(800) 926-2600
FAX (510) 437-8870

Copper and Brass Sales
- INC -

1900 EMBARCADERO
SUITE 101
OAKLAND, CALIFORNIA 94606

November 30, 1993

Susan L. Hugo
Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

RE: Submittal of Quarterly Ground-Water Monitoring Report, 1295 67th Street, Emeryville, California

Dear Ms. Hugo,

Enclosed is the document entitled "Quarterly Ground-Water Monitoring Report No. 1, 1295 67th Street, Emeryville, California," which was prepared by Azure Environmental on behalf of Copper and Brass Sales, Inc. This report is submitted to you pursuant to requirements contained in letters sent by your agency on March and June 22, 1993.

To the best of my knowledge, the information in the attached report is accurate and I concur with the conclusions and recommendations contained in the report.

Please call me should you have any questions or comments regarding this document.

Sincerely,

COPPER AND BRASS SALES, INC.

George T. Blandino

George T. Blandino
General Manager

Enclosure
cc: Rich Hiett, RWQCB

QUARTERLY GROUND-WATER MONITORING REPORT NO. 1

1295 67th Street
Emeryville, California

November 30, 1993
AZ119-001

Prepared for:
Copper and Brass Sales, Inc.
1900 Embarcadero, Suite 102
Oakland, CA 94606

AZURE ENVIRONMENTAL

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QUARTERLY GROUND-WATER MONITORING
REPORT NO. 1
1295 67th Street
Emeryville, California

INTRODUCTION

This Quarterly Ground-Water Monitoring Report No. 1 is submitted on behalf of Copper and Brass Sales, Inc. for the property at 1295 67th Street in Emeryville, California ("the Site"; Figure 1). The ground-water monitoring program is conducted at the Site pursuant to the Alameda County Health Care Services Agency's (ACHCSA) requirements contained in their letters to Copper and Brass Sales, Inc. dated March 30 and June 22, 1993.

This report presents the results of ground-water monitoring performed at the Site for the period of August through October 1993. The ground-water monitoring program was implemented at the Site in response to investigations which indicated the presence of fuel hydrocarbons (primarily diesel) in soil and ground water adjacent to former underground storage tank (UST) at the Site. Detailed descriptions of environmental investigations performed at the Site are included in the previously submitted Preliminary Site Assessment (PSA) report (Azure Environmental, 1993).

The Site is located within 1/2-mile east of the San Francisco Bay (Figure 1). The ground surface in the Site vicinity is approximately 30 feet above mean sea level and slopes gently toward the Bay. One 2,000-gallon capacity UST was previously located at the western boundary of the Site (Figure 2). The UST was reportedly installed at the Site in 1973 and was used to store diesel until October 1992. The tank was removed from the Site in December 1992. No other underground storage tanks are known to be present at the Site.

DESCRIPTION OF GROUND-WATER MONITORING PROGRAM

The ground-water monitoring program at the Site consists of the following activities:

- Quarterly collection of ground-water level measurements from monitoring well MW-1.

- Quarterly collection and laboratory analysis of a ground-water sample from monitoring well MW-1. The sample from was analyzed for Total Petroleum Hydrocarbons as diesel (TPHd) using EPA Method 3520, Total Petroleum Hydrocarbons as gasoline (TPHg) using Standard Method 5030 and benzene, toluene ethylbenzene and total xylenes (BTEX) using EPA Method 8020.

Methods and procedures used to perform quarterly monitoring activities are described in Appendix A.

GROUND-WATER MONITORING RESULTS

Ground-Water Elevations and Flow Direction

The quarterly and historical water-level measurements and calculated ground-water elevations in well MW-1 are summarized in Table 1. The depth to ground water measured on October 29, 1993 was 11.02 feet below grade (17.50 feet above mean sea level).

The ground-water flow direction and gradient at the Site was estimated using ground-water elevation data collected at the nearby Oliver Rubber facility. The Oliver Rubber facility is located at 1200 65th Street in Emeryville, approximately 600 feet southeast of the Site (Figure 1). Potentiometric surface maps using ground-water elevation data collected at Oliver Rubber on January 18 and July 14, 1993 are presented in Appendix C.

Ground-water elevation measurements at the Oliver Rubber facility indicate the general direction of ground-water flow is toward the southwest (see figures in Appendix C). The calculated horizontal gradient is 0.001 ft/ft. The ground-water flow direction at Oliver Rubber is generally consistent with the estimated ground-water flow direction (southwest) based on the proximity and direction of the facility to San Francisco Bay. Ground-water flow at the Oliver Rubber facility is expected to be representative of ground-water flow conditions at the Site since the two locations are relatively near each other (less than 2 blocks apart), and they are nearly the same distance and direction from the Bay.

Ground-Water Sampling and Laboratory Analysis

On October 29, 1993, a ground-water sample was collected from monitoring well MW-1. Quarterly and historical laboratory analysis results for well MW-1 are summarized in Table 2; laboratory certificates for the quarterly sample are included in Appendix B.

TPHd, TPHg and BTEX compounds were not detected in the ground-water sample from well MW-1. Floating free product was also not present in the well.

SUMMARY AND RECOMMENDATIONS

Quarterly ground-water monitoring results presented in this report indicate fuel hydrocarbons and related chemical compounds were not detected in the ground-water sample collected at the Site. These results indicate TPHd concentrations at well MW-1 reduced from 0.09 ppm to less than laboratory detection limits (0.05 ppb) during the period since sampling was conducted for the PSA report (July 1993).

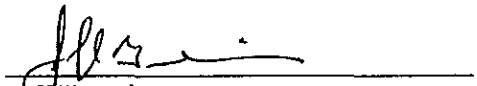
Based on these results, it is recommended that the current monitoring program be continued for the next quarterly period. Future monitoring results will be evaluated to assess the need for continued monitoring at the Site and to develop a plan for site closure.

SELECTED REFERENCES

Azure Environmental. 1993. Preliminary Site Assessment Report, August 30.

SIGNATURE PAGE

All hydrogeologic and geologic information, conclusions, and recommendations contained in this report have been prepared by a California Registered Geologist.



Jeff Hennier
Principal Hydrogeologist
California Registered Geologist (4605)

11/30/93
Date

TABLE 1

QUARTERLY AND HISTORICAL
GROUND-WATER ELEVATION DATA
1295 67th Street, Emeryville, California

Well Number	Well Elevation	Date Measured	Depth to Ground Water	Ground-Water Elevation
MW-1	28.52	7/29/93	10.70	17.82
		10/29/93	11.02	17.50

Notes:

- Depth to ground water measured in feet
- Elevations measured relative to mean sea level (MSL)

TABLE 2

QUARTERLY AND HISTORICAL GROUND-WATER
SAMPLE ANALYSIS RESULTS (ppm)
1295 67th Street, Emeryville, California

Well Number	Sample Date	TPHd	TPHg	B	T	E	X
MW-1	7/29/93	**0.09**	<0.05	<0.0005	<0.0005	<0.0005	<0.002
	10/29/93	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.002

Notes:

- ppm - parts per million
- Samples analyzed by American Environmental Network, Pleasant Hill, California; Laboratory certificates are included in report Appendix B.

B - Benzene
T - Toluene
E - Ethylbenzene
X - Total Xylenes

TPHd - Total Petroleum Hydrocarbons as Diesel
TPHg - Total Petroleum Hydrocarbons as Gasoline

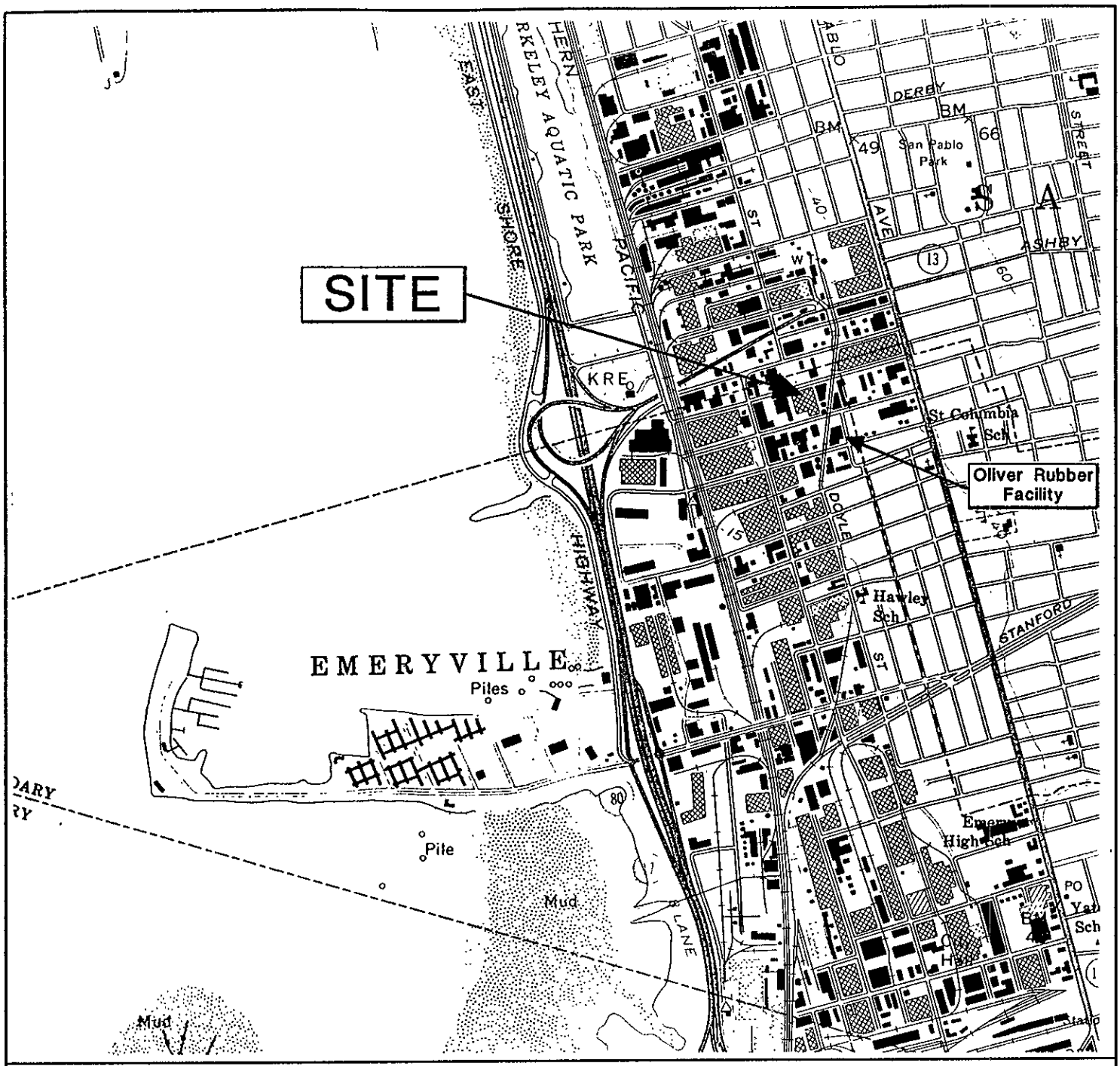


Figure 1: Site Location Map

AZURE ENVIRONMENTAL AZ119–001

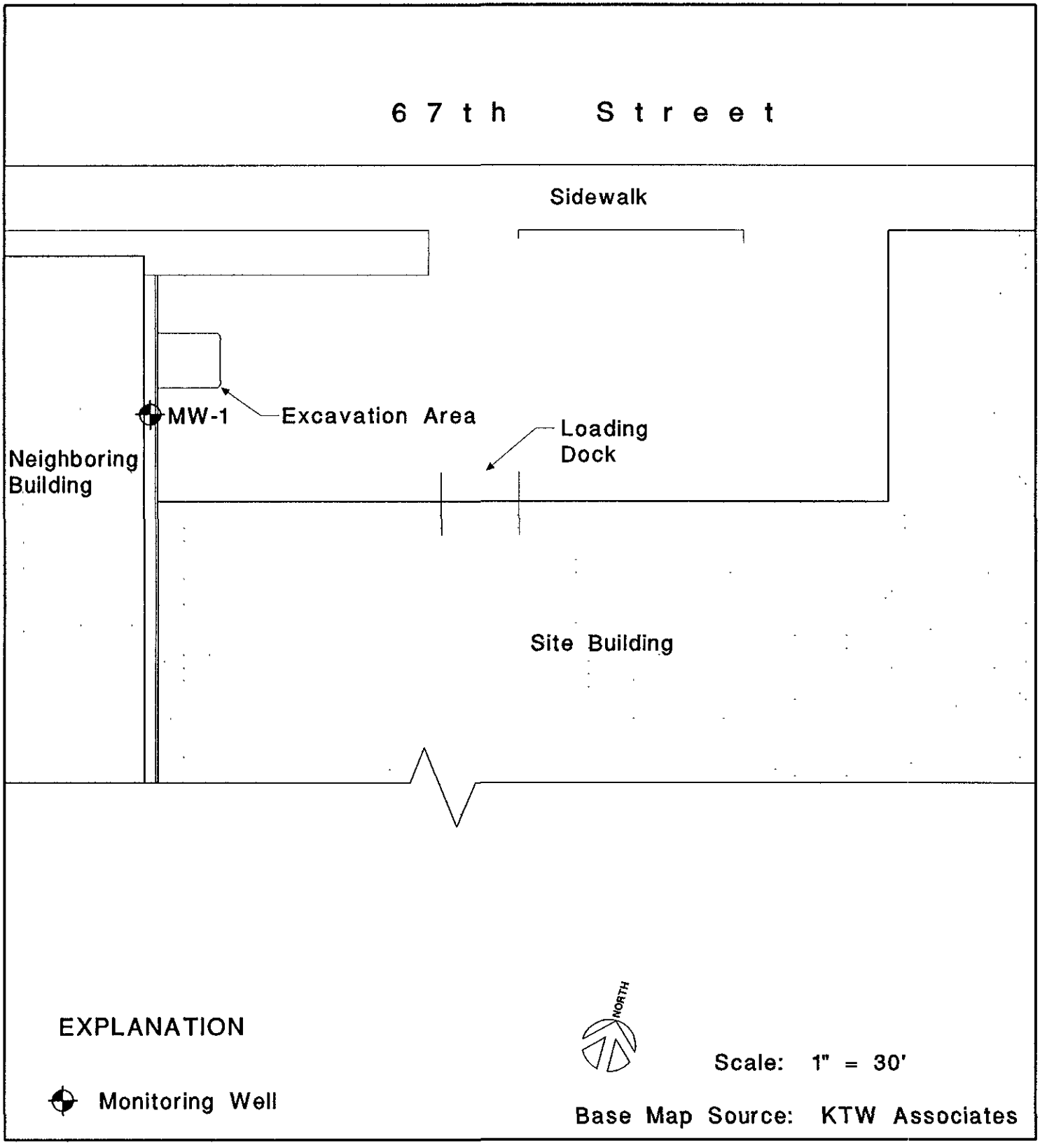


Figure 2: Site Plan

AZURE ENVIRONMENTAL AZ119–001

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APPENDIX A: FIELD METHODS AND PROCEDURES

Water-Level Measurement

A water-level measurement was collect on October 29, 1993 from well MW-1. The depth to water measurement was collected using an electric water-level meter. The ground-water elevation was calculated based on the measured depth to ground water.

Ground-Water Sampling

Well MW-1 was sampled on October 29, 1993. Prior to sampling, the well was purged by bailing to remove static water in the well. Observations of the quality and clarity of water withdrawn, and measurements of water temperature, pH and specific conductivity were recorded during this process. The wells were purged until the above parameters stabilized. Approximately 7 well volumes were removed during well purging.

Ground-water samples were collected using a clean Teflon bailer and gently poured into laboratory supplied containers which were appropriate for the type of analyses performed on the sample. Samples to be analyzed for TPHg and BTEX were placed in 40-milliliter VOA containers. Samples to be analyzed for diesel were placed in one-liter amber containers. The containers were filled so as to exclude air bubbles, in order to minimize potential volatilization of chemical compounds in the samples. The water samples were placed in a chilled cooler immediately after collection for transport to the laboratory.

Purge Water Storage

Purge water generated during well sampling activities was temporarily stored at the Site in a 55-gallon drum. Appropriate disposal options will be evaluated.

APPENDIX B: LABORATORY CERTIFICATES

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 94523-001

AZURE ENVIRONMENTAL
1001 LINCOLN
SAN RAFAEL, CA 94901

ATTN: JEFF HENNIER

CLIENT PROJ. ID: 119-001

REPORT DATE: 11/22/93

DATE SAMPLED: 10/29/93

DATE RECEIVED: 11/01/93

AEN JOB NO: 9311002

PROJECT SUMMARY:

On November 1, 1993, this laboratory received one (1) water sample.

Client requested the sample be analyzed for organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
General Manager

Results FAXed 11/12/93

AZURE ENVIRONMENTAL

SAMPLE ID: MW-1-2
AEN LAB NO: 9311002-01
AEN WORK ORDER: 9311002
CLIENT PROJ. ID: 119-001

DATE SAMPLED: 10/29/93
DATE RECEIVED: 11/01/93
REPORT DATE: 11/22/93

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs(Water)	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	11/08/93
Toluene	108-88-3	ND	0.5	ug/L	11/08/93
Ethylbenzene	100-41-4	ND	0.5	ug/L	11/08/93
Xylenes, Total	1330-20-7	ND	2	ug/L	11/08/93
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	11/08/93
#Extraction for Diesel/Oil	EPA 3510	-		Extrn Date	11/04/93
TPH as Diesel	GC-FID	ND	0.05	mg/L	11/05/93

ND = Not detected
* = Indicates value above reporting limit

QUALITY CONTROL DATA

DATE EXTRACTED: 11/04/93
DATE ANALYZED: 11/08/93
CLIENT PROJ. ID: 119-001

AEN JOB NO: 9311002
SAMPLE SPIKED: D.I. WATER
INSTRUMENT: C

METHOD SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE WATERS
METHOD: EPA 3510 GCFID

ANALYTE	Spike Conc. (mg/L)	Sample Result (mg/L)	MS Result (mg/L)	MSD Result (mg/L)	Average Percent Recovery	RPD
Diesel	2.04	ND	1.77	1.90	89.9	7.1

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Diesel	(45.0-103.3)	25.0

MS = Method Spike
MSD = Method Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

CLIENT PROJ. ID: 119-001 AEN JOB NO: 9311002

INSTRUMENT: F

SURROGATE STANDARD RECOVERY SUMMARY
METHOD: EPA 8020
(WATER MATRIX)

Date Analyzed	SAMPLE IDENTIFICATION Client Id.	Lab Id.	SURROGATE RECOVERY (PERCENT) Fluorobenzene
11/08/93	MW-1-2	01	88.7

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
Fluorobenzene	(70-115)

QUALITY CONTROL DATA

DATE ANALYZED: 11/03/93
SAMPLE SPIKED: 9310253-04B
CLIENT PROJ. ID: 119-001

AEN JOB NO: 9311002
INSTRUMENT: F

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8020, 5030 GCFID
(WATER MATRIX)

ANALYTE	Spike Conc. (ug/L)	Sample Result (ug/L)	MS Result (ug/L)	MSD Result (ug/L)	Average Percent Recovery	RPD
Benzene	9.4	ND	9.4	10.1	103.7	7.2
Toluene	36.2	ND	36.8	38.0	103.3	3.2
Hydrocarbons as Gasoline	500	ND	573	614	118.7	6.9

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Benzene	(81.4-115.3)	10.2
Toluene	(85.3-112.4)	9.4
Gasoline	(72.0-119.4)	12.3

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

*** END OF REPORT ***

R-1,3-1

R-3,5-2

Page 1 of 1

QuanteQ
An Ecologics Company

REQUEST FOR ANALYSIS/CHAIN OF CUSTODY

Reporting Information:

1. Client: Azur Environmental
Address: 1001 Lincoln
San Rafael, CA 94901
Contact: J. Hennier
Alt Contact:

Address Invoice To:

3. Same

Address Report To:

2 Same

Send Invoice To:

4. Same

Lab Job Number: 9311002
Lab Destination:
Date Samples Shipped: 11/1/93
Lab Contact: Robin
Date Results Required: normal turnaround
Date Report Required:
Client Contact PH. No.: 415/435-7740
Client Contact Fax No.: 435-6062

Send Report To: 1 or 2 (Circle one)
Client project/P.O. #: 111-001
Sample Team Member ('s) JHH

Lab Number	Client Sample Identification	~~Air~~ Volume (Date/Time Collected)	~~Date/~~ Time Collected	Sample Type *	Pres.	No. of Cont.	Type of Cont.	ANALYSIS: TPH Diesel	ANALYSIS: TPHG + BTEX	Comments/Inst., Hazards, etc.
01A-E	MW-1-2	10/29/93	15:05	H_2O	HCl	5	3 VOA 1 2 Amber	X	X	

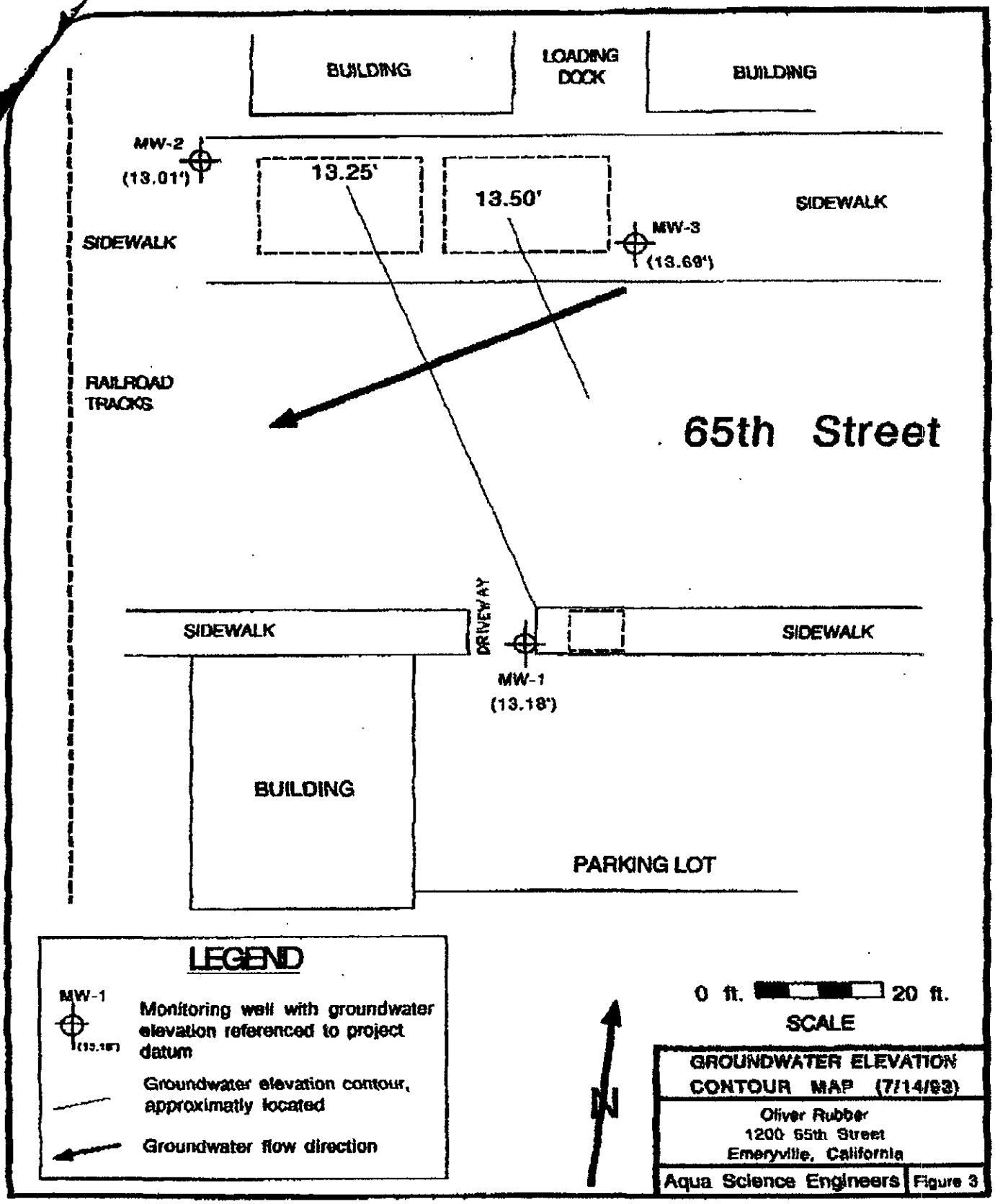
Relinquished by: (Signature)		DATE 11/1/93	TIME 11:39	Received by: (Signature)	DATE 11/1/93	TIME 11:39
Relinquished by: (Signature)		DATE 11-1-93	TIME 12:30	Received by: (Signature) Cyrina Gillespie	DATE 11-1-93	TIME 1230
Relinquished by: (Signature)		DATE	TIME	Received by: (Signature)	DATE	TIME
Method of Shipment				Lab Comments		

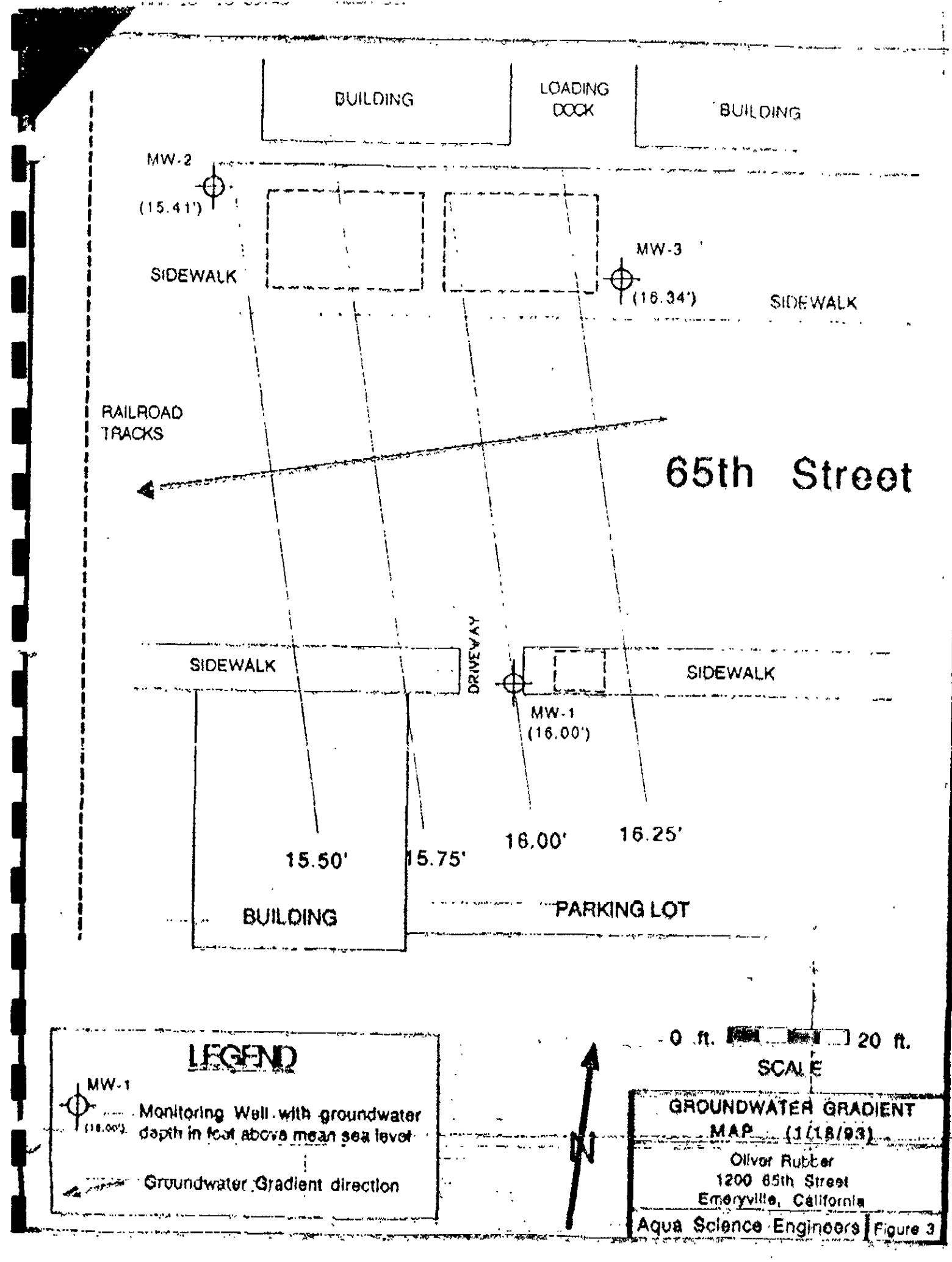
* Sample type (Specify): 1) 37 mm 0.8 Um MCEF 2) 25 mm 0.8 Um MCEF 3) 25 mm 0.4 Um polycarb. filter 4) PVC filter, diam. ____ pore size ____ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample
10) Other ____ (11) Other ____

COPIES: WHITE - JOB FILE • YELLOW - PROJECT FILE • PINK - CLIENT

APPENDIX C

POTENTIOMETRIC SURFACE MAP FROM THE NEARBY OLIVER RUBBER FACILITY


BUILDING
LOADING DOCK
BUILDING
MW-2
(13.01')
13.25'
13.50'
SIDEWALK
SIDEWALK
MW-3
(13.69')
RAILROAD TRACKS
65th Street
SIDEWALK
DRIVEWAY
SIDEWALK
MW-1
(13.18')
BUILDING
PARKING LOT
LEGEND
MW-1
(13.18')
Monitoring well with groundwater elevation referenced to project datum
Groundwater elevation contour, approximately located
Groundwater flow direction
N
0 ft.
20 ft.
SCALE
GROUNDWATER ELEVATION CONTOUR MAP (7/14/93)
Oliver Rubber
1200 65th Street
Emeryville, California
Aqua Science Engineers
Figure 3


BUILDING
LOADING DOCK
BUILDING
MW-2
(15.41')
SIDEWALK
MW-3
(16.34')
SIDEWALK
RAILROAD TRACKS
65th Street
SIDEWALK
DRIVEWAY
SIDEWALK
MW-1
(16.00')
15.50'
15.75'
16.00'
16.25'
BUILDING
PARKING LOT
LEGEND
MW-1
(16.00')
Monitoring Well with groundwater depth in feet above mean sea level
Groundwater Gradient direction
N
0 ft.
20 ft.
SCALE
GROUNDWATER GRADIENT MAP (1/18/93)
Oliver Rubber
1200 65th Street
Emeryville, California
Aqua Science Engineers
Figure 3