CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date:** 09/01/95

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Parkway Rm 250, Alameda CA 94502**

City/State/Zip: **Alameda** Phone: **(510) 567-6700**

Responsible staff person: Barney Chan Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: Port of Oakland Bld L615, North Field

Site facility address: 8300 Earhart Rd., Oakland CA 94621

RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: 3684

ULR filing date: 6/8/89 SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Port of Oakland Attn: Ms. Patricia Murphy	530 Water St. P.O. Box 2064 Oakland 94604-2064	(510) 272-1100

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	3,000	gasoline	Removed	5/11/89

III RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: unknown

Site characterization complete? Yes

Date approved by oversight agency: 7/28/95

Monitoring Wells installed? YES Number: 3

Proper screened interval? Yes, 5-15′ and 6-11′
Screen interval based on the minimum required length of cement grout and bentonite for the sanitary seal.

Leaking Underground Fuel Storage Program

Highest GW depth: 1.17' Lowest depth: 6.3

Flow direction: predominantly northwesterly, however has ranged from west to northerly.
Most sensitive current use: aquatic activities and aquatic wildlife in Airport Channel

Are drinking water wells affected? No Aquifer name:

Is surface water affected? No Nearest affected SW name: NA

Off-site beneficial use impacts (addresses/locations):

Report(s) on file? **Yes** Where is report(s)? Alameda County
1131 Harbor Bay Parkway,
Room 250, Alameda CA 94502-6577

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tanks & Piping	1-3000 gallon gas	Disposed @ H&H Ship San Francisco	5/11/89
Soil	50 cubic yards	Aerated and reused on-site	5/90
Groundwater	3000 gallon	Disposed @ H&H Ship	5/11/89

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) [1]Before	Soil (ppm) After[2]	* Water (ppb) Before	* Water (ppb) After
TPH (Gas)	6.8	210	35,000	310
Benzene	0.26	1.4	900	ND
Toluene	0.18	3.6	2,800	0.5
Ethylbenzene	0.024	2.3	560	2.1
Xylenes	0.11	12.1	3,500	0.5
Other TDS			6600-10,900 ppm	

1 from beneath tank at time of removal
2 sample taken @8' depth after overexcavation
* grab GW sample

Comments (Depth of Remediation, etc.):
see site summary

IV. CLOSURE
Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? YES

Leaking Underground Fuel Storage Tank Program

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? YES

Does corrective action protect public health for current land use? YES

Site management requirements: NA

Should corrective action be reviewed if land use changes? No

Monitoring wells Decommisioned: No, pending closure

Number Decommisioned: 0 Number Retained: 3

List enforcement actions taken: None

List enforcement actions rescinded:None

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Barney M. Chan Title: Hazardous Materials Specialist

Signature: Barney M Chan Date: 9/1/95

Reviewed by

Name: Madhulla Logan Title: Hazardous Materials Specialist

Signature: Madhulla Logan Date: 8/18/95

Name: Eva Chu Title: Haz. Mat. Specialist

Signature: Eva Chu Date: 8/3/95

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response: Approved

RWQCB Staff Name: K. Graves Title: AWRCE Date: 9/27/95

VII. ADDITIONAL COMMENTS, DATA, ETC.

Site Summary for 8300 Earhart Rd., Oakland CA 94621
StID # 3684, Port of Oakland Bld615, North Field

This site is located at the North Field area of the Oakland International Airport. It is slightly south of the Airplane Museum just off Doolittle. To the east lies the Airport Channel and to the west, San Francisco Bay. The ust is believed to have been installed in the 1940's by a tenant.

May 11, 1989- One 3000 gallon metal ust was removed from the site. The contents of the tank, mostly water, was removed by and disposed by H&H Ship Service. Two soil samples, one from each end of the tank, and one grab groundwater sample were taken after the tank removal. Low levels of gas and BTEX were detected in the northeast soil sample only, 6.8 ppm gas, and 0.26, 0.18,0.024 and 0.11 ppm BTEX respectively. The grab groundwater sample detected 35 mg/l gasoline and 0.9, 2.8,0.56 and 3.5 mg/l BTEX respectively. The spoils were immediately backfilled into the pit pending these analytical results.

June 21, 1989- Soils from the tank pit were re-excavated to approximately 8'bgs and four floor samples taken. No sidewalls samples taken because of caving-in potential. Only sample S-2 from the NW corner of the pit detected any significant contamination: 210 ppm TPHg, 1.4,3.6,2.3 and 12.1 ppm BTEX respectively. Approximately 50 cy of soils was generated from this excavation. This soil was aerated and three discrete samples taken on April 30, 1990 were ND for gasoline and BTEX. The soil was eventually reused on-site.

May 14, 1992- One monitoring well MW-1-5 was installed within ten feet of the tank pit in the assumed downgradient direction, southwest. The soil boring from 5' depth was ND for gas and BTEX. The TDS on the groundwater sample was 8700 mg/l, indicating a non-drinking water aquifer.

Groundwater monitoring was performed for several years with only infrequent hits of gasoline and BTEX. However, due to the uncertainty of groundwater gradient direction, the Port decided to install two additional wells to verify gradient.

January 24, 1994- Two additional monitoring wells, MW-2-5 and MW-3-5 were installed. Soil borings from these wells range from ND to very low. The groundwater gradient was determined to be north- northwesterly, unlike the assumed southwesterly direction. Therefore, MW-3-5 was the downgradient well.

For the past year the gradient has been fairly consistent ranging from west to northerly. The additional wells have been monitored four times and only low to ND concentrations of gasoline and BTEX

have been detected. It appears that the release of gasoline from this tank is limited in both soil and groundwater and that any residual contamination will have no adverse impact to human and environmental health.

Rationale for closure:

1. TDS has consistently ranged from 6600-11000 ppm, therefore, the shallow groundwater does not meet the Water Board's drinking water requirement.

2. Fairly extensive overexcavation has occurred. Contaminated soils were aerated and reused after sampling indicated ND for all contaminants.

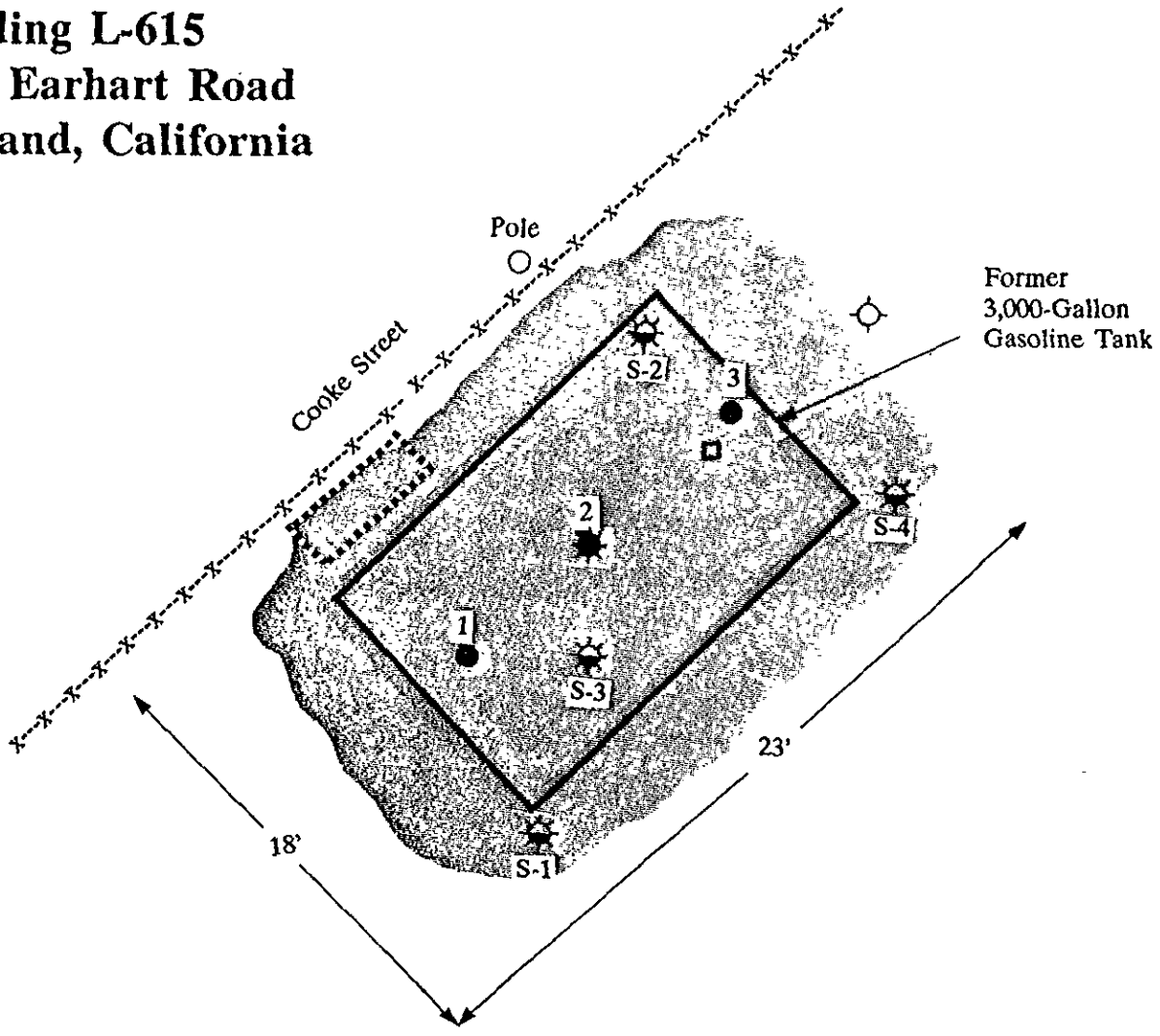
3. Groundwater monitoring indicates very low concentrations of TPHg, T,E and X. No benzene has been detected for four consecutive quarters. The TEX concentrations are well below their respective MCL values.

ssum8300

SAMPLING LOCATIONS

Figure 3

Building L-615
8300 Earhart Road
Oakland, California



Legend:

- Excavation Area
- 1 ● Location of Soil Sample Collected on 5/11/89 by R.S. Eagan and Company
- 2 ✸ Location of Water Sample Collected on 5/11/89 by R.S. Eagan and Company
- S-1 ✸ Location of Soil Sample Collected on 6/21/89 by BASELINE
- Fuel Pump Block
- ⌖ Proposed Groundwater Monitoring Well Location
- □ Fill Pipe for the Gasoline Tank

Not to Scale

BASELINE

Table 1

SUMMARY OF ANALYTICAL RESULTS
SOIL AND GROUNDWATER SAMPLING
8300 Earhart Road, Oakland, California
(in mg/kg unless otherwise noted)

Sample I.D.	Depth (ft.)	Media	Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
Tank Removal (5/11/89)[1]							
1	not reported	soil	<0.5	<0.02	<0.02	<0.07	<0.02
2	--	water[2]	35	0.9	2.8	3.5	0.56
3	not reported	soil	6.8	0.26	0.18	0.11	0.024
Gasoline Tank Pit (6/21/89)[3]							
S-1	5	soil	<10	<0.005	0.050	0.12	0.022
S-2	8[4]	soil	210	1.4	3.6	12.1	2.3
S-3	10[4]	soil	trace	0.076	<0.005	0.71	0.58
S-4	8[4]	soil	<10	<0.005	<0.005	<0.005	<0.005
Soil Aeration Pile (6/21/89)[3]							
1,2,3,4 (composite)		soil	140	NA	NA	NA	NA
5,6,7,8 (composite)		soil	240	NA	NA	NA	NA
Soil Aeration Pile (8/30/89)[1]							
1,2,3,4,5,6 (composite)		soil	4.4	0.012	1.3	0.14	0.032

[1] Sampled and analyzed by Trace Analysis Laboratory using DHS Method for gasoline and Modified EPA Method 8020 for BTXE (benzene, toluene, xylenes, and ethylbenzene).

[2] In mg/L (milligrams per liter).

[3] Sampled by BASELINE Environmental Consulting and analyzed by Curtis and Tompkins, Ltd. using EPA Methods 8015 and 602/8020 for gasoline and BTXE, respectively.

[4] The collected samples were moist to wet. Soil aeration pile sampling locations are not depicted for 21 June; locations for 30 August sampling shown in Appendix F.

Notes: For sampling locations in former tank pit, refer to Figure 3.
Laboratory reports are contained in Appendices B and F.
NA = Not Analyzed For

TABLE 1 - SUMMARY OF RESULTS OF GROUND WATER MONITORING AND SAMPLING
PORT OF OAKLAND, OAKLAND INTERNATIONAL AIRPORT, NORTH FIELD
8300 EARHART ROAD, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-252

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	TDS (mg/l)	LAB
MW-1-5	05/18/92	8.68	4.00	4.68	60	ND<0.4	0.6	ND<0.3	1.6	8700	—
MW-1-5	08/06/92	8.68	6.26	2.42	ND<50	ND<0.4	ND<0.3	0.3	1.5	—	—
MW-1-5	11/24/92	8.68	6.30	2.38	ND<50	ND<0.4	ND<0.3	ND<0.3	ND<0.4	—	—
MW-1-5	02/12/93	8.68	1.17	7.51	ND<50	ND<0.4	ND<0.3	ND<0.3	ND<0.4	—	—
MW-1-5	05/17/93	8.68	3.62	5.06	ND<50	ND<0.4	ND<0.3	ND<0.3	ND<0.4	6600	—
MW-1-5	08/04/93	8.68	3.61	5.07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10900	—
MW-1-5	11/24/93	8.68	3.65	5.03	ND<50	1.7	1.2	ND<0.5	0.6	10300	—
MW-1-5	03/01/94	8.54	2.38	6.16	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7800	—
MW-1-5	05/20/94	8.54	3.30	5.24	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9100	—
MW-1-5	08/24/94	8.54	3.60	4.94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9400	D&M
MW-1-5	02/24/95	8.54	2.44	6.10	ND<50	ND<0.4	ND<0.3	ND<0.3	ND<0.4	9100	CEC
MW-2-5	03/01/94	8.62	2.72	5.90	30	0.57	1.2	9.9	2.4	6600	—
MW-2-5	05/20/94	8.62	2.87	5.75	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10000	—
MW-2-5	08/24/94	8.62	3.30	5.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7800	D&M
MW-2-5	02/24/95	8.62	2.42	6.20	ND<50	ND<0.4	ND<0.3	ND<0.3	ND<0.4	8900	CEC
MW-3-5	03/01/94	8.38	2.80	5.58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9400	—
MW-3-5	05/20/94	8.38	3.10	5.28	ND<50	ND<0.5	ND<0.5	1.6	0.72	10000	—
MW-3-5	08/24/94	8.38	3.65	4.73	ND<50	ND<0.5	0.55	ND<0.5	ND<0.5	6600	D&M
MW-3-5	02/24/95	8.38	2.68	5.70	310	ND<0.4	0.6	2.8	0.6	6600	CEC
QC-1 (c)	02/24/95	8.38	—	—	250	ND<0.4	0.5	2.1	0.5	—	CEC
QC-2 (d)	02/24/95	—	—	—	ND<50	ND<0.4	ND<0.3	ND<0.3	ND<0.4	—	CEC

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TDS	Total dissolved solids
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
ug/l	Micrograms per liter
mg/l	Milligrams per liter
—	Not analyzed/available/applicable
ND	Not detected above reported detection limit
D&M	D&M Laboratories
CEC	Clayton Environmental Consultants

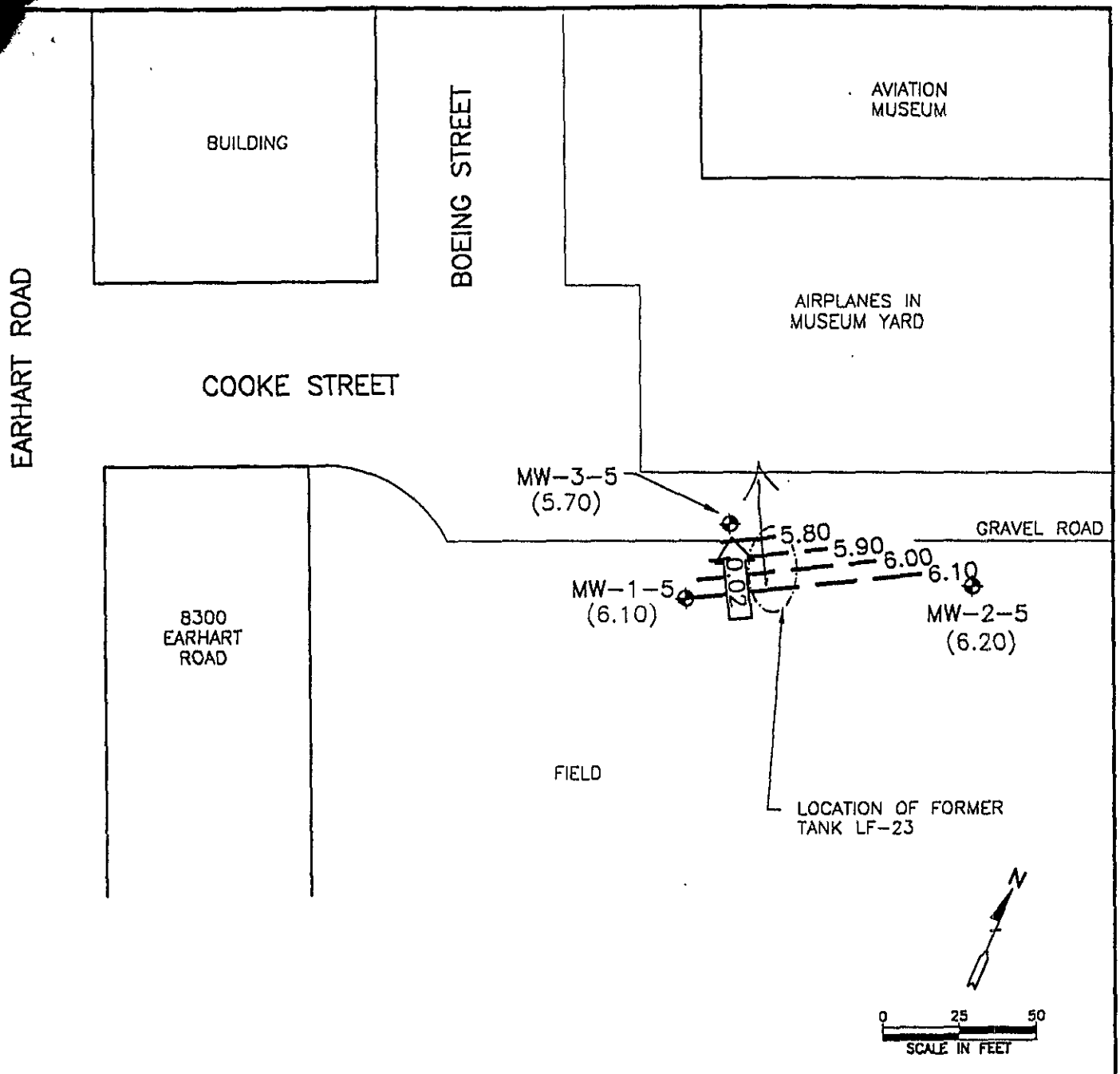
NOTES:

(a) Top of casing elevations surveyed to the nearest 0.01 foot above mean sea level.

(b) Groundwater elevations in feet above mean sea level.

(c) Blind duplicate.

(d) Travel blank.



LEGEND

- ◆ GROUNDWATER MONITORING WELL
- (6.10) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 6.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.10 FOOT)
- 0.02 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

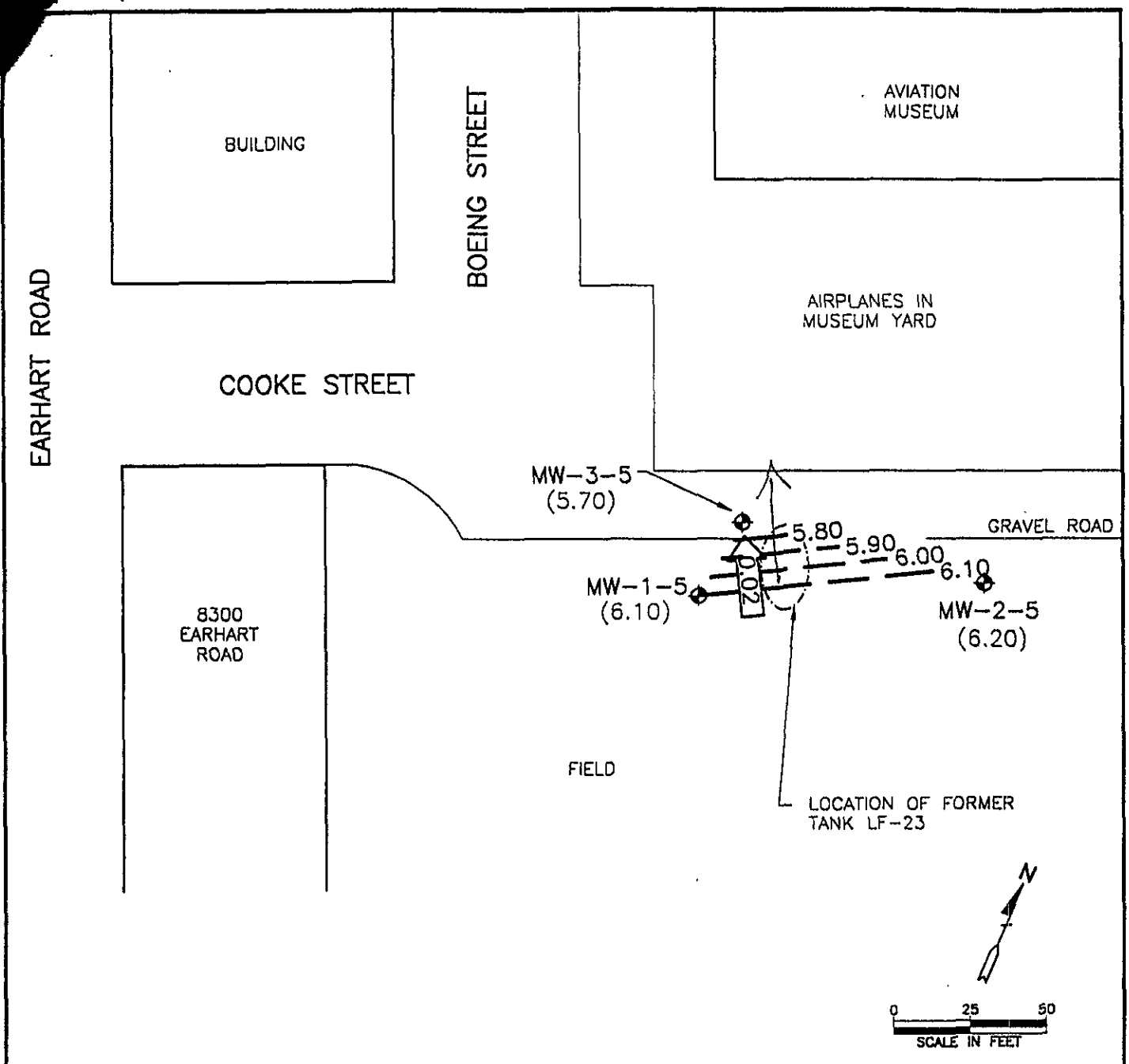
FEBRUARY 24, 1995

PORT OF OAKLAND
OAKLAND INTERNATIONAL AIRPORT
NORTH FIELD
8300 EARHART ROAD
OAKLAND, CALIFORNIA

PROJECT NO. 10–252

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10252D-WDC 5-3-95 RKW 1-96



LEGEND

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FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

FEBRUARY 24, 1995

PORT OF OAKLAND
OAKLAND INTERNATIONAL AIRPORT
NORTH FIELD
8300 EARHART ROAD
OAKLAND, CALIFORNIA

PROJECT NO. 10–252

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10220-W.DWG 3-3-95 RKW 1=50