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M E M O R A N D U M

DATE: February 12, 2001
TO: Mal Murphy [malmurphy@home.com]
CC: Danielle Fife **[**dfife@nrff.com]
RE: **SATURATED ZONE FLOW & TRANSPORT AMR Reviews**
Analysis of Base-Case Particle Tracking Results of the Base-Case Flow Field
ANL-NBS-HS-000024

This AMR describes insights from particle tracking analysis of the UZ. Key items include:

1. Section 6.2.1, p. 13-16; Section 6.2.2, p. 17-20. This AMR found that faults concentrate particle breakthrough at the water table, especially in the northern portion of the repository. This occurs because of lateral diversion through perched water bodies.

2. Section 6.2.5, p. 22-23. An alternative model code – DCPT – allows particles to diffuse into matrix and then travel through matrix, which leads to much longer breakthrough times.
