



12078  
Tou

Environmental Health

FEB 27 2003

Alameda County

February 19, 2003

Ms. Susan Hugo  
Alameda County Health Care Services  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, CA 94502

**Re: Fourth Quarter 2002 Groundwater Monitoring Report  
Former ARCO Service Station #0374  
6407 Telegraph Avenue  
Oakland, California  
URS Project #38486086**

Alameda County  
FEB 27 2003  
Environmental Health

Dear Ms. Hugo:

On behalf of Atlantic Richfield Company (ARCO - an affiliated company of the Group Environmental Management Company), URS Corporation (URS) is submitting the *Fourth Quarter 2002 Groundwater Monitoring Report* for Former ARCO Service Station #0374, located at 6407 Telegraph Avenue, Oakland, California.

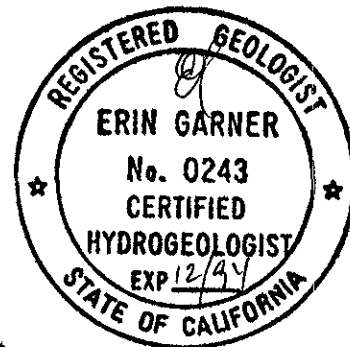
If you have any questions regarding this submission, please call (510) 874-3280.

Sincerely,

URS CORPORATION

Scott Robinson  
Project Manager

Erin Garner, CHG  
Project Director



Enclosure: Fourth Quarter 2002 Groundwater Monitoring Report

cc: Mr. Chuck Headlee, California Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612  
Mr. Paul Supple, ARCO, PO Box 6549, Moraga, CA 94570

URS Corporation  
500 12th Street, Suite 200  
Oakland, CA 94607-4014  
Tel: 510.893.3600  
Fax: 510.874.3268



Atlantic Richfield Company  
(a BP affiliated company)

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

February 19, 2003

Re: Fourth Quarter 2002 Groundwater Monitoring Report  
ARCO Station #374  
6407 Telegraph Ave.  
Oakland, CA.

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

Submitted by:

Paul Supple  
Environmental Business Manager

**R E P O R T**

**FOURTH QUARTER 2002  
GROUNDWATER MONITORING**

FORMER ARCO SERVICE STATION #0374  
6407 TELEGRAPH AVENUE  
OAKLAND, CALIFORNIA

*Prepared for*  
Atlantic Richfield Company

February 19, 2003

**URS**

URS Corporation  
500 12th Street, Suite 200  
Oakland, California 94607

38486086

Date: February 19, 2003  
Quarter: 4Q 02

**ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT**

Facility No.: 0374 Address: 6407 Telegraph Avenue, Oakland CA  
Atlantic Richfield Co. Environmental Engineer: Paul Supple  
Consulting Co./Contact Person: URS Corporation/ Scott Robinson  
Consultant Project No.: 38486086  
Primary Agency ACHCSA

**WORK PERFORMED THIS QUARTER (Fourth – 2002):**

1. Performed fourth quarter 2002 groundwater monitoring event on December 6, 2002.
2. Prepared third quarter 2002 groundwater monitoring report.

**WORK PROPOSED FOR NEXT QUARTER (First – 2003):**

1. Perform first quarter 2003 groundwater monitoring event.
2. Prepare and submit fourth quarter 2002 groundwater monitoring report.

Current Phase of Project: GW monitoring/sampling  
Frequency of Groundwater Sampling: Quarterly: M-5  
Semi-Annually: M-3, M-4, M-5 (2<sup>nd</sup> & 4<sup>th</sup>)  
Annually: M-1 – M-6 (2<sup>nd</sup>)  
Frequency of Groundwater Monitoring: Quarterly  
Is Free Product (FP) Present On-Site: No  
Current Remediation Techniques: ORC Socks  
Approximate Depth to Groundwater: 5.29 (MW-6) to 8.65 (MW-5) feet  
Groundwater Gradient (direction): Southwest  
Groundwater Gradient (magnitude): 0.020 feet per foot

**DISCUSSION:**

TPH-g and benzene were detected in one of the three wells sampled this quarter (MW-4) at concentrations of 1,500 µg/L and 410 µg/L, respectively. MTBE was detected in two wells at concentrations of 6.2 µg/L (MW-3) and 43 µg/L (MW-4).

**RECOMMENDATIONS:**

We recommend changing the sampling frequency of well MW-5 from quarterly to annually. This well has never had a detection above the laboratory reporting limits.



**ATTACHMENTS:**

- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – December 6, 2002
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports, and Chain-of-Custody Records
- Attachment C – Historic Groundwater Data
- Attachment D - EDCC Report and EDF/Geowell Submittal Confirmation

**Table 1**

**Groundwater Elevation and Analytical Data**

Former ARCO Service Station 374  
 6407 Telegraph Avenue  
 Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	TPH as Gasoline (mg/L)	MTBE (mg/L)		
MW-1	6/20/2000	158.91	6.86	152.05	NS	NS	NS	NS	NS	NS		
	9/28/2000		7.50	151.41	NS	NS	NS	NS	NS	NS		
	12/17/2000		7.49	151.42	NS	NS	NS	NS	NS	NS		
	3/23/2001		5.90	153.01	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	2,710		
	6/21/2001		7.45	151.46	NS	NS	NS	NS	NS	NS		
	9/23/2001		8.46	150.45	NS	NS	NS	NS	NS	NS		
	12/31/2001		5.50	153.41	NS	NS	NS	NS	NS	NS		
	3/21/2002		4.71	154.2	ND<50	ND<50	ND<50	ND<50	ND<5,000	2,000		
	4/17/2002		5.54	153.37	NS	NS	NS	NS	NS	NS		
	8/12/2002		7.77	151.14	NS	NS	NS	NS	NS	NS		
	<b>12/6/2002</b>		<b>7.65</b>	<b>151.26</b>	NS	NS	NS	NS	NS	NS		
	MW-2		6/20/2000	157.92	7.67	150.25	NS	NS	NS	NS	NS	NS
			9/28/2000		8.51	149.41	NS	NS	NS	NS	NS	NS
12/17/2000		8.14	149.78		NS	NS	NS	NS	NS	NS		
3/23/2001		7.21	150.71		ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<2.5		
6/21/2001		7.99	149.93		NS	NS	NS	NS	NS	NS		
9/23/2001		8.52	149.4		NS	NS	NS	NS	NS	NS		
12/31/2001		6.01	151.91		NS	NS	NS	NS	NS	NS		
3/21/2002		5.95	151.97		ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	45		
4/17/2002		6.45	151.47		NS	NS	NS	NS	NS	NS		
8/12/2002		8.08	149.84		NS	NS	NS	NS	NS	NS		
<b>12/6/2002</b>		<b>8.29</b>	<b>149.63</b>		NS	NS	NS	NS	NS	NS		

Table 1

## Groundwater Elevation and Analytical Data

Former ARCO Service Station 374  
6407 Telegraph Avenue  
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	TPH as Gasoline (mg/L)	MTBE (mg/L)
MW-3	6/20/2000	153.64	6.42	147.22	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<50	ND<10
	9/28/2000		7.31	146.33	NS	NS	NS	NS	NS	NS
	12/17/2000		6.45	147.19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<2.5
	3/23/2001		6.01	147.63	NS	NS	NS	NS	NS	NS
	6/21/2001		6.80	146.84	5.5	ND<0.5	5.4	4.1	110	2.5
	9/23/2001		7.32	146.32	NS	NS	NS	NS	NS	NS
	12/31/2001		4.48	149.16	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	4.9
	3/21/2002		4.36	149.28	NS	NS	NS	NS	NS	NS
	4/17/2002		5.31	148.33	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	8.7
	8/12/2002		7.00	146.64	NS	NS	NS	NS	NS	NS
	<b>12/6/2002</b>		<b>7.32</b>	<b>146.32</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;50</b>
MW-4	6/20/2000	156.53	7.50	149.03	5,100	440	1,000	1,700	20,000	ND<250
	9/28/2000		8.20	148.33	NS	NS	NS	NS	NS	NS
	12/17/2000		8.11	148.42	1,240	ND<20	27.2	249	4,320	ND<100
	3/23/2001		6.69	149.84	NS	NS	NS	NS	NS	NS
	6/21/2001		8.01	148.52	470	16	19	160	2,800	130
	9/23/2001		8.91	147.62	NS	NS	NS	NS	NS	NS
	12/31/2001		4.42	152.11	1,500	100	160	210	4,600	160
	3/21/2002		4.98	151.55	NS	NS	NS	NS	NS	NS
	4/17/2002		6.23	150.30	2,200	110	290	450	7,100	ND<250
	8/12/2002		8.24	148.29	NS	NS	NS	NS	NS	NS
	<b>12/6/2002</b>		<b>8.42</b>	<b>148.11</b>	<b>410</b>	<b>6.8</b>	<b>20</b>	<b>29</b>	<b>1,500<sup>a</sup></b>	<b>43</b>

**Table 1**

**Groundwater Elevation and Analytical Data**

Former ARCO Service Station 374  
6407 Telegraph Avenue  
Oakland, California

Well Number	Date Sampled	Top of Riser Elevation (ft)	Depth to Groundwater (ft)	Groundwater Elevation (ft)	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Total Xylenes (mg/L)	TPH as Gasoline (mg/L)	MTBE (mg/L)	
MW-5	6/20/2000	151.33	7.84	143.49	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<50	ND<10	
	9/28/2000		8.37	142.96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<2.5	
	12/17/2000		8.36	142.97	ND< 0.5	ND< 0.5	ND< 0.5	ND< 0.5	ND<50	ND<2.5	
	3/23/2001		7.55	143.78	ND< 0.5	ND< 0.5	ND< 0.5	ND< 0.5	ND<50	ND<2.5	
	6/21/2001		8.20	143.13	ND< 0.5	ND< 0.5	ND< 0.5	ND< 0.5	ND<50	ND<2.5	
	9/23/2001		8.68	142.65	ND<0.5	ND< 0.5	ND< 0.5	ND< 0.5	ND<50	ND<2.5	
	12/31/2001		7.57	143.76	ND<0.5	ND< 0.5	ND< 0.5	ND< 0.5	ND<50	ND<2.5	
	3/21/2002		6.12	145.21	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	3.2	
	4/17/2002		6.61	144.72	ND<0.5	ND< 0.5	ND< 0.5	ND< 0.5	ND<50	ND<2.5	
	8/12/2002		8.14	143.19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	ND<2.5	
	<b>12/6/2002</b>		<b>8.65</b>	<b>142.68</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;0.5</b>	<b>ND&lt;50</b>	<b>ND&lt;2.5</b>
	MW-6		6/20/2000	153.84	4.79	149.05	NS	NS	NS	NS	NS
9/28/2000		5.39	148.45		NS	NS	NS	NS	NS	NS	
12/17/2000		4.71	149.13		NS	NS	NS	NS	NS	NS	
3/23/2001		4.69	149.15		ND< 0.5	ND< 0.5	ND< 0.5	ND< 0.5	ND<50	ND<2.5	
6/21/2001		5.22	148.62		NS	NS	NS	NS	NS	NS	
9/23/2001		5.40	148.44		NS	NS	NS	NS	NS	NS	
12/31/2001		3.95	149.89		NS	NS	NS	NS	NS	NS	
3/21/2002		2.94	150.9		ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<50	5.2	
4/17/2002		5.11	148.73		NS	NS	NS	NS	NS	NS	
8/12/2002		5.23	148.61		NS	NS	NS	NS	NS	NS	
<b>12/6/2002</b>		<b>5.29</b>	<b>148.55</b>		<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>

TPH = Total Petroleum Hydrocarbons

MTBE = Methyl tertiary butyl ether analyzed by EPA Method 8021B unless otherwise noted

mg/L = Micrograms per liter

NM = Not measured

NS = Not sampled

a = Chromatogram Pattern: Gasoline C6-C10

ND< = less than laboratory detection limit stated to the right

The data within this table collected prior to August 2002 was provided to URS by Group Environmental Management Company and its previous consultants URS has not verified the accuracy



**Table 2**

**Groundwater Flow Direction and Gradient**

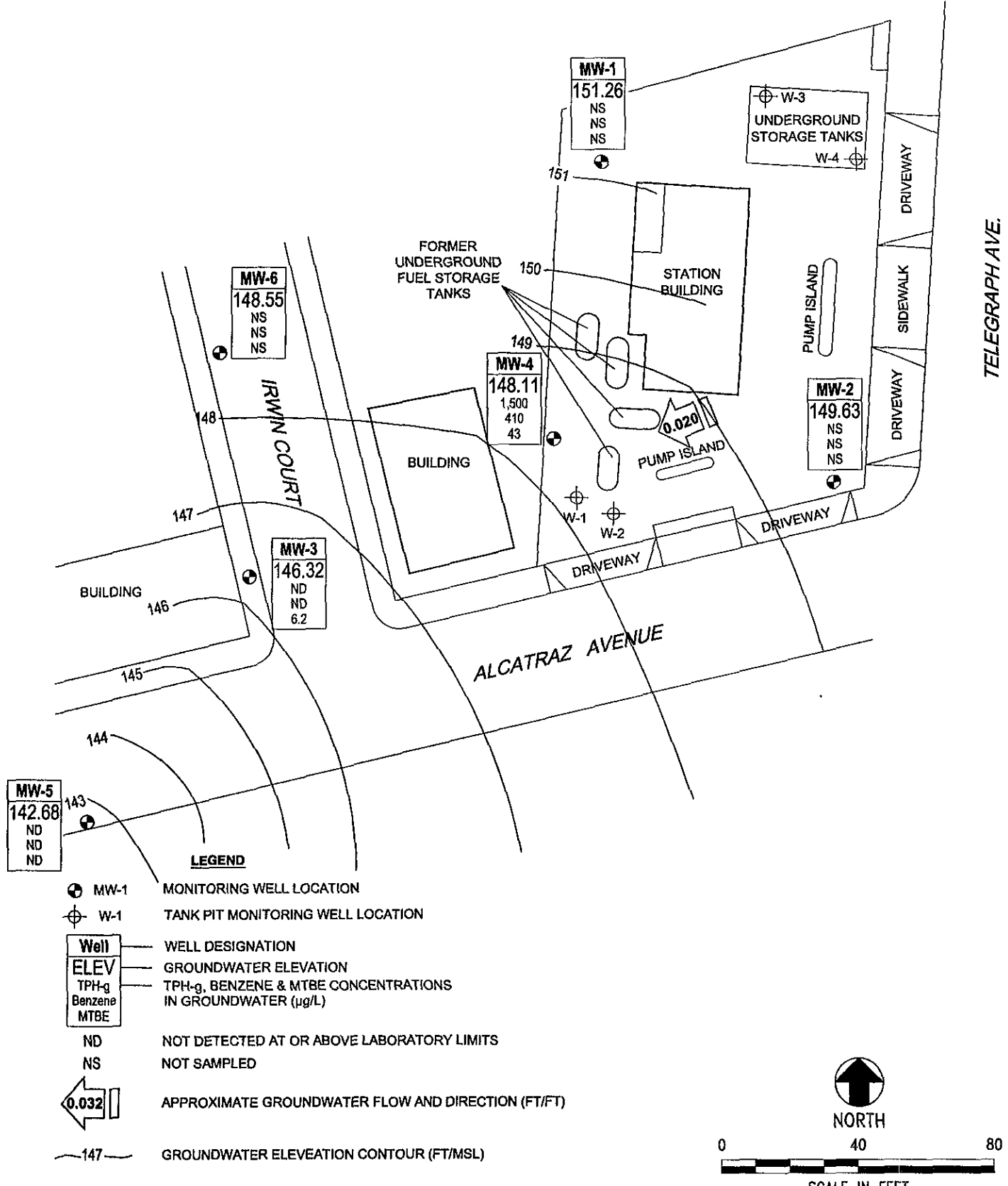
Former ARCO Service Station #0374  
 6407 Telegraph Avenue  
 Oakland, California

Date Measured	Average Flow Direction	Average Hydraulic Gradient
01/31/1996	Southwest	0.04
04/10/1996	Southwest	0.04
07/16/1996	Southwest	0.03
10/14/1996	Southwest	0.03
03/27/1997	Southwest	0.04
05/27/1997	Southwest	0.03
08/12/1997	Southwest	0.04
11/17/1997	Southwest	0.03
03/16/1998	Southwest	0.03
05/12/1998	Southwest	0.04
07/27/98	Southwest	0.04
10/15/98	Southwest	0.02
02/18/99	Southwest	0.05
05/24/99	Southwest	0.03
08/27/99	Southwest	0.03
10/26/99	Southwest	0.03
02/03/00	Southwest	0.047
06/20/00	Southwest	0.035
09/28/00	Southwest	0.034
12/17/00	Southwest	0.032
03/23/01	Southwest	0.034
06/21/01	Southwest	0.032
09/23/01	Southwest	0.029
12/31/01	Southwest	0.043
03/21/02	Southwest	0.038
04/17/02	Southwest	0.031
08/12/02	Southwest	0.032
<b>12/06/02</b>	<b>Southwest</b>	<b>0.020</b>

**Note:**

The data within this table collected prior to August 2002 was provided to URS by Group Environmental Management Company and its previous consultants. URS has not verified the accuracy of this information.

X:\env\waste\BP\_GEM\Sites\Scott Robinson\Paul\_Supple\0374\Reports\Monitoring\Chr. 4, 2002\Drawings\GWEC-AS\_12-6.dwg



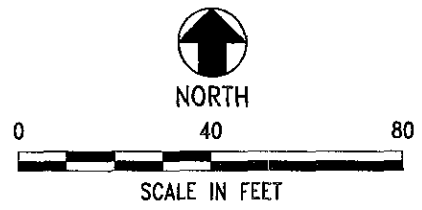
**LEGEND**

- MW-1 MONITORING WELL LOCATION
- W-1 TANK PIT MONITORING WELL LOCATION
- |         |
|---------|
| Well    |
| ELEV    |
| TPH-g   |
| Benzene |
| MTBE    |

 WELL DESIGNATION
- |         |
|---------|
| ELEV    |
| TPH-g   |
| Benzene |
| MTBE    |

 GROUNDWATER ELEVATION
- |         |
|---------|
| TPH-g   |
| Benzene |
| MTBE    |

 TPH-g, BENZENE & MTBE CONCENTRATIONS IN GROUNDWATER (µg/L)
- ND NOT DETECTED AT OR ABOVE LABORATORY LIMITS
- NS NOT SAMPLED
- APPROXIMATE GROUNDWATER FLOW AND DIRECTION (FT/FT)
- 147 GROUNDWATER ELEVATION CONTOUR (FT/MSL)



NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES.



**Project No. 38486086**  
 Arco Service Station 0374  
 6407 Telegraph Avenue  
 Oakland, California

**GROUNDWATER ELEVATION CONTOUR  
 AND ANALYTICAL SUMMARY MAP**  
 Fourth Quarter 2002 (December 6, 2002)

FIGURE  
 1

**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<sup>TM</sup> 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 # 021206PHZ Date 12/6/02 Client BP/Arco 374

Site 6407 Telegraph Ave, Oakland

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	4					7.65	26.72	↓	6
MW-2	4					8.29	26.29		6
MW-3	4	gauged w/ OBC in well, out to sample				7.32	26.76		
MW-4	4	gauged w/ OBC in well, remove for purge				8.42	26.95		
MW-5	4					8.65	23.04		
MW-6	4					5.29	14.59		6

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: <u>021206-RH2</u>	Station # <u>374</u>
Sampler: <u>Ryan Hanstedt</u>	Date: <u>12/6/02</u>
Well I.D.: <u>mw-3</u>	Well Diameter: 2 3 <u>(4)</u> 6 8 _____
Total Well Depth: <u>26.76</u>	Depth to Water: <u>7.32</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): <u>(YSI)</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <u>Bailer</u> Disposable Bailer Middleburg <u>Electric Submersible</u> Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> 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.

<u>12.6</u>	x	<u>3</u>	=	<u>37.8</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>(µS)</u> )	Gals. Removed	Observations
<u>1435</u>	<u>65.7</u>	<u>6.8</u>	<u>683</u>	<u>12.6</u>	<u>cloudy</u>
<u>1437</u>	<u>67.0</u>	<u>6.6</u>	<u>606</u>	<u>25.2</u>	<u>clear</u>
<u>1439</u>	<u>66.7</u>	<u>6.7</u>	<u>737</u>	<u>37.8</u>	<u>clear brown, cloudy</u>

Did well dewater? Yes <u>(No)</u>	Gallons actually evacuated: <u>37.8</u>	
Sampling Time: <u>1445</u>	Sampling Date: <u>12/6/02</u>	
Sample I.D.: <u>mw-3</u>	Laboratory: Pace <u>(Sequoia)</u> Other _____	
Analyzed for: <u>(TPH-G)</u> <u>(BTEX)</u> <u>(MTBB)</u> TPH-D Other:		
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: <u>(1.4)</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

ARCO / BP WELL MONITORING DATA SHEET

BTS #: 021206-RH2	Station # 374
Sampler: Ryan Hanstedt	Date: 12/6/02
Well I.D.: mw-4	Well Diameter: 2 3 <b>4</b> 6 8 _____
Total Well Depth: 26.95	Depth to Water: 8.42
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <b>PVC</b> Grade	D.O. Meter (if req'd): <b>YSI</b> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: Bailer                      Sampling Method: Bailer  
                          Disposable Bailer    ~~Disposable Bailer~~  
                          Middleburg    Extraction Port  
                          ~~Electric Submersible~~  
                          Extraction Pump    Other: \_\_\_\_\_  
 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.

<u>12</u>	x <u>3</u>	=	<u>36</u>	Gals.
1 Case Volume (Gals.)	Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or μS)	Gals. Removed	Observations
1517	66.5	6.6	1210	12.0	blackish, H <sub>2</sub> S odor
1519	66.9	6.7	1250	24.0	clearing w/ less odor
1522	66.9	6.7	1233	36.0	clear

Did well dewater? Yes   No                      Gallons actually evacuated: **36.0**

Sampling Time: **1527**                      Sampling Date: **12/6/02**

Sample I.D.: **mw-4**                      Laboratory: Pace **Sequoia** Other: \_\_\_\_\_

Analyzed for: **TPH-G** **BTEX** **MTBE** TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	<b>1.1</b>	mg/L
	O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 021206-RH2	Station # 374
Sampler: Ryan Hanstedt	Date: 12/6/02
Well I.D.: mw-5	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth: 23.04	Depth to Water: 8.65
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): <u>YST</u> HACH

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <u>Bailer</u> Disposable Bailer Middleburg <u>Electric Submersible</u> Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> <del>Disposable Bailer</del> 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.

<u>9.4</u>	X	<u>3</u>	=	<u>28.2</u>	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or <u>uS</u> )	Gals. Removed	Observations
1457	68.1	6.8	611	9.4	clear
1459	69.0	6.7	608	18.8	clear
1500	68.4	6.8	608	28.2	"

Did well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>	Gallons actually evacuated: <u>28.2</u>
Sampling Time: <u>1506</u>	Sampling Date: <u>12/6/02</u>
Sample I.D.: <u>mw-5</u>	Laboratory: Pace <u>sequoia</u> Other _____
Analyzed for: <u>TPH-G</u> <u>BTEX</u> <u>MTBE</u> TPH-D Other:	
D.O. (if req'd):	Pre-purge: _____ mg/L <u>Post-purge:</u> <u>1.1</u> mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV <u>Post-purge:</u> _____ mV





# Chain of Custody Record

Project Name \_\_\_\_\_  
 BP BU/GEM CO Portfolio: \_\_\_\_\_  
 BP Laboratory Contract Number: \_\_\_\_\_

Date: 12/6/02 Requested Due Date (mm/dd/yy) \_\_\_\_\_

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

ID To: Name: SEQUOIA Address: 885 Jarvis Dr. Morgan Hill, CA 95037 PM: Latonya Pelt e/Fax: 408-776-9600 / 408-782-6308 Report Type & QC Level: Send EDF Reports GEM Account No.: Bottle Order No:	BP/GEM Facility No.: BP/GEM Facility Address: 6407 TELEGRAPH AVE, OAKLAND, CA Site ID No. ARCO 374 Site Lat/Long: California Global ID #: T0600100106 BP/GEM PM Contact: PAUL SUPPLE Address: Tele/Fax:	Consultant/Contractor: URS Address: 500 12th St., Ste. 200 Oakland, CA 94609-4014 e-mail EDD: syed_rehan@urscorp.com Consultant/Contractor Project No.: J5-00000374.01 00427 Consultant Tele/Fax: 510-874-1735/510-874-3268 Consultant/Contractor PM: Scott Robinson Invoice to: Consultant/Contractor or (BP/GEM) (circle one) BP/GEM Work Release No: INTRIM -50419
---	--	---

Sampl No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Requested Analysis						Sample Point Lat/Long and Comments
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	TPH-G/BTEX (8015/8021)	TPH-D (8015)	MTBE (8021)	MTBE, TAME, ETBE, DIPE, TBA (8260)	1,2-DCA & EDB (8260)		
1	MW-3	1445	X				3				X		X						
2	MW-4	1527	X				↓				X		X						
3	MW-5	1506	X				↓				X		X						
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Sampler's Name: <u>Ryan Hanstedt</u> Sampler's Company: <u>Blaine Tech</u> Payment Date: Payment Method: Payment Tracking No:	Relinquished By / Affiliation: <u>Jan Hanstedt / BTS</u> Date: Time: Accepted By / Affiliation: Date: Time:
---	--

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

Study Seals In Place Yes No      Temperature Blank Yes No      Cooler Temperature on Receipt °F/C      Trip Blank Yes No

# WELLHEAD INSPECTION CHECKLIST AND REPAIR ORDER

Client BP Inspection Date 12/6/02

Site Address 6407 Telegraph Ave, Oakland Inspected By Ryan Hanstedt

1. Lid on box?	6. Casing secure?	12. Water standing in wellbox?	15. Well cap functional?
2. Lid broken?	7. Casing cut level?	12a. Standing above the top of casing?	16. Can cap be pulled loose?
3. Lid bolts missing?	8. Debris in wellbox?	12b. Standing below the top of casing?	17. Can cap seal out water?
4. Lid bolts stripped?	9. Wellbox is too far above grade?	12c. Water even with the top of casing?	18. Padlock present?
5. Lid seal intact?	10. Wellbox is too far below grade?	13. Well cap present?	19. Padlock functional?
	11. Wellbox is crushed/damaged?	14. Well cap found secure?	

Check box if no deficiencies were found. Note below deficiencies you were able to correct.

Well I.D.	Deficiency	Corrective Action Taken
MW-6	Cap old + broken	replaced cap

Note below all deficiencies that could not be corrected and still need to be corrected.


Well I.D.	Persisting Deficiency	BTS Office assigns or defers Correction to:	Date assigned	Date corrected
MW-1	needs new bolts, none there	BTS will replace	lock	
MW-6	needs a lock	next event.		

**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:

Station #		314	
Station Address		6407 Telegraph Ave	
Total Gallons Collected From Groundwater Monitoring Wells:			
101			
added equip. rinse water	3	any other adjustments	
TOTAL GALS. RECOVERED	104	loaded onto BTS vehicle #	15
BTS event #	021206-R#2	time	1545
signature		date	12/6/82
*****			
REC'D AT		time	
unloaded by signature			/ /

**ATTACHMENT B**

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

## **LABORATORY PROCEDURES**

---

### **Laboratory Procedures**

The groundwater samples were analyzed for the presence of the chemicals noted on 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 Group Environmental Management Company have been reviewed and verified by that laboratory.



28 December, 2002

Scott Robinson  
URS Corporation  
500 12th Street, Suite 100  
Oakland, CA 94607

RE: ARCO #374, Oakland, Ca  
Sequoia Work Order: MLL0341

Enclosed are the results of analyses for samples received by the laboratory on 12/09/02 16:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt  
Project Manager  
CA ELAP Certificate #1210



URS Corporation  
500 12th Street, Suite 100  
Oakland CA, 94607

Project: ARCO #374, Oakland, Ca  
Project Number: ARCO #374, Oakland, CA  
Project Manager: Scott Robinson

MLL0341  
**Reported:**  
12/28/02 12:19

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-3	MLL0341-01	Water	12/06/02 14:45	12/09/02 16:05
MW-4	MLL0341-02	Water	12/06/02 15:27	12/09/02 16:05
MW-5	MLL0341-03	Water	12/06/02 15:06	12/09/02 16:05

There were no custody seals that were received with this project.

URS Corporation  
 500 12th Street, Suite 100  
 Oakland CA, 94607

 Project: ARCO #374, Oakland, Ca  
 Project Number: ARCO #374, Oakland, CA  
 Project Manager: Scott Robinson

 MLL0341  
**Reported:**  
 12/28/02 12:19

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-3 (MLL0341-01) Water</b> <b>Sampled: 12/06/02 14:45</b> <b>Received: 12/09/02 16:05</b>									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2L20002	12/20/02	12/20/02	8015Bm/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	6.2	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		107 %		55-142	"	"	"	"	O-11
<b>MW-4 (MLL0341-02) Water</b> <b>Sampled: 12/06/02 15:27</b> <b>Received: 12/09/02 16:05</b>									
Gasoline Range Organics (C6-C10)	1500	250	ug/l	5	2L20002	12/20/02	12/20/02	8015Bm/8021B	HC-21
Benzene	410	20	"	40	"	"	12/20/02	"	
Toluene	6.8	2.5	"	5	"	"	12/20/02	"	
Ethylbenzene	20	2.5	"	"	"	"	"	"	
Xylenes (total)	29	2.5	"	"	"	"	"	"	
Methyl tert-butyl ether	43	12	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		112 %		55-142	"	"	"	"	O-11
<b>MW-5 (MLL0341-03) Water</b> <b>Sampled: 12/06/02 15:06</b> <b>Received: 12/09/02 16:05</b>									
Gasoline Range Organics (C6-C10)	ND	50	ug/l	1	2L20002	12/20/02	12/20/02	8015Bm/8021B	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.6 %		55-142	"	"	"	"	O-11



URS Corporation  
 500 12th Street, Suite 100  
 Oakland CA, 94607

 Project: ARCO #374, Oakland, Ca  
 Project Number: ARCO #374, Oakland, CA  
 Project Manager: Scott Robinson

 MLL0341  
 Reported:  
 12/28/02 12:19

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B - Quality Control  
 Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2L20002 - EPA 5030B [P/T]</b>										
<b>Blank (2L20002-BLK1)</b> Prepared & Analyzed: 12/20/02										
Gasoline Range Organics (C6-C10)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.9		"	10.0		109	55-142			O-11
<b>Laboratory Control Sample (2L20002-BS1)</b> Prepared & Analyzed: 12/20/02										
Benzene	9.72	0.50	ug/l	10.0		97.2	68-140			
Toluene	10.3	0.50	"	10.0		103	76-127			
Ethylbenzene	11.4	0.50	"	10.0		114	77-130			
Xylenes (total)	31.8	0.50	"	30.0		106	78-128			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.6		"	10.0		106	55-142			O-11
<b>Laboratory Control Sample (2L20002-BS2)</b> Prepared & Analyzed: 12/20/02										
Gasoline Range Organics (C6-C10)	235	50	ug/l	250		94.0	62-134			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.6		"	10.0		106	55-142			O-11
<b>Matrix Spike (2L20002-MS1)</b> Source: MLL0220-02 Prepared & Analyzed: 12/20/02										
Gasoline Range Organics (C6-C10)	472	50	ug/l	550	ND	85.8	62-134			
Benzene	11.8	0.50	"	6.60	ND	179	68-140			QM-07
Toluene	43.4	0.50	"	39.7	ND	109	76-127			
Ethylbenzene	10.8	0.50	"	9.20	ND	117	77-130			
Xylenes (total)	49.4	0.50	"	46.1	ND	107	78-128			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.5		"	10.0		115	55-142			O-11
<b>Matrix Spike Dup (2L20002-MSD1)</b> Source: MLL0220-02 Prepared & Analyzed: 12/20/02										
Gasoline Range Organics (C6-C10)	496	50	ug/l	550	ND	90.2	62-134	4.96	41	
Benzene	12.0	0.50	"	6.60	ND	182	68-140	1.68	30	QM-07

Sequoia Analytical - Morgan Hill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

URS Corporation  
500 12th Street, Suite 100  
Oakland CA, 94607

Project: ARCO #374, Oakland, Ca  
Project Number: ARCO #374, Oakland, CA  
Project Manager: Scott Robinson

MLL0341  
**Reported:**  
12/28/02 12:19

**Total Purgeable Hydrocarbons (C6-C10) by EPA 8015B modified, BTEXM by EPA 8021B - Quality Control  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2L20002 - EPA 5030B [P/T]</b>										
<b>Matrix Spike Dup (2L20002-MSD1)</b>		<b>Source: MLL0220-02</b>			<b>Prepared &amp; Analyzed: 12/20/02</b>					
Toluene	44.2	0.50	ug/l	39.7	ND	111	76-127	1.83	30	
Ethylbenzene	11.2	0.50	"	9.20	ND	122	77-130	3.64	21	
Xylenes (total)	50.7	0.50	"	46.1	ND	110	78-128	2.60	21	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	12.2		"	10.0		122	55-142			O-11



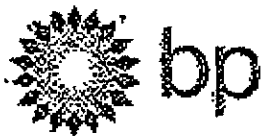
URS Corporation  
500 12th Street, Suite 100  
Oakland CA, 94607

Project: ARCO #374, Oakland, Ca  
Project Number: ARCO #374, Oakland, CA  
Project Manager: Scott Robinson

MLL0341  
**Reported:**  
12/28/02 12:19

### Notes and Definitions

- HC-21 Chromatogram Pattern: Gasoline C6-C10
- O-11 The continuing calibration standard was outside of the acceptance criteria. This should be considered in evaluating the result for its intended purpose.
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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



# Chain of Custody Record

11220341

Project Name \_\_\_\_\_  
 BP BU/GEM CO Portfolio: \_\_\_\_\_  
 BP Laboratory Contract Number: \_\_\_\_\_  
 Date: 12/6/02 Requested Due Date (mm/dd/yy) \_\_\_\_\_

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

Send To:	BP/GEM Facility No.:	Consultant/Contractor: URS
Lab Name: SEQUOIA	BP/GEM Facility Address: 6407 TELEGRAPH AVE, OAKLAND, CA	Address: 500 12th St., Ste. 200
Lab Address: 885 Jarvis Dr. Morgan Hill, CA 95037	Site ID No. ARCO 374	Oakland, CA 94608-4014
	Site Lat/Long:	e-mail EDD: syed_rehan@urscorp.com
	California Global ID #: T0600100106	Consultant/Contractor Project No.: 35-00000374.01 00427
Lab PM: Latonya Pelt	BP/GEM PM Contact: PAUL SUPPLE	Consultant Tele/Fax: 510-874-1735/510-874-3268
Tele/Fax: 408-776-9600 / 408-782-6308	Address:	Consultant/Contractor PM: Scott Robinson
Report Type & QC Level: Send EDF Reports		Invoice to: Consultant/Contractor or (BP/GEM) (circle one)
BP/GEM Account No.:	Tele/Fax:	BP/GEM Work Release No: INTRIM -50419

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives				Requested Analysis				Sample Point Lat/Long and Comments
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	TPH-G/BTEX (8015/8021)	TPH-D (8015)	MTBE (8021)	MTBE, TAME, ETBE, DIPE, TBA (8260)	
1	mw-3	1445	X				01	3					X	X			
2	mw-4	1527	X				02	↓					X	X			
3	mw-5	1506	X				03	↓					X	X			
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler's Name: <u>Ryan Hansfeldt</u>	Relinquished By / Affiliation: <u>[Signature] / BTS</u>	Date: <u>12/9/02</u>	Time: <u>11:30</u>	Accepted By / Affiliation: <u>[Signature]</u>	Date: <u>12/9/02</u>	Time: <u>11:30</u>
Sampler's Company: <u>Blaine Tech</u>						
Event Date: _____						
Method: _____						
Tracking No: _____						

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

Place Yes No  Temperature Blank Yes No  Cooler Temperature on Receipt 5.4 °C Trip Blank Yes No

# SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS  
 REC. BY (PRINT): AS  
 WORKORDER: 1110341

DATE Received at Lab: 12-9-02  
 TIME Received at Lab: 1605  
 LOG IN DATE: 12-11-02

Drinking water for regulatory purposes: YES  NO   
 Wastewater for regulatory purposes: YES  NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	#	CLIENT ID	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <input checked="" type="radio"/> Absent Intact / Broken*	1		MW-3	(3) Noos HA	L	12-6-02	1st B 2218030
2. Chain-of-Custody <input checked="" type="radio"/> Present / Absent*	2		MW-4	↓	↓	↓	↓
3. Traffic Reports or Packing List Present / <input checked="" type="radio"/> Absent	3		MW-5	↓	↓	↓	↓
4. Airbill: Airbill / Sticker Present / <input checked="" type="radio"/> Absent							
5. Airbill #:							
6. Sample Labels: <input checked="" type="radio"/> Present / Absent							
7. Sample IDs: <input checked="" type="radio"/> Listed / Not Listed on Chain-of-Custody							
8. Sample Condition: <input checked="" type="radio"/> Intact / Broken* / Leaking*							
9. Does information on custody reports, traffic reports and sample labels agree? <input checked="" type="radio"/> Yes / No*							
10. Sample received within hold time: <input checked="" type="radio"/> Yes / No*							
11. Proper Preservatives used: <input checked="" type="radio"/> Yes / No*							
12. Temp Rec. at Lab: (Acceptance range for samples requiring thermal pres.: 4±2°C) <u>5.4°C</u> <input checked="" type="radio"/> Yes / No**							

**\*If Circled, contact Project Manager and attach record of resolution.**

**ATTACHMENT C**  
**HISTORIC GROUNDWATER DATA**

**Table 1**  
**Groundwater Elevation and Analytical Data**  
**Total Purgeable Petroleum Hydrocarbons**  
**(TPPH as Gasoline, BTEX Compounds, and MTBE)**

**ARCO Service Station 0374**  
**6407 Telegraph Avenue, Oakland, California**

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)
MW-1	01/31/96	158.91	6.34	152.57	Not Sampled: Well Sampled Annually							
MW-1	04/10/96	158.91	5.82	153.09	Not Sampled: Well Sampled Annually							
MW-1	07/16/96	158.91	7.23	151.68	<50	<0.5	<0.5	<0.5	<0.5	340	NM	
MW-1	10/14/96	158.91	8.34	150.57	Not Sampled: Well Sampled Annually							
MW-1	03/27/97	158.91	6.37	152.54	Not Sampled: Well Sampled Annually							
MW-1	05/27/97	158.91	7.30	151.61	Not Sampled: Well Sampled Annually							
MW-1	08/12/97	158.91	8.22	150.69	<50	<0.5	<0.5	<0.5	<0.5	620	NM	
MW-1	11/17/97	158.91	7.98	150.93	Not Sampled: Well Sampled Annually							
MW-1	03/16/98	158.91	4.94	153.97	Not Sampled: Well Sampled Annually							
MW-1	05/12/98	158.91	5.28	153.63	Not Sampled: Well Sampled Annually							
MW-1	07/27/98	158.91	6.84	152.07	<500	<5	<5	<5	<5	580	0.6	P
MW-1	10/15/98	158.91	7.32	151.59	Not Sampled: Well Sampled Annually							
MW-1	02/18/99	158.91	6.28	152.63	Not Sampled: Well Sampled Annually							
MW-1	05/24/99	158.91	6.45	152.46	<50	<0.5	<0.5	<0.5	<0.5	1,300	2.0	NP
MW-1	08/27/99	158.91	7.86	151.05	<50	<0.5	<0.5	<0.5	<0.5	1,500	1.65	NP
MW-1	10/26/99	158.91	8.43	150.48	Not Sampled: Well Sampled Annually							
MW-1	02/03/00	158.91	7.28	151.63	<50	<0.5	<0.5	<0.5	<1	4,000	1.0	NP
MW-2	01/31/96	157.92	6.51	151.41	Not Sampled: Well Sampled Annually							
MW-2	04/10/96	157.92	6.94	150.98	Not Sampled: Well Sampled Annually							
MW-2	07/16/96	157.92	7.73	150.19	<50	1.2	<0.5	<0.5	<0.5	33	NM	
MW-2	10/14/96	157.92	8.35	149.57	Not Sampled: Well Sampled Annually							
MW-2	03/27/97	157.92	7.40	150.52	Not Sampled: Well Sampled Annually							
MW-2	05/27/97	157.92	7.82	150.10	Not Sampled: Well Sampled Annually							
MW-2	08/12/97	157.92	8.29	149.63	<50	<0.5	<0.5	<0.5	<0.5	23	NM	
MW-2	11/17/97	157.92	8.05	149.87	Not Sampled: Well Sampled Annually							
MW-2	03/16/98	157.92	6.45	151.47	Not Sampled: Well Sampled Annually							

**Table 1**  
**Groundwater Elevation and Analytical Data**  
**Total Purgeable Petroleum Hydrocarbons**  
**(TPPH as Gasoline, BTEX Compounds, and MTBE)**

**ARCO Service Station 0374**  
**6407 Telegraph Avenue, Oakland, California**

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)
MW-2	05/12/98	157.92	6.93	150.99	Not Sampled: Well Sampled Annually							
MW-2	07/27/98	157.92	7.39	150.53	<50	<0.5	<0.5	<0.5	<0.5	<3	0.85	NP
MW-2	10/15/98	157.92	7.67	150.25	Not Sampled: Well Sampled Annually							
MW-2	02/18/99	157.92	6.63	151.29	Not Sampled: Well Sampled Annually							
MW-2	05/24/99	157.92	7.43	150.49	<50	6.3	<0.5	0.7	<0.5	29	3.0	P
MW-2	08/27/99	157.92	8.22	149.70	<50	<0.5	<0.5	<0.5	<0.5	<3	0.95	NP
MW-2	10/26/99	157.92	8.46	149.46	Not Sampled: Well Sampled Annually							
MW-2	02/03/00	157.92	7.75	150.17	<50	<0.5	<0.5	<0.5	<1	<3	1.0	NP
MW-3 *	01/31/96	153.64	7.02	146.62	140	20	0.87	11	14	NA	NM	
MW-3 *	04/10/96	153.64	7.82	145.82	84	2.4	<0.5	1.9	1.1	NA	NM	
MW-3 *	07/16/96	153.64	6.80	146.84	<50	2.2	<0.5	<0.5	<0.5	<2.5	NM	
MW-3 *	10/14/96	153.64	7.67	145.97	<50	1.2	<0.5	<0.5	0.81	2.9	NM	
MW-3 *	03/27/97	153.64	7.62	146.02	<50	0.94	<0.5	0.9	0.63	<2.5	NM	
MW-3 *	05/27/97	153.64	6.72	146.92	Not Sampled: Well Sampled Semiannually							
MW-3 *	08/12/97	153.64	8.20	145.44	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NM	
MW-3 *	11/17/97	153.64	7.64	146.00	Not Sampled: Well Sampled Semiannually							
MW-3 *	03/18/98	153.64	5.14	148.50	<50	<0.5	<0.5	<0.5	<0.5	<3	4.0	P
MW-3 *	05/12/98	153.64	5.53	148.11	Not Sampled: Well Sampled Semiannually							
MW-3 *	07/27/98	153.64	7.63	146.01	74	<0.5	<0.5	<0.5	<0.5	<3	1.7	NP
MW-3 *	10/15/98	153.64	7.46	146.18	Not Sampled: Well Sampled Semiannually							
MW-3 *	02/18/99	153.64	5.85	147.79	Not Sampled							
MW-3 *	05/24/99	153.64	7.00	146.64	<50	<0.5	<0.5	<0.5	<0.5	4	6.0	NP
MW-3 *	08/27/99	153.64	7.16	146.48	<50	<0.5	<0.5	<0.5	<0.5	<3	16.57	NP
MW-3 *	10/26/99	153.64	7.79	145.85	<50	<0.5	<0.5	<0.5	<1	<3	14.86	NP
MW-3 *	02/03/00	153.64	7.11	146.53	<50	<0.5	<0.5	<0.5	<1	<3	1.0	NP



**Table 1**  
**Groundwater Elevation and Analytical Data**  
**Total Purgeable Petroleum Hydrocarbons**  
**(TPPH as Gasoline, BTEX Compounds, and MTBE)**

**ARCO Service Station 0374**  
**6407 Telegraph Avenue, Oakland, California**

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)	
MW-4	01/31/96	156.53	5.64	150.89	230	23	2.2	3.7	32	NA	NM		
MW-4	04/10/96	156.53	6.66	149.87	7,300	1,600	350	350	830	NA	NM		
MW-4	07/16/96	156.53	7.73	148.80	5,600	1,100	160	240	520	150	NM		
MW-4	10/14/96	156.53	8.55	147.98	4,500	860	72	160	340	<62	NM		
MW-4	03/27/97	156.53	7.15	149.38	25,000	5,200	760	850	2,600	<250	NM		
MW-4	05/27/97	156.53	7.75	148.78	Not Sampled: Well Sampled Semiannually								
MW-4	08/12/97	156.53	8.46	148.07	4,800	950	40	140	210	170	NM		
MW-4	11/17/97	156.53	8.24	148.29	Not Sampled: Well Sampled Semiannually								
MW-4	03/16/98	156.53	5.32	151.21	<50	<0.5	<0.5	<0.5	<0.5	<3	1.5	P	
MW-4	05/12/98	156.53	6.38	150.15	Not Sampled: Well Sampled Semiannually								
MW-4	07/27/98	156.53	7.36	149.17	21,000	6,100	390	810	1,600	<300	0.5	NP	
MW-4 *	10/15/98	156.53	8.30	148.23	Not Sampled: Well Sampled Semiannually								
MW-4 *	02/18/99	156.53	4.39	152.14	Not Sampled								
MW-4 *	05/24/99	156.53	7.45	149.08	18,000	5,600	350	410	1,300	<300	1.0	NP	
MW-4 *	08/27/99	156.53	8.07	148.46	12,000	3,200	170	490	810	65	1.32	NP	
MW-4 *	10/26/99	156.53	8.72	147.81	12,000	3,100	130	450	680	12	1.39	NP	
MW-4 *	02/03/00	156.53	7.41	149.12	9,300	2,800	96	330	400	73	1.0	NP	
MW-5	01/31/96	151.33	8.64	142.69	<50	<0.5	<0.5	<0.5	<0.5	NA	NM		
MW-5	04/10/96	151.33	N/A	--	<50	<0.5	<0.5	<0.5	<0.5	NA	NM		
MW-5	07/16/96	151.33	8.15	143.18	<50	0.79	1.3	<0.5	<0.5	<2.5	NM		
MW-5	10/14/96	151.33	7.92	143.41	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NM		
MW-5	03/27/97	151.33	7.75	143.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NM		
MW-5	05/27/97	151.33	8.16	143.17	<50	<0.5	<0.5	<0.5	<0.5	<2.5	NM		
MW-5	08/12/97	151.33	----- Well Inaccessible -----										
MW-5	11/17/97	151.33	8.75	142.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	4.0	NP	
MW-5	03/16/98	151.33	6.90	144.43	<50	<0.5	<0.5	<0.5	<0.5	<3	1.5	P	

**Table 1**  
**Groundwater Elevation and Analytical Data**  
**Total Purgeable Petroleum Hydrocarbons**  
**(TPPH as Gasoline, BTEX Compounds, and MTBE)**

**ARCO Service Station 0374**  
**6407 Telegraph Avenue, Oakland, California**

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)
MW-5	05/12/98	151.33	7.24	144.09	<50	<0.5	<0.5	<0.5	<0.5	<3	2.2	P
MW-5	07/27/98	151.33	7.91	143.42	<50	<0.5	<0.5	<0.5	<0.5	<3	1.3	P
MW-5	10/15/98	151.33	8.31	143.02	<50	<0.5	<0.5	<0.5	0.6	<3	3.0	P
MW-5	02/18/99	151.33	7.25	144.08	<50	<0.5	<0.5	<0.5	<0.5	<3	2.0	P
MW-5	05/24/99	151.33	7.52	143.81	<50	<0.5	<0.5	<0.5	<0.5	<3	2.0	NP
MW-5	08/27/99	151.33	8.31	143.02	<50	<0.5	<0.5	<0.5	<0.5	<3	2.28	P
MW-5	10/26/99	151.33	8.61	142.72	<50	<0.5	<0.5	<0.5	<1	<3	1.99	P
MW-5	02/03/00	151.33	10.09	141.24	<50	<0.5	<0.5	<0.5	<1	<3	1.0	NP
MW-6	01/31/96	153.84	5.15	148.69	Not Sampled: Well Sampled Annually							
MW-6	04/10/96	153.84	4.58	149.26	Not Sampled: Well Sampled Annually							
MW-6	07/16/96	153.84	4.96	148.88	<50	<0.5	<0.5	<0.5	<0.5	150	NM	
MW-6	10/14/96	153.84	6.15	147.69	Not Sampled: Well Sampled Annually							
MW-6	03/27/97	153.84	4.40	149.44	Not Sampled: Well Sampled Annually							
MW-6	05/27/97	153.84	4.90	148.94	Not Sampled: Well Sampled Annually							
MW-6	08/12/97	153.84	5.43	148.41	<50	<0.5	<0.5	<0.5	<0.5	39	NM	
MW-6	11/17/97	153.84	5.87	147.97	Not Sampled: Well Sampled Annually							
MW-6	03/16/98	153.84	4.52	149.32	Not Sampled: Well Sampled Annually							
MW-6	05/12/98	153.84	4.42	149.42	Not Sampled: Well Sampled Annually							
MW-6	07/27/98	153.84	4.75	149.09	<50	<0.5	<0.5	<0.5	<0.5	18	0.9	P
MW-6	10/15/98	153.84	5.75	148.09	Not Sampled: Well Sampled Annually							
MW-6	02/18/99	153.84	3.93	149.91	Not Sampled: Well Sampled Annually							
MW-6	05/24/99	153.84	4.32	149.52	<50	<0.5	<0.5	<0.5	<0.5	6	2.0	NP
MW-6	08/27/99	153.84	5.72	148.12	<50	<0.5	<0.5	<0.5	<0.5	8	1.02	NP
MW-6	10/26/99	153.84	5.94	147.90	Not Sampled: Well Sampled Annually							
MW-6	02/03/00	153.84	5.44	148.40	<50	<0.5	<0.5	<0.5	<1	<3	1.0	NP

**Table 1**  
**Groundwater Elevation and Analytical Data**  
**Total Purgeable Petroleum Hydrocarbons**  
**(TPPH as Gasoline, BTEX Compounds, and MTBE)**

**ARCO Service Station 0374**  
**6407 Telegraph Avenue, Oakland, California**

Well Number	Date Gauged/ Sampled	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)	TPPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)	Dissolved Oxygen (ppm)	Purged/ Not Purged (P/NP)
MSL	= Mean sea level.											
TOC	= Top of casing.											
TPPH	= Total purgeable petroleum hydrocarbons by modified EPA method 8015.											
BTEX	= Benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 10/26/99).											
MTBE	= Methyl tert -Butyl Ether by EPA method 8021B. (EPA method 8020 prior to 10/26/99).											
ppb	= Parts per billion.											
ppm	= Parts per million.											
<	= Less than laboratory detection limit stated to the right.											
NA	= Not analyzed.											
NM	= Not measured.											
N/A	= Not available.											
*	= ORCs installed in well MW-3 beginning 11/14/95 and in well MW-4 beginning 09/29/98. Please refer to Appendix D for details.											

**Table 2  
Groundwater Flow Direction and Gradient**

**ARCO Service Station 0374  
6407 Telegraph Avenue, Oakland, California**

<b>Date Measured</b>	<b>Average Flow Direction</b>	<b>Average Hydraulic Gradient</b>
01-31-96	Southwest	0.04
04-10-96	Southwest	0.04
07-16-96	Southwest	0.03
10-14-96	Southwest	0.03
03-27-97	Southwest	0.04
05-27-97	Southwest	0.03
08-12-97	Southwest	0.04
11-17-97	Southwest	0.03
03-16-98	Southwest	0.03
05-12-98	Southwest	0.04
07-27-98	Southwest	0.04
10-15-98	Southwest	0.02
02-18-99	Southwest	0.05
05-24-99	Southwest	0.03
08-27-99	Southwest	0.03
10-26-99	Southwest	0.03
<b>02-03-00</b>	<b>Southwest</b>	<b>0.047</b>

**Table D-1**  
**Intrinsic Bioremediation Evaluation and Enhancement Data**

**ARCO Service Station 0374**  
**6407 Telegraph Avenue, Oakland, California**

Well	Date Sampled	<u>Field Analyses</u>					<u>Laboratory Analyses</u>											
		Groundwater Temperature (deg F)	pH (units)	Conductivity (µmhos)	D.O. (mg/L)	Ferrous Iron (mg/L)	Total Alkalinity (mg CaCO <sub>3</sub> /L)	B.O.D. (mg/L)	Carbon Dioxide (mg/L)	C.O.D. (mg/L)	Methane (%)	Nitrate as Nitrate (mg/L)	Nitrite as Nitrite (mg/L)	Sulfate (mg/L)	TPH as Gasoline (µg/L)	Total BTEX (µg/L)		
MW-3	11/14/95	**	65.5*	6.76*	508*	7.17	N/A	NS	NS	NS	NS	NS	6.6	<1.0	NS	140	46	
MW-3	06/06/96	**	66.2	7.38	700	12.28	N/A	NS	NS	NS	NS	NS	NS	NS	NS	84†	5.4†	
MW-3	07/16/96		67.8	7.08	1,010	8.73	0.0	280	1.8	270	44	<0.020	<1.0	NS	78	<50	2.2	
MW-3	01/21/97	**	59	N/A	N/A	11.15	0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
MW-3	08/12/97	**	74.4	6.65	600	6.7	1.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
MW-3	11/17/97		N/A	N/A	N/A	12.0	0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
MW-3	03/16/98		68.5	7.75	806	4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-3	05/12/98		NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-3	07/27/98		68.1	6.81	904	1.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	74	ND	
MW-3	09/29/98	**	ORC installed															
MW-3	10/15/98		NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	02/18/99		NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	05/24/99		66.2	7.24	799	6.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-3	07/26/99	**	ORC installed															
MW-3	08/27/99		69.0	7.97	782	16.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND
MW-3	10/26/99		66.5	5.93	794	14.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND
MW-3	02/03/00		62.0	7.42	7,877	1.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND
MW-4	07/16/96		69.5	6.72	1,370	3.20	4.20	420	NS	470	NS	0.11	<1.0	NS	18	5,600	2,020	
MW-4	03/16/98		66.2	6.89	1,411	1.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-4	05/12/98		NM	NM	NM	NM	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-4	07/27/98		70.5	6.34	1,434	0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21,000	8,900	
MW-4	09/29/98	**	ORC installed															
MW-4	10/15/98		NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	02/18/99		NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	05/24/99		67.6	6.72	1,509	1.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18,000	7,660	
MW-4	07/26/99	**	ORC installed															

**Table D-1  
Intrinsic Bioremediation Evaluation and Enhancement Data**

**ARCO Service Station 0374  
6407 Telegraph Avenue, Oakland, California**

Well	Date Sampled	<u>Field Analyses</u>					<u>Laboratory Analyses</u>										
		Groundwater Temperature (deg F)	pH (units)	Conductivity (µmhos)	D.O. (mg/L)	Ferrous Iron (mg/L)	Total Alkalinity (mg CaCO3/L)	B.O.D. (mg/L)	Carbon Dioxide (mg/L)	C.O.D. (mg/L)	Methane (%)	Nitrate as Nitrate (mg/L)	Nitrite as Nitrite (mg/L)	Sulfate (mg/L)	TPH as Gasoline (µg/L)	Total BTEX (µg/L)	
MW-4	08/27/99	70.5	7.09	1,469	1.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12,000	4,670	
MW-4	10/26/99	66.8	7.05	1,565	1.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12,000	4,360	
MW-4	02/03/00	64.1	7.27	1,506	1.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9,300	3,626	
MW-5	07/16/96	70.4	6.85	690	6.80	0.0	170	NS	180	NS	<0.020	<1.0	NS	35	<50	1.1	
MW-5	03/16/98	69.5	7.19	584	1.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-5	05/12/98	65.9	7.04	619	2.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-5	07/27/98	73.6	7.39	569	1.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-5	10/15/98	65.8	6.88	626	3.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	0.6	
MW-5	02/18/99	63.4	6.98	616	2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-5	05/24/99	66.7	6.70	591	2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-5	08/27/99	72.6	7.10	624	2.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-5	10/26/99	70.4	5.95	601	1.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-5	02/03/00	62.1	7.31	6,072	1.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-6	06/06/96	N/A	N/A	N/A	3.47	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-6	03/16/98	N/A	N/A	N/A	N/A	N/A	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-6	05/12/98	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-6	07/27/98	70.3	6.67	638	0.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-6	10/15/98	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-6	02/18/99	NM	NM	NM	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-6	05/24/99	65.5	6.62	713	2.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-6	08/27/99	73.0	7.12	589	1.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	
MW-6	10/26/99	NM	NM	NM	2.51	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-6	02/03/00	61.7	7.32	5,091	1.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	ND	ND	

**Table D-1  
Intrinsic Bioremediation Evaluation and Enhancement Data**

**ARCO Service Station 0374  
6407 Telegraph Avenue, Oakland, California**

		<u>Field Analyses</u>					<u>Laboratory Analyses</u>									
Well	Date Sampled	Groundwater		Conductivity (µmhos)	D.O. (mg/L)	Ferrous Iron (mg/L)	Total Alkalinity (mg CaCO3/L)	Carbon B.O.D. (mg/L)	Carbon Dioxide (mg/L)	C.O.D. (mg/L)	Methane (%)	Nitrate	Nitrite	Sulfate (mg/L)	TPH as	Total
		Temperature (deg F)	pH (units)									as Nitrate (mg/L)	as Nitrite (mg/L)		Gasoline (µg/L)	BTEX (µg/L)
D.O.		= Dissolved oxygen				µg/L					= Micrograms per liter					
B.O.D.		= Biochemical oxygen demand				NM					= not measured					
C.O.D.		= Chemical oxygen demand				NS					= Not sampled					
TPPH		= Total purgeable petroleum hydrocarbons				ND					= Not detected					
BTEX		= Benzene, toluene, ethylbenzene, and xylenes				N/A					= Not available					
deg F		= Degrees Fahrenheit				*					Field measurements collected on November 2, 1995.					
µmhos		= Micromhos				**					ORC installed					
mg/L		= Milligrams per liter				†					From April 10, 1996 groundwater monitoring event.					

**ATTACHMENT D**

**EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION**



---

## Error Summary Log

02/13/03

EDF 1.2i All files present in deliverable.

---

Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #374, Oakland, Ca
Work Order Number:	MLL0341
Global ID:	T0600100106
Lab Report Number:	MLL0341122820021219

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotcl	Run	Sub
MLL03411228200 21219	MW-3	MLL034101	W	CS	SW8021F	SW5030B	12/06/02	12/20/02	12/20/02	2L20002	1	
MLL03411228200 21219	MW-4	MLL034102	W	CS	SW8021F	SW5030B	12/06/02	12/20/02	12/20/02	2L20002	1	
MLL03411228200 21219	MW-5	MLL034103	W	CS	SW8021F	SW5030B	12/06/02	12/20/02	12/20/02	2L20002	1	
		MLL022002	W	NC	SW8021F	SW5030B	//	12/20/02	12/20/02	2L20002	1	
		2L20002BS1	WQ	BS1	SW8021F	SW5030B	//	12/20/02	12/20/02	2L20002	1	
		2L20002BS2	WQ	BS2	SW8021F	SW5030B	//	12/20/02	12/20/02	2L20002	1	
		2L20002BLK1	WQ	LB1	SW8021F	SW5030B	//	12/20/02	12/20/02	2L20002	1	
		2L20002MS1	W	MS1	SW8021F	SW5030B	//	12/20/02	12/20/02	2L20002	1	
		2L20002MSD1	W	SD1	SW8021F	SW5030B	//	12/20/02	12/20/02	2L20002	1	

# EDFSAMP: Error Summary Log

02/13/03

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

# EDFTEST: Error Summary Log

02/13/03

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

# EDFRES: Error Summary Log

02/13/03

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
Warning: extra parameter	2L20002MS1	MS1	W	SW8021F	PR	12/20/02	1	AAATFBZME
Warning: extra parameter	2L20002MS1	MS1	W	SW8021F	PR	12/20/02	1	GROC6C10
Warning: extra parameter	2L20002MSD1	SD1	W	SW8021F	PR	12/20/02	1	AAATFBZME
Warning: extra parameter	2L20002MSD1	SD1	W	SW8021F	PR	12/20/02	1	GROC6C10
Warning: extra parameter	MLL022002	NC	W	SW8021F	PR	12/20/02	1	AAATFBZME
Warning: extra parameter	MLL022002	NC	W	SW8021F	PR	12/20/02	1	GROC6C10
Warning: extra parameter	MLL034101	CS	W	SW8021F	PR	12/20/02	1	AAATFBZME
Warning: extra parameter	MLL034101	CS	W	SW8021F	PR	12/20/02	1	GROC6C10
Warning: extra parameter	MLL034101	CS	W	SW8021F	PR	12/20/02	1	MTBE
Warning: extra parameter	MLL034102	CS	W	SW8021F	PR	12/20/02	1	AAATFBZME
Warning: extra parameter	MLL034102	CS	W	SW8021F	PR	12/20/02	1	GROC6C10
Warning: extra parameter	MLL034102	CS	W	SW8021F	PR	12/20/02	1	MTBE
Warning: extra parameter	MLL034103	CS	W	SW8021F	PR	12/20/02	1	AAATFBZME
Warning: extra parameter	MLL034103	CS	W	SW8021F	PR	12/20/02	1	GROC6C10
Warning: extra parameter	MLL034103	CS	W	SW8021F	PR	12/20/02	1	MTBE
Warning: extra parameter	2L20002BLK1	LB1	WQ	SW8021F	PR	12/20/02	1	AAATFBZME
Warning: extra parameter	2L20002BLK1	LB1	WQ	SW8021F	PR	12/20/02	1	GROC6C10
Warning: extra parameter	2L20002BLK1	LB1	WQ	SW8021F	PR	12/20/02	1	MTBE
Warning: extra parameter	2L20002BS1	BS1	WQ	SW8021F	PR	12/20/02	1	AAATFBZME
Warning: extra parameter	2L20002BS2	BS2	WQ	SW8021F	PR	12/20/02	1	AAATFBZME
Warning: extra parameter	2L20002BS2	BS2	WQ	SW8021F	PR	12/20/02	1	GROC6C10

# EDFQC: Error Summary Log

02/13/03

Error type	Labiocfl	Anmcode	Parlabel	Qccode	Labqid
There are no errors in this data files					

# EDFCL: Error Summary Log

02/13/03

Error type	Cirevdate	Anmcode	Exmcode	Parlabel	Cicode
There are no errors in this data file	//				

## AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

Your EDF file has been successfully uploaded!

**Confirmation Number:** 9407865881

**Date/Time of Submittal:** 2/13/2003 2:49:42 PM

**Facility Global ID:** T0600100106

**Facility Name:** ARCO

**Submittal Title:** Fourth Quarter 2002 Groundwater Monitoring Report for Site #374

**Submittal Type:** GW Monitoring Report

Logged in as URSCORP-OAKLAND (CONTRACTOR)

CONTACT SITE ADMINISTRATOR.



## AB2886 Electronic Delivery

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

### UPLOADING A GEO\_WELL FILE

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

**Submittal Title:** Fourth Quarter 2002 Groundwater Monitoring Report for Site #374  
**Submittal Date/Time:** 2/13/2003 2:50:22 PM  
**Confirmation Number:** 4744323551

[Back to Main Menu](#)

Logged in as URSCORP-OAKLAND (CONTRACTOR)

[CONTACT SITE ADMINISTRATOR.](#)