L. C. Webster

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HUNTINGTON BEACH, CA 92649

Water Board lead, County Copy

September 23, 1998

Mr. Derek C. Lee
Water Resources Control Engineer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Submittal of Addendum for Risk Management Plan for the Former Ekotek Lube Site, 4200 Alameda Avenue, Oakland, Alameda County

Dear Mr. Lee:

Accompanying this letter is a proposed addendum for the Risk Management Plan for the subject site. This addendum is intended to satisfy Task 1 of the Board Order adopted on September 16, 1998. The addendum was prepared by Mr. Mikk Anderson of ARO, LLC., the organization that prepared the Risk Management Plan on our behalf.

If you have any questions regarding the proposed addendum please convey them to Mr. Anderson or Mr. Joseph Silvey of ARO,LLC. If the addendum is acceptable, please notify me in writing so that I can advise all of the other parties to this project.

Thank you in advance for your assistance in this matter.

Sincerely,

Laurence Webster

cc: B. Chan - ACDEH
T. Brown - Crosby, Heafy, Roach & May
W. Wick - Crosby, Heafy, Roach & May
M. Anderson - ARO,LLC.
J. Silvey - ARO,LLC.

Addendum to Risk Management Plan
for
4200 Alameda Avenue, Oakland

Add the following to Section 5.2, after the second paragraph, at the top of page 15.

"Samples collected to date show that the chlorinated solvents, in particular, have not migrated off-site to any significant extent. Where they have been found, they are associated with those samples of both soil and groundwater that have the elevated TPH, both on and off the site. The chlorinated compounds reported are soluble in water at very low levels compared to their solubility in the petroleum organics present. The data strongly indicate that the chlorinated compounds are and will remain associated with these immobile petroleum organics. The lack of a distinct plume of chlorinated compounds, separate from the petroleum organics, further indicates that there is no significant differential transport occurring for the chlorinated compounds in the groundwater."

Add the following two paragraphs to Section 5.3, after the fifth paragraph, on page 16.

"Because of the strong commingled association of the chlorinated compounds with the petroleum hydrocarbons, it is not feasible to address these compounds separately from the petroleum. The low volatility of the petroleum in which they are dissolved will defeat soil vapor extraction or other conventional remediation processes. As the separate phase petroleum is addressed, it is expected that some mass removal of the dissolved chlorinated compounds will also occur. It is also possible that low levels of natural bioattenuation of some of the chlorinated compounds will occur as a by-product of the metabolism of the lighter ends of the petroleum compounds that are slowly fractionating out of the main mass. Studies have suggested that chlorinated compounds can be dechlorinated and metabolized in circumstances where they coexist in groundwater with dissolved petroleum compounds, particularly toluene.

Although the Health Risk Assessment showed no inhalation pathways of concern for the volatile organic compounds on-site, the use of a gas impermeable membrane under any structure on-site that will be occupied by unprotected workers or visitors will provide additional assurance that no exposure will occur. This is discussed further in Section 6.4, Soil Management Protocols During Construction."