

ALCO
HAZMAT
94 JAN 28 PM 1:19

LETTER OF TRANSMITTAL

TO:

Ms. Juliet Shin
Alameda County Health Care Services Agency
80 Swan Way, Room #200
Oakland, CA 94621

DATE: January 27, 1994
PROJECT: Mariner Square
SCI JOB NUMBER: 554.010

WE ARE SENDING YOU:

- 1 copies
- ☐ of our final report
 - ☐ a draft of our report
 - ☐ a Service Agreement
 - ☐ a proposed scope of services
 - ☐ specifications
 - ☐ grading/foundation plans
 - ☐ soil samples/groundwater samples
 - ☐ an executed contract
 - ☒ MW-6 data

- ☐ if you have any questions, please call
- ☐ for your review and comment
- ☐ please return an executed copy
- ☐ for geotechnical services
- ☐ with our comments
- ☐ with Chain of Custody documents
- ☒ for your use

REMARKS:

Please note that we will no longer be representing Mariner Square Associates regarding Mariner Square environmental matters.

COPIES TO:

BY:

Bill Rudolph
R. William Rudolph

■ Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 • FAX 510-268-0137

James P. Bowers, PE
R. William Rudolph, Jr., PE

January 26, 1994
SCI 544.010

Via Fax: (510) 523-0391
Ronald Doll
2236 Mariner Square Drive
Alameda, California 94501

Via Fax: (415) 393-2286
John D. Edgcomb
McCutchen, Doyle, Brown & Enersen
Three Embarcadero Center
San Francisco, California 94111

Via Fax: (415) 362-0638
Lawrence A. Margoles
Dryder, Margoles, Schimaneck,
Hartman, Kelly & Jacobs
One California Street, Suite 3100
San Francisco, California 94111

Via Fax: (303) 866-0200
Richard A. Oertli
Holme, Roberts & Owens
1700 Lincoln, Suite 4100
Denver, Colorado 90203

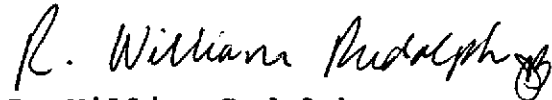
**Mariner Square Property
Alameda, California**

Dear Counsel:

We regret that Subsurface Consultants, Inc. (SCI) will no longer be representing Mariner Square Associates on the Joint Investigation Technical Committee regarding Mariner Square environmental matters.

Yours very truly,

Subsurface Consultants, Inc.



R. William Rudolph
Vice President

RWR:JPB:clh

■ Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 • FAX 510-268-0137

November 8, 1993
SCI 554.009

Mr. Ron Doll
c/o Mariner Square Associates
2236 Mariner Square Drive
Alameda, California 94501

Groundwater Sampling and Testing
Mariner Square
Alameda, California

Dear Mr. Doll:

This letter records the results of supplemental sampling and analytical testing services performed by Subsurface Consultants, Inc. (SCI) at the referenced site.

As requested, groundwater samples were taken from MW-5 and MW-6. Samples were collected on May 25, 1993. Samples from MW-5 were analyzed for metals. Samples from MW-6 were analyzed for total volatile hydrocarbons, total extractable hydrocarbons, volatile organics, polychlorinated biphenyls, and metals. MW-5 was subsequently resampled on June 15, 1993 for an organic lead analysis.

Samples were obtained using a pre-cleaned disposable bailer. The samples were retained in glass or plastic containers and preserved with either hydrochloric or nitric acid, when appropriate. The containers were placed in ice-filled coolers and remained cooled until delivery to the analytical laboratory. Chain-of-Custody records accompanied the samples to the laboratory.

Analytical testing was performed by Curtis and Tompkins, Ltd., a State of California Department of Health Services (DHS) certified laboratory for hazardous waste and water testing. Groundwater from MW-5 was analyzed for priority pollutant metals and organic lead (DHS LUFT Manual). Groundwater from MW-6 was analyzed for total volatile hydrocarbons (EPA 8015/LUFT), total extractable hydrocarbons (EPA 8015/LUFT), volatile organics (EPA 8240), polychlorinated biphenyls (EPA 8080) and priority pollutant metals.

Analytical test results and Chain-of-Custody records are attached.

■ Subsurface Consultants, Inc.

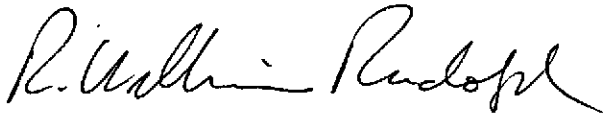
Mr. Ron Doll
c/o Mariner Square Associates
SCI 554.009
November 8, 1993
Page 2

■ Subsurface Consultants, Inc.

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.



R. William Rudolph
Geotechnical Engineer 741 (expires 12/31/96)

EBC:RWR:sld

4 copies submitted

Attachments: Analytical Test Results
Chain-of-Custody Records



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

DATE RECEIVED: 06/15/93

DATE REPORTED: 06/15/93

LABORATORY NUMBER: 111231

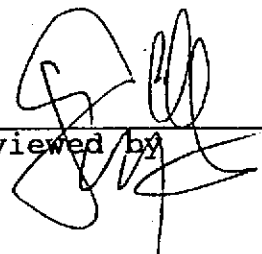
CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 554.009

LOCATION: MARINER SQUARE

RESULTS: SEE ATTACHED


Reviewed by


Reviewed by

This report may be reproduced only in its entirety.



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 111231
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 554.009
LOCATION: MARINER SQUARE

DATE SAMPLED: 06/15/93
DATE RECEIVED: 06/15/93
DATE ANALYZED: 06/15/93
DATE REPORTED: 06/15/93

=====

ANALYSIS: ORGANIC LEAD
ANALYSIS METHOD: CA DHS METHOD, LUFT MANUAL OCT 1989

=====

LAB ID	CLIENT ID	RESULT	UNITS	REPORTING LIMIT
111231-001	MW-5	ND	ug/L	100

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

RPD, %	<1
RECOVERY, %	100

=====

PAGE _____ OF _____

PROJECT NAME: MARINER SQUARE
JOB NUMBER: 554.009 LAB: CDT
PROJECT CONTACT: Bill Rwoolpht TURNAROUND: 24 Hour
SAMPLED BY: ERIC CHANG REQUESTED BY: ERIC CHANG

[illegible]

CHAIN OF CUSTODY RECORD				COMMENTS & NOTES:
RELEASED BY: (Signature) <i>[Signature]</i>	DATE / TIME 06/15/93	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE / TIME 08:40	
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME	
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME	
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME	

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 288-0461 • FAX: 510-288-0137



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

DATE RECEIVED: 05/25/93
DATE REPORTED: 06/03/93

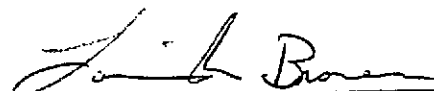
LABORATORY NUMBER: 111019

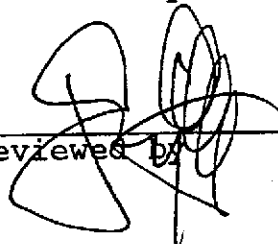
CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 554.009

LOCATION: MARINER SQUARE

RESULTS: SEE ATTACHED


Reviewed by


Reviewed by

This report may be reproduced only in its entirety.

Berkeley

Los Angeles

LABORATORY NUMBER: 111019-1
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT ID: 554.009
 LOCATION: MARINER SQUARE
 SAMPLE ID: MW 5

DATE SAMPLED: 05/25/93
 DATE RECEIVED: 05/25/93
 DATE ANALYZED: 05/26-06/01/93
 DATE REPORTED: 06/03/93

EPA Priority Pollutant Metals in Aqueous Solutions

METAL	RESULT ug/L	REPORTING LIMIT ug/L	METHOD
Antimony	ND	60	EPA 6010
Arsenic	10	5	EPA 7060
Beryllium	ND	2	EPA 6010
Cadmium	ND	5	EPA 6010
Chromium (total)	10	10	EPA 6010
Copper	30	10	EPA 6010
Lead	82	3	EPA 7421
Mercury	ND	0.2	EPA 7470
Nickel	ND	30	EPA 6010
Selenium	ND	5	EPA 7740
Silver	ND	10	EPA 6010
Thallium	ND	5	EPA 7841
Zinc	60	20	EPA 6010

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

	RPD, %	RECOVERY, %		RPD, %	RECOVERY, %
Antimony	2	101	Mercury	<1	101
Arsenic	15	96	Nickel	6	102
Beryllium	2	100	Selenium	9	100
Cadmium	4	105	Silver	1	97
Chromium	3	103	Thallium	4	96
Copper	3	104	Zinc	3	101
Lead	7	91			

LABORATORY NUMBER: 111019-2
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT ID: 554.009
 LOCATION: MARINER SQUARE
 SAMPLE ID: MW 6

DATE SAMPLED: 05/25/93
 DATE RECEIVED: 05/25/93
 DATE ANALYZED: 05/26-06/01/93
 DATE REPORTED: 06/03/93

EPA Priority Pollutant Metals in Aqueous Solutions

METAL	RESULT	REPORTING	METHOD
	ug/L	LIMIT ug/L	
Antimony	ND	60	EPA 6010
Arsenic	ND	5	EPA 7060
Beryllium	ND	2	EPA 6010
Cadmium	ND	5	EPA 6010
Chromium (total)	30	10	EPA 6010
Copper	30	10	EPA 6010
Lead	ND	3	EPA 7421
Mercury	ND	0.2	EPA 7470
Nickel	50	30	EPA 6010
Selenium	ND	5	EPA 7740
Silver	ND	10	EPA 6010
Thallium	ND	5	EPA 7841
Zinc	40	20	EPA 6010

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, % RECOVERY, %			RPD, % RECOVERY, %		
Antimony	2	101	Mercury	<1	101
Arsenic	15	96	Nickel	6	102
Beryllium	2	100	Selenium	9	100
Cadmium	4	105	Silver	1	97
Chromium	3	103	Thallium	4	96
Copper	3	104	Zinc	3	101
Lead	7	91			



LABORATORY NUMBER: 111019
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 554.009
LOCATION: MARINER SQUARE

DATE SAMPLED: 05/25/93
DATE RECEIVED: 05/25/93
DATE EXTRACTED: 05/26/93
DATE ANALYZED: 05/28/93
DATE REPORTED: 06/03/93

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT* (ug/L)
111019-2	MW6	**	2,700,000	50,000

* Reporting limit applies to all analytes.

** Kerosene range not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY

RPD, %	11
RECOVERY, %	89



LABORATORY NUMBER: 111019
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 554.009
LOCATION: MARINER SQUARE

DATE SAMPLED: 05/25/93
DATE RECEIVED: 05/25/93
DATE ANALYZED: 05/28/93
DATE REPORTED: 06/03/93

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)
111019-2	MW6	460	50

QA/QC SUMMARY

RPD, %	<1
RECOVERY, %	96

LABORATORY NUMBER: 111019-2
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 554.009
LOCATION: MARINER SQUARE
SAMPLE ID: MW6

DATE SAMPLED: 05/25/93
DATE RECEIVED: 05/25/93
DATE EXTRACTED: 05/28/93
DATE ANALYZED: 05/30/93
DATE REPORTED: 06/03/93

=====

ANALYSIS: POLYCHLORINATED BIPHENYLS (PCBs)

ANALYSIS METHOD: EPA 8080

EXTRACTION METHOD: EPA 3520

=====

AROCLOR TYPE	RESULT (ug/L)	REPORTING LIMIT (ug/L)
AROCLOR 1221	ND	1
AROCLOR 1232	ND	1
AROCLOR 1016	ND	1
AROCLOR 1242	ND	1
AROCLOR 1248	ND	1
AROCLOR 1254	ND	1
AROCLOR 1260	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	1
RECOVERY, %	79



LABORATORY NUMBER: 111019-2
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 554.009
LOCATION: MARINER SQUARE
SAMPLE ID: MW6

DATE SAMPLED: 05/25/93
DATE RECEIVED: 05/25/93
DATE ANALYZED: 06/01/93
DATE REPORTED: 06/03/93

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	103 %
Toluene-d8	98 %
Bromofluorobenzene	95 %

MS/MSD Report

Matrix Sample Number: 111043-001
Lab No: QC44778 QC44779
Matrix: WATER
Batch No: 9411 933545 933546 933537

Date Analyzed: 02-JUN-93
Spike File: >CF115
Spike Dup File: >CF116
Analyst: AL

	Instrdg	SpikeAmt	% Rec	Limits
<u>MS RESULTS</u>				
1,1-Dichloroethene	63.91	50	128 %	61-145%
Trichloroethene	51.18	50	102 %	71-120%
Benzene	53.49	50	107 %	76-127%
Toluene	50.19	50	100 %	76-125%
Chlorobenzene	50.62	50	101 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	51.4	50	103 %	76-114%
Toluene-d8	48.6	50	97 %	88-110%
Bromofluorobenzene	49.15	50	98 %	86-115%
<u>MSD RESULTS</u>				
1,1-Dichloroethene	66.24	50	133 %	61-145%
Trichloroethene	54.6	50	109 %	71-120%
Benzene	58.08	50	116 %	76-127%
Toluene	54.39	50	109 %	76-125%
Chlorobenzene	54.7	50	109 %	75-130%
Surrogate Recoveries				
1,2-Dichloroethane-d4	52.21	50	104 %	76-114%
Toluene-d8	49.9	50	100 %	88-110%
Bromofluorobenzene	48.34	50	97 %	86-115%
<u>MATRIX RESULTS</u>				
1,1-Dichloroethene	0			
Trichloroethene	0			
Benzene	0			
Toluene	0			
Chlorobenzene	0			
<u>RPD DATA</u>				
1,1-Dichloroethene	4 %			< 14%
Trichloroethene	6 %			< 14%
Benzene	8 %			< 11%
Toluene	8 %			< 13%
Chlorobenzene	8 %			< 13%

Results within Specifications - PASS

PAGE 1 OF

REQUESTED BY:

ANALYSIS REQUESTED -

COMMENTS & NOTES:

DATE / TIME

- X - DO NOT FILTER PINTS FOR METALS ANALYSES
- RUN B240 before TMT

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0161 • FAX: 510-268-0137

FIELD BORING LOG

LOCATION

MARINER BOATYARD
MARINE SERVICES

PROJECT
Marina Square Boatyard
Alameda Ca

JOB NUMBER
Σ 54.005

BORING
~~3~~ 6

PROJECT MGR.
SOC

LOGGED BY
JTW

EDITED BY
SOC

DRILL RIG TYPE
8' hollow stem Auger

HAMMER WT.
140

DROP
30

START DATE/TIME
7/28/92 830

FINISH DATE/TIME
1200

SAMPLE DEPTH	SAMPLER TYPE	BLOWS	SAMPLE COND	DRILL RATE	PRESSURE	Blows / ft	DEPTH FEET
				100			1
1.5 2.0	2.0	6 8	6 6			(17)	2
							3
4.5 5.0	2.5	3 4	6 6			(7)	4
							5
5.5	2.0	2 4 6	6			(10)	6
							7
							8
9.5 10.0	2.0	4 3 2	6 P			(5)	9
							10
							11
							12
							13
	2.0	1 1/2' 1 1/8'				(1)	14
							15

SURFACE ELEV	DATUM	PIEZOMETER
--------------	-------	------------

concrete Slab 8" thick

Brown claws, covered

med dense, m^olst (fill)

- Gray Green. Clayey Sand (SC)

Has the order

Basin clay, Sand SC

med deze magt

(sphere 3.5')

Brown Sand (SA 100% Mont. (fill))

Dark grey Sand (SP) w/ visible nodules

~~base met in cr~~ V STana HC 005

Product level while drilling

Some are round black.

gray Sand (SP) loose wet w/ some shell fragments

15

heaving scrolls

lost work cmt 1st attempt

Plug Auger, Drill 70-14'

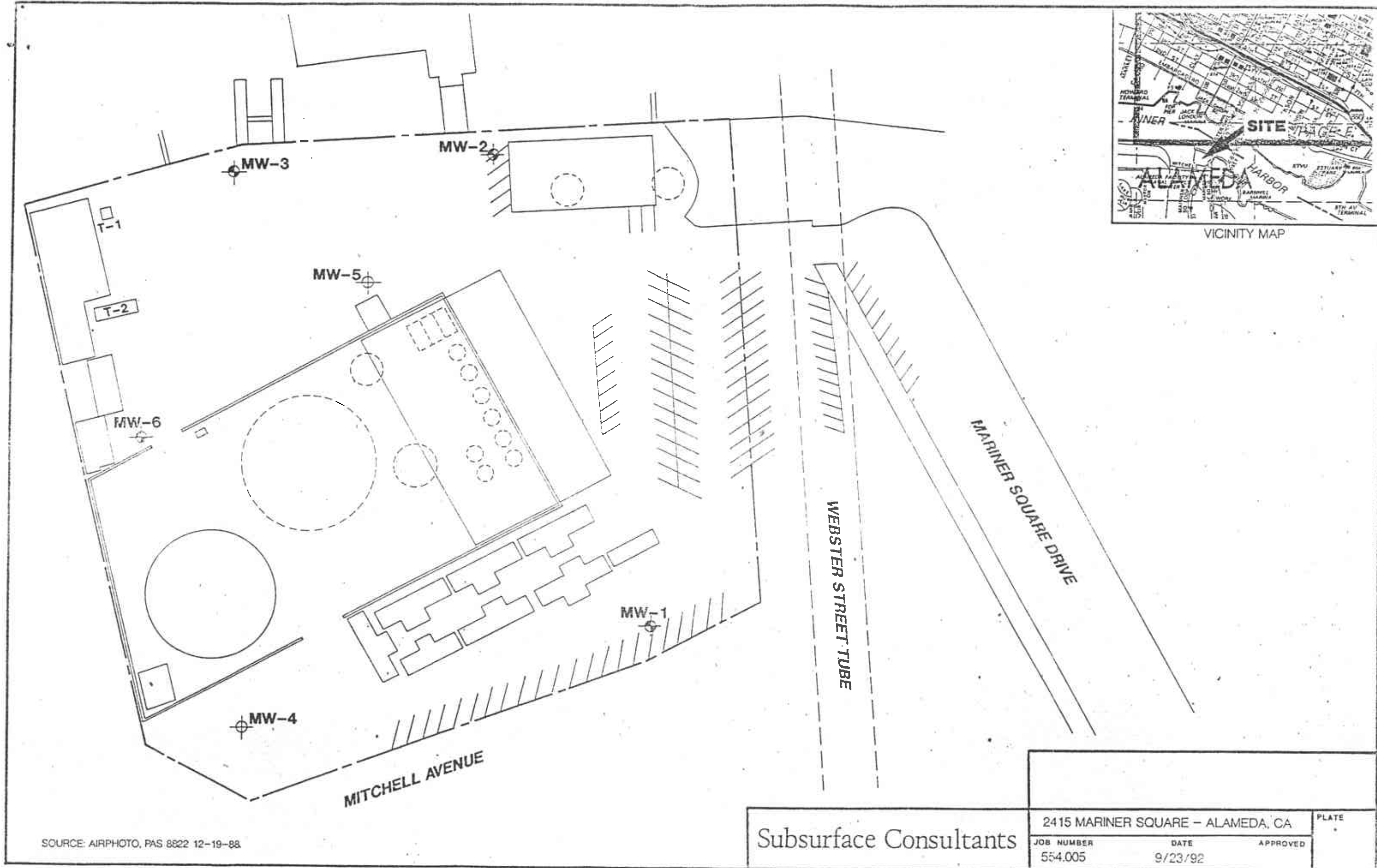
(Set well
wood plug

(No recovery of sand catches!)

Well already in anger. Too bad!

Blueberry Claver soft (mud) soft wet

(12441107)



SOURCE: AIRPHOTO, PAS 8822 12-19-88

Subsurface Consultants		2415 MARINER SQUARE - ALAMEDA, CA		PLATE
		JOB NUMBER	DATE	APPROVED
		554.005	9/23/92	