

Project: Garfield County, CO  
 Site: BJU M23A 496 Pad  
 Well: BJU M23A FED 14A-23 496  
 Wellbore: Wellbore #1  
 Design: Design #1  
 Latitude: 39.684411  
 Longitude: -108.140133  
 Ground Level: 8104.0  
 RKB @ 8134.0usft (30')

# PROJECT DETAILS: Garfield County, US

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 14A-23 496(0.0N, 0.0E)  
 Measured Depth Reference: RKB @ 8134.0usft (30')  
 Calculation Method: Minimum Curvature

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3376.0	3398.5	Wasatch
5776.0	5816.6	Wasatch G
6076.0	6118.8	Fort Union
8117.0	8164.0	Ohio Creek
8117.0	8164.0	TOG
8492.0	8539.1	William Fork
11311.0	11359.0	Cameo
11811.0	11859.2	Rollins

## SECTION DETAILS

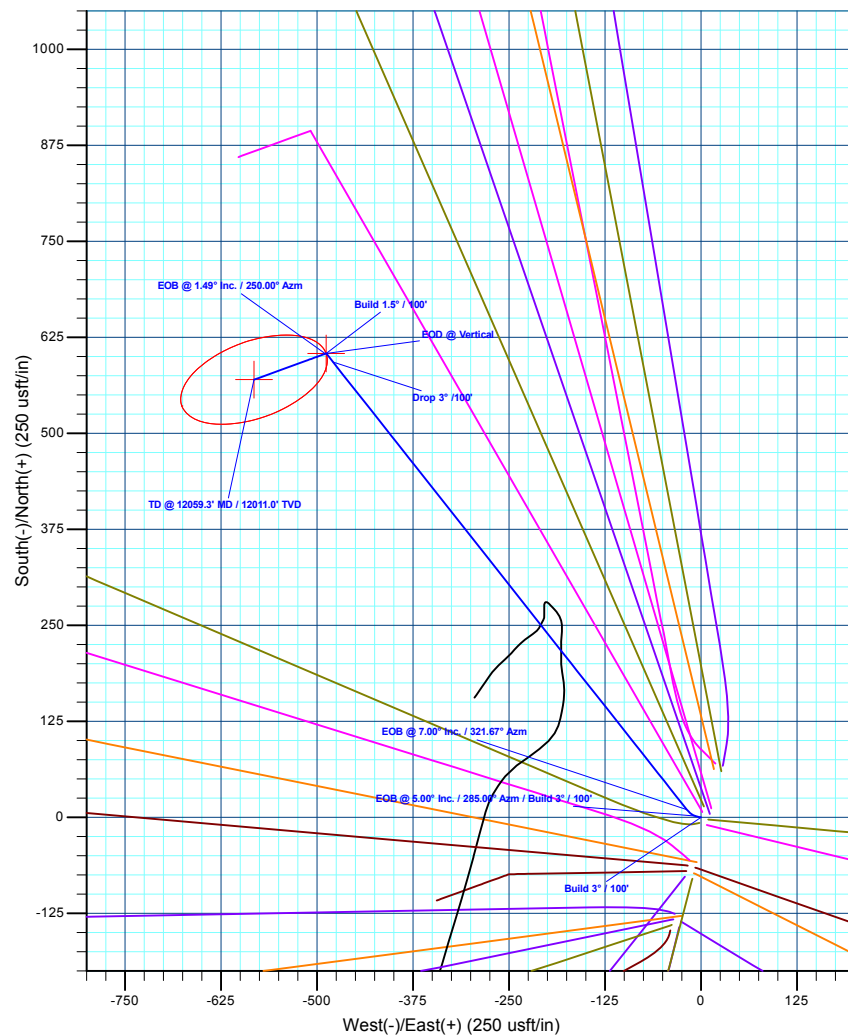
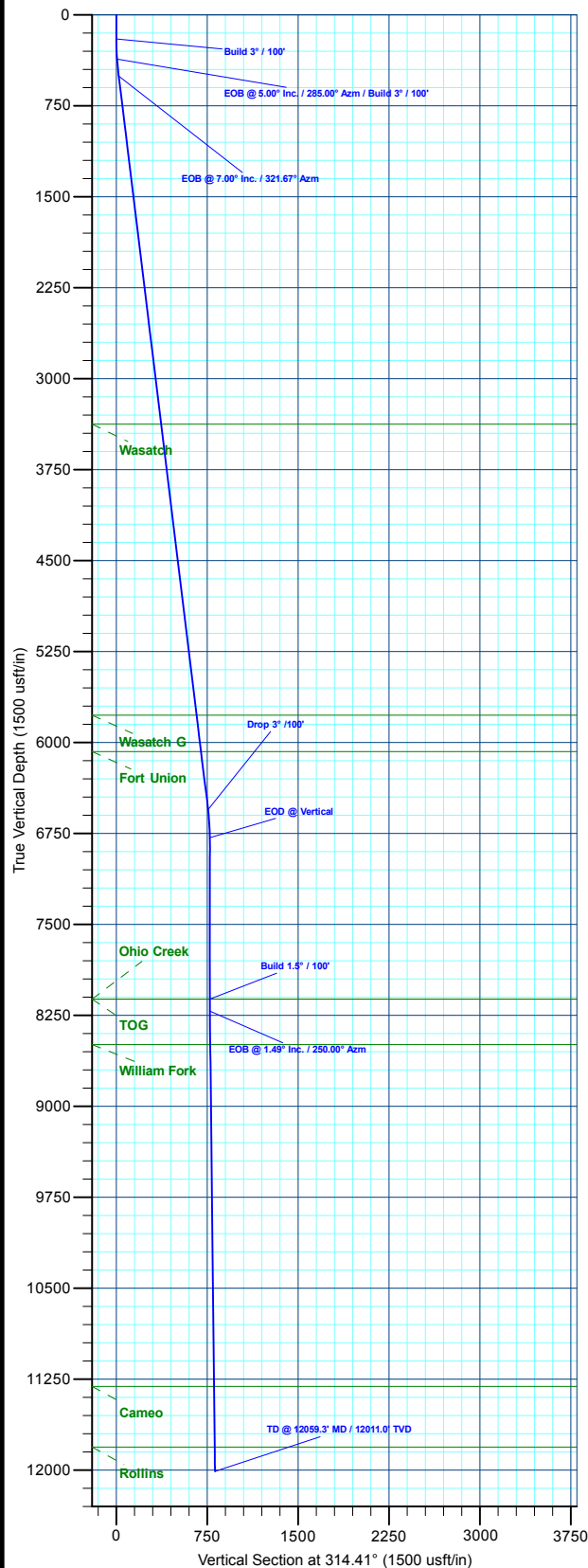
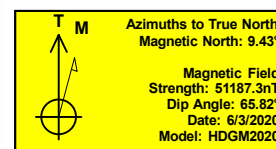
MD	Inc	Azi	TVD	+N-S	+E-W	Dieg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	EOB @ 5.00° Inc. / 285.00° Azm / Build 3° / 100'
366.7	5.00	285.00	366.5	1.9	-7.0	3.00	285.00	6.3	EOB @ 7.00° Inc. / 321.67° Azm
507.4	7.00	321.67	506.5	10.2	-18.3	3.00	81.47	20.2	Drop 3° / 100'
6600.5	7.00	321.67	6554.1	593.1	-479.0	0.00	0.00	757.2	EOD @ Vertical
6834.0	0.00	0.00	6787.0	604.2	-487.9	3.00	180.00	771.3	Build 1.5° / 100'
8164.0	0.00	0.00	8117.0	604.2	-487.9	0.00	0.00	771.3	EOB @ 1.49° Inc. / 250.00° Azm
8263.3	1.49	250.00	8216.3	603.8	-489.1	1.50	250.00	771.9	TD @ 12059.3' MD / 12011.0' TVD
12059.3	1.49	250.00	12011.0	570.0	-581.8	0.00	0.00	814.5	

## DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
OHCR - 14A-23	8117.0	604.2	-487.9	14424548.58	2444576.33	39.686069	-108.141866
PBHL - 14A-23	12011.0	570.0	-581.8	14424511.40	2444483.50	39.685975	-108.142200

## WELL DETAILS: BJU M23A FED 14A-23 496

+N-S	+E-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423960.20	2445083.20	39.684411	-108.140133



Plan: Design #1 (BJU M23A FED 14A-23 496/Wellbore #1)

Created By: Will Jircik

Date: 19:13, June 04 2020



## **Caerus Oil & Gas**

**Garfield County, CO**

**BJU M23A 496 Pad**

**BJU M23A FED 14A-23 496 - Slot BJU M23A FED 14A-23 496**

**Wellbore #1**

**Plan: Design #1**

## **QES Well Planning Report**

**04 June, 2020**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 14A-23 496 - Slot BJU M23A FED 14A-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 14A-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 14A-23 496 - Slot BJU M23A FED 14A-23 496		
<b>Well Position</b>	<b>+N/-S</b>	-67.4 usft	<b>Northing:</b> 14,423,960.20 usft
	<b>+E/-W</b>	-28.6 usft	<b>Easting:</b> 2,445,083.20 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 39.684411
			<b>Longitude:</b> -108.140134
			<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	314.41

<b>Plan Sections</b>										
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	
366.7	5.00	285.00	366.5	1.9	-7.0	3.00	3.00	0.00	285.00	
507.4	7.00	321.67	506.5	10.2	-18.3	3.00	1.42	26.05	81.47	
6,600.5	7.00	321.67	6,554.1	593.1	-479.0	0.00	0.00	0.00	0.00	
6,834.0	0.00	0.00	6,787.0	604.2	-487.9	3.00	-3.00	0.00	180.00	
8,164.0	0.00	0.00	8,117.0	604.2	-487.9	0.00	0.00	0.00	0.00	OHCR - 14A-23
8,263.3	1.49	250.00	8,216.3	603.8	-489.1	1.50	1.50	-110.73	250.00	
12,059.3	1.49	250.00	12,011.0	570.0	-581.8	0.00	0.00	0.00	0.00	PBHL - 14A-23

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BJU M23A FED 14A-23 496 - Slot BJU M23A FED 14A-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 14A-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	285.00	300.0	0.7	-2.5	2.3	3.00	3.00	0.00
<b>EOB @ 5.00° Inc. / 285.00° Azm / Build 3° / 100'</b>									
366.7	5.00	285.00	366.5	1.9	-7.0	6.3	3.00	3.00	0.00
400.0	5.24	295.89	399.7	2.9	-9.8	9.0	3.00	0.73	32.67
<b>EOB @ 7.00° Inc. / 321.67° Azm</b>									
507.4	7.00	321.67	506.5	10.2	-18.3	20.2	3.00	1.64	24.00
600.0	7.00	321.67	598.4	19.1	-25.3	31.4	0.00	0.00	0.00
700.0	7.00	321.67	697.6	28.6	-32.8	43.5	0.00	0.00	0.00
800.0	7.00	321.67	796.9	38.2	-40.4	55.6	0.00	0.00	0.00
900.0	7.00	321.67	896.1	47.8	-48.0	67.7	0.00	0.00	0.00
1,000.0	7.00	321.67	995.4	57.3	-55.5	79.8	0.00	0.00	0.00
1,100.0	7.00	321.67	1,094.6	66.9	-63.1	91.9	0.00	0.00	0.00
1,200.0	7.00	321.67	1,193.9	76.5	-70.6	104.0	0.00	0.00	0.00
1,300.0	7.00	321.67	1,293.1	86.0	-78.2	116.1	0.00	0.00	0.00
1,400.0	7.00	321.67	1,392.4	95.6	-85.8	128.2	0.00	0.00	0.00
1,500.0	7.00	321.67	1,491.7	105.2	-93.3	140.3	0.00	0.00	0.00
1,600.0	7.00	321.67	1,590.9	114.7	-100.9	152.3	0.00	0.00	0.00
1,700.0	7.00	321.67	1,690.2	124.3	-108.5	164.4	0.00	0.00	0.00
1,800.0	7.00	321.67	1,789.4	133.9	-116.0	176.5	0.00	0.00	0.00
1,900.0	7.00	321.67	1,888.7	143.4	-123.6	188.6	0.00	0.00	0.00
2,000.0	7.00	321.67	1,987.9	153.0	-131.1	200.7	0.00	0.00	0.00
2,100.0	7.00	321.67	2,087.2	162.5	-138.7	212.8	0.00	0.00	0.00
2,200.0	7.00	321.67	2,186.4	172.1	-146.3	224.9	0.00	0.00	0.00
2,300.0	7.00	321.67	2,285.7	181.7	-153.8	237.0	0.00	0.00	0.00
2,400.0	7.00	321.67	2,384.9	191.2	-161.4	249.1	0.00	0.00	0.00
2,500.0	7.00	321.67	2,484.2	200.8	-168.9	261.2	0.00	0.00	0.00
2,600.0	7.00	321.67	2,583.4	210.4	-176.5	273.3	0.00	0.00	0.00
2,700.0	7.00	321.67	2,682.7	219.9	-184.1	285.4	0.00	0.00	0.00
2,800.0	7.00	321.67	2,782.0	229.5	-191.6	297.5	0.00	0.00	0.00
2,900.0	7.00	321.67	2,881.2	239.1	-199.2	309.6	0.00	0.00	0.00
3,000.0	7.00	321.67	2,980.5	248.6	-206.8	321.7	0.00	0.00	0.00
3,100.0	7.00	321.67	3,079.7	258.2	-214.3	333.8	0.00	0.00	0.00
3,200.0	7.00	321.67	3,179.0	267.8	-221.9	345.9	0.00	0.00	0.00
3,300.0	7.00	321.67	3,278.2	277.3	-229.4	358.0	0.00	0.00	0.00
<b>Wasatch</b>									
3,398.5	7.00	321.67	3,376.0	286.8	-236.9	369.9	0.00	0.00	0.00
3,400.0	7.00	321.67	3,377.5	286.9	-237.0	370.1	0.00	0.00	0.00
3,500.0	7.00	321.67	3,476.7	296.5	-244.6	382.2	0.00	0.00	0.00
3,600.0	7.00	321.67	3,576.0	306.0	-252.1	394.3	0.00	0.00	0.00
3,700.0	7.00	321.67	3,675.2	315.6	-259.7	406.4	0.00	0.00	0.00
3,800.0	7.00	321.67	3,774.5	325.2	-267.2	418.5	0.00	0.00	0.00
3,900.0	7.00	321.67	3,873.7	334.7	-274.8	430.6	0.00	0.00	0.00
4,000.0	7.00	321.67	3,973.0	344.3	-282.4	442.7	0.00	0.00	0.00
4,100.0	7.00	321.67	4,072.3	353.9	-289.9	454.7	0.00	0.00	0.00
4,200.0	7.00	321.67	4,171.5	363.4	-297.5	466.8	0.00	0.00	0.00
4,300.0	7.00	321.67	4,270.8	373.0	-305.1	478.9	0.00	0.00	0.00
4,400.0	7.00	321.67	4,370.0	382.6	-312.6	491.0	0.00	0.00	0.00
4,500.0	7.00	321.67	4,469.3	392.1	-320.2	503.1	0.00	0.00	0.00
4,600.0	7.00	321.67	4,568.5	401.7	-327.7	515.2	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 14A-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)
4,700.0	7.00	321.67	4,667.8	411.3	-335.3	527.3	0.00	0.00	0.00
4,800.0	7.00	321.67	4,767.0	420.8	-342.9	539.4	0.00	0.00	0.00
4,900.0	7.00	321.67	4,866.3	430.4	-350.4	551.5	0.00	0.00	0.00
5,000.0	7.00	321.67	4,965.5	440.0	-358.0	563.6	0.00	0.00	0.00
5,100.0	7.00	321.67	5,064.8	449.5	-365.5	575.7	0.00	0.00	0.00
5,200.0	7.00	321.67	5,164.0	459.1	-373.1	587.8	0.00	0.00	0.00
5,300.0	7.00	321.67	5,263.3	468.7	-380.7	599.9	0.00	0.00	0.00
5,400.0	7.00	321.67	5,362.6	478.2	-388.2	612.0	0.00	0.00	0.00
5,500.0	7.00	321.67	5,461.8	487.8	-395.8	624.1	0.00	0.00	0.00
5,600.0	7.00	321.67	5,561.1	497.4	-403.4	636.2	0.00	0.00	0.00
5,700.0	7.00	321.67	5,660.3	506.9	-410.9	648.3	0.00	0.00	0.00
5,800.0	7.00	321.67	5,759.6	516.5	-418.5	660.4	0.00	0.00	0.00
<b>Wasatch G</b>									
5,816.6	7.00	321.67	5,776.0	518.1	-419.7	662.4	0.00	0.00	0.00
5,900.0	7.00	321.67	5,858.8	526.1	-426.0	672.5	0.00	0.00	0.00
6,000.0	7.00	321.67	5,958.1	535.6	-433.6	684.6	0.00	0.00	0.00
6,100.0	7.00	321.67	6,057.3	545.2	-441.2	696.7	0.00	0.00	0.00
<b>Fort Union</b>									
6,118.8	7.00	321.67	6,076.0	547.0	-442.6	698.9	0.00	0.00	0.00
6,200.0	7.00	321.67	6,156.6	554.7	-448.7	708.8	0.00	0.00	0.00
6,300.0	7.00	321.67	6,255.8	564.3	-456.3	720.9	0.00	0.00	0.00
6,400.0	7.00	321.67	6,355.1	573.9	-463.9	733.0	0.00	0.00	0.00
6,500.0	7.00	321.67	6,454.3	583.4	-471.4	745.0	0.00	0.00	0.00
<b>Drop 3° /100'</b>									
6,600.5	7.00	321.67	6,554.1	593.1	-479.0	757.2	0.00	0.00	0.00
6,700.0	4.02	321.67	6,653.1	600.6	-484.9	766.7	3.00	-3.00	0.00
6,800.0	1.02	321.67	6,753.0	604.0	-487.7	771.0	3.00	-3.00	0.00
<b>EOD @ Vertical</b>									
6,834.0	0.00	0.00	6,787.0	604.2	-487.9	771.3	3.00	-3.00	0.00
6,900.0	0.00	0.00	6,853.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,953.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,100.0	0.00	0.00	7,053.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,200.0	0.00	0.00	7,153.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,300.0	0.00	0.00	7,253.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,400.0	0.00	0.00	7,353.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,500.0	0.00	0.00	7,453.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,600.0	0.00	0.00	7,553.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,700.0	0.00	0.00	7,653.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,800.0	0.00	0.00	7,753.0	604.2	-487.9	771.3	0.00	0.00	0.00
7,900.0	0.00	0.00	7,853.0	604.2	-487.9	771.3	0.00	0.00	0.00
8,000.0	0.00	0.00	7,953.0	604.2	-487.9	771.3	0.00	0.00	0.00
8,100.0	0.00	0.00	8,053.0	604.2	-487.9	771.3	0.00	0.00	0.00
<b>Build 1.5° / 100' - Ohio Creek - TOG</b>									
8,164.0	0.00	0.00	8,117.0	604.2	-487.9	771.3	0.00	0.00	0.00
8,200.0	0.54	250.00	8,153.0	604.2	-488.0	771.4	1.50	1.50	0.00
<b>EOB @ 1.49° Inc. / 250.00° Azm</b>									
8,263.3	1.49	250.00	8,216.3	603.8	-489.1	771.9	1.50	1.50	0.00
8,300.0	1.49	250.00	8,253.0	603.5	-490.0	772.3	0.00	0.00	0.00
8,400.0	1.49	250.00	8,353.0	602.6	-492.4	773.4	0.00	0.00	0.00
8,500.0	1.49	250.00	8,452.9	601.7	-494.8	774.6	0.00	0.00	0.00
<b>William Fork</b>									
8,539.1	1.49	250.00	8,492.0	601.3	-495.8	775.0	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 14A-23 496 - Slot BJU M23A FED 14A-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 14A-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)
8,600.0	1.49	250.00	8,552.9	600.8	-497.3	775.7	0.00	0.00	0.00
8,700.0	1.49	250.00	8,652.9	599.9	-499.7	776.8	0.00	0.00	0.00
8,800.0	1.49	250.00	8,752.8	599.0	-502.2	777.9	0.00	0.00	0.00
8,900.0	1.49	250.00	8,852.8	598.1	-504.6	779.1	0.00	0.00	0.00
9,000.0	1.49	250.00	8,952.8	597.2	-507.1	780.2	0.00	0.00	0.00
9,100.0	1.49	250.00	9,052.7	596.4	-509.5	781.3	0.00	0.00	0.00
9,200.0	1.49	250.00	9,152.7	595.5	-512.0	782.4	0.00	0.00	0.00
9,300.0	1.49	250.00	9,252.6	594.6	-514.4	783.5	0.00	0.00	0.00
9,400.0	1.49	250.00	9,352.6	593.7	-516.8	784.7	0.00	0.00	0.00
9,500.0	1.49	250.00	9,452.6	592.8	-519.3	785.8	0.00	0.00	0.00
9,600.0	1.49	250.00	9,552.5	591.9	-521.7	786.9	0.00	0.00	0.00
9,700.0	1.49	250.00	9,652.5	591.0	-524.2	788.0	0.00	0.00	0.00
9,800.0	1.49	250.00	9,752.5	590.1	-526.6	789.2	0.00	0.00	0.00
9,900.0	1.49	250.00	9,852.4	589.2	-529.1	790.3	0.00	0.00	0.00
10,000.0	1.49	250.00	9,952.4	588.4	-531.5	791.4	0.00	0.00	0.00
10,100.0	1.49	250.00	10,052.4	587.5	-533.9	792.5	0.00	0.00	0.00
10,200.0	1.49	250.00	10,152.3	586.6	-536.4	793.7	0.00	0.00	0.00
10,300.0	1.49	250.00	10,252.3	585.7	-538.8	794.8	0.00	0.00	0.00
10,400.0	1.49	250.00	10,352.3	584.8	-541.3	795.9	0.00	0.00	0.00
10,500.0	1.49	250.00	10,452.2	583.9	-543.7	797.0	0.00	0.00	0.00
10,600.0	1.49	250.00	10,552.2	583.0	-546.2	798.1	0.00	0.00	0.00
10,700.0	1.49	250.00	10,652.2	582.1	-548.6	799.3	0.00	0.00	0.00
10,800.0	1.49	250.00	10,752.1	581.2	-551.0	800.4	0.00	0.00	0.00
10,900.0	1.49	250.00	10,852.1	580.4	-553.5	801.5	0.00	0.00	0.00
11,000.0	1.49	250.00	10,952.1	579.5	-555.9	802.6	0.00	0.00	0.00
11,100.0	1.49	250.00	11,052.0	578.6	-558.4	803.8	0.00	0.00	0.00
11,200.0	1.49	250.00	11,152.0	577.7	-560.8	804.9	0.00	0.00	0.00
11,300.0	1.49	250.00	11,252.0	576.8	-563.3	806.0	0.00	0.00	0.00
<b>Cameo</b>									
11,359.0	1.49	250.00	11,311.0	576.3	-564.7	806.7	0.00	0.00	0.00
11,400.0	1.49	250.00	11,351.9	575.9	-565.7	807.1	0.00	0.00	0.00
11,500.0	1.49	250.00	11,451.9	575.0	-568.2	808.3	0.00	0.00	0.00
11,600.0	1.49	250.00	11,551.9	574.1	-570.6	809.4	0.00	0.00	0.00
11,700.0	1.49	250.00	11,651.8	573.2	-573.0	810.5	0.00	0.00	0.00
11,800.0	1.49	250.00	11,751.8	572.3	-575.5	811.6	0.00	0.00	0.00
<b>Rollins</b>									
11,859.2	1.49	250.00	11,811.0	571.8	-576.9	812.3	0.00	0.00	0.00
11,900.0	1.49	250.00	11,851.8	571.5	-577.9	812.7	0.00	0.00	0.00
12,000.0	1.49	250.00	11,951.7	570.6	-580.4	813.9	0.00	0.00	0.00
<b>TD @ 12059.3' MD / 12011.0' TVD</b>									
12,059.3	1.49	250.00	12,011.0	570.0	-581.8	814.5	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 14A-23 496 - Slot BJU M23A FED 14A-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 14A-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 - 14A-23 - plan hits target center - Point	0.00	0.00	8,117.0	604.2	-487.9	14,424,548.58	2,444,576.33	39.686069	-108.141866
PBHL - 14A-23 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	12,011.0	570.0	-581.8	14,424,511.40	2,444,483.50	39.685975	-108.142200

#### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,398.5	3,376.0	Wasatch			
5,816.6	5,776.0	Wasatch G			
6,118.8	6,076.0	Fort Union			
8,164.0	8,117.0	Ohio Creek			
8,164.0	8,117.0	TOG			
8,539.1	8,492.0	William Fork			
11,359.0	11,311.0	Cameo			
11,859.2	11,811.0	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'
366.7	366.5	1.9	-7.0	EOB @ 5.00° Inc. / 285.00° Azm / Build 3° / 100'
507.4	506.5	10.2	-18.3	EOB @ 7.00° Inc. / 321.67° Azm
6,600.5	6,554.1	593.1	-479.0	Drop 3° / 100'
6,834.0	6,787.0	604.2	-487.9	EOD @ Vertical
8,164.0	8,117.0	604.2	-487.9	Build 1.5° / 100'
8,263.3	8,216.3	603.8	-489.1	EOB @ 1.49° Inc. / 250.00° Azm
12,059.3	12,011.0	570.0	-581.8	TD @ 12059.3' MD / 12011.0' TVD