

Permit Information:

Well Name: Neptune 10 State Com No. 502H

Location:

SHL: 251' FSL & 1120' FEL, Section 10, T-24-S, R-33-E, Lea Co., N.M.

BHL: 230' FNL & 1380' FEL, Section 10, T-24-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 - 1,300'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,000' - 5,100'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-15,988'	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
1,300'	550	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
5,100'	800	12.7	2.22	Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free (TOC @ Surface)
	225	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
15,988'	350	10.8	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 2.55% R-21 + 8.0 pps LCM-1 (TOC @ 4,600')
	400	11.9	2.38	50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.40% SMS + 2.0% Salt + 0.30% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake
	1700	14.2	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32 + 0.10% SMS + 2.0% Salt

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 1,300'	Fresh - Gel	8.6-8.8	28-34	N/c
1,300' - 5,100'	Brine	10.0-10.2	28-34	N/c
5,100' - 10,715'	Cut Brine	8.4-9.0	28-34	N/c
10,715' - 15,988' Lateral	Cut Brine	9.0-9.5	40-42	8-10

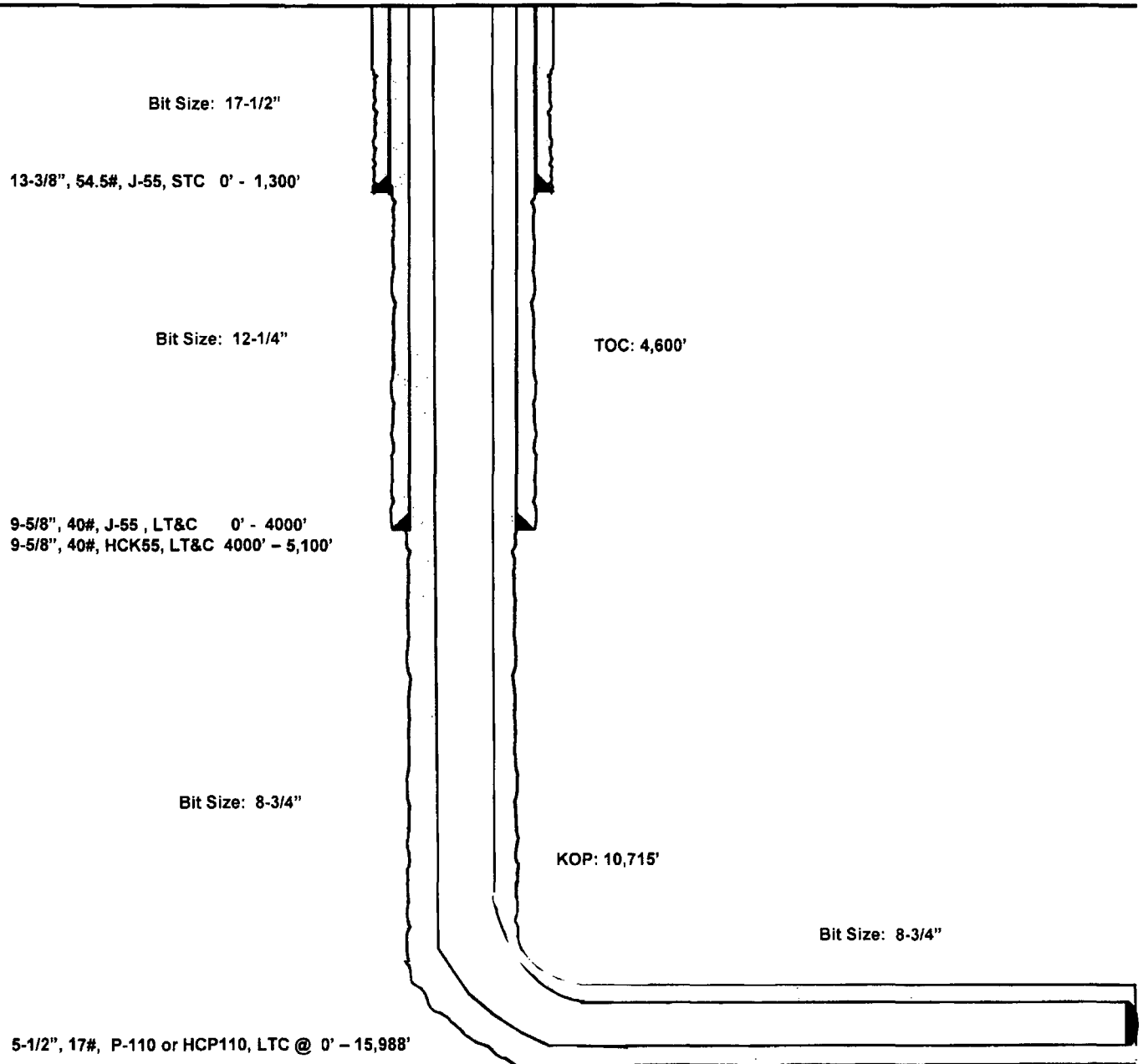
Neptune 10 State Com #502H
Lea County, New Mexico

251' FSL
1120' FEL
Section 10
T-24-S, R-33-E

Proposed Wellbore

API: 30-025-

KB: 3,640'
GL: 3,610'



Lateral: 15,988' MD, 11,200' TVD

BH Location: 230' FNL & 1380' FEL
Section 10
T-24-S, R-33-E



Lea County, NM (NAD 27 NME)

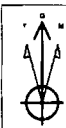
#502H

Cactus 123

Plan #1

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level



Azimuths to Grid North
True North: -0.41°
Magnetic North: 6.73°
Magnetic Field
Strength: 48289.0 nT
Dip Angle: 60.10°
Date: 12/2/2014
Model: IGRF201014

To convert a Magnetic Direction to a Grid Direction, Add 0.73°
To convert a Magnetic Direction to a True Direction, Add 7.15° East
To convert a True Direction to a Grid Direction, Subtract 0.47°

WELL DETAILS: #502H

Ground Level: 3810.0
KB = 30 @ 3540 Depth (Cactus 123)
+N/S -E/W Northing Easting Skid
0 0 448623.00 740751.0052 13° 31' 55.1" N 103° 32' 17.293" W

SECTION DETAILS

Sec	MD	Inc	As	TVD	+N/S	+E/W	Dleg	TFace	VFace	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	4500.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.0		
3	4784.2	2.84	230.04	4784.1	-4.8	-6.8	1.00	230.04	-4.6		
4	10716.2	2.84	230.04	10707.3	-200.0	-338.7	0.00	0.30	-185.2		
5	11480.8	90.00	358.63	11200.0	277.0	-281.2	12.00	129.86	292.3		
6	11908.9	90.00	358.63	11200.0	4786.0	-290.0	0.00	0.00	4780.8		PBHL(Nephune 10 ST Com #502H)

WELLDRE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/S	+E/W	Northing	Easting	Shape
PTPN(Nephune 10 ST Com #502H)	11200.0	77.0	-290.0	448680.00	740481.00	Point
PBHL(Nephune 10 ST Com #502H)	11200.0	4786.0	-290.0	451385.00	740481.00	Point

