



Ursa Operating Company, LLC

Rockies Region

Monument Ridge B

Monument Ridge B 23D-08-07-95

Wellbore #1

Design: Production

End of Well Report

22 February, 2016



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well Monument Ridge B 23D-08-07-95
Project:	Rockies Region	TVD Reference:	Monument Ridge B 23D-08-07-95 @ 5718.8usft (PLAN
Site:	Monument Ridge B	MD Reference:	Monument Ridge B 23D-08-07-95 @ 5718.8usft (PLAN
Well:	Monument Ridge B 23D-08-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Production	Database:	EDM 5000.1 Single User Db

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 B						
Site Position:		Northing:		1,596,716.56	usft	Latitude:		39° 26' 40.501 N
From:	Lat/Long	Easting:		2,287,433.43	usft	Longitude:		108° 1' 24.665 W
Position Uncertainty:	0.0	Slot Radius:		13-3/16	"	Grid Convergence:		-1.59 °

Well	Monument Ridge B 23D-08-07-95, SHL: 39.447626982 -108.012356013					
Well Position	+N/-S	0.0 usft	Northing:	1,597,737.24 usft	Latitude:	39° 26' 51.457 N
	+E/-W	0.0 usft	Easting:	2,290,615.12 usft	Longitude:	108° 0' 44.482 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,718.8 usft	Ground Level:	5,701.8 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/6/2016	9.85	65.57	51,664

Design		Production			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)		+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0		0.0	0.0	279.43

Survey Program		Date	2/22/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
120.0	7,990.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
120.0	1.89	278.00	120.0	2.0	0.3	-2.0	1.57	1.57	0.00	
150.0	2.07	285.52	150.0	3.0	0.5	-3.0	1.05	0.60	25.07	
181.0	2.29	277.83	180.9	4.2	0.7	-4.1	1.18	0.71	-24.81	
210.0	2.77	268.16	209.9	5.5	0.8	-5.4	2.21	1.66	-33.34	
240.0	3.30	262.80	239.9	7.0	0.6	-7.0	2.00	1.77	-17.87	
271.0	3.60	264.51	270.8	8.8	0.4	-8.8	1.02	0.97	5.52	
302.0	3.91	265.96	301.7	10.8	0.3	-10.9	1.05	1.00	4.68	
332.0	4.05	268.32	331.7	12.8	0.2	-12.9	0.72	0.47	7.87	
363.0	4.13	270.49	362.6	15.0	0.2	-15.1	0.56	0.26	7.00	
394.0	4.22	274.97	393.5	17.2	0.3	-17.4	1.09	0.29	14.45	
424.0	4.39	279.54	423.4	19.5	0.5	-19.6	1.28	0.57	15.23	
454.0	4.97	282.88	453.3	21.9	1.0	-22.0	2.14	1.93	11.13	
485.0	5.76	281.70	484.2	24.8	1.6	-24.9	2.57	2.55	-3.81	
516.0	6.69	279.66	515.0	28.2	2.3	-28.2	3.08	3.00	-6.58	
546.0	7.47	277.65	544.8	31.9	2.8	-31.8	2.73	2.60	-6.70	
577.0	8.28	277.85	575.5	36.1	3.4	-36.0	2.61	2.61	0.65	
608.0	9.14	277.13	606.1	40.8	4.0	-40.7	2.80	2.77	-2.32	
638.0	10.02	276.64	635.7	45.8	4.6	-45.6	2.95	2.93	-1.63	
669.0	10.81	276.86	666.2	51.4	5.3	-51.2	2.55	2.55	0.71	
699.0	11.69	276.69	695.6	57.2	5.9	-57.0	2.94	2.93	-0.57	
730.0	12.57	277.48	725.9	63.7	6.7	-63.5	2.89	2.84	2.55	
760.0	13.46	277.45	755.2	70.5	7.6	-70.2	2.97	2.97	-0.10	
790.0	14.28	277.83	784.3	77.7	8.6	-77.3	2.75	2.73	1.27	
821.0	15.38	279.50	814.3	85.6	9.8	-85.2	3.81	3.55	5.39	
851.0	16.57	279.81	843.1	93.9	11.2	-93.3	3.98	3.97	1.03	
894.0	18.33	281.08	884.1	106.8	13.5	-106.0	4.19	4.09	2.95	

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Production	Database:	EDM 5000.1 Single User Db

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)
937.0	19.78	281.43	924.8	120.8	16.3	-119.7	3.38	3.37	0.81
979.0	21.53	281.30	964.1	135.6	19.2	-134.3	4.17	4.17	-0.31
1,022.0	23.77	281.17	1,003.7	152.1	22.4	-150.5	5.21	5.21	-0.30
1,065.0	25.80	281.08	1,042.8	170.2	25.9	-168.2	4.72	4.72	-0.21
1,107.0	27.69	279.89	1,080.3	189.1	29.3	-186.8	4.68	4.50	-2.83
1,150.0	29.62	278.53	1,118.0	209.7	32.6	-207.1	4.74	4.49	-3.16
1,193.0	31.73	277.78	1,155.0	231.6	35.7	-228.8	4.99	4.91	-1.74
1,235.0	33.57	279.53	1,190.4	254.3	39.1	-251.2	4.92	4.38	4.17
1,277.0	35.18	279.92	1,225.0	278.0	43.1	-274.6	3.87	3.83	0.93
1,321.0	35.06	279.99	1,261.0	303.3	47.5	-299.5	0.29	-0.27	0.16
1,363.0	35.46	280.68	1,295.3	327.5	51.9	-323.4	1.34	0.95	1.64
1,406.0	36.43	280.29	1,330.1	352.8	56.4	-348.2	2.32	2.26	-0.91
1,449.0	36.74	280.25	1,364.6	378.4	61.0	-373.4	0.72	0.72	-0.09
1,492.0	37.92	280.47	1,398.8	404.5	65.7	-399.1	2.76	2.74	0.51
1,534.0	38.50	280.07	1,431.8	430.4	70.3	-424.6	1.50	1.38	-0.95
1,577.0	38.63	280.73	1,465.5	457.2	75.2	-451.0	1.00	0.30	1.53
1,620.0	39.55	279.94	1,498.8	484.3	80.0	-477.7	2.43	2.14	-1.84
1,662.0	39.90	280.61	1,531.1	511.2	84.8	-504.1	1.32	0.83	1.60
1,705.0	40.83	280.64	1,563.9	539.0	90.0	-531.5	2.16	2.16	0.07
1,748.0	41.31	280.11	1,596.3	567.3	95.1	-559.3	1.38	1.12	-1.23
1,790.0	41.48	280.25	1,627.8	595.0	100.0	-586.6	0.46	0.40	0.33
1,833.0	42.06	280.74	1,659.9	623.7	105.2	-614.8	1.55	1.35	1.14
1,877.0	42.36	281.08	1,692.5	653.2	110.8	-643.8	0.86	0.68	0.77
1,960.0	42.01	280.81	1,754.0	708.9	121.4	-698.5	0.47	-0.42	-0.33
2,045.0	40.47	278.88	1,817.9	765.0	130.9	-753.7	2.35	-1.81	-2.27
2,130.0	40.66	278.74	1,882.5	820.2	139.4	-808.3	0.25	0.22	-0.16
2,216.0	41.48	279.36	1,947.3	876.7	148.3	-864.1	1.06	0.95	0.72

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2,301.0	42.36	280.86	2,010.6	933.5	158.3	-920.0	1.57	1.04	1.76	
2,386.0	41.40	279.98	2,073.8	990.3	168.5	-975.8	1.32	-1.13	-1.04	
2,471.0	41.57	278.36	2,137.5	1,046.6	177.5	-1,031.4	1.28	0.20	-1.91	
2,556.0	40.34	280.82	2,201.7	1,102.3	186.8	-1,086.3	2.39	-1.45	2.89	
2,642.0	40.30	278.22	2,267.3	1,157.9	196.0	-1,141.2	1.96	-0.05	-3.02	
2,727.0	40.78	277.52	2,331.9	1,213.1	203.5	-1,195.9	0.78	0.56	-0.82	
2,812.0	39.95	277.96	2,396.7	1,268.1	211.0	-1,250.5	1.03	-0.98	0.52	
2,897.0	40.47	277.30	2,461.6	1,323.0	218.2	-1,304.9	0.79	0.61	-0.78	
2,983.0	40.73	278.32	2,526.9	1,378.9	225.9	-1,360.3	0.83	0.30	1.19	
3,068.0	40.77	278.07	2,591.3	1,434.4	233.8	-1,415.2	0.20	0.05	-0.29	
3,154.0	41.40	278.93	2,656.1	1,490.9	242.1	-1,471.1	0.98	0.73	1.00	
3,239.0	41.97	280.33	2,719.6	1,547.4	251.6	-1,526.9	1.28	0.67	1.65	
3,324.0	42.01	282.44	2,782.7	1,604.3	262.8	-1,582.6	1.66	0.05	2.48	
3,410.0	40.88	281.85	2,847.2	1,661.1	274.8	-1,638.2	1.39	-1.31	-0.69	
3,495.0	40.39	281.65	2,911.7	1,716.4	286.1	-1,692.4	0.60	-0.58	-0.24	
3,581.0	39.84	283.50	2,977.5	1,771.8	298.1	-1,746.5	1.53	-0.64	2.15	
3,666.0	39.51	281.61	3,042.9	1,825.9	309.9	-1,799.5	1.47	-0.39	-2.22	
3,751.0	38.14	279.76	3,109.1	1,879.2	319.8	-1,851.8	2.11	-1.61	-2.18	
3,837.0	38.95	279.99	3,176.4	1,932.8	329.0	-1,904.6	0.96	0.94	0.27	
3,922.0	39.29	277.08	3,242.3	1,986.4	336.9	-1,957.7	2.20	0.40	-3.42	
4,008.0	39.38	277.35	3,308.9	2,040.9	343.8	-2,011.7	0.22	0.10	0.31	
4,093.0	39.36	277.43	3,374.6	2,094.8	350.7	-2,065.2	0.06	-0.02	0.09	
4,178.0	39.81	277.56	3,440.1	2,148.9	357.8	-2,118.9	0.54	0.53	0.15	
4,264.0	40.39	278.71	3,505.9	2,204.3	365.6	-2,173.7	1.09	0.67	1.34	
4,349.0	40.83	278.49	3,570.4	2,259.6	373.9	-2,228.4	0.54	0.52	-0.26	
4,435.0	40.01	280.70	3,635.9	2,315.3	383.2	-2,283.4	1.92	-0.95	2.57	
4,520.0	39.95	282.36	3,701.0	2,369.9	394.1	-2,336.9	1.26	-0.07	1.95	

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4,605.0	39.55	280.99	3,766.3	2,424.2	405.1	-2,390.2	1.13	-0.47	-1.61	
4,691.0	40.12	280.90	3,832.4	2,479.3	415.6	-2,444.2	0.67	0.66	-0.10	
4,776.0	41.70	281.12	3,896.6	2,534.9	426.2	-2,498.9	1.87	1.86	0.26	
4,861.0	41.66	281.74	3,960.1	2,591.4	437.4	-2,554.3	0.49	-0.05	0.73	
4,947.0	40.84	281.74	4,024.8	2,648.1	448.9	-2,609.8	0.95	-0.95	0.00	
5,032.0	39.24	281.08	4,089.8	2,702.7	459.8	-2,663.4	1.95	-1.88	-0.78	
5,117.0	35.75	278.53	4,157.3	2,754.5	468.6	-2,714.4	4.49	-4.11	-3.00	
5,203.0	33.02	278.21	4,228.2	2,803.0	475.7	-2,762.4	3.18	-3.17	-0.37	
5,288.0	30.15	276.42	4,300.6	2,847.5	481.4	-2,806.5	3.55	-3.38	-2.11	
5,374.0	28.70	277.96	4,375.5	2,889.7	486.7	-2,848.5	1.90	-1.69	1.79	
5,459.0	26.81	275.76	4,450.8	2,929.2	491.4	-2,887.7	2.53	-2.22	-2.59	
5,544.0	24.26	275.54	4,527.5	2,965.8	495.0	-2,924.2	3.00	-3.00	-0.26	
5,629.0	22.90	278.80	4,605.4	2,999.8	499.2	-2,957.9	2.22	-1.60	3.84	
5,715.0	20.63	279.95	4,685.2	3,031.6	504.4	-2,989.4	2.69	-2.64	1.34	
5,800.0	18.06	281.34	4,765.4	3,059.8	509.6	-3,017.1	3.07	-3.02	1.64	
5,886.0	15.21	279.32	4,847.8	3,084.4	514.0	-3,041.3	3.38	-3.31	-2.35	
5,971.0	12.83	276.25	4,930.3	3,105.0	516.9	-3,061.7	2.93	-2.80	-3.61	
6,057.0	11.32	278.67	5,014.4	3,123.0	519.2	-3,079.5	1.85	-1.76	2.81	
6,142.0	9.76	281.65	5,097.9	3,138.5	521.9	-3,094.8	1.94	-1.84	3.51	
6,228.0	7.51	280.07	5,182.9	3,151.4	524.4	-3,107.5	2.63	-2.62	-1.84	
6,313.0	5.71	276.91	5,267.4	3,161.2	525.8	-3,117.1	2.16	-2.12	-3.72	
6,398.0	3.56	288.68	5,352.1	3,168.0	527.2	-3,123.8	2.75	-2.53	13.85	
6,484.0	3.03	285.30	5,438.0	3,172.9	528.6	-3,128.6	0.66	-0.62	-3.93	
6,569.0	2.50	278.84	5,522.9	3,177.0	529.5	-3,132.6	0.72	-0.62	-7.60	
6,655.0	2.64	270.62	5,608.8	3,180.8	529.8	-3,136.4	0.46	0.16	-9.56	
6,740.0	2.37	260.73	5,693.7	3,184.4	529.6	-3,140.1	0.60	-0.32	-11.64	
6,826.0	2.20	251.86	5,779.6	3,187.6	528.8	-3,143.4	0.46	-0.20	-10.31	

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6,911.0	1.98	235.82	5,864.6	3,190.1	527.4	-3,146.2	0.73	-0.26	-18.87
6,997.0	1.93	225.75	5,950.5	3,192.0	525.6	-3,148.4	0.40	-0.06	-11.71
7,082.0	0.48	55.07	6,035.5	3,192.6	524.8	-3,149.2	2.83	-1.71	-200.80
7,168.0	0.70	41.31	6,121.5	3,192.1	525.4	-3,148.5	0.30	0.26	-16.00
7,253.0	0.31	131.93	6,206.5	3,191.6	525.6	-3,148.0	0.90	-0.46	106.61
7,339.0	0.88	165.68	6,292.5	3,191.1	524.8	-3,147.7	0.75	0.66	39.24
7,424.0	1.36	180.93	6,377.5	3,190.7	523.2	-3,147.5	0.66	0.56	17.94
7,509.0	2.07	190.95	6,462.4	3,190.6	520.7	-3,147.9	0.90	0.84	11.79
7,595.0	1.93	135.89	6,548.4	3,189.5	518.1	-3,147.1	2.15	-0.16	-64.02
7,680.0	3.03	87.59	6,633.3	3,186.1	517.2	-3,143.9	2.66	1.29	-56.82
7,765.0	3.03	81.00	6,718.2	3,181.8	517.6	-3,139.4	0.41	0.00	-7.75
7,851.0	2.59	76.21	6,804.1	3,177.9	518.4	-3,135.3	0.58	-0.51	-5.57
7,935.0	2.29	75.15	6,888.0	3,174.6	519.3	-3,131.8	0.36	-0.36	-1.26
Projection to Bit									
7,990.0	2.29	75.15	6,943.0	3,172.6	519.9	-3,129.7	0.00	0.00	0.00

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,935.0	6,888.0	519.3	-3,131.8	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____

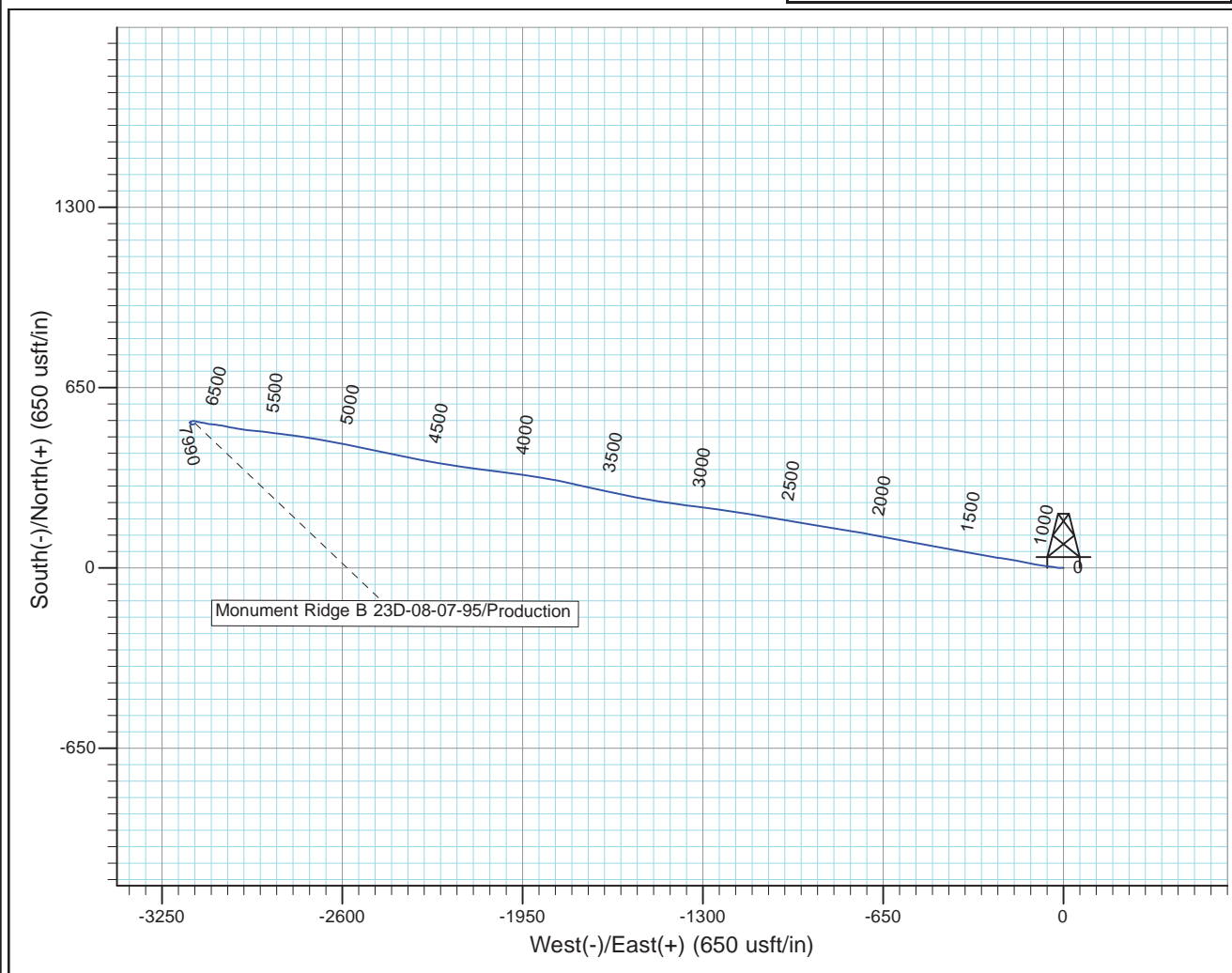
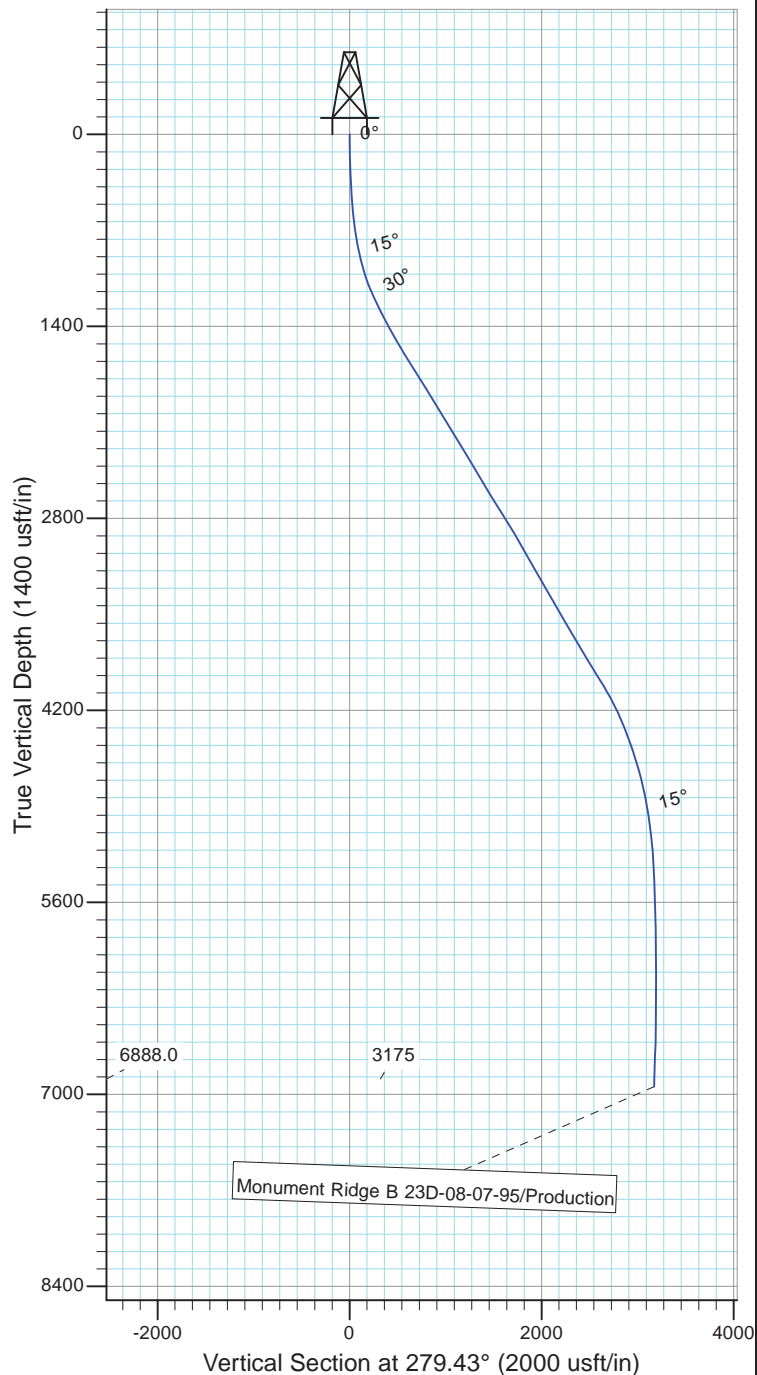


Project: Rockies Region
 Site: Monument Ridge B
 Well: Monument Ridge B 23D-08-07-95
 Wellbore: Wellbore #1
 Design: Production



Azimuths to True North
 Magnetic North: 9.85°

Magnetic Field
 Strength: 51663.6snT
 Dip Angle: 65.57°
 Date: 1/6/2016
 Model: IGRF2015



Design: Production (Monument Ridge B 23D-08-07-95/Wellbore #1)

Created By: Matthew Linton

Date: 12:42, February 22 20

THIS SURVEY IS CORRECT TO THE BEST OF
 MY KNOWLEDGE AND IS SUPPORTED
 BY ACTUAL FIELD DATA