January 15, 1991

Ian Weber
1150 Ballena Boulevard
Suite 211
Alameda, CA 94501

Project: #Z010891M1

RE: The Removal of Underground Strage Tanks and the Subsequent Field Sampling at Fowler-Anderson Mortuary @ 2244 Santa Clara Street, Alameda, CA

Dear Mr. Weber:

Field Sampling was performed in accordance with state and local agency approved methodology, under the auspices of William Faulhaber of the Alameda County Department of Environmental Health, Hazardous Materials Division.

See accompanying site diagram for the location of tanks prior to removal, field sampling designations, and sampling depths.

TANK REMOVAL

On January 8, 1991, three (3) underground storage tanks were removed from the above mentioned address. The tank sizes and contents were as follows; one (1) 50 gallon fuel oil tank, one (1) 350 gallon fuel oil tank, and one (1) 50 gallon hydraulic reservoir underground tank.

Upon tank removal the following observations were noted; Tank A was a 350 gallon single wall fuel oil storage tank constructed with steel. Upon a visual inspection of the tank rust and pitting were observed though no holes were present. The fill material and native soil surrounding the tank were free of hydrocarbon odor.

Tank B was a 50 gallon single wall fuel oil storage tank constructed with steel. Pitting and rust were noted upon a visual inspection of the tank, though no holes were observed. Soil was slightly moist and discolored to a darker brown possibly caused by water runoff from a nearby down spout. The fill material and native soils surrounding the tank were free of hydrocarbon odor.

Tank C is a 50 gallon hydraulic reservoir tank used in conjunction with a hydraulic lift for the servicing of automobiles. The 5' long tank is buried vertically beneath the garage floor, the tank head being level with the garage floor and its foot lying 5' below the garage floor. The flaring of the tank bottom and limited access within the site garage prevented removal of the tank on this day. The tank was removed on January 9, 1991.

Sampling

Soil sample #1 was collected at a depth of 12" to 18" below the fill material/native soil interface, beneath the center of Tank A at a depth of 6'. This was accomplished by the clearing of fill material and slough from the designated sample area. A soil sample was then removed from the pit in a backhoe bucket. The surface four inches of soil was removed from the backhoe bucket and a clean brass sleeve driven into the remaining soil. Soil was then packed tightly into the sleeve to eliminate headspace.

Sample #2 was obtained from beneath the center of Tank B at a depth of 2 1/2 '. This was accomplished by the clearing of fill material from the designated sample area. A clean brass sleeve was driven by hand into the native sands. Soil was packed tightly into the brass sleeve to eliminate head space.

Sample #3 was obtained from the native soil beneath the hydraulic tank at a depth of 7' below grade and three inches away from the tank. This was accomplished by excavating the soil surrounding the hydraulic oil tank to a depth of 5' below grade using a backhoe bucket. A soil boring was then hand augered within the excavation to a depth of 6 1/2' below grade. A clean brass sleeve placed within a hand driven sampler was driven 6" into the soil boring to a total depth of 7'.

Immediately upon retrieval of each soil sample the brass sleeve was covered with aluminum foil, fitted with plastic caps, sealed with duct tape, labeled, and placed on dry ice under chain of custody to be transported to a certified hazardous waste analytical laboratory.

Sample Analysis

Sample #1 was analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D), Total Oil and Grease (TOG), benzene , toluene, total xylenes and ethylbenzene (BTX&E).

Sample #2 was analyzed for Total Petroleum Hydrocarbons as Diesel, Total Oil and Grease, benzene , toluene, total xylenes and ethylbenzene.

Sample #3 was analyzed as Hydraulic Oil using a Hydraulic Oil standard

Analytical Results

The following analytical results are based on a faxed copy of preliminary results from Anametrix Laboratory. A hard copy of the analytical results will be included in the final copy of this report to be forwarded to the regulatory agencys over seeing this project.

Sample #1 contained no detectable concentrations of TPH-D, TPH-G and BTX&E, at the respective detection limits for each constituent.

Sample #2 contained no detectable concentrations of TPH-D, TPH-G and BTX&E, at the respective detection limits for each constituent.

Sample #3 contained Total Petroleum Hydrocarbons as Hydraulic Oil at a concentration of 1,400 ppm.

Recommendations

The State Water Resources Control Board document, Leaking Under Ground Fuel Tank Field Manual (LUFT), defines appropriate action in treating contamination associated with an unauthorized fuel release from underground storage tanks.

The presence of Total Petroleum Hydrocarbons as Diesel beneath the Hydraulic Reservoir Tank would require further site characterization as to the lateral and vertical migration of contaminants in soil. In accordance with the LUFT manual site characterization would include an investigation of the contaminants impact, if any, on the first encountered aquifer and a determination of groundwater flow direction. The installation of one monitoring well would be required within ten feet of the former Hydraulic Reservoir Tank in a down gradient direction. Three reference points are necessary for the determination of groundwater gradient, therefore the installation of two additional wells may be required. It is acceptable to use a previously installed well on an adjacent property as a reference point providing it has been properly screened.

Reportage

Copies of this report, chain of custody, and laboratory analytical report should be submitted to the San Francisco Regional Water Quality Control Board, and the Alameda County Health Agency, Division of Environmental Health.

It has been my pleasure working with you. If you have any questions or if I may be of further service, please call me at (415) 363-2181.

The following addresses have been included for your convenience:

Water Quality Control Board
San Francisco Bay Region
1800 Harrison Street
Room 700
Oakland, CA 994612

Alameda County Health Agency
Division of Hazardous Materials Department of Environmental Health
80 Swan Way, Rm 200
Oakland CA 94621

Sincerely,
ZACCOR CORPORATION

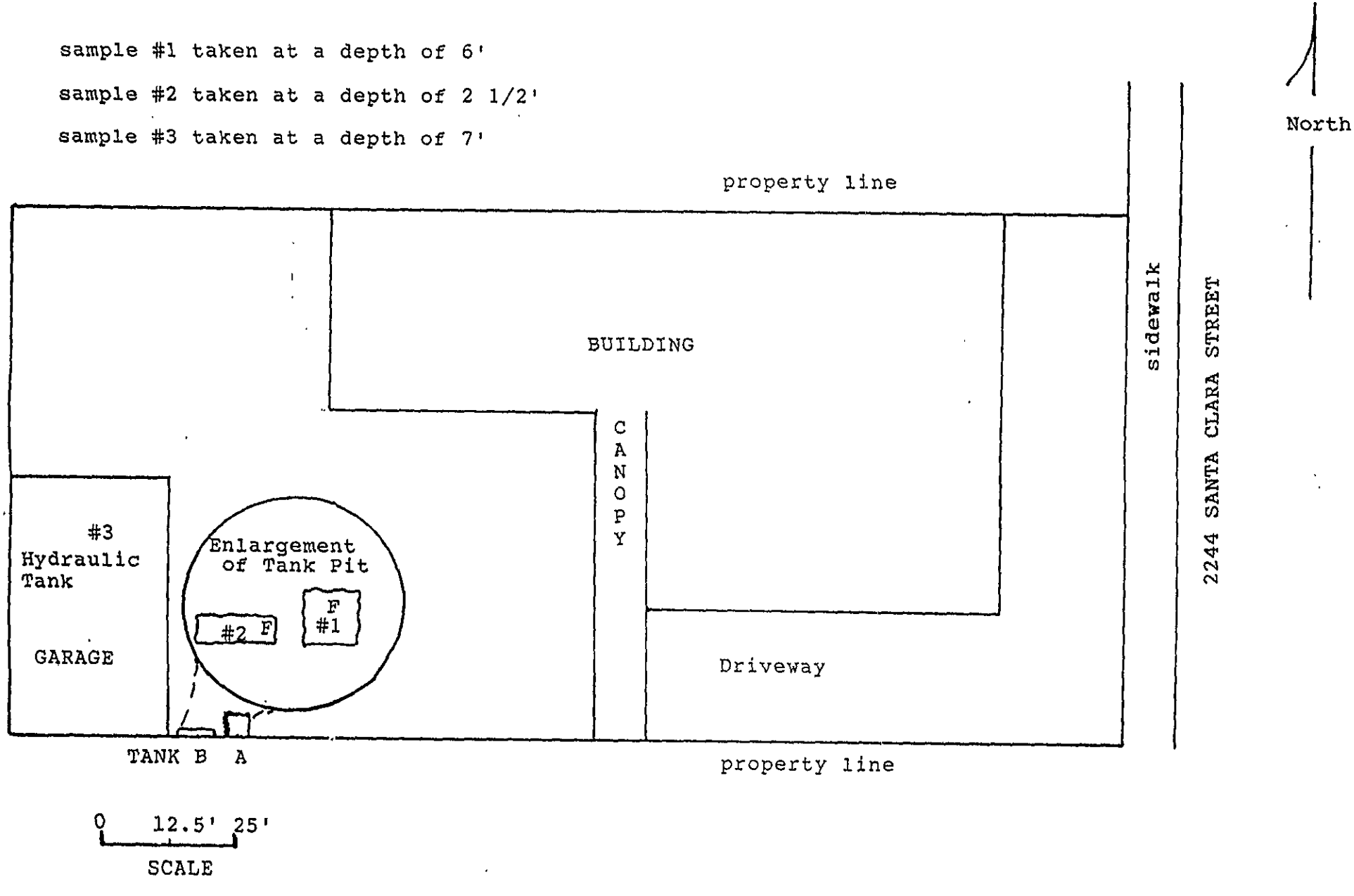
Gary Zaccor
Project Manager

ENVIRONMENTAL TECHNICAL SERVICES at 2244 Santa Clara Street, Alameda, CA 1/8/91 ZACCOR Corp.

sample #1 taken at a depth of 6'

sample #2 taken at a depth of 2 1/2'

sample #3 taken at a depth of 7'



CLIENT CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
2244 Santa Clara Ave Alameda, CA	2244 Santa Cruz Ave Alameda, CA

Send Report Attention of: ZACCOR CORP

Report Due: / /

Verbal Due: 1 / 10 (8) 90

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH-D	TOG	BTEX	Hydraulic Oil	Condition of Samples	Initial
#1	1/8/90			✓	350 gal tank Center	1	BRASS SLEEVE	✓	✓	✓		cold, proper Container, no headspace NS	
#2	1/8/90			✓	50 gal tank center	1	" "	✓	✓	✓			
#3	1/8/90			✓	Hydraulic Lift	1	" "	~~✓~~	~~✓~~	~~✓~~	✓		

Relinquished by:(Signature)	Date/Time	Received by:(Signature)	Date/Time
Helen Thurlwell	1/8/90 1430		01/08/91 KB
Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: 48 HR RUSH

COMPANY:
ADDRESS:

PHONE : FAX :

2066

ANAMETRIX INC
Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

REPORT

MR. GARY ZACCOR
ZACCOR CORP.
791 HAMILTON AVE.
MENLO PARK, CA 94025

Workorder # : 9101055
Date Received : 01/08/91
Project ID : 2244 SANTA CLARA
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9101055- 1	#1
9101055- 2	#2
9101055- 3	#3

This report consists of 8 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Burt Sutherland
Laboratory Director

1-14-91
Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. GARY ZACCOR
ZACCOR CORP.
791 HAMILTON AVE.
MENLO PARK, CA 94025

Workorder # : 9101055
Date Received : 01/08/91
Project ID : 2244 SANTA CLARA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9101055- 1	#1	SOIL	01/08/91	BTEX
9101055- 2	#2	SOIL	01/08/91	BTEX
9101055- 1	#1	SOIL	01/08/91	TPHD
9101055- 2	#2	SOIL	01/08/91	TPHD
9101055- 3	#3	SOIL	01/08/91	TPHD

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. GARY ZACCOR
ZACCOR CORP.
791 HAMILTON AVE.
MENLO PARK, CA 94025

Workorder # : 9101055
Date Received : 01/08/91
Project ID : 2244 SANTA CLARA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Cheryl Balma 1/11/91
Department Supervisor Date

Inna Shor 1/11/91
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9101055
Matrix : SOIL
Date Sampled : 01/08/91

Project Number : 2244
Santa Clara
Date Released : 01/11/91

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# #1 -01	Sample I.D.# #2 -02	Sample I.D.# 21B0109B BLANK
Benzene	0.005	ND	ND	ND
Toluene	0.005	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND
% Surrogate Recovery		124%	77%	101%
Instrument I.D.		HP21	HP21	HP21
Date Analyzed		01/09/91	01/09/91	01/09/91
RLMF		1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.
RLMF - Reporting Limit Multiplication Factor.
Anametrix control limits for surrogate recovery are 50-150%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Inna Shor 1/11/91
Analyst Date

Cheryl Balmer 1/11/91
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9101055
Matrix : SOIL
Date Sampled : 01/08/91
Date Extracted: 01/09/91

Project Number : 2244 Santa Clara
Date released : 01/11/91
Instrument I.D.: HP19

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9101055-01	#1	01/09/91	10	ND
9101055-02	#2	01/09/91	10	ND
DSBL010991	Method Blank	01/09/91	10	ND

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 1/14/91 Date

Cheryl Balman 1/14/91
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS HYDRAULIC OIL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9101055
Matrix : SOIL
Date Sampled : 01/08/91
Date Extracted: 01/09/91

Project Number : 2244 Santa Clara
Date released : 01/11/91
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9101055-03	#3	01/10/91	10	1400
DSBL010991	Method Blank	01/10/91	10	ND

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 1/14/91 Date

Cheryl Balmer 1/11/91
Supervisor Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. GARY ZACCOR
ZACCOR CORP.
791 HAMILTON AVE.
MENLO PARK, CA 94025

Workorder # : 9101055
Date Received : 01/08/91
Project ID : 2244 SANTA CLARA
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9101055- 1	#1	SOIL	01/08/91	5520EF
9101055- 2	#2	SOIL	01/08/91	5520EF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. GARY ZACCOR
ZACCOR CORP.
791 HAMILTON AVE.
MENLO PARK, CA 94025

Workorder # : 9101055
Date Received : 01/08/91
Project ID : 2244 SANTA CLARA
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

R B Patel January, 14TH 1991.
Department Supervisor Date

Peggie Davison 1-14-91
Chemist Date

ANALYSIS DATA SHEET - TOTAL OIL AND GREASE
ANAMETRIX, INC. (408) 432-8192

Project # : 2244 Santa Clara
Matrix : SOIL
Date sampled : 01/8/91
Date ext. TOG: 01/09/91
Date anl. TOG: 01/09/91

Anametrix I.D. : 9101055
Analyst : RV
Supervisor : GP
Date released : 01/11/91

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9101055-01	#1	30	ND
9101055-02	#2	30	ND
GSB1010991	METHOD BLANK	30	ND

ND - Not detected at or above the practical quantitation limit for the method.
TOG - Total Oil & Grease is determined by Standard Method 5520E&F.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

CLIENT CHAIN-OF-CUSTODY RECORD

9101055

PROJECT NUMBER	PROJECT NAME
2244 Santa Clara Ave Alameda, CA	2244 Santa Cruz Ave Alameda, CA

Send Report Attention of: ZACCOR CORP

Report Due: / /

Verbal Due: / / 9 10 91

	Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH-D	TOG	BTEX	Hydraulic Oil	Condition of Samples	Initial
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(2)	#2	1/8/90			✓	50 gal tank center	1	" "	✓	✓	✓			
(3)	#3	1/8/90			✓	Hydraulic Lift	1	" "	~~✓~~	~~✓~~	~~✓~~	✓		

Relinquished by:(Signature)	Date/Time	Received by:(Signature)	Date/Time
Helen Mawhinney	1/8/90 1430		01/08/91 HB
Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: 4-8 HR RUSH

COMPANY:
ADDRESS:
PHONE : FAX :

2066

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