

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

June 10, 1994
STID# 1667

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

Ms. Kimberly Brandt
Catellus Development Corp.
201 Mission Street, 30th Floor
San Francisco, California 94105

**RE: Investigation / Remediation at the
Yerba Buena Project Site, Emeryville, California 94608**

Dear Ms. Brandt:

The Alameda County, Department of Environmental Health, Hazardous Materials Division has completed review of the reports prepared and submitted to date by Levine Fricke for the referenced site. In addition, our staff toxicologist, Dr. Ravi Arulanantham, has reviewed the Baseline Health Risk Assessment for Area C prepared and submitted by Soma Environmental Engineering, Inc.

As you are aware, the Yerba Buena Project Site is divided into four designated areas; Area A, Area B, Area C and Area D. The cleanup goals proposed by Catellus for the site were as follows: 10 ppm TPH gasoline, 100 ppm TPH diesel, 1000 ppm oil and grease, and 1 ppm combined concentration of benzene, toluene, ethylbenzene, and xylene. In 1991, the Regional Water Quality Control Board and this agency concurred with the above mentioned site cleanup goals with the following conditions;

- 1) implementation of an acceptable containment plan for petroleum hydrocarbon affected soils which should include specific guidance language providing for the maintenance of the proposed encapsulations to protect water quality
- 2) implementation of an acceptable soil management plan such that any future activity at site which requires excavation of contaminated soil will be managed to mitigate any water quality problems which could arise
- 3) a notice to be placed on the recorded deed(s) whenever soils containing elevated levels of pollutants are contained on any affected parcel
- 4) a long term monitoring program to evaluate the remaining risks posed by the residual soil and groundwater contamination left in place

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This office has the following comments concerning the status of the investigation / remediation for the different subject areas:

AREA A:

Two underground storage tanks (1500 gallon and 2000 gallon containing heating fuel oil) were removed in October 1, 1993. The former tanks (located southeast of the intersection of Yerba Buena Avenue and Hollis Street) were uncovered during grading work at the site. Soil samples collected following the removal of the tanks showed 470 ppm TPH diesel, 3800 ppm TOG, 960 ppm TPH motor oil, 0.013 ppm benzene, 0.013 ppm ethyl benzene, 0.055 ppm xylene and non detect (nd) for toluene. Overexcavation of contaminated soil (approx. 2500 cubic yards) was conducted and verification soil samples collected found 110 ppm TPH diesel, 430 ppm TOG, 170 ppm TPH motor oil, 0.007 ppm xylene, nd benzene, nd ethyl benzene, and nd toluene. The residual soil contamination left in place is within the clean up goals developed for the site with the exception of soil sample BS-14, collected at 14 feet bgs showing TPH diesel 10 ppm over the clean up goal).

It appears that adequate source removal of contaminated soil related to the two former tanks has occurred at the site. However, the threat to human health and groundwater posed by the residual soil contamination left in place must be evaluated. This issue should be addressed in the soil containment and management plan. Groundwater investigation related to the release associated with the two former tanks must be incorporated in the long term monitoring program.

In addition, volatile organic compounds had been detected in this area. A workplan for the installation of a groundwater extraction and treatment system had been approved by this office to hydraulically contain and extract shallow groundwater affected by the volatile organic compounds. To prepare the site for development, monitoring wells were abandoned and replacement wells will be installed following completion of site development.

AREA B:

One underground storage tank (approximately 350 gallon capacity) was removed in October 27, 1993. The former tank (located southeast of 40th and Hollis streets centerline) was uncovered during installation of underground utilities at the site. Soil sample collected following the removal of the tanks showed the

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following analytical results for petroleum hydrocarbons: 77 ppm oil and grease (O&G); non detect for TPH gasoline, TPH diesel, TPH motor oil, benzene, toluene, ethyl benzene, and xylene. VOC's were non detect with the exception of chloroform (0.0016 ppm) and methylene chloride (0.37 ppm). Overexcavation of soil suspected of containing petroleum hydrocarbons (based on PID readings and olfactory observation) was conducted and verification soil samples collected found 67 ppm O&G and non detect for TPH gasoline, TPH diesel, TPH motor oil and BTEX.

It appears that adequate source removal of contaminated soil related to the former tank has occurred at the site. Therefore, no further work will be required with regards to the former 350 gallon tank.

Former Ransome Company

On January 1990, five underground storage tanks were removed at the former Ransome Company site (2 - 4000 gallon diesel, 1 - 250 gallon waste oil, 1 - 1000 gallon gasoline, 1 - 10,000 gallon gasoline). Soil samples collected following the removal of the tanks showed the following petroleum hydrocarbon results: 740 ppm TPH gasoline, 7500 ppm TPH diesel, 1100 ppm TOG, 1.3 ppm benzene, 0.25 ppm toluene, 11.4 ppm xylene and 4.7 ppm ethyl benzene. Pipeline soil samples were collected and found the following petroleum hydrocarbon concentrations: 7400 ppm TPH gasoline, 4900 ppm TPH diesel, 32 ppm benzene, 150 ppm toluene, 371 ppm of xylene, 92ppm ethyl benzene. Approximately 25,000 cubic yards of contaminated soils were excavated and will be contained on site in accordance to the Containment Plan prepared by Levine Fricke dated March 10, 1992. Final verification samples showed that the residual soil contamination left in placed is within the clean up goals developed for the site with the exception of three samples collected at ten feet depth : SW-38 (45 ppm TPH gasoline, 0.70 ppm benzene, 6.6 ppm ethylbenzene, 14 ppm xylene); SW-41 (90 ppm TPH gasoline, 0.63 ppm benzene, 4 ppm ethylbenzene, 10 ppm xylene); SW-42 (70 ppm TPH gasoline, 0.08 ppm benzene, 2.4 ppm ethylbenzene, 13 ppm xylene). Three monitoring wells (W-1, W-2, and W-3) were installed by Aqua Resources Inc. (ARI) in November 1990 and subsequently destroyed during soil remediation activities. A groundwater investigation was conducted by Levine Fricke in May 1992 and seven monitoring wells (LF-16, LF-24, LF-25, LF-26, LF-27, LF-28 and LF-29) were installed at the site. Groundwater samples detected 0.4 ppb benzene, nd TPH gasoline, 0.4 ppb toluene, nd ethylbenzene, 2 ppb xylene, 980 ppb TPH diesel and 5600 ppb TOG.

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It appears that adequate source removal of contaminated soil related to the five former tanks has occurred at the site. However, the threat to human health and groundwater posed by the residual soil contamination left in place must be evaluated and addressed in the soil containment and management plan.

Additionally, the groundwater investigation related to the releases associated with the five underground storage tanks must be incorporated in the long term monitoring program.

AREA C:

Former Bashland Property

Three underground storage tanks (2 -12,000 gallon diesel tanks, 1 - 1200 gallon oil tank) were removed in April 1992. Total oil and grease as high as 1500 ppm was detected in the soil sample collected at 8 feet bgs following the removal of the former tanks. A groundwater sample from the excavation pit showed 1200 ppb TPH diesel, 22 ppb trichloroethene, and 8 ppb 1,2 dichloroethene. One monitoring well (LF-31) located downgradient of the former tanks was installed in February 1993. During the recent monitoring event (3/11/94), the groundwater sample from this well detected 110 ppb TPH diesel, 210 ppb TPH oil, 6 ppb TCE, 3.4 ppb 1,2-DCE.

Two hydraulic lifts, an oil/water separator, and a concrete inspection pit were removed from the site in February 1993. Soil samples (SW2-7 & WS-6) collected at 6 feet to 7 feet bgs showed 3600 ppm TPH diesel and 2600 ppm O&G. Overexcavation was conducted and final verification soil samples collected at 10.5 feet to 13 feet bgs from the former hydraulic lift area detected 1600 ppm O&G and 1500 ppm TRPH.

It appears that adequate source removal of contaminated soil related to the former three tanks and two hydraulic lifts had occurred at the site. However, the threat to human health and groundwater posed by the residual soil contamination left in place must be evaluated and addressed in the soil containment and management plan.

Additionally, the groundwater investigation related to the releases associated with the former tanks and hydraulic lifts must be incorporated in the long term monitoring program.

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Former Bay Area Warehouse (BAW)

On November 1991, a 2000 gallon gasoline tank was removed from the former BAW site. Soil samples collected following the removal of the tank showed 3ppm TPH gasoline and non detect for benzene. Lead was detected at 146 ppm. A groundwater collected from the excavation found 8800 ppb TPH gasoline, 240 ppb benzene, 360 ppb toluene, 170 ppm ethylbenzene, 750 ppb xylene and nd Pb. One monitoring well (LF-32) was installed in the downgradient location of the former tank. Initial groundwater sample collected on May, 1993 showed nondetectable concentration of TPH gasoline, BTEX and organic lead. However, TPH diesel was found at 440 ppb. The recent sampling event (March 1994) showed 110 ppb TPH gasoline, 890 ppb TPH diesel, 850 ppb TPH motor oil, 2.5 ppb TCE, 0.8 ppb 1,2-DCE and nd BTEX.

The groundwater monitoring related to the former gasoline tank must be continued and incorporated in the long term monitoring program.

Beach Street Area

Two 12,000 gallon underground storage tanks (uncovered during excavation of petroleum hydrocarbon contaminated soil) were removed in August 31, 1993. Soil samples collected beneath the tank excavation detected levels of petroleum hydrocarbon up to 200 ppm TPH diesel, 2200 ppm oil and grease, 540 ppm TPH motor oil and 31 ppm TPH gasoline. Overexcavation of contaminated soil was conducted in September, 1993 and final verification samples collected at 5 feet and 10 feet bgs showed 750 ppm TPH diesel, 4100 ppm oil and grease, 1400 ppm TPH motor oil, 100 ppm TPH gasoline, 0.14 ppm toluene, 1.7 ppm ethylbenzene, 5.6 ppm xylene.

A soil and groundwater investigation to determine the vertical and lateral extent of contamination resulting from the former leaking tanks was required by this agency. A work plan dated March 31, 1994 to install one monitoring well and two soil borings was prepared and submitted by Levine Fricke. The workplan is acceptable provided the following modifications are addressed:

- during borehole advancement, one of the soil samples to be collected must be from the soil/water interface and the sample must be analyzed by a state certified laboratory for VOC's and metals (Pb, Zn, Ni, Cr, Cd) in addition to TPH gasoline, TPH diesel, TPH motor oil and BTEX.
- initial groundwater samples must be analyzed for VOC's and metals (Pb, Zn, Ni, Cr, Cd) in addition to TPH gasoline, TPH

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diesel, TPH motor oil and BTEX. Quarterly groundwater samples should be analyzed for TPH diesel, TPH gasoline, TPH motor oil and BTEX.

The threat to human health and groundwater posed by the residual soil contamination left in place must be addressed in the soil containment and management plan.

In addition, the groundwater investigation related to the two former leaking tanks must be incorporated in the long term monitoring program.

BASELINE HEALTH RISK ASSESSMENT FOR AREA C

This office has reviewed the May 16, 1994 Baseline Health Risk Assessment for AREA C prepared and submitted on May 17, 1994 by SOMA Environmental Engineering, Inc. The HRA evaluated potential human health risks to construction workers and future retail workers associated with exposure to volatile organic compounds (VOC's) in subsurface soil and groundwater and priority pollutant metals found in Area C. The VOC contamination found in Area C appears to be originating from an off-site upgradient source located north of the referenced site.

We concur with the findings presented in the HRA that the proposed development of Area C as a retail shopping center under current site conditions will not pose a significant health risk to construction workers and future retail workers. The risk assessment was a very well prepared technical document which addressed all of the concerns of the County. Please be advised that a Site Health and Safety Plan should be prepared and submitted to this office prior to initiating construction in Area C. The Health and Safety Plan should address the following issues:

- potential hazards due to inhalation of VOCs from soil and groundwater
- potential hazards due to contact with contaminated soils
- mitigating measures to reduce worker exposure to chemicals of concern
- monitoring plan to measure worker exposure to pollutants

Peralta Street & San Pablo Avenue

One 1500 gallon heating fuel underground storage tank (located underneath the sidewalk near 3819 San Pablo Ave.) was removed in September 22, 1993 at the referenced area. Bottom soil samples collected at 10 feet bgs following removal of the tank found 120

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ppm oil & grease and non detect for TPH diesel, BTEX, TPH motor oil. Sidewall sample at 8 feet bgs showed 33 ppm oil & grease and non detect for TPH diesel, BTEX , TPH motor oil.

The residual soil contamination left in place are within the clean up goals for the site, however the impact to groundwater must be evaluated. The groundwater investigation related to the former heating fuel tank should be incorporated in the long term monitoring program.

Until clean up is complete, you will need to submit reports to this office **every three months** (or at a more frequent interval, if specified at any time by this office). In addition, the following items must be incorporated in your future reports or workplans :


- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or workplan
- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified
- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department of the responsible party or tank owner's intention
- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained
- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels
- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professional involved with the project.

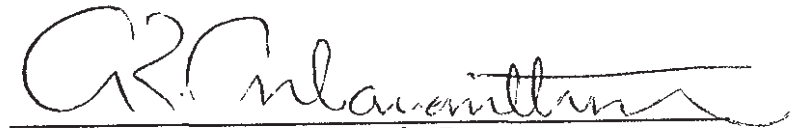
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If you have any questions concerning this letter, please contact anyone of the undersigned at (510) 271-4530.

Sincerely,



Susan L. Hugo
Senior Hazardous Materials Specialist



Ravi Arulanantham, Ph.D.
Staff Toxicologist

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health
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