

Vertical Section at 220.96° (200 usft/in)

Company Name: Laramie Energy, LLC
CC 0697-03-17W
Garfield County, CO
Rig: 30' RKB
Created By: Will Jircik
Date: 8/3/2018



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	

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Q181004 & RM-180833
Design #5

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Azimuths to True North
Magnetic North: 9.62°

Strength: 51396.1snT
Dip Angle: 65.58°
Date: 7/26/2018
Model: USER DEFINED

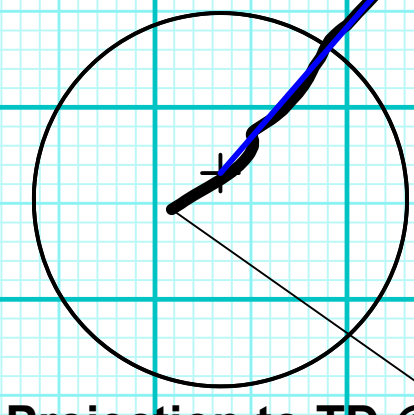
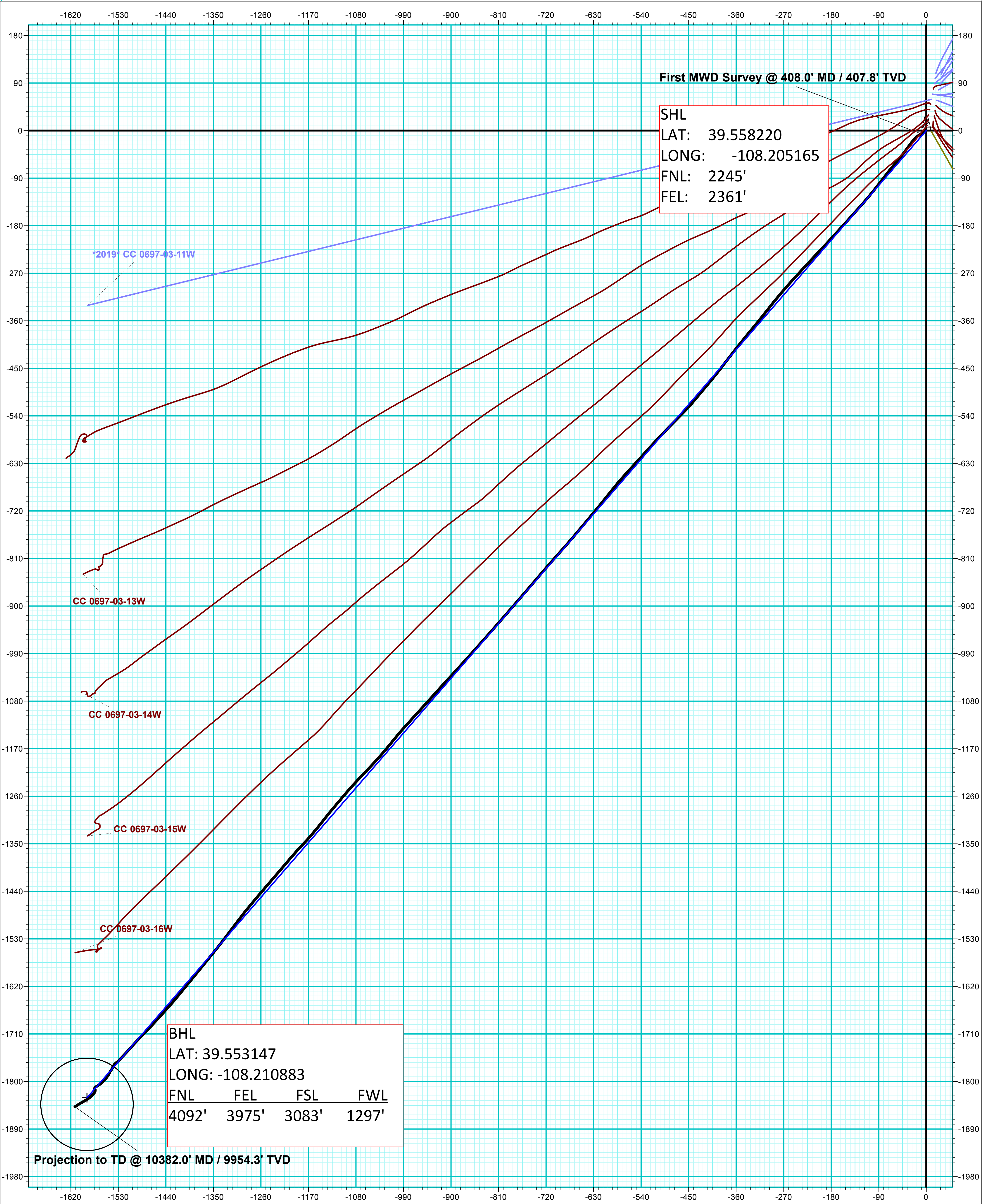
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
835.0	847.3	Mahogany
2803.0	2953.8	Wasatch
4593.0	4870.0	Wasatch 'G' Sand
4803.0	5094.8	Fort Union
6137.0	6522.8	Ohio Creek
6525.0	6938.1	Williams Fork
7251.0	7682.6	TOG
8775.0	9206.6	Cameo
9142.0	9573.6	Base Cameo Coal
9188.0	9619.6	Rollins
9400.0	9831.6	Cozette
9654.0	10085.6	Corcoran

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL D#4 - CC 0697-03-17W	9978.0	-1830.7	-1589.3	1637782.64	2235745.74	39.553194	-108.210801
						Shape	Circle (Radius: 87.5)

DESIGN #5 ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.0	KOP/ (Build 3.00°/100')	
896.9	20.91	220.96	891.6	-95.0	-82.4	125.8	125.8	EOS @ 20.91° Inc. / 220.96° Azm	
6985.7	20.91	220.96	6569.4	-1735.8	-1506.9	2298.6	2298.6	Drop 3° / 100'	
7682.6	0.00	0.00	7251.0	-1830.7	-1589.3	2424.4	2424.4	EOD @ Vertical	
10409.6	0.00	0.00	9978.0	-1830.7	-1589.3	2424.4	2424.4	TD @ 10409.6' MD / 9978.0' TVD	

ANNOTATIONS							
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure
408.0	3.20	238.70	407.8	-5.9	-9.7	10.8	11.4
10382.0	5.10	238.30	9954.3	-1847.8	-1612.2	2452.3	2460.6
							First MWD Survey @ 408.0' MD / 407.8' TVD
							Projection to TD @ 10382.0' MD / 9954.3' TVD

WELL DETAILS: CC 0697-03-17W						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1639565.26	2237388.87	39.558220	-108.205164	



BHL
LAT: 39.553147
LONG: -108.210883
FNL FEL FSL FWL
4092' 3975' 3083' 1297'

Projection to TD @ 10382.0' MD / 9954.3' TVD