	68.0	16.12	438.81	<50	0.5	<0.5	<0.5	<1	<3	0.92	--
6/20/2000	P		454.93	48.0	68.0	16.63	438.30	<50.0	<0.500	<0.500	<0.500	<0.500	17.3	1.9	--
8/29/2000	--	q	454.93	48.0	68.0	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--	--
8/29/2000	P		454.93	48.0	68.0	17.91	437.02	<50.0	<0.500	0.551	<0.500	<0.500	<2.50	1.67	--
11/29/2000	P		454.93	48.0	68.0	20.30	434.63	<50.0	<0.500	<0.500	<0.500	1.03	<2.50	0.79	--
5/2/2001	P	s	454.93	48.0	68.0	22.20	432.73	3,230	1,300	33.6	89.4	136	1,810/2,310	0.95	--
8/15/2001	P	s	454.93	48.0	68.0	27.95	426.98	<50	<0.50	<0.50	<0.50	<0.50	21/25	0.63	--
10/5/2001	P		454.93	48.0	68.0	28.05	426.88	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.85	--
1/21/2002	P		454.93	48.0	68.0	26.81	428.12	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.91	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-6 Cont.															
4/26/2002	P		454.93	48.0	**68.0**	26.27	428.66	<50	<0.50	<0.50	<0.50	<0.50	17	0.75	--
10/7/2002	P	a	454.93	48.0	**68.0**	20.05	434.88	60	13	1.7	1.7	3.5	8	2.8	--
05/01/2003	P	c	454.93	48.0	**68.0**	17.62	437.31	<50	5.4	<0.50	0.63	1.3	12	1.6	--
10/03/2003	P	d	454.93	48.0	68.0	19.62	435.31	80	2.6	<2.5	<2.5	<2.5	120	5.1	6.9
04/06/2004	P		457.24	48.0	68.0	16.88	440.36	<2,500	<25	<25	<25	<25	1,700	4.1	7.0
10/28/2004	P		457.24	48.0	68.0	19.20	438.04	3,200	<25	<25	<25	<25	3,100	6.8	6.9
04/13/2005	P		457.24	48.0	68.0	15.15	442.09	<5,000	<50	<50	<50	<50	3,900	3.9	7.0
10/27/2005	P		457.24	48.0	68.0	18.12	439.12	<5,000	<50	<50	<50	<50	2,900	3.15	7.0
04/12/2006	P		457.24	48.0	68.0	15.32	441.92	<5,000	<50	<50	<50	<50	3,400	4.3	7.6
10/31/2006	P	u, v	457.24	48.0	68.0	18.85	438.39	2,700	<25	<25	<25	<25	3,400	--	10.36
4/19/2007	P	v	457.24	48.0	68.0	22.25	434.99	970	<25	<25	<25	<25	2,200	5.54	10.52
10/16/2007	P	v, w (MTBE)	457.24	48.0	68.0	37.17	420.07	2,700	240	<25	50	55	2,600	4.56	10.26
4/24/2008	P		457.24	48.0	68.0	24.55	432.69	15,000	5,300	200	620	470	4,200	2.15	6.90
9/10/2008	--	k	457.24	48.0	68.0	--	--	--	--	--	--	--	--	--	--
MW-7															
3/23/1995	--		454.92	48.0	**68.0**	13.29	441.63	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
5/31/1995	--		454.92	48.0	**68.0**	13.72	441.20	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/31/1995	--		454.92	48.0	**68.0**	16.53	438.39	<50	<0.5	<0.5	<0.5	1.2	<3	--	--
11/28/1995	--		454.92	48.0	**68.0**	15.50	439.42	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--		454.92	48.0	**68.0**	12.30	442.62	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/23/1996	--		454.92	48.0	**68.0**	13.02	441.90	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/8/1996	--	m	454.92	48.0	**68.0**	--	--	--	--	--	--	--	--	--	--
11/7/1996	--		454.92	48.0	**68.0**	16.50	438.42	<50	<0.5	<0.5	<0.5	0.8	<3	--	--
3/27/1997	--		454.92	48.0	**68.0**	14.22	440.70	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/19/1997	--		454.92	48.0	**68.0**	15.74	439.18	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/18/1998	--		454.92	48.0	**68.0**	13.82	441.10	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/2/1998	--		454.92	48.0	**68.0**	24.80	430.12	<50	<0.5	<0.5	<0.5	<0.5	4	--	--
6/4/1999	P		454.92	48.0	**68.0**	16.55	438.37	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/11/1999	P		454.92	48.0	**68.0**	18.02	436.90	<50	<0.5	<0.5	<0.5	<1	<3	1.03	--
6/20/2000	P		454.92	48.0	**68.0**	16.50	438.42	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.3	--

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Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-7 Cont.															
8/29/2000	P		454.92	48.0	**68.0**	17.80	437.12	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.67	--
11/29/2000	P		454.92	48.0	**68.0**	19.61	435.31	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.51	--
5/2/2001	P	s	454.92	48.0	**68.0**	22.05	432.87	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50/2.66	0.9	--
8/15/2001	P		454.92	48.0	**68.0**	27.55	427.37	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.84	--
10/5/2001	P		454.92	48.0	**68.0**	27.59	427.33	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.62	--
1/21/2002	P	s	454.92	48.0	**68.0**	26.50	428.42	<50	<0.50	<0.50	<0.50	<0.50	15/21	0.65	--
4/26/2002	P		454.92	48.0	**68.0**	26.22	428.70	<50	<0.50	<0.50	<0.50	<0.50	18	0.61	--
10/7/2002	--		454.92	48.0	**68.0**	20.04	434.88	<50	1.2	<0.50	<0.50	0.77	41	4.8	--
05/01/2003	P	c	454.92	48.0	**68.0**	17.47	437.45	<50	<0.50	<0.50	<0.50	0.5	43	2.7	--
10/03/2003	P	d	454.92	48.0	68.0	19.55	435.37	<50	<1.0	<1.0	<1.0	<1.0	49	5.7	7.1
04/06/2004	P		457.17	48.0	68.0	16.60	440.57	<50	<0.50	<0.50	<0.50	0.75	0.76	0.7	7.0
10/28/2004	P		457.17	48.0	68.0	19.17	438.00	<50	<0.50	<0.50	<0.50	<0.50	14	6.7	6.9
04/13/2005	P		457.17	48.0	68.0	14.84	442.33	<50	<0.50	<0.50	<0.50	<0.50	1.7	2.3	6.9
10/27/2005	P		457.17	48.0	68.0	17.38	439.79	<50	<0.50	<0.50	<0.50	<0.50	2.3	2.16	7.0
04/12/2006	P		457.17	48.0	68.0	14.84	442.33	<50	<0.50	<0.50	<0.50	<0.50	1.1	3.0	7.2
10/31/2006	P		457.17	48.0	68.0	18.74	438.43	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.55
4/19/2007	P		457.17	48.0	68.0	22.11	435.06	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.37	7.60
10/16/2007	P		457.17	48.0	68.0	37.23	419.94	140	68	6.8	<0.50	5.0	24	4.87	8.02
4/24/2008	P		457.17	48.0	68.0	24.47	432.70	<50	<0.50	0.99	<0.50	<0.50	22	1.96	7.24
10/15/2008	P		457.17	48.0	68.0	43.40	413.77	<50	<0.50	<0.50	<0.50	<0.50	8.2	2.31	7.14
4/28/2009	**P**		**457.17**	**48.0**	**68.0**	**32.13**	**425.04**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**3.78**	**6.93**
MW-8															
3/23/1995	--	e	456.97	47.0	**67.0**	11.55	445.42	--	--	--	--	--	--	--	--
5/31/1995	--	e	456.97	47.0	**67.0**	12.37	444.60	--	--	--	--	--	--	--	--
8/31/1995	--	e	456.97	47.0	**67.0**	15.68	441.29	--	--	--	--	--	--	--	--
11/28/1995	--		456.97	47.0	**67.0**	14.15	442.82	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	456.97	47.0	**67.0**	10.97	446.00	--	--	--	--	--	--	--	--
5/23/1996	--	e	456.97	47.0	**67.0**	11.90	445.07	--	--	--	--	--	--	--	--
8/8/1996	--	e	456.97	47.0	**67.0**	13.85	443.12	--	--	--	--	--	--	--	--
11/7/1996	--		456.97	47.0	**67.0**	15.08	441.89	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-8 Cont.															
3/27/1997	--	e	456.97	47.0	67.0	12.96	444.01	--	--	--	--	--	--	--	--
5/19/1997	--	e	456.97	47.0	67.0	14.35	442.62	--	--	--	--	--	--	--	--
5/18/1998	--	e	456.97	47.0	67.0	12.97	444.00	--	--	--	--	--	--	--	--
11/2/1998	--		456.97	47.0	67.0	26.01	430.96	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	--	e	456.97	47.0	67.0	15.53	441.44	--	--	--	--	--	--	--	--
11/11/1999	P		456.97	47.0	67.0	16.67	440.30	<50	<0.5	<0.5	<0.5	<1	<3	1.01	--
6/20/2000	--	e	456.97	47.0	67.0	15.29	441.68	--	--	--	--	--	--	2.4	--
8/29/2000	--	e	456.97	47.0	67.0	16.59	440.38	--	--	--	--	--	--	3.37	--
11/29/2000	P		456.97	47.0	67.0	19.80	437.17	<50.0	<0.500	<0.500	<0.500	0.772	<2.50	1.35	--
5/2/2001	--	e	456.97	47.0	67.0	22.12	434.85	--	--	--	--	--	--	--	--
8/15/2001	--	e	456.97	47.0	67.0	27.63	429.34	--	--	--	--	--	--	--	--
10/5/2001	P		456.97	47.0	67.0	27.65	429.32	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.07	--
1/21/2002	--	e	456.97	47.0	67.0	26.73	430.24	--	--	--	--	--	--	--	--
4/26/2002	--	e	456.97	47.0	67.0	26.39	430.58	--	--	--	--	--	--	--	--
10/7/2002	--		456.97	47.0	67.0	18.43	438.54	<50	<0.50	<0.50	<0.50	0.86	<0.50	4.2	--
05/01/2003	--	r	456.97	47.0	67.0	16.47	440.50	--	--	--	--	--	--	--	--
10/27/2005	--		456.97	47.0	67.0	17.14	439.83	--	--	--	--	--	--	--	--
04/12/2006	--		456.97	47.0	67.0	14.08	442.89	--	--	--	--	--	--	--	--
10/31/2006	--		456.97	47.0	67.0	18.12	438.85	--	--	--	--	--	--	--	--
4/19/2007	--		456.97	47.0	67.0	22.39	434.58	--	--	--	--	--	--	--	--
10/16/2007	--		456.97	47.0	67.0	38.18	418.79	--	--	--	--	--	--	--	--
4/24/2008	--		456.97	47.0	67.0	25.43	431.54	--	--	--	--	--	--	--	--
6/18/2008	--	k	--	47.0	67.0	--	--	--	--	--	--	--	--	--	--
MW-9															
3/23/1995	--	e	456.18	48.0	68.0	13.18	443.00	--	--	--	--	--	--	--	--
5/31/1995	--	e	456.18	48.0	68.0	12.66	443.52	--	--	--	--	--	--	--	--
8/31/1995	--	e	456.18	48.0	68.0	14.40	441.78	--	--	--	--	--	--	--	--
11/28/1995	--		456.18	48.0	68.0	14.26	441.92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	456.18	48.0	68.0	12.05	444.13	--	--	--	--	--	--	--	--
5/23/1996	--	e	456.18	48.0	68.0	12.07	444.11	--	--	--	--	--	--	--	--

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Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-9 Cont.															
8/8/1996	--	e	456.18	48.0	**68.0**	14.12	442.06	--	--	--	--	--	--	--	--
11/7/1996	--		456.18	48.0	**68.0**	15.42	440.76	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	e	456.18	48.0	**68.0**	13.01	443.17	--	--	--	--	--	--	--	--
5/19/1997	--	e	456.18	48.0	**68.0**	14.60	441.58	--	--	--	--	--	--	--	--
5/18/1998	--	e	456.18	48.0	**68.0**	12.60	443.58	--	--	--	--	--	--	--	--
11/2/1998	--	e	456.18	48.0	**68.0**	25.08	431.10	--	--	--	--	--	--	--	--
6/4/1999	P		456.18	48.0	**68.0**	15.87	440.31	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/11/1999	P		456.18	48.0	**68.0**	17.02	439.16	<50	<0.5	<0.5	<0.5	<1	<3	0.96	--
6/20/2000	--	e	456.18	48.0	**68.0**	15.54	440.64	--	--	--	--	--	--	2.1	--
8/29/2000	--	e	456.18	48.0	**68.0**	16.81	439.37	--	--	--	--	--	--	2.59	--
11/29/2000	P		456.18	48.0	**68.0**	18.81	437.37	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.81	--
5/2/2001	--	e	456.18	48.0	**68.0**	22.09	434.09	--	--	--	--	--	--	--	--
8/15/2001	--	e	456.18	48.0	**68.0**	27.59	428.59	--	--	--	--	--	--	--	--
10/5/2001	--	q	456.18	48.0	**68.0**	27.63	428.55	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--
10/5/2001	P		456.18	48.0	**68.0**	27.63	428.55	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.93	--
1/21/2002	--	e	456.18	48.0	**68.0**	26.77	429.41	--	--	--	--	--	--	--	--
4/26/2002	--	e	456.18	48.0	**68.0**	26.41	429.77	--	--	--	--	--	--	--	--
10/7/2002	P		456.18	48.0	**68.0**	18.85	437.33	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	--
05/01/2003	--	c, e	456.18	48.0	**68.0**	17.84	438.34	--	--	--	--	--	--	--	--
10/03/2003	P	d	456.18	48.0	68.0	18.69	437.49	<50	1.1	0.57	<0.50	<0.50	<0.50	4.9	6.8
04/06/2004	--	e	458.55	48.0	68.0	16.08	442.47	--	--	--	--	--	--	--	--
10/28/2004	P		458.55	48.0	68.0	18.35	440.20	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.8	6.9
04/13/2005	--	e	458.55	48.0	68.0	14.09	444.46	--	--	--	--	--	--	--	--
10/27/2005	P		458.55	48.0	68.0	17.41	441.14	<50	0.51	<0.50	<0.50	<0.50	1.4	2.56	7.0
04/12/2006	--		458.55	48.0	68.0	14.18	444.37	--	--	--	--	--	--	--	--
10/31/2006	P		458.55	48.0	68.0	17.97	440.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.46
4/19/2007	--		458.55	48.0	68.0	22.37	436.18	--	--	--	--	--	--	--	--
10/16/2007	P		458.55	48.0	68.0	37.75	420.80	<50	0.83	<0.50	<0.50	<0.50	<0.50	1.27	7.59
4/24/2008	--		458.55	48.0	68.0	24.89	433.66	--	--	--	--	--	--	--	--
10/15/2008	P		458.55	48.0	68.0	44.16	414.39	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.14	7.08
4/28/2009	--		**458.55**	**48.0**	**68.0**	**32.61**	**425.94**	--	--	--	--	--	--	--	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-9															
MW-10															
3/23/1995	--	e	456.85	32.0	**52.0**	14.86	441.99	--	--	--	--	--	--	--	--
5/31/1995	--	e	456.85	32.0	**52.0**	15.63	441.22	--	--	--	--	--	--	--	--
8/31/1995	--	e	456.85	32.0	**52.0**	14.40	442.45	--	--	--	--	--	--	--	--
11/28/1995	--		456.85	32.0	**52.0**	17.24	439.61	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	e	456.85	32.0	**52.0**	14.30	442.55	--	--	--	--	--	--	--	--
5/23/1996	--	e	456.85	32.0	**52.0**	14.93	441.92	--	--	--	--	--	--	--	--
8/8/1996	--	e	456.85	32.0	**52.0**	17.20	439.65	--	--	--	--	--	--	--	--
11/7/1996	--		456.85	32.0	**52.0**	18.25	438.60	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	e	456.85	32.0	**52.0**	15.77	441.08	--	--	--	--	--	--	--	--
5/19/1997	--	e	456.85	32.0	**52.0**	17.38	439.47	--	--	--	--	--	--	--	--
5/18/1998	--	e	456.85	32.0	**52.0**	15.47	441.38	--	--	--	--	--	--	--	--
11/2/1998	--		456.85	32.0	**52.0**	26.94	429.91	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	--	e	456.85	32.0	**52.0**	17.19	439.66	--	--	--	--	--	--	--	--
11/11/1999	P		456.85	32.0	**52.0**	19.35	437.50	<50	<0.5	<0.5	<0.5	<1	<3	0.68	--
6/20/2000	--	e	456.85	32.0	**52.0**	17.92	438.93	--	--	--	--	--	--	2.9	--
8/29/2000	--	e	456.85	32.0	**52.0**	19.15	437.70	--	--	--	--	--	--	1.54	--
11/29/2000	P		456.85	32.0	**52.0**	21.30	435.55	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.95	--
5/2/2001	--	e	456.85	32.0	**52.0**	29.95	426.90	--	--	--	--	--	--	--	--
8/15/2001	--	e	456.85	32.0	**52.0**	30.74	426.11	--	--	--	--	--	--	--	--
10/5/2001	P		456.85	32.0	**52.0**	30.95	425.90	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.89	--
1/21/2002	--	e	456.85	32.0	**52.0**	28.97	427.88	--	--	--	--	--	--	--	--
4/26/2002	--	e	456.85	32.0	**52.0**	28.50	428.35	--	--	--	--	--	--	--	--
10/7/2002	--		456.85	32.0	**52.0**	21.15	435.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.0	--
05/01/2003	--	c, e	456.85	32.0	**52.0**	18.90	437.95	--	--	--	--	--	--	--	--
10/03/2003	P	d	456.85	32.0	52.0	20.64	436.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	7.1
04/06/2004	--	e	459.20	32.0	52.0	17.99	441.21	--	--	--	--	--	--	--	--
10/28/2004	P		459.20	32.0	52.0	20.27	438.93	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.9	7.1
04/13/2005	--	e	459.20	32.0	52.0	16.25	442.95	--	--	--	--	--	--	--	--
10/27/2005	P		459.20	32.0	52.0	19.03	440.17	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.38	7.2

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Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-10 Cont.															
04/12/2006	--		459.20	32.0	52.0	14.95	444.25	--	--	--	--	--	--	--	--
10/31/2006	P		459.20	32.0	52.0	20.20	439.00	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	7.30
4/19/2007	--		459.20	32.0	52.0	24.00	435.20	--	--	--	--	--	--	--	--
10/16/2007	NP		459.20	32.0	52.0	38.99	420.21	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.20	7.36
4/24/2008	--		459.20	32.0	52.0	26.62	432.58	--	--	--	--	--	--	--	--
9/10/2008	--	k	459.20	32.0	52.0	--	--	--	--	--	--	--	--	--	--
MW-11															
3/23/1995	--		455.07	38.0	**45.0**	17.34	437.73	--	--	--	--	--	--	--	--
5/31/1995	--		455.07	38.0	**45.0**	16.68	438.39	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/31/1995	--	h	455.07	38.0	**45.0**	20.20	434.87	--	--	--	--	--	--	--	--
11/28/1995	--		455.07	38.0	**45.0**	17.80	437.27	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	h	455.07	38.0	**45.0**	15.97	439.10	--	--	--	--	--	--	--	--
5/23/1996	--		455.07	38.0	**45.0**	15.50	439.57	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/8/1996	--	h	455.07	38.0	**45.0**	17.77	437.30	--	--	--	--	--	--	--	--
11/7/1996	--		455.07	38.0	**45.0**	17.45	437.62	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	h	455.07	38.0	**45.0**	15.77	439.30	--	--	--	--	--	--	--	--
5/19/1997	--		455.07	38.0	**45.0**	16.80	438.27	<50	1.1	4.5	<0.5	2.2	<3	--	--
5/18/1998	--		455.07	38.0	**45.0**	15.38	439.69	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/2/1998	--		455.07	38.0	**45.0**	24.15	430.92	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
6/4/1999	P		455.07	38.0	**45.0**	18.39	436.68	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/11/1999	P		455.07	38.0	**45.0**	18.62	436.45	<50	<0.5	<0.5	<0.5	<1	<3	1.01	--
6/20/2000	P		455.07	38.0	**45.0**	17.82	437.25	<50.0	0.631	<0.500	<0.500	<0.500	<2.50	4.1	--
8/29/2000	--	h	455.07	38.0	**45.0**	19.50	435.57	--	--	--	--	--	--	--	--
11/29/2000	P		455.07	38.0	**45.0**	20.60	434.47	<50.0	<0.500	<0.500	<0.500	1.63	<2.50	0.97	--
5/2/2001	P		455.07	38.0	**45.0**	22.42	432.65	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.04	--
8/15/2001	--	h	455.07	38.0	**45.0**	27.41	427.66	--	--	--	--	--	--	--	--
10/5/2001	P		455.07	38.0	**45.0**	27.59	427.48	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.05	--
1/21/2002	--	h	455.07	38.0	**45.0**	26.75	428.32	--	--	--	--	--	--	--	--
4/26/2002	P		455.07	38.0	**45.0**	26.50	428.57	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.47	--
10/7/2002	--		455.07	38.0	**45.0**	20.79	434.28	<50	<0.50	<0.50	<0.50	<0.50	1.0	1.4	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-11 Cont.															
05/01/2003	P	c	455.07	38.0	**45.0**	20.55	434.52	<50	<0.50	<0.50	<0.50	<0.50	1.5	3.2	--
10/03/2003	P	d	455.07	38.0	45.0	20.58	434.49	<50	<0.50	<0.50	<0.50	<0.50	3.1	3.0	7.1
04/06/2004	P		457.40	38.0	45.0	17.52	439.88	<50	<0.50	<0.50	<0.50	<0.50	14	5.1	6.7
10/28/2004	P		457.40	38.0	45.0	20.32	437.08	<50	<0.50	<0.50	<0.50	<0.50	29	1.3	7.2
04/13/2005	P		457.40	38.0	45.0	16.20	441.20	<50	<0.50	<0.50	<0.50	<0.50	3.7	2.8	7.0
10/27/2005	P		457.40	38.0	45.0	21.98	435.42	<50	<0.50	<0.50	<0.50	<0.50	21	1.04	7.2
04/12/2006	--	Well inaccessible m	457.40	38.0	45.0	--	--	--	--	--	--	--	--	--	--
10/31/2006	--		457.40	38.0	45.0	--	--	--	--	--	--	--	--	--	--
4/19/2007	P		457.40	38.0	45.0	22.38	435.02	<50	<0.50	<0.50	<0.50	<0.50	12	7.11	7.57
10/16/2007	P		457.40	38.0	45.0	37.11	420.29	<50	<0.50	<0.50	<0.50	<0.50	6.6	0.60	7.57
4/24/2008	P		457.40	38.0	45.0	26.10	431.30	<50	<0.50	<0.50	<0.50	<0.50	17	1.83	7.26
10/15/2008	--		457.40	38.0	45.0	43.34	414.06	--	--	--	--	--	--	--	--
4/28/2009	**P**		**457.40**	**38.0**	**45.0**	**32.85**	**424.55**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**5.3**	**5.89**	**7.23**
MW-12															
3/23/1995	--	h	455.04	18.0	**34.5**	15.54	439.50	--	--	--	--	--	--	--	--
5/31/1995	--		455.04	18.0	**34.5**	15.66	439.38	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/31/1995	--	h	455.04	18.0	**34.5**	18.23	436.81	--	--	--	--	--	--	--	--
11/28/1995	--		455.04	18.0	**34.5**	17.53	437.51	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
2/22/1996	--	h	455.04	18.0	**34.5**	14.45	440.59	--	--	--	--	--	--	--	--
5/23/1996	--		455.04	18.0	**34.5**	14.88	440.16	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
8/8/1996	--	h	455.04	18.0	**34.5**	17.30	437.74	--	--	--	--	--	--	--	--
11/7/1996	--		455.04	18.0	**34.5**	18.30	436.74	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
3/27/1997	--	h	455.04	18.0	**34.5**	15.69	439.35	--	--	--	--	--	--	--	--
5/19/1997	--		455.04	18.0	**34.5**	17.41	437.63	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
5/18/1998	--		455.04	18.0	**34.5**	15.21	439.83	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/2/1998	--	m	455.04	18.0	**34.5**	--	--	--	--	--	--	--	--	--	--
6/4/1999	--	m	455.04	18.0	**34.5**	--	--	--	--	--	--	--	--	--	--
11/11/1999	--	m	455.04	18.0	**34.5**	--	--	--	--	--	--	--	--	--	--
6/20/2000	--	m	455.04	18.0	**34.5**	--	--	--	--	--	--	--	--	--	--
8/29/2000	--	m	455.04	18.0	**34.5**	--	--	--	--	--	--	--	--	--	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-12 Cont.															
11/29/2000	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
5/2/2001	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
8/15/2001	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
10/5/2001	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
1/21/2002	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
4/26/2002	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
10/7/2002	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
05/01/2003	--	c, m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
10/03/2003	--	m	455.04	18.0	34.5	--	--	--	--	--	--	--	--	--	--
04/06/2004	P		457.37	18.0	34.5	18.14	439.23	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	6.4
10/28/2004	P		457.37	18.0	34.5	20.66	436.71	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.7	6.8
04/13/2005	P		457.37	18.0	34.5	16.25	441.12	<50	<0.50	<0.50	<0.50	0.55	<0.50	1.9	7.5
10/27/2005	P		457.37	18.0	34.5	19.77	437.60	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.81	7.0
04/12/2006	P		457.37	18.0	34.5	16.08	441.29	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	7.2
10/31/2006	--		457.37	18.0	34.5	--	--	--	--	--	--	--	--	--	--
4/19/2007	NP		457.37	18.0	34.5	22.34	435.03	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.66	7.28
10/16/2007	--	f	457.37	18.0	34.5	--	--	--	--	--	--	--	--	--	--
4/24/2008	--	m	457.37	18.0	34.5	--	--	--	--	--	--	--	--	--	--
10/15/2008	--	f	457.37	18.0	34.5	--	--	--	--	--	--	--	--	--	--
4/28/2009	**NP**		**457.37**	**18.0**	**34.5**	**32.21**	**425.16**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.4**	**7.68**	**6.63**
MW-13															
1/21/2002	P		--	--	--	24.61	--	15,000	160	68	1,700	3,200	4,900/5,200	0.71	--
4/26/2002	P		--	--	--	24.20	--	17,000	98	<100	1,700	3,400	1,600	0.6	--
10/7/2002	--	b	--	--	--	20.12	--	14,000	510	<50	2,200	2,300	2,800	0.8	--
05/01/2003	P	c	--	--	--	17.82	--	21,000	230	<50	1,900	2,300	1,600	1.9	--
10/03/2003	P	d	--	--	--	19.91	--	19,000	570	55	1,900	2,300	2,400	0.8	6.9
04/06/2004	P		457.91	--	--	17.14	440.77	15,000	470	35	1,600	1,300	1,800	2.0	6.7
10/28/2004	P		457.91	--	--	18.83	439.08	18,000	350	<25	1,900	1,800	1,800	0.8	6.7
04/13/2005	P		457.91	--	--	15.23	442.68	9,700	110	<25	860	280	920	0.9	6.9
10/27/2005	P		457.91	--	--	18.45	439.46	11,000	120	12	1,500	450	580	0.75	6.8

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Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
MW-13 Cont.															
04/12/2006	P		457.91	--	--	15.06	442.85	4,700	65	<10	450	69	470	1.2	6.8
10/31/2006	P		457.91	--	--	19.06	438.85	15,000	150	<25	1,700	400	710	--	6.87
4/19/2007	NP		457.91	--	--	22.21	435.70	14,000	60	<25	1,800	640	330	1.44	7.09
10/16/2007	--	f	457.91	--	--	--	--	--	--	--	--	--	--	--	--
4/24/2008	NP		457.91	--	--	24.68	433.23	1,400	4.5	1.1	9.4	15	49	2.78	7.25
9/10/2008	--	k	457.91	--	--	--	--	--	--	--	--	--	--	--	--
VW-1															
8/29/2000	P		--	24	45	17.40	--	2,360	27.6	11.6	26.3	33.2	110	4.47	--
11/29/2000	P		--	24.0	45	18.75	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.46	--
5/2/2001	--		--	24.0	45	21.59	--	--	--	--	--	--	--	--	--
8/15/2001	P	s	--	24.0	45	24.62	--	1,200	6.3	4.3	1.7	1.3	20/17	--	--
8/15/2001	--	q	--	24.0	45	--	--	1,200	6.2	4.1	1.8	1.1	20/17	--	--
10/5/2001	P	s	--	24.0	45	24.75	--	1,500	140	55	28	82	610/660	0.71	--
1/21/2002	--	q, s	--	24.0	45	--	--	8,000	770	320	96	1,100	2,500/3,200	--	--
1/21/2002	P	s	--	24.0	45	24.59	--	6,700	810	350	270	1,100	2,600/3,400	0.69	--
4/26/2002	P		--	24.0	45	24.27	--	370	26	2.1	6.6	1.7	48	0.5	--
4/26/2002	--	q	--	24.0	45	--	--	350	24	1.6	5.9	1.6	45	--	--
10/7/2002	P	b	--	24.0	45	19.20	--	410	25	2.2	8	4.3	88	1.7	--
05/01/2003	P	c	--	24.0	45	16.60	--	240	6.4	<0.50	3.3	1.3	36	1.7	--
10/03/2003	P	d	--	24.0	45	18.82	--	180	1.5	<0.50	0.69	<0.50	12	1.1	7.3
04/06/2004	P		457.08	24.0	45	15.78	441.30	300	2.2	<0.50	3.0	1.3	13	2.4	7.2
10/28/2004	P		457.08	24.0	45	18.33	438.75	210	<0.50	<0.50	0.67	<0.50	<0.50	1.2	7.1
04/13/2005	P		457.08	24.0	45	14.02	443.06	740	1.8	<0.50	3.6	1.1	9.6	2.4	7.1
10/27/2005	P		457.08	24.0	45	17.65	439.43	1,500	78	73	36	81	13	1.64	7.3
04/12/2006	P		457.08	24.0	45	13.89	443.19	230	1.4	<0.50	2.2	0.76	1.6	1.4	7.3
10/31/2006	P		457.08	24.0	45	17.87	439.21	80	<0.50	<0.50	2.3	0.82	<0.50	--	7.76
4/19/2007	P		457.08	24.0	45	21.09	435.99	250	1.6	<0.50	4.7	1.3	3.0	1.15	7.66
10/16/2007	NP		457.08	24.0	45	37.10	419.98	12,000	2,300	1,900	860	2,800	150	2.65	7.61
4/24/2008	NP		457.08	24.0	45	24.40	432.68	<50	<0.50	<0.50	<0.50	<0.50	4.5	4.95	7.47
10/15/2008	--		457.08	24.0	45	43.07	414.01	--	--	--	--	--	--	--	--

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
VW-1 Cont.															
4/28/2009	**NP**		**457.08**	**24.0**	**45**	**31.06**	**426.02**	**3,500**	**140**	**2.8**	**25**	**4.0**	**19**	**6.38**	**7.02**
VW-2															
8/29/2000	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
11/29/2000	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
5/2/2001	--		--	28	49.5	--	--	--	--	--	--	--	--	--	--
10/5/2001	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
1/21/2002	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
4/26/2002	--	m	--	28	49.5	--	--	--	--	--	--	--	--	--	--
10/7/2002	--	g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
05/01/2003	--	c, g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
10/03/2003	--	Well inaccessible g	--	28	49.5	--	--	--	--	--	--	--	--	--	--
04/06/2004	--		458.64	28	49.5	16.96	441.68	--	--	--	--	--	--	--	--
10/28/2004	--		458.64	28	49.5	19.35	439.29	--	--	--	--	--	--	--	--
04/13/2005	--		458.64	28	49.5	15.51	443.13	--	--	--	--	--	--	--	--
10/27/2005	--		458.64	28	49.5	18.50	440.14	--	--	--	--	--	--	--	--
04/12/2006	--		458.64	28	49.5	14.92	443.72	--	--	--	--	--	--	--	--
10/31/2006	--		458.64	28	49.5	19.01	439.63	--	--	--	--	--	--	--	--
4/19/2007	--		458.64	28	49.5	22.52	436.12	--	--	--	--	--	--	--	--
10/16/2007	--		458.64	28	49.5	38.58	420.06	--	--	--	--	--	--	--	--
4/24/2008	--		458.64	28	49.5	24.91	433.73	--	--	--	--	--	--	--	--
10/15/2008	--		458.64	28	49.5	43.31	415.33	--	--	--	--	--	--	--	--
4/28/2009	--		**458.64**	**28**	**49.5**	**32.56**	**426.08**	--	--	--	--	--	--	--	--
VW-3															
8/29/2000	P		--	15.5	24	17.93	--	25,400	3,540	10,600	1,280	43,000	44,700	--	--
11/29/2000	P	s	--	15.5	24	19.75	--	54,200	9,450	1,870	2,350	9,400	12,300/15,100	0.47	--
5/2/2001	--	k	--	15.5	24	--	--	--	--	--	--	--	--	--	--
VW-4															
8/29/2000	--	g	--	17	30	--	--	--	--	--	--	--	--	--	--
11/29/2000	P	s	--	17	30	19.45	--	37,500	4,510	206	2,100	9,030	6,770/7,880	0.42	--

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Well and Sample Date	P/NP	Comments	TOC (feet msl)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet bgs)	Water Level Elevation (feet msl)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/ TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
VW-4 Cont.															
11/29/2000	--	q, s	--	17	**30**	--	--	36,100	3,700	206	1,850	7,890	6,430/8,460	--	--
5/2/2001	--		--	17	**30**	21.66	--	--	--	--	--	--	--	--	--
8/15/2001	--		--	17	**30**	--	--	--	--	--	--	--	--	--	--
10/5/2001	--	f	--	17	**30**	--	--	--	--	--	--	--	--	--	--
1/21/2002	--	f	--	17	**30**	--	--	--	--	--	--	--	--	--	--
4/26/2002	--	f	--	17	**30**	--	--	--	--	--	--	--	--	--	--
10/7/2002	--		--	17	**30**	19.25	--	--	--	--	--	--	--	--	--
05/01/2003	--	c	--	17	**30**	17.29	--	--	--	--	--	--	--	--	--
10/03/2003	P	d, n	--	17	30	19.10	--	48,000	3,300	1,700	3,600	21,000	1,600	10.5	6.7
04/06/2004	--		456.99	17	30	18.05	438.94	--	--	--	--	--	--	--	--
10/28/2004	--		456.99	17	30	18.71	438.28	--	--	--	--	--	--	--	--
04/13/2005	--		456.99	17	30	14.62	442.37	--	--	--	--	--	--	--	--
10/27/2005	--		456.99	17	30	18.00	438.99	--	--	--	--	--	--	--	--
04/12/2006	--		456.99	17	30	14.42	442.57	--	--	--	--	--	--	--	--
10/31/2006	--		456.99	17	30	18.30	438.69	--	--	--	--	--	--	--	--
4/19/2007	--		456.99	17	30	20.91	436.08	--	--	--	--	--	--	--	--
10/16/2007	--	f	456.99	17	30	--	--	--	--	--	--	--	--	--	--
4/24/2008	--		456.99	17	30	23.40	433.59	--	--	--	--	--	--	--	--
10/15/2008	--	f	456.99	17	30	--	--	--	--	--	--	--	--	--	--
4/28/2009	--	**f**	**456.99**	**17**	**30**	--	--	--	--	--	--	--	--	--	--

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

FOOTNOTES:
a = Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
b = Chromatogram Pattern: C6-C10.
c = TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE analyzed using EPA Method 8260B beginning second quarter 2003 (05/01/03).
d = This sample was analyzed 3 days after the EPA recommended holding time. The results may still be useful for their intended purpose.
e = Well sampled annually in the fourth quarter.
f = Well dry.
g = Well inaccessible.
h = Well sampled semi-annually in second and fourth quarters.
k = Well abandoned.
m = Unable to locate well.
n = Sheen in well.
q = Duplicate sample.
r = Well removed from sampling schedule.
s = Original sample analyzed by 8021B and confirmation by 8260.
t = Bolts securing well box cover stripped at head. Unable to sample well.
u = Hydrocarbon result partly due to individ. peak(s) in quant. range.
v = pH measurement is believed to be erroneous.
w = Sample > 4x spike concentration.

NOTES:
Beginning in the second quarter 2003 (05/01/03) TPH-g and BTEX were analyzed using EPA Method 8260B, and MTBE was analyzed by EPA Method 8260B beginning in fourth quarter 2002. Prior to 05/01/03, TPH-g was analyzed by EPA Method 8015; BTEX by EPA Method 8021B (EPA method 8020 before 11/11/99); and MTBE by EPA Method 8021B. (EPA method 8020 before 11/11/99). Any MTBE detection by 8021B was confirmed by EPA Method 8260 beginning third quarter 2000 (08-29-00 results).

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.

Wells were resurveyed to NAVD '88 datum by URS Corporation on March 8, 2004.

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

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-1									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-2									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-3									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	a
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/31/2006	<300	<20	22	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-4									
10/7/2002	<400	<200	260	<5.0	<5.0	<5.0	<5.0	<5.0	
5/1/2003	<100	25	86	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	22	<1.0	<1.0	<1.0	<0.50	<0.50	a
04/06/2004	<100	<20	17	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	4.5	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	2.8	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	22	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	<300	<20	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
4/19/2007	<300	<20	<0.50	<0.50	<0.50	0.66	<0.50	<0.50	
MW-6									
10/7/2002	<40	<20	8	<0.50	<0.50	<0.50	<0.50	<0.50	
5/1/2003	<100	<20	12	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<500	<100	120	<5.0	<5.0	<5.0	<2.5	<2.5	a
04/06/2004	<5,000	<1,000	1,700	<25	<25	<25	<25	<25	
10/28/2004	<5,000	<1,000	3,100	<25	<25	<25	<25	<25	
04/13/2005	<10,000	<2,000	3,900	<50	<50	<50	<50	<50	
10/27/2005	<10,000	<2,000	2,900	<50	<50	<50	<50	<50	b
04/12/2006	<30,000	<2,000	3,400	<50	<50	<50	<50	<50	b
10/31/2006	<15,000	<1,000	3,400	<25	<25	<25	<25	<25	b

Table 2. Summary of Fuel Additives Analytical Data

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-6 Cont.									
4/19/2007	<15,000	<1,000	2,200	<25	<25	<25	<25	<25	
10/16/2007	<15,000	<1,000	2,600	<25	<25	<25	<25	<25	c (MTBE)
4/24/2008	<6,000	1,500	4,200	<10	<10	<10	<10	<10	
MW-7									
10/7/2002	<40	<20	41	<0.50	<0.50	<0.50	<0.50	<0.50	
5/1/2003	<100	<20	43	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<200	<40	49	<2.0	<2.0	<2.0	<1.0	<1.0	a
04/06/2004	<100	<20	0.76	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	1.7	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	b
04/12/2006	<300	<20	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
4/19/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/16/2007	<300	<20	24	<0.50	<0.50	<0.50	<0.50	<0.50	
4/24/2008	<300	<10	22	<0.50	<0.50	<0.50	<0.50	<0.50	
10/15/2008	<300	<10	8.2	<0.50	<0.50	<0.50	<0.50	<0.50	
4/28/2009	**<300**	**<10**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**d**
MW-8									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-9									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	a
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/16/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/15/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-10									

Table 2. Summary of Fuel Additives Analytical Data

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-10 Cont.									
10/7/2002	<40	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	a
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/16/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-11									
10/7/2002	<40	<20	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	
5/1/2003	<100	<20	--	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	3.1	<1.0	<1.0	<1.0	<0.50	<0.50	a
04/06/2004	<100	<20	14	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	29	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	3.7	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	21	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	--	--	--	--	--	--	--	--	Well inaccessible
4/19/2007	<300	<20	12	<0.50	<0.50	<0.50	<0.50	<0.50	
10/16/2007	<300	<20	6.6	<0.50	<0.50	<0.50	<0.50	<0.50	
4/24/2008	<300	<10	17	<0.50	<0.50	<0.50	<0.50	<0.50	
4/28/2009	**<300**	**<10**	**5.3**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**d**
MW-12									
04/06/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
4/19/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
4/28/2009	**<300**	**<10**	**1.4**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**d**
MW-13									
10/7/2002	<4,000	<2,000	2,800	<50	<50	<50	<50	<50	
5/1/2003	<10,000	<2,000	--	<50	<50	<50	<50	<50	

Table 2. Summary of Fuel Additives Analytical Data

Station #6113, 785 East Stanley Blvd., Livermore, CA

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
MW-13 Cont.									
10/03/2003	<10,000	<2,000	2,400	<100	<100	<100	<50	<50	a
04/06/2004	<5,000	<1,000	1,800	<25	<25	<25	<25	<25	
10/28/2004	<5,000	<1,000	1,800	<25	<25	<25	<25	<25	
04/13/2005	<5,000	<1,000	920	<25	<25	<25	<25	<25	
10/27/2005	<2,000	<400	580	<10	<10	<10	<10	<10	
04/12/2006	<6,000	<400	470	<10	<10	<10	<10	<10	b
10/31/2006	<15,000	<1,000	710	<25	<25	<25	<25	<25	b
4/19/2007	<15,000	<1,000	330	<25	<25	<25	<25	<25	
4/24/2008	<300	14	49	<0.50	<0.50	<0.50	<0.50	<0.50	
VW-1									
10/7/2002	<80	<40	--	<1.0	<1.0	<1.0	<1.0	<1.0	
5/1/2003	<100	<20	--	<0.50	<0.50	<0.50	<0.50	<0.50	
10/03/2003	<100	<20	12	<1.0	<1.0	<1.0	<0.50	<0.50	a
04/06/2004	<100	<20	13	<0.50	<0.50	<0.50	<0.50	<0.50	
10/28/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
04/13/2005	<100	<20	9.6	<0.50	<0.50	<0.50	<0.50	<0.50	
10/27/2005	<100	<20	13	<0.50	<0.50	<0.50	<0.50	<0.50	
04/12/2006	<300	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	b
10/31/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	b
4/19/2007	<300	<20	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	
10/16/2007	<15,000	<1,000	150	<25	<25	<25	<25	<25	b
4/24/2008	<300	<10	4.5	<0.50	<0.50	<0.50	<0.50	<0.50	
4/28/2009	**<300**	**<10**	**19**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**d**
VW-2									
10/03/2003	--	--	--	--	--	--	--	--	Well inaccessible
VW-4									
10/03/2003	<100,000	<20,000	1,600	<1,000	<1,000	<1,000	<500	<500	a

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

FOOTNOTES:
a = This sample was analyzed 3 days after the EPA recommended holding time. The results may still be useful for their intended purpose.
b = Calibration verification for ethanol was within method limits but outside contract limits.
c = Sample >4x spike concentration.
d = Calibrtn. verif. recov. Below method CL for TAME.

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 Ground-Water Flow Direction and Gradient

Station #6113, 785 East Stanley Blvd., Livermore, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
3/23/1995	Northwest	0.035
5/31/1995	North-Northwest	0.028
8/31/1995	North-Northwest	0.03
11/28/1995	North-Northwest	0.025
2/22/1996	North-Northwest	0.031
5/23/1996	North-Northwest	0.025
8/8/1996	North	0.019
11/7/1996	North-Northeast	0.019
3/27/1997	North-Northwest	0.021
5/19/1997	North	0.019
5/18/1998	North	0.02
11/2/1998	North	0.02
6/4/1999	North	0.02
11/11/1999	North	0.03
6/20/2000	North-Northeast	0.014
8/29/2000	North-Northeast	0.013
11/29/2000	North-Northwest	0.026
5/2/2001	Northeast	0.026
8/15/2001	Northeast	0.047
10/5/2001	Northeast	0.031
1/21/2002	Northeast	0.033
4/26/2002	Northeast	0.031
10/7/2002	Northeast	0.017
5/1/2003	North-Northeast	0.011
10/3/2003	North-Northeast	0.016
4/6/2004	North-Northeast	0.013
10/28/2004	North-Northeast	0.014
4/13/2005	North-Northwest	0.02
10/27/2005	North-Northwest	0.01 to 0.03
4/12/2006	Northeast	0.01
10/31/2006	Northeast	0.014
4/19/2007	Northeast	0.013
10/16/2007	Northeast	0.031
4/24/2008	North-Northwest	0.013
10/15/2008	Northeast	0.070
4/28/2009	**Northeast**	**0.008**

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

APPENDIX A

STRATUS EVIRONMENTAL, INC. GROUNDWATER SAMPLING DATA PACKAGE (INCLUDES FIELD DATA SHEETS, NON-HAZARDOUS WASTE DATA FORM, CHAIN OF CUSTODY DOCUMENTATION, CERTIFIED ANALYTICAL RESULTS, AND FIELD PROCEDURES FOR GROUNDWATER SAMPLING)

STRATUS
ENVIRONMENTAL, INC.

3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

May 5, 2009

Mr. Rob Miller
Broadbent & Associates, Inc.
2000 Kirman Avenue
Reno, NV 89502

Re: Groundwater Sampling Data Package, Arco Service Station No. 6113, located at 785 E. Stanley, Livermore, California.

General Information

Data Submittal Prepared / Reviewed by: Carol Huff / Jay Johnson
Phone Number: (530) 676-6000
On-Site Supplier Representatives: Greg Wilkins

Sample Date: April 28, 2009

Unusual Field Conditions: None noted.

Scope of Work Performed: Quarterly monitoring and sampling.

Variations from Work Scope: Well MW-4 was dry.

This submittal presents the data collected in association with routine groundwater monitoring. The attachments include field data sheets, non-hazardous waste data form, chain of custody documentation, certified analytical results, and field procedures for groundwater sampling documentation. The information is being provided to BP-ARCO's Scoping Supplier for use in preparing a report for regulatory submittal. This submittal is limited to presentation of collected data and does not include data interpretation or conclusions or recommendations.

Any questions concerning this submittal should be addressed to the Preparer/Reviewer identified above.

Sincerely,

STRATUS ENVIRONMENTAL, INC.

Jay R. Johnson, P.G.
Project Manager

Attachments:

- Field Data Sheets
- Non-Hazardous Waste Data Form
- Chain of Custody Documentation
- Certified Analytical Results
- Field Procedures for Groundwater Sampling

CC: Mr. Paul Supple, BP/ARCO

STRATUS ENVIRONMENTAL, INC.

Site Address 785 E. Stanley Blvd
City Livermore CA
Sampled by: C. Williams / K. Zalotta
Signature [signature] ORIGINAL

Site Number ARCO 6113
Project Number E6113
Project PM J. Johnson
DATE 04-28-09

onsite 0501 off 0800

Water Level Data					Purge Volume Calculations					Purge Method				Sample Record			Field Data
Well ID	Time	Depth to ~~Product~~ Screen (feet)	Depth to Water (feet)	Total Depth (feet)	Water column (feet)	Diameter (inches)	Multiplier	3 casing volumes (gallons)	Actual water purged (gallons)	No Purge	Bailer	Pump	other	DTW at sample time (feet)	Sample I.D	Sample Time	DO (mg/L)
MW-2	0606		33.30	38.44						X							
MW-4	0618	21.00	DRY	26.55	DRY	4	2	N/A	N/A	X				N/A	MW-4	N/A	N/A
MW-7		48.00	32.13	~~67.42~~ 32.21	35.29	4	2	70.58	71			X		~~N/A~~ 32.21	MW-7	0747	3.78
MW-9	0655	N/A	32.61	67.78						X							
MW-11	0510	38.00	32.85	44.30	11.45	2	.5	5.73	6	~~X~~	X			34.80	MW-11	0553	5.89
MW-12	0515	18.00	32.21	33.70	Below Screen	2	.5	N/A	N/A	X				32.21	MW-12	0525	7.68
VW-1	0636	24.00	31.06	43.79	Below Screen	4	2	N/A	N/A	X				31.06	VW-1	0645	6.38
VW-2	0612	N/A	32.56	49.80						X							
VW-4	0633	N/A	DRY	24.63						X							
TB6113042820 09																0512	

Multiplier
2" = 0.5 3" = 1.0 4" = 2.0 6" = 4.4

Please refer to groundwater sampling field procedures
pH/Conductivity/temperature Meter - Oakton Model PC-10
DO Meter - Oakton 300 Series (DO is always measured before purge)

CALIBRATION DATE
pH 04-24-09
Conductivity
DO

T:\Forms

STRATUS
ENVIRONMENTAL, INC.

Site Address 785 E. Stanley Blvd
City Livermore CA
Site Sampled by GW/VZ

ORIGINAL

Site Number ARCO 6113
Project No. E6113
Project PM J. Johnson
Date Sampled 04-28-09

Well ID MW-4				
purge start time DRY				
	Temp C	pH	cond	gallons
time				
time				
time				
time				
purge stop time				

Well ID MW-7				0747
purge start time 0710				Odor
	Temp C	pH	cond	gallons
time	16.7	7.03	120.4	0
time	17.3	7.32	117.6	35
time	17.7	6.93	122.8	71
time				
pugre stop time 0737				

Well ID MW-11				0553
purge start time Bailer				No Odor
	Temp C	pH	cond	gallons
time	16.1	6.91	119.5	0
time	17.7	6.92	119.5	3
time	16.6	7.23	113.0	6
time				
purge stop time				

Well ID MW-12				0525
purge start time Bailer				No Odor
	Temp C	pH	cond	gallons
time	16.3	6.63	140.1	0
time				
time				
time				
purge stop time No Purge - Below Screen				

Well ID V-1				0645
purge start time Bailer				No Odor
	Temp C	pH	cond	gallons
time	16.5	7.02	122.7	0
time				
time				
time				
purge stop time Below Screen - No Purge				

Well ID				
purge start time				
	Temp C	pH	cond	gallons
time				
time				
time				
time				
purge stop time				

Well ID				
purge start time				
	Temp C	pH	cond	gallons
time				
time				
time				
time				
purge stop time				

Well ID				
purge start time				
	Temp C	pH	cond	gallons
time				
time				
time				
time				
purge stop time				

WELLHEAD OBSERVATION FORM

STRATUS ENVIRONMENTAL, INC

Site Name/Number: ARCO 6113 *Date:* 04-28-09 *Technician:* GW/VZ

Well I.D.	Box in Good Condition? X = Yes Blank = No	Lock Missing? X = Yes (replaced) Blank = No	Water in Wellbox? X = Yes Blank = No	Water Level Relative to Cap? A = Above cap B = Below cap L = Level w/cap	Well Cap? I = Intact M = Missing or Compromised (replaced)	Bolts Missing? X = Yes Blank = No	Bolts Stripped? X = Yes Blank = No	Bolt Holes Stripped? X = Yes Blank = No	Cracked or Broken Lid? X = Yes Blank = No	Cracked or Broken Box? X = Yes Blank = No	Grout Level more than 1ft below TOC? X = Yes Blank = No	Additional Comments (such as missing bolt, reason no grade replacement, number replaced)
MW-2	X											
MW-4	X						2	2				
MW-7												
MW-9												
MW-11	X											
MW-12			X	A								
VW-1												
VW-2												
VW-3												Broken Hinges

DRUM INVENTORY

Drums on site? Yes No (circle)

Type and # Steel: _____ Plastic: _____

Note whether drums are full or empty, solids or liquids:

Drum label info (description, date, contact info):

GENERAL SITE CONDITIONS

Make notes on housekeeping conditions (such as trash around remediation system enclosure/compound, bent or missing bollards, signs missing from compound fences, graffiti on compound, etc.)

NO. 673988

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

SITE:

EPA I.D. NO. NOT REQUIRED

NAME BP WEST COAST PRODUCTS LLC ARCO # [illegible]

PROFILE NO.

ADDRESS P.O. BOX 80249
RANCHO SANTA MARGARITA

CITY, STATE, ZIP CA 92688

PHONE NO. ( )

CONTAINERS: No. _____ VOLUME 22 gal WEIGHT _____

TYPE: ☐ TANK TRUCK ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION NON-HAZARDOUS WATER GENERATING PROCESS WELL PURGING/DECON WATER

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. WATER	99-100%		5.		
2. TPH	<1%		6.		
3.			7. BESI#		
4.			8.		

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

HANDLING INSTRUCTIONS: WEAR ALL APPROPRIATE PROTECTIVE CLOTHING

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Larry Moothart BEST for BP _____

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

Transporter #1 Transporter #2

NAME STRATUS ENVIRONMENTAL

EPA I.D. NO.

ADDRESS 3330 CAMERON PARK DR

SERVICE ORDER NO. _____

CITY, STATE, ZIP CAMERON PARK, CA 95682

PICK UP DATE _____

PHONE NO. 530-676-2001

TRUCK, UNIT, I.D. NO. _____

[signature] _____

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME INSTRAT, INC

EPA I.D. NO.

DISPOSAL METHOD

ADDRESS 1105 AIRPORT RD #C

☐ LANDFILL ☐ OTHER _____

CITY, STATE, ZIP RIO VISTA, CA 94571

PHONE NO. 530-752-1629

_____

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	TONS	
TRANS		S B		
C/Q		RT/CD	HWDF NONE	DISCREPANCY

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

Page 1 of 1

BP/ARC Project Name: ARCO 6113
BP/ARC Facility No: 6113
Req Due Date (mm/dd/yy): 5da TAT
Rush TAT: Yes ___ No X
Lab Work Order Number:

ORIGINAL

Lab Name:	Cal Science
Lab Address:	7440 Lincoln Way
Lab PM:	Richard Villafania
Lab Phone:	714-895-5494 / 714-895-7501 (fax)
Lab Shipping Accnt:	
Lab Bottle Order No:	
Other Info:	
BP/ARC EBM:	Paul Supple
EBM Phone:	925-275-3506
EBM Email:	paul.supple@bp.com

BP/ARC Facility Address:	785 Stanley Boulevard
City, State, ZIP Code:	Livermore, CA
Lead Regulatory Agency:	Alameda County
California Global ID No.:	T0600100111
Enfos Proposal No:	000TS-0004
Accounting Mode:	Provision X OOC-BU ___ OOC-RM ___
Stage:	Activity:

Consultant/Contractor:	Stratus Environmental
Consultant/Contractor Project No:	E6113-QM/O&M
Address:	3330 Cameron Park Dr., Cameron Park, CA 95682
Consultant/Contractor PM:	Jay Johnson
Phone:	530-676-6000 / 530-676-6005 (fax)
Email EDD To:	chuff@stratusinc.net
Invoice To:	BP/ARC ___ Contractor ___

Lab No.	Sample Description	Date 2009	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol	Requested Analyses: GRO by 8015M	* BTEX	* Oxy's	* EDB	* 1,2DCA	* Ethanol
	MW-7	04/28	0747		X		6				X		X	X	X	X	X	X
	MW-11	"	0553		"		"				"		"	"	"	"	"	"
	MW-12	"	0525		"		"				"		"	"	"	"	"	"
	VW-1	"	0645		"		"				"		"	"	"	"	"	"
	TB61304282009	04/28	0512		X		2				X							

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.

* All by 8260B

ON HOLD

Sampler's Name:	G. Wilkins / V. Zalutka
Sampler's Company:	Stratus
Shipment Method:	Car
Ship Date:	04-28-09
Shipment Tracking No:	

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
	042809	1500			

Special Instructions: Please cc results to bpedf@broadbentinc.com

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

Calscience
Environmental
Laboratories, Inc.

May 08, 2009

Jay Johnson
Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Subject: **Calscience Work Order No.: 09-04-2553**
Client Reference: ARCO 6113

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 4/29/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. 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

Stratus Environmental, inc.	Date Received:	04/29/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-04-2553
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: ARCO 6113

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**09-04-2553-1-E**	**04/28/09 07:47**	**Aqueous**	**GC 4**	**04/30/09**	**05/01/09 22:45**	**090430B02**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	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
MW-11	**09-04-2553-2-E**	**04/28/09 05:53**	**Aqueous**	**GC 4**	**04/30/09**	**05/01/09 23:19**	**090430B02**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	107	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-12	**09-04-2553-3-E**	**04/28/09 05:25**	**Aqueous**	**GC 4**	**05/01/09**	**05/02/09 04:49**	**090501B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	110	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW-1	**09-04-2553-4-E**	**04/28/09 06:45**	**Aqueous**	**GC 4**	**05/01/09**	**05/02/09 02:37**	**090501B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	3500	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	130	38-134			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	04/29/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-04-2553
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8015B (M)

Project: ARCO 6113

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-523**	**N/A**	**Aqueous**	**GC 4**	**04/30/09**	**05/01/09 09:51**	**090430B02**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	82	38-134			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-695-524**	**N/A**	**Aqueous**	**GC 4**	**05/01/09**	**05/02/09 02:04**	**090501B01**

Parameter	Result	RL	DF	Qual	Units
Gasoline Range Organics (C6-C12)	ND	50	1		ug/L
Surrogates:	REC (%)	Control Limits		Qual	
1,4-Bromofluorobenzene	84	38-134			

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: 04/29/09
Work Order No: 09-04-2553
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/L

Project: ARCO 6113

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	**09-04-2553-1-A**	**04/28/09 07:47**	**Aqueous**	**GC/MS Z**	**05/05/09**	**05/05/09 20:21**	**090505L01**

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	IH
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	104	73-145			Dibromofluoromethane	119	81-135		
Toluene-d8	101	83-119			1,4-Bromofluorobenzene	93	74-110		

MW-11	**09-04-2553-2-A**	**04/28/09 05:53**	**Aqueous**	**GC/MS Z**	**05/05/09**	**05/05/09 20:49**	**090505L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	5.3	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	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	IH
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	102	73-145			Dibromofluoromethane	117	81-135		
Toluene-d8	100	83-119			1,4-Bromofluorobenzene	93	74-110		

MW-12	**09-04-2553-3-A**	**04/28/09 05:25**	**Aqueous**	**GC/MS Z**	**05/05/09**	**05/05/09 21:17**	**090505L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	1.4	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	IH
Xylenes (total)	ND	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	103	73-145			Dibromofluoromethane	113	81-135		
Toluene-d8	103	83-119			1,4-Bromofluorobenzene	93	74-110		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	04/29/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-04-2553
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	ug/L
Project: ARCO 6113		Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW-1	**09-04-2553-4-A**	**04/28/09 06:45**	**Aqueous**	**GC/MS Z**	**05/05/09**	**05/06/09 00:59**	**090505L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	140	5.0	10		Methyl-t-Butyl Ether (MTBE)	19	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	25	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
Toluene	2.8	0.50	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	IH
Xylenes (total)	4.0	0.50	1		Ethanol	ND	300	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
1,2-Dichloroethane-d4	101	73-145			Dibromofluoromethane	119	81-135		
Toluene-d8	104	83-119			1,4-Bromofluorobenzene	97	74-110		

Method Blank	**099-12-703-860**	**N/A**	**Aqueous**	**GC/MS Z**	**05/05/09**	**05/05/09 12:29**	**090505L01**

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	97	73-145			Dibromofluoromethane	108	81-135		
Toluene-d8	100	83-119			1,4-Bromofluorobenzene	94	74-110		

Method Blank	**099-12-703-862**	**N/A**	**Aqueous**	**GC/MS Z**	**05/05/09**	**05/06/09 00:31**	**090505L02**

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	103	73-145			Dibromofluoromethane	106	81-135		
Toluene-d8	100	83-119			1,4-Bromofluorobenzene	92	74-110		

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Stratus Environmental, inc.	Date Received:	04/29/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-04-2553
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B
	Units:	ug/L
Project: ARCO 6113		Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-703-863**	**N/A**	**Aqueous**	**GC/MS Z**	**05/06/09**	**05/06/09 11:55**	**090506L01**

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	102	73-145			Dibromofluoromethane	113	81-135		
Toluene-d8	102	83-119			1,4-Bromofluorobenzene	93	74-110		

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	04/29/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-04-2553
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-04-2429-10	**Aqueous**	**GC 4**	**04/30/09**	**05/01/09**	**090430S02**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	94	86	38-134	9	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.		Date Received:	04/29/09
3330 Cameron Park Drive, Suite 550		Work Order No:	09-04-2553
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
VW-1	**Aqueous**	**GC 4**	**05/01/09**	**05/02/09**	**090501S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	81	85	38-134	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.	Date Received:	04/29/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-04-2553
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B

Project ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-04-2446-1	**Aqueous**	**GC/MS Z**	**05/05/09**	**05/05/09**	**090505S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	94	94	86-122	1	0-8	
Carbon Tetrachloride	114	112	78-138	1	0-9	
Chlorobenzene	96	95	90-120	1	0-9	
1,2-Dibromoethane	92	94	70-130	3	0-30	
1,2-Dichlorobenzene	95	96	89-119	1	0-10	
1,1-Dichloroethene	94	91	52-142	4	0-23	
Ethylbenzene	94	93	70-130	1	0-30	
Toluene	95	94	85-127	0	0-12	
Trichloroethene	91	90	78-126	1	0-10	
Vinyl Chloride	100	96	56-140	4	0-21	
Methyl-t-Butyl Ether (MTBE)	83	87	64-136	4	0-28	
Tert-Butyl Alcohol (TBA)	96	89	27-183	8	0-60	
Diisopropyl Ether (DIPE)	109	81	78-126	29	0-16	BA,AY
Ethyl-t-Butyl Ether (ETBE)	108	83	67-133	27	0-21	BA,AY
Tert-Amyl-Methyl Ether (TAME)	75	78	63-141	3	0-21	
Ethanol	107	110	11-167	3	0-64	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.	Date Received:	04/29/09
3330 Cameron Park Drive, Suite 550	Work Order No:	09-04-2553
Cameron Park, CA 95682-8861	Preparation:	EPA 5030B
	Method:	EPA 8260B

Project ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-05-0194-1	Aqueous	GC/MS Z	05/05/09	05/06/09	090505S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	96	93	86-122	3	0-8	
Carbon Tetrachloride	113	113	78-138	0	0-9	
Chlorobenzene	96	95	90-120	0	0-9	
1,2-Dibromoethane	96	95	70-130	2	0-30	
1,2-Dichlorobenzene	96	94	89-119	2	0-10	
1,1-Dichloroethene	94	93	52-142	1	0-23	
Ethylbenzene	93	93	70-130	0	0-30	
Toluene	94	93	85-127	1	0-12	
Trichloroethene	91	88	78-126	3	0-10	
Vinyl Chloride	101	97	56-140	4	0-21	
Methyl-t-Butyl Ether (MTBE)	95	92	64-136	4	0-28	
Tert-Butyl Alcohol (TBA)	99	87	27-183	13	0-60	
Diisopropyl Ether (DIPE)	87	86	78-126	1	0-16	
Ethyl-t-Butyl Ether (ETBE)	89	114	67-133	25	0-21	BA,AY
Tert-Amyl-Methyl Ether (TAME)	80	78	63-141	3	0-21	
Ethanol	101	84	11-167	19	0-64	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Stratus Environmental, inc.	Date Received: 04/29/09
3330 Cameron Park Drive, Suite 550	Work Order No: 09-04-2553
Cameron Park, CA 95682-8861	Preparation: EPA 5030B
	Method: EPA 8260B

Project ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
09-04-2669-7	**Aqueous**	**GC/MS Z**	**05/06/09**	**05/06/09**	**090506S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	94	93	86-122	0	0-8	
Carbon Tetrachloride	112	110	78-138	2	0-9	
Chlorobenzene	95	95	90-120	1	0-9	
1,2-Dibromoethane	95	95	70-130	1	0-30	
1,2-Dichlorobenzene	94	94	89-119	1	0-10	
1,1-Dichloroethene	91	90	52-142	1	0-23	
Ethylbenzene	93	93	70-130	0	0-30	
Toluene	94	95	85-127	1	0-12	
Trichloroethene	89	90	78-126	2	0-10	
Vinyl Chloride	100	102	56-140	2	0-21	
Methyl-t-Butyl Ether (MTBE)	91	88	64-136	3	0-28	
Tert-Butyl Alcohol (TBA)	87	84	27-183	4	0-60	
Diisopropyl Ether (DIPE)	83	82	78-126	2	0-16	
Ethyl-t-Butyl Ether (ETBE)	112	111	67-133	1	0-21	
Tert-Amyl-Methyl Ether (TAME)	78	78	63-141	0	0-21	
Ethanol	103	83	11-167	22	0-64	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.
3330 Cameron Park Drive, Suite 550
Cameron Park, CA 95682-8861

Date Received: N/A
Work Order No: 09-04-2553
Preparation: EPA 5030B
Method: EPA 8015B (M)

Project: ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-523	Aqueous	GC 4	04/30/09	05/01/09	090430B02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	104	106	78-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.		Date Received:	N/A
3330 Cameron Park Drive, Suite 550		Work Order No:	09-04-2553
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8015B (M)

Project: ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-695-524	**Aqueous**	**GC 4**	**05/01/09**	**05/02/09**	**090501B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Gasoline Range Organics (C6-C12)	110	113	78-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Stratus Environmental, inc.		Date Received:	N/A
3330 Cameron Park Drive, Suite 550		Work Order No:	09-04-2553
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-860	Aqueous	GC/MS Z	05/05/09	05/05/09	090505L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	93	92	87-117	82-122	1	0-7	
Carbon Tetrachloride	111	115	78-132	69-141	3	0-8	
Chlorobenzene	96	95	88-118	83-123	1	0-8	
1,2-Dibromoethane	94	91	80-120	73-127	3	0-20	
1,2-Dichlorobenzene	93	92	88-118	83-123	1	0-8	
1,1-Dichloroethene	92	95	71-131	61-141	4	0-14	
Ethylbenzene	94	93	80-120	73-127	1	0-20	
Toluene	93	94	85-127	78-134	1	0-7	
Trichloroethene	91	91	85-121	79-127	0	0-11	
Vinyl Chloride	102	103	64-136	52-148	1	0-10	
Methyl-t-Butyl Ether (MTBE)	85	87	67-133	56-144	2	0-16	
Tert-Butyl Alcohol (TBA)	82	87	34-154	14-174	6	0-19	
Diisopropyl Ether (DIPE)	115	118	80-122	73-129	3	0-8	
Ethyl-t-Butyl Ether (ETBE)	107	111	73-127	64-136	3	0-11	
Tert-Amyl-Methyl Ether (TAME)	74	75	69-135	58-146	1	0-12	
Ethanol	108	104	34-124	19-139	4	0-44	

Total number of LCS compounds : 16
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

Stratus Environmental, inc.		Date Received:	N/A
3330 Cameron Park Drive, Suite 550		Work Order No:	09-04-2553
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-703-862	**Aqueous**	**GC/MS Z**	**05/05/09**	**05/05/09**	**090505L02**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	95	93	87-117	82-122	2	0-7	
Carbon Tetrachloride	116	113	78-132	69-141	2	0-8	
Chlorobenzene	95	94	88-118	83-123	1	0-8	
1,2-Dibromoethane	98	94	80-120	73-127	4	0-20	
1,2-Dichlorobenzene	95	95	88-118	83-123	1	0-8	
1,1-Dichloroethene	96	92	71-131	61-141	4	0-14	
Ethylbenzene	94	94	80-120	73-127	0	0-20	
Toluene	94	94	85-127	78-134	0	0-7	
Trichloroethene	101	98	85-121	79-127	4	0-11	
Vinyl Chloride	99	100	64-136	52-148	0	0-10	
Methyl-t-Butyl Ether (MTBE)	92	86	67-133	56-144	6	0-16	
Tert-Butyl Alcohol (TBA)	93	89	34-154	14-174	4	0-19	
Diisopropyl Ether (DIPE)	84	83	80-122	73-129	1	0-8	
Ethyl-t-Butyl Ether (ETBE)	113	112	73-127	64-136	1	0-11	
Tert-Amyl-Methyl Ether (TAME)	79	79	69-135	58-146	0	0-12	
Ethanol	95	117	34-124	19-139	20	0-44	

Total number of LCS compounds : 16
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

Stratus Environmental, inc.		Date Received:	N/A
3330 Cameron Park Drive, Suite 550		Work Order No:	09-04-2553
Cameron Park, CA 95682-8861		Preparation:	EPA 5030B
		Method:	EPA 8260B

Project: ARCO 6113

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number	
099-12-703-863	Aqueous	GC/MS Z	05/06/09	05/06/09	090506L01	

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	93	95	87-117	82-122	3	0-7	
Carbon Tetrachloride	113	114	78-132	69-141	1	0-8	
Chlorobenzene	94	95	88-118	83-123	1	0-8	
1,2-Dibromoethane	95	100	80-120	73-127	5	0-20	
1,2-Dichlorobenzene	89	95	88-118	83-123	6	0-8	
1,1-Dichloroethene	94	93	71-131	61-141	1	0-14	
Ethylbenzene	93	94	80-120	73-127	2	0-20	
Toluene	93	95	85-127	78-134	2	0-7	
Trichloroethene	91	92	85-121	79-127	2	0-11	
Vinyl Chloride	103	107	64-136	52-148	4	0-10	
Methyl-t-Butyl Ether (MTBE)	88	92	67-133	56-144	4	0-16	
Tert-Butyl Alcohol (TBA)	87	90	34-154	14-174	3	0-19	
Diisopropyl Ether (DIPE)	79	81	80-122	73-129	3	0-8	LR
Ethyl-t-Butyl Ether (ETBE)	107	109	73-127	64-136	1	0-11	
Tert-Amyl-Methyl Ether (TAME)	75	78	69-135	58-146	4	0-12	
Ethanol	98	113	34-124	19-139	13	0-44	

Total number of LCS compounds : 16
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: 09-04-2553

Qualifier	Definition
AX	Sample too dilute to quantify surrogate.
AZ	Surrogate recovery outside of acceptance limits due to matrix interference.
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.
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.
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.

Work Order Number: 09-04-2553

Qualifier	Definition
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.
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.

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

2553

Page 1 of 1

BP/ARC Project Name: ARCO 6113
BP/ARC Facility No: 6113
Req Due Date (mm/dd/yy): Std TAT
Rush TAT: Yes ___ No X
Lab Work Order Number:

Lab Name: Cal Science	BP/ARC Facility Address: 785 Stanley Boulevard	Consultant/Contractor: Stratus Environmental
Lab Address: 7440 Lincoln Way	City, State, ZIP Code: Livermore, CA	Consultant/Contractor Project No: E6113-QM/O&M
Lab PM: Richard Villafania	Lead Regulatory Agency: Alameda County	Address: 3330 Cameron Park Dr., Cameron Park, CA 95682
Lab Phone: 714-895-5494 / 714-895-7501 (fax)	California Global ID No.: T0600100111	Consultant/Contractor PM: Jay Johnson
Lab Shipping Accnt:	Enfos Proposal No: 000TS-0004	Phone: 530-676-6000 / 530-676-6005 (fax)
Lab Bottle Order No:	Accounting Mode: Provision X OOC-BU ___ OOC-RM ___	Email EDD To: chuff@stratusinc.net
Other Info:	Stage: Activity:	Invoice To: BP/ARC ___ Contractor ___
BP/ARC EBM: Paul Supple		
EBM Phone: 925-275-3506		
EBM Email: paul.supple@bp.com		

Lab No.	Sample Description	Date 2009	Time	Matrix: Soil / Solid	Matrix: Water / Liquid	Matrix: Air / Vapor	No. Containers / Preservative: Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol	Requested Analyses: GRO by 8015M	* BTEX	* 8oxy's	* EDB	* 1,2DCA	* Ethanol
1	MW-7	04/28	0747		X		6				X		X	X	X	X	X	X
2	MW-11	"	0553		"		"				"		"	"	"	"	"	"
3	MW-12	"	0525		"		"				"		"	"	"	"	"	"
4	VW-1	"	0645		"		"				"		"	"	"	"	"	"
5	TB61304282009	04/28	0512		X		2			~~X~~	X		X	X	X	X	X	X

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.

* All by 8260B

ON HOLD

Sampler's Name: G. Wilkins / V. Zalutka	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company: Stratus						
Shipment Method: GSO Ship Date: 04-28-09		042809	1500			
Shipment Tracking No: 925550219 9						
					4/29/09	1030

Special Instructions: Please cc results to bpedf@broadbentinc.com

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

BP/ARC LaMP COC Rev. 6 01/01/2009

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 09-04- 2 5 5 3

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Stratus

DATE: 4/29/09

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

Temperature 2.9 °C - 0.2 °C (CF) = 2.7 °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 ☐ Metals Only ☐ PCBs Only Initial: JP

CUSTODY SEALS INTACT:

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

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

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.			
☐ COC not relinquished. ☐ No date relinquished. ☐ No time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Correct containers and volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
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** ☐100PB ☐100PB**na_2** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® ☐_____ **Other:** ☐_____ **Checked/Labeled by:** PS

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar (Wide-mouth) B: Bottle (Narrow-mouth) **Reviewed by:** RN

Preservative: h: HCL n: HNO3 **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:** PS

ATTACHMENT

FIELD PROCEDURES FOR GROUNDWATER SAMPLING

The sampling procedures for groundwater monitoring events are contained in this appendix.

Groundwater and Liquid-Phase Petroleum Hydrocarbon Depth Assessment

Prior to measuring the depth to liquid in the well, the well caps are removed and the liquid level allowed to stabilize. A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the groundwater depth in monitoring wells that do not contain LPH. Depth to groundwater or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typically a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

Subjective Analysis of Groundwater

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

Monitoring Well Sampling

In many cases, determining whether to purge or not to purge wells prior to sample collection is made in the field and is often based on depth to water relative to the screen interval of the well. Site-specific field data sheets present details associated with the purge method and equipment used.

Monitoring wells, when purged, use a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water has been removed. Field measuring equipment is calibrated and maintained according to the manufacturer's instructions. If three well volumes cannot be removed in one half hour's time the well is allowed to recharge to 80% of original level. After recharging, a groundwater sample is then collected from each of the wells using disposable bailers.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These

bottles will be filled completely to prevent air accumulation in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Groundwater Sample Labeling and Preservation

Samples are collected in appropriate containers supplied by the laboratory. All required chemical preservation is added to the bottles prior to delivery to Stratus. Sample label information includes a unique sample identification number, job identification number, date, and time. After labeling, all groundwater samples are placed in a Ziploc® type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip and temperature blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

Equipment Cleaning

All reusable sampling equipments are cleaned using phosphate-free detergents and rinsed with de-ionized water.

APPENDIX B

GEOTRACKER UPLOAD CONFIRMATION

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:	**2Q09 GW Monitoring**
Facility Global ID:	**T0600100111**
Facility Name:	**ARCO #06113**
File Name:	**09042553.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**6/15/2009 11:19:55 AM**
Confirmation Number:	**5881432652**

VIEW QC REPORT

VIEW DETECTIONS REPORT

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:	**2Q09 GEO_WELL 6113**
Facility Global ID:	**T0600100111**
Facility Name:	**ARCO #06113**
File Name:	**GEO_WELL.zip**
Organization Name:	**Broadbent & Associates, Inc.**
Username:	**BROADBENT-C**
IP Address:	**67.118.40.90**
Submittal Date/Time:	**6/15/2009 11:18:31 AM**
Confirmation Number:	**4968621671**