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***** TRANSMITTAL MEMO *****

FAX

TO: ENS. MIKE REHOR

DEPT: EL TORO FAX #: 714-2639

FROM: ROY HERNDON PHONE: 963-5661

CO: OCWD FAX #: _____

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April 6, 1989

Chairwoman Anita Smith
 California Regional Water
 Quality Control Board
 Santa Ana Region
 6809 Indiana Avenue, Suite 200
 Riverside, CA 92506

Dear Chairwoman Smith:

The Orange County Water District has completed an investigation of TCE contamination in the vicinity of the El Toro U.S. Marine Corps Air Station El Toro. A report which is the culmination of nearly four years of investigative effort, at a cost to OCWD of approximately \$750,000, is hereby submitted for your review.

TCE was first detected in wells near the base in 1985. The District conducted the investigation to determine the nature and extent of the groundwater contamination and to identify possible sources. Four multi-level monitoring wells were constructed and those, as well as existing active and inactive irrigation wells in the area, were tested extensively. The Marines undertook a concurrent investigation within the base boundaries to assess on-base contamination resulting from past solvent use and disposal practices. The District and the Marines have shared information gathered from the respective studies, and data from both studies have been incorporated into the analysis, findings and conclusions of this investigation.

The OCWD investigation revealed that TCE occurs off-base at depths ranging from 200 to 450 feet below ground surface, and that the downgradient contamination extends approximately three miles west of the USMCAS El Toro. It was determined that the TCE plume underlies approximately 2,900 acres, impacting as much as 150,000 acre-feet of groundwater, and is migrating westward at an estimated rate of one to four feet daily. The Marine study detected TCE in on-base monitoring wells at concentrations as high as 90 µg/l. The report finds that off-base TCE contamination is continuous with on-base contamination. Hydraulic pathways and forces have induced vertical and lateral migration of TCE contamination originating on-base to migrate off-base. The report concludes that, based on past solvent use and disposal practices and on data generated through OCWD's and the Marines' investigations, the USMCAS El Toro is the source of TCE in the Irvine area. The urgency of the situation demands that a remedial program to contain the movement of the plume be initiated quickly.

Due to the serious threat that the TCE contamination poses to the basin supplies, it is imperative that the Marines proceed immediately with the following actions:

- Initiate cleanup of TCE detected on-base;
- Continue investigation into the nature and extent of on-base contamination and look for possible active sources; and
- Install necessary monitoring wells and construct groundwater model to evaluate the effectiveness of OCWD's interim TCE pumpout project.

A letter of this date is being sent to Brigadier General Shuter of the El Toro USMCAS, urging immediate follow-up action and reimbursement of costs for the OCWD investigation and interim TCE pumpout project. It is hereby requested that the Regional Water Quality Control Board contact General Shuter, stating its intent to enforce compliance with the investigative and cleanup measures listed above.

Very truly yours,

Lawrence P. Kraemer Jr.
President, Board of Directors

cc: Honorable Pete Wilson
Congressman Chris Cox
Supervisor Gaddi Vasquez
Brigadier General Shuter, El Toro USMCAS
Ron Young, Irvine Ranch Water District
Sat Tamaribuchi, The Irvine Company
Jerry Clifford, U.S. Environmental Protection Agency
Jack Kearns, California Department of Health Services
Robert Merryman, Orange County Health Care Agency

Enclosure