



99 JAN 15 PM 3:43

January 13, 1999
Project 20805-127.006

Reverend Sura D. Phoenix
First Christian Church
1190 Davis Street
San Leandro, CA 94577

Re: Quarterly Groundwater Monitoring Report, Third Quarter 1998,
First Christian Church, 1190 Davis Street, San Leandro, CA

Dear Reverend Phoenix:

Pinnacle Environmental Solutions, a division of EMCON (Pinnacle), is submitting the attached copies of the laboratory analytical results for the groundwater sample collected from well MW-5 during the third quarter of 1998. This well is located at the First Christian Church, 1190 Davis Street, San Leandro, California. The groundwater sample was collected during quarterly sampling of the ARCO Products Company (ARCO) Service Station No. 2111, located at 1156 Davis Street, San Leandro, California.

Please call if you have questions.

Sincerely,

Pinnacle



Glen VanderVeen
Project Manager

Attachments: Figure 1 - Generalized Site Plan
Appendix A - Copy of Certified Analytical Report and Chain-of-Custody
Documentation

cc: Kevin Tinsley, ACHCSA
Paul Supple, ARCO Products Company
File



EA-SANJOSE-CAD/DRAWINGS: I:\02002\SITELOC.dwg Xref: <NONE>
 Date: 3/12/97 Time: 5:19 PM Operator: KAJ
 Scale: 1 = 1.00 DimScale: 1 = 1.00



Base map from USGS 7.5' Quad. Map:
 San Leandro, California. Photorevised 1980.



DATE NOV. 1997
 DWN KAJ
 APP _____
 REV _____
 PROJECT NO.
 805-127.005

FIGURE 1
 ARCO PRODUCTS COMPANY
 SERVICE STATION 2111, 1156 DAVIS STREET
 SAN LEANDRO, CALIFORNIA
 QUARTERLY GROUNDWATER MONITORING
 SITE LOCATION

APPENDIX A

**COPY OF CERTIFIED ANALYTICAL REPORT,
AND CHAIN-OF-CUSTODY DOCUMENTATION**



August 7, 1998

Service Request No.: S9801943

Glen Vanderveen
PINNACLE
144 A Mayhew Wy.
Walnut Creek, CA 94596

RE: 20805-127.006/TO#22312.00/2111 SAN LEANDRO

Dear Mr. Vanderveen:

The following pages contain analytical results for sample(s) received by the laboratory on July 24, 1998. Results of sample analyses are followed by Appendix A which contains sample custody documentation and quality assurance deliverables requested for this project. The work requested has been assigned the Service Request No. listed above. To help expedite our service, please refer to this number when contacting the laboratory.

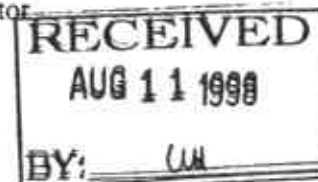
Analytical results were produced by procedures consistent with Columbia Analytical Services' (CAS) Quality Assurance Manual (with any deviations noted). Signature of this CAS Analytical Report below confirms that pages 2 through 15, following, have been thoroughly reviewed and approved for release in accord with CAS Standard Operating Procedure ADM-DatRev3.

Please feel welcome to contact me should you have questions or further needs.

Sincerely,

Steven L. Green
Project Chemist

Greg Anderson
Regional QA Coordinator



COLUMBIA ANALYTICAL SERVICES, Inc.

Acronyms

A2LA	American Association for Laboratory Accreditation
ASTM	American Society for Testing and Materials
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CAM	California Assessment Metals
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
COD	Chemical Oxygen Demand
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DLCS	Duplicate Laboratory Control Sample
DMS	Duplicate Matrix Spike
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
ICB	Initial Calibration Blank sample
ICP	Inductively Coupled Plasma atomic emission spectrometry
ICV	Initial Calibration Verification sample
J	Estimated concentration. The value is less than the MRL, but greater than or equal to the MDL. If the value is equal to the MRL, the result is actually <MRL before rounding.
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
M	Modified
MBAS	Methylene Blue Active Substances
MCL	Maximum Contaminant Level. The highest permissible concentration of a substance allowed in drinking water as established by the U. S. EPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
MS	Matrix Spike
MTBE	Methyl tert-Butyl Ether
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 method reporting/detection limit (MRL/MDL)
NIOSH	National Institute for Occupational Safety and Health
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 18th Ed., 1992
STLC	Solubility Threshold Limit Concentration
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Ed., 1986 and as amended by Updates I, II, IIA, and IIB.
TCLP	Toxicity Characteristic Leaching Procedure
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
tr	Trace level. The concentration of an analyte that is less than the PQL but greater than or equal to the MDL. If the value is equal to the PQL, the result is actually <PQL before rounding.
TRPH	Total Recoverable Petroleum Hydrocarbons
TSS	Total Suspended Solids
TTLIC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: ARCO Products Company
 Project: 20805-127.006/TO#22312.00/2111 SAN LEANDRO
 Sample Matrix: Water

Service Request: S9801943
 Date Collected: 7/24/98
 Date Received: 7/24/98

BTEX, MTBE and TPH as Gasoline

Sample Name: [REDACTED] (15)
 Lab Code: S9801943-007
 Test Notes:

Units: ug/L (ppb)
 Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	10	NA	7/29/98	500	C1
Benzene	EPA 5030	8020	0.5	10	NA	7/29/98	5	C1
Toluene	EPA 5030	8020	0.5	10	NA	7/29/98	<5	C1
Ethylbenzene	EPA 5030	8020	0.5	10	NA	7/29/98	<5	C1
Xylenes, Total	EPA 5030	8020	0.5	10	NA	7/29/98	<5	C1
Diethyl Ether	EPA 5030	8020	3	10	NA	7/29/98	500	

C1 The MRL was elevated due to high analyte concentration requiring sample dilution.

ARCO Facility no. 2111 City (Facility) San Leandro Project manager (Consultant) Glen Vanderveen
 ARCO engineer Paul Supple Telephone no. (ARCO) Telephone no. (Consultant) (408) 453-7300 Fax no. (Consultant) (408) 437-9576
 Consultant name EMCON Address (Consultant) 1971 Ringwood Ave. San Jose, CA 95131

Laboratory Name CAS
 Contract Number

Sample I.D.	Lab no.	Container no.	Matrix			Preservation		Sampling date	Sampling time	BTEX 600EPA 8020	BTEX/TPH inks EPA Method 8015	TPH Modified 8015 Gas <input type="checkbox"/> Diesel <input type="checkbox"/>	Oil and Grease 413.1 D 413.2 D	TPH EPA 418.1/SM 500E	EPA 8010/10	EPA 824/8240	EPA 825/8270	TCUP Semi VOCs VOCs VOCs	CAM Metals EPA 6010/7000	TTLCO STLCO	Lead Org/In-OC Lead EPA 7420/7421C	
			Soil	Water	Other	Ice	Acid															
MW-5(15)7		2	X			X	HCL	7/24/98	1110		X											

Method of shipment
 Sampler will deliver

Special Detection Limit/reporting
 Lowest Possible

Special QA/QC
 As Normal

Remarks
 RAT 8
 2-40ml HCL
 VOCs
 #70805-127.006
 Lab Number 59801943

Turnaround Time:
 Priority Rush 1 Business Day
 Rush 2 Business Days
 Expedited 5 Business Days

Standard 10 Business Days
 PC 86-86

Condition of sample: Temperature received:
 Relinquished by sampler: [Signature] Date 7/24/98 Time 1500 Received by [Signature] Date 7/24/98 Time 2:00 pm
 Relinquished by: [Signature] Date: Time: Received by: Date: Time:
 Relinquished by: Date: Time: Received by laboratory: Date: Time: