

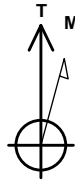


Well Name: WAAG 13  
Surface Location: WAAG MIDDLE  
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
Ground Elevation: 4884.0  
WELL @ 4900.0ft (Xtreme 7)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1448249.57	3220339.13	40° 33' 40.104 N	104° 42' 25.092 W	WAAG 13

#### 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	1081.2	3.62	113.43	1081.1	-2.3	5.3	2.00	113.43	-5.2	
4	6562.0	3.62	113.43	6550.9	-140.0	323.1	0.00	0.00	-320.8	
5	6743.2	0.00	0.00	6732.0	-142.3	328.4	2.00	180.00	-326.1	
6	6773.2	0.00	0.00	6762.0	-142.3	328.4	0.00	0.00	-326.1	
7	7673.2	90.00	270.75	7335.0	-134.8	-244.5	10.00	270.75	246.7	
8	2133.1	90.00	270.76	7335.0	-76.1	-4704.0	0.00	0.00	4704.6	TD / PBHL WAAG MIDDLE 13



Azimuths to True North  
Magnetic North: 8.42°  
  
Magnetic Field  
Strength: 52888.9snT  
Dip Angle: 67.08°  
Date: 8/9/2014  
Model: IGRF2010

#### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
LP WAAG MIDDLE 13	7335.0	-134.8	-244.5	40° 33' 38.772 N	104° 42' 28.260 W	Point
TD / PBHL WAAG MIDDLE 13	7335.0	-76.1	-4704.0	40° 33' 39.348 N	104° 43' 26.040 W	Point

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3610.0	3615.2	PARKMAN
4337.0	4343.6	SUSSEX
4730.0	4737.4	SHANNON
7008.0	7027.5	NIOBRARA
7148.0	7196.7	NIO B TARGET
7292.0	7449.9	FORT HAYS
7325.0	7566.2	CODELL

