RO 2505

URS

October 18, 2004

Mr. Robert Schultz
Alameda County Environmental Health
1131 Harbor Bay Parkway, Second Floor, Suite 250
Alameda, CA 94502

Re: Third Quarter 2004 Groundwater Monitoring Report
ARCO Service Station #0276
10600 MacArthur Boulevard
Oakland, California
URS Project #38486701

Dear Mr. Schultz:

On behalf of Atlantic Richfield Company, a BP-affiliated company, URS Corporation (URS) is submitting the *Third Quarter 2004 Groundwater Monitoring Report* for ARCO 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
ROBERT M. HORWATH
NO. 5925
4/05
STATE OF CALIFORNIA

Scott Robinson
Project Manager

Robert Horwath, R.G.
Portfolio Manager

Enclosure: Third Quarter 2004 Groundwater Monitoring Report

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

REPORT

THIRD QUARTER 2004 GROUNDWATER MONITORING

ARCO SERVICE STATION #0276
10600 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Prepared for
RM

October 18, 2004

URS

URS Corporation
1333 Broadway, Suite 800
Oakland, California 94612

38486701

Date: October 19, 2004
Quarter: 3Q 04

RM QUARTERLY 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 Environmental Health (ACEH)

WORK PERFORMED THIS QUARTER (Third – 2004):

1. Performed third quarter 2004 groundwater monitoring event on August 12, 2004.

WORK PROPOSED FOR NEXT QUARTER (Fourth – 2004):

1. Prepare and submit third quarter 2004 groundwater monitoring report.
2. Perform fourth quarter 2004 groundwater monitoring event.
3. Prepare and submit fourth quarter 2004 groundwater monitoring report.
4. 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
Approximate Depth to Groundwater:	17.21 (MW-2) to 34.90 (MW-6) feet
Groundwater Gradient (direction):	South-Southwest
Groundwater Gradient (magnitude):	0.004 feet per foot

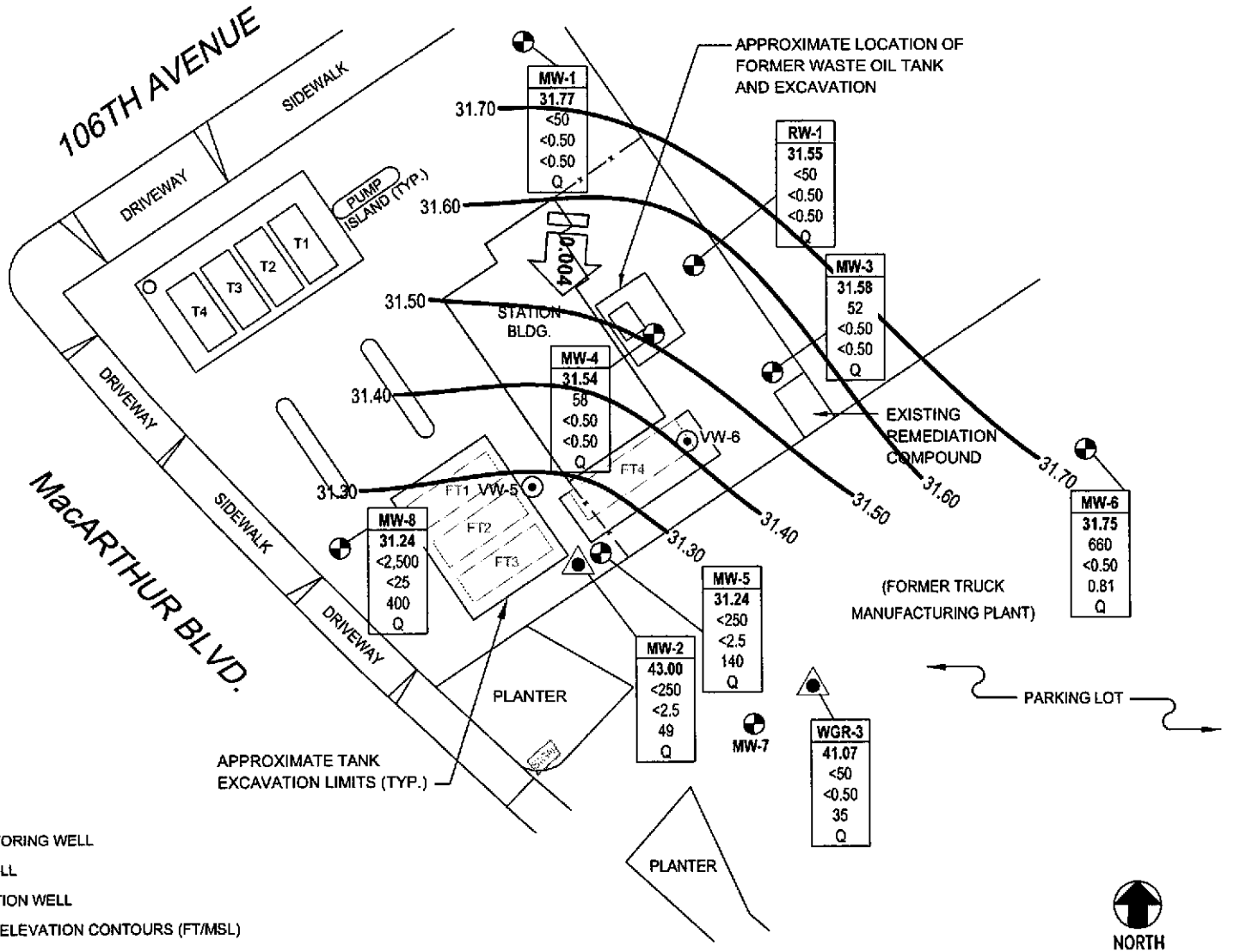
DISCUSSION:

During this quarter, all groundwater samples were analyzed by EPA method 8260B for Gasoline Range Organics (GRO), benzene, toluene, ethylbenzene, total xylenes, fuel additives, ethanol, and Tetrachloroethane (PCE). Ethanol was detected at or above the laboratory reporting limit in one well at a concentration of 330 µg/L (RW-1). This sample was reanalyzed on a separate instrument and ethanol was not detected at or above the laboratory reporting limit. However, the reanalysis was performed 2 days outside the holding time and therefore both analyses are reported in Table 2. Please reference the memorandum found in Attachment B for further information. GRO were detected at or above the laboratory reporting limit in three of the nine wells sampled at concentrations ranging from 52 µg/L (MW-3) to 660 µg/L (MW-6). Methyl tert-butyl ether (MTBE) was detected at or above the laboratory reporting limits in five wells, at concentrations ranging from 0.81 µg/L (MW-6) to 400 µg/L (MW-8). Tert-amyl methyl ether was detected at or above the laboratory reporting limit in three wells, at concentrations ranging from 7.5 µg/L (WGR-3) to 14 µg/L (MW-2). Ethylbenzene was detected at or above the laboratory reporting limit in one well at a concentration of 3.2 µg/L (MW-2). 1,2 Dichloroethane was detected at or above the laboratory reporting limit in one well at a concentration of 10 µg/L (MW-5). PCE was detected in seven wells at concentrations ranging from of 1.1 µg/L (MW-8) to 750 µg/L (MW-6). No 1,2 Dibromethane, benzene, di-isopropyl ether, ethyl tert-butyl ether, tert-butyl alcohol, toluene, or total xylenes were reported at or above the laboratory's reporting limit.

ATTACHMENTS:

- Figure 1 - Groundwater Elevation Contour and Analytical Summary Map – October 19, 2004
- Table 1 - Groundwater Elevation and Analytical Data
- Table 2 - Fuel Additives Analytical Data
- Table 3 - Groundwater Flow Direction and Gradient
- Attachment A - Field Procedures and Field Data Sheets
- Attachment B - Laboratory Procedures, Certified Analytical Reports, Chain-of-Custody Records and Memorandum on Ethanol
- Attachment C - Historical Groundwater Data
- Attachment D – Error Check Reports and EDF/Geowell Submittal Confirmation

Oct 20, 2004 - 10:22am
X:\x_env_waste\BP GEM\Sites\Scott Robinson\Paul Supple\0276\Monitoring\Qtr. 3, 2004\276-3Q04-GW.dwg



LEGEND

- TANK PIT WELL
- SHALLOW MONITORING WELL
- MONITORING WELL
- VAPOR EXTRACTION WELL
- 31.30 GROUNDWATER ELEVATION CONTOURS (FT/MSL)
- 0.004 GROUNDWATER FLOW DIRECTION AND GRADIENT (FT/FT)
- Well — WELL DESIGNATION
- ELEV — GROIUNDWATER ELEVATION (FT/MSL)
- GRO, Benzene, MTBE — GRO, BENZENE AND MTBE CONCENTRATIONS IN GROUNDWATER (µg/L)
- Q — SAMPLING FREQUENCY
- Q SAMPLED QUARTERLY
- FENCE

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

URS

Project No. 38486701

ARCO Service Station #0276
10600 MacArthur Boulevard
Oakland, California

GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP
Third Quarter 2004 (August 12, 2004)

FIGURE 1

Table 1

Groundwater Elevation and Analytical Data

ARCO Station #0276

10600 Macarthur Blvd., Oakland, CA

Well No.	Date	P/ NP	Notes	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Product Thickness (feet)	GWE (feet)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-1	12/17/2000	--		55.92	19.00	--	29.16	--	26.76	5.09	---	---	---	---	--	--	--
	12/28/2001	--		55.92	19.00	--	27.38	--	28.54	8.8	---	---	---	---	--	--	--
	11/27/2002	NP		55.92	19.00	--	29.45	--	26.47	4.2	---	---	---	---	--	2.3	6.7
	7/22/2003	NP		55.92	19.00	--	27.58	--	28.34	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	6.7
	11/07/2003	NP		55.92	19.00	--	30.42	--	25.50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.6
	02/03/2004	NP		55.92	19.00	--	38.80	--	17.12	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	6.8
	05/04/2004	NP	g	61.26	19.00	--	26.67	--	34.59	<50	<0.50	<0.50	<0.50	<0.50	<0.50	--	6.6
	08/12/2004	**NP**		**61.26**	**19.00**	**--**	**29.49**	**--**	**31.77**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2.2**	**6.6**
MW-2	12/17/2000	--		55.1	15.00	--	15.72	--	39.38	---	---	---	---	---	--	---	---
	12/28/2001	--		55.1	15.00	--	27.38	--	27.72	---	---	---	---	---	--	---	---
	11/27/2002	--		55.1	15.00	--	16.35	--	38.75	---	---	---	---	---	--	---	---
	7/22/2003	--		55.1	15.00	--	16.20	--	38.90	---	---	---	---	---	--	---	---
	11/07/2003	P		55.10	15.00	--	18.22	--	36.88	990	<5.0	<5.0	<5.0	<5.0	110	1.8	6.7
	02/03/2004	P		55.10	15.00	--	13.63	--	41.47	180	<2.5	<2.5	2.6	4.1	55	1.8	6.5
	05/04/2004	P	g	60.21	15.00	--	15.76	--	44.45	290	<2.5	<2.5	<2.5	<2.5	70	0.6	6.3
	08/12/2004	**P**		**60.21**	**15.00**	**--**	**17.21**	**--**	**43.00**	**<250**	**<2.5**	**<2.5**	**3.2**	**<2.5**	**49**	**1.6**	**6.6**
MW-3	12/17/2000	--		56.55	22.00	--	29.78	--	26.77	158	---	---	---	---	--	--	--
	12/28/2001	--		56.55	22.00	--	27.95	--	28.60	310	20	1.5	13	---	--	--	--
	11/27/2002	NP		56.55	22.00	--	30.10	--	26.45	110	---	---	---	---	--	2.0	7.2
	7/22/2003	NP		56.55	22.00	--	28.32	--	28.23	120	<0.50	<0.50	<0.50	<0.50	<0.50	2.2	5.9
	11/07/2003	NP		56.55	22.00	--	30.86	--	25.69	70	<0.50	<0.50	<0.50	<0.50	<0.50	2.8	6.5
	02/03/2004	NP		56.55	22.00	--	27.65	--	28.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	6.7
	05/04/2004	NP	g	61.89	22.00	--	27.57	--	34.32	<100	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	6.4
	08/12/2004	**NP**		**61.89**	**22.00**	**--**	**30.31**	**--**	**31.58**	**52**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1.6**	**6.3**
MW-4	12/17/2000	--		55.98	25.00	--	29.22	--	26.76	225	---	---	---	---	--	--	--
	12/28/2001	--		55.98	25.00	--	27.37	--	28.61	160	1.2	---	---	---	--	--	--
	11/27/2002	NP		55.98	25.00	--	29.55	--	26.43	95	---	---	---	---	--	3.7	6.7
	7/22/2003	NP		55.98	25.00	--	27.73	--	28.25	130	<0.50	<0.50	<0.50	<0.50	<0.50	2.9	6.6
	11/07/2003	NP		55.98	25.00	--	30.41	--	25.57	59	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	6.5
	02/03/2004	NP		55.98	25.00	--	27.01	--	28.97	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.2	7.1
	05/04/2004	NP	g	61.30	25.00	--	26.91	--	34.39	<100	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	6.5
	08/12/2004	**NP**		**61.30**	**25.00**	**--**	**29.76**	**--**	**31.54**	**58**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2.3**	**6.4**

Table 1

Groundwater Elevation and Analytical Data

ARCO Station #0276

10600 Macarthur Blvd., Oakland, CA

Well No.	Date	P/ NP	Notes	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Product Thickness (feet)	GWE (feet)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
MW-5	12/17/2000	--		55.43	32.20	--	28.82	--	26.61	1,040	---	---	---	---	--	--	--
	12/28/2001	--		55.43	32.20	--	26.91	--	28.52	3,200	190	2/4/1900	140	1.9/3.2/2.0	--	--	--
	11/27/2002	P		55.43	32.20	--	29.15	--	26.28	110	---	---	---	---	--	1.4	6.4
	7/22/2003	P		55.43	32.20	--	27.43	--	28.00	160	<1.0	<1.0	<1.0	<1.0	110	1.5	6.6
	11/07/2003	P		55.43	32.20	--	29.99	--	25.44	<250	<2.5	<2.5	<2.5	<2.5	120	0.6	6.2
	02/03/2004	P		55.43	32.20	--	26.55	--	28.88	85	<2.5	<2.5	<2.5	<2.5	71	1.7	6.7
	05/04/2004	P	g	60.73	32.20	--	26.47	--	34.26	<250	<2.5	<2.5	<2.5	<2.5	150	0.9	6.2
	08/12/2004	**P**		**60.73**	**32.20**	**--**	**29.49**	**--**	**31.24**	**<250**	**<2.5**	**<2.5**	**<2.5**	**<2.5**	**140**	**1.8**	**6.3**
MW-6	12/17/2000	--		61.21	37.00	--	34.61	--	26.60	---	---	---	---	---	--	---	---
	12/28/2001	--		61.21	37.00	--	32.80	--	28.41	---	---	---	---	---	--	---	---
	11/27/2002	--		61.21	37.00	--	35.00	--	26.21	---	---	---	---	---	--	---	---
	7/22/2003	--		61.21	37.00	--	33.17	--	28.04	---	---	---	---	---	--	---	---
	11/07/2003	P	d, e	61.21	37.00	--	35.70	--	25.51	<500	<5.0	<5.0	<5.0	<5.0	<5.0	2.7	6.9
	02/03/2004	P		61.21	37.00	--	32.17	--	29.04	84	<2.5	<2.5	<2.5	<2.5	<2.5	1.9	7.0
	05/04/2004	P	g	66.65	37.00	--	32.07	--	34.58	<250	<2.5	<2.5	<2.5	<2.5	<2.5	2.0	6.7
	08/12/2004	**P**		**66.65**	**37.00**	**--**	**34.90**	**--**	**31.75**	**660**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**0.81**	**1.4**	**6.9**
MW-7	12/17/2000	--		58.22	17.50	--	19.94	--	38.28	---	---	---	---	---	--	---	---
	12/28/2001	--		58.22	17.50	--	17.29	--	40.93	---	---	---	---	---	--	---	---
	11/27/2002	--		58.22	17.50	--	21.30	--	36.92	---	---	---	---	---	--	---	---
	7/22/2003	--		58.22	17.50	--	21.36	--	36.86	---	---	---	---	---	--	---	---
	11/07/2003	P	d	58.22	17.50	--	23.76	--	34.46	3,200	15	<2.5	130	11	53	2.2	6.8
	02/03/2004	P		58.22	17.50	--	17.74	--	40.48	53	<0.50	<0.50	<0.50	0.54	32	1.9	6.4
MW-8	12/17/2000	--		53.65	29.00	--	27.02	--	26.63	---	---	---	---	---	--	---	---
	12/28/2001	--		53.65	29.00	--	24.99	--	28.66	---	---	---	---	---	--	---	---
	11/27/2002	--		53.65	29.00	--	27.45	--	26.20	---	---	---	---	---	--	---	---
	7/22/2003	--		53.65	29.00	--	25.74	--	27.91	---	---	---	---	---	--	---	---
	11/07/2003	P		53.65	29.00	--	28.27	--	25.38	<500	<5.0	<5.0	<5.0	<5.0	440	2.6	6.5
	02/03/2004	P	f (GRO)	53.65	29.00	--	24.80	--	28.85	170	<12	<12	<12	<12	470	3.0	6.7
	05/04/2004	P	g	58.96	29.00	--	24.81	--	34.15	<1,000	<10	<10	<10	<10	700	3.8	6.4
	08/12/2004	**P**		**58.96**	**29.00**	**--**	**27.72**	**--**	**31.24**	**<2,500**	**<25**	**<25**	**<25**	**<25**	**400**	**3.4**	**6.5**
RW-1	12/17/2000	--		56.32	--	--	29.57	--	26.75	---	---	---	---	---	--	---	---
	12/28/2001	--		56.32	--	--	27.64	--	28.68	---	---	---	---	---	--	---	---

Table 1

Groundwater Elevation and Analytical Data

ARCO Station #0276

10600 Macarthur Blvd., Oakland, CA

Well No.	Date	P/ NP	Notes	TOC (feet)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	DTW (feet)	Product Thickness (feet)	GWE (feet)	GRO/ TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	DO (mg/L)	pH
RW-1	11/27/2002	--		56.32	--	--	29.93	--	26.39	---	---	---	---	---	--	---	---
	7/22/2003	--		56.32	--	--	28.09	--	28.23	---	---	---	---	---	--	---	---
	11/07/2003	P		56.32	--	--	30.64	--	25.68	<50	<0.50	<0.50	<0.50	<0.50	<0.50	3.1	7.0
	02/03/2004	P		56.32	--	--	27.28	--	29.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	6.7	7.1
	05/04/2004	P	g	61.65	22.00	--	27.16	--	34.49	<50	<0.50	<0.50	<0.50	<0.50	<0.50	4.4	6.8
	08/12/2004	**P**		**61.65**	**22.00**	**--**	**30.10**	**--**	**31.55**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**2.2**	**7.1**
WGR-3	12/17/2000	--		---	22.00	--	19.21	--	---	---	---	---	---	---	--	---	---
	12/28/2001	--		---	22.00	--	DRY	--	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	11/27/2002	--		---	22.00	--	20.60	--	---	---	---	---	---	---	--	---	---
	7/22/2003	--		---	22.00	--	20.77	--	---	---	---	---	---	---	--	---	---
	05/04/2004	P	g	63.27	22.00	--	19.53	--	43.74	<50	<0.50	<0.50	<0.50	<0.50	11	1.8	6.5
	08/12/2004	**P**		**63.27**	**22.00**	**--**	**22.20**	**--**	**41.07**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**35**	**2.0**	**--**

Table 1

Groundwater Elevation and Analytical Data

ARCO Station #0276
10600 Macarthur Blvd., Oakland, CA

Abbreviations:
ft.bgs= feet below ground surface
NP= Not purged
P= Purged
GRO = Gasoline Range Organics, range C4-C12
TPH-g = Total petroleum hydrocarbons as gasoline
MTBE = Methyl tert butyl ether
DO = Dissolved oxygen
ug/L = Micrograms per liter
mg/L = Milligrams per liter
-- = Not analyzed/applicable/measured/ available
< = Not detected at or above laboratory reporting limit
DTW = Depth to water in feet below ground surface
TOC = Top of casing measured in feet above mean sea level
GWE = Groundwater measured in feet above mean sea level
SEQ = Sequoia Analytical

Notes:
a = 1,1 DCE; this footnote is no longer applicable
b = 1,2 DCA; this footnote is no longer applicable
c = Chlorobenzene; this footnote is no longer applicable
d= 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.
e= The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits
f= Discrete peak @ C5
g= Site was re-surveyed to NAVD' 88 on January 26, 2004.

Groundwater samples were analyzed by EPA method 8015B for GRO and EPA method 8260B for BTEX, fuel oxygenates, ethanol, and PCE.

pH and DO levels are field measurements.

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.

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

Table 2

Fuel Additives Analytical Data

ARCO Station #0276

10600 Macarthur Blvd., Oakland, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	trans-1,2 DCE (µg/L)	cis-1,2 DCE (µg/L)	VOC (µg/L)	Oxygen (µg/L)	PCE (µg/L)	TCE (µg/L)	Comments
MW-1	12/17/2000	---	---	--	---	---	---	---	---	--	--	--	--	5.09	--	
	12/28/2001	---	---	--	---	---	---	---	---	--	--	--	--	8.8	--	
	11/27/2002	---	---	--	---	---	---	---	---	--	--	--	--	4.2	--	
	7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	6.0	--	
	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	3.0	--	
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--	--	--	21	--	
	05/04/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	34	--	
	08/12/2004	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**4.5**	**--**	
MW-2	11/07/2003	<1,000	<200	110	<5.0	<5.0	28	--	--	--	--	--	--	<5.0	--	
	02/03/2004	<500	<100	55	<5.0	<5.0	16	<2.5	<2.5	--	--	--	--	<2.5	--	
	05/04/2004	<500	<100	70	<2.5	<2.5	15	<2.5	<2.5	--	--	--	--	<2.5	--	
	08/12/2004	**<500**	**<100**	**49**	**<2.5**	**<2.5**	**14**	**<2.5**	**<2.5**	**--**	**--**	**--**	**--**	**<0.50**	**--**	
MW-3	12/17/2000	---	---	--	---	---	---	---	---	--	--	--	--	158	--	
	12/28/2001	---	---	--	---	---	---	---	---	1.5	13	--	--	310	20	
	11/27/2002	---	---	--	---	---	---	---	---	--	--	--	--	110	--	
	7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	80	--	
	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	80	--	
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--	--	--	110	--	
	05/04/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	110	--	
	08/12/2004	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**61**	**--**	
MW-4	12/17/2000	---	---	--	---	---	---	---	---	--	--	--	--	225	--	
	12/28/2001	---	---	--	---	---	---	---	---	--	--	--	--	160	1.2	
	11/27/2002	---	---	--	---	---	---	---	---	--	--	--	--	95	--	
	7/22/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	94	--	
	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	68	--	
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--	--	--	83	--	
	05/04/2004	<200	<40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--	--	--	81	--	
	08/12/2004	**<100**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**59**	**--**	
MW-5	12/17/2000	---	---	--	---	---	---	---	---	--	--	--	--	1,040	--	
	12/28/2001	---	---	--	---	---	---	---	---	36	140	1.9, 3.2, 2.0	--	3,200	190	a,b,c
	11/27/2002	---	---	--	---	---	---	---	---	--	--	--	--	110	--	
	7/22/2003	<200	<40	110	1.4	<1.0	3.2	12	<1.0	--	--	--	--	55	--	

Table 2

Fuel Additives Analytical Data

ARCO Station #0276

10600 Macarthur Blvd., Oakland, CA

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MtBE (µg/L)	DIPE (µg/L)	EtBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	trans-1,2 DCE (µg/L)	cis-1,2 DCE (µg/L)	VOC (µg/L)	Oxygen (µg/L)	PCE (µg/L)	TCE (µg/L)	Comments
MW-5	11/07/2003	<500	<100	120	<2.5	<2.5	6.6	--	--	--	--	--	--	42	--	
	02/03/2004	<500	<100	71	<5.0	<5.0	<5.0	12	<2.5	--	--	--	--	130	--	
	05/04/2004	<500	<100	150	<2.5	<2.5	5.9	8.8	<2.5	--	--	--	--	36	--	
	08/12/2004	**<500**	**<100**	**140**	**<2.5**	**<2.5**	**10**	**10**	**<2.5**	**--**	**--**	**--**	**--**	**37**	**--**	
MW-6	11/07/2003	<1,000	<200	<5.0	<5.0	<5.0	<5.0	--	--	--	--	--	--	560	--	
	02/03/2004	<500	<100	<2.5	<5.0	<5.0	<5.0	<2.5	<2.5	--	--	--	--	220	--	
	05/04/2004	<500	<100	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	--	--	--	--	210	--	
	08/12/2004	**<100**	**<20**	**0.81**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**750**	**--**	
MW-7	11/07/2003	<500	<100	53	<2.5	<2.5	13	--	--	--	--	--	--	<2.5	--	
	02/03/2004	<100	<20	32	<1.0	<1.0	7.4	<0.50	<0.50	--	--	--	--	0.74	--	
MW-8	11/07/2003	<1,000	<200	440	<5.0	<5.0	18	--	--	--	--	--	--	<5.0	--	
	02/03/2004	<2,500	<500	470	<25	<25	<25	<12	<12	--	--	--	--	<12	--	
	05/04/2004	<2,000	<400	700	<10	<10	21	<10	<10	--	--	--	--	12	--	
	08/12/2004	**<5,000**	**<1,000**	**400**	**<25**	**<25**	**<25**	**<25**	**<25**	**--**	**--**	**--**	**--**	**1.1**	**--**	
RW-1	11/07/2003	<100	<20	<0.50	<0.50	<0.50	<0.50	--	--	--	--	--	--	3.1	--	
	02/03/2004	<100	<20	<0.50	<1.0	<1.0	<1.0	<0.50	<0.50	--	--	--	--	0.76	--	
	05/04/2004	<100	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	--	--	--	1.8	--	
	08/12/2004	**330/<100 d**	**<20**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**2.9**	**--**	d
WGR-3	05/04/2004	<100	<20	11	<0.50	<0.50	2.4	<0.50	<0.50	--	--	--	--	<0.50	--	
	08/12/2004	**<100**	**<20**	**35**	**<0.50**	**<0.50**	**7.5**	**<0.50**	**<0.50**	**--**	**--**	**--**	**--**	**<0.50**	**--**	

Table 2

Fuel Additives Analytical Data

ARCO Station #0276
10600 Macarthur Blvd., Oakland, CA

Abbreviations:
TBA = tert-Butyl alcohol
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
MTBE = Methyl tert-butyl ether
TAME = tert-Amyl methyl ether
1,2-DCA = 1,2-Dichloroethane
EDB = 1,2-Dibromoethane
ug/L = Micrograms per Liter
< = Not detected at or above the laboratory reporting limit.
-- = Not analyzed/applicable/measured/ available
PCE= Tetrachloroethane
TCE = Trichloroethane
trans-1,2-DCE = trans 1,2-Dichloroethene
cis-1,2-DCE = cis-1,2-Dicloroethene
VOC = Volatile Organic Compounds

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

Notes:
a = VOC 1,1 DCE detected at a concentration of 1.9 ug/L.
b = VOC 1,2 DCA detected at a concentration of 3.2 ug/L.
c= VOC Chlorobenzene detected at a concentration of 2.0 ug/L.
d= Ethanol was re-analyzed two days out of holding time and was not detected above a laboratory reporting limit of100 ug/L.

Tetrachloroethene was 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.

Table 3

Groundwater Gradient Data

ARCO Station #0276
10600 Macarthur Blvd., Oakland, CA

Date Sampled	Approximate Flow Direction	Approximate Hydraulic Gradient
12/17/2000	South-Southeast	0.003
12/28/2001	Southeast	0.002
11/27/2002	South-Southeast	0.003
7/22/2003	South	0.007
11/7/2003	Southwest	0.002
2/3/2004	South-Southwest	0.002
5/4/2004	South-Southwest	0.003
8/12/2004	**South**	**0.004**

Source : The data within this table collected prior to November 2002 was provided to URS by RM 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 # 040812-PC2 Date 8/12/04 Client Arco 276

Site 1060 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 TOS	NPD
MW-1	2					29.49	38.80		19'
MW-2	4					17.21	25.22		
MW-3	2					30.31	38.54		22'
MW-4	2					29.76	47.71		25'
MW-5	4					29.49	46.88		
MW-6	2					34.90	48.44		
MW-8	4					27.72	42.75		
RW-1	6					30.10	48.07		
WGR-3	4					22.20	26.95		

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040812-PC2	Station # ARCO 276
Sampler: PC	Date: 8/12/04
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 38.80	Depth to Water: 29.49
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: 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.

1 Case Volume (Gals.)	x	Specified Volumes	=	Calculated Volume
____	x	NO Purge	=	____ Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1045	66.1	6.6	1670		

Did well dewater? Yes / No		Gallons actually evacuated: -	
Sampling Time: 1045		Sampling Date: 8/12/04	
Sample I.D.: MW-1		Laboratory: Pace (Sequoia) Other____	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D		Other: See COC	
D.O. (if req'd):	Pre-purge: ____ mg/L	Post-purge:	2.2 mg/L
O.R.P. (if req'd):	Pre-purge: ____ mV	Post-purge:	____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040812-PC2	Station # Arco 276
Sampler: PC	Date: 8/12/04
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8
Total Well Depth: 25.22	Depth to Water: 17.21
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.

5.2 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 15.6 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1158	69.3	6.6	622	5.2	cloudy
1200	69.1	6.7	630	10.4	↓
1201	69.8	6.6	607	15.6	

Did well dewater? Yes (No) Gallons actually evacuated: 15.6

Sampling Time: 1210 Sampling Date: 8/12/04

Sample I.D.: MW-2 Laboratory: Pace (Sequoia) Other _____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: see 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 #: 040812-PC2	Station # 7776
Sampler: PC	Date: 8/12/04
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 28.54	Depth to Water: 30.31
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: 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.

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

Time	Temp (°F)	pH	Conductivity (mS or (uS))	Gals. Removed	Observations
1115	65.0	6.3	712	-	clear
		6.5 FR			

Did well dewater? Yes / No		Gallons actually evacuated:	
Sampling Time: 1115		Sampling Date: 8/12/04	
Sample I.D.: MW-3		Laboratory: Pace (Sequoia) Other ____	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D		Other: see 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 #: 050812-PC2	Station # 276
Sampler: PC	Date: 8/12/04
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 47.71	Depth to Water: 29.76
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: 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.

1 Case Volume (Gals.)	x	Specified Volumes	=	Calculated Volume Gals.
	x	NoPurge	=	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1122	67.2	6.4	545		cloudy

Did well dewater? Yes / No		Gallons actually evacuated: —	
Sampling Time: 1122		Sampling Date: 8/12	
Sample I.D.: MW-4		Laboratory: Pace (Sequoia) Other ____	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D		Other: See COC	
D.O. (if req'd):	Pre-purge:	mg/L	Post-purge: 2.3 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge: mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040812-PC2	Station # Arco 276
Sampler: PC	Date: 8/12/04
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 46.88	Depth to Water: 29.49
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.

11.3	x	3	=	33.9 Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1346	69.7	6.3	799	11.5	clear
1349	68.3	6.3	856	23	↓
1352	67.9	6.3	887	34.5	

Did well dewater? Yes (No)		Gallons actually evacuated: 34.5	
Sampling Time: 1400		Sampling Date: 8/12/04	
Sample I.D.: MW-5		Laboratory: Pace (Sequoia) Other ____	
Analyzed for: (TPH-G) BTEX MTBE TPH-D		Other: see 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

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040814-PC2	Station # ARCO 276
Sampler: PC	Date: 8/12/04
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 48.44	Depth to Water: 34.90
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.

2.2 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 6.6 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (S))	Gals. Removed	Observations
1228	66.9	6.9	1621	2.2	brown
1232	66.7	6.9	1672	4.4	↓
1235	66.8	6.9	1674	6.6	

Did well dewater? Yes (No)		Gallons actually evacuated: 6.6	
Sampling Time: 1242		Sampling Date: 8/12/04	
Sample I.D.: MW-6		Laboratory: Pace (Sequoia) Other ____	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D		Other: See COC	
D.O. (if req'd):	Pre-purge: ____ mg/L	Post-purge:	1.4 mg/L
O.R.P. (if req'd):	Pre-purge: ____ mV	Post-purge:	____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040812-PC2	Station # Arco 276
Sampler: PR	Date: 8/12/04
Well I.D.: MW-8	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 47.75	Depth to Water: 27.72
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 (1 Case Volume (Gals.)) X 3 (Specified Volumes) = 39 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1321	71.9	6.4	737	13	cloudy
1323	71.2	6.4	764	26	↓
1326	71.8	6.5	773	39	↓

Did well dewater? Yes (No) Gallons actually evacuated: 39

Sampling Time: 1332 Sampling Date: 8/12/04

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

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: see COC

D.O. (if req'd):	Pre-purge:		mg/L	Post-purge:	3.4 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040812-PC2	Station # Arco 276
Sampler: PC	Date: 8/12/04
Well I.D.: RW-1	Well Diameter: 2 3 4 (6) 8 ____
Total Well Depth: 48.87	Depth to Water: 30.10
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.

27.6 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 82.8 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1416	68.2	7.0	1478	27.6	clear
1422	67.8	7.0	1552	55.2	↓
1428	68.9	7.1	1544	82.8	↓

Did well dewater? Yes (No) Gallons actually evacuated: 83

Sampling Time: 1432 Sampling Date: 8/12/04

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

Analyzed for: ~~TPH-G~~ ~~BTEX~~ MTBE TPH-D Other: See COC

D.O. (if req'd):	Pre-purge:		mg/L	(Post-purge):	2.2 mg/L
O.R.P. (if req'd):	Pre-purge:		mV	Post-purge:	mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040812-PC2	Station # Arco 276
Sampler: PC	Date: 8/12/04
Well I.D.: WGR-3	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth: 26.95	Depth to Water: 22.20
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: ____

80% recharge = 23.15

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.

3.1 (1 Case Volume (Gals.)) x 3 (Specified Volumes) = 9.3 (Calculated Volume) Gals.

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1252	69.4	6.5	656	3.1	cloudy
1253	well dewatered @ 4 gal.				
1302	68.9	6.4	525		

Did well dewater? (Yes) No — Gallons actually evacuated: 4

Sampling Time: 1302 — Sampling Date: 8/12/04

Sample I.D.: WGR-3 — Laboratory: Pace (Sequoia) Other ____

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: see 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

Chain of Custody Record

bp

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

Date: 8/12/04

On-site Time:	1025 Temp: 70°F
Off- site Time:	1435 Temp: 85°F
Sky Conditions:	clear
Meteorological Events:	none
Wind Speed:	Direction:

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.:	J5-00000276.01 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: PCE (8010)	Sample Point Lat/Long and Comments
1	MW-1	1045		X				6				X	X				X	X	X	X	
2	MW-2	1210		X				6				X	X				X	X	X	X	
3	MW-3	1115		X				6				X	X				X	X	X	X	
4	MW-4	1122		X				6				X	X				X	X	X	X	
5	MW-5	1400		X				6				X	X				X	X	X	X	
6	MW-6	1242		X				6				X	X				X	X	X	X	
7	MW-8	1332		X				6				X	X				X	X	X	X	
8	RW-1	1432		X				6				X	X				X	X	X	X	
9	WGR-3	0302		X				6				X	X				X	X	X	X	
10	TB-7_76-08122004			X				2													ON HOLD

Sampler's Name:	P. Conway	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Company:	Blaine Tech						
Shipment Date:							
Shipment Method:							
Shipment Tracking No:							

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

Custody Seals In Place Yes X No ___ Temperature Blank Yes X No ___ Cooler Temperature on Receipt ___ °F/C Trip Blank Yes X No ___

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:

Arco 276
Station #

10600 MacArthur Blvd., Oakland
Station Address

Total Gallons Collected From Groundwater Monitoring Wells:

182.5

added equip. rinse water 15

any other adjustments

TOTAL GALS. RECOVERED 197.5

loaded onto BTS vehicle # 52

BTS event # 040812-RC2

time 1200

date 8/12/04

signature

* *

REC'D AT BTS

time

date ___/___/___

unloaded by

signature

bp

WELLHEAD INSPECTION CHECKLIST
BP / GEM

Date 8/12/04

Site Address 10600 MacArthur Blvd., Oakland

Job Number 240812-PC2 Technician P. Cornish

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1							1	
MW-2	1							
MW-3							1	
MW-4	1							
MW-5	1							
MW-6	1							
MW-8	1							
RW-1	1							
WGR-3	1							

NOTES: MW-1 - 1/2 bolts broken in tab MW-3 1/2 tab broken

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 RM have been reviewed and verified by that laboratory.

Sequoia Analytical

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

27 September, 2004

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

RE: ARCO #0276, Oakland, CA
Work Order: MNH0378

Enclosed are the results of analyses for samples received by the laboratory on 08/13/04 13:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race
Senior Project Manager

CA ELAP Certificate #1210

Sequoia Analytical

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	MNH0378-01	Water	08/12/04 10:45	08/13/04 13:55
MW-2	MNH0378-02	Water	08/12/04 12:10	08/13/04 13:55
MW-3	MNH0378-03	Water	08/12/04 11:15	08/13/04 13:55
MW-4	MNH0378-04	Water	08/12/04 11:22	08/13/04 13:55
MW-5	MNH0378-05	Water	08/12/04 14:00	08/13/04 13:55
MW-6	MNH0378-06	Water	08/12/04 12:42	08/13/04 13:55
MW-8	MNH0378-07	Water	08/12/04 13:32	08/13/04 13:55
RW-1	MNH0378-08	Water	08/12/04 14:32	08/13/04 13:55
WGR-3	MNH0378-09	Water	08/12/04 13:02	08/13/04 13:55
TB-276-08122004	MNH0378-10	Water	08/12/04 00:00	08/13/04 13:55

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 intact custody seals.

Sequoia Analytical

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MNH0378-01) Water Sampled: 08/12/04 10:45 Received: 08/13/04 13:55									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4H24004	08/24/04	08/25/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*86 %*		*78-129*	"	"	"	"	*PF*
MW-2 (MNH0378-02) Water Sampled: 08/12/04 12:10 Received: 08/13/04 13:55									
tert-Amyl methyl ether	**14**	2.5	ug/l	5	4H26011	08/26/04	08/26/04	EPA 8260B	
Benzene	ND	2.5	"	"	"	"	"	"	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.5	"	"	"	"	"	"	
Ethanol	ND	500	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	**3.2**	2.5	"	"	"	"	"	"	
Methyl tert-butyl ether	**49**	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Xylenes (total)	ND	2.5	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	250	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*81 %*		*78-129*	"	"	"	"	

Sequoia Analytical

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MNH0378-03) Water Sampled: 08/12/04 11:15 Received: 08/13/04 13:55									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4H26011	08/26/04	08/26/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**52**	50	"	"	"	"	"	"	PV
Surrogate: 1,2-Dichloroethane-d4		*100 %*	*78-129*		"	"	"	"	
MW-4 (MNH0378-04) Water Sampled: 08/12/04 11:22 Received: 08/13/04 13:55									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4H26011	08/26/04	08/26/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**58**	50	"	"	"	"	"	"	PV
Surrogate: 1,2-Dichloroethane-d4		*99 %*	*78-129*		"	"	"	"	

Sequoia Analytical

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5 (MNH0378-05) Water Sampled: 08/12/04 14:00 Received: 08/13/04 13:55									
tert-Amyl methyl ether	**10**	2.5	ug/l	5	4H26011	08/26/04	08/26/04	EPA 8260B	
Benzene	ND	2.5	"	"	"	"	"	"	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.5	"	"	"	"	"	"	
1,2-Dichloroethane	**10**	2.5	"	"	"	"	"	"	
Ethanol	ND	500	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Ethylbenzene	ND	2.5	"	"	"	"	"	"	
Methyl tert-butyl ether	**140**	2.5	"	"	"	"	"	"	
Toluene	ND	2.5	"	"	"	"	"	"	
Xylenes (total)	ND	2.5	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	250	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96 %*	*78-129*		"	"	"	"	
MW-6 (MNH0378-06) Water Sampled: 08/12/04 12:42 Received: 08/13/04 13:55									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4H26011	08/26/04	08/26/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**0.81**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	**660**	50	"	"	"	"	"	"	PV
Surrogate: 1,2-Dichloroethane-d4		*101 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (MNH0378-07) Water Sampled: 08/12/04 13:32 Received: 08/13/04 13:55									
tert-Amyl methyl ether	ND	25	ug/l	50	4H26011	08/26/04	08/26/04	EPA 8260B	
Benzene	ND	25	"	"	"	"	"	"	
tert-Butyl alcohol	ND	1000	"	"	"	"	"	"	
Di-isopropyl ether	ND	25	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	25	"	"	"	"	"	"	
1,2-Dichloroethane	ND	25	"	"	"	"	"	"	
Ethanol	ND	5000	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	25	"	"	"	"	"	"	
Ethylbenzene	ND	25	"	"	"	"	"	"	
Methyl tert-butyl ether	**400**	25	"	"	"	"	"	"	
Toluene	ND	25	"	"	"	"	"	"	
Xylenes (total)	ND	25	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	2500	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93 %*	*78-129*		"	"	"	"	
RW-1 (MNH0378-08) Water Sampled: 08/12/04 14:32 Received: 08/13/04 13:55									
tert-Amyl methyl ether	ND	0.50	ug/l	1	4H24004	08/24/04	08/25/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	**330**	100	"	"	"	"	"	"	LB
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*88 %*	*78-129*		"	"	"	"	*PF*

Sequoia Analytical

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WGR-3 (MNH0378-09) Water Sampled: 08/12/04 13:02 Received: 08/13/04 13:55									
tert-Amyl methyl ether	**7.5**	0.50	ug/l	1	4H24004	08/24/04	08/25/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**35**	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*82 %*	*78-129*		"	"	"	"	*PF*
TB-276-08122004 (MNH0378-10) Water Sampled: 08/12/04 00:00 Received: 08/13/04 13:55									**BU**
tert-Amyl methyl ether	ND	0.50	ug/l	1	4H28001	08/28/04	08/28/04	EPA 8260B	
Benzene	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethanol	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Gasoline Range Organics (C4-C12)	ND	50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*85 %*	*78-129*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 (MNH0378-01) Water Sampled: 08/12/04 10:45 Received: 08/13/04 13:55									
Tetrachloroethene	**4.5**	0.50	ug/l	1	4H24004	08/24/04	08/25/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*85 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*84 %*	*89-116*		"	"	"	"	*LG*
Surrogate: 4-Bromofluorobenzene		*84 %*	*71-117*		"	"	"	"	
MW-2 (MNH0378-02) Water Sampled: 08/12/04 12:10 Received: 08/13/04 13:55									
Tetrachloroethene	ND	0.50	ug/l	1	4H26006	08/26/04	08/26/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*103 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*99 %*	*89-116*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*71-117*		"	"	"	"	
MW-3 (MNH0378-03) Water Sampled: 08/12/04 11:15 Received: 08/13/04 13:55									
Tetrachloroethene	**61**	2.5	ug/l	5	4H26006	08/26/04	08/26/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*101 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*90 %*	*89-116*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99 %*	*71-117*		"	"	"	"	
MW-4 (MNH0378-04) Water Sampled: 08/12/04 11:22 Received: 08/13/04 13:55									
Tetrachloroethene	**59**	2.5	ug/l	5	4H26006	08/26/04	08/26/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*106 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*95 %*	*89-116*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*	*71-117*		"	"	"	"	
MW-5 (MNH0378-05) Water Sampled: 08/12/04 14:00 Received: 08/13/04 13:55									
Tetrachloroethene	**37**	2.5	ug/l	5	4H26006	08/26/04	08/26/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*103 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*94 %*	*89-116*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97 %*	*71-117*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 (MNH0378-06) Water Sampled: 08/12/04 12:42 Received: 08/13/04 13:55									
Tetrachloroethene	**750**	25	ug/l	50	4H26006	08/26/04	08/26/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*96 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*96 %*	*89-116*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97 %*	*71-117*		"	"	"	"	
MW-8 (MNH0378-07) Water Sampled: 08/12/04 13:32 Received: 08/13/04 13:55									
Tetrachloroethene	**1.1**	0.50	ug/l	1	4H26006	08/26/04	08/26/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*102 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*94 %*	*89-116*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99 %*	*71-117*		"	"	"	"	
RW-1 (MNH0378-08) Water Sampled: 08/12/04 14:32 Received: 08/13/04 13:55									
Tetrachloroethene	**2.9**	0.50	ug/l	1	4H24004	08/24/04	08/25/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*89 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*86 %*	*89-116*		"	"	"	"	*LG*
Surrogate: 4-Bromofluorobenzene		*87 %*	*71-117*		"	"	"	"	
WGR-3 (MNH0378-09) Water Sampled: 08/12/04 13:02 Received: 08/13/04 13:55									
Tetrachloroethene	ND	0.50	ug/l	1	4H24004	08/24/04	08/25/04	EPA 8260B	
Surrogate: Dibromofluoromethane		*82 %*	*73-130*		"	"	"	"	
Surrogate: Toluene-d8		*85 %*	*89-116*		"	"	"	"	*LG*
Surrogate: 4-Bromofluorobenzene		*88 %*	*71-117*		"	"	"	"	

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 4H24004 - EPA 5030B P/T										
Blank (4H24004-BLK1)				Prepared & Analyzed: 08/24/04						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							IC
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*2.04*		"	*2.50*		*82*	*78-129*			*PF*
Laboratory Control Sample (4H24004-BS1)				Prepared & Analyzed: 08/24/04						
tert-Amyl methyl ether	10.6	0.50	ug/l	10.0		106	82-140			
Benzene	10.0	0.50	"	10.0		100	69-124			
tert-Butyl alcohol	46.6	20	"	50.0		93	56-131			
Di-isopropyl ether	10.3	0.50	"	10.0		103	76-130			
1,2-Dibromoethane (EDB)	9.95	0.50	"	10.0		100	77-132			
1,2-Dichloroethane	9.93	0.50	"	10.0		99	77-136			
Ethanol	134	100	"	200		67	31-143			IC
Ethyl tert-butyl ether	10.7	0.50	"	10.0		107	81-121			
Ethylbenzene	10.5	0.50	"	10.0		105	84-132			
Methyl tert-butyl ether	10.5	0.50	"	10.0		105	63-137			
Toluene	10.0	0.50	"	10.0		100	78-129			
Xylenes (total)	31.5	0.50	"	30.0		105	83-137			
Surrogate: 1,2-Dichloroethane-d4	*2.17*		"	*2.50*		*87*	*78-129*			*PF*

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 4H24004 - EPA 5030B P/T										
Laboratory Control Sample (4H24004-BS2)				Prepared & Analyzed: 08/24/04						
Gasoline Range Organics (C4-C12)	348	50	ug/l	440		79	70-124			
Surrogate: 1,2-Dichloroethane-d4	*2.05*		"	*2.50*		*82*	*78-129*			*PF*
Laboratory Control Sample Dup (4H24004-BSD1)				Prepared & Analyzed: 08/24/04						
tert-Amyl methyl ether	10.7	0.50	ug/l	10.0		107	82-140	0.9	20	
Benzene	9.92	0.50	"	10.0		99	69-124	0.8	20	
tert-Butyl alcohol	48.3	20	"	50.0		97	56-131	4	20	
Di-isopropyl ether	10.3	0.50	"	10.0		103	76-130	0	20	
1,2-Dibromoethane (EDB)	9.92	0.50	"	10.0		99	77-132	0.3	20	
1,2-Dichloroethane	10.1	0.50	"	10.0		101	77-136	2	20	
Ethanol	137	100	"	200		68	31-143	2	20	
Ethyl tert-butyl ether	10.6	0.50	"	10.0		106	81-121	0.9	20	
Ethylbenzene	10.0	0.50	"	10.0		100	84-132	5	20	
Methyl tert-butyl ether	10.7	0.50	"	10.0		107	63-137	2	20	
Toluene	9.74	0.50	"	10.0		97	78-129	3	20	
Xylenes (total)	30.8	0.50	"	30.0		103	83-137	2	20	
Surrogate: 1,2-Dichloroethane-d4	*2.18*		"	*2.50*		*87*	*78-129*			*PF*
Matrix Spike (4H24004-MS1)	**Source: MNH0337-15**			Prepared & Analyzed: 08/24/04						
Benzene	71.9	5.0	ug/l	64.0	26	72	69-124			
Ethylbenzene	238	5.0	"	69.6	180	83	84-132			LN
Methyl tert-butyl ether	236	5.0	"	99.2	150	87	63-137			
Toluene	286	5.0	"	297	3.1	95	78-129			
Xylenes (total)	363	5.0	"	337	6.8	106	83-137			
Gasoline Range Organics (C4-C12)	9530	500	"	4400	9100	10	70-124			LM
Surrogate: 1,2-Dichloroethane-d4	*2.07*		"	*2.50*		*83*	*78-129*			*PF*
Matrix Spike Dup (4H24004-MSD1)	**Source: MNH0337-15**			Prepared & Analyzed: 08/24/04						
Benzene	75.8	5.0	ug/l	64.0	26	78	69-124	5	20	
Ethylbenzene	257	5.0	"	69.6	180	111	84-132	8	20	
Methyl tert-butyl ether	241	5.0	"	99.2	150	92	63-137	2	20	
Toluene	307	5.0	"	297	3.1	102	78-129	7	20	
Xylenes (total)	396	5.0	"	337	6.8	115	83-137	9	20	
Gasoline Range Organics (C4-C12)	10100	500	"	4400	9100	23	70-124	6	20	LM
Surrogate: 1,2-Dichloroethane-d4	*2.14*		"	*2.50*		*86*	*78-129*			*PF*

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 4H26011 - EPA 5030B P/T										
Blank (4H26011-BLK1)				Prepared & Analyzed: 08/26/04						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*5.03*		"	*5.00*		*101*	*78-129*			
Laboratory Control Sample (4H26011-BS1)				Prepared & Analyzed: 08/26/04						
tert-Amyl methyl ether	9.78	0.50	ug/l	10.0		98	82-140			
Benzene	9.70	0.50	"	10.0		97	69-124			
tert-Butyl alcohol	49.5	20	"	50.0		99	56-131			
Di-isopropyl ether	9.50	0.50	"	10.0		95	76-130			
1,2-Dibromoethane (EDB)	10.4	0.50	"	10.0		104	77-132			
1,2-Dichloroethane	10.1	0.50	"	10.0		101	77-136			
Ethanol	181	100	"	200		90	31-143			
Ethyl tert-butyl ether	9.73	0.50	"	10.0		97	81-121			
Ethylbenzene	10.1	0.50	"	10.0		101	84-132			
Methyl tert-butyl ether	9.46	0.50	"	10.0		95	63-137			
Toluene	9.66	0.50	"	10.0		97	78-129			
Xylenes (total)	30.9	0.50	"	30.0		103	83-137			
Surrogate: 1,2-Dichloroethane-d4	*4.99*		"	*5.00*		*100*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 4H26011 - EPA 5030B P/T										
Laboratory Control Sample (4H26011-BS2)				Prepared & Analyzed: 08/26/04						
Gasoline Range Organics (C4-C12)	417	50	ug/l	440		95	70-124			
Surrogate: 1,2-Dichloroethane-d4	*5.08*		"	*5.00*		*102*	*78-129*			
Laboratory Control Sample Dup (4H26011-BSD2)				Prepared & Analyzed: 08/26/04						
Gasoline Range Organics (C4-C12)	400	50	ug/l	440		91	70-124	4	20	
Surrogate: 1,2-Dichloroethane-d4	*4.96*		"	*5.00*		*99*	*78-129*			
Matrix Spike (4H26011-MS1)	**Source: MNH0508-07**			Prepared & Analyzed: 08/26/04						
tert-Amyl methyl ether	947	50	ug/l	1000	ND	95	82-140			
Benzene	1600	50	"	1000	900	70	69-124			
tert-Butyl alcohol	4970	2000	"	5000	ND	99	56-131			
Di-isopropyl ether	913	50	"	1000	13	90	76-130			
1,2-Dibromoethane (EDB)	897	50	"	1000	ND	90	77-132			
1,2-Dichloroethane	809	50	"	1000	ND	81	77-136			
Ethanol	15500	10000	"	20000	ND	78	31-143			
Ethyl tert-butyl ether	851	50	"	1000	ND	85	81-121			
Ethylbenzene	1020	50	"	1000	42	98	84-132			
Methyl tert-butyl ether	746	50	"	1000	ND	75	63-137			
Toluene	1220	50	"	1000	34	119	78-129			
Xylenes (total)	3040	50	"	3000	36	100	83-137			
Surrogate: 1,2-Dichloroethane-d4	*3.91*		"	*5.00*		*78*	*78-129*			
Matrix Spike Dup (4H26011-MSD1)	**Source: MNH0508-07**			Prepared & Analyzed: 08/26/04						
tert-Amyl methyl ether	897	50	ug/l	1000	ND	90	82-140	5	20	
Benzene	1710	50	"	1000	900	81	69-124	7	20	
tert-Butyl alcohol	4760	2000	"	5000	ND	95	56-131	4	20	
Di-isopropyl ether	872	50	"	1000	13	86	76-130	5	20	
1,2-Dibromoethane (EDB)	929	50	"	1000	ND	93	77-132	4	20	
1,2-Dichloroethane	920	50	"	1000	ND	92	77-136	13	20	
Ethanol	15000	10000	"	20000	ND	75	31-143	3	20	
Ethyl tert-butyl ether	830	50	"	1000	ND	83	81-121	2	20	
Ethylbenzene	1040	50	"	1000	42	100	84-132	2	20	
Methyl tert-butyl ether	801	50	"	1000	ND	80	63-137	7	20	
Toluene	1020	50	"	1000	34	99	78-129	18	20	
Xylenes (total)	3140	50	"	3000	36	103	83-137	3	20	
Surrogate: 1,2-Dichloroethane-d4	*4.60*		"	*5.00*		*92*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 4H28001 - EPA 5030B P/T										
Blank (4H28001-BLK1)				Prepared & Analyzed: 08/28/04						
tert-Amyl methyl ether	ND	0.50	ug/l							
Benzene	ND	0.50	"							
tert-Butyl alcohol	ND	20	"							
Di-isopropyl ether	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
Ethanol	ND	100	"							
Ethyl tert-butyl ether	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C4-C12)	ND	50	"							
Surrogate: 1,2-Dichloroethane-d4	*4.62*		"	*5.00*		*92*	*78-129*			
Laboratory Control Sample (4H28001-BS1)				Prepared & Analyzed: 08/28/04						
tert-Amyl methyl ether	9.95	0.50	ug/l	10.0		100	56-140			
Benzene	10.2	0.50	"	10.0		102	78-124			
tert-Butyl alcohol	53.3	20	"	50.0		107	0-206			
Di-isopropyl ether	10.0	0.50	"	10.0		100	76-130			
1,2-Dibromoethane (EDB)	10.0	0.50	"	10.0		100	77-132			
1,2-Dichloroethane	10.5	0.50	"	10.0		105	77-136			
Ethanol	185	100	"	200		92	31-186			
Ethyl tert-butyl ether	10.1	0.50	"	10.0		101	61-141			
Ethylbenzene	10.1	0.50	"	10.0		101	84-117			
Methyl tert-butyl ether	9.98	0.50	"	10.0		100	63-137			
Toluene	9.91	0.50	"	10.0		99	78-129			
Xylenes (total)	31.4	0.50	"	30.0		105	83-125			
Surrogate: 1,2-Dichloroethane-d4	*4.70*		"	*5.00*		*94*	*78-129*			

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	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 4H28001 - EPA 5030B P/T										
Laboratory Control Sample (4H28001-BS2)				Prepared & Analyzed: 08/28/04						
Gasoline Range Organics (C4-C12)	400	50	ug/l	440		91	70-124			
Surrogate: 1,2-Dichloroethane-d4	*5.14*		"	*5.00*		*103*	*78-129*			
Laboratory Control Sample Dup (4H28001-BSD1)				Prepared & Analyzed: 08/28/04						
tert-Amyl methyl ether	9.61	0.50	ug/l	10.0		96	56-140	3	12	
Benzene	9.97	0.50	"	10.0		100	78-124	2	12	
tert-Butyl alcohol	51.9	20	"	50.0		104	0-206	3	22	
Di-isopropyl ether	9.33	0.50	"	10.0		93	76-130	7	9	
1,2-Dibromoethane (EDB)	9.48	0.50	"	10.0		95	77-132	5	9	
1,2-Dichloroethane	10.0	0.50	"	10.0		100	77-136	5	13	
Ethanol	151	100	"	200		76	31-186	20	37	
Ethyl tert-butyl ether	9.42	0.50	"	10.0		94	61-141	7	9	
Ethylbenzene	10.4	0.50	"	10.0		104	84-117	3	10	
Methyl tert-butyl ether	9.33	0.50	"	10.0		93	63-137	7	13	
Toluene	10.0	0.50	"	10.0		100	78-129	0.9	10	
Xylenes (total)	33.0	0.50	"	30.0		110	83-125	5	11	
Surrogate: 1,2-Dichloroethane-d4	*4.67*		"	*5.00*		*93*	*78-129*			
Laboratory Control Sample Dup (4H28001-BSD2)				Prepared & Analyzed: 08/28/04						
Gasoline Range Organics (C4-C12)	429	50	ug/l	440		98	70-124	7	20	
Surrogate: 1,2-Dichloroethane-d4	*4.74*		"	*5.00*		*95*	*78-129*			

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 4H24004 - EPA 5030B P/T										
Blank (4H24004-BLK1)				Prepared & Analyzed: 08/24/04						
Tetrachloroethene	ND	0.50	ug/l							
Surrogate: Dibromofluoromethane	*2.15*		"	*2.50*		*86*	*73-130*			
Surrogate: Toluene-d8	*2.12*		"	*2.50*		*85*	*89-116*			*LG*
Surrogate: 4-Bromofluorobenzene	*2.12*		"	*2.50*		*85*	*71-117*			
Laboratory Control Sample (4H24004-BS1)				Prepared & Analyzed: 08/24/04						
Tetrachloroethene	9.60	0.50	ug/l	10.0		96	82-127			
Surrogate: Dibromofluoromethane	*2.25*		"	*2.50*		*90*	*73-130*			
Surrogate: Toluene-d8	*2.23*		"	*2.50*		*89*	*89-116*			
Surrogate: 4-Bromofluorobenzene	*2.23*		"	*2.50*		*89*	*71-117*			
Laboratory Control Sample Dup (4H24004-BSD1)				Prepared & Analyzed: 08/24/04						
Tetrachloroethene	9.07	0.50	ug/l	10.0		91	82-127	6	20	
Surrogate: Dibromofluoromethane	*2.43*		"	*2.50*		*97*	*73-130*			
Surrogate: Toluene-d8	*2.20*		"	*2.50*		*88*	*89-116*			*LG*
Surrogate: 4-Bromofluorobenzene	*2.22*		"	*2.50*		*89*	*71-117*			
Batch 4H26006 - EPA 5030B P/T										
Blank (4H26006-BLK1)				Prepared & Analyzed: 08/26/04						
Tetrachloroethene	ND	0.50	ug/l							
Surrogate: Dibromofluoromethane	*5.40*		"	*5.00*		*108*	*73-130*			
Surrogate: Toluene-d8	*4.86*		"	*5.00*		*97*	*89-116*			
Surrogate: 4-Bromofluorobenzene	*4.64*		"	*5.00*		*93*	*71-117*			
Laboratory Control Sample (4H26006-BS1)				Prepared & Analyzed: 08/26/04						
Tetrachloroethene	19.9	0.50	ug/l	20.0		100	82-127			
Surrogate: Dibromofluoromethane	*5.31*		"	*5.00*		*106*	*73-130*			
Surrogate: Toluene-d8	*4.68*		"	*5.00*		*94*	*89-116*			
Surrogate: 4-Bromofluorobenzene	*5.20*		"	*5.00*		*104*	*71-117*			

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

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 4H26006 - EPA 5030B P/T										
Matrix Spike (4H26006-MS1)	**Source: MNH0508-06**			Prepared & Analyzed: 08/26/04						
Tetrachloroethene	20.5	0.50	ug/l	20.0	ND	102	82-127			
Surrogate: Dibromofluoromethane	*5.22*		"	*5.00*		*104*	*73-130*			
Surrogate: Toluene-d8	*5.03*		"	*5.00*		*101*	*89-116*			
Surrogate: 4-Bromofluorobenzene	*5.33*		"	*5.00*		*107*	*71-117*			
Matrix Spike Dup (4H26006-MSD1)	**Source: MNH0508-06**			Prepared & Analyzed: 08/26/04						
Tetrachloroethene	3.89	0.50	ug/l	20.0	ND	19	82-127	136	20	BA, LN
Surrogate: Dibromofluoromethane	*5.32*		"	*5.00*		*106*	*73-130*			
Surrogate: Toluene-d8	*5.02*		"	*5.00*		*100*	*89-116*			
Surrogate: 4-Bromofluorobenzene	*5.02*		"	*5.00*		*100*	*71-117*			

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URS Corporation [Arco]	Project: ARCO #0276, Oakland, CA	MNH0378
1333 Broadway, Suite 800	Project Number: INTRIM-50353	**Reported:**
Oakland CA, 94612	Project Manager: Scott Robinson	09/27/04 19:45

Notes and Definitions

PV	Hydrocarbon result partly due to individ. peak(s) in quant. range
PF	Possible low bias due to CCV falling outside acceptance criteria
LN	MS and/or MSD below acceptance limits. See Blank Spike(LCS).
LM	MS and/or MSD above acceptance limits. See Blank Spike(LCS).
LG	Surrogate recovery below the acceptance limits.
LB	Confirmatory analysis past hold time. Orig.result not confirmed.
IC	Calib. verif. is within method limits but outside contract limits
BU	Sample analyzed after holding time expired
BA	Relative percent difference out of control
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

MNH0378

Page 1 of 1

Chain of Custody Record

bp

Project Name 276 GWM
BP BU/GEM CO Portfolio Retail
BP Laboratory Contract Number: Atlantic Richfield Company
Date: 8/12/04 Requested Due Date (mm/dd/yy) 14 day TAT

On-site Time: 1025 Temp: 70°F
Off-site Time: 1435 Temp: 85°F
Sky Conditions: clear
Meteorological Events: none
Wind Speed: Direction:

Send To:	BP/GEM Facility No.: ARCO 276	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 10600 MacArthur Blvd, OAKLAND, CA	Address: 1333 Broadway, Suite 800
Lab Address: 885 Jarvis Dr.	Site ID No. ARCO 276	Oakland, CA 94612
Morgan Hill, CA 95037	Site Lat/Long:	e-mail EDD: donna_cosper@URSCorp.com
	California Global ID #: T0600100082	Consultant/Contractor Project No.: 15-00000276.01 00427
Lab PM: Lisa Race	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-893-3600/510-874-3268
Tele/Fax: 408-792-8156/ 408-782-6308	Address: P.O. Box 6549	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: 1 Send EDF Reports	Moraga, CA 94570	Invoice to: Consultant/Contractor or BP/GEM (Circle one)
BP/GEM Account No.:	Tele/Fax: 925-299-8891/925-299-8872	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: PCE (8010)	Sample Point Lat/Long and Comments
1	MW-1	1045		X				6				X	X				X	X	X	X	
2	MW-2	1210		X				6				X	X				X	X	X	X	
3	MW-3	1115		X				6				X	X				X	X	X	X	
4	MW-4	1122		X				6				X	X				X	X	X	X	
5	MW-5	1400		X				6				X	X				X	X	X	X	
6	MW-6	1242		X				6				X	X				X	X	X	X	
7	MW-8	1332		X				6				X	X				X	X	X	X	
8	RW-1	1432		X				6				X	X				X	X	X	X	
9	WGR-3	0302		X				6				X	X				X	X	X	X	
10	TB-276-08122004			X				2					X								ON HOLD

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: P. Cornish						
Sampler's Company: Blaine Tech		8/13/04	1014		8/13/04	1009
Shipment Date:		8/13/04	1355		8-13-04	13:55
Shipment Method: LAB Courier						
Shipment Tracking No:						

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

Custody Seals In Place Yes X No Temperature Blank Yes No Cooler Temperature on Receipt 3.8 °F/C Trip Blank Yes X No

Distribution: White Copy - Laboratory / Yellow Copy - BP/GEM / Pink Copy - Consultant/Contractor

BP COC Rev. 1 2/5/02

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: BP 276
REC. BY (PRINT): T Pailet
WORKORDER: MNH0378

DATE REC'D AT LAB: 8-13-04
TIME REC'D AT LAB: 13:55
DATE LOGGED IN: 8-13-04

For Regulatory Purposes?
DRINKING WATER YES / NO
WASTE WATER YES / NO

(For clients requiring preservation checks at receipt, document here ↓)

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s): (Present) / Absent; (Intact) / Broken*			MW-1	VOA-6	HCl	—	W	8-12-04	4194120
2. Chain-of-Custody: (Present) / Absent*			-2						
3. Traffic Reports or Packing List: Present / (Absent)			-3						
4. Airbill: Airbill / Sticker; Present / (Absent)			-4						
5. Airbill #:			-5						
6. Sample Labels: (Present) / Absent			-6						
7. Sample IDs: (Listed) / Not Listed on Chain-of-Custody			-8						
8. Sample Condition: (Intact) / Broken* / Leaking*			RW-1						
9. Does information on chain-of-custody, traffic reports and sample labels agree? (Yes) / No*			WG-R-3						
10. Sample received within hold time? (Yes) / No*			TB-276-081204	VOA-2					
11. Adequate sample volume received? (Yes) / No*									
12. Proper Preservatives used? (Yes) / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) (Yes) / No*									
14. Temp Rec. at Lab: 5.8°C; Is temp 4 +/-2°C? (Yes) / No**									

(Acceptance range for samples requiring thermal pres.)

**Exception (if any): METALS / OFF ON ICE or Problem COC

8-13-04

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

ENVIRONMENTAL STANDARDS

Setting the Standards for Innovative Environmental Solutions

Memorandum

Date: September 27, 2004

To: Mr. Kimball R. Loeb – EnviroSolve Corporation

From: Mr. Donald J. Lancaster, M.S. – Environmental Standards, Inc.

cc: Mr. Rock J. Vitale, CEAC, CPC – Environmental Standards, Inc.

Subject: Evaluation of the Ethanol Result Observed in Sample RW-1, Sampled on August 12, 2004 at the ARCO 0276, Oakland Site

---

This memo provides a comprehensive assessment of the evaluation of ethanol in sample RW-1, sampled on August 12, 2004, at the ARCO 0276, Oakland site. This assessment is based on an electronic review of the EnviroQuant® files associated with the analysis of this sample (received by Environmental Standards on September 22, 2004).

Sequoia Analytical (Sequoia) was requested to submit the electronic data associated with the reported positive result for ethanol, including all associated calibration files, quality control (QC) sample files, files for sample analyses preceding the positive results, and files for all associated blank analyses (*i.e.*, method, instrument, field, trip, holding, *etc.*), to Environmental Standards. Upon receipt of these data, the Environmental Standards data reviewer reviewed the data files to ensure that all requested data files had been provided. The findings offered in this assessment are based on a review of the blank analysis results, calibrations, the quantitation of positive results, carryover contamination from previous sample analyses, and a critical evaluation of instrumental raw data.

- Sequoia observed an initial low-level positive result for ethanol in sample RW-1 (lab sample ID MNH0378-08) at an instrument level concentration of 333.91 µg/L. This sample was reanalyzed on a separate instrument and ethanol was not detected in the sample; however, the reanalysis of the sample was performed 2 days outside of the 14-day holding time from collection to analysis for preserved volatile organic samples. For this reason, the laboratory did not consider the results of the reanalysis for the purposes of confirming the initial positive result for ethanol in the sample and reported the initial positive result for ethanol in the sample. It should be noted that the reanalysis was performed 3 days after the initial analysis of the sample.

Positive results for ethanol were not observed in the trip and method blanks; therefore, qualification of the data due to blank contamination was not warranted. Field blanks were not submitted to the laboratory with this project sample.

1140 Valley Forge Road • P.O. Box 810 • Valley Forge, PA 19482-0810
T: 610-935-5577 • F: 610-935-5583 • www.envstd.com • solutions@envstd.com

The sample analyzed immediately before sample RW-1 was evaluated, and the data reviewer determined that carryover contamination was not a factor relative to the validity of the initial positive result for ethanol in this sample. The initial analysis of sample RW-1 was preceded by the analysis of a sample (project sample MW-1) with a "not-detected" result for ethanol.

In conclusion, the initial positive result for ethanol in sample RW-1 was not confirmed upon reanalysis on a separate instrument. The quality of the reanalysis of the sample, however, is questionable because the reanalysis was performed outside of the 14-day holding time. The initial positive result should be considered neither confirmed nor rejected based on the reanalysis of the sample. Because the confirmation analysis was performed outside of holding time, the initial result was not confirmed and cannot be considered a confident detection.

ATTACHMENT C

HISTORICAL 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	--		
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	<1	<1	<1	--		
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	<1	<1	<1	--		
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	<1	<1	<1	<1	--		
MW-2	05-20-97	55.10	16.07	ND	39.03	05-20-97	<10^	<10^	<10^	<10^	--		
MW-2	08-18-97	55.10	17.28	ND	37.82	08-18-97	<1^	<1^	<1^	<1^	--		
MW-2	11-17-97	55.10	16.75	ND	38.35	11-17-97	<5^	<5^	<5^	<5^	--		
MW-2	12-02-99	55.10	Not surveyed			12-02-99	Not analyzed for Halogenated Volatile Organic Compounds Not sampled: not on sampling schedule						

OAK\S:\ARCO\0276\QTRLY\0276q499.xls\uh:1
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	<20		
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^	<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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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	--		
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	--		
MW-6	02-28-96	61.21	30.18	ND	31.03	02-28-96	960	<20	<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 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)
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	--	--	--		
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	14.99	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 10690 and 10700 MacArthur Boulevard, Oakland, California, (RMCON, March 22, 1996).*

ATTACHMENT D

ERROR CHECK REPORTS AND EDF/GEOWELL SUBMITTAL CONFIRMATIONS

Electronic Submittal Information

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

SUCCESSFUL GEO_WELL CHECK - NO ERRORS

ORGANIZATION NAME:	URS Corporation-Oakland Office
USER NAME:	URSCORP-OAKLAND
DATE CHECKED:	10/12/2004 5:36:53 PM

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UPLOADING A GEO_WELL FILE

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Your file has been successfully submitted!

Submittal Title:	**3Q 2004 GeoWell QMR ARCO Site 0276**
Submittal Date/Time:	**10/12/2004 5:45:35 PM**
Confirmation Number:	**5799580216**

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CONTACT SITE ADMINISTRATOR.

Electronic Submittal Information

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SUCCESSFUL EDF CHECK - NO ERRORS

ORGANIZATION NAME:	URS Corporation-Oakland Office
USER NAME:	URSCORP-OAKLAND
DATE CHECKED:	10/12/2004 5:50:24 PM
GLOBAL ID:	T0600100082
FILE UPLOADED:	ARCO#0276-EDF-MNH0378.zip

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When you complete the submittal process, you will be given a confirmation number for your submittal.

Click here to view the detections report for this upload.

ARCO
10600 MACARTHUR BLVD
OAKLAND, CA 94605

Regional Board - Case #: 01-0089
SAN FRANCISCO BAY RWQCB (REGION 2) - **(BG)**
Local Agency (lead agency) - Case #: 3756
ALAMEDA COUNTY LOP - **(RWS)**

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	10
# FIELD POINTS WITH DETECTIONS	9
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	4
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	8260FA,SW8260B
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	14
METHOD HOLDING TIME VIOLATIONS	14
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	N
- MATRIX SPIKE DUPLICATE	N
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	Y	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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Electronic Submittal Information

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Confirmation Number: 9281974792
Date/Time of Submittal: 10/12/2004 5:52:12 PM
Facility Global ID: T0600100082
Facility Name: ARCO
Submittal Title: 3Q 2004 QMR ARCO Site 276 Geotracker
Submittal Type: GW Monitoring Report

Click here to view the detections report for this upload.

ARCO	**Regional Board - Case #: 01-0089**
10600 MACARTHUR BLVD	SAN FRANCISCO BAY RWQCB (REGION 2) - **(BG)**
OAKLAND, CA 94605	**Local Agency (lead agency) - Case #: 3756**
	ALAMEDA COUNTY LOP - **(RWS)**

NOTE: THIS DATA WAS SUBMITTED AFTER THE SITE WAS CLOSED

CONF #	TITLE	QUARTER
9281974792	3Q 2004 QMR ARCO Site 276 Geotracker	Q3 2004

SUBMITTED BY	SUBMIT DATE	STATUS
Srijesh Thapa	10/12/2004	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	10
# FIELD POINTS WITH DETECTIONS	9
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	4
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	8260FA,SW8260B
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	14
METHOD HOLDING TIME VIOLATIONS	14
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	N
- MATRIX SPIKE DUPLICATE	N
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y

BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	Y	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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