Delta
Environmental Consultants, Inc.

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April 27, 2005

Ms. Suzanne Wilson
City of Anaheim
Public Utilities Department
201 South Anaheim Blvd., Suite 601
Anaheim, California 92803

Sent via UPS

Subject: Quarterly Update Report Submittal

Dear Ms. Wilson:

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.	Location
3023	601 South Magnolia Avenue, Anaheim

If you have any questions regarding this project, please contact the undersigned at (949) 292-5080.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

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

Bryan Van Wagner
Project Manager
California Professional Geologist No. 5820

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

BVW:mjr(c:\quarterly\coverletters\3023.doc)

A member of:
Inogen Environmental Alliance

ATLANTIC RICHFIELD COMPANY QUARTERLY UPDATE REPORT
FIRST QUARTER 2005
APRIL 30, 2005

Facility No.:	3023	Address:	601 South Magnolia Avenue, Anaheim, California
Atlantic Richfield Company Environmental Business Manager / Phone No.:			Darrell Fah / (714) 378-5105
Consulting Co. / Contact Person / Phone No.:			Delta Environmental / Bryan Van Wagner / (949) 362-3077
Primary Agency / Contact Person / Regulatory ID No.:			City of Anaheim Public Utilities Department (APUD) / Suzanne Wilson
Other Agencies to Receive Copies:			California Regional Water Quality Control Board - Santa Ana / Valerie Jahn-Bull

WORK PERFORMED THIS QUARTER (First - 2005):

1. Submitted the fourth quarter 2004 *Quarterly Update Report* to the APUD on January 30, 2005.
2. Doulos Environmental conducted quarterly groundwater monitoring and purge sampling on February 28, 2005 (field data sheets are included as Attachment A). All groundwater samples were analyzed for total petroleum hydrocarbons as gasoline according to Environmental Protection Agency (EPA) Method 8015B and for benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether, di-isopropyl ether, ethyl tertiary butyl ether, tertiary amyl methyl ether, tertiary butanol, and ethanol according to EPA Method 8260B. Historical groundwater elevation and analytical data are presented in Tables 1 and 2, respectively. A copy of the laboratory analytical report and chain-of-custody documentation are included as Attachment B.
3. On February 2, 2005 submitted additional information regarding the removal of MTBE during previous soil vapor extraction activities. This Response Letter supplemented the *Addendum to the Confirmation Soil Boring/ Request for Site Closure*, dated March 29, 2004.

WORK PROPOSED FOR THE NEXT QUARTER (Second - 2005):

1. Submit the first quarter 2005 *Quarterly Update Report* to the APUD by April 30, 2005.
2. No groundwater monitoring or sampling activities will be conducted during the second quarter 2005 while the APUD considers this Site for case closure,

Current Phase of Project:	Post-Remedial Groundwater Monitoring/Closure Request Pending APUD Approval
Frequency of Sampling:	Groundwater – Quarterly
Frequency of Monitoring:	Groundwater – Quarterly
Permits for Discharge (No.):	None
Approximate Depth to Groundwater:	35.31 – 37.88 feet Measured X Estimated
Groundwater Gradient:	0.04 ft/ft (Magnitude) North (Direction)

DISCUSSION:

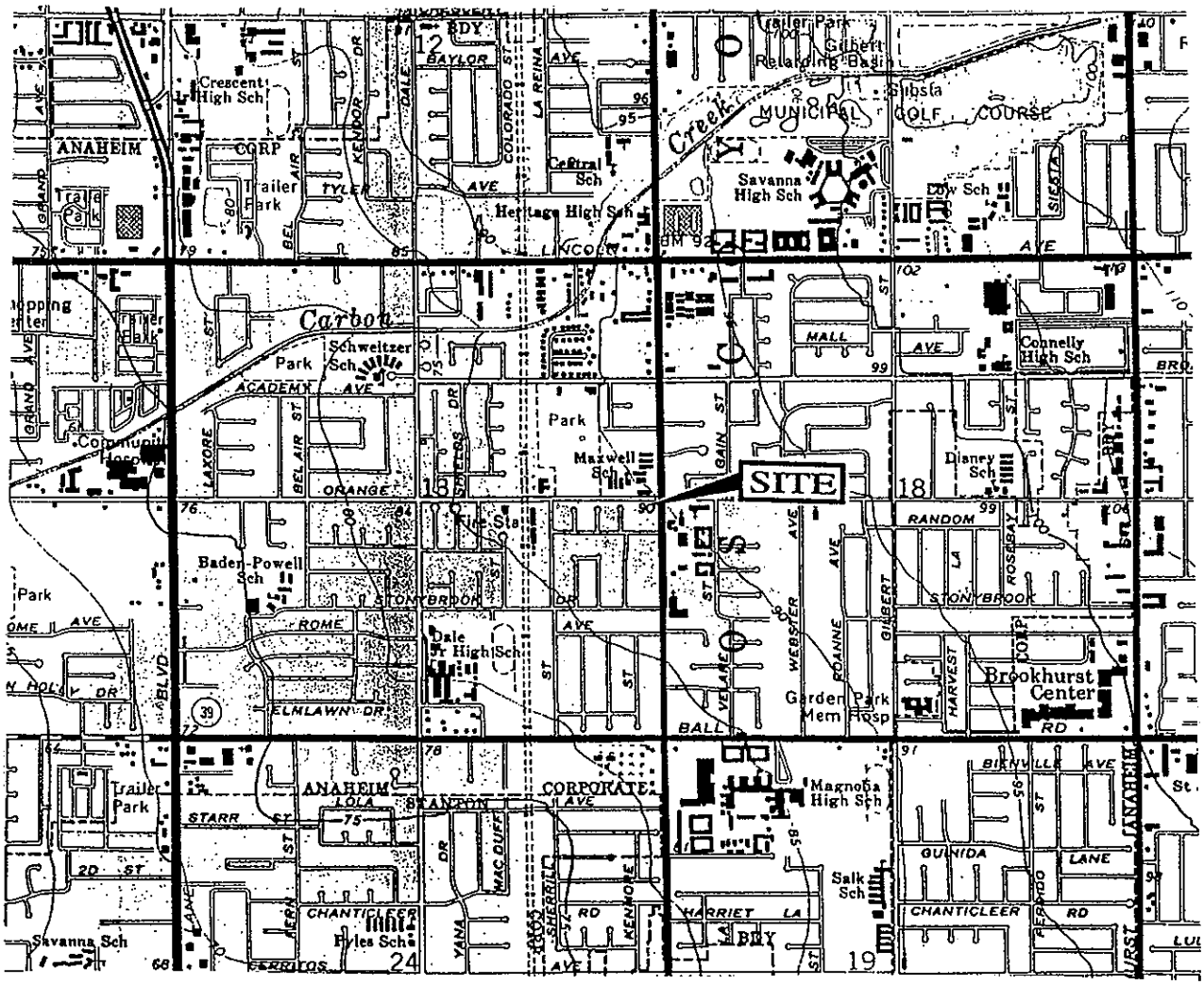
Groundwater conditions observed during the first quarter 2005 remained consistent with previous quarters, with the exception of groundwater samples collected from well MW-2, which exhibited a decrease in TPHg to below laboratory detection limits. No concentrations of fuel-related hydrocarbons or oxygenates were reported in groundwater samples collected from the Site. While the APUD considers this Site for case closure, no groundwater monitoring or sampling activities will be conducted.

ATLANTIC RICHFIELD COMPANY QUARTERLY UPDATE REPORT
FIRST QUARTER 2005
APRIL 30, 2005

Facility No.: 3023 Address: 601 South Magnolia Avenue, Anaheim, California

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)
Field Data (Attachment A)
Laboratory Report and Chain-of-Custody Documentation (Attachment B)



GENERAL NOTES:

BASE MAP FROM U.S.G.S.

ANAHEIM, CALIFORNIA

7.5 MINUTE TOPOGRAPHIC MAP

1965

PHOTOREVISED 1981

FIGURE 1

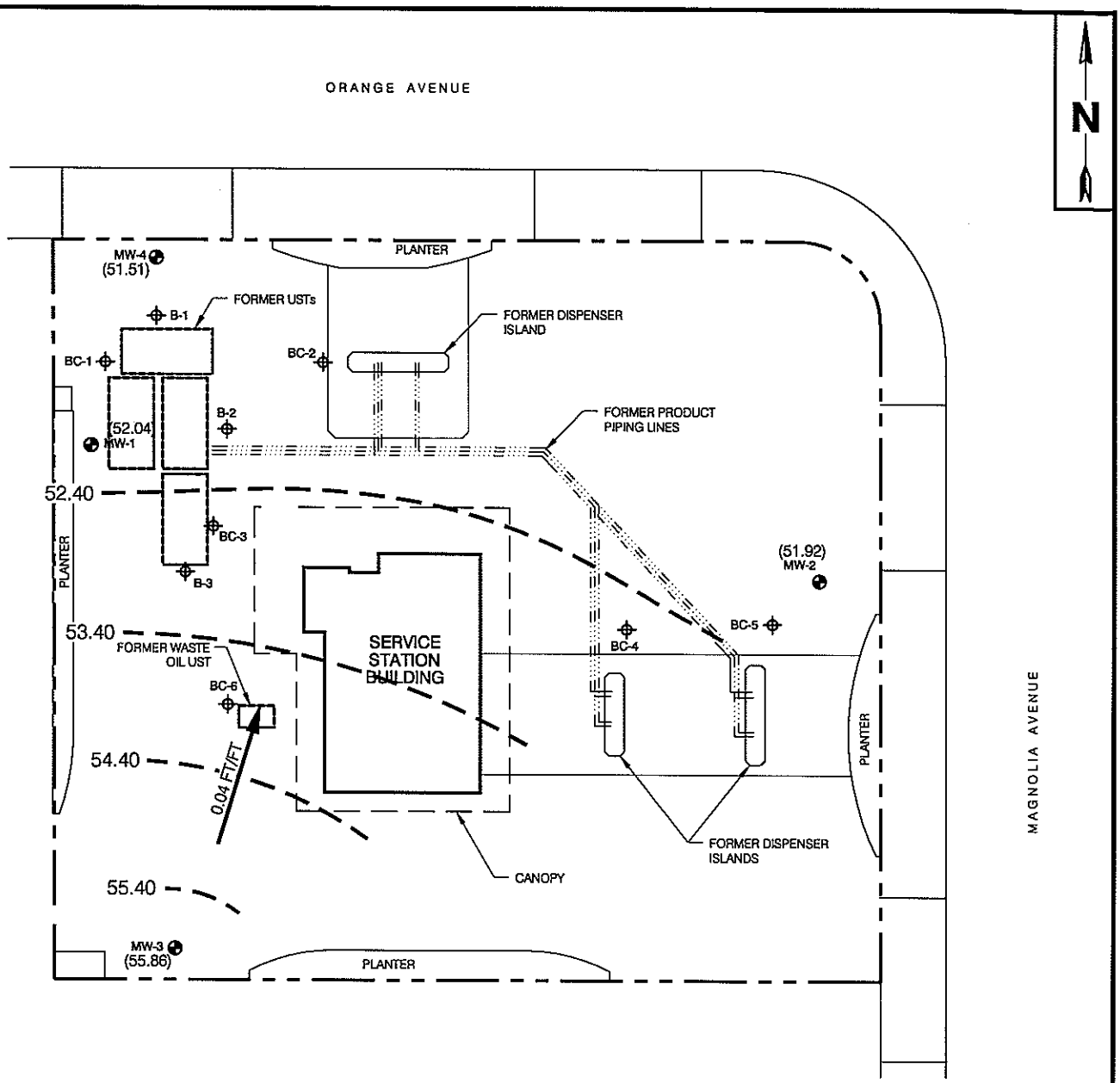
SITE LOCATION MAP

ARCO FACILITY NO. 3023

601 SOUTH MAGNOLIA AVENUE

ANAHEIM, CA

PROJECT NO. AM00-826	DRAWN BY	Delta Environmental Consultants, Inc.
FILE NO.	PREPARED BY M. BALDWIN	
DATE 10/21/02	REV.	REVIEWED BY



0 30 60 FEET
APPROXIMATE SCALE

EXPLANATION

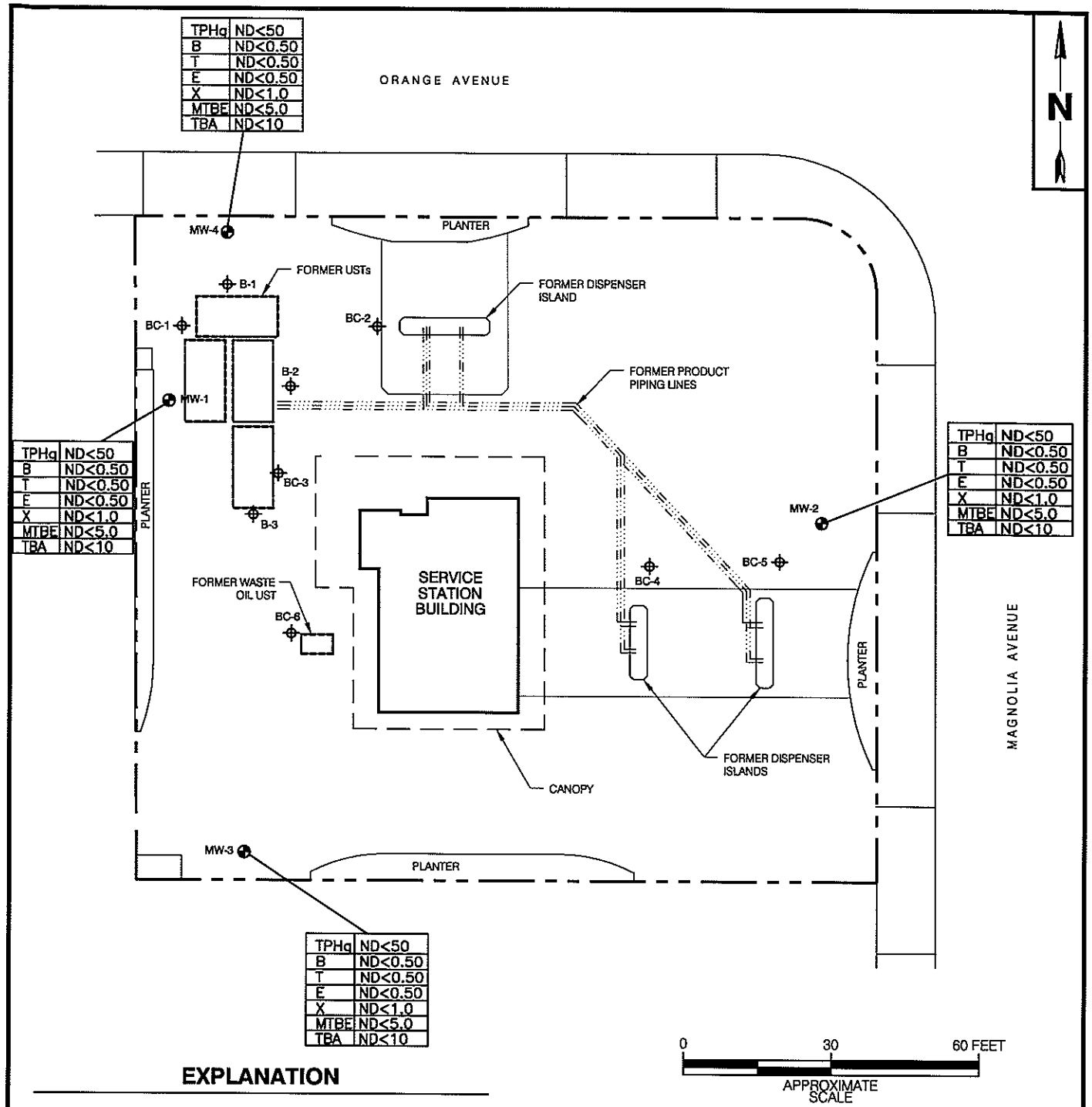
BC-6 ⊕	APPROXIMATE LOCATION OF SOIL BORING
MW-4 ◕	APPROXIMATE LOCATION OF GROUNDWATER MONITORING WELL
(52.04)	GROUNDWATER ELEVATION IN FEET MEAN SEA LEVEL
55.40 — — —	WATER TABLE CONTOUR IN FEET CONTOUR INTERVAL: 1.00 FOOT
0.04 FT/FT →	GROUNDWATER FLOW DIRECTION AND GRADIENT

REFERENCE:
BROWN & CALDWELL, 1988.

FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP
FEBRUARY 28, 2005
FORMER ARCO FACILITY NO. 3023
601 SOUTH MAGNOLIA AVENUE
ANAHEIM, CA.

PROJECT NO. GOCFN	DRAWN BY K. MARTIN	A B C F51	
FILE NO. A0-826-01Q	PREPARED BY P. MANNS		
DATE 18 APR 05	REV.	REVIEWED BY	

Delta Environmental Consultants, Inc.



EXPLANATION

BC-6 — APPROXIMATE LOCATION OF SOIL BORING

MW-4 — APPROXIMATE LOCATION OF GROUNDWATER MONITORING WELL

TPHg	ND<50	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
B	ND<0.50	BENZENE BY EPA 8260B
T	ND<0.50	TOLUENE BY EPA 8260B
E	ND<0.50	ETHYLBENZENE BY EPA 8260B
X	ND<1.0	TOTAL XYLENES BY EPA 8260B
MTBE	ND<5.0	METHYL TERT-BUTYL ETHER BY EPA 8260B
TBA	ND<10	TERT-BUTYL ALCOHOL BY EPA 8260B

ND<2.0 — NOT DETECTED AT OR ABOVE STATED LABORATORY REPORTING LIMIT

NOTE: ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L)

REFERENCE:
BROWN & CALDWELL, 1988.

FIGURE 3
GROUNDWATER ANALYSES MAP
FEBRUARY 28, 2005
FORMER ARCO FACILITY NO. 3023
601 SOUTH MAGNOLIA AVENUE
ANAHEIM, CA.

PROJECT NO. GOCFN	DRAWN BY K. MARTIN	A B C G51	
FILE NO. A0-826-01Q	PREPARED BY P. MANNS		
DATE 19 APR 05	REV.	REVIEWED BY	

Delta Environmental Consultants, Inc.

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 3023
601 South Magnolia Avenue
Anaheim, California

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	5/13/1998	89.66	NA	NA	NA	NA	
MW-1	8/3/1998	89.66	NA	35.62	NA	54.04	
MW-1	8/25/1998	89.66	NA	35.71	NA	53.95	
MW-1	9/10/1998	89.66	NA	35.81	NA	53.85	
MW-1	12/9/1998	89.66	NA	35.57	NA	54.09	
MW-1	2/16/1999	89.66	NA	35.12	NA	54.54	
MW-1	5/11/1999	89.66	NA	34.91	NA	54.75	
MW-1	8/10/1999	89.66	NA	35.68	NA	53.98	
MW-1	11/2/1999	89.66	NA	36.47	NA	53.19	
MW-1	2/9/2000	89.66	NA	36.44	NA	53.22	
MW-1	5/3/2000	89.66	NA	36.08	NA	53.58	
MW-1	7/26/2000	89.66	NA	37.07	NA	52.59	
MW-1	11/15/2000	89.66	NA	37.95	NA	51.71	
MW-1	2/15/2001	89.66	NA	36.15	NA	53.51	
MW-1	6/13/2001	89.66	NA	37.17	NA	52.49	
MW-1	9/27/2001	89.66	NA	38.37	NA	51.29	
MW-1	12/6/2001	89.66	NA	38.98	NA	50.68	
MW-1	1/24/2002	89.66	NA	38.97	NA	50.69	
MW-1	4/23/2002	89.66	NA	39.06	NA	50.60	
MW-1	8/2/2002	89.66	NA	40.11	NA	49.55	
MW-1	10/11/2002	89.66	NA	40.80	NA	48.86	
MW-1	1/16/2003	89.66	NA	40.67	NA	48.99	
MW-1	4/3/2003	89.66	NA	39.99	NA	49.67	
MW-1	7/3/2003	89.66	NA	39.73	NA	49.93	
MW-1	11/3/2003	89.66	NA	40.13	NA	49.53	
MW-1	2/6/2004	89.66	NA	39.74	NA	49.92	
MW-1	5/7/2004	89.66	NA	39.13	NA	50.53	
MW-1	8/6/2004	89.66	NA	39.78	NA	49.88	
MW-1	11/5/2004	89.66	NA	39.80	NA	49.86	
MW-1	2/28/2005	89.66	NA	37.62	NA	52.04	
MW-2	8/3/1998	89.80	NA	35.78	NA	54.02	
MW-2	8/25/1998	89.80	NA	35.89	NA	53.91	
MW-2	9/10/1998	89.80	NA	34.27	NA	55.53	
MW-2	12/9/1998	89.80	NA	35.69	NA	54.11	
MW-2	2/16/1999	89.80	NA	35.22	NA	54.58	
MW-2	5/11/1999	89.80	NA	35.05	NA	54.75	
MW-2	8/10/1999	89.80	NA	35.88	NA	53.92	
MW-2	11/2/1999	89.80	NA	36.72	NA	53.08	
MW-2	2/9/2000	89.80	NA	36.68	NA	53.12	
MW-2	5/3/2000	89.80	NA	36.48	NA	53.32	
MW-2	7/26/2000	89.80	NA	37.42	NA	52.38	
MW-2	11/15/2000	89.80	NA	38.40	NA	51.40	
MW-2	2/15/2001	89.80	NA	38.49	NA	51.31	
MW-2	6/13/2001	89.80	NA	37.51	NA	52.29	
MW-2	9/27/2001	89.80	NA	38.55	NA	51.25	
MW-2	12/6/2001	89.80	NA	38.11	NA	51.69	
MW-2	1/24/2002	89.80	NA	39.12	NA	50.68	
MW-2	4/23/2002	89.80	NA	39.19	NA	50.61	
MW-2	8/2/2002	89.80	NA	40.21	NA	49.59	
MW-2	10/11/2002	89.80	NA	40.89	NA	48.91	

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 3023
601 South Magnolia Avenue
Anaheim, California

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	1/16/2003	89.80	NA	40.78	NA	49.02	
MW-2	4/3/2003	89.80	NA	40.13	NA	49.67	
MW-2	7/3/2003	89.80	NA	39.86	NA	49.94	
MW-2	11/3/2003	89.80	NA	40.23	NA	49.57	
MW-2	2/6/2004	89.80	NA	39.90	NA	49.90	
MW-2	5/7/2004	89.80	NA	39.28	NA	50.52	
MW-2	8/6/2004	89.80	NA	39.95	NA	49.85	
MW-2	11/5/2004	89.80	NA	39.98	NA	49.82	
MW-2	2/28/2005	89.80	NA	37.88	NA	51.92	
MW-3	8/3/1998	91.17	NA	34.41	NA	56.76	
MW-3	8/25/1998	91.17	NA	34.42	NA	56.75	
MW-3	9/10/1998	91.17	NA	35.99	NA	55.18	
MW-3	12/9/1998	91.17	NA	33.62	NA	57.55	
MW-3	2/16/1999	91.17	NA	33.39	NA	57.78	
MW-3	5/11/1999	91.17	NA	33.23	NA	57.94	
MW-3	8/10/1999	91.17	NA	33.38	NA	57.79	
MW-3	11/2/1999	91.17	NA	34.80	NA	56.37	
MW-3	2/9/2000	91.17	NA	33.92	NA	57.25	
MW-3	5/3/2000	91.17	NA	33.94	NA	57.23	
MW-3	7/26/2000	91.17	NA	34.24	NA	56.93	
MW-3	11/15/2000	91.17	NA	34.62	NA	56.55	
MW-3	2/15/2001	91.17	NA	34.80	NA	56.37	
MW-3	6/13/2001	91.17	NA	34.26	NA	56.91	
MW-3	9/27/2001	91.17	NA	34.54	NA	56.63	
MW-3	12/6/2001	91.17	NA	34.85	NA	56.32	
MW-3	1/24/2002	91.17	NA	34.93	NA	56.24	
MW-3	4/23/2002	91.17	NA	35.08	NA	56.09	
MW-3	8/2/2002	91.17	NA	35.81	NA	55.36	
MW-3	10/11/2002	91.17	NA	36.41	NA	54.76	
MW-3	1/16/2003	91.17	NA	37.55	NA	53.62	
MW-3	4/3/2003	91.17	NA	36.74	NA	54.43	
MW-3	7/3/2003	91.17	NA	36.63	NA	54.54	
MW-3	11/3/2003	91.17	NA	36.84	NA	54.33	
MW-3	2/6/2004	91.17	NA	36.62	NA	54.55	
MW-3	5/7/2004	91.17	NA	36.34	NA	54.83	
MW-3	8/6/2004	91.17	NA	36.62	NA	54.55	
MW-3	11/5/2004	91.17	NA	36.54	NA	54.63	
MW-3	2/28/2005	91.17	NA	35.31	NA	55.86	
MW-4	8/10/1999	89.25	NA	36.38	NA	52.87	
MW-4	11/2/1999	89.25	NA	37.32	NA	51.93	
MW-4	2/9/2000	89.25	NA	37.20	NA	52.05	
MW-4	5/3/2000	89.25	NA	36.89	NA	52.36	
MW-4	7/26/2000	89.25	NA	37.88	NA	51.37	
MW-4	11/15/2000	89.25	NA	38.74	NA	50.51	
MW-4	2/15/2001	89.25	NA	38.78	NA	50.47	
MW-4	6/13/2001	89.25	NA	37.81	NA	51.44	
MW-4	9/27/2001	89.25	NA	38.86	NA	50.39	
MW-4	12/6/2001	89.25	NA	39.35	NA	49.90	
MW-4	1/24/2002	89.25	NA	39.29	NA	49.96	
MW-4	4/23/2002	89.25	NA	39.36	NA	49.89	

TABLE 1
HISTORICAL GROUNDWATER GAUGING DATA
ARCO Facility No. 3023
601 South Magnolia Avenue
Anaheim, California

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	8/2/2002	89.25	NA	40.32	NA	48.93	
MW-4	10/11/2002	89.25	NA	40.99	NA	48.26	
MW-4	1/16/2003	89.25	NA	41.09	NA	48.16	
MW-4	4/3/2003	89.25	NA	39.98	NA	49.27	
MW-4	7/3/2003	89.25	NA	39.76	NA	49.49	
MW-4	11/3/2003	89.25	NA	40.10	NA	49.15	
MW-4	2/6/2004	89.25	NA	39.76	NA	49.49	
MW-4	5/7/2004	89.25	NA	39.17	NA	50.08	
MW-4	8/6/2004	89.25	NA	39.84	NA	49.41	
MW-4	11/5/2004	89.25	NA	39.86	NA	49.39	
MW-4	2/28/2005	89.25	NA	37.74	NA	51.51	

Notes: TOC = Top of casing elevation in feet mean sea level

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. 3023
601 South Magnolia Avenue
Anaheim, California

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 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-1	5/13/1998	ND<50	1.1	ND<0.30	0.41	0.65	220	NA	NA	NA	NA	NA	NA	
MW-1	8/3/1998	ND<50	1.3	ND<0.30	0.36	1.1	580	NA	NA	NA	NA	NA	NA	
MW-1	8/25/1998	ND<50	1.5	ND<0.30	ND<0.30	0.74	470	990	NA	NA	NA	NA	NA	
MW-1	9/10/1998	ND<50	0.83	ND<0.30	ND<0.30	ND<0.60	560	630	NA	NA	NA	NA	NA	
MW-1	12/9/1998	ND<50	0.42	ND<0.30	ND<0.30	ND<0.60	990	1000	NA	NA	NA	NA	NA	
MW-1	2/16/1999	160	19	6.0	8.7	27	1100	1100	NA	NA	NA	NA	NA	
MW-1	5/11/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	560	720	NA	NA	NA	NA	NA	
MW-1	8/10/1999	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	NA	670	NA	NA	NA	NA	NA	BTEX by EPA Method 8260B
MW-1	11/2/1999	ND<100	ND<0.50	ND<0.50	ND<0.50	ND<0.50	88.8	98.4	NA	NA	NA	NA	NA	Dulpicate sample
MW-1	11/2/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	110	110	NA	NA	NA	NA	NA	
MW-1	2/9/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	11	11	NA	NA	NA	NA	NA	
MW-1	5/3/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	30	20	NA	NA	NA	NA	NA	
MW-1	7/26/2000	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.5	NA	2.3	NA	NA	NA	NA	NA	BTEX by EPA Method 8260B
MW-1	11/15/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<5.0	NA	NA	NA	NA	NA	NA	
MW-1	2/15/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-1	6/13/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-1	9/27/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-1	12/6/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-1	1/24/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-1	4/23/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-1	8/2/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
MW-1	10/11/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
MW-1	1/16/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	NA	
MW-1	4/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-1	7/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-1	11/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-1	2/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-1	5/7/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-1	8/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-1	11/5/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-1	2/28/2005	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-2	8/3/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	800	NA	NA	NA	NA	NA	NA	
MW-2	8/25/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-2	9/10/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	190	220	NA	NA	NA	NA	NA	
MW-2	12/9/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-2	2/16/1999	ND<50	0.45	ND<0.30	ND<0.30	ND<0.60	93	75	NA	NA	NA	NA	NA	

TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
ARCO Facility No. 3023
601 South Magnolia Avenue
Anaheim, California

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 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-2	5/11/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-2	8/10/1999	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	NA	ND<5.0	NA	NA	NA	NA	NA	BTEX by EPA Method 8260B
MW-2	11/2/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-2	11/2/1999	ND<100	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<10	NA	NA	NA	NA	NA	NA	Dulpicate sample
MW-2	2/9/2000	ND<50	ND<0.30	0.70	0.34	1.5	ND<10	NA	NA	NA	NA	NA	NA	
MW-2	5/3/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-2	7/26/2000	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.5	NA	ND<1.0	NA	NA	NA	NA	NA	BTEX by EPA Method 8260B
MW-2	11/15/2000	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.60	ND<5.0	NA	NA	NA	NA	NA	NA	
MW-2	2/15/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-2	6/13/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-2	9/27/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-2	12/6/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-2	1/24/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-2	4/23/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-2	8/2/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
MW-2	10/11/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
MW-2	1/16/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	NA	
MW-2	4/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-2	7/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-2	11/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-2	2/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-2	5/7/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-2	8/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-2	11/5/2004	86	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-2	2/28/2005	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-3	8/3/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-3	8/25/1998	ND<50	1.0	ND<0.30	ND<0.30	ND<0.60	220	410	NA	NA	NA	NA	NA	
MW-3	9/10/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-3	12/9/1998	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	120	160	NA	NA	NA	NA	NA	
MW-3	2/16/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-3	5/11/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	71	83	NA	NA	NA	NA	NA	
MW-3	8/10/1999	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	NA	93	NA	NA	NA	NA	NA	BTEX by EPA Method 8260B
MW-3	11/2/1999	ND<100	ND<0.50	ND<0.50	ND<0.50	ND<0.50	72	74.2	NA	NA	NA	NA	NA	Dulpicate sample
MW-3	11/2/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	95	83	NA	NA	NA	NA	NA	
MW-3	2/9/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	57	42	NA	NA	NA	NA	NA	
MW-3	5/3/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	57	40	NA	NA	NA	NA	NA	

TABLE 2
HISTORICAL GROUNDWATER ANALYTICAL RESULTS
ARCO Facility No. 3023
601 South Magnolia Avenue
Anaheim, California

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 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-3	7/26/2000	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.5	NA	45	NA	NA	NA	NA	NA	BTEX by EPA Method 8260B
MW-3	11/15/2000	ND<50	0.30	1.4	0.38	1.9	20	26	NA	NA	NA	NA	NA	
MW-3	2/15/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	61	NA	NA	NA	NA	NA	
MW-3	6/13/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	34	NA	NA	NA	NA	NA	
MW-3	9/27/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	30	NA	NA	NA	NA	NA	
MW-3	12/6/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	15	NA	NA	NA	NA	NA	
MW-3	1/24/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	10	NA	NA	NA	NA	NA	
MW-3	4/23/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	9.4	NA	NA	NA	NA	NA	
MW-3	8/2/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
MW-3	10/11/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
MW-3	1/16/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	NA	
MW-3	4/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-3	7/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-3	11/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-3	2/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-3	5/7/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-3	8/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-3	11/5/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-3	2/28/2005	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-4	8/10/1999	ND<50	ND<2.0	ND<2.0	ND<2.0	ND<4.0	NA	ND<5.0	NA	NA	NA	NA	NA	BTEX by EPA Method 8260B
MW-4	11/2/1999	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-4	11/2/1999	ND<100	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<10	NA	NA	NA	NA	NA	NA	Dulpicate sample
MW-4	2/9/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-4	5/3/2000	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<10	NA	NA	NA	NA	NA	NA	
MW-4	7/26/2000	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.5	NA	ND<1.0	NA	NA	NA	NA	NA	BTEX by EPA Method 8260B
MW-4	11/15/2000	ND<50	ND<0.30	0.44	ND<0.30	0.65	ND<5.0	NA	NA	NA	NA	NA	NA	
MW-4	2/15/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-4	6/13/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-4	9/27/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-4	12/6/2001	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-4	1/24/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	NA	NA	NA	NA	NA	
MW-4	4/23/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
MW-4	8/2/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
MW-4	10/11/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
MW-4	1/16/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	NA	
MW-4	4/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	

TABLE 2

HISTORICAL GROUNDWATER ANALYTICAL RESULTS

ARCO Facility No. 3023
601 South Magnolia Avenue
Anaheim, California

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 8260B (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	Ethanol (µg/L)	Comments
MW-4	7/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-4	11/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-4	2/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-4	5/7/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-4	8/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-4	11/5/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
MW-4	2/28/2005	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
Trip Blank	8/2/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
Trip Blank	10/11/2002	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<25	NA	
Trip Blank	1/16/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	NA	
Trip Blank	4/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
Trip Blank	7/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
Trip Blank	11/3/2003	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
Trip Blank	2/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
Trip Blank	5/7/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
Trip Blank	8/6/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
Trip Blank	11/5/2004	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	
Trip Blank	2/28/2005	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	NA	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10	ND<150	

Notes: EPA = Environmental Protection Agency
TPHg = Total petroleum hydrocarbons as gasoline
µg/L = Micrograms per liter
MTBE = Methyl Tertiary butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl Tertiary butyl ether
TAME = Tertiary amyl methyl ether
TBA = Tertiary butanol
BTEX = Benzene, toluene, ethylbenzene, and xylenes

NA = Not analyzed
ND<0.30 = Not detected at or above stated laboratory reporting limit
TPHg analyses by EPA 8015/8015B
BTEX analyses by EPA 8020/8021 prior to 2/15/01 (currently EPA 8260B)
DIPE, ETBE, TAME, TBA, and ethanol analyses by EPA 8260B

ATTACHMENT A

Field Data

DELTA ENVIRONMENTAL CONSULTANTS

GROUNDWATER GAUGING DATA

Facility No.: Arco 3023	Date: 2/28/05
Facility Location: Anaheim	Technician: Brian Johnson
Project Manager: B. Van Wagner	Project No.: 00826RP

Gauging Order	Well I.D.	Time	Total Depth (feet)	Depth to Water (feet)	Depth to LPH (feet)	LPH Apparent Thickness (feet)	Gauge or Sample (G or S)	Physical Observations / Comments
1	MW-4	0728	49.21	37.74				
2	MW-1	0732	49.50	37.62				
3	MW-2	0737	49.82	37.88				
4	MW-3	0742	49.91	35.31				

Decon Method: triple rinse

Measuring Device: Solinst

Notes:

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER SAMPLING INFORMATION SHEET

WEATHER CONDITIONS:
Cloud Cover: Partial
Wind Speed: slight
Temperature: 68°

PROJECT:
Date: 2/28/05
Site: Arco 3023
Address: Anaheim
Delta PM: BVan Wagner

WELL DESCRIPTION:
Well I.D.: MW-4
Casing Diameter: 4"
Depth to Water: 37.74 Time: 0728
Total Depth of Well: 49.21

PURGING METHOD: [X] VACUUM TRUCK [ ] OTHER _____

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

[(49.21) - (37.74)] X (4) = .65 X (3) = 23 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)
0743	7.31	3570	68.7	-	0	
0748	7.32	3360	68.2	-	8	
0754	7.34	2950	67.6	-	16	
0811	7.44	29.30	67.3	-	19	

SAMPLING:
Sample I.D.: MW-4 Time: 1008
Bottle set: 5 80% Water Level: 40.03
Sample Appearance: Clear Sampling Water Level: 38.09

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

COMMENTS: Well went dry

TRANSPORTATION (Thermal preservation): ICE

SAMPLED BY: B. Johnson **DATE:** 2/28/05

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER SAMPLING INFORMATION SHEET

WEATHER CONDITIONS:
Cloud Cover: Partial
Wind Speed: Slight
Temperature: 70°

PROJECT:
Date: 2/28/05
Site: Arco 3023
Address: Anaheim
Delta PM: B. Van Wagner

WELL DESCRIPTION:
Well I.D.: MW-1
Casing Diameter: 4"
Depth to Water: 37.62 Time: 0732
Total Depth of Well: 49.20

PURGING METHOD: [X] VACUUM TRUCK [ ] OTHER _____

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

[(49.20) - (37.62)] X (4") = .65 X (3) = 23 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)
0818	7.40	2840	66.1	-	0	
0823	7.42	2790	67.4	-	8	
0830	7.39	2850	66.7	-	16	
0846	7.47	2870	68.1	-	18	

SAMPLING:
Sample I.D.: MW-1 Time: 1018
Bottle set: 5 80% Water Level: 39.94
Sample Appearance: Clear Sampling Water Level: 38.56

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

COMMENTS: Well went dry

TRANSPORTATION (Thermal preservation): ICE

SAMPLED BY: B. Johnson **DATE:** 2/28/05

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER SAMPLING INFORMATION SHEET

WEATHER CONDITIONS:
Cloud Cover: Partial
Wind Speed: slight
Temperature: 72°

PROJECT:
Date: 2/28/05
Site: Arco 3023
Address: Anaheim
Delta PM: B. VanWagner

WELL DESCRIPTION:
Well I.D.: MW-2
Casing Diameter: 4"
Depth to Water: 37.88 Time: 0737
Total Depth of Well: 49.82

PURGING METHOD: [X] VACUUM TRUCK [ ] OTHER _____

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

[(49.82) - (37.88)] X (4") = .65 X (3) = 23 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)
0856	7.48	3410	68.9	-	0	
0902	7.53	3580	68.2	-	8	
0907	7.55	3610	67.7	-	16	
0915	7.59	3630	68.2	-	23	

SAMPLING:
Sample I.D.: MW-2 Time: 1032
Bottle set: 5 80% Water Level: 40.27
Sample Appearance: clear Sampling Water Level: 37.89

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

COMMENTS:

TRANSPORTATION (Thermal preservation): ICE

SAMPLED BY: B. Johnson **DATE:** 2/28/05

DELTA ENVIRONMENTAL CONSULTANTS, INC.

GROUNDWATER SAMPLING INFORMATION SHEET

WEATHER CONDITIONS:
Cloud Cover: Partial
Wind Speed: slight
Temperature: 74°

PROJECT:
Date: 2/28/05
Site: Arco 3023
Address: Anaheim
Delta PM: B. Van Wagner

WELL DESCRIPTION:
Well I.D.: MW-3
Casing Diameter: 4"
Depth to Water: 35.31 Time: 0742
Total Depth of Well: 49.91

PURGING METHOD: [X] VACUUM TRUCK [ ] OTHER _____

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

[(49.91) - (35.31)] X (4") = .65 X (3) = 29 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)
0924	7.57	3080	67.8	-	0	
0930	7.59	3200	67.2	-	10	
0937	7.67	3280	68.3	-	20	
0954	7.74	3360	69.9	-	25	

SAMPLING:
Sample I.D.: MW-3 Time: 1046
Bottle set: 5 80% Water Level: 38.23
Sample Appearance: clear Sampling Water Level: 35.48

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

COMMENTS: Well went dry

TRANSPORTATION (Thermal preservation): ICE

SAMPLED BY: B. Johnson **DATE:** 2/28/05

ATTACHMENT B

Laboratory Report and Chain-of-Custody Documentation

Del Mar Analytical

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LABORATORY REPORT

Prepared For: Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Bryan Van Wagner

Project: ARCO 3023, Anaheim

Sampled: 02/28/05
Received: 03/01/05
Issued: 03/15/05 10:13

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
IOC0021-01	MW-4	Water
IOC0021-02	MW-1	Water
IOC0021-03	MW-2	Water
IOC0021-04	MW-3	Water
IOC0021-05	TB	Water

Reviewed By:

Del Mar Analytical, Irvine
Pat Abe
Project Manager

Del Mar Analytical

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Bryan Van Wagner

Project ID: ARCO 3023, Anaheim

Report Number: IOC0021

Sampled: 02/28/05
Received: 03/01/05

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOC0021-01 (MW-4 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5C07090	50	ND	1	3/7/2005	3/7/2005	
Surrogate: 4-BFB (FID) (65-140%)				*92 %*				
Sample ID: IOC0021-02 (MW-1 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5C07090	50	ND	1	3/7/2005	3/7/2005	
Surrogate: 4-BFB (FID) (65-140%)				*87 %*				
Sample ID: IOC0021-03 (MW-2 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5C07090	50	ND	1	3/7/2005	3/7/2005	
Surrogate: 4-BFB (FID) (65-140%)				*88 %*				
Sample ID: IOC0021-04 (MW-3 - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5C07090	50	ND	1	3/7/2005	3/7/2005	
Surrogate: 4-BFB (FID) (65-140%)				*88 %*				
Sample ID: IOC0021-05 (TB - Water)								
Reporting Units: ug/l								
Volatile Fuel Hydrocarbons (C6-C12)	EPA 8015 Mod.	5C07090	50	ND	1	3/7/2005	3/7/2005	
Surrogate: 4-BFB (FID) (65-140%)				*89 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
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Aliso Viejo, CA 92656
Attention: Bryan Van Wagner

Project ID: ARCO 3023, Anaheim

Report Number: IOC0021

Sampled: 02/28/05
Received: 03/01/05

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOC0021-01 (MW-4 - Water)								
Reporting Units: ug/l								
Benzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Ethylbenzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Toluene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
o-Xylene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
m,p-Xylenes	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Xylenes, Total	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Butanol (TBA)	EPA 8260B	5C01029	10	ND	1	3/1/2005	3/1/2005	
Ethanol	EPA 8260B	5C01029	150	ND	1	3/1/2005	3/1/2005	
Surrogate: Dibromofluoromethane (80-120%)				*106 %*				
Surrogate: Toluene-d8 (80-120%)				*104 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*97 %*				
Sample ID: IOC0021-02 (MW-1 - Water)								
Reporting Units: ug/l								
Benzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Ethylbenzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Toluene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
o-Xylene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
m,p-Xylenes	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Xylenes, Total	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Butanol (TBA)	EPA 8260B	5C01029	10	ND	1	3/1/2005	3/1/2005	
Ethanol	EPA 8260B	5C01029	150	ND	1	3/1/2005	3/1/2005	
Surrogate: Dibromofluoromethane (80-120%)				*105 %*				
Surrogate: Toluene-d8 (80-120%)				*104 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*98 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Bryan Van Wagner

Project ID: ARCO 3023, Anaheim

Report Number: IOC0021

Sampled: 02/28/05
Received: 03/01/05

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOC0021-03 (MW-2 - Water)								
Reporting Units: ug/l								
Benzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Ethylbenzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Toluene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
o-Xylene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
m,p-Xylenes	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Xylenes, Total	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Butanol (TBA)	EPA 8260B	5C01029	10	ND	1	3/1/2005	3/1/2005	
Ethanol	EPA 8260B	5C01029	150	ND	1	3/1/2005	3/1/2005	
Surrogate: Dibromofluoromethane (80-120%)				*104 %*				
Surrogate: Toluene-d8 (80-120%)				*104 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*98 %*				
Sample ID: IOC0021-04 (MW-3 - Water)								
Reporting Units: ug/l								
Benzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Ethylbenzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Toluene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
o-Xylene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
m,p-Xylenes	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Xylenes, Total	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Butanol (TBA)	EPA 8260B	5C01029	10	ND	1	3/1/2005	3/1/2005	
Ethanol	EPA 8260B	5C01029	150	ND	1	3/1/2005	3/1/2005	
Surrogate: Dibromofluoromethane (80-120%)				*110 %*				
Surrogate: Toluene-d8 (80-120%)				*106 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*99 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Bryan Van Wagner

Project ID: ARCO 3023, Anaheim

Report Number: IOC0021

Sampled: 02/28/05
Received: 03/01/05

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOC0021-05 (TB - Water)								
Reporting Units: ug/l								
Benzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Ethylbenzene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
Toluene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
o-Xylene	EPA 8260B	5C01029	0.50	ND	1	3/1/2005	3/1/2005	
m,p-Xylenes	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Xylenes, Total	EPA 8260B	5C01029	1.0	ND	1	3/1/2005	3/1/2005	
Di-isopropyl Ether (DIPE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Ethyl tert-Butyl Ether (ETBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Amyl Methyl Ether (TAME)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	5C01029	5.0	ND	1	3/1/2005	3/1/2005	
tert-Butanol (TBA)	EPA 8260B	5C01029	10	ND	1	3/1/2005	3/1/2005	
Ethanol	EPA 8260B	5C01029	150	ND	1	3/1/2005	3/1/2005	
Surrogate: Dibromofluoromethane (80-120%)				*106 %*				
Surrogate: Toluene-d8 (80-120%)				*104 %*				
Surrogate: 4-Bromofluorobenzene (80-120%)				*99 %*				

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Delta Env. Consultants - Aliso Viejo
27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Bryan Van Wagner

Project ID: ARCO 3023, Anaheim

Report Number: IOC0021

Sampled: 02/28/05
Received: 03/01/05

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5C07090 Extracted: 03/07/05										
Blank Analyzed: 03/07/2005 (5C07090-BLK1)										
Volatile Fuel Hydrocarbons (C6-C12)	ND	50	ug/l							
Surrogate: 4-BFB (FID)	*8.92*		*ug/l*	*10.0*		*89*	*65-140*			
LCS Analyzed: 03/07/2005 (5C07090-BS1)										
Volatile Fuel Hydrocarbons (C6-C12)	674	50	ug/l	800		84	70-140			
Surrogate: 4-BFB (FID)	*26.0*		*ug/l*	*30.0*		*87*	*65-140*			
Matrix Spike Analyzed: 03/07/2005 (5C07090-MS1)					**Source: IOC0022-07**					
Volatile Fuel Hydrocarbons (C6-C12)	233	50	ug/l	220	22	96	60-140			
Surrogate: 4-BFB (FID)	*10.7*		*ug/l*	*10.0*		*107*	*65-140*			
Matrix Spike Dup Analyzed: 03/07/2005 (5C07090-MSD1)					**Source: IOC0022-07**					
Volatile Fuel Hydrocarbons (C6-C12)	230	50	ug/l	220	22	95	60-140	1	20	
Surrogate: 4-BFB (FID)	*10.5*		*ug/l*	*10.0*		*105*	*65-140*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Project ID: ARCO 3023, Anaheim

Report Number: IOC0021

Sampled: 02/28/05
Received: 03/01/05

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5C01029 Extracted: 03/01/05										
Blank Analyzed: 03/01/2005 (5C01029-BLK1)										
Benzene	ND	0.50	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Toluene	ND	0.50	ug/l							
o-Xylene	ND	0.50	ug/l							
m,p-Xylenes	ND	1.0	ug/l							
Xylenes, Total	ND	1.0	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							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	ug/l							
tert-Butanol (TBA)	ND	10	ug/l							
Ethanol	ND	150	ug/l							
Surrogate: Dibromofluoromethane	*25.1*		*ug/l*	*25.0*		*100*	*80-120*			
Surrogate: Toluene-d8	*26.0*		*ug/l*	*25.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*24.4*		*ug/l*	*25.0*		*98*	*80-120*			
LCS Analyzed: 03/01/2005 (5C01029-BS1)										
Benzene	24.6	0.50	ug/l	25.0		98	70-120			
Ethylbenzene	24.9	0.50	ug/l	25.0		100	80-120			
Toluene	24.9	0.50	ug/l	25.0		100	75-120			
o-Xylene	25.1	0.50	ug/l	25.0		100	75-125			
m,p-Xylenes	48.6	1.0	ug/l	50.0		97	75-120			
Xylenes, Total	73.6	1.0	ug/l	75.0		98	75-125			
Di-isopropyl Ether (DIPE)	25.7	5.0	ug/l	25.0		103	65-135			
Ethyl tert-Butyl Ether (ETBE)	24.8	5.0	ug/l	25.0		99	60-140			
tert-Amyl Methyl Ether (TAME)	24.7	5.0	ug/l	25.0		99	60-140			
Methyl-tert-butyl Ether (MTBE)	24.5	5.0	ug/l	25.0		98	55-145			
tert-Butanol (TBA)	134	10	ug/l	125		107	70-140			
Ethanol	249	150	ug/l	250		100	35-165			
Surrogate: Dibromofluoromethane	*25.8*		*ug/l*	*25.0*		*103*	*80-120*			
Surrogate: Toluene-d8	*26.6*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*26.8*		*ug/l*	*25.0*		*107*	*80-120*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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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: Bryan Van Wagner

Project ID: ARCO 3023, Anaheim

Report Number: IOC0021

Sampled: 02/28/05
Received: 03/01/05

METHOD BLANK/QC DATA

BTEX/OXYGENATES by GC/MS (EPA 8260B)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 5C01029 Extracted: 03/01/05										
Matrix Spike Analyzed: 03/01/2005 (5C01029-MS1)					**Source: IOC0021-01**					
Benzene	24.6	0.50	ug/l	25.0	ND	98	70-120			
Ethylbenzene	24.6	0.50	ug/l	25.0	ND	98	70-130			
Toluene	25.1	0.50	ug/l	25.0	ND	100	70-120			
o-Xylene	24.8	0.50	ug/l	25.0	ND	99	65-125			
m,p-Xylenes	47.9	1.0	ug/l	50.0	ND	96	65-130			
Xylenes, Total	72.8	1.0	ug/l	75.0	ND	97	65-135			
Di-isopropyl Ether (DIPE)	26.7	5.0	ug/l	25.0	ND	107	65-140			
Ethyl tert-Butyl Ether (ETBE)	26.3	5.0	ug/l	25.0	ND	105	60-140			
tert-Amyl Methyl Ether (TAME)	26.3	5.0	ug/l	25.0	ND	105	55-145			
Methyl-tert-butyl Ether (MTBE)	26.3	5.0	ug/l	25.0	ND	105	50-155			
tert-Butanol (TBA)	134	10	ug/l	125	ND	107	65-145			
Ethanol	264	150	ug/l	250	ND	106	35-165			
Surrogate: Dibromofluoromethane	*26.6*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: Toluene-d8	*26.3*		*ug/l*	*25.0*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*26.9*		*ug/l*	*25.0*		*108*	*80-120*			
Matrix Spike Dup Analyzed: 03/01/2005 (5C01029-MSD1)					**Source: IOC0021-01**					
Benzene	24.8	0.50	ug/l	25.0	ND	99	70-120	1	20	
Ethylbenzene	24.9	0.50	ug/l	25.0	ND	100	70-130	1	20	
Toluene	25.4	0.50	ug/l	25.0	ND	102	70-120	1	20	
o-Xylene	24.8	0.50	ug/l	25.0	ND	99	65-125	0	20	
m,p-Xylenes	48.3	1.0	ug/l	50.0	ND	97	65-130	1	25	
Xylenes, Total	73.2	1.0	ug/l	75.0	ND	98	65-135	1	20	
Di-isopropyl Ether (DIPE)	27.1	5.0	ug/l	25.0	ND	108	65-140	1	25	
Ethyl tert-Butyl Ether (ETBE)	26.4	5.0	ug/l	25.0	ND	106	60-140	0	25	
tert-Amyl Methyl Ether (TAME)	26.7	5.0	ug/l	25.0	ND	107	55-145	2	30	
Methyl-tert-butyl Ether (MTBE)	26.6	5.0	ug/l	25.0	ND	106	50-155	1	25	
tert-Butanol (TBA)	132	10	ug/l	125	ND	106	65-145	2	25	
Ethanol	264	150	ug/l	250	ND	106	35-165	0	30	
Surrogate: Dibromofluoromethane	*26.0*		*ug/l*	*25.0*		*104*	*80-120*			
Surrogate: Toluene-d8	*26.5*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*26.8*		*ug/l*	*25.0*		*107*	*80-120*			

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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27141 Aliso Creek Road, Suite 270
Aliso Viejo, CA 92656
Attention: Bryan Van Wagner

Project ID: ARCO 3023, Anaheim

Report Number: IOC0021

Sampled: 02/28/05
Received: 03/01/05

DATA QUALIFIERS AND DEFINITIONS

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.

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Certification Summary

Del Mar Analytical, Irvine

Method	Matrix	Nelac	California
EPA 8015 Mod.	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.

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Pat Abe
Project Manager

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127309

Chain of Custody Record

Project Name Arco 3023
BP BU/GEM CO Portfolio: Orange County
BP Laboratory Contract Number: 461000
Requested Due Date (mm/dd/yy) 10 days

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

Send To:	BP/GEM Facility No.: 3023 - Anaheim	Consultant/Contractor: Delta
Lab Name: Del Mar	BP/GEM Facility Address: 601 S. Magnolia	Address: Aliso Viejo
Lab Address: Irvine	Site ID No.	
	Site Lat/Long:	e-mail EDD:
	California Global ID #:	Consultant/Contractor Project No.: 00826 RP
Lab PM: Pat Abe	BP/GEM PM Contact: D. Fok	Consultant/Contractor Tele/Fax:
Tele/Fax:	Address:	Consultant/Contractor PM: B. Van Wagner
Report Type & QC Level:		Invoice to: Consultant or BP or Atlantic Richfield Co (Circle one)
BP/GEM Account No.: 3023	Tele/Fax:	BP/GEM Work Release No:

Lab Bottle Order No:

Item No.	Sample Description	Time	Date	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Air	Laboratory No. (ID 8021)	No. of containers	Preservatives: Unpreserved	Preservatives: H_2SO_4	Preservatives: HNO_3	Preservatives: HCl	Preservatives: Ice	Requested Analysis: BTEX 8021	Requested Analysis: TPH 8015	Requested Analysis: EPA 8260 BTEX Fuels	Requested Analysis: EPA 8270	Sample Point Lat/Long and Comments
1	MW-4	1008	2/28		X			5				X	X		X	X		
2	MW-1	1018	↓		↓			↓				↓	↓		↓	↓		
3	MW-2	1032																
4	MW-3	1046																
5	TB	-																
6																		
7																		
8																		
9																		
10																		

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Brian Johnson						
Sampler's Company: Dowlas	Brian Johnson / Dowlas	3/1/05	9:55	DMAS	3/1/05	9:55
Shipment Date:	DMAS	3/1/05	11:05		3/1/05	11:05
Shipment Method:						
Shipment Tracking No:						

Special Instructions:

Custody Seals In Place Yes ___ No X

Cooler Temperature on Receipt 5 °F/C

Trip Blank Yes X No

LABORATORY