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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**
Hydrogeologic Framework Model for Saturated Zone Site Scale Flow & Transport Model
ANL-NBS-HS-000033

This AMR describes the Hydrogeologic Framework Model (HFM) that provides the basis for areal and zonal divisions in the SZ site-scale model. Key items include:

1. This AMR is based on data through July 1999 (p. 9, paragraph 3), and does not include the results of the Nye Co. EWDP wells (p. 15, paragraph 3).

2. Data availability on a scale of 0.1 (poor) to 10 (excellent) shows only 4 hydrogeologic units better than 1.0! The EWDP wells should have caused the characterization of the valley-fill deposits (which constitute 3 of the 4 units with "good" data availability) to change significantly. Specific units with extremely poor data availability are graphically shown in Fig. 6-4 (limestone aquifer), 6-15 (upper carbonate aquifer), and 6-16 (lower carbonate aquifer). The 4 units with purported good data availability were:
    - Valley-fill aquifer (non-volcanics) as 9.0
    - Valley-fill confining unit being playa deposits as 5.0
    - Upper volcanic aquifer, being the Timber Mountain and the Paintbrush Groups as 6.0
    - Undifferentiated valley-fill, presumably including tuffaceous sandstones, breccia, etc. as 5.0

3. Tom Anderson should review Fig. 6-3 for accuracy of fault placement and styles.
