

Permit Information:

Well Name: Gem 36 State Com No. 703H

Location:

SL: 745' FNL & 1141' FEL, Section 36, T-25-S, R-32-E, Lea Co., N.M.

BHL: 230' FSL & 1325' FEL, Section 36, T-25-S, R-32-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 - 900'	10.75"	40.5#	J55	STC	1.125	1.25	1.60
9.875"	0-10,600'	7.625"	29.7#	HCP-110	LTC	1.125	1.25	1.60
6.75"	0'-10,500'	5.5"	23#	HCP-110	JFE	1.125	1.25	1.60
6.75"	10,500' - 17,138'	5"	23.2#	P-110	JFE	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
900'	300	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)
	200	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
10,600' DV Tool w/ ECP @ 4,750'	315	10.8	3.68	Stage 1 Lead: Class C + 15.00 lbs/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sx Static Free
	250	15.6	1.19	Stage 1 Tail: Class H + 1.0% FL-52 + 0.6% CD-32 + 0.5% SMS + 1.0% Salt + 0.3% R-3
	550	12.7	2.22	Stage 2 Lead: Class 'C' + 2.0% SMS + 10.0% Slat + 0.55% R-21 + 0.25 pps Celloflake + 0.005 pps Static Free (TOC @ Surface)
	200	14.8	1.35	Stage 2 Tail: Class 'C' + 0.60% FL-62 + 0.7% CD-32 + 0.3% SMS + 2.0% Salt + 0.10% R-3 + 0.005 pps Static Free + 0.005 gps FP-6L
17,138'	625	14.2	1.35	50:50:2 Class H + 0.65% FL-52 + 0.70% CD-32 + 1.0% EC-1 + 0.40% SMS + 2.0% Salt + 0.05% R-3 + 0.005 pps Static Free + 0.005 gps FP-6L (TOC @ 10,100')

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 900'	Fresh - Gel	8.6-8.8	28-34	N/c
900' - 10,600'	Oil Base	8.7-9.4	58-68	N/c - 6
10,600' - 11,816'	Oil Base	8.7-9.4	58-68	N/c - 6
11,816' - 17,138' Lateral	Oil Base	9.0-9.5	58-68	N/c - 6

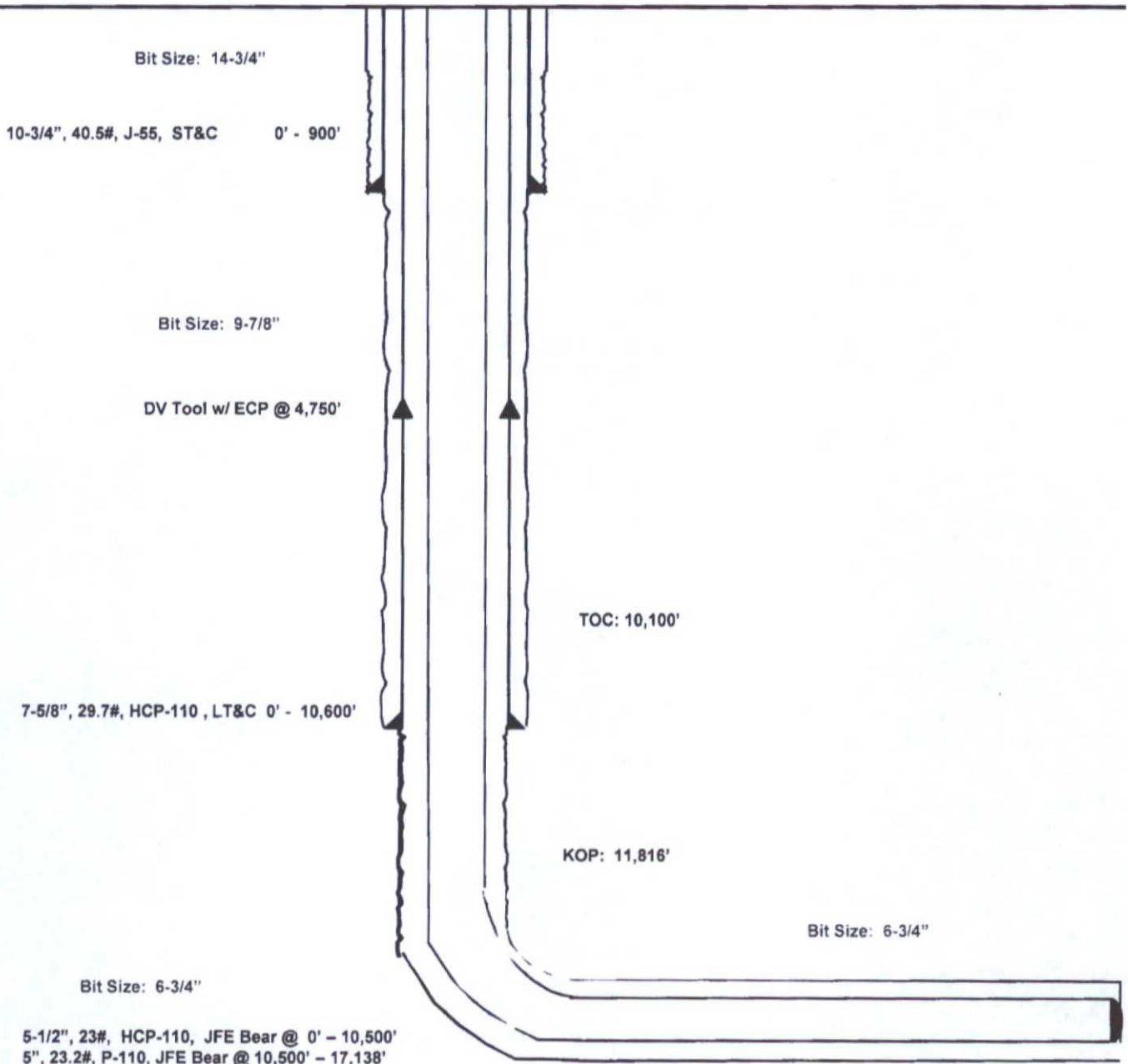
DEC 04 2015

Gem 36 State Com #703H

745' FNL
1141' FEL
Section 36
T-25-S, R-32-E

Lea County, New Mexico
Proposed Wellbore
Revised 10/5/15
API: 30-025-42780

KB: 3,450'
GL: 3,425'



Lateral: 17,138' MD, 12,305' TVD

BH Location: 230' FSL & 1325' FEL
Section 36
T-25-S, R-32-E