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Alameda County  
Environmental Health

ARCADIS U.S., Inc.  
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San Francisco, California 94105  
Tel 415.374.2744  
Fax 415.374.2745  
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Re: Fourth Quarter 2009 Ground-Water Monitoring Report  
Atlantic Richfield Company Station #6041  
7249 Village Parkway  
Dublin, California  
ACEH Case #RO0000452

ENVIRONMENTAL

"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:  
ARCADIS U.S., Inc.

Hollis E. Phillips, PG  
Project Manager

Date:  
01/28/2010

Contact:  
Hollis E. Phillips

Phone:  
415.374.2744 ext 13

Email:  
Hollis.phillips@arcadis-us.com

Our ref:  
GP09BPNA.C039

**Fourth Quarter 2009 Ground-Water Monitoring Report**  
Atlantic Richfield Company Station #6041  
7249 Village Parkway  
Dublin, California

Prepared for

Ms. Hollis Phillips, PG  
Senior Geologist  
ARCADIS-US, Inc.  
100 Montgomery Street, Ste. 300  
San Francisco, California 94104

Prepared by



1324 Mangrove Avenue, Suite 212  
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January 2010

Project No. 09-88-635

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



January 28, 2010

Project No. 09-88-635

ARCADIS-US, Inc.  
100 Montgomery Street, Ste. 300  
San Francisco, CA 94104

Attn.: Ms. Hollis Phillips, PG – Senior Geologist

Re: Fourth Quarter 2009 Ground-Water Monitoring Report, Atlantic Richfield Company (a BP affiliated company) Station #6041, 7249 Village Parkway, Dublin, CA. ACEH case # RO0000452.

Dear Ms. Phillips:

Provided herein is the *Fourth Quarter 2009 Ground-Water Monitoring Report* for Atlantic Richfield Company Station #6041 (herein referred to as Station #6041) located at 7249 Village Parkway, Dublin, CA (Property). This report presents a summary of Fourth Quarter 2009 ground-water monitoring results.

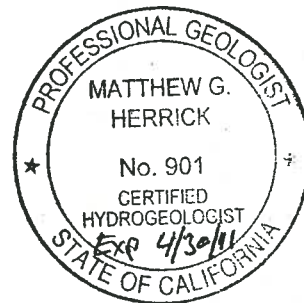
Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Jason Duda  
Project Scientist

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



Enclosures

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

## STATION #6041 GROUND-WATER MONITORING REPORT

Facility: #6041	Address:	7249 Village Parkway, Dublin, CA
ARCADIS Project Manager:		Ms. Hollis Phillips, PG
Consulting Co./Contact Persons:		Broadbent & Associates, Inc. (BAI) / Matt Herrick & Jason Duda
Primary Agency/Regulatory ID No.:		Alameda County Environmental Health (ACEH) / Case #RO0000452
Consultant Project No.:		09-88-635
Facility Permits/Permitting Agency.:		NA

### WORK PERFORMED THIS QUARTER (Fourth Quarter 2009):

1. Submitted Third Quarter, 2009 Status Report. Report completed by BAI.
2. Conducted ground-water monitoring/sampling for Fourth Quarter 2009. Work performed by BAI.

### WORK PROPOSED FOR NEXT QUARTER (First Quarter, 2010):

1. Submit Fourth Quarter 2009 Ground-Water Monitoring Report (contained herein).
2. No environmental work activities are scheduled to be completed at the Site during First Quarter 2010.

### QUARTERLY RESULTS SUMMARY:

Current phase of project:	<b>Ground-water monitoring/sampling</b>
Frequency of ground-water sampling:	<b>Wells MW-2, MW-3, and MW-8: Semi-annually (2Q &amp; 4Q)</b> <b>Wells MW-4 through MW-6: Annually (4Q)</b>
Frequency of ground-water monitoring:	<b>Semi-annually (2Q &amp; 4Q)</b>
Is free product (FP) present on-site:	<b>No</b>
Bulk Soil Removed to Date:	<b>3,208 cubic yards</b>
Current remediation techniques:	<b>NA</b>
Depth to ground water (below TOC):	<b>7.12 (MW-4) to 9.36 (MW-5) feet</b>
General ground-water flow direction:	<b>Northeast</b>
Approximate hydraulic gradient:	<b>0.006 Feet per foot</b>

### DISCUSSION:

Gasoline range organics (GRO) were detected in wells MW-3 and MW-8 at concentrations of 330 micrograms per liter ( $\mu\text{g/L}$ ) and 420  $\mu\text{g/L}$ , respectively. Benzene was detected in well MW-3 at a concentration of 11  $\mu\text{g/L}$ . Toluene was detected in wells MW-3 and MW-4 at concentrations of 3.5  $\mu\text{g/L}$  and 0.57  $\mu\text{g/L}$ , respectively. Methyl tert-butyl ether (MTBE) was detected in wells MW-2, MW-3, MW-4, MW-5 and MW-8 at concentrations ranging from 0.90  $\mu\text{g/L}$  in well MW-2 to 38  $\mu\text{g/L}$  in well MW-3. Tert-butyl alcohol (TBA) was detected in wells MW-2, MW-3 and MW-8 at concentrations of 6.6  $\mu\text{g/L}$ , 1,600  $\mu\text{g/L}$  and 1,300  $\mu\text{g/L}$ , respectively. No other analytes were detected in ground-water samples collected during Fourth Quarter 2009.

Drawing 1 depicts a site location map. Drawing 2 shows the ground-water elevation contour and analytical summary map for Fourth Quarter 2009. Table 1 includes a summary of ground-water monitoring data including relative ground-water elevations and laboratory analyses. Table 2 provides a

summary of fuel additives analytical data. Table 3 presents historical ground-water flow direction and gradient.

### **CONSLUSION AND RECOMMENDATION:**

Overall results of Fourth Quarter 2009 ground-water sampling activities indicate a slight increase in hydrocarbon concentrations in wells MW-3 and MW-8 compared to the results obtained during the previous sampling event. Analytes detected during Fourth Quarter 2009 were within historic minimum and maximum concentration ranges recorded for each well, with the following exception: TBA in well MW-2 is the lowest concentration historically detected in the well. Ground-water elevations measured during Fourth Quarter 2009 were within historic minimum and maximum ranges for each well, as summarized in Table 1. Water level elevations yielded a potentiometric ground-water flow direction and gradient to the northeast at approximately 0.006 ft/ft, consistent with historical data (see Table 3). No environmental work is currently scheduled to be conducted at the Site during the First Quarter of 2010. The next semi-annual ground-water monitoring and sampling will be conducted during the Second Quarter of 2010.

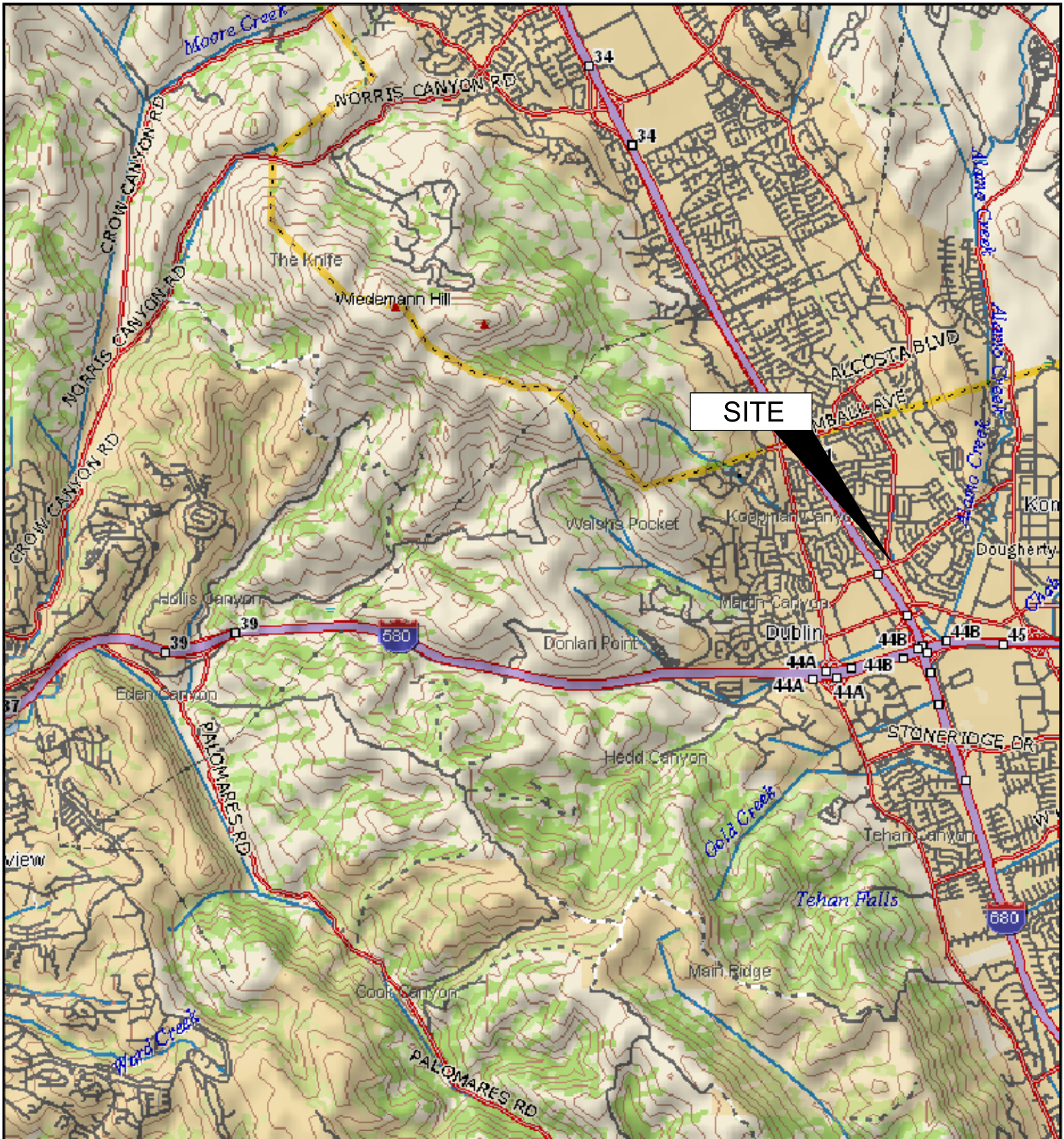
### **CLOSURE:**

The findings presented in this report are based upon: observations of BAI field personnel (see Appendix A), the points investigated, and results of laboratory tests performed by TestAmerica Laboratories, Inc. (Pleasanton, California). Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of ARCADIS-US, Inc. and Atlantic Richfield Company (a BP affiliated 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 #6041, Dublin, CA
- Drawing 2. Ground-Water Elevation Contour and Analytical Summary Map, Station #6041, Dublin, CA
- Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses, Station #6041, Dublin, CA
- Table 2. Summary of Fuel Additives Analytical Data, Station #6041, Dublin, CA
- Table 3. Historical Ground-Water Flow Direction and Gradient, Station #6041, Dublin, CA
- Appendix A. BAI Ground-Water Sampling Data Package (Includes Field Data Sheets, Chain of Custody Documentation, Certified Analytical Results, and Field Procedures for Groundwater Sampling)
- Appendix B. GeoTracker Upload Confirmation





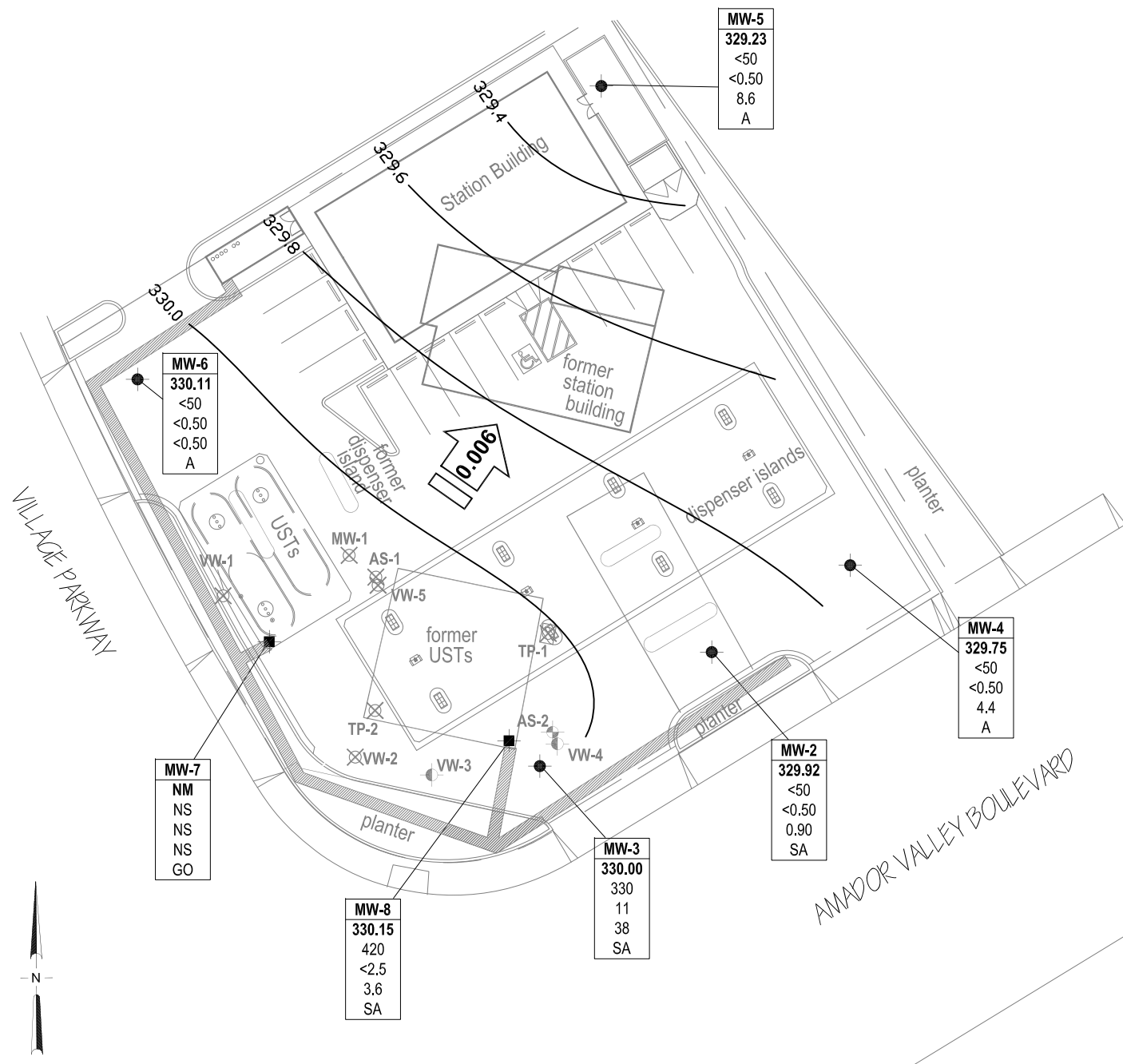
APPROXIMATE SCALE (mi)

IMAGE SOURCE: DELORME

# LEGEND

- Monitoring well
  - Vapor extraction well
  - Air sparge well
  - Tank pit observation well
  - Abandoned well
  - 330.08 Ground-water elevation contour, (feet above MSL)
  - $0.006$  Approximate ground-water flow direction and gradient (ft/ft)
- | Well ID | ELEV | GRO | Benzene | MTBE | Q/A |
|---------|------|-----|---------|------|-----|
| <       | <    | <   | <       | <    | <   |
| NS      | NS   | NS  | NS      | NS   | NS  |
| SA      | SA   | SA  | SA      | SA   | SA  |
| A       | A    | A   | A       | A    | A   |
| GO      | GO   | GO  | GO      | GO   | GO  |
| Q       | Q    | Q   | Q       | Q    | Q   |
|         |      |     |         |      |     |
| *       |      |     |         |      |     |
- \* Not used to generate contour map

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



<b>MW-6</b>
330.11
<50
<0.50
<0.50
A

<b>MW-5</b>
329.23
<50
<0.50
8.6
A

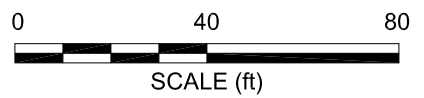
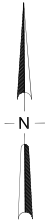
<b>MW-4</b>
329.75
<50
<0.50
4.4
A

<b>MW-2</b>
329.92
<50
<0.50
0.90
SA

<b>MW-3</b>
330.00
330
11
38
SA

<b>MW-8</b>
330.15
420
<2.5
3.6
SA

<b>MW-7</b>
NM
NS
NS
NS
NS
GO



**BROADBENT & ASSOCIATES, INC.**  
 ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
 1324 Mangrove Ave., Suite 212, Chico, California 95926  
 Project No.: 09-88-651 Date: 12/22/09

Station #6041  
 7249 Village Parkway  
 Dublin, California

Ground-Water Elevation Contour  
 and Analytical Summary Map  
 October 26, 2009

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**  
**Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-1</b>															
02/15/1995	--		336.56	14.00	17.50	8.53	328.03	820	15	<1	5.2	1.4	--	--	--
05/24/1995	--		336.56	14.00	17.50	9.00	327.56	640	12	<1	7.3	<1	--	--	--
08/25/1995	--		336.56	14.00	17.50	10.30	326.26	780	2	<1	2	2	2,500	--	--
11/28/1995	--		336.56	14.00	17.50	11.01	325.55	570	2.2	<0.5	1.4	0.9	--	--	--
02/26/1996	--		336.56	14.00	17.50	7.35	329.21	1,100	28	<7	13	7	3,400	--	--
05/23/1996	--		336.56	14.00	17.50	8.73	327.83	560	8.5	<1	1.1	<1	3,900	--	--
08/23/1996	--		336.56	14.00	17.50	10.25	326.31	860	<1	<1	<4	2	5,600	--	--
03/21/1997	--		336.56	14.00	17.50	9.35	327.21	520	12	<0.5	2.7	1.5	6,200	--	--
08/20/1997	--		336.56	14.00	17.50	10.75	325.81	<5,000	<50	<50	<50	<50	7,400	--	--
11/21/1997	--		336.56	14.00	17.50	11.10	325.46	<5,000	<50	<50	<50	<50	8,500	--	--
02/12/1998	P		336.56	14.00	17.50	7.05	329.51	210	<0.5	<0.5	<0.5	<0.5	8,900	1.71	--
07/31/1998	P		336.56	14.00	17.50	10.04	326.52	<20,000	<200	<200	<200	<200	18,000	2.43	--
02/17/1999	--		336.56	14.00	17.50	8.50	328.06	<20,000	<200	<200	<200	<200	16,000	1.0	--
08/24/1999	P		336.56	14.00	17.50	10.40	326.16	190	<0.5	4.4	<0.5	1.1	15,000	--	--
03/01/2000	P		336.56	14.00	17.50	8.85	327.71	310	20	0.5	7.6	4.0	80,000	1.57	--
08/18/2000	P		336.56	14.00	17.50	9.35	327.21	<10,000	<100	<100	<100	<100	48,400/63,700	1.50	--
12/27/2000	P		336.56	14.00	17.50	10.81	325.75	<10,000	309	<100	<100	289	44,400	0.51	--
02/09/2001	P		336.56	14.00	17.50	10.65	325.91	2,820	368	<25.0	116	176	23,300	0.58	--
02/09/2001	--	i	336.56	14.00	17.50	--	--	3,490	432	9.56	146	235	31,800	--	--
04/17/2001	--	i	336.56	14.00	17.50	--	--	2,600	70.1	<20.0	32.7	30.6	45,400	--	--
04/17/2001	P		336.56	14.00	17.50	11.09	325.47	2,900	66.0	<10.0	33.2	25.1	46,500	0.63	--
07/17/2001	P		336.56	14.00	17.50	11.07	325.49	<10,000	<100	<100	130	520	42,000	0.69	--
12/21/2001	--	k	--	14.00	17.50	--	--	--	--	--	--	--	--	--	--
<b>MW-2</b>															
02/15/1995	--		334.80	10.50	14.00	6.75	328.05	730	110	1.7	25	66	--	--	--
05/24/1995	--		334.80	10.50	14.00	6.88	327.92	370	110	<1	17	1.9	--	--	--
08/25/1995	--		334.80	10.50	14.00	7.91	326.89	150	6	<1	<1	<1	2,700	--	--
11/28/1995	--		334.80	10.50	14.00	9.06	325.74	<50	<0.5	<0.5	<0.5	0.8	--	--	--
02/26/1996	--		334.80	10.50	14.00	6.65	328.15	350	66	<0.5	11	1.7	<3	--	--
05/23/1996	--		334.80	10.50	14.00	6.90	327.90	540	140	<2.5	13	<2.5	4,600	--	--



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

**Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-2 Cont.</b>															
08/23/1996	--		334.80	10.50	14.00	8.45	326.35	180	0.8	2	0.7	2.6	4,000	--	--
03/21/1997	--		334.80	10.50	14.00	7.28	327.52	410	90	<1	14	4	3,800	--	--
08/20/1997	--		334.80	10.50	14.00	8.87	325.93	<5,000	<50	<50	<50	<50	3,100	--	--
11/21/1997	--		334.80	10.50	14.00	9.28	325.52	<2,000	<20	<20	<20	<20	2,600	--	--
02/12/1998	P		334.80	10.50	14.00	5.90	328.90	310	54	<0.5	6.2	1.1	3,800	3.76	--
07/31/1998	P		334.80	10.50	14.00	8.12	326.68	6,100	52	220	110	1,100	7,700	2.96	--
02/17/1999	P		334.80	10.50	14.00	7.18	327.62	<5,000	<50	<50	<50	<50	4,200	1.0	--
08/24/1999	P		334.80	10.50	14.00	8.68	326.12	200	1.8	16	3.0	32	3,100	--	--
03/01/2000	P		334.80	10.50	14.00	7.02	327.78	760	24	12	13	59	6,300	1.92	--
08/18/2000	P		334.80	10.50	14.00	7.75	327.05	<500	<5.00	<5.00	<5.00	<5.00	1,610/1,980	2.03	--
12/27/2000	--		334.80	10.50	14.00	8.85	325.95	--	--	--	--	--	--	--	--
02/09/2001	P		334.80	10.50	14.00	8.50	326.30	<50.0	<0.500	<0.500	<0.500	<0.500	9.11	0.53	--
04/17/2001	--		334.80	10.50	14.00	9.12	325.68	--	--	--	--	--	--	--	--
07/17/2001	--	i	334.80	10.50	14.00	--	--	3,500	<10	<10	<10	<10	3,500	--	--
07/17/2001	P		334.80	10.50	14.00	8.99	325.81	1,200	<10	<10	<10	<10	4,200	0.69	--
12/21/2001	NP		334.80	10.50	14.00	8.65	326.15	65	<0.50	1.2	0.61	6.7	11/6.5	0.48	--
03/06/2002	NP		334.80	10.50	14.00	8.61	326.19	<50	<0.50	<0.50	<0.50	1.8	31	0.35	--
04/26/2002	NP		334.80	10.50	14.00	8.20	326.60	92	<0.5	<0.50	<0.50	0.64	98/180	0.19	--
09/23/2002	P	a, d	334.80	10.50	14.00	8.50	326.30	250	<1.2	<1.2	<1.2	<1.2	1,500	2.1	7.3
12/27/2002	P	a, d	334.80	10.50	14.00	7.15	327.65	440	<2.5	<2.5	<2.5	<2.5	790	1.4	6.9
03/12/2003	P	f, g	334.80	10.50	14.00	7.33	327.47	<50	1.6	<0.50	<0.50	1.2	11	2.7	7.0
06/28/2003	P	h	337.29	10.50	14.00	7.49	329.80	<50	<0.50	<0.50	<0.50	<0.50	1.2	2.0	7.4
09/30/2003	P		337.29	10.50	14.00	8.20	329.09	<50	<0.50	<0.50	<0.50	<0.50	5.2	2.2	7.0
12/05/2003	NP		337.29	10.50	14.00	7.73	329.56	<50	<0.50	<0.50	<0.50	<0.50	2.6	4.3	7.3
03/10/2004	P		337.29	10.50	14.00	6.70	330.59	<500	<5.0	<5.0	<5.0	<5.0	5.6	2.1	6.4
06/21/2004	P		337.29	10.50	14.00	7.71	329.58	160	<1.0	<1.0	<1.0	<1.0	1.5	3.1	6.9
09/17/2004	P		337.29	10.50	14.00	7.45	329.84	<100	<1.0	<1.0	<1.0	<1.0	1.0	3.8	7.0
12/13/2004	P		337.29	10.50	14.00	7.04	330.25	<50	<0.50	<0.50	<0.50	<0.50	0.54	3.2	6.8
03/03/2005	P		337.29	10.50	14.00	6.18	331.11	<500	<5.0	<5.0	<5.0	<5.0	<5.0	3.0	--
06/23/2005	P	n	337.29	10.50	14.00	6.51	330.78	<50	<0.50	<0.50	<0.50	<0.50	4.3	2.6	7.0
09/16/2005	P		337.29	10.50	14.00	7.65	329.64	<100	<1.0	<1.0	<1.0	<1.0	2.0	1.2	6.8

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**  
**Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-2 Cont.</b>															
12/27/2005	P		337.29	10.50	14.00	7.29	330.00	<250	<2.5	<2.5	<2.5	<2.5	<2.5	1.37	7.3
03/02/2006	P		337.29	10.50	14.00	6.51	330.78	<250	<2.5	<2.5	<2.5	<2.5	5.8	1.38	6.8
6/23/2006	P		337.29	10.50	14.00	6.75	330.54	<250	<2.5	<2.5	<2.5	<2.5	4.2	1.38	6.9
9/19/2006	P		337.29	10.50	14.00	7.30	329.99	<50	<0.50	<0.50	<0.50	<0.50	4.0	2.42	7.0
12/19/2006	P		337.29	10.50	14.00	6.93	330.36	<50	<0.50	<0.50	<0.50	<0.50	0.70	4.86	7.23
3/29/2007	P		337.29	10.50	14.00	6.61	330.68	<50	<0.50	<0.50	<0.50	<0.50	1.3	3.22	7.23
6/5/2007	P		337.29	10.50	14.00	7.12	330.17	<50	<0.50	<0.50	<0.50	<0.50	0.94	3.75	7.35
9/25/2007	P		337.29	10.50	14.00	7.77	329.52	<50	<0.50	<0.50	<0.50	<0.50	0.56	3.60	7.07
12/26/2007	P		337.29	10.50	14.00	7.40	329.89	<50	<0.50	<0.50	<0.50	<0.50	0.64	5.68	7.17
3/25/2008	P		337.29	10.50	14.00	6.45	330.84	<50	<0.50	<0.50	<0.50	<0.50	7.1	4.87	8.14
6/10/2008	P		337.29	10.50	14.00	7.22	330.07	<50	<0.50	<0.50	<0.50	<0.50	3.2	2.93	7.11
9/9/2008	P		337.29	10.50	14.00	7.69	329.60	<50	<0.50	<0.50	<0.50	<0.50	1.5	3.01	7.38
12/4/2008	P		337.29	10.50	14.00	7.74	329.55	<50	<0.50	<0.50	<0.50	<0.50	0.53	5.73	7.03
3/5/2009	P		337.29	10.50	14.00	6.16	331.13	<50	<1.0	<1.0	<1.0	<1.0	2.7	5.64	6.72
6/2/2009	P		337.29	10.50	14.00	7.11	330.18	<50	<1.0	<1.0	<1.0	<1.0	1.3	2.53	7.35
<b>10/26/2009</b>	<b>P</b>		<b>337.29</b>	<b>10.50</b>	<b>14.00</b>	<b>7.37</b>	<b>329.92</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>0.90</b>	<b>--</b>	<b>6.90</b>
<b>MW-3</b>															
02/15/1995	--		335.53	12.00	15.00	8.55	326.98	100	14	<0.5	6.3	<0.5	--	--	--
05/24/1995	--		335.53	12.00	15.00	8.17	327.36	110	8	<0.5	2.7	<0.5	--	--	--
08/25/1995	--		335.53	12.00	15.00	9.27	326.26	210	3.6	<0.5	2.9	0.6	20,000	--	--
11/28/1995	--		335.53	12.00	15.00	9.91	325.62	81	1.5	<0.5	1.4	<0.5	15,000	--	--
02/26/1996	--		335.53	12.00	15.00	8.42	327.11	16,000	1,600	1,200	300	2,000	9,500	--	--
05/23/1996	--		335.53	12.00	15.00	7.70	327.83	6,500	690	<10	120	14	8,600	--	--
08/23/1996	--		335.53	12.00	15.00	9.25	326.28	1,700	85	2.1	61	5.3	11,000	--	--
03/21/1997	--		335.53	12.00	15.00	8.72	326.81	100	2	<1	1	<1	6,600	--	--
08/20/1997	--		335.53	12.00	15.00	9.73	325.80	<5,000	<50	<50	<50	<50	7,700	--	--
11/21/1997	--		335.53	12.00	15.00	10.10	325.43	<5,000	<50	<50	<50	<50	9,700	--	--
02/12/1998	P		335.53	12.00	15.00	6.68	328.85	110	11	<0.5	<0.5	1.9	10,000	1.02	--
07/31/1998	P		335.53	12.00	15.00	7.98	327.55	<10,000	<100	<100	<100	<100	13,000	2.59	--
02/17/1999	P		335.53	12.00	15.00	8.40	327.13	<20,000	<200	<200	<200	<200	23,000	1.0	--

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**  
**Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-3 Cont.</b>															
08/24/1999	P		335.53	12.00	15.00	9.45	326.08	200	0.6	5.6	0.6	1.7	22,000	--	--
03/01/2000	P		335.53	12.00	15.00	8.32	327.21	320	32	1	6.1	4	58,000	2.42	--
08/18/2000	P		335.53	12.00	15.00	8.35	327.18	<10,000	<100	<100	<100	<100	46200/55600	1.59	--
12/27/2000	P		335.53	12.00	15.00	9.75	325.78	29,700	1,620	1,730	<250	6,230	62,600	1.59	--
02/09/2001	P		335.53	12.00	15.00	9.61	325.92	29,300	2,590	3,530	440	7,080	85,500	0.51	--
04/17/2001	P		335.53	12.00	15.00	9.94	325.59	16,400	1,680	<25.0	310	2,290	48,700	0.41	--
07/17/2001	P		335.53	12.00	15.00	9.93	325.60	21,000	1,500	<100	1,100	690	82,000	0.51	--
12/21/2001	P		335.53	12.00	15.00	9.40	326.13	<5,000	<50	<50	<50	<50	4,300/3,800	0.40	--
03/06/2002	P		335.53	12.00	15.00	9.33	326.20	<50	1.2	<0.50	1.1	13	880	0.43	--
04/26/2002	P		335.53	12.00	15.00	9.19	326.34	260	3.7	<1.0	1.1	1.8	460/940	0.2	--
09/23/2002	P	b, d	335.53	12.00	15.00	9.30	326.23	1,500	41	2.4	9.8	14	980	1.5	7.6
12/27/2002	P	c, d	335.53	12.00	15.00	7.30	328.23	1,500	300	100	21	66	1,100	2.2	8.6
03/12/2003	P	f, g	335.53	12.00	15.00	8.06	327.47	<1,000	<10	<10	<10	<10	45	1.6	7.4
06/28/2003	P	h	338.18	12.00	15.00	8.60	329.58	1,500	20	27	12	45	140	1.7	7.6
09/30/2003	P		338.18	12.00	15.00	9.04	329.14	<2,500	<25	<25	<25	<25	650	0.9	7.4
12/05/2003	P		338.18	12.00	15.00	8.57	329.61	<2,500	<25	<25	<25	<25	480	1.3	--
03/10/2004	P		338.18	12.00	15.00	7.58	330.60	180	7.4	<1.0	<1.0	<1.0	75	2.0	--
06/21/2004	P	o	338.18	12.00	15.00	8.51	329.67	<2,500	<25	<25	<25	<25	370	4.6	7.6
09/17/2004	P		338.18	12.00	15.00	8.38	329.80	<5,000	<50	<50	<50	<50	280	1.8	7.1
12/13/2004	P	o	338.18	12.00	15.00	8.04	330.14	520	89	4.6	3.9	5.8	460	1.9	7.6
03/03/2005	P		338.18	12.00	15.00	6.89	331.29	300	23	<2.5	<2.5	<2.5	130	1.8	7.6
06/23/2005	P	n	338.18	12.00	15.00	8.27	329.91	260	6.1	1.1	0.65	2.8	40	1.4	8.0
09/16/2005	P		338.18	12.00	15.00	8.47	329.71	850	52	<5.0	<5.0	<5.0	270	1.4	7.2
12/27/2005	P		338.18	12.00	15.00	7.77	330.41	300	56	<2.5	<2.5	3.6	230	1.54	8.0
03/02/2006	P		338.18	12.00	15.00	7.33	330.85	<250	4.0	<2.5	<2.5	<2.5	24	1.5	7.2
6/23/2006	P		338.18	12.00	15.00	7.64	330.54	340	1.5	<0.50	<0.50	<0.50	47	1.42	7.1
9/19/2006	P		338.18	12.00	15.00	8.17	330.01	<50	<0.50	<0.50	<0.50	<0.50	14	3.30	7.1
12/19/2006	P		338.18	12.00	15.00	7.85	330.33	530	120	<5.0	<5.0	5.5	270	4.32	7.23
3/29/2007	P	q	338.18	12.00	15.00	7.15	331.03	750	180	<5.0	9.2	7.1	420	4.34	7.21
6/5/2007	P	q	338.18	12.00	15.00	8.10	330.08	1,200	330	<5.0	12	12	610	2.94	7.38
9/25/2007	P	q	338.18	12.00	15.00	8.73	329.45	230	<5.0	<5.0	<5.0	<5.0	54	3.91	6.85

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**  
**Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-3 Cont.</b>															
12/26/2007	P		338.18	12.00	15.00	8.50	329.68	190	21	<0.50	0.69	<0.50	71	5.94	6.77
3/25/2008	P		338.18	12.00	15.00	7.23	330.95	170	41	<10	<10	<10	77	4.32	8.16
6/10/2008	P		338.18	12.00	15.00	8.15	330.03	110	<25	<25	<25	<25	<25	3.08	7.40
9/9/2008	P		338.18	12.00	15.00	8.57	329.61	73	<20	<20	<20	<20	<20	2.93	7.03
12/4/2008	P		338.18	12.00	15.00	8.67	329.51	91	<20	<20	<20	<20	<20	5.81	7.24
3/5/2009	P		338.18	12.00	15.00	6.75	331.43	64	11	<0.50	<0.50	<0.50	19	5.54	7.89
6/2/2009	P		338.18	12.00	15.00	7.99	330.19	<50	<1.0	<1.0	<1.0	<1.0	4.0	3.13	7.81
<b>10/26/2009</b>	<b>P</b>		<b>338.18</b>	<b>12.00</b>	<b>15.00</b>	<b>8.18</b>	<b>330.00</b>	<b>330</b>	<b>11</b>	<b>3.5</b>	<b>&lt;2.5</b>	<b>&lt;5.0</b>	<b>38</b>	<b>--</b>	<b>7.14</b>
<b>MW-4</b>															
02/15/1995	--		334.22	8.5	14.5	7.85	326.37	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/24/1995	--		334.22	8.5	14.5	6.68	327.54	--	--	--	--	--	--	--	--
08/25/1995	--		334.22	8.5	14.5	6.93	327.29	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
11/28/1995	--		334.22	8.5	14.5	8.21	326.01	--	--	--	--	--	--	--	--
02/26/1996	--		334.22	8.5	14.5	6.65	327.57	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--
05/23/1996	--		334.22	8.5	14.5	6.47	327.75	--	--	--	--	--	--	--	--
08/23/1996	--		334.22	8.5	14.5	7.66	326.56	--	--	--	--	--	--	--	--
03/21/1997	--		334.22	8.5	14.5	6.84	327.38	--	--	--	--	--	--	--	--
08/20/1997	--		334.22	8.5	14.5	8.32	325.90	--	--	--	--	--	--	--	--
11/21/1997	--		334.22	8.5	14.5	8.65	325.57	--	--	--	--	--	--	--	--
02/12/1998	--		334.22	8.5	14.5	6.35	327.87	--	--	--	--	--	--	--	--
07/31/1998	--		334.22	8.5	14.5	6.84	327.38	--	--	--	--	--	--	--	--
02/17/1999	--		334.22	8.5	14.5	7.50	326.72	--	--	--	--	--	--	--	--
08/24/1999	--		334.22	8.5	14.5	9.50	324.72	--	--	--	--	--	--	--	--
03/01/2000	--		334.22	8.5	14.5	6.93	327.29	--	--	--	--	--	--	--	--
08/18/2000	--		334.22	8.5	14.5	7.03	327.19	--	--	--	--	--	--	--	--
12/27/2000	--		334.22	8.5	14.5	8.10	326.12	--	--	--	--	--	--	--	--
02/09/2001	--		334.22	8.5	14.5	7.97	326.25	--	--	--	--	--	--	--	--
04/17/2001	--		334.22	8.5	14.5	8.90	325.32	--	--	--	--	--	--	--	--
07/17/2001	--		334.22	8.5	14.5	8.59	325.63	--	--	--	--	--	--	--	--
12/21/2001	NP		334.22	8.5	14.5	8.31	325.91	<50	<0.50	<0.50	<0.50	<0.50	4.1/2.0	0.68	--

**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**  
**Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-4 Cont.</b>															
03/06/2002	P		334.22	8.5	14.5	8.27	325.95	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.37	--
04/26/2002	P		334.22	8.5	14.5	8.05	326.17	<50	<0.50	<0.50	<0.50	<0.50	3.6	0.3	--
09/23/2002	P		334.22	8.5	14.5	7.94	326.28	<50	<0.50	<0.50	<0.50	<0.50	2.9	4.1	7.3
12/27/2002	--		334.22	8.5	14.5	7.56	326.66	<50	<0.50	<0.50	<0.50	<0.50	2.6	2.1	6.9
03/12/2003	P	g	334.22	8.5	14.5	7.67	326.55	<50	<0.50	<0.50	<0.50	<0.50	1.6	2.8	6.8
06/28/2003	P	h	336.87	8.5	14.5	7.60	329.27	<50	<0.50	<0.50	<0.50	<0.50	2.1	--	5.6
09/30/2003	--		336.87	8.5	14.5	7.66	329.21	<50	<0.50	<0.50	<0.50	<0.50	1.4	2.2	6.9
12/05/2003	P		336.87	8.5	14.5	5.61	331.26	<50	<0.50	<0.50	<0.50	<0.50	2.3	3.0	--
03/10/2004	P		336.87	8.5	14.5	6.84	330.03	<50	<0.50	<0.50	<0.50	<0.50	2.1	4.0	--
06/21/2004	P		336.87	8.5	14.5	7.35	329.52	<50	<0.50	<0.50	<0.50	<0.50	2.0	5.4	6.2
09/17/2004	P		336.87	8.5	14.5	7.30	329.57	<50	<0.50	<0.50	<0.50	<0.50	3.5	3.0	6.9
12/13/2004	P		336.87	8.5	14.5	7.08	329.79	<50	<0.50	<0.50	<0.50	<0.50	5.4	4.0	6.8
03/03/2005	P		336.87	8.5	14.5	8.11	328.76	<50	<0.50	<0.50	<0.50	<0.50	6.3	2.9	6.9
06/23/2005	P	p	336.87	8.5	14.5	6.70	330.17	--	--	--	--	--	--	2.2	6.7
09/16/2005	P		336.87	8.5	14.5	7.28	329.59	<50	<0.50	<0.50	<0.50	<0.50	4.2	1.2	6.9
12/27/2005	--		336.87	8.5	14.5	7.03	329.84	--	--	--	--	--	--	--	--
03/02/2006	--		336.87	8.5	14.5	6.45	330.42	--	--	--	--	--	--	--	--
6/23/2006	--		336.87	8.5	14.5	6.42	330.45	--	--	--	--	--	--	--	--
9/19/2006	P		336.87	8.5	14.5	7.01	329.86	<50	<0.50	<0.50	<0.50	<0.50	5.8	3.08	6.9
12/19/2006	--		336.87	8.5	14.5	6.85	330.02	--	--	--	--	--	--	--	--
3/29/2007	--		336.87	8.5	14.5	6.23	330.64	--	--	--	--	--	--	--	--
6/5/2007	--		336.87	8.5	14.5	6.72	330.15	--	--	--	--	--	--	--	--
9/25/2007	P		336.87	8.5	14.5	7.53	329.34	<50	<0.50	<0.50	<0.50	<0.50	3.0	2.71	7.07
12/26/2007	--		336.87	8.5	14.5	7.25	329.62	--	--	--	--	--	--	--	--
3/25/2008	--		336.87	8.5	14.5	6.18	330.69	--	--	--	--	--	--	--	--
6/10/2008	--		336.87	8.5	14.5	6.90	329.97	--	--	--	--	--	--	--	--
9/9/2008	P		336.87	8.5	14.5	7.38	329.49	<50	<0.50	<0.50	<0.50	<0.50	5.3	2.68	6.96
12/4/2008	--		336.87	8.5	14.5	7.47	329.40	--	--	--	--	--	--	--	--
3/5/2009	--		336.87	8.5	14.5	6.35	330.52	--	--	--	--	--	--	--	--
6/2/2009	--		336.87	8.5	14.5	6.62	330.25	--	--	--	--	--	--	--	--
<b>10/26/2009</b>	<b>P</b>		<b>336.87</b>	<b>8.5</b>	<b>14.5</b>	<b>7.12</b>	<b>329.75</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>0.57</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>4.4</b>	<b>--</b>	<b>6.79</b>

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

**Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-4</b>															
<b>MW-5</b>															
02/15/1995	--		335.87	11.00	17.50	7.80	328.07	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/24/1995	--		335.87	11.00	17.50	8.10	327.77	--	--	--	--	--	--	--	--
08/25/1995	--		335.87	11.00	17.50	9.43	326.44	--	--	--	--	--	--	--	--
11/28/1995	--		335.87	11.00	17.50	10.12	325.75	--	--	--	--	--	--	--	--
02/26/1996	--		335.87	11.00	17.50	6.73	329.14	--	<0.5	<0.5	<0.5	<0.5	<3	--	--
05/23/1996	--		335.87	11.00	17.50	7.87	328.00	--	--	--	--	--	--	--	--
08/23/1996	--		335.87	11.00	17.50	9.46	326.41	--	--	--	--	--	--	--	--
03/21/1997	--		335.87	11.00	17.50	8.23	327.64	--	--	--	--	--	--	--	--
08/20/1997	--		335.87	11.00	17.50	9.92	325.95	--	--	--	--	--	--	--	--
11/21/1997	--		335.87	11.00	17.50	10.18	325.69	--	--	--	--	--	--	--	--
02/12/1998	--		335.87	11.00	17.50	6.45	329.42	--	--	--	--	--	--	--	--
07/31/1998	--		335.87	11.00	17.50	8.98	326.89	--	--	--	--	--	--	--	--
02/17/1999	--		335.87	11.00	17.50	7.65	328.22	--	--	--	--	--	--	--	--
08/24/1999	--		335.87	11.00	17.50	8.10	327.77	--	--	--	--	--	--	--	--
03/01/2000	--		335.87	11.00	17.50	7.31	328.56	--	--	--	--	--	--	--	--
08/18/2000	--		335.87	11.00	17.50	8.65	327.22	--	--	--	--	--	--	--	--
12/27/2000	--		335.87	11.00	17.50	9.80	326.07	--	--	--	--	--	--	--	--
02/09/2001	--		335.87	11.00	17.50	9.65	326.22	--	--	--	--	--	--	--	--
04/17/2001	--		335.87	11.00	17.50	9.92	325.95	--	--	--	--	--	--	--	--
07/17/2001	--		335.87	11.00	17.50	9.95	325.92	--	--	--	--	--	--	--	--
12/21/2001	--	m	335.87	11.00	17.50	--	--	--	--	--	--	--	--	--	--
03/06/2002	--	m	335.87	11.00	17.50	--	--	--	--	--	--	--	--	--	--
04/26/2002	--	m	335.87	11.00	17.50	--	--	--	--	--	--	--	--	--	--
09/23/2002	--		335.87	11.00	17.50	7.94	327.93	--	--	--	--	--	--	--	--
12/27/2002	--		335.87	11.00	17.50	7.57	328.30	<50	<0.50	<0.50	<0.50	0.76	15	0.7	6.9
03/12/2003	--	g	335.87	11.00	17.50	8.32	327.55	--	--	--	--	--	--	--	--
06/28/2003	--	h	338.59	11.00	17.50	8.58	330.01	--	--	--	--	--	--	--	--
09/30/2003	--		338.59	11.00	17.50	9.28	329.31	--	--	--	--	--	--	--	--
12/05/2003	P		338.59	11.00	17.50	9.11	329.48	<50	<0.50	<0.50	<0.50	<0.50	22	2.9	--



**Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses**  
**Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-5 Cont.</b>															
03/10/2004	--		338.59	11.00	17.50	7.57	331.02	--	--	--	--	--	--	--	--
06/21/2004	--		338.59	11.00	17.50	8.68	329.91	--	--	--	--	--	--	--	--
09/17/2004	--	Well inaccessible	338.59	11.00	17.50	--	--	--	--	--	--	--	--	--	--
09/24/2004	P		338.59	11.00	17.50	8.53	330.06	<50	<0.50	<0.50	<0.50	<0.50	17	1.9	6.8
12/13/2004	--		338.59	11.00	17.50	8.28	330.31	--	--	--	--	--	--	--	--
03/03/2005	--		338.59	11.00	17.50	6.78	331.81	--	--	--	--	--	--	--	--
06/23/2005	--		338.59	11.00	17.50	8.27	330.32	--	--	--	--	--	--	--	--
09/16/2005	P		338.59	11.00	17.50	9.57	329.02	<50	<0.50	<0.50	<0.50	<0.50	69	1.3	7.0
12/27/2005	--		338.59	11.00	17.50	8.72	329.87	--	--	--	--	--	--	--	--
03/02/2006	--		338.59	11.00	17.50	8.11	330.48	--	--	--	--	--	--	--	--
6/23/2006	--		338.59	11.00	17.50	8.54	330.05	--	--	--	--	--	--	--	--
9/19/2006	P		338.59	11.00	17.50	9.21	329.38	52	<0.50	<0.50	<0.50	<0.50	82	1.50	6.9
12/19/2006	--		338.59	11.00	17.50	9.00	329.59	--	--	--	--	--	--	--	--
3/29/2007	--		338.59	11.00	17.50	8.53	330.06	--	--	--	--	--	--	--	--
6/5/2007	--		338.59	11.00	17.50	8.42	330.17	--	--	--	--	--	--	--	--
9/25/2007	P		338.59	11.00	17.50	9.80	328.79	<50	<0.50	<0.50	<0.50	<0.50	18	3.88	7.05
12/26/2007	--		338.59	11.00	17.50	9.28	329.31	--	--	--	--	--	--	--	--
3/25/2008	--		338.59	11.00	17.50	8.31	330.28	--	--	--	--	--	--	--	--
6/10/2008	--		338.59	11.00	17.50	9.19	329.40	--	--	--	--	--	--	--	--
9/9/2008	P		338.59	11.00	17.50	9.69	328.90	<50	<0.50	<0.50	<0.50	<0.50	27	2.68	7.00
12/4/2008	--		338.59	11.00	17.50	9.79	328.80	--	--	--	--	--	--	--	--
3/5/2009	--		338.59	11.00	17.50	7.68	330.91	--	--	--	--	--	--	--	--
6/2/2009	--		338.59	11.00	17.50	8.87	329.72	--	--	--	--	--	--	--	--
<b>10/26/2009</b>	<b>P</b>		<b>338.59</b>	<b>11.00</b>	<b>17.50</b>	<b>9.36</b>	<b>329.23</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>8.6</b>	<b>--</b>	<b>6.8</b>
<b>MW-6</b>															
02/15/1995	--		335.84	8.5	12.7	7.81	328.03	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
05/24/1995	--		335.84	8.5	12.7	8.35	327.49	--	--	--	--	--	--	--	--
08/25/1995	--		335.84	8.5	12.7	9.71	326.13	--	--	--	--	--	--	--	--
11/28/1995	--		335.84	8.5	12.7	10.28	325.56	--	--	--	--	--	--	--	--
02/26/1996	--		335.84	8.5	12.7	6.60	329.24	<50	<0.5	<0.5	<0.5	<0.5	<3	--	--

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Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-6 Cont.</b>															
05/23/1996	--		335.84	8.5	12.7	8.05	327.79	--	--	--	--	--	--	--	--
08/23/1996	--		335.84	8.5	12.7	9.58	326.26	--	--	--	--	--	--	--	--
03/21/1997	--		335.84	8.5	12.7	8.39	327.45	--	--	--	--	--	--	--	--
08/20/1997	--		335.84	8.5	12.7	9.98	325.86	--	--	--	--	--	--	--	--
11/21/1997	--		335.84	8.5	12.7	10.31	325.53	--	--	--	--	--	--	--	--
02/12/1998	--		335.84	8.5	12.7	3.15	332.69	--	--	--	--	--	--	--	--
07/31/1998	--		335.84	8.5	12.7	9.29	326.55	--	--	--	--	--	--	--	--
02/17/1999	--		335.84	8.5	12.7	7.72	328.12	--	--	--	--	--	--	--	--
08/24/1999	--		335.84	8.5	12.7	9.65	326.19	--	--	--	--	--	--	--	--
03/01/2000	--		335.84	8.5	12.7	7.35	328.49	--	--	--	--	--	--	--	--
08/18/2000	--		335.84	8.5	12.7	8.65	327.19	--	--	--	--	--	--	--	--
12/27/2000	--		335.84	8.5	12.7	9.83	326.01	--	--	--	--	--	--	--	--
02/09/2001	--		335.84	8.5	12.7	9.62	326.22	--	--	--	--	--	--	--	--
04/17/2001	--		335.84	8.5	12.7	10.03	325.81	--	--	--	--	--	--	--	--
07/17/2001	--		335.84	8.5	12.7	9.95	325.89	--	--	--	--	--	--	--	--
12/21/2001	NP		335.84	8.5	12.7	9.47	326.37	<50	<0.50	<0.50	<0.50	0.57	<2.5	0.55	--
03/06/2002	P		335.84	8.5	12.7	9.31	326.53	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.33	--
04/26/2002	P		335.84	8.5	12.7	9.09	326.75	<50	<0.50	<0.50	<0.50	0.7	<2.5	0.31	--
09/23/2002	P		335.84	8.5	12.7	9.14	326.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	7.4
12/27/2002	--		335.84	8.5	12.7	7.26	328.58	<50	<0.50	<0.50	<0.50	0.63	0.91	0.8	7.0
03/12/2003	P	g	335.84	8.5	12.7	8.41	327.43	<50	<0.50	<0.50	<0.50	<0.50	0.64	1.3	7.2
06/28/2003	P	h	338.37	8.5	12.7	8.56	329.81	<50	<0.50	<0.50	<0.50	<0.50	0.62	1.6	6.8
09/30/2003	--		338.37	8.5	12.7	9.32	329.05	<250	<2.5	<2.5	<2.5	<2.5	3.9	0.8	7.0
12/05/2003	--		338.37	8.5	12.7	8.96	329.41	--	--	--	--	--	--	--	--
03/10/2004	--		338.37	8.5	12.7	7.65	330.72	--	--	--	--	--	--	--	--
06/21/2004	--		338.37	8.5	12.7	8.58	329.79	--	--	--	--	--	--	--	--
09/17/2004	P		338.37	8.5	12.7	8.47	329.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.0
12/13/2004	--		338.37	8.5	12.7	8.04	330.33	--	--	--	--	--	--	--	--
03/03/2005	--		338.37	8.5	12.7	6.60	331.77	--	--	--	--	--	--	--	--
06/23/2005	--		338.37	8.5	12.7	8.14	330.23	--	--	--	--	--	--	--	--
09/16/2005	P		338.37	8.5	12.7	8.66	329.71	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.8	7.1

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Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-6 Cont.</b>															
12/27/2005	--		338.37	8.5	12.7	7.79	330.58	--	--	--	--	--	--	--	--
03/02/2006	--		338.37	8.5	12.7	7.15	331.22	--	--	--	--	--	--	--	--
6/23/2006	--		338.37	8.5	12.7	7.70	330.67	--	--	--	--	--	--	--	--
9/19/2006	P		338.37	8.5	12.7	8.30	330.07	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.50	7.3
12/19/2006	--		338.37	8.5	12.7	7.90	330.47	--	--	--	--	--	--	--	--
3/29/2007	--		338.37	8.5	12.7	7.72	330.65	--	--	--	--	--	--	--	--
6/5/2007	--		338.37	8.5	12.7	8.18	330.19	--	--	--	--	--	--	--	--
9/25/2007	NP		338.37	8.5	12.7	8.86	329.51	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.87	6.84
12/26/2007	--		338.37	8.5	12.7	8.25	330.12	--	--	--	--	--	--	--	--
3/25/2008	--		338.37	8.5	12.7	7.35	331.02	--	--	--	--	--	--	--	--
6/10/2008	--		338.37	8.5	12.7	8.23	330.14	--	--	--	--	--	--	--	--
9/9/2008	P		338.37	8.5	12.7	8.65	329.72	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.41	7.33
12/4/2008	--		338.37	8.5	12.7	8.80	329.57	--	--	--	--	--	--	--	--
3/5/2009	--		338.37	8.5	12.7	6.34	332.03	--	--	--	--	--	--	--	--
6/2/2009	--		338.37	8.5	12.7	7.96	330.41	--	--	--	--	--	--	--	--
<b>10/26/2009</b>	<b>P</b>		<b>338.37</b>	<b>8.5</b>	<b>12.7</b>	<b>8.26</b>	<b>330.11</b>	<b>&lt;50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>--</b>	<b>6.8</b>
<b>MW-7</b>															
12/21/2001	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
03/06/2002	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
04/26/2002	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
09/23/2002	--	j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
12/27/2002	--	e	--	--	8.0	7.74	--	<50	<0.50	<0.50	<0.50	<0.50	4.7	2.7	7.0
03/12/2003	--	g, j	--	--	8.0	--	--	--	--	--	--	--	--	--	--
06/28/2003	--	h, j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
09/30/2003	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/05/2003	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
03/10/2004	--		338.62	--	8.0	7.78	330.84	--	--	--	--	--	--	--	--
06/21/2004	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
09/17/2004	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/13/2004	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--

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Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-7 Cont.</b>															
03/03/2005	--		338.62	--	8.0	6.81	331.81	--	--	--	--	--	--	--	--
06/23/2005	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
09/16/2005	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/27/2005	--		338.62	--	8.0	7.90	330.72	--	--	--	--	--	--	--	--
03/02/2006	--		338.62	--	8.0	7.39	331.23	--	--	--	--	--	--	--	--
6/23/2006	--		338.62	--	8.0	7.90	330.72	--	--	--	--	--	--	--	--
9/19/2006	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/19/2006	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/29/2007	--	j	338.62	--	8.0	7.95	330.67	--	--	--	--	--	--	--	--
6/5/2007	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
9/25/2007	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/26/2007	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/25/2008	--		338.62	--	8.0	7.51	331.11	--	--	--	--	--	--	--	--
6/10/2008	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
9/9/2008	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
12/4/2008	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
3/5/2009	--		338.62	--	8.0	6.70	331.92	--	--	--	--	--	--	--	--
6/2/2009	--	j	338.62	--	8.0	--	--	--	--	--	--	--	--	--	--
<b>10/26/2009</b>	--	<b>j</b>	<b>338.62</b>	--	<b>8.0</b>	--	--	--	--	--	--	--	--	--	--
<b>MW-8</b>															
12/21/2001	NP		--	--	12.6	8.70	--	<5,000	67	<50	<50	<50	2,400/1,300	0.60	--
03/06/2002	P		--	--	12.6	8.63	--	210	41	0.64	0.79	2.0	940	0.25	--
03/06/2002	--	i	--	--	12.6	--	--	170	37	0.67	0.7	1.9	740	--	--
04/26/2002	P		--	--	12.6	8.15	--	680	95	<1.0	14	2.5	490	0.31	--
04/26/2002	--	i	--	--	12.6	--	--	480	74	3.5	11	<1.0	640	--	--
09/30/2002	P	c	--	--	12.6	9.37	--	1,100	120	<5.0	57	8.7	1,100	1.3	6.9
12/27/2002	P	b	--	--	12.6	7.55	--	350	13	<0.50	2.4	2.2	73	0.8	6.9
03/12/2003	P	g	--	--	12.6	8.25	--	<2,500	89	<25	<25	<25	740	1.4	6.9
06/28/2003	P	h	338.27	--	12.6	8.38	329.89	7,000	680	<25	110	180	2,900	1.9	4.8
09/30/2003	P	a	338.27	--	12.6	9.09	329.18	1,500	240	18	45	150	180	1.0	6.8

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								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>MW-8 Cont.</b>															
12/05/2003	P		338.27	--	12.6	8.37	329.90	590	60	<2.5	15	4.2	150	1.5	7.1
03/10/2004	P		338.27	--	12.6	7.41	330.86	690	50	<5.0	7.4	6.8	370	2.2	6.3
06/21/2004	P		338.27	--	12.6	8.41	329.86	1,300	200	<5.0	65	82	400	0.8	6.8
09/17/2004	P		338.27	--	12.6	8.25	330.02	580	17	<0.50	1.9	5.8	22	1.3	6.6
12/13/2004	P		338.27	--	12.6	7.78	330.49	380	24	<0.50	18	4.9	6.6	1.0	6.7
03/03/2005	P		338.27	--	12.6	6.48	331.79	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.9	6.8
06/23/2005	P	n	338.27	--	12.6	7.91	330.36	160	10	<0.50	3.8	5.4	26	1.8	6.8
09/16/2005	P		338.27	--	12.6	8.38	329.89	1,700	340	5.0	100	95	49	2.5	6.8
12/27/2005	--		338.27	--	12.6	7.60	330.67	--	--	--	--	--	--	--	--
03/02/2006	P		338.27	--	12.6	6.93	331.34	<250	10	<2.5	4.4	2.6	14	0.8	6.8
6/23/2006	--		338.27	--	12.6	7.55	330.72	--	--	--	--	--	--	--	--
9/19/2006	P		338.27	--	12.6	8.21	330.06	600	70	<2.5	24	3.2	89	0.81	6.8
12/19/2006	--		338.27	--	12.6	7.89	330.38	--	--	--	--	--	--	--	--
3/29/2007	P		338.27	--	12.6	7.55	330.72	95	3.1	<0.50	0.58	<0.50	5.1	1.67	7.35
6/5/2007	--		338.27	--	12.6	8.10	330.17	--	--	--	--	--	--	--	--
9/25/2007	P		338.27	--	12.6	8.82	329.45	400	2.2	<0.50	<0.50	<0.50	3.5	2.84	6.77
12/26/2007	--		338.27	--	12.6	8.23	330.04	--	--	--	--	--	--	--	--
3/25/2008	P		338.27	--	12.6	6.43	331.84	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	8.08
6/10/2008	--		338.27	--	12.6	8.15	330.12	--	--	--	--	--	--	--	--
9/9/2008	P		338.27	--	12.6	8.62	329.65	920	130	1.5	24	8.1	16	3.20	6.93
12/4/2008	--		338.27	--	12.6	8.74	329.53	--	--	--	--	--	--	--	--
3/5/2009	P		338.27	--	12.6	6.49	331.78	180	0.72	<0.50	<0.50	<0.50	0.89	5.69	7.40
6/2/2009	--		338.27	--	12.6	6.80	331.47	--	--	--	--	--	--	--	--
<b>10/26/2009</b>	<b>P</b>		<b>338.27</b>	<b>--</b>	<b>12.6</b>	<b>8.12</b>	<b>330.15</b>	<b>420</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;5.0</b>	<b>3.6</b>	<b>--</b>	<b>6.7</b>
<b>Shell MW-7</b>															
12/27/2000	P		--	--	--	6.45	--	<50.0	<0.500	0.696	<0.500	0.795	<2.50	1.33	--
02/09/2001	P		--	--	--	6.39	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.13	--
04/17/2001	P		--	--	--	7.22	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.12	--
07/17/2001	P		--	--	--	6.93	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	1.05	--
12/21/2001	P		--	--	--	7.15	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--

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

**Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	P/NP	Comments	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Water Level Elevation (feet)	Concentrations in (µg/L)						DO (mg/L)	pH
								GRO/TPHg	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE		
<b>Shell MW-7 Cont.</b>															
03/06/2002	P		--	--	--	7.03	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.95	--
04/26/2002	P		--	--	--	7.15	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.95	--
09/27/2002	--	k	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Shell MW-6</b>															
12/27/2000	P		--	--	--	9.13	--	74.7	<0.500	<0.500	<0.500	<0.500	<2.50	1.3	--
12/27/2000	--	i	--	--	--	--	--	79.3	<0.500	<0.500	<0.500	<0.500	<2.50	--	--
02/09/2001	P		--	--	--	9.05	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	1.29	--
04/17/2001	P		--	--	--	10.17	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	0.95	--
07/17/2001	P	i	--	--	--	9.50	--	<50	<0.50	<0.50	<0.50	<0.50	4.2	1.03	--
12/21/2001	P		--	--	--	9.98	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.97	--
03/06/2002	P		--	--	--	9.90	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	0.97	--
04/26/2002	P		--	--	--	9.47	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	0.97	--
09/27/2002	--	k	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>VW-2</b>															
03/21/1997	--		--	4.0	9.5	8.22	--	150	8.9	<0.5	<0.5	0.6	270	--	--
08/20/1997	--		--	4.0	9.5	9.16	--	--	--	--	--	--	--	--	--
11/21/1997	--		--	4.0	9.5	8.27	--	<200	3	<2	<2	<2	180	--	--
02/12/1998	--		--	4.0	9.5	6.65	--	200	19	<0.5	0.6	<0.5	2,200	--	--
07/31/1998	--		--	4.0	9.5	7.01	--	--	--	--	--	--	--	--	--
02/17/1999	--		--	4.0	9.5	8.47	--	--	--	--	--	--	--	--	--
08/24/1999	--		--	4.0	9.5	8.20	--	--	--	--	--	--	--	--	--
03/01/2000	--		--	4.0	9.5	8.72	--	--	--	--	--	--	--	--	--
08/18/2000	NP		--	4.0	9.5	8.40	--	<250	<2.50	<2.50	<2.50	<2.50	537	1.59	--
12/27/2000	--	j	--	4.0	9.5	8.95	--	--	--	--	--	--	--	--	--
02/09/2001	--	j	--	4.0	9.5	8.87	--	--	--	--	--	--	--	--	--
04/17/2001	--	j	--	4.0	9.5	9.00	--	--	--	--	--	--	--	--	--
07/17/2001	--	j	--	4.0	9.5	8.97	--	--	--	--	--	--	--	--	--
12/21/2001	--	k	--	4.0	9.5	--	--	--	--	--	--	--	--	--	--



SYMBOLS AND ABBREVIATIONS:

-- = Not sampled/analyzed/available/applicable  
< = 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  
GRO = Gasoline range organics  
GWE = Groundwater elevation in ft MSL  
mg/L = Milligrams per liter  
ft MSL = Feet above mean sea level  
MTBE = Methyl tert-butyl ether  
NP = Well was not purged prior to sampling  
P = Well was purged prior to sampling  
TOC = Top of casing elevation in ft MSL  
TPH-g = Total petroleum hydrocarbons as gasoline  
µg/L = Micrograms per liter

FOOTNOTES:

a = Discrete peak at C6-C7 for GRO/TPH-g.  
b = Hydrocarbon pattern was present in the requested fuel quantitation range but did not resemble the pattern of the requested fuel for GRO/TPH-g.  
c = Chromatogram Pattern: C6-C10 for GRO/TPH-g.  
d = Well casing broken, TOC unknown.  
e = Well mistakenly sampled this quarter.  
f = Well casing was repaired and needs to be resurveyed.  
g = Beginning the 1st quarter of 2003, TPH-g, benzene, toluene, ethylbenzene, total xylenes, and MTBE were analyzed by EPA Method 8260B.  
h = Elevations resurveyed on 7/21/2003.  
i = Blind duplicate sample.  
j = Well was dry.  
k = Well abandoned.  
m = Well inaccessible.  
n = Opening calibration verification standard for MTBE outside acceptance criteria.  
o = Well dewatered.  
p = VOAs broken prior to analysis of sample.  
q = Hydrocarbon results partly due to indiv. peak(s) in quant. range (GRO).

NOTES:

For previous historical GWE and analytical data please refer to fourth quarter 1995 groundwater monitoring program results, ARCO Service Station 6041, Dublin, California, (EMCON, 02/26/96).

pH levels for Well MW-3 on 12/05/03 ranged from 7.2 to 11.25.

The values for DO and pH levels were obtained through field measurements.

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 inclusion 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.

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 September 30, 2009. GRO analysis was changed to EPA method 8260B (C6-C12) for the time period October 1, 2009 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 #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-2</b>									
12/27/2002	<20,000	<10,000	790	<250	<250	<250	<250	<250	
03/12/2003	<100	540	11	<0.50	<0.50	<0.50	<0.50	<0.50	
06/28/2003	<100	<20	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	
09/30/2003	<100	290	5.2	<0.50	<0.50	<0.50	<0.50	<0.50	
12/05/2003	<100	730	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	
03/10/2004	<1,000	13,000	5.6	<5.0	<5.0	<5.0	<5.0	<5.0	
06/21/2004	<200	2,900	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	
09/17/2004	<200	2,100	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/13/2004	<100	860	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	
03/03/2005	<1,000	5,000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
06/23/2005	<100	1,900	4.3	<0.50	<0.50	<0.50	<0.50	<0.50	b
09/16/2005	<200	3,600	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	
12/27/2005	<500	3,800	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	c
03/02/2006	<1,500	3,300	5.8	<2.5	<2.5	<2.5	<2.5	<2.5	
6/23/2006	<1,500	650	4.2	<2.5	<2.5	<2.5	<2.5	<2.5	
9/19/2006	<300	340	4.0	<0.50	<0.50	<0.50	<0.50	<0.50	
12/19/2006	<300	1,300	0.70	<0.50	<0.50	<0.50	<0.50	--	c
3/29/2007	<300	1,300	1.3	<0.50	<0.50	<0.50	<0.50	<0.50	d (TBA)
6/5/2007	<300	1,400	0.94	<0.50	<0.50	<0.50	<0.50	<0.50	d (TBA)
9/25/2007	<300	930	0.56	<0.50	<0.50	<0.50	<0.50	<0.50	c, d (TBA)
12/26/2007	<300	380	0.64	<0.50	<0.50	<0.50	<0.50	<0.50	
3/25/2008	<300	2,100	7.1	<0.50	<0.50	<0.50	<0.50	<0.50	
6/10/2008	<300	430	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	
9/9/2008	<300	57	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	
12/4/2008	<300	300	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	
3/5/2009	<600	1,200	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	
6/2/2009	<600	350	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	
<b>10/26/2009</b>	<b>&lt;250</b>	<b>6.6</b>	<b>0.90</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-3</b>									
12/27/2002	<40,000	<20,000	1,100	<500	<500	<500	<500	<500	
03/12/2003	<2,000	6,100	45	<10	<10	<10	<10	<10	

**Table 2. Summary of Fuel Additives Analytical Data  
Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-3 Cont.</b>									
06/28/2003	<2,000	29,000	140	<10	<10	<10	<10	<10	
09/30/2003	<5,000	39,000	650	<25	<25	<25	<25	<25	
12/05/2003	<5,000	39,000	480	<25	<25	<25	<25	<25	
03/10/2004	<200	590	75	<1.0	<1.0	<1.0	<1.0	<1.0	
06/21/2004	<5,000	34,000	370	<25	<25	<25	<25	<25	
09/17/2004	<10,000	53,000	280	<50	<50	<50	<50	<50	
12/13/2004	<500	5,300	460	<2.5	<2.5	<2.5	<2.5	<2.5	
03/03/2005	<500	940	130	<2.5	<2.5	<2.5	<2.5	<2.5	
06/23/2005	<100	9,400	40	<0.50	<0.50	<0.50	<0.50	<0.50	b
09/16/2005	<1,000	20,000	270	<5.0	<5.0	<5.0	<5.0	<5.0	
12/27/2005	<500	1,700	230	<2.5	<2.5	<2.5	<2.5	<2.5	c
03/02/2006	<1,500	400	24	<2.5	<2.5	<2.5	<2.5	<2.5	
6/23/2006	<300	13,000	47	<0.50	<0.50	<0.50	<0.50	<0.50	b, c
9/19/2006	<300	1,500	14	<0.50	<0.50	<0.50	<0.50	<0.50	
12/19/2006	<3,000	4,900	270	<5.0	<5.0	<5.0	<5.0	--	
3/29/2007	<3,000	6,000	420	<5.0	<5.0	<5.0	<5.0	<5.0	
6/5/2007	<3,000	8,800	610	<5.0	<5.0	<5.0	<5.0	<5.0	
9/25/2007	<3,000	7,600	54	<5.0	<5.0	<5.0	<5.0	<5.0	c
12/26/2007	<300	1,800	71	<0.50	<0.50	<0.50	<0.50	<0.50	
3/25/2008	<6,000	4,900	77	<10	<10	<10	<10	<10	
6/10/2008	<15,000	6,000	<25	<25	<25	<25	<25	<25	
9/9/2008	<12,000	6,400	<20	<20	<20	<20	<20	<20	
12/4/2008	<12,000	5,700	<20	<20	<20	<20	<20	<20	
3/5/2009	<300	150	19	<0.50	<0.50	<0.50	<0.50	<0.50	
6/2/2009	<600	340	4.0	<1.0	<1.0	<1.0	<1.0	<1.0	
<b>10/26/2009</b>	<b>&lt;1,200</b>	<b>1,600</b>	<b>38</b>	<b>&lt;5.0</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	
<b>MW-4</b>									
12/27/2002	<40	<20	2.6	<0.50	<0.50	<0.50	<0.50	<0.50	
03/12/2003	<100	<20	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	
06/28/2003	<100	<20	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
09/30/2003	<100	<20	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	

**Table 2. Summary of Fuel Additives Analytical Data  
Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-4 Cont.</b>									
12/05/2003	<100	<20	2.3	<0.50	<0.50	<0.50	<0.50	<0.50	
03/10/2004	<100	<20	2.1	<0.50	<0.50	<0.50	<0.50	<0.50	
06/21/2004	<100	<20	2.0	<0.50	<0.50	<0.50	<0.50	<0.50	
09/17/2004	<100	<20	3.5	<0.50	<0.50	<0.50	<0.50	<0.50	
12/13/2004	<100	85	5.4	<0.50	<0.50	<0.50	<0.50	<0.50	
03/03/2005	<100	<20	6.3	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	79	4.2	<0.50	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<300	<20	5.8	<0.50	<0.50	<0.50	<0.50	<0.50	
9/25/2007	<300	<20	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	c
9/9/2008	<300	<10	5.3	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>10/26/2009</b>	<b>&lt;250</b>	<b>&lt;5.0</b>	<b>4.4</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-5</b>									
12/27/2002	<40	<20	15	<0.50	<0.50	<0.50	<0.50	<0.50	
12/05/2003	<100	<20	22	<0.50	<0.50	<0.50	<0.50	<0.50	
09/17/2004	--	--	--	--	--	--	--	--	Well inaccessible
09/24/2004	<100	<20	17	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	<20	69	<0.50	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<300	<20	82	<0.50	<0.50	<0.50	<0.50	<0.50	
9/25/2007	<300	<20	18	<0.50	<0.50	<0.50	<0.50	<0.50	c
9/9/2008	<300	<10	27	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>10/26/2009</b>	<b>&lt;250</b>	<b>&lt;5.0</b>	<b>8.6</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-6</b>									
12/27/2002	<40	<20	0.91	<0.50	<0.50	<0.50	<0.50	<0.50	
03/12/2003	<100	<20	0.64	<0.50	<0.50	<0.50	<0.50	<0.50	
06/28/2003	<100	<20	0.62	<0.50	<0.50	<0.50	<0.50	<0.50	
09/30/2003	<500	<100	3.9	<2.5	<2.5	<2.5	<2.5	<2.5	
09/17/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<100	42	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/19/2006	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/25/2007	<300	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	c

**Table 2. Summary of Fuel Additives Analytical Data  
Station #6041, 7249 Village Parkway, Dublin, CA**

Well and Sample Date	Concentrations in (µg/L)								Comments
	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	
<b>MW-6 Cont.</b>									
9/9/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>10/26/2009</b>	<b>&lt;250</b>	<b>&lt;5.0</b>	<b>&lt;0.50</b>	<b>&lt;1.0</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	<b>&lt;0.50</b>	
<b>MW-7</b>									
12/27/2002	<40	<20	4.7	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>MW-8</b>									
12/27/2002	<400	260	73	<5.0	<5.0	<5.0	<5.0	<5.0	
03/12/2003	<5,000	2,200	740	<25	<25	<25	<25	<25	
06/28/2003	<5,000	12,000	2,900	<25	<25	<25	<25	<25	
09/30/2003	<2,000	28,000	180	<10	<10	<10	<10	<10	a
12/05/2003	<500	500	150	<2.5	<2.5	<2.5	<2.5	<2.5	
03/10/2004	<1,000	420	370	<5.0	<5.0	<5.0	<5.0	<5.0	
06/21/2004	<1,000	9,200	400	<5.0	<5.0	<5.0	<5.0	<5.0	
09/17/2004	<100	83	22	<0.50	<0.50	<0.50	<0.50	<0.50	
12/13/2004	<100	540	6.6	<0.50	<0.50	<0.50	<0.50	<0.50	
03/03/2005	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
06/23/2005	<100	440	26	<0.50	<0.50	<0.50	<0.50	<0.50	
09/16/2005	<500	5,000	49	<2.5	<2.5	<2.5	<2.5	<2.5	
03/02/2006	<1,500	200	14	<2.5	<2.5	<2.5	<2.5	<2.5	
9/19/2006	<1,500	5,200	89	<2.5	<2.5	<2.5	<2.5	<2.5	
3/29/2007	<300	400	5.1	<0.50	<0.50	<0.50	<0.50	<0.50	
9/25/2007	<300	3,800	3.5	<0.50	<0.50	<0.50	<0.50	<0.50	c
3/25/2008	<300	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
9/9/2008	<300	3,200	16	<0.50	<0.50	<0.50	<0.50	<0.50	
3/5/2009	<300	27	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	
<b>10/26/2009</b>	<b>&lt;1,200</b>	<b>1,300</b>	<b>3.6</b>	<b>&lt;5.0</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	<b>&lt;2.5</b>	

ABBREVIATIONS AND SYMBOLS:

< = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

µg/L = micrograms per liter

FOOTNOTES:

a = The result for TBA was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.

b = The initial analysis of TBA was within the hold time but required dilution.

c = Calibration verification for ethanol was within method limits but outside contract limits.

d = Sample > 4x spike concentration.

NOTES:

All fuel oxygenate 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 #6041, 7249 Village Parkway, Dublin, CA**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
2/15/1995	NR	NR
5/24/1995	East-Southeast	0.002
8/25/1995	Northwest	0.006
11/28/1995	North	0.006
2/26/1996	East	0.012
5/23/1996	Flat Gradient	Flat Gradient
8/23/1996	Flat Gradient	Flat Gradient
3/21/1997	South-Southeast	0.005
8/20/1997	South-Southwest	0.001
11/21/1997	South-Southwest	0.002
2/12/1998	East	0.024
7/31/1998	Northwest	0.01
2/17/1999	Southeast	0.007
8/24/1999	South-Southwest	0.013
3/1/2000	South-Southeast	0.005
9/26/2000	South-Southeast	0.002
12/27/2000	West-Southwest	0.003
2/9/2001	West-Southwest	0.003
4/17/2001	South-Southwest	0.015
7/17/2001	South-Southwest	0.003
12/21/2001	East	0.002
3/6/2002	East	0.003
4/26/2002	Southeast	0.003
9/27/2002	South	0.013
12/27/2002	Southeast	0.011
3/12/2003	South-Southeast	0.008
6/28/2003	South	0.001
9/30/2003	Southwest	0.002
12/5/2003	West	0.009
3/10/2004	South-Southeast	0.003
6/21/2004	Southeast	0.004
9/17/2004	Variable	0.001 - 0.007
9/17/2004	Variable	0.001-0.007
12/13/2004	East	0.002
3/3/2005	East	0.02
6/23/2005	Variable	0.02 - 0.005
9/16/2005	Northeast	0.005
12/27/2005	East-Northeast	0.007
3/2/2006	Northeast	0.005
6/23/2006	Northeast	0.004
9/19/2006	North-Northeast	0.004
12/19/2006	North-Northeast	0.006

**Table 3. Historical Ground-Water Flow Direction and Gradient  
Station #6041, 7249 Village Parkway, Dublin, CA**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient</b>
3/29/2007	North-Northeast	0.004
6/5/2007	South-Southeast	0.002
9/25/2007	North-Northeast	0.005
12/26/2007	Northeast	0.005
3/25/2008	Northeast	0.005
6/10/2008	Northeast	0.005
9/9/2008	North-Northeast	0.005
12/4/2008	North-Northeast	0.005
3/5/2009	East-Northeast	0.008
6/2/2009	Northeast	0.005
<b>10/26/2009</b>	<b>Northeast</b>	<b>0.006</b>

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**

BAI GROUND-WATER SAMPLING DATA PACKAGE  
(INCLUDES FIELD DATA SHEETS, CHAIN OF CUSTODY DOCUMENTATION,  
CERTIFIED ANALYTICAL RESULTS, AND FIELD PROCEDURES FOR  
GROUNDWATER SAMPLING)

### Groundwater Sampling Data Sheet

Well I.D.: MW-2  
 Project Name/Location: BP 6041 Project #: 09-88-651  
 Sampler's Name: E. Farrer T. Geddes Date: 10/26/09  
 Purging Equipment: Bailer  
 Sampling Equipment: Bailer

Casing Type: PVC

Casing Diameter: 4 inch

**\*UNIT CASING VOLUMES**

Total Well Depth: 9.59 feet

2" = 0.16 gal/lin ft.

Depth to Water: - 7.37 feet

3" = 0.37 gal/lin ft.

Water Column Thickness: = 2.22 feet

4" = 0.65 gal/lin ft.

Unit Casing Volume\*: x ~~1.65~~ 1.44 gallon / foot

6" = 1.47 gal/lin ft.

Casing Water Volume: = 1.44 gallons

Casing Volume: x 3 each

Estimated Purge Volume: = 4.32 gallons

Free product measurement (if present): \_\_\_\_\_

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1310				3950	23.9	6.95	
1	1315	X	X	X	3913	24.3	6.92	
1.5	1318	X	X	X	3915	24.9	6.90	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 1.5 gallons

Depth to Water at Sample Collection: \_\_\_\_\_ feet

Sample Collection Time: 1318

Purged Dry? (Y / N)

Comments: Gravel in well jams bailer

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**Groundwater Sampling Data Sheet**

Well I.D.: MW-3  
 Project Name/Location: BP-6041 Project #: 09-88-051  
 Sampler's Name: E. Farn T. Geddes Date: 10/26/09  
 Purging Equipment: Bailer  
 Sampling Equipment: Bailer

Casing Type: PVC

Casing Diameter: 4 inchTotal Well Depth: 13.95 feetDepth to Water: 8.18 feetWater Column Thickness: 5.77 feetUnit Casing Volume\*: 0.65 gallon / footCasing Water Volume: 3.75 gallonsCasing Volume: 3 eachEstimated Purge Volume: 11.25 gallons**\*UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.

3" = 0.37 gal/lin ft.

4" = 0.65 gal/lin ft.

6" = 1.47 gal/lin ft.

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	13:27	—	—	—	1133	24.1	7.95	
2	1334	X	X	X	604.5	24.3	7.71	
4	1341	X	X	X	1009	23.5	7.13	
5	1342	X	X	X	1171	24.3	7.19	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 5 gallons

Depth to Water at Sample Collection: \_\_\_\_\_ feet

Sample Collection Time: 1342

Purged Dry? ( Y / N )

Comments:

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**Groundwater Sampling Data Sheet**

Well I.D.: MW-4  
 Project Name/Location: E. Farrow T. Geddes Project #: 40/26  
 Sampler's Name: \_\_\_\_\_ Date: 10/26/09  
 Purging Equipment: Bailer  
 Sampling Equipment: Bailer

Casing Type: PVC

Casing Diameter: 4 inchTotal Well Depth: 14.58 feetDepth to Water: - 7.12 feetWater Column Thickness: = 7.46 feetUnit Casing Volume\*: x 0.65 gallon / footCasing Water Volume: = 4.84 gallonsCasing Volume: x 3 eachEstimated Purge Volume: = 14.54 gallonsFree product measurement (if present): NA**\*UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.

3" = 0.37 gal/lin ft.

4" = 0.65 gal/lin ft.

6" = 1.47 gal/lin ft.

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1236	/	/	/	4706	24.7	6.71	
2.5	1242	X	X	X	4697	24.6	6.78	
4	1245	X	X	X	4712	24.5	6.79	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4 gallonsDepth to Water at Sample Collection: 9.82 feetSample Collection Time: 1247 Purged Dry? (Y/N)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Groundwater Sampling Data Sheet**

Well I.D.: MW-5  
 Project Name/Location: BP 6041 Project #: 09-88-651  
 Sampler's Name: E. Enin T. Geddes Date: 10/26/09  
 Purging Equipment: Bailer  
 Sampling Equipment: Bailer

Casing Type: PVC

Casing Diameter: 4 inchTotal Well Depth: 16.27 feetDepth to Water: 9.36 feetWater Column Thickness: 8.91 feetUnit Casing Volume\*: 0.65 gallon / footCasing Water Volume: 5.79 gallonsCasing Volume: 3 eachEstimated Purge Volume: 17.37 gallons**\*UNIT CASING VOLUMES**

2" = 0.16 gal/lin ft.

3" = 0.37 gal/lin ft.

4" = 0.65 gal/lin ft.

6" = 1.47 gal/lin ft.

Free product measurement (if present):

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
1	1107				4055	21.3	6.5	
2	1109	X	X	X	3327	20.4	6.8	
4	1111	X	X	X	3358	20.0	6.8	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 4 gallons

Depth to Water at Sample Collection: \_\_\_\_\_ feet

Sample Collection Time: 1111 Purged Dry? ( Y / N )

Comments:

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### Groundwater Sampling Data Sheet

Well I.D.: MW-6  
 Project Name/Location: BP 6041 Project #: 09-88-651  
 Sampler's Name: E. Farrar T. Geddes Date: 10/26/09  
 Purging Equipment: Bailer  
 Sampling Equipment: Bailer

Casing Type: PVC  
 Casing Diameter: 4" inch **\*UNIT CASING VOLUMES**  
 Total Well Depth: 12.89 feet 2" = 0.16 gal/lin ft.  
 Depth to Water: - 8.26 feet 3" = 0.37 gal/lin ft.  
 Water Column Thickness: = 4.63 feet 4" = 0.65 gal/lin ft.  
 Unit Casing Volume\*: x 2.65 gallon / foot 6" = 1.47 gal/lin ft.  
 Casing Water Volume: = 3.00 gallons  
 Casing Volume: x 3 each  
 Estimated Purge Volume: = 9.03 gallons

Free product measurement (if present): \_\_\_\_\_

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
0	1139				3122	26.3	6.8	
2.5	1141	X	X	X	2846	26.2	6.8	
3.5	1143	X	X	X	2724	25.8	6.8	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.5 gallons

Depth to Water at Sample Collection: \_\_\_\_\_ feet

Sample Collection Time: 1143

Purged Dry? (Y/N) (N)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**Groundwater Sampling Data Sheet**

Well I.D.: MW-7  
 Project Name/Location: BP 6041 Project #: 09-88-651  
 Sampler's Name: ET TG Date: 10/26/09  
 Purging Equipment: \_\_\_\_\_  
 Sampling Equipment: \_\_\_\_\_

Casing Type: PVC  
 Casing Diameter: 4 inch  
 Total Well Depth: 0.00 feet  
 Depth to Water: - Dry feet  
 Water Column Thickness: = \_\_\_\_\_ feet  
 Unit Casing Volume\*: x \_\_\_\_\_ gallon / foot  
 Casing Water Volume: = \_\_\_\_\_ gallons  
 Casing Volume: x 3 each  
 Estimated Purge Volume: = \_\_\_\_\_ gallons

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

Free product measurement (if present): \_\_\_\_\_

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (Fahrenheit)	pH	Observations
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

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

Comments: well is dry  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### Groundwater Sampling Data Sheet

Well I.D.: MW-8

Project Name/Location: BP 10041 Project #: 09-89-651

Sampler's Name: E. Ferrar T. Geddes Date: 10/26/09

Purging Equipment: Bailer

Sampling Equipment: Bailer

Casing Type: PVC

Casing Diameter: 4 inch

Total Well Depth: 12.7 feet

Depth to Water: 8.12 feet

Water Column Thickness: 4.6 feet

Unit Casing Volume\*: x .65 gallon / foot

Casing Water Volume: = 2.9 gallons

Casing Volume: x 3 each

Estimated Purge Volume: = 8.8 gallons

**\*UNIT CASING VOLUMES**

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

Free product measurement (if present): \_\_\_\_\_

Purged (gallons)	Time (24:00)	DO	ORP (mV)	Fe	Conductance (µS)	Temperature (°Fahrenheit)	pH	Observations
0	1212				1025	26.0	6.8	
2	1214	X	X	X	1133	25.3	6.7	
3.5	1216	X	X	X	1243	25.1	6.7	
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				
		X	X	X				

Total Water Volume Purged: 3.5 gallons

Depth to Water at Sample Collection: \_\_\_\_\_ feet

Sample Collection Time: 1243

Purged Dry? ( Y / N )

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## ANALYTICAL REPORT

Job Number: 720-23639-1

Job Description: BP #6041, Dublin

For:

ARCADIS U.S., Inc.  
155 Montgomery Street  
Suite 1500  
San Francisco, CA 94104  
Attention: Hollis Phillips



Approved for release.  
Dimple Sharma  
Project Manager I  
11/4/2009 2:41 PM

---

Dimple Sharma  
Project Manager I  
dimple.sharma@testamericainc.com  
11/04/2009

CA ELAP Certification # 2496

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Tel (925) 484-1919 Fax (925) 600-3002 [www.testamericainc.com](http://www.testamericainc.com)

**Job Narrative**  
**720-23639-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

No analytical or quality issues were noted.

## EXECUTIVE SUMMARY - Detections

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

Lab Sample ID	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
<b>720-23639-1</b>	<b>MW-2</b>				
TBA		6.6	5.0	ug/L	8260B/CA_LUFTMS
MTBE		0.90	0.50	ug/L	8260B/CA_LUFTMS
<b>720-23639-2</b>	<b>MW-3</b>				
TBA		1600	25	ug/L	8260B/CA_LUFTMS
Benzene		11	2.5	ug/L	8260B/CA_LUFTMS
Gasoline Range Organics (GRO)-C6-C12		330	250	ug/L	8260B/CA_LUFTMS
Toluene		3.5	2.5	ug/L	8260B/CA_LUFTMS
MTBE		38	2.5	ug/L	8260B/CA_LUFTMS
<b>720-23639-3</b>	<b>MW-4</b>				
Toluene		0.57	0.50	ug/L	8260B/CA_LUFTMS
MTBE		4.4	0.50	ug/L	8260B/CA_LUFTMS
<b>720-23639-4</b>	<b>MW-5</b>				
MTBE		8.6	0.50	ug/L	8260B/CA_LUFTMS
<b>720-23639-6</b>	<b>MW-8</b>				
TBA		1300	25	ug/L	8260B/CA_LUFTMS
Gasoline Range Organics (GRO)-C6-C12		420	250	ug/L	8260B/CA_LUFTMS
MTBE		3.6	2.5	ug/L	8260B/CA_LUFTMS

## METHOD SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

<b>Description</b>	<b>Lab Location</b>	<b>Method</b>	<b>Preparation Method</b>
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/MS	TAL SF	SW846 8260B/CA_LUFTMS	
Purge and Trap	TAL SF		SW846 5030B

### Lab References:

TAL SF = TestAmerica San Francisco

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## SAMPLE SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
720-23639-1	MW-2	Water	10/26/2009 1310	10/26/2009 1635
720-23639-2	MW-3	Water	10/26/2009 1327	10/26/2009 1635
720-23639-3	MW-4	Water	10/26/2009 1236	10/26/2009 1635
720-23639-4	MW-5	Water	10/26/2009 1107	10/26/2009 1635
720-23639-5	MW-6	Water	10/26/2009 1150	10/26/2009 1635
720-23639-6	MW-8	Water	10/26/2009 1212	10/26/2009 1635

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

**Client Sample ID: MW-2**

Lab Sample ID: 720-23639-1

Date Sampled: 10/26/2009 1310

Client Matrix: Water

Date Received: 10/26/2009 1635

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**8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS**

Method: 8260B/CA\_LUFTMS      Analysis Batch: 720-60683      Instrument ID: SAT 3900A  
Preparation: 5030B      Lab File ID: e:\data\2009\200910\  
Dilution: 1.0      Initial Weight/Volume: 40 mL  
Date Analyzed: 10/31/2009 1324      Final Weight/Volume: 40 mL  
Date Prepared: 10/31/2009 1324

---

Analyte	Result (ug/L)	Qualifier	RL
TBA	6.6		5.0
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Ethanol	ND		250
MTBE	0.90		0.50
EDB	ND		0.50
DIPE	ND		1.0
1,2-Dichloroethane	ND		0.50
Ethylbenzene	ND		0.50

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Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	95		70 - 130
1,2-Dichloroethane-d4 (Surr)	107		67 - 130



**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

**Client Sample ID: MW-3**

Lab Sample ID: 720-23639-2

Date Sampled: 10/26/2009 1327

Client Matrix: Water

Date Received: 10/26/2009 1635

**8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS**

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-60683	Instrument ID:	SAT 3900A
Preparation:	5030B		Lab File ID:	e:\data\2009\200910\
Dilution:	5.0		Initial Weight/Volume:	40 mL
Date Analyzed:	10/31/2009 1821		Final Weight/Volume:	40 mL
Date Prepared:	10/31/2009 1821			

Analyte	Result (ug/L)	Qualifier	RL
TBA	1600		25
Benzene	11		2.5
Gasoline Range Organics (GRO)-C6-C12	330		250
TAME	ND		2.5
Ethyl tert-butyl ether	ND		2.5
Toluene	3.5		2.5
Xylenes, Total	ND		5.0
Ethanol	ND		1200
MTBE	38		2.5
EDB	ND		2.5
DIPE	ND		5.0
1,2-Dichloroethane	ND		2.5
Ethylbenzene	ND		2.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		67 - 130

Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

Client Sample ID: MW-4

Lab Sample ID: 720-23639-3

Date Sampled: 10/26/2009 1236

Client Matrix: Water

Date Received: 10/26/2009 1635

8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS

Method: 8260B/CA\_LUFTMS Analysis Batch: 720-60683 Instrument ID: SAT 3900A  
Preparation: 5030B Lab File ID: e:\data\2009\200910\  
Dilution: 1.0 Initial Weight/Volume: 40 mL  
Date Analyzed: 10/31/2009 1410 Final Weight/Volume: 40 mL  
Date Prepared: 10/31/2009 1410

Analyte	Result (ug/L)	Qualifier	RL
TBA	ND		5.0
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	0.57		0.50
Xylenes, Total	ND		1.0
Ethanol	ND		250
MTBE	4.4		0.50
EDB	ND		0.50
DIPE	ND		1.0
1,2-Dichloroethane	ND		0.50
Ethylbenzene	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	112		67 - 130

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

**Client Sample ID: MW-5**

Lab Sample ID: 720-23639-4

Date Sampled: 10/26/2009 1107

Client Matrix: Water

Date Received: 10/26/2009 1635

**8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS**

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-60683	Instrument ID:	SAT 3900A
Preparation:	5030B		Lab File ID:	e:\data\2009\200910\
Dilution:	1.0		Initial Weight/Volume:	40 mL
Date Analyzed:	10/31/2009 1433		Final Weight/Volume:	40 mL
Date Prepared:	10/31/2009 1433			

Analyte	Result (ug/L)	Qualifier	RL
TBA	ND		5.0
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Ethanol	ND		250
MTBE	8.6		0.50
EDB	ND		0.50
DIPE	ND		1.0
1,2-Dichloroethane	ND		0.50
Ethylbenzene	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	115		67 - 130

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

**Client Sample ID: MW-6**

Lab Sample ID: 720-23639-5

Date Sampled: 10/26/2009 1150

Client Matrix: Water

Date Received: 10/26/2009 1635

**8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS**

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-60683	Instrument ID:	SAT 3900A
Preparation:	5030B		Lab File ID:	e:\data\2009\200910\
Dilution:	1.0		Initial Weight/Volume:	40 mL
Date Analyzed:	10/31/2009 1456		Final Weight/Volume:	40 mL
Date Prepared:	10/31/2009 1456			

Analyte	Result (ug/L)	Qualifier	RL
TBA	ND		5.0
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Ethanol	ND		250
MTBE	ND		0.50
EDB	ND		0.50
DIPE	ND		1.0
1,2-Dichloroethane	ND		0.50
Ethylbenzene	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	104		67 - 130

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

**Client Sample ID: MW-8**

Lab Sample ID: 720-23639-6

Date Sampled: 10/26/2009 1212

Client Matrix: Water

Date Received: 10/26/2009 1635

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**8260B/CA\_LUFTMS Volatile Organic Compounds by GC/MS**

Method: 8260B/CA\_LUFTMS      Analysis Batch: 720-60683      Instrument ID: SAT 3900A  
Preparation: 5030B      Lab File ID: e:\data\2009\200910\  
Dilution: 5.0      Initial Weight/Volume: 40 mL  
Date Analyzed: 10/31/2009 1844      Final Weight/Volume: 40 mL  
Date Prepared: 10/31/2009 1844

Analyte	Result (ug/L)	Qualifier	RL
TBA	1300		25
Benzene	ND		2.5
Gasoline Range Organics (GRO)-C6-C12	420		250
TAME	ND		2.5
Ethyl tert-butyl ether	ND		2.5
Toluene	ND		2.5
Xylenes, Total	ND		5.0
Ethanol	ND		1200
MTBE	3.6		2.5
EDB	ND		2.5
DIPE	ND		5.0
1,2-Dichloroethane	ND		2.5
Ethylbenzene	ND		2.5

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	98		70 - 130
1,2-Dichloroethane-d4 (Surr)	105		67 - 130

## DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description
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## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Analysis Batch:720-60683</b>					
LCS 720-60683/2	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-60683/1	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
MB 720-60683/3	Method Blank	T	Water	8260B/CA_LUFT	
720-23639-1	MW-2	T	Water	8260B/CA_LUFT	
720-23639-1MS	Matrix Spike	T	Water	8260B/CA_LUFT	
720-23639-1MSD	Matrix Spike Duplicate	T	Water	8260B/CA_LUFT	
720-23639-2	MW-3	T	Water	8260B/CA_LUFT	
720-23639-3	MW-4	T	Water	8260B/CA_LUFT	
720-23639-4	MW-5	T	Water	8260B/CA_LUFT	
720-23639-5	MW-6	T	Water	8260B/CA_LUFT	
720-23639-6	MW-8	T	Water	8260B/CA_LUFT	

#### Report Basis

T = Total

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

**Method Blank - Batch: 720-60683**

Lab Sample ID: MB 720-60683/3  
 Client Matrix: Water  
 Dilution: 1.0  
 Date Analyzed: 10/31/2009 1136  
 Date Prepared: 10/31/2009 1136

Analysis Batch: 720-60683  
 Prep Batch: N/A  
 Units: ug/L

**Method: 8260B/CA\_LUFTMS  
 Preparation: 5030B**

Instrument ID: Varian 3900A  
 Lab File ID: e:\data\2009\200910\103109\1  
 Initial Weight/Volume: 40 mL  
 Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
TBA	ND		5.0
Benzene	ND		0.50
Gasoline Range Organics (GRO)-C6-C12	ND		50
TAME	ND		0.50
Ethyl tert-butyl ether	ND		0.50
Toluene	ND		0.50
Xylenes, Total	ND		1.0
Ethanol	ND		250
MTBE	ND		0.50
EDB	ND		0.50
DIPE	ND		1.0
1,2-Dichloroethane	ND		0.50
Ethylbenzene	ND		0.50
Surrogate	% Rec	Acceptance Limits	
Toluene-d8 (Surr)	96	70 - 130	
1,2-Dichloroethane-d4 (Surr)	103	67 - 130	

Calculations are performed before rounding to avoid round-off errors in calculated results.



## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 720-60683**

**Method: 8260B/CA\_LUFTMS  
Preparation: 5030B**

LCS Lab Sample ID: LCS 720-60683/2  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/31/2009 1159  
Date Prepared: 10/31/2009 1159

Analysis Batch: 720-60683  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\200910\103109\ld  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-60683/1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/31/2009 1239  
Date Prepared: 10/31/2009 1239

Analysis Batch: 720-60683  
Prep Batch: N/A  
Units: ug/L

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\200910\103109\ld  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
TBA	75	82	60 - 120	9	20		
Benzene	82	84	72 - 120	3	20		
Gasoline Range Organics (GRO)-C6-C12	60	62	32 - 130	3	20		
TAME	100	106	60 - 120	6	20		
Ethyl tert-butyl ether	91	97	60 - 120	6	20		
Toluene	73	73	59 - 120	1	20		
Ethanol	97	78	60 - 120	21	20		
MTBE	102	106	64 - 130	3	20		
DIPE	97	102	60 - 120	5	20		
1,2-Dichloroethane	101	108	60 - 120	7	20		
Ethylbenzene	79	78	60 - 120	1	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
Toluene-d8 (Surr)	99		99		70 - 130		
1,2-Dichloroethane-d4 (Surr)	93		88		67 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 720-60683**

**Method: 8260B/CA\_LUFTMS  
Preparation: 5030B**

MS Lab Sample ID: 720-23639-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/31/2009 1735  
Date Prepared: 10/31/2009 1735

Analysis Batch: 720-60683  
Prep Batch: N/A

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\200910\103109\5  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

MSD Lab Sample ID: 720-23639-1  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 10/31/2009 1758  
Date Prepared: 10/31/2009 1758

Analysis Batch: 720-60683  
Prep Batch: N/A

Instrument ID: Varian 3900A  
Lab File ID: e:\data\2009\200910\103109\5  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
TBA	82	85	60 - 130	4	20		
Benzene	83	88	58 - 134	7	20		
Gasoline Range Organics (GRO)-C6-C12	58	61	49 - 130	5	20		
TAME	105	105	60 - 130	0	20		
Ethyl tert-butyl ether	97	99	60 - 130	2	20		
Toluene	74	76	72 - 130	2	20		
Ethanol	84	110	60 - 130	27	20		
MTBE	100	112	22 - 185	10	20		
DIPE	102	97	60 - 130	5	20		
1,2-Dichloroethane	109	108	60 - 130	1	20		
Ethylbenzene	77	83	60 - 130	8	20		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
Toluene-d8 (Surr)	99		94	70 - 130			
1,2-Dichloroethane-d4 (Surr)	102		103	67 - 130			

Calculations are performed before rounding to avoid round-off errors in calculated results.

# 720-23639 Chain of Custody Record

Client Contact		Project Manager: Jason Duda		Site Contact: Eric Fenn		Date: 10/26/09											
Broadbent & Associates		Tel/Fax: (530) 566-1400 / (530) 566-1401		Lab Contact: Dimple Sharma		Carrier:											
1324 Mangrove Ave Suite 212		Analysis Turnaround Time		Filtered Sample GRO by 8015 BTEX 5 oxygenates 1,2 DCA and EDB Ethanol		COC No: 1 of 1 COCs											
Chico, CA 95926		Calendar ( C ) or Work Days ( W ) <i>Standard</i>				Job No. 09-48-635											
(530) 566-1400		TAT if different from Below				SDG No.											
(530) 566-1401		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				Sample Specific Notes:											
Project Name: BP 6041						HCL preserved											
Site: 7249 Village Parkway, Dublin, CA																	
P O # GP09BPNA.C039																	
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	GRO by 8015	BTEX	5 oxygenates	1,2 DCA and EDB	Ethanol						
MW-2	10/24/09	1310		uv	6V		X	X	X	X	X						
MW-3	10/26/09	1327		aq	6V		X	X	X	X	X						
MW-4	10/26/09	1236		aq	6V		X	X	X	X	X						
MW-5	10/26/09	1107		aq	6V		X	X	X	X	X						
MW-6	10/26/09	1650		Aa	6V		X	X	X	X	X						
MW-8	10/24/09	1212		aq	6V		X	X	X	X	X						
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other																	
Possible Hazard Identification						Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)											
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Special Instructions/QC Requirements & Comments:																	
Relinquished by: <i>[Signature]</i>		Company: Broadbent		Date/Time: 10/26/09		Received by: <i>[Signature]</i>		Company: Test America		Date/Time: 10-26-09 1635							
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:							
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:							

01  
02  
03  
04  
05  
06  
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## Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 720-23639-1

**Login Number: 23639**

**List Source: TestAmerica San Francisco**

**Creator: Mullen, Joan**

**List Number: 1**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

## BROADBENT & ASSOCIATES INC. FIELD PROCEDURES

### A.1 QUALITY ASSURANCE/QUALITY CONTROL FIELD PROTOCOLS

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

#### A.1.1 Water Level & Free-Product Measurement

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

#### A.1.2 Monitoring Well Purging

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

#### A.1.3 Ground-Water Sample Collection

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

#### A.1.4 Surface Water Sample Collection

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

#### A.1.5 Decontamination Protocol

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

#### A.1.6 Chain of Custody Procedures

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

##### Field Custody Procedures

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

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

##### Transfer of Custody and Shipment

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

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

#### A.1.7 Field Records

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

## **APPENDIX B**

### **GEOTRACKER UPLOAD CONFIRMATION**

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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!

<b><u>Submittal Type:</u></b>	<b>GEO_WELL</b>
<b><u>Submittal Title:</u></b>	<b>4Q09 GEO_WELL 6041</b>
<b><u>Facility Global ID:</u></b>	<b>T0600100109</b>
<b><u>Facility Name:</u></b>	<b>ARCO #6041</b>
<b><u>File Name:</u></b>	<b>GEO_WELL.zip</b>
<b><u>Organization Name:</u></b>	<b>Broadbent &amp; Associates, Inc.</b>
<b><u>Username:</u></b>	<b>BROADBENT-C</b>
<b><u>IP Address:</u></b>	<b>67.118.40.90</b>
<b><u>Submittal Date/Time:</u></b>	<b>12/22/2009 10:18:23 AM</b>
<b><u>Confirmation Number:</u></b>	<b>1076440274</b>



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!

<b><u>Submittal Type:</u></b>	EDF - Monitoring Report - Quarterly
<b><u>Submittal Title:</u></b>	4Q09 GW Monitoring
<b><u>Facility Global ID:</u></b>	T0600100109
<b><u>Facility Name:</u></b>	ARCO #6041
<b><u>File Name:</u></b>	6041-720-23639-1.zip
<b><u>Organization Name:</u></b>	Broadbent & Associates, Inc.
<b><u>Username:</u></b>	BROADBENT-C
<b><u>IP Address:</u></b>	67.118.40.90
<b><u>Submittal Date/Time:</u></b>	12/22/2009 10:43:46 AM
<b><u>Confirmation Number:</u></b>	<b>3515817105</b>

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