

Project: Garfield County, CO
 Site: BJU M23A 496 Pad
 Well: BJU M23A FED 24D-22 496
 Wellbore: Wellbore #1
 Design: Design #1
 Latitude: 39.684066
 Longitude: -108.140254
 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 24D-22 496(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 8134.0usft (30')
 Calculation Method: Minimum Curvature

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3305.0	3468.2	Wasatch
5705.0	6015.4	Wasatch G
6005.0	6333.8	Fort Union
7382.0	8405.4	Ohio Creek
7982.0	8405.4	TOG
8382.0	8805.5	William Fork
11135.0	11559.5	Cameo
11635.0	12059.7	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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
366.7	5.00	290.00	366.5	2.5	-6.8	3.00	290.00	6.8	EOB @ 5.00° Inc. / 290.00° Azm / Build 3° / 100'
867.1	19.57	268.93	854.3	8.4	-111.7	3.00	-27.71	111.5	EOB @ 19.57° Inc. / 268.93° Azm
7752.9	19.57	268.93	7342.1	-34.6	-2418.4	0.00	0.00	2418.4	Drop 3° / 100'
8405.4	0.00	0.00	7982.0	-36.6	-2528.7	3.00	180.00	2528.8	EOD @ Vertical / Build 1.5° / 100'
8505.8	1.51	250.00	8082.4	-37.1	-2530.0	1.50	250.00	2530.0	EOB @ 1.51° Inc. / 250.00° Azm
12259.7	1.51	250.00	11835.0	-70.8	-2622.7	0.00	0.00	2623.6	TD @ 12259.7 MD / 11835.0 TVD

DESIGN TARGET DETAILS

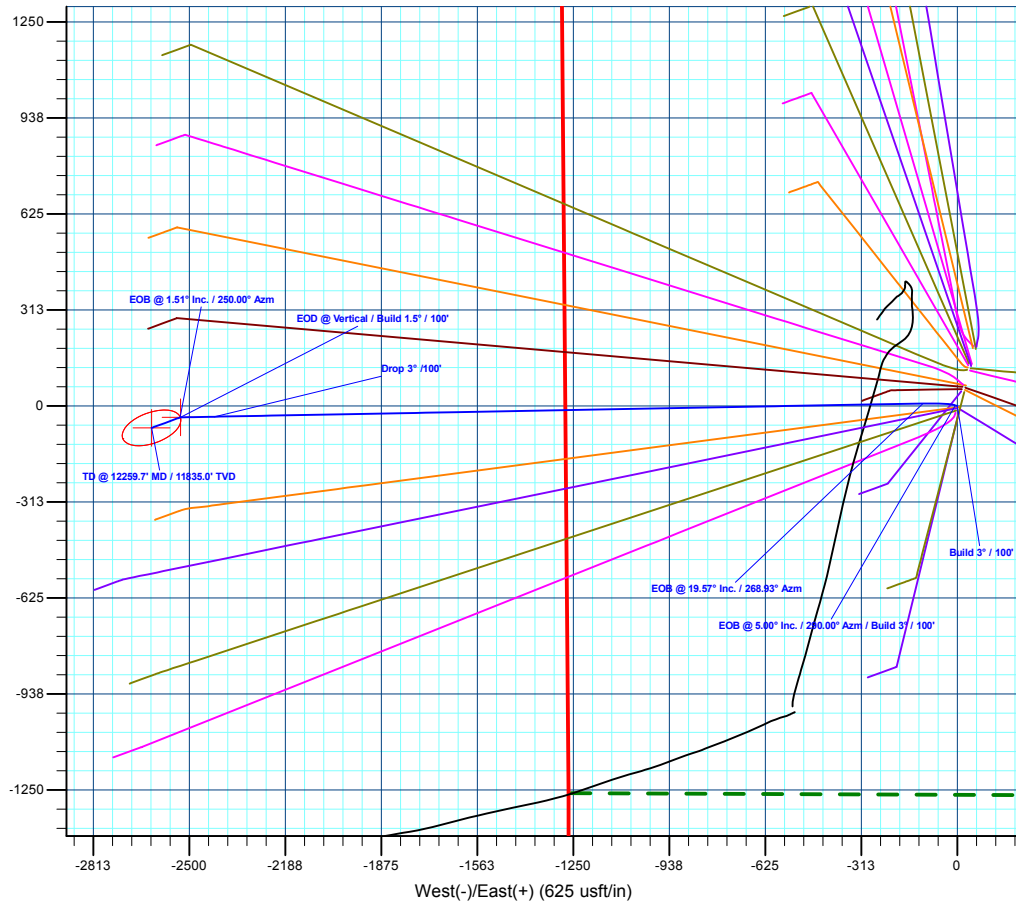
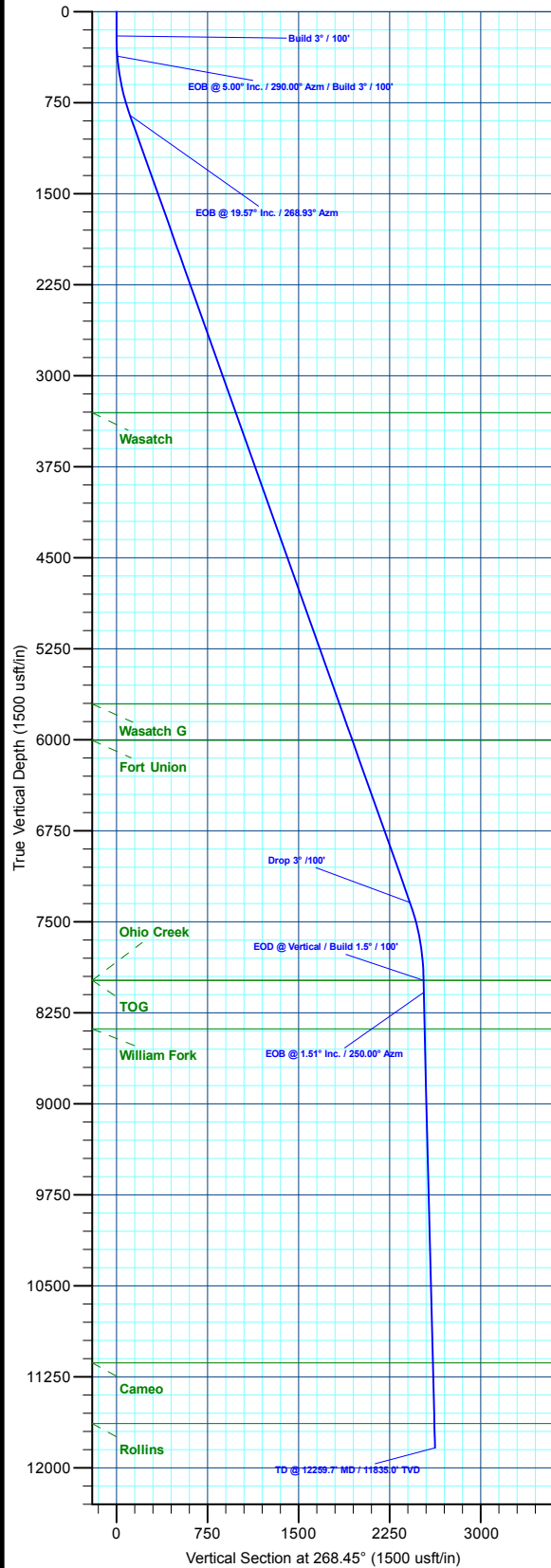
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
OHCR - 24D-22	7982.0	-36.6	-2528.7	14423716.48	2442527.03	39.683965	-108.149235
PBHL - 24D-22	11835.0	-70.8	-2622.7	14423679.30	2442434.20	39.683872	-108.149569

WELL DETAILS: BJU M23A FED 24D-22 496

+N-S	+E-W	Ground Level : 8104.0	Northing	Easting	Latitude	Longitude
0.0	0.0		14423833.70	2445053.30	39.684066	-108.140254



T M
 Azimuths to True North
 Magnetic North: 9.43°
 Magnetic Field
 Strength: 51187.3nT
 Dip Angle: 65.82°
 Date: 6/3/2020
 Model: HDGM2020



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

Created By: Will Jircik

Date: 11:30, June 05 2020



Caerus Oil & Gas

Garfield County, CO

BJU M23A 496 Pad

BJU M23A FED 24D-22 496 - Slot BJU M23A FED 24D-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 24D-22 496 - Slot BJU M23A FED 24D-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 24D-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	Latitude:	39.684596	
From: Map	Easting:	2,445,109.60 usft	Longitude:	-108.140032	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	1.83 °

Well	BJU M23A FED 24D-22 496 - Slot BJU M23A FED 24D-22 496					
Well Position	+N/-S	-192.9 usft	Northing:	14,423,833.70 usft	Latitude:	39.684066
	+E/-W	-62.5 usft	Easting:	2,445,053.30 usft	Longitude:	-108.140254
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	268.45

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	
366.7	5.00	290.00	366.5	2.5	-6.8	3.00	3.00	0.00	290.00	
867.1	19.57	268.93	854.3	8.4	-111.7	3.00	2.91	-4.21	-27.71	
7,752.9	19.57	268.93	7,342.1	-34.6	-2,418.4	0.00	0.00	0.00	0.00	
8,405.4	0.00	0.00	7,982.0	-36.6	-2,528.7	3.00	-3.00	0.00	180.00	OHCR - 24D-22
8,505.8	1.51	250.00	8,082.4	-37.1	-2,530.0	1.50	1.50	-109.54	250.00	
12,259.7	1.51	250.00	11,835.0	-70.8	-2,622.7	0.00	0.00	0.00	0.00	PBHL - 24D-22

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 24D-22 496 - Slot BJU M23A FED 24D-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 24D-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	290.00	300.0	0.9	-2.5	2.4	3.00	3.00	0.00
EOB @ 5.00° Inc. / 290.00° Azm / Build 3° / 100'									
366.7	5.00	290.00	366.5	2.5	-6.8	6.8	3.00	3.00	0.00
400.0	5.90	285.48	399.6	3.4	-9.8	9.8	3.00	2.71	-13.57
500.0	8.74	277.68	498.8	5.8	-22.3	22.2	3.00	2.84	-7.80
600.0	11.66	273.72	597.2	7.5	-40.0	39.7	3.00	2.92	-3.96
700.0	14.61	271.33	694.6	8.4	-62.7	62.4	3.00	2.95	-2.38
800.0	17.58	269.74	790.7	8.7	-90.4	90.1	3.00	2.97	-1.60
EOB @ 19.57° Inc. / 268.93° Azm									
867.1	19.57	268.93	854.3	8.4	-111.7	111.5	3.00	2.98	-1.20
900.0	19.57	268.93	885.3	8.2	-122.8	122.5	0.00	0.00	0.00
1,000.0	19.57	268.93	979.5	7.6	-156.3	156.0	0.00	0.00	0.00
1,100.0	19.57	268.93	1,073.7	7.0	-189.8	189.5	0.00	0.00	0.00
1,200.0	19.57	268.93	1,167.9	6.3	-223.3	223.0	0.00	0.00	0.00
1,300.0	19.57	268.93	1,262.1	5.7	-256.8	256.5	0.00	0.00	0.00
1,400.0	19.57	268.93	1,356.4	5.1	-290.3	290.0	0.00	0.00	0.00
1,500.0	19.57	268.93	1,450.6	4.5	-323.8	323.5	0.00	0.00	0.00
1,600.0	19.57	268.93	1,544.8	3.8	-357.2	357.0	0.00	0.00	0.00
1,700.0	19.57	268.93	1,639.0	3.2	-390.7	390.5	0.00	0.00	0.00
1,800.0	19.57	268.93	1,733.3	2.6	-424.2	424.0	0.00	0.00	0.00
1,900.0	19.57	268.93	1,827.5	2.0	-457.7	457.5	0.00	0.00	0.00
2,000.0	19.57	268.93	1,921.7	1.3	-491.2	491.0	0.00	0.00	0.00
2,100.0	19.57	268.93	2,015.9	0.7	-524.7	524.5	0.00	0.00	0.00
2,200.0	19.57	268.93	2,110.1	0.1	-558.2	558.0	0.00	0.00	0.00
2,300.0	19.57	268.93	2,204.4	-0.5	-591.7	591.5	0.00	0.00	0.00
2,400.0	19.57	268.93	2,298.6	-1.1	-625.2	625.0	0.00	0.00	0.00
2,500.0	19.57	268.93	2,392.8	-1.8	-658.7	658.5	0.00	0.00	0.00
2,600.0	19.57	268.93	2,487.0	-2.4	-692.2	692.0	0.00	0.00	0.00
2,700.0	19.57	268.93	2,581.2	-3.0	-725.7	725.5	0.00	0.00	0.00
2,800.0	19.57	268.93	2,675.5	-3.6	-759.2	759.0	0.00	0.00	0.00
2,900.0	19.57	268.93	2,769.7	-4.3	-792.7	792.6	0.00	0.00	0.00
3,000.0	19.57	268.93	2,863.9	-4.9	-826.2	826.1	0.00	0.00	0.00
3,100.0	19.57	268.93	2,958.1	-5.5	-859.7	859.6	0.00	0.00	0.00
3,200.0	19.57	268.93	3,052.3	-6.1	-893.2	893.1	0.00	0.00	0.00
3,300.0	19.57	268.93	3,146.6	-6.8	-926.7	926.6	0.00	0.00	0.00
3,400.0	19.57	268.93	3,240.8	-7.4	-960.2	960.1	0.00	0.00	0.00
Wasatch									
3,468.2	19.57	268.93	3,305.0	-7.8	-983.0	982.9	0.00	0.00	0.00
3,500.0	19.57	268.93	3,335.0	-8.0	-993.7	993.6	0.00	0.00	0.00
3,600.0	19.57	268.93	3,429.2	-8.6	-1,027.2	1,027.1	0.00	0.00	0.00
3,700.0	19.57	268.93	3,523.4	-9.3	-1,060.7	1,060.6	0.00	0.00	0.00
3,800.0	19.57	268.93	3,617.7	-9.9	-1,094.2	1,094.1	0.00	0.00	0.00
3,900.0	19.57	268.93	3,711.9	-10.5	-1,127.7	1,127.6	0.00	0.00	0.00
4,000.0	19.57	268.93	3,806.1	-11.1	-1,161.2	1,161.1	0.00	0.00	0.00
4,100.0	19.57	268.93	3,900.3	-11.8	-1,194.7	1,194.6	0.00	0.00	0.00
4,200.0	19.57	268.93	3,994.5	-12.4	-1,228.2	1,228.1	0.00	0.00	0.00
4,300.0	19.57	268.93	4,088.8	-13.0	-1,261.7	1,261.6	0.00	0.00	0.00
4,400.0	19.57	268.93	4,183.0	-13.6	-1,295.2	1,295.1	0.00	0.00	0.00
4,500.0	19.57	268.93	4,277.2	-14.3	-1,328.7	1,328.6	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 24D-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	19.57	268.93	4,371.4	-14.9	-1,362.2	1,362.1	0.00	0.00	0.00	
4,700.0	19.57	268.93	4,465.6	-15.5	-1,395.7	1,395.6	0.00	0.00	0.00	
4,800.0	19.57	268.93	4,559.9	-16.1	-1,429.2	1,429.1	0.00	0.00	0.00	
4,900.0	19.57	268.93	4,654.1	-16.8	-1,462.7	1,462.6	0.00	0.00	0.00	
5,000.0	19.57	268.93	4,748.3	-17.4	-1,496.2	1,496.1	0.00	0.00	0.00	
5,100.0	19.57	268.93	4,842.5	-18.0	-1,529.7	1,529.6	0.00	0.00	0.00	
5,200.0	19.57	268.93	4,936.7	-18.6	-1,563.2	1,563.1	0.00	0.00	0.00	
5,300.0	19.57	268.93	5,031.0	-19.2	-1,596.7	1,596.6	0.00	0.00	0.00	
5,400.0	19.57	268.93	5,125.2	-19.9	-1,630.2	1,630.1	0.00	0.00	0.00	
5,500.0	19.57	268.93	5,219.4	-20.5	-1,663.7	1,663.6	0.00	0.00	0.00	
5,600.0	19.57	268.93	5,313.6	-21.1	-1,697.2	1,697.1	0.00	0.00	0.00	
5,700.0	19.57	268.93	5,407.8	-21.7	-1,730.7	1,730.6	0.00	0.00	0.00	
5,800.0	19.57	268.93	5,502.1	-22.4	-1,764.2	1,764.1	0.00	0.00	0.00	
5,900.0	19.57	268.93	5,596.3	-23.0	-1,797.7	1,797.6	0.00	0.00	0.00	
6,000.0	19.57	268.93	5,690.5	-23.6	-1,831.2	1,831.1	0.00	0.00	0.00	
Wasatch G										
6,015.4	19.57	268.93	5,705.0	-23.7	-1,836.3	1,836.3	0.00	0.00	0.00	
6,100.0	19.57	268.93	5,784.7	-24.2	-1,864.7	1,864.6	0.00	0.00	0.00	
6,200.0	19.57	268.93	5,879.0	-24.9	-1,898.2	1,898.1	0.00	0.00	0.00	
6,300.0	19.57	268.93	5,973.2	-25.5	-1,931.7	1,931.6	0.00	0.00	0.00	
Fort Union										
6,333.8	19.57	268.93	6,005.0	-25.7	-1,943.0	1,943.0	0.00	0.00	0.00	
6,400.0	19.57	268.93	6,067.4	-26.1	-1,965.2	1,965.1	0.00	0.00	0.00	
6,500.0	19.57	268.93	6,161.6	-26.7	-1,998.7	1,998.6	0.00	0.00	0.00	
6,600.0	19.57	268.93	6,255.8	-27.4	-2,032.2	2,032.2	0.00	0.00	0.00	
6,700.0	19.57	268.93	6,350.1	-28.0	-2,065.7	2,065.7	0.00	0.00	0.00	
6,800.0	19.57	268.93	6,444.3	-28.6	-2,099.1	2,099.2	0.00	0.00	0.00	
6,900.0	19.57	268.93	6,538.5	-29.2	-2,132.6	2,132.7	0.00	0.00	0.00	
7,000.0	19.57	268.93	6,632.7	-29.9	-2,166.1	2,166.2	0.00	0.00	0.00	
7,100.0	19.57	268.93	6,726.9	-30.5	-2,199.6	2,199.7	0.00	0.00	0.00	
7,200.0	19.57	268.93	6,821.2	-31.1	-2,233.1	2,233.2	0.00	0.00	0.00	
7,300.0	19.57	268.93	6,915.4	-31.7	-2,266.6	2,266.7	0.00	0.00	0.00	
7,400.0	19.57	268.93	7,009.6	-32.4	-2,300.1	2,300.2	0.00	0.00	0.00	
7,500.0	19.57	268.93	7,103.8	-33.0	-2,333.6	2,333.7	0.00	0.00	0.00	
7,600.0	19.57	268.93	7,198.0	-33.6	-2,367.1	2,367.2	0.00	0.00	0.00	
7,700.0	19.57	268.93	7,292.3	-34.2	-2,400.6	2,400.7	0.00	0.00	0.00	
Drop 3° /100'										
7,752.9	19.57	268.93	7,342.1	-34.6	-2,418.4	2,418.4	0.00	0.00	0.00	
7,800.0	18.16	268.93	7,386.7	-34.8	-2,433.6	2,433.6	3.00	-3.00	0.00	
7,900.0	15.16	268.93	7,482.5	-35.4	-2,462.2	2,462.3	3.00	-3.00	0.00	
8,000.0	12.16	268.93	7,579.6	-35.8	-2,485.9	2,485.9	3.00	-3.00	0.00	
8,100.0	9.16	268.93	7,677.9	-36.2	-2,504.4	2,504.4	3.00	-3.00	0.00	
8,200.0	6.16	268.93	7,777.0	-36.4	-2,517.7	2,517.8	3.00	-3.00	0.00	
8,300.0	3.16	268.93	7,876.6	-36.6	-2,525.8	2,525.9	3.00	-3.00	0.00	
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek - TOG										
8,405.4	0.00	0.00	7,982.0	-36.6	-2,528.7	2,528.8	3.00	-3.00	0.00	
EOB @ 1.51° Inc. / 250.00° Azm										
8,505.8	1.51	250.00	8,082.4	-37.1	-2,530.0	2,530.0	1.50	1.50	0.00	
8,600.0	1.51	250.00	8,176.5	-37.9	-2,532.3	2,532.4	0.00	0.00	0.00	
8,700.0	1.51	250.00	8,276.5	-38.8	-2,534.8	2,534.9	0.00	0.00	0.00	
8,800.0	1.51	250.00	8,376.5	-39.7	-2,537.2	2,537.4	0.00	0.00	0.00	
William Fork										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 24D-22 496 - Slot BJU M23A FED 24D-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 24D-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)
8,805.5	1.51	250.00	8,382.0	-39.8	-2,537.4	2,537.5	0.00	0.00	0.00
8,900.0	1.51	250.00	8,476.4	-40.6	-2,539.7	2,539.9	0.00	0.00	0.00
9,000.0	1.51	250.00	8,576.4	-41.5	-2,542.2	2,542.4	0.00	0.00	0.00
9,100.0	1.51	250.00	8,676.4	-42.4	-2,544.6	2,544.9	0.00	0.00	0.00
9,200.0	1.51	250.00	8,776.3	-43.3	-2,547.1	2,547.4	0.00	0.00	0.00
9,300.0	1.51	250.00	8,876.3	-44.2	-2,549.6	2,549.8	0.00	0.00	0.00
9,400.0	1.51	250.00	8,976.3	-45.1	-2,552.1	2,552.3	0.00	0.00	0.00
9,500.0	1.51	250.00	9,076.2	-46.0	-2,554.5	2,554.8	0.00	0.00	0.00
9,600.0	1.51	250.00	9,176.2	-46.9	-2,557.0	2,557.3	0.00	0.00	0.00
9,700.0	1.51	250.00	9,276.2	-47.8	-2,559.5	2,559.8	0.00	0.00	0.00
9,800.0	1.51	250.00	9,376.1	-48.7	-2,561.9	2,562.3	0.00	0.00	0.00
9,900.0	1.51	250.00	9,476.1	-49.6	-2,564.4	2,564.8	0.00	0.00	0.00
10,000.0	1.51	250.00	9,576.1	-50.5	-2,566.9	2,567.3	0.00	0.00	0.00
10,100.0	1.51	250.00	9,676.0	-51.4	-2,569.3	2,569.8	0.00	0.00	0.00
10,200.0	1.51	250.00	9,776.0	-52.3	-2,571.8	2,572.3	0.00	0.00	0.00
10,300.0	1.51	250.00	9,875.9	-53.2	-2,574.3	2,574.8	0.00	0.00	0.00
10,400.0	1.51	250.00	9,975.9	-54.1	-2,576.8	2,577.3	0.00	0.00	0.00
10,500.0	1.51	250.00	10,075.9	-55.0	-2,579.2	2,579.8	0.00	0.00	0.00
10,600.0	1.51	250.00	10,175.8	-55.9	-2,581.7	2,582.3	0.00	0.00	0.00
10,700.0	1.51	250.00	10,275.8	-56.8	-2,584.2	2,584.8	0.00	0.00	0.00
10,800.0	1.51	250.00	10,375.8	-57.7	-2,586.6	2,587.2	0.00	0.00	0.00
10,900.0	1.51	250.00	10,475.7	-58.6	-2,589.1	2,589.7	0.00	0.00	0.00
11,000.0	1.51	250.00	10,575.7	-59.5	-2,591.6	2,592.2	0.00	0.00	0.00
11,100.0	1.51	250.00	10,675.7	-60.4	-2,594.0	2,594.7	0.00	0.00	0.00
11,200.0	1.51	250.00	10,775.6	-61.3	-2,596.5	2,597.2	0.00	0.00	0.00
11,300.0	1.51	250.00	10,875.6	-62.2	-2,599.0	2,599.7	0.00	0.00	0.00
11,400.0	1.51	250.00	10,975.6	-63.1	-2,601.5	2,602.2	0.00	0.00	0.00
11,500.0	1.51	250.00	11,075.5	-64.0	-2,603.9	2,604.7	0.00	0.00	0.00
Cameo									
11,559.5	1.51	250.00	11,135.0	-64.5	-2,605.4	2,606.2	0.00	0.00	0.00
11,600.0	1.51	250.00	11,175.5	-64.9	-2,606.4	2,607.2	0.00	0.00	0.00
11,700.0	1.51	250.00	11,275.5	-65.8	-2,608.9	2,609.7	0.00	0.00	0.00
11,800.0	1.51	250.00	11,375.4	-66.7	-2,611.3	2,612.2	0.00	0.00	0.00
11,900.0	1.51	250.00	11,475.4	-67.6	-2,613.8	2,614.7	0.00	0.00	0.00
12,000.0	1.51	250.00	11,575.4	-68.5	-2,616.3	2,617.2	0.00	0.00	0.00
Rollins									
12,059.7	1.51	250.00	11,635.0	-69.0	-2,617.7	2,618.7	0.00	0.00	0.00
12,100.0	1.51	250.00	11,675.3	-69.4	-2,618.7	2,619.7	0.00	0.00	0.00
12,200.0	1.51	250.00	11,775.3	-70.3	-2,621.2	2,622.2	0.00	0.00	0.00
TD @ 12259.7' MD / 11835.0' TVD									
12,259.7	1.51	250.00	11,835.0	-70.8	-2,622.7	2,623.6	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well BJU M23A FED 24D-22 496 - Slot BJU M23A FED 24D-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 24D-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 - 24D-22 - plan hits target center - Point	0.00	0.00	7,982.0	-36.6	-2,528.7	14,423,716.48	2,442,527.03	39.683966	-108.149235
PBHL - 24D-22 - plan hits target center - Ellipse (radii L100.0 W50.0 on 250.00 azi)	0.00	0.00	11,835.0	-70.8	-2,622.7	14,423,679.30	2,442,434.20	39.683872	-108.149569

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,468.2	3,305.0	Wasatch			
6,015.4	5,705.0	Wasatch G			
6,333.8	6,005.0	Fort Union			
8,405.4	7,982.0	Ohio Creek			
8,405.4	7,982.0	TOG			
8,805.5	8,382.0	William Fork			
11,559.5	11,135.0	Cameo			
12,059.7	11,635.0	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	2.5	-6.8	EOB @ 5.00° Inc. / 290.00° Azm / Build 3° / 100'
867.1	854.3	8.4	-111.7	EOB @ 19.57° Inc. / 268.93° Azm
7,752.9	7,342.1	-34.6	-2,418.4	Drop 3° / 100'
8,405.4	7,982.0	-36.6	-2,528.7	EOD @ Vertical / Build 1.5° / 100'
8,505.8	8,082.4	-37.1	-2,530.0	EOB @ 1.51° Inc. / 250.00° Azm
12,259.7	11,835.0	-70.8	-2,622.7	TD @ 12259.7' MD / 11835.0' TVD