

PACIFIC ENVIRONMENTAL GROUP, INC.

93 AUG -6 PM 4: 16

Date August 5, 1993
Project 330-06.05

To: Mr. Michael Whelan
ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

We have enclosed:

Table with 2 columns: Copies, Description. Row 1: 1, Sequoia Analytical Well Monitoring Report First Quarter 1993 for ARCO Service Station 0608.

For your: [X] Use
[ ] Approval
[ ] Review
[ ] Information

Comments: Michael, the above mentioned report was inadvertently left out of the Quarterly Report and Remedial System Evaluation - First Quarter 1993. Please add this to your report. We hope we have not caused any inconvenience. Please call with any questions. Thanks.

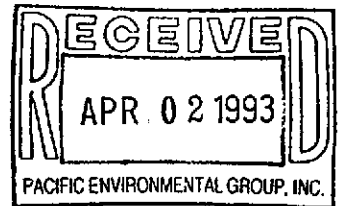
Kelly Brown [Signature]

cc: Ms. Juliett Shin, Alameda County Environmental Health Care Services
Ms. Susan Hugo, Alameda County Environmental Health Care Services
Mr. Richard Hiatt, Regional Water Quality Control Board, S.F. Bay Region



# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689



Pacific Environmental Group  
2025 Gateway Place, Ste. 440  
San Jose, CA 95110  
Attention: Kelly Brown

Client Project ID: Arco #0608-92-5, San Lorenzo/#330-06.15  
Sample Matrix: Water  
Analysis Method: EPA 5030/8015/8020  
First Sample #: 303-0708

Sampled: 3/16-3/18/93  
Received: Mar 19, 1993  
Reported: Mar 31, 1993

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 303-0708 TB-1	Sample I.D. 303-0709 MW-5(13)	Sample I.D. 303-0710 MW-7(14)	Sample I.D. 303-0711 MW-8(16)	Sample I.D. 303-0712 MW-9(15)	Sample I.D. 303-0713 MW-10(18)
Purgeable Hydrocarbons	50	N.D.	2,600	N.D.	3,800	N.D.	4,100
Benzene	0.5	N.D.	180	N.D.	61	N.D.	340
Toluene	0.5	N.D.	1.4	N.D.	N.D.	N.D.	2.4
Ethyl Benzene	0.5	N.D.	28	N.D.	11	N.D.	58
Total Xylenes	0.5	N.D.	1.2	N.D.	1.2	N.D.	54
Chromatogram Pattern:		--	Gasoline and Non-Gasoline Mixture (>C9)	--	Gasoline and Non-Gasoline Mixture (>C12)	--	Gasoline and Non-Gasoline Mixture (>C9)

### Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	3/28/93	3/28/93	3/28/93	3/28/93	3/28/93	3/28/93
Instrument Identification:	GCHP-1	GCHP-1	GCHP-1	GCHP-1	GCHP-1	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	97	89	99	92	98	80

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

  
Karen L. Enstrom  
Project Manager

3030708.PAC <1>



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Pacific Environmental Group  
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San Jose, CA 95110  
Attention: Kelly Brown

Client Project ID: Arco #0608-92-5, San Lorenzo/#330-06.15  
Sample Matrix: Water  
Analysis Method: EPA 5030/8015/8020  
First Sample #: 303-0714

Sampled: 3/16-3/18/93  
Received: Mar 19, 1993  
Reported: Mar 31, 1993

## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 303-0714 MW-11(15)	Sample I.D. 303-0715 MW-13(18)	Sample I.D. 303-0716 MW-14(20)	Sample I.D. 303-0717 MW-15(19)	Sample I.D. 303-0718 MW-16(18)	Sample I.D. 303-0719 MW-17(18)
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	130	380	250
Benzene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	7.8
Total Xylenes	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	3.3
Chromatogram Pattern:		--	--	--	Non-Gasoline Mixture (>C12)	Non-Gasoline Mixture (>C12)	Gasoline and Non-Gasoline Mixture (>C9)

### Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	3/28/93	3/28/93	3/28/93	3/28/93	3/28/93	3/28/93
Instrument Identification:	GCHP-1	GCHP-1	GCHP-1	GCHP-1	GCHP-1	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	101	104	99	100	97	97

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

### SEQUOIA ANALYTICAL

Karen L. Enstrom  
Project Manager



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Pacific Environmental Group 2025 Gateway Place, Ste. 440 San Jose, CA 95110 Attention: Kelly Brown	Client Project ID: Arco #0608-92-5, San Lorenzo/#330-06.15 Sample Matrix: Water Analysis Method: EPA 5030/8015/8020 First Sample #: 303-0720	Sampled: 3/16 & 3/17/93 Received: Mar 19, 1993 Reported: Mar 31, 1993
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## TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

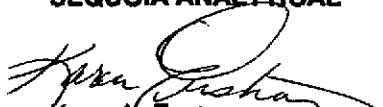
Analyte	Reporting Limit µg/L	Sample I.D. 303-0720 MW-18(16)	Sample I.D. 303-0721 MW-19(16)	Sample I.D. 303-0722 MW-20(17)	Sample I.D. 303-0723 MW-21(18)	Sample I.D. 303-0724 MW-22(17)	Sample I.D. 303-0725 MW-23(15)
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--	--	--	--

### Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	3/28/93	3/28/93	3/28/93	3/28/93	3/28/93	3/28/93
Instrument Identification:	GCHP-1	GCHP-1	GCHP-1	GCHP-1	GCHP-1	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	100	99	99	100	100	101

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.  
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

  
Karen L. Enstrom  
Project Manager



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Pacific Environmental Group  
2025 Gateway Place, Ste. 440  
San Jose, CA 95110  
Attention: Kelly Brown

Client Project ID: Arco #0608-92-5, San Lorenzo/#330-06.15

QC Sample Group: 3030708-725

Reported: Mar 31, 1993

## QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	TSM	TSM	TSM	TSM
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Mar 28, 1993	Mar 28, 1993	Mar 28, 1993	Mar 28, 1993
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	10
Conc. Matrix Spike:	9.6	9.9	10	15.2
Matrix Spike % Recovery:	96	99	100	101
Conc. Matrix Spike Dup.:	10.2	10.5	10.7	16.2
Matrix Spike Duplicate % Recovery:	102	105	107	108
Relative % Difference:	6.1	5.9	6.8	6.4

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Karen L. Enstrom  
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

**ARCO Products Company**

Division of AtlanticRichfield Company

330-06.15 Task Order No. 0608-92.5

**Chain of Custody**

ARCO Facility no. <b>0608</b>	City (Facility) <b>San Lorenzo</b>	Project manager (Consultant) <b>Kelly Brown</b>	Laboratory name <b>Sequora (cancel)</b>
ARCO engineer <b>Mike Whelan</b>	Telephone no. (ARCO) _____	Telephone no. (Consultant) <b>408-441-7500</b>	Contract number _____
Consultant name <b>Pacific Environmental Group</b>		Fax no. (Consultant) <b>408-441-7539</b>	
Address (Consultant) <b>2625 Gateway Place #440 San Jose 95110</b>			

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX EPA 8020	BTEX/TPH Gas EPA 1631/8020/8015	TPH Modified 8015 Gas Diesel	Oil and Grease 413.1 413.2	TPH EPA 418.1/515/503E	EPA 601/6010	EPA 624/6240	EPA 625/6270	TC/PC Metals VOA VOA	Semi Metals VOA VOA	Cadmium Metals EPA 6010/7000 TTLG STLG	Lead Org./DHS Lead EPA 7420/7421	Method of shipment	
			Soil	Water	Other	Ice	Acid																
TB-1		2		W		X	HCl	3-16-93	—		X												3030708AB
MW-5(13)		3						3-17-93	17:00														709AC
MW-7(14)		1						3-17-93	14:40														710AC
MW-8(16)		1						3-18-93	9:10														711AC
MW-9(15)		1						3-16-93	16:25														712AC
MW-10(18)		1						3-16-93	14:05														713AC
MW-11(15)		1						3-16-93	15:40														714AC
MW-13(18)		1						3-17-93	11:15														715AC
MW-14(20)		1						3-16-93	13:40														716AC
MW-15(19)		1						3-16-93	8:35														717AC
MW-16(18)		1						3-18-93	8:10														718AC
MW-17(18)		1						3-17-93	15:35														719AC
MW-18(16)		1						3-17-93	16:05														720AC
MW-19(16)		1						3-17-93	15:15														721AC
MW-20(17)		1						3-17-93	12:55														722AC
MW-21(18)		1						3-17-93	12:30														723AC

Special detection Limit/reporting

Special QA/QC

Remarks  
Trip Blank from Sequora Date 3-15-93 "11.15"

Lab number

Turnaround time  
 Priority Rush 1 Business Day   
 Rush 2 Business Days   
 Expedited 5 Business Days   
 Standard 10 Business Days

Condition of sample:				Temperature received:			
Relinquished by sampler <b>Ray Pick</b>	Date <b>3-17-93</b>	Time <b>4:00</b>	Received by <b>Sequora</b>	Date <b>3/17/93</b>	Time <b>14:00</b>		
Relinquished by _____	Date _____	Time _____	Received by _____				
Relinquished by _____	Date _____	Time _____	Received by laboratory _____	Date _____	Time _____		

**ARCO Products Company**  
Division of Atlantic Richfield Company

330-06.15

Task Order No. 0608-92-5

**Chain of Custody**

ARCO Facility no. **0608** City (Facility) **San Lorenzo** Project manager (Consultant) **Kelly Brown**  
 ARCO engineer **Mike Whelan** Telephone no. (ARCO) \_\_\_\_\_ Telephone no. (Consultant) **408-441-7500** Fax no. (Consultant) **408-441-7539**  
 Consultant name **Kent Environmental Group** Address (Consultant) **2025 Gateway Place #440 San Jose CA 95110**

Laboratory name  
**Sequoia**  
Contract number

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH Gas EPA 862/8020/8015	TPH Modified 8015 Gas <input type="checkbox"/> Diesel <input type="checkbox"/>	Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/>	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCMP Metals <input type="checkbox"/> VOA <input type="checkbox"/> VOA <input type="checkbox"/>	Semi Metals <input type="checkbox"/> VOA <input type="checkbox"/> VOA <input type="checkbox"/>	CAM Metals EPA 601/7000 TLC <input type="checkbox"/> STLC <input type="checkbox"/>	Lead Org./OHS Lead EPA 7420/7421 <input type="checkbox"/>	Method of shipment	
			Soil	Water	Other	Ice	Acid																
1W-22(17)	3		W			X	HCl	3-17-93	12:05		X			3	0	3	0	7	2	4	AC	Special detection Limit/reporting	
1W-23(15)	3		W			X	HCl	3-16-93	14:55		X				↓					7	2	5	AC

Special detection  
Limit/reporting

Special QA/QC

Remarks

Lab number

Turnaround time

Priority Rush  
1 Business Day

Rush  
2 Business Days

Expedited  
5 Business Days

Standard  
10 Business Days

Condition of sample: \_\_\_\_\_ Temperature received: \_\_\_\_\_

Relinquished by sampler: **[Signature]** Date: **3-17-93** Time: **4:00** Received by: **[Signature]** Date: **3/17/93** Time: **10:00**

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by laboratory: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_