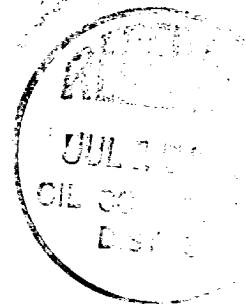


Reading & Bates
Federal #17-1
790' FSL 1900' FEL
Section 17, T 24N- R 3W
Rio Arriba County, NM

Cementing Details:

The 4½" casing was run on a Dowell guide shoe, a float collar one joint off bottom, a DV collar at 3400', a centralizer on the 1st joint, and centralizers on every other collar to 6300'. The casing was cemented in two stages as follows: Stage 1- 430 sacks of 50-50 Pozmix with 6-¼ #/ sack gilsonite and 6#/sack salt; Stage 2- 160 sacks of 65-35 Pozmix with 12% gel and 6-¼ #/sack gilsonite followed by 50 sacks of neat cement.

Welex's Acoustic Cement Bond/Micro-Seismogram Log indicated that the top of the 1st stage of cement was at 5800' KB and the top of the 2nd stage of cement was at 1800' KB.



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