

Nichols Federal 0994-24-17E
 Mesa County, CO
 Q180402 & RM-180346
 Design #2

Company Name: Laramie Energy, LLC
 Nichols Federal 0994-24-17E
 Mesa County, CO
 Rig: H&P #290
 Created By: Will Jircik
 Date: 4/19/2018

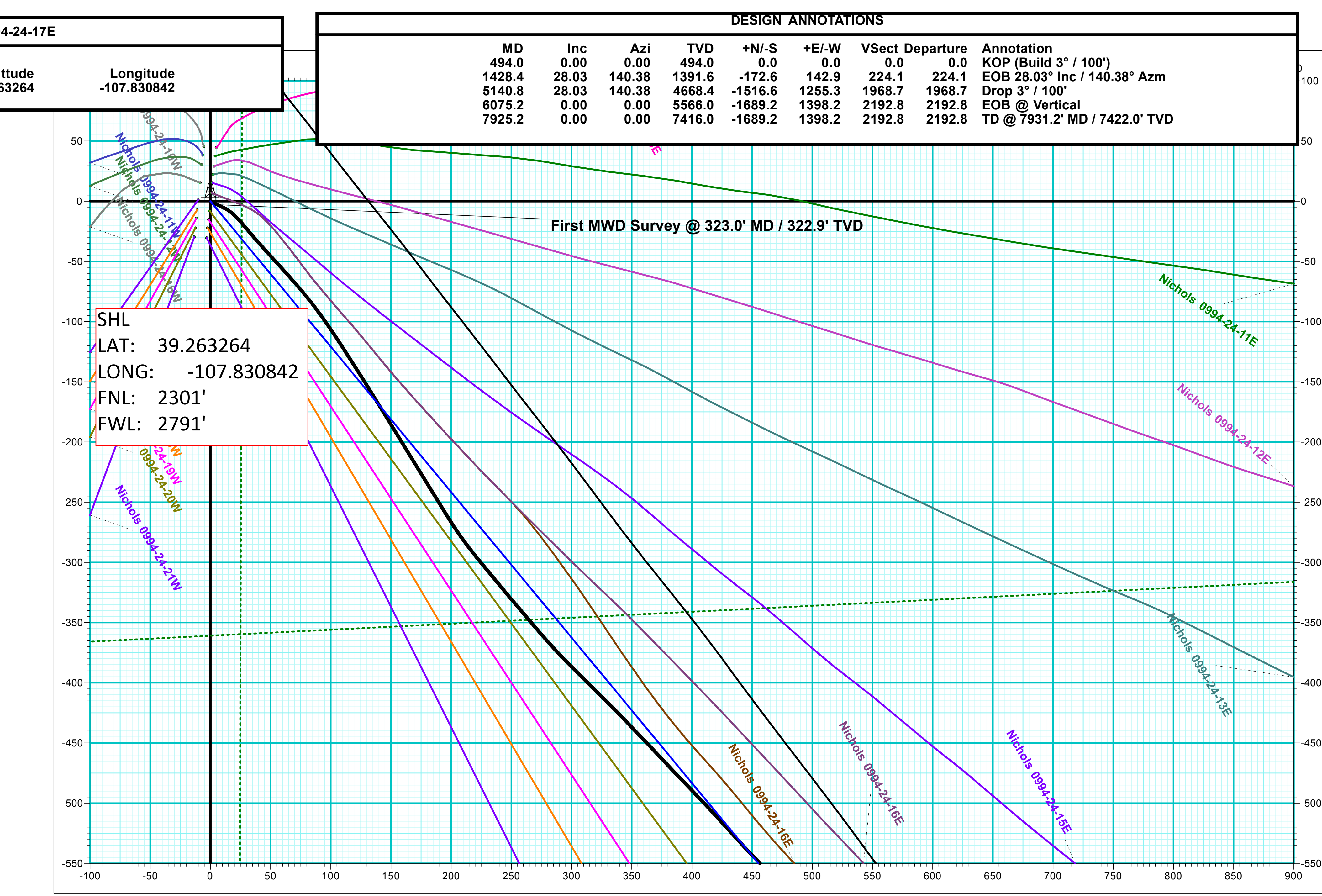
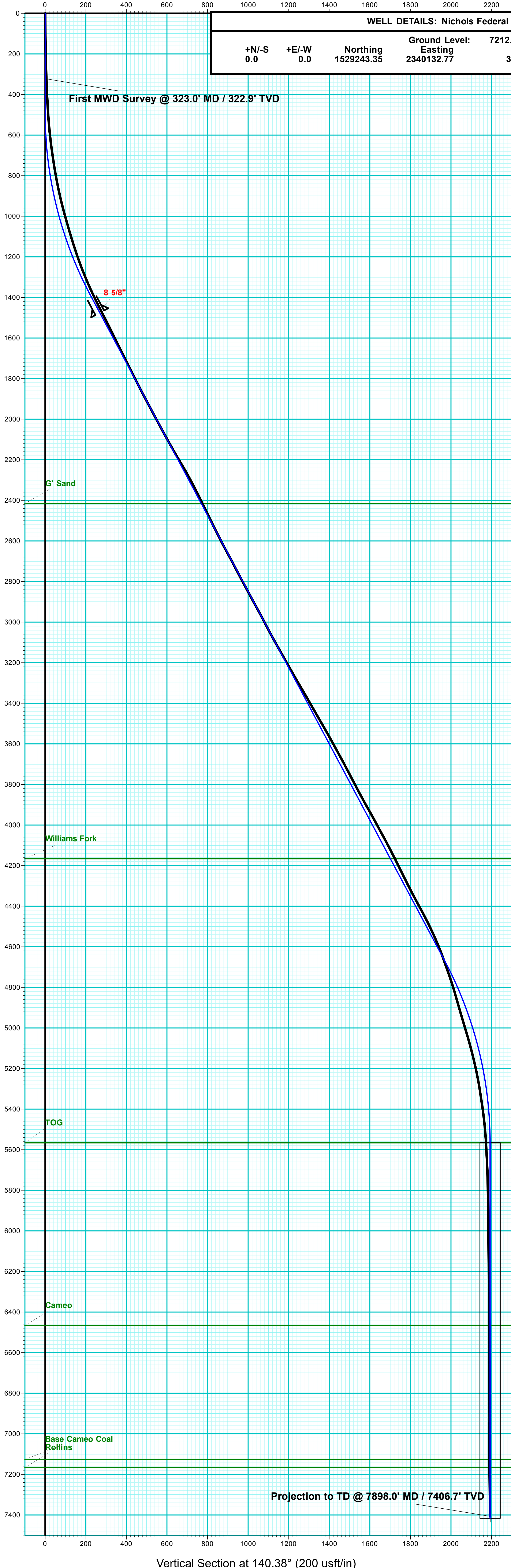
PROJECT DETAILS: Mesa County, CO
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Central Zone
 System Datum: Mean Sea Level

T **M**
 Azimuths to True North
 Magnetic North: 9.44°
 Strength: 51309.9snT
 Dip Angle: 65.40°
 Date: 3/28/2018
 Model: USER DEFINED



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
2416.0	2589.0	G' Sand
4166.0	4571.6	Williams Fork
5566.0	6075.2	TOG
6466.0	6975.2	Cameo
7126.0	7635.2	Base Cameo Coal
7166.0	7675.2	Rollins

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - Nichols Federal 0994-24-17E	7416.0	-1689.2	1398.2	1527518.85	2341487.18	39.258626	-107.825904	Circle (Radius: 50.0)



DESIGN ANNOTATIONS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation		
494.0	0.00	0.00	494.0	0.0	0.0	0.0	0.0	KOP (Build 3° / 100')		
1428.4	28.03	140.38	1391.6	-172.6	142.9	224.1	224.1	EOB 28.03° Inc / 140.38° Azm		
5140.8	28.03	140.38	4688.4	-1516.6	1255.3	1968.7	1968.7	Drop 3° / 100'		
6075.2	0.00	0.00	5566.0	-1689.2	1398.2	2192.8	2192.8	EOB @ Vertical		
7925.2	0.00	0.00	7416.0	-1689.2	1398.2	2192.8	2192.8	TD @ 7931.2' MD / 7422.0' TVD		

