

Sundance Federal Well #13
Page 2 of 3

Casing Design:

O.D.	Weight	Grade	Thread	Coupling	Interval	Length
8 5/8"	24#	J-55	8R	ST & C	0-2400'	2400'

Minimum Casing Design Factors: Collapse 1370, Burst 2950,
Tensile Strength 3.81

O.D.	Weight	Grade	Thread	Coupling	Interval	Length
8 5/8	32#	J-55	8R	ST & C	2400-4200'	1800'

Minimum Casing Design Factors: Collapse 2530, Burst 3930,
Tensile Strength 5.03

Cement Program:

Lead Slurry: 721 sacks-3565 posC with 6% Bentonite 10% salt & NaCl

Calculated Linear Fill: Est. Hole Volume-3668.76 feet

Slurry Properties: Weight-12.7 ppg Yeild-2.10 cu.ft./sack

Tail Slurry 200 sacks Class "C" with 2% CaCl₂

Calculated Linear Fill: Est. Hole Volume-639.68 feet

Slurry Properties: Weight 14.8 ppg Yeild 1.32 cu.ft./ sack

Hole Size: 7 7/8" Total Depth: 8200' Casing Size: 5 1/2"
Setting Depth: 8200' Mud Weight: 8.7 ppg

Casing Design:

O.D.	Weight	Grade	Thread	Coupling	Interval	Length
5 1/2	15.5#	J-55	8R	LT & C	0-7000'	7000'

Minimum Casing Design Factors: Collapse 40.40, Burst 48.10,
Tensile Strength 2.17

1. O.D.	Weight	Grade	Thread	Coupling	Interval	Length
5 1/2	17#	J-55	8R	LT & C	7000'-8200'	1200'

Minimum Casing Design Factors: Collapse 49.10, Burst 53.20,
Tensile Strength 2.47

Cement Program:

Lead Slurry: 556 sacks Class "H" with .3% Flack(Fluid Loss)
3% M17

Calculated Linear Fill: Est. Hole Volume-3785.8

A stage cementing collar will be used and placed at
approximately 5500'.

Slurry Properties: Weight-15.6 ppg Yeild-1.18 cu.ft./sack

2nd Stage Lead Slurry: 127 sacks 3565 posC with 6% Bentonite,
10% NaCl

Calculated Linear Fill: Est. Hole Volume-1538.9 feet

Slurry Properties: Weight-12.7 ppg Yeild-2.10 cu.ft./sack

Tail Slurry: 100 sacks Class "C"

Calculated Linear Fill: Est. Hole Volume-761 feet

Slurry Properties: Weight-14.8 ppg Yeild-1.32 cu.ft./sack