



Ursa Operating Company, LLC

**Rockies Region
Monument Ridge
BAT 34C-18-07-95**

Wellbore #1

Plan: Design #1

Standard Planning Report

02 July, 2013



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well BAT 34C-18-07-95
Company:	Ursa Operating Company, LLC	TVD Reference:	BAT 34C-18-07-95 @ 5461.2ft (Original Well Elev)
Project:	Rockies Region	MD Reference:	BAT 34C-18-07-95 @ 5461.2ft (Original Well Elev)
Site:	Monument Ridge	North Reference:	True
Well:	BAT 34C-18-07-95	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Rockies Region		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Monument Ridge			
Site Position:		Northing:	1,592,015.87 ft	Latitude:	39° 25' 53.266 N
From:	Lat/Long	Easting:	2,284,550.92 ft	Longitude:	108° 1' 59.725 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-1.60 °

Well	BAT 34C-18-07-95, SHL LAT: 39.431293010 LONG: -108.033171300					
Well Position	+N/-S	-61.8 ft	Northing:	1,591,953.37 ft	Latitude:	39° 25' 52.655 N
	+E/-W	24.2 ft	Easting:	2,284,573.39 ft	Longitude:	108° 1' 59.417 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	5,461.2 ft	Ground Level:	5,441.2 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/2/2013	10.07	65.64	52,049

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	274.39

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	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	
726.5	18.43	274.39	717.5	6.4	-83.7	3.50	3.50	0.00	274.39	
3,884.5	18.43	274.39	3,713.5	82.8	-1,079.1	0.00	0.00	0.00	0.00	
4,411.0	0.00	0.00	4,231.0	89.3	-1,162.8	3.50	-3.50	0.00	180.00	34C-18-07-95 TGT
6,604.0	0.00	0.00	6,424.0	89.3	-1,162.8	0.00	0.00	0.00	0.00	34C-18-07-95 BHL

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Site:	Monument Ridge	North Reference:	True
Well:	BAT 34C-18-07-95	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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
Start Build 3.50									
300.0	3.50	274.39	299.9	0.2	-3.0	3.1	3.50	3.50	0.00
400.0	7.00	274.39	399.5	0.9	-12.2	12.2	3.50	3.50	0.00
500.0	10.50	274.39	498.3	2.1	-27.3	27.4	3.50	3.50	0.00
600.0	14.00	274.39	596.0	3.7	-48.5	48.6	3.50	3.50	0.00
700.0	17.50	274.39	692.3	5.8	-75.5	75.8	3.50	3.50	0.00
726.5	18.43	274.39	717.5	6.4	-83.7	84.0	3.50	3.50	0.00
Start 3157.9 hold at 726.5 MD									
800.0	18.43	274.39	787.2	8.2	-106.9	107.2	0.00	0.00	0.00
900.0	18.43	274.39	882.1	10.6	-138.4	138.8	0.00	0.00	0.00
1,000.0	18.43	274.39	976.9	13.0	-169.9	170.4	0.00	0.00	0.00
1,100.0	18.43	274.39	1,071.8	15.5	-201.4	202.0	0.00	0.00	0.00
1,200.0	18.43	274.39	1,166.7	17.9	-232.9	233.6	0.00	0.00	0.00
1,300.0	18.43	274.39	1,261.6	20.3	-264.5	265.2	0.00	0.00	0.00
1,400.0	18.43	274.39	1,356.4	22.7	-296.0	296.9	0.00	0.00	0.00
1,500.0	18.43	274.39	1,451.3	25.1	-327.5	328.5	0.00	0.00	0.00
1,600.0	18.43	274.39	1,546.2	27.6	-359.0	360.1	0.00	0.00	0.00
1,700.0	18.43	274.39	1,641.0	30.0	-390.5	391.7	0.00	0.00	0.00
1,800.0	18.43	274.39	1,735.9	32.4	-422.1	423.3	0.00	0.00	0.00
1,900.0	18.43	274.39	1,830.8	34.8	-453.6	454.9	0.00	0.00	0.00
2,000.0	18.43	274.39	1,925.7	37.2	-485.1	486.5	0.00	0.00	0.00
2,100.0	18.43	274.39	2,020.5	39.7	-516.6	518.1	0.00	0.00	0.00
2,200.0	18.43	274.39	2,115.4	42.1	-548.1	549.8	0.00	0.00	0.00
2,300.0	18.43	274.39	2,210.3	44.5	-579.7	581.4	0.00	0.00	0.00
2,400.0	18.43	274.39	2,305.1	46.9	-611.2	613.0	0.00	0.00	0.00
2,500.0	18.43	274.39	2,400.0	49.3	-642.7	644.6	0.00	0.00	0.00
2,600.0	18.43	274.39	2,494.9	51.8	-674.2	676.2	0.00	0.00	0.00
2,700.0	18.43	274.39	2,589.8	54.2	-705.7	707.8	0.00	0.00	0.00
2,800.0	18.43	274.39	2,684.6	56.6	-737.3	739.4	0.00	0.00	0.00
2,900.0	18.43	274.39	2,779.5	59.0	-768.8	771.0	0.00	0.00	0.00
3,000.0	18.43	274.39	2,874.4	61.4	-800.3	802.7	0.00	0.00	0.00
3,100.0	18.43	274.39	2,969.2	63.9	-831.8	834.3	0.00	0.00	0.00
3,200.0	18.43	274.39	3,064.1	66.3	-863.3	865.9	0.00	0.00	0.00
3,300.0	18.43	274.39	3,159.0	68.7	-894.9	897.5	0.00	0.00	0.00
3,381.2	18.43	274.39	3,236.0	70.7	-920.5	923.2	0.00	0.00	0.00
WF									
3,400.0	18.43	274.39	3,253.9	71.1	-926.4	929.1	0.00	0.00	0.00
3,500.0	18.43	274.39	3,348.7	73.5	-957.9	960.7	0.00	0.00	0.00
3,600.0	18.43	274.39	3,443.6	76.0	-989.4	992.3	0.00	0.00	0.00
3,700.0	18.43	274.39	3,538.5	78.4	-1,020.9	1,024.0	0.00	0.00	0.00
3,800.0	18.43	274.39	3,633.3	80.8	-1,052.5	1,055.6	0.00	0.00	0.00
3,884.5	18.43	274.39	3,713.5	82.8	-1,079.1	1,082.3	0.00	0.00	0.00
Start Drop -3.50									
3,900.0	17.89	274.39	3,728.2	83.2	-1,083.9	1,087.1	3.50	-3.50	0.00
4,000.0	14.39	274.39	3,824.3	85.3	-1,111.6	1,114.9	3.50	-3.50	0.00
4,100.0	10.89	274.39	3,921.9	87.0	-1,133.4	1,136.8	3.50	-3.50	0.00
4,200.0	7.39	274.39	4,020.6	88.2	-1,149.3	1,152.6	3.50	-3.50	0.00
4,300.0	3.89	274.39	4,120.1	89.0	-1,159.0	1,162.5	3.50	-3.50	0.00
4,400.0	0.39	274.39	4,220.0	89.3	-1,162.8	1,166.2	3.50	-3.50	0.00

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Site:	Monument Ridge	North Reference:	True
Well:	BAT 34C-18-07-95	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,411.0	0.00	0.00	4,231.0	89.3	-1,162.8	1,166.2	3.50	-3.50	0.00
Start 2193.0 hold at 4411.0 MD - Top of Gas									
4,500.0	0.00	0.00	4,320.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
4,600.0	0.00	0.00	4,420.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
4,700.0	0.00	0.00	4,520.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
4,800.0	0.00	0.00	4,620.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
4,900.0	0.00	0.00	4,720.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,000.0	0.00	0.00	4,820.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,100.0	0.00	0.00	4,920.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,200.0	0.00	0.00	5,020.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,300.0	0.00	0.00	5,120.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,400.0	0.00	0.00	5,220.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,320.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,420.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,520.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,783.0	0.00	0.00	5,603.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
Cameo									
5,800.0	0.00	0.00	5,620.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,720.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,820.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
6,100.0	0.00	0.00	5,920.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,020.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,120.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
6,304.0	0.00	0.00	6,124.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
Rollins									
6,400.0	0.00	0.00	6,220.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
6,500.0	0.00	0.00	6,320.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
6,604.0	0.00	0.00	6,424.0	89.3	-1,162.8	1,166.2	0.00	0.00	0.00
TD at 6604.0									

Formations

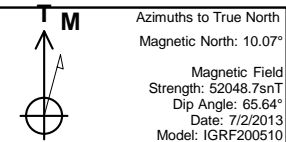
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,381.2	3,236.0	WF		0.00	
4,411.0	4,231.0	Top of Gas		0.00	
5,783.0	5,603.0	Cameo		0.00	
6,304.0	6,124.0	Rollins		0.00	

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Project:	Rockies Region	MD Reference:	BAT 34C-18-07-95 @ 5461.2ft (Original Well Elev)
Site:	Monument Ridge	North Reference:	True
Well:	BAT 34C-18-07-95	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	Start Build 3.50
726.5	717.5	6.4	-83.7	Start 3157.9 hold at 726.5 MD
3,884.5	3,713.5	82.8	-1,079.1	Start Drop -3.50
4,411.0	4,231.0	89.3	-1,162.8	Start 2193.0 hold at 4411.0 MD
6,604.0	6,424.0	89.3	-1,162.8	TD at 6604.0



Well Name: BAT 34C-18-07-95
Surface Location: Monument Ridge
North American Datum 1983 , US State Plane 1983, Colorado Central Zone
Ground Elevation: 5441.2
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1591953.37 2284573.39 39° 25' 53.537 N 108° 1' 59.417 W
Original Well Elev BAT 34C-18-07-95 @ 5461.2ft (Original Well Elev)



Monument Ridge
BAT 34C-18-07-95
Design #1
17:25, July 02 2013

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
34C-18-07-95 TGT	4231.0	89.3	-1162.8	1592075.03	2283413.54	39° 25' 53.537 N	108° 2' 14.237 W	Point
34C-18-07-95 BHL	6424.0	89.3	-1162.8	1592075.03	2283413.54	39° 25' 53.537 N	108° 2' 14.237 W	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	726.5	18.43	274.39	717.5	6.4	-83.7	3.50	274.39	84.0	
4	3884.5	18.43	274.39	3713.5	82.8	-1079.1	0.00	0.00	1082.3	
5	4411.0	0.00	0.00	4231.0	89.3	-1162.8	3.50	180.00	1166.2	34C-18-07-95 TGT
6	6604.0	0.00	0.00	6424.0	89.3	-1162.8	0.00	0.00	1166.2	34C-18-07-95 BHL

ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	Start Build 3.50
717.5	726.5	Start 3157.9 hold at 726.5 MD
3713.5	3884.5	Start Drop -3.50
4231.0	4411.0	Start 2193.0 hold at 4411.0 MD
6424.0	6604.0	TD at 6604.0

FORMATION TOP DETAILS

TVDPathMDPath	Formation
3236.0 3381.2	WF
4231.0 4411.0	Top of Gas
5603.0 5783.0	Cameo
6124.0 6304.0	Rollins

