

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH

ALAMEDA COUNTY-ENV. HEALTH DEPT.
ENVIRONMENTAL PROTECTION DIV.
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577
(510) 567-6700

October 25, 1995
StID # 2375

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Robert Mibach
Peralta Community College
333 East 8th Street
Oakland, CA 94606

RE: Laney Junior College, 900 Fallon Street, Oakland, California 94607

Dear Mr. Mibach;

This letter confirms the completion of site investigation and remedial action for one 10,000-gallon and one 4,000-gallon diesel underground storage tanks at the above described location. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including current land use, and with provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to the regulation contained in Title 23, Division 3, Chapter 16, Section 2721 (e) of the California Code of Regulations. (If a change in land use is proposed, the owner must promptly notify this agency.)

Please contact Dale Klettke at (510) 567-6880 if you have any questions regarding this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Jun Makishima'.

Jun Makishima
Acting Director

c: Gordon Coleman, Acting Chief, Environmental Protection Division--files
Kevin Graves, RWQCB
Mike Harper, SWRCB

AUG 09 1995 KG

CASE CLOSURE SUMMARY **QUALITY CONTROL BOARD**
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: 6/21/95

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pky**
 City/State/Zip: **Alameda CA 94502** Phone: **(510) 567-6700**
 Responsible staff person: **Jennifer Eberle** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Laney Junior College**
 Site facility address: **900 Fallon ST., Oakland CA 94607**
 RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **2375**
 URF filing date: **2/13/89** SWEEPS No: **N/A**

Responsible Parties: **Addresses:** **Phone Numbers:**
 Robert Mibach, Director of Physical Plant, Peralta Community College, 333
 East 8th St., Oakland CA 94606 510-466-7336

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	10,000	diesel	removed	3/3/89
2	4,000	diesel	removed	3/3/89

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: unknown
 Site characterization complete? YES
 Date approved by oversight agency: n/a
 Monitoring Wells installed? YES Number: 6
 Proper screened interval? YES
 Highest GW depth below ground surface: 3.82'bgs (MW3 on 12/23/93)
 Lowest depth: 16.49'bgs (MW1 on 10/31/90)
 Flow direction: NE towards Lake Merritt Channel
 Most sensitive current use: land associated with Laney College
 Are drinking water wells affected? NO Aquifer name:
 Is surface water affected? Unknown Nearest affected SW name:
 Off-site beneficial use impacts (addresses/locations): unknown

Report(s) on file? YES Where is report(s) filed?
Alameda County, 1131 Harbor Bay Pky, Alameda Ca 94502

93-10-14-11-01-25
 7/11/95

Leaking Underground Fuel Storage Tank Program

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Jennifer Eberle Title: Hazardous Materials Specialist
Signature: *Jennifer Eberle* Date: 8-4-95

Reviewed by
Name: Dale Klettke Title: Hazardous Materials Specialist
Signature: *Dale Klettke* Date: 8/4/95

Name: Eva Chu Title: Hazardous Materials Specialist
Signature: *Eva Chu* Date: 8/4/95

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response: *Approved*
RWQCB Staff Name: Kevin Graves Title: AWRCE Date: 8/11/95
Kevin Graves

VII. ADDITIONAL COMMENTS, DATA, ETC.

Two USTs were removed on 3/3/89: one 10,000-gal diesel and one 4,000-gal diesel UST. Obvious holes were noted in both USTs. A grab water was collected from the excavation, as well as two soil samples from both ends of both tanks (4 soil samples in total) (see Plate 6). Dennis Byrne of Alameda County was onsite during tank removal.

The laboratory reports for the tank and piping removal (in 1989) were received by Alameda County by fax from the lab on 7/6/95. The lab reports for soil indicate ND BTEX, and TPH-d ranging from 3 to 2,600 ppm. The water results indicate TPH-d at a concentration of 260 ppm. No BTE was detected in water; however, xylene was detected at a concentration of 42 ppm.

SCI conducted overexcavation of the tank pit in May 1989. Eleven soil samples were collected from the tank pit (samples 1 through 9, A and B) (see Table 2 and Plate 1). TPH-d concentrations ranged from ND (in ten samples) to 300 ppm in sample B. Approximately 150 yd³ of soil were removed and stockpiled onsite. Eleven samples of the stockpiled soils were obtained (see Table 1). TPH-d concentrations ranged from ND (in two piles) to 1,300 ppm.

The piping was removed on 6/22/89, apparently by SCI (see pg 4 of the "Preliminary Diesel Fuel Contamination Assessment, Underground Fuel Storage Tanks," dated 8/11/89). Corrosion holes were observed; five soil samples were taken below the holes and piping joints. Results were all ND for TEH (see Table 3 and Plate 1).

Eight borings were drilled by SCI: 1 through 6, HA1 and HA2 (see Plate 1). Three of these borings were converted to piezometers (borings 1, 2 and 3). It appears that soil and water were not analyzed from the piezometers.

Leaking Underground Fuel Storage Tank Program

Soils consisted of fill overlying peat and marsh deposits to the total depths explored. The fill consists of silty and clayey sands, and extends to 10-12'bgs. Peat was encountered beneath the fill in the eastern portion of the site, while bay mud was encountered beneath the fill in the western portion of the site, and beneath the peat elsewhere. Groundwater was encountered from 10-14'bgs during drilling. Groundwater flow direction was determined from the piezometers as East (see Plate 1 and Table 4).

In mid 1990, SCI installed 2 Mws (MW1 and MW2) and 6 additional borings (7-12) (see Plate 2). Soil concentrations ranged from 36 to 9,300 ppm TEH, while benzene was ND (see Table 5). Groundwater results were ND for TEH and BTEX except 1,200 ppb TEH in MW2 (see Table 6). Laboratory reports were not attached to the SCI "Progress Report," dated 8/30/90.

In October 1990, four additional borings (#13 through 16) and one additional MW (MW3) were installed by SCI (see Plate 3). Soils concentrations in these new borings ranged from ND to 3,800 ppm TPH-d, and ND to 2 ppm benzene (see Plate 4). The piezometers were converted to monitoring wells. Piezometers 1,2, and 3 were renamed MW4,5, and 6, respectively (see Plate 5).

Groundwater has been sampled since 6/13/90, although it was not sampled in 1991 or 1992 (see Table 7). Concentrations of TPH-d have ranged from ND to 2,000 ppb; BTEX has been ND.

Although elevated concentrations of TPH-d (up to 38,400 ppm at 13'bgs in B5) exist in the soils, the physical removal of soils would require extensive excavation into soft, unstable soils situated below groundwater. Since the diesel is sorbed onto clayey soils and sawdust, insitu remediation is likely to be ineffective. Alameda County concurred with SCIs recommendation to leave the soil in place and continue groundwater sampling, as per a letter dated 10/29/93.

As per SCIs 4/7/95 quarterly report, the area was tidal flats reclaimed by filling in the late 1800s and early 1900s. They conclude that the groundwater contamination is associated with the contaminated fill. SCI speculates that the contaminated sawdust fill has the ability to retain relatively high concentrations of hydrocarbons, and release solubilized TPH-d gradually. However, groundwater has not been significantly impacted. Since further soil remediation is infeasible and likely not cost effective, this case should be closed.

Table 1 - ANALYTICAL TEST RESULTS OF SOIL REMOVED FROM PREVIOUS TANK EXCAVATION

5-15-89
date received
by lab

<u>Sample</u>	<u>Total Extractable Hydrocarbons (ppm)¹</u>	<u>Sample</u>	<u>Total Extractable Hydrocarbons (ppm)</u>
Pile 1	40 -	Pile 7	ND ² ✓
Pile 2	350 -	Pile 8	1,300 -
Pile 3	290 -	Pile 9	140 -
Pile 4	120 -	Pile 10	130 -
Pile 5	220 -	Pile 11	270 -
Pile 6	ND ³ -		

Table 2 - ANALYTICAL TEST RESULTS OF SOIL REMAINING IN-PLACE WITHIN THE PREVIOUS TANK EXCAVATION

5-15-89
date received
by lab

<u>Sample</u>	<u>Total Extractable Hydrocarbons (ppm)</u>	<u>Sample</u>	<u>Total Extractable Hydrocarbons (ppm)</u>
1 @ 14	ND -	7 @ 13'	ND -
2 @ 11'	ND -	8 @ 10'	ND -
3 @ 8'	ND -	9 @ 7'	ND -
4 @ 13'	ND -	A @ 15'	ND -
5 @ 10'	ND -	B @ 15'	300 ³ -
6	ND -		

Table 3 - ANALYTICAL TEST RESULTS OF SOIL REMAINING IN-PLACE OUTSIDE THE PREVIOUS TANK EXCAVATION

6-23-89
date received
by lab

<u>Sample</u>	<u>Total Extractable Hydrocarbons (ppm)</u>	<u>Sample</u>	<u>Total Extractable Hydrocarbons (ppm)</u>
B4 ⁴ @ 10'	ND -	FL3 @ 6'	ND -
B5 @ 13'	38,400 ³ -	FL4 @ 6'	ND -
B6 @ 10'	1,500 ³ -	FL5 @ 6'	ND -
FL1 @ 6'	ND -	HA1 @ 9'	38 ⁵ -
FL2 @ 6'	ND -	HA2 @ 9.5'	ND -

5-15-89 test boring
piping
piping

- 1 Parts per million (mg/kg)
- 2 None detected, see attached laboratory test reports for detection limits
- 3 As diesel fuel
- 4 Test boring
- 5 Listed under "other" on laboratory test report, fingerprint pattern does not match hydrocarbon standards

Table 4 - GROUNDWATER GRADIENT, FLOW DIRECTION AND ELEVATION SUMMARY

<u>Date</u>	<u>Piezo Meter Number</u>	<u>Top of Casing Elev.¹ (feet)</u>	<u>Depth to Water² (feet)</u>	<u>Ground-water Elevation (feet)</u>	<u>Ground-water Gradient (%)</u>	<u>Approximate Flow Direction</u>
5/9/89 (3 pm)	P1	96.81	10.86	85.95	2.0	S77° E
	P2	100.48	14.03	86.45		
	P3	103.14	13.90	89.24		
5/15/89 (9:30 am) (high tide)	P1	96.81	10.44	86.37	1.9	S70° E
	P2	100.48	13.93	86.55		
	P3	103.14	13.85	89.29		
5/15/89 (12:15 pm)	P1	96.81	10.43	86.38	1.6	S70° E
	P2	100.48	13.89	86.59		
	P3	103.14	13.90	89.24		
5/15/89 (3 pm) (low tide)	P1	96.81	10.52	86.29	1.8	S72° E
	P2	100.48	13.90	86.58		
	P3	103.14	13.89	89.25		
5/15/89 (5:45 pm)	P1	96.81	10.58	86.23	1.8	S72° E
	P2	100.48	13.93	86.55		
	P3	103.14	13.93	89.21		

¹ Storm sewer Manhole at southwest corner of access road (see Site Plan), is assumed to be at elevation 100.00 feet.

² Below top of casing

Table ⁵ X TEH and BTXE Concentrations in Soil

Sample Designation	TEH ¹ ppm ³	BTXE ² ppb ⁴
4 @ 10.0'	ND ⁵	-- ⁶
5 @ 13.0'	38,400	--
6 @ 10.0'	1,500	--
7 @ 10.0'	43	ND
7 @ 11.5'	150	ND
7 @ 15.0'	560	ND
8 @ 7.0'	250	ND
8 @ 10.5'	36	ND
8 @ 12.0'	180	ND
9 @ 11.5'	6,800	ND
9 @ 14.5'	<u>9,300</u>	ND
9 @ 17.5'	1,400	Toluene=32, xylene=88
10 @ 8.5'	160	ND
10 @ 12.0'	140	ND
10 @ 13.5'	1,200	ND
11 @ 9.0'	140	ND
11 @ 11.5'	360	ND
11 @ 13.0'	6,500	Toluene=37, xylene=110, ethylbenzene=170
12 @ 9.0'	51	ND
12 @ 13.5'	450	ND
HA1 @ 9.0'	38	--
HA2 @ 9.5'	ND	--
MW-1 @ 12.5'	52	ND
MW-1 @ 15.0'	330	ND
MW-1 @ 21.0'	1,000	ND
MW-2 @ 6.0'	96	ND
MW-2 @ 11.0'	3,800	ND

past record

- 1 TEH = Total extractable hydrocarbons as determined by EPA Method 8015 modified after a sonication extraction (EPA 3550)
- 2 BTXE = Benzene, toluene, xylene and ethylbenzene as determined by EPA Method 8020 after a purge and trap extraction (EPA 5030)
- 3 ppm = parts per million = milligrams per kilogram = mg/kg
- 4 ppb = parts per billion = micrograms per kilogram = ug/kg
- 5 ND = None detected, compounds not present at concentrations above detection limits
- 6 --, Test not performed

6
 Table 2. TEH AND BTXE CONCENTRATIONS IN GROUNDWATER

<u>Sample Designation</u>	<u>TEH¹ ppm³</u>	<u>BTXE² ppb⁴</u>
MW-1	ND ⁵	ND
MW-2	1.2	ND
1	ND	ND
2	ND	ND
3	ND	ND

micrograms

1 TEH = Total extractable hydrocarbons as determined by EPA Method 8015 modified after a sonication extraction (EPA 3550)

2 BTXE = Benzene, toluene, xylene and ethylbenzene as determined by EPA Method 8020 after a purge and trap extraction (EPA 5030)

3 ppm = parts per million = milligrams per kilogram = mg/kg

4 ppb = parts per billion = micrograms per kilogram = ug/kg

5 ND = None detected, compounds not present at concentrations above detection limits

Table ~~X~~ 7
 Contaminant Concentrations in Groundwater

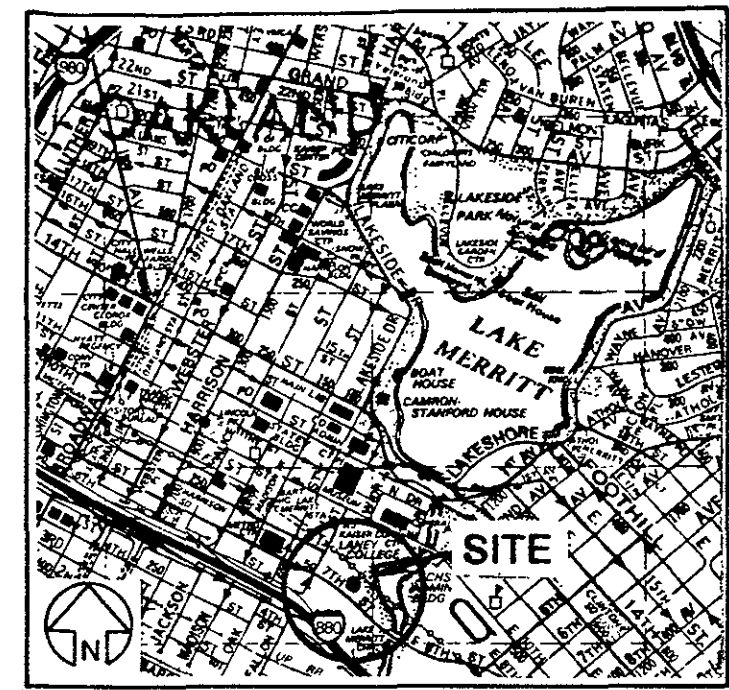
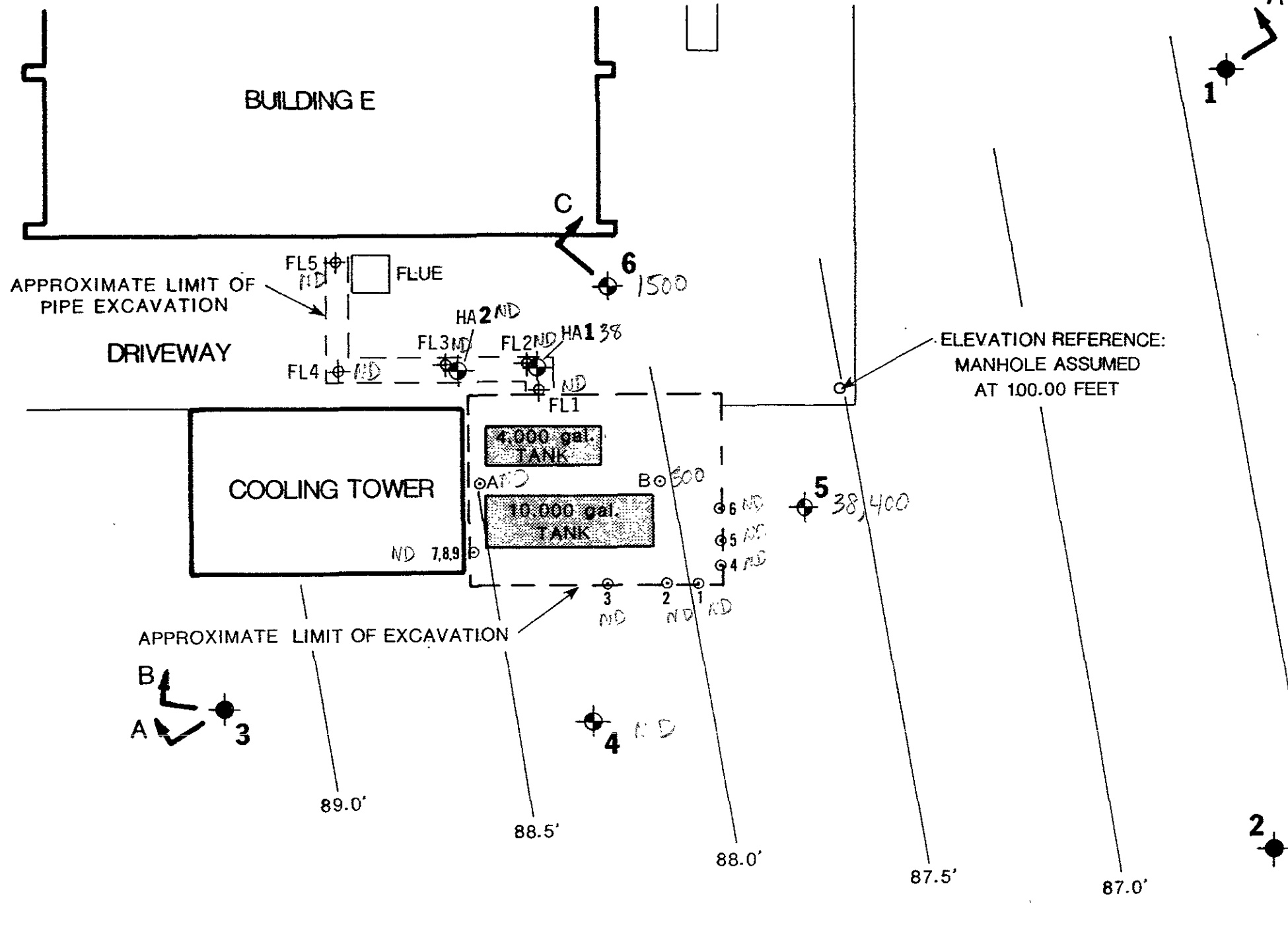
<u>Well</u>	<u>Sample Event Date</u>	<u>TEH* (ug/l)</u>	<u>Benzene (ug/l)</u>	<u>Toluene (ug/l)</u>	<u>Ethyl-benzene (ug/l)</u>	<u>Xylene (ug/l)</u>
MW-1	6/13/90	<500	<1	<1	<1	<1
	10/25/90	<50	<0.1	<0.5	<0.5	<0.5
	12/23/93	<50	<0.5	<0.5	<0.5	<0.5
	11/4/94	<50	<0.5	<0.5	<0.5	<0.5
MW-2	6/13/90	1,200	<1	<1	<1	<1
	10/25/90	<50	<0.1	<0.5	<0.5	<0.5
	12/23/93	1,800	<0.5	<0.5	<0.5	<0.5
	3/18/94	790	<0.5	<0.5	<0.5	<0.5
	4 mo. 7/8/94	2,000	<0.5	<0.5	<0.5	<0.5
	9 mo. 2/15/95	1,300 ✓	-	-	-	-
MW-3	10/25/90	<50	<0.1	<0.5	<0.5	<0.5
	12/23/93	420	<0.5	<0.5	<0.5	<0.5
	3/18/94	1,200	<0.5	<0.5	<0.5	<0.5
	4 mo. 7/8/94	920	<0.5	<0.5	<0.5	<0.5
	9 mo. 11/4/94	53	<0.5	<0.5	<0.5	<0.5
	2/15/95	940 ✓	-	-	-	-
MW-4	6/13/90	<500	<1	<1	<1	<1
	10/25/90	<50	<0.1	<0.5	<0.5	<0.5
	12/23/93	350	<0.5	<0.5	<0.5	<0.5
	3/18/94	1,100	<0.5	<0.5	<0.5	<0.5
	4 mo. 7/8/94	1,800	<0.5	<0.5	<0.5	<0.5
	9 mo. 11/4/94	<50	<0.5	<0.5	<0.5	<0.5
	2/15/95	570 ✓	-	-	-	-
MW-5	6/13/90	<500	<1	<1	<1	<1
	10/25/90	<50	<0.1	<0.5	<0.5	<0.5
	12/23/93	230	<0.5	<0.5	<0.5	<0.5
	3/18/94	1,000	<0.5	<0.5	<0.5	<0.5
	4 mo. 7/8/94	1,200	<0.5	<0.5	<0.5	<0.5
	9 mo. 11/4/94	<50	<0.5	<0.5	<0.5	<0.5
2/15/95	640 ✓	-	-	-	-	
MW-6	6/13/90	<500	<1	<1	<1	<1
	10/25/90	<50	<0.1	<0.5	<0.5	<0.5
	12/23/93	<50	<0.5	<0.5	<0.5	<0.5

ug/l = micrograms per liter

TEH = Total Extractable Hydrocarbons

-- = Test not requested

* For the 10/25/90 sampling event, the TEH analyses were performed using EPA methods 5030/8240/8260. During the other events, the TEH analyses were performed using EPA methods 3550/8015 modified.



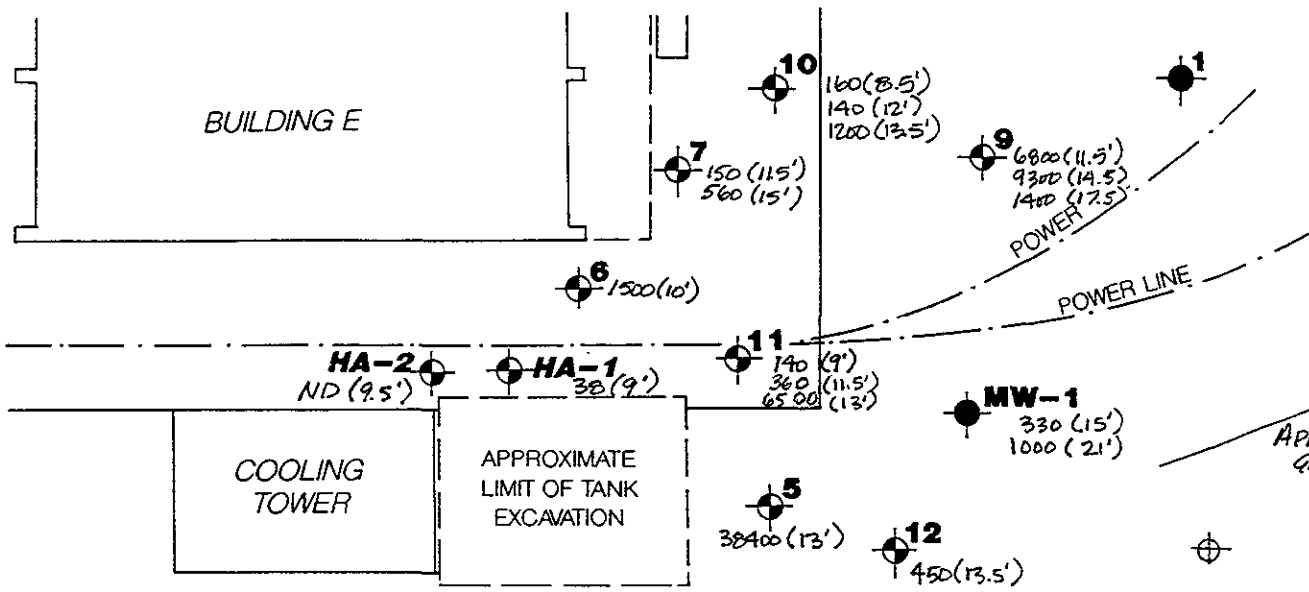
- TEST BORING/PIEZOMETER
- TEST BORING
- PIPELINE TRENCH SAMPLE
- TANK EXCAVATION SAMPLE
- APPROXIMATE FORMER DIESEL FUEL TANK LOCATIONS
- APPROXIMATE GROUNDWATER CONTOURS IN FEET (5/15/89)
- CROSS SECTION



pp. 7PH-d

NOTE: This Site Plan was developed using approximate field measurements.

Subsurface Consultants		SITE PLAN		PLATE 1
		LANEY COLLEGE - OAKLAND, CA		
JOB NUMBER 469.002		DATE 7/19/89		APPROVED



MW-2
 90 (6')
 3800 (11')
 1.2 ppm in WATER

MW-1
 330 (15')
 1000 (21')

5
 38400 (13')

12
 450 (13.5')

8
 250 (7')
 180 (12')

4
 ND (10')

HA-2
 ND (9.5')

HA-1
 38 (9')

11
 140 (9')
 360 (11.5')
 6500 (13')

10
 160 (8.5')
 140 (12')
 1200 (13.5')

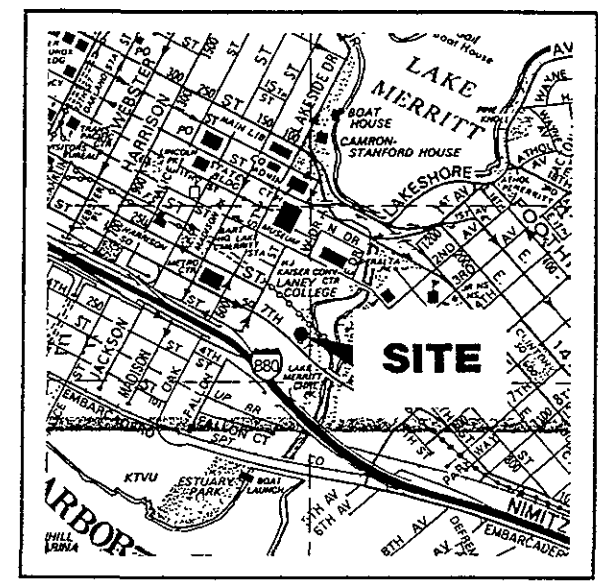
9
 6800 (11.5')
 9300 (14.5')
 1400 (17.5')

7
 150 (11.5')
 560 (15')

6
 1500 (10')

3

2



VICINITY MAP

APPROXIMATE DIRECTION OF GROUND WATER FLOW

LAKE MERRITT CHANNEL

PROPOSED TEST BORING (TYP)



	TEST BORING
	MONITORING WELL

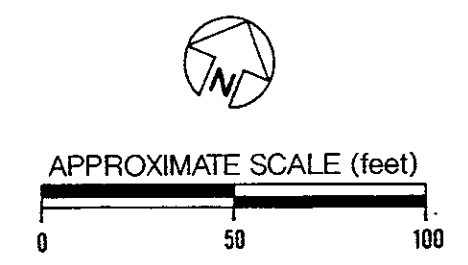
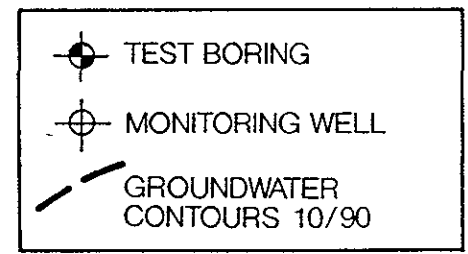
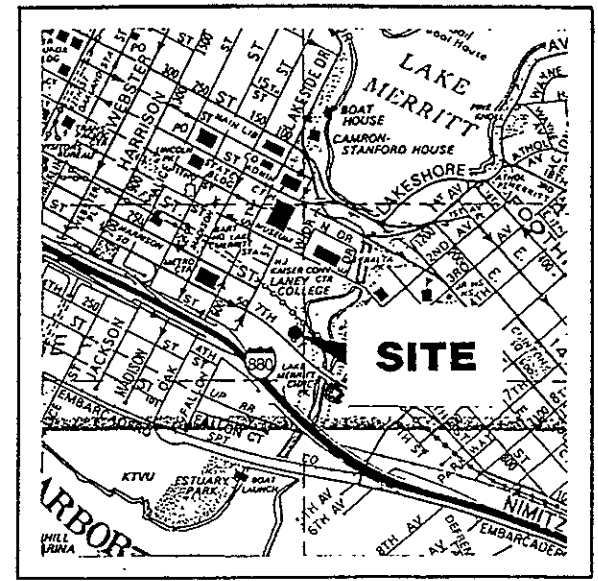
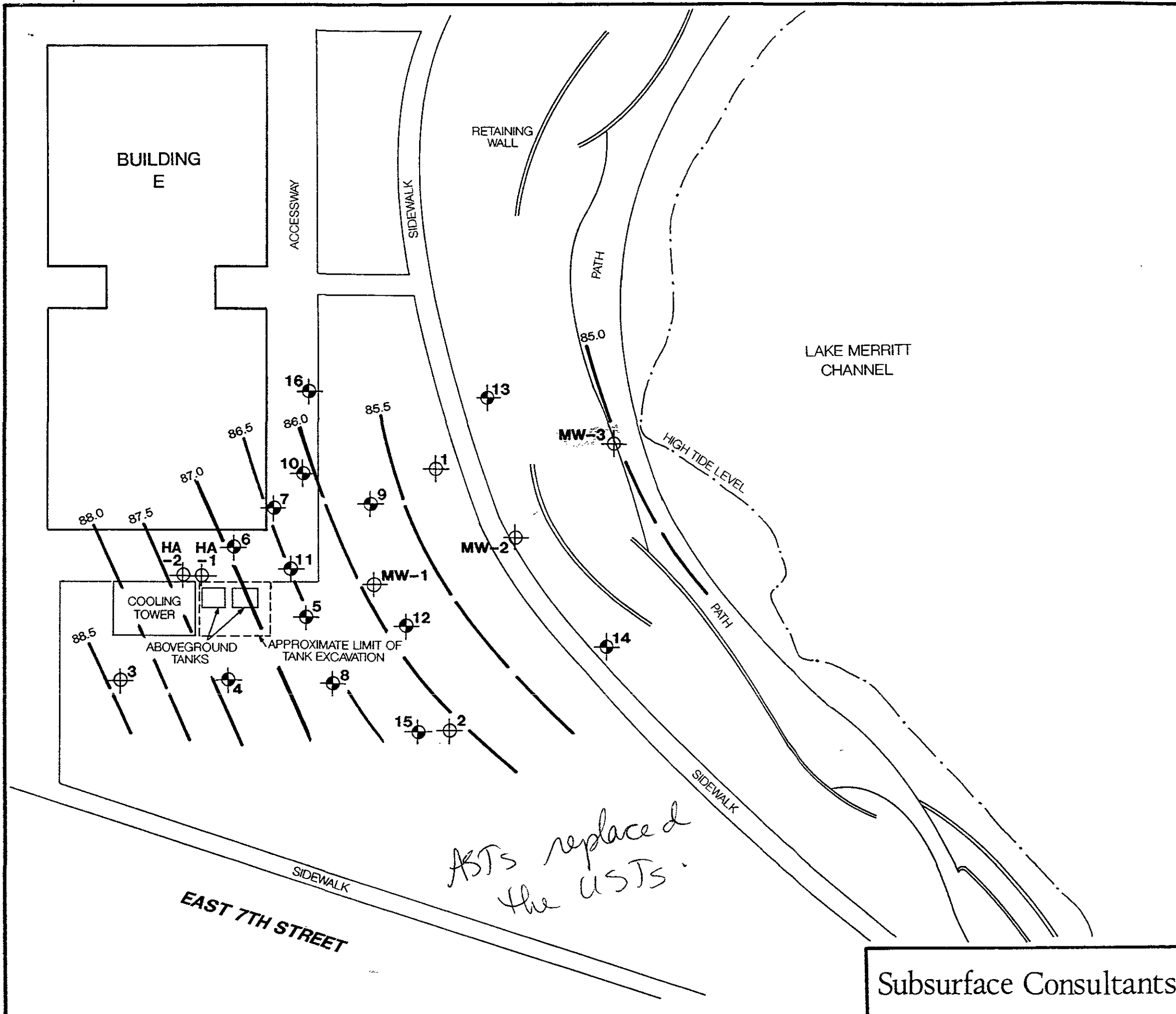
SAMPLE DEPTH IN FEET
 TCH CONCENTRATIONS IN PPM

APPROXIMATE SCALE (feet)



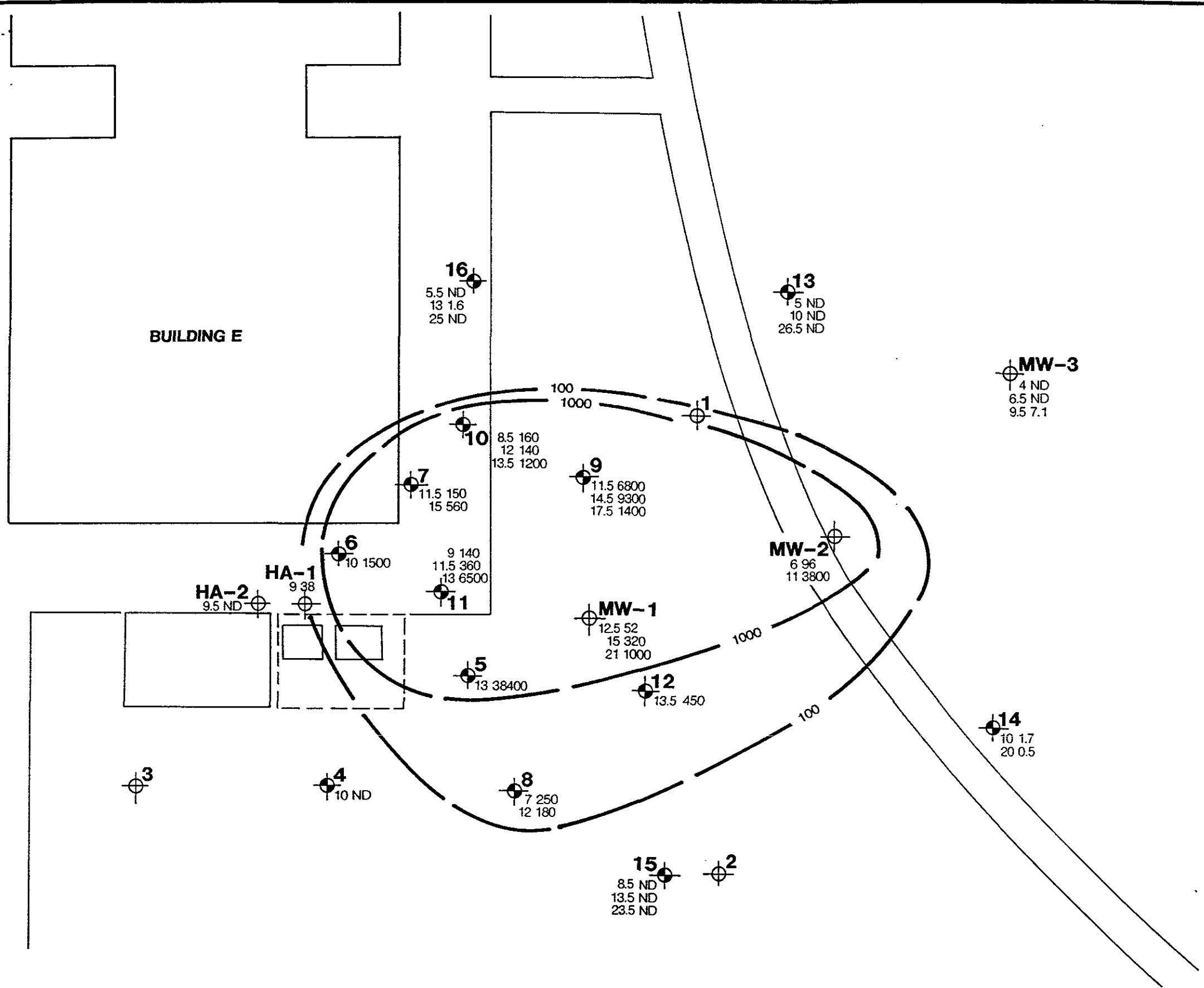
EAST 8TH STREET

Subsurface Consultants	LANEY COLLEGE - OAKLAND, CA		PLATE
	JOB NUMBER 469.003	DATE 7/11/90	APPROVED 2

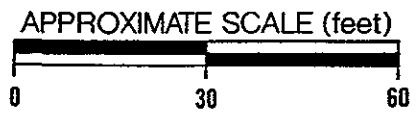


SITE PLAN		
LANEY COLLEGE - OAKLAND, CA		
JOB NUMBER 469.003	DATE 12/10/90	APPROVED <i>ja</i>
		PLATE 1 3

Subsurface Consultants



4 BORING NUMBER
 11.5 6800
 DIESEL CONCENTRATION (ppm)
 SAMPLE DEPTH (feet)
 ND = NONE DETECTED
 CONCENTRATION CONTOURS



DIESEL CONCENTRATIONS IN SOIL

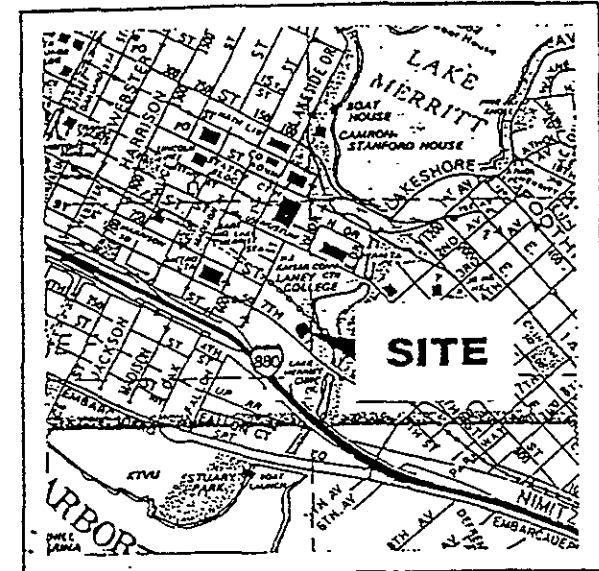
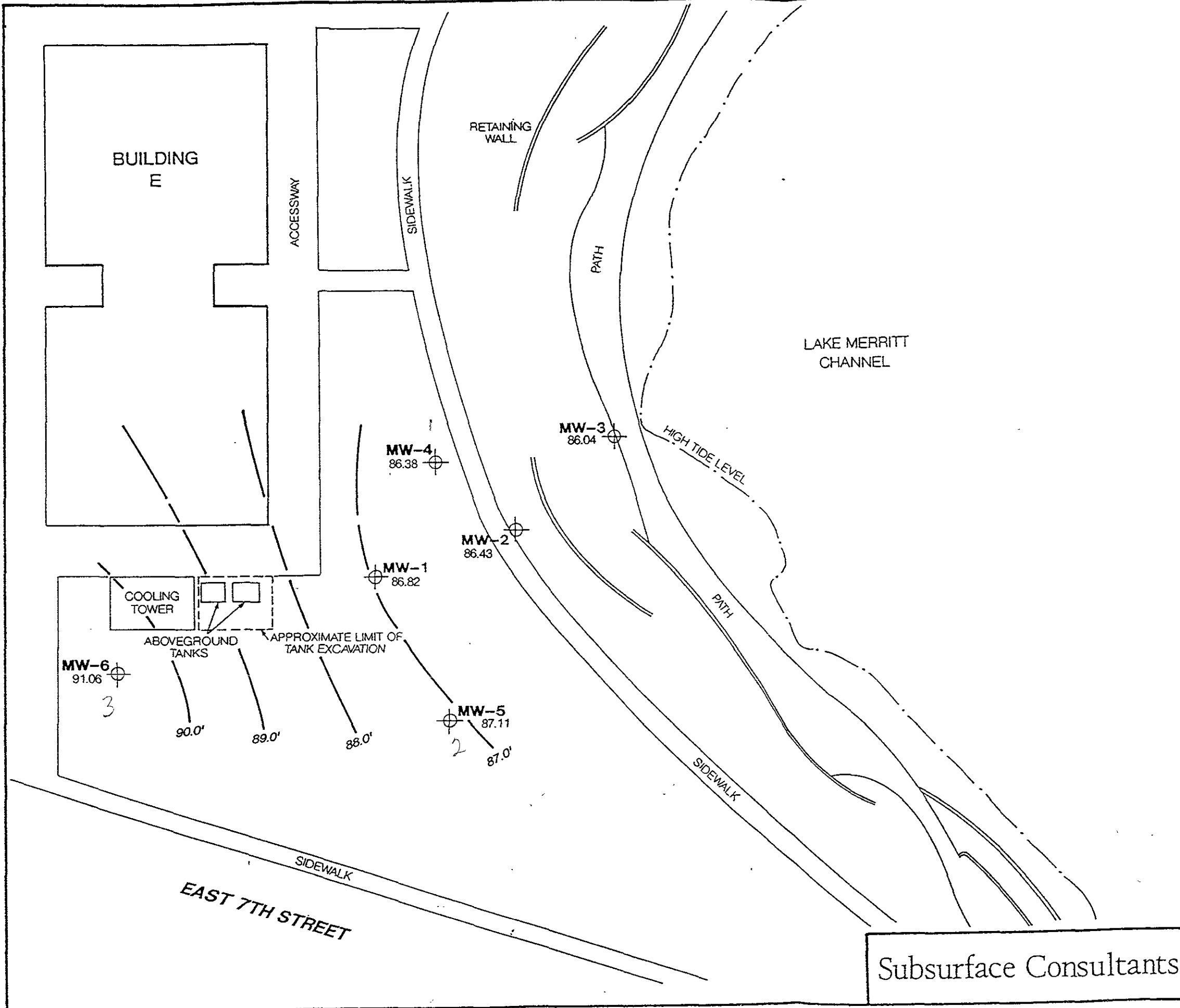
LANEY COLLEGE - OAKLAND, CA

JOB NUMBER 469.003 DATE 2/8/91 APPROVED *[Signature]*

PLATE **2**

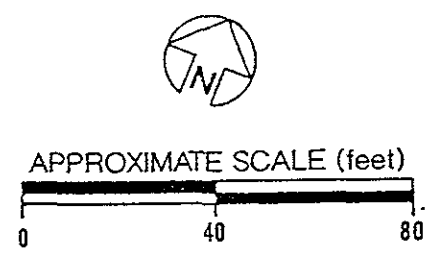
Subsurface Consultants

4



VICINITY MAP

MONITORING WELL
 GROUNDWATER CONTOUR
 ELEVATIONS (feet) 2/15/95



SITE PLAN		5
LANEY COLLEGE - OAKLAND, CA		
JOB NUMBER	DATE	APPROVED
469.008	3/9/95	
		PLATE 1

Subsurface Consultants

Laney College
900 Fallon and 7th Streets
Oakland, California

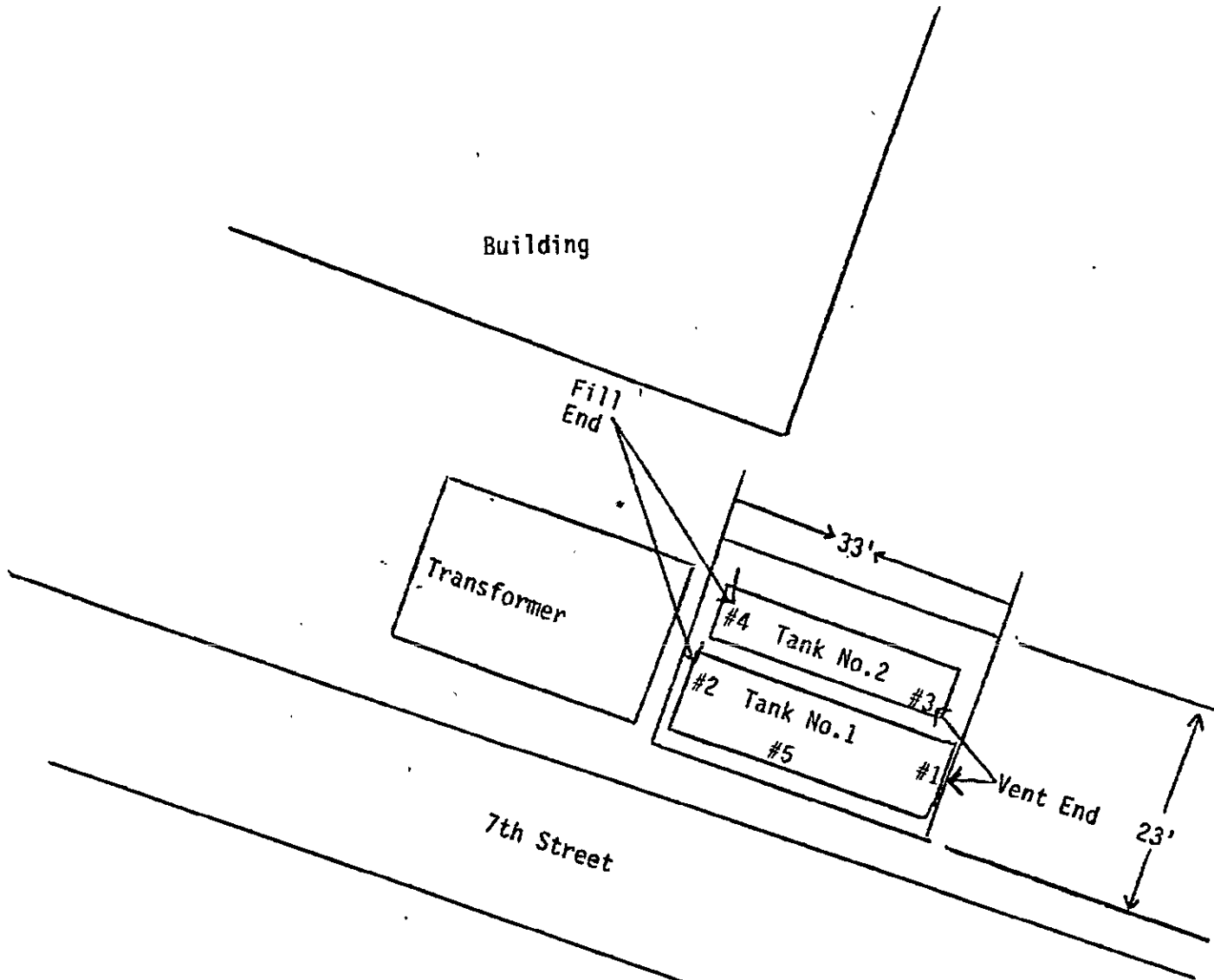
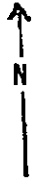


Plate 6