



United States Department of the Interior

BUREAU OF MINES

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DENVER, COLORADO 80225

Minerals Availability Field Office

October 27, 1987

Memorandum

To: Charlotte Abrams, Project Officer, U.S. Nuclear Regulatory Commission

Through: Ransom Read, Program Manager, Division of Minerals Availability *R2R*

Through: Harold J. Bennett, Chief, Minerals Availability Field Office *HJB*

From: Geologist, Minerals Availability Field Office

Subject: Deaf Smith County site drill core review

On October 20-22, I visited the Texas Bureau of Economic Geology (TBEG) core library for the purpose of viewing drill core from the Palo Duro Basin, site of the Deaf Smith County salt depository site. On Tuesday morning, October 20, TBEG personnel gave a brief presentation on the stratigraphy of the basin, the petrographic characteristics of evaporites, and TBEG core library quality assurance procedures. The remainder of Tuesday was spent examining Ogallala, Dockum, Artesia Group, and San Andres sections from the J. Friemel, G. Friemel, Grabbe, Mansfield, and Zeeck wells.

Part of Wednesday morning was spent touring the TBEG facilities, including core storage and handling, x-ray radiography, thin-section preparation, and geochemical analysis. The remainder of Wednesday morning and part of Wednesday afternoon were spent viewing Upper Seven Rivers, Wolfcamp, and Pennsylvanian cores from the J. Friemel, G. Friemel, Sawyer, and Zeeck wells. The remainder of Wednesday afternoon was spent viewing thin- and thick-sections of the cores, in order to familiarize myself with the various petrographic features of halites, carbonates, and anhydrites.

On Thursday morning, I joined a small group of people to re-examine sections of San Andres core from the G. Friemel well.

The trip was valuable in that it allowed the Bureau of Mines to become familiar with the geology of the basin containing the potential salt depository site, and provided an opportunity to meet and talk with the various NRC and DOE personnel, and other contractors, who will be doing much of the technical (site characterization) work for the project.

cc: P. Thomas

Tennie F. Arstett

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