

8.a 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 4900' to assist in evaluating samples and shows for exact drill stem test intervals. Run Litho Density-Compensated Neutron-Gamma Ray Log, & Dual Laterolog.

9.a If production is indicated by DSTs 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 tests or logs). Use 10-15 centralizers. All centralizers will be placed on ruffcoated joints or at a DV tool (if used). Set float shoe at 7750'. Set a DV tool @ 3300' and 3 cement baskets spaced as needed. Threadlock the Multiple Stage Cementer w/Halliburton Weld A.

10.a Precede cement w/500 gals Super Flush 102. Cement First Stage of 5-1/2" w/940 sx Howco Lite w/1/4#/sx Flocele. Slurry weight - 12.4#/gal with a slurry volume of 1.97 cu ft/sx and a water ratio of 10.9 gal/sx. Tail-in w/400 sx Class C w/.5% Halad-322 and 3#/sx KCL. Slurry weight - 14.8#/gal w/a slurry volume of 1.36 cu ft/sx and a water ratio of 6.53 gal/sx. Use one rubber plug to displace cement to float collar (7710').

Open DV tool (@3300') and pump Second Stage consisting of 2300 sx Howco Lite w/15#/sx Salt, 1/4#/sx Flocele, and 5#/sx Gilsonite. Slurry weight - 12.5#/gal w/a slurry volume of 1.95 cu ft/sx and a water ratio of 9.54 gal/sx. Tail-in w/100 sx Class C w/2% CaCl₂. Slurry weight - 14.8#/gal with 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 to DV tool (@3300'). Estimated top of cement - circulate.

6.b OPTION #2 - Calls for the 8-5/8" intermediate casing to be set. This will be necessary if circulation is lost and cannot be re-established by the depths of 4500'. In other words, hole conditions will determine whether or not this string of pipe should be set. If normal drilling and cementing operations below 4500' seem to be jeopardized by lost circulation problems above 4500', then this intermediate casing will be set and cemented at 4500'.