

ENSIGN

Directional

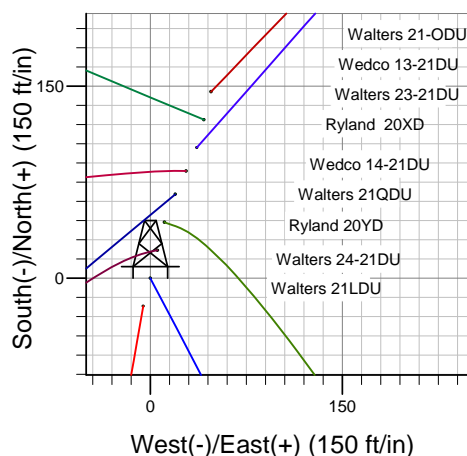
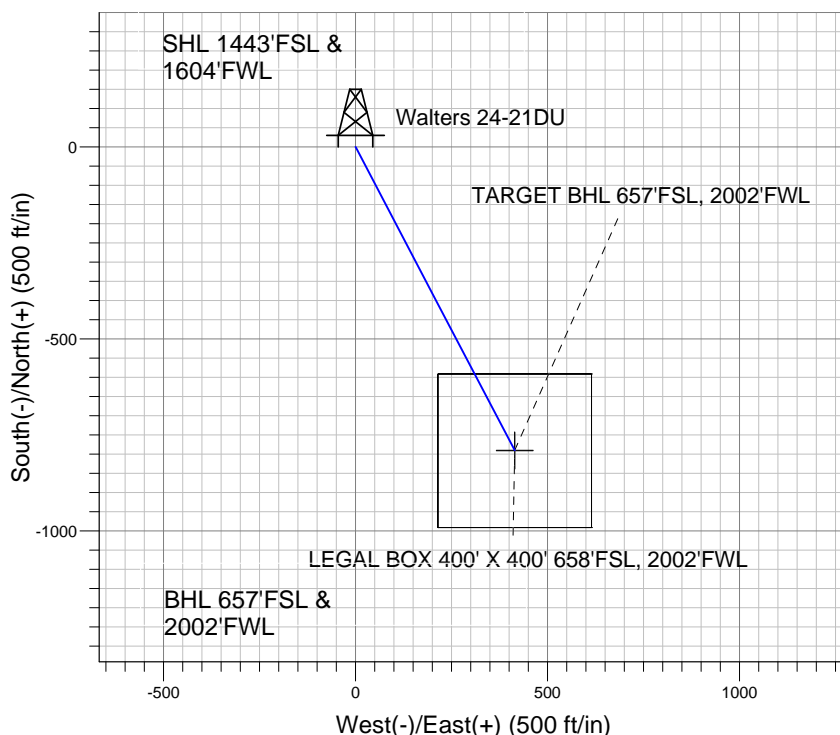
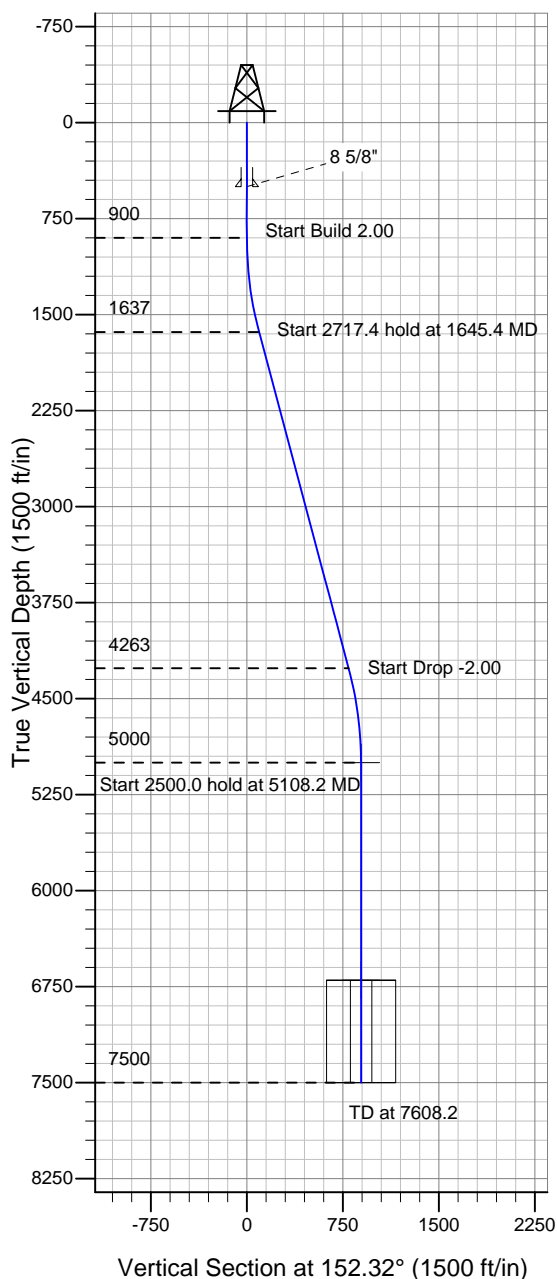
Well Name: **Walters 24-21DU**

Surface Location: Walters/Wedco/Ryland Pad Sec.21-T4N-R67W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4940.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1350912.82	3167444.40	40° 17' 42.360 N	104° 53' 58.956 W	
Original Well Elev WELL @ 4953.0ft (Original Well Elev)						

PETROLEUM DEVELOPMENT CORP Weld County CO



Walters 24-21DU
Plan #1 (6-4-10)
13:23, June 08 2010



Azimuths to True North
Magnetic North: 9.09°
Magnetic Field
Strength: 53233.5snT
Dip Angle: 67.00°
Date: 12/31/2009
Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 657'FSL, 2002'FWL	5000.0	-789.9	414.4	40° 17' 34.554 N	104° 53' 53.609 W	Point
LEGAL BOX 400' X 400' 658'FSL, 2002'FWL	6700.0	-790.9	414.4	40° 17' 34.544 N	104° 53' 53.608 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	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	1645.4	14.91	152.32	1637.1	-85.4	44.8	2.00	152.32	96.4	
4	4362.8	14.91	152.32	4262.9	-704.5	369.6	0.00	0.00	795.6	
5	5108.2	0.00	0.00	5000.0	-789.9	414.4	2.00	180.00	892.0	TARGET BHL 657'FSL, 2002'FWL
6	7608.2	0.00	0.00	7500.0	-789.9	414.4	0.00	0.00	892.0	