Delta
Environmental Consultants, Inc.

Solving environment-related business problems worldwide

www.deltaenv.com

27141 Aliso Creek Road • Suite 270
Aliso Viejo, California 92656 USA

949.362.3077 800.477.7411
Fax 949.362.0290

June 9, 2005

Dr. Steven Speer
Orange County Health Care Agency
Environmental Health Division
1241 East Dyer Road, Suite 120
Santa Ana, California 92705

Subject: Quarterly Update Report Submittal

Dear Dr. Speer:

On behalf of Atlantic Richfield Company, Delta Environmental Consultants, Inc. is submitting the enclosed Quarterly Update Report for the Second Quarter 2005. The enclosed quarterly report was prepared for the following ARCO Facility:

ARCO Facility No.	OCHCA Case No.	Location
0629	95UT62	13482 Brookhurst Street, Garden Grove

If you have any questions regarding this project, please contact Sarah Salcedo at (949) 363-3309.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

For

Sarah O. Salcedo
Project Manager
California Professional Geologist No. 7536

REGISTERED GEOLOGIST
Bryan L. Van Wagner
No. 5820
STATE OF CALIFORNIA

Enclosure: Atlantic Richfield Company Quarterly Update Report

cc: Mr. Darrell Fah, Atlantic Richfield Company, La Palma, California
Ms. Valerie Jahn-Bull, CRWQCB, Santa Ana Region, Riverside, California
Mr. Fabio Minervini, England Geosystem, Inc., Irvine, California

(c:\coverletters\0629.doc)

A member of:
Inogen Environmental Alliance

ATLANTIC RICHFIELD COMPANY QUARTERLY UPDATE REPORT
SECOND QUARTER 2005
JUNE 10, 2005

Facility No.:	0629	Address:	13482 Brookhurst Street, Garden Grove, California
Atlantic Richfield Company Environmental Business Manager / Phone No.:			Darrell Fah / (714) 378-5105
Consulting Co. / Contact Person / Phone No.:			Delta Environmental / Sarah Salcedo / (949) 363-3309
Primary Agency / Contact Person / Regulatory ID No.:			Orange County Health Care Agency – Local Oversight Program (OCLOP) / Steven Speer / 95UT62
Other Agencies to Receive Copies:			California Regional Water Quality Control Board - Santa Ana Region / Valerie Jahn-Bull

WORK PERFORMED THIS QUARTER (Second – 2005):

1. Submitted the first quarter 2005 *Quarterly Update Report* to the OCLOP on April 4, 2004.
2. Submitted *Soil Sampling Report* to the OCLOP on April 15, 2005, summarizing field activities and analytical results associated with the air monitoring and soil sampling conducted on March 16 and 17, 2005. Soil samples were collected during repair activities associated with secondary containment piping. Analytical results of soil samples collected during these activities indicated no detectable concentrations of petroleum constituents.
3. Doulos Environmental, Inc. conducted quarterly groundwater monitoring and no-purge sampling activities on April 26, 2005 (sampling information sheet is included as Attachment A). Groundwater samples were collected from wells MW-1, MW-4, MW-9, and MW-9d during the second quarter 2005. Prior to sampling, deeply screened well MW-9d was purged of 1 well volume using a peristaltic pump. Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline according to Environmental Protection Agency (EPA) Method 8015B and for benzene, ethylbenzene, toluene, and xylenes according to EPA Method 8021B. In addition, samples were analyzed for methyl *tert*-butyl ether (MTBE), di-isopropyl ether, *tert*-amyl methyl ether, ethyl *tert*-butyl ether, *tert*-butanol, and ethanol according to EPA Method 8260B. Historical groundwater elevation and analytical results are summarized in Tables 1 and 2, respectively. A copy of the laboratory analytical report and chain-of-custody documentation is included as Attachment B.

WORK PROPOSED FOR THE NEXT QUARTER (Third – 2005):

1. Submit second quarter 2005 *Quarterly Update Report* to the OCLOP within 45 days following the second quarter 2005 sampling event.
2. Conduct third quarter 2005 quarterly groundwater monitoring and sampling activities.

Current Phase of Project:	Groundwater Monitoring
Frequency of Sampling:	Groundwater – Semi-Annual / Quarterly
Frequency of Monitoring:	Groundwater – Quarterly
Permits for Discharge (No.):	None
Approximate Depth to Groundwater:	13.48 – 19.62 feet Measured X Estimated
Groundwater Gradient:	0.01 ft/ft (Magnitude) SSE (Direction)

ATLANTIC RICHFIELD COMPANY QUARTERLY UPDATE REPORT
SECOND QUARTER 2005
JUNE 10, 2005

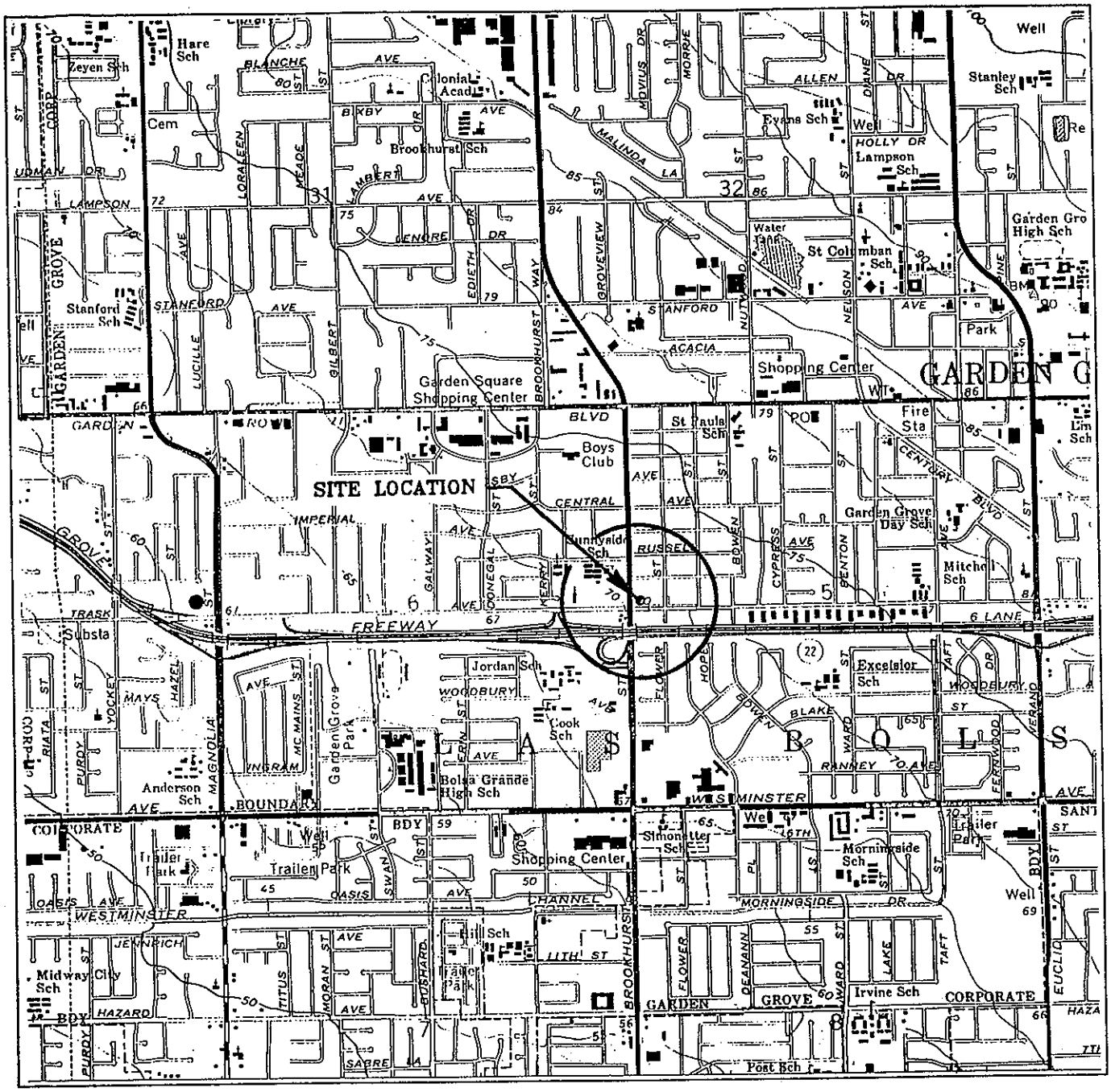
Facility No.: 0629 Address: 13482 Brookhurst Street, Garden Grove, California

DISCUSSION:

Per the reduced groundwater monitoring and sampling schedule for this site, groundwater samples were collected from wells MW-1, MW-4, MW-9, and MW-9d during the second quarter 2005. Groundwater conditions observed during this quarter remained generally consistent with the previous quarter.

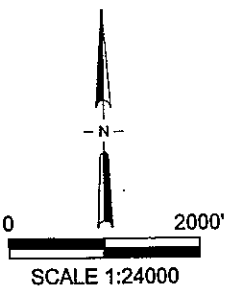
ATTACHMENTS:

Site Location Map (Figure 1)
Groundwater Elevation Contour Map (Figure 2)
Groundwater Analyses Map (Figure 3)
Historical Groundwater Elevation Data (Table 1)
Historical Groundwater Analytical Results (Table 2)
Sampling Information Sheets (Attachment A)
Laboratory Report and Chain-of-Custody Documentation (Attachment B)



GENERAL NOTES:
BASE MAP FROM U.S.G.S.
ANAHEIM, CA. QUADRANGLE
7.5 MINUTE TOPOGRAPHIC MAP
1965
PHOTOREVISED 1981

QUADRANGLE LOCATION



SCALE 1:24000

FIGURE 1
SITE LOCATION MAP
ARCO FACILITY NO. 629
13482 BROOKHURST STREET
GARDEN GROVE, CA.

PROJECT NO. AM00-622	DRAWN BY	Delta Environmental Consultants, Inc.
FILE NO. 5-607-67Q	PREPARED BY P. MANNS	
DATE 03 JUL 02 / REV. 1	REVIEWED BY	

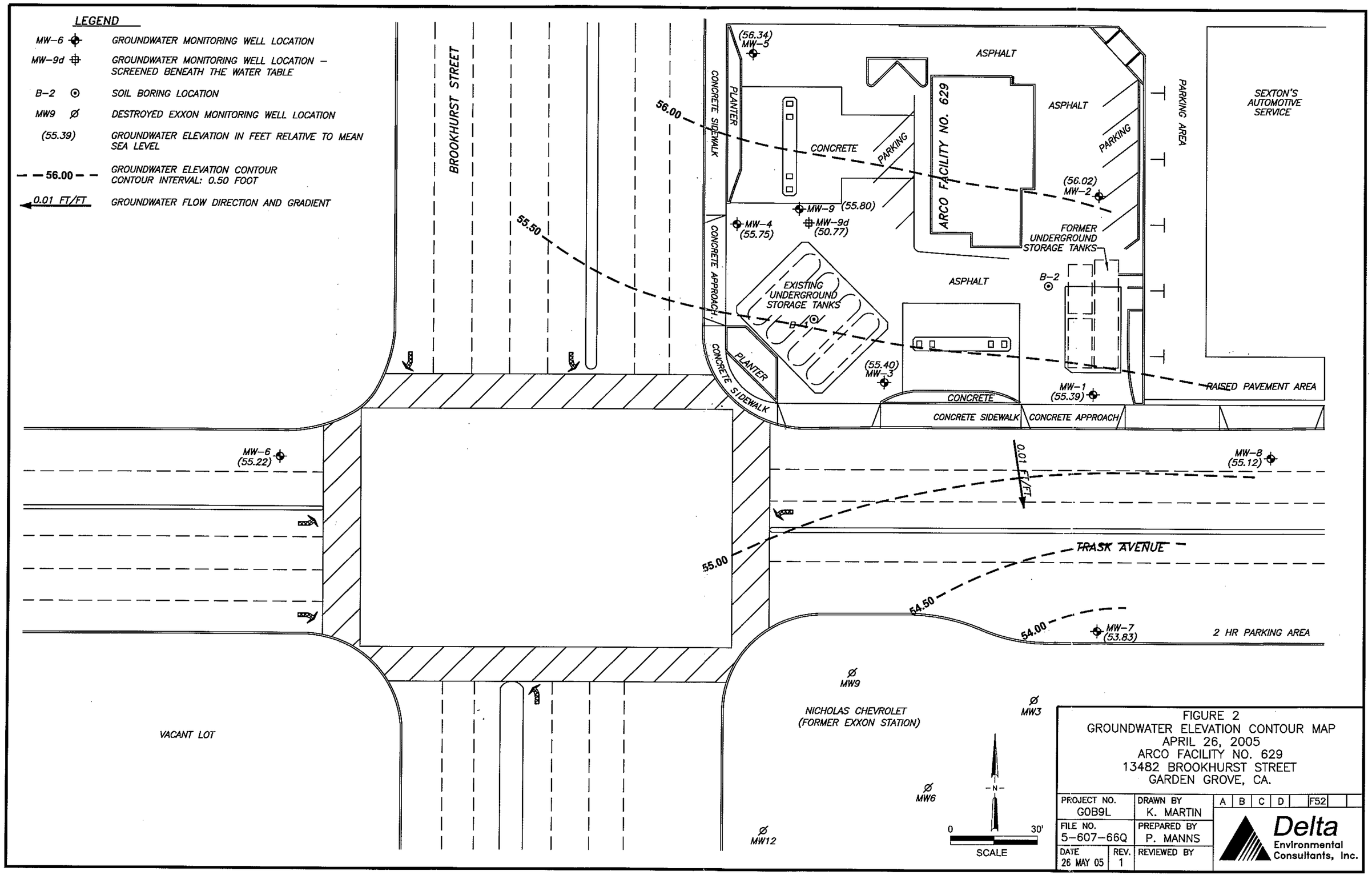


FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP
APRIL 26, 2005
ARCO FACILITY NO. 629
13482 BROOKHURST STREET
GARDEN GROVE, CA.

PROJECT NO. GOB9L	DRAWN BY K. MARTIN	A B C D F52
FILE NO. 5-607-66Q	PREPARED BY P. MANNS	Delta Environmental Consultants, Inc.
DATE 26 MAY 05 / REV. 1	REVIEWED BY	

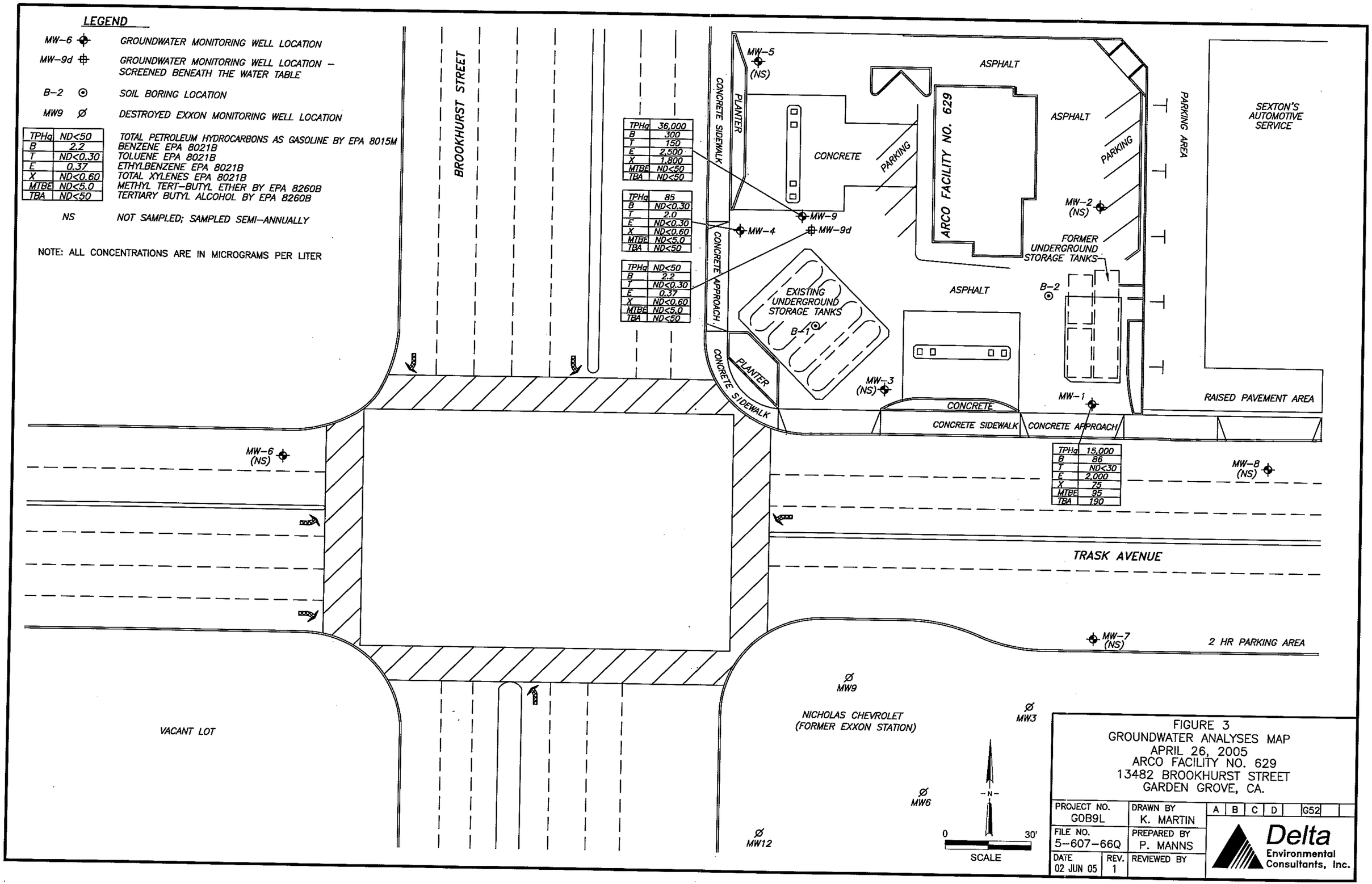


FIGURE 3
GROUNDWATER ANALYSES MAP
APRIL 26, 2005
ARCO FACILITY NO. 629
13482 BROOKHURST STREET
GARDEN GROVE, CA.

PROJECT NO. G0B9L	DRAWN BY K. MARTIN	A B C D G52
FILE NO. 5-607-66Q	PREPARED BY P. MANNS	Delta Environmental Consultants, Inc.
DATE 02 JUN 05 / REV. 1	REVIEWED BY	

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Measured	TOC Elevation (feet msl)	Depth to LPH (feet)	Depth to Water (feet)	LPH Thickness (feet)	Water Elevation (feet msl)	Comments
MW-1	1/26/1996	69.84	NA	15.96	NA	53.88	
MW-1	6/25/1996	69.84	NA	16.00	NA	53.84	
MW-1	9/11/1996	69.84	NA	15.92	NA	53.92	
MW-1	12/11/1996	69.84	NA	16.07	NA	53.77	
MW-1	3/27/1997	69.84	NA	15.82	NA	54.02	
MW-1	6/4/1997	69.84	NA	15.60	NA	54.24	
MW-1	8/28/1997	69.84	NA	15.80	NA	54.04	
MW-1	11/20/1997	69.84	NA	15.74	NA	54.10	
MW-1	3/4/1998	69.84	NA	14.55	NA	55.29	
MW-1	6/4/1998	69.84	NA	14.06	NA	55.78	
MW-1	8/5/1998	69.84	NA	14.26	NA	55.58	
MW-1	11/11/1998	69.84	NA	14.46	NA	55.38	
MW-1	2/23/1999	69.84	NA	14.68	NA	55.16	
MW-1	6/15/1999	69.84	NA	14.77	NA	55.07	
MW-1	8/30/1999	69.84	NA	14.72	NA	55.12	
MW-1	11/11/1999	69.84	NA	14.54	NA	55.30	
MW-1	3/20/2000	69.84	NA	14.90	NA	54.94	
MW-1	6/19/2000	69.84	NA	15.05	NA	54.79	
MW-1	8/29/2000	69.73	NA	15.49	NA	54.24	
MW-1	12/18/2000	69.73	NA	15.81	NA	53.92	
MW-1	3/16/2001	69.73	NA	15.34	NA	54.39	
MW-1	6/8/2001	69.73	NA	15.20	NA	54.53	
MW-1	9/11/2001	69.73	NA	15.62	NA	54.11	
MW-1	12/14/2001	69.73	NA	15.73	NA	54.00	
MW-1	3/13/2002	69.73	NA	15.97	NA	53.76	
MW-1	6/5/2002	69.73	NA	16.09	NA	53.64	
MW-1	8/27/2002	69.73	NA	16.09	NA	53.64	
MW-1	11/19/2002	69.73	NA	16.02	NA	53.71	
MW-1	2/19/2003	69.73	NA	15.16	NA	54.57	
MW-1	5/21/2003	69.73	NA	15.60	NA	54.13	
MW-1	8/29/2003	69.73	NA	15.77	NA	53.96	
MW-1	11/14/2003	69.55	NA	15.88	NA	53.67	
MW-1	2/12/2004	69.55	NA	16.03	NA	53.52	
MW-1	5/13/2004	69.55	NA	16.01	NA	53.54	
MW-1	8/12/2004	69.55	NA	16.11	NA	53.44	
MW-1	11/4/2004	69.55	NA	15.92	NA	53.63	
MW-1	2/18/2005	69.55	NA	15.10	NA	54.45	
MW-1	4/26/2005	69.55	NA	14.16	NA	55.39	
MW-2	1/26/1996	70.97	NA	16.40	NA	54.57	
MW-2	6/25/1996	70.97	NA	16.35	NA	54.62	
MW-2	9/11/1996	70.97	NA	16.10	NA	54.87	
MW-2	12/11/1996	70.97	NA	16.48	NA	54.49	
MW-2	3/27/1997	70.97	NA	15.75	NA	55.22	
MW-2	6/4/1997	70.97	NA	15.92	NA	55.05	
MW-2	8/28/1997	70.97	NA	16.10	NA	54.87	
MW-2	11/20/1997	70.97	NA	16.10	NA	54.87	
MW-2	3/4/1998	70.97	NA	14.93	NA	56.04	
MW-2	6/4/1998	70.97	NA	14.58	NA	56.39	
MW-2	8/5/1998	70.97	NA	14.88	NA	56.09	
MW-2	11/11/1998	70.97	NA	15.18	NA	55.79	

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Measured	TOC Elevation (feet msl)	Depth to LPH (feet)	Depth to Water (feet)	LPH Thickness (feet)	Water Elevation (feet msl)	Comments
MW-2	2/23/1999	70.97	NA	15.40	NA	55.57	
MW-2	6/15/1999	70.97	NA	15.55	NA	55.42	
MW-2	8/30/1999	70.97	NA	15.56	NA	55.41	
MW-2	11/11/1999	70.97	NA	15.46	NA	55.51	
MW-2	3/20/2000	70.97	NA	15.73	NA	55.24	
MW-2	6/19/2000	70.97	NA	15.86	NA	55.11	
MW-2	8/29/2000	70.91	NA	16.11	NA	54.80	
MW-2	12/18/2000	70.91	NA	16.43	NA	54.48	
MW-2	3/16/2001	70.91	NA	15.93	NA	54.98	
MW-2	6/8/2001	70.91	NA	15.87	NA	55.04	
MW-2	9/11/2001	70.91	NA	16.25	NA	54.66	
MW-2	12/14/2001	70.91	NA	16.44	NA	54.47	
MW-2	3/13/2002	70.91	NA	16.71	NA	54.20	
MW-2	6/5/2002	70.91	NA	16.98	NA	53.93	
MW-2	8/27/2002	70.91	NA	17.23	NA	53.68	
MW-2	11/19/2002	70.91	NA	17.13	NA	53.78	
MW-2	2/19/2003	70.91	NA	15.97	NA	54.94	
MW-2	5/21/2003	70.91	NA	16.26	NA	54.65	
MW-2	8/29/2003	70.91	NA	16.42	NA	54.49	
MW-2	11/14/2003	70.70	NA	16.57	NA	54.13	
MW-2	2/12/2004	70.70	NA	16.83	NA	53.87	
MW-2	5/13/2004	70.70	NA	16.77	NA	53.93	
MW-2	8/12/2004	70.70	NA	16.96	NA	53.74	
MW-2	11/4/2004	70.70	NA	16.67	NA	54.03	
MW-2	2/18/2005	70.70	NA	15.62	NA	55.08	
MW-2	4/26/2005	70.70	NA	14.68	NA	56.02	
MW-3	1/26/1996	70.24	NA	16.40	NA	53.84	
MW-3	6/25/1996	70.24	NA	16.35	NA	53.89	
MW-3	9/11/1996	70.24	NA	15.35	NA	54.89	
MW-3	12/11/1996	70.24	NA	16.30	NA	53.94	
MW-3	3/27/1997	70.24	NA	15.60	NA	54.64	
MW-3	6/4/1997	70.24	NA	15.67	NA	54.57	
MW-3	8/28/1997	70.24	NA	15.65	NA	54.59	
MW-3	11/20/1997	70.24	NA	15.35	NA	54.89	
MW-3	3/4/1998	70.24	NA	14.42	NA	55.82	
MW-3	6/4/1998	70.24	NA	14.30	NA	55.94	
MW-3	8/5/1998	70.24	NA	14.55	NA	55.69	
MW-3	11/11/1998	70.24	NA	14.72	NA	55.52	
MW-3	2/23/1999	70.24	NA	14.99	NA	55.25	
MW-3	6/15/1999	70.24	NA	15.11	NA	55.13	
MW-3	8/30/1999	70.24	NA	15.08	NA	55.16	
MW-3	11/11/1999	70.24	NA	14.86	NA	55.38	
MW-3	3/20/2000	70.24	NA	15.28	NA	54.96	
MW-3	6/19/2000	70.24	NA	15.43	NA	54.81	
MW-3	8/29/2000	70.15	NA	15.74	NA	54.41	
MW-3	12/18/2000	70.15	NA	16.08	NA	54.07	
MW-3	3/16/2001	70.15	NA	15.60	NA	54.55	
MW-3	6/8/2001	70.15	NA	15.58	NA	54.57	
MW-3	9/11/2001	70.15	NA	15.93	NA	54.22	
MW-3	12/14/2001	70.15	NA	16.09	NA	54.06	

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Measured	TOC Elevation (feet msl)	Depth to LPH (feet)	Depth to Water (feet)	LPH Thickness (feet)	Water Elevation (feet msl)	Comments
MW-3	3/13/2002	70.15	NA	16.41	NA	53.74	
MW-3	6/5/2002	70.15	NA	16.61	NA	53.54	
MW-3	8/27/2002	70.15	NA	16.63	NA	53.52	
MW-3	11/19/2002	70.15	NA	16.11	NA	54.04	
MW-3	2/19/2003	70.15	NA	15.31	NA	54.84	
MW-3	5/21/2003	70.15	NA	16.00	NA	54.15	
MW-3	8/29/2003	70.15	NA	16.20	NA	53.95	
MW-3	11/14/2003	69.95	NA	16.31	NA	53.64	
MW-3	2/12/2004	69.95	NA	16.66	NA	53.29	
MW-3	5/13/2004	69.95	NA	16.63	NA	53.32	
MW-3	8/12/2004	69.95	NA	16.68	NA	53.27	
MW-3	11/4/2004	69.95	NA	16.25	NA	53.70	
MW-3	2/18/2005	69.95	NA	15.40	NA	54.55	
MW-3	4/26/2005	69.95	NA	14.55	NA	55.40	
MW-4	1/26/1996	70.21	NA	16.60	NA	53.61	
MW-4	6/25/1996	70.21	NA	15.81	NA	54.40	
MW-4	9/11/1996	70.21	NA	14.95	NA	55.26	
MW-4	12/11/1996	70.21	NA	15.91	NA	54.30	
MW-4	3/27/1997	70.21	NA	14.10	NA	56.11	
MW-4	6/4/1997	70.21	NA	15.20	NA	55.01	
MW-4	8/28/1997	70.21	NA	15.24	NA	54.97	
MW-4	11/20/1997	70.21	NA	15.04	NA	55.17	
MW-4	3/4/1998	70.21	NA	13.72	NA	56.49	
MW-4	6/4/1998	70.21	NA	13.91	NA	56.30	
MW-4	8/5/1998	70.21	NA	14.22	NA	55.99	
MW-4	11/11/1998	70.21	NA	14.40	NA	55.81	
MW-4	2/23/1999	70.21	NA	14.73	NA	55.48	
MW-4	6/15/1999	70.21	NA	14.91	NA	55.30	
MW-4	8/30/1999	70.21	NA	14.96	NA	55.25	
MW-4	11/11/1999	70.21	NA	14.85	NA	55.36	
MW-4	3/20/2000	70.21	NA	15.03	NA	55.18	
MW-4	6/19/2000	70.21	NA	15.20	NA	55.01	
MW-4	8/29/2000	70.15	NA	15.48	NA	54.67	
MW-4	12/18/2000	70.15	NA	15.83	NA	54.32	
MW-4	3/16/2001	70.15	NA	15.18	NA	54.97	
MW-4	6/8/2001	70.15	NA	15.28	NA	54.87	
MW-4	9/11/2001	70.15	NA	15.64	NA	54.51	
MW-4	12/14/2001	70.15	NA	15.81	NA	54.34	
MW-4	3/13/2002	70.15	NA	16.14	NA	54.01	
MW-4	6/5/2002	70.15	NA	16.34	NA	53.81	
MW-4	8/27/2002	70.15	NA	16.38	NA	53.77	
MW-4	11/19/2002	70.15	NA	15.76	NA	54.39	
MW-4	2/19/2003	70.15	NA	15.03	NA	55.12	
MW-4	5/21/2003	70.15	NA	15.69	NA	54.46	
MW-4	8/29/2003	70.15	NA	15.90	NA	54.25	
MW-4	11/14/2003	69.93	NA	16.05	NA	53.88	
MW-4	2/12/2004	69.93	NA	16.42	NA	53.51	
MW-4	5/13/2004	69.93	NA	16.38	NA	53.55	
MW-4	8/12/2004	69.93	NA	16.40	NA	53.53	
MW-4	11/4/2004	69.93	NA	15.85	NA	54.08	

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Measured	TOC Elevation (feet msl)	Depth to LPH (feet)	Depth to Water (feet)	LPH Thickness (feet)	Water Elevation (feet msl)	Comments
MW-4	2/18/2005	69.93	NA	14.98	NA	54.95	
MW-4	4/26/2005	69.93	NA	14.18	NA	55.75	
MW-5	1/26/1996	70.10	NA	15.48	NA	54.62	
MW-5	6/25/1996	70.10	NA	15.26	NA	54.84	
MW-5	9/11/1996	70.10	NA	14.82	NA	55.28	
MW-5	12/11/1996	70.10	NA	15.45	NA	54.65	
MW-5	3/27/1997	70.10	NA	14.54	NA	55.56	
MW-5	6/4/1997	70.10	NA	14.70	NA	55.40	
MW-5	8/28/1997	70.10	NA	14.98	NA	55.12	
MW-5	11/20/1997	70.10	NA	14.80	NA	55.30	
MW-5	3/4/1998	70.10	NA	13.07	NA	57.03	
MW-5	6/4/1998	70.10	NA	13.25	NA	56.85	
MW-5	8/5/1998	70.10	NA	13.68	NA	56.42	
MW-5	11/11/1998	70.10	NA	13.95	NA	56.15	
MW-5	2/23/1999	70.10	NA	14.26	NA	55.84	
MW-5	6/15/1999	70.10	NA	14.49	NA	55.61	
MW-5	8/30/1999	70.10	NA	14.56	NA	55.54	
MW-5	11/11/1999	70.10	NA	14.53	NA	55.57	
MW-5	3/20/2000	70.10	NA	14.63	NA	55.47	
MW-5	6/19/2000	70.10	NA	14.79	NA	55.31	
MW-5	8/29/2000	70.04	NA	15.10	NA	54.94	
MW-5	12/18/2000	70.04	NA	15.48	NA	54.56	
MW-5	3/16/2001	70.04	NA	14.68	NA	55.36	
MW-5	6/8/2001	70.04	NA	14.76	NA	55.28	
MW-5	9/11/2001	70.04	NA	15.27	NA	54.77	
MW-5	12/14/2001	70.04	NA	15.47	NA	54.57	
MW-5	3/13/2002	70.04	NA	15.77	NA	54.27	
MW-5	6/5/2002	70.04	NA	15.95	NA	54.09	
MW-5	8/27/2002	70.04	NA	15.94	NA	54.10	
MW-5	11/19/2002	70.04	NA	15.76	NA	54.28	
MW-5	2/19/2003	70.04	NA	14.73	NA	55.31	
MW-5	5/21/2003	70.04	NA	15.22	NA	54.82	
MW-5	8/29/2003	70.04	NA	15.39	NA	54.65	
MW-5	11/14/2003	69.82	NA	15.59	NA	54.23	
MW-5	2/12/2004	69.82	NA	15.90	NA	53.92	
MW-5	5/13/2004	69.82	NA	15.83	NA	53.99	
MW-5	8/12/2004	69.82	NA	15.85	NA	53.97	
MW-5	11/4/2004	69.82	NA	15.44	NA	54.38	
MW-5	2/18/2005	69.82	NA	14.34	NA	55.48	
MW-5	4/26/2005	69.82	NA	13.48	NA	56.34	
MW-6	3/27/1997	68.98	NA	14.60	NA	54.38	
MW-6	6/4/1997	68.98	NA	16.22	NA	52.76	
MW-6	8/28/1997	68.98	NA	15.05	NA	53.93	
MW-6	11/20/1997	68.98	NA	15.14	NA	53.84	
MW-6	3/4/1998	68.98	NA	12.48	NA	56.50	
MW-6	6/4/1998	68.98	NA	13.12	NA	55.86	
MW-6	8/5/1998	68.98	NA	13.40	NA	55.58	
MW-6	11/11/1998	68.98	NA	13.37	NA	55.61	
MW-6	2/23/1999	68.98	NA	13.95	NA	55.03	
MW-6	6/15/1999	68.98	NA	14.16	NA	54.82	

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Measured	TOC Elevation (feet msl)	Depth to LPH (feet)	Depth to Water (feet)	LPH Thickness (feet)	Water Elevation (feet msl)	Comments
MW-6	8/30/1999	68.98	NA	14.35	NA	54.63	
MW-6	11/11/1999	68.98	NA	14.38	NA	54.60	
MW-6	3/20/2000	68.98	NA	14.27	NA	54.71	
MW-6	6/19/2000	68.98	NA	14.58	NA	54.40	
MW-6	8/29/2000	68.94	NA	14.91	NA	54.03	
MW-6	12/18/2000	68.94	NA	NA	NA	NA	Not gauged; unable to obtain encroachment permit
MW-6	3/16/2001	68.94	NA	14.26	NA	54.68	
MW-6	6/8/2001	68.94	NA	14.75	NA	54.19	
MW-6	9/11/2001	68.94	NA	15.22	NA	53.72	
MW-6	12/14/2001	68.94	NA	NA	NA	NA	Not gauged; City of Garden Grove would not allow access to street
MW-6	3/13/2002	68.94	NA	15.68	NA	53.26	
MW-6	6/5/2002	68.94	NA	15.99	NA	52.95	
MW-6	8/27/2002	68.94	NA	15.79	NA	53.15	
MW-6	11/19/2002	68.94	NA	15.72	NA	53.22	
MW-6	2/19/2003	68.94	NA	14.53	NA	54.41	
MW-6	5/21/2003	68.94	NA	14.92	NA	54.02	
MW-6	8/29/2003	68.94	NA	15.20	NA	53.74	
MW-6	11/14/2003	68.76	NA	15.45	NA	53.31	
MW-6	2/12/2004	68.76	NA	15.88	NA	52.88	
MW-6	5/13/2004	68.76	NA	15.77	NA	52.99	
MW-6	8/12/2004	68.76	NA	15.70	NA	53.06	
MW-6	11/4/2004	68.76	NA	14.44	NA	54.32	
MW-6	2/18/2005	68.76	NA	14.07	NA	54.69	
MW-6	4/26/2005	68.76	NA	13.54	NA	55.22	
MW-7	8/29/2000	68.40	NA	14.45	NA	53.95	
MW-7	12/18/2000	68.40	NA	14.80	NA	53.60	
MW-7	3/16/2001	68.40	NA	14.86	NA	53.54	
MW-7	9/11/2001	68.40	NA	14.90	NA	53.50	
MW-7	12/14/2001	68.40	NA	15.09	NA	53.31	
MW-7	3/13/2002	68.40	NA	15.29	NA	53.11	
MW-7	6/5/2002	68.40	NA	15.35	NA	53.05	
MW-7	8/27/2002	68.40	NA	15.42	NA	52.98	
MW-7	11/19/2002	68.40	NA	15.47	NA	52.93	
MW-7	2/19/2003	68.40	NA	15.03	NA	53.37	
MW-7	5/21/2003	68.40	NA	15.15	NA	53.25	
MW-7	8/29/2003	68.40	NA	15.32	NA	53.08	
MW-7	11/14/2003	68.15	NA	15.40	NA	52.75	
MW-7	2/12/2004	68.15	NA	15.59	NA	52.56	
MW-7	5/13/2004	68.15	NA	15.61	NA	52.54	
MW-7	8/12/2004	68.15	NA	15.70	NA	52.45	
MW-7	11/4/2004	68.15	NA	15.68	NA	52.47	
MW-7	2/18/2005	68.15	NA	15.15	NA	53.00	
MW-7	4/26/2005	68.15	NA	14.32	NA	53.83	
MW-8	8/29/2000	70.91	NA	14.58	NA	56.33	
MW-8	12/18/2000	70.91	NA	NA	NA	NA	Not gauged; unable to obtain encroachment permit
MW-8	3/16/2001	70.91	NA	14.71	NA	56.20	
MW-8	6/8/2001	70.91	NA	14.54	NA	56.37	
MW-8	9/11/2001	70.91	NA	14.83	NA	56.08	
MW-8	12/14/2001	70.91	NA	NA	NA	NA	Not gauged; City of Garden Grove would not allow access to street
MW-8	3/13/2002	70.91	NA	15.19	NA	55.72	

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Measured	TOC Elevation (feet msl)	Depth to LPH (feet)	Depth to Water (feet)	LPH Thickness (feet)	Water Elevation (feet msl)	Comments
MW-8	6/5/2002	70.91	NA	15.30	NA	55.61	
MW-8	8/27/2002	70.91	NA	15.34	NA	55.57	
MW-8	11/19/2002	70.91	NA	15.35	NA	55.56	
MW-8	2/19/2003	70.91	NA	14.64	NA	56.27	
MW-8	5/21/2003	70.91	NA	14.89	NA	56.02	
MW-8	8/29/2003	70.91	NA	15.05	NA	55.86	
MW-8	11/14/2003	68.67	NA	15.17	NA	53.50	
MW-8	2/12/2004	68.67	NA	15.36	NA	53.31	
MW-8	5/13/2004	68.67	NA	15.37	NA	53.30	
MW-8	8/12/2004	68.67	NA	15.47	NA	53.20	
MW-8	11/4/2004	68.67	NA	15.37	NA	53.30	
MW-8	2/18/2005	68.67	NA	14.52	NA	54.15	
MW-8	4/26/2005	68.67	NA	13.55	NA	55.12	
MW-9	11/14/2003	70.38	NA	16.43	NA	53.95	
MW-9	2/12/2004	70.38	NA	16.76	NA	53.62	
MW-9	5/13/2004	70.38	NA	16.72	NA	53.66	
MW-9	8/12/2004	70.38	NA	16.73	NA	53.65	
MW-9	11/4/2004	70.38	NA	16.31	NA	54.07	
MW-9	2/18/2005	70.38	NA	15.38	NA	55.00	
MW-9	4/26/2005	70.38	NA	14.58	NA	55.80	
MW-9d	3/18/2004	70.39	NA	21.80	NA	48.59	
MW-9d	5/13/2004	70.39	NA	22.25	NA	48.14	
MW-9d	8/12/2004	70.39	NA	22.84	NA	47.55	
MW-9d	11/4/2004	70.39	NA	22.54	NA	47.85	
MW-9d	2/18/2005	70.39	NA	21.43	NA	48.96	
MW-9d	4/26/2005	70.39	NA	19.62	NA	50.77	

Notes: TOC = Top of casing (relative to mean sea level, resurveyed by Azimuth Group on 09/26/00, elevation = 69.51 feet, Benchmark No. GG-L7-93)

All wells resurveyed on 10/31/03 by Dulin and Boynton relative to Orange County BM#1G-159-99 (1995 adj elev=60.595 feet), horizontal datum NAD83, vertical datum NGVD29.

LPH = Liquid-phase hydrocarbons

Note: Water Elevation, if LPH is present, is corrected according to the following formula, (TOC elevation - depth to water) + (0.75 x LPH thickness).

NA = Not applicable

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-1	10/3/1995	22000	3500	83	1200	1400	NA	NA	NA	NA	NA	NA	NA	
MW-1	1/26/1996	8300	590	ND<15	1100	48	NA	NA	NA	NA	NA	NA	NA	
MW-1	6/25/1996	5100	440	ND<6.0	560	26	5500	NA	NA	NA	NA	NA	NA	
MW-1	9/11/1996	6200	1500	26	1400	140	3000	NA	NA	NA	NA	NA	NA	
MW-1	12/11/1996	7700	830	ND<30	820	75	5700	NA	NA	NA	NA	NA	NA	
MW-1	3/27/1997	10000	1200	ND<60	1300	200	10000	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	6/4/1997	11000	870	ND<15	1800	100	2300	2500	NA	NA	NA	NA	NA	No purge sampling
MW-1	8/28/1997	12000	1400	15	2300	240	3300	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	11/20/1997	9700	800	ND<30	2000	170	1300	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	3/4/1998	7400	500	ND<6.0	86	17	2300	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	6/4/1998	30000	2000	960	2300	5800	1200	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	8/5/1998	27000	1600	90	2700	7200	ND<1000	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	11/11/1998	22000	950	36	2500	3500	1800	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	2/23/1999	19000	410	290	2100	2200	1200	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	6/15/1999	27000	380	550	2000	8500	ND<2000	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	8/30/1999	13000	100	ND<20	710	890	NA	470	NA	NA	NA	NA	NA	No purge sampling; BTEX & MTBE by 8260B
MW-1	11/11/1999	8300	52	ND<3.0	310	120	NA	310	NA	NA	NA	NA	NA	No purge sampling
MW-1	3/20/2000	7500	77	18	590	990	450	NA	NA	NA	NA	NA	NA	No purge sampling
MW-1	6/19/2000	17000	180	99	1500	4400	ND<1000	690	NA	NA	NA	NA	NA	No purge sampling
MW-1	8/29/2000	4000	100	ND<10	270	ND<10	NA	710	ND<25	ND<25	ND<25	ND<250	NA	No purge sampling
MW-1	12/18/2000	2600	35	ND<3.0	110	ND<6.0	NA	200	ND<10	ND<10	ND<10	ND<100	NA	No purge sampling
MW-1	3/16/2001	1300	43	8.3	5.5	ND<6.0	NA	570	ND<25	ND<25	ND<25	ND<250	NA	No purge sampling
MW-1	6/8/2001	5600	210	4.6	570	15	NA	900	ND<25	ND<25	ND<25	840	NA	No purge sampling
MW-1	9/11/2001	1600	18	9.0	4.9	ND<6.0	NA	160	ND<10	ND<10	ND<10	ND<100	NA	No purge sampling
MW-1	12/14/2001	1300	18	11	3.9	ND<6.0	NA	260	ND<10	ND<10	ND<10	ND<100	NA	No purge sampling
MW-1	3/13/2002	860	8.5	1.4	0.74	1.9	NA	110	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-1	6/5/2002	630	15	1.6	ND<0.30	1.2	NA	72	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-1	8/27/2002	740	4.1	15	0.87	6.2	NA	160	NA	NA	NA	NA	NA	No purge sampling
MW-1	11/19/2002	380	1.9	1.5	1.1	2.4	NA	150	NA	NA	NA	NA	NA	No purge sampling
MW-1	2/19/2003	4400	9.0	6.0	540	ND<12	NA	76	NA	NA	NA	NA	NA	No purge sampling
MW-1	5/21/2003	1400	5.5	8.9	ND<1.5	ND<3.0	NA	100	ND<25	ND<25	ND<25	ND<120	ND<750	No purge sampling
MW-1	8/29/2003	670	5.0	1.2	ND<0.60	1.4	NA	43	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-1	11/14/2003	610	2.2	16	2.0	3.2	NA	45	ND<5.0	ND<5.0	ND<5.0	26	ND<150	No purge sampling
MW-1	2/12/2004	390	1.3	14	1.6	5.7	NA	22	ND<5.0	ND<5.0	ND<5.0	33	ND<150	No purge sampling

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-1	5/13/2004	420	0.67	8.5	0.73	2.9	NA	18	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-1	8/12/2004	300	ND<0.30	7.2	0.54	1.9	NA	14	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-1	11/4/2004	270	2.1	0.58	0.63	1.3	NA	22	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-1	2/18/2005	5200	27	ND<15	520	46	NA	260	ND<50	ND<50	ND<50	510	ND<1500	No purge sampling
MW-1	4/26/2005	15000	86	ND<30	2000	75	NA	95	ND<50	ND<50	ND<50	190	ND<1500	No purge sampling
MW-2	1/26/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	NA	NA	NA	NA	NA	NA	
MW-2	6/25/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-2	9/11/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-2	12/11/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-2	3/27/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	6/4/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	8/28/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	11/20/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	3/4/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	6/4/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	8/5/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	11/11/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	2/23/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	6/15/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	8/30/1999	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	NA	ND<5.0	NA	NA	NA	NA	NA	No purge sampling; BTEX & MTBE by 8260B
MW-2	11/11/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	NA	NA	NA	NA	NA	No purge sampling
MW-2	3/20/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	6/19/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-2	8/29/2000	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-2	12/18/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-2	3/16/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-2	6/8/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-2	9/11/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-2	12/14/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-2	3/13/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-2	6/5/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-2	8/27/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	No purge sampling
MW-2	11/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-2	2/19/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	2.7	NA	NA	NA	NA	NA	No purge sampling
MW-2	5/21/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-2	8/29/2003	ND<50	0.44	0.45	0.36	1.1	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-2	11/14/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-2	2/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-2	5/13/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-2	8/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-2	11/4/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-2	2/18/2005	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-2	4/26/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-3	1/26/1996	3600	ND<15	ND<15	ND<15	ND<30	NA	NA	NA	NA	NA	NA	NA	
MW-3	6/25/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	770	NA	NA	NA	NA	NA	NA	
MW-3	9/11/1996	220	1.3	ND<0.30	7.7	ND<0.60	16	NA	NA	NA	NA	NA	NA	
MW-3	12/11/1996	63	ND<0.30	ND<0.30	ND<0.30	ND<0.60	1500	NA	NA	NA	NA	NA	NA	
MW-3	3/27/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	6/4/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	25	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	8/28/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	11/20/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	3/4/1998	210	21	1.1	0.59	82	360	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	6/4/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	15	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	8/5/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	11/11/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	2/23/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	6/15/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	8/30/1999	ND<50	ND<10	ND<10	ND<10	ND<20	NA	370	NA	NA	NA	NA	NA	No purge sampling; BTEX & MTBE by 8260B
MW-3	11/11/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	NA	NA	NA	NA	NA	No purge sampling
MW-3	3/20/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	6/19/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-3	8/29/2000	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-3	12/18/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-3	3/16/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-3	6/8/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-3	9/11/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-3	12/14/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-3	3/13/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	5.9	ND<5.0	ND<5.0	ND<5.0	100	NA	No purge sampling
MW-3	6/5/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-3	8/27/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	No purge sampling
MW-3	11/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-3	2/19/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	No purge sampling
MW-3	5/21/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-3	8/29/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-3	11/14/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-3	2/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-3	5/13/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-3	8/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-3	11/4/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-3	2/18/2005	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-3	4/26/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-4	1/26/1996	81000	5700	22000	4800	21000	NA	NA	NA	NA	NA	NA	NA	
MW-4	6/25/1996	11000	990	1100	490	1200	4800	NA	NA	NA	NA	NA	NA	
MW-4	9/11/1996	4500	35	8.4	510	71	190	NA	NA	NA	NA	NA	NA	
MW-4	12/11/1996	25000	470	650	2500	4500	2800	NA	NA	NA	NA	NA	NA	
MW-4	3/27/1997	46000	310	280	5900	14000	520	NA	NA	NA	NA	NA	NA	No purge sampling
MW-4	6/4/1997	43000	350	810	5400	9700	430	NA	NA	NA	NA	NA	NA	No purge sampling
MW-4	8/28/1997	5800	13	8.8	710	150	ND<40	NA	NA	NA	NA	NA	NA	No purge sampling
MW-4	11/20/1997	1600	8.4	1.9	73	2.1	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-4	3/4/1998	340	7.6	0.43	13	0.78	78	NA	NA	NA	NA	NA	NA	No purge sampling
MW-4	6/4/1998	280	8.3	0.41	0.54	ND<0.60	13	NA	NA	NA	NA	NA	NA	No purge sampling
MW-4	8/5/1998	290	2.6	9.3	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-4	11/11/1998	200	0.53	9.7	ND<0.30	0.85	71	NA	NA	NA	NA	NA	NA	No purge sampling
MW-4	2/23/1999	220	2.0	0.93	ND<0.30	ND<0.60	120	NA	NA	NA	NA	NA	NA	No purge sampling

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-4	6/15/1999	7500	65	ND<6.0	840	730	290	240	NA	NA	NA	NA	NA	No purge sampling
MW-4	8/30/1999	11000	30	ND<8.0	590	824	NA	140	NA	NA	NA	NA	NA	No purge sampling; BTEX & MTBE by 8260B
MW-4	11/11/1999	31000	95	100	3800	11000	NA	110	NA	NA	NA	NA	NA	No purge sampling
MW-4	3/20/2000	23000	470	260	3500	9700	ND<1000	850	NA	NA	NA	NA	NA	No purge sampling
MW-4	6/19/2000	1600	8.2	ND<0.60	15	2.7	81	200	NA	NA	NA	NA	NA	No purge sampling
MW-4	8/29/2000	5700	15	ND<2.0	82	17	NA	59	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-4	12/18/2000	2800	23	ND<3.0	26	14	NA	51	ND<10	ND<10	ND<10	ND<100	NA	No purge sampling
MW-4	3/16/2001	950	10	22	2.1	ND<3.0	NA	61	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-4	6/8/2001	1900	18	11	24	7.2	NA	190	ND<20	ND<20	ND<20	ND<200	NA	No purge sampling
MW-4	9/11/2001	7100	79	17	87	54	NA	380	ND<10	ND<10	ND<10	ND<100	NA	No purge sampling
MW-4	12/14/2001	4000	31	13	72	ND<6.0	NA	400	ND<10	ND<10	ND<10	ND<100	NA	No purge sampling
MW-4	3/13/2002	13000	60	44	2000	2800	NA	640	ND<50	ND<50	ND<50	ND<500	NA	No purge sampling
MW-4	6/5/2002	26000	270	350	3100	5700	NA	190	ND<50	ND<50	ND<50	ND<500	NA	No purge sampling
MW-4	8/27/2002	20000	85	92	2900	4800	NA	170	NA	NA	NA	NA	NA	No purge sampling
MW-4	11/19/2002	14000	15	22	1700	3300	NA	30	NA	NA	NA	NA	NA	No purge sampling
MW-4	2/19/2003	380	0.63	8.0	11	4.6	NA	ND<1.0	NA	NA	NA	NA	NA	No purge sampling
MW-4	5/21/2003	540	1.2	14	1.3	3.6	NA	96	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-4	8/29/2003	190	0.88	7.0	0.33	1.0	NA	130	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-4	11/14/2003	160	0.53	10	ND<0.30	1.7	NA	230	ND<25	ND<25	ND<25	ND<120	ND<750	No purge sampling
MW-4	2/12/2004	200	7.1	18	1.8	3.5	NA	6.1	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-4	5/13/2004	180	0.61	5.6	ND<0.30	0.75	NA	5.1	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-4	8/12/2004	170	ND<0.30	8.2	ND<0.30	0.98	NA	6.9	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-4	11/4/2004	82	0.36	ND<0.30	ND<0.30	ND<0.60	NA	9.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-4	2/18/2005	130	ND<0.30	4.7	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-4	4/26/2005	85	ND<0.30	2.0	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	ND<150	No purge sampling
MW-5	1/26/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	NA	NA	NA	NA	NA	NA	
MW-5	6/25/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-5	9/11/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-5	12/11/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-5	3/27/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	6/4/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	8/28/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	11/20/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	3/4/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-5	6/4/1998	ND<50	ND<0.30	0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	8/5/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	11/11/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	2/23/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	6/15/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	15	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	8/30/1999	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	NA	ND<5.0	NA	NA	NA	NA	NA	No purge sampling; BTEX & MTBE by 8260B
MW-5	11/11/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	NA	NA	NA	NA	NA	No purge sampling
MW-5	3/20/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	6/19/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-5	8/29/2000	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-5	12/18/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-5	3/16/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-5	6/8/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-5	9/11/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-5	12/14/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-5	3/13/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-5	6/5/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-5	8/27/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	No purge sampling
MW-5	11/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-5	2/19/2003	ND<50	ND<0.30	0.33	ND<0.30	ND<0.60	NA	5.7	NA	NA	NA	NA	NA	No purge sampling
MW-5	5/21/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-5	8/29/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	38	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-5	11/14/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-5	2/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	15	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-5	5/13/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-5	8/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-5	11/4/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-5	2/18/2005	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-5	4/26/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-6	3/27/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-6	6/4/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-6	8/28/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	11/20/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	3/4/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	6/4/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	8/5/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	11/11/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	2/23/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	6/15/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	8/30/1999	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	NA	ND<5.0	NA	NA	NA	NA	NA	No purge sampling; BTEX & MTBE by 8260B
MW-6	11/11/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	NA	NA	NA	NA	NA	No purge sampling
MW-6	3/20/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	6/19/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	No purge sampling
MW-6	8/29/2000	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-6	12/18/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not sampled; unable to obtain encroachment permit
MW-6	3/16/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-6	6/8/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-6	9/11/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-6	12/14/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not sampled; City of Garden Grove would not allow access to street
MW-6	3/13/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-6	6/5/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-6	8/27/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	No purge sampling
MW-6	11/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-6	2/19/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	No purge sampling
MW-6	5/21/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-6	8/29/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-6	11/14/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-6	2/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-6	5/13/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-6	8/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-6	11/4/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-6	2/18/2005	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-6	4/26/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-7	8/29/2000	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	64	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	BTEX by 8260B
MW-7	12/18/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-7	3/16/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-7	6/8/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-7	9/11/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-7	12/14/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-7	3/13/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-7	6/5/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-7	8/27/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	44	NA	NA	NA	NA	NA	No purge sampling
MW-7	11/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-7	2/19/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	4.7	NA	NA	NA	NA	NA	No purge sampling
MW-7	5/21/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-7	8/29/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	71	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-7	11/14/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-7	2/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-7	5/13/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-7	8/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	6.3	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-7	11/4/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-7	2/18/2005	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-7	4/26/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-8	8/29/2000	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	BTEX by 8260B
MW-8	12/18/2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not sampled; unable to obtain encroachment permit
MW-8	3/16/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-8	6/8/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-8	9/11/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-8	12/14/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Not sampled; City of Garden Grove would not allow access to street
MW-8	3/13/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	No purge sampling
MW-8	6/5/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-8	8/27/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	No purge sampling
MW-8	11/19/2002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-8	2/19/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	120	NA	NA	NA	NA	NA	No purge sampling
MW-8	5/21/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-8	8/29/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-8	11/14/2003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-8	2/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-8	5/13/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-8	8/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-8	11/4/2004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-8	2/18/2005	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-8	4/26/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Sampled semi-annually (1st and 3rd quarters)
MW-9	11/14/2003	43,000	260	1,200	4,300	7,800	NA	ND<50	ND<50	ND<50	ND<50	ND<250	ND<1500	No purge sampling
MW-9	2/12/2004	34000	190	620	3800	5600	NA	ND<50	ND<50	ND<50	ND<50	ND<250	ND<1500	No purge sampling
MW-9	5/13/2004	33000	230	520	3600	4500	NA	41	ND<20	ND<20	ND<20	ND<100	ND<600	No purge sampling
MW-9	8/12/2004	30000	120	200	3500	4100	NA	39	ND<20	ND<20	ND<20	ND<100	ND<600	No purge sampling
MW-9	11/4/2004	25000	150	140	3500	4500	NA	27	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	No purge sampling
MW-9	2/18/2005	36000	300	200	2600	2700	NA	ND<50	ND<50	ND<50	ND<50	ND<250	ND<1500	No purge sampling
MW-9	4/26/2005	36000	300	150	2500	1800	NA	ND<50	ND<50	ND<50	ND<50	ND<50	ND<1500	No purge sampling
MW-9d	3/18/2004	3000	130	320	120	660	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	ND<150	Peristaltic pump sampling
MW-9d	5/13/2004	130	8.6	1.8	7.5	5.4	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	Peristaltic pump sampling
MW-9d	8/12/2004	ND<50	3.6	0.42	3.3	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	Peristaltic pump sampling
MW-9D	11/4/2004	ND<50	2.4	ND<0.30	1.5	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	Peristaltic pump sampling
MW-9D	2/18/2005	ND<50	1.7	ND<0.30	0.56	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	Peristaltic pump sampling
MW-9D	4/26/2005	ND<50	2.2	ND<0.30	0.37	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	ND<150	No purge sampling
Trip Blank	10/3/1995	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	NA	NA	NA	NA	NA	NA	

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
Trip Blank	1/26/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	NA	NA	NA	NA	NA	NA	
Trip Blank	6/25/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	9/11/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	12/11/1996	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	3/27/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	6/4/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	8/28/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	11/20/1997	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	3/4/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	6/4/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	8/5/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	11/11/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	2/23/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	6/15/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	8/30/1999	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	NA	ND<5.0	NA	NA	NA	NA	NA	BTEX & MTBE analyzed by 8260B
Trip Blank	11/11/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	NA	NA	NA	NA	NA	
Trip Blank	3/20/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	6/19/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
Trip Blank	8/29/2000	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
Trip Blank	12/18/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
Trip Blank	3/16/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
Trip Blank	6/8/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
Trip Blank	9/11/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
Trip Blank	12/14/2001	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
Trip Blank	3/13/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
Trip Blank	6/5/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	NA	
Trip Blank	8/27/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	
Trip Blank	11/19/2002	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	
Trip Blank	2/19/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<1.0	NA	NA	NA	NA	NA	
Trip Blank	5/21/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	
Trip Blank	8/29/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	
Trip Blank	11/14/2003	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	
Trip Blank	2/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	
Trip Blank	3/18/2004	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	ND<150	
Trip Blank	5/13/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
13482 Brookhurst Street
Garden Grove, CA

Well	Date Sampled	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE 8020/ 8021B (µg/L)	MTBE 8240/ 8260/ 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
Trip Blank	8/12/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	
Trip Blank	11/4/2004	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	
Trip Blank	2/18/2005	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	ND<150	
Trip Blank	4/26/2005	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<50	ND<150	

Notes: µg/L = Micrograms per liter
TPHg = Total petroleum hydrocarbons as gasoline
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether
TBA = Tertiary butanol
NA = Not analyzed
ND<number = Not detected at or above stated laboratory reporting limit

ATTACHMENT A

Sampling Information Sheets

WELL ID:	MW-3	MW-2	MW-5	MW-6	MW-7	MW-8	MW-9d	MW-4	MW-1	MW-9
Traffic Control level (0,1,2,3,4,N):	3	2	2	4	4	4	3	3	3	3
Traffic control set up at well (start time):	8:27	8:33	8:39	8:44	8:59	9:04	9:16	9:21	9:33	9:45
Remove well cover & accumulated water:	8:27	8:33	8:39	8:50	8:59	9:08	9:16	9:21	9:33	9:45
Well diameter (in):	4	4	4	4	4	4	4	4	4	4
Surface seal (G/P) (tap G)	G	G	G	G	G	G	G	G	G	G
Concrete seal (G/P) (tap G)	G	G	G	G	G	G	G	G	G	G
Lid secure (Y/N) (tap Y)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Gasket (Y/N) (tap Y)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lock (Y/N) (tap Y)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Expanding cap (Y/N) (tap Y)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Time gauged:	8:29	8:35	8:41	8:52	9:01	9:10	9:18	9:23	9:35	9:47
Depth to product (ft) (tap NP):	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
Depth to water (ft):	14.55	14.68	13.48	13.54	14.32	13.55	19.62	14.18	14.16	14.58
Depth to bottom (ft):	-	-	-	-	-	-	42.55	-	-	-
Product/sheen on probe or in bailer	N	N	N	N	N	N	N	N	N	N
Product sample name:										
Appearance:										
DO (mg/L):										
Well cover secured (time):	8:30	8:36	8:42	8:53	9:02	9:11	9:19	9:29	9:41	9:53
Traffic control removed (end time):	8:30	8:36	8:42	8:56	9:02	9:13	9:19	9:29	9:41	9:53
Wellhead parts replaced (Y/N)?:	N	N	N	N	N	N	N	N	N	N
Bolts (no. replaced):										
Lid:										
Lock:										
Locking Cap 4":										
Locking Cap 2" (ENTER):										
C - car, N - not found, S - snow, O - other										

Subjective Wellhead Evaluation Form

Delta Environmental Consultants, Inc.

WELL ID:	MW-1	A140 - No purge sampling
SAMPLE ID:	MW-1	
Traffic control set up at well (start time):		
Traffic control set up (end time):		
Sampled by disposable bailer (Y/N)?		
Time sampled:		
No of containers:		
Sample color / clarity:		
Duplicate sample number:		
Time collected:		
Samples cooled by ice (Y/N)?		
Any conditions affecting sample quality (Y/N)?		
Well cover secured (time):		
Traffic control removed (end time):		
Recorded by:	0.00	

T (deg C)	pH	Cond (mS/cm)	DO (mg/L)

Sampler container type	No of containers	Preserved by	At what pH	Filter type
40 ml VOA		HCl	<2	none

other:	
describe:	

Groundwater Sampling No Purge Sheet

Site number (s/s):	629
Project number:	G0B0L
Address:	13482 Brookhurst St.
Location (City, State):	Garden Grove,CA

Delta Environmental Consultants, Inc.
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
(800) 477-7411
gwsfof 6 COC 4-6-05 CA.xls

WELL ID:	**MW-4**	**A140 - No purge sampling**
SAMPLE ID:	**MW-4**	
Traffic control set up at well (start time):		
Traffic control set up (end time):		
Sampled by disposable bailer (Y/N)?		
Time sampled:		

	T (deg C)	pH	Cond (mS/cm)	DO (mg/L)

Sampler container type	No of containers	Preserved by	At what pH	Filter type
40 ml VOA		HCl	<2	none

No of containers:	
Sample color / clarity:	
Duplicate sample number:	
Time collected:	
Samples cooled by ice (Y/N)?:	
Any conditions affecting sample quality (Y/N)?:	
Well cover secured (time):	
Traffic control removed (end time):	
Recorded by:	0.00

other:	
describe:	

Groundwater Sampling No Purge Sheet

Site number (s/s):	629
Project number:	G0B0L
Address:	13482 Brookhurst St.
Location (City, State):	Garden Grove,CA

Delta Environmental Consultants, Inc.
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
(800) 477-7411
gwsfof 6 COC 4-6-05 CA.xls

WELL ID:	**MW-9**	**A140 - No purge sampling**
SAMPLE ID:	**MW-9**	
Traffic control set up at well (start time):		
Traffic control set up (end time):		
Sampled by disposable bailer (Y/N)?		
Time sampled:		

	T (deg C)	pH	Cond (mS/cm)	DO (mg/L)

Sampler container type	No of containers	Preserved by	At what pH	Filter type
40 ml VOA		HCl	<2	none

No of containers:			
Sample color / clarity:			
Duplicate sample number:			
Time collected:			
Samples cooled by ice (Y/N)?		other:	
Any conditions affecting sample quality (Y/N)?		describe:	
Well cover secured (time):			
Traffic control removed (end time):			
Recorded by:	0.00		

Groundwater Sampling No Purge Sheet

Site number (s/s):	629	
Project number:	G0B0L	
Address:	13482 Brookhurst St.	
Location (City, State):	Garden Grove,CA	

Delta Environmental Consultants, Inc.

27141 Aliso Creek Road, Suite 270

Aliso Viejo, CA 92656

(800) 477-7411

gwsfof 6 COC 4-6-05 CA.xls

WELL ID:	**MW-9d**	**A141 - Low flow purge sampling**
SAMPLE ID:	**MW-9d**	
Traffic control set up at well (start time):		
Traffic control set up (end time):		
Casing volume (L):		
Purged by Peri, Subm?:		other:
Measured in 5gal pail, Grad cyl?:		other:
Purge time (from):		
Total Volume purged (mL):		

Time measured	Interval flowrate (mL/min)	Depth to water (ft):	T(deg C)	ph	Cond (mS/cm)	DO (mg/L)	ORP	Turbidity

Purge time (to):			Purge time (total min):
Volume purged (enter mL):			Purge rate (mL/min):
Purged dry (Y/N)?:		80% water level	
Pre-sampling depth to water (ft):			
Sampled by Peri, Subm?:		other:	
Time sampled:			

Sampler container type	No of containers	Preserved by	At what pH	Filter type
40 ml VOA		HCl	<2	none

No of containers:			
Sample color / clarity:			
Duplicate sample number:			
Time collected:			
Samples cooled by Ice (Y/N)?:		other:	
Any conditions affecting sample quality (Y/N)?:		describe:	
Purge water disposal:	**vac truck**		
Well cover secured (time):			
Traffic control removed (end time):			
Recorded by:	**0.00**		

Groundwater Sampling Low Flow Purge Sheet **Delta Environmental Consultants, Inc.**

Site number (s/s): 629 27141 Aliso Creek Road, Suite 270

Project number: G0B0L Aliso Viejo, CA 92656

Address:	13482 Brookhurst St.	(800) 477-7411
Location (City, State):	Garden Grove,CA	gwsfof 6 COC 4-6-05 CA.xls

ATTACHMENT B

Laboratory Report and Chain-of-Custody Documentation

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

LABORATORY REPORT

Prepared For: Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project: ARCO 0629, Garden Grove

Sampled: 04/26/05
Received: 04/26/05
Issued: 05/15/05 17:56

NELAP #01108CA California ELAP#1197 CSDLAC #10117

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 2°C, on ice and with chain of custody documentation.

HOLDING TIMES: Not all holding times were met. Results were qualified where the sample analysis did not occur within method specified holding time requirements.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report. As discussed at the onset of this project, the analysis of your samples by EPA 8260B was performed by Sequoia Analytical, Petaluma.

LABORATORY ID	CLIENT ID	MATRIX
IOD1883-01	MW-9d	Water
IOD1883-02	MW-4	Water
IOD1883-03	MW-1	Water
IOD1883-04	MW-9	Water
IOD1883-05	Trip Blank	Water

Reviewed By:

Del Mar Analytical, Irvine
Pat Abe
Project Manager

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

VOLATILE FUEL HYDROCARBONS/BTEX (EPA 5030B/8015M/8021B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1883-01 (MW-9d - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5E04039	50	ND	1	5/4/2005	5/4/2005	
Benzene	EPA 8015B/8021B	5E04039	0.30	**2.2**	1	5/4/2005	5/4/2005	
Toluene	EPA 8015B/8021B	5E04039	0.30	ND	1	5/4/2005	5/4/2005	
Ethylbenzene	EPA 8015B/8021B	5E04039	0.30	**0.37**	1	5/4/2005	5/4/2005	
Total Xylenes	EPA 8015B/8021B	5E04039	0.60	ND	1	5/4/2005	5/4/2005	
Surrogate: 4-BFB (PID) (65-135%)				*90 %*				
Surrogate: 4-BFB (FID) (65-140%)				*98 %*				
Sample ID: IOD1883-02 (MW-4 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5E04039	50	**85**	1	5/4/2005	5/4/2005	
Benzene	EPA 8015B/8021B	5E04039	0.30	ND	1	5/4/2005	5/4/2005	
Toluene	EPA 8015B/8021B	5E04039	0.30	**2.0**	1	5/4/2005	5/4/2005	
Ethylbenzene	EPA 8015B/8021B	5E04039	0.30	ND	1	5/4/2005	5/4/2005	
Total Xylenes	EPA 8015B/8021B	5E04039	0.60	ND	1	5/4/2005	5/4/2005	
Surrogate: 4-BFB (PID) (65-135%)				*82 %*				
Surrogate: 4-BFB (FID) (65-140%)				*110 %*				
Sample ID: IOD1883-03 (MW-1 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5E04039	5000	**15000**	100	5/4/2005	5/4/2005	
Benzene	EPA 8015B/8021B	5E04039	30	**86**	100	5/4/2005	5/4/2005	
Toluene	EPA 8015B/8021B	5E04039	30	ND	100	5/4/2005	5/4/2005	
Ethylbenzene	EPA 8015B/8021B	5E04039	30	**2000**	100	5/4/2005	5/4/2005	
Total Xylenes	EPA 8015B/8021B	5E04039	60	**75**	100	5/4/2005	5/4/2005	
Surrogate: 4-BFB (PID) (65-135%)				*96 %*				
Surrogate: 4-BFB (FID) (65-140%)				*100 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

VOLATILE FUEL HYDROCARBONS/BTEX (EPA 5030B/8015M/8021B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1883-04 (MW-9 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5E04039	5000	**36000**	100	5/4/2005	5/4/2005	
Benzene	EPA 8015B/8021B	5E04039	30	**300**	100	5/4/2005	5/4/2005	
Toluene	EPA 8015B/8021B	5E04039	30	**150**	100	5/4/2005	5/4/2005	
Ethylbenzene	EPA 8015B/8021B	5E04039	30	**2500**	100	5/4/2005	5/4/2005	
Total Xylenes	EPA 8015B/8021B	5E04039	60	**1800**	100	5/4/2005	5/4/2005	
Surrogate: 4-BFB (PID) (65-135%)				*91 %*				
Surrogate: 4-BFB (FID) (65-140%)				*103 %*				
Sample ID: IOD1883-05 (Trip Blank - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5E04039	50	ND	1	5/4/2005	5/4/2005	
Benzene	EPA 8015B/8021B	5E04039	0.30	ND	1	5/4/2005	5/4/2005	
Toluene	EPA 8015B/8021B	5E04039	0.30	ND	1	5/4/2005	5/4/2005	
Ethylbenzene	EPA 8015B/8021B	5E04039	0.30	ND	1	5/4/2005	5/4/2005	
Total Xylenes	EPA 8015B/8021B	5E04039	0.60	ND	1	5/4/2005	5/4/2005	
Surrogate: 4-BFB (PID) (65-135%)				*98 %*				
Surrogate: 4-BFB (FID) (65-140%)				*99 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1883-01 (MW-9d - Water)								
Reporting Units: ug/l								
Di-isopropyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Ethyl tert-butyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Tert-amyl methyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Methyl tert-butyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Tert-butyl alcohol	EPA 8260B	5050020	50	ND	1	5/4/2005	5/4/2005	
Ethanol	EPA 8260B	5050020	150	ND	1	5/4/2005	5/4/2005	
Surrogate: Dibromofluoromethane (84-122%)				*119 %*				
Surrogate: Toluene-d8 (84-119%)				*102 %*				
Surrogate: 4-Bromofluorobenzene (86-119%)				*113 %*				
Sample ID: IOD1883-02 (MW-4 - Water)								
Reporting Units: ug/l								
Di-isopropyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Ethyl tert-butyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Tert-amyl methyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Methyl tert-butyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Tert-butyl alcohol	EPA 8260B	5050020	50	ND	1	5/4/2005	5/4/2005	
Ethanol	EPA 8260B	5050020	150	ND	1	5/4/2005	5/4/2005	
Surrogate: Dibromofluoromethane (84-122%)				*115 %*				
Surrogate: Toluene-d8 (84-119%)				*102 %*				
Surrogate: 4-Bromofluorobenzene (86-119%)				*120 %*				*LH*
Sample ID: IOD1883-03RE1 (MW-1 - Water)								**PC**
Reporting Units: ug/l								
Di-isopropyl ether	EPA 8260B	5050031	50	ND	10	5/6/2005	5/6/2005	
Ethyl tert-butyl ether	EPA 8260B	5050031	50	ND	10	5/6/2005	5/6/2005	
Tert-amyl methyl ether	EPA 8260B	5050031	50	ND	10	5/6/2005	5/6/2005	
Methyl tert-butyl ether	EPA 8260B	5050031	50	**95**	10	5/6/2005	5/6/2005	
Tert-butyl alcohol	EPA 8260B	5050031	50	**190**	10	5/6/2005	5/6/2005	
Ethanol	EPA 8260B	5050031	1500	ND	10	5/6/2005	5/6/2005	
Surrogate: Dibromofluoromethane (84-122%)				*92 %*				
Surrogate: Toluene-d8 (84-119%)				*94 %*				
Surrogate: 4-Bromofluorobenzene (86-119%)				*104 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

Volatile Organic Compounds by EPA Method 8260B

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOD1883-04RE1 (MW-9 - Water)								**PC, BH**
Reporting Units: ug/l								
Di-isopropyl ether	EPA 8260B	5050031	50	ND	10	5/6/2005	5/6/2005	
Ethyl tert-butyl ether	EPA 8260B	5050031	50	ND	10	5/6/2005	5/6/2005	
Tert-amyl methyl ether	EPA 8260B	5050031	50	ND	10	5/6/2005	5/6/2005	
Methyl tert-butyl ether	EPA 8260B	5050031	50	ND	10	5/6/2005	5/6/2005	
Tert-butyl alcohol	EPA 8260B	5050031	50	ND	10	5/6/2005	5/6/2005	
Ethanol	EPA 8260B	5050031	1500	ND	10	5/6/2005	5/6/2005	
Surrogate: Dibromofluoromethane (84-122%)				*90 %*				
Surrogate: Toluene-d8 (84-119%)				*95 %*				
Surrogate: 4-Bromofluorobenzene (86-119%)				*103 %*				
Sample ID: IOD1883-05 (Trip Blank - Water)								
Reporting Units: ug/l								
Di-isopropyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Ethyl tert-butyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Tert-amyl methyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Methyl tert-butyl ether	EPA 8260B	5050020	5.0	ND	1	5/4/2005	5/4/2005	
Tert-butyl alcohol	EPA 8260B	5050020	50	ND	1	5/4/2005	5/4/2005	
Ethanol	EPA 8260B	5050020	150	ND	1	5/4/2005	5/4/2005	
Surrogate: Dibromofluoromethane (84-122%)				*112 %*				
Surrogate: Toluene-d8 (84-119%)				*99 %*				
Surrogate: 4-Bromofluorobenzene (86-119%)				*115 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS/BTEX (EPA 5030B/8015M/8021B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5E04039 Extracted: 05/04/05										
Blank Analyzed: 05/04/2005 (5E04039-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	ug/l							
Benzene	ND	0.30	ug/l							
Toluene	ND	0.30	ug/l							
Ethylbenzene	ND	0.30	ug/l							
Total Xylenes	ND	0.60	ug/l							
Surrogate: 4-BFB (PID)	*9.76*		*ug/l*	*10.0*		*98*	*65-135*			
Surrogate: 4-BFB (FID)	*11.2*		*ug/l*	*10.0*		*112*	*65-140*			
LCS Analyzed: 05/04/2005 (5E04039-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	899	50	ug/l	800		112	70-140			
Surrogate: 4-BFB (FID)	*34.3*		*ug/l*	*30.0*		*114*	*65-140*			
LCS Analyzed: 05/04/2005 (5E04039-BS2)										
Benzene	17.2	0.30	ug/l	20.0		86	75-120			
Toluene	18.5	0.30	ug/l	20.0		92	80-120			
Ethylbenzene	19.1	0.30	ug/l	20.0		96	85-120			
Total Xylenes	56.5	0.60	ug/l	60.0		94	80-120			
Surrogate: 4-BFB (PID)	*10.6*		*ug/l*	*10.0*		*106*	*65-135*			
Matrix Spike Analyzed: 05/04/2005 (5E04039-MS1)					**Source: IOD1747-26**					
Volatile Fuel Hydrocarbons (C6-C12)	287	50	ug/l	220	ND	130	60-140			
Benzene	18.5	0.30	ug/l	20.0	ND	92	65-125			
Toluene	19.9	0.30	ug/l	20.0	ND	100	75-120			
Ethylbenzene	20.4	0.30	ug/l	20.0	ND	102	80-125			
Total Xylenes	60.3	0.60	ug/l	60.0	ND	100	75-120			
Surrogate: 4-BFB (PID)	*9.97*		*ug/l*	*10.0*		*100*	*65-135*			
Surrogate: 4-BFB (FID)	*12.5*		*ug/l*	*10.0*		*125*	*65-140*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS/BTEX (EPA 5030B/8015M/8021B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5E04039 Extracted: 05/04/05										
Matrix Spike Dup Analyzed: 05/04/2005 (5E04039-MSD1)					**Source: IOD1747-26**					
Volatile Fuel Hydrocarbons (C6-C12)	278	50	ug/l	220	ND	126	60-140	3	20	
Benzene	17.5	0.30	ug/l	20.0	ND	88	65-125	6	20	
Toluene	18.7	0.30	ug/l	20.0	ND	94	75-120	6	20	
Ethylbenzene	19.2	0.30	ug/l	20.0	ND	96	80-125	6	20	
Total Xylenes	56.8	0.60	ug/l	60.0	ND	95	75-120	6	20	
Surrogate: 4-BFB (PID)	*10.2*		*ug/l*	*10.0*		*102*	*65-135*			
Surrogate: 4-BFB (FID)	*12.7*		*ug/l*	*10.0*		*127*	*65-140*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

METHOD BLANK/QC DATA

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5050020 Extracted: 05/04/05										
Blank Analyzed: 05/04/2005 (5050020-BLK1)										
Di-isopropyl ether	ND	5.0	ug/l							
Ethyl tert-butyl ether	ND	5.0	ug/l							
Tert-amyl methyl ether	ND	5.0	ug/l							
Methyl tert-butyl ether	ND	5.0	ug/l							
Tert-butyl alcohol	ND	5.0	ug/l							
Ethanol	ND	150	ug/l							
Surrogate: Dibromofluoromethane	*5.63*		*ug/l*	*5.00*		*113*	*84-122*			
Surrogate: Toluene-d8	*4.98*		*ug/l*	*5.00*		*100*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*5.47*		*ug/l*	*5.00*		*109*	*86-119*			
LCS Analyzed: 05/04/2005 (5050020-BS1)										
Di-isopropyl ether	4.70	5.0	ug/l	5.00		94	65-135			
Ethyl tert-butyl ether	4.89	5.0	ug/l	5.00		98	60-140			
Tert-amyl methyl ether	5.31	5.0	ug/l	5.00		106	60-140			
Methyl tert-butyl ether	5.50	5.0	ug/l	5.00		110	55-145			
Tert-butyl alcohol	103	50	ug/l	100		103	70-140			
Ethanol	266	150	ug/l	100		266	35-165			*LQ*
Surrogate: Dibromofluoromethane	*5.60*		*ug/l*	*5.00*		*112*	*84-122*			
Surrogate: Toluene-d8	*5.12*		*ug/l*	*5.00*		*102*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*5.30*		*ug/l*	*5.00*		*106*	*86-119*			
Matrix Spike Analyzed: 05/04/2005 (5050020-MS1)					**Source: P504269-14**					
Di-isopropyl ether	492	500	ug/l	500	ND	98	65-140			
Ethyl tert-butyl ether	512	500	ug/l	500	ND	102	60-140			
Tert-amyl methyl ether	548	500	ug/l	500	ND	110	55-145			
Methyl tert-butyl ether	559	500	ug/l	500	ND	112	50-155			
Tert-butyl alcohol	10500	5000	ug/l	10000	ND	105	65-145			
Ethanol	12100	15000	ug/l	10000	ND	121	35-165			
Surrogate: Dibromofluoromethane	*5.69*		*ug/l*	*5.00*		*114*	*84-122*			
Surrogate: Toluene-d8	*5.10*		*ug/l*	*5.00*		*102*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*5.16*		*ug/l*	*5.00*		*103*	*86-119*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

METHOD BLANK/QC DATA

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5050020 Extracted: 05/04/05										
Matrix Spike Dup Analyzed: 05/04/2005 (5050020-MSD1)					**Source: P504269-14**					
Di-isopropyl ether	457	500	ug/l	500	ND	91	65-140	7	25	
Ethyl tert-butyl ether	472	500	ug/l	500	ND	94	60-140	8	25	
Tert-amyl methyl ether	526	500	ug/l	500	ND	105	55-145	4	30	
Methyl tert-butyl ether	522	500	ug/l	500	ND	104	50-155	7	25	
Tert-butyl alcohol	13500	5000	ug/l	10000	ND	135	65-145	25	25	
Ethanol	16100	15000	ug/l	10000	ND	161	35-165	28	30	
Surrogate: Dibromofluoromethane	*5.32*		*ug/l*	*5.00*		*106*	*84-122*			
Surrogate: Toluene-d8	*5.06*		*ug/l*	*5.00*		*101*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*5.05*		*ug/l*	*5.00*		*101*	*86-119*			
Batch: 5050031 Extracted: 05/06/05										
Blank Analyzed: 05/06/2005 (5050031-BLK1)										
Di-isopropyl ether	ND	5.0	ug/l							
Ethyl tert-butyl ether	ND	5.0	ug/l							
Tert-amyl methyl ether	ND	5.0	ug/l							
Methyl tert-butyl ether	ND	5.0	ug/l							
Tert-butyl alcohol	ND	5.0	ug/l							
Ethanol	ND	150	ug/l							
Surrogate: Dibromofluoromethane	*4.65*		*ug/l*	*5.00*		*93*	*84-122*			
Surrogate: Toluene-d8	*4.60*		*ug/l*	*5.00*		*92*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*5.21*		*ug/l*	*5.00*		*104*	*86-119*			
LCS Analyzed: 05/06/2005 (5050031-BS1)										
Di-isopropyl ether	5.06	5.0	ug/l	5.00		101	65-135			
Ethyl tert-butyl ether	4.81	5.0	ug/l	5.00		96	60-140			
Tert-amyl methyl ether	4.96	5.0	ug/l	5.00		99	60-140			
Methyl tert-butyl ether	5.52	5.0	ug/l	5.00		110	55-145			
Tert-butyl alcohol	97.2	50	ug/l	100		97	70-140			
Ethanol	97.3	150	ug/l	100		97	35-165			
Surrogate: Dibromofluoromethane	*4.80*		*ug/l*	*5.00*		*96*	*84-122*			
Surrogate: Toluene-d8	*4.68*		*ug/l*	*5.00*		*94*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*5.18*		*ug/l*	*5.00*		*104*	*86-119*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

METHOD BLANK/QC DATA

Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5050031 Extracted: 05/06/05										
Matrix Spike Analyzed: 05/06/2005 (5050031-MS1)					**Source: P505033-03**					
Di-isopropyl ether	259	250	ug/l	250	ND	104	65-140			
Ethyl tert-butyl ether	246	250	ug/l	250	ND	98	60-140			
Tert-amyl methyl ether	277	250	ug/l	250	20	103	55-145			
Methyl tert-butyl ether	1170	250	ug/l	250	1100	28	50-155			*BB*
Tert-butyl alcohol	4560	2500	ug/l	5000	ND	91	65-145			
Ethanol	6210	7500	ug/l	5000	ND	124	35-165			
Surrogate: Dibromofluoromethane	*4.78*		*ug/l*	*5.00*		*96*	*84-122*			
Surrogate: Toluene-d8	*4.72*		*ug/l*	*5.00*		*94*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*5.07*		*ug/l*	*5.00*		*101*	*86-119*			
Matrix Spike Dup Analyzed: 05/06/2005 (5050031-MSD1)					**Source: P505033-03**					
Di-isopropyl ether	253	250	ug/l	250	ND	101	65-140	2	25	
Ethyl tert-butyl ether	244	250	ug/l	250	ND	98	60-140	1	25	
Tert-amyl methyl ether	274	250	ug/l	250	20	102	55-145	1	30	
Methyl tert-butyl ether	1210	250	ug/l	250	1100	44	50-155	3	25	*BB*
Tert-butyl alcohol	4680	2500	ug/l	5000	ND	94	65-145	3	25	
Ethanol	5060	7500	ug/l	5000	ND	101	35-165	20	30	
Surrogate: Dibromofluoromethane	*4.83*		*ug/l*	*5.00*		*97*	*84-122*			
Surrogate: Toluene-d8	*4.76*		*ug/l*	*5.00*		*95*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*5.14*		*ug/l*	*5.00*		*103*	*86-119*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

DATA QUALIFIERS AND DEFINITIONS

BB	Sample > 4x spike concentration
BH	Reporting limits raised due to high level of non-target analytes
LH	Surrogate recovery was above acceptance limits. Data not impacted
LQ	Laboratory Control Sample recovery was above method control limits.
PC	Sample taken from VOA vial with air bubble > 6mm diameter
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For Volatile Fuel Hydrocarbons (C6-C12):

Volatile Fuel Hydrocarbons (C6-C12) are quantitated against a gasoline standard.

8015 Analysis EDF Parlabel Cross Reference

Analyte	EDF Parlabel	Analyte	EDF Parlabel
Benzene	BZ	Ethylbenzene	EBZ
Toluene	BZME	Total Xylenes	XYLENES
Volatile Fuel Hydrocarbons (C6-C12)	GROC6C12		

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

Del Mar Analytical

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

DeltaEnv. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOD1883

Sampled: 04/26/05
Received: 04/26/05

Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	Nelac	California
EPA 8015B/8021B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at www.dmalabs.com.

Subcontracted Laboratories

Sequoia Analytical-Petaluma *California Cert #2374*
1455 N. McDowell Boulevard, Suite. D - Petaluma, CA 94954
Method Performed: EPA 8260B
Samples: IOD1883-01, IOD1883-02, IOD1883-03RE1, IOD1883-04RE1, IOD1883-05

Del Mar Analytical, Irvine
Pat Abe
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

BP

Chain of Custody Record

230

On-site Time:		Temp:	
Off-site Time:		Temp:	
Sky Conditions:			
Meteorological Events:			
Wind Speed and Direction:			

Project Name 629 Garden Grove,CA
BP BU/AR Region/Enfos Segment Remediation Management, WEST, Orange/Desert
State of Lead Regulatory Agency

YEAR 2005
gwafof 6 COC 4-6-05 CA.xls

Requested Due Date (mm/dd/yy) 10 Days
COC TRACKING No.

Lab Name:	Delmar Analytical	BP/AR Facility No.	629	Consultant/Contractor:	Delta Env. Consultants, Inc.
Lab Address:	17461 Derian Ave, Ste 100	BP/AR Facility Address	13482 Brookhurst St.	Address:	27141 Aliso Creek Road, Suite 270
	Irvine, CA 92614	Site Lat/Long	n/a		Aliso Viejo, CA 92656
Lab PM:	Pat Abe	California Global ID #	T0605901913	e-mail EDD to:	ckuhlmann@deltaenv.com
Tele/Fax:	949-261-1022	Enfos Project No.	g09bl-0004	Consultant/Contractor Project No.:	G0B0L
BP/AR PM Contact Name:	Darrell Fah	Provision or RCOP	P	Consultant/Contractor Tele/Fax:	949-363-3309
Address:	6 Centerpointe Drive	Phase/WBS		Consultant/Contractor PM:	Sarah Salcedo
	La Palma, CA 90623	Subphase/Task	5	Invoice to:	Enfos
Tele/Fax:		Cost Element	27	Report Type and QC level:	Level 1

Lab Bottle Order No: 10D1883

Item No.	Sample Description	Time	Date	Matrix SOIL	Matrix WATER	Matrix AIR	Laboratory Tracking Number	No. of containers	Unpreserved	H2SO4	HNO3	HCl	Methanol	Ice	TPH-G 8015M	BTEX OXYS ETOH 8260B	BTEX 8021B	OXYS ETOH 8260	FULL SCAN 8260	Sample Point Lat/Long Comments
1	MW-9d	1022	4/26/05		x			5				x		x	x	x	✓	✓		
2	MW-4	0927	^		x			^				x		x	x	x	✓	✓		
3	MW-1	0939	^		x			^				x		x	x	x	✓	✓		
4	MW-9	0951	^		x			^				x		x	x	x	✓	✓		
5	Trip Blank				x			^				x		x	x	x	✓	✓		

4/26/05 S. Salcedo for

		Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name:	Juan Velasquez						
Sampler's Company:	Doulos	Doulos	4/26/05	1700		4/26/05	1700
Shipment Date:							
Shipment Method:							
Shipment Tracking No:							

Special Instructions:

Custody seals in place (circle one) Y (N/A) Temp Blank (circle one) Y (N) Cooler Temperature on Receipt 2 F/C (circle one) Trip Blank? (Y) N (circle one)