

Drilling Program

Mewbourne Oil Company

Willow Lake "35" Federal Com # 1

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4. Proposed casing and cementing program:

A. Casing Program:

<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>
17-1/2"	13-3/8"	48#	H40	0-400'
12-1/4"	9-5/8"	40#	J55/N80	0-4200'
8-3/4"	5-1/2"	17#	N80/S95	0-12300'

Minimum casing design factors: Collapse 1.2, Burst 1.1, Tensile strength 2.0.

B. Cementing Program

- i. Surface Casing: 150 sacks Class "C" light cement containing 1/2 #/sk cellophane flakes, 2% CaCl, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl.
- ii. Intermediate Casing: 800 sacks 35:65 pozmix cement containing 6% gel, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl.
- iii. Production Casing: 600 sacks Class "H" cement containing fluid loss additive, friction reducer additive, compressive strength enhancer, and NaCl. Shallower productive zones may be protected by utilizing and multiple stage cementing tool in the production casing below potentially productive zones and cementing with a light cement slurry.

**Mewbourne Oil Company reserves the right to change cement designs as hole conditions may warrant.*

5. Mud Program:

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0'-400'	FW spud mud	8.6-9.4	32-34	NA
400'-4200'	Brine Water	10.0-10.2	28-30	NA
4200'-9500'	Cut brine water	8.8-9.2	28.30	NA
9500'-12300'	Cut brine water	9.2-9.8	32-42	8-12

6. Evaluation Program:

Samples: 10'samples from intermediate casing to TD
Logging: Compensated density and dual laterlog from intermediate casing to TD
Coring: As needed for evaluation
Drill Stem Tests: As needed for evaluation