



# **Ursa Operating Company, LLC**

**Rio Blanco County, Colorado**

**BR C-240**

**BR C-240 FED 31C-25-2-98**

**Wellbore #1**

**Plan: Design #1 APD**

## **Standard Planning Report**

**07 July, 2018**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BR C-240 FED 31C-25-2-98
<b>Company:</b>	Ursa Operating Company, LLC	<b>TVD Reference:</b>	BR C-240 FED 31C-25-2-98 @ 6325.5usft (EST KB)
<b>Project:</b>	Rio Blanco County, Colorado	<b>MD Reference:</b>	BR C-240 FED 31C-25-2-98 @ 6325.5usft (EST KB)
<b>Site:</b>	BR C-240	<b>North Reference:</b>	True
<b>Well:</b>	BR C-240 FED 31C-25-2-98	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 APD		

<b>Project</b>	Rio Blanco County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

<b>Site</b>	BR C-240		
<b>Site Position:</b>		<b>Northing:</b>	1,203,233.70 usft
<b>From:</b>	Map	<b>Easting:</b>	2,203,189.00 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	39.856238800
		<b>Longitude:</b>	-108.338695300
		<b>Grid Convergence:</b>	-1.83 °

<b>Well</b>	BR C-240 FED 31C-25-2-98, SHL: Lat 39.856117130 Long -108.338578120		
<b>Well Position</b>	<b>+N/-S</b>	-44.3 usft	<b>Northing:</b> 1,203,188.35 usft
	<b>+E/-W</b>	32.9 usft	<b>Easting:</b> 2,203,220.46 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	6,325.5 usft
		<b>Ground Level:</b>	6,304.5 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>
	IGRF2015	7/7/2018	9.79	65.80	51,558

<b>Design</b>	Design #1 APD			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<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	211.02

<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	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,453.3	19.37	211.02	1,442.9	-79.4	-47.7	3.50	3.50	0.00	211.02	
5,496.4	19.37	211.02	5,257.1	-1,228.4	-738.6	0.00	0.00	0.00	0.00	
6,049.7	0.00	0.00	5,800.0	-1,307.8	-786.3	3.50	-3.50	0.00	180.00	31C-25.2.98 TGT
10,953.7	0.00	0.00	10,704.0	-1,307.8	-786.3	0.00	0.00	0.00	0.00	

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<b>Project:</b>	Rio Blanco County, Colorado	<b>MD Reference:</b>	BR C-240 FED 31C-25-2-98 @ 6325.5usft (EST KB)
<b>Site:</b>	BR C-240	<b>North Reference:</b>	True
<b>Well:</b>	BR C-240 FED 31C-25-2-98	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 APD		

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	
0.1	0.00	0.00	0.1	0.0	0.0	0.0	0.00	0.00	0.00	
SHL 39.856117130, -108.338578120										
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	
468.0	0.00	0.00	468.0	0.0	0.0	0.0	0.00	0.00	0.00	
Mahogany Bench										
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
525.0	0.00	0.00	525.0	0.0	0.0	0.0	0.00	0.00	0.00	
Dissolution Surface										
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	
Start Build 3.50										
1,000.0	3.50	211.02	999.9	-2.6	-1.6	3.1	3.50	3.50	0.00	
1,100.0	7.00	211.02	1,099.5	-10.5	-6.3	12.2	3.50	3.50	0.00	
1,200.0	10.50	211.02	1,198.3	-23.5	-14.1	27.4	3.50	3.50	0.00	
1,300.0	14.00	211.02	1,296.0	-41.7	-25.1	48.6	3.50	3.50	0.00	
1,400.0	17.50	211.02	1,392.3	-64.9	-39.0	75.8	3.50	3.50	0.00	
1,453.3	19.37	211.02	1,442.9	-79.4	-47.7	92.6	3.50	3.50	0.00	
Start 4043.1 hold at 1453.3 MD										
1,500.0	19.37	211.02	1,486.9	-92.6	-55.7	108.1	0.00	0.00	0.00	
1,600.0	19.37	211.02	1,581.2	-121.1	-72.8	141.3	0.00	0.00	0.00	
1,651.7	19.37	211.02	1,630.0	-135.8	-81.6	158.4	0.00	0.00	0.00	
Garden Gulch Mbr										
1,700.0	19.37	211.02	1,675.6	-149.5	-89.9	174.4	0.00	0.00	0.00	
1,800.0	19.37	211.02	1,769.9	-177.9	-107.0	207.6	0.00	0.00	0.00	
1,829.8	19.37	211.02	1,798.0	-186.4	-112.1	217.5	0.00	0.00	0.00	
Wasatch										
1,900.0	19.37	211.02	1,864.2	-206.3	-124.1	240.8	0.00	0.00	0.00	
2,000.0	19.37	211.02	1,958.6	-234.8	-141.1	273.9	0.00	0.00	0.00	
2,100.0	19.37	211.02	2,052.9	-263.2	-158.2	307.1	0.00	0.00	0.00	
2,200.0	19.37	211.02	2,147.3	-291.6	-175.3	340.2	0.00	0.00	0.00	
2,300.0	19.37	211.02	2,241.6	-320.0	-192.4	373.4	0.00	0.00	0.00	
2,400.0	19.37	211.02	2,336.0	-348.4	-209.5	406.6	0.00	0.00	0.00	
2,500.0	19.37	211.02	2,430.3	-376.9	-226.6	439.7	0.00	0.00	0.00	
2,600.0	19.37	211.02	2,524.6	-405.3	-243.7	472.9	0.00	0.00	0.00	
2,700.0	19.37	211.02	2,619.0	-433.7	-260.7	506.0	0.00	0.00	0.00	
2,800.0	19.37	211.02	2,713.3	-462.1	-277.8	539.2	0.00	0.00	0.00	
2,900.0	19.37	211.02	2,807.7	-490.5	-294.9	572.4	0.00	0.00	0.00	
3,000.0	19.37	211.02	2,902.0	-519.0	-312.0	605.5	0.00	0.00	0.00	
3,100.0	19.37	211.02	2,996.3	-547.4	-329.1	638.7	0.00	0.00	0.00	
3,200.0	19.37	211.02	3,090.7	-575.8	-346.2	671.9	0.00	0.00	0.00	
3,300.0	19.37	211.02	3,185.0	-604.2	-363.3	705.0	0.00	0.00	0.00	
3,400.0	19.37	211.02	3,279.4	-632.6	-380.4	738.2	0.00	0.00	0.00	
3,500.0	19.37	211.02	3,373.7	-661.1	-397.4	771.3	0.00	0.00	0.00	
3,600.0	19.37	211.02	3,468.1	-689.5	-414.5	804.5	0.00	0.00	0.00	
3,633.9	19.37	211.02	3,500.0	-699.1	-420.3	815.7	0.00	0.00	0.00	

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<b>Site:</b>	BR C-240	<b>North Reference:</b>	True
<b>Well:</b>	BR C-240 FED 31C-25-2-98	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 APD		

### 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)
<b>Surface Casing</b>									
3,700.0	19.37	211.02	3,562.4	-717.9	-431.6	837.7	0.00	0.00	0.00
3,800.0	19.37	211.02	3,656.7	-746.3	-448.7	870.8	0.00	0.00	0.00
3,900.0	19.37	211.02	3,751.1	-774.7	-465.8	904.0	0.00	0.00	0.00
4,000.0	19.37	211.02	3,845.4	-803.2	-482.9	937.1	0.00	0.00	0.00
4,100.0	19.37	211.02	3,939.8	-831.6	-500.0	970.3	0.00	0.00	0.00
4,200.0	19.37	211.02	4,034.1	-860.0	-517.1	1,003.5	0.00	0.00	0.00
4,300.0	19.37	211.02	4,128.4	-888.4	-534.1	1,036.6	0.00	0.00	0.00
4,400.0	19.37	211.02	4,222.8	-916.8	-551.2	1,069.8	0.00	0.00	0.00
4,417.2	19.37	211.02	4,239.0	-921.7	-554.2	1,075.5	0.00	0.00	0.00
<b>Ft Union</b>									
4,500.0	19.37	211.02	4,317.1	-945.3	-568.3	1,103.0	0.00	0.00	0.00
4,600.0	19.37	211.02	4,411.5	-973.7	-585.4	1,136.1	0.00	0.00	0.00
4,700.0	19.37	211.02	4,505.8	-1,002.1	-602.5	1,169.3	0.00	0.00	0.00
4,800.0	19.37	211.02	4,600.2	-1,030.5	-619.6	1,202.4	0.00	0.00	0.00
4,900.0	19.37	211.02	4,694.5	-1,058.9	-636.7	1,235.6	0.00	0.00	0.00
5,000.0	19.37	211.02	4,788.8	-1,087.4	-653.8	1,268.8	0.00	0.00	0.00
5,100.0	19.37	211.02	4,883.2	-1,115.8	-670.8	1,301.9	0.00	0.00	0.00
5,200.0	19.37	211.02	4,977.5	-1,144.2	-687.9	1,335.1	0.00	0.00	0.00
5,300.0	19.37	211.02	5,071.9	-1,172.6	-705.0	1,368.2	0.00	0.00	0.00
5,400.0	19.37	211.02	5,166.2	-1,201.0	-722.1	1,401.4	0.00	0.00	0.00
5,496.4	19.37	211.02	5,257.1	-1,228.4	-738.6	1,433.4	0.00	0.00	0.00
<b>Start Drop -3.50</b>									
5,500.0	19.24	211.02	5,260.5	-1,229.5	-739.2	1,434.6	3.50	-3.50	0.00
5,600.0	15.74	211.02	5,355.9	-1,255.2	-754.7	1,464.6	3.50	-3.50	0.00
5,700.0	12.24	211.02	5,452.9	-1,275.9	-767.1	1,488.8	3.50	-3.50	0.00
5,800.0	8.74	211.02	5,551.2	-1,291.5	-776.5	1,507.0	3.50	-3.50	0.00
5,859.3	6.67	211.02	5,610.0	-1,298.3	-780.6	1,514.9	3.50	-3.50	0.00
<b>Ohio Creek</b>									
5,900.0	5.24	211.02	5,650.5	-1,302.0	-782.8	1,519.2	3.50	-3.50	0.00
6,000.0	1.74	211.02	5,750.3	-1,307.2	-785.9	1,525.2	3.50	-3.50	0.00
6,049.7	0.00	0.00	5,800.0	-1,307.8	-786.3	1,526.0	3.50	-3.50	0.00
<b>Back to Vertical - Start 4904.0 hold at 6049.7 MD - William Fork - Top of Gas - 31C-25.2.98 TGT</b>									
6,100.0	0.00	0.00	5,850.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
6,200.0	0.00	0.00	5,950.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,050.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,150.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,250.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,350.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,450.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,550.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,650.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,750.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
7,100.0	0.00	0.00	6,850.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
7,200.0	0.00	0.00	6,950.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,050.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,150.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,250.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,350.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,450.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,550.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00

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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)
7,900.0	0.00	0.00	7,650.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,750.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,100.0	0.00	0.00	7,850.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,200.0	0.00	0.00	7,950.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,050.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,150.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,250.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,350.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,450.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,550.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,650.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,000.0	0.00	0.00	8,750.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,100.0	0.00	0.00	8,850.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,158.7	0.00	0.00	8,909.0	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
<b>Cameo</b>									
9,200.0	0.00	0.00	8,950.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,050.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,150.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,250.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,350.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,450.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,703.7	0.00	0.00	9,454.0	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
<b>Rollins</b>									
9,800.0	0.00	0.00	9,550.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
9,847.7	0.00	0.00	9,598.0	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
<b>Cozzette</b>									
9,900.0	0.00	0.00	9,650.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,000.0	0.00	0.00	9,750.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,078.7	0.00	0.00	9,829.0	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
<b>Corcoran</b>									
10,100.0	0.00	0.00	9,850.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,200.0	0.00	0.00	9,950.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,050.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,365.7	0.00	0.00	10,116.0	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
<b>Upper Sego</b>									
10,400.0	0.00	0.00	10,150.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,250.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,350.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,450.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,800.0	0.00	0.00	10,550.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,900.0	0.00	0.00	10,650.3	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
10,953.7	0.00	0.00	10,704.0	-1,307.8	-786.3	1,526.0	0.00	0.00	0.00
<b>TD at 10953.7 - BHL 39.8525269, -108.3413787</b>									

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well BR C-24O FED 31C-25-2-98
<b>Company:</b>	Ursa Operating Company, LLC	<b>TVD Reference:</b>	BR C-24O FED 31C-25-2-98 @ 6325.5usft (EST KB)
<b>Project:</b>	Rio Blanco County, Colorado	<b>MD Reference:</b>	BR C-24O FED 31C-25-2-98 @ 6325.5usft (EST KB)
<b>Site:</b>	BR C-24O	<b>North Reference:</b>	True
<b>Well:</b>	BR C-24O FED 31C-25-2-98	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 APD		

#### Design Targets

##### Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
31C-25.2.98 TGT	0.00	0.00	5,800.0	-1,307.8	-786.3	1,201,906.39	2,202,392.72	39.852526900	-108.341378700
- plan hits target center									
- Rectangle (sides W100.0 H40.0 D4,904.0)									

#### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
468.0	468.0	Mahogany Bench		0.00	
525.0	525.0	Dissolution Surface		0.00	
1,651.7	1,630.0	Garden Gulch Mbr		0.00	
1,829.8	1,798.0	Wasatch		0.00	
4,417.2	4,239.0	Ft Union		0.00	
5,859.3	5,610.0	Ohio Creek		0.00	
6,049.7	5,800.0	William Fork		0.00	
6,049.7	5,800.0	Top of Gas		0.00	
9,158.7	8,909.0	Cameo		0.00	
9,703.7	9,454.0	Rollins		0.00	
9,847.7	9,598.0	Cozzette		0.00	
10,078.7	9,829.0	Corcoran		0.00	
10,365.7	10,116.0	Upper Sego		0.00	

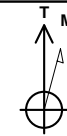
#### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.1	0.1	0.0	0.0	SHL 39.856117130, -108.338578120
900.0	900.0	0.0	0.0	Start Build 3.50
1,453.3	1,442.9	-79.4	-47.7	Start 4043.1 hold at 1453.3 MD
3,633.9	3,500.0	-699.1	-420.3	Surface Casing
5,496.4	5,257.1	-1,228.4	-738.6	Start Drop -3.50
6,049.7	5,800.0	-1,307.8	-786.3	Back to Vertical
6,049.7	5,800.0	-1,307.8	-786.3	Start 4904.0 hold at 6049.7 MD
10,953.7	10,704.0	-1,307.8	-786.3	TD at 10953.7
10,953.7	10,704.0	-1,307.8	-786.3	BHL 39.8525269, -108.3413787



Well Name: BR C-240 FED 31C-25-2-98  
Surface Location: BR C-240  
North American Datum 1983, US State Plane 1983, Colorado Northern Zone  
Ground Elevation: 6304.5  
+N/-S +E/-W Northing Easting Latitude Longitude  
0.0 0.0 1203188.36 2203220.46 39.856117130 -108.338578120  
EST KB BR C-240 FED 31C-25-2-98 @ 6325.5usft (EST KB)

Slot



Azimuths to True North  
Magnetic North: 9.79°  
Magnetic Field  
Strength: 51557.9snT  
Dip Angle: 65.80°  
Date: 7/7/2018  
Model: IGRF2015

BR C-240  
BR C-240 FED 31C-25-2-98  
Design #1 APD  
11:35, July 07 2018

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
31C-25.2.98 TGT	5800.0	-1307.8	-786.3	1201906.39	2202392.72	39.852526900	-108.341378700	Rectangle (Sides: L40.0 W100.0)

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	1453.3	19.37	211.02	1442.9	-79.4	-47.7	3.50	211.02	92.6	
4	5496.4	19.37	211.02	5257.1	-1228.4	-738.6	0.00	0.00	1433.4	
5	6049.7	0.00	0.00	5800.0	-1307.8	-786.3	3.50	180.00	1526.0	31C-25.2.98 TGT
6	10953.7	0.00	0.00	10704.0	-1307.8	-786.3	0.00	0.00	1526.0	

#### ANNOTATIONS

TVD	MD	Annotation
0.1	0.1	SHL 39.856117130, -108.338578120
900.0	900.0	Start Build 3.50
1442.9	1453.3	Start 4043.1 hold at 1453.3 MD
3500.0	3633.9	Surface Casing
5257.1	5496.4	Start Drop -3.50
5800.0	6049.7	Back to Vertical
5800.0	6049.7	Start 4904.0 hold at 6049.7 MD
10704.0	10953.7	TD at 10953.7
10704.0	10953.7	BHL 39.8525269, -108.3413787

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
468.0	468.0	Mahogany Bench	0.00	
525.0	525.0	Dissolution Surface	0.00	
1630.0	1651.7	Garden Gulch Mbr	0.00	
1798.0	1829.8	Wasatch	0.00	
4239.0	4417.2	Ft Union	0.00	
5610.0	5859.3	Ohio Creek	0.00	
5800.0	6049.7	Top of Gas	0.00	
5800.0	6049.7	William Fork	0.00	
8909.0	9158.7	Cameo	0.00	
9454.0	9703.7	Rollins	0.00	
9598.0	9847.7	Cozzette	0.00	
9829.0	10078.7	Corcoran	0.00	
10116.0	10365.7	Upper Sego	0.00	

