

Vertical Section at 276.93° (200 usft/in)

CC 0697-04-08E
Garfield County, CO
Q190861 & RM-190754
Design #3

Company Name: Laramie Energy, LLC
CC 0697-04-08E
Garfield County, CO
Rig: H&P #522
Created By: Will Jircik
Date: 16:41, May 18 2019

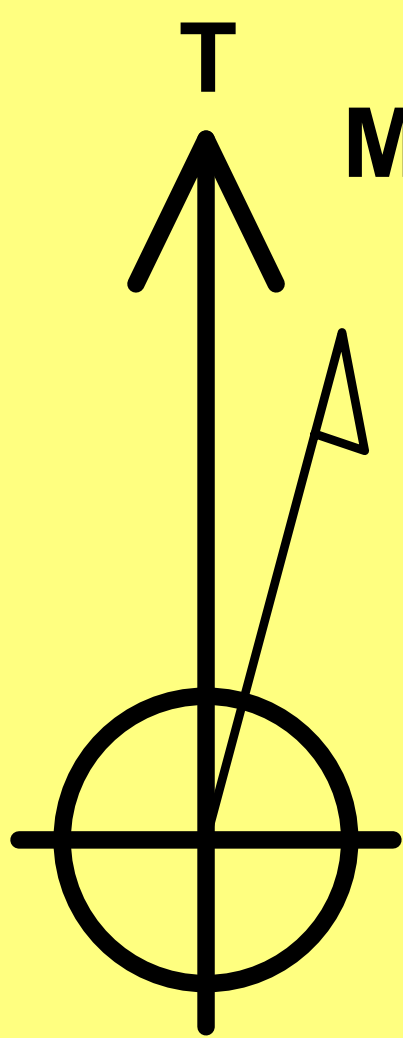
PROJECT DETAILS: Garfield County, CO
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
System Datum: Mean Sea Level

WELL DETAILS: CC 0697-04-08E

+N/-S	+E/-W	Northing	Easting	8609.0	Latitude	Longitude
0.0	0.0	1639406.07	2233526.84		39.557467	-108.218839

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
606.0	606.4	Mahogany
4648.0	4667.2	Wasatch 'G' Sand
6348.0	6367.2	Ohio Creek
6498.0	6517.2	Williams Fork
7298.0	7317.2	TOG
8948.0	8967.2	Cameo
9178.0	9197.2	Base Cameo Coal
9198.0	9217.2	Rollins
9436.0	9455.2	Cozzette
9709.0	9728.2	Corcoran



Azimuths to True North
Magnetic North: 9.58°

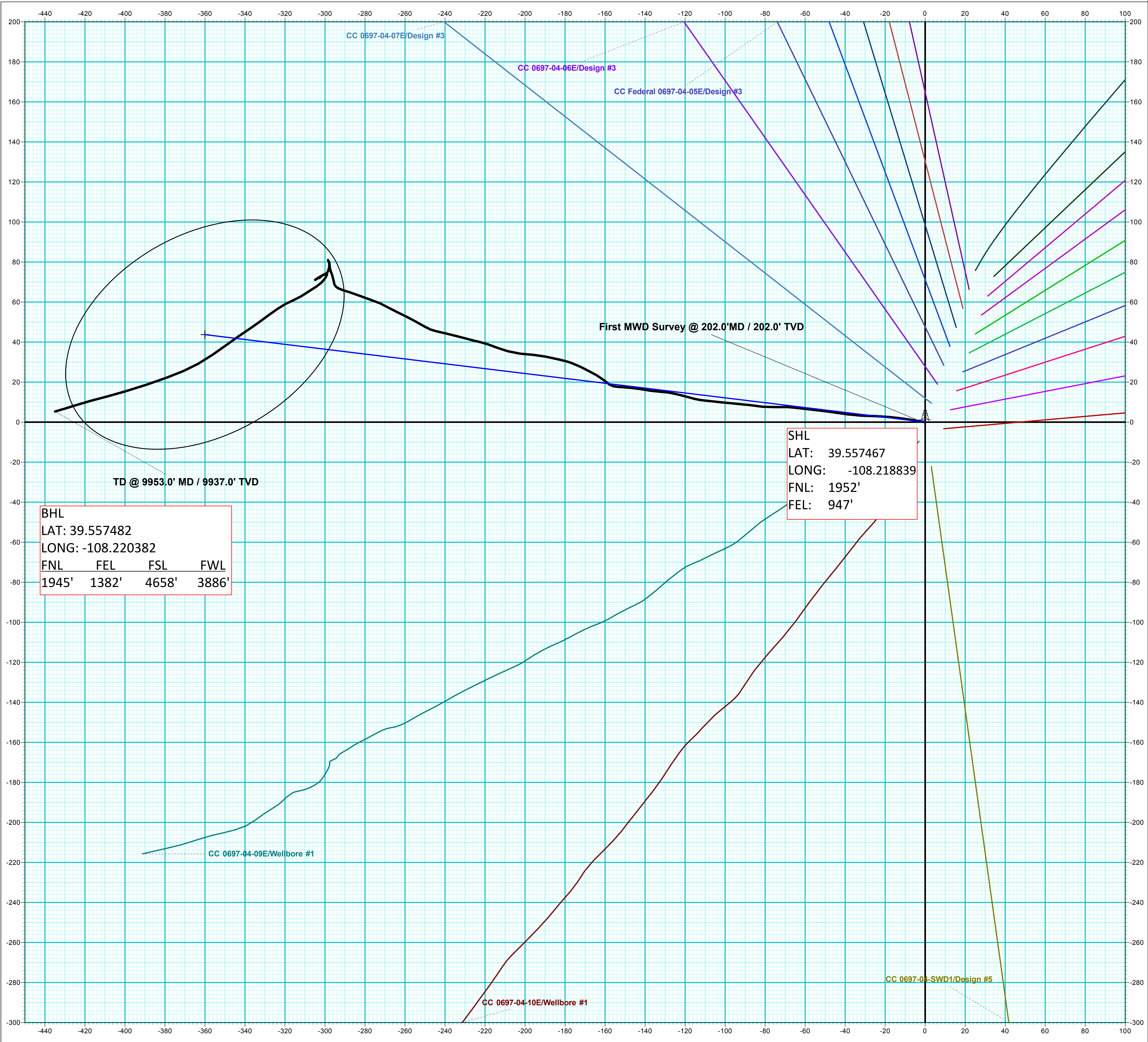
Strength: 51438.9snT
Dip Angle: 65.80°
Date: 5/14/2019
Model: HDGM

DESIGN ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.0	KOP/ (Build 3.00°/100°)
605.8	6.17	276.93	605.4	1.3	-11.0	11.1	11.1	EOB @ 6.17° Inc / 276.92° Azm
3772.4	6.17	276.93	3753.6	42.4	-349.1	351.6	351.6	Drop @ 3.00°/100°
3978.2	0.00	0.00	3959.0	43.7	-360.1	362.7	362.7	EOD @ Vertical
9978.2	0.00	0.00	9959.0	43.7	-360.1	362.7	362.7	TD @ 9978.2' MD / 9959.0' TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL - CC 0697-04-08E	9959.0	43.7	-360.1	1639460.56	2233168.25	39.557587	-108.220116



BHL
LAT: 39.557482
LONG: -108.220382
FNL FEL FSL FWL
1945' 1382' 4658' 3886'

SHL
LAT: 39.557467
LONG: -108.218839
FNL: 1952'
FEL: 947'

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
202.0	1.20	278.40	202.0	0.3	-2.1	2.1	2.1	First MWD Survey @ 202.0' MD / 202.0' TVD
9953.0	5.00	253.80	9937.0	5.3	-434.9	432.4	498.5	TD @ 9953.0' MD / 9937.0' TVD