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

RAFAT A. SHAHID, Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Environmental Protection Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577
(510) 567-6700

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 4442 - 7494 Donahue Dr, Dublin, CA 94568

October 6, 1995

Mr. Karl Diekman
Dougherty Regional Fire Authority
9399 Fircrest Lane
San Ramon, CA 94583

Dear Mr. Diekman:

This letter confirms the completion of site investigation and remedial action for the three former underground storage tanks (1-500 and 1-4,000 gallon gasoline and 1-500 gallon diesel tank) removed from the above site on November 2, 1989. 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 (drtyfire.4)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION **Date: June 16, 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: **Dougherty Regional Fire Authority**
Site facility address: **7494 Donahue Dr, Dublin 94568**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **4442**
URF filing date: **11/5/89** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Dougherty Regional Fire c/o Karl Diekman	9399 Fircrest Ln San Ramon, CA 94583	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	4,000	Gasoline	Removed	11/2/89
2	500	Diesel	Removed	11/2/89
3	500	Gasoline	Removed	11/2/89

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Inventory loss from 500 gallon gasoline UST in 1965/1966.**
Site characterization complete? **YES**
Date approved by oversight agency: **August 5, 1994**
Monitoring Wells installed? **Yes** Number: **6**
Proper screened interval? **Yes, 9-24' bgs**
Highest GW depth below ground surface: **8.29'** Lowest depth: **9.02'**
Flow direction: **E, SE**
Most sensitive current use: **None**
Are drinking water wells affected? **No** Aquifer name: **Dublin Subbasin**
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	3 USTs	H & H Shipping	11/2/89
Piping			
Free Product			
Soil	1,500 cy	Vasco Rd L.F.	8-9/92
	40 cy	Aerated, reused as backfill	Dec '89
Groundwater	4,600 gallon	Gibson Pilot, Redwood City	9/3/92
Barrels			

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm) Before	Soil (ppm) After*	Water (ppb) Before	Water (ppb) After
TPH (Gas)	1,500	1,900	ND	ND
TPH (Diesel)	ND	ND	61	ND
Benzene	2.5	15	.8	ND
Toluene	2.8	4.7	.7	.6
Ethylbenzene	10.0	34	ND	ND
Xylenes	20.0	52	2.2	.4
Oil & Grease				
Heavy metals **Lead**	NA	ND		ND
Other				

***from sample E**

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: **Yes, 3**
Number Decommissioned: **3** 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: 6/16/95

Reviewed by

Name: Juliet Shin Title: Sr. Haz Mat Specialist

Signature: [signature] Date: 6/17/95

Name: Barney Chan Title: Haz Mat Specialist

Signature: [signature] Date: 6/13/95

VI. RWQCB NOTIFICATION

Date Submitted to RB: 6/19/95 RB Response: Approved

RWQCB Staff Name: Kevin Graves Title: AWRCE

Signature: [signature] Date: 6/20/95

VII. ADDITIONAL COMMENTS, DATA, ETC.

In 1965 or 1966 inventory loss from a small 500 gallon gasoline UST was noted. This tank was abandoned in place by filling with cement slurry.

In November 1989 three USTs were removed (4K gasoline, 500 diesel and the abandoned 500 gallon gasoline UST). Soil samples collected beneath the USTs exhibited up to 1,500 ppm TPH-G, 2.5, 2.8, 10, and 20 ppm BTEX, respectively. Diesel was not detected in the soil.

Overexcavation to 13' depth removed additional contaminated soil, leaving in place up to 560 ppm TPH-G, 2.2, 1.7, 3.3, and 6.5 ppm BTEX, respectively.

Three monitoring wells were installed around the former tank pit in April 1990. Although soil collected from each of the borings at 10-11' depth exhibited elevated levels of TPH-G, TPH-D, and BTEX, groundwater samples have not detected any of these analytes as sampled on five consecutive quarters, from April 1990 to June 1991.

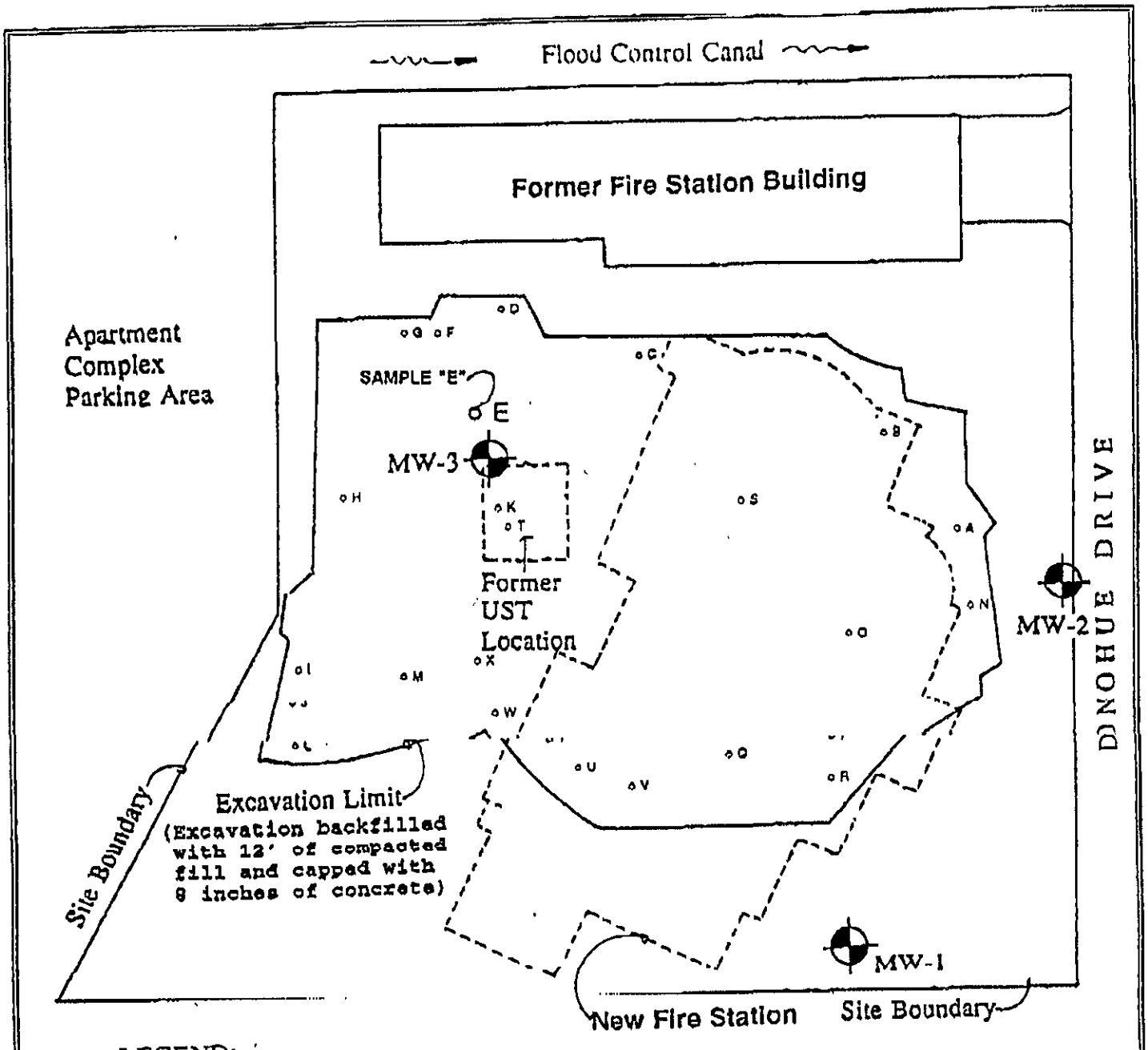
In August 1992 the site was again excavated to remove additional contaminated soil. The three monitoring wells were destroyed. A total of approximately 1,500 cy contaminated soil was removed and disposed at Vasco Rd L.F. A small pocket of contaminated soil (sample E) adjacent to the new well MW-3, and northwest of the former tank pit was left in place (up to 1,900 ppm TPH-G, 14, 4.7, 34, and 52 ppm BTEX, respectively). 40 cy

aerated soil, along with 4,000 cy clean overburden was re-used to backfill the pit. Approximately 4,600 gallons groundwater was vacuumed from the pit prior to backfilling.

In September 1993 three new monitoring wells were installed to evaluate the effectiveness of removal of contaminated soil to groundwater quality beneath the site. After four consecutive quarters (Oct 1993-June 1994) of sampling, BTEX contaminants detected in groundwater have not exceeded MCLs, and TPH-D was detected only once in Oct 1993 at 61 ppb.

Elevated levels of petroleum hydrocarbons (sample E) left in place at approximately 12' depth appears to be limited in extent. Soil samples from well MW-3, near sample E did not detect petroleum hydrocarbons. A risk assessment for outdoor inhalation calculated that 15 ppm benzene did not pose a health risk greater than 2×10^{-7}. Contaminants appear to be adsorbed to the clay sediments, as dissolved phase has not been detected in groundwater in excess of .8 ppb benzene. The site is paved with concrete and would prevent leaching of contaminants into groundwater. Overexcavation removed most of the impacted soil. It appears that groundwater quality has not been adversely impacted by the fuel release at the site.

drtyfire.2



HEALTH RISK ASSESSMENT 7494 DONOHUE DRIVE DUBLIN, CALIFORNIA	SITE PLAN Job No. P93156.3 FIGURE 1	RSK & ASSOCIATES

TABLE 4-1A
IN-SITU SOIL SAMPLES - BTEX (PPM)

Sample Figure Designation	Sample Date	Sample Field Designation	Benzene (NA)	Toluene (NA)	Ethyl-benzene (NA)	Xylenes (NA)
A	8/10/92	#1 @ 12'	ND	ND	ND	ND
B	"	#2 @ 12'	.0013	.0036	.0059	.0028
C	8/11/92	A @ 12'	ND	ND	0.44	ND
D	"	B @ 12'	0.35	0.5	4.0	ND
E	8/12/92	#1 @ 12'	15	4.7	34	52
F	8/13/92	#2 @ 11.5'	ND	ND	ND	ND
G	"	#3 @ 11.5'	ND	ND	ND	ND
H	"	#4 @ 11.5'	ND	ND	ND	ND
I	8/14/92	#2 @ 13.5'	ND	ND	ND	ND
J	"	#3 @ 13'	ND	ND	0.02	ND
K	"	#4 @ 12'	ND	ND	ND	ND
L	8/17/92	#1 @ 13.5'	ND	ND	ND	ND
M	"	#2 @ 12'	ND	ND	ND	ND
N	8/27/92	A-1 @ 12'	ND	ND	ND	ND
O	"	B-1 @12'	0.19	ND	0.18	ND
P	8/31/92	#1 @ 12'	ND	ND	ND	ND
Q	"	#2 @ 12.5'	0.2	ND	0.78	ND
R	"	#3 @ 12'	ND	ND	ND	ND
S	"	#4 @ 12'	ND	ND	ND	ND
T	9/1/92	#1 @ 12'	ND	ND	0.13	0.02
U	"	#2 @ 13'	ND	ND	ND	ND
V	9/2/92	#1 @ 11.5'	ND	ND	ND	ND
W	"	#2 @ 12.5'	ND	ND	ND	ND
X	"	#3 @ 12.5'	ND	ND	ND	ND
Y	"	#4 @ 11.5'	ND	ND	ND	ND
Z	"	#5 @ 11.5'	ND	ND	ND	ND

at GW.

( ) - Indicate Action Levels for the constituent listed
ND - None Detected
NA - NA indicates that Action Levels are not applicable for BTEX in soil at this site, as characterized by Table 2-1, LUFT Guidelines

TABLE 4-1B
IN-SITU SOIL - GASOLINE, DIESEL, LEAD (PPM)

Sample Figure Designation	Sample Date	Sample Field Designation	TPH Gasoline (10)	TPH Diesel (100)	Lead (13)
A	8/10/92	#1 @ 12'	ND	1	ND
B	"	#2 @ 12'	ND	3	ND
C	8/11/92	A @ 12'	32	3	--
D	"	B @ 12'	500	3	--
E	8/12/92	#1 @ 12'	1900	18	ND
F	8/13/92	#2 @ 11.5'	ND	ND	--
G	"	#3 @ 11.5'	ND	ND	--
H	"	#4 @ 11.5'	ND	ND	--
I	8/14/92	#2 @ 13.5'	10	6	--
J	"	#3 @ 13'	20	6	--
K	"	#4 @ 12'	2	1	--
L	8/17/92	#1 @ 13.5'	ND	2	--
M	"	#2 @ 12'	ND	1	--
N	8/27/92	A-1 @ 12'	ND	ND	--
O	"	B-1 @ 12'	54	3	--
P	8/31/92	#1 @ 12'	ND	--	--
Q	"	#2 @ 12.5'	47	--	--
R	"	#3 @ 12'	ND	--	--
S	"	#4 @ 12'	ND	ND	--
T	9/1/92'	#1 @ 12'	4	--	--
U	"	#2 @ 13'	ND	--	--
V	9/2/92	#1 @ 11.5'	ND	--	--
W	"	#2 @ 12.5'	ND	--	--
X	"	#3 @ 12.5'	ND	--	--
Y	"	#4 @ 11.5'	ND	--	--
Z	"	#5 @ 11.5'	ND	--	--

at GW.

( ) - Indicates Action Level for the constituent listed. Action Levels provided are derived from Table 2-1, Leaching Potential Analysis, RWQCB LUFT Manual, October 1989.

ND - None Detected

-- - Not Tested for the constituent listed

TABLE 2

TOTAL PETROLEUM HYDROCARBONS (TPH) AS GASOLINE AND DIESEL, AND TOTAL LEAD

Action Levels and analytical results are presented in Parts Per Billion (ppb)

	CONSTITUENTS		
Sample Location (Action Level)	**TPH Gasoline (NA)**	**TPH Diesel (100)$_1$**	**Total Lead (50)**
July 7, 1994 (Third Quarterly Monitoring)			
MW-1	**ND**	**ND**	**--**
MW-2	**ND**	**ND**	**--**
MW-3	**ND**	**ND**	**--**
April 8, 1994 (Second Quarterly Monitoring)			
MW-1	ND	ND	ND
MW-2	ND	ND	ND
MW-3	ND	ND	ND
January 5, 1994 (First Quarterly Monitoring)			
MW-1	ND	ND	ND
MW-2	ND	ND	ND
MW-3	ND	ND	ND
October 6, 1993 (Initial Well Installation Sampling)			
MW-1	ND	ND	ND
MW-2	ND	61*	ND
MW-3	ND	58*	ND

NA - Not Available
ND - None Detected
-- - Not Tested
1 - 1980 US EPA 10-Day Suggested No Adverse Response Level (SNARL)
* - Sample contains higher molecular weight hydrocarbons than normally associated with Diesel (see Chemical Test Data Sheet, Monitoring Facilities Installation Report, October 31, 1993, Figures A-18 and A-21).

The Chemical Test Data Sheets and the Project Chain-of-Custody documents are shown in Appendix A, Figures A-1 through A-4.

The results of the chemical analyses of groundwater samples for the well installation sampling, previous quarterly sampling events and this quarter are summarized in the following two Tables.

TABLE 1

BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES

Action Levels and analytical results are presented in Parts Per Billion (ppb)

	CONSTITUENTS			
Sample Location (Action Level)	**Benzene (1)[1]**	**Toluene (100)[2]**	**Ethylbenzene (680)[1]**	**Xylenes (1750)[1]**
July 7, 1994 (Third Quarterly Monitoring)				
MW-1	**ND**	**0.6**	**ND**	**0.4**
MW-2	**ND**	**0.4**	**ND**	**0.3**
MW-3	**ND**	**0.4**	**ND**	**ND**
April 8, 1994 (Second Quarterly Monitoring)				
MW-1	0.4	0.4	ND	1.6
MW-2	ND	0.3	ND	1.2
MW-3	0.8	0.7	ND	2.2
January 5, 1994 (First Quarterly Monitoring)				
MW-1	ND	ND	ND	ND
MW-2	ND	ND	ND	ND
MW-3	ND	ND	ND	ND
October 6, 1993 (Initial Well Installation Sampling)				
MW-1	ND	ND	ND	ND
MW-2	ND	ND	ND	ND
MW-3	ND	ND	ND	ND

ND - None Detected
1 - California Department Of Health Services Drinking Water Standard, Revised 10/23/91
2 - California DOHS Action Level, 7/1/92