

With a float shoe on the bottom of shoe joint and a float collar at the top of shoe joint, use Halliburton Weld A (threadlock compound) to lock. Set float shoe @ 4500'.

OPTION #2(a)

- 7.b Precede cement w/1000 gals of Super Flush 102, then cement First Stage of 8-5/8" w/250 sacks Class C w/2% CaCl₂, 1/4#/sx Flocele. Slurry weight - 14.8#/gal w/a slurry volume of 1.32 cu ft/sx, and a water ratio of 6.3 gal/sx. Use one rubber plug to displace cement. Estimated top of cement @ 3300'.

OPTION #2(b)

Run temperature survey and cement Second Stage through squeeze holes (determined by temperature survey) w/350 sacks Howco Lite w/15#/sx Salt, 5#/sx Gilsonite, and 1/4#/sx Flocele Slurry weight - 12.4#/gal w/a slurry volume of 1.99 cu ft/sx and a water ratio of 10.63 gal/sx. Tail-in w/100 sacks Class C w/2% CaCl₂. Slurry weight - 14.8#/gal w/a slurry volume of 1.32 cu ft/sx and a water ratio of 6.3 gal/sx. Use one rubber plug to displace cement. Estimated top of cement @ surface (circ).

- 8.b Nipple up and install BOP. Test casing to 1500# psi for 30 minutes after WOC 18 hrs and drill out cement.
- 9.b Drill 7-7/8" hole from 4500' to TD @ 7750' using a Fresh Water Mud System. Mud weight (8.6#/gal), viscosity (32-35 sec), and water loss (12-15 cc).
- 10.b Two drill stem tests are anticipated in the following zone: Delaware - 6000'-7000'. DST flow periods and shut-in times will be determined on location. A mud logging unit will be on location at 4500' to assist in evaluating samples and shows for exact drill stem test intervals. Run Litho Density-Compensated Neutron-Gamma Ray Log, & Dual Induction Log.
- 11.b If production is indicated by DST and logs, run 5-1/2" casing as follows:

| <u>FROM</u> | <u>TO</u> | <u>FOOTAGE</u> | <u>DESCRIPTION</u> |
|-------------|-----------|----------------|---------------------------|
| 0' | 6600' | (6600') | 5-1/2", 15.5#, K-55, ST&C |
| 6600' | 7750' | (1150') | 5-1/2", 17.0#, K-55, ST&C |

Use a float shoe on the bottom of shoe joint and a float collar on top of the shoe joint. Use Halliburton Weld A to threadlock both the float shoe and float collar. Place a stop ring 3' above float shoe, then install a centralizer directly above float shoe. Any joints which have been blasted and ruffcoated should be spaced out across both or either of the two potential pay zones (as indicated by test or logs). Use 10-15 centralizers. All centralizers will be placed on ruffcoated joints. Set float shoe at 7750'.

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