

PROPOSED CASING & CEMENTING PROGRAM

Ranger Well No. 17

20" 94 lb/ft H-40 Surface Casing Set at 400' - 26" Hole:

Circulate to surface with 1200 sacks of Class "C" + 2% CaCl_2 .

Slurry Weight:	14.8 ppg ₃
Slurry Yield:	1.32 ft ³ /sx
Water Requirement:	6.3 gals/sx

13 3/8" 61 lb/ft J-55 Intermediate Casing Set at 4200' - 17 1/2" Hole:

Lead: 1600 sx Class "C" + 20% Diacel "D" + 10% Salt. TOC = Surface.

Slurry Weight:	12.0 ppg ₃
Slurry Yield:	3.07 ft ³ /sx
Water Requirement:	16.99 gals/sx

Tail: 150 sx Class "C" Neat.

Slurry Weight:	14.8 ppg ₃
Slurry Yield:	1.32 ft ³ /sx
Water Requirement:	6.2 gals/sx

9 5/8" 53.5 lb/ft L-80 & P-110 Production Casing Set at 13800' - 12 1/4" Hole:

450 sx Class "H" + 0.5% Halad 344 (or equivalent) + 0.3% HR-5 (or equivalent). TOC = 12500'.

Slurry Weight:	15.5 ppg ₃
Slurry Yield:	1.18 ft ³ /sx
Water Requirement:	5.2 gals/sx

5 1/2" 20 lb/ft L-80 Production Liner Set at 16500' - 8 1/2" Hole:

600 sx Class "H" + 35% silica flour + 0.6% Halad 344 (or equivalent) + 0.3% HR-12 (or equivalent). TOC = 13500'.

Slurry Weight:	14.8 ppg ₃
Slurry Yield:	1.32 ft ³ /sx
Water Requirement:	6.3 gals/sx