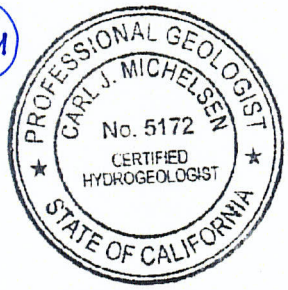
PES Environmental, Inc.
Engineering & Environmental Services

MEMORANDUM

To: Mr. David Hopkins
Regis Homes Bay Area, LLC

From: Carl J. Michelsen, P.G., C.HG.
PES Environmental, Inc.



Date: May 6, 2015

Subject: No Further Action
Benzene in Soil Vapor
39155 and 39183 State Street, Fremont, California

Project No.: 1098.007.01.012

In PES' memorandum dated February 12, 2015[1] it was concluded that the only benzene detection that exceeded the site-specific soil vapor screening level of 160 micrograms per cubic meter ($\mu g/m^3$) was an isolated low concentration occurrence in the southern portion of the site (sample B4). Testing in the vicinity of the sample was unable to identify a source area or widespread contamination. This memorandum provides further discussion regarding the significance of the benzene detection and recommends no further action.

First, the history of the site (e.g., a Payless Drug Store, Nob Hill General Store, and Fremont Bank with associated parking) does not point to the use or storage of benzene compounds, such as gasoline. No underground storage tanks are known to be or historically present on site.[2]

Benzene was detected in each of the three purge volume samples collected at location B4 (concentrations of 320, 480 and 510 $\mu g/m^3$). For the maximum concentration of 510 $\mu g/m^3$, the estimated theoretical cancer risk for residential exposure is 3.2×10^{-6}. This value is essentially equivalent to the acceptable risk of 1×10^{-6} and does not represent an actionable concentration.

Benzene is highly volatile and readily degradable under aerobic (oxygenated) conditions. The shallow soils at location B4 are likely oxygenated and conducive to benzene degradation. Soils will be further oxygenated during the construction grading process resulting in additional volatilization and degradation of the low level benzene in soil vapor.

Consequently, the isolated occurrence of benzene in soil vapor at concentrations that represent essentially no significant risk, coupled with the lack of an on-site source and continued degradation and volatilization (especially during construction), does not warrant further investigation or other action.

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[1] PES, 2015. *Report of Results, Subsurface Investigation, 39155 and 39183 State Street, Fremont, California.* February 12.

[2] PES, 2014. *Phase I Environmental Site Assessment, 39155 and 39183 State Street, Fremont, California.* July 15.

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