Delta
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April4, 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 First 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.

By Van Wagner For

Sarah O. Salcedo
Project Manager
California Registered 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, Regional Water Quality Control Board – Santa Ana Region
Mr. Fabio Minervini, England Geosystem, Inc., Irvine, California

(c:\coverletters\0629.doc)

A member of:
Inogen Environmental Alliance

ATLANTIC RICHFIELD COMPANY QUARTERLY UPDATE REPORT
FIRST QUARTER 2005
APRIL 4, 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 (First – 2005):

1. Submitted the fourth quarter 2004 *Quarterly Update Report* to the OCLOP on December 14, 2004.
2. Doulos Environmental, Inc. conducted quarterly groundwater monitoring and no-purge sampling activities on February 18, 2005 (sampling information sheet is included as Attachment A). Groundwater samples were collected from all wells during the first 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 (Second – 2005):

1. Submit first quarter 2005 *Quarterly Update Report* to the OCLOP within 45 days following the first quarter 2005 sampling event.
2. Conduct second 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:	14.07 – 21.43 feet	Measured X	Estimated	
Groundwater Gradient:	0.02 ft/ft (Magnitude)	SSE	(Direction)	

ATLANTIC RICHFIELD COMPANY QUARTERLY UPDATE REPORT
FIRST QUARTER 2005
APRIL 4, 2005

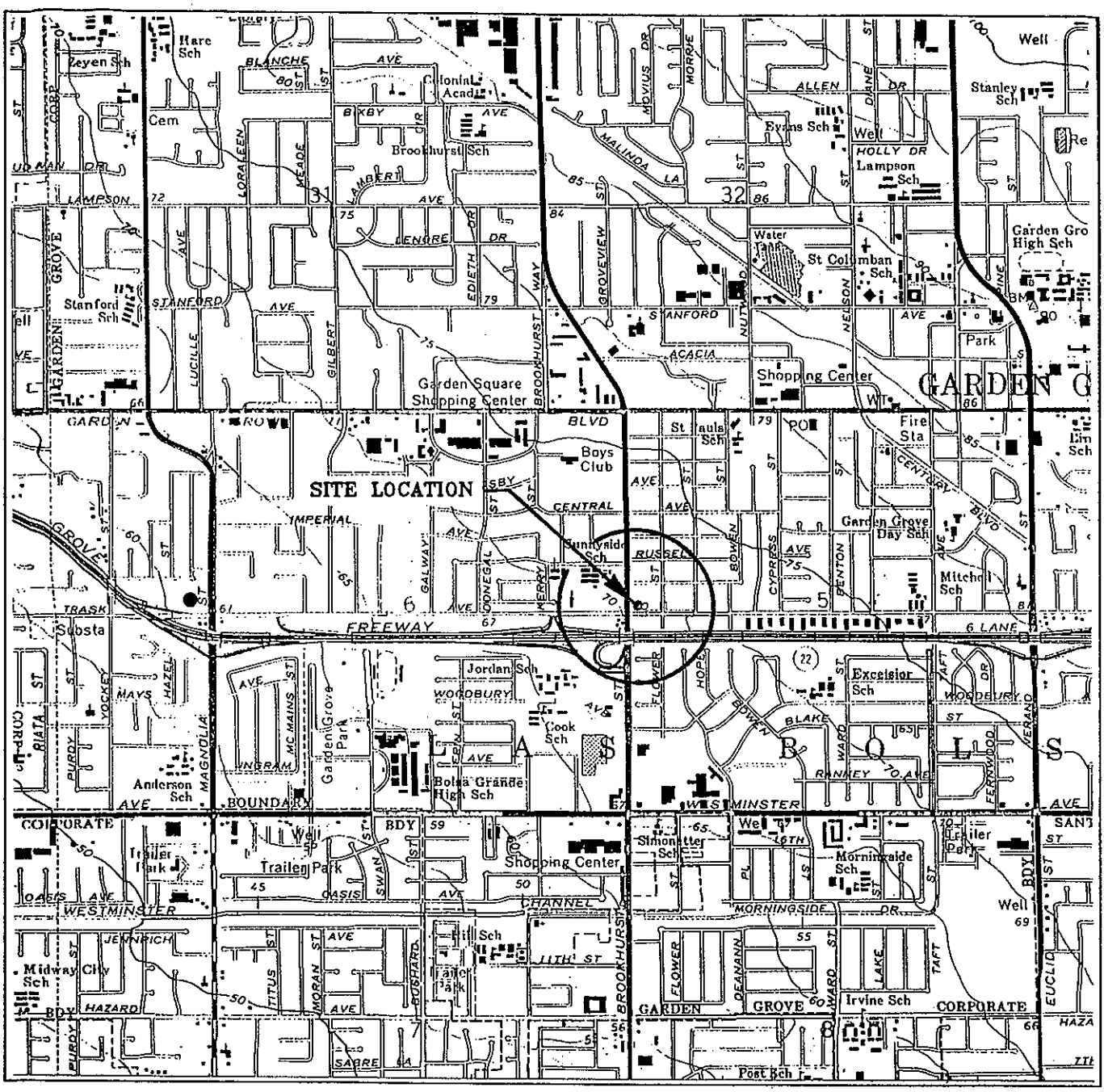
Facility No.: 0629 Address: 13482 Brookhurst Street, Garden Grove, California

DISCUSSION:

Per the reduced groundwater monitoring and sampling schedule for this site, groundwater samples were collected from all wells during the first quarter 2005. Groundwater conditions observed during this quarter remained generally consistent with the previous quarter, except for significant increases in TPHg, benzene, ethylbenzene, xylenes, MTBE, and TBA in groundwater samples collected from well MW-1

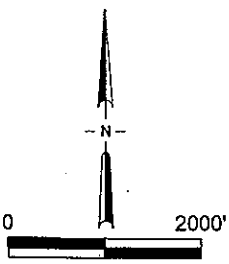
ATTACHMENTS:

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
FILE NO. 5-607-67Q		PREPARED BY P. MANNS
DATE 03 JUL 02	REV. 1	REVIEWED BY

Delta Environmental Consultants, Inc.

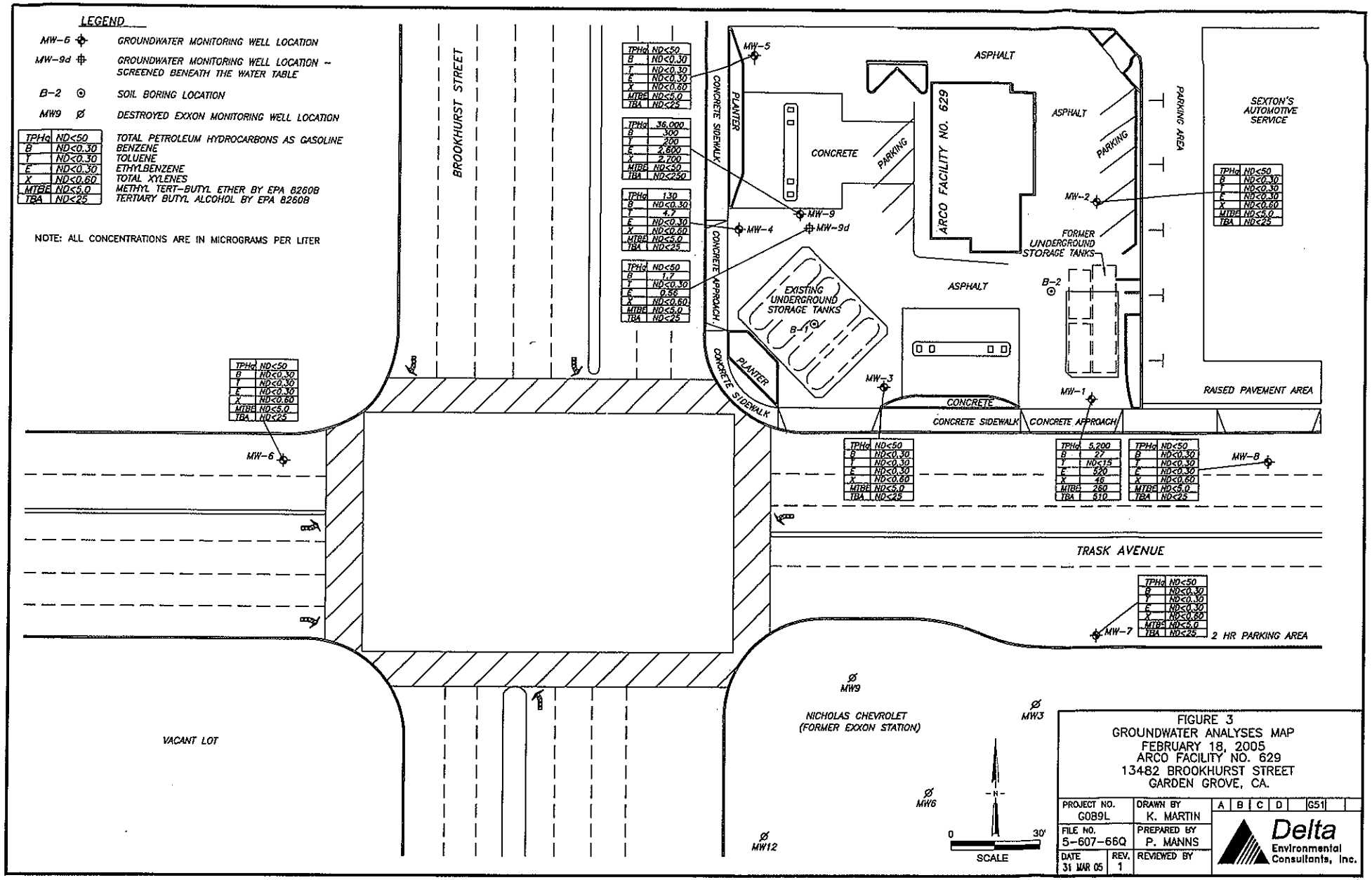


FIGURE 3
GROUNDWATER ANALYSES MAP
FEBRUARY 18, 2005
ARCO FACILITY NO. 629
13482 BROOKHURST STREET
GARDEN GROVE, CA.

PROJECT NO. G089L	DRAWN BY K. MARTIN	A B C D G51	
FILE NO. 5-607-66Q	PREPARED BY P. MANNS	Delta Environmental Consultants, Inc.	
DATE 31 MAR 05	REV. 1	REVIEWED BY	

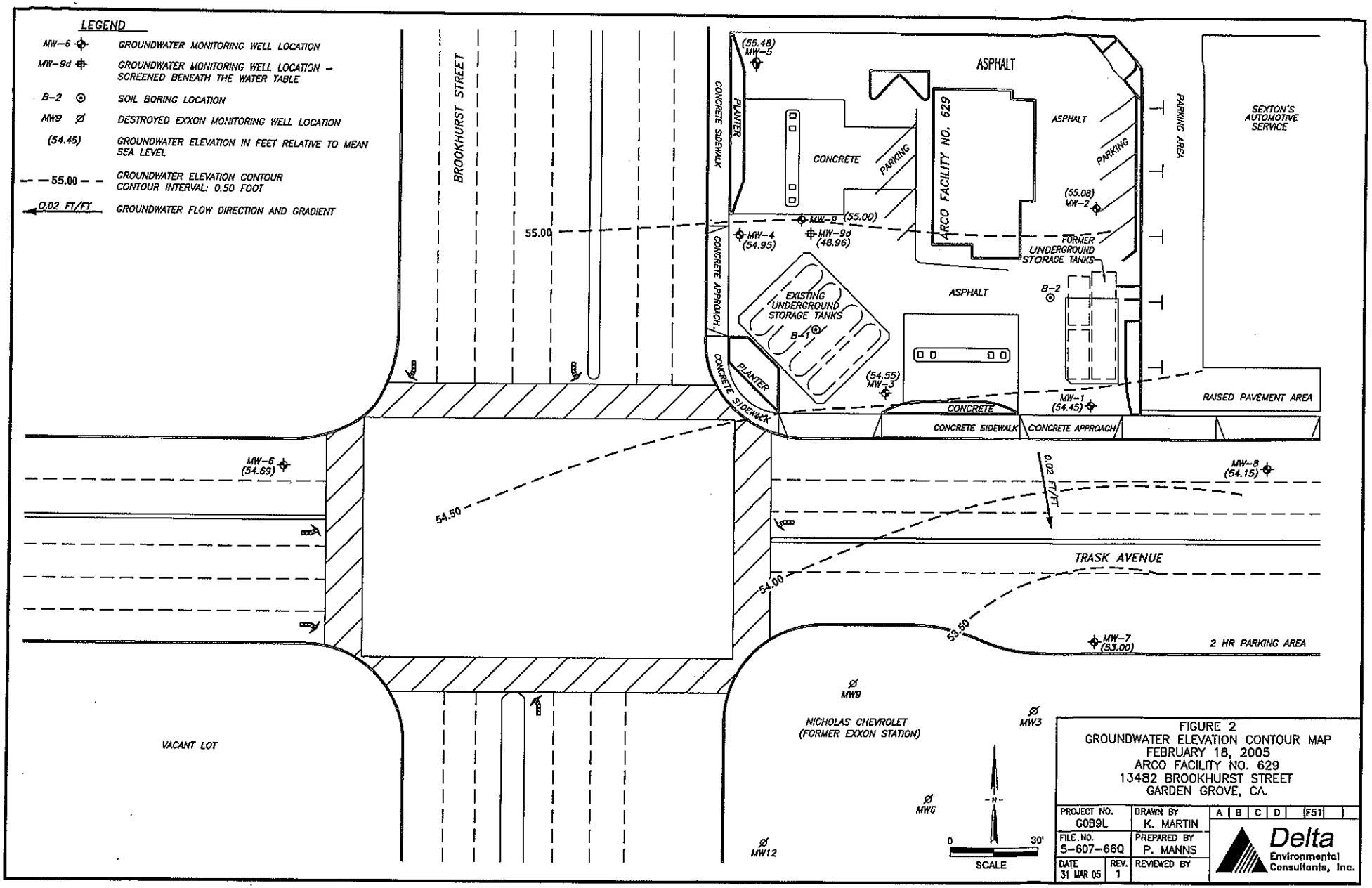


FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP
FEBRUARY 18, 2005
ARCO FACILITY NO. 629
13482 BROOKHURST STREET
GARDEN GROVE, CA.

PROJECT NO. G089L	DRAWN BY K. MARTIN	A B C D F51
FILE NO. 5-607-66Q	PREPARED BY P. MANNS	Delta Environmental Consultants, Inc.
DATE 31 MAR 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-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	
MW-2	2/23/1999	70.97	NA	15.40	NA	55.57	

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	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-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	
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	

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	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-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	
MW-4	2/18/2005	69.93	NA	14.98	NA	54.95	
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	

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-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-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	
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	

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	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-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-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	
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	

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	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-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-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	

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-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)
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

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	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-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
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

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	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-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
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

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

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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	6/19/2000	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-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
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

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

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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	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-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	
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

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 0629
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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	11/11/1998	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
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-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

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-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-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
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)

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	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-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-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
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	
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	

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	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	
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	

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

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER GAUGING DATA / NO PURGE SAMPLING SHEET

Facility No.: 429	Date: 2/18/05
Facility Location: Garden Grove	Technician: J. Velasquez
Project Manager: S. Salcedo	Project No.: AM00-622

Gauging Order	Well I.D.	Time	Depth to Water (feet)	Depth to LPH (feet)	LPH Apparent Thickness (feet)	Temperature (°F)	Conductivity (µs/cm)	pH (pH units)	Dissolved Oxygen (mg/L)	Physical Observations / Comments
1	MW-3	0550	15.40	-	-	63.5	1700	6.58	1.86	clear
2	MW-2	0603	15.62	-	-	65.1	1610	6.59	1.81	clear
3	MW-5	0616	14.34	-	-	66.1	1890	6.56	1.49	clear
4	MW-6	0632	14.07	-	-	63.6	2290	6.58	256	clear
5	MW-7	0648	15.15	-	-	64.0	2350	6.48	1.00	clear
6	MW-8	0704	14.52	-	-	65.2	2080	6.52	2.26	clear
7	MW-1	0720	15.10	-	-	66.4	1980	6.49	.60	clear
8	MW-4	0733	14.98	-	-	65.6	1620	6.46	.70	clear
9	MW-9d	0738	21.43	TD=42.55	-	-	-	-	-	-
10	MW-9	0750	15.38	-	-	66.0	1630	6.70	.61	clear

Decon Method: Triple rinse

Measuring Device(s): Solinst, Hydac, YSI-55

Notes:

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER SAMPLING INFORMATION SHEET

WEATHER CONDITIONS:
Cloud Cover: Cloudy
Wind Speed: slight
Temperature: 60°F

PROJECT:
Date: 2/18/05
Site: ARCO 629
Address: G. Grove
Delta PM: S. Salcedo

WELL DESCRIPTION:
Well I.D.: MW-9d
Casing Diameter: 4"
Depth to Water: 21.43 Time: 0738
Total Depth of Well: 42.55

PURGING METHOD: ☐ VACUUM TRUCK ☒ OTHER Peristaltic Pump

[(Well Depth - (DTW)] X (Casing Variable) = Case Volume (gal) X (# Volumes) = Total Gallons Purge

[(42.55) - (21.43)] X (.65) = _____ X (1) = 14 Gallons

Casing variables: 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 8" = 2.61, 10" = 4.08, 12" = 5.87

PURGING / STABILIZATION TEST DATA

Time (24hr)	pH (pH units)	Temp. Corrected Conductance (ms/cm)	Temperature (°F)	Turbidity (NTUs)	Cummulative Water Purged (gallons)	Pumping Rate (gpm)
0750						
0800	6.85	1750	67.8	-	2	
0810	6.82	1740	67.6	-	4	
0820	6.77	1710	67.7	-	6	

SAMPLING:
Sample I.D.: MW-9d Time: 0820
Bottle set: 5 80% Water Level:
Sample Appearance: clear Sampling Water Level: 23.13

D.O.: mg/L D.O. Measuring Device:

COMMENTS:

TRANSPORTATION (Thermal preservation): ice

SAMPLED BY: J. Velasquez **DATE:** 2/18/05

ATTACHMENT B

Laboratory Report and Chain-of-Custody Documentation

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

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: 02/18/05
Received: 02/18/05
Issued: 03/03/05 19:24

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 5°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Del Mar Analytical Sample Acceptance Policy unless otherwise noted in the report.

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: No analyses were subcontracted to an outside laboratory.

LABORATORY ID	CLIENT ID	MATRIX
IOB1492-01	MW-1	Water
IOB1492-02	MW-2	Water
IOB1492-03	MW-3	Water
IOB1492-04	MW-4	Water
IOB1492-05	MW-5	Water
IOB1492-06	MW-6	Water
IOB1492-07	MW-7	Water
IOB1492-08	MW-8	Water
IOB1492-09	MW-9	Water
IOB1492-10	MW-9d	Water
IOB1492-11	Trip Blank	Water

Reviewed By:

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Delta Env. Consultants - Aliso Viejo
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Attention: Sarah Salcedo

Project ID: ARCO 0629, Garden Grove

Report Number: IOB1492

Sampled: 02/18/05
Received: 02/18/05

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: IOB1492-01 (MW-1 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B25004	2500	**5200**	50	2/25/2005	2/25/2005	
Benzene	EPA 8015B/8021B	5B25004	15	**27**	50	2/25/2005	2/25/2005	
Toluene	EPA 8015B/8021B	5B25004	15	ND	50	2/25/2005	2/25/2005	
Ethylbenzene	EPA 8015B/8021B	5B25004	15	**520**	50	2/25/2005	2/25/2005	
Total Xylenes	EPA 8015B/8021B	5B25004	30	**46**	50	2/25/2005	2/25/2005	
Surrogate: 4-BFB (PID) (65-135%)				*92 %*				
Surrogate: 4-BFB (FID) (65-140%)				*94 %*				
Sample ID: IOB1492-02 (MW-2 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B25004	50	ND	1	2/25/2005	2/25/2005	
Benzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Toluene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Ethylbenzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Total Xylenes	EPA 8015B/8021B	5B25004	0.60	ND	1	2/25/2005	2/25/2005	
Surrogate: 4-BFB (PID) (65-135%)				*92 %*				
Surrogate: 4-BFB (FID) (65-140%)				*68 %*				
Sample ID: IOB1492-03 (MW-3 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B25004	50	ND	1	2/25/2005	2/25/2005	
Benzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Toluene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Ethylbenzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Total Xylenes	EPA 8015B/8021B	5B25004	0.60	ND	1	2/25/2005	2/25/2005	
Surrogate: 4-BFB (PID) (65-135%)				*92 %*				
Surrogate: 4-BFB (FID) (65-140%)				*101 %*				

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Project ID: ARCO 0629, Garden Grove

Report Number: IOB1492

Sampled: 02/18/05
Received: 02/18/05

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: IOB1492-04 (MW-4 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B25004	50	**130**	1	2/25/2005	2/25/2005	
Benzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Toluene	EPA 8015B/8021B	5B25004	0.30	**4.7**	1	2/25/2005	2/25/2005	
Ethylbenzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Total Xylenes	EPA 8015B/8021B	5B25004	0.60	ND	1	2/25/2005	2/25/2005	
Surrogate: 4-BFB (PID) (65-135%)				*92 %*				
Surrogate: 4-BFB (FID) (65-140%)				*121 %*				
Sample ID: IOB1492-05 (MW-5 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B25004	50	ND	1	2/25/2005	2/25/2005	
Benzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Toluene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Ethylbenzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Total Xylenes	EPA 8015B/8021B	5B25004	0.60	ND	1	2/25/2005	2/25/2005	
Surrogate: 4-BFB (PID) (65-135%)				*82 %*				
Surrogate: 4-BFB (FID) (65-140%)				*111 %*				
Sample ID: IOB1492-06 (MW-6 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B25004	50	ND	1	2/25/2005	2/25/2005	
Benzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Toluene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Ethylbenzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Total Xylenes	EPA 8015B/8021B	5B25004	0.60	ND	1	2/25/2005	2/25/2005	
Surrogate: 4-BFB (PID) (65-135%)				*95 %*				
Surrogate: 4-BFB (FID) (65-140%)				*99 %*				

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Project ID: ARCO 0629, Garden Grove

Report Number: IOB1492

Sampled: 02/18/05
Received: 02/18/05

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: IOB1492-07 (MW-7 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B25004	50	ND	1	2/25/2005	2/25/2005	
Benzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Toluene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Ethylbenzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Total Xylenes	EPA 8015B/8021B	5B25004	0.60	ND	1	2/25/2005	2/25/2005	
Surrogate: 4-BFB (PID) (65-135%)				*98 %*				
Surrogate: 4-BFB (FID) (65-140%)				*107 %*				
Sample ID: IOB1492-08 (MW-8 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B25004	50	ND	1	2/25/2005	2/25/2005	
Benzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Toluene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Ethylbenzene	EPA 8015B/8021B	5B25004	0.30	ND	1	2/25/2005	2/25/2005	
Total Xylenes	EPA 8015B/8021B	5B25004	0.60	ND	1	2/25/2005	2/25/2005	
Surrogate: 4-BFB (PID) (65-135%)				*96 %*				
Surrogate: 4-BFB (FID) (65-140%)				*107 %*				
Sample ID: IOB1492-09 (MW-9 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B25004	5000	**36000**	100	2/25/2005	2/25/2005	
Benzene	EPA 8015B/8021B	5B25004	30	**300**	100	2/25/2005	2/25/2005	
Toluene	EPA 8015B/8021B	5B25004	30	**200**	100	2/25/2005	2/25/2005	
Ethylbenzene	EPA 8015B/8021B	5B25004	30	**2600**	100	2/25/2005	2/25/2005	
Total Xylenes	EPA 8015B/8021B	5B25004	60	**2700**	100	2/25/2005	2/25/2005	
Surrogate: 4-BFB (PID) (65-135%)				*97 %*				
Surrogate: 4-BFB (FID) (65-140%)				*111 %*				

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Project ID: ARCO 0629, Garden Grove

Report Number: IOB1492

Sampled: 02/18/05
Received: 02/18/05

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: IOB1492-10 (MW-9d - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B28002	50	ND	1	2/28/2005	2/28/2005	
Benzene	EPA 8015B/8021B	5B28002	0.30	**1.7**	1	2/28/2005	2/28/2005	
Toluene	EPA 8015B/8021B	5B28002	0.30	ND	1	2/28/2005	2/28/2005	
Ethylbenzene	EPA 8015B/8021B	5B28002	0.30	**0.56**	1	2/28/2005	2/28/2005	
Total Xylenes	EPA 8015B/8021B	5B28002	0.60	ND	1	2/28/2005	2/28/2005	
Surrogate: 4-BFB (PID) (65-135%)				*94 %*				
Surrogate: 4-BFB (FID) (65-140%)				*111 %*				
Sample ID: IOB1492-11 (Trip Blank - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015B/8021B	5B28002	50	ND	1	2/28/2005	2/28/2005	
Benzene	EPA 8015B/8021B	5B28002	0.30	ND	1	2/28/2005	2/28/2005	
Toluene	EPA 8015B/8021B	5B28002	0.30	ND	1	2/28/2005	2/28/2005	
Ethylbenzene	EPA 8015B/8021B	5B28002	0.30	ND	1	2/28/2005	2/28/2005	
Total Xylenes	EPA 8015B/8021B	5B28002	0.60	ND	1	2/28/2005	2/28/2005	
Surrogate: 4-BFB (PID) (65-135%)				*90 %*				
Surrogate: 4-BFB (FID) (65-140%)				*100 %*				

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Project ID: ARCO 0629, Garden Grove

Report Number: IOB1492

Sampled: 02/18/05
Received: 02/18/05

OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOB1492-01 (MW-1 - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	50	**260**	10	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	50	ND	10	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	50	ND	10	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	50	ND	10	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	250	**510**	10	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	1500	ND	10	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*93 %*				
Surrogate: Toluene-d8 (80-120%)				*90 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*87 %*				
Sample ID: IOB1492-02 (MW-2 - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	25	ND	1	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	150	ND	1	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*96 %*				
Surrogate: Toluene-d8 (80-120%)				*89 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*84 %*				
Sample ID: IOB1492-03 (MW-3 - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	25	ND	1	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	150	ND	1	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*95 %*				
Surrogate: Toluene-d8 (80-120%)				*88 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*85 %*				

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Project ID: ARCO 0629, Garden Grove

Report Number: IOB1492

Sampled: 02/18/05
Received: 02/18/05

OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOB1492-04 (MW-4 - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	25	ND	1	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	150	ND	1	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*95 %*				
Surrogate: Toluene-d8 (80-120%)				*89 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*84 %*				
Sample ID: IOB1492-05 (MW-5 - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	25	ND	1	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	150	ND	1	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*96 %*				
Surrogate: Toluene-d8 (80-120%)				*89 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*85 %*				
Sample ID: IOB1492-06 (MW-6 - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	25	ND	1	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	150	ND	1	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*96 %*				
Surrogate: Toluene-d8 (80-120%)				*88 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*85 %*				

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Project ID: ARCO 0629, Garden Grove

Report Number: IOB1492

Sampled: 02/18/05
Received: 02/18/05

OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOB1492-07 (MW-7 - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	25	ND	1	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	150	ND	1	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*98 %*				
Surrogate: Toluene-d8 (80-120%)				*89 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*83 %*				
Sample ID: IOB1492-08 (MW-8 - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	25	ND	1	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	150	ND	1	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*95 %*				
Surrogate: Toluene-d8 (80-120%)				*88 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*83 %*				
Sample ID: IOB1492-09 (MW-9 - Water)								**BH**
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	50	ND	10	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	50	ND	10	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	50	ND	10	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	50	ND	10	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	250	ND	10	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	1500	ND	10	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*96 %*				
Surrogate: Toluene-d8 (80-120%)				*89 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*89 %*				

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Project ID: ARCO 0629, Garden Grove

Report Number: IOB1492

Sampled: 02/18/05
Received: 02/18/05

OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOB1492-10 (MW-9d - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B22015	5.0	ND	1	2/22/2005	2/22/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B22015	5.0	ND	1	2/22/2005	2/22/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B22015	5.0	ND	1	2/22/2005	2/22/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B22015	5.0	ND	1	2/22/2005	2/22/2005	
tert-Butanol (TBA)	EPA 8260B	5B22015	25	ND	1	2/22/2005	2/22/2005	
Ethanol	EPA 8260B	5B22015	150	ND	1	2/22/2005	2/22/2005	IO
Surrogate: Dibromofluoromethane (80-120%)				*108 %*				
Surrogate: Toluene-d8 (80-120%)				*96 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*94 %*				
Sample ID: IOB1492-11 (Trip Blank - Water)								
Reporting Units: ug/l								
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5B20001	5.0	ND	1	2/20/2005	2/20/2005	
tert-Butanol (TBA)	EPA 8260B	5B20001	25	ND	1	2/20/2005	2/20/2005	
Ethanol	EPA 8260B	5B20001	150	ND	1	2/20/2005	2/20/2005	
Surrogate: Dibromofluoromethane (80-120%)				*92 %*				
Surrogate: Toluene-d8 (80-120%)				*89 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*84 %*				

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Report Number: IOB1492

Sampled: 02/18/05
Received: 02/18/05

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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: 5B25004 Extracted: 02/25/05										
Blank Analyzed: 02/25/2005 (5B25004-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)	*10.1*		*ug/l*	*10.0*		*101*	*65-135*			
Surrogate: 4-BFB (FID)	*11.4*		*ug/l*	*10.0*		*114*	*65-140*			
LCS Analyzed: 02/25/2005 (5B25004-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	763	50	ug/l	800		95	70-140			
Surrogate: 4-BFB (FID)	*31.7*		*ug/l*	*30.0*		*106*	*65-140*			
LCS Analyzed: 02/25/2005 (5B25004-BS2)										
Benzene	18.5	0.30	ug/l	20.0		92	75-120			
Toluene	19.7	0.30	ug/l	20.0		98	80-120			
Ethylbenzene	19.9	0.30	ug/l	20.0		100	85-120			
Total Xylenes	59.6	0.60	ug/l	60.0		99	80-120			
Surrogate: 4-BFB (PID)	*10.4*		*ug/l*	*10.0*		*104*	*65-135*			
Matrix Spike Analyzed: 02/25/2005 (5B25004-MS1)					**Source: IOB1492-03**					
Volatile Fuel Hydrocarbons (C6-C12)	268	50	ug/l	220	ND	122	60-140			
Benzene	17.3	0.30	ug/l	20.0	ND	86	65-125			
Toluene	18.3	0.30	ug/l	20.0	ND	92	75-120			
Ethylbenzene	18.1	0.30	ug/l	20.0	ND	90	80-125			
Total Xylenes	51.8	0.60	ug/l	60.0	ND	86	75-120			
Surrogate: 4-BFB (PID)	*9.62*		*ug/l*	*10.0*		*96*	*65-135*			
Surrogate: 4-BFB (FID)	*12.4*		*ug/l*	*10.0*		*124*	*65-140*			

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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: 5B25004 Extracted: 02/25/05										
Matrix Spike Dup Analyzed: 02/25/2005 (5B25004-MSD1)					**Source: IOB1492-03**					
Volatile Fuel Hydrocarbons (C6-C12)	270	50	ug/l	220	ND	123	60-140	1	20	
Benzene	18.5	0.30	ug/l	20.0	ND	92	65-125	7	20	
Toluene	19.5	0.30	ug/l	20.0	ND	98	75-120	6	20	
Ethylbenzene	19.3	0.30	ug/l	20.0	ND	96	80-125	6	20	
Total Xylenes	55.3	0.60	ug/l	60.0	ND	92	75-120	7	20	
Surrogate: 4-BFB (PID)	*10.0*		*ug/l*	*10.0*		*100*	*65-135*			
Surrogate: 4-BFB (FID)	*12.3*		*ug/l*	*10.0*		*123*	*65-140*			
Batch: 5B28002 Extracted: 02/28/05										
Blank Analyzed: 02/28/2005 (5B28002-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)	*10.0*		*ug/l*	*10.0*		*100*	*65-135*			
Surrogate: 4-BFB (FID)	*10.8*		*ug/l*	*10.0*		*108*	*65-140*			
LCS Analyzed: 02/28/2005 (5B28002-BS1)										
Benzene	19.7	0.30	ug/l	20.0		98	75-120			
Toluene	20.6	0.30	ug/l	20.0		103	80-120			
Ethylbenzene	20.6	0.30	ug/l	20.0		103	85-120			
Total Xylenes	61.5	0.60	ug/l	60.0		102	80-120			
Surrogate: 4-BFB (PID)	*10.6*		*ug/l*	*10.0*		*106*	*65-135*			
LCS Analyzed: 02/28/2005 (5B28002-BS2)										
Volatile Fuel Hydrocarbons (C6-C12)	761	50	ug/l	800		95	70-140			
Surrogate: 4-BFB (FID)	*33.2*		*ug/l*	*30.0*		*111*	*65-140*			

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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: 5B28002 Extracted: 02/28/05										
Matrix Spike Analyzed: 02/28/2005 (5B28002-MS1)					**Source: IOB1254-01**					
Volatile Fuel Hydrocarbons (C6-C12)	277	50	ug/l	220	ND	126	60-140			
Benzene	18.4	0.30	ug/l	20.0	ND	92	65-125			
Toluene	19.3	0.30	ug/l	20.0	ND	96	75-120			
Ethylbenzene	19.7	0.30	ug/l	20.0	ND	98	80-125			
Total Xylenes	57.9	0.60	ug/l	60.0	ND	96	75-120			
Surrogate: 4-BFB (PID)	*10.3*		*ug/l*	*10.0*		*103*	*65-135*			
Surrogate: 4-BFB (FID)	*12.7*		*ug/l*	*10.0*		*127*	*65-140*			
Matrix Spike Dup Analyzed: 02/28/2005 (5B28002-MSD1)					**Source: IOB1254-01**					
Volatile Fuel Hydrocarbons (C6-C12)	276	50	ug/l	220	ND	125	60-140	0	20	
Benzene	18.6	0.30	ug/l	20.0	ND	93	65-125	1	20	
Toluene	19.4	0.30	ug/l	20.0	ND	97	75-120	1	20	
Ethylbenzene	19.8	0.30	ug/l	20.0	ND	99	80-125	1	20	
Total Xylenes	57.5	0.60	ug/l	60.0	ND	96	75-120	1	20	
Surrogate: 4-BFB (PID)	*10.4*		*ug/l*	*10.0*		*104*	*65-135*			
Surrogate: 4-BFB (FID)	*12.7*		*ug/l*	*10.0*		*127*	*65-140*			

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METHOD BLANK/QC DATA

OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5B20001 Extracted: 02/20/05										
Blank Analyzed: 02/20/2005 (5B20001-BLK1)										
Methyl-tert-butyl Ether (MTBE)	ND	5.0	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	ug/l							
tert-Butanol (TBA)	ND	25	ug/l							
Ethanol	ND	150	ug/l							
Surrogate: Dibromofluoromethane	*22.8*		*ug/l*	*25.0*		*91*	*80-120*			
Surrogate: Toluene-d8	*22.0*		*ug/l*	*25.0*		*88*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*21.2*		*ug/l*	*25.0*		*85*	*80-120*			
LCS Analyzed: 02/20/2005 (5B20001-BS1)										
Methyl-tert-butyl Ether (MTBE)	27.6	5.0	ug/l	25.0		110	55-145			
Di-isopropyl Ether (DIPE)	30.3	5.0	ug/l	25.0		121	65-135			
Ethyl tert-Butyl Ether (ETBE)	30.0	5.0	ug/l	25.0		120	60-140			
tert-Amyl Methyl Ether (TAME)	28.3	5.0	ug/l	25.0		113	60-140			
tert-Butanol (TBA)	129	25	ug/l	125		103	70-140			
Ethanol	220	150	ug/l	250		88	35-165			
Surrogate: Dibromofluoromethane	*23.0*		*ug/l*	*25.0*		*92*	*80-120*			
Surrogate: Toluene-d8	*22.4*		*ug/l*	*25.0*		*90*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*22.4*		*ug/l*	*25.0*		*90*	*80-120*			
Matrix Spike Analyzed: 02/20/2005 (5B20001-MS1)					**Source: IOB1492-02**					
Methyl-tert-butyl Ether (MTBE)	28.1	5.0	ug/l	25.0	ND	112	50-155			
Di-isopropyl Ether (DIPE)	33.2	5.0	ug/l	25.0	ND	133	65-140			
Ethyl tert-Butyl Ether (ETBE)	31.5	5.0	ug/l	25.0	ND	126	60-140			
tert-Amyl Methyl Ether (TAME)	29.1	5.0	ug/l	25.0	ND	116	55-145			
tert-Butanol (TBA)	128	25	ug/l	125	ND	102	65-145			
Ethanol	265	150	ug/l	250	ND	106	35-165			
Surrogate: Dibromofluoromethane	*23.8*		*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: Toluene-d8	*22.6*		*ug/l*	*25.0*		*90*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*22.6*		*ug/l*	*25.0*		*90*	*80-120*			

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Project ID: ARCO 0629, Garden Grove

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OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5B20001 Extracted: 02/20/05										
Matrix Spike Dup Analyzed: 02/20/2005 (5B20001-MSD1)					**Source: IOB1492-02**					
Methyl-tert-butyl Ether (MTBE)	25.8	5.0	ug/l	25.0	ND	103	50-155	9	25	
Di-isopropyl Ether (DIPE)	30.5	5.0	ug/l	25.0	ND	122	65-140	8	25	
Ethyl tert-Butyl Ether (ETBE)	29.3	5.0	ug/l	25.0	ND	117	60-140	7	25	
tert-Amyl Methyl Ether (TAME)	27.1	5.0	ug/l	25.0	ND	108	55-145	7	30	
tert-Butanol (TBA)	129	25	ug/l	125	ND	103	65-145	1	25	
Ethanol	234	150	ug/l	250	ND	94	35-165	12	30	
Surrogate: Dibromofluoromethane	*23.5*		*ug/l*	*25.0*		*94*	*80-120*			
Surrogate: Toluene-d8	*22.5*		*ug/l*	*25.0*		*90*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*22.7*		*ug/l*	*25.0*		*91*	*80-120*			
Batch: 5B22015 Extracted: 02/22/05										
Blank Analyzed: 02/22/2005 (5B22015-BLK1)										
Methyl-tert-butyl Ether (MTBE)	ND	5.0	ug/l							
Di-isopropyl Ether (DIPE)	ND	5.0	ug/l							
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	ug/l							
tert-Amyl Methyl Ether (TAME)	ND	5.0	ug/l							
tert-Butanol (TBA)	ND	25	ug/l							
Ethanol	ND	150	ug/l							
Surrogate: Dibromofluoromethane	*26.4*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: Toluene-d8	*22.4*		*ug/l*	*25.0*		*90*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/l*	*25.0*		*95*	*80-120*			
LCS Analyzed: 02/22/2005 (5B22015-BS1)										
Methyl-tert-butyl Ether (MTBE)	24.9	5.0	ug/l	25.0		100	55-145			
Di-isopropyl Ether (DIPE)	23.9	5.0	ug/l	25.0		96	65-135			
Ethyl tert-Butyl Ether (ETBE)	24.0	5.0	ug/l	25.0		96	60-140			
tert-Amyl Methyl Ether (TAME)	25.4	5.0	ug/l	25.0		102	60-140			
tert-Butanol (TBA)	120	25	ug/l	125		96	70-140			
Ethanol	259	150	ug/l	250		104	35-165			
Surrogate: Dibromofluoromethane	*26.8*		*ug/l*	*25.0*		*107*	*80-120*			
Surrogate: Toluene-d8	*23.6*		*ug/l*	*25.0*		*94*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.4*		*ug/l*	*25.0*		*98*	*80-120*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Del Mar Analytical

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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: IOB1492

Sampled: 02/18/05
Received: 02/18/05

METHOD BLANK/QC DATA

OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5B22015 Extracted: 02/22/05										
Matrix Spike Analyzed: 02/22/2005 (5B22015-MS1)					**Source: IOB1492-10**					
Methyl-tert-butyl Ether (MTBE)	23.3	5.0	ug/l	25.0	ND	93	50-155			
Di-isopropyl Ether (DIPE)	22.4	5.0	ug/l	25.0	ND	90	65-140			
Ethyl tert-Butyl Ether (ETBE)	22.8	5.0	ug/l	25.0	ND	91	60-140			
tert-Amyl Methyl Ether (TAME)	23.8	5.0	ug/l	25.0	ND	95	55-145			
tert-Butanol (TBA)	121	25	ug/l	125	ND	97	65-145			
Ethanol	260	150	ug/l	250	ND	104	35-165			
Surrogate: Dibromofluoromethane	*28.2*		*ug/l*	*25.0*		*113*	*80-120*			
Surrogate: Toluene-d8	*24.4*		*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.0*		*ug/l*	*25.0*		*100*	*80-120*			
Matrix Spike Dup Analyzed: 02/22/2005 (5B22015-MSD1)					**Source: IOB1492-10**					
Methyl-tert-butyl Ether (MTBE)	24.0	5.0	ug/l	25.0	ND	96	50-155	3	25	
Di-isopropyl Ether (DIPE)	24.7	5.0	ug/l	25.0	ND	99	65-140	10	25	
Ethyl tert-Butyl Ether (ETBE)	23.9	5.0	ug/l	25.0	ND	96	60-140	5	25	
tert-Amyl Methyl Ether (TAME)	24.9	5.0	ug/l	25.0	ND	100	55-145	5	30	
tert-Butanol (TBA)	131	25	ug/l	125	ND	105	65-145	8	25	
Ethanol	278	150	ug/l	250	ND	111	35-165	7	30	
Surrogate: Dibromofluoromethane	*27.3*		*ug/l*	*25.0*		*109*	*80-120*			
Surrogate: Toluene-d8	*24.7*		*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*25.5*		*ug/l*	*25.0*		*102*	*80-120*			

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DATA QUALIFIERS AND DEFINITIONS

BH	Reporting limits raised due to high level of non-target analytes
IO	Contract limits originate from BP-GCLN Technical Requirements
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

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		

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Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	Nelac	California
EPA 8015B/8021B	Water	X	X
EPA 8260B	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.

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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TRUESDAIL LABORATORIES, INC.

14201 FRANKLIN AVENUE, TUSTIN, CALIFORNIA 92780

J0B1392

Laboratory Transmittal Form

Date: 02/09/05 Page: 1 of 1

Laboratory: **Del Mar Analytical**

Attention: Sample Receiving

Address: 17461 Derian Ave, Suite #100. Ph#: (949) 261-1022

City: Irvine State: CA Zip: 92614

Please sign, date & return this form with the results, to:
TRUESDAIL LABORATORIES, INC.
Attn: Sean Condon
14201 Franklin Avenue, Tustin, California 92780
Please include Truesdail Sample ID on your invoice

Sample ID	Date	Time	Matrix	Methods/Tests Required										Container Qty.	Comments/ContainerSize/ Type
					Perchlorate (UCMR)										
939793	2/15/05	09:54	Well W		X									1	250 ml/Plastic
														1	Containers Total

Type of Service:

☐X **Normal (5-10 day TAT)** ☐ **RUSH (5 Day TAT)**

☐ URGENT (24-48 hr. TAT) ☐ Results needed by: _____

Sample Conditions:

Received on Ice? Yes/No Sealed? Yes/No

Special Shipment/Handling or Storage Requirements:

6°C

Relinquished by Douglas Meenemenberg Doug Meenemenberg Truesdail Labs, Inc 2-17-05 10:50

Signature Printed Name Company Date Time

Received by: U-Escalante Del Mar 2/17/05 1050

Signature Printed Name Company Date Time