MEMORANDUM

CONFIDENTIAL - SUBJECT TO ATTORNEY/CLIENT PRIVILEGE

TO: Ana Marie Ortiz, OGC
Dennis McQuillan, AAS

FROM: Rob Pine, AAS

DATE: July 9, 1997

RE: Sparton Report on Soil Gas Characterization and SVE Pilot Test

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NMED received the report from Sparton titled "Report on Soil Gas Characterization and Vapor Extraction System Pilot Testing, Sparton Technology, Inc., Coors Road Plant" on June 19, 1997. I have reviewed the report and have the following comments:

1) Sparton used a regression analysis of the field data to extrapolate to the distance from the sump where TCE concentration in soil vapor is at 10 ppmv. It is stated on Page 14, Section IV, # 4 of the report that "Site data (regression analysis) indicates that elevated (>10 ppmv) soil gas concentrations extent out approximately 200 feet from the sump area." My own application of this technique, using only the data from the vapor recovery wells, gives a distance of approximately 235 feet. However, this technique ignores the fact that when vapor samples were collected from existing monitor wells in 1996, MW-18, which is located more than 300 feet from the sump, had a TCE concentration of 170 ug/l (38 ppmv). 200 feet is a convenient size of the vapor cloud for Sparton since they are claiming a 200 foot radius of influence and thus they would be likely to argue that only one vapor extraction well would be required for an SVE system.

2) On Page 16 of the report it states "Based on all available soil gas information, there is sufficient characterization to implement soil vapor extraction on site. Horizontal extent of the 10 ppmv impact threshold has been adequately defined but not confirmed in the field; however, limited additional field investigation could prove this definition." Given paragraph one above, I do not believe that there is sufficient characterization to implement an SVE system on site. The additional field investigation mentioned by Sparton must be completed before an SVE system can be designed. In particular, additional sampling at a distance of 200 feet from the sump and around MW-18 must be undertaken before a SVE system can be designed. Sparton, in Figure 10 of the report, suggests 4 additional sampling locations each at a distance of 200 feet from the sump. No additional sampling locations in the vicinity of MW-18 are proposed. This is unacceptable.

3) On Page 16 of the report, it explains how field screening procedures will be used to select the sampling depth at each new sampling location based on concentration. It must be amended to indicate that a vapor sample will be collected and analyzed from each new sampling location (even if field screening fails to detect VOCs) and a description of how the appropriate depth will be selected if field screening techniques do not detect vapor contamination.