

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

StID 4270  
July 11, 1994

DEPARTMENT OF ENVIRONMENTAL HEALTH  
State Water Resources Control Board  
Division of Clean Water Programs  
UST Local Oversight Program  
80 Swan Way, Rm 200  
Oakland, CA 94621  
(510) 271-4530

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Ed Ralston  
Unocal  
P.O. Box 5155  
San Ramon, CA 94583

Mr. Pak Leung  
Great Wall Construction  
112 E. Vista Ave  
Daly City, CA 94014

Mr. Andrew Clark-Clough  
City of Oakland  
1330 Broadway #1001  
Oakland, CA 94612

Dear Sirs:

This letter confirms the completion of site investigation and remedial action for the four former underground storage tanks (4K, 5K, 6K gallon gasoline tanks and a 280 gallon waste oil tank) removed from the above site on April 1984.

Based upon 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.

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) 271-4330 if you have any questions regarding this matter.

Very truly yours,

Rafat A. Shahid  
Assistant Agency Director

cc: Edgar B. Howell, Chief, Hazardous Materials Division  
Kevin Graves, RWQCB  
x Mike Harper, SWRCB (with attachment)  
files (unocal03.1)

**CASE CLOSURE SUMMARY**  
**Leaking Underground Fuel Storage Tank Program**

**I. AGENCY INFORMATION**

**Date: April 29, 1994**

Agency name: **Alameda County-HazMat** Address: **80 Swan Wy., Rm 200**  
 City/State/Zip: **Oakland** Phone: **(510) 271-4320**  
 Responsible staff person: **Eva Chu** Title: **Hazardous Materials Spec.**

**II. CASE INFORMATION**

Site facility name: **Unocal Station #4710**  
 Site facility address: **9780 Bancroft Ave, Oakland 94603**  
 RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **4270**  
 URF filing date: **3/30/87** SWEEPS No: **N/A**

<u>Responsible Parties:</u>	<u>Addresses:</u>	<u>Phone Numbers:</u>
1. Unocal Corp	P.O.Box 5155, San Ramon 94583	
2. Great Wall Construct.	112 E. Vista Ave, Daly City 94014	
3. City of Oakland	1330 Broadway, #1001, Oakland 94612	

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	4,000	Gasoline	Removed	About April 1984
2	5,000	Gasoline	Removed	"
3	6,000	Gasoline	Removed	"
4	280	Waste Oil	Removed??	same??

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**

Cause and type of release: **Gasoline**  
 Site characterization complete? **YES**  
 Date approved by oversight agency: **August 1991**  
 Monitoring Wells installed? **YES** Number: **8 total**  
 Proper screened interval? **YES, 26-36'**  
 Highest GW depth below ground surface: **22.48** Lowest depth: **26.30'**  
 Flow direction: **NE**  
 Most sensitive current use: **2 domestic wells w/in 1/2 mile.**  
 Are drinking water wells affected? **Unknown** Aquifer name:  
 Is surface water affected? **NO** Nearest affected SW name:  
 Off-site beneficial use impacts (addresses/locations): **None**

Report(s) on file? **YES** Where is report(s) filed? **Alameda County**  
**80 Swan Wy., Rm 200**  
**Oakland CA 94621**

**Treatment and Disposal of Affected Material:**

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment or Disposal w/destination)</u>	<u>Date</u>
Tank	4 USTs	Unknown	Unknown
Piping			
Free Product			
Soil	3,500 cy	Aerated and used as backfill	8/88
Groundwater			
Barrels			

**Maximum Documented Contaminant Concentrations - - Before and After Cleanup**

Contaminant	Soil (ppm)		Water (ppb)	
	<u>Before</u>	<u>After</u>	<u>Before</u>	<u>After</u>
TPH (Gas)	50.35	23	57,000	ND
TPH (Diesel)				
Benzene	NA	ND	3,950	ND
Toluene	NA	ND	2,010	ND
Ethylbenzene	NA	.16	3,500	ND
Xylenes	NA	.76	12,930	ND

Oil & Grease  
Heavy metals

**Comments (Depth of Remediation, etc.):**

Approximately 3,500 cy of soil was excavated and aerated onsite. This soil was then used to backfill the pit.

A layer of stained soil at approximately 8-10' bgs, and 2-3' thick along the SW and SE walls of the excavation was left in place. A portable OVM registered >1,000 ppm to 11,000 ppm organic vapor. Soil samples collected beneath this layer at 15 and 18' bgs detected low levels of hydrocarbons (3-12ppm TPH). Later, when soil borings were advanced along the SW and SE walls, green-gray soil was collected at 9 and 13' depths. Laboratory analysis did not detect TPH-G or BTEX.

**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**  
 Number Decommissioned: **4** Number Retained: **4**  
 List enforcement actions taken: **None**

List enforcement actions rescinded:

**V. LOCAL AGENCY REPRESENTATIVE DATA**

Name: **Eva Chu** Title: **Haz Mat Specialist**

Signature: *Eva Chu* Date: *6/6/94*

**Reviewed by**

Name: **Barney Chan** Title: **Haz Mat Specialist**

Signature: *Barney Chan* Date: *6/6/94*

Name: **Tom Peacock** Title: **Supervising HMS**

Signature: *Thomas Peacock* Date: *6/6/94*

**VI. RWQCB NOTIFICATION**

Date Submitted to RB: **June 7, 1994** RB Response:

RWQCB Staff Name: **Keven Graves** Title: **AWRCE**

Signature: Date:

**VII. ADDITIONAL COMMENTS, DATA, ETC.**

Information documenting tank removal activities which occurred in 1984 is lacking. Reports indicate 3 USTs were removed. However, a site plan shows there was once a waste oil tank behind the building structure. Site plans also depict the soil excavation boundaries to be near the vicinity of the waste oil tank. Per Bob Boust, of UNOCAL, it is standard procedure to remove all tanks and lines when a station is completely demolished. This suggests the waste oil tank was removed.

In February 1987 four soil borings were advanced in the vicinity of the former USTs and pump island, and subsequently converted into groundwater monitoring wells MW-1, 2, 3, and 4. These borings encountered perched water at various depths (4', 10', and 18'). The wells were screened from 5-30' depth. Groundwater samples exhibited up to 39,920 ppb TPH-G and 2,390 ppb benzene. Multiple perched zones may explain the fluctuating ground water flow directions calculated at various quarters.

In June 1988, a soil vapor survey was performed to determine the extent of soil contamination and to estimate the lateral extent of soil excavation needed. Subsequently, the pit was overexcavated to 18-20' depth, removing approximately 3,500 cy of soil and destroying the four monitoring wells installed in 1987. The soil was aerated onsite and later used to backfill the pit. Soil stockpile characterization did not appear adequate at the time (only 10, 4 into 1, composite samples were analyzed for TPH-G, no analysis for BTEX). However, soil from the filled area was analyzed in January 1990 for TPH-G and BTEX, when temporary wells, TWS, were installed, confirming soil was adequately aerated to remove contaminants.

The temporary wells were advanced to evaluate the extent of soil

contamination left in place along 98th Ave, as well as to evaluate water quality beneath the site. Grab water samples taken at 26' depth from the TWS along 98th Ave detected only 40 ppb TPH-G, but did not detect BTEX. Soil samples from borings advanced along 98th Ave exhibited up to 29 ppm TPH-G, .16 ppm ethylbenzene, and .76 ppm xylenes from SB-3 (30' depth).

Monitoring wells MW5, 6, and 7 were installed in January 1990 to determine groundwater flow direction. These wells first encountered groundwater at 28-30' depths, stabilizing at about 26' depth. The wells were screened from 26-46' in clayey sand to sand sediments. In August 1991, monitoring well MW-8 was installed within 10' of the former UST pit, in the verified downgradient direction. This well was screened from 26-36'. Depth to water in this well has ranged from 22.48 to 26.30 feet bgs. Groundwater analysis of MWS 5, 6, 7, and 8 have not detected TPH-G or BTEX for four consecutive quarters.

When it came to my attention that a former waste oil tank was at the site, adjacent to well MW-8, the street had already been widened and well MW-8 was destroyed. With the degree of overexcavation at this site, any soil contamination from the waste oil tank would also have been removed.

It appears the source of contamination was removed with the closure of the former USTs and the overexcavation and aeration of affected soil. Elevated levels in groundwater collected initially from MWS 1, 2, 3, and 4 may be due to contaminated perched water. When this area was overexcavated, groundwater from the first aquifer did not appear to be impacted by the fuel release at the site. Contaminated soil left in place is limited and does not appear to threaten beneficial uses of groundwater.