

Company Name: Laramie Energy, LLC  
BCU 0993-21-07W  
Mesa County, CO  
Rig: H&P #522  
Created By: Will Jircik  
Date: 9/15/2018

BCU 0993-21-07W  
Mesa County, CO  
Q181188 & RM-181004  
Design #2

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



DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL - BCU 0993-21-07W	7683.0	-64.8	252.0	1529579.25	2354748.70	39.265204	-107.779266	Circle (Radius: 50.0)

DESIGN ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.0	KOP/ (Build 3.00"/100')
566.7	8.00	104.42	565.9	-4.6	18.0	18.6	18.6	EOB @ 8.00" Inc / 104.42" Azm
2168.6	8.00	104.42	2152.1	-60.2	234.0	241.6	241.6	Drop @ 3.00"/100'
2435.3	0.00	0.00	2418.0	-64.8	252.0	260.2	260.2	EOD @ Vertical
7700.3	0.00	0.00	7683.0	-64.8	252.0	260.2	260.2	TD @ 7700.3' MD / 7683.0' TVD

WELL DETAILS: BCU 0993-21-07W					
				7257.0	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1529650.37	2354498.42	39.265382	-107.780156

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
2583.0	2600.3	G' Sand	
4433.0	4450.3	Ohio Creek	
4633.0	4650.3	Williams Fork	
5683.0	5700.3	TOG	
6733.0	6750.3	Cameo	
7393.0	7410.3	Base Cameo Coal	
7433.0	7450.3	Rollins	

T

M

Azimuths to True North

Magnetic North: 9.47°

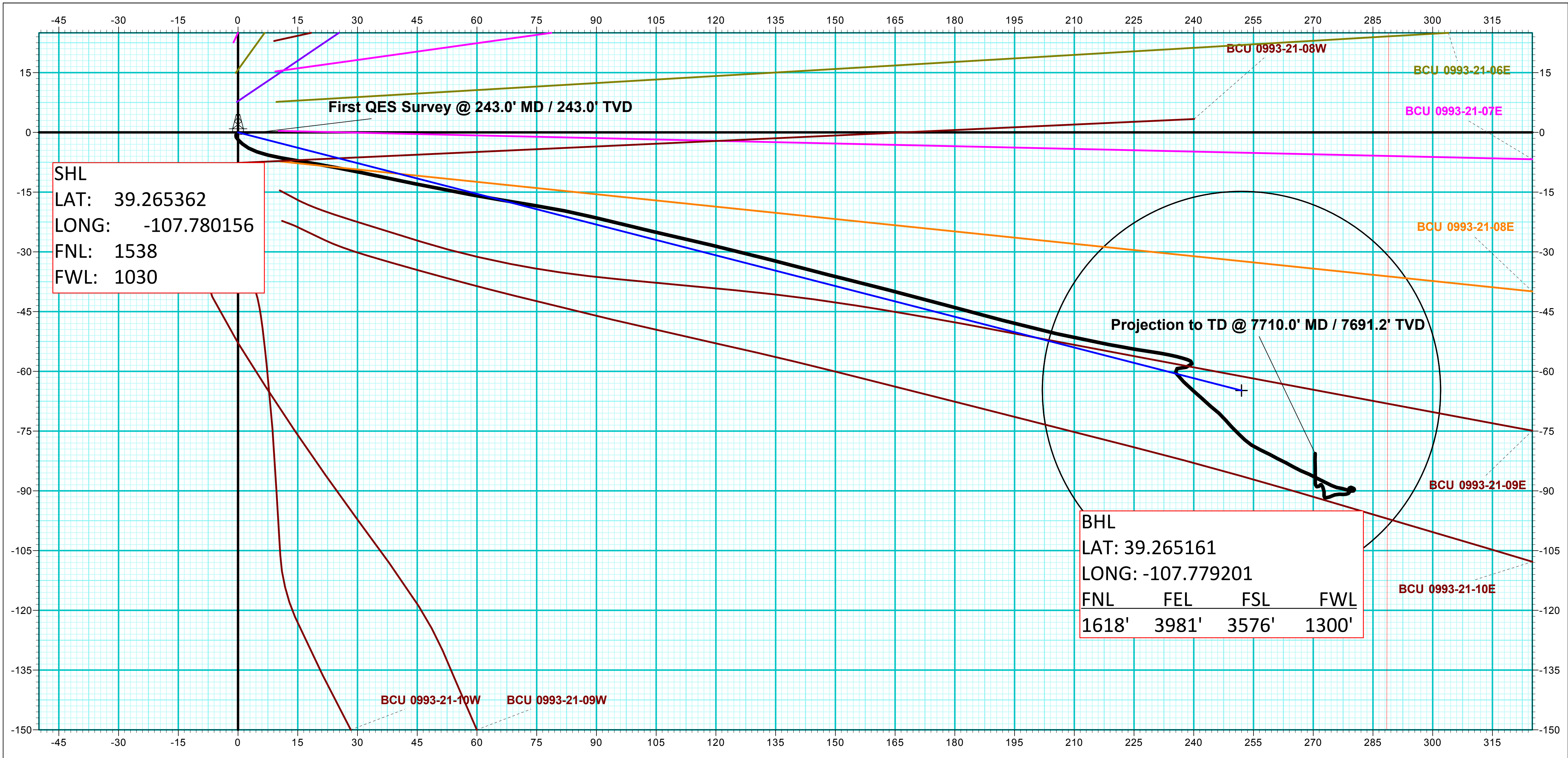
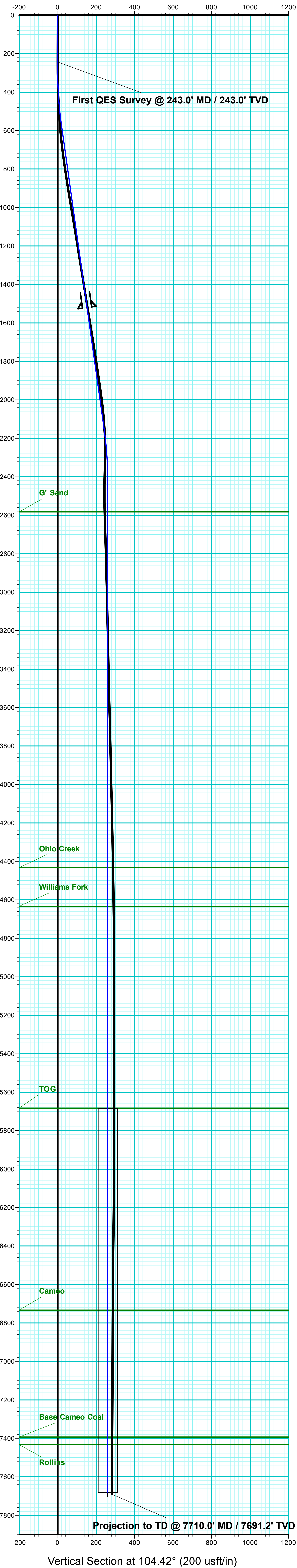
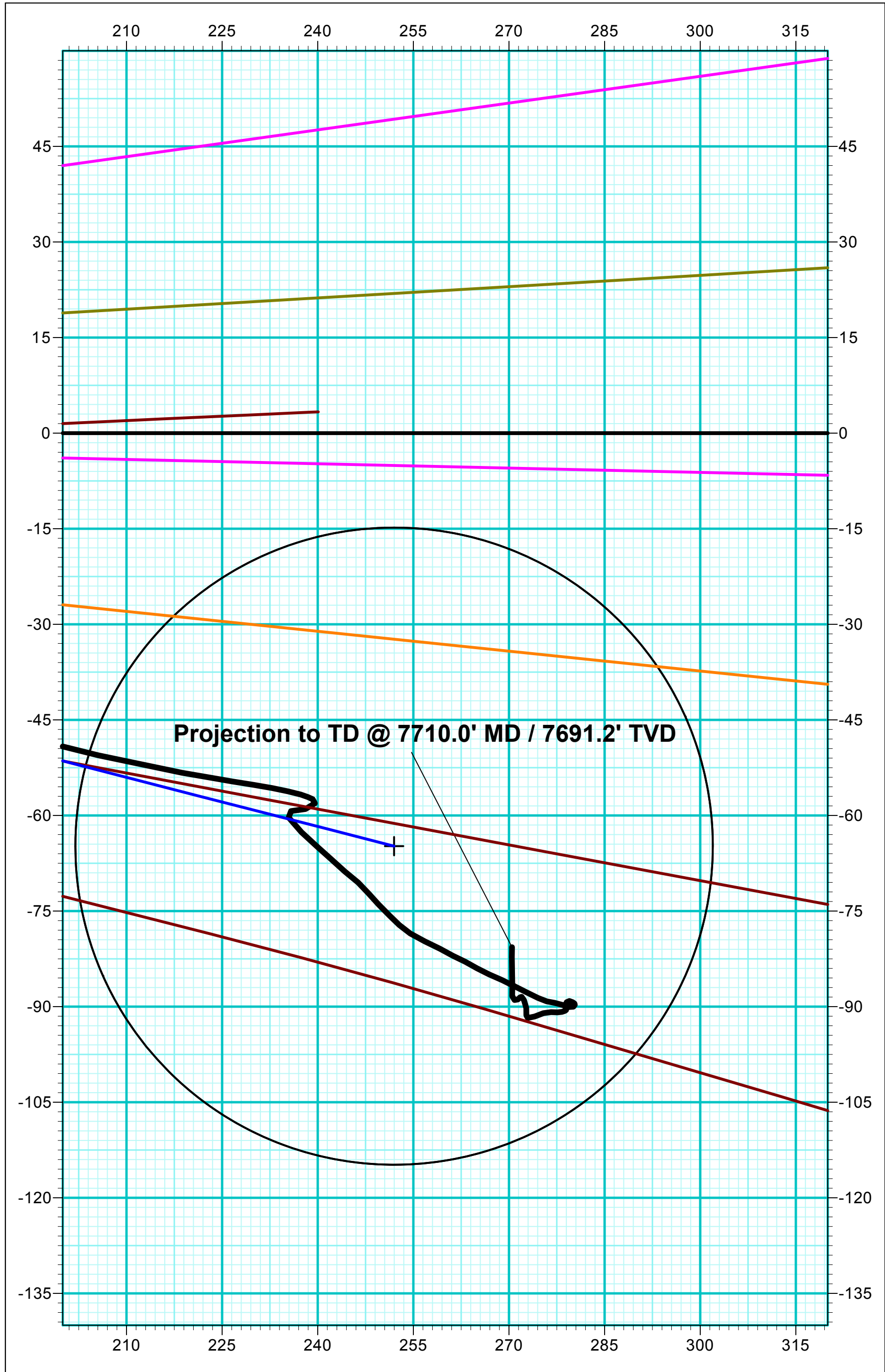
Strength: 51386.5snT

Dip Angle: 65.43°

Date: 9/3/2018

Model: USER DEFINED

ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
243.0	0.40	217.60	243.0	-0.7	-0.5	0.3	0.8	First QES Survey @ 243.0' MD / 243.0' TVD
7710.0	1.50	1.20	7691.2	-80.7	270.5	282.0	335.5	Projection to TD @ 7710.0' MD / 7691.2' TVD



Vertical Section at 104.42° (200 usft/in)