

REPORT DOCUMENTING FOUR
QUARTERS OF MONITORING THREE
GROUNDWATER MONITORING WELLS

for

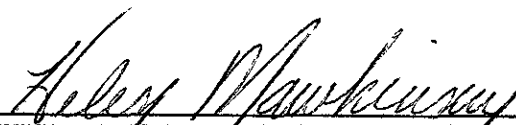
FOWLER ANDERSON MORTUARY
2244 SANTA CLARA STREET
ALAMEDA, CALIFORNIA

by




ZACCOR CORPORATION
Gary Zaccor
Project Manager

4-6-92



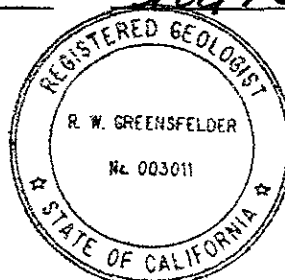
ENVIRONMENTAL TECHNICAL SERVICES
Helen Mawhinney
Senior Environmental Specialist

4-2-92



REGISTERED GEOLOGIST
Roger W. Greensfelder PhD
License #3011

3/22/92



March 22, 1992

A REPORT DOCUMENTING FOUR
QUARTERS OF MONITORING THREE
GROUNDWATER MONITORING WELLS

at

FOWLER ANDERSON MORTUARY
2244 SANTA CLARA STREET
ALAMEDA, CALIFORNIA

March 22, 1992

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9-20-91
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1.0 INTRODUCTION

The following report documents the quarterly monitoring of three groundwater monitoring wells at Fowler Anderson Mortuary, 2244 Santa Clara Street, Alameda, California.

The wells were installed subsequent to the removal of three underground storage tanks and following the excavation of contaminated soil.

2.0 BACKGROUND

2.1 Site Description

The site is located in the City and County of Alameda. A mortuary is located on the property. The area is primarily residential with some small industrial related businesses.

2.2 Tank Removal

Three underground storage tanks (USTs) were removed on January 8, 1991, by the Zaccor Corporation from the above referenced address. The tank sizes and contents were as follows; one 50-gallon fuel oil tank, one 350-gallon fuel oil tank and one 50 gallon hydraulic oil reservoir tank.

Certified laboratory analysis of a soil sample collected from beneath the 50-gallon hydraulic oil reservoir tank detected an amount of Total Petroleum Hydrocarbons as hydraulic oil at 1,400 ppm.

No detectable amount of petroleum hydrocarbons was detected beneath either of the two fuel oil tanks.

2.3 Excavation of Contaminated Soil

Contaminated soil was excavated from the 50-gallon hydraulic oil tank pit by the Zaccor Corporation on January 21, 1991. Subsequently confirmatory soil samples were collected and found to be without detectable amounts of previously detected contaminants.

Refer to the Monitoring Well Installation Report, by Zaccor Corporation dated March 20, 1991, which includes the Zaccor Corporation Tank Removal and Excavation of Contaminated Soil Report.

2.4 Installation of Groundwater Monitoring Wells

The monitoring wells were installed by the Zaccor Corporation on February 2, 1991, in response to the detection of hydrocarbons within soil at the time of the hydraulic oil tank (UST) removal.

Three monitoring wells were installed to determine groundwater gradient and to be monitored on a quarterly basis to determine the impact, if any, of contaminants upon the first encountered aquifer.

3.0 QUARTERLY MONITORING OF GROUNDWATER

Anamatrix Incorporated, a State Certified Hazardous Waste Analytical Laboratory, was retained by the Zaccor Corporation to develop the wells and perform groundwater sampling on a quarterly basis as requested by the Alameda County Department of Environmental Health.

3.1 Monitoring Well Development

At consistent intervals throughout the well purging, pH, conductivity, and temperature were monitored to evaluate stabilization of the wells. Upon stabilization the wells were sampled.

The monitoring well development and initial sample collection was conducted on February 28, 1991, by Mr. Taghi of Anamatrix, Inc.

The 2nd quarter sampling performed on May 30, 1991, 3rd quarter sampling on September 20, 1991 and the fourth quarter sampling on December 19, 1991 were also performed by Mr. Taghi of Anamatrix, Inc..

Refer to Appendix B, Quarterly Monitoring Report for the well sampling and development data.

3.2 Groundwater Sampling Procedures

A water sample was collected from each well using a clean Teflon bailer. The water sample was decanted from the bailer into two clean one-liter amber bottles with teflon septum to a positive meniscus. Each water sample container was labeled with the appropriate well number, sampler's name, time and date of collection, and recorded on a chain of custody for transport on blue ice to a certified hazardous waste analytical laboratory.

3.3 Groundwater Analysis

Each water sample was analyzed for Total Petroleum Hydrocarbons as Hydraulic Oil, using EPA Method 3510.

TABLE I

GROUNDWATER SAMPLE ANALYTICAL RESULTS
all results are reported in ppb

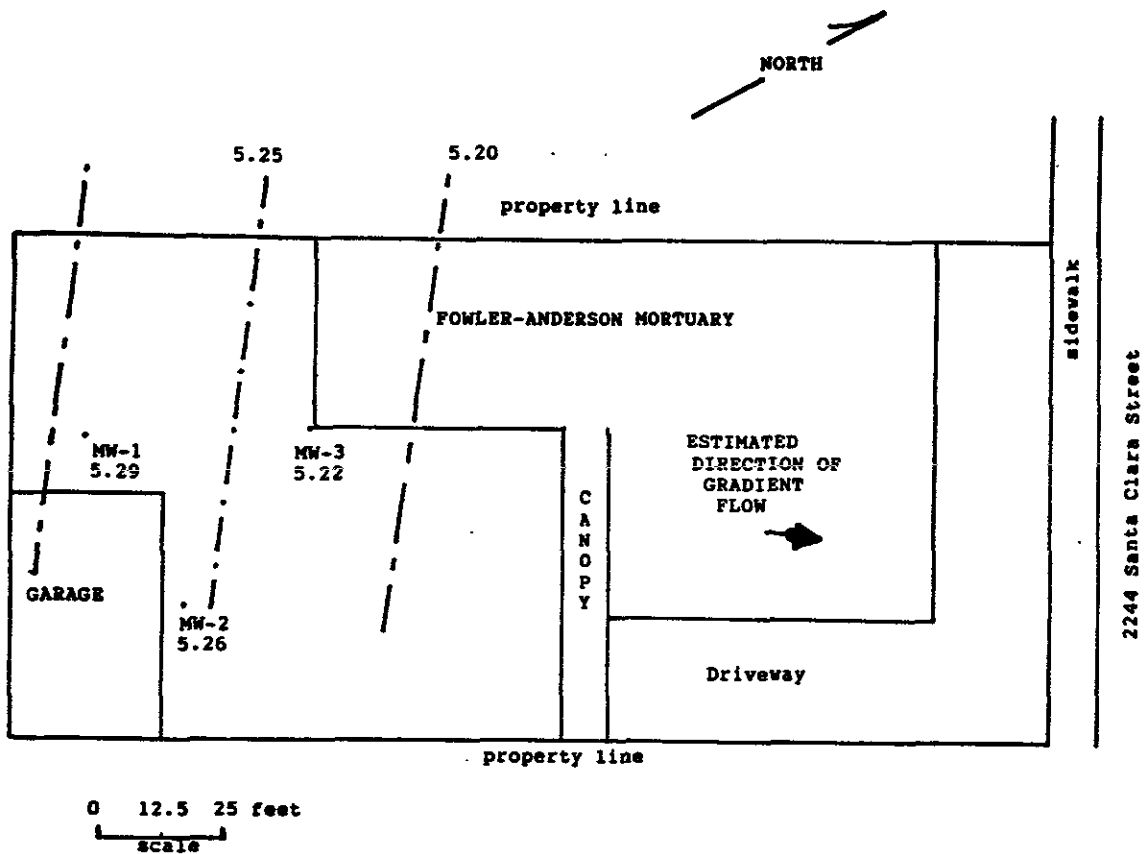
<u>Date</u>	<u>Sample#</u>	<u>TPH as Hydraulic Oil</u>
MW-1		
2-28-91	MW-1	ND
5-30-91	MW-1	ND
9-20-91	MW-1	ND
12-19-91	MW-1	ND
MW-2		
2-28-91	MW-2	ND
5-30-91	MW-2	ND
9-20-91	MW-2	ND
12-19-91	MW-2	ND
MW-3		
2-28-91	MW-3	ND
5-30-91	MW-3	ND
9-20-91	MW-3	ND
12-19-91	MW-3	ND

3.5 Groundwater Gradient

TABLE II

MW	TOC ELEV. (ft)	DATE	WATER DEPTH	WATER ELEV.
1	14.39	3/12/91	9.10	5.29
2	14.32	3/12/91	9.06	5.25
3	13.86	3/12/91	8.64	5.22

Datam= surveyors level assumed to be at 20'



4.0 RECOMMENDATIONS AND CONCLUSIONS

Groundwater samples collected within MW-1, MW-2 and MW-3 were analyzed for Total Petroleum Hydrocarbons as Hydraulic Oil.

Therefore it is our recommendation that no further monitoring be required.

5.0 REPORT

Copies of this report, chain of custody, and laboratory analytical reports should be submitted to the San Francisco Regional Water Quality Control Board, and the San Mateo County Department of Environmental Health, Division of Hazardous Materials.

The following addresses have been included for your convenience:

Water Quality Control Board
San Francisco Bay Region
1800 Harrison Street
Room 700
Oakland, CA 94612

Alameda County
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California

APPENDIX A

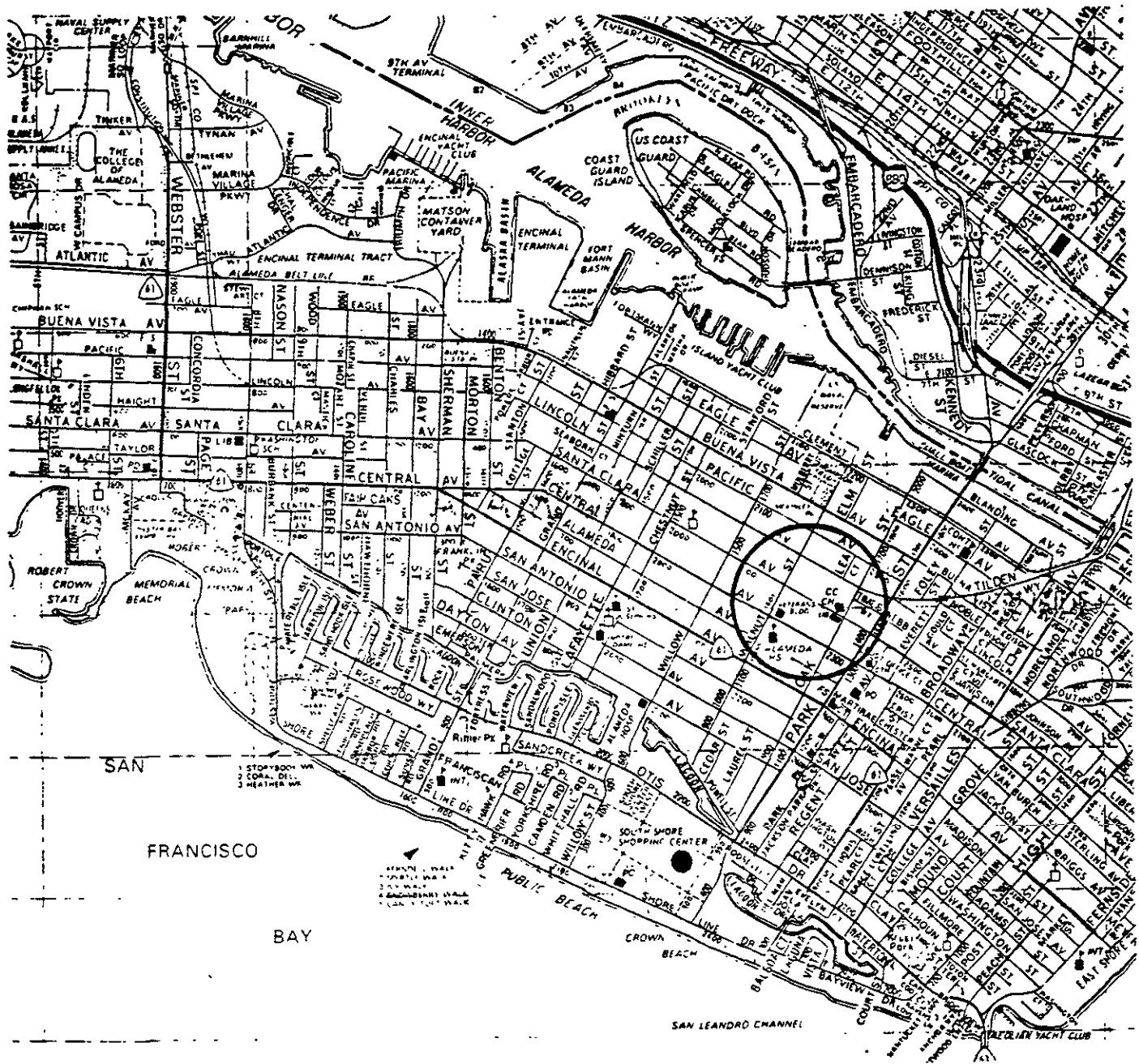
MAPS

Figure 1. Site Location Map

Figure 2. Tank & Sample Location Map

Figure 3. Tank Pit Excavation

Figure 4. Monitoring Well Locaton Map



FOWLER-ANDERSON MORTUARY
 2244 Santa Clara Street
 Alameda, California

Figure 1. Site Location Map

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'

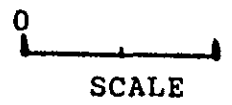
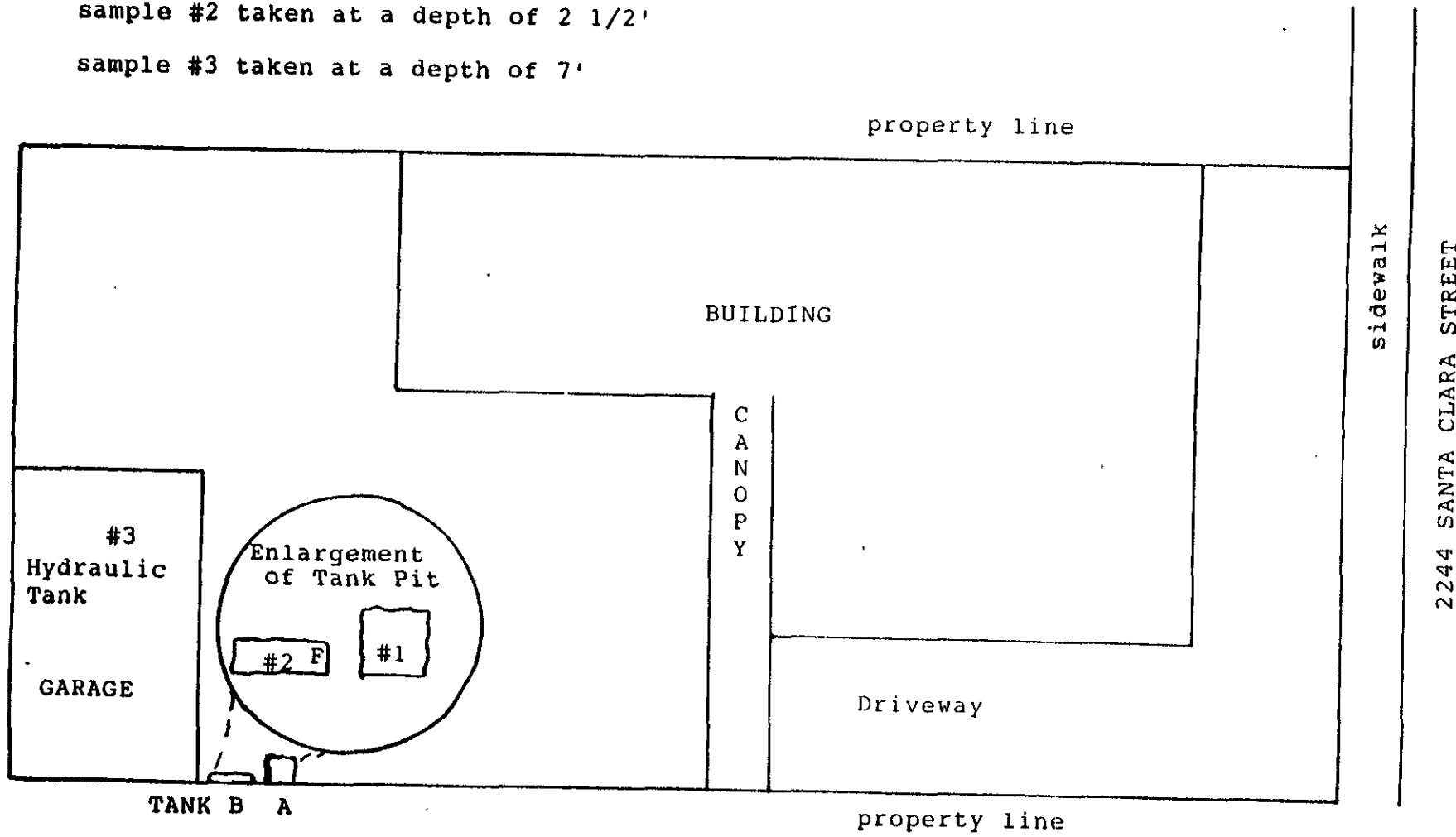
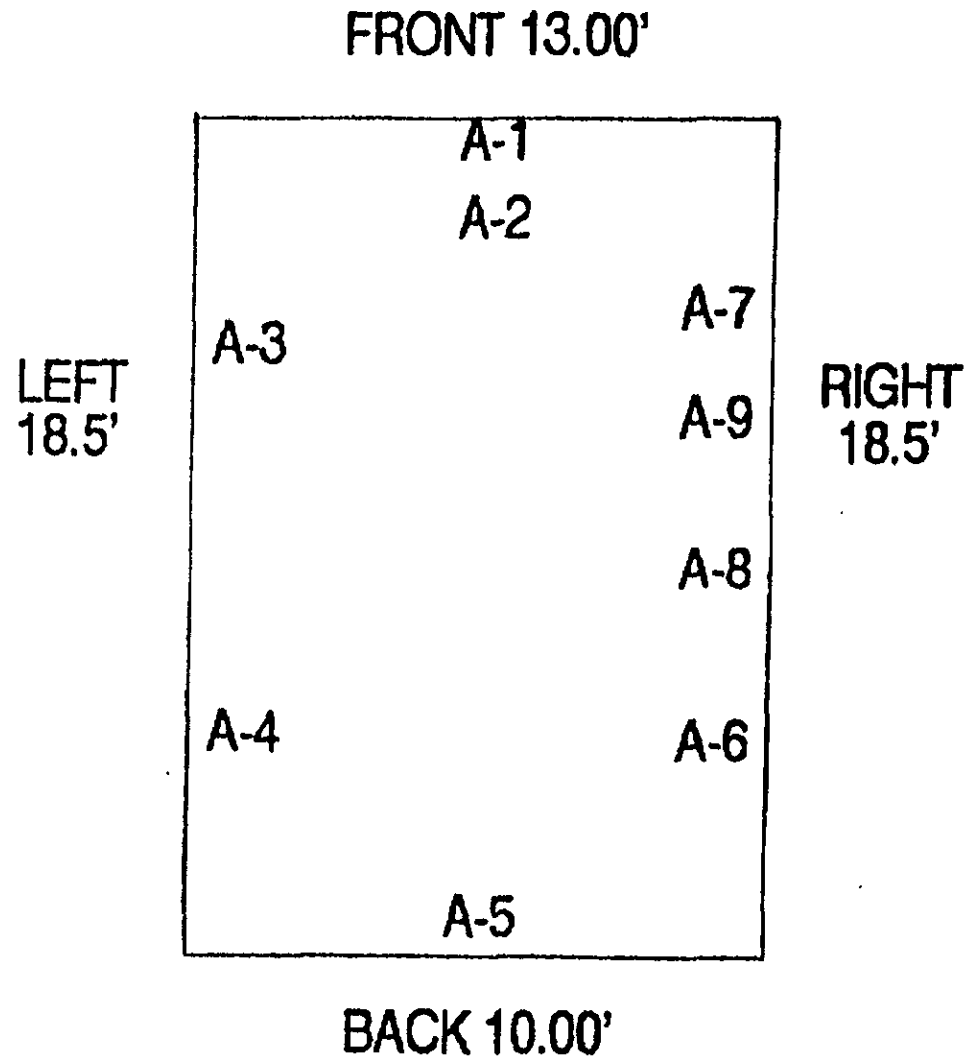


Figure 2. Tank Pit & Sample Location Map

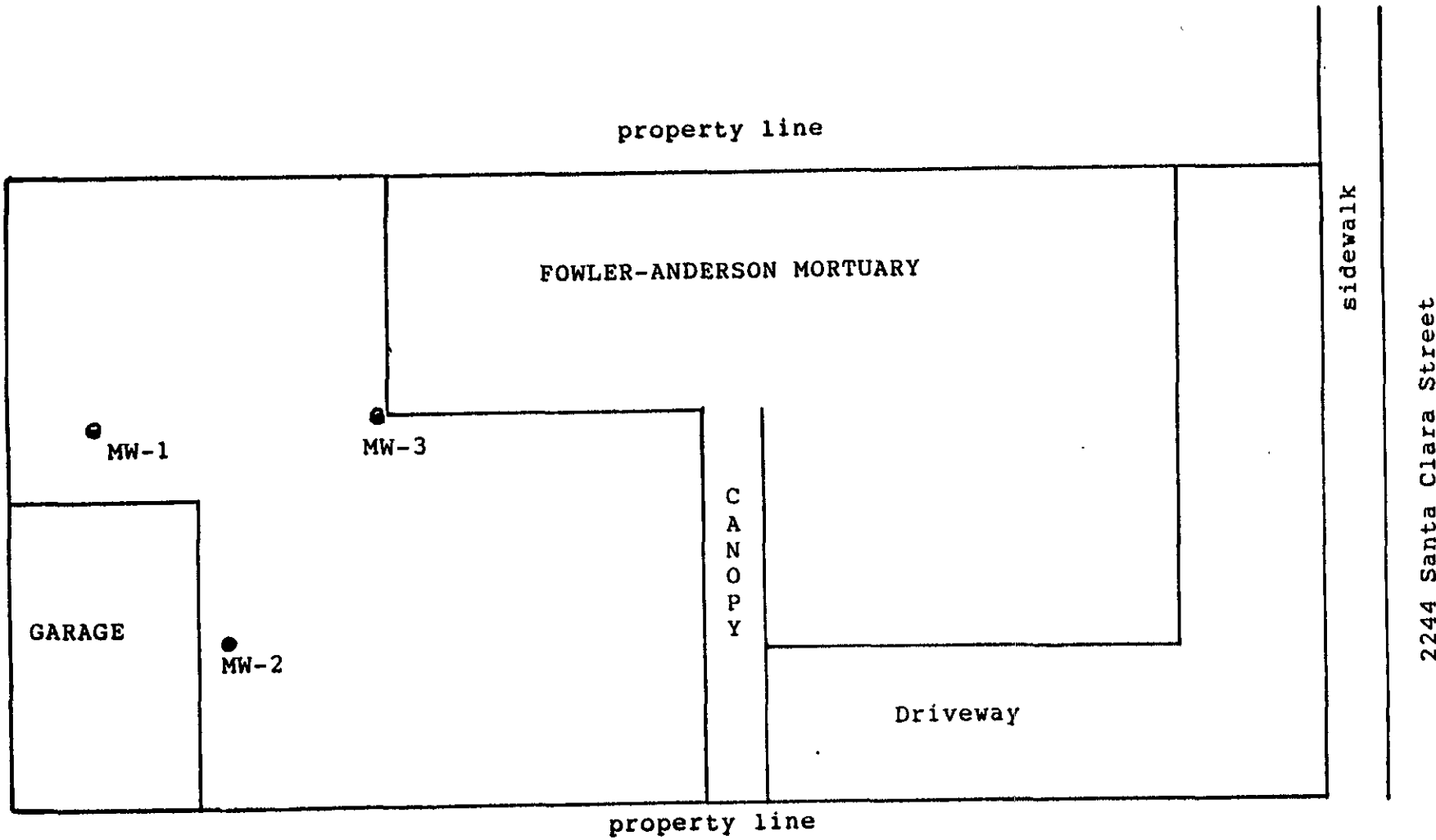
Figure 3. Anamatrix Inc., Excavation Sample Location Map of Hydraulic Oil Tank

A-1 7'	A-6 6.5'
A-2 11'	A-7 7'
A-3 10.5'	A-8 7'
A-4 7'	A-9 10.5'
A-5 7'	

SITE LOCATION
2240 SANTA CLARA AVE.
ALAMEDA, CA.
SAMPLING DATE 1/24/91



NORTH



0 12.5 25 feet
scale

Figure 4. Monitoring Well Location Map

APPENDIX B
Report Documenting the Installation
of Three Monitoring Wells
Zaccor Corporation, March 20, 1991

ZACCOR CORPORATION
MONITORING WELL INSTALLATION at:

FWLER - ANDERSON MORTUARY

2244 SANTA CLARA STEET

ALAMEDA CALIFORNIA

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Appendix B Tank Removal Report
Zaccor Corporation January 15, 1991

Appendix C Excavation of Contaminated Soil Report
Zaccor Corporation January 29, 1991

Appendix D Boring Logs

Appendix E Groundwater Gradient

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March 20, 1991

Ian Weber
1150 Ballena Boulevard
Suite 211
Alameda, California 94501

Attention: Mr. Weber

**MONITORING WELL INSTALLATION, DEVELOPMENT
AND SAMPLING REPORT**

The following report documents the installation of three groundwater monitoring wells by S & G Drilling and Environmental Technical Services on February 2, 1991 at:

**FOWLER ANDERSON MORTUARY
2244 SANTA CLARA STREET
ALAMEDA, CALIFORNIA**

BACKGROUND

Tank Removal

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

Certified laboratory analysis revealed that soil samples collected from beneath the fuel oil tanks contained no detectable concentrations of petroleum hydrocarbons at their lower detection limit. Soil samples collected from beneath the 50-gallon hydraulic oil reservoir contained concentrations of total petroleum hydrocarbons as hydraulic oil at 1,400 ppm. For Tank Removal Report refer to Appendix B.

Excavation of Contaminated Soil

Contaminated soil was excavated from the 50-gallon hydraulic oil tank pit by the Zaccor Corporation on January 21, 1991. Confirmatory samples were collected from the sidewalls and floor of the excavation. Collected soil samples were analyzed for total petroleum hydrocarbons as hydraulic oil (EPA Method 3550) using a hydraulic oil standard. All soil samples were found to be without detectable concentrations of total petroleum hydrocarbons as hydraulic oil. For the Excavation of Contamination report refer to Appendix C.

SCOPE OF SERVICES

The scope of services included the installation of three 2" groundwater monitoring wells. These wells were installed to determine the impact, if any, of contaminants upon the first encountered aquifer beneath the site. Soil samples were collected at 5' intervals within each soil boring. Soil was classified according to the Unified Soil Classification System. Upon completion of the monitoring well, groundwater gradient was surveyed. The well was developed and a water sample collected for analysis.

Construction, development and sampling of the wells was performed in accordance with guidelines set forth by the Regional Water Quality Control Board (RWQCB) San Francisco Bay Region and the Alameda County Department of Environmental Health Services.

The work was performed to comply with State and County Regulations in response to the presence of petroleum hydrocarbons discovered at the time of the Hydraulic oil reservoir tank removal.

WELL INSTALLATION

Three soil borings were advanced using a truck mounted hydraulically driven drill rig equipped with 8" outside diameter augers and completed as two inch diameter monitoring wells.

Augers were decontaminated between borings using a high pressure wash heated to 248 degrees Fahrenheit.

For well locations, construction details and boring logs for each of the three wells, refer to Appendix D.

SOIL SAMPLE COLLECTION

Soil samples were collected at five foot intervals using a California Modified Split Spoon Sampler driven by the drill rig. Immediately upon opening the sampler a brass sleeve was removed. Each end of 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. The sampler was decontaminated between samples using a tri-sodium phosphate wash and tap water rinse.

SOIL SAMPLE LOCATION

MW-1

Soil samples were collected at:

6' - 6.5'
12' - 12.5'
16' - 16.5'
21 - 21.5'

MW-2

Soil samples were collected at:

6' - 6.5'
11' - 11.5'
15' - 15.5'
21' - 21.5'

MW-3

Soil samples were collected at:

6' - 6.5'
11' - 11.5'
16' - 16.5'
21' - 21.5'

SOIL SAMPLE ANALYSIS

MW-1

Soil Sample #MW-1 6' - 6.5' was placed on hold and not analyzed.

Soil sample #MW-1 12' - 12.5' was analyzed for total petroleum hydrocarbons as hydraulic oil.

Soil sample #MW-1 16' - 16.5' was analyzed for total petroleum hydrocarbons as hydraulic oil.

Soil sample #MW-1 21' - 21.5' was placed on hold and not analyzed.

MW-2

Soil Sample #MW-2 6' - 6.5' was placed on hold and not analyzed.

Soil sample #MW-2 11' - 11.5' was analyzed for total petroleum hydrocarbons as hydraulic oil.

Soil sample #MW-2 15' - 15.5' was analyzed for total petroleum hydrocarbons as hydraulic oil.

Soil sample #MW-1 20' - 20.5' was placed on hold and not analyzed.

MW-3

Soil Sample #MW-3 6' - 6.5' was placed on hold and not analyzed.

Soil sample #MW-3 11' - 11.5' was analyzed for total petroleum hydrocarbons as hydraulic oil.

Soil sample #MW-3 16' - 16.5' was analyzed for total petroleum hydrocarbons as hydraulic oil.

Soil sample #MW-3 21' - 21.5' was placed on hold and not analyzed.

ANALYTICAL RESULTS

All samples analyzed contained no detectable concentrations of total petroleum hydrocarbons as hydraulic oil at its lower detection limit.

WELL DEVELOPMENT

Development and sampling of the wells was performed on February 28, 1991. All well effluent was contained in Department of Transportation approved 17-H 55 gallon drums pending analysis of water samples.

MW-1 was developed by evacuating water using a B & K Pump. Approximately 60 liters of water was evacuated during development.

MW-2 was developed by evacuating water using a stainless steel bailer. Approximately 40 liters of water was evacuated during development.

MW-3 was developed by evacuating water using a stainless steel bailer. Approximately 60 liters of water was evacuated during development.

WELL SAMPLING

On February 28, 1991 each of the three wells was sampled immediately following development. Sampling was performed using a teflon bailer which was decontaminated between wells using a tri-sodium phosphate wash, tap water rinse followed by a de-ionized water rinse. At consistent intervals throughout the well purging pH, conductivity, and temperature was monitored to evaluate stabilization of the wells prior to sampling. Water was decanted into two one-liter amber bottles to a positive meniscus eliminating headspace.

MW-1 The total depth of MW-1 was 19.7 feet and depth to water was 9.88 feet. A volume of 60 liters of water was evacuated from the well prior to the collection of sample #MW-1.

MW-2 The total depth of MW-2 was 15.08 feet and depth to water was 9.86 feet. A volume of 40 liters of water was evacuated from the well prior to the collection of sample #MW-2.

MW-3 The total depth of MW-3 was 19.95 feet and depth to water was 9.56 feet. A volume of 60 liters of water was evacuated from the well prior to the collection of sample #MW-3.

ANALYTICAL RESULTS

Water sample were analyzed for total petroleum hydrocarbons as hydraulic oil (EPA Method 3550) using a hydraulic oil standard.

Water sample #MW-1, #MW-2, and #MW-3 contained no detectable concentrations of total petroleum hydrocarbons as hydraulic oil at its lower detection limit.

GROUNDWATER GRADIENT

TABLE 1. Depth and Elevation of Groundwater.

MW	TOC	ELEV.(ft)	DATE	WATER DEPTH	WATER ELEV.
1	14.39		3/12/91	9.10	5.29
2	14.32		3/12/91	9.06	5.25
3	13.86		3/12/91	8.64	5.22

datum= surveyors level assumed to be 20'

RECOMMENDATIONS

As preceding reports indicate all soil contamination has been removed and groundwater appears to have not been impacted, no further soil/groundwater investigation or remediation is recommended at this time.

REPORTAGE

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

The following addresses have been included for your convenience:

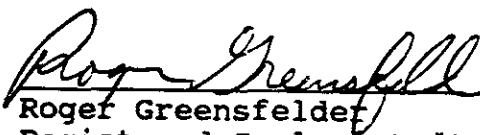
Water Quality Control Board
San Francisco Bay Region
1800 Harrison Street
Room 700
Oakland, CA 994612

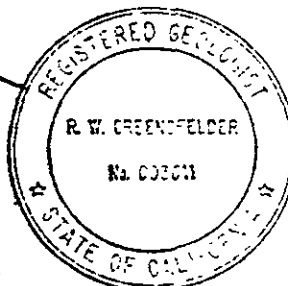
Alameda County Health Agency
Division of Hazardous Materials Department of Environmental Health
80 Swan Way, Rm 200
Oakland CA 94621

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.

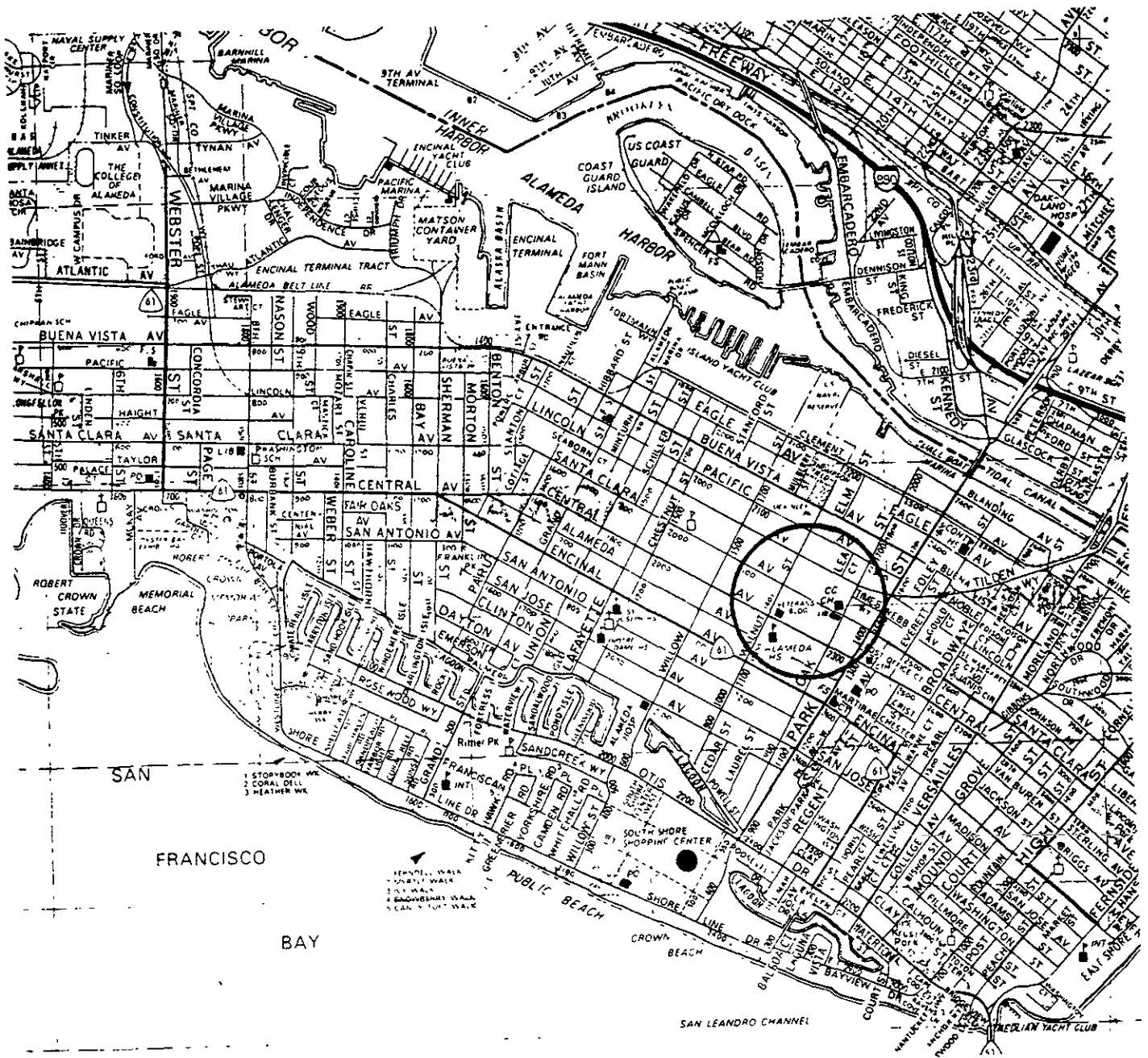
Scot Zaccor
S & G Drilling
Project Manager

Helen Mawhinney
Environmental Technical Services


Roger Greensfelder
Registered Geologist #3011



APPENDIX A
MAPS



FOWLER-ANDERSON MORTUARY
 2244 Santa Clara Street
 Alameda, California

Figure 1. Site Location Map

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'

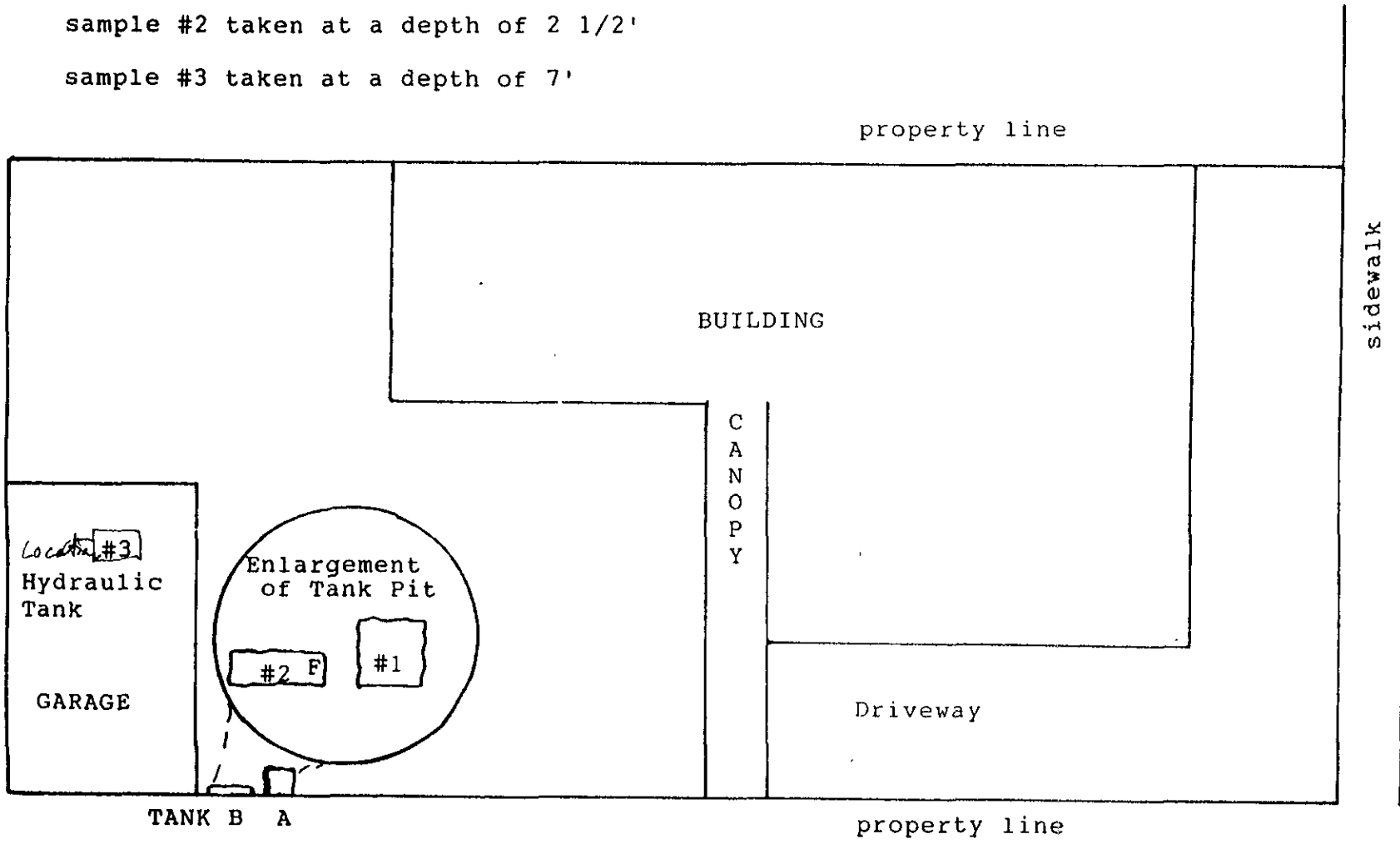
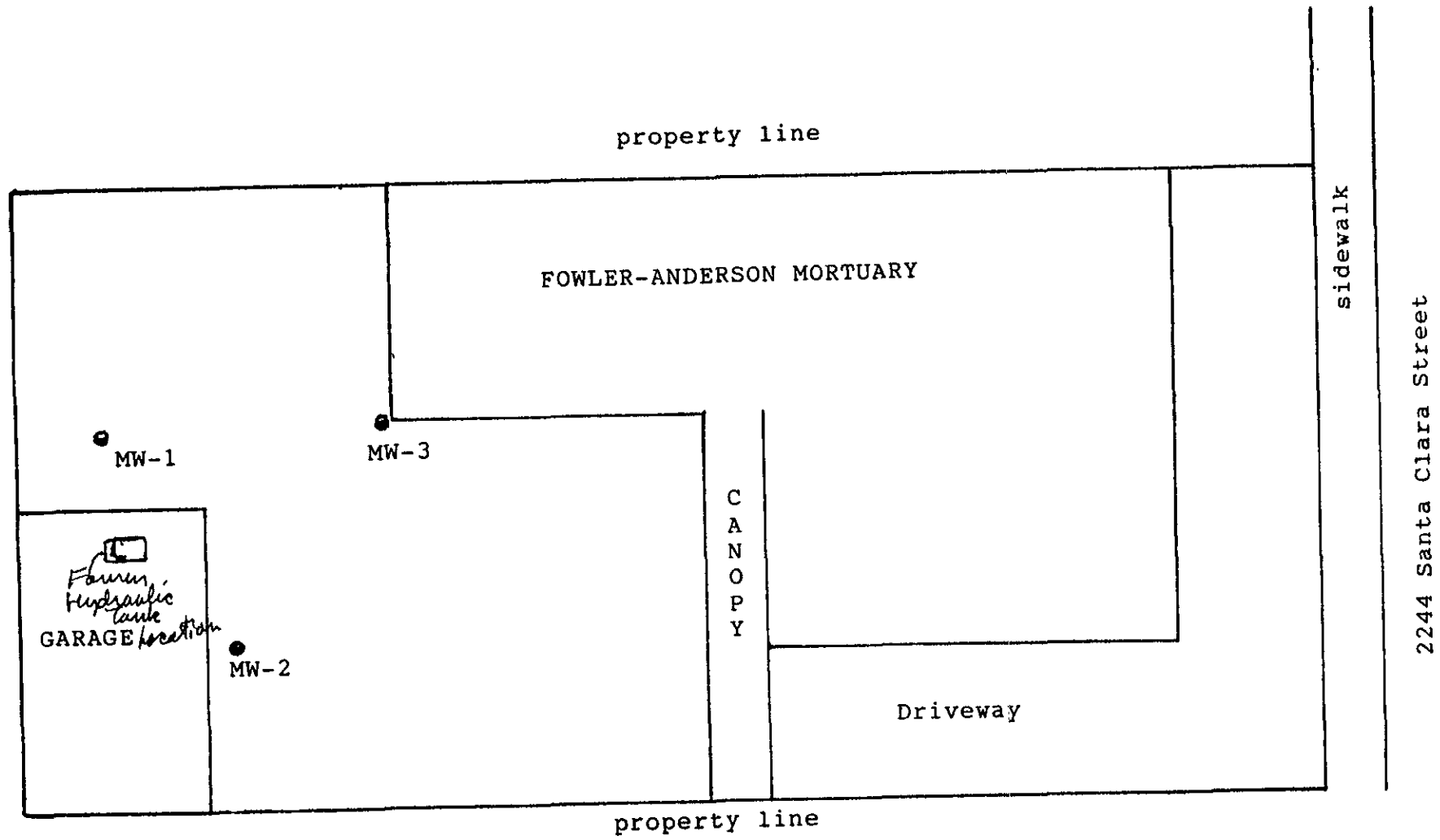


Figure 2. Tank Pit & Sample Location Map

ENVIRONMENTAL
TECHNICAL
SERVICES

For ZACCOR CORPORATION, at: 2244 Santa Clara Street, Alameda, California

NORTH



0 12.5 25 feet
scale

Monitoring Well Location Map

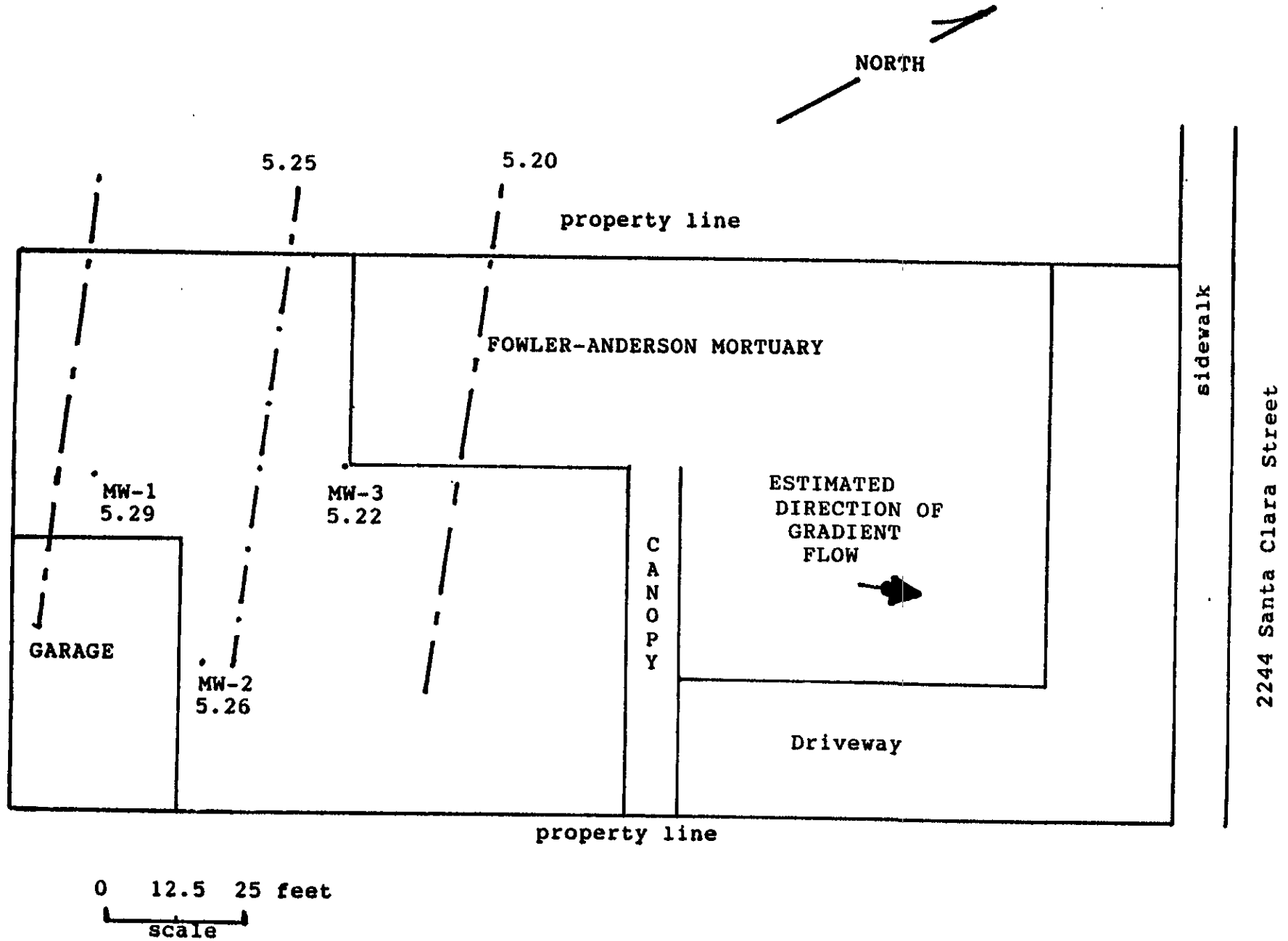


Figure 4. Groundwater Gradient Map

APPENDIX B
TANK REMOVAL REPORT

January 15, 1991

Ian Weber
1150 Ballena Boulevard
Suite 211
Alameda, CA 94501

Project: #Z010891M1

RE: The Removal of Underground Storage 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 Anamatrix Laboratory. A hard copy of the analytical results will be included in the final copy of this report to be forwarded to the regulatory agencies 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:

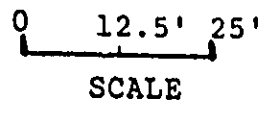
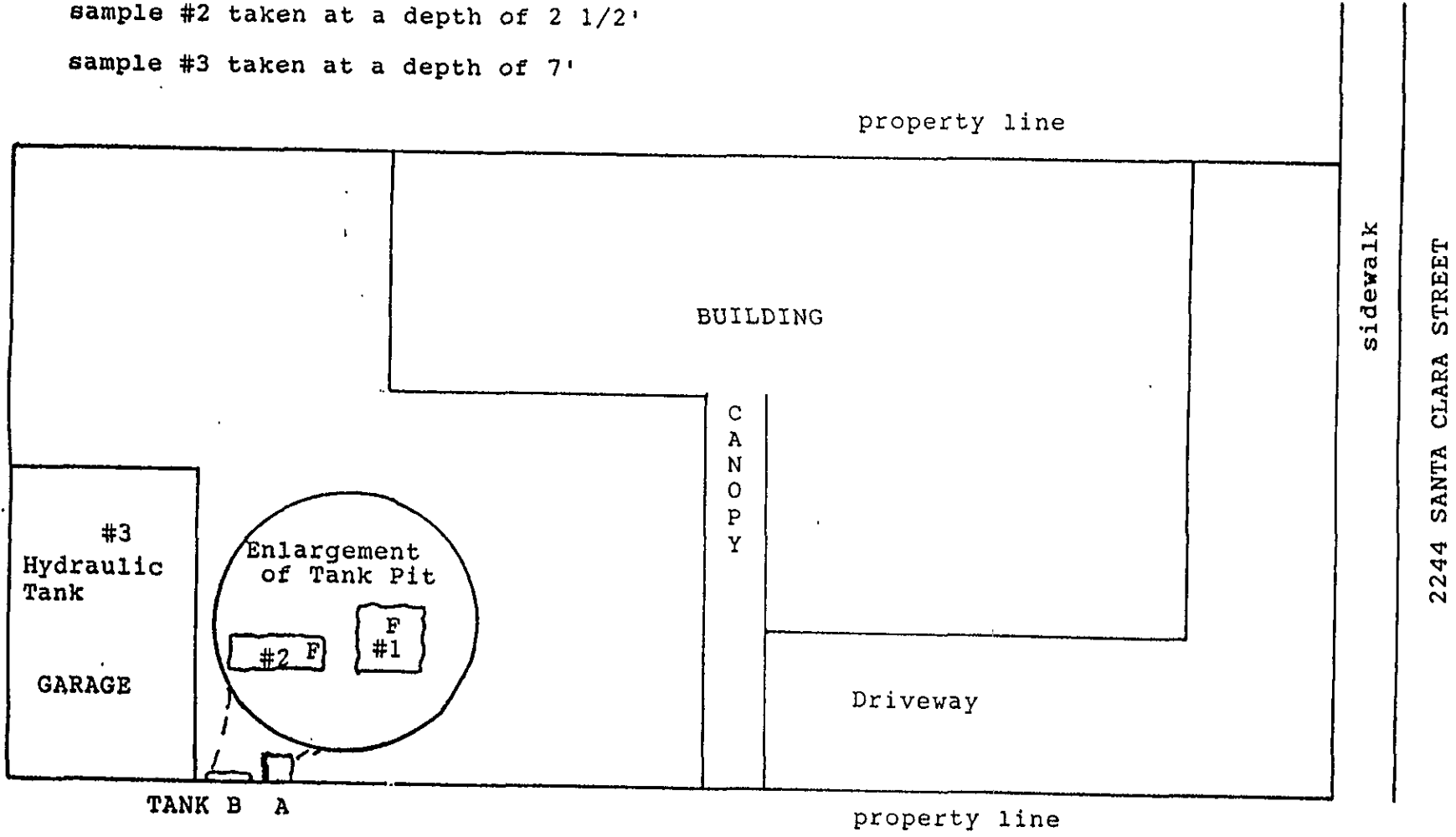
Water Quality Control Board
San Francisco Bay Region
1800 Harrison Street
Room 700
Oakland, CA 994612

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

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 2244 Santa Clara Ave Alameda, CA		PROJECT NAME 2244 Santa Cruz Ave Alameda, CA				Number of Cntnrs	Type of Containers	Type of Analysis								Condition of Samples	Initial
Send Report Attention of: ZACCOR CORP		Report Due 1 1		Verbal Due 8/10 11/8/90	TPH-D			TOG	BTEX	Hydroc Oil							
Sample Number	Date	Time	Comp	Grab	Station Location												
#1	1/8/90			✓	350 gal tank center	1	BRASS SLEEVE	✓	✓	✓							
#2	1/8/90			✓	50 gal tank center	1	" "	✓	✓	✓					Red, proper Containers, no head Sp. MS		
#3	1/8/90			✓	Hydraulic Lift	1	" "	✓	✓	✓	✓						
Relinquished by: (Signature) <i>Helen M...</i>	Date/Time 1/21/90	Received by: (Signature) <i>[Signature]</i>	Date/Time 1/8/90	Remarks: 48 HR RUSH													
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	COMPANY: ADDRESS: PHONE :													
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	FAX :													

ANAMETRIX INC

Environmental & Analytical Chemistry
11 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 Anamatrix, 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 Anamatrix 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 Anamatrix 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.

Anamatrix 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 Anamatrix.

Burt Sutherland

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 Balmer 1/11/91
Department Supervisor Date

Trina Shoo 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

Reporting Limit	Sample I.D.# #1	Sample I.D.# #2	Sample I.D.# 21B0109B
COMPOUNDS (mg/Kg)	-01	-02	BLANK
Benzene	0.005	ND	ND
Toluene	0.005	ND	ND
Ethylbenzene	0.005	ND	ND
Total Xylenes	0.005	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.

Iuma Shoa 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

Anamatrix 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

<u>Anamatrix I.D.</u>	<u>Client I.D.</u>	<u>Date Analyzed</u>	<u>Reporting Limit (mg/Kg)</u>	<u>Amount Found (mg/Kg)</u>
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.

[Signature] 1/14/91
 Analyst Date

Cheryl Balmer 1/14/91
 Supervisor Date

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

Anamatrix 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

Anamatrix 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.

[Signature] 1/14/91
 Analyst 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.

B. Patel January, 14th 1991.
Department Supervisor Date

Peggy Dawson 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

Anamatrix I.D. : 9101055
 Analyst : *ED*
 Supervisor : *EP*
 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.

25
1440

CLIENT CHAIN-OF-CUSTODY RECORD

9/10/95

10/3

PROJECT NUMBER		PROJECT NAME				Number of Cntrs	Type of Containers	Type of Analysis					Condition of Samples	Initials
2244 Santa Clara Ave Alameda, CA		2244 Santa Cruz Ave Alameda, CA						TPH-D	TOG	BTEX	Hydraulic	Oil		
Send Report Attention of: ZACCOR CORP			Report Due 1 1		Verbal Due 9/10/91 1 1									
Sample Number	Date	Time	Comp	Grab	Station Location									
① #1	1/8/90			✓	350 gal tank center	1	BRASS SLEEVE	✓	✓	✓				
② #2	1/8/90			✓	50 gal tank center	1	" "	✓	✓	✓			Red, proper Containers, as head Sp. MS	
③ #3	1/8/90			✓	Hydraulic Lift	1	" "	✓	✓	✓				
Relinquished by: (Signature) <i>Helen M...</i>		Date/Time 1/8/90		Received by: (Signature) <i>[Signature]</i>		Date/Time 1/8/90		Remarks: 48 HR HR RUSH						
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		COMPANY: ADDRESS: PHONE :						
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		FAX :						

Please print or type (Form designed for use on elite (12-pitch typewriter).)

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No	Manifest Document No	2. Page 1 of /	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address				A. State Manifest Document Number	89891343
4. Generator's Phone ()				B. State Generator's ID	
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID	100991
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone	(415) 235-212
9. Designated Facility Name and Site Address		10. US EPA ID Number		E. State Transporter's ID	
Erickson, Inc. 255 Parr Blvd. Richmond, Ca. 94801		CAE009456392		F. Transporter's Phone	
11 US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12 Containers No	13 Total Quantity
a. Waste Empty Storage Tank				Type	14 Unit Wt/Vol
NON-RCRA hazardous waste Solid.					
					I. Waste No. 512
					EPA/Other NONE
					State
					EPA/Other
					State
					EPA/Other
					State
					EPA/Other
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above	
Qty. 1 Empty Storage Tank (s) # 1001, 32, Tank (s) have been inerted with 15 lbs. Dry Ice per 1000 Gal. Capacity.				a	b
				c	d
15 Special Handling Instructions and Additional Information					
Keep away from sources of ignition. Always wear hardhats when working around U.S.T.'s 24 Hr. Contact Name _____ & Phone _____					
16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford					
Printed/Typed Name			Signature		Month Day Year
17 Transporter 1 Acknowledgement of Receipt of Materials					
Printed/Typed Name			Signature		Month Day Year
18 Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name			Signature		Month Day Year
19 Discrepancy Indication Space					
20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19					
Printed/Typed Name			Signature		Month Day Year

U.S. DEPARTMENT OF JUSTICE
 FEDERAL BUREAU OF INVESTIGATION
 CALIFORNIA OFFICE
 424 43622
 THE NATIONAL RESPONSE CENTER
 SPILL
 AN EMERGENCY
 CASE

GENERATOR

TRANSPORTER

FACILITY

Do Not Write Below This Line

Please print or type. (Form designed for use on elite (12-pitch typewriter))

UNIFORM HAZARDOUS WASTE MANIFEST		Generator's US EPA ID No	Manifest Document No	2 Page 1 of	Information in the shaded areas is not required by Federal law.		
3. Generator's Name and Mailing Address			A. State Manifest Document Number 90239087				
4. Generator's Phone ()			B. State Generator's ID				
5. Transporter 1 Company Name		6. US EPA ID Number	C. State Transporter's ID				
7. Transporter 2 Company Name		8. US EPA ID Number	D. Transporter's Phone ()				
9. Designated Facility Name and Site Address		10. US EPA ID Number	E. State Transporter's ID				
			F. Transporter's Phone				
			G. State Facility's ID				
			H. Facility's Phone ()				
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				12. Containers No	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a							State 221
b							EPA/Other
c							State
d							EPA/Other
J. Additional Descriptions for Materials Listed Above				K. Handling Codes for Wastes Listed Above			
				a	b		
				c	d		
15. Special Handling Instructions and Additional Information							
16. GENERATOR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name				Signature		Month Day Year	
17. Transporter 1 Acknowledgement of Receipt of Materials				Signature		Month Day Year	
Printed/Typed Name				Signature		Month Day Year	
18. Transporter 2 Acknowledgement of Receipt of Materials				Signature		Month Day Year	
Printed/Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space							
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19							
Printed/Typed Name				Signature		Month Day Year	

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-952-7330

GENERATOR

TRANSPORTER

FACILITY

APPENDIX C
EXCAVATION OF CONTAMINATION

January 29, 1991

Mr. Ian Weber
1150 Ballena Blvd.
Alameda, CA 94501

RE: Fowler Anderson Mortuary
2244 Santa Clara Street
Alameda, CA

Mr. Ian Weber

RE: The Excavation of Contaminated Soil and Subsequent Third Party
Confirmatory Sampling at: 2244 Santa Clara Street, Alameda,
California.

SITE OVERVIEW

The subject property is located in the City of Alameda, County of Alameda, California. A site location map is included in Figure 1. The site is operated as a mortuary which performs funeral services, body preparation and administrative functions. The property is presently owned by Fowler-Anderson Mortuary.

Mr. Ian Weber, Real Estate Agent for Pacific Financial Corp., who represents Fowler-Anderson Mortuary, contracted Zaccor Corporation to remove three (3) underground storage tanks located on site. Environmental Technical Services was retained to perform Third Party Confirmatory Sampling. Tank removal and subsequent soil sampling was performed in accordance with local and regional guidelines, under the auspices of the Alameda County Department of Environmental Health, and the Alameda Fire Prevention Bureau.

On January 8, 1991, three (3) underground storage tanks (UST's) were removed, including: one (1) 350 gallon motor oil tank, one (1) 50 gallon motor oil tank, and one (1) 50 gallon hydraulic oil reservoir tank (as diagramed in Figure 2). One soil interface sample was obtained from beneath the center of each tank.

No contamination was detected beneath the 350 gallon motor oil tank or the 50 gallon motor oil tank. Total Petroleum Hydrocarbons as Hydraulic Oil was detected at a concentration of 1,400 ppm beneath the hydraulic oil reservoir tank.

EXCAVATION OF CONTAMINATED SOILS

On January 24, 1991, Zaccor Corporation proceeded to excavate soils contaminated with Total Petroleum Hydrocarbons as Hydraulic Oil, within the site garage. Anametrix Incorporated, retained by Zaccor Corporation performed third party confirmatory sampling upon completion of soil excavation.

Throughout the excavation of contaminated soil from the hydraulic oil tank pit, soil samples were acquired from the sidewalls and floor of the excavation with a backhoe bucket. The first 3 to 4 inches of soil was removed from the backhoe bucket and a clean brass sleeve (1.92 inches in diameter by 6.0 inches in length) was driven into the remaining soil most representative of the sample location desired. The sample tube was withdrawn, the ends wrapped with aluminum foil, covered with plastic caps, sealed with duct tape, labeled, placed on dry ice, and transported to a Certified Hazardous Waste Analytical Laboratory (Anametrix Laboratory, Inc.) under chain of custody. Soil samples were analyzed for Total Petroleum Hydrocarbons as Hydraulic Oil using a Hydraulic Oil standard.

As such time as the boundaries of excavation were defined, clean imported fill material was placed within the tank pit excavation.

Excavated contaminated soil was placed on visqueen and covered with visqueen. A composite soil sample will be acquired to be analyzed for Total Petroleum Hydrocarbons as Hydraulic Oil. A comprehensive work plan will then be developed for the remediation or disposal of contaminated soil.

SAMPLE LOCATIONS

Sample #A-1 was collected from the East wall at a depth of 7'

Sample #A-2 was collected from the excavation floor at a depth of 11'

Sample #A-3 was collected from the excavation floor at a depth of 10.5'

Sample #A-4 was collected from the North wall at a depth of 7'

Sample #A-5 was collected from the West wall at a depth of 7'

Sample #A-6 was collected from the South wall at a depth of 6.5'

Sample #A-7 was collected from the South wall at a depth of 7'

Sample #A-8 was collected from the South wall at a depth of 7'

Sample #A-9 was collected from the excavation floor at a depth of 10.5'

ANALYTICAL RESULTS

Each sample was analyzed for Total Petroleum Hydrocarbons as Hydraulic Oil using a Hydraulic Oil Standard. All of the above samples were found to be non-detected at the respective detection limit, indicating all contaminated soil has been removed.

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 a pleasure working with you. If you have any questions or if I may be of further assistance please do not hesitate to contact 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 94612

Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way
Room 200
Oakland, CA 94621
Attn: William Faulhaber

Sincerely,
ZACCOR CORPORATION


Gary A. Zaccor
Project Manager

GAZ/lis

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 # : 9101244
 Date Received : 01/24/91
 Project ID : 910124
 Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9101244- 1	A-1
9101244- 2	A-2
9101244- 3	A-3
9101244- 4	A-4
9101244- 5	A-5
9101244- 6	A-6
9101244- 7	A-7
9101244- 8	A-8
9101244- 9	A-9

This report consists of 6 pages not including the cover letter, and is organized in sections according to the specific Anamatrix 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 Anamatrix 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.

Anamatrix 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 Anamatrix.

 Burt Sutherland
 Laboratory Director

1-30-91

 Date

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

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

Workorder # : 9101244
Date Received : 01/24/91
Project ID : 910124
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9101244- 1	A-1	SOIL	01/24/91	TPHd
9101244- 2	A-2	SOIL	01/24/91	TPHd
9101244- 3	A-3	SOIL	01/24/91	TPHd
9101244- 4	A-4	SOIL	01/24/91	TPHd
9101244- 5	A-5	SOIL	01/24/91	TPHd
9101244- 6	A-6	SOIL	01/24/91	TPHd
9101244- 7	A-7	SOIL	01/24/91	TPHd
9101244- 8	A-8	SOIL	01/24/91	TPHd
9101244- 9	A-9	SOIL	01/24/91	TPHd

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

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

Workorder # : 9101244
Date Received : 01/24/91
Project ID : 910124
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Cheyl Balmer 1/29/91
Department Supervisor Date

Harold Voigt 1/30/91
chemist Date

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

Anamatrix W.O.: 9101244
Matrix : SOIL
Date Sampled : 01/24/91
Date Extracted: 01/24/91

Project Number : 910124
Date released : 01/29/91
Instrument I.D.: HP9

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9101244-01	A-1	01/28/91	10	ND
9101244-02	A-2	01/28/91	10	ND
9101244-03	A-3	01/28/91	10	ND
9101244-04	A-4	01/28/91	10	ND
9101244-05	A-5	01/28/91	10	ND
9101244-06	A-6	01/28/91	10	ND
9101244-07	A-7	01/28/91	10	ND
9101244-08	A-8	01/28/91	10	ND
9101244-09	A-9	01/28/91	10	ND
DSBL012491	METHOD BLANK	01/28/91	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10mg/Kg.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as hydraulic oil is determined by GC/FID following sample extraction by EPA Method 3550.

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

David Vogel 1/30/91
Analyst Date

Cheryl Balmer 1/29/91
Supervisor Date

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

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

Workorder # : 9101244
Date Received : 01/24/91
Project ID : 910124
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9101244- 1	A-1	SOIL	01/24/91	418.1
9101244- 2	A-2	SOIL	01/24/91	418.1
9101244- 3	A-3	SOIL	01/24/91	418.1
9101244- 4	A-4	SOIL	01/24/91	418.1
9101244- 5	A-5	SOIL	01/24/91	418.1
9101244- 6	A-6	SOIL	01/24/91	418.1
9101244- 7	A-7	SOIL	01/24/91	418.1
9101244- 8	A-8	SOIL	01/24/91	418.1
9101244- 9	A-9	SOIL	01/24/91	418.1

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

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

Workorder # : 9101244
Date Received : 01/24/91
Project ID : 910124
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

[Signature] January, 30th 1991.
Department Supervisor Date

Reggie Davison 1-30-91
Chemist Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
 EPA METHOD 418.1
 ANAMETRIX, INC. (408) 432-8192

Project # : 910124	Anametrix I.D. : 9101244
Matrix : SOIL	Analyst : RD
Date sampled : 01/24/91	Supervisor : SP
Date ext. : 01/24/91	Date released : 01/29/91
Date analyzed: 01/24/91	

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9101244-01	A-1	1	1.2
9101244-02	A-2	1	1.7
9101244-03	A-3	1	2.7
9101244-04	A-4	1	1.8
9101244-05	A-5	1	2.0
9101244-06	A-6	1	ND
9101244-07	A-7	1	3.3
9101244-08	A-8	1	2.0
9101244-09	A-9	1	2.0
GSDL012491	METHOD BLANK	1	ND

ND - Not detected at or above the practical quantitation limit for the method.

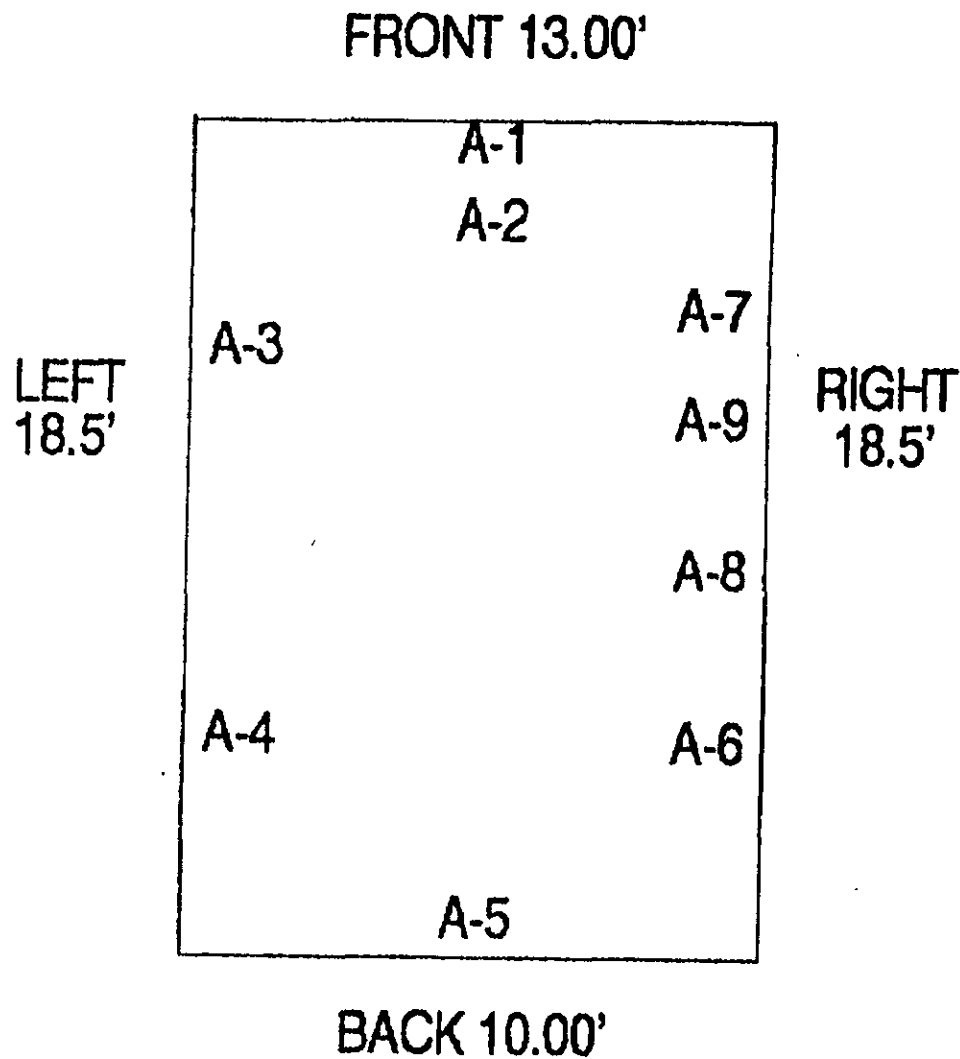
Reference - Methods for Chemical Analysis of Water and Wastes, 3rd edition
 US EPA-600/4-79-020, March 1983.

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

Anamatrix Inc., Excavation Sample Location Map of Hydraulic Oil Tank

A-1 7'	A-6 6.5'
A-2 11'	A-7 7'
A-3 10.5'	A-8 7'
A-4 7'	A-9 10.5'
A-5 7'	

SITE LOCATION
2240 SANTA CLARA AVE.
ALAMEDA, CA.
SAMPLING DATE 1/24/91



P.2

JAN 29 '91 10:23 ANALMETRIX INC 406 452 81986

PROJECT NUMBER		PROJECT NAME				Number of Cntrs	Type of Containers	Type of Analysis								Condition of Samples	Initial		
910124		2240 SANTA CLARA AV.						Send Report Attention of: GARY ZACCOR		Report Due 1 1		Verbal Due 1 25 91							
Sample Number	Date	Time	Comp	Grab	Station Location														
A-1	1-24-91	13:58			Front wall at 7'	1	BL	X									Col. No Heads free		
A-2	"	14:05			" " 11'	"	"	X											
A-3	"	14:15			Left wall 10.5'	"	"	X											
A-4	"	14:20			" " 7.0'	"	"	X											
A-5	"	14:25			back wall 7.0'	"	"	X											
A-6	"	14:30			Right wall 6.5'	"	"	X											
A-7	"	14:35			" " 7.0'	"	"	X											
A-8	"	14:40			" " 8.0'	"	"	X											
A-9	"	14:48			capillary line at 10.5'	"	"	X											
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Remarks:											
Jaghi Hernandez		1/24/91 16:05		[Signature]		1/24/91 16:05													
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time													
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		COMPANY: ZACCOR ADDRESS: 781 HAMILTON AVE. MENDO PARK, CA 94025 PHONE: (415) 363-2181 FAX: (415) 326-7253											

418.1(TPH)

Col. No Heads free

**APPENDIX D
BORING LOGS**

MONITORING WELL BORING LOGS

ENVIRONMENTAL TECHNICAL SERVICES
for: ZACCOR CORPORATION

AT: FOWLER, ANDERSON
MORTUARY
2244 Santa Clara St
Alameda, California

MW-1

R.G. Roger Greensfelder PHD #3011

Drilling Method : Augers

Sample Method : Spoon Split Method : Spoon

Project Manager: Gary Zaccor

2/21/91

DEPTH	SAMPLE COLLECTED: INT. SAMPLE#	Soil Description	USCS	LOG	BLOW COUNTS 6" INCRE	WELL CONSTRUCTION
5'	MW-1 6'-6.5'	MEDIUM - FINE GRAIN SANDS WITH CLAY 10%, medium-brown or tan, damp.	SC		8, 8, 12	LOCKED CAP BLANK CASING
10'	MW-1 12-12.5	MEDIUM - FINE GRAIN SANDS WITH CLAY 10%, medium - brown or tan, saturated.	SC		17, 22, 27	PVC SCREEN 0.010" SLOT 4'-20'
15'	MW-1 16-16.5	MEDIUM - FINE GRAIN SANDS WITH VERY LITTLE CLAY, tan, saturated.	SC		7, 14, 22	
20'	MW-1 21-21.5	MEDIUM - FINE GRAIN SANDS WITH VERY LITTLE CLAY, tan, saturated.	SC		6, 12, 20	BOTTOM PLUG
25'						PVC CASING 2" ID SCHED 40
30'						

CHRISTY BOX
GROUT
BENTONITE SEAL

LONESTAR #3 SAND FILTER PACK

MONITORING WELL BORING LOGS

ENVIRONMENTAL TECHNICAL SERVICES
for: ZACCOR CORPORATION

AT: FOWLER, ANDERSON
MORTUARY
2244 Santa Clara St
Alameda, California

MW-3

R.G. Roger Greensfelder PHD #3011

Drilling Method : Augers

Sample Method : Spoon Split Method : Spoon

Project Manager: Gary Zaccor

2/21/91

DEPTH	SAMPLE COLLECTED: INT. SAMPLE#	Soil Description	USCS	LOG	BLOW COUNTS	WELL CONSTRUCTION	
5'	MW-3 6'-6.5'	FINE - MEDIUM GRAIN SANDS WITH VERY LITTLE CLAY 2%, AND SMALL DARK PEBBLES tan mottled with darker sand, moist, no odor.	SP	5,6,		LOCKED CAP	CHRISTY BOX
10'	MW-3 11'-11.5'	FINE - MEDIUM GRAIN SAND, NO PEBBLES, tan mottled with orange, almost saturated, no odor.	SC	17,23,X		BLANK CASING	GROUT BENTONITE SEAL
15'	MW-3 16'-16.5'	FINE - MEDIUM GRAIN SAND, WITH VERY LITTLE CLAY, tan, saturated, no odor.	SC	14,15,SP		PVC SCREEN 0.010" SLOT	LONESTAR #3 SAND FILTER PACK
20'	MW-3 21'-21.5'	FINE - MEDIUM GRAIN SAND WITH VERY LITTLE CLAY, saturated, no odor.	SC	12,25		BOTTOM CAP	
25'						PVC CASING 2" I.D SCHED.	
30'							

APPENDIX E
GROUNDWATER DEVELOPMENT

FIELD LOGBOOK ENTRY

DATE: 2/28/91

SITE : 2244 Santa Clara TOTAL DEPTH : 19.7'
 WELL I.D. : MW-1 WATER DEPTH : 9.88' TIME: 12:30
 CODE NO. : _____ WELL DIAMETER : 2"
 EQUIPMENT NO.: R-1 PURGE VOLUME : (10 X) = 60 liters
 SAMPLER : Taghi PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : _____
 WELL YIELD : Low
 SAMPLE TIME : 13:55

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
12:45	1	>200	8.4	7430	17°
12:50	2	>200	7.9	6090	16°
12:57	3	>200	8.0	5850	16°
13:05	4	>200	8.0	4870	16°
13:10	5	>200	7.9	4870	16°
13:15	6	>200	7.9	343.5	16°
13:20	7	>200	7.8	328.9	16°
13:24	8	>200	8.0	328.9	16°
13:30	9	>200	7.9	280.1	16°
13:45	10	>200	7.9	255.8	16°

PURGE PROCEDURE : B & K Pump PUMP PLACEMENT: _____

SAMPLE PROCEDURE: Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
2 X 1 liter	TPHd	Cool

FIELD OBSERVATIONS: Water was muddy, silty and very turbid.
Toward end of development it was almost clear.

RECOVERY RATE: _____ RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Rainy and cool.

FIELD LOGBOOK ENTRY

DATE: 2/26/91

SITE : 2244 Santa Clara TOTAL DEPTH : 15.08'
 WELL I.D. : MW-2 WATER DEPTH : 9.86' TIME: 13:55
 CODE NO. : _____ WELL DIAMETER : 2"
 EQUIPMENT NO.: R-2 PURGE VOLUME : (10X) = 40
 SAMPLER : Taghi PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : Vary
 WELL YIELD : Low
 SAMPLE TIME : 15:00

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
14:05	1	>200	7.7	284.8	15°
14:10	2	>200	7.7	262.5	15°
14:15	3	>200	7.5	284.8	15°
14:20	4	>200	7.6	262.5	15°
14:25	5	>200	7.5	235.4	15°
14:30	6	>200	7.5	235.4	15°
14:35	7	>200	7.4	211.9	15°
14:40	8	>200	7.4	211.9	15°
14:45	9	>200	7.4	190.7	15°
14:50	10	>200	7.4	190.7	15°

PURGE PROCEDURE : Bailer PUMP PLACEMENT: _____

SAMPLE PROCEDURE: Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd	2 X 1 liter	Cool

FIELD OBSERVATIONS: Water was muddy, silty toward end of the
development turned almost clear.

RECOVERY RATE: _____ RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Rainy, cool.

FIELD LOGBOOK ENTRY

DATE: 2/28/91

SITE : 2244 Santa Clara TOTAL DEPTH : 19.95'
 WELL I.D. : MW-3 WATER DEPTH : 9.56' TIME: 15:15
 CODE NO. : _____ WELL DIAMETER : 2"
 EQUIPMENT NO.: R-3 PURGE VOLUME : (10X) = 60 liters
 SAMPLER : Taghi PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : 60
 WELL YIELD : High
 SAMPLE TIME : 16:15

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
15:20	1	>200	7.9	698	18°
15:25	2	>200	7.8	584	18°
15:30	3	>200	7.8	488	18°
15:35	4	>200	7.9	431	18°
15:40	5	>200	7.8	388	18°
15:45	6	>200	7.8	388	18°
15:49	7	>200	7.8	351	18°
15:53	8	>200	7.7	328	18°
15:59	9	>200	7.7	314	18°
16:05	10	>200	7.7	314	18°

PURGE PROCEDURE : Bailer PUMP PLACEMENT: _____
 SAMPLE PROCEDURE: Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd	2 X 1 liter	Cool

FIELD OBSERVATIONS: Water was muddy, silty, it turned clear at end of development of the well.

RECOVERY RATE: _____ RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Rainy, cool.

**APPENDIX F
ANALYTICAL RESULTS**

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 # : 9102316
 Date Received : 02/28/91
 Project ID : 2240 SANTA CLARA
 Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9102316- 1	MW-1
9102316- 2	MW-2
9102316- 3	MW-3

This report consists of 3 pages not including the cover letter, and is organized in sections according to the specific Anamatrix 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 Anamatrix 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.

Anamatrix 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 Anamatrix.

Burt Sutherland

 Burt Sutherland
 Laboratory Director

3-11-91

 Date

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

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

Workorder # : 9102316
Date Received : 02/28/91
Project ID : 2240 SANTA CLARA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9102316- 1	MW-1	WATER	02/28/91	TPHd
9102316- 2	MW-2	WATER	02/28/91	TPHd
9102316- 3	MW-3	WATER	02/28/91	TPHd

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

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

Workorder # : 9102316
Date Received : 02/28/91
Project ID : 2240 SANTA CLARA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Cheryl Balmer 3/11/91
Department Supervisor Date

Ci Fan 3/11/91
Chemist Date

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

Anametrix W.O.: 9102316
Matrix : WATER
Date Sampled : 02/28/91
Date Extracted: 03/04/91

Project Number : 2240 SANTA CLARA
Date released : 03/08/91
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9102316-01	MW-1	03/07/91	50	ND
9102316-02	MW-2	03/07/91	50	ND
9102316-03	MW-3	03/07/91	50	ND
DWBL030491	METHOD BLANK	03/07/91	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50ug/L.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as hydraulic oil is determined by GCFID following sample extraction by EPA Method 3510.

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

C. Fan 3/11/91
Analyst Date

Charles Balmer 3/11/91
Supervisor Date

PROJECT NUMBER		PROJECT NAME				Number of Cntrs	Type of Containers	Type of Analysis				Condition of Samples	Initial
2244 Santa Clara St. Alameda		Report Due		Verbal Due				TPH as Hydraulic Oil	TPH as Hydraulic Oil				
Send Report Attention of:		Report Due		Verbal Due									
ZACCOR CORP (ETS PROJ.) Gary Zaccor		1 1		2 25 91									
Sample Number	Date	Time	Comp	Grab	Station Location								
MW-1 6-6 1/2	2/21/91			/		1	BRASS	✓				None space, cold proper container	NS
MW-1 12-12 1/2	"			/		"		✓					
MW-1 16-16 1/2	"			/		"		HOLD					
MW-1 21-21 1/2	"			/		"		✓					
MW-2 6-6 1/2	"			/		"		HOLD				head space, cold, proper container	
MW-2 11-11 1/2	"			/		"		✓				no head space, cold proper container	
MW-2 15-15 1/2	"			/		"		✓					
MW-2 20 1/2-21	"			/		"		HOLD					
MW-3 6-6 1/2	"			/		"						headspace, cold, proper container	
MW-3 11-11 1/2	"			/		"		✓				no head space, cold proper container	
MW-3 16-16 1/2	"			/		"		✓					
MW-3 21-21 1/2	"			/		"							
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Remarks: 24 hr. Rush					
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time							
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time							
COMPANY:		ADDRESS:		PHONE :		FAX :							

APPENDIX C
Anamatrix, Inc.
Monitoring Well Development & Sampling Reports
02-28-91
05-30-91
09-20-91
12-19-91

ANAMETRIX INC



March 4, 1991

Mr. Gary Zaccor
ZACCOR CORPORATION
791 Hamilton Avenue
Menlo Park, CA 94025

Dear Mr. Zaccor:

Enclosed are your copies of the Field Log sheets and the original Chain of Custody for the field sampling that we recently completed for your company.

The staff at Anamatrix, Inc. would like to thank you for the opportunity to provide field and analytical services for Zaccor Corporation. If you have any additional questions, please don't hesitate to let me know.

Best Regards,

ANAMETRIX, INC.

Taghi Memarzadeh

Taghi Memarzadeh
Field Services

TM/mh/4579

Enclosures

FIELD LOGBOOK ENTRY

DATE: 2/28/91

SITE : 2244 Santa Clara TOTAL DEPTH : 19.7'
 WELL I.D. : MW-1 WATER DEPTH : 9.88' TIME: 12:30
 CODE NO. : _____ WELL DIAMETER : 2"
 EQUIPMENT NO.: R-1 PURGE VOLUME : (10 x) = 60 liters
 SAMPLER : Taghi PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : _____
 WELL YIELD : Low
 SAMPLE TIME : 13:55

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
12:45	1	>200	8.4	7430	17°
12:50	2	>200	7.9	6090	16°
12:57	3	>200	8.0	5850	16°
13:05	4	>200	8.0	4870	16°
13:10	5	>200	7.9	4870	16°
13:15	6	>200	7.9	343.5	16°
13:20	7	>200	7.8	328.9	16°
13:24	8	>200	8.0	328.9	16°
13:30	9	>200	7.9	280.1	16°
13:45	10	>200	7.9	255.8	16°

PURGE PROCEDURE : B & K Pump PUMP PLACEMENT: _____

SAMPLE PROCEDURE: Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
2 X 1 liter	TPHd	Cool

FIELD OBSERVATIONS: Water was muddy, silty and very turbid.
Toward end of developement it was almost clear.

RECOVERY RATE: _____ RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Rainy and cool.

FIELD LOGBOOK ENTRY

DATE: 2/28/91

SITE : 2244 Santa Clara TOTAL DEPTH : 15.08'
 WELL I.D. : MW-2 WATER DEPTH : 9.86' TIME: 13:55
 CODE NO. : _____ WELL DIAMETER : 2"
 EQUIPMENT NO.: R-2 PURGE VOLUME : (10X) = 40
 SAMPLER : Taghi PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : Vary
 WELL YIELD : Low
 SAMPLE TIME : 15:00

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
14:05	1	>200	7.7	284.8	15°
14:10	2	>200	7.7	262.5	15°
14:15	3	>200	7.5	284.8	15°
14:20	4	>200	7.6	262.5	15°
14:25	5	>200	7.5	235.4	15°
14:30	6	>200	7.5	235.4	15°
14:35	7	>200	7.4	211.9	15°
14:40	8	>200	7.4	211.9	15°
14:45	9	>200	7.4	190.7	15°
14:50	10	>200	7.4	190.7	15°

PURGE PROCEDURE : Bailer PUMP PLACEMENT: _____

SAMPLE PROCEDURE: Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd	2 X 1 liter	Cool

FIELD OBSERVATIONS: Water was muddy, silty toward end of the developement turned almost clear.

RECOVERY RATE: _____ RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Rainy, cool.

FIELD LOGBOOK ENTRY

DATE: 2/28/91

SITE : 2244 Santa Clara TOTAL DEPTH : 19.95'
 WELL I.D. : MW-3 WATER DEPTH : 9.56' TIME: 15:15
 CODE NO. : _____ WELL DIAMETER : 2"
 EQUIPMENT NO.: R-3 PURGE VOLUME : (10X) = 60 liters
 SAMPLER : Taghi PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : 60
 WELL YIELD : High
 SAMPLE TIME : 16:15

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
15:20	1	>200	7.9	698	18°
15:25	2	>200	7.8	584	18°
15:30	3	>200	7.8	488	18°
15:35	4	>200	7.9	431	18°
15:40	5	>200	7.8	388	18°
15:45	6	>200	7.8	388	18°
15:49	7	>200	7.8	351	18°
15:53	8	>200	7.7	328	18°
15:59	9	>200	7.7	314	18°
16:05	10	>200	7.7	314	18°

PURGE PROCEDURE : Bailer PUMP PLACEMENT: _____

SAMPLE PROCEDURE: Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd	2 X 1 liter	Cool

FIELD OBSERVATIONS: Water was muddy, silty, it turned clear at end of development of the well.

RECOVERY RATE: _____ RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Rainy, cool.

FIELD LOGBOOK ENTRY

DATE: 05/30/91

PROJECT NO. : _____
 SITE : 2244 Santa Clara Avenue
 WELL ID. : MW-1
 CODE NO. : _____
 EQUIPMENT NO.: R-1
 SAMPLER NAME: Taghi
 SIGNATURE : _____

TOTAL DEPTH : 19.16'
 WATER DEPTH : 9.54' TIME: 9:50
 WELL DIAMETER : 2"
 PURGE VOLUME : (4 X) = 24
 PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : 24
 WELL YIELD : High
 SAMPLE TIME : 11:00

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
10:15	1	>200	6.5	1628	18
10:25	2	>200	6.5	1454	18
10:30	3	>200	6.5	1454	18
10:37	4	>200	6.5	1454	18

PURGE PROCEDURE : 1 Liter Teflon Bailer

PUMP PLACEMENT: _____

SAMPLE PROCEDURE: 1 Liter Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd as Hydrolic oil	2 X Liter	Cool

FIELD OBSERVATIONS: Locking cap was submerged under standing water. Water was removed before opening the cap.

RECOVERY RATE: No draw down RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Sunny and windy with temperature in the mid 60's.

FIELD LOGBOOK ENTRY

DATE: 05/30/91

PROJECT NO. : _____
 SITE : 2244 Santa Clara Avenue
 WELL ID. : MW-2
 CODE NO. : _____
 EQUIPMENT NO.: R-2
 SAMPLER NAME: Taghi
 SIGNATURE : _____

TOTAL DEPTH : 14.82'
 WATER DEPTH : 4.52' TIME: 11:15
 WELL DIAMETER : 2"
 PURGE VOLUME : (5 X) = 20
 PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : 20
 WELL YIELD : High
 SAMPLE TIME : 12:00

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
11:20	1	>200	6.7	1818	19
11:30	2	>200	6.7	1570	18
11:37	3	>200	6.7	1570	18
11:40	4	>200	6.8	1511	18
11:44	5	>200	6.5	1511	18
11:46	6	>200	6.5	1511	18

PURGE PROCEDURE : 1 Liter Teflon Bailer

PUMP PLACEMENT: _____

SAMPLE PROCEDURE: 1 Liter Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd as Hydrolic oil	2 X Liter	Cool

FIELD OBSERVATIONS: Water was almost clear with light brown color and no sheen was seen.

RECOVERY RATE: .86' per minute RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Sunny and windy with temperature in the low 70's.

FIELD LOGBOOK ENTRY

DATE: 05/30/91

PROJECT NO. : _____
 SITE : 2244 Santa Clara Avenue
 WELL ID. : MW-3
 CODE NO. : _____
 EQUIPMENT NO.: R-3
 SAMPLER NAME: Taghi
 SIGNATURE : _____

TOTAL DEPTH : 19.66'
 WATER DEPTH : 9.41' TIME: 12:30
 WELL DIAMETER : 2"
 PURGE VOLUME : (4 X) = 24
 PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : 24
 WELL YIELD : High
 SAMPLE TIME : 13:05

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
12:35	1	>200	6.7	2282	21
12:42	2	>200	6.7	2337	21
12:49	3	>200	6.7	2337	21
12:55	4	>200	6.7	2337	21

PURGE PROCEDURE : 1 Liter Teflon Bailer

PUMP PLACEMENT: _____

SAMPLE PROCEDURE: 1 Liter Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd as Hydrolic oil	2 X Liter	Cool

FIELD OBSERVATIONS: Water was muddy with brown color and no sheen was seen.

RECOVERY RATE: No draw down RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Sunny and windy with temperature in the low 70's.



1961 Concourse Drive, Suite E
San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

September 25, 1991

Mr. Gary Zaccor
ZACCOR CORPORATION
791 Hamilton Avenue
Menlo Park, CA 94025

Dear Mr. Zaccor:

Enclosed are your copies of the Field Log sheets and the original Chain of Custody for the field sampling that we recently completed for your company.

The staff at Anamatrix, Inc. would like to thank you for the opportunity to provide field and analytical services for the site at 2244 Santa Clara on September 20, 1991. If you have any additional questions, please don't hesitate to let me know.

Best Regards,

ANAMETRIX, INC.

Kilma Desai

Taghi Memarzadeh
Field Services

TM/mh/6228

Enclosures

FIELD LOGBOOK ENTRY

DATE: 09/20/91

PROJECT NO. :	_____	TOTAL DEPTH :	<u>19.16'</u>
SITE :	<u>2244 Santa Clara</u>	WATER DEPTH :	<u>10.78'</u> TIME: <u>11:45</u>
WELL I.D. :	<u>MW-1</u>	WELL DIAMETER :	<u>2"</u>
CODE NO. :	_____	PURGE VOLUME :	<u>(3 X) = 15 liters</u>
EQUIPMENT NO.:	<u>R-10</u>	PUMPING RATE :	_____
SAMPLER NAME:	<u>Taghi</u>	PUMPING TIME :	_____
SIGNATURE :	_____	BAILER CAPACITY:	<u>1 liter</u>
		NO. OF BAILS :	<u>15</u>
		WELL YIELD :	<u>Mid.</u>
		SAMPLE TIME :	<u>12:25</u>

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
11:48	1	>200	6.3	1628	18
11:52	2	>200	6.3	1628	18
11:59	3	>200	6.3	1628	

PURGE PROCEDURE : 1 Liter Teflon Bailer

PUMP PLACEMENT: _____

SAMPLE PROCEDURE: 1 Liter Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd/Hydrolic oil	2 X Liter	Cool

FIELD OBSERVATIONS: Water was cloudy with light brown color. Well approached dryness at end of third volume, but recovery was fast. Sample was collected after 80% recovery.

RECOVERY RATE: 1.08' per minute RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Partly cloudy with temperature in the mid 70's.

FIELD LOGBOOK ENTRY

DATE: 09/20/91

PROJECT NO. : _____
 SITE : 2244 Santa Clara
 WELL I.D. : MW-2
 CODE NO. : _____
 EQUIPMENT NO.: B-9
 SAMPLER NAME: Taghi
 SIGNATURE : _____

TOTAL DEPTH : 14.82'
 WATER DEPTH : 10.71' TIME: 10:00
 WELL DIAMETER : 2"
 PURGE VOLUME : (4 X) = 12 liters
 PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : 12
 WELL YIELD : High
 SAMPLE TIME : 10:55

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
10:15	1	>200	6.3	2271	18
10:20	2	>200	6.4	1861	18
10:25	3	>200	6.4	1744	18
10:35	4	>200	6.4	1744	18

PURGE PROCEDURE : 1 Liter Teflon Bailer

PUMP PLACEMENT: _____

SAMPLE PROCEDURE: 1 Liter Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd/Hydrocil oil	2 X Liter	Cool

FIELD OBSERVATIONS: Water was cloudy with light brown color. No sheen or odor was present. Sample was taken after 80% recovery.

RECOVERY RATE: .75' per minute RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Cloudy with temperature in the low 70's.

FIELD LOGBOOK ENTRY

DATE: 09/20/91

PROJECT NO. : _____
 SITE : 2244 Santa Clara
 WELL I.D. : MW-3
 CODE NO. : _____
 EQUIPMENT NO.: R-9
 SAMPLER NAME: Taghi
 SIGNATURE : _____

TOTAL DEPTH : 19.66'
 WATER DEPTH : 10.19' TIME: 11:05
 WELL DIAMETER : 2"
 PURGE VOLUME : (4 X) = 24 liters
 PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : 24
 WELL YIELD : High
 SAMPLE TIME : 11:35

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
11:10	1	>200	6.3	2112	20
11:15	2	>200	6.3	1946	20
11:20	3	>200	6.3	1848	21
11:25	4	>200	6.3	1848	21

PURGE PROCEDURE : 1 Liter Teflon Bailer

PUMP PLACEMENT: _____

SAMPLE PROCEDURE: 1 Liter Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd/Hydrolic oil	<u>2 X Liter</u>	<u>Cool</u>

FIELD OBSERVATIONS: Water was muddy with brown color. No sheen or petroleum odor was present.

RECOVERY RATE: No draw down RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Cloudy with temperature in the mid 70's.



1961 Concourse Drive, Suite E
San Jose CA 95131
(408) 432-8192 • Fax (408) 432-8198

January 2, 1992

Mr. Gary Zaccor
ZACCOR CORPORATION
791 Hamilton Avenue
Menlo Park, CA 94025

Dear Mr. Zaccor:

Enclosed are your copies of the Field Log sheets and the original Chain of Custody for the field sampling that we recently completed for your company.

The staff at Anamatrix, Inc. would like to thank you for the opportunity to provide field and analytical services for the site at 2244 Santa Clara on 12/19/91. If you have any additional questions, please don't hesitate to let me know.

Best Regards,

ANAMETRIX, INC.

Kilma Desai

Kilma Desai
Field Services

KD/mh/6461

Enclosures

FIELD LOGBOOK ENTRY

DATE: 12/19/91

PROJECT NO. :	_____	TOTAL DEPTH :	<u>19.16'</u>
SITE :	<u>2244 Santa Clara</u>	WATER DEPTH :	<u>10.92</u> TIME: <u>10:30</u>
WELL I.D. :	<u>MW-1</u>	WELL DIAMETER :	<u>2"</u>
CODE NO. :	_____	PURGE VOLUME :	<u>(3 X) = 15 liters</u>
EQUIPMENT NO.:	<u>B-8</u>	PUMPING RATE :	_____
SAMPLER NAME:	<u>Taghi</u>	PUMPING TIME :	_____
SIGNATURE :	_____	BAILER CAPACITY:	<u>1 Liter</u>
		NO. OF BAILS :	<u>15</u>
		WELL YIELD :	<u>Mid</u>
		SAMPLE TIME :	<u>11:35</u>

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
10:50	1	>200	5.9	1828	16
11:00	2	>200	6.1	1644	16
11:08	3	>200	6.1	1644	16

PURGE PROCEDURE : 1 Liter Teflon Bailer PUMP PLACEMENT: _____

SAMPLE PROCEDURE: 1 Liter Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd as hydraulic oil	2Xliter	Cool

FIELD OBSERVATIONS: Water was muddy with a brown color water level went down to 17.91'. Sample was collected agter 80% recovery.

RECOVERY RATE: 1.12' per minute RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Sunny, windy with temperatures in the low 60's.

FIELD LOGBOOK ENTRY

DATE: 12/19/91

PROJECT NO. : _____
 SITE : 2244 Santa Clara
 WELL I.D. : MW-2
 CODE NO. : _____
 EQUIPMENT NO.: B-9
 SAMPLER NAME: Taghi
 SIGNATURE : _____

TOTAL DEPTH : 14.82'
 WATER DEPTH : 10.89 TIME: 11:46
 WELL DIAMETER : 2"
 PURGE VOLUME : (3 X) 9 Liters
 PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 Liter
 NO. OF BAILS : 9
 WELL YIELD : Mid.
 SAMPLE TIME : 12:40

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
11:55	1	>200	6.1	2119	15
12:00	2	>200	6.2	1827	16
12:10	3	>200	6.2	1827	16

PURGE PROCEDURE : 1 Liter Teflon Bailer

PUMP PLACEMENT: _____

SAMPLE PROCEDURE: 1 Liter Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd as hydraulic oil	2Xliter	Cool

FIELD OBSERVATIONS: Water was muddy with a brown color. Sample was collected after 80% recovery.

RECOVERY RATE: 0.81' per minute RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Suddy, windy with temperatures in the low 60's.

FIELD LOGBOOK ENTRY

DATE: 12/19/01

PROJECT NO. : _____
 SITE : 2244 Santa Clara
 WELL I.D. : MW-3
 CODE NO. : _____
 EQUIPMENT NO.: B-10
 SAMPLER NAME: Taghi
 SIGNATURE : _____

TOTAL DEPTH : 19.66'
 WATER DEPTH : 10.51' TIME: 12:50
 WELL DIAMETER : 2"
 PURGE VOLUME : (4 X) = 24 liters
 PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 Liter
 NO. OF BAILS : 24
 WELL YIELD : High
 SAMPLE TIME : 13:20

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
12:55	1	>200	6.6	1534	19
13:00	2	>200	6.6	1477	19
13:05	3	>200	6.6	1477	19
13:10	4	>200	6.6	1477	19

PURGE PROCEDURE : 1 Liter Teflon Bailer

PUMP PLACEMENT: _____

SAMPLE PROCEDURE: 1 Liter Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd as hydraulic oil	2Xliter	Cool

FIELD OBSERVATIONS: Water was muddy with a brown color.

RECOVERY RATE: No draw down RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Sunny, windy with temperatures in the low 60's.

FIELD LOGBOOK ENTRY

DATE: 2/28/91

SITE : 2244 Santa Clara TOTAL DEPTH : 19.95'
 WELL I.D. : MW-3 WATER DEPTH : 9.56' TIME: 15:15
 CODE NO. : _____ WELL DIAMETER : 2"
 EQUIPMENT NO.: R-3 FURGE VOLUME : (10x) = 60 liters
 SAMPLER : Taghi PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : 60
 WELL YIELD : High
 SAMPLE TIME : 16:15

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
15:20	1	>200	7.9	698	18°
15:25	2	>200	7.8	584	18°
15:30	3	>200	7.8	488	18°
15:35	4	>200	7.9	431	18°
15:40	5	>200	7.8	388	18°
15:45	6	>200	7.8	388	18°
15:49	7	>200	7.8	351	18°
15:53	8	>200	7.7	328	18°
15:59	9	>200	7.7	314	18°
16:05	10	>200	7.7	314	18°

FURGE PROCEDURE : Bailer PUMP PLACEMENT: _____

SAMPLE PROCEDURE: Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd	2 X 1 liter	Cool

FIELD OBSERVATIONS: Water was muddy, silty, it turned clear at end of developement of the well.

RECOVERY RATE: _____ RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Rainy, cool.

FIELD LOGBOOK ENTRY

DATE: 2/28/91

SITE : 2244 Santa Clara TOTAL DEPTH : 15.08'
 WELL I.D. : MW-2 WATER DEPTH : 9.86' TIME: 13:55
 CODE NO. : _____ WELL DIAMETER : 2"
 EQUIPMENT NO.: R-2 PURGE VOLUME : (10x) = 40
 SAMPLER : Taghi PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : Vary
 WELL YIELD : Low
 SAMPLE TIME : 15:00

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
14:05	1	>200	7.7	284.8	15°
14:10	2	>200	7.7	262.5	15°
14:15	3	>200	7.5	284.8	15°
14:20	4	>200	7.6	262.5	15°
14:25	5	>200	7.5	235.4	15°
14:30	6	>200	7.5	235.4	15°
14:35	7	>200	7.4	211.9	15°
14:40	8	>200	7.4	211.9	15°
14:45	9	>200	7.4	190.7	15°
14:50	10	>200	7.4	190.7	15°

PURGE PROCEDURE : Bailer PUMP PLACEMENT: _____

SAMPLE PROCEDURE: Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
TPHd	2 X 1 liter	Cool

FIELD OBSERVATIONS: Water was muddy, silty toward end of the developement turned almost clear.

RECOVERY RATE: _____ RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Rainy, cool.

FIELD LOGBOOK ENTRY

DATE: 2/28/91

SITE : 2244 Santa Clara TOTAL DEPTH : 19.7'
 WELL I.D. : MW-1 WATER DEPTH : 9.88' TIME: 12:30
 CODE NO. : _____ WELL DIAMETER : 2"
 EQUIPMENT NO.: R-1 PURGE VOLUME : (10 x) = 60 liters
 SAMPLER : Taghi PUMPING RATE : _____
 PUMPING TIME : _____
 BAILER CAPACITY: 1 liter
 NO. OF BAILS : _____
 WELL YIELD : Low
 SAMPLE TIME : 13:55

TIME	VOLUME	TURBIDITY	pH	E.C.	T°C
12:45	1	>200	8.4	7430	17°
12:50	2	>200	7.9	6090	16°
12:57	3	>200	8.0	5850	16°
13:05	4	>200	8.0	4870	16°
13:10	5	>200	7.9	4870	16°
13:15	6	>200	7.9	343.5	16°
13:20	7	>200	7.8	328.9	16°
13:24	8	>200	8.0	328.9	16°
13:30	9	>200	7.9	280.1	16°
13:45	10	>200	7.9	255.8	16°

PURGE PROCEDURE : B & K Pump PUMP PLACEMENT: _____

SAMPLE PROCEDURE: Teflon Bailer

PARAMETER:	CONTAINER (TYPE/NUMBER):	PRESERVATIVE:
2 X 1 liter	TPHd	Cool

FIELD OBSERVATIONS: Water was muddy, silty and very turbid.

Toward end of development it was almost clear.

RECOVERY RATE: _____ RECOVERY PERCENTAGE: _____ % AT _____ HRS

CLIMATIC CONDITIONS: Rainy and cool.

CLIENT CHAIN - OF - CUSTODY RECORD

9102316

PROJECT NUMBER		PROJECT NAME				Number of Cntrns	Type of Containers	Type of Analysis										Condition of Samples	Initial				
910228		2244 2240 Santa Clara Ave						Send Report Attention of:	Report Due	Verbal Due													
Sample Number	Date	Time	Comp	Grab	Station Location																		
MW-1	02/28/91	13:55				2	Lites	X															
MW-2	"	1500				2	"	X															
MW-3	"	1615				2	"	X															
Relinquished by: (Signature) <i>J. Mendy</i>		Date/Time 02-28-91 17:10	Received by: (Signature)			Date/Time	Remarks: TPHd AS Hydrolic oil																
Relinquished by: (Signature)		Date/Time	Received by: (Signature)			Date/Time																	
Relinquished by: (Signature)		Date/Time	Received by: (Signature) <i>X. Kent</i>			Date/Time 2-28-91 17:10																	
COMPANY: ZACCOR							ADDRESS:																
PHONE :							FAX :																

APPENDIX D
Anamatrix, Inc.
Monitoring Well Analytical Reports
02-28-91
05-30-91
09-20-91
12-19-91

ANAMETRIX INC

Environmental & Analytical Chemistry
 4961 Concourse Drive, Suite E, San Jose, CA 95134
 (408) 432-8192 • Fax (408) 432-8198

**REPORT**

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

Workorder # : 9102316
 Date Received : 02/28/91
 Project ID : 2240 SANTA CLARA
 Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9102316- 1	MW-1
9102316- 2	MW-2
9102316- 3	MW-3

This report consists of 3 pages not including the cover letter, and is organized in sections according to the specific Anamatrix 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 Anamatrix 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.

Anamatrix 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 Anamatrix.

 Burt Sutherland
 Laboratory Director

3-11-91

 Date

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

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

Workorder # : 9102316
Date Received : 02/28/91
Project ID : 2240 SANTA CLARA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9102316- 1	MW-1	WATER	02/28/91	TPHd
9102316- 2	MW-2	WATER	02/28/91	TPHd
9102316- 3	MW-3	WATER	02/28/91	TPHd

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

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

Workorder # : 9102316
Date Received : 02/28/91
Project ID : 2240 SANTA CLARA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Cheryl Balmer 3/11/91
Department Supervisor Date

Ci Fan 3/11/91
Chemist Date

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

Anamatrix W.O.: 9102316
 Matrix : WATER
 Date Sampled : 02/28/91
 Date Extracted: 03/04/91

Project Number : 2240 SANTA CLARA
 Date released : 03/08/91
 Instrument I.D.: HP9

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9102316-01	MW-1	03/07/91	50	ND
9102316-02	MW-2	03/07/91	50	ND
9102316-03	MW-3	03/07/91	50	ND
DWBL030491	METHOD BLANK	03/07/91	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50ug/L.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as hydraulic oil is determined by GCFID following sample extraction by EPA Method 3510.

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

C. Fern 3/11/91
 Analyst Date

Cheryl Balmer 3/11/91
 Supervisor Date

PROJECT NUMBER		PROJECT NAME 2-21-91 2244 Santa Clara St. Alameda				Number of Cntrs	Type of Containers	Type of Analysis						Condition of Samples	Initial
Send Report Attention of: ZACCOR CORP (ETS Proj.) Gary Zaccor		Report Due 1 1		Verbal Due 2 25 91				TPH as Hydrocarbon	TPH as Hydraulic Oil						
Sample Number	Date	Time	Comp	Grab	Station Location										
mw-1 6-6 1/2	2/21/91			/		1	BRASS	✓					no head space, cold proper container	NS	
mw-1 12-12 1/2	"			/		"		✓					↓		
mw-1 16-16 1/2	"			/		"		HOLD		✓			↓		
mw-1 21-21 1/2	"			/		"		✓					↓		
mw-2 6-6 1/2	"			/		"		HOLD					head space, cold, proper container		
mw-2 11-11 1/2	"			/		"		✓		✓			no head space, cold proper container		
mw-2 15-15 1/2	"			/		"		✓		✓			↓		
mw-2 20-20 1/2	"			/		"		HOLD					↓		
mw-3 6-6 1/2	"			/		"							head space, cold, proper container		
mw-3 11-11 1/2	"			/		"				✓			no head space, cold proper container		
mw-3 16-16 1/2	"			/		"				✓			↓		
mw-3 21-21 1/2	"			/		"		✓					↓		
Relinquished by: (Signature) <i>[Signature]</i>		Date/Time 2/21/91		Received by: (Signature) <i>[Signature]</i>		Date/Time 2/21/91		Remarks: 24 hr. Rush COMPANY: ADDRESS: PHONE : FAX :							
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time									
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time									

NAMETRIX INC

Environmental & Analytical Chemistry
 1964 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 # : 9105352
 Date Received : 05/30/91
 Project ID : 2244 SANTA CLARA
 Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9105352- 1	MW-1
9105352- 2	MW-2
9105352- 3	MW-3

This report consists of 3 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.

Sarah Schoen, Ph.D.
 Laboratory Manager

6-17-91
 Date

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

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

Workorder # : 9105352
Date Received : 05/30/91
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
9105352- 1	MW-1	WATER	05/30/91	TPHd
9105352- 2	MW-2	WATER	05/30/91	TPHd
9105352- 3	MW-3	WATER	05/30/91	TPHd

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

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

Workorder # : 9105352
Date Received : 05/30/91
Project ID : 2244 SANTA CLARA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Belmer 6/17/91
Department Supervisor Date

Gene Jusick 06-17-91
Chemist Date

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

Anametrix W.O.: 9105352
Matrix : WATER
Date Sampled : 05/30/91
Date Extracted: 06/03/91

Project Number : 2244 SANTA CLARA
Date released : 06/14/91
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9105352-01	MW-1	06/06/91	50	ND
9105352-02	MW-2	06/06/91	50	ND
9105352-03	MW-3	06/06/91	50	ND
DWBLK060391	METHOD BLANK	06/06/91	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50ug/L.

ND - Not detected at or above the practical quantitation limit for the method.

TPHD - Total Petroleum Hydrocarbons as hydraulic oil is determined by GCFID following sample extraction by EPA Method 3510.

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

C. F. [Signature] 6/17/91
Analyst Date

Charles Bauer 6/17/91
Supervisor Date

CLIENT CHAIN - OF - CUSTODY

110555 ←

10/7 141

PROJECT NUMBER		PROJECT NAME				Number of Cntnrs	Type of Containers	Type of Analysis								REMARKS: *TPHD as Hydraulic oil				
Senc'd Report Attention of: GARY ZACCOR		Report Due 6/13/91		Verbal Due 1/1																
Witnessing Agency		Inspector Name		Date																
Sample Number	Date	Time	Comp	Grab	Station Location															
M-1W-1	5-30-91	11:00				2	Lites	Y												
M-1W-2	"	12:00				"	"	X												
M-1W-3	"	13:05				"	"	X												
												Samples used proper containers								
												CLIENT NAME, ADDRESS and PHONE NUMBER ZACCOR.								
Relinquished by: (Signature) <i>Tyler M. M... ..</i>		Date/Time 5-30-91 14:00		Received by: (Signature) <i>Tyler M. M... ..</i>		Date/Time 05 30 91 14 00		The following MUST BE completed by the laboratory accepting samples for analysis:												
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		1. Have all samples received for analysis been stored in ice? <u>Y</u>												
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		2. Will samples remain refrigerated until analyzed? <u>Y</u>												
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		3. Did any samples received for analysis have headspace? <u>N/A</u>												
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		4. Were samples in appropriate containers and properly packaged? <u>Y</u>												
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Signature & Title <i>Tyler M. M... ..</i>								Date Simple Custodian 053091				

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 # : 9109198
 Date Received : 09/20/91
 Project ID : 2244 SANTA CLARA
 Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9109198- 1	MW-1
9109198- 2	MW-2
9109198- 3	MW-3

This report consists of 3 pages not including the cover letter, and is organized in sections according to the specific Anamatrix 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 Anamatrix 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.

Anamatrix 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 Anamatrix.

Sarah Schoen, Ph.D.
 Laboratory Manager

10-03-91
 Date

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

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

Workorder # : 9109198
Date Received : 09/20/91
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
9109198- 1	MW-1	WATER	09/20/91	TPHd
9109198- 2	MW-2	WATER	09/20/91	TPHd
9109198- 3	MW-3	WATER	09/20/91	TPHd

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

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

Workorder # : 9109198
Date Received : 09/20/91
Project ID : 2244 SANTA CLARA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Balmer 10/1/91
Department Supervisor Date

Steve L. ... 10-01-91
Chemist Date

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

Anamatrix W.O.: 9109198
 Matrix : WATER
 Date Sampled : 09/20/91
 Date Extracted: 09/26/91

Project Number : 2244 SANTA CLARA
 Date Released : 10/01/91
 Instrument I.D.: HP19

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9109198-01	MW-1	10/01/91	50	ND
9109198-02	MW-2	10/01/91	50	ND
9109198-03	MW-3	10/01/91	50	ND
DWBL092691	METHOD BLANK	10/01/91	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50ug/L.

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as hydraulic oil is determined by GCFID following sample extraction by EPA Method 3510.

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

Steve Justice 10-02-91
 Analyst Date

Cheryl Balmer 10/2/91
 Supervisor Date

CLIENT CHAIN - OF - CUSTODY

~~91109198~~

91109198

10/38

MS 1370

PROJECT NUMBER		PROJECT NAME				Number of Cntrs	Type of Containers	Type of Analysis								REMARKS:																									
		2244 SANTA CLARA						<table border="1"> <tr> <td>TPH</td><td>as</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Hydroc</td><td>oil</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>									TPH	as													Hydroc	oil									
TPH	as																																								
Hydroc	oil																																								
Send Report Attention of:		Report Due		Verbal Due																																					
GARY ZACCOR		11/14/91		+ 1																																					
Witnessing Agency		Inspector Name		Date																																					
Sample Number	Date	Time	Comp	Grab	Station Location																																				
1) MW-1	9/20/91	12:25				2	2mbes Liter	X							Samples received																										
2) MW-2	"	10:55				"	"	X							add paper container																										
3) MW-3	"	11:35				"	"	X							no oil left																										

CLIENT NAME, ADDRESS and PHONE NUMBER
ZACCOR CORP.

Relinquished by: (Signature) Jaghi Memorzadeh	Date/Time 9/20/91 13:40	Received by: (Signature) [Signature]	Date/Time 9/20/91 13:40
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice? yes
 2. Will samples remain refrigerated until analyzed? yes
 3. Did any samples received for analysis have headspace? N/A
 4. Were samples in appropriate containers and properly packaged? yes
- [Signature] Sample Control Custodian 9/20/91
Signature & Title Date

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 # : 9112205
 Date Received : 12/19/91
 Project ID : 2244 SANTA CLARA
 Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9112205- 1	MW-1
9112205- 2	MW-2
9112205- 3	MW-3

This report consists of 4 pages not including the cover letter, and is organized in sections according to the specific Anamatrix 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 Anamatrix 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.

Anamatrix 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 Anamatrix.

Sarah Schoen, Ph.D.
 Laboratory Manager

1-8-92

Date

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

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

Workorder # : 9112205
Date Received : 12/19/91
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
9112205- 1	MW-1	WATER	12/19/91	TPHd
9112205- 2	MW-2	WATER	12/19/91	TPHd
9112205- 3	MW-3	WATER	12/19/91	TPHd

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

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

Workorder # : 9112205
Date Received : 12/19/91
Project ID : 2244 SANTA CLARA
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Ci Fan 1.7.92
Department Supervisor Date

Luna Sher 1.7.92
Chemist Date

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

Anamatrix W.O.: 9112205
 Matrix : WATER
 Date Sampled : 12/19/91
 Date Extracted: 12/26/91

Project Number : 2244 SANTA CLARA
 Date Released : 01/07/92
 Instrument I.D.: HP9

Anamatrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9112205-01	MW-1	01/03/92	50	ND
9112205-02	MW-2	01/03/92	50	ND
9112205-03	MW-3	01/03/92	50	ND
DWBLK122691	METHOD BLANK	01/03/92	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50ug/L.
 ND - Not detected at or above the practical quantitation limit for the method.
 TPHd - Total Petroleum Hydrocarbons as hydraulic oil is determined by GCFID following sample extraction by EPA Method 3510.
 All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Luna Shor 1.8.92
 Analyst Date

C. J. Fan 1.8.92
 Supervisor Date



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

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 #104

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER		PROJECT NAME					Number of Cntnrs	Type of Containers	Type of Analysis								Condition of Samples	Initial
Send Report Attention of:		Report Due		Verbal Due														
Sample Number	Date	Time	Comp	Matrix	Station Location													
1	MW-1	12/19/91		W		2	Liter	X									samples	
2	MW-2	"		W		"	"	X									Received cold,	
3	MW-3	"		W		"	"	X									Proper container	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Remarks:										
Jaghi Memarzadeh		12/19/91 14:35		Farah Badi		12/19/91 14:35												
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time												
Relinquished by: (Signature)		Date/Time		Received by Lab:		Date/Time		COMPANY: ZACCOR CORP.										
								ADDRESS:										
								PHONE :										
								FAX :										

TP Hd as hydrophilic out

PROJECT NUMBER		PROJECT NAME				Number of Cntnrs	Type of Containers	Type of Analysis										Condition of Samples	Initial						
910228		2244 2240 Santa Clara Ave																							
Send Report Attention of:			Report Due		Verbal Due																				
GARY ZACCOR			03/14/91		1/1																				
Sample Number	Date	Time	Comp	Grab	Station Location			TPHd*																	
MW-1	02/28/91	13:55				2	Lites	X																	
MW-2	"	1500				2	"	X																	
MW-3	"	1615				2	"	X																	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Remarks: TPHd AS Hydrolie oil																	
J. Mendy		02-28-91 17:10		L. Kent		2-28-91 17:10																			
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		COMPANY: ZACCOR.																	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		ADDRESS:																	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		PHONE :																	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		FAX :																	