

3. Estimated Depths of Anticipated Fresh Water, Oil, or Gas:

Upper Permian Sands	0-300'	fresh water
Wolfcamp "Chert"	10,943'	oil
Atoka	10,403'	gas
Middle Morrow Clastics	13,130'	gas
Lower Morrow	13,500'	gas

The ground water will be protected by setting 13-3/8" surface casing at 425' and circulating cement back to surface. The productive Morrow horizons will be protected by setting 5-1/2" production casing at TD with cement tied back to approximately 9000', if Wolfcamp is productive or 500' above upper most productive zone.

4. Proposed Casing Program:

Hole Size	Interval	Casing OD	Description
25"	0-40'	20"	Conductor, if necessary
17-1/2"	0-500' <i>1280'</i>	13-3/8"	48#, H-40, ST&C, New, R-3
11"	0-4000'	8-5/8"	32#, J-55, LT&C, New, R-3
7-7/8"	0-10,200'	5-1/2"	17#, L-80, LT&C, New, R-3
7-7/8"	10,200-13,750'	5-1/2"	17#, S-95, LT&C, New, R-3

Proposed Cement Program:

20" Conductor: Ready-mix poured to surface.

13-3/8" Surface Casing: Cemented to surface with 350 sx Permian Basin Filler Cement & 200 sx Class "C" +2% CaCl₂ tail. Float equipment: Texas Pattern shoe with an insert float valve above the shoe joint and 2 centralizers. The shoe and first collar will be welded. One plug will be used to displace cement.

*Set in top of
Rustler fm.*

8-5/8" Intermediate Casing: Cemented to surface with 1300 sx Interfill "C" & 200 sx Class "C" + 2% CaCl₂ tail. Float equipment: Float shoe with a float collar 1 joint above the shoe joint and 12 centralizers. The shoe and float collar will be welded. One plug will be used to displace cement.

5-1/2" Production Casing: Cement 1st Stage: 550 sx Super Modified H w/ 0.4% CFR-3, 0.5% Halad 344, 1# salt & 5# Gilsonite.
Cement 2nd Stage (If necessary) +/- 700 sx Interfill "H" w/ 5# Gilsonite followed by 100 sx "H" neat.