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Atlantic Richfield Company
(a BP affiliated company)

P.O. Box 6549
Moraga, California 94570
Phone: (925) 299-8891
Fax: (925) 299-8872

June 28, 2004

Mr. Bob Schulz
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Second Floor, Suite 250
Alameda, CA 94502

Re: Second Quarter 2004 Groundwater Monitoring Report
Atlantic Richfield Company Service Station #0276
10600 MacArthur Boulevard
Oakland, California
URS Project #38486701

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

Submitted by:

Paul Supple
Environmental Business Manager

URS

RC-2491

June 28, 2004

Mr. Bob Schultz
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Second Floor, Suite 250
Alameda, CA 94502

Re: Second Quarter 2004 Groundwater Monitoring Report
Atlantic Richfield Company Service Station #0276
10600 MacArthur Boulevard
Oakland, California
URS Project #38486701

Dear Mr. Schultz:

On behalf of Atlantic Richfield Company (RM), a BP-affiliated company, URS Corporation (URS) is submitting the *Second Quarter 2004 Groundwater Monitoring Report* for Atlantic Richfield Company Service Station #0276, located at 10600 MacArthur Boulevard, Oakland, California.

If you have any questions regarding this submission, please call (510) 874-3280.

Sincerely,

URS CORPORATION

REGISTERED GEOLOGIST
JAMES F. DURKIN
No. 759
CERTIFIED HYDROGEOLOGIST
Exp. 2/28/05
STATE OF CALIFORNIA

Scott Robinson
Project Manager

James F. Durkin, C.Hg.
Senior Geologist

Enclosure: Second Quarter 2004 Groundwater Monitoring Report

cc: Mr. Paul Supple, RM, (electronic copy uploaded to ENFOS)

URS Corporation
1333 Broadway, Suite 800
Oakland, CA 94612-1924
Tel: 510.893.3600
Fax: 510.874.3268

REPORT

SECOND QUARTER 2004 GROUNDWATER MONITORING

ATLANTIC RICHFIELD COMPANY
SERVICE STATION #0276
10600 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Prepared for
Atlantic Richfield Company

June 28, 2004

URS
URS Corporation
1333 Broadway, Suite 800
Oakland, California 94612

38486701

Date: June 28, 2004
Quarter: 2Q 04

ATLANTIC RICHFIELD COMPANY ANNUAL GROUNDWATER MONITORING REPORT

Facility No.:	0276	Address:	10600 MacArthur Boulevard, Oakland, California
RM Environmental Business Manager:			Paul Supple
Consulting Co./Contact Person:			URS Corporation / Scott Robinson
Consultant Project No.:			38486701
Primary Agency:			Alameda County Health Care Services Agency (ACHCSA)

WORK PERFORMED THIS QUARTER (Second – 2004):

1. Performed second quarter 2004 groundwater monitoring event on May 4, 2004.
2. Prepared second quarter 2004 groundwater monitoring report.
3. Site was re-surveyed on January 26, 2004 (Attachment E)
4. Well repairs were performed on wells MW-1 through MW-5, MW-7, MW-8, and RW-1 (Attachment F)
5. Removed MW-7 from monitoring schedule due to blockage at 30 feet below ground surface.

WORK PROPOSED FOR NEXT QUARTER (Third – 2004):

1. Perform third quarter 2004 groundwater monitoring event.
2. Prepare and submit third quarter 2004 groundwater monitoring report.
3. Remove ORC sock from MW-2

Current Phase of Project:	Groundwater monitoring/sampling
Frequency of Groundwater Sampling:	Quarterly: Wells MW-1 through MW-6, MW-8, RW-1 and WGR-3.
Frequency of Groundwater Monitoring:	Quarterly (beginning 3Q03)
Is Free Product (FP) Present On-Site:	No
Current Remediation Techniques:	Natural Attenuation (ORC sock in MW-2)
Approximate Depth to Groundwater:	15.76 (MW-2) to 32.07 (MW-6) feet
Groundwater Gradient (direction):	South-Southwest
Groundwater Gradient (magnitude):	0.003 feet per foot

DISCUSSION:

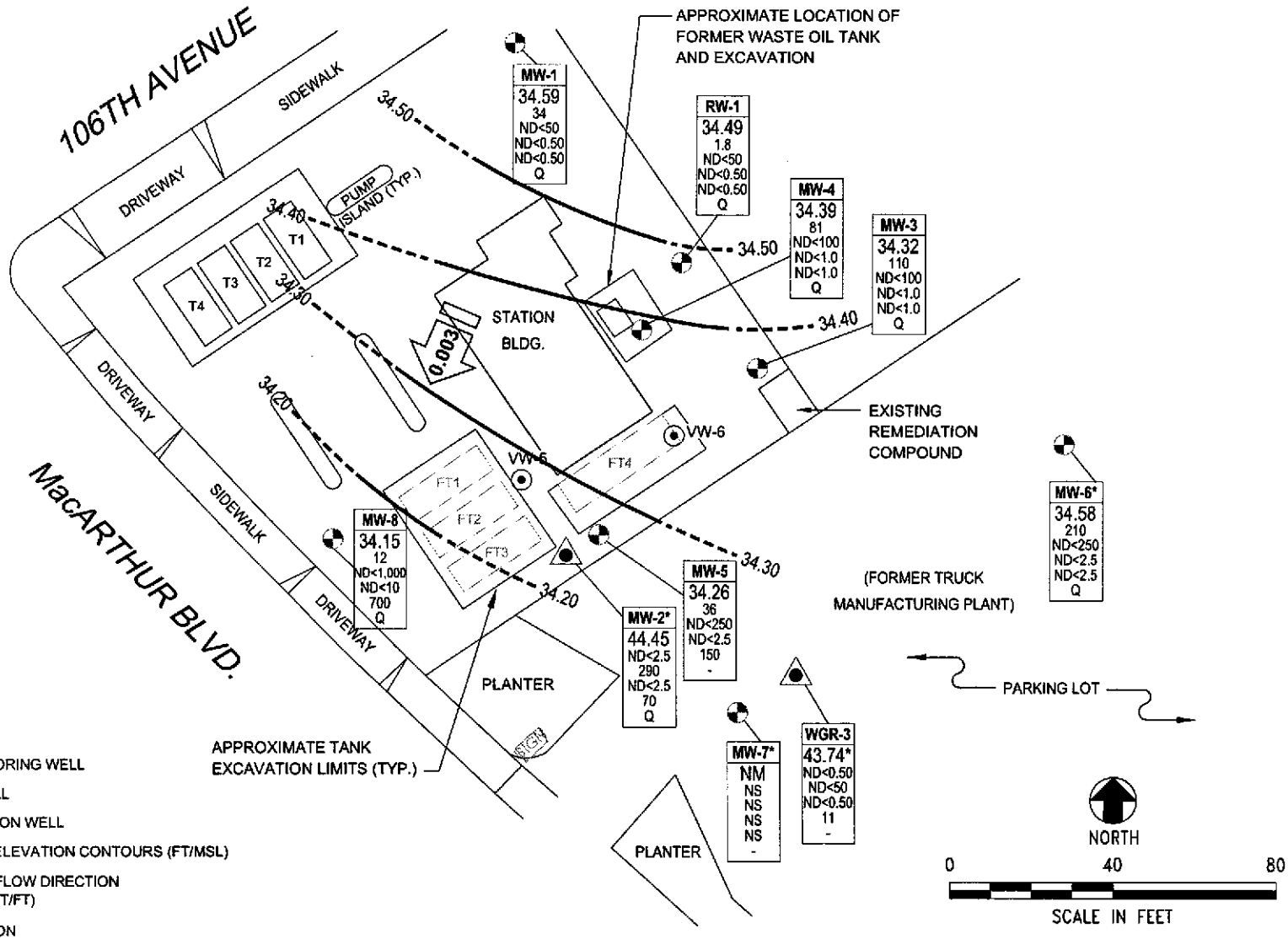
Due to a recent new release discovered during line upgrade work, this Site is being monitored quarterly as of September 2003 (3Q 2003) for Gasoline Range Organics (GRO), benzene, toluene, ethyl-benzene, and xylenes (BTEX), fuel oxygenates, 1,2-Dichloroethane (1,2-DCA), and 1,2-Dibromoethane (EDB). This site was previously sampled on an annual basis for tetrachloroethene (PCE) only.

During this quarter, all groundwater samples were analyzed by EPA method 8260B for GRO, BTEX, fuel additives, ethanol, and PCE. GRO were detected above the laboratory reporting limit in one of the nine wells sampled at a concentration of 290 µg/L (MW-2). Methyl tert-butyl ether (MTBE) was detected above laboratory reporting limits in four wells, at concentrations ranging from 11 µg/L (WGR-3) to 700 µg/L (MW-8). Tert-amyl methyl ether (TAME) was detected above the laboratory reporting limit in four wells, at concentrations ranging from 2.4 µg/L (WGR-3) to 21 µg/L (MW-8). PCE was detected in seven wells at concentrations ranging from of 1.8 µg/L (RW-1) to 210 µg/L (MW-6).

ATTACHMENTS:

- Figure 1 - Groundwater Elevation Contour and Analytical Summary Map – May 4, 2004
- Table 1 - Groundwater Elevation and Analytical Data
- Table 2 - Fuel Additive Analytical Data
- Table 3 - Groundwater Flow Direction and Gradient
- Attachment A - Field Procedures and Field Data Sheets
- Attachment B - Laboratory Procedures, Certified Analytical Reports and Chain-of-Custody Records
- Attachment C - Historic Groundwater Data
- Attachment D - EDCC and EDF/Geowell Submittal Confirmation
- Attachment E – Well Survey Data
- Attachment F – Well Repair Data Sheets

Jun 29, 2004 - 10:41am
X:\r_env_waste\BP GEM\Sites\Scott Robinson\Paul Supple\0276\Monitoring\Qtr. 2, 2004\GWEC-AS_5-4.dwg



LEGEND

- SHALLOW MONITORING WELL
- MONITORING WELL
- VAPOR EXTRACTION WELL
- 26.30 — GROUNDWATER ELEVATION CONTOURS (FT/MSL)
- 0.003 — GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)
- Well ID — WELL DESIGNATION
- ELEV. — GROUNDWATER ELEVATION (FT/MSL)
- PCE / GRO / BENZ. / MTBE — PCE, GRO, BENZENE AND MTBE CONCENTRATIONS IN GROUNDWATER (µg/L)
- Q — SAMPLING FREQUENCY
- * — NOT USED IN GROUNDWATER CONTOURS
- NS — NOT SAMPLED
- Q — SAMPLED QUARTERLY

"Please note that beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list. Total Petroleum Hydrocarbons as Gasoline (TPHg) has been changed to Gasoline Range Organics (GRO). The resulting data may be impacted by the potential inclusion of non-TPHg analytes within the requested fuel range resulting in a higher concentration being reported."

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

URS

Project No. 38486701

Atlantic Richfield Company
Service Station 0276
10600 MacArthur Boulevard
Oakland, California

GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP
Second Quarter 2004 (May 4, 2004)

FIGURE
1

Table 1
Groundwater Elevation and Analytical Data

Atlantic Richfield Company Service Station #0276
10600 MacArthur Boulvard
Oakland, California

Well Number	Date Sampled	Purged/Not Purged (P/NP)	TOC Elevation (ft, MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft, bgs)	Depth to Water (ft, TOC)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO [d] (mg/L)	pH [d]
MW-1	12/17/00		55.92	19.00	38.80	29.16	26.76	5.09	ND	ND	ND	NA	NA	NA	NA
	12/28/01					27.38	28.54	8.8	ND	ND	ND	NA	NA	NA	NA
	11/27/02	NP				29.45	26.47	4.2	NA	NA	NA	NA	NA	2.3	6.7
	07/22/03	NP				27.58	28.34	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.1	6.7
	11/07/03	NP				30.42	25.50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.1	6.6
	02/03/04	NP				26.80	29.12	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.5	6.8
	05/04/04 [b]	**NP**	**61.26**			**26.67**	**34.59**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**NA**	**6.6**
MW-2	12/17/00		55.10	15.00	27.60	15.72	39.38	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					27.38	27.72	NS	NS	NS	NS	NS	NS	NS	NS
	11/27/02					16.35	38.75	NS	NS	NS	NS	NS	NS	NS	NS
	07/22/03					16.20	38.90	NS	NS	NS	NS	NS	NS	NS	NS
	11/07/03	P				18.22	36.88	990	ND<5.0	ND<5.0	ND<5.0	ND<5.0	110	1.8	6.7
	02/03/04	P				13.63	41.47	180	ND<2.5	ND<2.5	2.6	4.1	55	1.8	6.6
	05/04/04 [b]	**P**	**60.21**			**15.76**	**44.45**	**290**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**70**	**0.6**	**6.3**
MW-3	12/17/00		56.55	22.00	38.60	29.78	26.77	158	ND	ND	ND	NA	NA	NA	NA
	12/28/01					27.95	28.60	310	20	1.5	13	NA	NA	NA	NA
	11/27/02	NP				30.10	26.45	110	NA	NA	NA	NA	NA	2.0	7.2
	07/22/03	NP				28.32	28.23	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.2	5.9
	11/07/03	NP				30.86	25.69	70	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.8	6.5
	02/03/04	NP				27.65	28.90	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.1	6.7
	05/04/04 [b]	**NP**	**61.89**			**27.57**	**34.32**	**ND<100**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**1.6**	**6.4**
MW-4	12/17/00		55.98	25.00	48.30	29.22	26.76	225	ND	ND	ND	NA	NA	NA	NA
	12/28/01					27.37	28.61	160	1.2	ND	ND	NA	NA	NA	NA
	11/27/02	NP				29.55	26.43	95	NA	NA	NA	NA	NA	3.7	6.7
	07/22/03	NP				27.73	28.25	130	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.9	6.6
	11/07/03	NP				30.41	25.57	59	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.6	6.5
	02/03/04	NP				27.01	28.97	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.2	7.1
	05/04/04 [b]	**NP**	**61.30**			**26.91**	**34.39**	**ND<100**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**2.1**	**6.5**
MW-5	12/17/00		55.43	32.20	47.00	28.82	26.61	1,040	ND	ND	ND	NA	NA	NA	NA
	12/28/01					26.91	28.52	3,200	190	36	140	1.9 [a], 3.2 [b], 2.0 [c]	NA	NA	NA
	11/27/02	P				29.15	26.28	110	NA	NA	NA	NA	NA	1.4	6.4
	07/22/03	P				27.43	28.00	160	ND<1.0	ND<1.0	ND<1.0	ND<1.0	110	1.5	6.6
	11/07/03	P				29.99	25.44	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	120	0.6	6.2
	02/03/04	P				26.55	28.88	85	ND<2.5	ND<2.5	ND<2.5	ND<2.5	71	1.7	6.7
	05/04/04 [b]	**P**	**60.73**			**26.47**	**34.26**	**ND<250**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**150**	**0.9**	**6.2**

Table 1
Groundwater Elevation and Analytical Data

Atlantic Richfield Company Service Station #0276
10600 MacArthur Boulvard
Oakland, California

Well Number	Date Sampled	Purged/Not Purged (P/NP)	TOC Elevation (ft, MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft, bgs)	Depth to Water (ft, TOC)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO [d] (mg/L)	pH [d]
MW-6	12/17/00		61.21	37.00	54.10	34.61	26.60	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					32.80	28.41	NS	NS	NS	NS	NS	NS	NS	NS
	11/27/02					35.00	26.21	NS	NS	NS	NS	NS	NS	NS	NS
	07/22/03					33.17	28.04	NS	NS	NS	NS	NS	NS	NS	NS
	11/7/2003 [e, f]	P				35.70	25.51	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	2.7	6.9
	02/03/04	P				32.17	29.04	84	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	1.9	7.0
	05/04/04 [h]	**P**	**66.65**			**32.07**	**34.58**	**ND<250**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**2.0**	**6.7**
MW-7	12/17/00		58.22	17.50	55.00	19.94	38.28	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					17.29	40.93	NS	NS	NS	NS	NS	NS	NS	NS
	11/27/02					21.30	36.92	NS	NS	NS	NS	NS	NS	NS	NS
	07/22/03					21.36	36.86	NS	NS	NS	NS	NS	NS	NS	NS
	11/7/2003 [e]	P				23.76	34.46	3200	15	ND<2.5	130	11	53	2.2	6.8
	02/03/04	P				17.74	40.48	53	ND<0.50	ND<0.50	ND<0.50	0.54	32	1.9	6.4
	05/04/04 [h]		**63.54**					**Removed from monitoring schedule due to a blockage at 30 ft. bgs.**							
MW-8	12/17/00		53.65	29.00	47.70	27.02	26.63	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					24.99	28.66	NS	NS	NS	NS	NS	NS	NS	NS
	11/27/02					27.45	26.20	NS	NS	NS	NS	NS	NS	NS	NS
	07/22/03					25.74	27.91	NS	NS	NS	NS	NS	NS	NS	NS
	11/07/03	P				28.27	25.38	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	440	2.6	6.5
	02/03/04	P				24.80	28.85	170 [g]	ND<12	ND<12	ND<12	ND<12	470	3.0	6.7
	05/04/04 [h]	**P**	**58.96**			**24.81**	**34.15**	**ND<1000**	**ND<10**	**ND<10**	**ND<10**	**ND<10**	**700**	**3.8**	**6.4**
RW-1	12/17/00		56.32	NR	48.90	29.57	26.75	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01					27.64	28.68	NS	NS	NS	NS	NS	NS	NS	NS
	11/27/02					29.93	26.39	NS	NS	NS	NS	NS	NS	NS	NS
	07/22/03					28.09	28.23	NS	NS	NS	NS	NS	NS	NS	NS
	11/07/03	P				30.64	25.68	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.1	7.0
	02/03/04	P				27.28	29.04	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.7	7.1
	05/04/04 [h]	**P**	**61.65**			**27.16**	**34.49**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**4.4**	**6.8**
WGR-3	12/17/00		NR	22.00	27.50	19.21	NR	NS	NS	NS	NS	NS	NS	NS	NS
	12/28/01		NR			DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	11/27/02		NR			20.60	NR	NS	NS	NS	NS	NS	NS	NS	NS
	07/22/03		NR			20.77	NR	NS	NS	NS	NS	NS	NS	NS	NS
	11/07/03	P	NR			23.11	NR	53	ND<0.50	ND<0.50	ND<0.50	ND<0.50	45	0.9	6.4
	02/03/04	P	NR			16.60	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.9	2.6	6.6
	05/04/04 [h]	**P**	**63.27**			**19.53**	**43.74**	**ND<50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**11**	**1.8**	**6.5**

Table 1
Groundwater Elevation and Analytical Data

Atlantic Richfield Company Service Station #0276
10600 MacArthur Boulvard
Oakland, California

Well Number	Date Sampled	Purged/Not Purged (P/NP)	TOC Elevation (ft, MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft, bgs)	Depth to Water (ft, TOC)	Groundwater Elevation (ft, MSL)	GRO/TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO [d] (mg/L)	pH [d]

Note Groundwater samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE
Please note that beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list. Total Petroleum Hydrocarbons as Gasoline (TPH-g) has been changed to Gasoline Range Organics (GRO). The resulting data may be impacted by the potential inclusion of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.
Also, beginning the second quarter 2004, the carbon range for GRO has been changed from C6-C10 to C4-C12.

bgs = below ground surface
DIPE = Di-isopropyl ether
DO = Dissolved Oxygen
ETBE = Ethyl tert-butyl ether
ft. = feet
GRO = Gasoline Range Organics
mg/L = Milligrams per liter
MSL = relative to mean sea level
MTBE = Methyl tert-butyl ether
ND< = None detected
NP = Not purged
NR = Not reported; data not available or not measurable
NS = Not sampled
P = Purged
TAME = Tert-amyl methyl ether
TBA = Tert-butyl alcohol
TOC = Top of Casing
TPG = Total Petroleum Hydrocarbons
µg/L = Micrograms per liter
a = 1,1 DCE
b = 1,2 DCA
c = Chlorobenzene
d = pH and DO levels are field measurements
e = sample was originally analyzed within the EPA recommended hold time. Re-analysis for confirmation or dilution was performed past the recommended hold time. Results may still be used for intended purpose.
f = The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits
g = Discrete peak @ C5
h = Site was re-surveyed to NAVD' 88 on January 26, 2004.

Source : The data within this table collected prior to November 2002 was provided to URS by Atlantic Richfield Company and their previous consultants. URS has not verified the accuracy of this information.

Table 2
Fuel Additive Analytical Data

Atlantic Richfield Company Service Station #0276
10600 MacArthur Boulvard
Oakland, California

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	PCE (µg/L)	TCE (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	trans-1,2-DCE (µg/L)	cis-1,2-DCE (µg/L)	VOCs (µg/L)
MW-1	12/17/00	NA	NA	NA	NA	NA	NA	5.09	ND	NA	NA	ND	ND	NA
	12/28/01	NA	NA	NA	NA	NA	NA	8.8	ND	NA	NA	ND	ND	NA
	11/27/02	NA	NA	NA	NA	NA	NA	4.2	NA	NA	NA	NA	NA	NA
	07/22/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.0	NA	ND<0.50	ND<0.50	NA	NA	NA
	11/07/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.0	NA	NA	NA	NA	NA	NA
	02/03/04	ND<100	ND<20	ND<0.50	ND<1.0	ND<1.0	ND<1.0	21	NA	ND<0.50	ND<0.50	NA	NA	NA
	05/04/04	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**34**	**NA**	**ND<0.50**	**ND<0.50**	**NA**	**NA**	**NA**
MW-2	11/07/03	ND<1000	ND<200	110	ND<5.0	ND<5.0	28	ND<5.0	NA	NA	NA	NA	NA	NA
	02/03/04	ND<500	ND<100	55	ND<5.0	ND<5.0	16	ND<2.5	NA	ND<2.5	ND<2.5	NA	NA	NA
	05/04/04	**ND<500**	**ND<100**	**70**	**ND<2.5**	**ND<2.5**	**15**	**ND<2.5**	**NA**	**ND<2.5**	**ND<2.5**	**NA**	**NA**	**NA**
MW-3	12/17/00	NA	NA	NA	NA	NA	NA	158	ND	NA	NA	ND	ND	NA
	12/28/01	NA	NA	NA	NA	NA	NA	310	20	NA	NA	1.5	13	NA
	11/27/02	NA	NA	NA	NA	NA	NA	110	NA	NA	NA	NA	NA	NA
	07/22/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	80	NA	ND<0.50	ND<0.50	NA	NA	NA
	11/07/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	80	NA	NA	NA	NA	NA	NA
	02/03/04	ND<100	ND<20	ND<0.50	ND<1.0	ND<1.0	ND<1.0	110	NA	ND<0.50	ND<0.50	NA	NA	NA
	05/04/04	**ND<200**	**ND<40**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**110**	**NA**	**ND<1.0**	**ND<1.0**	**NA**	**NA**	**NA**
MW-4	12/17/00	NA	NA	NA	NA	NA	NA	225	ND	NA	NA	ND	ND	NA
	12/28/01	NA	NA	NA	NA	NA	NA	160	1.2	NA	NA	ND	ND	NA
	11/27/02	NA	NA	NA	NA	NA	NA	95	NA	NA	NA	NA	NA	NA
	07/22/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	94	NA	ND<0.50	ND<0.50	NA	NA	NA
	11/07/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	68	NA	NA	NA	NA	NA	NA
	02/03/04	ND<100	ND<20	ND<0.50	ND<1.0	ND<1.0	ND<1.0	83	NA	ND<0.50	ND<0.50	NA	NA	NA
	05/04/04	**ND<200**	**ND<40**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**ND<1.0**	**81**	**NA**	**ND<1.0**	**ND<1.0**	**NA**	**NA**	**NA**
MW-5	12/17/00	NA	NA	NA	NA	NA	NA	1,040	ND	NA	NA	ND	ND	NA
	12/28/01	NA	NA	NA	NA	NA	NA	3,200	190	NA	NA	36	140	1.9[a], 3.2[b], 2.0[c]
	11/27/02	NA	NA	NA	NA	NA	NA	110	NA	NA	NA	NA	NA	NA
	07/22/03	ND<200	ND<40	110	1.4	ND<1.0	3.2	55	NA	12	ND<1.0	NA	NA	NA
	11/07/03	ND<500	ND<100	120	ND<2.5	ND<2.5	6.6	42	NA	NA	NA	NA	NA	NA
	02/03/04	ND<500	ND<100	71	ND<5.0	ND<5.0	ND<5.0	130	NA	12	ND<2.5	NA	NA	NA
	05/04/04	**ND<500**	**ND<100**	**150**	**ND<2.5**	**ND<2.5**	**5.9**	**36**	**NA**	**8.8**	**ND<2.5**	**NA**	**NA**	**NA**
MW-6	11/07/03	ND<1000	ND<200	ND<5.0	ND<5.0	ND<5.0	ND<5.0	560	NA	NA	NA	NA	NA	NA
	02/03/04	ND<500	ND<100	ND<2.5	ND<5.0	ND<5.0	ND<5.0	220	NA	ND<2.5	ND<2.5	NA	NA	NA
	05/04/04	**ND<500**	**ND<100**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**ND<2.5**	**210**	**NA**	**ND<2.5**	**ND<2.5**	**NA**	**NA**	**NA**
MW-7	11/07/03	ND<500	ND<100	53	ND<2.5	ND<2.5	13	ND<2.5	NA	NA	NA	NA	NA	NA
	02/03/04	ND<100	ND<20	32	ND<1.0	ND<1.0	7.4	0.74	NA	ND<0.50	ND<0.50	NA	NA	NA
MW-8	11/07/03	ND<1000	ND<200	440	ND<5.0	ND<5.0	18	ND<5.0	NA	NA	NA	NA	NA	NA
	02/03/04	ND<2,500	ND<500	470	ND<25	ND<25	ND<25	ND<12	NA	ND<12	ND<12	NA	NA	NA
	05/04/04	**ND<2,000**	**ND<400**	**700**	**ND<10**	**ND<10**	**21**	**12**	**NA**	**ND<10**	**ND<10**	**NA**	**NA**	**NA**

Table 2
Fuel Additive Analytical Data

Atlantic Richfield Company Service Station #0276
10600 MacArthur Boulvard
Oakland, California

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	PCE (µg/L)	TCE (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	trans-1,2-DCE (µg/L)	cis-1,2-DCE (µg/L)	VOCs (µg/L)
RW-1	11/07/03	ND<100	ND<20	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.1	NA	NA	NA	NA	NA	NA
	02/03/04	ND<100	ND<20	ND<0.50	ND<1.0	ND<1.0	ND<1.0	0.76	NA	ND<0.5	ND<0.50	NA	NA	NA
	05/04/04	**ND<100**	**ND<20**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**ND<0.50**	**1.8**	**NA**	**ND<0.50**	**ND<0.50**	**NA**	**NA**	**NA**
WGR-3	11/07/03	ND<100	ND<20	45	ND<0.50	ND<0.50	10	ND<0.50	NA	NA	NA	NA	NA	NA
	02/03/04	ND<100	ND<20	6.9	ND<1.0	ND<1.0	1.6	ND<0.50	NA	ND<0.50	ND<0.50	NA	NA	NA
	05/04/04	**ND<100**	**ND<20**	**11**	**ND<0.50**	**ND<0.50**	**2.4**	**ND<0.50**	**NA**	**ND<0.50**	**ND<0.50**	**NA**	**NA**	**NA**

Note Tetrachloroethene analyzed using EPA Method 8260B. Samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE

1,2-DCA = 1,2-Dichloroethane
cis-1,2-DCE = cis-1,2-Dichloroethene
EDB = 1,2-Dibromoethane
NA = Not analyzed
ND< = Not detected at or above laboratory reporting limit
PCE = Tetra chloroethene
TCE = Trichloroethene
trans-1,2-DCE = trans 1,2-Dichloroethene
µg/L = Micrograms per liter
VOC = Volatile Organic Compounds
a = 1,1 DCE
b = 1,2 DCA
c = Chlorobenzene

Source : The data within this table collected prior to November 2002 was provided to URS by Atlantic Richfield Company and their previous consultants. URS has not verified the accuracy of this information.

Table 3
Groundwater Flow Direction and Gradient

Atlantic Richfield Company Service Station #0276
10600 MacArthur Boulevard,
Oakland, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
12/17/00	South-Southeast	0.003
12/28/01	Southeast	0.002
11/27/02	South-Southeast	0.003
07/22/03	South	0.007
11/07/03	Southwest	0.004
02/03/04	South-Southwest	0.002
05/04/04	**South-Southwest**	**0.003**

Source : The data within this table collected prior to November 2002 was provided to URS by Atlantic Richfield Company and their previous consultants. URS has not verified the accuracy of this information.

ATTACHMENT A

FIELD PROCEDURES AND FIELD DATA SHEETS

FIELD PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe. Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

WELL GAUGING DATA

Project # 040504-ACI Date 5/4/04 Client Arco 276

Site 10600 MacArthur Blvd. Oakland

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	NPC
MW-1	2					26.67	38.75	TOC	19'
*MW-2	4					15.76	27.61		
MW-3	2					27.57	38.60		22'
MW-4	2					26.91	48.31		25'
MW-5	4					26.47	47.03		
MW-6	2					32.07	54.10		
MW-8	4					24.81	47.68		
RW-1	6					27.16	48.90		
WGR-3	4					19.53	27.50	↓	
*gauged w/ ORC's in well									

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040504-AC1	Station # 276
Sampler: AC	Date: 5/4/04
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 38.75	Depth to Water: 26.67
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / Disposable Bailer / Middleburg / Electric Submersible / Extraction Pump
Other: ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port
Other: ____

Top of Screen: 19'

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

No Purge (1 Case Volume (Gals.)) X ____ (Specified Volumes) = ____ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1210	66.4	6.6	1924	—	clear

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Time: 1210 Sampling Date: 5/4/04

Sample I.D.: MW-1 Laboratory: Pace (Sequoia) Other____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Refer to COC

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040504-ACC	Station # 276
Sampler: AC	Date: 5/4/04
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 27.61	Depth to Water: 15.76
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / ~~Electric Submersible~~ / Extraction Pump / Other: _____

Sampling Method: Bailer / ~~Disposable Bailer~~ / Extraction Port / Other: _____

Top of Screen: _____ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

8	X	3	=	24 Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or ~~uS~~)	Gals. Removed	Observations
0959	66.4	6.4	563	8	clear
1001	66.9	6.4	520	16	"
1003	67.5	6.3	499	24	"

Did well dewater? Yes (No)		Gallons actually evacuated: 24	
Sampling Time: 1010		Sampling Date: 5/4/04	
Sample I.D.: MW-2		Laboratory: Pace (Sequoia) Other _____	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other: Refer to COC	
D.O. (if req'd): Pre-purge:	mg/L	Post-purge:	0.6 mg/L
O.R.P. (if req'd): Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040504-AC(	Station # 2760
Sampler: AC	Date: 5/4/04
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 38.60	Depth to Water: 27.57
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / ~~Disposable Bailer~~ / Positive Air Displacement / ~~Electric Submersible~~ / ~~Extraction Pump~~ / Other: _____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: _____

Top of Screen: 22'

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

NO Purge (1 Case Volume (Gals.)) X _____ (Specified Volumes) = _____ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1135	65.4	6.4	768	—	clear

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Time: 1135 Sampling Date: 5/4/04

Sample I.D.: MW-3 Laboratory: Pace (Sequoia) Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Refer to COC

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge):	1.6 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040504-AC1	Station # 276
Sampler: AC	Date: 5/4/04
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 48.31	Depth to Water: 26.91
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Extraction Pump / Other: ___

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: ___

Top of Screen: 25'

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

No Purge (1 Case Volume (Gals.)) X ___ (Specified Volumes) = ___ Gals. (Calculated Volume)

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1130	67.8	6.5	629	—	clear

Did well dewater? Yes (No) Gallons actually evacuated: —

Sampling Time: 1130 Sampling Date: 5/4/04

Sample I.D.: MW-4 Laboratory: Pace (Sequoia) Other ___

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Refer to COC

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge):	2.1 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040504-AC1	Station # 276
Sampler: AC	Date: 5/4/04
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 47.03	Depth to Water: 26.47
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / (Electric Submersible) / Extraction Pump / Other: ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: ____

Top of Screen: ____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

13.5 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 40.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1017	67.8	6.2	807	13.5	clear
1020	67.9	6.2	870	27	"
1023	68.3	6.2	896	40.5	"

Did well dewater? Yes (No)		Gallons actually evacuated: 40.5	
Sampling Time: 1030		Sampling Date: 5/4/04	
Sample I.D.: MW-5		Laboratory: Pace (Sequoia) Other ____	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other: Refer to COC	
D.O. (if req'd):	Pre-purge: ____ mg/L	(Post-purge:)	0.9 mg/L
O.R.P. (if req'd):	Pre-purge: ____ mV	Post-purge:	____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040504-ACI	Station # 276
Sampler: AC	Date: 5/4/04
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 54.10	Depth to Water: 32.07
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / (Positive Air Displacement) / Electric Submersible / Extraction Pump / Other: _____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: _____

Top of Screen: _____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

3.5 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 10.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (uS))	Gals. Removed	Observations
0859	65.0	6.9	1688	3.5	cloudy
0905	64.8	6.7	1670	7	"
0911	64.7	6.7	1659	10.5	clear

Did well dewater? Yes (No) Gallons actually evacuated: 10.5

Sampling Time: 0915 Sampling Date: 5/4/04

Sample I.D.: MW-6 Laboratory: Pace (Sequoia) Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Refer to COC

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge:)	2.0 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040504-AC1	Station # 2776
Sampler: AC	Date: 5/4/04
Well I.D.: MW-8	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 47.68	Depth to Water: 24.81
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / (Electric Submersible) Extraction Pump / Other: ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: ____

Top of Screen: ____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

15 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 45 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1046	70.8	6.4	734	15	clear
1049	70.9	6.3	728	30	"
1052	71.0	6.4	740	45	"

Did well dewater? Yes (No) Gallons actually evacuated: 45

Sampling Time: 1055 Sampling Date: 5/4/04

Sample I.D.: MW-8 Laboratory: Pace (Sequoia) Other____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Refer to COC

D.O. (if req'd):	Pre-purge:		mg/L	(Post-purge:)	3.8 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040504-AC1	Station # 276
Sampler: AC	Date: 5/4/04
Well I.D.: RW-1	Well Diameter: 2 3 4 (6) 8 ____
Total Well Depth: 48.90	Depth to Water: 27.16
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / (Electric Submersible) / Extraction Pump / Other: ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: ____

Top of Screen: ____ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

32 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 96 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (uS))	Gals. Removed	Observations
1134	67.1	6.8	1567	32	clear
1141	67.2	6.9	1588	64	"
1148	66.8	6.8	1522	96	"

Did well dewater? Yes (No) Gallons actually evacuated: 96

Sampling Time: 1152 Sampling Date: 5/4/04

Sample I.D.: RW-1 Laboratory: Pace (Sequoia) Other ____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Refer to COC

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge):	4.4 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040504-AC	Station # 276
Sampler: AC	Date: 5/4/04
Well I.D.: WGR-3	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 27.50	Depth to Water: 19.53
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / (Electric Submersible) / Extraction Pump / Other: ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Other: ____

Top of Screen: ____

If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

5.5 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 16.5 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (uS))	Gals. Removed	Observations
0930	64.9	6.6	678	5.5	clear
	well	dewatered @		6 gal	DTW = 24.67
0945	65.2	6.5	517	—	DTW = 21.04

Did well dewater? (Yes) No		Gallons actually evacuated: 6	
Sampling Time: 0945		Sampling Date: 5/4/04	
Sample I.D.: WGR-3		Laboratory: Pace (Sequoia) Other ____	
Analyzed for: TPH-G BTEX MTBE TPH-D		Other: Refer to COC	
D.O. (if req'd):	Pre-purge: ____ mg/L	(Post-purge):	1.8 mg/L
O.R.P. (if req'd):	Pre-purge: ____ mV	Post-purge:	____ mV

BP GEM OIL COMPANY TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING** FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This **Source Record BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

276

Station #

10600 MacArthur Blvd. Oakland

Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

230

added equip. rinse water 10

any other adjustments

TOTAL GALS. RECOVERED 240

loaded onto BTS vehicle # 52

BTS event # 040504-ACI

time 1300

date 5/4/04

signature

* *

REC'D AT

time

date

/ /

unloaded by signature

ATTACHMENT B

LABORATORY PROCEDURES, CERTIFIED ANALYTICAL REPORTS, AND CHAIN-OF-CUSTODY RECORDS

LABORATORY PROCEDURES

Laboratory Procedures

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by Atlantic Richfield Company have been reviewed and verified by that laboratory.

Sequoia
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25 May, 2004

Scott Robinson
URS Corporation [Arco]
1333 Broadway, Suite 800
Oakland, CA 94612

RE: ARCO #0276, Oakland, CA
Work Order: MNE0145

Enclosed are the results of analyses for samples received by the laboratory on 05/05/04 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNE0145
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MNE0145-01	Water	05/04/04 12:10	05/05/04 16:30
MW-2	MNE0145-02	Water	05/04/04 10:10	05/05/04 16:30
MW-3	MNE0145-03	Water	05/04/04 11:35	05/05/04 16:30
MW-4	MNE0145-04	Water	05/04/04 11:30	05/05/04 16:30
MW-5	MNE0145-05	Water	05/04/04 10:30	05/05/04 16:30
MW-6	MNE0145-06	Water	05/04/04 09:15	05/05/04 16:30
MW-8	MNE0145-07	Water	05/04/04 10:55	05/05/04 16:30
RW-1	MNE0145-08	Water	05/04/04 11:52	05/05/04 16:30
WGR-3	MNE0145-09	Water	05/04/04 09:45	05/05/04 16:30

The carbon range for the TPH-GRO has been changed from C6-C10 to C4-C12. The carbon range for TPH-DRO has been changed from C10-C28 to C10-C36. EPA 8015B has been modified to better meet the requirements of California regulatory agencies.

These samples were received with no custody seals.

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1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNE0145-01) Water Sampled: 05/04/04 12:10 Received: 05/05/04 16:30									
Ethanol	ND	100	ug/l	1	4E15004	05/15/04	05/15/04	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*116 %*		*78-129*	"	"	"	"	
MW-2 (MNE0145-02) Water Sampled: 05/04/04 10:10 Received: 05/05/04 16:30									
Ethanol	ND	500	ug/l	5	4E15004	05/15/04	05/15/04	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	**70**	2.5	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
tert-Amyl methyl ether	**15**	2.5	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	
Benzene	ND	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	ND	2.5	"	"	"	"	"	"	
Xylenes (total)	ND	2.5	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**290**	250	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*122 %*		*78-129*	"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNE0145
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MNE0145-03) Water Sampled: 05/04/04 11:35 Received: 05/05/04 16:30									
Ethanol	ND	200	ug/l	2	4E15004	05/15/04	05/15/04	EPA 8260B	
tert-Butyl alcohol	ND	40	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	100	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*119 %*		*78-129*	"	"	"	"	
MW-4 (MNE0145-04) Water Sampled: 05/04/04 11:30 Received: 05/05/04 16:30									
Ethanol	ND	200	ug/l	2	4E15004	05/15/04	05/15/04	EPA 8260B	
tert-Butyl alcohol	ND	40	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	1.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	100	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*116 %*		*78-129*	"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNE0145
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (MNE0145-05) Water Sampled: 05/04/04 10:30 Received: 05/05/04 16:30									
Ethanol	ND	500	ug/l	5	4E15004	05/15/04	05/15/04	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	**150**	2.5	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
tert-Amyl methyl ether	**5.9**	2.5	"	"	"	"	"	"	
1,2-Dichloroethane	**8.8**	2.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	
Benzene	ND	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	ND	2.5	"	"	"	"	"	"	
Xylenes (total)	ND	2.5	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	250	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*117 %*	*78-129*		"	"	"	"	
MW-6 (MNE0145-06) Water Sampled: 05/04/04 09:15 Received: 05/05/04 16:30									
Ethanol	ND	500	ug/l	5	4E15004	05/15/04	05/15/04	EPA 8260B	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.5	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	
Benzene	ND	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	ND	2.5	"	"	"	"	"	"	
Xylenes (total)	ND	2.5	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	250	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*78-129*		"	"	"	"	

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1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (MNE0145-07) Water Sampled: 05/04/04 10:55 Received: 05/05/04 16:30									
Ethanol	ND	2000	ug/l	20	4E15004	05/15/04	05/15/04	EPA 8260B	
tert-Butyl alcohol	ND	400	"	"	"	"	"	"	
Methyl tert-butyl ether	**700**	10	"	"	"	"	"	"	
Di-isopropyl ether	ND	10	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	10	"	"	"	"	"	"	
tert-Amyl methyl ether	**21**	10	"	"	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	10	"	"	"	"	"	"	
Benzene	ND	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Xylenes (total)	ND	10	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	1000	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*116 %*		*78-129*		"	"	"	
RW-1 (MNE0145-08) Water Sampled: 05/04/04 11:52 Received: 05/05/04 16:30									
Ethanol	ND	100	ug/l	1	4E15004	05/15/04	05/15/04	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*111 %*		*78-129*		"	"	"	

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNE0145
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WGR-3 (MNE0145-09) Water	**Sampled: 05/04/04 09:45**	**Received: 05/05/04 16:30**							
Ethanol	ND	100	ug/l	1	4E15004	05/15/04	05/15/04	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Methyl tert-butyl ether	**11**	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	**2.4**	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*114 %*	*78-129*		"	"	"	"	

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1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

EPA 8010 list Volatile Organic Compounds by EPA 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNE0145-01) Water Sampled: 05/04/04 12:10 Received: 05/05/04 16:30									
Tetrachloroethene	**34**	0.50	ug/l	1	4E15004	05/15/04	05/15/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*98.0 %*		*73-130*	"	"	"	"	
Surrogate: Toluene-d8		*114 %*		*89-116*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*71-117*	"	"	"	"	
MW-2 (MNE0145-02) Water Sampled: 05/04/04 10:10 Received: 05/05/04 16:30									
Tetrachloroethene	ND	2.5	ug/l	5	4E15004	05/15/04	05/15/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*97.8 %*		*73-130*	"	"	"	"	
Surrogate: Toluene-d8		*118 %*		*89-116*	"	"	"	"	*S01*
Surrogate: 4-Bromofluorobenzene		*107 %*		*71-117*	"	"	"	"	
MW-3 (MNE0145-03) Water Sampled: 05/04/04 11:35 Received: 05/05/04 16:30									
Tetrachloroethene	**110**	1.0	ug/l	2	4E15004	05/15/04	05/15/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*93.0 %*		*73-130*	"	"	"	"	
Surrogate: Toluene-d8		*117 %*		*89-116*	"	"	"	"	*S01*
Surrogate: 4-Bromofluorobenzene		*106 %*		*71-117*	"	"	"	"	
MW-4 (MNE0145-04) Water Sampled: 05/04/04 11:30 Received: 05/05/04 16:30									
Tetrachloroethene	**81**	1.0	ug/l	2	4E15004	05/15/04	05/15/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*97.4 %*		*73-130*	"	"	"	"	
Surrogate: Toluene-d8		*115 %*		*89-116*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*71-117*	"	"	"	"	
MW-5 (MNE0145-05) Water Sampled: 05/04/04 10:30 Received: 05/05/04 16:30									
Tetrachloroethene	**36**	2.5	ug/l	5	4E15004	05/15/04	05/15/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*97.6 %*		*73-130*	"	"	"	"	
Surrogate: Toluene-d8		*117 %*		*89-116*	"	"	"	"	*S01*
Surrogate: 4-Bromofluorobenzene		*106 %*		*71-117*	"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNE0145
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

EPA 8010 list Volatile Organic Compounds by EPA 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (MNE0145-06) Water Sampled: 05/04/04 09:15 Received: 05/05/04 16:30									
Tetrachloroethene	**210**	2.5	ug/l	5	4E15004	05/15/04	05/15/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*98.4 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*113 %*	*89-116*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*71-117*		"	"	"	"	
MW-8 (MNE0145-07) Water Sampled: 05/04/04 10:55 Received: 05/05/04 16:30									
Tetrachloroethene	**12**	10	ug/l	20	4E15004	05/15/04	05/15/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*99.4 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*117 %*	*89-116*		"	"	"	"	*S01*
Surrogate: 4-Bromofluorobenzene		*105 %*	*71-117*		"	"	"	"	
RW-1 (MNE0145-08) Water Sampled: 05/04/04 11:52 Received: 05/05/04 16:30									
Tetrachloroethene	**1.8**	0.50	ug/l	1	4E15004	05/15/04	05/15/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*102 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*113 %*	*89-116*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*71-117*		"	"	"	"	
WGR-3 (MNE0145-09) Water Sampled: 05/04/04 09:45 Received: 05/05/04 16:30									
Tetrachloroethene	ND	0.50	ug/l	1	4E15004	05/15/04	05/15/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*102 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*118 %*	*89-116*		"	"	"	"	*S01*
Surrogate: 4-Bromofluorobenzene		*105 %*	*71-117*		"	"	"	"	

Sequoia Analytical

885 Jarvis Drive
Morgan Hill, CA 95037
(408) 776-9600
FAX (408) 782-6308
www.sequoialabs.com

URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNE0145
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4E15004 - EPA 5030B P/T										
Blank (4E15004-BLK1)				Prepared & Analyzed: 05/15/04						
Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.85*		"	*5.00*		*117*	*78-129*			
Laboratory Control Sample (4E15004-BS1)				Prepared & Analyzed: 05/15/04						
Ethanol	147	100	ug/l	200		73.5	31-186			
tert-Butyl alcohol	54.0	20	"	50.0		108	0-206			
Methyl tert-butyl ether	11.1	0.50	"	10.0		111	63-137			
Di-isopropyl ether	9.16	0.50	"	10.0		91.6	76-130			
Ethyl tert-butyl ether	10.7	0.50	"	10.0		107	61-141			
tert-Amyl methyl ether	10.8	0.50	"	10.0		108	56-140			
1,2-Dichloroethane	10.4	0.50	"	10.0		104	77-136			
1,2-Dibromoethane (EDB)	11.1	0.50	"	10.0		111	77-132			
Benzene	9.72	0.50	"	10.0		97.2	78-124			
Toluene	11.0	0.50	"	10.0		110	78-129			
Ethylbenzene	10.2	0.50	"	10.0		102	84-117			
Xylenes (total)	32.4	0.50	"	30.0		108	83-125			
Surrogate: 1,2-Dichloroethane-d4	*5.84*		"	*5.00*		*117*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNE0145
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4E15004 - EPA 5030B P/T										
Laboratory Control Sample (4E15004-BS2)				Prepared & Analyzed: 05/15/04						
Gasoline Range Organics (C4-C12)	432	50	ug/l	440		98.2	70-124			
Surrogate: 1,2-Dichloroethane-d4	*5.92*		"	*5.00*		*118*	*78-129*			
Laboratory Control Sample Dup (4E15004-BSD1)				Prepared & Analyzed: 05/15/04						
Ethanol	156	100	ug/l	200		78.0	31-186	5.94	37	
tert-Butyl alcohol	55.4	20	"	50.0		111	0-206	2.56	22	
Methyl tert-butyl ether	11.4	0.50	"	10.0		114	63-137	2.67	13	
Di-isopropyl ether	9.67	0.50	"	10.0		96.7	76-130	5.42	9	
Ethyl tert-butyl ether	11.6	0.50	"	10.0		116	61-141	8.07	9	
tert-Amyl methyl ether	11.7	0.50	"	10.0		117	56-140	8.00	12	
1,2-Dichloroethane	11.3	0.50	"	10.0		113	77-136	8.29	13	
1,2-Dibromoethane (EDB)	11.9	0.50	"	10.0		119	77-132	6.96	9	
Benzene	10.2	0.50	"	10.0		102	78-124	4.82	12	
Toluene	11.6	0.50	"	10.0		116	78-129	5.31	10	
Ethylbenzene	10.7	0.50	"	10.0		107	84-117	4.78	10	
Xylenes (total)	33.8	0.50	"	30.0		113	83-125	4.23	11	
Surrogate: 1,2-Dichloroethane-d4	*5.77*		"	*5.00*		*115*	*78-129*			
Laboratory Control Sample Dup (4E15004-BSD2)				Prepared & Analyzed: 05/15/04						
Gasoline Range Organics (C4-C12)	472	50	ug/l	440		107	70-124	8.85	20	
Surrogate: 1,2-Dichloroethane-d4	*5.49*		"	*5.00*		*110*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNE0145
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

EPA 8010 list Volatile Organic Compounds by EPA 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4E15004 - EPA 5030B P/T										
Blank (4E15004-BLK1)				Prepared & Analyzed: 05/15/04						
Tetrachloroethene	ND	0.50	ug/l							
Surrogate: Dibromofluoromethane	*5.04*		"	*5.00*		*101*	*73-130*			
Surrogate: Toluene-d8	*5.83*		"	*5.00*		*117*	*89-116*			*S01*
Surrogate: 4-Bromofluorobenzene	*5.33*		"	*5.00*		*107*	*71-117*			
Laboratory Control Sample (4E15004-BS1)				Prepared & Analyzed: 05/15/04						
Tetrachloroethene	11.3	0.50	ug/l	10.0		113	82-127			
Surrogate: Dibromofluoromethane	*5.14*		"	*5.00*		*103*	*73-130*			
Surrogate: Toluene-d8	*5.86*		"	*5.00*		*117*	*89-116*			*S01*
Surrogate: 4-Bromofluorobenzene	*5.31*		"	*5.00*		*106*	*71-117*			
Laboratory Control Sample Dup (4E15004-BSD1)				Prepared & Analyzed: 05/15/04						
Tetrachloroethene	12.0	0.50	ug/l	10.0		120	82-127	6.01	20	
Surrogate: Dibromofluoromethane	*5.20*		"	*5.00*		*104*	*73-130*			
Surrogate: Toluene-d8	*5.90*		"	*5.00*		*118*	*89-116*			*S01*
Surrogate: 4-Bromofluorobenzene	*5.40*		"	*5.00*		*108*	*71-117*			

Sequoia Analytical

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNE0145
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	05/25/04 17:37

Notes and Definitions

S01	The surrogate recovery was above control limits. The result may still be useful for its intended purpose.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

MNE0145

Page 1 of 1

Chain of Custody Record

Project Name 276 GWM
BP BU/GEM CO Portfolio Retail
BP Laboratory Contract Number: Atlantic Richfield Company
Date: 5/4/04 Requested Due Date (mm/dd/yy) 14 day TAT

On-site Time:	0820 Temp: 60°
Off-site Time:	1300 Temp: 70°
Sky Conditions:	Sunny
Meteorological Events:	
Wind Speed:	5 mph Direction: W

Send To:	
Lab Name:	SEQUOIA
Lab Address:	885 Jarvis Dr.
	Morgan Hill, CA 95037
Lab PM	Lisa Race
Tele/Fax:	408-792-8156/ 408-782-6308
Report Type & QC Level:	1 Send EDF Reports
BP/GEM Account No.:	

BP/GEM Facility No.:	ARCO 276
BP/GEM Facility Address:	10600 MacArthur Blvd, OAKLAND, CA
Site ID No.	ARCO 276
Site Lat/Long:	
California Global ID #:	T0600100082
BP/GEM PM Contact:	PAUL SUPPLE
Address:	P.O. Box 6549
	Moraga, CA 94570
Tele/Fax:	925-299-8891/925-299-8872

Consultant/Contractor:	URS
Address:	1333 Broadway, Suite 800
	Oakland, CA 94612
e-mail EDD:	donna_cosper@URSCorp.com
Consultant/Contractor Project No.:	35-00000276.01 00427
Consultant Tele/Fax:	510-893-3600/510-874-3268
Consultant/Contractor PM:	Scott Robinson
Invoice to:	Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Work Release No:	INTRIM -50353

Lab Bottle Order No:

Item No.	Sample Description	Time	Matrix: Soil/Solid	Matrix: Water/Liquid	Matrix: Sediments	Matrix: Air	Laboratory No.	No. of containers	Preservatives: Unpreserved	Preservatives: H_2SO_4	Preservatives: HNO_3	Preservatives: HCl	Requested Analysis: GRO / BTEX 8260	Requested Analysis: DRO w/SGC (8015)	Requested Analysis: MTBE (8021)	Requested Analysis: MTBE (8260)	Requested Analysis: MTBE, TAME, ETBE DIPE, TBA (8260)	Requested Analysis: 1,2-DCA & EDB (8260)	Requested Analysis: Ethanol (8260)	Requested Analysis: PCB (8010)	Sample Point Lat/Long and Comments
1	MW-1	1210		X			01	6				X	X				X	X	X	X	
2	MW-2	1010		X			02	6				X	X				X	X	X	X	
3	MW-3	1135		X			03	6				X	X				X	X	X	X	
4	MW-4	1130		X			04	6				X	X				X	X	X	X	
5	MW-5	1030		X			05	6				X	X				X	X	X	X	
6	MW-6	0915		X			06	6				X	X				X	X	X	X	
7	MW-8	1055		X			07	6				X	X				X	X	X	X	
8	RW-1	1152		X			08	6				X	X				X	X	X	X	
9	WGR-3	0945		X			09	6				X	X				X	X	X	X	
10	TB/276/05042004			X			10	2				X									DW Hold

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Aaron Costa						
Company: Blaine Tech	Aaron Costa / Blaine Tech	5/5/04	1437		5/5/04	1432
Date:		5/5/04	1630	Cindy Johnson	5-5-04	1630
Method:						
Shipping No:						

Special Instructions: Address Invoice to BP/GEM but send to URS for approval

Ice: Yes X No X Temperature Blank Yes X No Cooler Temperature on Receipt 4.4 °F/C Trip Blank Yes X No

Copy - Laboratory / Yellow Copy - BP/GEM / Pink Copy - Consultant/Contractor

BP COC Rev. 1 2/5/02

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: IARS
REC. BY (PRINT): AS
WORKORDER: M5IE0145

DATE REC'D AT LAB: 5-5-01
TIME REC'D AT LAB: 1630
DATE LOGGED IN: 5-7-01

DRINKING WATER for regulatory purposes: YES / (NO)
WASTE WATER for regulatory purposes: YES / (NO)

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / (Absent) Intact / Broken*	01		MW-1	6-VOAs	HCl	L	5-4-01	lot HA 907103
2. Chain-of-Custody (Present) / Absent*	02		MW-2	↓	↓	↓	↓	
3. Traffic Reports or Packing List: Present / (Absent)	03		MW-3					
4. Airbill: Airbill / Sticker Present / (Absent)	04		MW-4					
5. Airbill #:	05		MW-5					
6. Sample Labels: (Present) / Absent	06		MW-6					
7. Sample IDs: (Listed) / Not Listed on Chain-of-Custody	07		MW-8					
8. Sample Condition: (Intact) / Broken* / Leaking*	08		RW-1					
9. Does information on chain-of-custody, traffic reports and sample labels agree? (Yes) / No*	09		WGR-3	↓				
10. Sample received within hold time: (Yes) / No*	10		TB 276/05042001	2-VOAs	↓	↓	↓	
11. Adequate sample volume received? (Yes) / No*								
12. Proper Preservatives used: (Yes) / No*								
13. Temp Rec. at Lab: 4 4°C Is temp 4 +/-2°C? (Yes) / No**								

5-5-01

(acceptance range for samples requiring thermal pres.)
(exception (if any): METALS / DFF ON ICE
(problem COC

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

xls
(11/10/03)
ision 3 (03/18/03)
03

ATTACHMENT C

HISTORIC GROUNDWATER DATA

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged Not Purg (P/NP)
MW-1	03-10-95	55.92	26.26	ND	29.66	03-10-95	170	<1	--	<1	--		
MW-1	06-05-95	55.92	25.71	ND	30.21	06-05-95	210	<5	--	<5	--		
MW-1	08-29-95	55.92	28.44	ND	27.48	08-29-95	130	<1	--	<1	--		
MW-1	11-16-95	55.92	30.85	ND	25.07	11-16-95	45	<1	--	<1	<1		
MW-1	02-28-96	55.92	24.99	ND	30.93	02-28-96	97	<1	<1	<1	--		
MW-1	05-28-96	55.92	24.92	ND	31.00	05-28-96	160	<5	<5	<5	--		
MW-1	08-19-96	55.92	28.04	ND	27.88	08-19-96	77	<1	<1	<1	--		
MW-1	11-21-96	55.92	30.19	ND	25.73	11-21-96	30	<1	<1	<1	--		
MW-1	03-26-97	55.92	24.90	ND	31.02	03-26-97	66	<1	<1	<1	--		
MW-1	05-20-97	55.92	26.99	ND	28.93	05-20-97	36	<0.5	<0.5	<0.5	--		
MW-1	08-18-97	55.92	29.98	ND	25.94	08-18-97	11	<0.5	<0.5	<0.5	--		
MW-1	11-17-97	55.92	31.72	ND	24.20	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-1	12-02-99	55.92	Not surveyed			12-02-99	Not surveyed: well was inaccessible						
MW-2	03-10-95	55.10	13.98	ND	41.12	03-11-95	<1	<1	--	<1	--		
MW-2	06-05-95	55.10	15.65	ND	39.45	06-05-95	<1	<1	--	<1	--		
MW-2	08-29-95	55.10	17.14	ND	37.96	08-29-95	<5	<5	--	<5	--		
MW-2	11-16-95	55.10	Not surveyed			11-16-95	Not surveyed: well was inaccessible						
MW-2	02-28-96	55.10	12.46	ND	42.64	02-28-96	<1	<1	<1	<1	--		
MW-2	05-28-96	55.10	15.23	ND	39.87	05-28-96	<1	<1	<1	<1	--		
MW-2	08-19-96	55.10	16.84	ND	38.26	08-21-96	<1	<1	<1	<1	--		
MW-2	11-21-96	55.10	15.44	ND	39.66	11-21-96	<1	<1	<1	<1	--		
MW-2	03-26-97	55.10	15.73	ND	39.37	03-26-97	<10^	<10^	<10^	<10^	--		
MW-2	05-20-97	55.10	16.07	ND	39.03	05-20-97	<1^	<1^	<1^	<1^	--		
MW-2	08-18-97	55.10	17.28	ND	37.82	08-18-97	<5^	<5^	<5^	<5^	--		
MW-2	11-17-97	55.10	16.75	ND	38.35	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-2	12-02-99	55.10	Not surveyed			12-02-99	Not sampled: not on sampling schedule						

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Recreated from electronic data provided by Pinnacle

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged Not Purg (P/NP)
MW-3	03-10-95	56.55	26.74	ND	29.81	03-11-95	1700	<10	--	<10	--		
MW-3	06-05-95	56.55	26.34	ND	30.21	06-05-95	2500	<20	--	<20	--		
MW-3	08-29-95	56.55	29.15	ND	27.40	08-29-95	1600	<20	--	<20	--		
MW-3	11-16-95	56.55	31.50	ND	25.05	11-16-95	1100	<20	--	<20	--		
MW-3	02-28-96	56.55	25.32	ND	31.23	02-28-96	1100	<10	<10	<10	--		
MW-3	05-28-96	56.55	25.46	ND	31.09	05-28-96	1700	<20	<20	<20	--		
MW-3	08-19-96	56.55	28.71	ND	27.84	08-19-96	1200	<20	<20	<20	--		
MW-3	11-21-96	56.55	30.85	ND	25.70	11-21-96	710	<20^	<20^	<20^	--		
MW-3	03-26-97	56.55	25.36	ND	31.19	03-26-97	710	<40^	<40^	<40^	--		
MW-3	05-20-97	56.55	27.61	ND	28.94	05-20-97	800	<25^	<25^	<25^	--		
MW-3	08-18-97	56.55	30.62	ND	25.93	08-18-97	420	<5^	<5^	<5^	--		
MW-3	11-17-97	56.55	32.40	ND	24.15	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-3	12-02-99	56.55	30.75	ND	25.80	12-02-99	210*	<0.5*	<0.5*	<0.5*	--	0.47	NP
MW-4	03-10-95	55.98	26.22	ND	29.76	03-11-95	2600	<20	--	<20	--		
MW-4	06-05-95	55.98	25.79	ND	30.19	06-05-95	3100	<20	--	<20	--		
MW-4	08-29-95	55.98	28.56	ND	27.42	08-29-95	2900	<20	--	<20	--		
MW-4	11-16-95	55.98	31.00	ND	24.98	11-16-95	2100	<20	--	<20	--		
MW-4	02-28-96	55.98	24.77	ND	31.21	02-28-96	2400	<20	<20	<20	<20		
MW-4	05-28-96	55.98	24.91	ND	31.07	05-28-96	2700	<20	<20	<20	--		
MW-4	08-19-96	55.98	28.17	ND	27.81	08-19-96	2600	<20	<20	<20	--		
MW-4	11-21-96	55.98	30.30	ND	25.68	11-21-96	1100	<20^	<20^	<20^	--		
MW-4	03-26-97	55.98	24.80	ND	31.18	03-26-97	1900	<40^	<40^	<40^	--		
MW-4	05-20-97	55.98	27.03	ND	28.95	05-20-97	1600	<50^	<50^	<50^	--		
MW-4	08-18-97	55.98	30.10	ND	25.88	08-18-97	600	<125^	<125^	--	--		
MW-4	11-17-97	55.98	31.84	ND	24.14	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-4	12-02-99	55.98	30.20	ND	25.78	12-02-99	320*	<0.5*	<0.5*	<0.5*	--	1.03	NP

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Recreated from electronic data provided by Pinnacle

Pinnacle

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged/ Not Purged (P/NP)
MW-5	03-10-95	55.43	25.62	ND	29.81	03-10-95	270	<5	--	<5	--		
MW-5	06-05-95	55.43	25.30	ND	30.13	06-05-95	310	<5	--	<5	--		
MW-5	08-29-95	55.43	28.21	ND	27.22	08-29-95	240	<5	--	<5	--		
MW-5	11-16-95	55.43	30.63	ND	24.80	11-16-95	940	<5	--	<5	<5		
MW-5	02-28-96	55.43	24.07	ND	31.36	02-28-96	1100	<10	<10	<10	--		
MW-5	05-28-96	55.43	24.42	ND	31.01	05-28-96	360	<5	<5	<5	--		
MW-5	08-19-96	55.43	27.82	ND	27.61	08-21-96	150	<1	<1	2	--		
MW-5	11-21-96	55.43	29.92	ND	25.51	11-21-96	1900	<20^	<20^	<20^	--		
MW-5	03-26-97	55.43	24.22	ND	31.21	03-26-97	270	<10^	<10^	<10^	--		
MW-5	05-20-97	55.43	26.60	ND	28.83	05-20-97	290	<5^	<5^	<5^	--		
MW-5	08-18-97	55.43	NR	ND	NR	08-18-97	--	--	--	--	--		
MW-5	11-17-97	55.43	Not surveyed			11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-5	12-02-99	55.43	29.84	ND	25.59	12-02-99	46*	<0.5*	<0.5*	<0.5*	--	0.53	P
MW-6	03-10-95	61.21	31.54	ND	29.67	03-11-95	1300	<20	--	<20	--		
MW-6	06-05-95	61.21	31.15	ND	30.06	06-05-95	2000	<20	--	<20	--		
MW-6	08-29-95	61.21	34.03	ND	27.18	08-29-95	1300	<20	--	<20	--		
MW-6	11-16-95	61.21	36.40	ND	24.81	11-16-95	1300	<20	--	<20	<20		
MW-6	02-28-96	61.21	30.18	ND	31.03	02-28-96	960	<20	<20	<20	--		
MW-6	05-28-96	61.21	30.29	ND	30.92	05-28-96	970	<20	<20	<20	--		
MW-6	08-19-96	61.21	33.54	ND	27.67	08-19-96	820	<20	<20	<20	--		
MW-6	11-21-96	61.21	35.70	ND	25.51	11-21-96	680	<20^	<20^	<20^	--		
MW-6	03-26-97	61.21	30.15	ND	31.06	03-26-97	830	<40^	<40^	<40^	--		
MW-6	05-20-97	61.21	32.40	ND	28.81	05-20-97	270	<5^	<5^	<5^	--		
MW-6	08-18-97	61.21	35.47	ND	25.74	08-18-97	420	<62.5^	<62.5^	--	--		
MW-6	11-17-97	61.21	37.25	ND	23.96	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-6	12-02-99	61.21	35.55	ND	25.66	12-02-99	Not sampled: not on sampling schedule						

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Recreated from electronic data provided by Pinnacle

Pinnacle

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged/ Not Purge (P/NP)
MW-7	03-10-95	58.22	17.69	ND^^	40.53	03-11-95	Not sampled: floating product entered the well during purging						
MW-7	06-05-95	58.22	19.68	ND	38.54	06-05-95	<10	<10	--	<10	--		
MW-7	08-29-95	58.22	21.70	ND	36.52	08-29-95	<10	<10	--	<10	--		
MW-7	11-16-95	58.22	23.02	ND	35.20	11-16-95	<20	<20	--	<20	<20		
MW-7	02-28-96	58.22	16.54	ND	41.68	02-28-96	<10	<10	<10	<10	--		
MW-7	05-28-96	58.22	19.29	ND	38.93	05-28-96	<10	<10	<10	<10	--		
MW-7	08-19-96	58.22	21.84	ND	36.38	08-21-96	<1	<1	<1	<1	--		
MW-7	11-21-96	58.22	19.58	ND	38.64	11-21-96	<10^	<10^	<10^	<10^	--		
MW-7	03-26-97	58.22	19.67	ND	38.55	03-26-97	<20^	<20^	<20^	<20^	--		
MW-7	05-20-97	58.22	20.18	ND	38.04	05-20-97	<10^	<10^	<10^	<10^	--		
MW-7	08-18-97	58.22	22.21	ND	36.01	08-18-97	<10^	<10^	<10^	<10^	--		
MW-7	11-17-97	58.22	20.85	ND	37.37	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-7	12-02-99	58.22	20.92	ND	37.30	12-02-99	Not sampled: not on sampling schedule						
MW-8	03-10-95	53.65	23.60	ND	30.05	03-10-95	<1	<1	--	<1	--		
MW-8	06-05-95	53.65	23.48	ND	30.17	06-05-95	<1	<1	--	<1	--		
MW-8	08-29-95	53.65	26.44	ND	27.21	08-29-95	<1	<1	--	<1	--		
MW-8	11-16-95	53.65	28.90	ND	24.75	11-16-95	<1	<1	--	<1	<1		
MW-8	02-28-96	53.65	22.16	ND	31.49	02-28-96	3	<1	<1	<1	--		
MW-8	05-28-96	53.65	22.62	ND	31.03	05-28-96	<1	<1	<1	<1	--		
MW-8	08-19-96	53.65	26.70	ND	26.95	08-21-96	<1	<1	<1	<1	--		
MW-8	11-21-96	53.65	28.16	ND	25.49	11-21-96	7	<1	<1	<1	--		
MW-8	03-26-97	53.65	22.42	ND	31.23	03-26-97	<1	<1	<1	<1	--		
MW-8	05-20-97	53.65	24.84	ND	28.81	05-20-97	<0.5	<0.5	<0.5	<0.5	--		
MW-8	08-18-97	53.65	28.03	ND	25.62	08-18-97	<5	<5	<5	--	--		
MW-8	11-17-97	53.65	29.16	ND	24.49	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
MW-8	12-02-99	53.65	28.07	ND	25.58	12-02-99	Not sampled: not on sampling schedule						

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elewation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged/ Not Purge (P/NP)
RW-1	03-10-95	56.32	26.48	Sheen	29.84	03-10-95	260	<5	--	<5	--		
RW-1	06-05-95	56.32	26.20	ND	30.12	06-05-95	59	<1	--	<1	--		
RW-1	08-29-95	56.32	28.98	ND	27.34	08-29-95	570	<5	--	<5	--		
RW-1	11-16-95	56.32	31.34	ND	24.98	11-16-95	140	<1	--	<1	<1		
RW-1	02-28-96	56.32	25.12	ND	31.20	02-28-96	6	<1	<1	<1	--		
RW-1	05-28-96	56.32	25.26	ND	31.06	05-28-96	12	<1	<1	<1	--		
RW-1	08-19-96	56.32	28.51	ND	27.81	08-21-96	100	<1	<1	<1	--		
RW-1	11-21-96	56.32	30.65	ND	25.67	11-21-96	190	1	<1	<1	--		
RW-1	03-26-97	56.32	25.15	ND	31.17	03-26-97	6	<1	<1	<1	--		
RW-1	05-20-97	56.32	27.44	ND	28.88	05-20-97	5.3	<0.5	<0.5	<0.5	--		
RW-1	08-18-97	56.32	30.46	ND	25.86	08-18-97	46	<5	<5	--	--		
RW-1	11-17-97	56.32	32.16	ND	24.16	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
RW-1	12-02-99	56.32	30.54	ND	25.78	12-02-99	Not sampled: not on sampling schedule						
WGR-3	03-10-95	NR	15.20	ND	NR	03-11-95	<1	<1	--	<1	--		
WGR-3	06-05-95	NR	19.25	ND	NR	06-05-95	<1	<1	--	<1	--		
WGR-3	08-29-95	NR	21.41	ND	NR	08-29-95	<1	<1	--	<1	--		
WGR-3	11-16-95	NR	22.50	ND	NR	11-16-95	<1	<1	--	<1	<1		
WGR-3	02-28-96	NR	14.90	ND	NR	02-28-96	<1	<1	<1	<1	--		
WGR-3	05-28-96	NR	18.33	ND	NR	05-28-96	<1	<1	<1	<1	--		
WGR-3	08-19-96	NR	21.38	ND	NR	08-19-96	<1	<1	<1	<1	--		
WGR-3	11-21-96	NR	18.70	ND	NR	11-21-96	<1	<1	<1	<1	--		
WGR-3	03-26-97	NR	18.98	ND	NR	03-26-97	<1	<1	<1	<1	--		
WGR-3	05-20-97	NR	19.70	ND	NR	05-20-97	<0.5	<0.5	<0.5	<0.5	--		

Table 1
Historical Groundwater Elevation and Analytical Data
Halogenated Volatile Organic Compounds (EPA method 8010 or 8240)
1995-Present**

ARCO Service Station 276
10600 MacArthur Boulevard, Oakland, California

Well Number	Date Gauged	TOC Elevation (ft-MSL)	Depth to Water (feet)	FP Thickness (ft-MSL)	Groundwater Elevation (ft-MSL)	Date Sampled	Tetra-chloro-ethene (PCE) µg/L	Tetra-chloro-ethene (TCE) µg/L	trans-1,2-Dichloro-ethene µg/L	cis-1,2-Dichloro-ethene µg/L	Freon 12 µg/L	Dissolved Oxygen (mg/l)	Purged/ Not Purged (P/NP)
WGR-3	08-18-97	NR	21.81	ND	NR	08-18-97	<5	<5	<5	--	--		
WGR-3	11-17-97	NR	20.42	ND	NR	11-17-97	Not analyzed for Halogenated Volatile Organic Compounds						
WGR-3	12-02-99	NR	20.58	ND	NR	12-02-99	Not sampled: not on sampling schedule						

TOC: Top of Casing
ft-MSL: elevation in feet, relative to mean sea level
µg/L: micrograms per liter
ND: none detected
NR: not reported; data not available or not measurable
--: not analyzed or not applicable
*: analyzed by EPA method 8021B
^: method reporting limit was raised due to: (1) high analyte concentration requiring sample dilution, or (2) matrix interference
^^: floating product entered the well during purging
**: For previous historical groundwater elevation and analytical data please refer to *Fourth Quarter 1995 Groundwater Monitoring Results and Remediation System Performance Evaluation Report, Retail Service Station 10600 and 10700 MacArthur Boulevard, Oakland, California, (EMCON, March 22, 1996).*

ATTACHMENT D

EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION

Error Summary Log

05/26/04

EDF 1.2i All files present in deliverable.

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #0276, Oakland, CA
Work Order Number:	MNE0145
Global ID:	T0600100082
Lab Report Number:	MNE0145052520041737

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
MNE01450525200 41737	MW-1	MNE014501	W	CS	8260FA	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-1	MNE014501	W	CS	SW8260B	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-2	MNE014502	W	CS	8260FA	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-2	MNE014502	W	CS	SW8260B	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-3	MNE014503	W	CS	8260FA	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-3	MNE014503	W	CS	SW8260B	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-4	MNE014504	W	CS	8260FA	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-4	MNE014504	W	CS	SW8260B	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-5	MNE014505	W	CS	8260FA	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-5	MNE014505	W	CS	SW8260B	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-6	MNE014506	W	CS	8260FA	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-6	MNE014506	W	CS	SW8260B	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-8	MNE014507	W	CS	8260FA	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	MW-8	MNE014507	W	CS	SW8260B	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	RW-1	MNE014508	W	CS	8260FA	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	RW-1	MNE014508	W	CS	SW8260B	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	WGR-3	MNE014509	W	CS	8260FA	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
MNE01450525200 41737	WGR-3	MNE014509	W	CS	SW8260B	SW5030B	05/04/04	05/15/04	05/15/04	4E15004	1
		4E15004BSD1	WQ	BD1	8260FA	SW5030B	/ /	05/15/04	05/15/04	4E15004	1
		4E15004BSD1	WQ	BD1	SW8260B	SW5030B	/ /	05/15/04	05/15/04	4E15004	1
		4E15004BSD2	WQ	BD2	8260FA	SW5030B	/ /	05/15/04	05/15/04	4E15004	1
		4E15004BS1	WQ	BS1	8260FA	SW5030B	/ /	05/15/04	05/15/04	4E15004	1

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
		4E15004BS1	WQ	BS1	SW8260B	SW5030B	/ /	05/15/04	05/15/04	4E15004	1
		4E15004BS2	WQ	BS2	8260FA	SW5030B	/ /	05/15/04	05/15/04	4E15004	1
		4E15004BLK1	WQ	LB1	8260FA	SW5030B	/ /	05/15/04	05/15/04	4E15004	1
		4E15004BLK1	WQ	LB1	SW8260B	SW5030B	/ /	05/15/04	05/15/04	4E15004	1

EDFSAMP: Error Summary Log

05/26/04

Error type	Logcode	Projname	Npdlwo	Sampid	Matrix
There are no errors in this data file					

EDFTEST: Error Summary Log

05/26/04

Error type	Labsampid	Qccode	Anmcode	Exmcode	Anadate	Run number
There are no errors in this data file					/ /	0

EDFRES: Error Summary Log

05/26/04

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	MNE014501	CS	W	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	MNE014501	CS	W	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	MNE014501	CS	W	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	MNE014501	CS	W	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	MNE014501	CS	W	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	MNE014501	CS	W	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	MNE014502	CS	W	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	MNE014502	CS	W	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	MNE014502	CS	W	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	MNE014502	CS	W	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	MNE014502	CS	W	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	MNE014502	CS	W	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	MNE014503	CS	W	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	MNE014503	CS	W	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	MNE014503	CS	W	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	MNE014503	CS	W	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	MNE014503	CS	W	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	MNE014503	CS	W	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	MNE014504	CS	W	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	MNE014504	CS	W	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	MNE014504	CS	W	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	MNE014504	CS	W	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	MNE014504	CS	W	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	MNE014504	CS	W	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	MNE014505	CS	W	8260FA	PR	05/15/04	1	BZ

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	MNE014505	CS	W	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	MNE014505	CS	W	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	MNE014505	CS	W	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	MNE014505	CS	W	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	MNE014505	CS	W	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	MNE014506	CS	W	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	MNE014506	CS	W	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	MNE014506	CS	W	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	MNE014506	CS	W	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	MNE014506	CS	W	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	MNE014506	CS	W	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	MNE014507	CS	W	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	MNE014507	CS	W	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	MNE014507	CS	W	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	MNE014507	CS	W	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	MNE014507	CS	W	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	MNE014507	CS	W	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	MNE014508	CS	W	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	MNE014508	CS	W	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	MNE014508	CS	W	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	MNE014508	CS	W	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	MNE014508	CS	W	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	MNE014508	CS	W	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	MNE014509	CS	W	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	MNE014509	CS	W	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	MNE014509	CS	W	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	MNE014509	CS	W	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	MNE014509	CS	W	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	MNE014509	CS	W	8260FA	PR	05/15/04	1	XYLENES

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	4E15004BLK1	LB1	WQ	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	4E15004BLK1	LB1	WQ	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	4E15004BLK1	LB1	WQ	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	4E15004BLK1	LB1	WQ	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	4E15004BLK1	LB1	WQ	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	4E15004BLK1	LB1	WQ	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	4E15004BS1	BS1	WQ	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	4E15004BS1	BS1	WQ	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	4E15004BS1	BS1	WQ	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	4E15004BS1	BS1	WQ	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	4E15004BS1	BS1	WQ	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	4E15004BS2	BS2	WQ	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	4E15004BS2	BS2	WQ	8260FA	PR	05/15/04	1	GROC4C12
Warning: extra parameter	4E15004BSD1	BD1	WQ	8260FA	PR	05/15/04	1	BZ
Warning: extra parameter	4E15004BSD1	BD1	WQ	8260FA	PR	05/15/04	1	BZME
Warning: extra parameter	4E15004BSD1	BD1	WQ	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	4E15004BSD1	BD1	WQ	8260FA	PR	05/15/04	1	EBZ
Warning: extra parameter	4E15004BSD1	BD1	WQ	8260FA	PR	05/15/04	1	XYLENES
Warning: extra parameter	4E15004BSD2	BD2	WQ	8260FA	PR	05/15/04	1	DCA12D4
Warning: extra parameter	4E15004BSD2	BD2	WQ	8260FA	PR	05/15/04	1	GROC4C12
Error: LNOTE has an invalid note	MNE014502	CS	W	SW8260B	PR	05/15/04	1	BZMED8
Error: LNOTE has an invalid note	MNE014503	CS	W	SW8260B	PR	05/15/04	1	BZMED8
Error: LNOTE has an invalid note	MNE014505	CS	W	SW8260B	PR	05/15/04	1	BZMED8
Error: LNOTE has an invalid note	MNE014507	CS	W	SW8260B	PR	05/15/04	1	BZMED8
Error: LNOTE has an invalid note	MNE014509	CS	W	SW8260B	PR	05/15/04	1	BZMED8
Error: LNOTE has an invalid note	4E15004BLK1	LB1	WQ	SW8260B	PR	05/15/04	1	BZMED8
Error: LNOTE has an invalid note	4E15004BS1	BS1	WQ	SW8260B	PR	05/15/04	1	BZMED8
Error: LNOTE has an invalid note	4E15004BSD1	BD1	WQ	SW8260B	PR	05/15/04	1	BZMED8

EDFQC: Error Summary Log

05/26/04

Error type	Lablotctl	Anmcode	Parlabel	Qccode	Labqcid
There are no errors in this data files					

EDFCL: Error Summary Log

05/26/04

Error type	Clrevdate	Anmcode	Exmcode	Parlabel	Clcode
There are no errors in this data file	/ /				

AB2886 Electronic Delivery

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been succcessfully uploaded!

Confirmation Number: 4323379814
Date/Time of Submittal: 5/26/2004 12:56:24 PM
Facility Global ID: T0600100082
Facility Name: ARCO
Submittal Title: 2Q04- monitoring report for 276
Submittal Type: GW Monitoring Report

Logged in as URSCORP-OAKLAND (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.

AB2886 Electronic Delivery

Main Menu | View/Add Facilities | Upload EDD | Check EDD

UPLOADING A GEO_WELL FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title:	**2Q04- geowell data for site 0276**
Submittal Date/Time:	**5/11/2004 3:24:05 PM**
Confirmation Number:	**6876495182**

Back to Main Menu

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CONTACT SITE ADMINISTRATOR.

ATTACHMENT E

WELL SURVEY DATA

AB2886 Electronic Delivery

Main Menu | View/Add Facilities | Upload EDD | Check EDD

UPLOADING A GEO_XY FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title:	**Geo XY Site #0276**
Submittal Date/Time:	**3/12/2004 1:55:18 PM**
Confirmation Number:	**3689106583**

Back to Main Menu

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CONTACT SITE ADMINISTRATOR.

AB2886 Electronic Delivery

Main Menu | View/Add Facilities | Upload EDD | Check EDD

UPLOADING A GEO_Z FILE

Processing is complete. No errors were found!
Your file has been successfully submitted!

Submittal Title:	**Geo Z Site #0276**
Submittal Date/Time:	**3/12/2004 1:59:31 PM**
Confirmation Number:	**8939884781**

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CONTACT SITE ADMINISTRATOR.

ATTACHMENT F

WELL REPAIR DATA SHEETS

REPAIR DATA SHEET

Client ARCO / BP #276 Date 4-15-04

Site Address 10600 MACARTHUR BLVD, OAKLAND

Job Number 040415 - MG1 Technician MORGAN G

Repair Location MW-1

Deficiencies Corrected BOLTS MISSING, RETAPPED AND ADDED BOLTS

Materials Used 2 BOLTS

Repair Location RW-1

Deficiencies Corrected BROKEN CAP, MISSING BOLT. REPLACED WITH 6" CAP, TAPPED AND ADDED BOLT

Materials Used 1 6" CAP, 1 BOLT, 1 LOCK

Repair Location MW-3

Deficiencies Corrected MISSING BOLTS, ADDED HELICOIL TO 1 OF 2 OTHER TAB BROKEN

Materials Used 1 HELICOIL, 1 BOLT

Repair Location MW-4

Deficiencies Corrected MISSING BOLTS REPLACED WITH HELICOILS AND BOLTS

Materials Used 2 HELICOILS, 2 BOLTS

Repair Location MW-5

Deficiencies Corrected MISSING 1 SECURITY BOLT. REPLACED WITH 2 NEW BOLTS

Materials Used 2 BOLTS

Repair Location MW-2

Deficiencies Corrected MISSING BOLT, TAPPED AND ADDED BOLT (VAULT)

Materials Used 1 BOLT

REPAIR DATA SHEET

Client ARCO / BP #276 Date 4-15-04

Site Address 10600 MACARTHUR BLVD / OAKLAND

Job Number 040415-MG1 Technician MORGAN G

Repair Location MW-8

Deficiencies Corrected MISSING BOLT, TAPPED AND ADDED BOLT (VAULT)

Materials Used 1 BOLT

Repair Location MW-7

Deficiencies Corrected Gasket deteriorated, tabs stripped. Added new gasket, helicoiled tabs + added 2 new bolts.

Materials Used gasket, 2 helicoils, 2 bolts

Repair Location ~~MW-7~~ MW-

Deficiencies Corrected

Materials Used

Repair Location

Deficiencies Corrected

Materials Used

Repair Location

Deficiencies Corrected

Materials Used

Repair Location

Deficiencies Corrected

Materials Used

CONTEMPORANEOUS NOTES

Project #: 040415-MG1 Client: Arco # 276

Date: 4/15/04 BTS Sampler: Morgan G.

(Record activity every fifteen minutes or when otherwise necessary.)

Time	Activity	Decisions / Instructions / Communication	Who is invloved with the decisions, instructions, etc.
1030	TD of MW-7 ~35'		
	Covered weighted treble hook and removed 3 ORC socks		
	TD = 36.70'		
1045	After removal of ORC's unable to hook anything.		
1100	Talked to Mike N. about continuing to attempt to remove other ORC's. Switched to a different treble hook, but still unable to hook anything. Bottom feels very hard		
1115	Switched to a single hook w/ weight, but could not hook anything.		
1130	Talked to Mike N. and started to use auger extensions to try and hook ORC's. Used metal hook on end of auger extensions. Bottom feels solid, and even all around inside of casing. Hook did not sink down further when turned, and did not snag anything		

CONTEMPORANEOUS NOTES

Project #: 040415-MG1 Client: Arco #276

Date: 4/15/04 BTS Sampler: Morgan G.

(Record activity every fifteen minutes or when otherwise necessary.)

Time	Activity	Decisions / Instructions / Communication	Who is invloved with the decisions, instructions, etc.
1200	Switched out auger endpiece to cutting bit. Attempted to auger out part of ORCs. Auger did not cut into anything very much. When we removed auger I noticed a small amount of sand/silt stuck on the top edge of the cutting bit, and in the auger extension.		
1215	Tried a different hook on the auger, but could not snag anything. There was no green plastic or any other evidence of ORCs still in the well. Talked to Mike N. and decided to bail a small amount of water from well to see if there was any floating evidence of ORCs, but there was none.		
1230	I think that this well was either filled in, or the TD was never measured properly. The bottom feels very solid. TD = 36.70		