

Project: Garfield County, CO
 Site: BJU M23A 496 Pad
 Well: BJU M23A FED 24A-22 496
 Wellbore: Wellbore #1
 Design: Design #1
 Latitude: 39.684258
 Longitude: -108.140187
 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 24A-22 496(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 8134.0usft (30')
 Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3345.0	3524.6	Wasatch
5745.0	6086.2	Wasatch G
6045.0	6406.4	Fort Union
8043.0	8508.4	Ohio Creek
8043.0	8508.4	TOG
8450.0	8915.5	William Fork
11196.0	11662.5	Cameo
11696.0	12162.7	Rollins

SECTION DETAILS

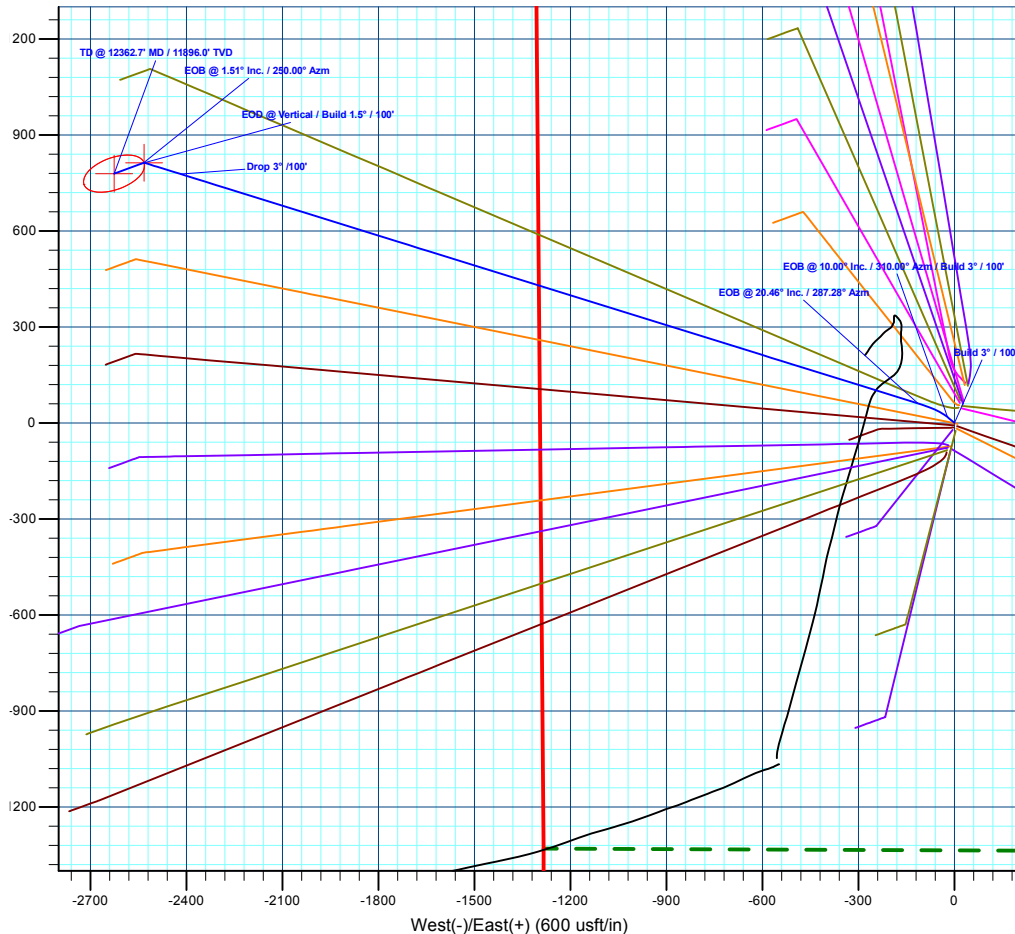
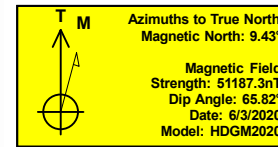
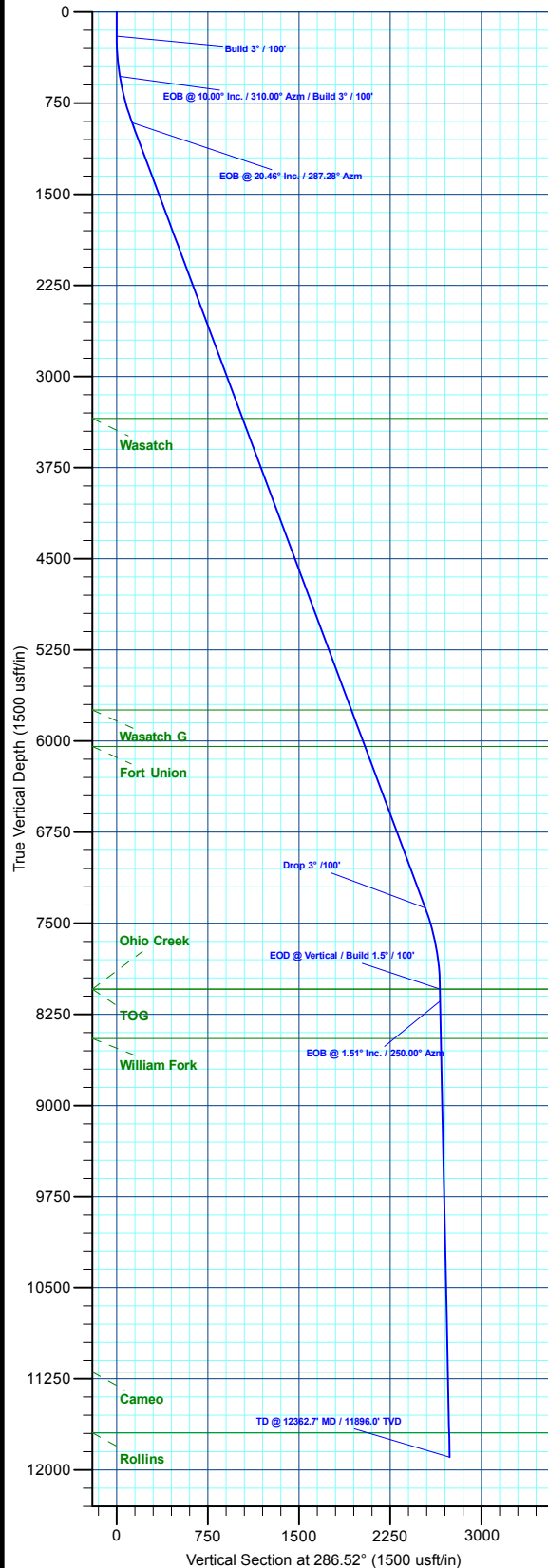
MD	Inc	Azi	TVD	+N-S	+E-W	Dieg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	EOB @ 10.00° Inc. / 310.00° Azm / Build 3° / 100'
533.3	10.00	310.00	531.6	18.7	-22.2	3.00	310.00	26.6	EOB @ 20.46° Inc. / 287.28° Azm
928.6	20.46	287.28	912.8	61.4	-114.8	3.00	-41.09	127.5	Drop 3° / 100'
7826.4	20.46	287.28	7375.3	777.6	-2417.4	0.00	0.00	2538.7	EOD @ Vertical / Build 1.5° / 100'
8508.4	0.00	0.00	8043.0	813.3	-2532.4	3.00	180.00	2659.2	EOD @ 1.51° Inc. / 250.00° Azm
8608.8	1.51	250.00	8143.4	812.9	-2533.7	1.50	250.00	2660.2	TD @ 12362.7 MD / 11896.0' TVD
12362.7	1.51	250.00	11896.0	779.1	-2626.4	0.00	0.00	2739.5	

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
OHCR - 24A-22	8043.0	813.3	-2532.4	14424636.48	2442512.93	39.686490	-108.149181
PBHL - 24A-22	11896.0	779.1	-2626.4	14424599.30	2442420.10	39.686396	-108.149515

WELL DETAILS: BJU M23A FED 24A-22 496

+N-S	+E-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423904.30	2445070.00	39.684258	-108.140187



Plan: Design #1 (BJU M23A FED 24A-22 496/Wellbore #1)

Created By: Will Jircik

Date: 10:04, June 05 2020



Caerus Oil & Gas

Garfield County, CO

BJU M23A 496 Pad

BJU M23A FED 24A-22 496 - Slot BJU M23A FED 24A-22 496

Wellbore #1

Plan: Design #1

QES Well Planning Report

05 June, 2020



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 24A-22 496 - Slot BJU M23A FED 24A-22 496
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 24A-22 496	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 24A-22 496 - Slot BJU M23A FED 24A-22 496		
Well Position	+N/-S	-122.9 usft	Northing: 14,423,904.30 usft
	+E/-W	-43.5 usft	Easting: 2,445,070.00 usft
Position Uncertainty		0.0 usft	Wellhead Elevation:
			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	286.52	

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	
533.3	10.00	310.00	531.6	18.7	-22.2	3.00	3.00	0.00	310.00	
928.6	20.46	287.28	912.8	61.4	-114.8	3.00	2.65	-5.75	-41.09	
7,826.4	20.46	287.28	7,375.3	777.6	-2,417.4	0.00	0.00	0.00	0.00	
8,508.4	0.00	0.00	8,043.0	813.3	-2,532.4	3.00	-3.00	0.00	180.00	OHCR - 24A-22
8,608.8	1.51	250.00	8,143.4	812.9	-2,533.7	1.50	1.50	-109.54	250.00	
12,362.7	1.51	250.00	11,896.0	779.1	-2,626.4	0.00	0.00	0.00	0.00	PBHL - 24A-22

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 24A-22 496 - Slot BJU M23A FED 24A-22 496
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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 24A-22 496	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
Build 3° / 100'									
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	3.00	310.00	300.0	1.7	-2.0	2.4	3.00	3.00	0.00
400.0	6.00	310.00	399.6	6.7	-8.0	9.6	3.00	3.00	0.00
500.0	9.00	310.00	498.8	15.1	-18.0	21.6	3.00	3.00	0.00
EOB @ 10.00° Inc. / 310.00° Azm / Build 3° / 100'									
533.3	10.00	310.00	531.6	18.7	-22.2	26.6	3.00	3.00	0.00
600.0	11.58	303.44	597.1	26.1	-32.2	38.3	3.00	2.37	-9.84
700.0	14.15	296.45	694.6	37.0	-51.6	60.0	3.00	2.57	-6.99
800.0	16.86	291.62	791.0	47.8	-76.0	86.5	3.00	2.71	-4.83
900.0	19.65	288.11	885.9	58.4	-105.5	117.7	3.00	2.79	-3.51
EOB @ 20.46° Inc. / 287.28° Azm									
928.6	20.46	287.28	912.8	61.4	-114.8	127.5	3.00	2.83	-2.91
1,000.0	20.46	287.28	979.7	68.8	-138.7	152.5	0.00	0.00	0.00
1,100.0	20.46	287.28	1,073.4	79.2	-172.0	187.5	0.00	0.00	0.00
1,200.0	20.46	287.28	1,167.1	89.6	-205.4	222.4	0.00	0.00	0.00
1,300.0	20.46	287.28	1,260.8	99.9	-238.8	257.4	0.00	0.00	0.00
1,400.0	20.46	287.28	1,354.5	110.3	-272.2	292.3	0.00	0.00	0.00
1,500.0	20.46	287.28	1,448.1	120.7	-305.6	327.3	0.00	0.00	0.00
1,600.0	20.46	287.28	1,541.8	131.1	-338.9	362.2	0.00	0.00	0.00
1,700.0	20.46	287.28	1,635.5	141.5	-372.3	397.2	0.00	0.00	0.00
1,800.0	20.46	287.28	1,729.2	151.9	-405.7	432.1	0.00	0.00	0.00
1,900.0	20.46	287.28	1,822.9	162.2	-439.1	467.1	0.00	0.00	0.00
2,000.0	20.46	287.28	1,916.6	172.6	-472.5	502.1	0.00	0.00	0.00
2,100.0	20.46	287.28	2,010.3	183.0	-505.8	537.0	0.00	0.00	0.00
2,200.0	20.46	287.28	2,104.0	193.4	-539.2	572.0	0.00	0.00	0.00
2,300.0	20.46	287.28	2,197.7	203.8	-572.6	606.9	0.00	0.00	0.00
2,400.0	20.46	287.28	2,291.4	214.2	-606.0	641.9	0.00	0.00	0.00
2,500.0	20.46	287.28	2,385.1	224.5	-639.4	676.8	0.00	0.00	0.00
2,600.0	20.46	287.28	2,478.7	234.9	-672.8	711.8	0.00	0.00	0.00
2,700.0	20.46	287.28	2,572.4	245.3	-706.1	746.7	0.00	0.00	0.00
2,800.0	20.46	287.28	2,666.1	255.7	-739.5	781.7	0.00	0.00	0.00
2,900.0	20.46	287.28	2,759.8	266.1	-772.9	816.6	0.00	0.00	0.00
3,000.0	20.46	287.28	2,853.5	276.4	-806.3	851.6	0.00	0.00	0.00
3,100.0	20.46	287.28	2,947.2	286.8	-839.7	886.6	0.00	0.00	0.00
3,200.0	20.46	287.28	3,040.9	297.2	-873.0	921.5	0.00	0.00	0.00
3,300.0	20.46	287.28	3,134.6	307.6	-906.4	956.5	0.00	0.00	0.00
3,400.0	20.46	287.28	3,228.3	318.0	-939.8	991.4	0.00	0.00	0.00
3,500.0	20.46	287.28	3,322.0	328.4	-973.2	1,026.4	0.00	0.00	0.00
Wasatch									
3,524.6	20.46	287.28	3,345.0	330.9	-981.4	1,035.0	0.00	0.00	0.00
3,600.0	20.46	287.28	3,415.6	338.7	-1,006.6	1,061.3	0.00	0.00	0.00
3,700.0	20.46	287.28	3,509.3	349.1	-1,039.9	1,096.3	0.00	0.00	0.00
3,800.0	20.46	287.28	3,603.0	359.5	-1,073.3	1,131.2	0.00	0.00	0.00
3,900.0	20.46	287.28	3,696.7	369.9	-1,106.7	1,166.2	0.00	0.00	0.00
4,000.0	20.46	287.28	3,790.4	380.3	-1,140.1	1,201.2	0.00	0.00	0.00
4,100.0	20.46	287.28	3,884.1	390.7	-1,173.5	1,236.1	0.00	0.00	0.00
4,200.0	20.46	287.28	3,977.8	401.0	-1,206.8	1,271.1	0.00	0.00	0.00
4,300.0	20.46	287.28	4,071.5	411.4	-1,240.2	1,306.0	0.00	0.00	0.00
4,400.0	20.46	287.28	4,165.2	421.8	-1,273.6	1,341.0	0.00	0.00	0.00
4,500.0	20.46	287.28	4,258.9	432.2	-1,307.0	1,375.9	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 24A-22 496	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)
4,600.0	20.46	287.28	4,352.6	442.6	-1,340.4	1,410.9	0.00	0.00	0.00
4,700.0	20.46	287.28	4,446.2	453.0	-1,373.8	1,445.8	0.00	0.00	0.00
4,800.0	20.46	287.28	4,539.9	463.3	-1,407.1	1,480.8	0.00	0.00	0.00
4,900.0	20.46	287.28	4,633.6	473.7	-1,440.5	1,515.8	0.00	0.00	0.00
5,000.0	20.46	287.28	4,727.3	484.1	-1,473.9	1,550.7	0.00	0.00	0.00
5,100.0	20.46	287.28	4,821.0	494.5	-1,507.3	1,585.7	0.00	0.00	0.00
5,200.0	20.46	287.28	4,914.7	504.9	-1,540.7	1,620.6	0.00	0.00	0.00
5,300.0	20.46	287.28	5,008.4	515.2	-1,574.0	1,655.6	0.00	0.00	0.00
5,400.0	20.46	287.28	5,102.1	525.6	-1,607.4	1,690.5	0.00	0.00	0.00
5,500.0	20.46	287.28	5,195.8	536.0	-1,640.8	1,725.5	0.00	0.00	0.00
5,600.0	20.46	287.28	5,289.5	546.4	-1,674.2	1,760.4	0.00	0.00	0.00
5,700.0	20.46	287.28	5,383.1	556.8	-1,707.6	1,795.4	0.00	0.00	0.00
5,800.0	20.46	287.28	5,476.8	567.2	-1,740.9	1,830.4	0.00	0.00	0.00
5,900.0	20.46	287.28	5,570.5	577.5	-1,774.3	1,865.3	0.00	0.00	0.00
6,000.0	20.46	287.28	5,664.2	587.9	-1,807.7	1,900.3	0.00	0.00	0.00
Wasatch G									
6,086.2	20.46	287.28	5,745.0	596.9	-1,836.5	1,930.4	0.00	0.00	0.00
6,100.0	20.46	287.28	5,757.9	598.3	-1,841.1	1,935.2	0.00	0.00	0.00
6,200.0	20.46	287.28	5,851.6	608.7	-1,874.5	1,970.2	0.00	0.00	0.00
6,300.0	20.46	287.28	5,945.3	619.1	-1,907.8	2,005.1	0.00	0.00	0.00
6,400.0	20.46	287.28	6,039.0	629.5	-1,941.2	2,040.1	0.00	0.00	0.00
Fort Union									
6,406.4	20.46	287.28	6,045.0	630.1	-1,943.4	2,042.3	0.00	0.00	0.00
6,500.0	20.46	287.28	6,132.7	639.8	-1,974.6	2,075.0	0.00	0.00	0.00
6,600.0	20.46	287.28	6,226.4	650.2	-2,008.0	2,110.0	0.00	0.00	0.00
6,700.0	20.46	287.28	6,320.1	660.6	-2,041.4	2,144.9	0.00	0.00	0.00
6,800.0	20.46	287.28	6,413.7	671.0	-2,074.8	2,179.9	0.00	0.00	0.00
6,900.0	20.46	287.28	6,507.4	681.4	-2,108.1	2,214.9	0.00	0.00	0.00
7,000.0	20.46	287.28	6,601.1	691.8	-2,141.5	2,249.8	0.00	0.00	0.00
7,100.0	20.46	287.28	6,694.8	702.1	-2,174.9	2,284.8	0.00	0.00	0.00
7,200.0	20.46	287.28	6,788.5	712.5	-2,208.3	2,319.7	0.00	0.00	0.00
7,300.0	20.46	287.28	6,882.2	722.9	-2,241.7	2,354.7	0.00	0.00	0.00
7,400.0	20.46	287.28	6,975.9	733.3	-2,275.0	2,389.6	0.00	0.00	0.00
7,500.0	20.46	287.28	7,069.6	743.7	-2,308.4	2,424.6	0.00	0.00	0.00
7,600.0	20.46	287.28	7,163.3	754.0	-2,341.8	2,459.5	0.00	0.00	0.00
7,700.0	20.46	287.28	7,257.0	764.4	-2,375.2	2,494.5	0.00	0.00	0.00
7,800.0	20.46	287.28	7,350.6	774.8	-2,408.6	2,529.5	0.00	0.00	0.00
Drop 3° /100'									
7,826.4	20.46	287.28	7,375.3	777.6	-2,417.4	2,538.7	0.00	0.00	0.00
7,900.0	18.25	287.28	7,444.8	784.8	-2,440.7	2,563.1	3.00	-3.00	0.00
8,000.0	15.25	287.28	7,540.6	793.4	-2,468.2	2,591.9	3.00	-3.00	0.00
8,100.0	12.25	287.28	7,637.7	800.4	-2,490.9	2,615.7	3.00	-3.00	0.00
8,200.0	9.25	287.28	7,735.9	806.0	-2,508.7	2,634.3	3.00	-3.00	0.00
8,300.0	6.25	287.28	7,835.0	810.0	-2,521.6	2,647.8	3.00	-3.00	0.00
8,400.0	3.25	287.28	7,934.6	812.4	-2,529.5	2,656.1	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek - TOG									
8,508.4	0.00	0.00	8,043.0	813.3	-2,532.4	2,659.2	3.00	-3.00	0.00
EOB @ 1.51° Inc. / 250.00° Azm									
8,608.8	1.51	250.00	8,143.4	812.9	-2,533.7	2,660.2	1.50	1.50	0.00
8,700.0	1.51	250.00	8,234.5	812.1	-2,535.9	2,662.2	0.00	0.00	0.00
8,800.0	1.51	250.00	8,334.5	811.2	-2,538.4	2,664.3	0.00	0.00	0.00
8,900.0	1.51	250.00	8,434.5	810.3	-2,540.9	2,666.4	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 24A-22 496	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)	
William Fork										
8,915.5	1.51	250.00	8,450.0	810.1	-2,541.2	2,666.7	0.00	0.00	0.00	
9,000.0	1.51	250.00	8,534.4	809.4	-2,543.3	2,668.5	0.00	0.00	0.00	
9,100.0	1.51	250.00	8,634.4	808.5	-2,545.8	2,670.6	0.00	0.00	0.00	
9,200.0	1.51	250.00	8,734.4	807.6	-2,548.3	2,672.7	0.00	0.00	0.00	
9,300.0	1.51	250.00	8,834.3	806.7	-2,550.7	2,674.8	0.00	0.00	0.00	
9,400.0	1.51	250.00	8,934.3	805.8	-2,553.2	2,676.9	0.00	0.00	0.00	
9,500.0	1.51	250.00	9,034.3	804.9	-2,555.7	2,679.1	0.00	0.00	0.00	
9,600.0	1.51	250.00	9,134.2	804.0	-2,558.1	2,681.2	0.00	0.00	0.00	
9,700.0	1.51	250.00	9,234.2	803.1	-2,560.6	2,683.3	0.00	0.00	0.00	
9,800.0	1.51	250.00	9,334.2	802.2	-2,563.1	2,685.4	0.00	0.00	0.00	
9,900.0	1.51	250.00	9,434.1	801.3	-2,565.6	2,687.5	0.00	0.00	0.00	
10,000.0	1.51	250.00	9,534.1	800.4	-2,568.0	2,689.6	0.00	0.00	0.00	
10,100.0	1.51	250.00	9,634.1	799.5	-2,570.5	2,691.7	0.00	0.00	0.00	
10,200.0	1.51	250.00	9,734.0	798.6	-2,573.0	2,693.8	0.00	0.00	0.00	
10,300.0	1.51	250.00	9,834.0	797.7	-2,575.4	2,695.9	0.00	0.00	0.00	
10,400.0	1.51	250.00	9,933.9	796.8	-2,577.9	2,698.1	0.00	0.00	0.00	
10,500.0	1.51	250.00	10,033.9	795.9	-2,580.4	2,700.2	0.00	0.00	0.00	
10,600.0	1.51	250.00	10,133.9	795.0	-2,582.9	2,702.3	0.00	0.00	0.00	
10,700.0	1.51	250.00	10,233.8	794.1	-2,585.3	2,704.4	0.00	0.00	0.00	
10,800.0	1.51	250.00	10,333.8	793.2	-2,587.8	2,706.5	0.00	0.00	0.00	
10,900.0	1.51	250.00	10,433.8	792.3	-2,590.3	2,708.6	0.00	0.00	0.00	
11,000.0	1.51	250.00	10,533.7	791.4	-2,592.7	2,710.7	0.00	0.00	0.00	
11,100.0	1.51	250.00	10,633.7	790.5	-2,595.2	2,712.8	0.00	0.00	0.00	
11,200.0	1.51	250.00	10,733.7	789.6	-2,597.7	2,715.0	0.00	0.00	0.00	
11,300.0	1.51	250.00	10,833.6	788.7	-2,600.1	2,717.1	0.00	0.00	0.00	
11,400.0	1.51	250.00	10,933.6	787.8	-2,602.6	2,719.2	0.00	0.00	0.00	
11,500.0	1.51	250.00	11,033.6	786.9	-2,605.1	2,721.3	0.00	0.00	0.00	
11,600.0	1.51	250.00	11,133.5	786.0	-2,607.6	2,723.4	0.00	0.00	0.00	
Cameo										
11,662.5	1.51	250.00	11,196.0	785.4	-2,609.1	2,724.7	0.00	0.00	0.00	
11,700.0	1.51	250.00	11,233.5	785.1	-2,610.0	2,725.5	0.00	0.00	0.00	
11,800.0	1.51	250.00	11,333.5	784.2	-2,612.5	2,727.6	0.00	0.00	0.00	
11,900.0	1.51	250.00	11,433.4	783.3	-2,615.0	2,729.7	0.00	0.00	0.00	
12,000.0	1.51	250.00	11,533.4	782.4	-2,617.4	2,731.9	0.00	0.00	0.00	
12,100.0	1.51	250.00	11,633.4	781.5	-2,619.9	2,734.0	0.00	0.00	0.00	
Rollins										
12,162.7	1.51	250.00	11,696.0	780.9	-2,621.5	2,735.3	0.00	0.00	0.00	
12,200.0	1.51	250.00	11,733.3	780.6	-2,622.4	2,736.1	0.00	0.00	0.00	
12,300.0	1.51	250.00	11,833.3	779.7	-2,624.8	2,738.2	0.00	0.00	0.00	
TD @ 12362.7' MD / 11896.0' TVD										
12,362.7	1.51	250.00	11,896.0	779.1	-2,626.4	2,739.5	0.00	0.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 24A-22 496 - Slot BJU M23A FED 24A-22 496
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 24A-22 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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 - 24A-22 - plan hits target center - Point	0.00	0.00	8,043.0	813.3	-2,532.4	14,424,636.48	2,442,512.93	39.686490	-108.149182
PBHL - 24A-22 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	11,896.0	779.1	-2,626.4	14,424,599.30	2,442,420.10	39.686396	-108.149515

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,524.6	3,345.0	Wasatch			
6,086.2	5,745.0	Wasatch G			
6,406.4	6,045.0	Fort Union			
8,508.4	8,043.0	Ohio Creek			
8,508.4	8,043.0	TOG			
8,915.5	8,450.0	William Fork			
11,662.5	11,196.0	Cameo			
12,162.7	11,696.0	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'
533.3	531.6	18.7	-22.2	EOB @ 10.00° Inc. / 310.00° Azm / Build 3° / 100'
928.6	912.8	61.4	-114.8	EOB @ 20.46° Inc. / 287.28° Azm
7,826.4	7,375.3	777.6	-2,417.4	Drop 3° / 100'
8,508.4	8,043.0	813.3	-2,532.4	EOD @ Vertical / Build 1.5° / 100'
8,608.8	8,143.4	812.9	-2,533.7	EOB @ 1.51° Inc. / 250.00° Azm
12,362.7	11,896.0	779.1	-2,626.4	TD @ 12362.7' MD / 11896.0' TVD