

Project: Garfield County, CO
Site: BJU M23A 496 Pad
Well: BJU M23A FED 13B-23 496
Wellbore: Wellbore #1
Design: Design #1
Latitude: 39.684423
Longitude: -108.140092
Ground Level: 8104.0
RKB @ 8134.0usft (30')

PROJECT DETAILS: Garfield County, CO

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
System Datum: Mean Sea Level

REFERENCE INFORMATION

Vertical (TVD) Reference: RKB @ 8134.0usft (30')
Section (VS) Reference: Slot - BJU M23A FED 13B-23 496(0.0N, 0.0E)
Measured Depth Reference: RKB @ 8134.0usft (30')
Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3420.0	3476.3	Wasatch
5820.0	5939.8	Wasatch G
6120.0	6247.7	Fort Union
8131.0	8304.2	Ohio Creek
8131.0	8304.2	TOG
8529.0	8702.3	William Fork
11331.0	11505.2	Cameo
11831.0	12005.4	Rollins

SECTION DETAILS

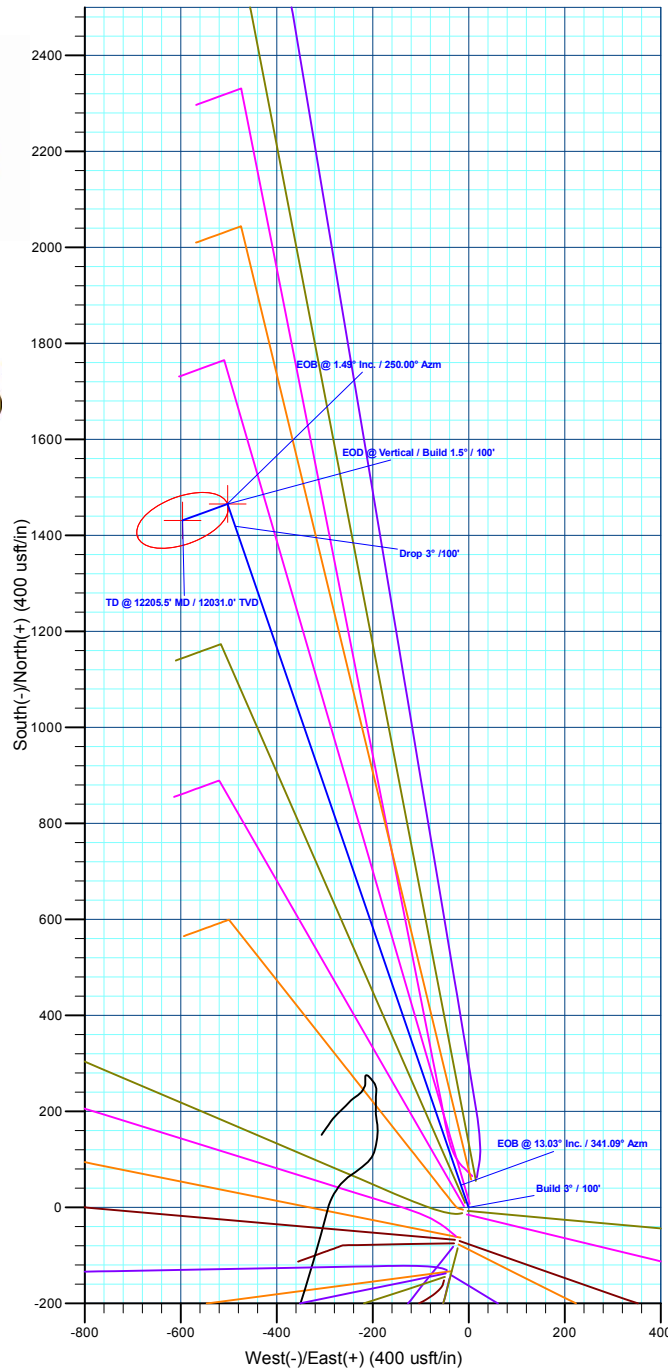
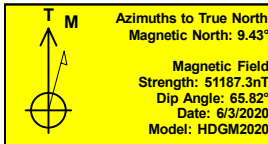
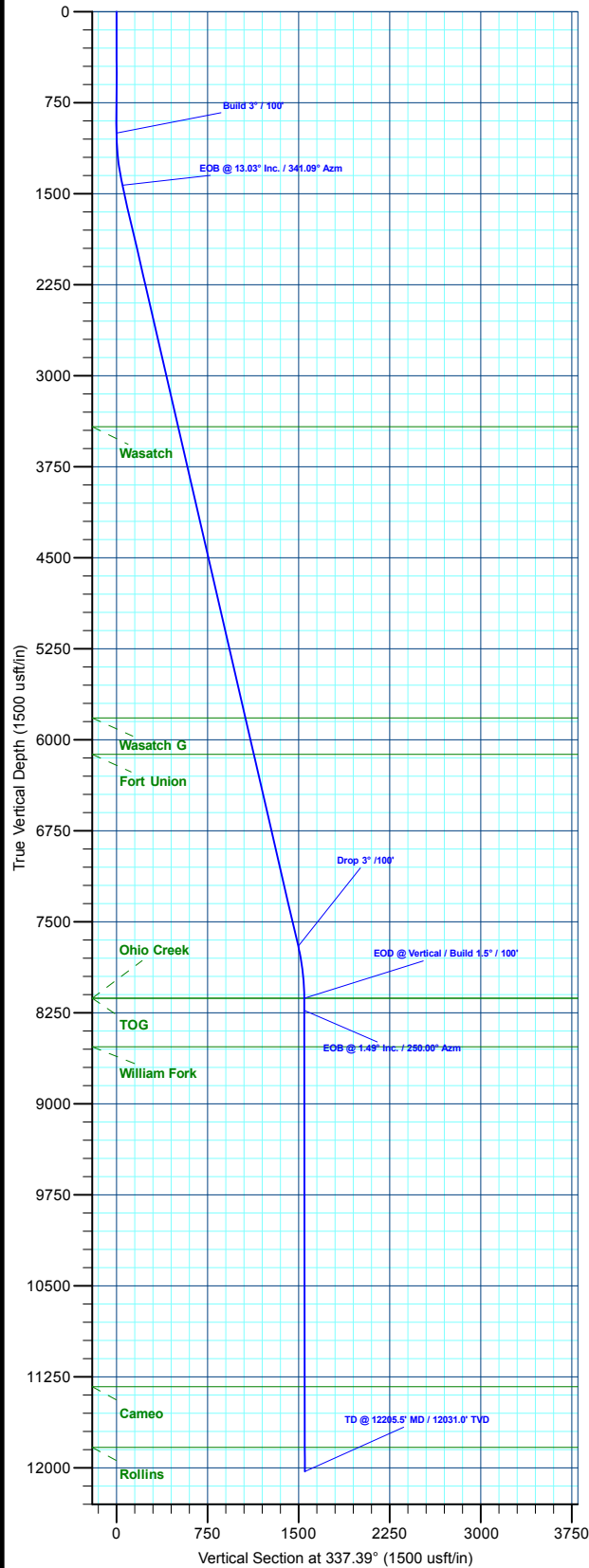
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
1434.4	13.03	341.09	1430.6	46.5	-15.9	3.00	341.09	49.1	EOB @ 13.03° Inc. / 341.09° Azm
7869.8	13.03	341.09	7700.4	1419.2	-486.2	0.00	0.00	1497.1	Drop 3° / 100'
8304.2	0.00	0.00	8131.0	1465.7	-502.2	3.00	180.00	1546.2	EOD @ Vertical / Build 1.5° / 100'
8403.4	1.49	250.00	8230.2	1465.3	-503.4	1.50	250.00	1546.2	EOB @ 1.49° Inc. / 250.00° Azm
12205.5	1.49	250.00	12031.0	1431.5	-596.2	0.00	0.00	1550.7	TD @ 12205.5° MD / 12031.0° TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 13B-23	8131.0	1465.7	-502.2	14425414.18	2444546.03	39.688446	-108.141876
PBHL - 13B-23	12031.0	1431.5	-596.2	14425377.00	2444453.20	39.688352	-108.142209

WELL DETAILS: BJU M23A FED 13B-23 496

+N/-S	+E/-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423965.20	2445094.70	39.684423	-108.140092



Plan: Design #1 (BJU M23A FED 13B-23 496/Wellbore #1)

Created By: Will Jircik

Date: 19:02, June 04 2020



Caerus Oil & Gas

Garfield County, CO

BJU M23A 496 Pad

BJU M23A FED 13B-23 496 - Slot BJU M23A FED 13B-23 496

Wellbore #1

Plan: Design #1

QES Well Planning Report

04 June, 2020



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 13B-23 496 - Slot BJU M23A FED 13B-23 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8134.0usft (30')
Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 13B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Garfield County, CO		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	BJU M23A 496 Pad		
Site Position:		Northing:	14,424,028.50 usft
From:	Map	Easting:	2,445,109.60 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39.684596
		Longitude:	-108.140032
		Grid Convergence:	1.83 °

Well	BJU M23A FED 13B-23 496 - Slot BJU M23A FED 13B-23 496		
Well Position	+N/-S	-62.8 usft	Northing: 14,423,965.20 usft
	+E/-W	-16.9 usft	Easting: 2,445,094.70 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 39.684423
			Longitude: -108.140092
			Ground Level: 8,104.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	6/3/2020	9.43	65.82	51,187.30000000

Design	Design #1				
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	337.39	

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,434.4	13.03	341.09	1,430.6	46.5	-15.9	3.00	3.00	0.00	341.09	
7,869.8	13.03	341.09	7,700.4	1,419.2	-486.2	0.00	0.00	0.00	0.00	
8,304.2	0.00	0.00	8,131.0	1,465.7	-502.2	3.00	-3.00	0.00	180.00	OHCR - 13B-23
8,403.4	1.49	250.00	8,230.2	1,465.3	-503.4	1.50	1.50	-110.91	250.00	
12,205.5	1.49	250.00	12,031.0	1,431.5	-596.2	0.00	0.00	0.00	0.00	PBHL - 13B-23

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 13B-23 496 - Slot BJU M23A FED 13B-23 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8134.0usft (30')
Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 13B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 3° / 100'									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	3.00	341.09	1,100.0	2.5	-0.8	2.6	3.00	3.00	0.00
1,200.0	6.00	341.09	1,199.6	9.9	-3.4	10.4	3.00	3.00	0.00
1,300.0	9.00	341.09	1,298.8	22.2	-7.6	23.5	3.00	3.00	0.00
1,400.0	12.00	341.09	1,397.1	39.5	-13.5	41.6	3.00	3.00	0.00
EOB @ 13.03° Inc. / 341.09° Azm									
1,434.4	13.03	341.09	1,430.6	46.5	-15.9	49.1	3.00	3.00	0.00
1,500.0	13.03	341.09	1,494.6	60.5	-20.7	63.8	0.00	0.00	0.00
1,600.0	13.03	341.09	1,592.0	81.9	-28.0	86.3	0.00	0.00	0.00
1,700.0	13.03	341.09	1,689.4	103.2	-35.4	108.8	0.00	0.00	0.00
1,800.0	13.03	341.09	1,786.8	124.5	-42.7	131.3	0.00	0.00	0.00
1,900.0	13.03	341.09	1,884.3	145.8	-50.0	153.8	0.00	0.00	0.00
2,000.0	13.03	341.09	1,981.7	167.2	-57.3	176.3	0.00	0.00	0.00
2,100.0	13.03	341.09	2,079.1	188.5	-64.6	198.8	0.00	0.00	0.00
2,200.0	13.03	341.09	2,176.5	209.8	-71.9	221.3	0.00	0.00	0.00
2,300.0	13.03	341.09	2,274.0	231.2	-79.2	243.9	0.00	0.00	0.00
2,400.0	13.03	341.09	2,371.4	252.5	-86.5	266.4	0.00	0.00	0.00
2,500.0	13.03	341.09	2,468.8	273.8	-93.8	288.9	0.00	0.00	0.00
2,600.0	13.03	341.09	2,566.2	295.2	-101.1	311.4	0.00	0.00	0.00
2,700.0	13.03	341.09	2,663.7	316.5	-108.4	333.9	0.00	0.00	0.00
2,800.0	13.03	341.09	2,761.1	337.8	-115.7	356.4	0.00	0.00	0.00
2,900.0	13.03	341.09	2,858.5	359.1	-123.1	378.9	0.00	0.00	0.00
3,000.0	13.03	341.09	2,955.9	380.5	-130.4	401.4	0.00	0.00	0.00
3,100.0	13.03	341.09	3,053.4	401.8	-137.7	423.9	0.00	0.00	0.00
3,200.0	13.03	341.09	3,150.8	423.1	-145.0	446.4	0.00	0.00	0.00
3,300.0	13.03	341.09	3,248.2	444.5	-152.3	468.9	0.00	0.00	0.00
3,400.0	13.03	341.09	3,345.6	465.8	-159.6	491.4	0.00	0.00	0.00
Wasatch									
3,476.3	13.03	341.09	3,420.0	482.1	-165.2	508.5	0.00	0.00	0.00
3,500.0	13.03	341.09	3,443.1	487.1	-166.9	513.9	0.00	0.00	0.00
3,600.0	13.03	341.09	3,540.5	508.5	-174.2	536.4	0.00	0.00	0.00
3,700.0	13.03	341.09	3,637.9	529.8	-181.5	558.9	0.00	0.00	0.00
3,800.0	13.03	341.09	3,735.3	551.1	-188.8	581.4	0.00	0.00	0.00
3,900.0	13.03	341.09	3,832.8	572.4	-196.1	603.9	0.00	0.00	0.00
4,000.0	13.03	341.09	3,930.2	593.8	-203.4	626.4	0.00	0.00	0.00
4,100.0	13.03	341.09	4,027.6	615.1	-210.7	648.9	0.00	0.00	0.00
4,200.0	13.03	341.09	4,125.0	636.4	-218.1	671.4	0.00	0.00	0.00
4,300.0	13.03	341.09	4,222.5	657.8	-225.4	693.9	0.00	0.00	0.00
4,400.0	13.03	341.09	4,319.9	679.1	-232.7	716.4	0.00	0.00	0.00
4,500.0	13.03	341.09	4,417.3	700.4	-240.0	738.9	0.00	0.00	0.00
4,600.0	13.03	341.09	4,514.7	721.8	-247.3	761.4	0.00	0.00	0.00
4,700.0	13.03	341.09	4,612.2	743.1	-254.6	783.9	0.00	0.00	0.00

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Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8134.0usft (30')
Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 13B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
4,800.0	13.03	341.09	4,709.6	764.4	-261.9	806.4	0.00	0.00	0.00
4,900.0	13.03	341.09	4,807.0	785.7	-269.2	828.9	0.00	0.00	0.00
5,000.0	13.03	341.09	4,904.4	807.1	-276.5	851.4	0.00	0.00	0.00
5,100.0	13.03	341.09	5,001.9	828.4	-283.8	873.9	0.00	0.00	0.00
5,200.0	13.03	341.09	5,099.3	849.7	-291.1	896.4	0.00	0.00	0.00
5,300.0	13.03	341.09	5,196.7	871.1	-298.4	918.9	0.00	0.00	0.00
5,400.0	13.03	341.09	5,294.1	892.4	-305.8	941.4	0.00	0.00	0.00
5,500.0	13.03	341.09	5,391.6	913.7	-313.1	963.9	0.00	0.00	0.00
5,600.0	13.03	341.09	5,489.0	935.1	-320.4	986.4	0.00	0.00	0.00
5,700.0	13.03	341.09	5,586.4	956.4	-327.7	1,008.9	0.00	0.00	0.00
5,800.0	13.03	341.09	5,683.8	977.7	-335.0	1,031.4	0.00	0.00	0.00
5,900.0	13.03	341.09	5,781.3	999.0	-342.3	1,053.9	0.00	0.00	0.00
Wasatch G									
5,939.8	13.03	341.09	5,820.0	1,007.5	-345.2	1,062.8	0.00	0.00	0.00
6,000.0	13.03	341.09	5,878.7	1,020.4	-349.6	1,076.4	0.00	0.00	0.00
6,100.0	13.03	341.09	5,976.1	1,041.7	-356.9	1,098.9	0.00	0.00	0.00
6,200.0	13.03	341.09	6,073.5	1,063.0	-364.2	1,121.4	0.00	0.00	0.00
Fort Union									
6,247.7	13.03	341.09	6,120.0	1,073.2	-367.7	1,132.1	0.00	0.00	0.00
6,300.0	13.03	341.09	6,171.0	1,084.4	-371.5	1,143.9	0.00	0.00	0.00
6,400.0	13.03	341.09	6,268.4	1,105.7	-378.8	1,166.4	0.00	0.00	0.00
6,500.0	13.03	341.09	6,365.8	1,127.0	-386.1	1,188.9	0.00	0.00	0.00
6,600.0	13.03	341.09	6,463.2	1,148.4	-393.4	1,211.4	0.00	0.00	0.00
6,700.0	13.03	341.09	6,560.7	1,169.7	-400.8	1,233.9	0.00	0.00	0.00
6,800.0	13.03	341.09	6,658.1	1,191.0	-408.1	1,256.4	0.00	0.00	0.00
6,900.0	13.03	341.09	6,755.5	1,212.3	-415.4	1,278.9	0.00	0.00	0.00
7,000.0	13.03	341.09	6,852.9	1,233.7	-422.7	1,301.4	0.00	0.00	0.00
7,100.0	13.03	341.09	6,950.4	1,255.0	-430.0	1,323.9	0.00	0.00	0.00
7,200.0	13.03	341.09	7,047.8	1,276.3	-437.3	1,346.4	0.00	0.00	0.00
7,300.0	13.03	341.09	7,145.2	1,297.7	-444.6	1,368.9	0.00	0.00	0.00
7,400.0	13.03	341.09	7,242.6	1,319.0	-451.9	1,391.4	0.00	0.00	0.00
7,500.0	13.03	341.09	7,340.1	1,340.3	-459.2	1,413.9	0.00	0.00	0.00
7,600.0	13.03	341.09	7,437.5	1,361.7	-466.5	1,436.4	0.00	0.00	0.00
7,700.0	13.03	341.09	7,534.9	1,383.0	-473.8	1,458.9	0.00	0.00	0.00
7,800.0	13.03	341.09	7,632.3	1,404.3	-481.1	1,481.4	0.00	0.00	0.00
Drop 3° /100'									
7,869.8	13.03	341.09	7,700.4	1,419.2	-486.2	1,497.1	0.00	0.00	0.00
7,900.0	12.13	341.09	7,729.8	1,425.4	-488.4	1,503.6	3.00	-3.00	0.00
8,000.0	9.13	341.09	7,828.1	1,442.9	-494.4	1,522.0	3.00	-3.00	0.00
8,100.0	6.13	341.09	7,927.2	1,455.4	-498.7	1,535.3	3.00	-3.00	0.00
8,200.0	3.13	341.09	8,026.9	1,463.1	-501.3	1,543.3	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek - TOG									
8,304.2	0.00	0.00	8,131.0	1,465.7	-502.2	1,546.2	3.00	-3.00	0.00
EOB @ 1.49° Inc. / 250.00° Azm									
8,403.4	1.49	250.00	8,230.2	1,465.3	-503.4	1,546.2	1.50	1.50	0.00
8,500.0	1.49	250.00	8,326.8	1,464.4	-505.8	1,546.3	0.00	0.00	0.00
8,600.0	1.49	250.00	8,426.7	1,463.6	-508.2	1,546.4	0.00	0.00	0.00
8,700.0	1.49	250.00	8,526.7	1,462.7	-510.6	1,546.6	0.00	0.00	0.00
William Fork									
8,702.3	1.49	250.00	8,529.0	1,462.6	-510.7	1,546.6	0.00	0.00	0.00
8,800.0	1.49	250.00	8,626.7	1,461.8	-513.1	1,546.7	0.00	0.00	0.00
8,900.0	1.49	250.00	8,726.6	1,460.9	-515.5	1,546.8	0.00	0.00	0.00

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Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 13B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
9,000.0	1.49	250.00	8,826.6	1,460.0	-518.0	1,546.9	0.00	0.00	0.00
9,100.0	1.49	250.00	8,926.6	1,459.1	-520.4	1,547.0	0.00	0.00	0.00
9,200.0	1.49	250.00	9,026.5	1,458.2	-522.8	1,547.2	0.00	0.00	0.00
9,300.0	1.49	250.00	9,126.5	1,457.3	-525.3	1,547.3	0.00	0.00	0.00
9,400.0	1.49	250.00	9,226.5	1,456.4	-527.7	1,547.4	0.00	0.00	0.00
9,500.0	1.49	250.00	9,326.4	1,455.6	-530.2	1,547.5	0.00	0.00	0.00
9,600.0	1.49	250.00	9,426.4	1,454.7	-532.6	1,547.6	0.00	0.00	0.00
9,700.0	1.49	250.00	9,526.4	1,453.8	-535.0	1,547.7	0.00	0.00	0.00
9,800.0	1.49	250.00	9,626.3	1,452.9	-537.5	1,547.9	0.00	0.00	0.00
9,900.0	1.49	250.00	9,726.3	1,452.0	-539.9	1,548.0	0.00	0.00	0.00
10,000.0	1.49	250.00	9,826.3	1,451.1	-542.4	1,548.1	0.00	0.00	0.00
10,100.0	1.49	250.00	9,926.2	1,450.2	-544.8	1,548.2	0.00	0.00	0.00
10,200.0	1.49	250.00	10,026.2	1,449.3	-547.2	1,548.3	0.00	0.00	0.00
10,300.0	1.49	250.00	10,126.2	1,448.5	-549.7	1,548.5	0.00	0.00	0.00
10,400.0	1.49	250.00	10,226.1	1,447.6	-552.1	1,548.6	0.00	0.00	0.00
10,500.0	1.49	250.00	10,326.1	1,446.7	-554.5	1,548.7	0.00	0.00	0.00
10,600.0	1.49	250.00	10,426.1	1,445.8	-557.0	1,548.8	0.00	0.00	0.00
10,700.0	1.49	250.00	10,526.0	1,444.9	-559.4	1,548.9	0.00	0.00	0.00
10,800.0	1.49	250.00	10,626.0	1,444.0	-561.9	1,549.0	0.00	0.00	0.00
10,900.0	1.49	250.00	10,726.0	1,443.1	-564.3	1,549.2	0.00	0.00	0.00
11,000.0	1.49	250.00	10,825.9	1,442.2	-566.7	1,549.3	0.00	0.00	0.00
11,100.0	1.49	250.00	10,925.9	1,441.4	-569.2	1,549.4	0.00	0.00	0.00
11,200.0	1.49	250.00	11,025.9	1,440.5	-571.6	1,549.5	0.00	0.00	0.00
11,300.0	1.49	250.00	11,125.8	1,439.6	-574.1	1,549.6	0.00	0.00	0.00
11,400.0	1.49	250.00	11,225.8	1,438.7	-576.5	1,549.8	0.00	0.00	0.00
11,500.0	1.49	250.00	11,325.8	1,437.8	-578.9	1,549.9	0.00	0.00	0.00
Cameo									
11,505.2	1.49	250.00	11,331.0	1,437.8	-579.1	1,549.9	0.00	0.00	0.00
11,600.0	1.49	250.00	11,425.7	1,436.9	-581.4	1,550.0	0.00	0.00	0.00
11,700.0	1.49	250.00	11,525.7	1,436.0	-583.8	1,550.1	0.00	0.00	0.00
11,800.0	1.49	250.00	11,625.7	1,435.1	-586.3	1,550.2	0.00	0.00	0.00
11,900.0	1.49	250.00	11,725.6	1,434.2	-588.7	1,550.3	0.00	0.00	0.00
12,000.0	1.49	250.00	11,825.6	1,433.4	-591.1	1,550.5	0.00	0.00	0.00
Rollins									
12,005.4	1.49	250.00	11,831.0	1,433.3	-591.3	1,550.5	0.00	0.00	0.00
12,100.0	1.49	250.00	11,925.6	1,432.5	-593.6	1,550.6	0.00	0.00	0.00
TD @ 12205.5' MD / 12031.0' TVD									
12,205.5	1.49	250.00	12,031.0	1,431.5	-596.2	1,550.7	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
OHCR - 13B-23 - hit/miss target - Shape - Point	0.00	0.00	8,131.0	1,465.7	-502.2	14,425,414.18	2,444,546.03	39.688446	-108.141876
PBHL - 13B-23 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,031.0	1,431.5	-596.2	14,425,377.00	2,444,453.20	39.688352	-108.142210

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 13B-23 496 - Slot BJU M23A FED 13B-23 496
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 8134.0usft (30')
Project:	Garfield County, CO	MD Reference:	RKB @ 8134.0usft (30')
Site:	BJU M23A 496 Pad	North Reference:	True
Well:	BJU M23A FED 13B-23 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,476.3	3,420.0	Wasatch				
5,939.8	5,820.0	Wasatch G				
6,247.7	6,120.0	Fort Union				
8,304.2	8,131.0	Ohio Creek				
8,304.2	8,131.0	TOG				
8,702.3	8,529.0	William Fork				
11,505.2	11,331.0	Cameo				
12,005.4	11,831.0	Rollins				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,000.0	1,000.0	0.0	0.0	Build 3° / 100'	
1,434.4	1,430.6	46.5	-15.9	EOB @ 13.03° Inc. / 341.09° Azm	
7,869.8	7,700.4	1,419.2	-486.2	Drop 3° / 100'	
8,304.2	8,131.0	1,465.7	-502.2	EOD @ Vertical / Build 1.5° / 100'	
8,403.4	8,230.2	1,465.3	-503.4	EOB @ 1.49° Inc. / 250.00° Azm	
12,205.5	12,031.0	1,431.5	-596.2	TD @ 12205.5' MD / 12031.0' TVD	