

ENSIGN

Directional

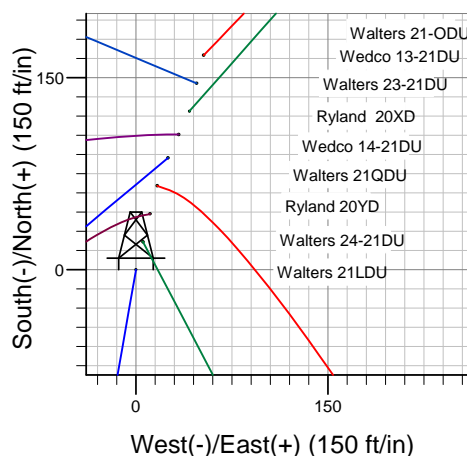
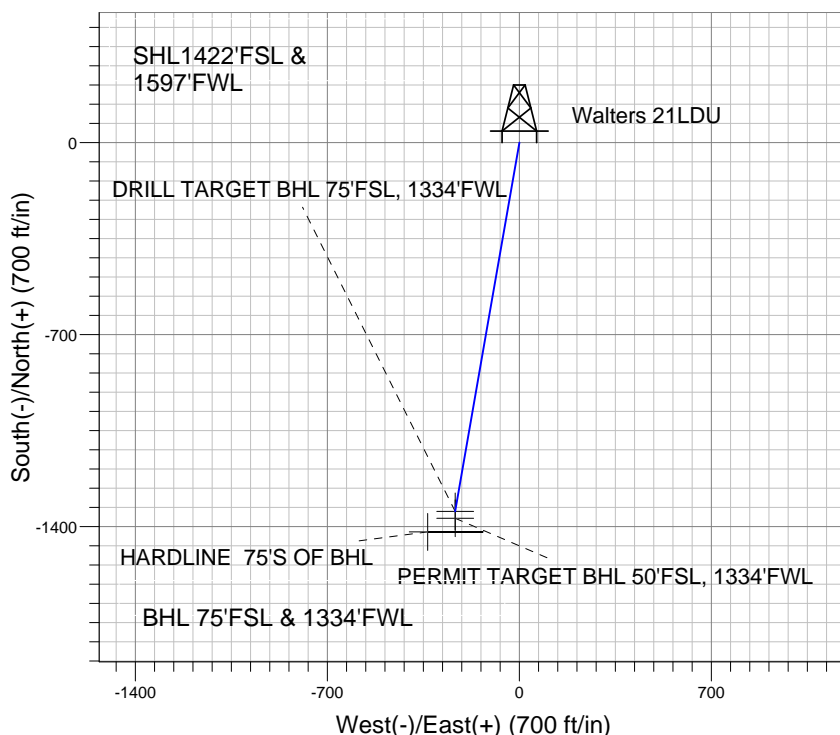
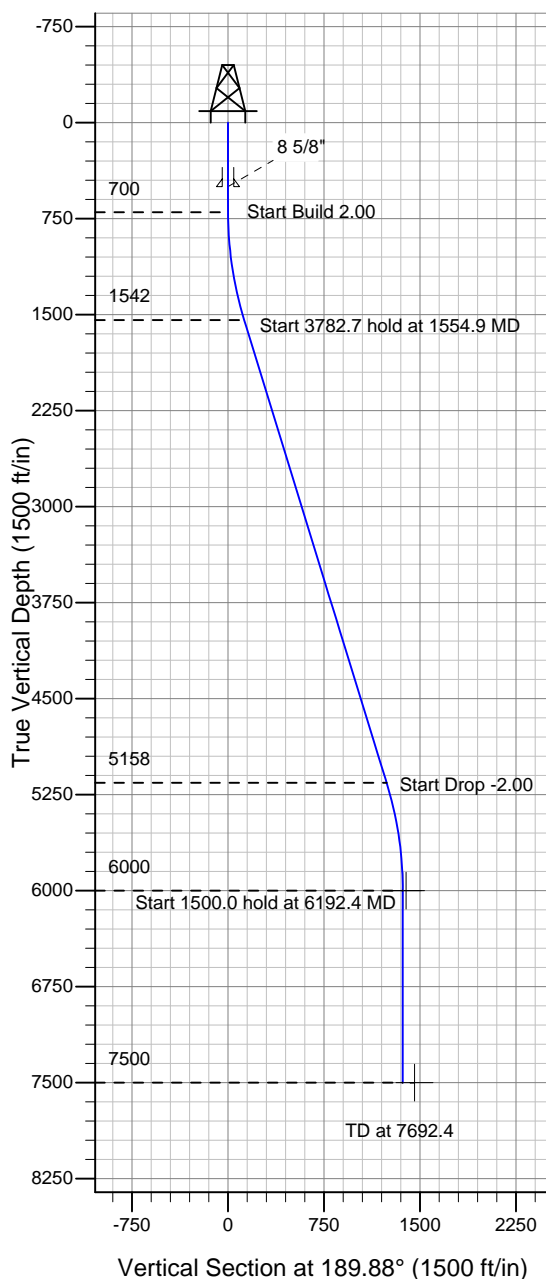
Well Name: **Walters 21LDU**

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	1350890.93	3167438.97	40° 17' 42.144 N	104° 53' 59.028 W	
Original Well Elev WELL @ 4953.0ft (Original Well Elev)						

PETROLEUM DEVELOPMENT CORP Weld County CO



Walters 21LDU
Plan #1 (6-4-10)
13:48, 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
DRILL TARGET BHL 75'FSL, 1334'FWL	6000.0	-1345.1	-234.2	40° 17' 28.852 N	104° 54' 2.050 W	Point
PERMIT TARGET BHL 50'FSL, 1334'FWL	6000.0	-1370.1	-234.2	40° 17' 28.605 N	104° 54' 2.050 W	Point
HARDLINE 75'S OF BHL	7500.0	-1420.1	-334.2	40° 17' 28.111 N	104° 54' 3.341 W	Polygon

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	700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.0	
3	1554.9	17.10	189.88	1542.3	-124.7	-21.7	2.00	189.88	126.6	
4	5337.5	17.10	189.88	5157.7	-1220.4	-212.5	0.00	0.00	1238.7	
5	6192.4	0.00	0.00	6000.0	-1345.1	-234.2	2.00	180.00	1365.3	DRILL TARGET BHL 75'FSL, 1334'FWL
6	7692.4	0.00	0.00	7500.0	-1345.1	-234.2	0.00	0.00	1365.3	