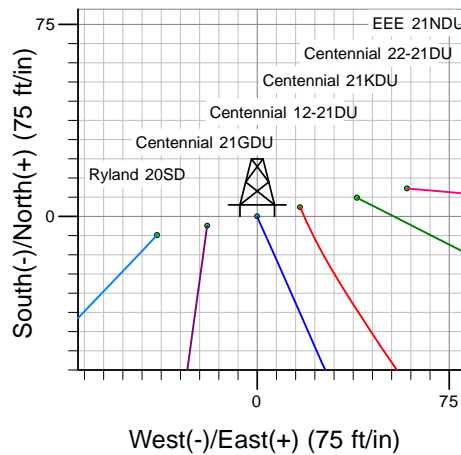
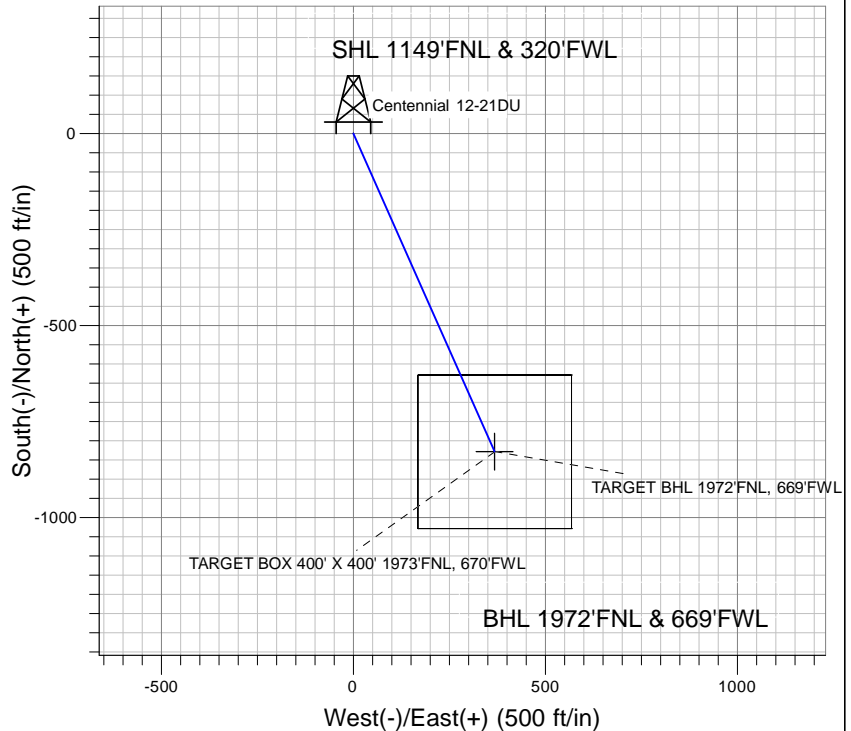
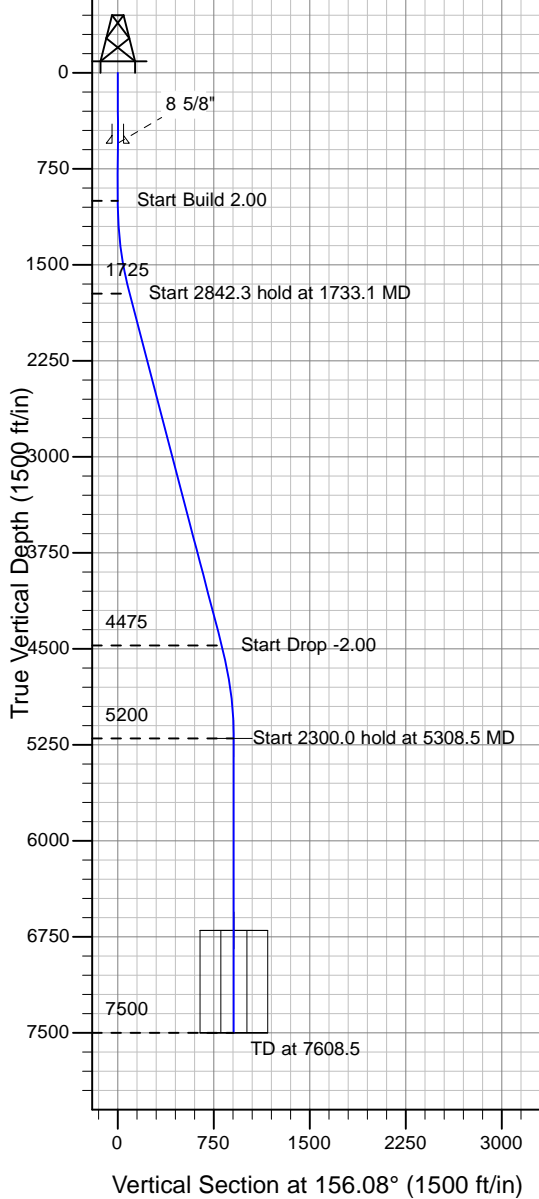


Well Name: Centennial 12-21DU

Surface Location: EEE/Ryland 20SD Pad Sec.21-T4N-R67W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4922.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1353592.25 3166095.82 40° 18' 8.928 N 104° 54' 16.128 W
 Original Well Elev WELL @ 4935.0ft (Original Well Elev)

PETROLEUM DEVELOPMENT CORP Weld County CO



EEE/Ryland 20SD Pad Sec.21-T4N-R67W
 Centennial 12-21DU
 Plan #1 (3-8-10)
 12:40, March 12 2010



Azimuths to True North
 Magnetic North: 9.09°
 Magnetic Field
 Strength: 53237.1nT
 Dip Angle: 67.01°
 Date: 12/31/2009
 Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1972'FNL, 669'FWL	5200.0	-828.2	367.3	40° 18' 0.744 N	104° 54' 11.387 W	Point
TARGET BOX 400' X 400' 1973'FNL, 670'FWL	6700.0	-829.2	368.3	40° 18' 0.734 N	104° 54' 11.375 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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1733.1	14.66	156.08	1725.1	-85.3	37.8	2.00	156.08	93.3	
4	4575.4	14.66	156.08	4474.9	-742.9	329.5	0.00	0.00	812.7	
5	5308.5	0.00	0.00	5200.0	-828.2	367.3	2.00	180.00	906.0	TARGET BHL 1972'FNL, 669'FWL
6	7608.5	0.00	0.00	7500.0	-828.2	367.3	0.00	0.00	906.0	