



EMCON

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March 18, 1997
Project 20805-127.003

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

Re: Fourth quarter 1996 laboratory analytical results, groundwater samples,
First Christian Church, 1190 Davis Street, San Leandro, California

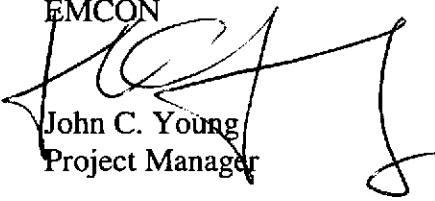
Dear Reverend Phoenix:

Enclosed please find copies of the laboratory analytical results for the groundwater sample collected from well MW-5 during the fourth quarter of 1996. This well is located at the First Christian Church, 1190 Davis Street, San Leandro, California. The groundwater samples were collected on November 6, 1996, during quarterly sampling of the ARCO Products Company service station 2111, 1156 Davis Street, San Leandro. The laboratory analytical results indicate that the groundwater sample concentrations were not detectable for total petroleum hydrocarbons as gasoline, and the gasoline constituents benzene, toluene, ethylbenzene, and total xylenes.

Please call if you have questions.

Sincerely,

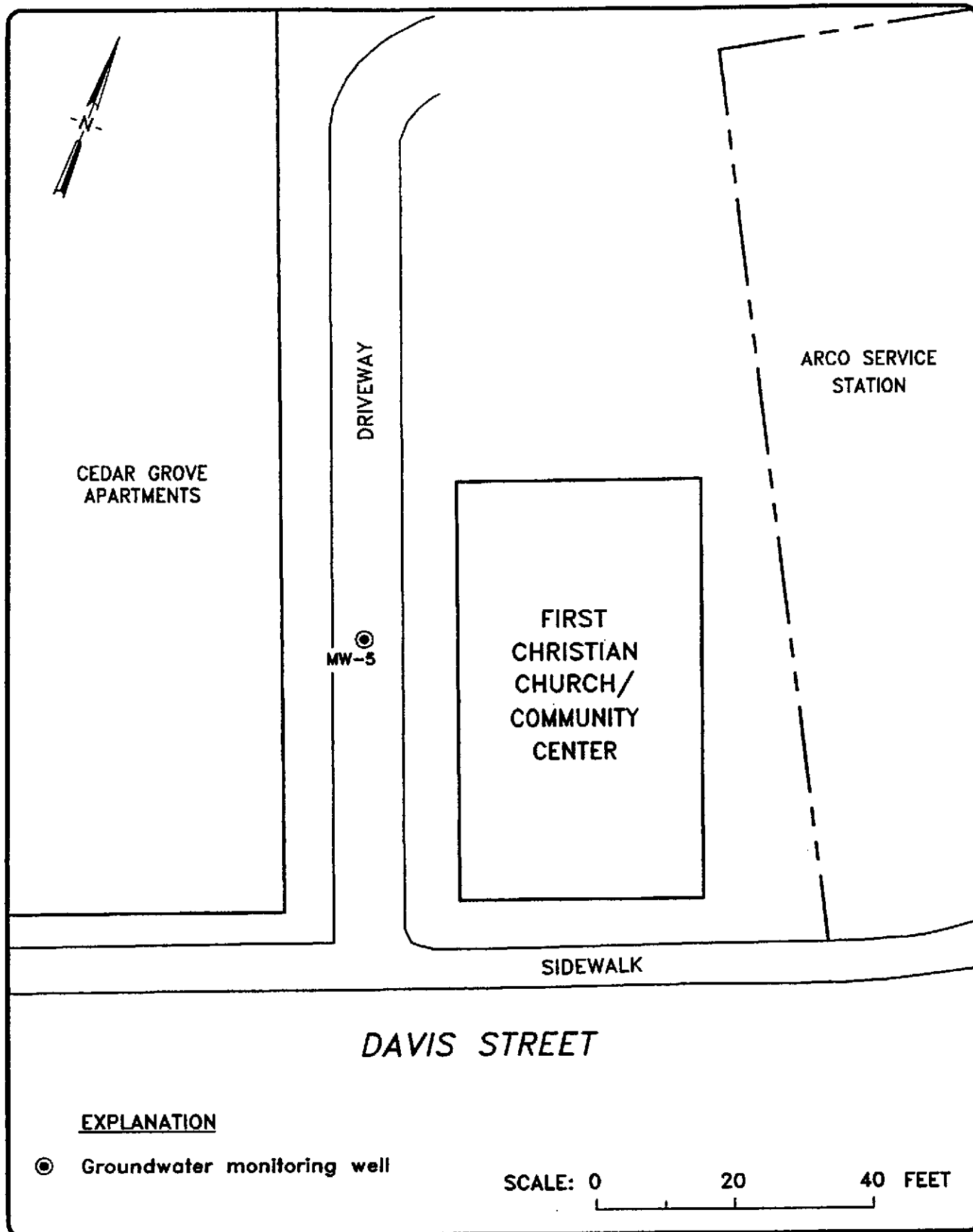
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John C. Young
Project Manager

Attachments: Figure 1 - Generalized Site Plan
Attachment A - Copy of Analytical Results and Chain-of-Custody
Documentation, Well MW-5, Fourth Quarter 1996

cc: Kevin Tinsley, ACHCSA
Kevin Graves, RWQCB - SFBR
Paul Supple, ARCO Products Company
File





FIRST CHRISTIAN CHURCH
 1190 DAVIS STREET
 QUARTERLY GROUNDWATER MONITORING
 SAN LEANDRO, CALIFORNIA

GENERALIZED SITE PLAN

FIGURE
1
 PROJECT NO.
 805-127.03

ATTACHMENT A

**COPY OF ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY
DOCUMENTATION, WELL MW-5, FOURTH QUARTER 1996**



November 19, 1996

Service Request No.: S9601852

Mr. John Young
EMCON
1921 Ringwood Avenue
San Jose, CA 95131

RE: 2111 SAN LEANDRO/20805-127.002/TO#19350.00

Dear Mr. Young:

The following pages contain analytical results for sample(s) received by the laboratory on November 6, 1996. 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 7, 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,

A handwritten signature in black ink, appearing to read "S. L. Green", written over a light blue horizontal line.

Steven L. Green
Project Chemist

A handwritten signature in black ink, appearing to read "G. Anderson", written over a light blue horizontal line.

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
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: ARCO Products Company
Project: 2111 San Leandro / #20805-127.002/TO#193650.00
Sample Matrix: Water

Service Request: S9601852
Date Collected: 11/6/96
Date Received: 11/6/96
Date Extracted: NA

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

Sample Name:	MW-5 (23)	Method Blank	Method Blank
Lab Code:	S9601852-001	S961114-WB1	S961115-WB1
Date Analyzed:	11/14-15/96	11/14/96	11/15/96

Analyte	MRL			
TPH as Gasoline	50	ND	ND	ND
Benzene	0.5	ND	ND	ND
Toluene	0.5	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND
Methyl <i>tert</i> -Butyl Ether	3	100	ND	ND

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: ARCO Products Company
Project: 2111 San Leandro / #20805-127.002/TO#193650.00
Sample Matrix: Water

Service Request: S9601852
Date Collected: 11/6/96
Date Received: 11/6/96
Date Extracted: NA
Date Analyzed: NA

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

Sample Name	Lab Code	PID Detector	FID Detector
		Percent Recovery 4-Bromofluorobenzene	Percent Recovery α,α,α -Trifluorotoluene
MW-5 (23)	S9601852-001	101	101
Batch QC (MS)	S9601827-007MS	99	109
Batch QC (DMS)	S9601827-007DMS	98	109
Method Blank	S961114-WB1	100	94
Method Blank	S961115-WB1	100	95

CAS Acceptance Limits: 69-116 69-116

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	ARCO Products Company	Service Request:	S9601852
Project:	2111 San Leandro / #20805-127.002/TO#193650.00	Date Collected:	11/6/96
Sample Matrix:	Water	Date Received:	11/6/96
		Date Extracted:	NA
		Date Analyzed:	11/14/96

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

Sample Name: Batch QC
 Lab Code: S9601827-007MS, DMS

Analyte	Spike Level		Sample Result	Spike Result		Percent Recovery				Relative Percent Difference
	MS	DMS		MS	DMS	MS	DMS	CAS Acceptance Limits		
Gasoline	250	250	ND	240	240	96	96	67-121	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: ARCO Products Company
Project: 2111 San Leandro / #20805-127.002/TO#193650.00

Service Request: S9601852
Date Analyzed: 11/14/96

Initial Calibration Verification (ICV) Summary
BTEX, MTBE 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	24.7	99	85-115
Toluene	25	24.5	98	85-115
Ethylbenzene	25	23.9	96	85-115
Xylenes, Total	75	72.2	96	85-115
Gasoline	250	250	100	90-110
Methyl <i>tert</i> -Butyl Ether	50	46	92	85-115

