environmental service by Papineau, R.E.A. 791

August 24, 2001

Mr. Don Hwang County of Alameda Health Care Services Agency Department of Environmental Health 1131 Harbor Bay Parkway Alameda, CA 94502

AUG 2 9 2001

Subject:

1723 Fruitvale Avenue Oakland, California (Project 2000-033.03)

RO# 172 STID 834

Dear Mr. Hwang:

The owner of 1723 Fruitvale Avenue began investigating perchloroethylene (PCE) in December 1999. Later, in November 2000, at Alameda County's direction, the owner performed a soil and ground water investigation. Then in January 2001, again at Alameda County's direction, the owner installed three wells and continued ground water monitoring. Concentrations of PCE in ground water (140 to 210 ppb) exceed the MCL (5 ppb) for drinking water. However, the particular ground water that has been affected exists in a thin lens between approximately 19 and 23.5 feet bgs and may not produce enough water to be useful for drinking. Two quarters of ground water monitoring data and available soil test results fail to demonstrate that there was ever a PCE release from 1723 Fruitvale Avenue. The alternative hypothesis remains viable that the source of PCE is off-site.

PCE was found at low concentration coincidentally during a December 1999 investigation and subsequent removal of a hydraulic lift. Concentrations in soil are low (10 to 43 parts per billion), at the lowest concentration or not detected in soil at 10 feet below grade surface (bgs) and at highest concentration in soil at 20 feet bgs, that is, at the interface with shallow ground water. Detectable PCE concentrations were found at the area of penetration for the former hydraulic lift and were not found anywhere else in on-site soil. PCE concentrations in soil and ground water are consistent with an off-site release for the following reasons:

- 1. PCE concentrations in soil are near the detection limit and attain a maximum value in soil just above ground water. Pattern of PCE would be reversed if there had been a surface spill of PCE at 1723 Fruitvale Avenue, with PCE detected in the near-surface soil and gradually diminishing in concentration with increased depth. Upper soils logged in the exploratory borings include stiff to hard clayey silt, which does not allow a preferential vertical migration pathway.
- 2. Part-per-billion PCE concentrations in soil may originate from volatilization of PCE from the shallow ground water. This phenomenon has been acknowledged at other sites by other investigators and staff of the RWQCB.
- 3. There are no detectable concentrations of TCE or cis-1,2-DCE, decomposition products of the reductive decomposition of PCE, in the on-site soil or ground water around the former hoist. This suggests that the PCE plume has migrated from a distance upgradient onto the 1723 Fruitvale Avenue site. Dissolved oxygen concentrations in the water-bearing lens are approximately 8 to 10 mg/L; therefore, conditions on site are not conducive to the reductive decomposition of PCE.



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Alameda County Health Care Services Agency in its recent letter dated August 20, 2001, acknowledges that the 1723 Fruitvale Avenue site may not be the source of PCE release, but also notes that this premise requires substantiation beyond that afforded by the available data. As you are aware, the owner could pay to install a well off-site, assuming he could obtain access permission from a nearby land owner or from the City of Oakland. This cost would be in addition to the costs already incurred for hoist removal, soil and ground water investigation, installation of the three existing ground water monitoring wells, and monitoring during the first and second quarters of 2001.

You may be unaware that the owner already has paid for soil excavation and disposal. The latter remedial action, performed in June 2000 under the local oversight of the City of Oakland, was initiated based upon an erroneously transcribed PCE concentration of 24 parts per <u>million</u> (ppm). The laboratory report correctly stated results in micrograms per kilogram ($\mu g/kg$), equivalent to parts per <u>billion</u> (ppb). Concentrations of PCE in soil at 1723 Fruitvale Avenue, at the one location where detectable, are in the 10s of parts per <u>billion</u>, less than the U.S. EPA, Region 9, Preliminary Remedial Goals (PRGs) for PCE, which are 5.7 ppm for residential land and 19 ppm for industrial.

You also may be unaware that the owner has suffered an economic hardship, in addition to his out-ofpocket costs related to the environmental closure, because the owner has been trying to sell 1723 Fruitvale Avenue and the sale is in extended escrow pending conclusion of the environmental investigation and monitoring. Some cost and delay were caused by the pursuit of phantom contamination in June 2000 and subsequent response actions. Still other cost and delay may be attributed to the buyer's perception of substantial uncertainty in the environmental oversight process, which has rested with Alameda County since October 2000. So far, the buyer and owner do not have an understanding of a definite set of conditions under which this case will be concluded or "closed," except for the obvious condition that all detectable concentrations of PCE vanish.

The owner believes that the agency-required responses to environmental conditions should not be indefinite and should not continue if conditions are found that do not pose a significant risk to people or the environment. The owner expects that the local oversight agency will act without bias. Indeed, his belief and expectation were previously expressed in a letter to Alameda County Health Care Services Agency, dated September 11, 2000.

Investigation and remedial response actions since December 22, 1999, have been influenced by an incorrect presumption that there is a PCE source in the soil on the Property. The detectable concentration of PCE in the ground water sample collected at [S]B-1 is not known to be related to any underground storage tank, above ground storage, or past activity conducted on the Property. In view of the investigation and clean-up actions so far performed by the owner, and relatively low concentrations of PCE, TCE and cis 1,2-DCE in the one grab ground water sample collected near Fruitvale Avenue, the owner wishes to conclude this matter without pursuing further investigation or clean-up actions.

If further investigation is required by [the local oversight agency], the owner requests that [the local oversight agency] acknowledge the previous reporting errors, re-state the rationale for further investigation, and proceed without any presumption that there is PCE source in the soil on the Property.



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Such an acknowledgment of the reporting error, which initially triggered the chase for PCE, has not been provided. Looking back to December 1999, the fact that there was detectable PCE in the ground water sample collected at location SB-1, in conjunction with the new information that the shallow ground water surface slopes down toward the west or southwest, also suggests presence of an off-site source (see Potentiometric Surface Maps).

To minimize any additional cost and delay, and to provide the substantiation requested by Alameda County in its recent letter, we propose to perform an extended pump test. The proposed protocol is generally as outlined here: 1) Purge and sample the three wells. 2) Then continue pumping well MWP-3 at a low flow rate for 60 to 120 casing volumes (40 to 80 gallons). 3) Take periodic measurements of ground water depth during the extended pumping. 4) Re-sample MWP-3 at the end of extended pumping. 5) Submit four samples for laboratory testing of PCE in accordance with U.S. EPA Method 601/8010. 6) Document the results in a quarterly monitoring report, with interpretation and statement regarding of the water-producing capacity of the water-bearing lens. If the source of PCE is off-site, extended pumping should not have a significant effect on initial and final PCE concentrations before and after the extended pumping. To the contrary, a final PCE concentration that is significantly reduced after extended pumping would suggest a local source.

Even if the source were found to be local, the case might not warrant further response actions. The PCE concentration is stable or diminishing, the ground water-bearing lens is not productive for practical use as a drinking water supply, and the PCE concentration is so low as not to present any risk (*e.g.*, exposure to vapors in the interior or outdoor air). Based upon such prevailing conditions the case should be concluded without requirements for further response actions by the owner. If additionally deemed necessary by Alameda County, the owner and buyer probably could agree to record a voluntary deed notice identifying the presence of detectable concentrations of PCE in soil and ground water.

If the case can lawfully be closed without further investigation or ground water monitoring,--for example, in view of the i) stable concentration in ground water, ii) absence of a productive drinking water supply, and iii) absence of an exposure risk,--the owner naturally wishes to afford himself of the clear cost and time savings of this option. If Alameda County wishes to seek an opinion from RWQCB staff, for example, Mr. Chuck Hedley or other staff, we encourage this consultation take place before the requested response to this letter and before the proposed pump test.

Please provide a list of conditions deemed necessary and sufficient by Alameda County/RWQCB for case closure and respond to the proposal to perform an extended pump test. Please call Marc Papineau at (510) 881-8574 if you have any questions about this letter, the proposed extended pump test, and request for conditions of closure.

Sincerely,

Mara Papinean

Marc Papineau California Registered Environmental Assessor 791



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enclosures: Potentiometric Surface Maps

cc. Ms. Susan Hugo County of Alameda Health Care Services Agency Department of Environmental Health 1131 Harbor Bay Parkway Alameda, CA 94502

> Mr. Jack Sumski, Jr. Davis Realty Co., Inc. 5010 Geary Boulevard Suite 1 San Francisco, CA 94118



