

ENSIGN

Directional

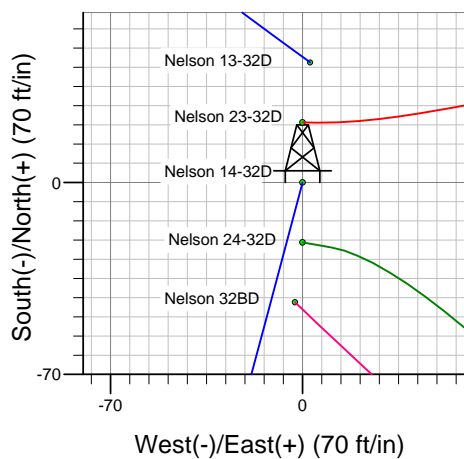
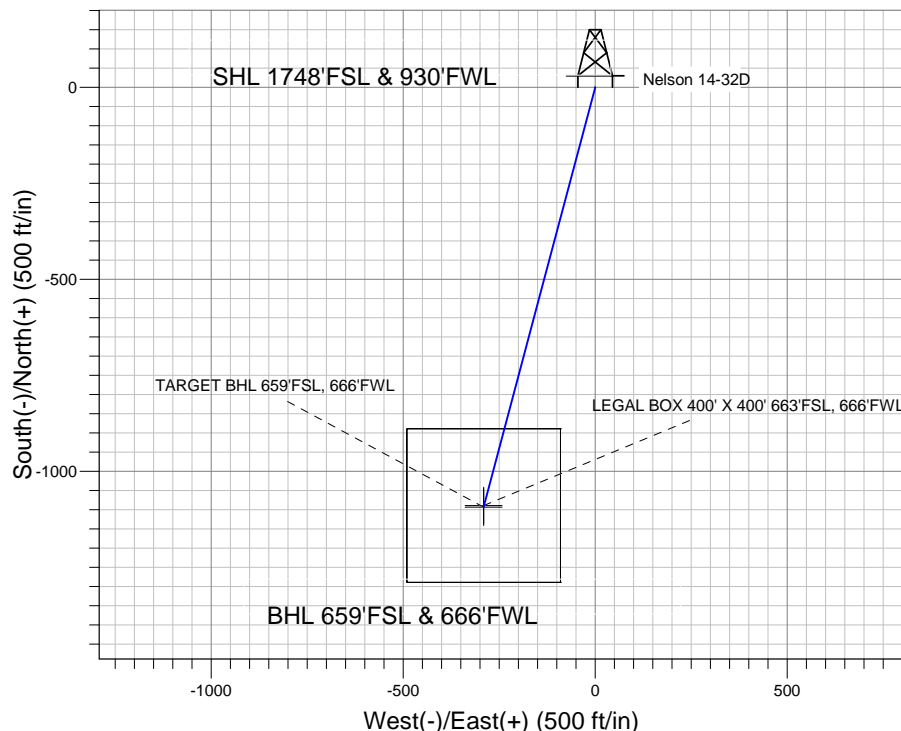
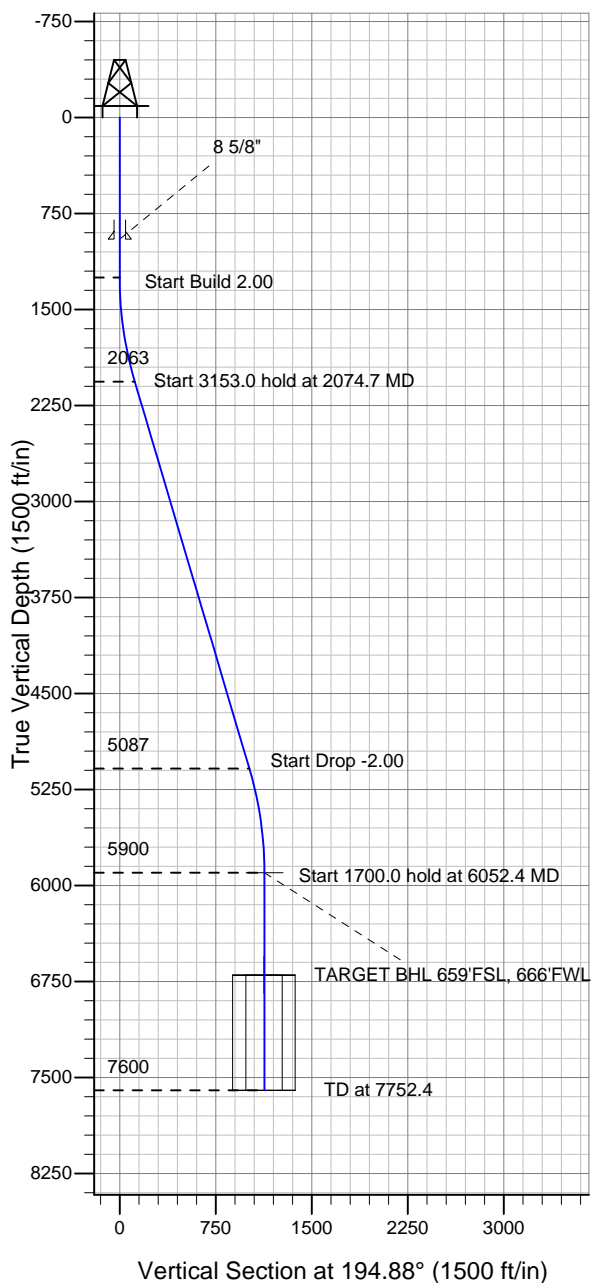
Well Name: Nelson 14-32D

Surface Location: Nelson 32BD Pad Sec.32-T7N-R66W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4860.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1436109.39 3191914.44 40° 31' 42.492 N 104° 48' 34.596 W
Original Well Elev WELL @ 4873.0ft (Original Well Elev)

PETROLEUM DEVELOPMENT CORP Weld County CO



Nelson 32BD Pad Sec.32-T7N-R66W
Nelson 14-32D
Plan #1 (1-04-11)
7:33, January 11 2011



Azimuths to True North
Magnetic North: 8.96°

Magnetic Field
Strength: 53240.4snT
Dip Angle: 67.16°
Date: 1/4/2011
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 659'FSL, 666'FWL	5900.0	-1093.1	-290.4	40° 31' 31.691 N	104° 48' 38.357 W	Point
LEGAL BOX 400' X 400' 663'FSL, 666'FWL	6700.0	-1089.1	-290.4	40° 31' 31.730 N	104° 48' 38.357 W	Rectangle (Sides: L400.0 W400.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1250.0	0.00	0.00	1250.0	0.0	0.0	0.00	0.00	0.0	
3	2074.7	16.49	194.88	2063.4	-113.9	-30.3	2.00	194.88	117.9	
4	5227.7	16.49	194.88	5086.6	-979.1	-260.2	0.00	0.00	1013.1	
5	6052.4	0.00	0.00	5900.0	-1093.1	-290.4	2.00	180.00	1131.0	TARGET BHL 659'FSL, 666'FWL
6	7752.4	0.00	0.00	7600.0	-1093.1	-290.4	0.00	0.00	1131.0	