

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

StID 4461

September 26, 1997

Mr. Leno Piazzo
Leno Piazzo Trust
8 Russian Hill Place
San Francisco, CA 94133

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Re: Fuel Leak Site Case Closure for Cherry City Nursery, at
1034 Peralta Ave, San Leandro, CA 94577

Dear Mr. Piazzo:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- o Up to 130ppm TPHg, 7,800ppm TPHd, and 18,000ppm TOG remain at a depth of 30'bgs in the vicinity of the former 1500 gallon fuel oil UST, and
- o up to 2,000ppb TPHg, 2,600ppb TPHd, and 2,800ppb TOG was identified in groundwater from boring B14 and B16.

If you have any questions, please contact me at (510) 567-6762.

eva chu
Hazardous Materials Specialist

enclosure:

1. Case Closure Letter
2. Case Closure Summary

c: files (chrryety.2)

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REMEDIAL ACTION COMPLETION CERTIFICATION

StID 4461 - 1034 Peralta Ave, San Leandro, CA
(2 gasoline and 2 fuel oil tanks removed in October 1990)

September 26, 1997

Mr. Leno Piazza
Leno Piazza Trust
8 Russian Hill Place
San Francisco, CA 94133

Dear Mr. Piazza:

This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file 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, Section 2721(e) of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Dave Deaner, SWRCB (with attachment-case closure summary)
Mike Bakaldin, QIC 41401
Kent Reynolds, Golder Assoc, 180 Grand Ave, Suite 250,
Oakland, CA 94612
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01-0309

CL

CASE CLOSURE SUMMARY

Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: June 20, 1997

Agency name: Alameda County-HazMat
City/State/Zip: Alameda, CA 94502
Responsible staff person: D. Klettke

Address: 1131 Harbor Bay Pkwy
Phone: (510) 567-6700
Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site facility name: Cherry City Nursery
Site facility address: 1034 Peralta Avenue, San Leandro, CA 94577
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 4461
URF filing date: SWEEPS No: N/A

Responsible Parties: Leno P. Piazza Trust
Addresses: 8 Russian Hill Place, San Francisco, CA 94133
Phone Numbers:

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	550	gasoline	removed	10/29/90
2	280	gasoline	removed	10/29/90
3	1,500	fuel oil	removed	10/29/90
4	5,000	fuel oil	removed	10/30/90

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: holes were noted in tanks 2, 3 and 4 at time of removal.
Site characterization complete? Yes
Date approved by oversight agency: 12/28/93
Monitoring Wells installed? No Number: N/A
Proper screened interval? N/A
Highest GW depth below ground surface: N/A Lowest depth: N/A Note: groundwater was encountered at approximately 17' to 22' bgs in temporary borings drilled in 4/94 and 3/97.
Flow direction: presumed to be southwesterly as per regional flow
Most sensitive current use: irrigation/domestic wells are presently on property.
Are drinking water wells affected? unknown Aquifer name: San Leandro Cone
Is surface water affected? undetermined Nearest affected SW name: San Leandro Creek runs in a westerly direction adjacent to southern border of property.
Off-site beneficial use impacts (addresses/locations): undetermined
Report(s) on file? Yes Where is report(s) filed? Alameda County
1131 Harbor Bay Pkwy
Alameda, CA 94502

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ENVIRONMENTAL PROTECTION

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u> <u>(include units)</u>	<u>Action (Treatment</u> <u>or Disposal w/destination)</u>	<u>Date</u>
Tanks	1-500 gallon, 1-280 gallon and one 1,500 gallon	disposal/Ericksen Inc., Richmond, CA	10/29/90
	1-5000 gallon	disposal/Ericksen Inc., Richmond, CA	10/30/90
Piping			
Free Product			
Soil	288 cubic yards	disposal/BFI-Vasco Road Landfill Livermore, CA	3/20/92
	72 cubic yards	disposal/BFI-Vasco Road Landfill	3/23/92

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

<u>Contaminant</u>	<u>Soil (ppm)</u>		<u>Water (ppb)</u>	
	<u>Before</u> ¹	<u>After</u> ²	<u>Before</u> ³	<u>After</u> ⁴
TPH (Gas)	<1	130	<50	2000
TPH (Diesel)	50	7,800	200	2600
TOG (O&G)	550	18,000	600	2800
Benzene	0.004	<0.1	<0.5	<0.5
Toluene	0.019	<0.1	<0.5	3
Ethylbenzene	0.003	<0.1	<0.5	<0.5
Xylenes	0.014	<0.1	<2	<2
Heavy metals	NA	NA	NA	NA

NA=Not analyzed

¹"Before" TPHg and BTEX results were revealed in soil sample S4, collected at a depth of 7' below ground surface (bgs), from the gasoline excavation (Tank 2) at the time of initial UST removal. TPHd results were revealed in soil sample S1, collected at a depth of 8' bgs, from the west end of the fuel oil excavation (Tank 3) at the time of initial UST removal.

²"After" results were revealed in soil sample B4-30.5, collected from hydropunch boring B4 at a depth of 30.5' bgs. Laboratory results of soil samples collected after the over-excavation of tanks 2, 3 and 4 revealed non-detectable concentrations of TPHg, TPHd, O&G and BTEX.

³"Before" TPHd results were revealed in the groundwater sample collected from hydropunch boring B5, and O&G results were revealed in the groundwater sample collected from hydropunch boring B3. No BTEX was detected in any of the four groundwater samples collected during the hydropunch investigation.

⁴"After" TPHd and O&G results were revealed in the groundwater sample collected from boring B16, and TPHg results were revealed in the groundwater sample collected from boring B14.

Comments (Depth of Remediation, etc.):

A commercial flower nursery operated at this site from approximately the 1920's to 1990, when four USTs (USTs 1 through 4) were removed from the site. USTs 1 & 2 reportedly stored gasoline and USTs 3 and 4 were used to supply fuel to boilers used to generate steam for the green houses located at the site. The site formerly comprised of numerous greenhouses, residential and service buildings located on approximately 22.5 acres of land.

During October and November 1988, Terratech, Inc., performed an environmental investigation to determine the presence (or absence) of soil and groundwater contamination associated with nursery operations which have occurred at this site since approximately the 1920's (See Figure 3).

Five (5) exploratory borings (DH-1 through DH-5) were emplaced near three underground fuel tanks as depicted in Figures 2 and 3. Soil samples were collected at approximately five foot intervals to depths of approximately 20.5' bgs (borings DH-1 through DH-4) and 24.5' bgs (boring DH-5). A total of ten samples (4 discrete and 6 composite) were collected from the five exploratory borings. Laboratory results of soil samples revealed non-detectable concentrations of total extractable hydrocarbons (TEH), in samples collected from borings DH-1 through DH-4, and non-detectable concentrations of total volatile hydrocarbons (TVH) and BTEX, in soil samples collected from borings DH-2 and DH-5.

In addition, 26 shallow soil samples (HS-1 through HS-26) were collected at depths of between 8 to 16 inches below grade, to access pesticide handling/use at the site. Three shallow soil samples were collected from each of the two field areas; twelve samples were collected from the greenhouses; two samples were collected from the empty drum area and two samples were collected from each of the three chemical storage/mixing sheds (See Figure 3). Elevated concentrations of chlordane, DDD, DDE and DDT were identified in soil samples collected during this investigation. **Please be advised that this case closure summary document only addresses closure of the former gasoline and fuel oil USTs. The pesticide issue will be addressed separately as a Spills, Leaks and Investigative Cleanup (SLIC) site.** Laboratory results of composite and discrete soil samples are summarized in Tables 1 and 2.

Groundwater samples were collected at the two supply wells (W-1 and W-2). The sample from W-1 was bailed from the static water surface in the well. The sample collected from W-2 was from the discharge pipe. Samples for metals analysis were unfiltered. In addition, two temporary monitoring wells (TMW-1 and TMW-2) were emplaced next to each of the two on-site supply wells. Groundwater samples were analyzed for chlorinated pesticides and herbicides, volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH) and 13 EPA priority metals. Laboratory results of groundwater analyses are summarized in Table 3.

On October 29, 1990 three (3) underground storage tanks (USTs) were excavated, removed and transported to Erickson Inc., in Richmond, CA. An additional UST (Tank 4) was excavated, removed and transported to Erickson Inc., on the following day. Tanks 1 and 2 were gasoline USTs with capacities of 550-gallons and 280-gallons respectively. Tanks 3 and 4 were fuel oil USTs with capacities of 1,500-gallons and 5,000-gallons, respectively.

As documented by Crosby & Overton (C&O) in their December 14, 1990 "Tank excavation, removal and soil sampling" report, the USTs were inspected for tank integrity after removal from their respective excavations. Tank 1 exhibited disintegrated tar wrap. Tank 2 was observed to have holes in its top, and was rusted to a paper-thin state. Tank 3 showed extensive rusting and numerous holes; visual and olfactory soil contamination

was observed beneath Tank 3. Tank 4 displayed a single hole, and soil contamination was observed underneath tank 4. No water was encountered in the UST excavations.

Soils samples S3 and S4, collected from the beneath tanks 1 and 2 (gasoline USTs), were analyzed for TPHg and BTEX. Soil samples S1, S2 and S7, collected from beneath tanks 3 and 4 (fuel oil USTs), were analyzed to TPHd, TOG and BTEX. Laboratory results of soil samples collected after removal of the four USTs are summarized in Tables 4 and 5.

During January 1991, C&O over-excavated additional contaminated soil from excavations of tanks 2, 3 and 4. After over-excavation of 378 yd³ of soil were removed all subsequent soil samples revealed non-detectable concentrations of TPHd, TPHg, O&G and BTEX, except for a concentration of 10 ppm for non-hydrocarbon oil & grease compounds at tank area 4 (See Figures 7 and 8 and Table 6).

In January of 1994, Levine-Fricke conducted a limited soil and ground water investigation, in the vicinity of former tanks 3 & 4, which resulted in the emplacement of four exploratory soil borings (B2 through B5). A cone penetration test (CPT) rig was used to collect soil and groundwater samples. A water-bearing sand lens was discovered between 31 and 34 feet bgs (See Figures 9 & 10). Petroleum hydrocarbons and O & G were detected in soil samples from borings B4 and B5, with concentrations up to 7,800 ppm diesel and 18,000 ppm O & G. Lower concentrations of TPHd were also detected in B2 and B3 with ranges of 30-110 ppm. No detectable levels of BTEX were revealed in soil samples collected from borings B2 through B5 (See Figure 8 and Table 7).

In April of 1994, Levine-Fricke then performed a soil and groundwater investigation to further evaluate the lateral and vertical extent of fuel hydrocarbons detected in their previous investigation (See Figure 8 and Tables 8 and 9). This resulted in 12 borings (B-6 through B-17) being drilled with fifty soil samples being taken from six of the twelve borings. Groundwater was encountered from approximately 18 to 20' bgs, and groundwater samples were collected from five borings (B11, and B14 through B17). TPHd was the primary contaminant found with a high reading of 2.6 ppm, as well as toluene, which was found in 4 of the 5 samples at a maximum concentration of 3 ppb. Polynuclear aromatics (PNAs) were revealed at non-detectable concentrations in soil samples collected from borings B8, B9, B12 and B14. The petroleum hydrocarbons encountered in this investigation were characterized as Bunker "C" fuel oil. Soils which are affected by this oil extends from approximately 20 to 32' bgs, which is beneath the groundwater that was first encountered (18-20' bgs).

On January 16 and 17, 1997 four (4) boreholes (GA-1 through GA-4) were emplaced in the vicinity of the former USTs (See Figure 11). The highest concentration of TPHd (6,700 mg/kg) was revealed in the sample from boring GA-1, at a depth of approximately 30.5 feet bgs. BTEX was not detected in any of the soil samples which were submitted for analysis. Phenanthrene was detected at a concentration of 0.041 mg/kg in the soil sample collected at a depth of 28' bgs. Pyrene was detected at concentrations of 0.26 mg/kg and 0.043 mg/kg, in soil samples collected from boring GA-1, at depths of 28' and 30.5' bgs, respectively. Non-detectable concentrations of TPHg, TPHd, BTEX or polynuclear aromatic hydrocarbons (PNAs) were revealed in groundwater samples collected from the four temporary wells.

Four water supply wells were identified during a site reconnaissance of the site, including two wells (WS-1 and WS-3) located in the northeast portion of the site, one well (WS-2) located in the northern portion of the site, and one well (WS-4) located in the southern portion of the site. With the exception of tetrachloroethene (PCE at a concentration of 0.015 ug/L) reported in the sample collected from well WS-3, no TPHg, TPHd, TPHmo, VOCs and chlorinated pesticides and herbicides were detected in any of the groundwater samples. Water supply wells WS-2, WS-3 and WS-4 are currently inactive. All active/inactive wells are to be properly decommissioned, after receiving closure concurrence from the RWQCB.

See Section VII, Additional Comments, etc...

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: **Yes, pending resolution of pesticide issues, a risk-management plan may be required to address concerns involving any possible future commercial/industrial or residential uses of the property. In addition, all active/inactive water supply wells will be required to be properly decommissioned.**

Should corrective action be reviewed if land use changes? **Yes**

Monitoring wells Decommissioned: **None**

Number Decommissioned: **N/A** Number Retained: **N/A**

Water supply wells Decommissioned: **No, pending LOP case closure**

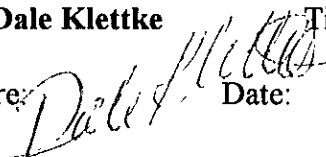
Number Decommissioned: **None** Number Retained: **Four (4)**

List enforcement actions taken: **NOV letter sent 8/26/96**

List enforcement actions rescinded: **Work plan approved 1/15/97.**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Dale Klettke** Title: **Hazardous Materials Specialist**

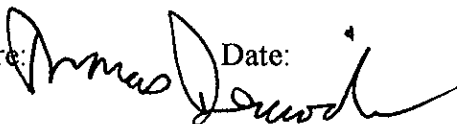
Signature:  Date: **7/23/97**

Reviewed by

Name: **Eva Chu** Title: **Hazardous Materials Specialist**

Signature:  Date: **6/23/97**

Name: **Thomas Peacock** Title: **Supervising Hazardous Materials Specialist**

Signature:  Date: **6-20-97**

VI. RWQCB NOTIFICATION

Date Submitted to RB: **7/24/97** RB Response: **Approved**

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

Signature:  Date: **8/12/97**

VII. ADDITIONAL COMMENTS, DATA, ETC.

The geology/hydrogeology of this site suggests that the extent of the petroleum-hydrocarbon contamination was released during a period when groundwater elevation levels were abnormally low. Although not easily verified,

depressed groundwater elevation levels could possibly correlate with periods of drought experienced in Northern California during the fifty or so years in which the fuel oil USTs were actively being used.

This site qualifies for case closure as a "Low Risk Soils Case" for the following reasons:

- a) The source has been sufficiently removed or has been remediated. *Approximately 360 cubic yards of petroleum-hydrocarbon contaminated soil was removed from this site. Soil contamination remaining in place extends laterally for a distance of approximately 90-100 feet (east to west) by 60-80 feet (north to south). The soil contamination extends vertically from approximately 13 to 36 feet below ground surface. The estimated quantity of TPH-impacted soil remaining in place is approximately 3500 cubic yards, with the majority of the petroleum hydrocarbon-impacted soils being below current groundwater elevation levels. (See Figures 11 through 14).*
- b) The site has been adequately characterized. *Laboratory analysis of soil and groundwater samples collected during the numerous investigations documents that the previous release, although large in extent, has been sufficiently characterized.*
- c) Little or no groundwater impact currently exists and no contaminants are found at levels above established MCLs or other applicable water quality objectives. *Groundwater samples collected from the four borings and the four water supply wells revealed non-detectable concentrations of TPHg, TPHd, BTEX, PNAs, and chlorinated pesticides and herbicides. Although PCE was detected at a concentration of 15 ug/L (MCL is 5 ug/L) in the aquifer historically being used for commercial/residential production, PCE is not a common chemical used in the nursery business. No PCE was detected in the groundwater samples collected from exploratory borings GA-1 through GA-4, and the exact source of the PCE is unknown.*
- d) No water walls, deeper drinking water wells, surface water or other sensitive receptors are likely to be impacted. *Due to the low toxicity, volatility, solubility and mobility of Bunker C-type constituents, the petroleum hydrocarbon contamination appears to be localized on site. The groundwater surface measured in the temporary wells (exploratory borings GA-1 through GA-4) was reported to be from 15.5-16.5' below ground surface (bgs). The non-detectable concentrations of TPHd, TPHg, BTEX and PNA's detected in the shallow and deeper groundwater aquifers suggests that the petroleum hydrocarbon contamination remaining in place has not affected the quality of groundwater underlying this site.*
- e) The site presents no significant risk to human health or the environment. *All detected petroleum hydrocarbon concentrations are below the primary drinking water MCLs, with the exception of 15 ug/L of PCE detected in the groundwater sample collected from water supply well WS-3. The petroleum hydrocarbon contamination appears to be localized and is not migrating off-site at concentrations which would pose a risk to human health or the environment. This assumption is validated by the fact that no TPHd, TPHg, BTEX or PNAs were detected in the groundwater samples collected from exploratory borings GA-1 through GA-4. In addition, boring GA-1 was emplaced in the location identified as having the largest vertical extent of petroleum-hydrocarbon contamination .*