

ENSIGN

Directional

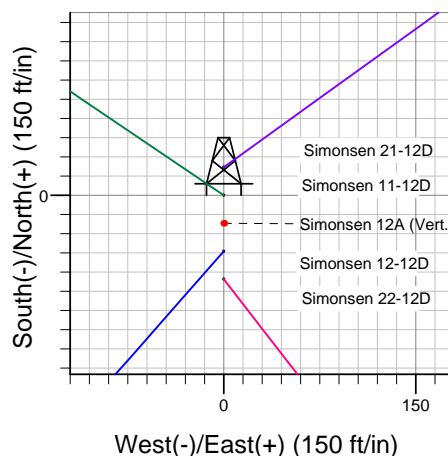
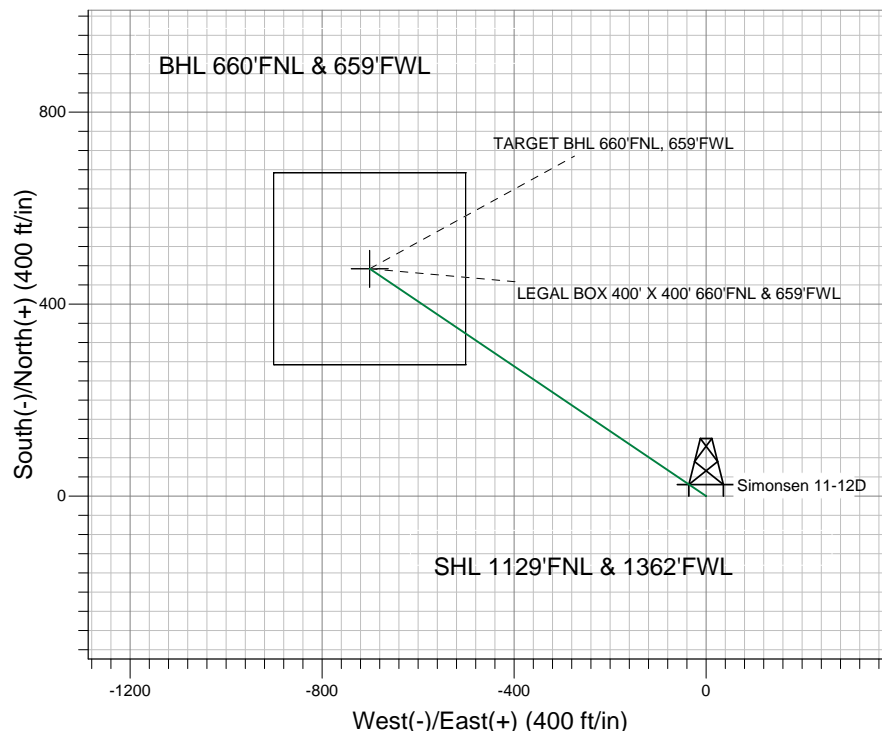
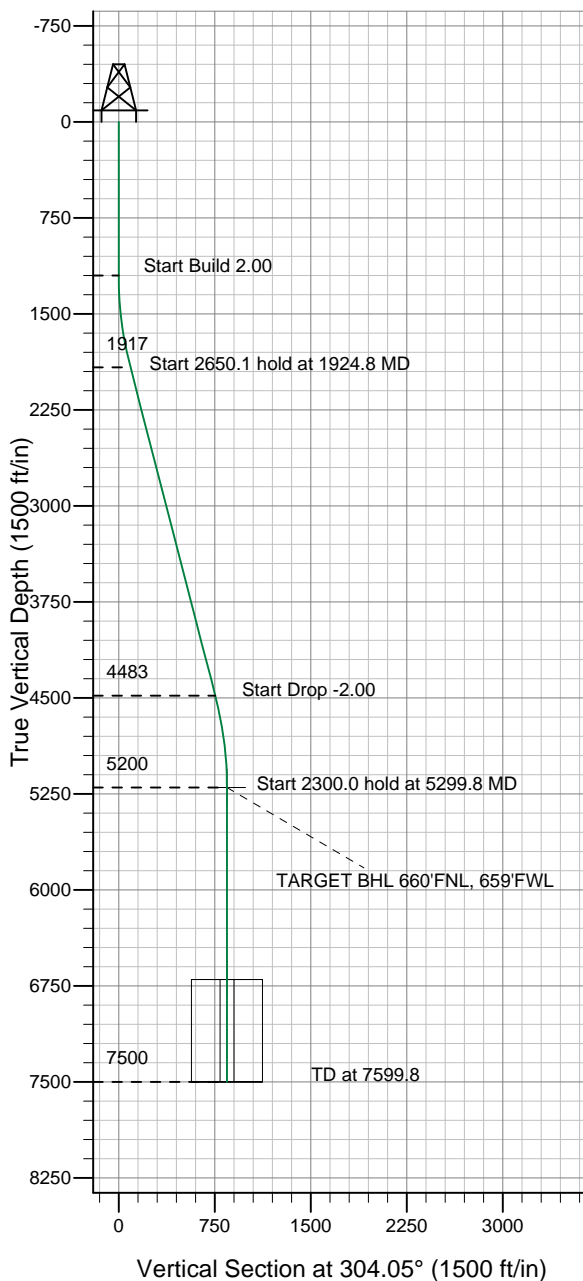
Well Name: Simonsen 11-12D

Surface Location: Simonsen 22-12D Pad Sec.12-T6N-R67W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4864.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1427791.65 3181770.74 40° 30' 21.060 N 104° 50' 46.752 W
 Original Well Elev WELL @ 4877.0ft (Original Well Elev)

PETROLEUM DEVELOPMENT CORP Weld County CO



Simonsen 22-12D Pad Sec.12-T6N-R67W
 Simonsen 11-12D
 Plan #1 (10-21-10)
 13:06, October 27 2010



Azimuths to True North
 Magnetic North: 9.01°

Magnetic Field
 Strength: 53246.2snT
 Dip Angle: 67.15°
 Date: 10/21/2010
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 660'FNL, 659'FWL	5200.0	473.6	-700.8	40° 30' 25.740 N	104° 50' 55.824 W	Point
LEGAL BOX 400' X 400' 660'FNL & 659'FWL	6700.0	473.6	-700.8	40° 30' 25.740 N	104° 50' 55.824 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	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1924.8	14.50	304.05	1917.1	51.1	-75.6	2.00	304.05	91.2	
4	4575.0	14.50	304.05	4482.9	422.6	-625.2	0.00	0.00	754.6	
5	5299.8	0.00	0.00	5200.0	473.6	-700.8	2.00	180.00	845.8	TARGET BHL 660'FNL, 659'FWL
6	7599.8	0.00	0.00	7500.0	473.6	-700.8	0.00	0.00	845.8	