



September 9, 2003

Mr. Amir Gholami
Environmental Health Services
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

20392

Alameda County
SEP 17 2003
Environmental Health

**Re: Request for Case Closure
ARCO Service Station #2185,
9800 East 14th Street,
Oakland, California**

Dear Mr. Gholami:

On behalf of Atlantic Richfield Company (ARCO - an affiliated company of the Group Environmental Management Company), URS Corporation (URS) is requesting case closure for Arco Service Station #2185 located at 9800 East 14th Street, Oakland, California (Site). In a letter from Alameda County Health Care Services Agency (ACHCSA) issued May 18, 1999, Mr. Barney Chan stated that additional soil samples would need to be collected to verify residual benzene concentrations before closing the Site (Attachment A). In 1991, the concentrations of concern were detected in samples L-3, L-4, L-9 and L-10 collected between 5 and 11 feet below ground surface (bgs) from beneath the former dispenser locations (Attachments B and C). Mr. Chan was concerned that the concentrations may conservatively pose a risk to human health based on the Tier 1, Tier 2 Risk-Based Correction Action (RBCA) results for this Site (Attachments D).

On November 12, 2002, during product line upgrades at the Site, eight soil samples (DI-1 through DI-4 and LS-1 through LS-4) were collected at depths varying between 4.5 feet and 6.5 feet bgs at the former dispenser and product line trench locations (see attached figure). Details of the product line upgrade and soil sampling activities conducted at the Site are discussed in the *'Product Line Removal and Upgrade Soil Sampling Report'* submitted to ACHCSA on May 19, 2003. Soil samples DI-2, LS-2, DI-3, LS-3, DI-4, and LS-4 were collected at locations corresponding to the former sample locations L-3, L-4, L-9 and L-10 that had residual benzene concentrations of concern (see attached figure and Attachment B). The soil samples DI-1 through DI-4 and LS-1 through LS-4 were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, xylenes (BTEX), and MTBE by EPA Method 8260B.

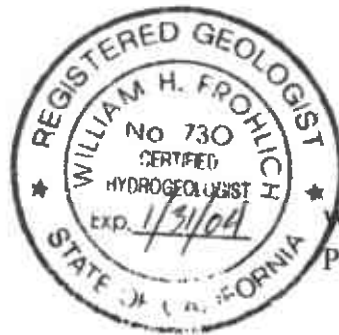
The respective soil analytical results, which are representative of the remaining hydrocarbon concentrations beneath the former dispenser locations, were non-detect for all constituents (Tables 1 and 2). As indicated by the analytical results, the current residual TPH-g and BTEX concentrations in the former dispenser locations do not exceed the Tier 1, Tier 2 RBCA results (Benzene 0.230 mg/kg - Attachment D) or the more conservative Environmental Screening Levels (ESLs, July 2003; Benzene 0.044 mg/kg - Attachment E). Accordingly, this addresses ACHCSA's concerns for residual benzene concentrations at the respective Site and qualifies the Site for case closure.

Should you have any questions or concerns, please contact me at (510) 874-3280.

Sincerely,
URS CORPORATION



Scott Robinson
Project Manager



William Frohlich, C. Hg., C.E.G
Project Geologist

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

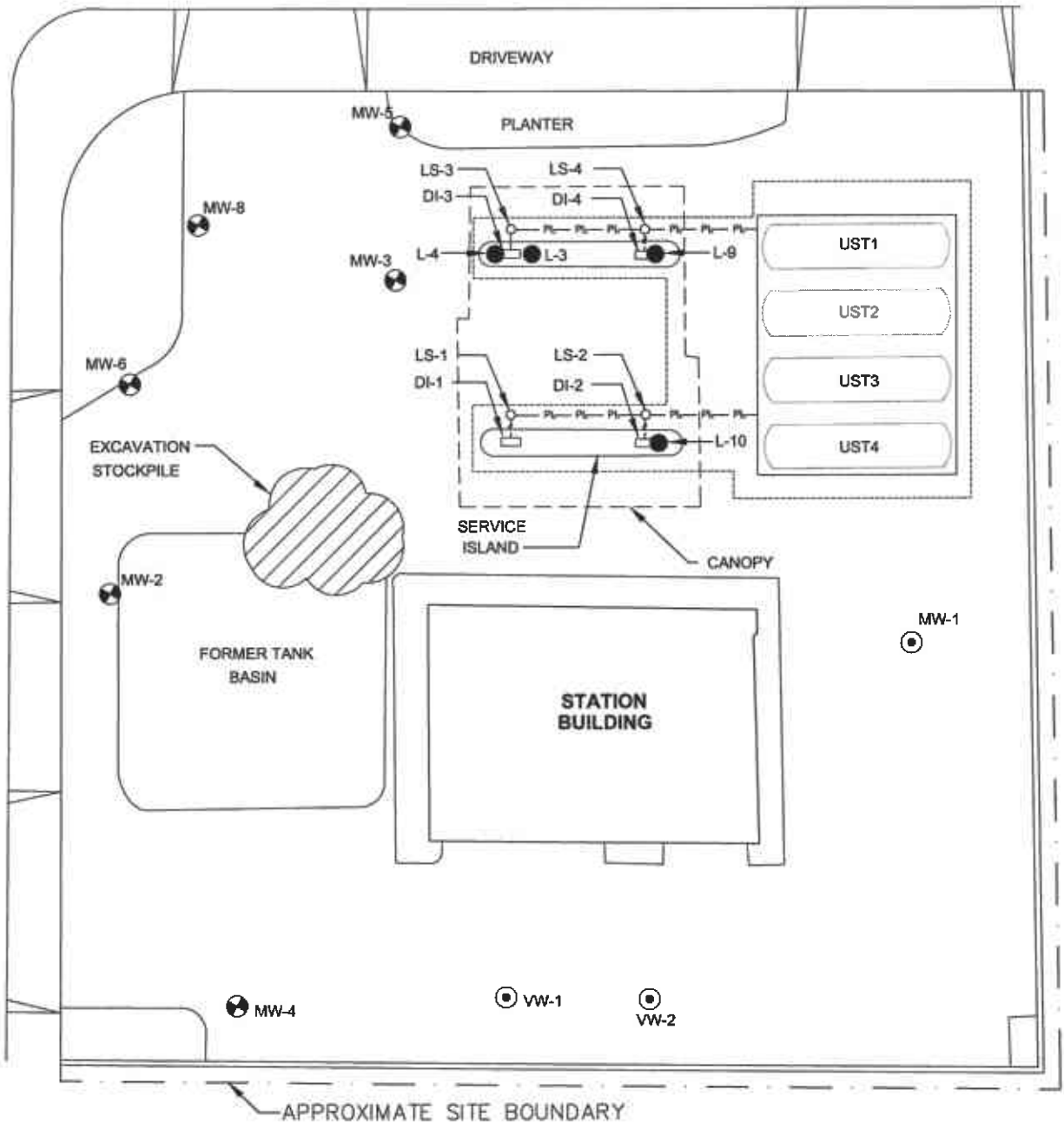
- Attachments:
- Figure – Soil Sampling Location Plan, November 12, 2002.
 - Table 1 – Line/Dispensers Soil Sample Results from November 12, 2002.
 - Table 2 – Stockpile Soil Sample Results from November 12, 2002.
 - Attachment A: Alameda County Health Care Services Letter, March 18, 1999.
 - Attachment B: Historic Soil Sampling Location Plan.
 - Attachment C: Dispenser/Product Line Analytical Results from November 1991.
 - Attachment D: Tables 1 through 3 of the *'Tier 1, Tier 2 Risk-Based Correction Action Evaluation for ARCO Service Station 2185'* report, prepared by EMCON, October 6, 1997.
 - Attachment E: ESLs for Shallow Soils (<3m bgs) where Groundwater is Current or Potential Source of Drinking Water.
 - Attachment F: Soil Analytical Results and Laboratory Report from November 12, 2002 as reported in the *'Product Line Removal and Upgrade Soil Sampling Report'*, prepared by URS, May 19, 2003.

98TH AVENUE

DRIVEWAY

PLANTER

EAST 14TH STREET

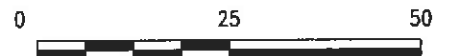


LEGEND:

- LS-1 FUEL LINE SAMPLING LOCATION (NOVEMBER 12, 2002)
- DI-1 FUEL DISPENSER/SUMP SAMPLING LOCATION (NOVEMBER 12, 2002)
- L-3 PRODUCT LINE TRENCH SOIL SAMPLE LOCATION AND DESIGNATION (NOVEMBER 1991)
- VW-1 GROUNDWATER MONITORING WELL
- MW-1 GROUNDWATER EXTRACTION WELL
- PL — EXPOSED PRODUCT LINE PIPING
- APPROXIMATE LIMITS OF EXCAVATION



NORTH



SCALE IN FEET

Project No. 38486469



ARCO Service Station 2185
9800 East 14th Street
Oakland, California

SOIL SAMPLING LOCATION PLAN
NOVEMBER 1991 AND
NOVEMBER 12, 2002

Figure
1

Soil Analytical Data
 ARCO Service Station 2185
 9800 East 14th Street
 Oakland, California

**TABLE 1
 LINE/DISPENSERS SOIL SAMPLE RESULTS**

Soil Sample ID	Sample Depth (feet)	Date Sampled	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)
DI-1	4.5	11/12/2002	ND<1.8	ND<0.018	ND<0.018	ND<0.018	ND<0.018	ND<0.018
DI-2	6	11/12/2002	ND<1.9	ND<0.019	ND<0.019	ND<0.019	ND<0.019	ND<0.019
DI-3	6.5	11/12/2002	ND<1.7	ND<0.017	ND<0.017	ND<0.017	ND<0.017	ND<0.017
DI-4	5	11/12/2002	ND<2.5	ND<0.025	ND<0.025	ND<0.025	ND<0.025	ND<0.025
LS-1	4.5	11/12/2002	ND<1.9	ND<0.019	ND<0.019	ND<0.019	ND<0.019	ND<0.019
LS-2	6	11/12/2002	ND<2.3	ND<0.023	ND<0.023	ND<0.023	ND<0.023	ND<0.023
LS-3	6	11/12/2002	ND<2.0	ND<0.020	ND<0.020	ND<0.020	ND<0.020	ND<0.020
LS-4	6	11/12/2002	ND<2.2	ND<0.022	ND<0.022	ND<0.022	ND<0.022	ND<0.022

**TABLE 2
 STOCKPILE SAMPLE RESULTS**

Soil Sample ID	Sample Depth (feet)	Date Sampled	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)	Total Pb (mg/kg)
SP (1-4)	stockpile	11/14/2002	ND<0.50	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.5	56
TPH = Total purgeable petroleum hydrocarbons using EPA Method 8260B. BTEX = Benzene, toluene, ethylbenzene, total xylenes using EPA Method 8260B. MTBE = Methyl Tertiary Butyl Ether using EPA Method 8260B. Total Pb = Total lead by EPA Method 6000/7000. mg/kg = Milligrams per kilograms ND< = Less than stated laboratory detection limit.									

Note:

Please note that the soil analytical results units were erroneously reported in Table 1 of the 'Product Line Removal and Upgrade Soil Sampling Report' dated May 19th, 2003, prepared by URS for the respective Site. The above Table 1 rectifies the error.

ATTACHMENT A

Alameda County Health Care Services Letter, March 18, 1999.

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 18, 1999
StID # 3876

Mr. Paul Supple
ARCO Products Co.
P.O. Box 6549
Moraga, CA 94570

Re: Additional Subsurface Investigation at ARCO Station No. 2185, 9800 E. 14th St.,
Oakland, CA, 94603

Dear Mr. Supple:

Upon review of the recent quarterly groundwater monitoring report for the Fourth Quarter 1998 for the above site, it appears that groundwater conditions have stabilized and do not pose a risk. At this time, you may suspend future monitoring. However, one problem still remains which our office has discussed with Mr. Ray Kaminsky of EMCON. It concerns the Tier 2 RBCA for this site. The residual benzene concentration in soil samples collected beneath the former fuel dispensers may conservatively pose a risk to human health. The soil results are biased because of the results of a few soil samples with elevated benzene concentration. Therefore, to resolve this situation, our office requests an additional subsurface investigation in the areas near the former dispensers. Either soil or soil vapor samples should be collected to verify the prior analytical results. It is likely that current site conditions have changed considerably from the initial conditions taken during the tank removal in 1991. Therefore, you are encouraged to re-sample soil in the same general location as in the past. Alternatively, soil vapor samples may be taken, however, there may be some doubt as to soil conditions if this is done.

Please submit a work plan for this additional investigation to our office within 30 days or by April 19, 1999.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

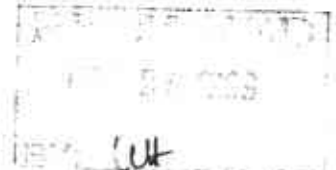
Barney M. Chan
Hazardous Materials Specialist

C/ B. Chan, files

✓ Mr. G. Vander Veen, Pinnacle Environmental Solutions, 144-A Mayhew Way, Walnut
Creek, CA 94596

Mr. R. Kaminsky, EMCON, 1921 Ringwood Ave., San Jose, CA 95131-1721

Addwp9800



ATTACHMENT B

Figure 2 – Tier 1/Tier 2 RBCA Evaluation Excavated Areas from the '*Tier 1, Tier 2 Risk-Based Correction Action Evaluation for ARCO Service Station 2185*' report, prepared by EMCON, October 6, 1997.

ATTACHMENT C

Dispenser/Product Line Analytical Results from November 1991.

Soil Analytical Data

ARCO Service Station 2185
 9800 East 14th Street
 Oakland, California

DISPENSERS/PRODUCT LINES SOIL SAMPLE RESULTS

Soil Sample ID	Sample Depth (feet)	Date Sampled	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)
L-1	3	11/91	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050
L-2	3	11/91	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050
L-3	5	11/91	1,400 ✓	0.51	87	55	350
L-4	11	11/91	450 ✓	2.6	24	8.7	56
L-5	8	11/91	18	ND<0.0050	0.029	0.042	0.38
L-6	8	11/91	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050
L-7	8	11/91	5.1	0.032	0.047	0.058	0.13
L-8	8	11/91	240 ✓	0.17	2.8	2.8	15
L-9	9.5	11/91	5,400 ✓	22	330	120	640
L-10	8	11/91	2,600 ✓	5	130	53	29
L-11	3	11/91	1.4	ND<0.0050	0.014	0.012	0.1
L-12	3	11/91	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050
L-13	3	11/91	13	ND<0.0050	0.026	0.05	0.7
L-14	3	11/91	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050

Notes:

- TPH = Total purgeable petroleum hydrocarbons using EPA Method 8260B.
- ND< = Less than stated laboratory detection limit.
- mg/kg = Milligrams per kilograms

ATTACHMENT D

Tables 1 through 3 of the *'Tier 1, Tier 2 Risk-Based Correction Action Evaluation for ARCO Service Station 2185'* report, prepared by EMCON, October 6, 1997.

Table 1
Tier 1 Results
ARCO Service Station 2185

Compounds	Groundwater to Ambient Air		Groundwater to Indoor Air	
	Representative Concentrations in Groundwater ¹ (mg/L)	RBSL Groundwater to Ambient Air (mg/L)	Representative Concentrations in Groundwater ¹ (mg/L)	RBSL Groundwater to Indoor Air (mg/L)
Benzene	0.084	53.4	0.084	0.214
Toluene	0.001	>S	0.001	85
Ethylbenzene	0.073	>S	0.073	>S
Xylenes	0.022	>S	0.022	>S
MtBE	2.200	>S	2.200	19,000
Compounds	Soil to Ambient Air		Soil to Indoor Air	
	Representative Concentrations in Soil ² (mg/L)	RBSL Soil to Ambient Air (mg/kg)	Representative Concentrations in Soil ² (mg/kg)	RBSL Soil to Indoor Air (mg/kg)
Benzene	0.23	1.33	0.23	0.032
Toluene	1.5	RES	1.5	54.5
Ethylbenzene	1.1	RES	1.1	1,100
Xylenes	3.3	RES	3.3	RES

1. The highest concentration from the last four quarters of groundwater monitoring results
2. The average concentration from the samples collected in the dispenser area at the 8 to 9.5 feet depths.

RBSL: Risk-Based Screening Level

RBSLs for benzene are for 1×10^{-5} risk level, and have been multiplied by 0.29 to account for California's slope factor for benzene.

RES: The RBSL is greater than the holding capacity of the soil, and thus the soil can be saturated and not exceed the RBSL.

>S: The RBSL is greater than the solubility of that compound in water, and thus the water can be saturated and not exceed the RBSL.

☐ Highlighted values indicate representative concentration exceeds respective RBSL.

RBCA TIER 1/TIER 2 EVALUATION

Table 2

Site Name: ARCO 2185
Site Location: dispenser data

Job Identification:
Date Completed:
Completed By: EMCON

Software: GSI RBCA Spreadsheet
Version: v 1.0

NOTE: values which differ from Tier 1 default values are shown in bold italics and underlined.

DEFAULT PARAMETERS

Exposure Parameter	Definition (Units)	Residential		Commercial/Industrial		Surface Parameters	Definition (Units)	Residential	Commercial/Industrial	
		Adult	(1-6yrs)	(1-16 yrs)	Chronic				Constructn	Chronic
ATc	Averaging time for carcinogens (yr)					I	Exposure duration (yr)	30	25	1
ATn	Averaging time for non-carcinogens (yr)				25	A	Contaminated soil area (cm ²)	<u>1.6E+08</u>		<u>1.6E+08</u>
BW	Body Weight (kg)				70	W	Length of affected soil parallel to wind (cm)	1.5E+03		1.0E+03
ED	Exposure Duration (yr)				25	W.gw	Length of affected soil parallel to groundwater (cm)	1.5E+03		
EF	Exposure Frequency (days/yr)				250	Uair	Ambient air velocity in mixing zone (cm/s)	2.3E+02		
EF.Derm	Exposure Frequency for dermal exposure				250	delta	Air mixing zone height (cm)	2.0E+02		
IRgw	Ingestion Rate of Water (l/day)				1	Lss	Definition of surficial soils (cm)	1.0E+02		
IRs	Ingestion Rate of Soil (mg/day)				50	Pe	Particulate areal emission rate (g/cm ² /s)	2.2E-10		
IRadj	Adjusted soil ing. rate (mg/yr/kg-d)				9.4E+01	Groundwater Definition (Units) Value				
IRa.in	Inhalation rate indoor (m ³ /day)				20	delta.gw	Groundwater mixing zone depth (cm)	2.0E+02		
IRa.out	Inhalation rate outdoor (m ³ /day)				20	I	Groundwater infiltration rate (cm/yr)	3.0E+01		
SA	Skin surface area (dermal) (cm ²)				5.8E+03	Ugw	Groundwater Darcy velocity (cm/yr)	<u>1.1E+02</u>		
SAadj	Adjusted dermal area (cm ² *yr/kg)				1.7E+03	Ugw.tr	Groundwater Transport velocity (cm/yr)	<u>5.5E+02</u>		
M	Soil to Skin adherence factor					Ks	Saturated Hydraulic Conductivity(cm/s)	4.4E-04		
AAFs	Age adjustment on soil ingestion				FALSE	grad	Groundwater Gradient (cm/cm)	8.0E-03		
AAFd	Age adjustment on skin surface area				FALSE	Sw	Width of groundwater source zone (cm)	6.1E+02		
tox	Use EPA tox data for air (or PEL based)					Sd	Depth of groundwater source zone (cm)	3.0E+02		
gwMCL?	Use MCL as exposure limit in groundwater?					BC	Biodegradation Capacity (mg/L)	1.6E+00		
Matrix of Exposed Persons to Complete Exposure Pathways						Residential		Commercial/Industrial		
						Chronic		Constructn		
Groundwater Pathways:						Soil Definition (Units) Value				
GW.i	Groundwater Ingestion				FALSE	hc	Capillary zone thickness (cm)	<u>3.0E+01</u>		
GW.v	Volatilization to Outdoor Air				TRUE	tv	Vadose zone thickness (cm)	<u>2.4E+02</u>		
GW.b	Vapor Intrusion to Buildings				TRUE	rho	Soil density (g/cm ³)	1.72		
Soil Pathways						fof	Fraction of organic carbon in vadose zone	<u>0.002</u>		
S.v	Volatiles from Subsurface Soils				TRUE	phi	Soil porosity in vadose zone	<u>0.35</u>		
SS.v	Volatiles and Particulate Inhalation				FALSE	Lgw	Depth to groundwater (cm)	<u>2.7E+02</u>		
SS.d	Direct Ingestion and Dermal Contact				FALSE	Ls	Depth to top of affected soil (cm)	<u>1.5E+02</u>		
S.l	Leaching to Groundwater from all Soils				FALSE	Lsubs	Thickness of affected subsurface soils (cm)	<u>1.2E+02</u>		
S.b	Intrusion to Buildings - Subsurface Soils				TRUE	pH	Soil/groundwater pH	6.5		
Matrix of Receptor Distance and Location on- or off-site						Residential		Commercial/Industrial		
						Distance		On-Site		
GW	Groundwater receptor (cm)									
S	Inhalation receptor (cm)				FALSE					
Matrix of Target Risks						Individual		Cumulative		
						Distance		On-Site		
TRab	Target Risk (class A&B carcinogens)				<u>1.0E-05</u>					
TRc	Target Risk (class C carcinogens)				1.0E-05					
THQ	Target Hazard Quotient				1.0E+00					
Opt	Calculation Option (1, 2, or 3)				2					
Tier	RBCA Tier				2					
Building Definition (Units)						Residential		Commercial		
						Distance		On-Site		
Lb	Building volume/area ratio (cm)				2.0E+02			3.0E+02		
ER	Building air exchange rate (s ⁻¹)				1.4E-04			2.3E-04		
Lcrk	Foundation crack thickness (cm)				1.5E+01					
ela	Foundation crack fraction				<u>0.005</u>					
Dispersive Transport Parameters Definition (Units)						Residential		Commercial		
						Distance		On-Site		
Groundwater										
ax	Longitudinal dispersion coefficient (cm)									
ay	Transverse dispersion coefficient (cm)									
az	Vertical dispersion coefficient (cm)									
Vapor										
dcy	Transverse dispersion coefficient (cm)									
dcz	Vertical dispersion coefficient (cm)									

Table 3
Tier 2 Results
ARCO Service Station 2185

Compound	Soil to Indoor Air	
	Representative Concentrations in Groundwater¹ (mg/kg)	Site-Specific Threshold Level (mg/kg)
Benzene	0.230	0.38

1. The most recent groundwater monitoring results from well EX-2 were used.
2. The maximum soil concentrations from the underground storage tank removal in June 1994. Site-specific threshold levels for benzene are for 1x10⁻⁵ risk level, and have been multiplied by slope factor for benzene.

ATTACHMENT E:

ESLs for Shallow Soils (<3m bgs) where Groundwater is Current or Potential Source of Drinking Water.

Source: *Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater. Volume 1: Summary Tier 1 Lookup Tables.* Prepared by California Regional Water Quality Control Board, San Francisco Bay Region.
Interim Final-July 2003.

ENVIRONMENTAL SCREENING LEVELS (ESLs)
Shallow Soils (≤ 3 m bgs)
Groundwater IS Current or Potential Source of Drinking Water

CHEMICAL PARAMETER	¹ Shallow Soil	
	² Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)
TPH (gasolines)	1.0E+02	1.0E+02
BENZENE	4.4E-02	4.4E-02
TOLUENE	2.9E+00	2.9E+00
ETHYLBENZENE	3.3E+00	3.3E+00
XYLENES	1.5E+00	1.5E+00
METHYL TERT BUTYL ETHER	2.3E-02	2.3E-02
LEAD	2.0E+02	7.5E+02

Notes:

1. Shallow soils defined as soils less than or equal to 3 meters (approximately 10 feet) below ground surface.
 2. Category "Residential Land Use" generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.)
- bgs = Below ground surface
mg/kg = Milligrams per kilograms
TPH = Total petroleum hydrocarbons

Source:

Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater. Volume 1: Summary Tier 1 Lookup Tables.
Prepared by California Regional Water Quality Control Board, San Francisco Bay Region. Interim Final-July 2003.

ATTACHMENT F

Soil Analytical Results (Tables 1 and 2) and associated Laboratory Report from November 12, 2002 as reported in the '*Product Line Removal and Upgrade Soil Sampling Report*', prepared by URS, May 19, 2003.

Soil Analytical Data
 ARCO Service Station 2185
 9800 East 14th Street
 Oakland, California

TABLE 1
LINE/DISPENSERS SOIL SAMPLE RESULTS

Soil Sample ID	Sample Depth (feet)	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	MTBE (ppm)
DI-1	4.5	11/12/02	ND<1800	ND<18	ND<18	ND<18	ND<18	ND<18
DI-2	6	11/12/02	ND<1900	ND<19	ND<19	ND<19	ND<19	ND<19
DI-3	6.5	11/12/02	ND<1700	ND<17	ND<17	ND<17	ND<17	ND<17
DI-4	5	11/12/02	ND<2500	ND<25	ND<25	ND<25	ND<25	ND<25
LS-1	4.5	11/12/02	ND<1900	ND<19	ND<19	ND<19	ND<19	ND<19
LS-2	6	11/12/02	ND<2300	ND<23	ND<23	ND<23	ND<23	ND<23
LS-3	6	11/12/02	ND<2000	ND<20	ND<20	ND<20	ND<20	ND<20
LS-4	6	11/12/02	ND<2200	ND<22	ND<22	ND<22	ND<22	ND<22

TABLE 2
STOCKPILE SAMPLE RESULTS

Soil Sample ID	Sample Depth (feet)	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	MTBE (ppm)	Total Pb (ppb)
SP (1-4)	stockpile	11/14/02	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.5	56

TPH = Total purgeable petroleum hydrocarbons using EPA Method 8260B.
 BTEX = Benzene, toluene, ethylbenzene, total xylenes using EPA Method 8260B.
 MTBE = Methyl Tertiary Butyl Ether using EPA Method 8260B.
 Total Pb = Total lead by EPA Method 6000/7000.
 ppb = Parts per billion.
 ppm = Parts per million.
 ND< = Less than stated laboratory detection limit.



**Sequoia
Analytical**

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

19 December, 2002

Barbara Jakub
URS Corporation [1]
2870 Gateway Oaks Dr., Ste 300
Sacramento, CA 95833

RE: ARCO #2185, Oakland, CA
Sequoia Work Order: MLK0562

Enclosed are the results of analyses for samples received by the laboratory on 11/14/02 10:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt
Project Manager
CA ELAP Certificate #1210



**Sequoia
Analytical**

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

URS Corporation [1]
2870 Gateway Oaks Dr., Ste 300
Sacramento CA, 95833

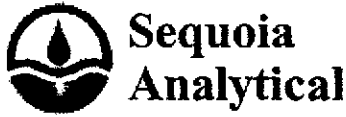
Project: ARCO #2185, Oakland, CA
Project Number: ARCO #2185, Oakland, CA
Project Manager: Barbara Jakub

MLK0562
Reported:
12/19/02 07:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DI-1	MLK0562-01	Soil	11/12/02 11:35	11/14/02 10:15
DI-2	MLK0562-02	Soil	11/12/02 12:05	11/14/02 10:15
DI-3	MLK0562-03	Soil	11/12/02 12:40	11/14/02 10:15
DI-4	MLK0562-04	Soil	11/12/02 13:05	11/14/02 10:15
LS-1	MLK0562-05	Soil	11/12/02 11:20	11/14/02 10:15
LS-2	MLK0562-06	Soil	11/12/02 12:15	11/14/02 10:15
LS-3	MLK0562-07	Soil	11/12/02 12:50	11/14/02 10:15
LS-4	MLK0562-08	Soil	11/12/02 13:20	11/14/02 10:15

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



885 Jarvis Dr
Morgan Hill, CA 95037
(408) 776-9600
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URS Corporation [1]
2870 Gateway Oaks Dr., Ste 300
Sacramento CA, 95833

Project: ARCO #2185, Oakland, CA
Project Number: ARCO #2185, Oakland, CA
Project Manager: Barbara Jakub

MLK0562
Reported:
12/19/02 07:48

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
DI-1 (MLK0562-01) Soil Sampled: 11/12/02 11:35 Received: 11/14/02 10:15									
Ethanol	ND	720	ug/kg	3.6	2K23001	11/23/02	11/23/02	EPA 8260B	
tert-Butyl alcohol	ND	360	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	18	"	"	"	"	"	"	
Di-isopropyl ether	ND	18	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	18	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	18	"	"	"	"	"	"	
1,2-Dichloroethane	ND	18	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	18	"	"	"	"	"	"	
Benzene	ND	18	"	"	"	"	"	"	
Toluene	ND	18	"	"	"	"	"	"	
Ethylbenzene	ND	18	"	"	"	"	"	"	
Xylenes (total)	ND	18	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	1800	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 81.6 % 60-140 " " " "

DI-2 (MLK0562-02) Soil Sampled: 11/12/02 12:05 Received: 11/14/02 10:15									
Ethanol	ND	750	ug/kg	3.76	2K23001	11/23/02	11/23/02	EPA 8260B	
tert-Butyl alcohol	ND	380	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	19	"	"	"	"	"	"	
Di-isopropyl ether	ND	19	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	19	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	19	"	"	"	"	"	"	
1,2-Dichloroethane	ND	19	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	19	"	"	"	"	"	"	
Benzene	ND	19	"	"	"	"	"	"	
Toluene	ND	19	"	"	"	"	"	"	
Ethylbenzene	ND	19	"	"	"	"	"	"	
Xylenes (total)	ND	19	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	1900	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 87.2 % 60-140 " " " "

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Project Manager: Barbara Jakub

MLK0562
Reported:
12/19/02 07:48

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
DI-3 (MLK0562-03) Soil Sampled: 11/12/02 12:40 Received: 11/14/02 10:15									
Ethanol	ND	690	ug/kg	3.47	2K23001	11/23/02	11/23/02	EPA 8260B	
tert-Butyl alcohol	ND	350	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	17	"	"	"	"	"	"	
Di-isopropyl ether	ND	17	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	17	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	17	"	"	"	"	"	"	
1,2-Dichloroethane	ND	17	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	17	"	"	"	"	"	"	
Benzene	ND	17	"	"	"	"	"	"	
Toluene	ND	17	"	"	"	"	"	"	
Ethylbenzene	ND	17	"	"	"	"	"	"	
Xylenes (total)	ND	17	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	1700	"	"	"	"	"	"	

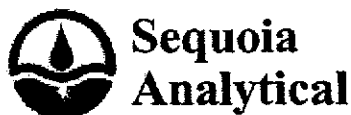
Surrogate: 1,2-Dichloroethane-d4 93.6 % 60-140 " " " "

DI-4 (MLK0562-04) Soil Sampled: 11/12/02 13:05 Received: 11/14/02 10:15									
Ethanol	ND	990	ug/kg	4.95	2K23001	11/23/02	11/23/02	EPA 8260B	
tert-Butyl alcohol	ND	500	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	25	"	"	"	"	"	"	
Di-isopropyl ether	ND	25	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	25	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	25	"	"	"	"	"	"	
1,2-Dichloroethane	ND	25	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	25	"	"	"	"	"	"	
Benzene	ND	25	"	"	"	"	"	"	
Toluene	ND	25	"	"	"	"	"	"	
Ethylbenzene	ND	25	"	"	"	"	"	"	
Xylenes (total)	ND	25	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	2500	"	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 84.4 % 60-140 " " " "

Sequoia Analytical - Morgan Hill

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MLK0562
Reported:
12/19/02 07:48

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
LS-1 (MLK0562-05) Soil Sampled: 11/12/02 11:20 Received: 11/14/02 10:15									
Ethanol	ND	750	ug/kg	3.73	2K23001	11/23/02	11/23/02	EPA 8260B	
tert-Butyl alcohol	ND	370	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	19	"	"	"	"	"	"	
Di-isopropyl ether	ND	19	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	19	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	19	"	"	"	"	"	"	
1,2-Dichloroethane	ND	19	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	19	"	"	"	"	"	"	
Benzene	ND	19	"	"	"	"	"	"	
Toluene	ND	19	"	"	"	"	"	"	
Ethylbenzene	ND	19	"	"	"	"	"	"	
Xylenes (total)	ND	19	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	1900	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		91.6 %		60-140	"	"	"	"	
LS-2 (MLK0562-06) Soil Sampled: 11/12/02 12:15 Received: 11/14/02 10:15									
Ethanol	ND	930	ug/kg	4.63	2K23001	11/23/02	11/23/02	EPA 8260B	
tert-Butyl alcohol	ND	460	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	23	"	"	"	"	"	"	
Di-isopropyl ether	ND	23	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	23	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	23	"	"	"	"	"	"	
1,2-Dichloroethane	ND	23	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	23	"	"	"	"	"	"	
Benzene	ND	23	"	"	"	"	"	"	
Toluene	ND	23	"	"	"	"	"	"	
Ethylbenzene	ND	23	"	"	"	"	"	"	
Xylenes (total)	ND	23	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	2300	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		85.4 %		60-140	"	"	"	"	

Sequoia Analytical - Morgan Hill

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 Project Manager: Barbara Jakub

MLK0562
 Reported:
 12/19/02 07:48

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
LS-3 (MLK0562-07) Soil Sampled: 11/12/02 12:50 Received: 11/14/02 10:15									
Ethanol	ND	800	ug/kg	4	2K23001	11/23/02	11/24/02	EPA 8260B	
tert-Butyl alcohol	ND	400	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	20	"	"	"	"	"	"	
Di-isopropyl ether	ND	20	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	20	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	20	"	"	"	"	"	"	O-09
1,2-Dichloroethane	ND	20	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	20	"	"	"	"	"	"	
Benzene	ND	20	"	"	"	"	"	"	
Toluene	ND	20	"	"	"	"	"	"	
Ethylbenzene	ND	20	"	"	"	"	"	"	
Xylenes (total)	ND	20	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	2000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.8 %	60-140						
LS-4 (MLK0562-08) Soil Sampled: 11/12/02 13:20 Received: 11/14/02 10:15									
Ethanol	ND	860	ug/kg	4.31	2K23001	11/23/02	11/24/02	EPA 8260B	
tert-Butyl alcohol	ND	430	"	"	"	"	"	"	O-09
Methyl tert-butyl ether	ND	22	"	"	"	"	"	"	
Di-isopropyl ether	ND	22	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	22	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	22	"	"	"	"	"	"	O-09
1,2-Dichloroethane	ND	22	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	22	"	"	"	"	"	"	
Benzene	ND	22	"	"	"	"	"	"	
Toluene	ND	22	"	"	"	"	"	"	
Ethylbenzene	ND	22	"	"	"	"	"	"	
Xylenes (total)	ND	22	"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	2200	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		92.4 %	60-140						

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MLK0562
Reported:
12/19/02 07:48

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
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Batch 2K23001 - EPA 5035

Blank (2K23001-BLK1)

Prepared & Analyzed: 11/23/02

Ethanol	ND	200	ug/kg							
tert-Butyl alcohol	ND	100	"							
Methyl tert-butyl ether	ND	5.0	"							
Di-isopropyl ether	ND	5.0	"							
Ethyl tert-butyl ether	ND	5.0	"							
tert-Amyl methyl ether	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Benzene	ND	5.0	"							
Toluene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Xylenes (total)	ND	5.0	"							
Gasoline Range Organics (C6-C10)	ND	500	"							

Surrogate: 1,2-Dichloroethane-d4 4.34 " 5.00 86.8 60-140

Laboratory Control Sample (2K23001-BS1)

Prepared & Analyzed: 11/23/02

Methyl tert-butyl ether	12.5	5.0	ug/kg	10.0		125	60-140			
Benzene	10.3	5.0	"	10.0		103	60-140			
Toluene	10.1	5.0	"	10.0		101	60-140			

Surrogate: 1,2-Dichloroethane-d4 4.38 " 5.00 87.6 60-140

Laboratory Control Sample (2K23001-BS2)

Prepared & Analyzed: 11/23/02

Gasoline Range Organics (C6-C10)	ND	500	ug/kg	440		85.7	60-140			
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Surrogate: 1,2-Dichloroethane-d4 4.38 " 5.00 87.6 60-140

Laboratory Control Sample Dup (2K23001-BSD1)

Prepared & Analyzed: 11/23/02

Methyl tert-butyl ether	12.8	5.0	ug/kg	10.0		128	60-140	2.37	11	
Benzene	10.5	5.0	"	10.0		105	60-140	1.92	25	
Toluene	10.1	5.0	"	10.0		101	60-140	0.00	25	

Surrogate: 1,2-Dichloroethane-d4 4.56 " 5.00 91.2 60-140

Sequoia Analytical - Morgan Hill

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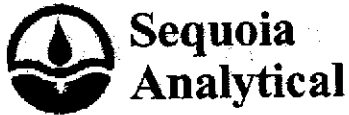
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MLK0562
Reported:
12/19/02 07:48

**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 2K23001 - EPA 5035										
Laboratory Control Sample Dup (2K23001-BSD2)					Prepared & Analyzed: 11/23/02					
Gasoline Range Organics (C6-C10)	ND	500	ug/kg	440		70.2	60-140	19.8	25	
Surrogate: 1,2-Dichloroethane-d4	4.42		"	5.00		88.4	60-140			



**Sequoia
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MLK0562
Reported:
12/19/02 07:48

Notes and Definitions

- O-09 The result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.
- 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



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MLK0455
Reported:
11/18/02 14:24

**Total Purgeable Hydrocarbons and BTEX by DHS LUFT
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP (1-4) Composite (MLK0455-01) Soil Sampled: 11/14/02 11:00 Received: 11/14/02 10:15									
Purgeable Hydrocarbons	ND	0.50	mg/kg	1	2110221	11/14/02	11/14/02	DHS LUFT	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		79 %	60-140	"	"	"	"	"	



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MLK0455
Reported:
11/18/02 14:24

**Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Sacramento**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP (1-4) Composite (MLK0455-01) Soil Sampled: 11/14/02 11:00 Received: 11/14/02 10:15									
Lead	56	10	mg/kg	4	2110234	11/15/02	11/17/02	EPA 6010B	

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 MLK0455
 Reported:
 11/18/02 14:24

Total Purgeable Hydrocarbons and BTEX by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2110221 - EPA 5030B (MeOH)
Blank (2110221-BLK1)

Prepared & Analyzed: 11/14/02

Purgeable Hydrocarbons	ND	0.50	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>0.0196</i>		"	<i>0.0200</i>		<i>98</i>	<i>60-140</i>			

Laboratory Control Sample (2110221-BS1)

Prepared & Analyzed: 11/14/02

Benzene	0.0150	0.0050	mg/kg	0.0200		75	70-130			
Toluene	0.0176	0.0050	"	0.0200		88	70-130			
Ethylbenzene	0.0187	0.0050	"	0.0200		94	70-130			
Xylenes (total)	0.0569	0.0050	"	0.0600		95	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>0.0198</i>		"	<i>0.0200</i>		<i>99</i>	<i>60-140</i>			

Matrix Spike (2110221-MS1)

Source: S211099-13

Prepared: 11/14/02 Analyzed: 11/15/02

Benzene	0.0130	0.0050	mg/kg	0.0200	ND	65	60-140			
Toluene	0.0158	0.0050	"	0.0200	ND	79	60-140			
Ethylbenzene	0.0167	0.0050	"	0.0200	ND	84	60-140			
Xylenes (total)	0.0511	0.0050	"	0.0600	ND	85	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>0.0178</i>		"	<i>0.0200</i>		<i>89</i>	<i>60-140</i>			

Matrix Spike Dup (2110221-MSD1)

Source: S211099-13

Prepared: 11/14/02 Analyzed: 11/15/02

Benzene	0.0101	0.0050	mg/kg	0.0200	ND	50	60-140	25	25	QR-07
Toluene	0.0122	0.0050	"	0.0200	ND	61	60-140	26	25	QR-07
Ethylbenzene	0.0129	0.0050	"	0.0200	ND	64	60-140	26	25	QR-07
Xylenes (total)	0.0401	0.0050	"	0.0600	ND	67	60-140	24	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>0.0128</i>		"	<i>0.0200</i>		<i>64</i>	<i>60-140</i>			

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MLK0455
Reported:
11/18/02 14:24

Total Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2110234 - EPA 3050B

Blank (2110234-BLK1)

Prepared: 11/15/02 Analyzed: 11/17/02

Lead ND 10 mg/kg

Laboratory Control Sample (2110234-BS1)

Prepared: 11/15/02 Analyzed: 11/17/02

Lead 47.9 10 mg/kg 50.0 96 80-120

Matrix Spike (2110234-MS1)

Source: S211347-01

Prepared: 11/15/02 Analyzed: 11/17/02

Lead 52.3 10 mg/kg 50.0 ND 89 80-120

Matrix Spike Dup (2110234-MSD1)

Source: S211347-01

Prepared: 11/15/02 Analyzed: 11/17/02

Lead 51.1 10 mg/kg 50.0 ND 87 80-120 2 20



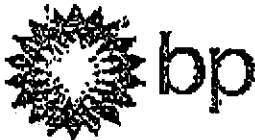
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MLK0455
Reported:
11/18/02 14:24

Notes and Definitions

- QR-07 The RPD was outside QC acceptance limits. The results may still be useful for their intended purpose.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Chain of Custody Record

Project Name

STATION 2185

BP BUI/GEM CO Portfolio:

MIX 0512

BP Laboratory Contract Number:

Requested Due Date (mm/dd/yy) 2 WEEK

On-site Time: 9:00 AM	Temp:
Off-site Time: 1:45 PM	Temp:
Sky Conditions: Cloudy	
Microbiological Events:	
Wind Speed:	Direction:

Date: 11-14-02

Send To:	BP/GEM Facility No.: 2185	Consultant/Contractor: URS CORP
Lab Name: MORGAN R-14	BP/GEM Facility Address: 9800 EAST 14TH ST OAKLAND	Address: 2870 GATEWAY OAKS DR.
Lab Address:	Site ID No.	SUITE 300 SAC CA 95833
	Site Lat/Long	e-mail EDD:
	California Global ID #:	Consultant/Contractor Project No.:
Lab PM: LATOSYA PEET	BP/GEM PM Contact: PAUL SUPPÉ	Consultant/Contractor TeleFax: 510-874-3296
Lab/Fac:	Address:	Consultant/Contractor PM: BARBARA SAKUB
Report Type & QC Level:	TeleFax: 425-299-8891	Invoice to: Consultant/Contractor or BP/GEM. (Circle one)
BP/GEM Account No.:		BP/GEM Work Release No.:

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of Containers	Preservation				Requested Analysis				Sample Point Lat/Long and Comments
			Solid	Water/Liquid	Sediments	Air			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	INDEX 8071	MUNICIPAL	EPA 8260	EPA 8770	
1	DI-1	11:35	X				01					X	X				
2	DI-2	12:05	X				02					X	X				
3	DI-3	12:40	X				03					X	X				
4	DI-4	1:05	X				04					X	X				
5	LS-1	11:20	X				05					X	X				
6	LS-2	12:15	X				06					X	X				
7	LS-3	12:50	X				07					X	X				
8	LS-4	1:20	X				08					X	X				
9																	
10																	

Sampler's Name: BILL CERRITO	Relinquished By / Affiliation: William DeL...	Date: 11-14-02	Time: 12:15	Accepted By / Affiliation: Monica...	Date: 11-15-02	Time: 12:15
Sampler's Company: URS CORP	Monica...			Monica...		
Shipment Date: 11-14-02	Monica...			Monica...		
Shipment Method:						
Shipment Tracking No.:						
Lab Instructions:						

Seals in Place Yes No Temperature Blank Yes No Cooler Temperature on Receipt: 2 °F Trip Blank Yes No

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: URS
 REC. BY (PRINT) TL
 WORKORDER: MUR 0562

DATE Received at Lab: 11/15/02
 TIME Received at Lab: 1:55 PM
 LOGIN DATE: 11-16-02

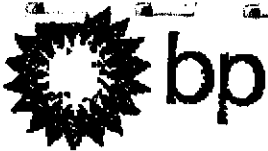
Drinking water for regulatory purposes: YES / NO
 Wastewater for regulatory purposes: YES / NO

CIRCLE THE APPROPRIATE RESPONSE

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	#	CLIENT ID	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	REMARKS- CONDITION (ETC.)
1. Custody Seal(s) <input checked="" type="radio"/> Present / <input type="radio"/> Absent <input type="radio"/> Intact / <input checked="" type="radio"/> Broken*	1		DE -1	17 Net and Can	B	11/15/02	
2. Chain-of-Custody <input checked="" type="radio"/> Present / <input type="radio"/> Absent*	2		-2				
3. Traffic Reports or Parking List: <input checked="" type="radio"/> Present / <input type="radio"/> Absent	3		-3				
4. Airbill: <input type="radio"/> Airbill / <input checked="" type="radio"/> Sticker	4		-4				
5. Airbill #: <input checked="" type="radio"/> Present / <input type="radio"/> Absent	5		LS -1				
6. Sample Labels: <input checked="" type="radio"/> Present / <input type="radio"/> Absent	6		-2				
7. Sample IDs: <input checked="" type="radio"/> Listed / <input type="radio"/> Not Listed or Chain-of-Custody	7		-3				
8. Sample Condition: <input checked="" type="radio"/> Intact / <input type="radio"/> Broken* / <input type="radio"/> Leaking*	8		-4				
9. Does information on custody reports, traffic reports and sample labels agree? <input checked="" type="radio"/> Yes / <input type="radio"/> No*							
10. Sample received within hold time: <input checked="" type="radio"/> Yes / <input type="radio"/> No*							
11. Proper Preservation used: <input checked="" type="radio"/> Yes / <input type="radio"/> No*							
12. Temp Rec. at Lab: (Acceptance range for samples requiring thermal pres. +4/+2°C) <input checked="" type="radio"/> Yes / <input type="radio"/> No**							
**Exception (if any):							

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

Sample Receipt Log
 Revision 2.2 (04/11/02)
 replaces Revision 2.1 (11/10/00)
 Date 04/15/02



Chain of Custody Record

Project Name
 BP BUGEM CO Portfolio:
 BP Laboratory Contract Number:

STATION 2185

MLK0455

Date: 11-14-02

Requested Due Date (mm/dd/yy) 48 HOUR

On-site Time: 9:00 AM Temp:
 Off-site Time: 1:45 Temp:
 Sky Conditions: Cloudy
 Meteorological Events:
 Wind Speed: Direction:

Send To: BP/GEM Facility No.: 2185
 Lab Name: ADORGAN Well BP/GEM Facility Address: 9800 EAST 14TH ST. DAKOTA
 Lab Address: Site ID No. California Global ID #
 Lab PM: LATONIA PEST BP/GEM PM Contact: PAUL SUPPIL
 Tele/Fax: Address:
 Report Type & QC Level: Tele/Fax: 925-299-8891
 BP/GEM Account No.:
 Lab Bottle Order No.: Matrix
 Consultant/Contractor: MRS CORP
 Address: 2870 GATEWAY OAKS DR. SUITE 300 SAC CA 95833
 e-mail BDD:
 Consultant/Contractor Project No.:
 Consultant/Contractor Tele/Fax: 510-871-3296
 Consultant/Contractor PM: BARBARA JAKUB
 Invoice to: Consultant/Contractor or BP/GEM (Circle one)
 BP/GEM Work Release No.:

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 ₂ SO ₄	HNO ₃	HCl	MLK 8021	MLK 8022	EPA 8260	EPA 8270	
1	SP-1-4	11:00	X				4						X	X			COMPOSITE
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sample's Name: BIN CERRITO
 Sample's Company: MRS CORP
 Shipment Date: 11-14-02
 Shipment Method:
 Shipment Tracking No:
 Special Instructions:

Relinquished By / Affiliation: Monica Bigman SAC
 Date: 11/14/02 Time: 10:45
 Accepted By / Affiliation: [Signature]
 Date: 11/14/02 Time: 10:5

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

NOV 14 1992 12:12PM SECTION 193C