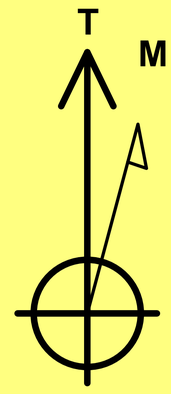
Nichols 0994-24-20W
Mesa County, CO
Q180589 & RM-180506
Design #3

Company Name: Laramie Energy, LLC
Nichols 0994-24-20W
Mesa County, CO
Rig: H&P #290
Created By: Will Jircik
Date: 5/15/2018

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

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2301.0	2449.5	G' Sand
4051.0	4598.5	Williams Fork
5451.0	6211.3	TOG
6351.0	7111.7	Cameo
7011.0	7771.7	Base Cameo Coal
7051.0	7811.7	Rollins



Azimuths to True North
Magnetic North: 9.43°

Strength: 51296.5snT
Dip Angle: 65.40°
Date: 5/10/2018
Model: USER DEFINED

DESIGN TARGET DETAILS

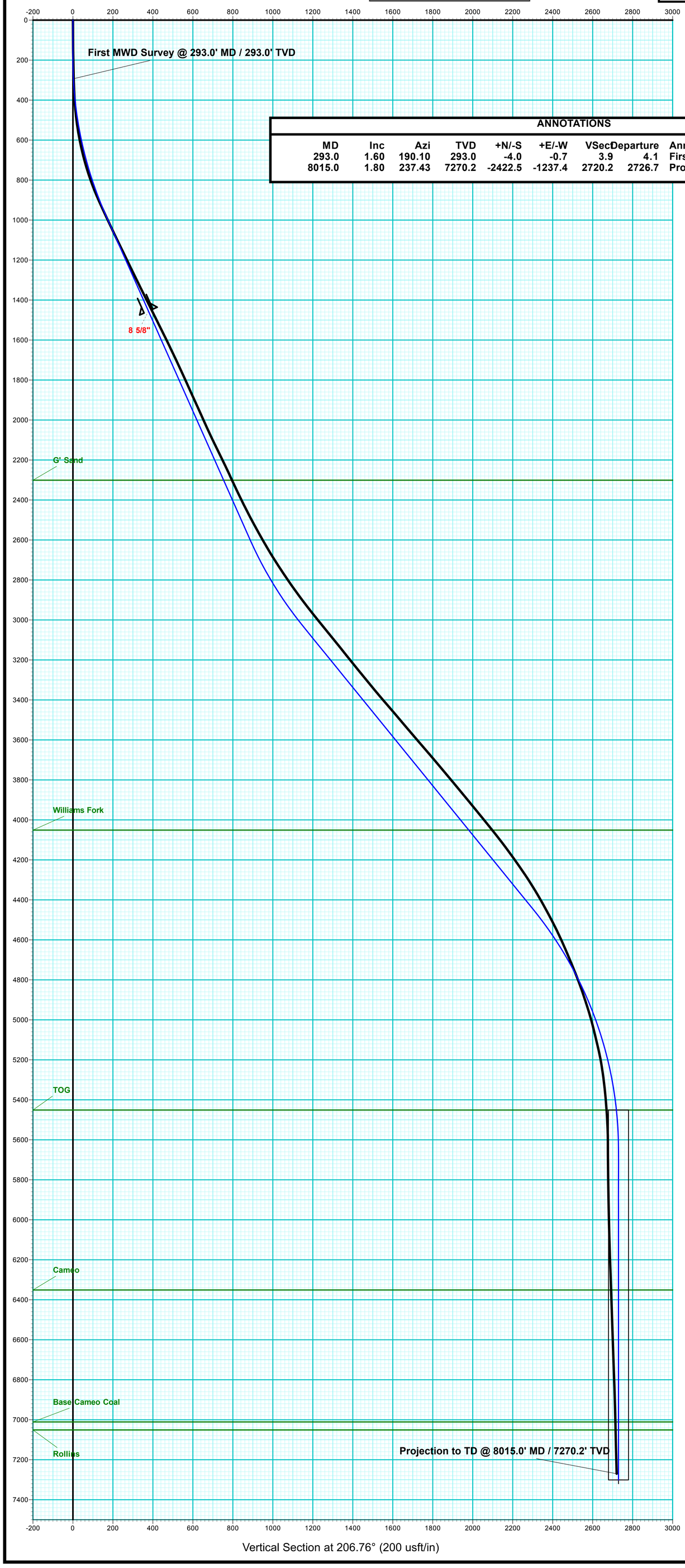
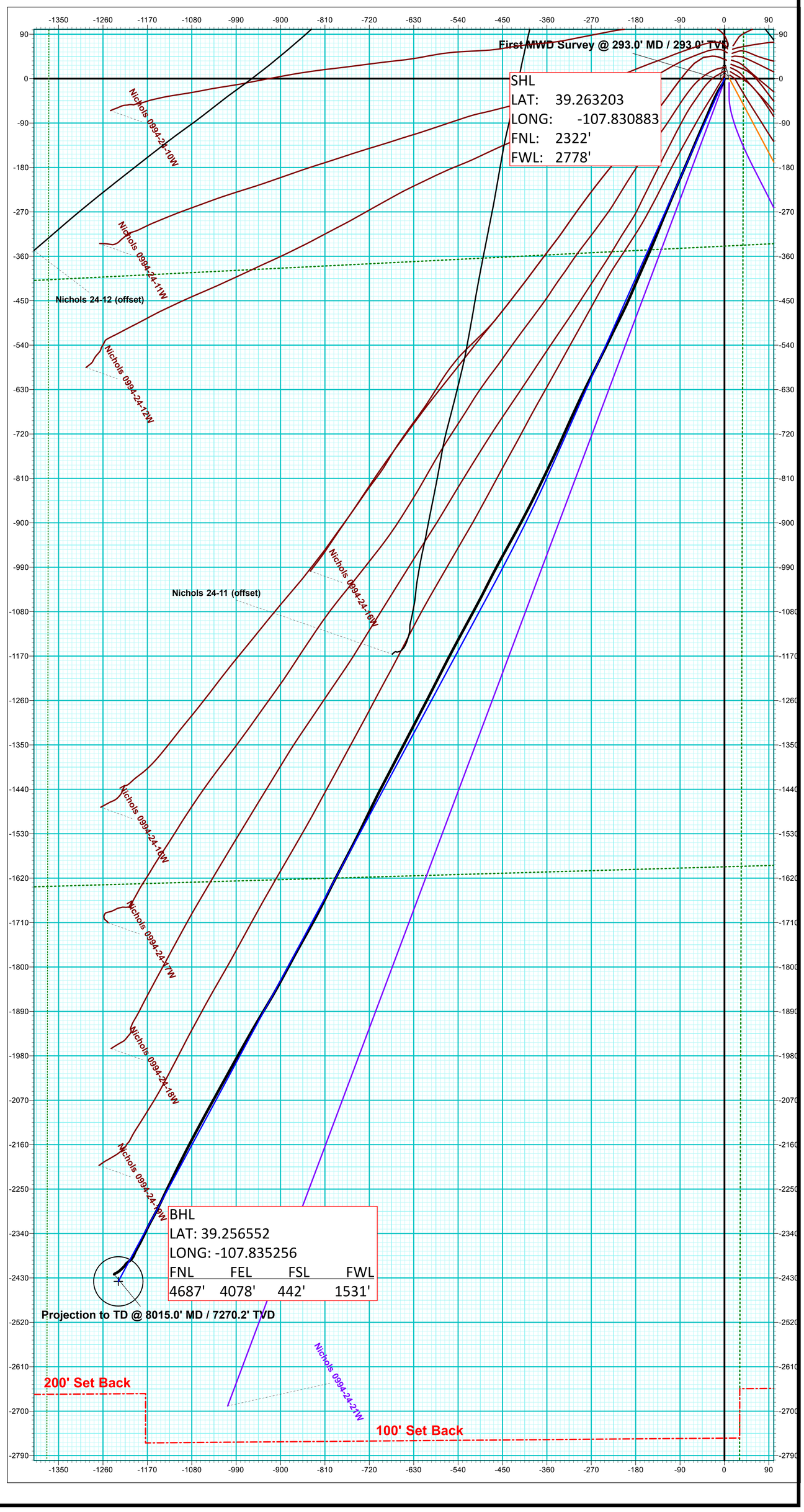
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - Nichols 0994-24-20W	7301.0	-2436.9	-1228.9	1526816.86	2338828.72	39.256512	-107.835226	Circle (Radius: 50.0)

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.0	KOP (Build 3° / 100')
1000.0	24.00	204.00	976.8	-150.8	-67.2	164.9	165.1	EOB @ 24.00° Inc. / 204.00° Azm
2776.8	24.00	204.00	2600.0	-811.1	-361.1	886.8	887.8	Build 3° / 100'
3286.2	39.12	208.34	3032.8	-1048.5	-480.2	1152.4	1153.5	EOB @ 39.12° Inc. / 208.34° Azm
5107.7	39.12	208.34	4446.0	-2060.1	-1025.7	2301.3	2302.8	Drop 3° / 100'
6411.7	0.00	0.00	5651.0	-2436.9	-1228.9	2729.3	2731.0	EOD @ Vertical
8061.7	0.00	0.00	7301.0	-2436.9	-1228.9	2729.3	2731.0	TD @ 8061.7' MD / 7301.0' TVD

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
293.0	1.60	190.10	293.0	-4.0	-0.7	3.9	4.1	First MWD Survey @ 293.0' MD / 293.0' TVD
8015.0	1.80	237.43	7270.2	-2422.5	-1237.4	2720.2	2726.7	Projection to TD @ 8015.0' MD / 7270.2' TVD

WELL DETAILS: Nichols 0994-24-20W

+N/-S	+E/-W	Northing	Ground Level: 7212.0 Easting	Latittude	Longitude
0.0	0.0	1529221.46	2340119.75	39.263203	-107.830886