

Intermediate Casing: (continued)

Prior to drilling the float collar the 8 5/8" casing is to be displaced with fresh water and pressure tested to 1000 psi for 30 minutes. After drilling the float shoe the casing is again to be tested to 1000 psi for 30 minutes.

Production Casing:

7 7/8" hole is to be drilled from below the 8 5/8" OD casing point to total depth. Fresh water with flo-sal is to be used to the lower Bone Spring, about 9500'; then the hole is to be displaced with 10.0 brine water containing a minimum of 4% potassium chloride. Hole conditions below the Wolfcamp may require mudding up to fluid weights in excess of 10.0 PPG, however, minimum drilling fluid weights, sufficient to control the well are to be used to total depth. Water loss is to be reduced to 10 cc or less at the top of the Morrow formation.

5 1/2" OD casing is to be set at total depth and is anticipated as follows:

No. Jts.	Description	Thds Off Length	From	To
--	Rotary correction	14	0	14
310	5 1/2" OD, 17#/ft, N-80 LT&C casing	12386	14	12400
14	5 1/2" OD, 20#/ft, N-80 LT&C casing	556	12400	12956
--	Float collar	2	12956	12958
1	5 1/2" OD, 20#/ft, N-80 LT&C casing	40	12958	12998
--	Float shoe*	2	12998	13000

*The float shoe is to be equipped with lateral exits as it is intended to rest part of the casing weight on bottom.

The bottom three (3) joints are to be sealed with HOWCO-weld. API modified thread lubricant is to be used on casing threads. Casing centralizers are recommended to be included over any pay zones in conjunction with sand blasting to remove mill scale and lacquer.

5 1/2" casing is to be inspected using a combination mechanical optical and magnetic particle inspection - full length.

Prior to running the 5 1/2" OD casing a caliper survey is to be made to determine actual cement volume required to fill the annulus back to 8900' (1300' above the expected top of Wolfcamp). Casing will be cemented as follows: