

Project: Garfield County, CO  
 Site: BJU M23A 496 Pad  
 Well: BJU M23A FED 25B-23 496  
 Wellbore: Wellbore #1  
 Design: Design #1  
 Latitude: 39.684231  
 Longitude: -108.140159  
 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 25B-23 496(0.0N, 0.0E)  
 Measured Depth Reference: RKB @ 8134.0usft (30')  
 Calculation Method: Minimum Curvature

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3436.0	3576.1	Wasatch
5836.0	6094.3	Wasatch G
6136.0	6409.0	Fort Union
8110.0	8461.0	Ohio Creek
8110.0	8461.0	TOG
8478.0	8829.1	William Fork
11418.0	11770.0	Cameo
11918.0	12270.2	Rollins

## SECTION DETAILS

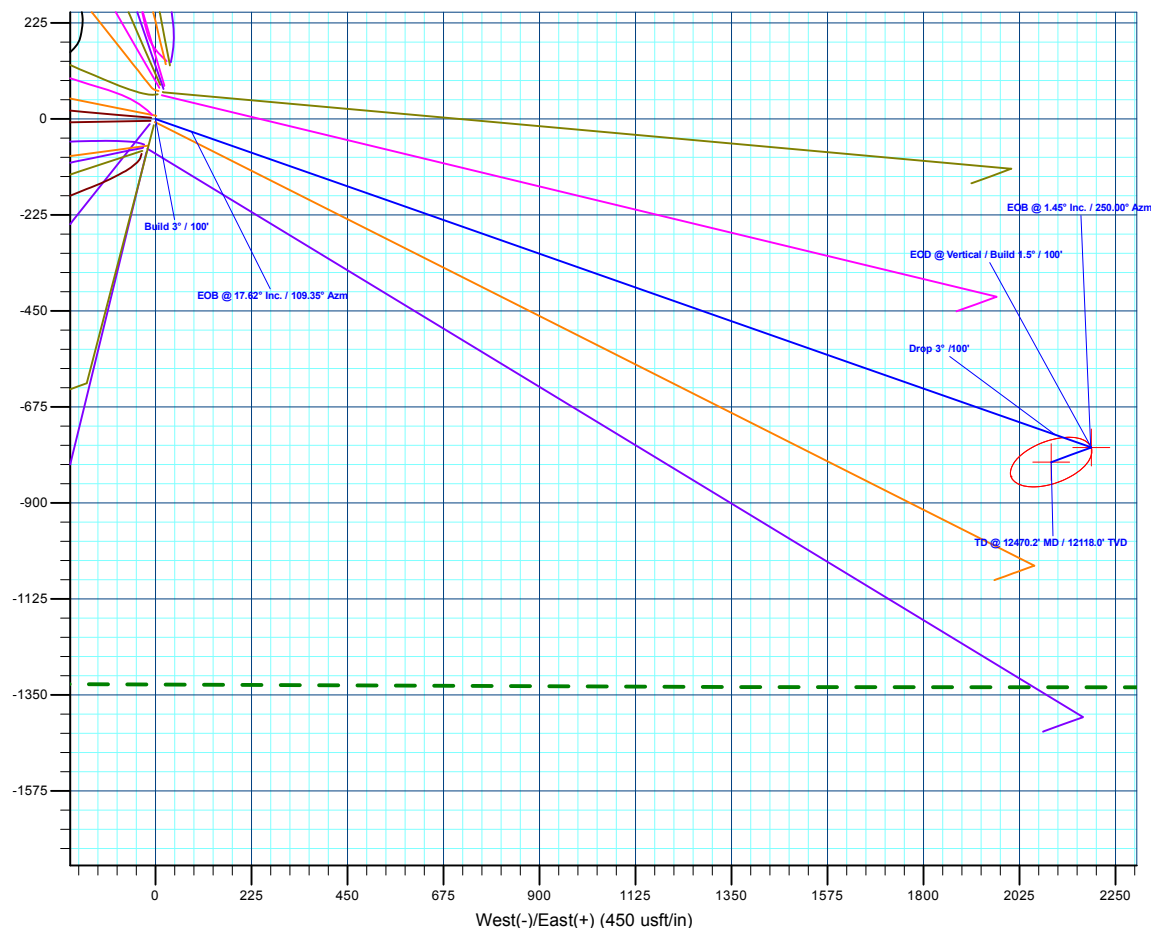
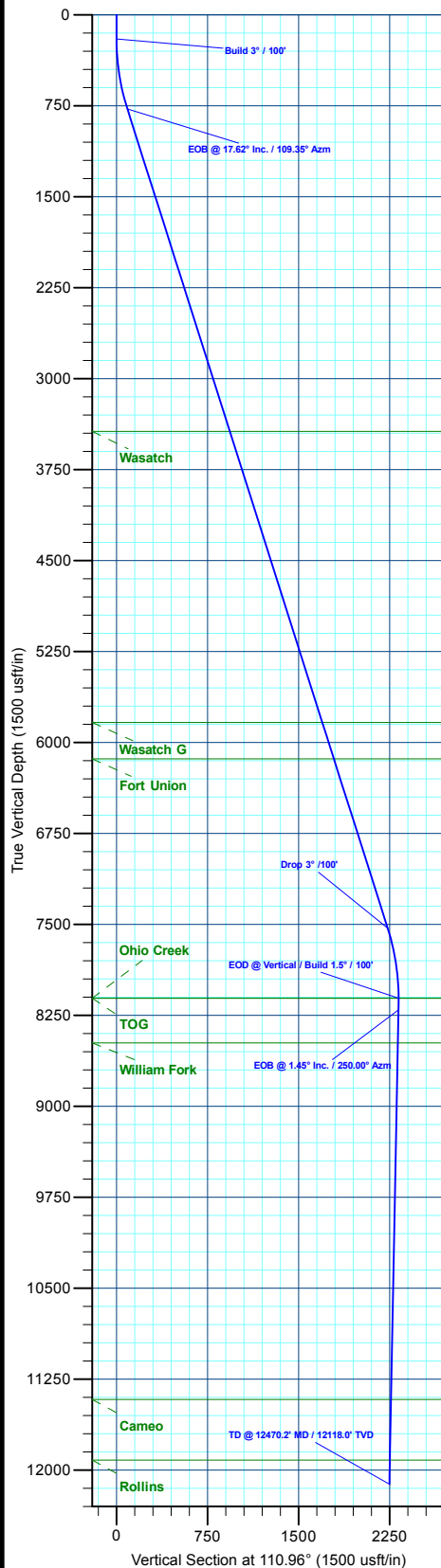
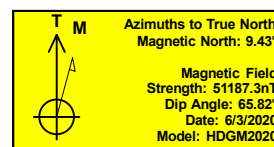
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
787.4	17.62	109.35	778.2	-29.7	84.6	3.00	109.35	89.6	EOB @ 17.62° Inc. / 109.35° Azm
7873.6	17.62	109.35	7531.8	-740.5	2108.7	0.00	0.00	2234.1	Drop 3° / 100'
8461.0	0.00	0.00	8110.0	-770.1	2193.3	3.00	180.00	2323.6	EOD @ Vertical / Build 1.5° / 100'
8557.4	1.45	250.00	8206.4	-770.6	2192.1	1.50	250.00	2322.7	EOB @ 1.45° Inc. / 250.00° Azm
12470.2	1.45	250.00	12118.0	-804.3	2099.3	0.00	0.00	2248.1	TD @ 12470.2' MD / 12118.0' TVD

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
OHCR - 25B-23	8110.0	-770.1	2193.3	14423194.88	2447294.73	39.682118	-108.132369
PBHL - 25B-23	12118.0	-804.3	2099.3	14423157.70	2447201.90	39.682024	-108.132703

## WELL DETAILS: BJU M23A FED 25B-23 496

+N/-S	+E/-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423894.70	2445078.00	39.684231	-108.140159



Plan: Design #1 (BJU M23A FED 25B-23 496/Wellbore #1)

Created By: Will Jircik

Date: 10:37, June 05 2020



## **Caerus Oil & Gas**

**Garfield County, CO**

**BJU M23A 496 Pad**

**BJU M23A FED 25B-23 496 - Slot BJU M23A FED 25B-23 496**

**Wellbore #1**

**Plan: Design #1**

## **QES Well Planning Report**

**05 June, 2020**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 25B-23 496 - Slot BJU M23A FED 25B-23 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8134.0usft (30')
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 25B-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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

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

<b>Well</b>	BJU M23A FED 25B-23 496 - Slot BJU M23A FED 25B-23 496		
<b>Well Position</b>	<b>+N/-S</b>	-132.7 usft	<b>Northing:</b> 14,423,894.70 usft
	<b>+E/-W</b>	-35.9 usft	<b>Easting:</b> 2,445,078.00 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 39.684232
			<b>Longitude:</b> -108.140159
			<b>Ground Level:</b> 8,104.0 usft

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

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	110.96

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
787.4	17.62	109.35	778.2	-29.7	84.6	3.00	3.00	0.00	109.35	
7,873.6	17.62	109.35	7,531.8	-740.5	2,108.7	0.00	0.00	0.00	0.00	
8,461.0	0.00	0.00	8,110.0	-770.1	2,193.3	3.00	-3.00	0.00	180.00	OHCR - 25B-23
8,557.4	1.45	250.00	8,206.4	-770.6	2,192.1	1.50	1.50	-114.06	250.00	
12,470.2	1.45	250.00	12,118.0	-804.3	2,099.3	0.00	0.00	0.00	0.00	PBHL - 25B-23

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 25B-23 496 - Slot BJU M23A FED 25B-23 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8134.0usft (30')
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 25B-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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
<b>Build 3° / 100'</b>									
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	3.00	109.35	300.0	-0.9	2.5	2.6	3.00	3.00	0.00
400.0	6.00	109.35	399.6	-3.5	9.9	10.5	3.00	3.00	0.00
500.0	9.00	109.35	498.8	-7.8	22.2	23.5	3.00	3.00	0.00
600.0	12.00	109.35	597.1	-13.8	39.4	41.7	3.00	3.00	0.00
700.0	15.00	109.35	694.3	-21.6	61.4	65.1	3.00	3.00	0.00
<b>EOB @ 17.62° Inc. / 109.35° Azm</b>									
787.4	17.62	109.35	778.2	-29.7	84.6	89.6	3.00	3.00	0.00
800.0	17.62	109.35	790.2	-31.0	88.2	93.4	0.00	0.00	0.00
900.0	17.62	109.35	885.5	-41.0	116.7	123.7	0.00	0.00	0.00
1,000.0	17.62	109.35	980.8	-51.0	145.3	153.9	0.00	0.00	0.00
1,100.0	17.62	109.35	1,076.1	-61.0	173.9	184.2	0.00	0.00	0.00
1,200.0	17.62	109.35	1,171.4	-71.1	202.4	214.4	0.00	0.00	0.00
1,300.0	17.62	109.35	1,266.7	-81.1	231.0	244.7	0.00	0.00	0.00
1,400.0	17.62	109.35	1,362.0	-91.1	259.5	275.0	0.00	0.00	0.00
1,500.0	17.62	109.35	1,457.3	-101.2	288.1	305.2	0.00	0.00	0.00
1,600.0	17.62	109.35	1,552.6	-111.2	316.7	335.5	0.00	0.00	0.00
1,700.0	17.62	109.35	1,648.0	-121.2	345.2	365.8	0.00	0.00	0.00
1,800.0	17.62	109.35	1,743.3	-131.3	373.8	396.0	0.00	0.00	0.00
1,900.0	17.62	109.35	1,838.6	-141.3	402.4	426.3	0.00	0.00	0.00
2,000.0	17.62	109.35	1,933.9	-151.3	430.9	456.6	0.00	0.00	0.00
2,100.0	17.62	109.35	2,029.2	-161.3	459.5	486.8	0.00	0.00	0.00
2,200.0	17.62	109.35	2,124.5	-171.4	488.1	517.1	0.00	0.00	0.00
2,300.0	17.62	109.35	2,219.8	-181.4	516.6	547.3	0.00	0.00	0.00
2,400.0	17.62	109.35	2,315.1	-191.4	545.2	577.6	0.00	0.00	0.00
2,500.0	17.62	109.35	2,410.4	-201.5	573.8	607.9	0.00	0.00	0.00
2,600.0	17.62	109.35	2,505.7	-211.5	602.3	638.1	0.00	0.00	0.00
2,700.0	17.62	109.35	2,601.0	-221.5	630.9	668.4	0.00	0.00	0.00
2,800.0	17.62	109.35	2,696.3	-231.6	659.5	698.7	0.00	0.00	0.00
2,900.0	17.62	109.35	2,791.6	-241.6	688.0	728.9	0.00	0.00	0.00
3,000.0	17.62	109.35	2,886.9	-251.6	716.6	759.2	0.00	0.00	0.00
3,100.0	17.62	109.35	2,982.3	-261.7	745.2	789.4	0.00	0.00	0.00
3,200.0	17.62	109.35	3,077.6	-271.7	773.7	819.7	0.00	0.00	0.00
3,300.0	17.62	109.35	3,172.9	-281.7	802.3	850.0	0.00	0.00	0.00
3,400.0	17.62	109.35	3,268.2	-291.7	830.8	880.2	0.00	0.00	0.00
3,500.0	17.62	109.35	3,363.5	-301.8	859.4	910.5	0.00	0.00	0.00
<b>Wasatch</b>									
3,576.1	17.62	109.35	3,436.0	-309.4	881.1	933.5	0.00	0.00	0.00
3,600.0	17.62	109.35	3,458.8	-311.8	888.0	940.8	0.00	0.00	0.00
3,700.0	17.62	109.35	3,554.1	-321.8	916.5	971.0	0.00	0.00	0.00
3,800.0	17.62	109.35	3,649.4	-331.9	945.1	1,001.3	0.00	0.00	0.00
3,900.0	17.62	109.35	3,744.7	-341.9	973.7	1,031.5	0.00	0.00	0.00
4,000.0	17.62	109.35	3,840.0	-351.9	1,002.2	1,061.8	0.00	0.00	0.00
4,100.0	17.62	109.35	3,935.3	-362.0	1,030.8	1,092.1	0.00	0.00	0.00
4,200.0	17.62	109.35	4,030.6	-372.0	1,059.4	1,122.3	0.00	0.00	0.00
4,300.0	17.62	109.35	4,125.9	-382.0	1,087.9	1,152.6	0.00	0.00	0.00
4,400.0	17.62	109.35	4,221.2	-392.0	1,116.5	1,182.9	0.00	0.00	0.00
4,500.0	17.62	109.35	4,316.6	-402.1	1,145.1	1,213.1	0.00	0.00	0.00
4,600.0	17.62	109.35	4,411.9	-412.1	1,173.6	1,243.4	0.00	0.00	0.00
4,700.0	17.62	109.35	4,507.2	-422.1	1,202.2	1,273.6	0.00	0.00	0.00

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<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 25B-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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	17.62	109.35	4,602.5	-432.2	1,230.8	1,303.9	0.00	0.00	0.00
4,900.0	17.62	109.35	4,697.8	-442.2	1,259.3	1,334.2	0.00	0.00	0.00
5,000.0	17.62	109.35	4,793.1	-452.2	1,287.9	1,364.4	0.00	0.00	0.00
5,100.0	17.62	109.35	4,888.4	-462.3	1,316.5	1,394.7	0.00	0.00	0.00
5,200.0	17.62	109.35	4,983.7	-472.3	1,345.0	1,425.0	0.00	0.00	0.00
5,300.0	17.62	109.35	5,079.0	-482.3	1,373.6	1,455.2	0.00	0.00	0.00
5,400.0	17.62	109.35	5,174.3	-492.3	1,402.1	1,485.5	0.00	0.00	0.00
5,500.0	17.62	109.35	5,269.6	-502.4	1,430.7	1,515.7	0.00	0.00	0.00
5,600.0	17.62	109.35	5,364.9	-512.4	1,459.3	1,546.0	0.00	0.00	0.00
5,700.0	17.62	109.35	5,460.2	-522.4	1,487.8	1,576.3	0.00	0.00	0.00
5,800.0	17.62	109.35	5,555.5	-532.5	1,516.4	1,606.5	0.00	0.00	0.00
5,900.0	17.62	109.35	5,650.9	-542.5	1,545.0	1,636.8	0.00	0.00	0.00
6,000.0	17.62	109.35	5,746.2	-552.5	1,573.5	1,667.1	0.00	0.00	0.00
<b>Wasatch G</b>									
6,094.3	17.62	109.35	5,836.0	-562.0	1,600.5	1,695.6	0.00	0.00	0.00
6,100.0	17.62	109.35	5,841.5	-562.6	1,602.1	1,697.3	0.00	0.00	0.00
6,200.0	17.62	109.35	5,936.8	-572.6	1,630.7	1,727.6	0.00	0.00	0.00
6,300.0	17.62	109.35	6,032.1	-582.6	1,659.2	1,757.9	0.00	0.00	0.00
6,400.0	17.62	109.35	6,127.4	-592.6	1,687.8	1,788.1	0.00	0.00	0.00
<b>Fort Union</b>									
6,409.0	17.62	109.35	6,136.0	-593.6	1,690.4	1,790.8	0.00	0.00	0.00
6,500.0	17.62	109.35	6,222.7	-602.7	1,716.4	1,818.4	0.00	0.00	0.00
6,600.0	17.62	109.35	6,318.0	-612.7	1,744.9	1,848.6	0.00	0.00	0.00
6,700.0	17.62	109.35	6,413.3	-622.7	1,773.5	1,878.9	0.00	0.00	0.00
6,800.0	17.62	109.35	6,508.6	-632.8	1,802.1	1,909.2	0.00	0.00	0.00
6,900.0	17.62	109.35	6,603.9	-642.8	1,830.6	1,939.4	0.00	0.00	0.00
7,000.0	17.62	109.35	6,699.2	-652.8	1,859.2	1,969.7	0.00	0.00	0.00
7,100.0	17.62	109.35	6,794.5	-662.9	1,887.8	2,000.0	0.00	0.00	0.00
7,200.0	17.62	109.35	6,889.8	-672.9	1,916.3	2,030.2	0.00	0.00	0.00
7,300.0	17.62	109.35	6,985.1	-682.9	1,944.9	2,060.5	0.00	0.00	0.00
7,400.0	17.62	109.35	7,080.5	-693.0	1,973.4	2,090.7	0.00	0.00	0.00
7,500.0	17.62	109.35	7,175.8	-703.0	2,002.0	2,121.0	0.00	0.00	0.00
7,600.0	17.62	109.35	7,271.1	-713.0	2,030.6	2,151.3	0.00	0.00	0.00
7,700.0	17.62	109.35	7,366.4	-723.0	2,059.1	2,181.5	0.00	0.00	0.00
7,800.0	17.62	109.35	7,461.7	-733.1	2,087.7	2,211.8	0.00	0.00	0.00
<b>Drop 3° /100'</b>									
7,873.6	17.62	109.35	7,531.8	-740.5	2,108.7	2,234.1	0.00	0.00	0.00
7,900.0	16.83	109.35	7,557.0	-743.0	2,116.1	2,241.9	3.00	-3.00	0.00
8,000.0	13.83	109.35	7,653.5	-751.8	2,141.1	2,268.3	3.00	-3.00	0.00
8,100.0	10.83	109.35	7,751.2	-758.9	2,161.2	2,289.6	3.00	-3.00	0.00
8,200.0	7.83	109.35	7,849.8	-764.2	2,176.5	2,305.9	3.00	-3.00	0.00
8,300.0	4.83	109.35	7,949.2	-767.9	2,186.9	2,316.9	3.00	-3.00	0.00
8,400.0	1.83	109.35	8,049.0	-769.8	2,192.4	2,322.7	3.00	-3.00	0.00
<b>EOD @ Vertical / Build 1.5° / 100' - Ohio Creek - TOG</b>									
8,461.0	0.00	0.00	8,110.0	-770.1	2,193.3	2,323.6	3.00	-3.00	0.00
8,500.0	0.59	250.00	8,149.0	-770.2	2,193.1	2,323.5	1.50	1.50	0.00
<b>EOB @ 1.45° Inc. / 250.00° Azm</b>									
8,557.4	1.45	250.00	8,206.4	-770.6	2,192.1	2,322.7	1.50	1.50	0.00
8,600.0	1.45	250.00	8,249.0	-770.9	2,191.1	2,321.9	0.00	0.00	0.00
8,700.0	1.45	250.00	8,349.0	-771.8	2,188.8	2,320.0	0.00	0.00	0.00
8,800.0	1.45	250.00	8,448.9	-772.7	2,186.4	2,318.1	0.00	0.00	0.00
<b>William Fork</b>									

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 25B-23 496 - Slot BJU M23A FED 25B-23 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8134.0usft (30')
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 25B-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
8,829.1	1.45	250.00	8,478.0	-772.9	2,185.7	2,317.6	0.00	0.00	0.00	
8,900.0	1.45	250.00	8,548.9	-773.5	2,184.0	2,316.2	0.00	0.00	0.00	
9,000.0	1.45	250.00	8,648.9	-774.4	2,181.6	2,314.3	0.00	0.00	0.00	
9,100.0	1.45	250.00	8,748.8	-775.2	2,179.3	2,312.4	0.00	0.00	0.00	
9,200.0	1.45	250.00	8,848.8	-776.1	2,176.9	2,310.5	0.00	0.00	0.00	
9,300.0	1.45	250.00	8,948.8	-777.0	2,174.5	2,308.6	0.00	0.00	0.00	
9,400.0	1.45	250.00	9,048.7	-777.8	2,172.2	2,306.7	0.00	0.00	0.00	
9,500.0	1.45	250.00	9,148.7	-778.7	2,169.8	2,304.8	0.00	0.00	0.00	
9,600.0	1.45	250.00	9,248.7	-779.6	2,167.4	2,302.9	0.00	0.00	0.00	
9,700.0	1.45	250.00	9,348.6	-780.4	2,165.0	2,300.9	0.00	0.00	0.00	
9,800.0	1.45	250.00	9,448.6	-781.3	2,162.7	2,299.0	0.00	0.00	0.00	
9,900.0	1.45	250.00	9,548.6	-782.2	2,160.3	2,297.1	0.00	0.00	0.00	
10,000.0	1.45	250.00	9,648.5	-783.0	2,157.9	2,295.2	0.00	0.00	0.00	
10,100.0	1.45	250.00	9,748.5	-783.9	2,155.6	2,293.3	0.00	0.00	0.00	
10,200.0	1.45	250.00	9,848.5	-784.7	2,153.2	2,291.4	0.00	0.00	0.00	
10,300.0	1.45	250.00	9,948.4	-785.6	2,150.8	2,289.5	0.00	0.00	0.00	
10,400.0	1.45	250.00	10,048.4	-786.5	2,148.4	2,287.6	0.00	0.00	0.00	
10,500.0	1.45	250.00	10,148.4	-787.3	2,146.1	2,285.7	0.00	0.00	0.00	
10,600.0	1.45	250.00	10,248.4	-788.2	2,143.7	2,283.8	0.00	0.00	0.00	
10,700.0	1.45	250.00	10,348.3	-789.1	2,141.3	2,281.9	0.00	0.00	0.00	
10,800.0	1.45	250.00	10,448.3	-789.9	2,138.9	2,280.0	0.00	0.00	0.00	
10,900.0	1.45	250.00	10,548.3	-790.8	2,136.6	2,278.1	0.00	0.00	0.00	
11,000.0	1.45	250.00	10,648.2	-791.7	2,134.2	2,276.2	0.00	0.00	0.00	
11,100.0	1.45	250.00	10,748.2	-792.5	2,131.8	2,274.3	0.00	0.00	0.00	
11,200.0	1.45	250.00	10,848.2	-793.4	2,129.5	2,272.4	0.00	0.00	0.00	
11,300.0	1.45	250.00	10,948.1	-794.2	2,127.1	2,270.4	0.00	0.00	0.00	
11,400.0	1.45	250.00	11,048.1	-795.1	2,124.7	2,268.5	0.00	0.00	0.00	
11,500.0	1.45	250.00	11,148.1	-796.0	2,122.3	2,266.6	0.00	0.00	0.00	
11,600.0	1.45	250.00	11,248.0	-796.8	2,120.0	2,264.7	0.00	0.00	0.00	
11,700.0	1.45	250.00	11,348.0	-797.7	2,117.6	2,262.8	0.00	0.00	0.00	
<b>Cameo</b>										
11,770.0	1.45	250.00	11,418.0	-798.3	2,115.9	2,261.5	0.00	0.00	0.00	
11,800.0	1.45	250.00	11,448.0	-798.6	2,115.2	2,260.9	0.00	0.00	0.00	
11,900.0	1.45	250.00	11,547.9	-799.4	2,112.8	2,259.0	0.00	0.00	0.00	
12,000.0	1.45	250.00	11,647.9	-800.3	2,110.5	2,257.1	0.00	0.00	0.00	
12,100.0	1.45	250.00	11,747.9	-801.1	2,108.1	2,255.2	0.00	0.00	0.00	
12,200.0	1.45	250.00	11,847.8	-802.0	2,105.7	2,253.3	0.00	0.00	0.00	
<b>Rollins</b>										
12,270.2	1.45	250.00	11,918.0	-802.6	2,104.1	2,252.0	0.00	0.00	0.00	
12,300.0	1.45	250.00	11,947.8	-802.9	2,103.4	2,251.4	0.00	0.00	0.00	
12,400.0	1.45	250.00	12,047.8	-803.7	2,101.0	2,249.5	0.00	0.00	0.00	
<b>TD @ 12470.2' MD / 12118.0' TVD</b>										
12,470.2	1.45	250.00	12,118.0	-804.3	2,099.3	2,248.1	0.00	0.00	0.00	

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 25B-23 496 - Slot BJU M23A FED 25B-23 496
<b>Company:</b>	Caerus Oil & Gas	<b>TVD Reference:</b>	RKB @ 8134.0usft (30')
<b>Project:</b>	Garfield County, CO	<b>MD Reference:</b>	RKB @ 8134.0usft (30')
<b>Site:</b>	BJU M23A 496 Pad	<b>North Reference:</b>	True
<b>Well:</b>	BJU M23A FED 25B-23 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

### Design Targets

#### Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
OHCR - 25B-23 - plan hits target center - Point	0.00	0.00	8,110.0	-770.1	2,193.3	14,423,194.88	2,447,294.73	39.682118	-108.132370
PBHL - 25B-23 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,118.0	-804.3	2,099.3	14,423,157.70	2,447,201.90	39.682024	-108.132703

### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,576.1	3,436.0	Wasatch			
6,094.3	5,836.0	Wasatch G			
6,409.0	6,136.0	Fort Union			
8,461.0	8,110.0	Ohio Creek			
8,461.0	8,110.0	TOG			
8,829.1	8,478.0	William Fork			
11,770.0	11,418.0	Cameo			
12,270.2	11,918.0	Rollins			

### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.0	200.0	0.0	0.0	Build 3° / 100'
787.4	778.2	-29.7	84.6	EOB @ 17.62° Inc. / 109.35° Azm
7,873.6	7,531.8	-740.5	2,108.7	Drop 3° / 100'
8,461.0	8,110.0	-770.1	2,193.3	EOD @ Vertical / Build 1.5° / 100'
8,557.4	8,206.4	-770.6	2,192.1	EOB @ 1.45° Inc. / 250.00° Azm
12,470.2	12,118.0	-804.3	2,099.3	TD @ 12470.2' MD / 12118.0' TVD