



ALCO  
HAZMAT  
94 JUN -9 PM 4:06

May 27, 1994  
1708-004-00

Mr. Larry Hanna, Project Manager  
UNITED STATES POSTAL SERVICE  
Major Facilities Office  
1407 Union Avenue  
Memphis, Tennessee 38166-0340

RE: QUARTERLY GROUNDWATER MONITORING PROGRESS REPORT  
THIRD QUARTER  
USPS CONTRACT NO. 059984-89-J-0053; W.O. NO. 23.01  
OAKLAND, CA - P&DC/VMF

Dear Mr. Hanna:

Geo/Resource Consultants, Inc.(GRC) is pleased to submit to the United States Postal Service (USPS) this report which presents the Third Quarter fluid-level monitoring and groundwater sampling for the above-referenced USPS facility. In accordance with the Alameda County Department of Environmental Health (ACDEH), monthly fluid levels were measured and groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5. Groundwater samples were sent to a state-certified laboratory for analyses. All field work was completed in accordance with the ACDEH-accepted "Site Characterization Workplan," prepared by GRC, dated August 26, 1993. Purged groundwater recovered during sampling was drummed pending proper disposal prior to the next quarter's sampling. The results are attached.

Analytical results from all wells except for MW-4 remained at or near reported laboratory detection limits. MW-4 results indicated diesel at 86 parts per billion.

Groundwater continued to flow in a general southerly direction across the site.

**ATTACHMENTS:**

- o Figure 1: Vicinity Map
- o Figure 2: Groundwater Elevation Contour Map,  
January 26, 1994
- o Figure 3: Groundwater Elevation Contour Map,  
February 15, 1994
- o Figure 4: Groundwater Elevation Contour Map,  
March 31, 1994
- o Figure 5: Dissolved-Phase Hydrocarbon Concentrations
- o Table 1: Groundwater Sampling and Analyses Summary
- o Appendix 1: Laboratory Reports, Chain of Custody Records

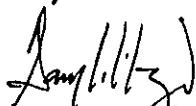
GRC noted that the East Bay Municipal Utilities District (EBMUD) is currently extracting groundwater in a California Department of Transportation (Cal-Trans) right-of-way located approximately 150 feet southwest and hydraulically upgradient of MW-4. The dewatering project, which is part of EBMUD's South Interceptor Project for the Cypress Freeway Reconstruction, is expected to lower the water table approximately 20 feet by the end of May 1994. This will facilitate the excavation and relocation of an EBMUD sewer line which is the deepest subsurface utility in the area.

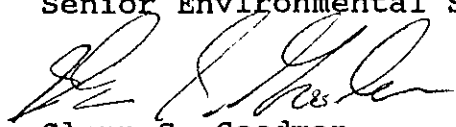
According to EBMUD (personal conversation, Mr. Al Weitz, April 21, 1994, (510) 287-1624), other utilities will also dewater the area to accommodate various construction phases following EBMUD's project. However, due to the more shallow installation requirements, the other utilities are expected to only lower the water table by approximately 10 feet. EBMUD reported that groundwater samples are periodically collected from the system and tested, and that no contaminants of concern have been detected.


The Third Quarter decrease in groundwater elevations and in the diesel concentration at MW-4 may be partially attributable to the adjacent EBMUD dewatering project. Fourth Quarter monthly groundwater elevation measurements and quarterly groundwater sample collection may also be affected by the dewatering project.

Please feel free to contact us at (415) 775-3177, if you have any questions regarding this project.

Sincerely,  
GEO/RESOURCE CONSULTANTS, INC.

  
Gary A. Floyd  
Senior Environmental Scientist

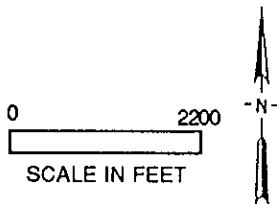
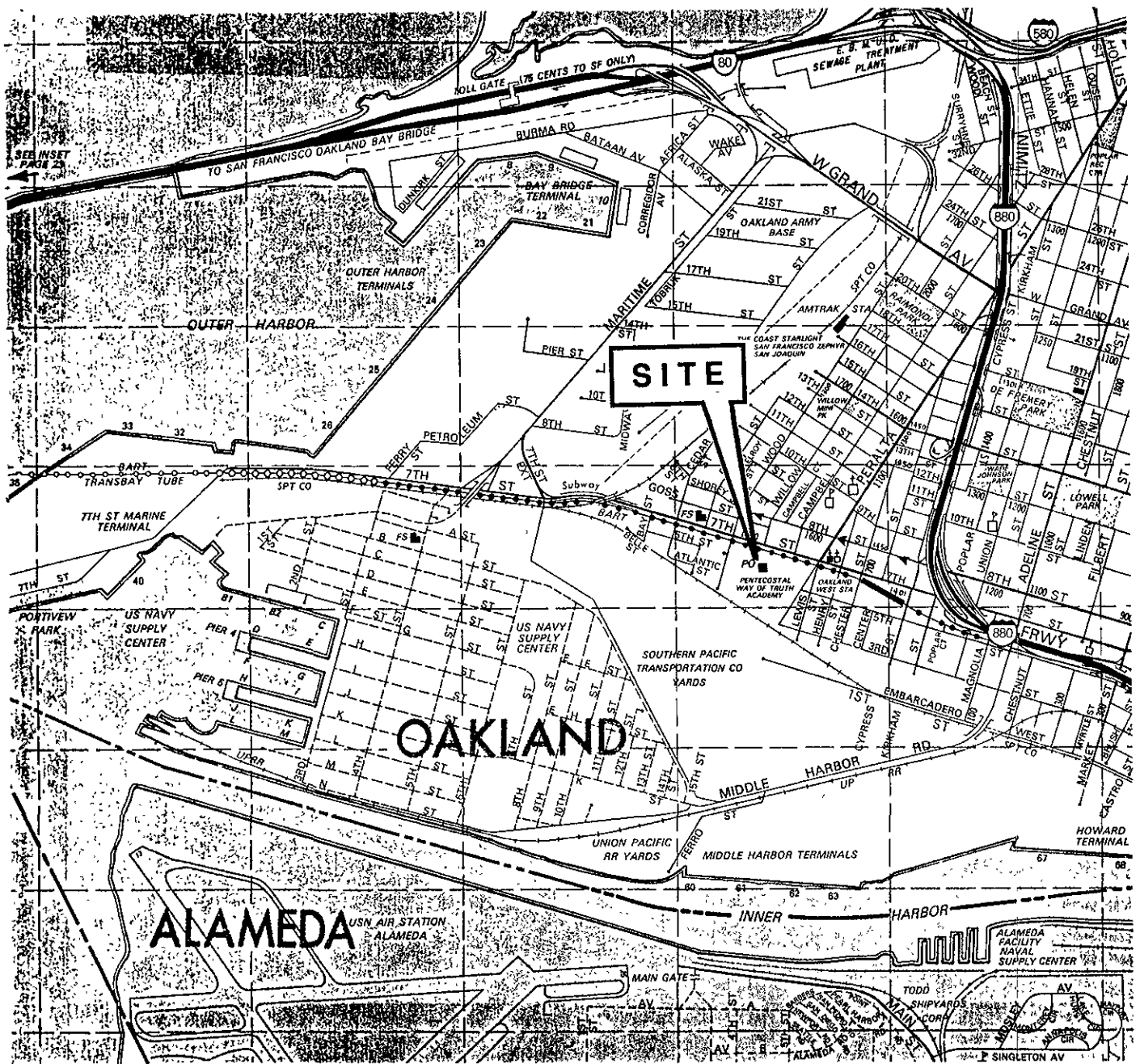
  
Glenn S. Goodman  
Program Manager, Remediation Services  
Vice President

  
Alvin K. Joe, Jr., C.E.G.  
President and CEO


cc: Ms. Jennifer Eberle, ACDEH, 80 Swan Way, Room 350, Oakland,  
CA, 94621, (510) 271-4530  
Stan Scott, USPS, 850 Cherry Ave., San Bruno, CA, 94099-0311  
Steve Wake, USPS, 1675 7th St., Oakland, CA, 94615  
GRC Project File 1708-004-00

**ATTACHMENTS**





REFERENCE : Thomas Bros Maps, 1989


**Geo/Resource Consultants, Inc.**  
 GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS  
 505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133

Job No. 1708-003-00 Appr. [Signature] Date 10/19/93

**FIGURE**  
**1**

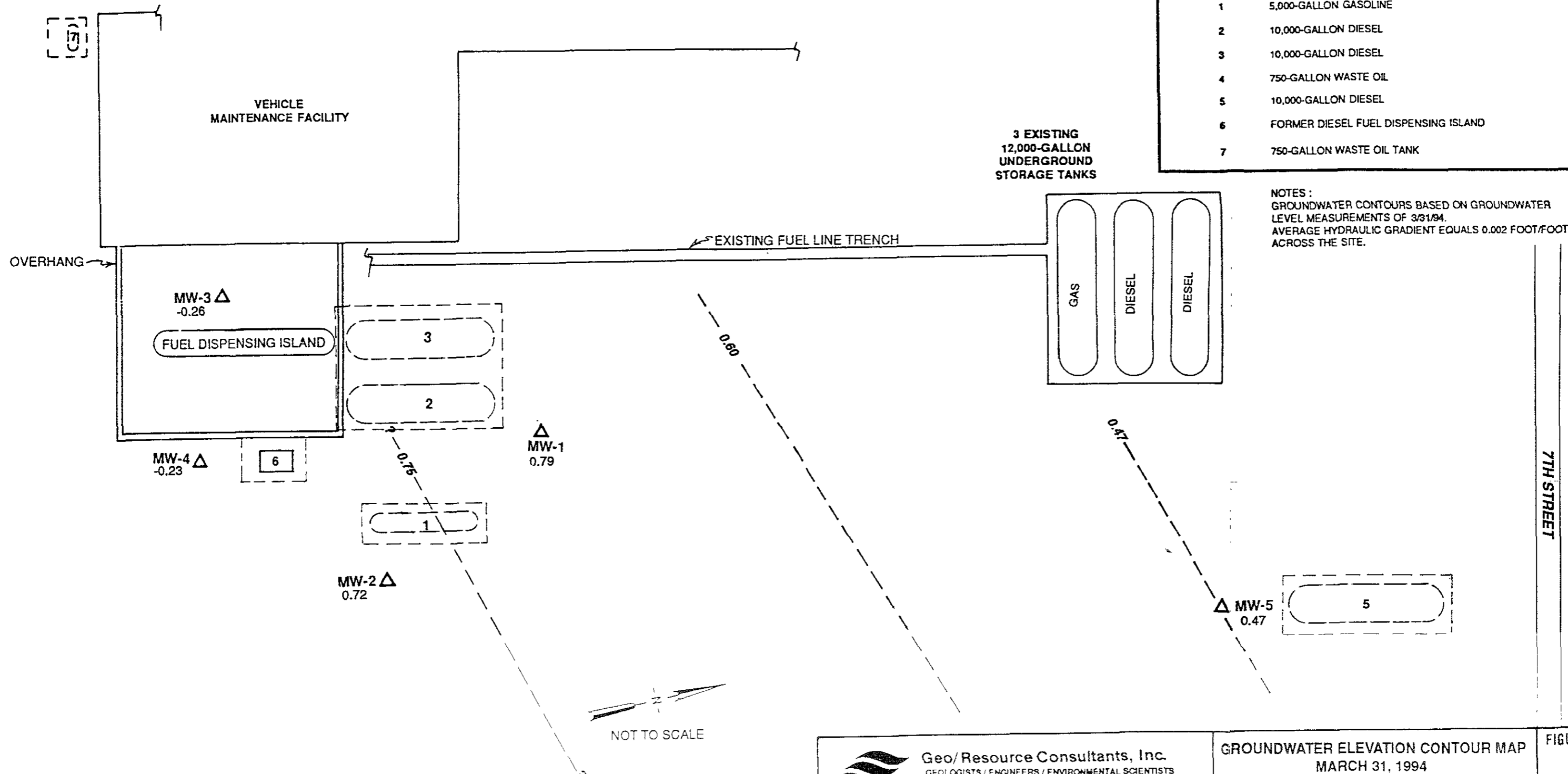
**VICINITY MAP**  
**SUBSURFACE SITE INVESTIGATION**  
**USPS - OAKLAND GMFVMF**  
**OAKLAND, CALIFORNIA**

GENERAL AREA OF  
EBMUD DEWATERING PROJECT

WOOD STREET

4

EXPLANATION	
	MONITORING WELL LOCATION
	GROUNDWATER ELEVATION ABOVE MEAN SEA LEVEL
	GROUNDWATER ELEVATION CONTOUR, 0.10 FOOT INTERVAL
	LIMIT OF EXCAVATION
	REMOVED UNDERGROUND STORAGE TANK TANK No.
	EXISTING TANK (SEE DESIGNATION BELOW)
1	5,000-GALLON GASOLINE
2	10,000-GALLON DIESEL
3	10,000-GALLON DIESEL
4	750-GALLON WASTE OIL
5	10,000-GALLON DIESEL
6	FORMER DIESEL FUEL DISPENSING ISLAND
7	750-GALLON WASTE OIL TANK

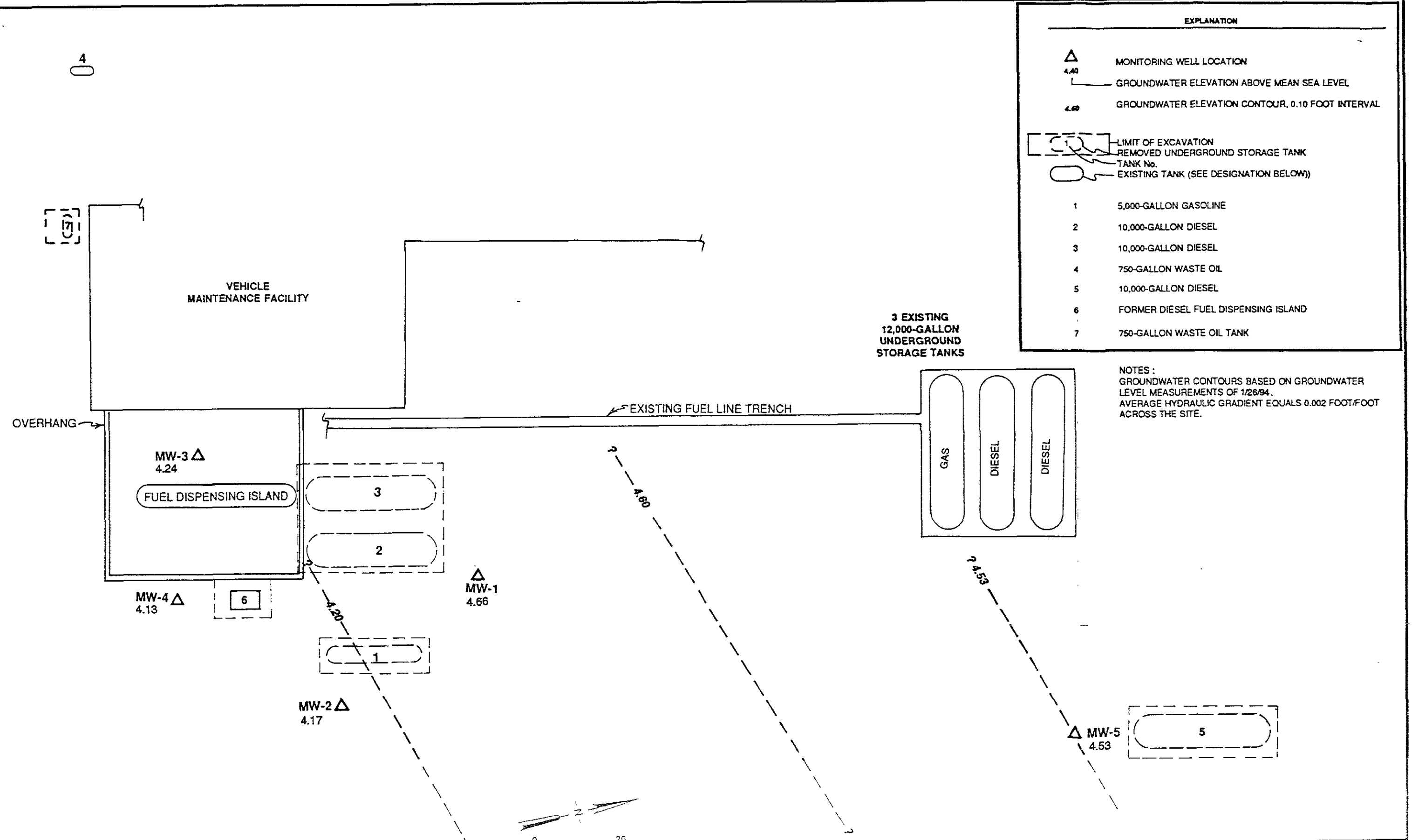


NOTES:  
GROUNDWATER CONTOURS BASED ON GROUNDWATER LEVEL MEASUREMENTS OF 3/31/94.  
AVERAGE HYDRAULIC GRADIENT EQUALS 0.002 FOOT/FOOT ACROSS THE SITE.

<p>Geo/Resource Consultants, Inc. GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS 505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133</p>	<p>GROUNDWATER ELEVATION CONTOUR MAP MARCH 31, 1994 SUBSURFACE SITE INVESTIGATION USPS - OAKLAND GMF/VMF OAKLAND, CALIFORNIA</p>		<p>FIGURE <b>4</b></p>
	<p>Job No 1708-004-00 Appr.  Date 3/31/94</p>		

EXPLANATION	
	MONITORING WELL LOCATION
	GROUNDWATER ELEVATION ABOVE MEAN SEA LEVEL
	GROUNDWATER ELEVATION CONTOUR, 0.10 FOOT INTERVAL
	LIMIT OF EXCAVATION REMOVED UNDERGROUND STORAGE TANK
	TANK No.
	EXISTING TANK (SEE DESIGNATION BELOW)
1	5,000-GALLON GASOLINE
2	10,000-GALLON DIESEL
3	10,000-GALLON DIESEL
4	750-GALLON WASTE OIL
5	10,000-GALLON DIESEL
6	FORMER DIESEL FUEL DISPENSING ISLAND
7	750-GALLON WASTE OIL TANK

NOTES:  
GROUNDWATER CONTOURS BASED ON GROUNDWATER LEVEL MEASUREMENTS OF 1/26/94.  
AVERAGE HYDRAULIC GRADIENT EQUALS 0.002 FOOT/FOOT ACROSS THE SITE.



<p>Geo/Resource Consultants, Inc. GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS 505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133</p>	<p>GROUNDWATER ELEVATION CONTOUR MAP JANUARY 26, 1994 SUBSURFACE SITE INVESTIGATION USPS - OAKLAND GMF/VMF OAKLAND, CALIFORNIA</p>	<p>FIGURE <b>2</b></p>
	<p>Job No. 1708-004-00 Appr.  Date 2/24/94</p>	

GENERAL AREA OF  
EBMUD DEWATERING PROJECT

WOOD STREET

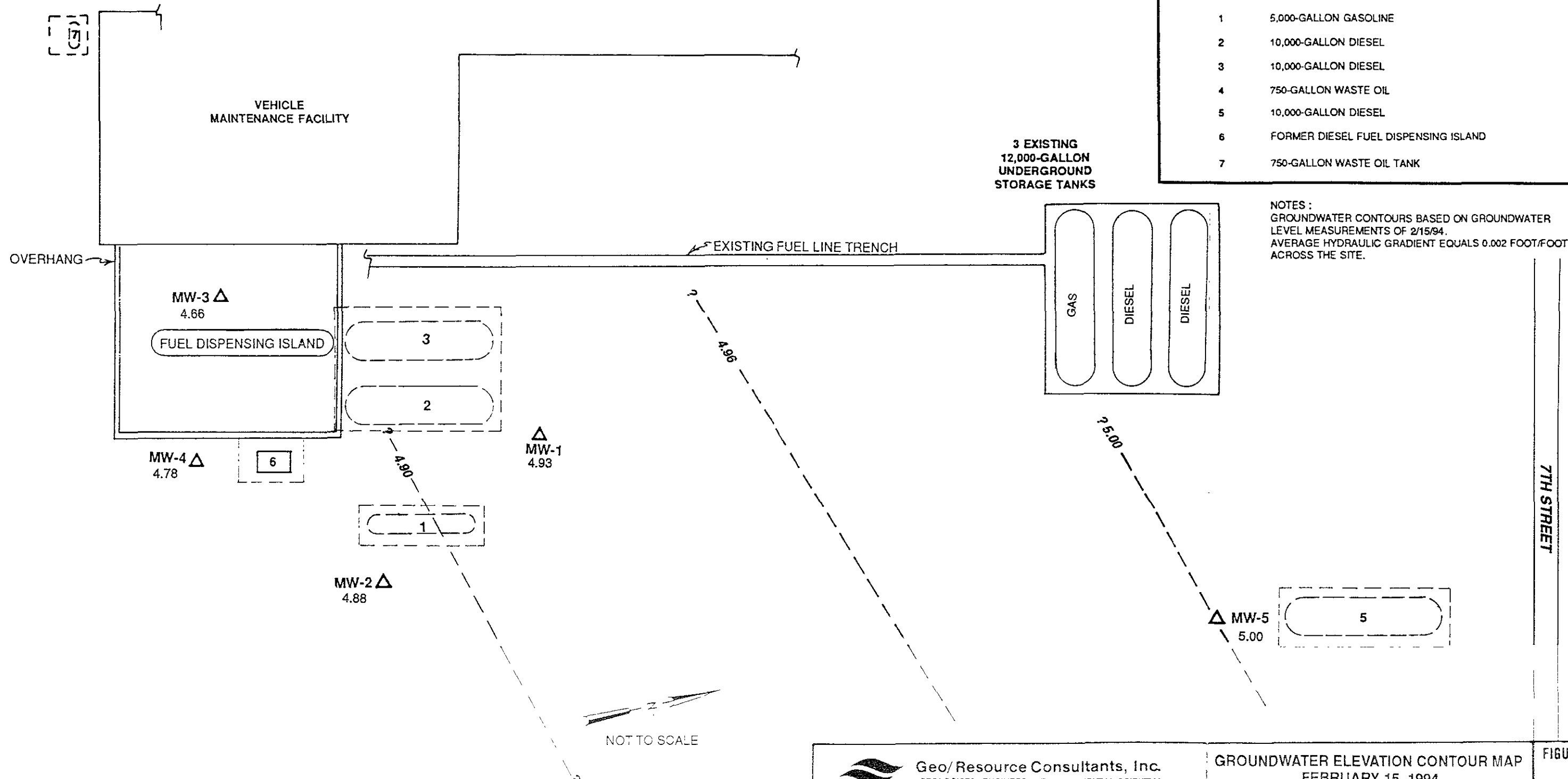
EXPLANATION



- MONITORING WELL LOCATION
- GROUNDWATER ELEVATION ABOVE MEAN SEA LEVEL
- GROUNDWATER ELEVATION CONTOUR, 0.10 FOOT INTERVAL

- LIMIT OF EXCAVATION
- REMOVED UNDERGROUND STORAGE TANK TANK No.
- EXISTING TANK (SEE DESIGNATION BELOW)





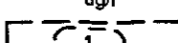
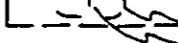

- 1 5,000-GALLON GASOLINE
- 2 10,000-GALLON DIESEL
- 3 10,000-GALLON DIESEL
- 4 750-GALLON WASTE OIL
- 5 10,000-GALLON DIESEL
- 6 FORMER DIESEL FUEL DISPENSING ISLAND
- 7 750-GALLON WASTE OIL TANK

NOTES :  
GROUNDWATER CONTOURS BASED ON GROUNDWATER  
LEVEL MEASUREMENTS OF 2/15/94.  
AVERAGE HYDRAULIC GRADIENT EQUALS 0.002 FOOT/FOOT  
ACROSS THE SITE.



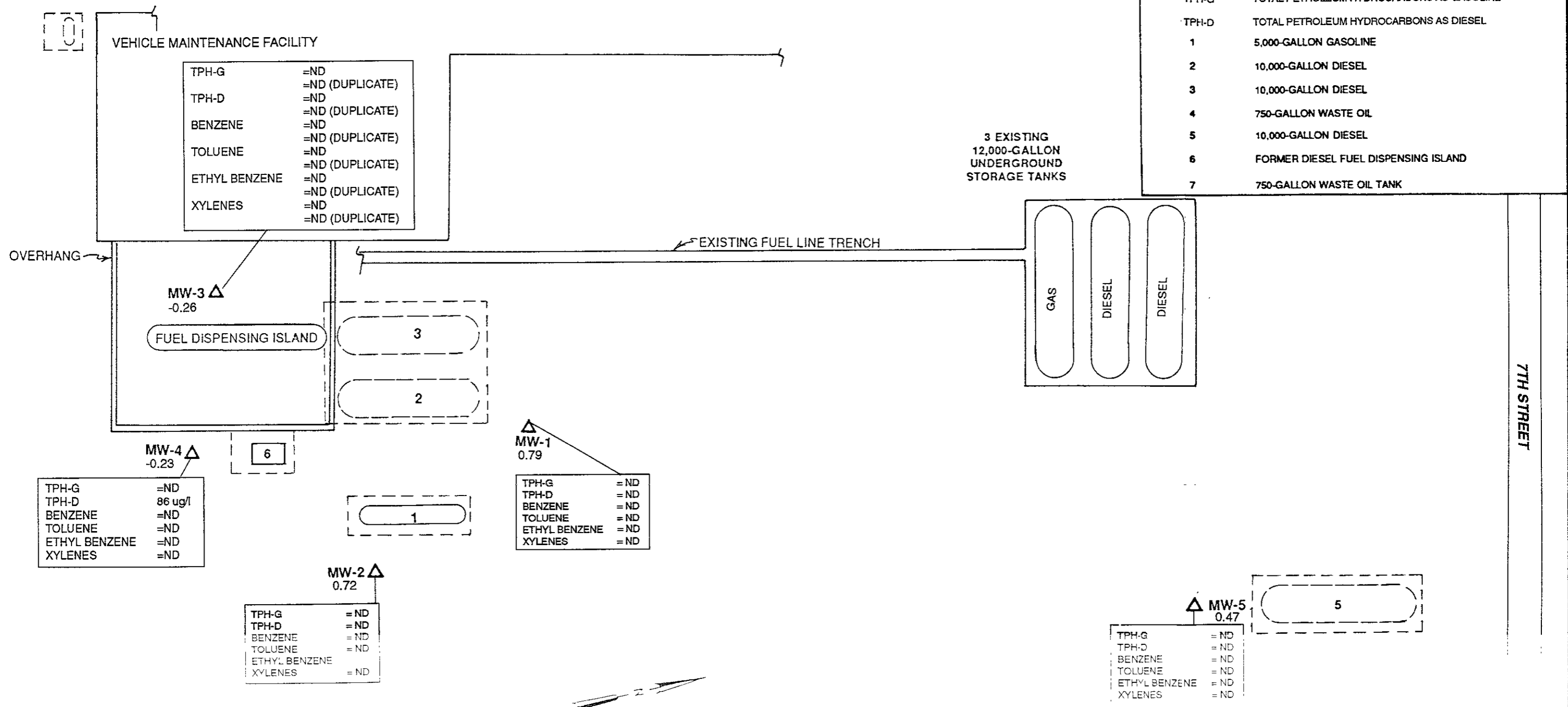
 <p><b>Geo/Resource Consultants, Inc.</b> GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS 505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133</p>	<p><b>GROUNDWATER ELEVATION CONTOUR MAP</b> FEBRUARY 15, 1994 SUBSURFACE SITE INVESTIGATION USPS - OAKLAND GMF/VMF OAKLAND, CALIFORNIA</p>	<p>FIGURE <b>3</b></p>
<p>Job No. 1708-004-00 Appr.  Date 2/15/94</p>		

EXPLANATION

-  MONITORING WELL LOCATION
-  GROUNDWATER ELEVATION ABOVE MEAN SEA LEVEL
-  GROUNDWATER ELEVATION CONTOUR, 0.10 FOOT INTERVAL
-  MICROGRAMS PER LITER (APPROXIMATES PARTS PER BILLION)
-  LIMIT OF EXCAVATION
-  REMOVED UNDERGROUND STORAGE TANK  
TANK No.
-  EXISTING TANK (SEE DESIGNATION BELOW)
- ND NONE DETECTED
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- TPH-D TOTAL PETROLEUM HYDROCARBONS AS DIESEL
- 1 5,000-GALLON GASOLINE
- 2 10,000-GALLON DIESEL
- 3 10,000-GALLON DIESEL
- 4 750-GALLON WASTE OIL
- 5 10,000-GALLON DIESEL
- 6 FORMER DIESEL FUEL DISPENSING ISLAND
- 7 750-GALLON WASTE OIL TANK

WOOD STREET


4



NOT TO SCALE



Geo/Resource Consultants, Inc.  
GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS  
505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133

Job No. 1708-004-00 Appr.  Date 3/31/94

DISSOLVED PHASE HYDROCARBON  
CONCENTRATIONS - MARCH 31, 1994  
SUBSURFACE SITE INVESTIGATION  
USPS - OAKLAND GMF/VMF  
OAKLAND, CALIFORNIA

FIGURE

5



**QUARTERLY GROUNDWATER MONITORING PROGRAM  
DATA SUMMARY TABLE\***  
**UNITED STATES POSTAL SERVICE - GENERAL MAIL FACILITY/VEHICLE MAINTENANCE FACILITY**  
**1675 - 7TH STREET, OAKLAND, CALIFORNIA 94165**

WELL NUMBER	MONTHLY GROUNDWATER MEASUREMENT DATES	MONTHLY GROUNDWATER LEVELS (Ft. AMSL)	QUARTERLY GROUNDWATER SAMPLING DATES	TPH-G (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)
MW-1***	9/93	4.40	9/93	ND/ ND	ND/ ND	ND/ ND	ND/ ND	ND/ ND	ND/ ND
	1/26/94	4.66	1/26/94	ND	ND	ND	ND	ND	ND
	2/94	4.93	2/94						
	3/94	0.79	3/94	ND	ND	ND	ND	ND	ND
MW-2	9/93	4.31	9/93	ND	ND	ND	ND	ND	ND
	1/94	4.17	1/94	ND	ND	ND	ND	ND	ND
	2/94	4.88	2/94						
	3/94	0.72	3/94	ND	ND	ND	ND	ND	ND
MW-3	9/93	4.28	9/93	ND	ND	ND	ND	ND	ND
	1/94	4.24	1/94	ND	ND	ND	ND	ND	ND
	2/94	4.66	2/94						
	3/94	-0.26	3/94	ND/ ND	ND/ ND	ND/ ND	ND/ ND	ND/ ND	ND/ ND
MW-4***	9/93	4.18	9/93	ND	580	ND	ND	ND	ND
	1/94	4.13	1/94	ND/ ND	350/ 450	0.7/ 0.8	ND/ ND	ND/ ND	ND/ ND
	2/94	4.78	2/94						
	3/94	-0.23	3/94	ND	86	ND	ND	ND	ND
MW-5	9/93	4.60	9/93	ND	ND	ND	ND	ND	ND
	1/94	4.53	1/94	ND	ND	ND	ND	ND	ND
	2/94	5.00	2/94						
	3/94	0.47	3/94	ND	ND	ND	ND	ND	ND
Detection Limit				50	50	0.5	0.5	0.5	0.5
Test Method				8015M	8015M	8020	8020	8020	8020
Regulatory Criteria				**	**	**	**	**	**

**NOTES:**

TPH-G :Total Petroleum Hydrocarbons as Gasoline  
 TPH-D :Total Petroleum Hydrocarbons as Diesel  
 B :Benzene  
 T :Toluene  
 E :Ethyl Benzene  
 X :Total Xylenes  
 Ft. AMSL :Feet Above Mean Sea Level  
 ug/L :Micrograms per liter (approximates parts per billion (ppb)).

--- :Not Analyzed/Not Measured  
 NA :Not Applicable/Not Available  
 ND :Not Detected Above Reported Detection limits  
 \* :All analyses by Superior Precision Analytical, Inc.  
 \*\* :Regulatory criteria has not been established for these constituents in groundwater.  
 \*\*\* :Results of Discrete and Duplicate sample analyses are listed as Discrete/Duplicate (e.g. 850/450).



# CHROMALAB, INC.

Environmental Services (SDB)

April 5, 1994

ChromaLab File#: 9404019

GEO/RESOURCE CONSULTANTS, INC.

Atten: B. Barber/G. Goodman

Project: USPS-OAKLAND

Project#: 1708-004

Received: April 1, 1994

re: 6 samples for Gasoline and BTEX analysis.

Matrix: WATER

Sampled on: March 31, 1994 ✓

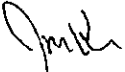
Analyzed on: April 4, 1994

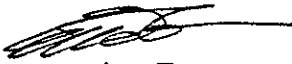
Method: EPA 5030/8015/602

Run#: 2590

Lab #	SAMPLE ID	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
48008	MW-1	N.D.	N.D.	N.D.	N.D.	N.D.
48009	MW-2	N.D.	N.D.	N.D.	N.D.	N.D.
48010	MW-3	N.D.	N.D.	N.D.	N.D.	N.D.
48011	MW-4	N.D.	N.D.	N.D.	N.D.	N.D.
48012	MW-5	N.D.	N.D.	N.D.	N.D.	N.D.
48013	MW-6	N.D.	N.D.	N.D.	N.D.	N.D.
DETECTION LIMITS		50	0.5	0.5	0.5	0.5
BLANK		N.D.	N.D.	N.D.	N.D.	N.D.
BLANK SPIKE RECOVERY (%)		81	96	109	104	105

ChromaLab, Inc.

  
Jack Kelly  
Chemist

  
Eric Tam  
Laboratory Director

# CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1994

ChromaLab File No.: 9404019

GEO/RESOURCE CONSULTANTS, INC.

Attn: B. Barber/G. Goodman

RE: Six water samples for Diesel analysis

Project Name: USPS-OAKLAND

Project Number: 1708-004

Date Sampled: March 31, 1994

Date Submitted: April 1, 1994

Date Extracted: April 5, 1994

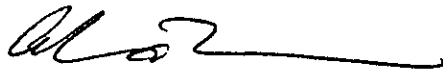
Date Analyzed: April 5, 1994

## RESULTS:

<u>Sample I.D.</u>	<u>Diesel (<math>\mu\text{g/L}</math>)</u>
MW-1	N.D.
MW-2	N.D.
MW-3	N.D.
MW-4	86
MW-5	N.D.
MW-6	N.D.

BLANK	N.D.
SPIKE RECOVERY	95%
DUP SPIKE RECOVERY	101%
DETECTION LIMIT	50
METHOD OF ANALYSIS	3510/8015

ChromaLab, Inc.



Alex Tam  
Analytical Chemist



Eric Tam  
Laboratory Director



**Geo/Resource Consultants, Inc.**  
GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS  
851 HARRISON STREET, SAN FRANCISCO, CALIFORNIA 94107

**CHAIN OF CUSTODY RECORD**

order #15812  
019/48008-48013  
PROJECT NO. 1708-004  
DATE 3/31/94 PAGE 1 OF 1

PROJECT NAME USPS-Oakland

Client \_\_\_\_\_  
Address \_\_\_\_\_

SAMPLERS (SIGNATURE) Brian Barber  
LABORATORY Chroma Lab

ANAL' SUBM #: 9404019  
CLIENT: GEORES  
DUE: 04/08/94  
REF: 15812

EPA NO. 9015/9020 TPH-6/1/94  
EPA NO. 8016 TPH-2/1/94  
EPA NO.  
EPA NO.  
EPA NO.

SAMPLE NO.	DATE	TIME	LOCATION	EPA NO.	EPA NO.	EPA NO.	EPA NO.	EPA NO.	EPA NO.	EPA NO.	EPA NO.	EPA NO.	EPA NO.	EPA NO.	NO.	NO.
MW-1	3/31/94	2:35PM	MW-1 USPS Oakland	X	X										4	1 L. Amber + 3 VOA's
MW-2	"	3:00PM	MW-2 "	X	X										4	" "
MW-3	"	3:10PM	MW-3 "	X	X										4	" "
MW-4	"	3:45PM	MW-4 "	X	X										4	" "
MW-5	"	2:10PM	MW-5 "	X	X										4	" "
MW-6	"	3:20PM	MW-6 "	X	X										4	" "
																5-day turn-around
																Matrix: W

**1 RELINQUISHED BY:**  
Chris Quatello  
Signature  
ANDREW T. GUARIELLO  
Printed Name  
Geo/Resource Cons.  
Company

DATE 4/1/94  
TIME 2:25 PM

**3 RELINQUISHED BY:**  
Signature  
Printed Name  
Company

DATE  
TIME

**5 RELINQUISHED BY:**  
Signature  
Printed Name  
Company

DATE  
TIME

24 TOTAL NUMBER OF CONTAINERS

**2 RECEIVED BY:**  
Signature  
Printed Name  
Company

DATE  
TIME

**4 RECEIVED BY:**  
Signature  
Printed Name  
Company

DATE  
TIME

**6 RECEIVED BY (LAB):**  
B. Morrow  
Signature  
B. Morrow  
Printed Name  
Chromalab  
Company

DATE 4/1/94  
TIME 1425

SAMPLE CONDITIONS  
SEALED YES/NO  
RECEIVED ON ICE YES/NO

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS:  
Please FAX results to Brian Barber/Glenn Gordan

SHIPPING TICKET NO.:

SAMPLER-GOLD TRANSPORTER-PINK LAB-YELLOW GRC-WHITE AND GREEN