

SUMMARY

Drilling, Drill Stem Tests, Casing and Cementing Programs

1. Drill 14-3/4" hole to 1100' using a Fresh Water Mud System. Will be in Rustler at surface.
2. Run 10-3/4", 40.5#, J-55, ST&C casing with a Texas Pattern (notched) Guide Shoe on the bottom of shoe joint and an insert float valve in top of shoe joint. Place a stop ring 3' above guide shoe, then install a centralizer directly above guide shoe. Place three more centralizers on every other collar (total of four centralizers).
3. Cement 10-3/4" with 700 sx Class C w/4% gel, 2% CaCl and 1/4#/sx Flocele. Slurry weight - 13.5#/gal w/a slurry volume of 1.72 cu ft/sx, and a water ratio of 9.06 gals/sx. Tail-in w/300 sx Class C w/2% CaCl and 1/4#/sx Flocele. Slurry weight - 14.8#/gal w/a slurry volume of 1.32 cu ft/sx and a water ratio of 6.30 gal/sx. Use one wooden plug to displace cement.
4. Nipple up and install BOP. Test casing to 600# psi after 18 hrs and drill out cement.
5. Drill 9-7/8" hole to 4500' in Base of Capitan Reef using a Brine Water Mud Systems. Anticipated loss circulation zone from 3000'-4500' in the Capitan Reef with the possibility of dry drilling.
6. At 4500' we propose to choose either OPTION #1 or OPTION #2 as follows:

 OPTION #1 - Eliminates setting the 8-5/8" intermediate casing. Anadarko has determined that this casing string should not be required if circulation is maintained while drilling the interval from 3000' - 4500'. Three nearby wells maintained circulation when they drilled this interval and four other nearby wells lost circulation when they drilled this same interval.
- 7.a Drill 9-7/8" hole from 1100' to 4500'. Reduce bit size to 7-7/8". Drill to TD (5700') using a Brine Water Mud System. Mud weight (10#/gal), viscosity (32-35 sec), and water loss (12-15 cc).

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