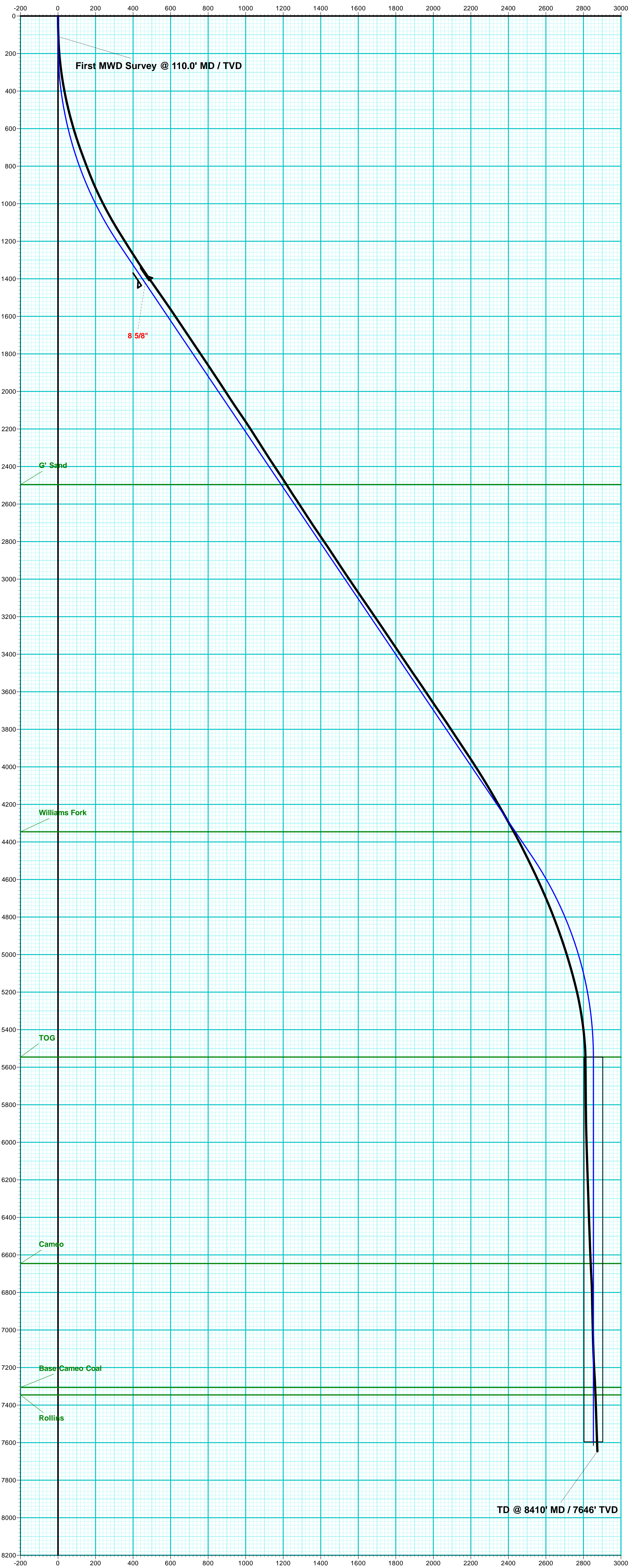


Piceance Federal 29-22E  
Mesa County, CO  
Q170506 & RM-170419  
Design #2

Company Name: Laramie Energy, LLC  
Piceance Federal 29-22E  
Mesa County, CO  
Rig: H&P #522  
Created By: Will Jircik  
Date: 04/20/2017

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



Vertical Section at 208.12° (200 usf/in)

Azimuths to True North  
Magnetic North: 9.59°

Strength: 51428.3snT  
Dip Angle: 65.42°  
Date: 4/16/2017  
Model: IGRF2015

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
2496.0	2825.2	G' Sand
4346.0	5057.0	Williams Fork
5546.0	6349.6	TOG
6646.0	7449.6	Cameo
7306.0	8109.6	Base Cameo Coal
7346.0	8149.6	Rollins

WELL DETAILS:		Piceance Federal 29-22E			
		Ground Level:		7531.0	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1523529.11	2352041.63	39.248411	-107.788286

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - Piceance Federal 29-22E D#2	7596.0	-2516.4	-1344.6	1521047.41	2350634.04	39.241502	-107.793034	Circle (Radius: 50.0)

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation	
110.0	2.00	226.60	110.0	-1.3	-1.4	1.8	1.9	First MWD Survey @ 110.0' MD / TVD	
8410.0	2.10	198.80	7646.3	-2539.2	-1347.3	2874.5	2879.3	TD @ 8410' MD / 7646' TVD	

