PROPOSED EXPANSION OF THE SALT WATER DISPOSAL FACILITY EUNICE AREA

LEA COUNTY, NEW MEXICO

Prepared For

PARABO, INC.

Hobbs, New Mexico

By

ED L. REED AND ASSOCIATES, INC.

Consulting Hydrologists

Midland and San Angelo, Texas

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Introduction

Parabo Inc. proposes to expand its salt water disposal facility, which is presently operating near Eunice, Lea County, New Mexico. The proposed site lies immediately north of the current disposal pond.

Geology

Thirty test holes were drilled on a 14-acre site to evaluate the suitability of the Triassic redbeds for containment of salt water. A map of the sea level elevations of the top of the redbeds is submitted. The test drilling shows that a linear depression exists in the redbeds which is aligned in a north-south direction. This depression probably represents a tributary to the larger east-west channel which has been utilized in the present operations. In the center of the depression the redbed is at a elevation of 3453 and it rises to 3460 or above on the edges of the depression.

Adaptation to Salt Water Disposal

Approximately 5 acres of the 14-acre site has been mined out (sand & gravel) exposing the redbed. Most of the remaining area will eventually be mined, such that potentially 13 to 14 acres would be available for salt water disposal.

The floor of the proposed pits is presently at an elevation of 3453 or higher. This area cannot be made a simple extension of the existing facilities without excavating the floor to an elevation lower than 3447 (the design water level elevation of the existing pit.) Additionally, part of the proposed area lies east of the existing easternmost dike. Therefore, a dike will be constructed across the southern end of the linear redbed depression such that salt water will

be contained within this depression. The dike will be constructed in a manner similar to the existing dikes. It is proposed that the dike be constructed to an elevation of 3459, with each end of the dike tied to the redbed where it reaches an elevation of 3459. It is further proposed that a 3 foot freeboard be maintained at all times in the pit. Therefore, the maximum water level elevation would be 3456. A staff gauge will be placed in the pit to monitor the water levels.

A 5-acre area which lies below elevation 3456 is presently available for salt water disposal. It is recommended that this area be utilized immediately after construction of the dike. Pit expansion can be accomplished in two ways: 1) an additional 5 acre area which lies below elevation 3456 will be available after sand and gravel is removed. 2) the redbed in the rest of the 14-acre site lies above elevation 3456. Once this area has been mined out, the pit floor can be lowered to an elevation below 3456 at which time it can receive salt water. Neither of these expansion possibilities call for additional diking.

Monitoring

Fifteen monitor holes will be installed to detect leakage from the pit. These holes will be drilled to an elevation of 3436 and completed as outlined in the existing permit. Two existing holes (MH-18 and 20) will also be used to monitor the pit. Monitor hole 19 which lies in the area of the proposed dike will be abandoned and plugged with cement. The monitor holes will be examined on a schedule similar to that outlined in the permit.

Respectfully submitted,

ED L. REED & ASSOCIATES, INC.

V. Steve Reed

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