

Project: Rio Blanco County, CO
 Site: ELU J14 496 Pad
 Well: ELU J14 FED 13A-14 496
 Wellbore: Wellbore #1
 Design: Design #1
 Latitude: 39.700778
 Longitude: -108.135804
 Ground Level: 7902.0
 RKB @ 7932.0usft (H&P #330)

PROJECT DETAILS: Rio Blanco 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
 Co-ordinate (N/E) Reference: Well ELU J14 FED 13A-14 496 - Slot 13A-14, True North
 Vertical (TVD) Reference: RKB @ 7932.0usft (H&P #330)
 Section (VS) Reference: Slot - 13A-14(0.0N, 0.0E)
 Measured Depth Reference: RKB @ 7932.0usft (H&P #330)
 Calculation Method: Minimum Curvature

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	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'
1597.8	17.93	310.83	1588.1	60.7	-70.2	3.00	310.83	92.7	EOB @ 17.93° Inc. / 310.83° Azm
7963.9	17.93	310.83	7644.9	1342.3	-1553.4	0.00	0.00	2051.4	Drop 3° / 100'
8561.7	0.00	0.00	8233.0	1403.0	-1623.6	3.00	180.00	2144.1	EOD @ Vertical / Build 1.5° / 100'
8660.3	1.48	250.00	8331.5	1402.5	-1624.8	1.50	250.00	2144.7	EOB @ 1.48° Inc. / 250.00° Azm
12488.0	1.48	250.00	12158.0	1368.8	-1717.6	0.00	0.00	2196.2	TD @ 12488.0' MD / 12158.0' TVD

DESIGN TARGET DETAILS

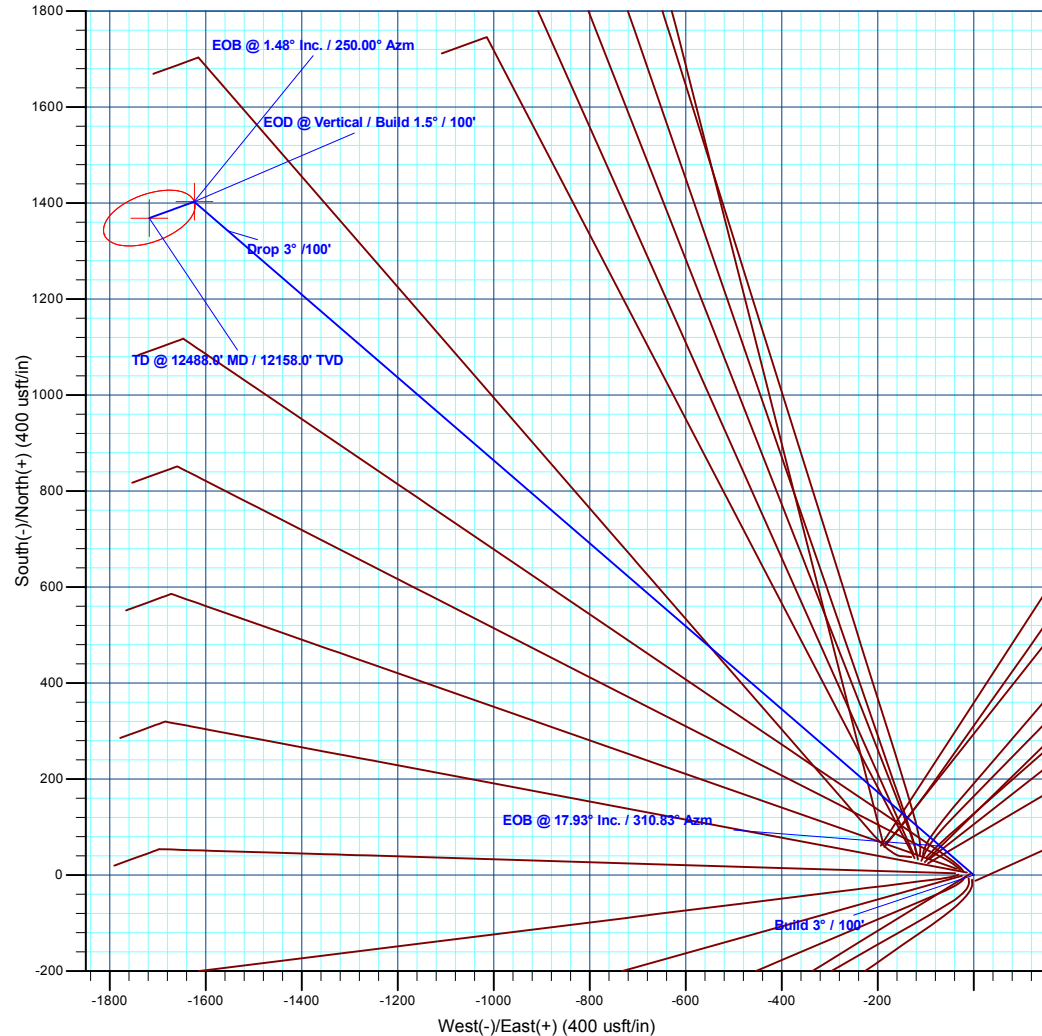
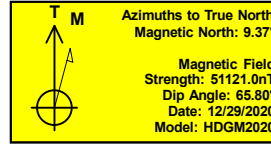
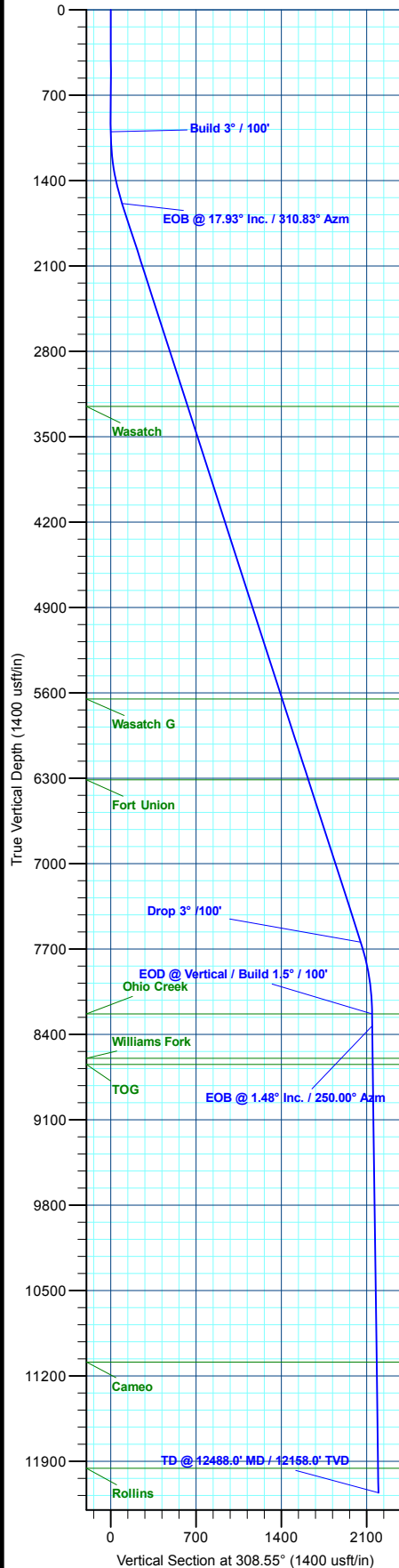
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
13A-14 - OHCR	8233.0	1403.0	-1623.6	14431310.29	2444443.53	39.704628	-108.141572
13A-14 - PBHL	12158.0	1368.8	-1717.6	14431273.10	2444350.70	39.704534	-108.141906

FORMATION TOP DETAILS

TVDPATH	MDPATH	Formation
3251.0	3345.6	Wasatch
5651.0	5868.2	Wasatch G
6313.0	6564.0	Fort Union
8233.0	8561.7	Ohio Creek
8597.0	8925.8	Williams Fork
8647.0	8975.8	TOG
11087.0	11416.6	Cameo
11958.0	12287.9	Rollins

WELL DETAILS: ELU J14 FED 13A-14 496

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	13A-14
0.0	0.0	14429959.90	2446111.10	39.700778	-108.135804	



Plan: Design #1 (ELU J14 FED 13A-14 496/Wellbore #1)

Created By: Will Jircik

Date: 18:35, January 08 2021



Caerus Oil & Gas

Rio Blanco County, CO

ELU J14 496 Pad

ELU J14 FED 13A-14 496 - Slot 13A-14

Wellbore #1

Plan: Design #1

QES Well Planning Report

08 January, 2021



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU J14 FED 13A-14 496 - Slot 13A-14
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.0usft (H&P #330)
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 7932.0usft (H&P #330)
Site:	ELU J14 496 Pad	North Reference:	True
Well:	ELU J14 FED 13A-14 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Rio Blanco 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	ELU J14 496 Pad			
Site Position:		Northing:	14,429,993.30 usft	Latitude: 39.700881
From: Map		Easting:	2,445,979.90 usft	Longitude: -108.136266
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 1.83 °

Well	ELU J14 FED 13A-14 496 - Slot 13A-14			
Well Position	+N/-S	-37.6 usft	Northing:	14,429,959.90 usft
	+E/-W	130.1 usft	Easting:	2,446,111.10 usft
Position Uncertainty		0.0 usft	Wellhead Elevation:	Latitude: 39.700778
				Longitude: -108.135804
				Ground Level: 7,902.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2020	12/29/2020	9.37	65.80	51,121.00000000

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	308.55

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		
1,597.8	17.93	310.83	1,588.1	60.7	-70.2	3.00	3.00	0.00	310.83		
7,963.9	17.93	310.83	7,644.9	1,342.3	-1,553.4	0.00	0.00	0.00	0.00		
8,561.7	0.00	0.00	8,233.0	1,403.0	-1,623.6	3.00	-3.00	0.00	180.00	13A-14 - OHCR	
8,660.3	1.48	250.00	8,331.5	1,402.5	-1,624.8	1.50	1.50	-111.64	250.00		
12,488.0	1.48	250.00	12,158.0	1,368.8	-1,717.6	0.00	0.00	0.00	0.00	13A-14 - PBHL	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU J14 FED 13A-14 496 - Slot 13A-14
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.0usft (H&P #330)
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 7932.0usft (H&P #330)
Site:	ELU J14 496 Pad	North Reference:	True
Well:	ELU J14 FED 13A-14 496	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	310.83	1,100.0	1.7	-2.0	2.6	3.00	3.00	0.00
1,200.0	6.00	310.83	1,199.6	6.8	-7.9	10.5	3.00	3.00	0.00
1,300.0	9.00	310.83	1,298.8	15.4	-17.8	23.5	3.00	3.00	0.00
1,400.0	12.00	310.83	1,397.1	27.3	-31.6	41.7	3.00	3.00	0.00
1,500.0	15.00	310.83	1,494.3	42.5	-49.2	65.0	3.00	3.00	0.00
EOB @ 17.93° Inc. / 310.83° Azm									
1,597.8	17.93	310.83	1,588.1	60.7	-70.2	92.7	3.00	3.00	0.00
1,600.0	17.93	310.83	1,590.2	61.1	-70.7	93.4	0.00	0.00	0.00
1,700.0	17.93	310.83	1,685.3	81.2	-94.0	124.2	0.00	0.00	0.00
1,800.0	17.93	310.83	1,780.5	101.4	-117.3	154.9	0.00	0.00	0.00
1,900.0	17.93	310.83	1,875.6	121.5	-140.6	185.7	0.00	0.00	0.00
2,000.0	17.93	310.83	1,970.7	141.6	-163.9	216.5	0.00	0.00	0.00
2,100.0	17.93	310.83	2,065.9	161.8	-187.2	247.2	0.00	0.00	0.00
2,200.0	17.93	310.83	2,161.0	181.9	-210.5	278.0	0.00	0.00	0.00
2,300.0	17.93	310.83	2,256.2	202.0	-233.8	308.8	0.00	0.00	0.00
2,400.0	17.93	310.83	2,351.3	222.2	-257.1	339.5	0.00	0.00	0.00
2,500.0	17.93	310.83	2,446.5	242.3	-280.4	370.3	0.00	0.00	0.00
2,600.0	17.93	310.83	2,541.6	262.4	-303.7	401.1	0.00	0.00	0.00
2,700.0	17.93	310.83	2,636.7	282.6	-327.0	431.8	0.00	0.00	0.00
2,800.0	17.93	310.83	2,731.9	302.7	-350.3	462.6	0.00	0.00	0.00
2,900.0	17.93	310.83	2,827.0	322.8	-373.6	493.4	0.00	0.00	0.00
3,000.0	17.93	310.83	2,922.2	343.0	-396.9	524.1	0.00	0.00	0.00
3,100.0	17.93	310.83	3,017.3	363.1	-420.2	554.9	0.00	0.00	0.00
3,200.0	17.93	310.83	3,112.4	383.2	-443.5	585.7	0.00	0.00	0.00
3,300.0	17.93	310.83	3,207.6	403.4	-466.8	616.4	0.00	0.00	0.00
Wasatch									
3,345.6	17.93	310.83	3,251.0	412.5	-477.4	630.5	0.00	0.00	0.00
3,400.0	17.93	310.83	3,302.7	423.5	-490.1	647.2	0.00	0.00	0.00
3,500.0	17.93	310.83	3,397.9	443.6	-513.4	678.0	0.00	0.00	0.00
3,600.0	17.93	310.83	3,493.0	463.8	-536.7	708.7	0.00	0.00	0.00
3,700.0	17.93	310.83	3,588.2	483.9	-560.0	739.5	0.00	0.00	0.00
3,800.0	17.93	310.83	3,683.3	504.0	-583.3	770.3	0.00	0.00	0.00
3,900.0	17.93	310.83	3,778.4	524.2	-606.6	801.0	0.00	0.00	0.00
4,000.0	17.93	310.83	3,873.6	544.3	-629.9	831.8	0.00	0.00	0.00
4,100.0	17.93	310.83	3,968.7	564.4	-653.2	862.6	0.00	0.00	0.00
4,200.0	17.93	310.83	4,063.9	584.5	-676.5	893.3	0.00	0.00	0.00
4,300.0	17.93	310.83	4,159.0	604.7	-699.8	924.1	0.00	0.00	0.00
4,400.0	17.93	310.83	4,254.1	624.8	-723.1	954.9	0.00	0.00	0.00
4,500.0	17.93	310.83	4,349.3	644.9	-746.4	985.6	0.00	0.00	0.00
4,600.0	17.93	310.83	4,444.4	665.1	-769.7	1,016.4	0.00	0.00	0.00
4,700.0	17.93	310.83	4,539.6	685.2	-793.0	1,047.2	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU J14 FED 13A-14 496 - Slot 13A-14
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.0usft (H&P #330)
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 7932.0usft (H&P #330)
Site:	ELU J14 496 Pad	North Reference:	True
Well:	ELU J14 FED 13A-14 496	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	17.93	310.83	4,634.7	705.3	-816.3	1,077.9	0.00	0.00	0.00
4,900.0	17.93	310.83	4,729.9	725.5	-839.5	1,108.7	0.00	0.00	0.00
5,000.0	17.93	310.83	4,825.0	745.6	-862.8	1,139.5	0.00	0.00	0.00
5,100.0	17.93	310.83	4,920.1	765.7	-886.1	1,170.2	0.00	0.00	0.00
5,200.0	17.93	310.83	5,015.3	785.9	-909.4	1,201.0	0.00	0.00	0.00
5,300.0	17.93	310.83	5,110.4	806.0	-932.7	1,231.8	0.00	0.00	0.00
5,400.0	17.93	310.83	5,205.6	826.1	-956.0	1,262.5	0.00	0.00	0.00
5,500.0	17.93	310.83	5,300.7	846.3	-979.3	1,293.3	0.00	0.00	0.00
5,600.0	17.93	310.83	5,395.8	866.4	-1,002.6	1,324.1	0.00	0.00	0.00
5,700.0	17.93	310.83	5,491.0	886.5	-1,025.9	1,354.8	0.00	0.00	0.00
5,800.0	17.93	310.83	5,586.1	906.7	-1,049.2	1,385.6	0.00	0.00	0.00
Wasatch G									
5,868.2	17.93	310.83	5,651.0	920.4	-1,065.1	1,406.6	0.00	0.00	0.00
5,900.0	17.93	310.83	5,681.3	926.8	-1,072.5	1,416.4	0.00	0.00	0.00
6,000.0	17.93	310.83	5,776.4	946.9	-1,095.8	1,447.1	0.00	0.00	0.00
6,100.0	17.93	310.83	5,871.6	967.1	-1,119.1	1,477.9	0.00	0.00	0.00
6,200.0	17.93	310.83	5,966.7	987.2	-1,142.4	1,508.7	0.00	0.00	0.00
6,300.0	17.93	310.83	6,061.8	1,007.3	-1,165.7	1,539.4	0.00	0.00	0.00
6,400.0	17.93	310.83	6,157.0	1,027.5	-1,189.0	1,570.2	0.00	0.00	0.00
6,500.0	17.93	310.83	6,252.1	1,047.6	-1,212.3	1,601.0	0.00	0.00	0.00
Fort Union									
6,564.0	17.93	310.83	6,313.0	1,060.5	-1,227.2	1,620.6	0.00	0.00	0.00
6,600.0	17.93	310.83	6,347.3	1,067.7	-1,235.6	1,631.7	0.00	0.00	0.00
6,700.0	17.93	310.83	6,442.4	1,087.8	-1,258.9	1,662.5	0.00	0.00	0.00
6,800.0	17.93	310.83	6,537.5	1,108.0	-1,282.2	1,693.3	0.00	0.00	0.00
6,900.0	17.93	310.83	6,632.7	1,128.1	-1,305.5	1,724.0	0.00	0.00	0.00
7,000.0	17.93	310.83	6,727.8	1,148.2	-1,328.8	1,754.8	0.00	0.00	0.00
7,100.0	17.93	310.83	6,823.0	1,168.4	-1,352.1	1,785.6	0.00	0.00	0.00
7,200.0	17.93	310.83	6,918.1	1,188.5	-1,375.4	1,816.3	0.00	0.00	0.00
7,300.0	17.93	310.83	7,013.3	1,208.6	-1,398.7	1,847.1	0.00	0.00	0.00
7,400.0	17.93	310.83	7,108.4	1,228.8	-1,422.0	1,877.9	0.00	0.00	0.00
7,500.0	17.93	310.83	7,203.5	1,248.9	-1,445.3	1,908.6	0.00	0.00	0.00
7,600.0	17.93	310.83	7,298.7	1,269.0	-1,468.6	1,939.4	0.00	0.00	0.00
7,700.0	17.93	310.83	7,393.8	1,289.2	-1,491.9	1,970.2	0.00	0.00	0.00
7,800.0	17.93	310.83	7,489.0	1,309.3	-1,515.2	2,000.9	0.00	0.00	0.00
7,900.0	17.93	310.83	7,584.1	1,329.4	-1,538.5	2,031.7	0.00	0.00	0.00
Drop 3° /100'									
7,963.9	17.93	310.83	7,644.9	1,342.3	-1,553.4	2,051.4	0.00	0.00	0.00
8,000.0	16.85	310.83	7,679.3	1,349.3	-1,561.5	2,062.1	3.00	-3.00	0.00
8,100.0	13.85	310.83	7,775.8	1,366.7	-1,581.6	2,088.6	3.00	-3.00	0.00
8,200.0	10.85	310.83	7,873.4	1,380.6	-1,597.7	2,110.0	3.00	-3.00	0.00
8,300.0	7.85	310.83	7,972.1	1,391.3	-1,610.0	2,126.2	3.00	-3.00	0.00
8,400.0	4.85	310.83	8,071.5	1,398.5	-1,618.4	2,137.2	3.00	-3.00	0.00
8,500.0	1.85	310.83	8,171.3	1,402.3	-1,622.8	2,143.1	3.00	-3.00	0.00
EOD @ Vertical / Build 1.5° / 100' - Ohio Creek									
8,561.7	0.00	0.00	8,233.0	1,403.0	-1,623.6	2,144.1	3.00	-3.00	79.67
8,600.0	0.57	250.00	8,271.3	1,402.9	-1,623.8	2,144.2	1.50	1.50	-287.35
EOB @ 1.48° Inc. / 250.00° Azm									
8,660.3	1.48	250.00	8,331.5	1,402.5	-1,624.8	2,144.7	1.50	1.50	0.00
8,700.0	1.48	250.00	8,371.3	1,402.2	-1,625.7	2,145.3	0.00	0.00	0.00
8,800.0	1.48	250.00	8,471.2	1,401.3	-1,628.2	2,146.6	0.00	0.00	0.00
8,900.0	1.48	250.00	8,571.2	1,400.4	-1,630.6	2,148.0	0.00	0.00	0.00
Williams Fork									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU J14 FED 13A-14 496 - Slot 13A-14
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.0usft (H&P #330)
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 7932.0usft (H&P #330)
Site:	ELU J14 496 Pad	North Reference:	True
Well:	ELU J14 FED 13A-14 496	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)
8,925.8	1.48	250.00	8,597.0	1,400.2	-1,631.2	2,148.3	0.00	0.00	0.00
TOG									
8,975.8	1.48	250.00	8,647.0	1,399.8	-1,632.4	2,149.0	0.00	0.00	0.00
9,000.0	1.48	250.00	8,671.2	1,399.5	-1,633.0	2,149.3	0.00	0.00	0.00
9,100.0	1.48	250.00	8,771.1	1,398.7	-1,635.4	2,150.7	0.00	0.00	0.00
9,200.0	1.48	250.00	8,871.1	1,397.8	-1,637.9	2,152.0	0.00	0.00	0.00
9,300.0	1.48	250.00	8,971.1	1,396.9	-1,640.3	2,153.3	0.00	0.00	0.00
9,400.0	1.48	250.00	9,071.0	1,396.0	-1,642.7	2,154.7	0.00	0.00	0.00
9,500.0	1.48	250.00	9,171.0	1,395.1	-1,645.1	2,156.0	0.00	0.00	0.00
9,600.0	1.48	250.00	9,271.0	1,394.2	-1,647.6	2,157.4	0.00	0.00	0.00
9,700.0	1.48	250.00	9,370.9	1,393.4	-1,650.0	2,158.7	0.00	0.00	0.00
9,800.0	1.48	250.00	9,470.9	1,392.5	-1,652.4	2,160.1	0.00	0.00	0.00
9,900.0	1.48	250.00	9,570.9	1,391.6	-1,654.8	2,161.4	0.00	0.00	0.00
10,000.0	1.48	250.00	9,670.8	1,390.7	-1,657.2	2,162.8	0.00	0.00	0.00
10,100.0	1.48	250.00	9,770.8	1,389.8	-1,659.7	2,164.1	0.00	0.00	0.00
10,200.0	1.48	250.00	9,870.8	1,389.0	-1,662.1	2,165.5	0.00	0.00	0.00
10,300.0	1.48	250.00	9,970.7	1,388.1	-1,664.5	2,166.8	0.00	0.00	0.00
10,400.0	1.48	250.00	10,070.7	1,387.2	-1,666.9	2,168.2	0.00	0.00	0.00
10,500.0	1.48	250.00	10,170.7	1,386.3	-1,669.4	2,169.5	0.00	0.00	0.00
10,600.0	1.48	250.00	10,270.6	1,385.4	-1,671.8	2,170.8	0.00	0.00	0.00
10,700.0	1.48	250.00	10,370.6	1,384.5	-1,674.2	2,172.2	0.00	0.00	0.00
10,800.0	1.48	250.00	10,470.6	1,383.7	-1,676.6	2,173.5	0.00	0.00	0.00
10,900.0	1.48	250.00	10,570.5	1,382.8	-1,679.1	2,174.9	0.00	0.00	0.00
11,000.0	1.48	250.00	10,670.5	1,381.9	-1,681.5	2,176.2	0.00	0.00	0.00
11,100.0	1.48	250.00	10,770.5	1,381.0	-1,683.9	2,177.6	0.00	0.00	0.00
11,200.0	1.48	250.00	10,870.4	1,380.1	-1,686.3	2,178.9	0.00	0.00	0.00
11,300.0	1.48	250.00	10,970.4	1,379.2	-1,688.8	2,180.3	0.00	0.00	0.00
11,400.0	1.48	250.00	11,070.4	1,378.4	-1,691.2	2,181.6	0.00	0.00	0.00
Cameo									
11,416.6	1.48	250.00	11,087.0	1,378.2	-1,691.6	2,181.8	0.00	0.00	0.00
11,500.0	1.48	250.00	11,170.3	1,377.5	-1,693.6	2,183.0	0.00	0.00	0.00
11,600.0	1.48	250.00	11,270.3	1,376.6	-1,696.0	2,184.3	0.00	0.00	0.00
11,700.0	1.48	250.00	11,370.3	1,375.7	-1,698.5	2,185.6	0.00	0.00	0.00
11,800.0	1.48	250.00	11,470.2	1,374.8	-1,700.9	2,187.0	0.00	0.00	0.00
11,900.0	1.48	250.00	11,570.2	1,374.0	-1,703.3	2,188.3	0.00	0.00	0.00
12,000.0	1.48	250.00	11,670.2	1,373.1	-1,705.7	2,189.7	0.00	0.00	0.00
12,100.0	1.48	250.00	11,770.1	1,372.2	-1,708.1	2,191.0	0.00	0.00	0.00
12,200.0	1.48	250.00	11,870.1	1,371.3	-1,710.6	2,192.4	0.00	0.00	0.00
Rollins									
12,287.9	1.48	250.00	11,958.0	1,370.5	-1,712.7	2,193.6	0.00	0.00	0.00
12,300.0	1.48	250.00	11,970.1	1,370.4	-1,713.0	2,193.7	0.00	0.00	0.00
12,400.0	1.48	250.00	12,070.0	1,369.5	-1,715.4	2,195.1	0.00	0.00	0.00
TD @ 12488.0' MD / 12158.0' TVD									
12,488.0	1.48	250.00	12,158.0	1,368.8	-1,717.6	2,196.2	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well ELU J14 FED 13A-14 496 - Slot 13A-14
Company:	Caerus Oil & Gas	TVD Reference:	RKB @ 7932.0usft (H&P #330)
Project:	Rio Blanco County, CO	MD Reference:	RKB @ 7932.0usft (H&P #330)
Site:	ELU J14 496 Pad	North Reference:	True
Well:	ELU J14 FED 13A-14 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design Targets

Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
13A-14 - OHCR	0.00	0.00	8,233.0	1,403.0	-1,623.6	14,431,310.29	2,444,443.53	39.704628	-108.141572
- plan hits target center									
- Point									
13A-14 - PBHL	0.00	0.00	12,158.0	1,368.8	-1,717.6	14,431,273.10	2,444,350.70	39.704534	-108.141906
- plan hits target center									
- Ellipse (radii L100.0 W50.0 on 250.00 azi)									

Formations

Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(usft)	(usft)			(°)	(°)
3,345.6	3,251.0	Wasatch			
5,868.2	5,651.0	Wasatch G			
6,564.0	6,313.0	Fort Union			
8,561.7	8,233.0	Ohio Creek			
8,925.8	8,597.0	Williams Fork			
8,975.8	8,647.0	TOG			
11,416.6	11,087.0	Cameo			
12,287.9	11,958.0	Rollins			

Plan Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
1,000.0	1,000.0	0.0	0.0	Build 3° / 100'
1,597.8	1,588.1	60.7	-70.2	EOB @ 17.93° Inc. / 310.83° Azm
7,963.9	7,644.9	1,342.3	-1,553.4	Drop 3° / 100'
8,561.7	8,233.0	1,403.0	-1,623.6	EOD @ Vertical / Build 1.5° / 100'
8,660.3	8,331.5	1,402.5	-1,624.8	EOB @ 1.48° Inc. / 250.00° Azm
12,488.0	12,158.0	1,368.8	-1,717.6	TD @ 12488.0' MD / 12158.0' TVD