

DQO ISSUES

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1. The Technical Memorandum presents the results from only one round of groundwater sampling. The Department urges that results from the second round and all subsequent rounds of groundwater sampling be made available in a useful format as soon as possible. The 5-inch wells with 4-inch constant speed pumps should be identified in the figures for the second round of groundwater sampling results. What is the deliverable date for this information?
2. The Technical Memorandum does not elaborate on previous investigations such as the soil gas screening efforts conducted by James M. Montgomery Engineers, Inc. The Department requests that this information be distributed to regulatory agencies prior to the discussion of potential VOC source areas in the DQO process for Phase II investigations.
3. Based on Phase I soil results, the Department recommends the use of a soil gas survey(s) as an initial screening of applicable sites prior to Phase II conventional fieldwork to determine potential source areas for the VOC groundwater plume. Soil samples can then be located in "hot spots" to assess the levels of soil contamination.
4. The Technical Memorandum indicates that Tank Farms #2 and #5 are potential sources of the benzene plumes. More information is needed to determine the potential contribution to groundwater contamination from tank farms (e.g., fuel tanks) present at MCAS El Toro. While the investigation of the tank farms may not necessarily be part of the RI, identification of all groundwater contamination sources should be.

Furthermore, the DQO process for Phase II investigations and applicable subsequent documents should include a figure(s) displaying the following: 1) an outline of MCAS El Toro, 2) the location of all RI/FS sites, 3) the location of all tank farms, and 4) contours of the groundwater plumes potentially associated with the tank farms.

5. In the Technical Memorandum, groundwater contours were

included for Site 2, but not for any other sites. The contours provide information on site-specific flow direction and aid in evaluating the upgradient and downgradient groundwater quality information. In the DQO process for the Phase II investigations and/or applicable subsequent documents, please include this information for all sites with sufficient wells (three or more) that monitor the same interval.

Moreover, figures indicating sampling locations (e.g., Figure B1-1 for Site 1) should also include the groundwater flow direction.

6. Analyses results indicate that a significant number of trip blanks (used to determine contamination during sample transport) contained detected concentrations of VOCs (often referred to as laboratory contaminants). The trip blank results should be compared to those for method blanks, which are used to determine laboratory contamination.

The Technical Memorandum often compares detected sample concentrations to the maximum detected concentrations in trip blanks. It is advised that if blank concentrations are to be subtracted from sample concentrations, an averaged blank value and not a maximum detected concentration be subtracted.

The Department suggests the use of field blanks as a check on contamination in the atmosphere for those wells that are located at or near tarmacs with significant jet traffic. Field blanks consist of purified water that is taken into the field (at the specific well location) and transferred from the water container to the individual sample containers.

7. Complete site descriptions for new Sites 24, 25 and 26 should be provided as soon as possible and prior to detailed discussions on the scope of work for the soil gas survey(s).

The site descriptions should include a complete description of the "refurbishing" operations. Solvent releases from the "refurbishing" operations may have contributed to the VOC groundwater plume. A complete description of the operations that are and have been conducted at Buildings 295, 296, and 297 should be presented. The description should include solvent management practices and the identification of the locations of solvent tanks, piping, trenches (manmade channels), etc.

The following is an excerpt from the Department's comments on the Technical Memorandum for Site 7:

The VOC plume does appear to originate in this area. The *SAP Amendment* states that "Liquid/stain flows were seen [in a 1980 aerial photograph] contributing to the drainage channels southeast of Buildings 295 and 296; flow from the latter hangar was probably by way of manmade channels. The 1986 photograph indicated that the same flows, by different paths, reached the drainage channels that ultimately contribute to Aqua Chinon Wash." The channelized drainage was also apparently observed in photographs from 1952, 1970 and 1985. In addition, the *SAP Amendment* also states that a "... 1970 photograph indicated that drums and a probable vertical tank were situated on the grassy area northeast of Building 295". Is it probable that the manmade channels and/or the vertical tank contained TCE? Did the "refurbishing" operations at this site use significant quantities of TCE that was eventually discharged via manmade channels to drainage channels and ultimately to Aqua Chinon Wash? Such a scenario could explain the cross-gradient "leg" of the TCE plume towards and actually upgradient of Site 8.

Furthermore, the Department recommends that MCAS El Toro should interview current and former personnel at Buildings 295, 296, and 297 concerning historic solvent handling practices.

8. The Department requests that, for each site discussed at a DQO meeting, all aerial photographs applicable to the sites be made available to regulatory agencies during the course of the meeting. For example, a discussion of Sites 2 and 12 is planned for the August 12th and 13th DQO meeting; please provide all aerial photographs for these two sites during the meeting.
9. The SAIC aerial photograph report should be made available to regulatory agencies prior to the discussion of site-specific DQO issues.