

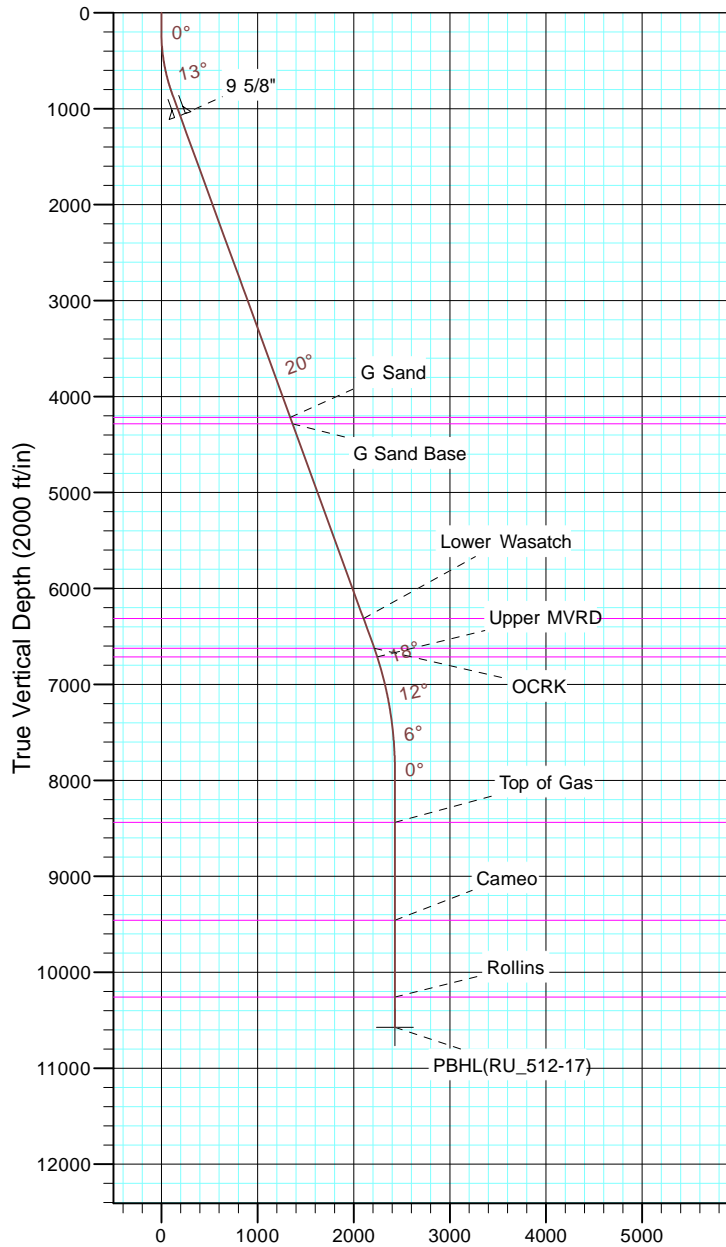
TEP Rocky Mountain LLC

Project: Garfield County, CO NAD83
 Site: RU 23-17 Pad
 Well: RU 512-17
 Wellbore: OH
 Design: Plan #1



Azimuths to True North
 Magnetic North: 9.60°

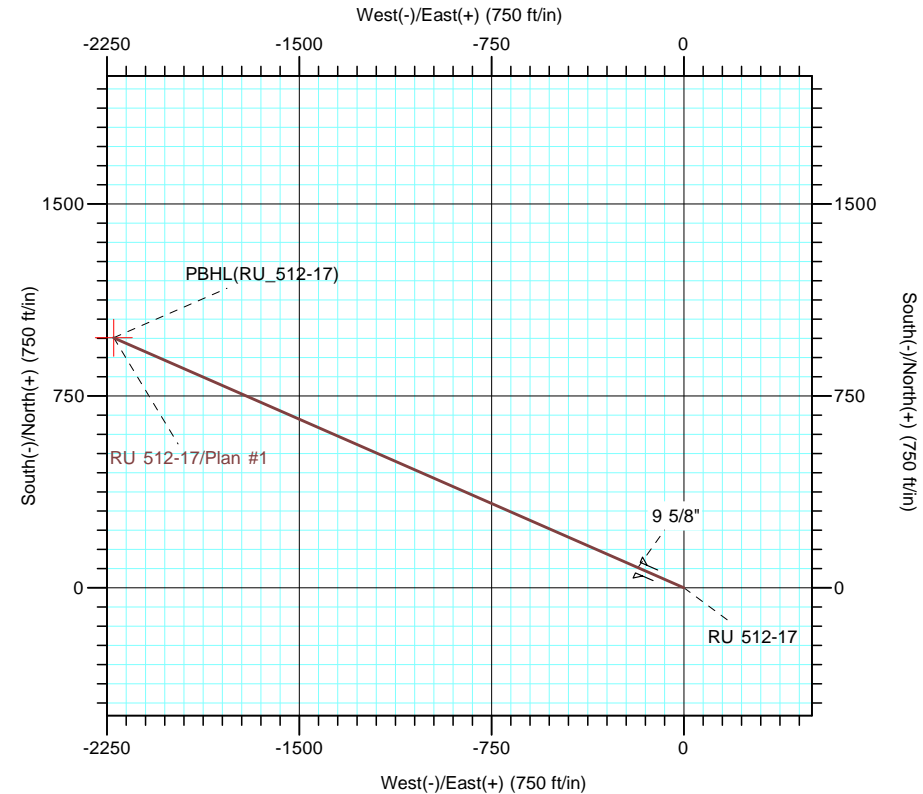
Magnetic Field
 Strength: 51501.5nT
 Dip Angle: 65.58°
 Date: 7/5/2017
 Model: IGRF2015



Vertical Section at 293.72° (2000 ft/in)

CASING DETAILS			
TVD	MD	Name	Size
1072.5	1100.0	9 5/8"	9.625

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4219.0	4448.4	G Sand
4284.0	4517.6	G Sand Base
6314.0	6677.8	Lower Wasatch
6624.0	7007.6	OCRK
6714.0	7102.5	Upper MVRD
8439.0	8846.6	Top of Gas
9459.0	9866.6	Cameo
10259.0	10666.6	Rollins



DESIGN TARGET DETAILS		Name		TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
		PBHL(RU_512-17)		10574.0	977.0	-2223.5	1595673.20	2349030.10	39° 26' 46.338 N	107° 48' 19.430 W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	866.6	20.00	293.72	853.1	46.3	-105.4	3.00	293.72	115.1	
4	6958.5	20.00	293.72	6577.8	884.3	-2012.7	0.00	0.00	2198.4	
5	8291.6	0.00	0.00	7884.0	977.0	-2223.5	1.50	180.00	2428.7	
6	10981.6	0.00	0.00	10574.0	977.0	-2223.5	0.00	0.00	2428.7	PBHL(RU_512-17)