

30-025-43531**Permit Information:**

Well Name: Beowulf 33 State Com No. 601H

**OCD - HOBBS
01/04/2017
RECEIVED****Location:**

SL: 300' FSL & 1540' FWL, Section 33, T-23-S, R-35-E, Lea Co., N.M.

BHL: 2411' FSL & 1540' FWL, Section 28, T-23-S, R-35-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
14.75"	0 - 1,440'	10.75"	40.5#	J55	STC	1.125	1.25	1.60
8.75"	0'-10,800'	7.625"	29.7#	HCP-110	FlushMax III	1.125	1.25	1.60
6.75"	0'-19,226'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
1,440'	400	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	250	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
11,100'	550	14.4	1.20	50:50 PozLClass H + 0.25% CPT-20A + 0.40% CPT-49 + 0.20% CPT-35 + 0.80% CPT-16A + 0.25% CPT-503P
	1400	14.8	1.42	Class C + 5% Gypsum + 3% CaCl ₂ + 0.1 gps Plexfoam 7
19,226'	990	14.4	1.34	65:35 Class H + 0.2% C-20 + 0.75% C-41P + 0.05% CSA-1000 + 5% MagOx + 0.35% C-47B (TOC @ 10,300')

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 1,440'	Fresh - Gel	8.6-8.8	28-34	N/c
1,440' - 11,100'	Brine	8.7-9.4	58-68	N/c - 6
11,100' - 11,299'	Oil Base	8.7-9.4	58-68	N/c - 6
11,299' - 19,226' Lateral	Oil Base	9.0-11.5	58-68	N/c - 6