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**File**

CALIFORNIA REGIONAL WATER

JUL 10 1986

QUALITY CONTROL BOARD

July 2, 1986

**PROJECT REPORT**

**FUEL TANK MONITORING WELL INSTALLATION**

For The

**City of Alameda**  
Room 204  
Santa Clara and Oak Streets  
Alameda, California 94501

Submitted  
By

**Aqua Science Engineers**  
P.O. Box 535  
San Ramon, California 94583

## BACKGROUND

The passage of Assembly Bill 1362 has required that every owner/operator of underground tanks used for the storage of hazardous substances including fuels provide a means of monitoring their tanks against leaks or spills. The deadline for compliance was January 1, 1985. However, extensions have been granted. The bill stipulated that administration was to be conducted at the local level. Subsequently, The Alameda County Flood Control and Water Conservation District, Zone 7 with jurisdiction over Alameda City groundwater use jointly adopted hazardous materials ordinances and accepted the Groundwater Monitoring Guidelines for Hazardous Materials Storage (GMG) drafted by the Alameda County Water District (May 1984).

The City of Alameda maintains eleven underground tanks at seven different sites around the city. Nine tanks were selected for monitoring and two tanks selected for removal. The following is a summary of tank size, site location, and installations for the nine tanks selected for monitoring.

Location	Capacity	Contents	# of wells Installed
✓ Alameda Police Department 1555 Oak Street	1,000 Gallons	Diesel	1
Alameda City Hall 2263 Santa Clara	1,000 Gallons 280 Gallons	Gasoline Gasoline	2
Firehouse #1 1300 Park Street	280 Gallons 280 Gallons	Gasoline Diesel	1
Firehouse #2 635 Pacific Street	280 Gallons	Diesel	1
✓ Firehouse #3 1703 Grand Street	280 Gallons 280 Gallons	Gasoline Diesel	2
Alameda Mun. Golf Course	500 Gallons	Gasoline	1

In September 1985, Aqua Science Engineers was asked to submit a proposal on behalf of the City of Alameda which would fulfill city monitoring requirements for underground fuel tanks. Our proposal to install four monitoring wells was submitted on September 19. Four additional wells have since been approved, bringing the total number of installed wells



RECEIVED  
 JUN 18 1986  
 AQUA SCIENCE ENG.

Date: June 17, 1986  
 Client: Aqua Science  
 Submitted by: E. Bratlien  
 Report to: Aqua Science  
 WESCO Job #: AQS 8648

Client Job/P.O. #: Alameda City  
 Date collected: 6-9-86  
 Date submitted: 6-10-86  
 # & type of sample(s): 8 Water

Lab No.	Client ID	Motor Fuel (mg/l)	Beuzene (mg/l)	Toluene (mg/l)	Xylene (mg/l)	Fuel Type
4629	Fire House #2 635 Pacific Street	< 0.2	—	—	—	Diesel
4630	Fire House #3 1703 Grand Street	5.4	—	—	—	Diesel
4631	Police Dept. 1555 Oak Street	1.6	—	—	—	Diesel
4632	Fire House #1 1300 Park Street	< 0.2	—	—	—	Diesel
4633	City Hall #1 2263 Santa Clara	< 0.05	< 0.001	< 0.001	< 0.001	Gasoline
4634	City Hall #2 2263 Santa Clara	< 0.05	< 0.001	< 0.001	< 0.001	Gasoline
4635	Fire House #3 1703 Grand Street	< 0.05	< 0.001	< 0.001	< 0.001	Gasoline
4636	Alameda Municipal Golf Course	< 0.05	< 0.001	< 0.001	< 0.001	Gasoline
METHOD: Note 1						

NOTES: Note 1 - EPA method 5020/8015/8020.

*M. L. Will*  
 Analytical Supervisor

WESCO LABORATORIES IS A DIVISION OF  
 WESTERN ECOLOGICAL SERVICES COMPANY (WESCO)

14 GALLI DRIVE, SUITE A, NOVATO, CALIFORNIA 94947 (415) 883-6425

Figure 1

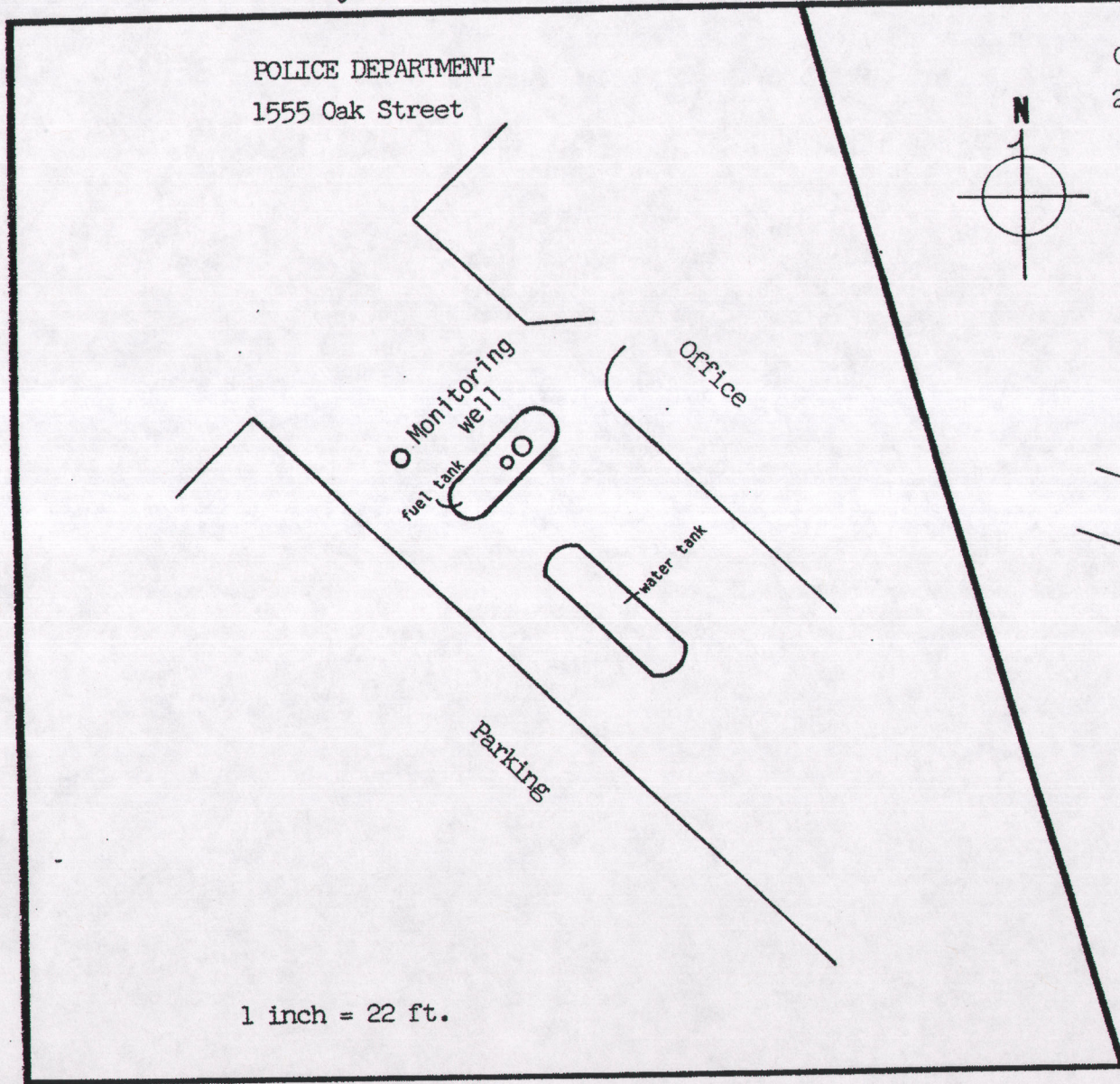
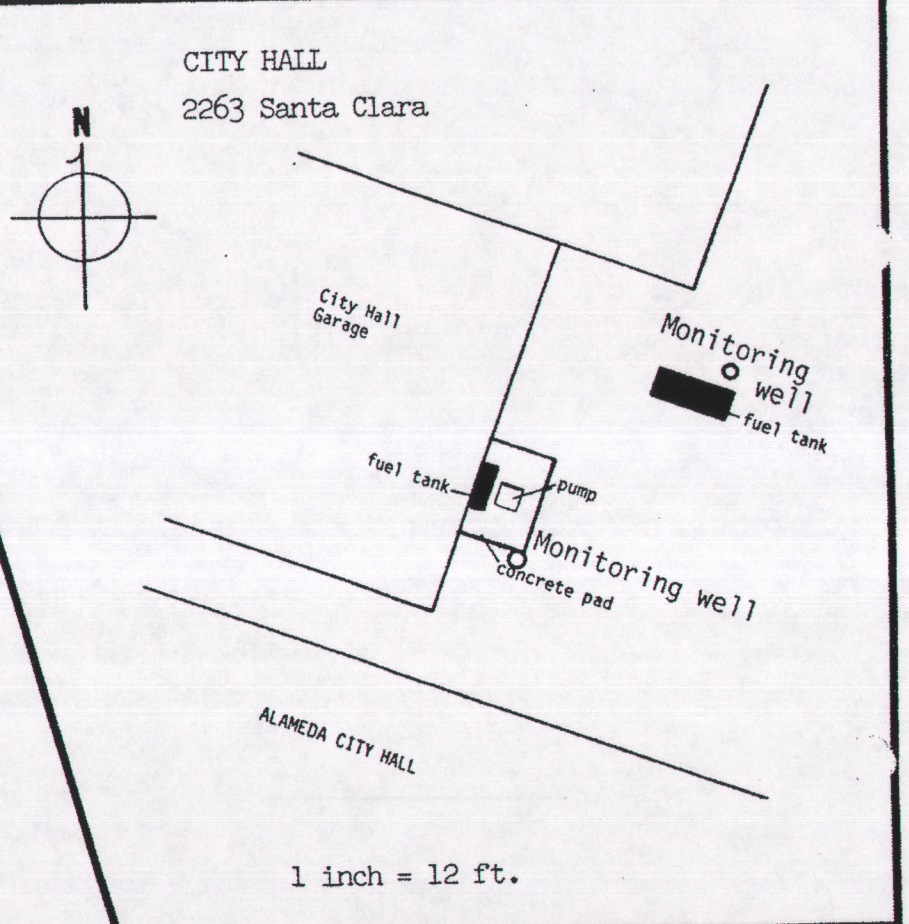


Figure 2



<b>CITY of ALAMEDA</b>		
SCALE	APPROVED BY	DRAWN BY
DATE 5-7-86		REVISED
<b>Aqua Science Engineers</b>		
		DRAWING NUMBER



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE, PLEASANTON, CALIFORNIA 94566 415-484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

(1) LOCATION OF PROJECT Alameda Police Department
1555 Oak Street
Alameda, CA 94501

PERMIT NUMBER 86140
LOCATION NUMBER

(2) CLIENT City of Alameda
Name
Address 2263 Santa Clara Phone (415) 522-4100
City Alameda, CA Zip 94501

Approved Craig A. Mayfield Date 3 Jun 86
Craig A. Mayfield

PERMIT CONDITIONS

Circled Permit Requirements Apply

(3) APPLICANT
Name Aqua Science Engineers \*
1 Crow Canyon Ct. Suite 100
Address San Ramon, CA Phone (415) 820-9391
City Zip 94583

(4) DESCRIPTION OF PROJECT
Water Well Construction [X] Geotechnical
Cathodic Protection Well Destruction

GENERAL

- 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Notify this office (443-9300) at least one day prior to starting work on permitted work and before placing well seals.
3. Submit to Zone 7 within 30 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or bore hole logs and location sketch for geotechnical projects. Permitted work is completed when the last surface seal is placed or the last boring is completed.
4. Permit is void if project not begun within 90 days of approval date.

(5) PROPOSED WATER WELL USE
Domestic Industrial Irrigation
Municipal Monitoring [X] Other

(6) PROPOSED CONSTRUCTION
Drilling Method:
Mud Rotary Air Rotary Auger [X]
Cable Other

WELL PROJECTS
Drill Hole Diameter 8 in. Depth 15 ft.
Casing Diameter 2 in. Number 1
Surface Seal Depth 5 ft.
Driller's License No. 483678

WATER WELLS, INCLUDING PIEZOMETERS

- 1. Minimum surface seal thickness is two inches of cement grout placed by tremie, or equivalent.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved.

GEOTECHNICAL PROJECTS

Number Diameter in. Maximum Depth ft.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material.

(7) ESTIMATED STARTING DATE 6-2-86
ESTIMATED COMPLETION DATE 6-4-86

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie, or equivalent.

(8) I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

E. WELL DESTRUCTION. See attached.

\* Aqua Science Engineers Representative: Mr. David Schultz

APPLICANT'S SIGNATURE David Schultz 5-27-86

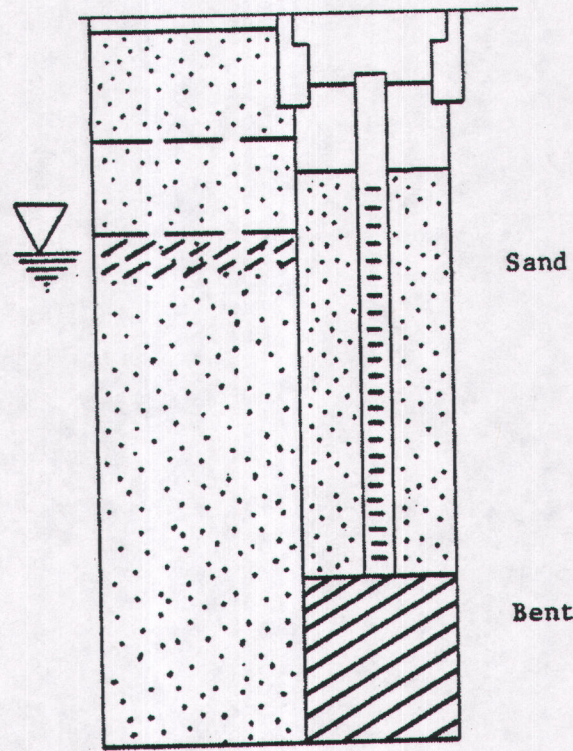
**AQUA SCIENCE ENGINEERS WELL LOG**

Casing: 2" PVC  
 Well Depth: 18.0 ft.  
 Logged By: D. Schultz, P.E.  
 Water Depth: 7.5 ft.  
 Driller: ASE

Alameda Police Dept.  
 1555 Oak Street  
 Alameda, CA  
 Boring # 1  
 Date: 6-4-86

DEPTH (ft.)	SOIL DESCRIPTION	WELL CONSTRUCTION DETAILS
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0- 6" Asphalt Cover  
 2- Dark Brown Sand  
 4- Light Brown Sand  
 6-  
 8- Light Brown Sand,  
 some Clay  
 10-  
 12-  
 14-  
 16-  
 18-  
 20-  
 22-



Bottom of Boring 22.5 ft.