

# PETROLEUM DEVELOPMENT CORP Weld County CO

## Well Name: Manguson 23L-421

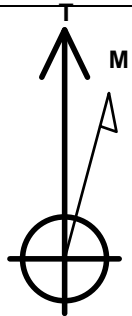
Surface Location: Magnuson Pad Sec.23-T7N-R66W  
North American Datum 1983 , US State Plane 1983Colorado Northern Zone  
Ground Elevation: 4899.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1445544.65	3207997.28	40.554010	-104.751470	

RKB Ensign 32 - 15' WELL @ 4914.0ft (RKB Ensign 32 - 15')

### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
HARDLINE BHL 460'FNL (4)	1.0	4666.9	1300.0	1450222.21	3209257.80	40.566820	-104.746791	Polygon
HARDLINE SHL 460'FSL (4)	1.0	235.0	1300.0	1445790.61	3209295.21	40.554655	-104.746792	Polygon
SECTIONLINE 225'S OF SHL (4)	1.0	-225.0	1300.0	1445330.64	3209299.09	40.553392	-104.746792	Polygon
BHL 500'FNL & 1980'FWL	7414.0	4626.9	1214.1	1450181.52	3209172.28	40.566710	-104.747100	Point



Azimuths to True North  
Magnetic North: 8.75°

Magnetic Field  
Strength: 53115.8nT  
Dip Angle: 67.15°  
Date: 5/16/2012  
Model: IGRF2010

### ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP #1
6640.3	6793.2	KOP #2
7420.2	8167.1	End of Build

Magnuson Pad Sec.23-T7N-R66W  
Manguson 23L-421  
Plan #1 (5-16-12)  
10:16, May 22 2012

