Engineers, Geologists, Hygienists and Environmental Scientists



Raba Kistner Consultante, Inc. 12621 W. Golden Lane P.O. Box 690287, San Antonio, TX 78269-0287 (210) 692-9090 - FAX (210) 699-6426



Project No. ASD97-187-00 Assignment No. 4-121973 May 27, 1997

Mr. Rob Newson

105 W. Sharp El Dorado, Arkansas 71730

Re: Permeability Testing Cowboy Mining Alpine Texas

Dear Mr. Newson:

On May 20, 1997, we received a sample of bentonite for laboratory testing. The sample was processed over a No. 40 sieve and remolded for testing. Results of the permeability test are presented below:

\* Permeability (ASTM D 5084):

1.9 x 10<sup>-9</sup> cm/sec

Due to the limited testing conducted, no design recommendations are expressed or implied by Raba-Kistner (R-K).

We appreciate the opportunity to be of technical service to you on this project. If we may be of additional assistance, please do not hesitate to call.

Very truly yours,

RABA-KISTNER CONSULTANTS, INC.

Associate

Construction Material Services

/dgp

Copies submitted: Above (

Charles and a transparent to a San Jordana

<sup>\*</sup> Results are based on pulverized material.