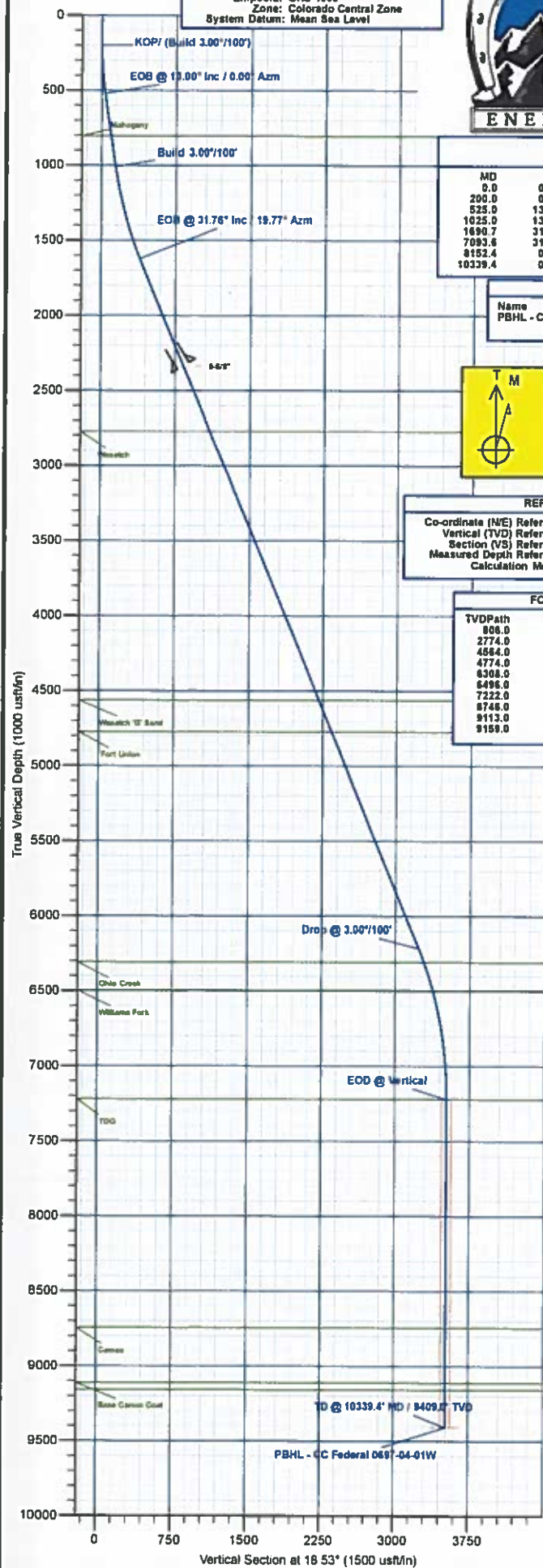


PROJECT DETAILS: Garfield County, CO
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Central Zone
 System Datum: Mean Sea Level



Project: Garfield County, CO
 Site: CC 604-12-13 Pad
 Well: CC Federal 0697-04-01W
 Wellbore: A-2
 Design: Design #2
 Latitude: 39.553230
 Longitude: -108.233481
 Ground Level: 8529.0
 WELL @ 8559.0usft (H&P #522)



SECTION DETAILS									
MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSecl	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	KOP/ (Build 3.00°/100')
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	EOB @ 13.00° Inc / 0.00° Azm
525.0	13.00	0.00	522.2	36.7	0.0	4.00	0.00	34.5	Build 3.00°/100'
1025.0	13.00	0.00	1009.4	149.2	0.0	0.00	0.00	141.5	EOB @ 31.76° Inc / 19.77° Azm
1690.7	31.76	19.77	1622.9	391.4	59.9	3.00	31.42	390.1	Drop @ 3.00°/100'
7093.6	31.76	19.77	6218.6	3068.1	1022.0	0.00	0.00	3233.8	EOB @ Vertical
8152.4	0.00	0.00	7222.0	3337.3	1118.7	3.00	180.00	3519.8	TD @ 10339.4' MD / 9409.6' TVD
10339.4	0.00	0.00	9409.6	3337.3	1118.7	0.00	0.00	3519.8	

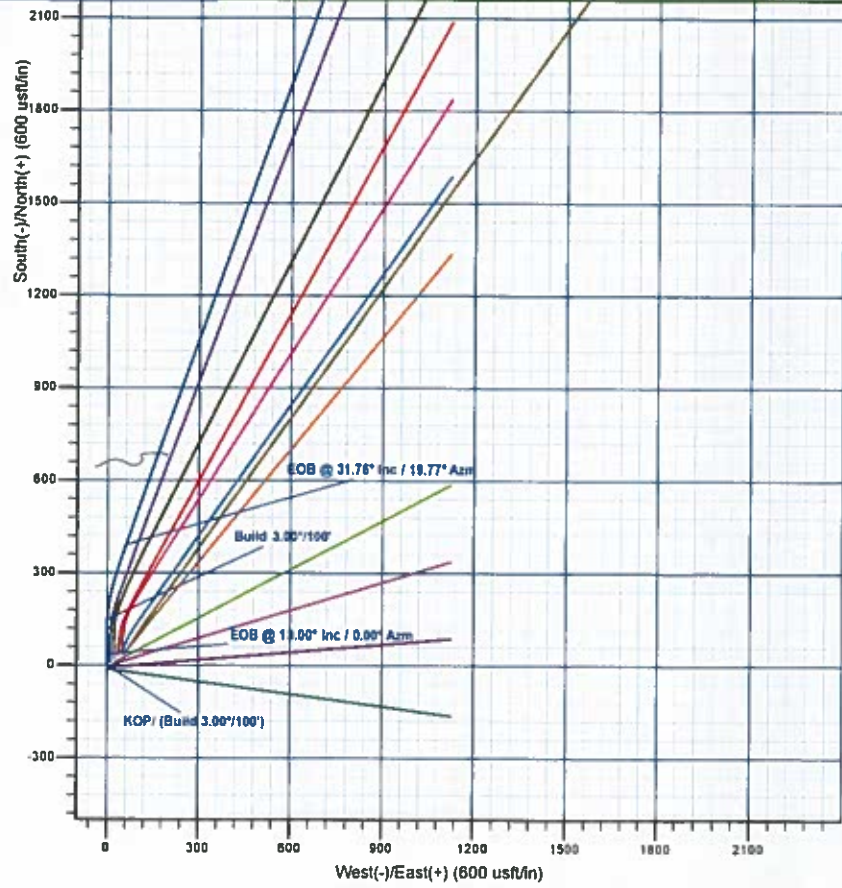
DESIGN TARGET DETAILS						
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude
PBHL - CC Federal 0697-04-01W	9409.6	3337.3	1118.7	1641289.26	2230578.14	39.562392
						Longitude -108.233483

WELL DETAILS: CC Federal 0697-04-01W					
+N-S	+E-W	Ground Level	GL: 8529.0	Latitude	Longitude
0.0	0.0	Northing	2229359.53	39.553230	-108.233481
		Easting	1637987.17		

Azimuths to True North
 Magnetic North: 9.76°
 Magnetic Field Strength: 61455.2nT
 Dip Angle: 66.58°
 Date: 12/11/2017
 Model: IGRF2015

REFERENCE INFORMATION
 Co-ordinate (NE) Reference: Well CC Federal 0697-04-01W, True North
 Vertical (TVD) Reference: WELL @ 8559.0usft (H&P #522)
 Section (VS) Reference: Slot - (0.0N, 0.0E)
 Measured Depth Reference: WELL @ 8559.0usft (H&P #522)
 Calculation Method: Minimum Curvature

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
808.0	816.2	Mahogany
2774.0	3044.5	Wasatch
4864.0	5149.9	Wasatch 'G' Sand
4774.0	5396.9	Fort Union
6308.0	7199.4	Ohio Creek
6496.0	7407.7	Williams Fork
7222.0	8152.4	TOG
8746.0	9676.4	Cameo
9113.0	10043.4	Base Cameo Coal
9159.0	10089.4	Rollings



Plan: Design #2 (CC Federal 0697-04-01W/A-2)
 Created By: Will Jircik Date: 14:46, June 23 2018



Laramie Energy, LLC

Garfield County, CO

CC 604-12-13 Pad

CC Federal 0697-04-01W

A-2

Plan: Design #2

QES Well Planning Report

23 June, 2018





Well Planning Report



Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Well CC Federal 0697-04-01W
Company:	Laramie Energy, LLC	TVD Reference:	WELL @ 8559.0usft (H&P #522)
Project:	Garfield County, CO	MD Reference:	WELL @ 8559.0usft (H&P #522)
Site:	CC 604-12-13 Pad	North Reference:	True
Well:	CC Federal 0697-04-01W	Survey Calculation Method:	Minimum Curvature
Wellbore:	A-2		
Design:	Design #2		

Project	Garfield County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	CC 604-12-13 Pad			
Site Position:		Northing:	1,638,031.56 usft	Latitude: 39.553356
From:	Lat/Long	Easting:	2,229,410.52 usft	Longitude: -108.233285
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: -1.72 °

Well	CC Federal 0697-04-01W			
Well Position	+N/-S	-45.9 usft	Northing:	1,637,987.17 usft
	+E/-W	-49.6 usft	Easting:	2,229,359.53 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	Ground Level: 8,529.0 usft

Wellbore	A-2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/11/2017	9.76	65.58	51,455.17690503

Design	Design #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	18.53

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
525.0	13.00	0.00	522.2	36.7	0.0	4.00	4.00	0.00	0.00	
1,025.0	13.00	0.00	1,009.4	149.2	0.0	0.00	0.00	0.00	0.00	
1,690.7	31.76	19.77	1,622.9	391.4	59.9	3.00	2.82	2.97	31.42	
7,093.6	31.76	19.77	6,216.6	3,068.1	1,022.0	0.00	0.00	0.00	0.00	
8,152.4	0.00	0.00	7,222.0	3,337.3	1,118.7	3.00	-3.00	0.00	180.00	
10,339.4	0.00	0.00	9,409.0	3,337.3	1,118.7	0.00	0.00	0.00	0.00	PBHL - CC Federal 01



Well Planning Report



Database: EDM 5000.1 Single User Db
 Company: Laramie Energy, LLC
 Project: Garfield County, CO
 Site: CC 604-12-13 Pad
 Well: CC Federal 0697-04-01W
 Wellbore: A-2
 Design: Design #2

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well CC Federal 0697-04-01W
 WELL @ 8559 0usft (H&P #522)
 WELL @ 8559 0usft (H&P #522)
 True
 Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP/ (Build 3.00°/100')									
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	4.00	0.00	299.9	3.5	0.0	3.3	4.00	4.00	0.00
400.0	8.00	0.00	399.4	13.9	0.0	13.2	4.00	4.00	0.00
500.0	12.00	0.00	497.8	31.3	0.0	29.7	4.00	4.00	0.00
EOB @ 13.00° Inc / 0.00° Azm									
525.0	13.00	0.00	522.2	36.7	0.0	34.8	4.00	4.00	0.00
600.0	13.00	0.00	595.3	53.6	0.0	50.8	0.00	0.00	0.00
700.0	13.00	0.00	692.7	76.1	0.0	72.1	0.00	0.00	0.00
800.0	13.00	0.00	790.2	98.6	0.0	93.5	0.00	0.00	0.00
Mahogany									
816.2	13.00	0.00	806.0	102.2	0.0	96.9	0.00	0.00	0.00
900.0	13.00	0.00	887.6	121.1	0.0	114.8	0.00	0.00	0.00
1,000.0	13.00	0.00	985.0	143.6	0.0	136.1	0.00	0.00	0.00
Build 3.00°/100'									
1,025.0	13.00	0.00	1,009.4	149.2	0.0	141.5	0.00	0.00	0.00
1,100.0	14.97	4.55	1,082.2	167.3	0.8	158.8	3.00	2.62	6.06
1,200.0	17.69	9.03	1,178.1	195.2	4.2	186.4	3.00	2.72	4.49
1,300.0	20.49	12.34	1,272.6	227.3	10.3	218.8	3.00	2.80	3.31
1,400.0	23.34	14.88	1,365.4	263.5	19.1	255.9	3.00	2.85	2.54
1,500.0	26.22	16.89	1,456.2	303.8	30.6	297.8	3.00	2.88	2.01
1,600.0	29.12	18.52	1,544.8	348.0	44.8	344.2	3.00	2.90	1.64
EOB @ 31.76° Inc / 19.77° Azm									
1,690.7	31.76	19.77	1,622.9	391.4	59.9	390.1	3.00	2.92	1.37
1,700.0	31.76	19.77	1,630.8	396.0	61.5	395.0	0.00	0.00	0.00
1,800.0	31.76	19.77	1,715.9	445.6	79.3	447.7	0.00	0.00	0.00
1,900.0	31.76	19.77	1,800.9	495.1	97.1	500.3	0.00	0.00	0.00
2,000.0	31.76	19.77	1,885.9	544.6	115.0	552.9	0.00	0.00	0.00
2,100.0	31.76	19.77	1,970.9	594.2	132.8	605.6	0.00	0.00	0.00
2,200.0	31.76	19.77	2,056.0	643.7	150.6	658.2	0.00	0.00	0.00
2,300.0	31.76	19.77	2,141.0	693.3	168.4	710.8	0.00	0.00	0.00
2,400.0	31.76	19.77	2,226.0	742.8	186.2	763.5	0.00	0.00	0.00
2,500.0	31.76	19.77	2,311.0	792.3	204.0	816.1	0.00	0.00	0.00
9-5/8"									
2,530.0	31.76	19.77	2,336.5	807.2	209.3	831.9	0.00	0.00	0.00
2,600.0	31.76	19.77	2,396.0	841.9	221.8	868.7	0.00	0.00	0.00
2,700.0	31.76	19.77	2,481.1	891.4	239.6	921.4	0.00	0.00	0.00
2,800.0	31.76	19.77	2,566.1	941.0	257.4	974.0	0.00	0.00	0.00
2,900.0	31.76	19.77	2,651.1	990.5	275.2	1,026.6	0.00	0.00	0.00
3,000.0	31.76	19.77	2,736.1	1,040.1	293.0	1,079.3	0.00	0.00	0.00
Wasatch									
3,044.5	31.76	19.77	2,774.0	1,062.1	301.0	1,102.7	0.00	0.00	0.00
3,100.0	31.76	19.77	2,821.1	1,089.6	310.8	1,131.9	0.00	0.00	0.00
3,200.0	31.76	19.77	2,906.2	1,139.1	328.6	1,184.5	0.00	0.00	0.00
3,300.0	31.76	19.77	2,991.2	1,188.7	346.4	1,237.1	0.00	0.00	0.00
3,400.0	31.76	19.77	3,076.2	1,238.2	364.2	1,289.8	0.00	0.00	0.00
3,500.0	31.76	19.77	3,161.2	1,287.8	382.1	1,342.4	0.00	0.00	0.00
3,600.0	31.76	19.77	3,246.3	1,337.3	399.9	1,395.0	0.00	0.00	0.00
3,700.0	31.76	19.77	3,331.3	1,386.8	417.7	1,447.7	0.00	0.00	0.00
3,800.0	31.76	19.77	3,416.3	1,436.4	435.5	1,500.3	0.00	0.00	0.00
3,900.0	31.76	19.77	3,501.3	1,485.9	453.3	1,552.9	0.00	0.00	0.00



Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well CC Federal 0697-04-01W
Company:	Laramie Energy, LLC	TVD Reference:	WELL @ 8559.0usft (H&P #522)
Project:	Garfield County, CO	MD Reference:	WELL @ 8559.0usft (H&P #522)
Site:	CC 604-12-13 Pad	North Reference:	True
Well:	CC Federal 0697-04-01W	Survey Calculation Method:	Minimum Curvature
Wellbore:	A-2		
Design:	Design #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,000.0	31.76	19.77	3,586.3	1,535.5	471.1	1,605.6	0.00	0.00	0.00
4,100.0	31.76	19.77	3,671.4	1,585.0	488.9	1,658.2	0.00	0.00	0.00
4,200.0	31.76	19.77	3,756.4	1,634.5	506.7	1,710.8	0.00	0.00	0.00
4,300.0	31.76	19.77	3,841.4	1,684.1	524.5	1,763.5	0.00	0.00	0.00
4,400.0	31.76	19.77	3,926.4	1,733.6	542.3	1,816.1	0.00	0.00	0.00
4,500.0	31.76	19.77	4,011.4	1,783.2	560.1	1,868.7	0.00	0.00	0.00
4,600.0	31.76	19.77	4,096.5	1,832.7	577.9	1,921.4	0.00	0.00	0.00
4,700.0	31.76	19.77	4,181.5	1,882.2	595.7	1,974.0	0.00	0.00	0.00
4,800.0	31.76	19.77	4,266.5	1,931.8	613.5	2,026.6	0.00	0.00	0.00
4,900.0	31.76	19.77	4,351.5	1,981.3	631.3	2,079.2	0.00	0.00	0.00
5,000.0	31.76	19.77	4,436.6	2,030.9	649.2	2,131.9	0.00	0.00	0.00
5,100.0	31.76	19.77	4,521.6	2,080.4	667.0	2,184.5	0.00	0.00	0.00
Wasatch 'G' Sand									
5,149.9	31.76	19.77	4,564.0	2,105.1	675.8	2,210.8	0.00	0.00	0.00
5,200.0	31.76	19.77	4,606.6	2,129.9	684.8	2,237.1	0.00	0.00	0.00
5,300.0	31.76	19.77	4,691.6	2,179.5	702.6	2,289.8	0.00	0.00	0.00
Fort Union									
5,396.9	31.76	19.77	4,774.0	2,227.5	719.8	2,340.8	0.00	0.00	0.00
5,400.0	31.76	19.77	4,776.6	2,229.0	720.4	2,342.4	0.00	0.00	0.00
5,500.0	31.76	19.77	4,861.7	2,278.6	738.2	2,395.0	0.00	0.00	0.00
5,600.0	31.76	19.77	4,946.7	2,328.1	756.0	2,447.7	0.00	0.00	0.00
5,700.0	31.76	19.77	5,031.7	2,377.6	773.8	2,500.3	0.00	0.00	0.00
5,800.0	31.76	19.77	5,116.7	2,427.2	791.6	2,552.9	0.00	0.00	0.00
5,900.0	31.76	19.77	5,201.8	2,476.7	809.4	2,605.6	0.00	0.00	0.00
6,000.0	31.76	19.77	5,286.8	2,526.3	827.2	2,658.2	0.00	0.00	0.00
6,100.0	31.76	19.77	5,371.8	2,575.8	845.0	2,710.8	0.00	0.00	0.00
6,200.0	31.76	19.77	5,456.8	2,625.3	862.8	2,763.5	0.00	0.00	0.00
6,300.0	31.76	19.77	5,541.8	2,674.9	880.6	2,816.1	0.00	0.00	0.00
6,400.0	31.76	19.77	5,626.9	2,724.4	898.4	2,868.7	0.00	0.00	0.00
6,500.0	31.76	19.77	5,711.9	2,774.0	916.2	2,921.3	0.00	0.00	0.00
6,600.0	31.76	19.77	5,796.9	2,823.5	934.1	2,974.0	0.00	0.00	0.00
6,700.0	31.76	19.77	5,881.9	2,873.1	951.9	3,026.6	0.00	0.00	0.00
6,800.0	31.76	19.77	5,966.9	2,922.6	969.7	3,079.2	0.00	0.00	0.00
6,900.0	31.76	19.77	6,052.0	2,972.1	987.5	3,131.9	0.00	0.00	0.00
7,000.0	31.76	19.77	6,137.0	3,021.7	1,005.3	3,184.5	0.00	0.00	0.00
Drop @ 3.00°/100'									
7,093.6	31.76	19.77	6,216.6	3,068.1	1,022.0	3,233.8	0.00	0.00	0.00
7,100.0	31.57	19.77	6,222.0	3,071.2	1,023.1	3,237.1	3.00	-3.00	0.00
Ohio Creek									
7,199.4	28.59	19.77	6,308.0	3,118.1	1,039.9	3,286.9	3.00	-3.00	0.00
7,200.0	28.57	19.77	6,308.5	3,118.4	1,040.0	3,287.2	3.00	-3.00	0.00
7,300.0	25.57	19.77	6,397.6	3,161.2	1,055.4	3,332.7	3.00	-3.00	0.00
7,400.0	22.57	19.77	6,486.9	3,199.6	1,069.2	3,373.5	3.00	-3.00	0.00
Williams Fork									
7,407.7	22.34	19.77	6,496.0	3,202.3	1,070.2	3,376.4	3.00	-3.00	0.00
7,500.0	19.57	19.77	6,582.2	3,233.4	1,081.4	3,409.4	3.00	-3.00	0.00
7,600.0	16.57	19.77	6,677.2	3,262.6	1,091.9	3,440.4	3.00	-3.00	0.00
7,700.0	13.57	19.77	6,773.8	3,287.1	1,100.7	3,466.4	3.00	-3.00	0.00
7,800.0	10.57	19.77	6,871.5	3,306.7	1,107.7	3,487.4	3.00	-3.00	0.00
7,900.0	7.57	19.77	6,970.3	3,321.6	1,113.1	3,503.1	3.00	-3.00	0.00
8,000.0	4.57	19.77	7,069.7	3,331.5	1,116.7	3,513.7	3.00	-3.00	0.00
8,100.0	1.57	19.77	7,169.6	3,336.6	1,118.5	3,519.1	3.00	-3.00	0.00
EOD @ Vertical - TOG									



Well Planning Report



Database: EDM 5000 1 Single User Db
Company: Laramie Energy, LLC
Project: Garfield County, CO
Site: CC 604-12-13 Pad
Well: CC Federal 0697-04-01W
Wellbore: A-2
Design: Design #2

Local Co-ordinate Reference: Well CC Federal 0697-04-01W
TVD Reference: WELL @ 8559 0usft (H&P #522)
MD Reference: WELL @ 8559 0usft (H&P #522)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,152.4	0.00	0.00	7,222.0	3,337.3	1,118.7	3,519.8	3.00	-3.00	0.00
8,200.0	0.00	0.00	7,269.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
8,300.0	0.00	0.00	7,369.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
8,400.0	0.00	0.00	7,469.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
8,500.0	0.00	0.00	7,569.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
8,600.0	0.00	0.00	7,669.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
8,700.0	0.00	0.00	7,769.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
8,800.0	0.00	0.00	7,869.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
8,900.0	0.00	0.00	7,969.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,000.0	0.00	0.00	8,069.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,100.0	0.00	0.00	8,169.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,200.0	0.00	0.00	8,269.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,300.0	0.00	0.00	8,369.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,400.0	0.00	0.00	8,469.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,500.0	0.00	0.00	8,569.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,600.0	0.00	0.00	8,669.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
Cameo									
9,676.4	0.00	0.00	8,746.0	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,700.0	0.00	0.00	8,769.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,800.0	0.00	0.00	8,869.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
9,900.0	0.00	0.00	8,969.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
10,000.0	0.00	0.00	9,069.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
Base Cameo Coal									
10,043.4	0.00	0.00	9,113.0	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
Rollings									
10,089.4	0.00	0.00	9,159.0	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
10,100.0	0.00	0.00	9,169.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
10,200.0	0.00	0.00	9,269.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
10,300.0	0.00	0.00	9,369.6	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00
TD @ 10339.4' MD / 9409.0' TVD									
10,339.4	0.00	0.00	9,409.0	3,337.3	1,118.7	3,519.8	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL - CC Federal 0697	0.00	0.00	9,409.0	3,337.3	1,118.7	1,641,289.26	2,230,578.14	39.562392	-108.229493
- plan hits target center									
- Circle (radius 50.0)									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
2,530.0	2,336.5	9-5/8"	9-5/8	14-1/2



Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well CC Federal 0697-04-01W
Company:	Laramie Energy, LLC	TVD Reference:	WELL @ 8559.0usft (H&P #522)
Project:	Garfield County, CO	MD Reference:	WELL @ 8559.0usft (H&P #522)
Site:	CC 604-12-13 Pad	North Reference:	True
Well:	CC Federal 0697-04-01W	Survey Calculation Method:	Minimum Curvature
Wellbore:	A-2		
Design:	Design #2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
816.2	806.0	Mahogany				
3,044.5	2,774.0	Wasatch				
5,149.9	4,564.0	Wasatch 'G' Sand				
5,396.9	4,774.0	Fort Union				
7,199.4	6,308.0	Ohio Creek				
7,407.7	6,496.0	Williams Fork				
8,152.4	7,222.0	TOG				
9,676.4	8,748.0	Cameo				
10,043.4	9,113.0	Base Cameo Coal				
10,089.4	9,159.0	Rollings				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.0	200.0	0.0	0.0	KOP/ (Build 3.00°/100')	
525.0	522.2	36.7	0.0	EOB @ 13.00° Inc / 0.00° Azm	
1,025.0	1,009.4	149.2	0.0	Build 3.00°/100'	
1,690.7	1,622.9	391.4	59.9	EOB @ 31.76° Inc / 19.77° Azm	
7,093.6	6,216.6	3,068.1	1,022.0	Drop @ 3.00°/100'	
8,152.4	7,222.0	3,337.3	1,118.7	EOD @ Vertical	
10,339.4	9,409.0	3,337.3	1,118.7	TD @ 10339.4' MD / 9409.0' TVD	