

Cementing Program:

Conductor Casing: Grout to surface

Surface Casing: (based on 100% excess)

Spacer: 10 bbl water

Lead Slurry: 400 sx Class C w/2% Sl, .25#/sk cellophane flakes

Slurry Weight -----14.8 ppg

Slurry Yield -----1.32 cu.ft./sack

Water Ratio-----6.32 gal/sack

Intermediate Casing: (based on 75% excess)

Spacer: 10 bbl water

Lead Slurry:

560 sx 35:65 POZ:A w/6% D 20, 10% pH, .25#/sk cellophane flakes

Slurry Weight -----12.7 ppg

Slurry Yield -----1.98 cu.ft./sack

Water Ratio -----10.59 gal/sack

Tail Slurry: 200 sx Class A w/2% Sl

Slurry Weight -----15.6 ppg

Slurry Yield -----1.18 cu.ft./sack

Water Ratio -----5.19 gal/sack

Production Casing: (based on 75% excess)

160 sx Class H w/.6% D 60

Slurry Weight -----15.6 ppg

Slurry Yield -----1.18 cu.ft./sack

Water Ratio -----5.19 gal/sack

5. BOP and Accessory Equipment:

0 - 350': None

350' - 2500': 1 - 12" 2000 psi bag type BOP

1 - 2000 psi choke manifold and diverter line

2500' - T.D.: 1 - 11" 3000 psi bag type BOP

1 - 11" 3000 psi blind rams

1 - 11" 3000 psi pipe rams

1 - 11" 3000 psi choke manifold