



EMCON Associates

1921 Ringwood Avenue • San Jose, California 95131-1721 • (408) 453-7300 • Fax (408) 437-9526

Alameda County
HAZMAT

94 SEP -6 PM 3:55

Date: August 30, 1994

Project OC75-005.24

To:

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

We are enclosing:

Copies	Description
<u>1</u>	<u>Second Quarter 1994 Groundwater Monitoring Report for ARCO service station 2185</u>
_____	_____
_____	_____
_____	_____
_____	_____

For your: X Use Sent by: _____ Regular Mail
 _____ Approval _____ Standard Air
 _____ Review _____ Courier
 _____ Information X Other _____ Certified Mail

Comments: Please call with any questions or comments


John C. Young
Project Manager





August 26, 1994
Project 0C75-005.24

Mr. Michael Whelan
Environmental Engineer
ARCO Products Company
P. O. Box 5811
San Mateo, California 94420

Re: Second quarter 1994 groundwater monitoring program results, ARCO service station
2185, San Leandro, California

Dear Mr. Whelan:

This letter presents the results of the second quarter 1994 groundwater monitoring program at ARCO Products Company (ARCO) service station 2185, 9800 East 14th Street, San Leandro, California (Figure 1).

MONITORING PROGRAM RESULTS

The second quarter 1994 groundwater monitoring event was performed by Integrated Wastestream Management, Inc. (IWM) on May 10, 1994. Wells MW-1 through MW-7 are monitored quarterly. Groundwater samples collected during second quarter monitoring were analyzed for total petroleum hydrocarbons as gasoline (TPHG), and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Certified analytical reports, chain-of-custody documentation, and field data sheets are presented in Appendix A. Depths to groundwater and analytical data are presented in Table 1. Figure 2 presents groundwater elevation data along with TPHG and benzene concentrations from the May 10, 1994 monitoring event.

On April 6, 1994, RESNA Industries, Inc. (RESNA) installed groundwater monitoring well MW-10 and sampled the well on April 15, 1994. Well MW-10 has been added to the third quarter monitoring event.

SITE STATUS UPDATE

This update reports site activities performed during the second quarter of 1994 and the anticipated site activities for the third quarter of 1994.



Mr. Michael Whelan
August 26, 1994
Page 2

Project 0C75-005.24

Second Quarter 1994 Activities

- Quarterly groundwater monitoring report for first quarter 1994 prepared and submitted by RESNA Industries Inc.
- IWM performed second quarter 1994 groundwater monitoring event.

Work Anticipated Third Quarter 1994


- Prepare and submit quarterly groundwater monitoring report for second quarter 1994.
- Perform quarterly groundwater monitoring for third quarter 1994.

Please call if you have questions.

Sincerely,

EMCON Associates


John C. Young
Project Manager


Mark Smolley, R.G. #4650
Senior Project Geologist



Attachments: Table 1 - Summary of Groundwater Sample Analyses for ARCO
Facility A-2185
Figure 1 - Site Location
Figure 2 - Site Plan
Appendix A - Certified Analytical Report, Chain-of-Custody
Documentation and Field Data Sheets

APPENDIX A

**CERTIFIED ANALYTICAL REPORT, CHAIN-OF-CUSTODY
DOCUMENTATION AND FIELD DATA SHEETS**

Table 1

Summary of Ground Water Sample Analyses for ARCO Facility A-2185, Oakland, California

WELL NUMBER	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
DATE SAMPLED	5/10/94	5/10/94	5/10/94	5/10/94	5/10/94	5/10/94	5/10/94
DEPTH TO WATER	11.12	10.70	10.77	11.38	10.37	10.13	10.68
SHEEN	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PRODUCT THICKNESS	NA	NA	NA	NA	NA	NA	NA
TPHg	ND	3,100	14,000	ND	1,300	11,000	330 ⁺
BTEX							
BENZENE	ND	39	32	ND	11	470	0.6
TOLUENE	ND	<2.5 [#]	<10 [#]	ND	<2.5 [#]	<10 [#]	ND
ETHYLBENZENE	ND	220	710	ND	110	880	ND
XYLENES	ND	99	1,200	ND	68	650	ND

FOOTNOTES:

Concentrations reported in ug/L (ppb).

TPHg = Total Purgeable Petroleum Hydrocarbons (USEPA Method 8015 Modified)

BTEX Distinction (USEPA Method 8020)

PCE = Tetrachloroethene (USEPA Method 8010)

* = Well inaccessible

** = Not sampled per consultant request.

= Raised MRL due to high analyte concentration requiring dilution.

DCE = cis-1, 2-Dichloroethene (USEPA Method 8010)

TCE = Trichloroethene (USEPA Method 8010)

ND = Not Detected.

NA = Not applicable.

FP = Floating product.

+ = This sample contains components eluting in the gasoline range and quantified as gasoline. However the chromatogram does not match the typical gasoline fingerprint.



Base map from USGS 7.5' Quad. Maps:
Oakland East and San Leandro, California.
Photorevised 1980.

Scale : 0 2000 4000 Feet



EMCON
Associates

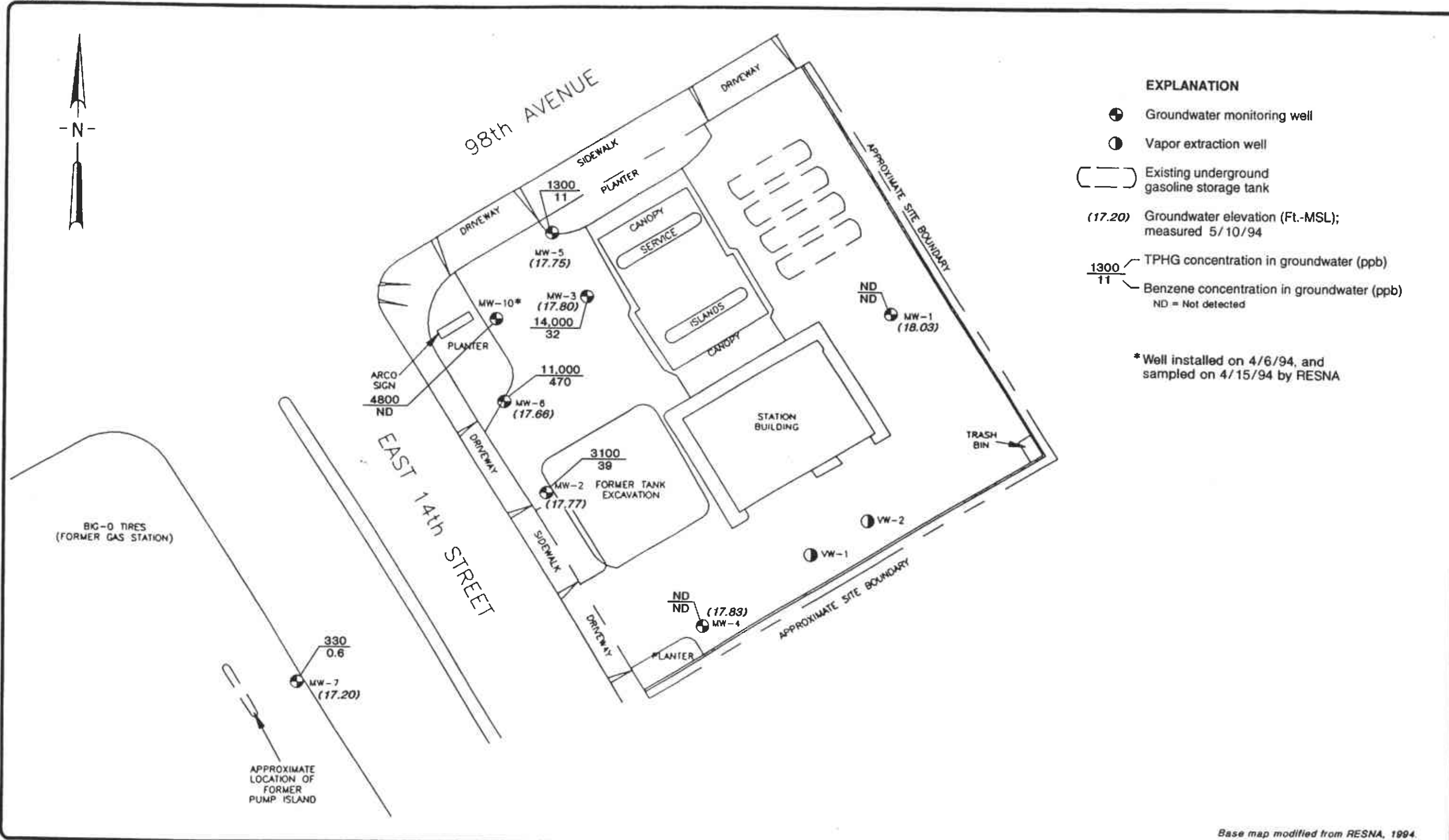
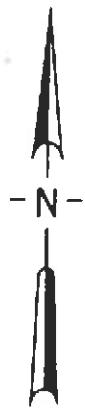
ARCO PRODUCTS COMPANY
SERVICE STATION 2185, 9800 E. 14TH STREET
QUARTERLY GROUNDWATER MONITORING
OAKLAND, CALIFORNIA

SITE LOCATION

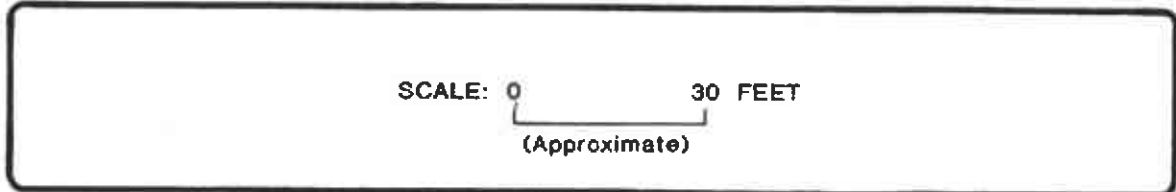
FIGURE

1

PROJECT NO.
C75-05.24



Base map modified from RESNA, 1994.



ARCO PRODUCTS COMPANY
SERVICE STATION 2185, 9800 E. 14TH STREET
QUARTERLY GROUNDWATER MONITORING
OAKLAND, CALIFORNIA

SITE PLAN

FIGURE
2
PROJECT NO.
C75-05.24

APPENDIX A

**CERTIFIED ANALYTICAL REPORT, CHAIN-OF-CUSTODY
DOCUMENTATION AND FIELD DATA SHEETS**



May 25, 1994

Service Request No. SJ940571

Gina Austin
Tom DeLon
IWM
950 Ames Avenue
Milpitas, CA 95035

Re: **ARCO Facility No. 2185**

Dear Ms. Austin/Mr. DeLon:

Attached are the results of the water samples submitted to our lab on May 12, 1994. For your reference, these analyses have been assigned our service request number SJ940571.

All analyses were performed consistent with our laboratory's quality assurance program. All results are intended to be considered in their entirety, and CAS is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions.

Respectfully submitted:

COLUMBIA ANALYTICAL SERVICES, INC.

Carol J Klein for

Keoni A. Murphy
Laboratory Manager

Annelise Jede Bazar
Annelise J. Bazar
Regional QA Coordinator

KAM/ajb

COLUMBIA ANALYTICAL SERVICES, Inc.

Acronyms

ASTM	American Society for Testing and Materials
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NR	Not Requested
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
VPH	Volatile Petroleum Hydrocarbons

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IWM
Project: ARCO Facility No. 2185
Sample Matrix: Water

Date Collected: 5/10/94
Date Received: 5/12/94
Date Extracted: NA
Service Request: SJ940571

BTEX and TPH as Gasoline
 EPA Methods 5030/8020/California DHS LUFT Method
 Units: µg/L(ppb)

Sample Name:	MW-1 (11.1)	MW-2 (11.8)	MW-3 (11.1)
Lab Code:	SJ940571-2	SJ940571-3	SJ940571-4
Date Analyzed:	5/18/94	5/18/94	5/18/94

Analyte	MRL			
Benzene	0.5	ND	39	32
Toluene	0.5	ND	<2.5 *	<10 *
Ethylbenzene	0.5	ND	220	710
Total Xylenes	0.5	ND	99	1,200
TPH as Gasoline	50	ND	3,100	14,000

* Elevated MRL due to high analyte concentration requiring sample dilution.

Approved By: _____

Carol J Klein

Date: 5-25-94

3S22/041594

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IWM
Project: ARCO Facility No. 2185
Sample Matrix: Water

Date Collected: 5/10/94
Date Received: 5/12/94
Date Extracted: NA
Service Request: SJ940571

BTEX and TPH as Gasoline
EPA Methods 5030/8020/California DHS LUFT Method
Units: µg/L(ppb)

Sample Name:	MW-4 (11.4)	MW-5 (12.7)	MW-6 (11)
Lab Code:	SJ940571-5	SJ940571-6	SJ940571-7
Date Analyzed:	5/18/94	5/19/94	5/19/94

Analyte	MRL			
Benzene	0.5	ND	11	470
Toluene	0.5	ND	<2.5*	<10*
Ethylbenzene	0.5	ND	110	880
Total Xylenes	0.5	ND	68	650
TPH as Gasoline	50	ND	1,300	11,000

* Elevated MRL due to high analyte concentration requiring sample dilution.

Approved By: _____

Carol J Klein

Date: 5-25-94

3S22/041594

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: IWM
Project: ARCO Facility No. 2185
Sample Matrix: Water

Date Collected: 5/10/94
Date Received: 5/12/94
Date Extracted: NA
Service Request: SJ940571

BTEX and TPH as Gasoline
 EPA Methods 5030/8020/California DHS LUFT Method
 Units: $\mu\text{g/L}$ (ppb)

Sample Name:	MW-7 (13)	Method Blank	Method Blank
Lab Code:	SJ940571-8	SJ940518-WMB	SJ940519-WMB
Date Analyzed:	5/18/94	5/18/94	5/19/94

Analyte	MRL			
Benzene	0.5	0.6	ND	ND
Toluene	0.5	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND
TPH as Gasoline	50	330*	ND	ND

* This sample contains components eluting in the gasoline range and quantified as gasoline. However the chromatogram does not match the typical gasoline fingerprint.

Approved By: Carol J Klein Date: 5-25-94

3S22/041594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IWM
 Project: ARCO Facility No. 2185
 Sample Matrix: Water

Date Collected: 5/10/94
 Date Received: 5/12/94
 Date Extracted: NA
 Date Analyzed: 5/18,19/94
 Service Request: SJ940571

Surrogate Recovery Summary
 BTEX and TPH as Gasoline
 EPA Methods 5030/8020/California DHS LUFT Method

Sample Name	Lab Code	Percent Recovery α,α,α -Trifluorotoluene
MW-1 (11.1)	SJ940571-2	109
MW-2 (11.8)	SJ940571-3	108 *
MW-3 (11.1)	SJ940571-4	110
MW-4 (11.4)	SJ940571-5	101
MW-5 (12.7)	SJ940571-6	105
MW-6 (11)	SJ940571-7	113
MW-7 (13)	SJ940571-8	116
MS	SJ940561-4MS	112
DMS	SJ940561-4DMS	111
Method Blank	SJ940518-WMB	100
Method Blank	SJ940519-WMB	102

CAS Acceptance Limits: 69-116

* The surrogate used for this sample was 4-Bromofluorobenzene.

Approved By: Carol J Klein Date: 5-25-94

SUR1/041594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IWM
Project: ARCO Facility No. 2185

Date Analyzed: 5/18/94
Service Request: SJ940571

Initial Calibration Verification (ICV) Summary
BTEX and TPH as Gasoline
EPA Methods 5030/8020/California DHS LUFT Method
Units: ppb

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Benzene	25	25.7	103	85-115
Toluene	25	25.7	103	85-115
Ethylbenzene	25	25.4	102	85-115
Total Xylenes	75	77.6	103	85-115
TPH as Gasoline	250	244	98	90-110

Approved By: _____

Carol J Klein

Date: 5-25-94

ICV24/041594

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: IWM
Project: ARCO Facility No. 2185
Sample Matrix: Water

Date Collected: 5/10/94
Date Received: 5/12/94
Date Extracted: NA
Date Analyzed: 5/18/94
Service Request: SJ940571

Matrix Spike/Duplicate Matrix Spike Summary
 TPH as Gasoline
 EPA Method 5030/California DHS LUFT Method
 Units: µg/L (ppb)

Sample Name: Batch QC
Lab Code: SJ940561-4

Analyte	Spike Level		Sample Result	Spike Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference
	MS	DMS		MS	DMS	MS	DMS		
	TPH as Gasoline	250		250	ND	247	259		

Approved By: _____

Carol J Klein

Date: 5-24-94

DMS1S/041594

ARCO Products Company
Division of AtlanticRichfieldCompany

Task Order No. **IWM-94-5CC**

Chain of Custody

ARCO Facility no. **A 2185** City (Facility) **OAKland** Project manager (Consultant) **Tom De Souza / J. Young**
 ARCO engineer **Mike Wheeland** Telephone no. (ARCO) **415 571 2434** Telephone no. (Consultant) **408 / 942 8955** Fax no. (Consultant) **408 942 1499**
 Consultant name **IWM / Resna** Address (Consultant) **950 Ames av. Milp Ca 95035**

Laboratory name **Columbia**
 Contract number **07077**

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX 802/EPA 8020	BTEX/TPH EPA 1462/8020/8015	TPH Modified 8015 Gas Diesel <input type="checkbox"/>	Oil and Grease 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/>	TPH EPA 418.1/SM505E	EPA 801/8010	EPA 824/8240	EPA 825/8270	TCLP Metals <input type="checkbox"/> VOA <input type="checkbox"/>	Semi Metals <input type="checkbox"/> VOA <input type="checkbox"/>	CMI Metals EPA 6010/7000	TTL <input type="checkbox"/> STL <input type="checkbox"/>	Lead Org./DHS <input type="checkbox"/>	Lead EPA 7420/7421 <input type="checkbox"/>		
			Soil	Water	Other	Ice	Acid																		
FB-1	1	2		✓		✓	✓	5-10-94	1012		✓	✓													
11.1 MW-1	2	2		✓		✓	✓	}	1100		✓	✓													
11.8 MW-2	3	2		✓		✓	✓		1220		✓	✓													
11.1 MW-3	4	2		✓		✓	✓		1310		✓	✓													
11.4 MW-4	5	2		✓		✓	✓		1120		✓	✓													
12.7 MW-5	6	2		✓		✓	✓		1200		✓	✓													
11 MW-6	7	2		✓		✓	✓		1245		✓	✓													
13 MW-7	8	2		✓		✓	✓		1158		✓	✓													

Method of shipment
SAMPLEX DELIVER

Special detection Limit/reporting

Special QA/QC

Remarks
Hold on FB-1

Lab number
SJ94-0571

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

Condition of sample: **OKAY**
 Relinquished by sampler **Mike Wheeland** Date **5/12/94** Time **1310**
 Relinquished by _____ Date _____ Time _____
 Relinquished by _____ Date _____ Time _____

Temperature received: **COOL**
 Received by **John Ferrey** Date **5/12/94** Time **1310**
 Received by _____ Date _____ Time _____
 Received by laboratory _____ Date _____ Time _____

REC'D JUN 21 1994

I NTEGRATED
W ASTESTREAM
M ANAGEMENT, INC.

June 3, 1994

Mr. John Young
RESNA Industries
3315 Almaden Expressway, Suite 34
San Jose, CA 95118


Dear Mr. Young:


Attached are the field data sheets and analytical results for quarterly ground water sampling at ARCO Facility No. 2185 in Oakland, California. Integrated Wastestream Management measured the depth to water and collected samples from wells at this site on May 10, 1994.

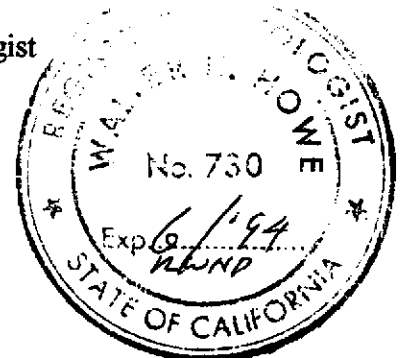
Sampling was carried out in accordance with the protocols described in the "Request for Bid for Quarterly Sampling at ARCO Facilities in Northern California".

Please call us if you have any questions.

Sincerely,
Integrated Wastestream Management


Tom DeLon
Project Manager


Walter H. Howe
Registered Geologist



950 AMES AVENUE

MILPITAS, CA. 95035

(408) 942-8955

Summary of Ground Water Sample Analyses for ARCO Facility A-2185, Oakland, California

WELL NUMBER	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
DATE SAMPLED	5/10/94	5/10/94	5/10/94	5/10/94	5/10/94	5/10/94	5/10/94
DEPTH TO WATER	11.12	10.70	10.77	11.38	10.37	10.13	10.68
SHEEN	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PRODUCT THICKNESS	NA	NA	NA	NA	NA	NA	NA
TPHg	ND	3,100	14,000	ND	1,300	11,000	330 ⁺
BTEX							
BENZENE	ND	39	32	ND	11	470	0.6
TOLUENE	ND	<2.5 [#]	<10 [#]	ND	<2.5 [#]	<10 [#]	ND
ETHYLBENZENE	ND	220	710	ND	110	880	ND
XYLENES	ND	99	1,200	ND	68	650	ND

FOOTNOTES:

Concentrations reported in ug/L (ppb).

TPHg = Total Purgeable Petroleum Hydrocarbons (USEPA Method 8015 Modified)

BTEX Distinction (USEPA Method 8020)

PCE = Tetrachloroethene (USEPA Method 8010)

* = Well inaccessible

** = Not sampled per consultant request.

= Raised MRL due to high analyte concentration requiring dilution.

DCE = cis-1, 2-Dichloroethene (USEPA Method 8010)

TCE = Trichloroethene (USEPA Method 8010)

ND = Not Detected.

NA = Not applicable.

FP = Floating product.

+ = This sample contains components eluting in the gasoline range and quantified as gasoline. However the chromatogram does not match the typical gasoline fingerprint.

FIELD REPORT

Depth To Water / Floating Product Survey

NEW TDs taken from Top of BOT on 5-10-94

Site Arrival Time: 915

Site Departure Time: 1415

Weather Conditions: Sunny
Hot

DTW: Well Box or Well Casing (circle one)

Project No.: _____

Location: 9800 E. 14th St. OAK

Date: May 10, 1994

Client / Station#: Orco 2185

Field Technician: Vince / Cisco

Day of Week: tuesday

DTW ORDER	WELL ID	SURFACE SEAL	LID SECURE	GASKET	LOCK	EXPANDING CAP	TOTAL DEPTH (Feet)	FIRST DEPTH TO WATER (Feet)	SECOND DEPTH TO WATER (Feet)	DEPTH TO FLOATING PRODUCT (Feet)	FLOATING PRODUCT THICKNESS (Feet)	SHEEN (Y= YES, N=NO) FP= FLOATING PRODUCT	COMMENTS	MATERIALS
1	MW-1	OK	yes	OK	OK	OK	23.79	11.12	11.12	N/A	N/A	N	4"	15/16
5	MW-2	OK	yes	OK	OK	OK	23.80	10.70+	10.70+	N/A	N/A	N	4"	15/16
7	MW-3	OK	yes	OK	OK	OK	23.30	10.77	10.77	N/A	N/A	N	4"	15/16
2	MW-4	OK	yes	OK	OK	OK	23.85	11.38	11.38	N/A	N/A	N	4"	15/16
4	MW-5	OK	yes	OK	OK	OK	26.95	10.37+	10.37+	N/A	N/A	N	4" +20 1/2 well box	15/16
6	MW-6	OK	yes	OK	OK	OK	29.75	10.13	10.13	N/A	N/A	N	4"	15/16
3	MW-7	OK	yes	OK	OK	OK	25.55	10.68+	10.68+	N/A	N/A	N	2"	15/16

WELL ID: MW-7 TD 25.55 DTW 10.68 X 0.17 X 3 - 7.58
Linear Ft. Volume Purge

DATE PURGED: 5-10-94 START (2400 HR): 1150 END (2400 HR): 1154
 DATE SAMPLED: 5-10-94 TIME (2400 HR): 1158 DTW: 13

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1151</u>	<u>3</u>	<u>7.19</u>	<u>0.88</u>	<u>70.9</u>	<u>clear</u>
<u>1152</u>	<u>5</u>	<u>7.11</u>	<u>0.65</u>	<u>68.6</u>	<u>clear</u>
<u>1152</u>	<u>8</u>	<u>7.03</u>	<u>0.64</u>	<u>67.6</u>	<u>clear</u>
<u>1154</u>	<u>10</u>	<u>6.99</u>	<u>0.63</u>	<u>67.7</u>	<u>clear</u>

Total purge: 10
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS:

WELL ID: _____ TD _____ DTW _____ X _____ Gal. X _____ Casing - _____ Calculated
Linear Ft. Volume Purge

DATE PURGED: _____ START (2400 HR): _____ END (2400 HR): _____
 DATE SAMPLED: _____ TIME (2400 HR): _____ DTW: _____

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Total purge: _____
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS:

WELL ID: _____ TD _____ DTW _____ X _____ Gal. X _____ Casing - _____ Calculated
Linear Ft. Volume Purge

DATE PURGED: _____ START (2400 HR): _____ END (2400 HR): _____
 DATE SAMPLED: _____ TIME (2400 HR): _____ DTW: _____

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Total purge: _____
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS:

WELL ID: _____ TD _____ DTW _____ X _____ Gal. X _____ Casing - _____ Calculated
Linear Ft. Volume Purge

DATE PURGED: _____ START (2400 HR): _____ END (2400 HR): _____
 DATE SAMPLED: _____ TIME (2400 HR): _____ DTW: _____

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Total purge: _____
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS:

PRINT NAME: Vince Valdes

SIGNATURE: Vince Valdes

CASING DIAMETER (inches): 2 3 4 6 8 12 Other: _____
 GALLON/LINEAR FOOT: 0.17 0.38 0.66 1.5 2.6 5.8 Other: _____

WELL ID: MW-1 23.79 11.12 x 0.66 Gal. x 3 Casing - 25.08 Calculated
Linear Ft. Volume Purge

DATE PURGED: 5-10-94 START (2400 HR): 1045 END (2400 HR): 1050
 DATE SAMPLED: 5-10-94 TIME (2400 HR): 1100 DTW: 11.1

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1046</u>	<u>4</u>	<u>6.98</u>	<u>0.53</u>	<u>70.5</u>	<u>clear</u>
<u>1047</u>	<u>10</u>	<u>6.97</u>	<u>0.51</u>	<u>69.4</u>	<u>clear</u>
<u>1048</u>	<u>15</u>	<u>6.98</u>	<u>0.51</u>	<u>68.9</u>	<u>clear</u>
<u>1050</u>	<u>26</u>	<u>7.01</u>	<u>0.52</u>	<u>68.5</u>	<u>clear</u>

Total purge: 26

PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.

REMARKS: _____

WELL ID: MW-4 23.85 11.38 x 0.66 Gal. x 3 Casing - 29.69 Calculated
Linear Ft. Volume Purge

DATE PURGED: 5-10-94 START (2400 HR): 1106 END (2400 HR): 1113
 DATE SAMPLED: 5-10-94 TIME (2400 HR): 1120 DTW: 11.4

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1107</u>	<u>4</u>	<u>7.16</u>	<u>0.58</u>	<u>71.9</u>	<u>clear</u>
<u>1109</u>	<u>10</u>	<u>7.14</u>	<u>0.57</u>	<u>70.2</u>	<u>clear</u>
<u>1111</u>	<u>15</u>	<u>7.12</u>	<u>0.57</u>	<u>69.4</u>	<u>clear</u>
<u>1113</u>	<u>25</u>	<u>7.09</u>	<u>0.57</u>	<u>68.9</u>	<u>clear</u>

Total purge: _____

PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.

REMARKS: _____

WELL ID: MW-77 23.79 10.37 x 0.66 Gal. x 3 Casing - 29.69 Calculated
Linear Ft. Volume Purge

DATE PURGED: _____ START (2400 HR): _____ END (2400 HR): _____
 DATE SAMPLED: _____ TIME (2400 HR): _____ DTW: _____

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)

Total purge: _____

PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.

REMARKS: _____

WELL ID: MW-5 26.95 10.37 x 0.66 Gal. x 3 Casing - 32.82 Calculated
Linear Ft. Volume Purge

DATE PURGED: 5-10-94 START (2400 HR): 1143 END (2400 HR): 1153
 DATE SAMPLED: 5-10-94 TIME (2400 HR): 1200 DTW: 12.7

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
<u>1144</u>	<u>4</u>	<u>6.89</u>	<u>0.49</u>	<u>70.2</u>	<u>clear</u>
<u>1147</u>	<u>15</u>	<u>6.90</u>	<u>0.47</u>	<u>69.5</u>	<u>clear</u>
<u>1151</u>	<u>26</u>	<u>6.94</u>	<u>0.51</u>	<u>69.1</u>	<u>clear</u>
<u>1153</u>	<u>33</u>	<u>6.91</u>	<u>0.50</u>	<u>68.8</u>	<u>clear</u>

Total purge: 33

PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.

REMARKS: _____

PRINT NAME: Francisco Abunjer

SIGNATURE: Francisco Abunjer

CASING DIAMETER (inches):	<u>2</u>	<u>3</u>	<u>4</u>	<u>6</u>	<u>8</u>	<u>12</u>	Other: _____
GALLON/LINEAR FOOT:	<u>0.17</u>	<u>0.38</u>	<u>0.66</u>	<u>1.5</u>	<u>2.6</u>	<u>5.8</u>	Other: _____

WELL ID: MW-2 TD 23.80 DTW 10.70 X 0.66 Gal. X 3 Casing - 25.93
 Linear Ft. Volume Purge

DATE PURGED: 5-10-94 START (2400 HR): 1205 END (2400 HR) 1210
 DATE SAMPLED: 5-10-94 TIME (2400 HR): 1220 DTW: 11.8

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
1206	4	6.87	0.72	71.4	CLEAR
1207	12	6.84	0.73	71.6	CLEAR
1209	20	6.83	0.72	71.5	CLEAR
1210	26	6.85	0.73	71.3	CLEAR

Total purge: 26
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS:

WELL ID: MW-4 TD 27.75 DTW 10.13 X 0.66 Gal. X 3 Casing - 38.84
 Linear Ft. Volume Purge

DATE PURGED: 5-10-94 START (2400 HR): 1230 END (2400 HR) 1241
 DATE SAMPLED: 5-10-94 TIME (2400 HR): 1245 DTW: 11

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
1232	5	6.87	0.70	70.0	CLEAR
1235	18	6.89	0.68	69.7	CLEAR
1237	27	6.86	0.69	69.4	CLEAR
1241	39	6.84	0.70	69.3	CLEAR

Total purge: 39
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS:

WELL ID: MW-3 TD 23.30 DTW 10.77 X 0.66 Gal. X 3 Casing - 24.80
 Linear Ft. Volume Purge

DATE PURGED: 5-10-94 START (2400 HR): 1300 END (2400 HR) 1305
 DATE SAMPLED: 5-10-94 TIME (2400 HR): 1310 DTW: 11.1

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)
1301	4	7.00	0.51	69.1	CLEAR
1302	13	6.98	0.51	68.8	CLEAR
1303	19	6.90	0.53	68.5	CLEAR
1305	25	6.92	0.54	68.3	CLEAR

Total purge: 25
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS:

WELL ID: _____ TD _____ DTW _____ X _____ Gal. X _____ Casing - _____
 Linear Ft. Volume Purge

DATE PURGED: _____ START (2400 HR): _____ END (2400 HR) _____
 DATE SAMPLED: _____ TIME (2400 HR): _____ DTW: _____

TIME (2400 HR)	VOLUME (GAL)	pH (UNITS)	(E.C. X 1,000) (UMHOS/CM@25 C)	TEMP. (F)	COLOR (VISUAL)

Total purge: _____
 PURGING EQUIP.: Centrifugal Pump Bailer Disp. SAMPLING EQUIP.: Bailer Disp.
 REMARKS:

PRINT NAME: Francisco Abungan

SIGNATURE: Francisco Abungan

CASINO DIAMETER (inches): 2 3 4 6 8 12 Other: _____
 GALLON/LINEAR FOOT: 0.17 0.38 0.66 1.5 2.6 5.8 Other: _____