

CASING AND CEMENT PROGRAM:

The cementing program is detailed on Form 3160-3. All casing will be new.

Surface Casing: 12 1/4" hole, 8 5/8", 24#, WC-50, STC, set @ 400'.

Production Casing: 7 7/8" hole, 5 1/2", 15.5#, WC-50, LTC, set @ 3800'.

Centralizer Program:

Surface Casing - Centralize the bottom 3 joints and every 4th to surface.

Production Casing - Centralize every other joint on bottom 800'.

MUD PROGRAM:

<u>Depth</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>
0'-400'	Fresh Water	8.4	28
400'-3800'	Brine	10.0	29
Across Pay	Starch	10.0	32

Bottom Hole Pressure at T.D. estimated to be 6.0 PPG EMW. (1186 PSI)

Duration of Operation: 7 Days to Drill + 10 Days to Complete = 17 Days

LOGGING, TESTING:

NGT-CNL-LDT, GR-DLL-MSFL, and GR-BHC surveys will be run.

No Mud Logging Unit will be used.

No drill stem tests will be conducted.

No cores will be taken.