



COUNTY ADMINISTRATOR

1321 OAK STREET • SUITE 302 • OAKLAND, CALIFORNIA 94612 • (415) 272-6664

STEVEN C. SZALAY
COUNTY ADMINISTRATOR

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ASSISTANT COUNTY ADMINISTRATOR

DOCUMENT TRANSMITTAL SHEET

DATE: 3/21/91

TO: Ed Howell
Hazardous Materials Division

FROM: Valerie Street

SUBJECT: _____

NUMBER OF PAGES TRANSMITTED (includes transmittal page) 9

COMMENTS:

I will be calling to follow up.

63321

Our telefax number is 272-3784

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



80 Swan
Room 600, Oakland
94621
RECEIVED
1988 APR 14 P 2:30
470-27th Street, Third Floor
Oakland, California 94612
OFFICE OF COMMUNITY
DEVELOPMENT 71-4320

Larry Cito

April 14, 1988

Mr. Roy Schweyer
Office of Community Development
City of Oakland
1417 Clay St.
Oakland, CA 94612

SUBJECT: UNDERGROUND TANK CLOSURE AT 15TH & CASTRO, OAKLAND

Dear Mr. Schweyer:

In November 1987, two (2) gasoline tanks were removed from the subject site (500 gal. and 1000 gal.). Initial soil TPH values ranged from less than 50 ppm through 760 ppm suggesting some soil contamination. After contaminated soils were removed, the in-place soil TPH values were less than 100. This case is considered closed.

This Agency acknowledges the Regional Water Quality Control Board's authority to protect the groundwaters of the State. Final consideration remains with the Regional Board.

Should you have any questions concerning this matter, please contact Mr. Storm Goranson, Hazardous Materials Specialist at 271-4320.

Sincerely,

Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:SG:mam

cc: Greg Zentner, RWQCB
L.C. Rudd

March 12, 1991
SCI 615.001

Dignity Housing West
c/o Mr. Willie Pettus
Pystok Associates
339 15th Street, Suite 212
Oakland, California 94612

Consultation
Dignity Housing West
15th and Castro Streets
Oakland, California

Dear Mr. Pettus:

This letter records our consultation regarding hydrocarbon contamination encountered during our preliminary environmental assessment for the Dignity Housing Project in Oakland, California. The site is located at the northeast corner of 15th and Castro Streets, as shown on the attached Site Plan, Plate 1. It is a rectangular parcel that is essentially level and currently undeveloped. The proposed project will include a 4-story building with a garage and open courtyard.

Review of available records indicates that two underground fuel storage tanks were removed from the site in November 1987. Analytical test data for soil samples obtained from the tank excavation are summarized below.

■ Subsurface Consultants, Inc.

171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 415-268-0461 • FAX 415-268-0137

Table 1. Previous Analytical Test Results

<u>Sample Location</u>	<u>Sampling Date</u>	<u>TPH¹ (mg/kg)²</u>
Pit - West End	11/12/87	
Pit - East End	11/12/87	2400 5600
Pit - North End	01/15/88	
Pit - South End	01/15/88	<50
Pit - East End	01/15/88	<50
Pit - West End	01/15/88	<50
Pit - Bottom	01/15/88	<50 760
Pit - North End	02/12/88	
Pit - South End	02/12/88	960 490
Pit - East End	03/15/88	
Pit - West End	03/15/88	<50 89

- ¹ TPH = Total Petroleum Hydrocarbons
² mg/kg = milligrams per kilogram

In order to assess whether contamination remains in the tank area, several test borings were drilled through the tank excavation backfill during our investigation of the site. The boring locations are shown on Plate 1.

Selected soil samples obtained from the borings were analytically tested for petroleum hydrocarbon contaminants. The logs of the boring are presented on Plates 2 through 8. The analytical test results are summarized below; the laboratory reports are attached.

Table 2. Petroleum Hydrocarbons and
 BTXE Concentrations in Soil

Boring	Depth (feet)	TVH ¹ (mg/kg) ³	TEH ² (mg/kg)	Benzene (ug/kg) ⁴	Toluene (ug/kg)	Ethyl Benzene (ug/kg)	Total Xylenes (ug/kg)	Oil & Grease (mg/kg)
5	7.5	ND ⁵	ND	ND	ND	ND	ND	ND
8	13	750	720	55	1,300	14,000	38,000	ND
8	19.5	25	58	40	110	170	910	ND

- 1 TVH = Total volatile hydrocarbons, quantified as gasoline
- 2 TEH = Total extractable hydrocarbons, quantified as Stoddard Solvent
- 3 mg/kg = milligrams per kilogram
- 4 ug/kg = micrograms per kilogram
- 5 ND = None detected, chemicals not present at concentrations above the detection limits

Discussion and Conclusions

The analytical test results indicate that gasoline, BTXE and stoddard solvent are present in the soil beneath the previous tanks at concentrations exceeding regulatory criteria. Currently, the horizontal and vertical extent of soil contamination, and whether or not groundwater has been impacted, are unknown. The analytical test results from SCI's Boring 8 suggest that contaminant concentrations decrease rapidly with depth. This may indicate that the extent of contamination is relatively limited. However, given that the site is underlain by relatively permeable sand, it is also possible that contamination has migrated vertically downward to greater depths. If this is the case, it is possible that the contamination has impacted a significant amount of soil as well as groundwater quality in the area. As a result, we judge that a more detailed investigation should be conducted to determine the vertical and lateral extent of soil contamination, and its impact on groundwater quality.

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Regulatory Criteria

The investigation and cleanup of fuel leaks is regulated by the California Regional Water Quality Control Board (RWQCB). The RWQCB has established guidelines¹ for the investigation, cleanup and closure of sites where fuel leaks have occurred. Where soils contain greater than 100 parts per million (ppm) of petroleum hydrocarbons, RWQCB guidelines require that groundwater impacts be evaluated by installing and sampling groundwater monitoring wells. Soil cleanup criteria depend on the risk of soil contamination impacting groundwater. Soil cleanup criteria of 100 ppm have been used on similar projects in the area.

The Alameda County Health Care Services Agency (ACHCSA) is generally the lead agency overseeing the implementation of the RWQCB guidelines. However, the ultimate closure of fuel leak cases will require RWQCB approval.

In accordance with state laws, the regulatory agencies should be notified of the discovery of contamination at the site. We have enclosed an appropriate form for doing so. Upon notification, the ACHCSA will likely issue a letter requiring additional investigation and evaluation of remedial alternatives. The letter will likely cite water code statutes and will require timely compliance with investigation, reporting and remedial action deadlines.

Remediation

Based on the information available to date, we conclude that some soil remediation will be required. If groundwater has been impacted, groundwater remediation may also be required. Remedial methods and costs are uncertain this time due to a lack of data. However, we judge that remediation could involve the following:

1. On-site soil remediation. For purposes of discussion, we refer to on-site soil remediation as the removal of contaminated soil both on-site and beneath the sidewalk. It will likely be appropriate to remove the contaminated soils in these accessible

¹ Tri-Regional Board Staff Recommendations for preliminary evaluation and investigation of underground tank sites RWQCB San Francisco Region August 10, 1990.

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areas by excavation. Excavations will likely extend to groundwater which exists at depths of about 30 feet below street grades. Contaminated soils will likely be remediated on site by aeration and/or bioremediation. The remediated soils should then be disposed of in an appropriate landfill. The excavation created by contaminated soil removal should be backfilled with clean imported soil.

2. Off-site Soil Remediation. Contaminated soils which may exist beneath the street will likely need to be remediated by some form of in-situ remediation. This may involve vapor extraction and/or in-situ bioremediation.

3. Groundwater Remediation/Monitoring. If groundwater quality has been impacted, groundwater remediation may be required. At a minimum, it will be necessary to conduct on-going groundwater monitoring for a period of a few years to document water quality downgradient of the tank site.

From a practical standpoint, we judge that it will be necessary to conduct on-site soil remediation activities prior to site development. Off-site soil and groundwater remediation could be conducted concurrently or after construction of the project.

Preliminary Cost Estimates

Remediation costs cannot be accurately estimated at this time since the extent of contamination and whether or not groundwater has been impacted have not been determined. However, as requested, we have attempted to speculate on the approximate investigation and remedial costs based on our experience in the area. The cost estimates are presented below:

Soil and groundwater investigation	\$ 25,000 - \$ 50,000
On-site soil remediation	\$ 25,000 - \$ 75,000
Off-site soil remediation	\$ up to - \$100,000
Groundwater remediation/monitoring	\$ 20,000 - \$200,000

At this time, we suggest that you budget up to \$100,000 to investigate the problem and to remediate on-site soil contamination. This cost estimate could vary greatly and should be reviewed upon completion of our next phase of investigation.

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Important

We have been asked to address the issue of why the tank site was investigated even though the County had "closed the case". During our environmental assessment, we identified the tanks as a significant potential environmental liability to the purchasers of the property for several reasons. It was our opinion, based on our review of the analytical data generated during tank removal, that removal of contaminated soils below the tanks was not adequately documented. Although the case had been "closed" by the County, the closure had not be reviewed by the RWQCB. It is our opinion that the closure did not comply with RWQCB guidelines and ultimately additional investigation would have been required. As a result, it was our professional recommendation that additional studies be conducted.

I hope this provides the information required at this time. If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.

R. William Rudolph

R. William Rudolph
Vice President

RWR:JPB:ddh

Attachments:

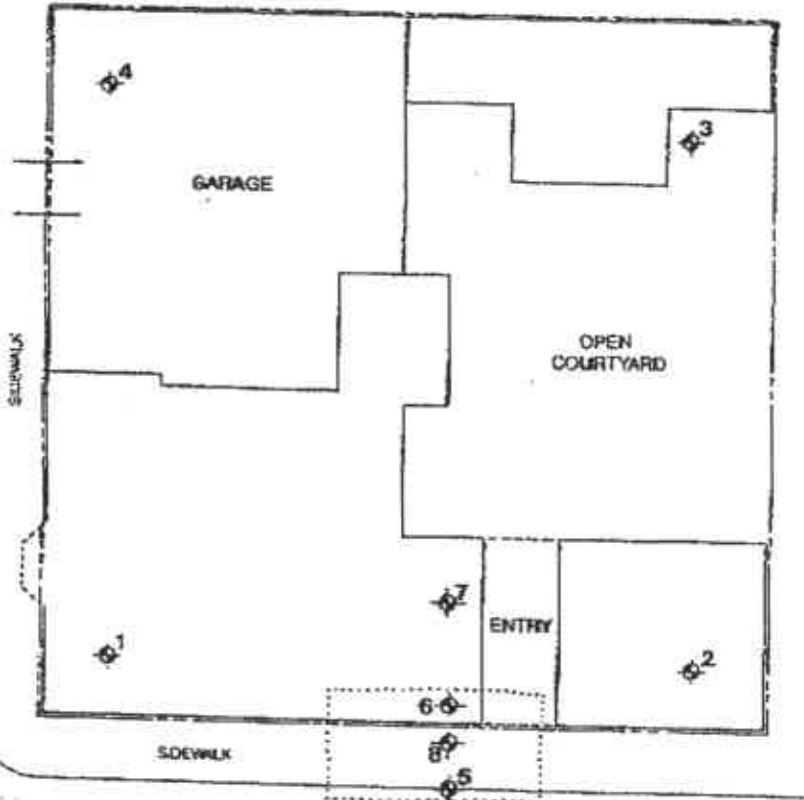
Plate 1 - Site Plan
Plates 2 - 8 - Log of Boring 1 through 8
Plate 9 - Unified Soil Classification System
Leak Report Form
Analytical Test Reports

2 copies submitted

cc:

Fei Tsen
Tsen and Associates
4 Embarcadero
San Francisco, California 94111




CASTRO STREET



16TH STREET



VICINITY MAP

-  TEST BORING
-  PROPERTY LINE
-  APPROXIMATE LIMITS OF BACKFILL FROM PREVIOUS TANK EXCAVATION



APPROXIMATE SCALE (feet)



SITE PLAN

Subsurface Consultants

DIGNITY HOUSING WEST - OAKLAND, CA			PLATE
JOB NUMBER	DATE	APPROVED	1
615.007	3/1/91		