ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, DIRECTOR

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

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 3564 - One Memorial Clubhouse Dr, Alameda, CA 94501

March 21, 1996

Mr. Fred Framsted
City of Alameda, Rec & Park
City Hall, Room 201
Alameda, CA 94501

Dear Mr. Framsted:

This letter confirms the completion of site investigation and remedial action for the two former underground storage tanks (1-5000 and 1-125 gallon gasoline tanks) removed from the above site on July 10, 1991. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, 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.

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. Please contact Ms. Eva Chu at (510) 567-6700 if you have any questions regarding this matter.

Very truly yours,

Jun Makishima

Jun Makishima, Interim Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Mike Harper, SWRCB (with attachment)
files (golfcrse.3)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: August 10, 1995

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

II. CASE INFORMATION

Site facility name: **Alameda Colf Course**
Site facility address: **One Memorial Clubhouse Dr, Alameda 94501**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **3564**
URF filing date: **8/19/91** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
City of Alameda, Rec & Park Dept **Attn. Fred Framsted**	**City Hall, Room 201** **Alameda, CA 94501**	**510/748-4653**

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	500	Gasoline	Removed	7/10/91
2	125	Gasoline	Removed	7/10/91

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown**
Site characterization complete? **YES**
Date approved by oversight agency: **5/3/95**
Monitoring Wells installed? **Yes** Number: **3**
Proper screened interval? **Yes, 3 to 10' bgs**
Highest GW depth below ground surface: **1.4'** Lowest depth: **3.23' bgs**
Flow direction: **Predominately to south, and southwest**
Most sensitive current use: **Unknown**
Are drinking water wells affected? **No** Aquifer name: **Unknown**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **None**

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	2 USTs	Erickson, Richmond	7/10/91
Piping			
Free Product			
Soil	80 cy	Aerated, left onsite.	6/29/95
Groundwater			
Barrels			

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before	Soil (ppm) After	Water (ppb) Before[1]	Water (ppb) After
TPH (Gas)	960	3.0	8,200	ND
TPH (Diesel)				
Benzene	3.5	.030	210	ND
Toluene	.10	.006	ND	ND
Ethylbenzene	3.0	.023	270	ND
Xylenes	13	.059	1,200	ND
Oil & Grease				
Heavy metals	Pb		6.3	
Other				

NOTE: 1 Grab groundwater sample after two purgings

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments, etc...

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **YES**
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: **None**

Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: **None, pending site closure**
Number Decommissioned: **0** Number Retained: **3**
List enforcement actions taken: **None**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature: [signature] Date: 8/14/95

Reviewed by

Name: Juliet Shin Title: Sr Haz Mat Specialist

Signature: [signature] Date: 8/10/95

Name: Barney Chan Title: Haz Mat Specialist

Signature: [signature] Date: 8/14/95

VI. RWQCB NOTIFICATION

Date Submitted to RB: 8/15/95 RB Response: Approved

RWQCB Staff Name: Kevin Graves Title: AWRCE

Signature: [signature] Date: 8/21/95

VII. ADDITIONAL COMMENTS, DATA, ETC.

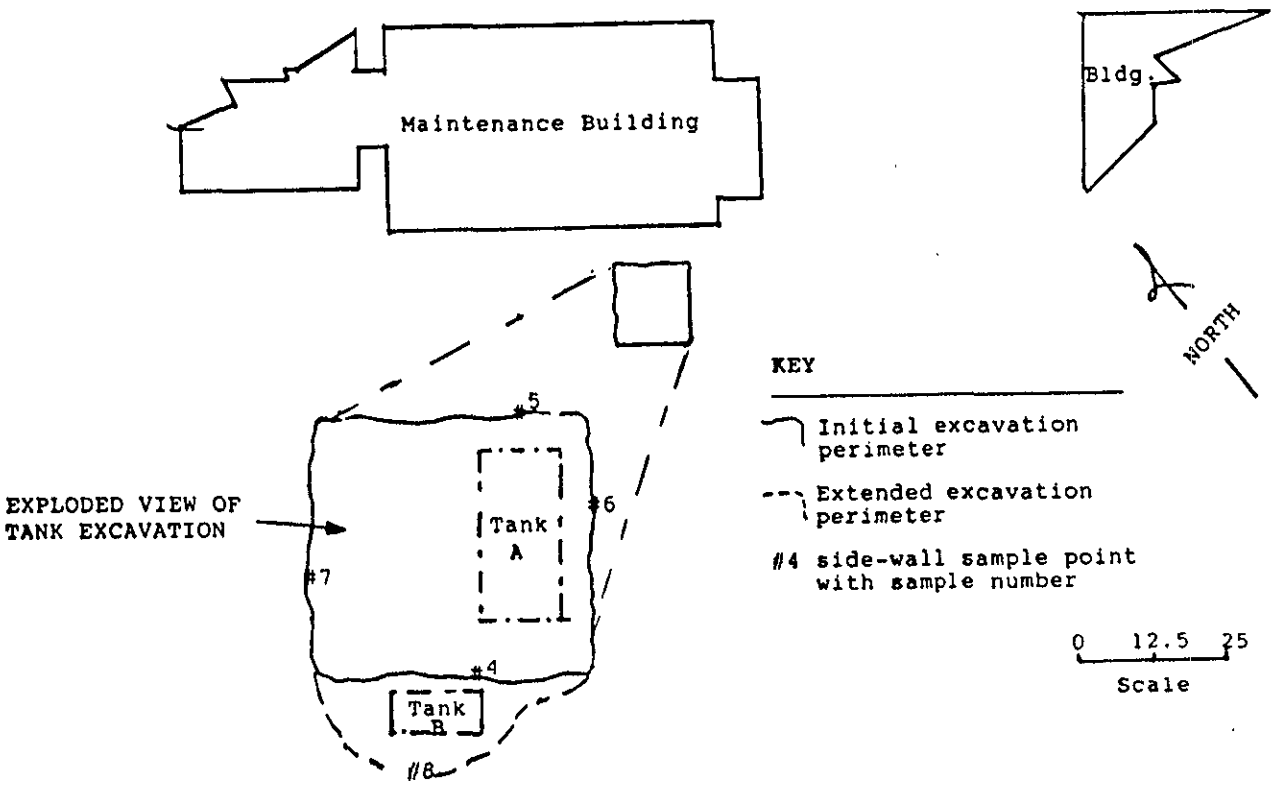
On July 10, 1991, two USTs in a common pit (1-500 and 1-125 gallon gasoline USTs) were removed. The 500 gallon tank was tar-wrapped and appeared in good condition. The 125 gallon tank was severely corroded, with numerous holes. Soil samples collected from the capillary fringe exhibited up to 960 ppm TPH-G, 3.5, .10, 3.0, and 13 ppm BTEX, respectively. The pit was overexcavated and verification samples from the sidwalls were ND for TPH-G and BTEX, except for the east wall, which exhibited 3.0, .03, .006, .023, and .059 ppm TPH-G, and BTEX, respectively.

Groundwater was twice purged from the pit and allowed to recharge. A grab groundwater sample exhibited 8,200 ppb TPH-G, 210, ND, 270, and 1,200 ppb BTEX, respectively.

In August 1992 four soil borings (SB-1, MW-1, 2, and 3) were advanced. Three of the borings were converted into monitoring wells. Soil samples collected from each boring (at 4.5 to 5' depth) did not detect TPH-G or BTEX, except for 1.8 ppm TPH-G in SB-1. Groundwater has been sampled for four consecutive quarters (Sep 1992, Jan, May, & Jul 1993) without detecting TPH-G or BTEX.

Soil removal was effective in removing most of the contaminated soil. Groundwater does not appear to be impacted by the fuel release at this site.

golfcrse.1



Environmental Technical Services	ALAMEDA GOLF COURSE 1 MEMORIAL CLUBHOUSE ALAMEDA, CALIF	Figure 3 EXCAVATION AND SAMPLING MAP

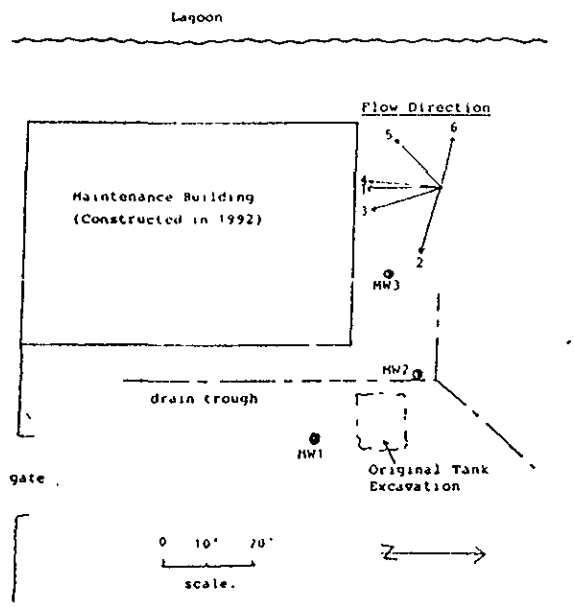
TABLE V
GROUNDWATER ANALYTICAL RESULTS
TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
WITH BENZENE, TOLUENE, ETHYLBENZENE, AND TOTAL XYLENES
FOURTH QUARTER
JULY 29, 1992

Results reported in ug/L

Sample#	TPHg	B	T	E	X
MW-1	ND	ND	ND	ND	ND
MW-2	ND	ND	ND	ND	ND
MW-3	ND	ND	ND	ND	ND

ND - not detected at lower detection limit

3.4 GROUND WATER GRADIENT



GROUNDWATER GRADIENT DATA

MAP NO.	DATE	E1(1)	FLOW(2)	GRAD(3)
1	10/14/92	-	181	.080
2	11/10/92	92.18	107	.015
3	12/11/92	92.17	164	.016
4	01/11/93	92.18	184	.004
5	05/04/93	93.07	226	.056
6	07/29/93	93.77	280	.043

NOTES

(1) Water elev. in MW1
(2) Flow azimuth (E of N)
(3) Gradient (ft/ft)