

**Permit Information:**

Well Name: Ophelia 27 No. 709H

**OCD - HOBBS****08/26/2016****RECEIVED****Location:**

SL: 1786' FNL &amp; 450' FEL, Section 27, T-26-S, R-33-E, Lea Co., N.M.

BHL: 2410' FSL &amp; 330' FEL, Section 22, T-26-S, R-33-E, Lea Co., N.M.

**Casing Program:**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF <sub>min</sub> Collapse	DF <sub>min</sub> Burst	DF <sub>min</sub> Tension
14.75"	0 – 860'	10.75"	40.5#	J55	STC	1.125	1.25	1.60
8.75"	0' – 11,300'	7.625"	29.7#	HCP-110	FlushMax III	1.125	1.25	1.60
6.75"	0'-17,532'	5.5"	23#	HCP-110	JFE Bear	1.125	1.25	1.60

**Cement Program:**

Depth	No. Sacks	Wt. ppg	Yld Ft <sup>3</sup> /ft	Slurry Description
860'	375	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	200	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
11,300'	250	14.8	1.38	Class C + 5% Gypsum + 3% CaCl <sub>2</sub>
	2000	14.8	1.38	Class C + 5% Gypsum + 3% CaCl <sub>2</sub>
	550	14.4	1.20	50:50 Class H:Poz + 0.25% CPT20A + 0.40% CPT49 + 0.20% CPT35 + 0.80% CPT16A + 0.25% CPT503P
17,532'	575	14.2	1.31	Class H + 0.1% C-20 + 0.05% CSA-1000 + 0.20% C-49 + 0.40% C-17 (TOC @ 10,800')

**Mud Program:**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 860'	Fresh - Gel	8.6-8.8	28-34	N/c
860' – 11,300'	Brine	8.8-10.0	28-34	N/c
11,300' – 12,209'	Oil Base	10.0-11.5	58-68	3 - 6
12,209' – 17,532' Lateral	Oil Base	10.0-11.5	58-68	3 - 6