

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY



DAVID J. KEARS, Agency Director

6/24/96
STID 3982
page 1 of 2

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

REMEDIAL ACTION COMPLETION CERTIFICATION

Attn: John Prall
Port of Oakland
530 Water St.
Oakland CA 94607

RE: Port of Oakland site, Berth 24, Transbay Container site, 707 Ferry St., Oakland CA 94607

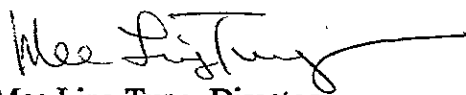

Dear Mr. Prall,

This letter confirms the completion of site investigation and remedial action for the 10,000-gallon diesel underground storage tank at the above referenced site. Based on the available information and with the 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 at this time.** Please be aware that this does not free present or future landowners or operators from cleanup responsibilities in the event that new information indicates a pollutant problem on the site or originating from the site.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations. The owner must promptly notify this agency if there is a proposal for a change in land use, site activity, or structural configuration of the site (ie basements in new buildings where none were before). Such site modifications may require a re-evaluation of the chemical exposure pathways, receptor sensitivities (ie residential vs commercial/industrial), and/or other applicable criteria which may have been employed to assess potential human health risk during the case closure process.

If you have any questions regarding this letter, please contact Jennifer Eberle at (510) 567-6700, ext. 6761. Attached is a copy of the Case Closure Summary, which was reviewed and approved by this agency and the RWQCB.

Very truly yours,


Mee Ling Tung, Director


01-2046

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

CALIFORNIA REGIONAL WATER
MAR 11 1996
QUALITY CONTROL BOARD

I. AGENCY INFORMATION

Date: 2/2/96

Agency name: Alameda County-HazMat
City/State/Zip: Alameda CA 94502
Responsible staff person: Jennifer Eberle

Address: 1131 Harbor Bay Pky
Phone: (510) 567-6700
Title: Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: Port of Oakland, Berth 24, Transbay Container
Site facility address: 707 Ferry St., Oakland CA 94607
RB LUSTIS Case No: N/A **Local Case No./LOP Case No.:** 3982
URF filing date: 6/6/90 **SWEEPS No:** N/A

Responsible Parties: **Addresses:** **Phone Numbers:**
Attn: John Prall, Port of Oakland, 530 Water St., Oakland CA 94607 510-272-1373

<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	12/3/93

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: unknown
Site characterization complete? YES
Date approved by oversight agency: 2/2/96
Monitoring Wells installed? YES **Number:** 1
Proper screened interval? YES 5.5 to 15.5'bgs (first water at 9.5'bgs)
Highest GW depth below ground surface: 9.66'bgs on 2/22/95 **Lowest depth:** 10.18'bgs on 11/13/95
Flow direction: N or NE
Most sensitive current use: site is used as a container terminal at the Port of Oakland
Are drinking water wells affected? NO **Aquifer name:**
Is surface water affected? NO **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

Leaking Underground Fuel Storage Tank Program

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u>	<u>Action (Treatment</u>	<u>Date</u>
<u>(include units)</u>	<u>of Disposal w/destination)</u>		

Tank 2500 lb (10,000 gal FG UST); Erickson (#93132158); 12/3/93

Groundwater 2300 gal; Petroleum Recycling Inc (#93132399); 12/11/93

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppm)	
	Before	After	Before	After
TPH (Diesel)	2*		50	0.110
Benzene	ND		ND	ND
Toluene	ND		ND	ND
Xylene	ND		ND	ND
Ethylbenzene	ND		ND	ND

Comments (Depth of Remediation, etc.): Before soil samples are from the tank pit at 10' bgs. Before water samples are from water pooled in the pit. Since there was no overexcavation, there are no after soil samples.

* Soil below the piping was 4200 ppm TPHd at 2.5', then overexcavated to 4.5' bgs and 18 ppm TPHd.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Undetermined

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

Does corrective action protect public health for current land use? YES
Site management requirements: NA

Should corrective action be reviewed if land use changes? YES
Monitoring wells Decommissioned: not yet

Number Decommissioned: 0 Number Retained: 1

List enforcement actions taken:

List enforcement actions rescinded:

Leaking Underground Fuel Storage Tank Program

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Jennifer Eberle Title: Hazardous Materials Specialist

Signature: *J Eberle* Date: 3-4-96

Reviewed by

Name: Barney Chan Title: Hazardous Materials Specialist

Signature: *Barney Chan* Date: 3/4/96

Name: Dale Klettke Title: Hazardous Materials Specialist

Signature: *Dale Klettke* Date: 3/4/96

VI. RWQCB NOTIFICATION

Date Submitted to RB: 3-4-96

RB Response: *Approved*

RWQCB Staff Name: Kevin Graves

Title: AWRCE Date: 3/26/96

VII. ADDITIONAL COMMENTS, DATA, ETC.

On 5/22/90, a precision test indicated a leak at the top of the 10,000-gallon diesel UST. The UST was installed in 1977. The Port's consultant indicated that a "minimal" amount of diesel was lost.

The Port proposed to replace the leaking UST with a double-walled UST in 1993. The UST was finally removed on 12/3/93, and witnessed by Alameda County. Two soil samples were taken in the pit, two were taken under the piping, and two water samples were taken from the pit (see Figure 1, and Table 1 and 2). Only 2 ppm TPHd was detected in the tank pit soils. Although 4,200 ppm TPHd with ND benzene was detected below the piping at 2.5'bgs, that hotspot was removed, and soils resampled at 4.5'bgs indicated 18 ppm TPHd with ND BTEX.

One well was installed approximately 3' N-NW of the pump island on 5/18/94 (see Figure 2). The rationale for one well was that the groundwater flow direction was well documented from the numerous wells at the adjacent Maersk Terminal and Ashland Oil sites. Soils sampled in the borehole at 5' and 8.5'bgs indicated ND TPHd and ND BTEX (See Table 3). *see Fig. 3*

Groundwater has been sampled since 6/94. See Table 4. There have been four consecutive quarters, from 2/95 to 11/95. All five sampling events indicate ND BTEX, TPHd concentrations ranging from ND to 990 ppb, and TPHmo concentrations ranging from 120 ppb to 1300 ppb.

Leaking Underground Fuel Storage Tank Program

The TPHd can be extrapolated for naphthalene and benzo(a)pyrene, for comparison with the RBSLs in the ASTM RBCA guidance document. Using the maximum TPHd concentration of 990 ppb, multiplying by 0.0013 = 1.287 ppb naphthalene, which is < "S" for gw to outdoor air pathway, and is < 4,740 ppb or 12,300 ppb for gw to indoor air, residential and commercial, respectively. The factor of 0.0013 is the percentage of naphthalene in diesel, as per the LUFT manual, appendix J.

TPHd can also be extrapolated for benzo(a)pyrene. $990 \text{ ppb TPHd} \times 0.0007 = 0.693 \text{ ppb}$, which is < "S" for gw to both outdoor and indoor air pathways. The factor of 0.0007 is the weight of benzo(a)pyrene in diesel, as per the LUFT manual, appendix J, and is corrected from the typo error of 0.07 ug/kg to 0.07 mg/kg.

As for TPHmo, there is no definitive way to extrapolate for the RBCA guidance. Motor oil is generally lacking the mobility and volatile constituents of other petroleum constituents.

For all these reasons, this case warrants closure.

Table 1:
Summary of Laboratory Results
From Sidewalls of Excavation of Diesel Tank CF-04
At 707 Ferry Street, Oakland, California
 Concentrations in mg/kg

Sample ID	Date	TPH-Diesel	Benzene	Toluene	Ethyl benzene	Xylenes
NW-10.0	12/3	10 1 ✓	<0.005 ✓	<0.005 ✓	<0.005 ✓	<0.005 ✓
SE-10.0	12/3	10 2 ✓	<0.005 ✓	<0.005 ✓	<0.005 ✓	<0.005 ✓
PI-2.5 ¹	12/3	4,200 ² ✓	<0.005 ✓	0.440 ✓	2.100 ✓	3.900 ✓
PI-4.5	12/3	18 ✓	<0.005 ✓	<0.005 ✓	<0.005 ✓	<0.005 ✓

¹ Soil associated with this sample was excavated.

² Quantified as Kerosene due to overlap of hydrocarbon ranges.

Table 2:
Summary of Laboratory Results
From Groundwater Samples Collected from Excavation
At 707 Ferry Street, Oakland, California
 Concentrations in mg/l

Sample ID	Date	TPH-Diesel	Benzene	Toluene	Ethyl benzene	Xylenes
beside UST H-Water	12/3	19 ✓	<0.0005 ✓	<0.0005 ✓	<0.0005 ✓	<0.0005 ✓
below UST T-Water	12/3	50 ✓	<0.0005 ✓	<0.0005 ✓	<0.0005 ✓	<0.0005 ✓

Notes:

H refers to area next to the tank.

T refers to area directly beneath tank.

Samples were collected after tank was removed.

Table # 3
**Summary of Laboratory Results for Soil Samples
 From Boring MW-1, Installed May 18, 1994 at
 707 Ferry Street, Oakland, California**

5-18-94

SAMPLE NUMBER	ANALYTICAL PARAMETER (Concentrations in mg/kg)				
	TPH-D	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1-5.0 ✓	ND (5.0) ✓	ND (0.005) ✓	ND (0.005) ✓	ND (0.005) ✓	ND (0.005) ✓
MW-1-8.5 ✓	ND (5.0) ✓	ND (0.005) ✓	ND (0.005) ✓	ND (0.005) ✓	ND (0.005) ✓

Notes:

Soil samples from below the apparent groundwater level were not analyzed.
 ND = Not detected (detection limit in parentheses).

4
 TABLE 4 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING AND SAMPLING
 PORT OF OAKLAND, BERTH 25
 707 FERRY STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-255

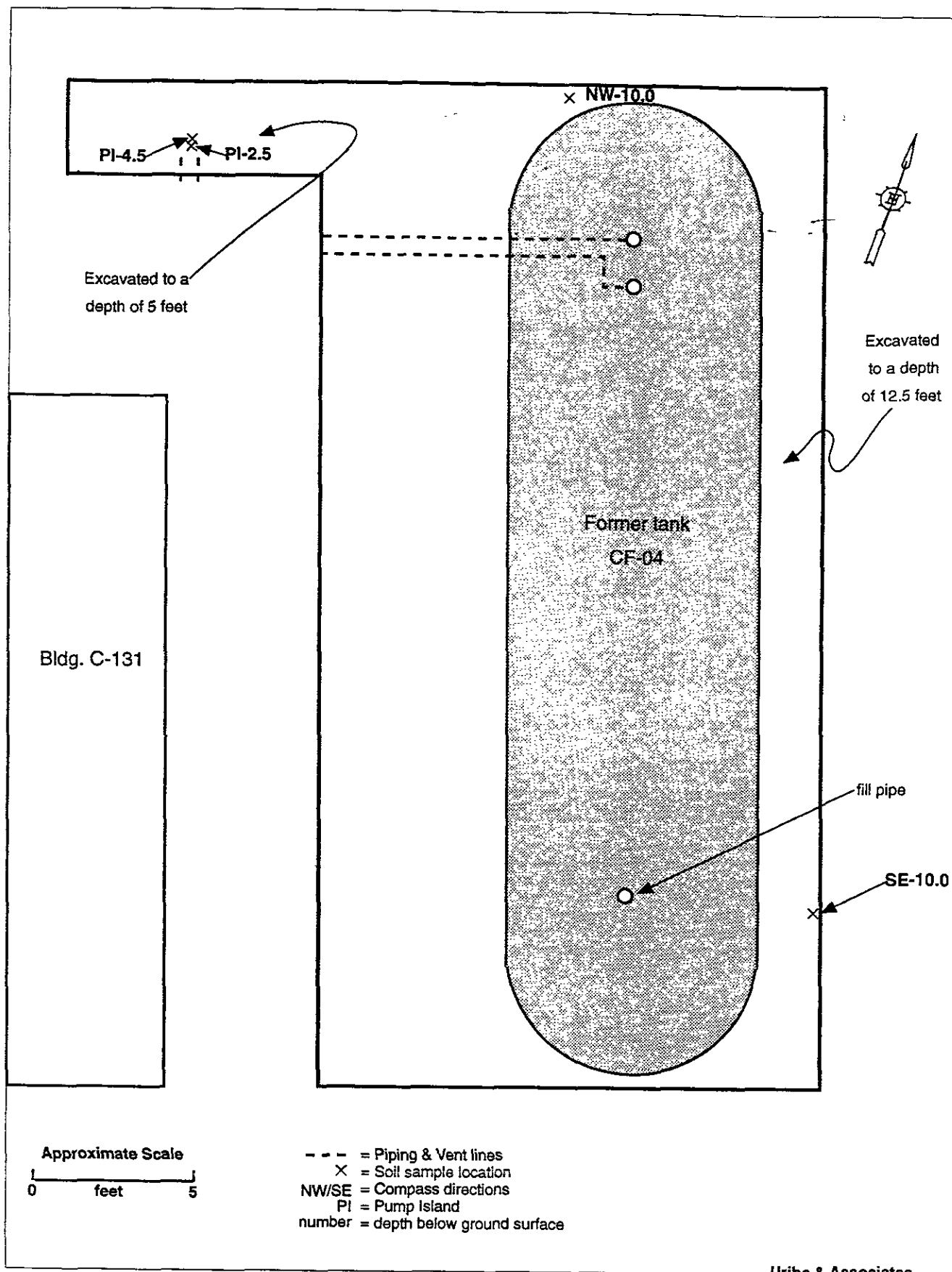
WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (feet)	DEPTH TO WATER (feet)	GROUNDWATER ELEVATION (b) (feet)	TPH-D (ug/l)	TPH-MO (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	TDS (mg/l)	LAB
MW-1	06/09/94	14.65	9.88	4.77	410	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1900	D&M
MW-1	02/22/95	14.65	9.66	4.99	990	120	ND<0.4	ND<0.3	ND<0.3	ND<0.4	1100	CEC
QC-1 (c)	02/22/95	14.65	---	---	---	---	ND<0.4	ND<0.3	ND<0.3	ND<0.4	---	CEC
MW-1	05/24/95	14.65	9.71	4.94	180	600	ND<0.4	ND<0.3	ND<0.3	ND<0.4	1200	CEC
QC-1 (c)	05/24/95	14.65	---	---	---	---	ND<0.4	ND<0.3	ND<0.3	ND<0.4	---	CEC
MW-1	08/24/95	14.65	9.85	4.80	ND<80	400	ND<0.4	ND<0.3	ND<0.3	ND<0.4	1300	CEC
QC-1 (c)	08/24/95	---	---	---	---	---	ND<0.4	ND<0.3	ND<0.3	ND<0.4	---	CEC
MW-1	11/13/95	14.65	10.18	4.47	110	1300	ND<0.4	ND<0.3	ND<0.3	ND<0.4	1200	CEC
QC-1 (c)	11/13/95	---	---	---	---	---	ND<0.4	ND<0.3	ND<0.3	ND<0.4	---	CEC
QC-2 (d)	02/22/95	---	---	---	---	---	ND<0.4	ND<0.3	ND<0.3	ND<0.4	---	CEC
QC-2 (d)	05/24/95	---	---	---	---	---	ND<0.4	ND<0.3	ND<0.3	ND<0.4	---	CEC
QC-2 (d)	08/24/95	---	---	---	---	---	ND<0.4	ND<0.3	ND<0.3	ND<0.4	---	CEC
QC-2 (d)	11/13/95	---	---	---	---	---	ND<0.4	ND<0.3	ND<0.3	ND<0.4	---	CEC

ABBREVIATIONS:

TPH-D Total petroleum hydrocarbons as diesel
 TPH-MO Total petroleum hydrocarbons as motor oil
 B Benzene
 T Toluene
 E Ethylbenzene
 X Total xylenes
 TDS Total dissolved solids
 ug/l Micrograms per liter
 mg/l Milligrams per liter
 --- Not analyzed/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 relative to mean lower low water (3.2 feet below mean sea level) Port of Oakland datum.
 (b) Groundwater elevations expressed in feet above mean lower low water.
 (c) Blind duplicate.
 (d) Travel blank.

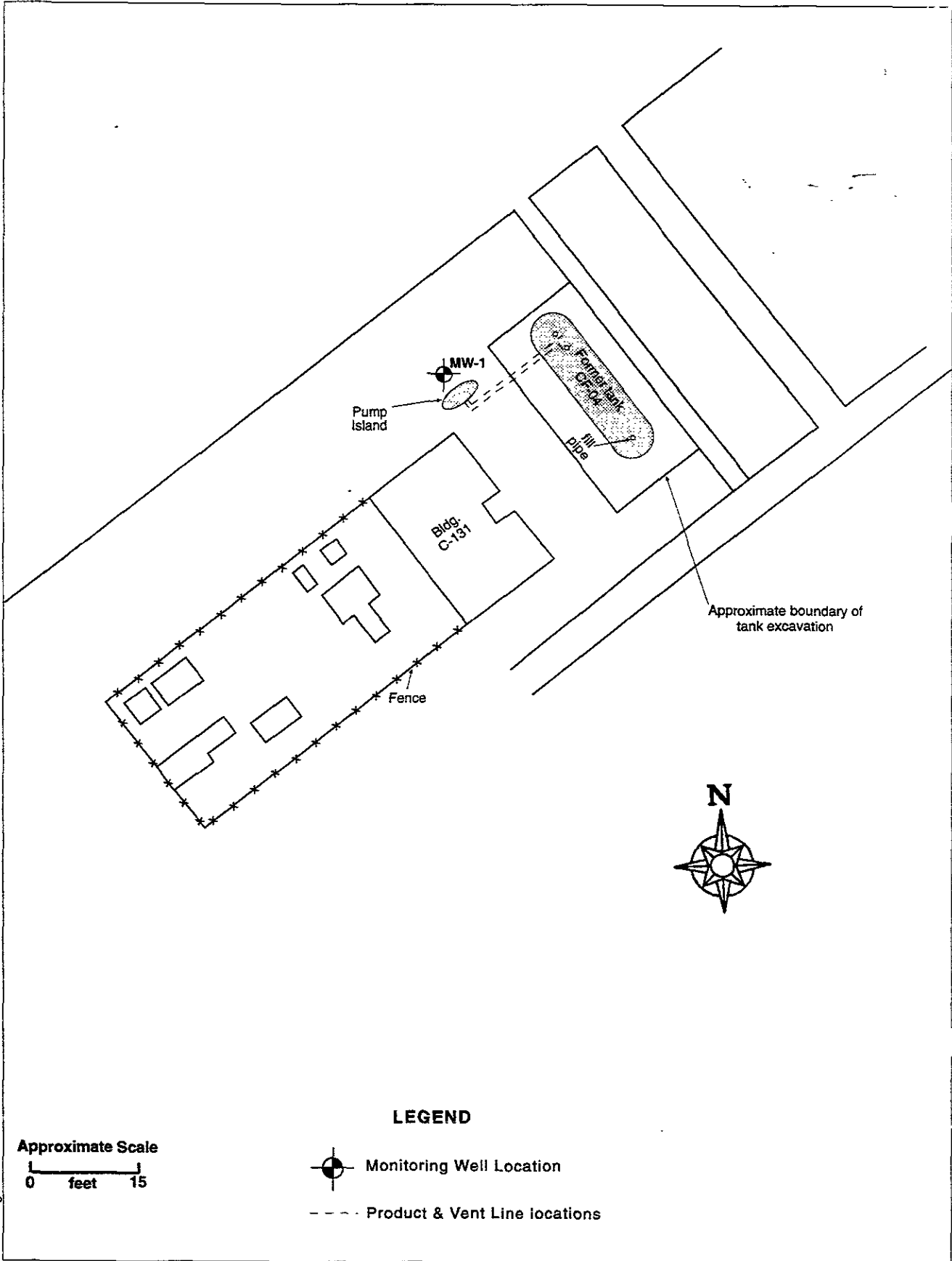


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Uribe & Associates

Figure 2: Site Plan with Sample Locations Berth 25, 707 Ferry Street, Oakland, California

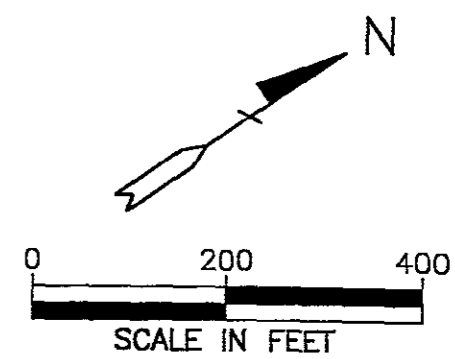
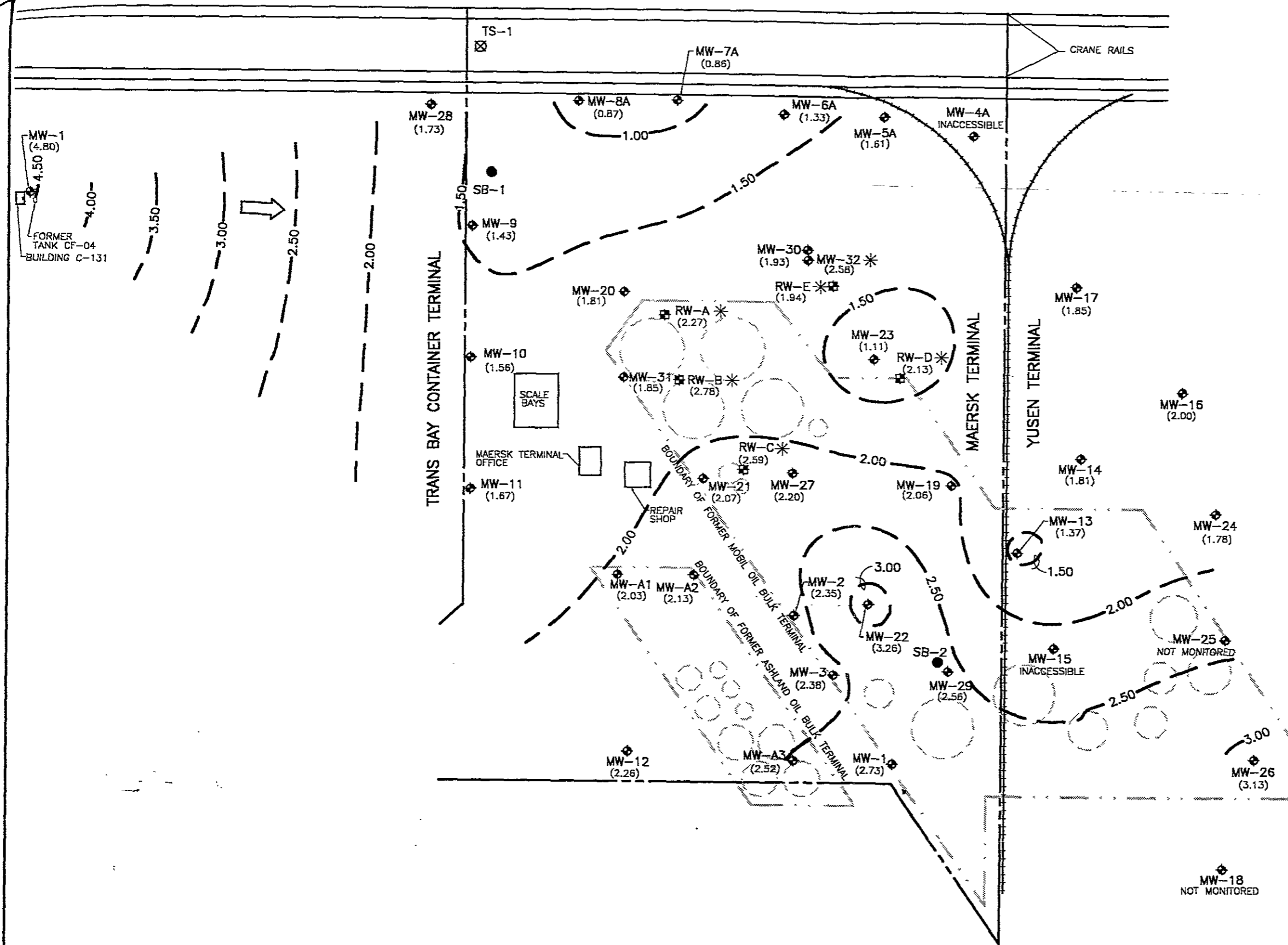
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Figure 2: Site Plan, Berth 25, 707 Ferry Street, Oakland, California

SAN FRANCISCO BAY



- LEGEND**
- ◆ GROUNDWATER MONITORING WELL
 - ⊠ GROUNDWATER RECOVERY WELL
 - SOIL BORING LOCATION
 - ⊗ TIDAL STUDY MONITORING POINT
 - FORMER ABOVEGROUND PRODUCT STORAGE-TANK
 - (3.13) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
 - 3.00 - GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL-0.50 FOOT)
 - ← INTERPRETED GROUNDWATER GRADIENT DIRECTION
 - * GROUNDWATER ELEVATION NOT USED IN PREPARING CONTOURS

FIGURE 3
 POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP
 NOVEMBER 13, 1995
 PORT OF OAKLAND
 BERTH 25
 707 FERRY STREET
 OAKLAND, CALIFORNIA
 PROJECT NO. 10-255