RO525
CL

A REPORT DOCUMENTING THE PURGING AND SAMPLING OF THREE GROUNDWATER MONITORING WELLS AND THE DETERMINATION OF GROUNDWATER GRADIENT:

AT:

WEST COAST WIRE ROPE
597-85TH AVENUE
OAKLAND, CALIFORNIA

3411

June 17, 1993

A REPORT DOCUMENTING THE PURGING AND SAMPLING OF THREE GROUNDWATER MONITORING WELLS AND THE DETERMINATION OF GROUNDWATER GRADIENT:

AT:

WEST COAST WIRE ROPE
597-85TH AVENUE
OAKLAND, CALIFORNIA

prepared by:

Helen A. Mawhinney
ENVIRONMENTAL TECHNICAL SERVICES
Helen A. Mawhinney
Senior Environmental Specialist

6-29-93
Date

TABLE OF CONTENTS

TABLE OF CONTENTS - continued

1.0 INTRODUCTION

Environmental Technical Services was retained by West Coast Wire Rope to purge and sample ground-water from the first aquifer within three existing monitoring wells existing on the site located at 597 85th Avenue, Oakland, California.

The work was performed in response to the discovery of petroleum hydrocarbons within soil beneath the site and has been requested by the Alameda County Environmental Health Department

2.0 SITE DESCRIPTION

The site is located in the City and County of Alameda. The area is primarily commercial, industrial, and residential. Several buildings are located on-site. These include multiple storage houses, an office, furniture warehouse, and soon a trucking company. Ninety-nine percent of the site is paved, with a few grassy areas.

The topography of the site is relatively level.

Refer to Appendix A, Figure 1 for the Site Location Map and Figure 3 for the Building Code Map.

3.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Five underground storage tanks (USTs) have been removed from this site. These were a 750-gallon, 1,000-gallon, 8,000 gallon and 10,000-gallon gasoline underground storage tank. One 8,000-gallon diesel UST was also removed.

Semco Engineering removed the gasoline USTs on April 29, 1988. The Zaccor Corporation removed the 8,000-gallon diesel UST on June 11, 1990.

Refer to Table I for the depths and analytical results of soil samples collected subsequent to the removal of each tank.

Refer to Appendix A, Figure 2., for the Tank Location Map.

A soils investigation was performed by the Zaccor Corporation on April 17, 1991, in the outer perimeter of the former 8,000-gallon gasoline and 8,000-gallon diesel UST.

3.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS-continued

Three ground-water monitoring wells were installed on April 19, 1991. Refer to Table IIa for the analytical results of the collected monitoring well ground-water samples. Analytical results are presented in Table Ia. Ground-water Analytical results are presented in Table 1b.

TABLE Ia

ANALYTICAL RESULTS OF SOIL SAMPLES COLLECTED DURING THE INSTALLATION OF THREE GROUNDWATER MONITORING WELLS, APRIL 19, 1991.

Results are Reported in mg/K

Sample#	Depth	TPHg	B	T	E	X	TPHd
MW-1	3.5'-4.0'	ND	ND	ND	ND	ND	16
MW-2	3.0'-3.5'	ND	ND	ND	ND	ND	150
MW-3	3.5'-4.0'	ND	ND	ND	ND	ND	1,000

TABLE Ib

MONITORING WELL GROUND-WATER
SAMPLE ANALYTICAL RESULTS
Sampling performed on April 25, 1991

Results are reported in ug/L

Sample#	TPHg	B	T	E	X	TPHd
MW-1	500	0.6	ND	ND	ND	ND
MW-2	ND	ND	ND	ND	ND	ND
MW-3	98	ND	ND	ND	ND	ND

4.0 SCOPE OF SERVICES

4.1 Ground-water Purging & Sampling

Three existing monitoring wells were purged and sampled on November 19, 1992 and February 23, 1993, and June 10, 1993. All well effluent was contained in Department of Transportation 17-H, 55 gallon drums, pending analysis of water samples. The wells were developed (purged) using a clean stainless steel bailer (1.5" diameter by 3' length) bailer. Subsequent to purging each well was sampled using a clean stainless steel bailer. A separate bailer was dedicated to each well for the sampling event. At consistent intervals throughout sampling ground-water parameters (pH, conductivity, and temperature) were monitored to evaluate stabilization of the wells.

A water sample was decanted from the sampling bailer into two one-liter amber bottles and two 40-ml volatile organics analysis vials (VOAs) to a positive meniscus eliminating headspace.

The samples were transported to a certified analytical laboratory under chain of custody for analysis.

Refer to Appendix G, Groundwater Development Report.

4.2 Well Development

Each of the wells were evacuated using a clean stainless steel bailer, 1.5 inches by 3.0 feet (a clean bailer dedicated to each well). Approximately 7 gallons of water were evacuated from MW-1 during development. The well yield was good. Prior to development the total well depth of MW-1 was 19.21 feet and depth of water was 2.85 feet. Groundwater was grey in color and very little silt.

Approximately 8 gallons of water were evacuated from MW-2 during development. The well yield was good. Prior to development the total well depth of MW-2 was 16.4 feet and depth of water was 2.91 feet. Groundwater was gold and had very little silt.

Approximately 7 gallons of water were evacuated from MW-3 during development. The well yield was good. Prior to development the total well depth of MW-3 was 18.0 feet and depth of water was 3.71 feet. Groundwater was gold with little silt.

Refer to Appendix G, Groundwater Development Report, 6/10/93

4.3 Groundwater Analysis

Each groundwater sample was analyzed for total petroleum hydrocarbons as diesel (TPHd, using EPA Method 3510 and TPH Luft), total petroleum hydrocarbons as gasoline with benzene, toluene, ethylbenzene, and total xylenes (TPHg & BTEX, using EPA Method 5030 and TPH Luft Method 602 for BTEX).

Groundwater analytical results for the third quarter of sampling, May 16, 1993, are presented in Table IV. Groundwater analytical results for the first quarter of sampling are presented in Table II and groundwater analytical results for the second quarter are presented in Table III.

4.4 Ground-water Analytical Results

TABLE II
GROUNDWATER ANALYTICAL RESULTS
FIRST QUARTER SAMPLING PERFORMED ON
NOVEMBER 19, 1992

Results are reported in ug/L

Sample#	TPHg	B	T	E	X	TPHd
MW-1	ND	ND	ND	ND	ND	ND
MW-2	ND	ND	ND	ND	ND	ND
MW-3	ND	ND	ND	ND	ND	ND

ND = not detected at lower detection limit for this compound

TABLE III
GROUNDWATER ANALYTICAL RESULTS
SECOND QUARTER SAMPLING PERFORMED ON
FEBRUARY 23, 1993

Results are reported in ug/L

Sample#	TPHg	B	T	E	X	TPHd
MW-1	368.0	ND	ND	ND	ND	ND
MW-2	972.0	ND	ND	ND	ND	ND
MW-3	ND	ND	ND	ND	ND	ND

ND = not detected at lower detection limit for this compound

TABLE IV
GROUNDWATER ANALYTICAL RESULTS
THIRD QUARTER SAMPLING PERFORMED ON
JUNE 13, 1993

Sample#	TPHg	B	T	E	X	TPHd
MW-1	494.0	ND	ND	ND	ND	ND
MW-2	79.0	ND	ND	ND	ND	ND
MW-3	ND	ND	ND	ND	ND	ND

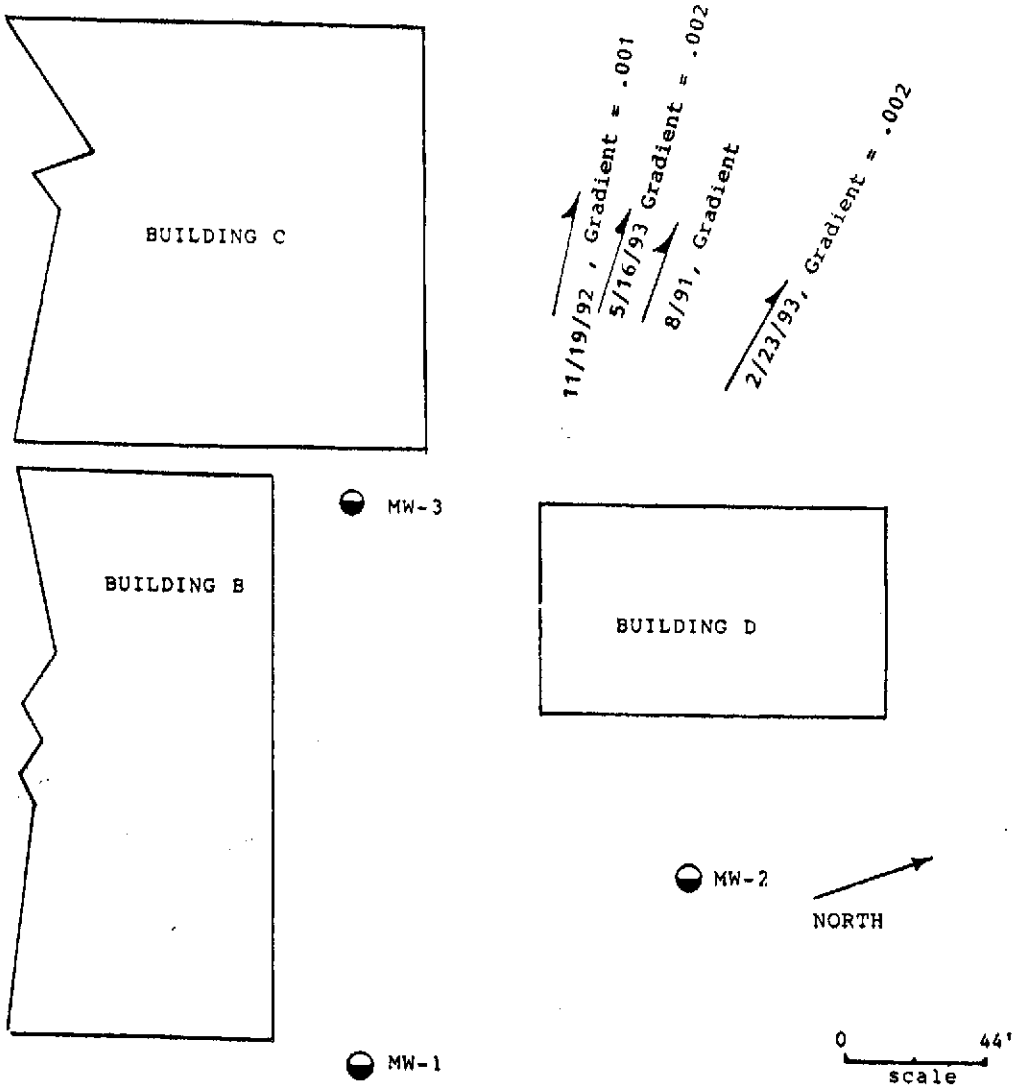
ND = not detected at lower detection limit for this compound

4.5 Groundwater Gradient

TABLE V
DEPTH AN ELEVATION TO GROUNDWATER

MW NO.	TOC ELEV. (FT.)	DATE	WATER DEPTH	WATER ELEV.
1	4.75	5/16/93	2.85	1.90
2	4.70	5/16/93	2.91	1.79
3	5.45	5/16/93	3.71	1.74

datum = elevation taken from city bench mark #1549

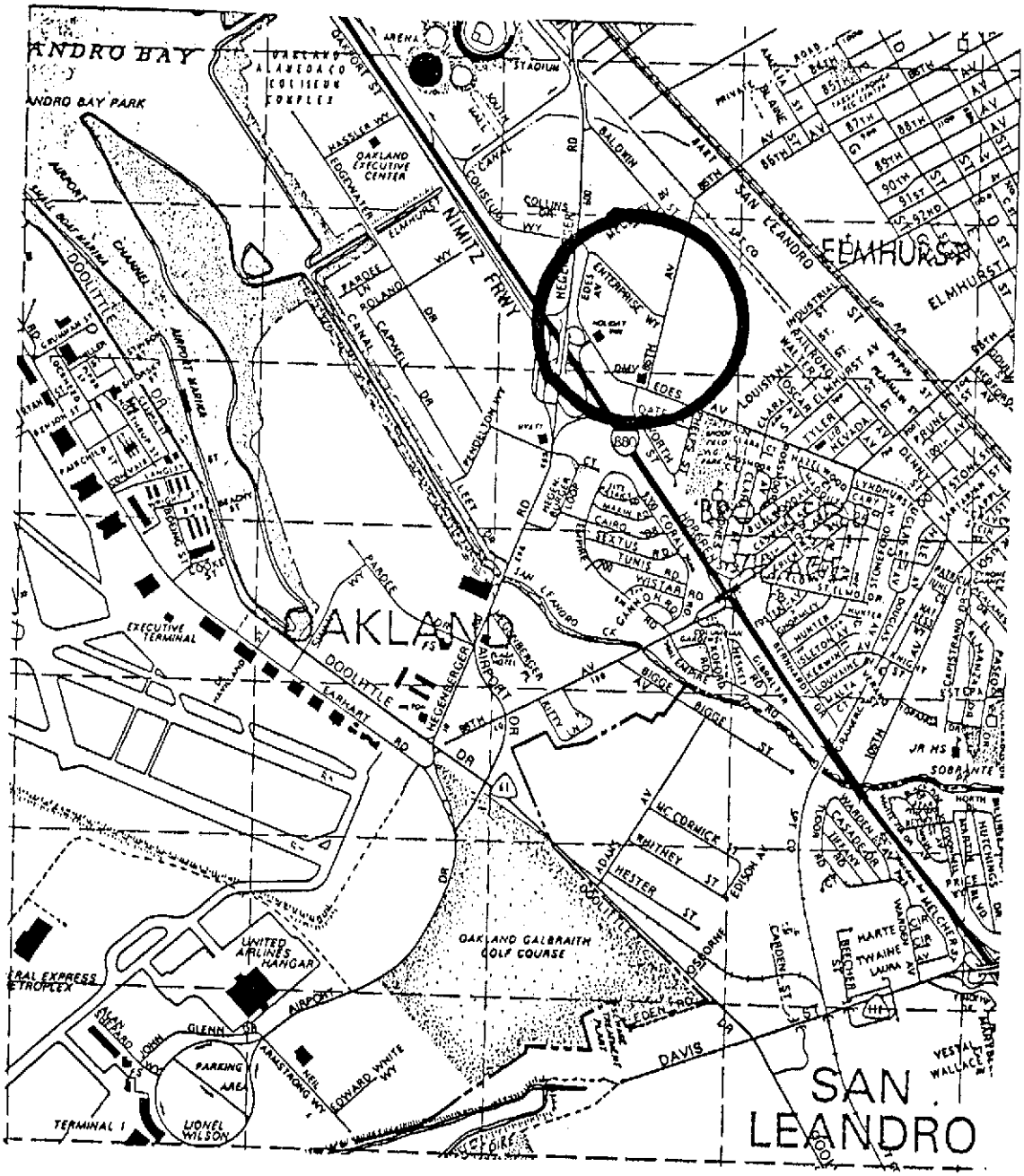


5.0 REPORT

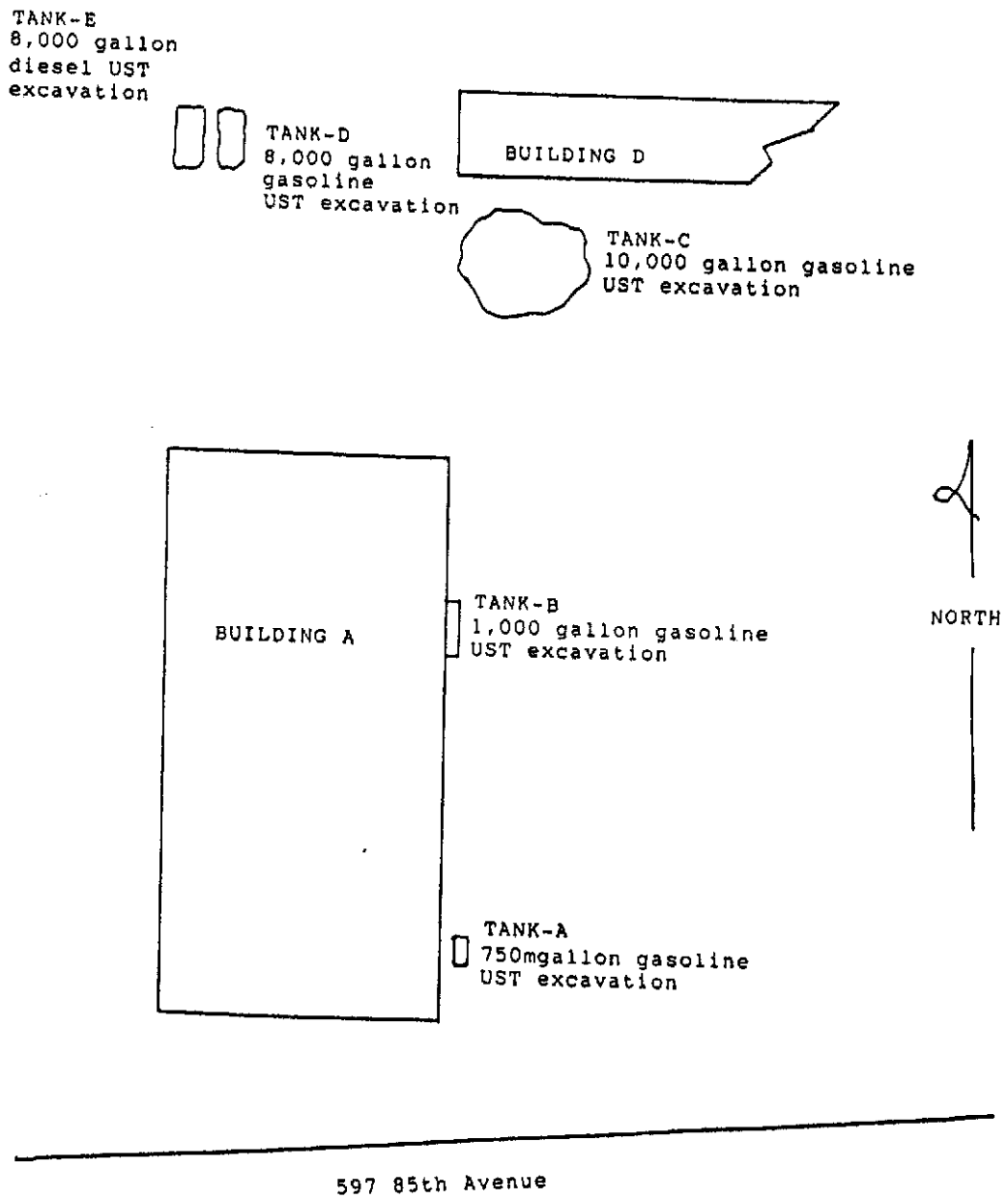
Please forward a copy of this report to the following regulatory agencies. The addresses have been provided for your convenience:

California Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94621

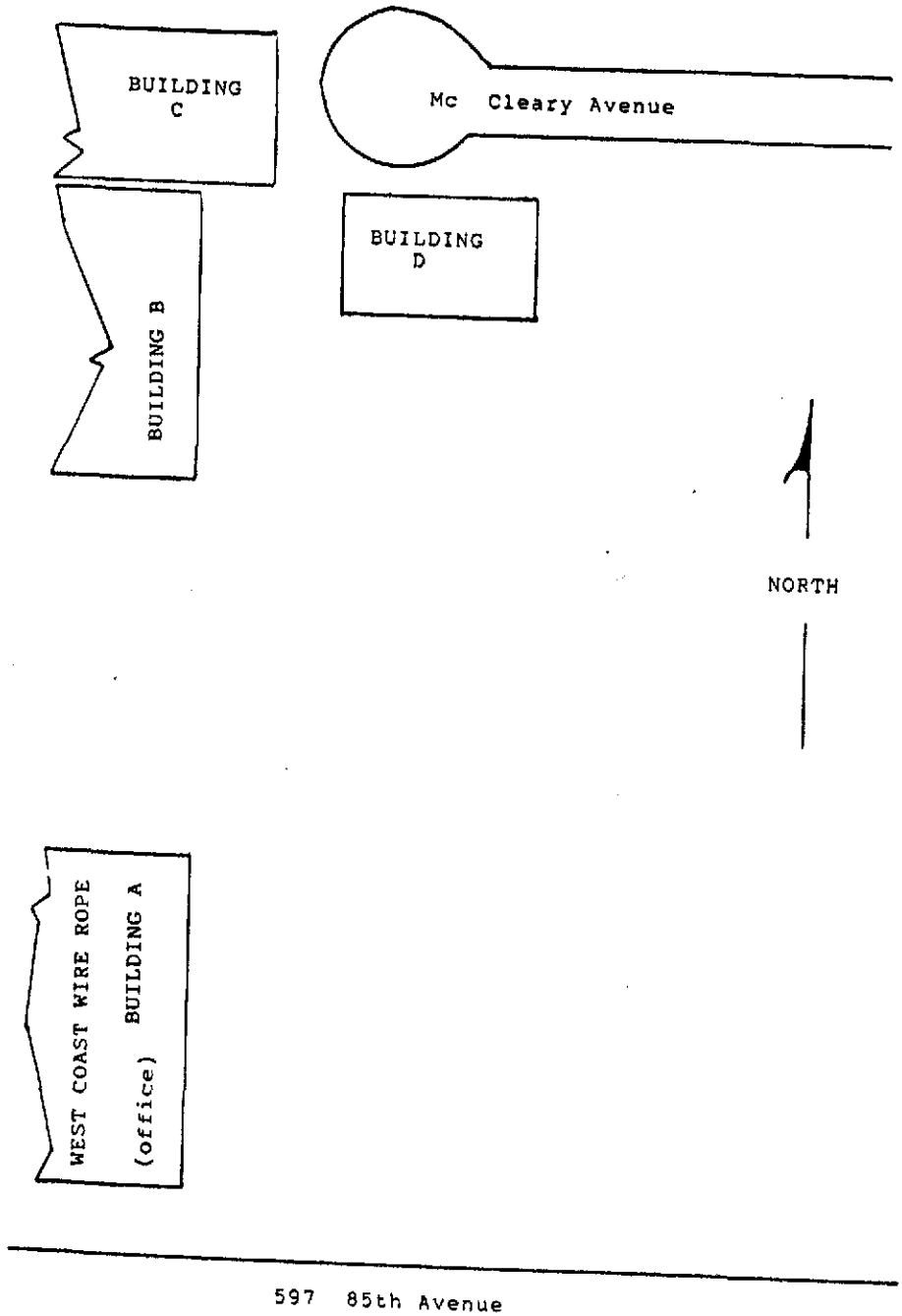
Alameda County
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621



Environmental Technical Services	WEST COAST WIRE ROPE	Figure 1
	597 - 85th AVENUE	SITE LOCATION MAP
	OAKLAND, CALIFORNIA	

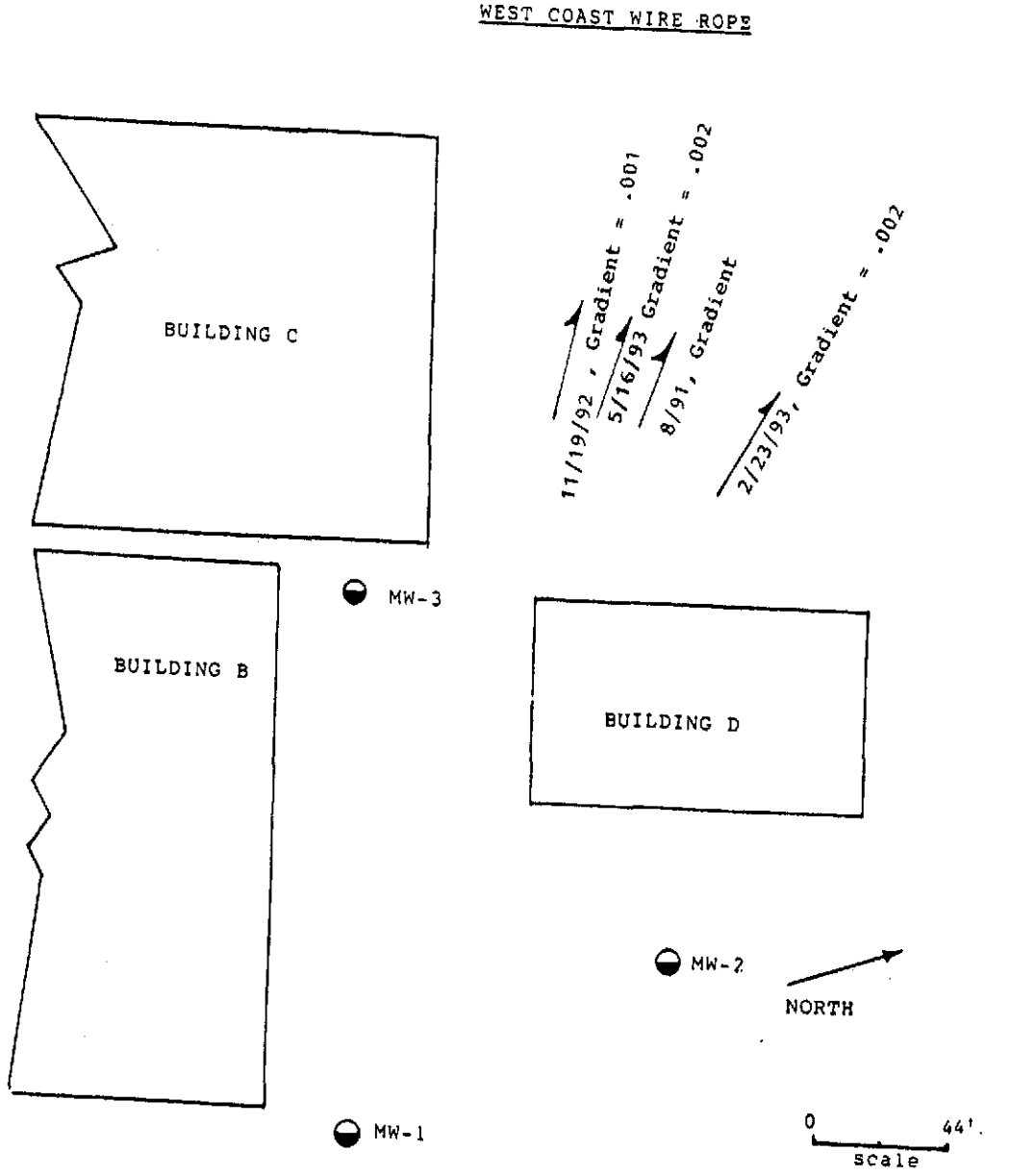


Environmental Technical Services	WEST COAST WIRE ROPE	Figure 2
	597-85TH AVENUE	TANK LOCATION MAP
	OAKLAND, CALIFORNIA	



Environmental Technical Services

WEST COAST WIRE ROPE	Figure 3
597-85TH AVENUE	BUILDING CODE MAP
OAKLAND, CALIFORNIA	



Environmental Technical Services	WEST COAST WIRE ROPE	Figure 4
	597-85TH AVENUE	MONITORING WELL
	OAKLAND, CALIFORNIA	LOCATION MAP

APPENDIX B

ANALYTICAL RESULTS OF SOIL SAMPLES COLLECTED DURING WELL INSTALLATION

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 # : 9104186
Date Received : 04/19/91
Project ID : 597 85th AVE
Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9104186- 1	MW1/3.5-4
9104186- 2	MW-2/3.5-4
9104186- 3	MW3/3.5-4
9104186- 4	MW3/8.5-9

This report consists of 4 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

5-7-91
Date

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

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

Workorder # : 9104186
Date Received : 04/19/91
Project ID : 597 85th AVE
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9104186- 1	MW1/3.5-4	SOIL	04/18/91	TPHd
9104186- 2	MW-2/3.5-4	SOIL	04/18/91	TPHd
9104186- 3	MW3/3.5-4	SOIL	04/18/91	TPHd
9104186- 1	MW1/3.5-4	SOIL	04/18/91	TPHg/BTEX
9104186- 2	MW-2/3.5-4	SOIL	04/18/91	TPHg/BTEX
9104186- 3	MW3/3.5-4	SOIL	04/18/91	TPHg/BTEX

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

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

Workorder # : 9104186
Date Received : 04/19/91
Project ID : 597 85th AVE
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as diesel for samples MW-2/3.5-4 and MW3/3.5-4 are primarily due to the presence of a heavier petroleum product, possibly motor oil.

Cheryl Beckman 5/7/91
Department Supervisor Date

Irene Yuriev 05-07-91
Chemist Date

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

Anametrix W.O.: 9104186
Matrix : SOIL
Date Sampled : 04/18/91

Project Number : 597 85th AVE
Date Released : 05/06/91

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# MW1/ 3.5-4 -01	Sample I.D.# MW-2/ 3.5-4 -02	Sample I.D.# MW3/ 3.5-4 -03	Sample I.D.# 08B0423A BLANK
Benzene	0.005	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND
TPH as Gasoline	0.5	ND	ND	ND	ND
% Surrogate Recovery		73%	62%	54%	92%
Instrument I.D.		HP8	HP8	HP8	HP8
Date Analyzed		04/23/91	04/23/91	04/23/91	04/23/91
RLMF		1	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 Method 8020.
RLMF - Reporting Limit Multiplication Factor.
Anametrix control limits for surrogate recovery are 53-147%.

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

Irene Juvinao 05-07-91
Analyst Date

Cheryl Balmer 5/7/91
Supervisor Date

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

Anametrix W.O.: 9104186
Matrix : SOIL
Date Sampled : 04/18/91
Date Extracted: 04/25/91

Project Number : 597 85th AVE
Date released : 05/06/91
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9104186-01	MW1/3.5-4	05/02/91	10	16
9104186-02	MW-2/3.5-4	05/01/91	10	150
9104186-03	MW3/3.5-4	05/01/91	100	1000
DSBL042591	METHOD BLANK	05/01/91	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 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.

Steve Trivedi 05-07-91
Analyst Date

Cheryl Balmer 5/7/91
Supervisor Date

ACCOR

ENVIRONMENTAL TECHNICAL SERVICES

CHAIN OF CUSTODY RECORD

9104196

PROJECT NO.	SITE NAME & ADDRESS
2	597 85th Ave, OAKLAND, CA

WITNESSING AGENCY / INSPECTOR NAME / DATE: Cynthia Chapman - Alam. Co. Hlth Dept

	ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION	TPH (Gasoline) & B,T,X,& E	TPH (Diesel) & ~~B,T,X,& E~~	Total Oil & Grease	Halogenated HC's	B, T, X & E	Heavy Metals		REMARKS
1	MW1/3.5-4	1-18		✓		3.5-4'	✓	✓			1			ROUTINE
2	MW2/3.5-4	1-18		✓		~~3.5-4'~~ 3'-3.5'	✓	✓						" "
3	MW3/3.5-4	"		✓		3.5-4	✓	✓						" "
4	MW3/8.5-9	"		✓		8.5-9'								HOLD

(1) See attached "Table 2" for specific analysis method.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Helen Mawhinney	4-18 7:30	VO ETS FREEZER
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Helen Mawhinney	4-19-91 10:16	Barney S. Carrizosa
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Barney S. Carrizosa	4/19/91 1055	
Relinquished by: (Signature)	Date/Time	Rec'd for Laboratory by: (Signature)
		04/19/91 1055

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 head space? NO
4. Were samples in appropriate containers and properly packaged? YES

Signature: D. Sh Title: Sample Custodian Date: 04/19/91

Rev: 12-88

Hold MW3/8.5-9'

APPENDIX C

ANALYTICAL RESULTS OF GROUNDWATER SAMPLES COLLECTED SUBSEQUENT TO WELL INSTALLATION

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 # : 9104251
Date Received : 04/25/91
Project ID : 597 85TH AVE.
Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9104251- 1	MW-1
9104251- 2	MW-2
9104251- 3	MW-3
9104251- 4	BAILER BLANK
9104251- 5	TRAVEL BLANK

This report consists of 5 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

Sarah Schoen, Ph.D.
Laboratory Manager

5-8-91
Date

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

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

Workorder # : 9104251
Date Received : 04/25/91
Project ID : 597 85TH AVE.
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9104251- 1	MW-1	WATER	04/25/91	TPHd
9104251- 2	MW-2	WATER	04/25/91	TPHd
9104251- 3	MW-3	WATER	04/25/91	TPHd
9104251- 1	MW-1	WATER	04/25/91	TPHg/BTEX
9104251- 2	MW-2	WATER	04/25/91	TPHg/BTEX
9104251- 3	MW-3	WATER	04/25/91	TPHg/BTEX
9104251- 4	BAILER BLANK	WATER	04/25/91	TPHg/BTEX
9104251- 5	TRAVEL BLANK	WATER	04/25/91	TPHg/BTEX

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

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

Workorder # : 9104251
Date Received : 04/25/91
Project ID : 597 85TH AVE.
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as gasoline for sample MW-2 and MW-3 are primarily due to the presence of discrete hydrocarbon peaks not indicative of gasoline.

Cheryl Balman 5/8/91
Department Supervisor Date

Chemist 5/8/91
Date

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

Anametrix W.O.: 9104251
Matrix : WATER
Date Sampled : 04/25/91

Project Number : 597 85TH AVE.
Date Released : 05/08/91

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# MW-1 -01	Sample I.D.# MW-2 -02	Sample I.D.# MW-3 -03	Sample I.D.# BAILER BLANK -04	Sample I.D.# TRAVEL BLANK -05
Benzene	0.5	0.6	ND	ND	ND	ND
Toluene	0.5	ND	ND	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND	ND	ND
TPH as Gasoline	50	500	ND	98	ND	ND
% Surrogate Recovery		85%	86%	86%	84%	86%
Instrument I.D.		HP4	HP4	HP4	HP4	HP4
Date Analyzed		04/29/91	04/29/91	04/29/91	04/29/91	04/29/91
RLMF		1	1	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 Method 8020.
RLMF - Reporting Limit Multiplication Factor.
Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

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

Bruce Jurio 05-08-91
Analyst Date

Cheryl Bauman 5/8/91
Supervisor Date

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

Anametrix W.O.: 9104251
Matrix : WATER
Date Sampled : N/A

Project Number : 597 85TH AVE.
Date Released : 05/08/91

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# 04B0429A BLANK
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Total Xylenes	0.5	ND
TPH as Gasoline	50	ND
% Surrogate Recovery		98%
Instrument I.D.		HP4
Date Analyzed		04/29/91
RLMF		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 Method 8020.
RLMF - Reporting Limit Multiplication Factor.
Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

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

Irene Jursich 05-08-91
Analyst Date

Cheryl Bachman 5/8/91
Supervisor Date

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

Anametrix W.O.: 9104251
Matrix : WATER
Date Sampled : 04/25/91
Date Extracted: 04/26/91

Project Number : 597 85TH AVE.
Date released : 05/08/91
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9104251-01	MW-1	04/30/91	50	ND
9104251-02	MW-2	04/30/91	50	ND
9104251-03	MW-3	04/30/91	50	ND
DWBL042691	METHOD BLANK	04/30/91	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 diesel 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 Pons 5/8/91
Analyst Date

Cheryl Balmer 5/8/91
Supervisor Date

[redacted] C [redacted] E [redacted] H A [redacted] N [redacted] F [redacted] U [redacted] O [redacted] E [redacted] R [redacted] 110451 [redacted] 2

10/7

PROJECT NUMBER	PROJECT NAME
	593 55th AV.

Send Report Attention of:	Report Due	Verbal Due
GARY ZACCOR	5/08/91	/ /

#	Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	TPHg/BTEX	TPHd	Condition of Samples	Initial
1	MW-1	4/25/91	13:05				5	3x40mL 1x Liter	X	X	Cold, proper Container no bubbles	
2	MW-2	"	11:38				"	"	X	X	↓	↓
3	MW-3	"	14:10				"	"	X	X	↓	↓
4	BAILER BLANK	"	11:30				3	3x40mL	X		↓	↓
5	TRAVEL BLANK	"	—				"	"	X		↓	↓

Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	4-25-91	[signature]	04/26/91
Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks:

COMPANY: ZACCOR
ADDRESS:
PHONE :
FAX :

2066

ANAMETRIX INC
Environmental & Analytical Chemistry

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

May 22, 1991

Ms. Helen Mawhinney
ZACCOR CORPORATION
791 Hamilton Avenue
Menlo Park, CA 94025

Project Number: 597 85th Avenue
Anametrix Workorder: 9104251

Dear Ms. Mawhinney:

After review of your request, we are reissuing part of this CAR (Certified Analytical Report) because the sample I.D.'s mentioned in the GC/TPH Report Summary should have been "MW-1 and MW-3" instead of "MW-2 and MW-3".

If there is anything more that we can do, please contact our Client Services Department immediately. Thank you for using Anametrix, Inc.

Sincerely,

ANAMETRIX, INC.

Jennifer J. Payne

Jennifer J. Payne
Client Services Manager

JJP/mh/4819

Enclosure

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

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

Workorder # : 9104251
Date Received : 04/25/91
Project ID : 597 85TH AVE.
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as gasoline for sample MW-1 and MW-3 are primarily due to the presence of discrete hydrocarbon peaks not indicative of gasoline.

Cheryl Balmer 5/21/91
Department Supervisor Date

[signature] 05-21-91
Chemist Date

APPENDIX D

GROUNDWATER ANALYTICAL RESULTS
FIRST QUARTER SAMPLING

S&W
Soil and Water
Environmental
Laboratory

Drinking Water
Waste Water ◦ Asbestos
Hazardous Waste – Soil
Calderon Testing – Air

14072 W. Park Avenue
Boulder Creek, CA 95006
(408) 338-3053

Laboratory Report

Client
Environmental Tech. Services
1548 Jacob Ave.
San Jose CA 95118

Report Date
12/08/92

Sample Site
West Coast Wire
597 85th Ave., Oakland

WCWR

Date Received
11/19/92

Analysis Requested
Total Hydrocarbons - Gas
Total Hydrocarbons - Diesel
BTEX

Procedure
EPA 5030
EPA 3510
EPA 602

Date Analyzed
11/22/92

S&W Ref. #	Client Ref. #	Matrix/Analysis	Concentration	Detection Limit
3242-ET1-A	MW-1	Water/TPH-G	*	50 ppb
3242-ET1-A	MW-1	Water/TPH-D	*	50 ppb
3242-ET1-A	MW-1	Water/BTEX		
		Benzene	*	0.5 ppb
		Toluene	*	0.5 ppb
		Ethylbenzene	*	0.5 ppb
		Xylenes	*	0.5 ppb
3242-ET1-B	MW-2	Water/TPH-G	*	50 ppb
3242-ET1-B	MW-2	Water/TPH-D	*	50 ppb
3242-ET1-B	MW-2	Water/BTEX		
		Benzene	*	0.5 ppb
		Toluene	*	0.5 ppb
		Ethylbenzene	*	0.5 ppb
		Xylenes	*	0.5 ppb
3242-ET1-C	MW-3	Water/TPH-G	*	50 ppb
3242-ET1-C	MW-3	Water/TPH-D	*	50 ppb
3242-ET1-C	MW-3	Water/BTEX		
		Benzene	*	0.5 ppb
		Toluene	*	0.5 ppb
		Ethylbenzene	*	0.5 ppb
		Xylenes	*	0.5 ppb

* No detectable amount @ detection limit

Analyst Signature R. A. Lamon

Environmental Technical Services
(408) 267-6427

CHAIN - OF - CUSTODY

Project Number	Site Name and Address	Type and Number of Containers	Analysis Required							Laboratory ID	Comments
WCWR	West Coast Wire 597 85th Ave, Oakland, Ca		TPH-G - BTEX	TPH-D	TOG					Condition of Samples 1 - Good 2 - See Reverse	
Witnessing Agency/Inspector Name and Date: Alameda County Env. Health Dept											
Sample ID	Date / Time / Matrix / Sample Location										
WCWR-MW1	11/17/92 Water	2 VOAs 2 Liters	✓	✓							
WCWR-MW2	11 11	11 11	✓	✓							
WCWR-MW3	11 11	11 11	✓	✓							

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks:
Helen Mawhinney	11-19-92	ETS Fridge		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	COMPANY:
Relinquished by: (Signature) Helen Mawhinney	Date/Time 11/19/92 3:56	Received by Lab: (Signature) R. N. Lamon	Date/Time 11/19/92 3:56	ADDRESS: PHONE: FAX:

APPENDIX E

GROUNDWATER ANALYTICAL RESULTS
SECOND QUARTER SAMPLING

S&W
Soil and Water
Environmental
Laboratory

Drinking Water
Waste Water ○ Asbestos
Hazardous Waste – Soil
Calderon Testing – Air

14072 W. Park Avenue
Boulder Creek, CA 95006
(408) 338-3053

Laboratory Report

Client: Environmental Tech. Services
1548 Jacob Ave.
San Jose CA 95118

Report Date: 03/04/93

Sample Site: West Coast Wire Rope
597 85th. Ave.
Oakland
WCWR02

Date Received: 02/24/93

Analysis Requested: Total Hydrocarbons - Gas; Total Hydrocarbons - Diesel; BTEX

Procedure: EPA 5030; EPA 3510; EPA 602

Date Analyzed: 02/26/93

S&W Ref. #	Client Ref. #	Matrix/Analysis	Concentration	Detection Limit
0553-ET2-A	MW-1	Water/TPH-G	368.0	50 ppb
0553-ET2-A	MW-1	Water/TPH-D	*	50 ppb
0553-ET2-A	MW-1	Water/BTEX		
		Benzene	*	0.5 ppb
		Toluene	*	0.5 ppb
		Ethylbenzene	*	0.5 ppb
		Xylenes	*	0.5 ppb
0553-ET2-B	MW-2	Water/TPH-G	972.0	50 ppb
0553-ET2-B	MW-2	Water/TPH-D	*	50 ppb
0553-ET2-B	MW-2	Water/BTEX		
		Benzene	*	0.5 ppb
		Toluene	*	0.5 ppb
		Ethylbenzene	*	0.5 ppb
		Xylenes	*	0.5 ppb
0553-ET2-C	MW-3	Water/TPH-G	*	50 ppb
0553-ET2-C	MW-3	Water/TPH-D	*	50 ppb
0553-ET2-C	MW-3	Water/BTEX		
		Benzene	*	0.5 ppb
		Toluene	*	0.5 ppb
		Ethylbenzene	*	0.5 ppb
		Xylenes	*	0.5 ppb

* No detectable amount @ detection limit

Analyst Signature: R. H. Lemoy

1/87

Environmental Technical Services
(408) 267-6427

CHAIN - OF - CUSTODY

Project Number	Site Name and Address	Type and Number of Containers	Analysis Required							Laboratory ID	Comments
WCWRQ2	597 85th Ave Oakland West Coast Wire Rope		TPH-G + BTEX	TPH-D + ~~BTEX~~	TOG					Condition of Samples 1 - Good 2 - See Reverse	
Witnessing Agency/Inspector Name and Date	Alameda Co Env H/Hz Dept / Barney Chan										
Sample ID	Date	Time	Matrix	Sample Location							
MW-1	2/23/93		H2O			X	X				
MW-2	↓		↓			X	X				
MW-3	↓		↓			X	X				

Relinquished by: (Signature) Helen Wawrzyniuk	Date/Time 2/23/93 2:16	Received by: (Signature) ETS Fridge	Date/Time 2/23/93 5:30	Remarks:
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	COMPANY:
Relinquished by: (Signature) Helen Wawrzyniuk	Date/Time 2/24/93 12:15	Received by Lab: (Signature) R. Leman	Date/Time 2/24/93	ADDRESS: PHONE (408) 267-6427 FAX:

APPENDIX F

THIRD QUARTER SAMPLING

S&W
Soil and Water Environmental Laboratory, Inc.

Drinking Water
Waste Water ◦ Asbestos
Hazardous Waste – Soil
Calderon Testing – Air

14072 W. Park Avenue
Boulder Creek, CA 95006
(408) 338-3053

Laboratory Report

Client
Enviornmental Tech. Services
1548 Jacob Ave.
San Jose CA 95118

Report Date
06/24/93

Sample Site
West Coast Wire Rope
537 85th, Ave.
Oakland
WCWR

Date Received
06/10/93

Analysis Requested
Total Hydrocarbons - Gas
Total Hydrocarbons - Diesel
BTEX

Procedure
EPA 5030
EPA 3510
EPA 602

Date Analyzed
06/13/93

S&W Ref. #	Client Ref. #	Matrix/Analysis	Concentration	Detection Limit
1613-ET2-A	MW-1	Water/TPH-G	494.0	50 ppb
1613-ET2-A	MW-1	Water/TPH-D	*	50 ppb
1613-ET2-A	MW-1	Water/BTEX		
		Benzene	*	0.5 ppb
		Toluene	*	0.5 ppb
		Ethylbenzene	*	0.5 ppb
		Xylenes	*	0.5 ppb
1613-ET2-B	MW-2	Water/TPH-G	79.0	50 ppb
1613-ET2-B	MW-2	Water/TPH-D	*	50 ppb
1613-ET2-B	MW-2	Water/BTEX		
		Benzene	*	0.5 ppb
		Toluene	*	0.5 ppb
		Ethylbenzene	*	0.5 ppb
		Xylenes	*	0.5 ppb
1613-ET2-C	MW-3	Water/TPH-G	*	50 ppb
1613-ET2-C	MW-3	Water/TPH-D	*	50 ppb
1613-ET2-C	MW-3	Water/BTEX		
		Benzene	*	0.5 ppb
		Toluene	*	0.5 ppb
		Ethylbenzene	*	0.5 ppb
		Xylenes	*	0.5 ppb

* No detectable amount @ detection limit

Analyst Signature R. W. Lamon

Environmental Technical Services
(408) 267-6427

CHAIN - OF - CUSTODY

Project Number	Site Name and Address	Type and Number of Containers	Analysis Required							Laboratory ID	Comments
WCWR	West Coast Wire Rope 597 85th Ave, Oakland Ca		TPH-G + BTEX	TPH-D + BTEX	TOG					Condition of Samples 1 - Good 2 - See Reverse	
Witnessing Agency/Inspector Name and Date											
Alameda Co. Env. Health Dept											

Sample ID	Date	Time	Matrix	Sample Location									
MW-1 ~~WCWR~~	6/9		H_2O		2 - one Liter 2 - 40ml VOA	✓	✓						
MW-2	"		"		" "	✓	✓						
MW-3	"		"		" "	✓	✓						

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Remarks:
[signature]	10:15 6/9/93	ETS Fridges		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	COMPANY: ETS
				ADDRESS:
Relinquished by: (Signature)	Date/Time 14:00 6/10/93	Received by Lab: (Signature) R. A. Lemon	Date/Time 6/10/93 2:00 PM	PHONE: FAX:

APPENDIX G

GROUNDWATER DEVELOPMENT REPORTS

MONITORING WELL SAMPLING DATA/ MW-1

Project Name:	Well#
WEST COAST WIRE ROPE	MW-1

Date: November 19, 1992

Name:	Time Began:
Mawhinney	11:45

DEPTH OF WELL(ft.)	DEPTH TO WATER(ft.)	WELL DIAM.
18.72	3.90	2"

Time	Gallons	pH	Temp.	Cond.
11:45	1	6.4	80.9	16.6
12:50	3	6.7	79.9	16.5
12:57	5	6.6	79.0	15.8
1:05	7	6.7	79.1	15.4
1:14	10	6.8	78.6	15.1

Volume Evacuated	Purging Equip.	Sampling Equip.
10 gallons	Stainless Steel Bailer	Stainless Steel Bailer

Depth to Water Upon Completion of Sampling

Not measured

Sheen	Floating Product	Sample Color	Odor
no	no	greyish-brown	no

Sediment/Foreign Matter: silt

Sample ID#	Analysis	Laboratory
MW-1	TPHg, BTEX, TPHd,	S & W Laboratory

Sample Containers
3/ 40-ml VOAs
2 Liters

MONITORING WELL SAMPLING DATA/ MW-2

Project Name:	Well#
WEST COAST WIRE ROPE	MW-2

Date: November 19, 1992

Name:	Time Began:
Mawhinney	3:00

DEPTH OF WELL(ft.)	DEPTH TO WATER(ft.)	WELL DIAM.
16.3	3.92	2"

Time	Gallons	pH	Temp.	Cond.
3:10	1	6.4	79.4	16.4
3:24	3	6.7	79.0	15.2
3:34	5	6.4	69.7	16.0
3:45	7	6.6	69.0	14.2
3:57	10	6.4	69.0	14.0

Volume Evacuated	Purging Equip.	Sampling Equip.
10 gallons	Stainless Steel Bailer	Stainless Steel Bailer

Depth to Water Upon Completion of Sampling

Not measured

Sheen	Floating Product	Sample Color	Odor
no	no	greyish/brown	no

Sediment/Foreign Matter: silt

Sample ID#	Analysis	Laboratory
MW-2	TPHg, BTEX, TPHd	Soil & Water Lab

Sample Containers
3/ 40-ml VOAs
2 Liters

MONITORING WELL SAMPLING DATA/ MW-3

Project Name:	Well#
WEST COAST WIRE ROPE	MW-3

Date: November 19, 1992

Name:	Time Began:
Mawhinney	1:36

DEPTH OF WELL(ft.)	DEPTH TO WATER(ft.)	WELL DIAM.
18.58	4.70	2"

Time	Gallons	pH	Temp.	Cond.
1:44	1	6.6	80.1	15.3
1:53	3	6.4	79.4	16.8
2:10	5	6.5	69.4	11.6
2:23	7	6.4	69.0	11.0
2:36	10	6.4	69.2	11.0

Volume Evacuated	Purging Equip.	Sampling Equip.
10 gallons	Stainless Steel Bailer	Stainless Steel Bailer

Depth to Water Upon Completion of Sampling

Not measured

Sheen	Floating Product	Sample Color	Odor
no	no	greyish/brown	no

Sediment/Foreign Matter: silt

Sample ID#	Analysis	Laboratory
MW-3	TPHg, BTEX, TPHd	Soil & Water Lab

Sample Containers

3/ 40-ml VOAs

2 Liters

MONITORING WELL SAMPLING DATA/ MW-1

Project Name:	Well#
WEST COAST WIRE ROPE	MW-1

Date: February 23, 1993

Name:	Time Began:
Mawhinney/Smith	12:56

DEPTH OF WELL(ft.)	DEPTH TO WATER(ft.)	WELL DIAM.
18.40	1.42	2"

Time	Gallons	pH	Temp.	Cond.
12:58	1	-	56.9	2.66
1:00	5	-	58.3	2.52
1:02	7	-	58.1	2.60
1:05	9	-	58.6	2.61

Volume Evacuated	Purging Equip.	Sampling Equip.
10 gallons	Stainless Steel Bailer	Stainless Steel Bailer

Depth to Water Upon Completion of Sampling

Not measured

Sheen	Floating Product	Sample Color	Odor
no	no	grey	no

Sediment/Foreign Matter: very silty

Sample ID#	Analysis	Laboratory
MW-1	TPHg, BTEX, TPHd,	S & W Laboratory

Sample Containers

2/ 40-ml VOAs
2 Liters

MONITORING WELL SAMPLING DATA/ MW-2

Project Name:	Well#
WEST COAST WIRE ROPE	MW-2

Date: February 23, 1993

Name:	Time Began:
Mawhinney/Smith	1:12p

DEPTH OF WELL(ft.)	DEPTH TO WATER(ft.)	WELL DIAM.
14.4	1.50	2"

Time	Gallons	pH	Temp.	Cond.
1:15	1	-	59.9	3.54
1:18	3	-	61.3	3.58
1:24	7	-	59.3	3.58
1:28	8	-	59.3	3.59

Volume Evacuated	Purging Equip.	Sampling Equip.
8 gallons	Stainless Steel Bailer	Stainless Steel Bailer

Depth to Water Upon Completion of Sampling

1.62 feet

Sheen	Floating Product	Sample Color	Odor
no	no	grey	no

Sediment/Foreign Matter: silt

Sample ID#	Analysis	Laboratory
MW-2	TPHg, BTEX, TPHd	Soil & Water Lab

Sample Containers
2/ 40-ml VOAs
2 Liters

MONITORING WELL SAMPLING DATA/ MW-3

Project Name:	Well#
WEST COAST WIRE ROPE	MW-3

Date: February 23, 1993

Name:	Time Began:
Mawhinney/Smith	1:50

DEPTH OF WELL(ft.)	DEPTH TO WATER(ft.)	WELL DIAM.
18.34	2.29	2"

Time	Gallons	pH	Temp.	Cond.
1:54	1	-	57.7	9.45
1:58	3	-	57.8	9.25
2:02	5	-	58.7	9.25
2:05	7	-	59.8	9.33

Volume Evacuated	Purging Equip.	Sampling Equip.
7 gallons	Stainless Steel Bailer	Stainless Steel Bailer

Depth to Water Upon Completion of Sampling

Not measured

Sheen	Floating Product	Sample Color		Odor
no	no	grey	n	no

Sediment/Foreign Matter: little silty

Sample ID#	Analysis	Laboratory
MW-3	TPHg, BTEX, TPHd	Soil & Water Lab

Sample Containers
2/ 40-ml VOAs
2 Liters

MONITORING WELL SAMPLING DATA
MW-1

Project Name:	Well#
WEST COAST WIRE ROPE	MW-1

DATE: JUNE 16, 1993

NAME:	Time Began:
Mawhinney/Smith	2:35 pm

DEPTH OF WELL	DEPTH TO WATER	WELL DIAM.
19.21′	2.85′	2"

Time	Gallons	Salinity	pH	Temp.	Cond.
2:35	1	*	7.34	97.6 F	1.95
2:39	3	*	7.38	89.3 F	3.11
2:52	5	*	8.07	83.8 F	3.06
2:50	7	*	7.37	84.3 F	2.30

Volume Evacuated	Purging Equip.	Sampling Equip.
7 gallons	Stainless Steel Bailer	Stainless Steel Bailer

Depth of Well Upon Completion of Sampling:

19.01′ Recharge good

Sheen	Floating Product	Sample Color	Odor
no	no	gold	no

Sediment/Foreign Matter: little silt

Sample ID#	Analysis	Laboratory
MW-1	TPHg, BTEX, TPHd	S & W Lab

Sample Containers

2/40-ml VOAs
2 amber one liter bottles

MONITORING WELL SAMPLING DATA
MW-2

Project Name:	Well#
WEST COAST WIRE ROPE	MW-2

DATE: JUNE 16, 1993

NAME:	Time Began:
Mawhinney/Smith	12:15 pm

DEPTH OF WELL	DEPTH TO WATER	WELL DIAM.
16.4'	2.91'	2"

Time	Gallons	Salinity	pH	Temp.	Cond.
12:30	1	*	10.94	72.8 F	3.20
12:45	3	*	10.65	74.9 F	3.16
12:55	5	*	10.43	75.7 F	3.18
1:00	7	*	10.91	70.9 F	3.09

Volume Evacuated	Purging Equip.	Sampling Equip.
7 gallons	Stainless Steel Bailer	Stainless Steel Bailer

Depth of Well Upon Completion of Sampling:

16.90' Recharge good

Sheen	Floating Product	Sample Color	Odor
no	no	grey	no

Sediment/Foreign Matter: little silt

Sample ID#	Analysis	Laboratory
MW-2	TPHg, BTEX, TPHd	S & W Lab

Sample Containers

2/40-ml VOAs
2 amber one liter bottles

MONITORING WELL SAMPLING DATA
MW-3

Project Name:	Well#
WEST COAST WIRE ROPE	MW-3

DATE: JUNE 16, 1993

NAME:	Time Began:
Mawhinney/Smith	1:50 pm

DEPTH OF WELL	DEPTH TO WATER	WELL DIAM.
18.0′	3.71′	2"

Time	Gallons	Salinity	pH	Temp.	Cond.
2:01	1	*	*	88.4 F	2.00
2:08	3	*	*	88.7 F	2.35
2:10	5	*	*	88.3 F	3.07
2:15	7	*	*	83.4 F	4.02

Volume Evacuated	Purging Equip.	Sampling Equip.
7 gallons	Stainless Steel Bailer	Stainless Steel Bailer

Depth of Well Upon Completion of Sampling:

18.5′ Recharge good

Sheen	Floating Product	Sample Color	Odor
no	no	gold	no

Sediment/Foreign Matter: little silt

Sample ID#	Analysis	Laboratory
MW-3	TPHg, BTEX, TPHd	S & W Lab

Sample Containers

2/40-ml VOAs
2 amber one liter bottles