

CC Federal 0697-03-01W
Garfield County, CO
Q191126 & RM-190986
Design #6

Company Name: Laramie Energy, LLC
CC Federal 0697-03-01W
Garfield County, CO
Rig: H&P #522
Created By: Will Jircik
Date: 12:10, July 05 2019

PROJECT DETAILS: Garfield County, CO
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
System Datum: Mean Sea Level

WELL DETAILS: CC Federal 0697-03-01W
8609.0
+N/-S 0.0 +E/-W 0.0 Northing 1639481.05 Easting 2233554.19 Latitude 39.557675 Longitude -108.218750

DESIGN ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.0	KOP/ (Build 3.00"/100')
416.7	5.00	30.00	416.5	6.3	3.6	7.1	7.3	EOB @ 5.00" Inc. / 30.00° Azm / Build 3° / 100'
1080.2	24.78	41.50	1054.6	136.8	111.3	176.2	176.6	EOB @ 24.78" Inc. / 41.50° Azm
7470.5	24.78	41.50	6856.5	2142.8	1886.3	2854.7	2855.1	Drop 3" / 100'
8296.5	0.00	0.00	7657.0	2274.5	2002.8	3030.6	3031.0	EOD @ Vertical
10446.5	0.00	0.00	9807.0	2274.5	2002.8	3030.6	3031.0	TD @ 10446.5' MD / 9807.0' TVD

DESIGN TARGET DETAILS

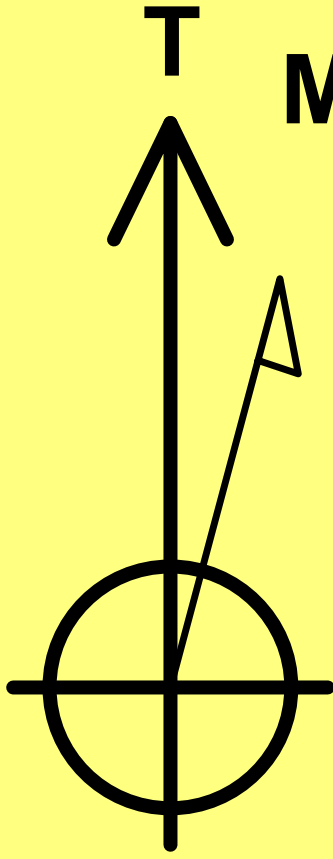
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL - CC Federal 0697-03-01W - Original BHL	9807.0	2274.5	2002.8	1641694.56	2235624.17	39.563919	-108.211646

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
293.0	3.10	19.60	292.9	7.5	2.7	7.4	7.9	First MWD Survey @ 293.0' MD / 292.9' TVD
10422.0	8.00	252.10	9767.9	2263.8	1950.1	2987.8	3216.1	Projection To TD @ 10422.0' MD / 9767.9' TVD

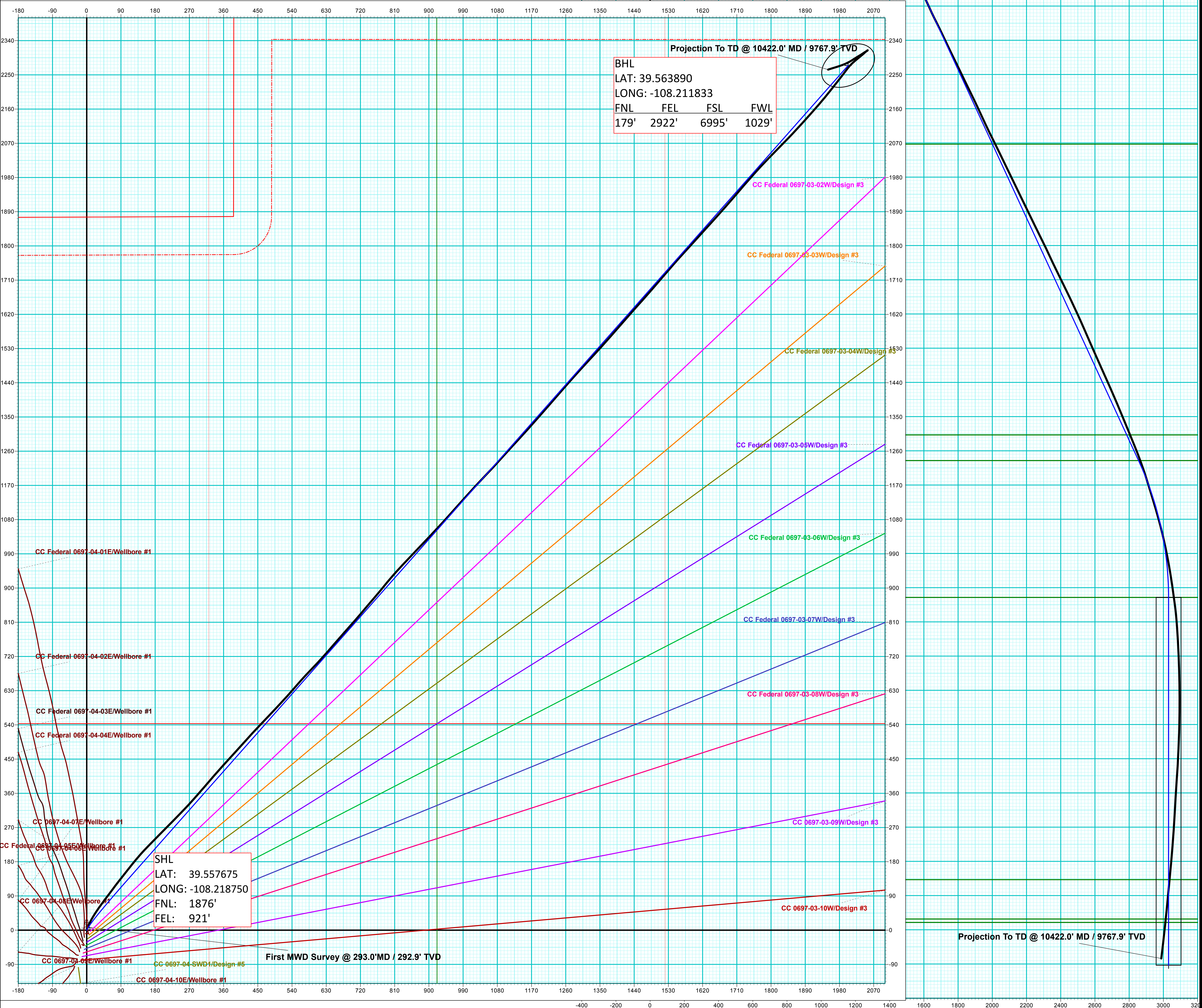
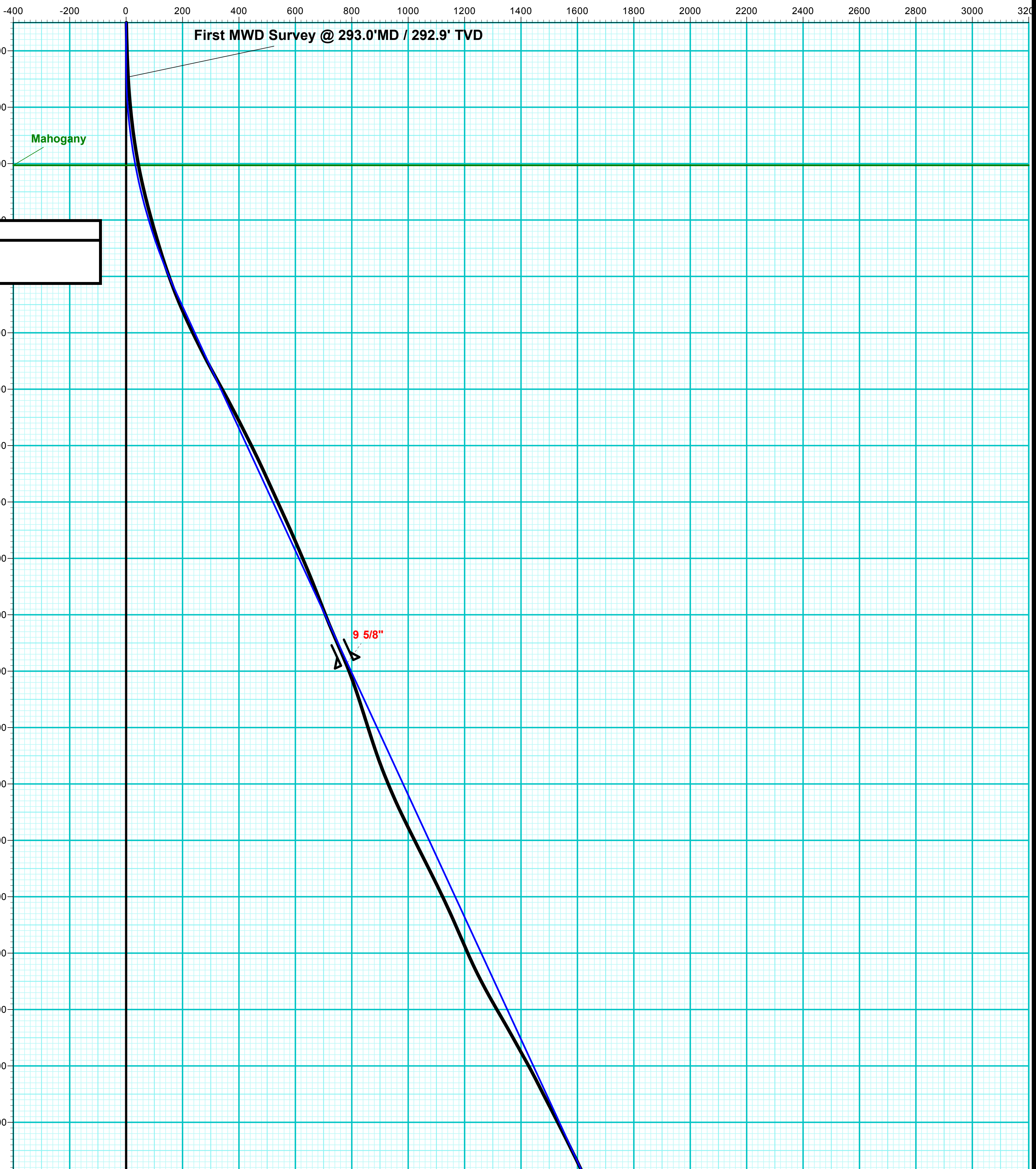
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
606.0	608.1	Mahogany
5007.0	5433.4	Wasatch 'G' Sand
6707.0	7305.9	Ohio Creek
6857.0	7471.1	Williams Fork
7657.0	8296.5	TOG
9307.0	9946.5	Cameo
9537.0	10176.5	Base Cameo Coal
9557.0	10196.5	Rollins



Azimuths to True North
Magnetic North: 9.57°

Strength: 51423.8snT
Dip Angle: 65.80°
Date: 6/30/2019
Model: HDGM



Vertical Section at 41.37° (200 usft/in)