



Ursa Operating Company, LLC

Rockies Region

Monument Ridge B

Monument Ridge B 43A-08-07-95

Wellbore #1

Design: Production

End of Well Report

16 December, 2015



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well Monument Ridge B 43A-08-07-95
Project:	Rockies Region	TVD Reference:	Monument Ridge B 43A-08-07-95 @ 5718.8usft (Capst)
Site:	Monument Ridge B	MD Reference:	Monument Ridge B 43A-08-07-95 @ 5718.8usft (Capst)
Well:	Monument Ridge B 43A-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 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.59 °

Well		Monument Ridge B 43A-08-07-95, SHL: 39.447846517 -108.012356032				
Well Position	+N/-S	0.0 usft	Northing:	1,597,817.17 usft	Latitude:	39° 26' 52.247 N
	+E/-W	0.0 usft	Easting:	2,290,617.33 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)
	IGRF2010	11/17/2015	9.78	65.57	51,778

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	341.17

Survey Program		Date	12/16/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
86.0	7,285.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
86.0	0.89	276.97	86.0	0.3	0.1	-0.7	1.03	1.03	0.00	
115.0	0.79	279.02	115.0	0.5	0.1	-1.1	0.36	-0.34	7.07	
146.0	0.44	276.92	146.0	0.6	0.2	-1.4	1.13	-1.13	-6.77	
176.0	0.58	308.96	176.0	0.8	0.3	-1.6	1.04	0.47	106.80	
206.0	0.75	331.94	206.0	1.1	0.6	-1.9	1.04	0.57	76.60	
235.0	0.85	331.11	235.0	1.5	0.9	-2.0	0.35	0.34	-2.86	
266.0	1.10	339.78	266.0	2.1	1.4	-2.3	0.93	0.81	27.97	
297.0	1.36	343.41	297.0	2.7	2.0	-2.5	0.88	0.84	11.71	
327.0	1.90	354.80	327.0	3.6	2.9	-2.6	2.09	1.80	37.97	
358.0	2.24	351.10	357.9	4.7	4.0	-2.8	1.18	1.10	-11.94	
389.0	2.77	347.85	388.9	6.0	5.3	-3.0	1.77	1.71	-10.48	
419.0	3.38	343.90	418.9	7.6	6.9	-3.4	2.15	2.03	-13.17	
449.0	4.17	344.64	448.8	9.6	8.8	-3.9	2.64	2.63	2.47	
480.0	5.14	343.59	479.7	12.1	11.2	-4.6	3.14	3.13	-3.39	
511.0	6.15	342.23	510.5	15.1	14.1	-5.5	3.29	3.26	-4.39	
541.0	7.29	341.30	540.3	18.6	17.4	-6.6	3.82	3.80	-3.10	
572.0	8.22	342.14	571.1	22.8	21.4	-7.9	3.02	3.00	2.71	
603.0	9.45	342.71	601.7	27.6	25.9	-9.4	3.98	3.97	1.84	
633.0	10.60	344.30	631.2	32.8	31.0	-10.9	3.94	3.83	5.30	
664.0	11.78	344.69	661.6	38.8	36.8	-12.5	3.81	3.81	1.26	
695.0	12.83	344.42	691.9	45.4	43.1	-14.2	3.39	3.39	-0.87	
725.0	13.84	344.34	721.1	52.3	49.8	-16.1	3.37	3.37	-0.27	
755.0	14.85	344.25	750.2	59.7	56.9	-18.1	3.37	3.37	-0.30	
785.0	15.82	342.84	779.1	67.7	64.5	-20.3	3.46	3.23	-4.70	
816.0	16.96	342.18	808.9	76.4	72.9	-23.0	3.73	3.68	-2.13	
847.0	17.90	341.83	838.4	85.7	81.7	-25.8	3.05	3.03	-1.13	

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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)	
889.0	19.03	341.00	878.3	99.0	94.3	-30.1	2.76	2.69	-1.98	
932.0	19.60	341.22	918.8	113.2	107.8	-34.7	1.34	1.33	0.51	
975.0	20.13	341.04	959.3	127.8	121.6	-39.4	1.24	1.23	-0.42	
1,017.0	20.98	339.84	998.6	142.6	135.5	-44.4	2.26	2.02	-2.86	
1,060.0	21.31	340.20	1,038.7	158.1	150.1	-49.7	0.82	0.77	0.84	
1,102.0	21.79	340.79	1,077.8	173.5	164.6	-54.8	1.25	1.14	1.40	
1,145.0	21.98	341.22	1,117.7	189.5	179.8	-60.0	0.58	0.44	1.00	
1,187.0	22.37	342.53	1,156.6	205.4	194.8	-65.0	1.50	0.93	3.12	
1,230.0	23.07	342.14	1,196.2	222.0	210.7	-70.0	1.67	1.63	-0.91	
1,273.0	23.51	343.19	1,235.7	239.0	226.9	-75.1	1.41	1.02	2.44	
1,316.0	24.17	342.89	1,275.1	256.4	243.5	-80.1	1.56	1.53	-0.70	
1,358.0	24.79	343.15	1,313.3	273.7	260.2	-85.2	1.50	1.48	0.62	
1,401.0	25.36	343.72	1,352.2	292.0	277.6	-90.4	1.44	1.33	1.33	
1,444.0	25.66	343.28	1,391.1	310.5	295.4	-95.7	0.83	0.70	-1.02	
1,486.0	24.65	342.14	1,429.1	328.3	312.4	-101.0	2.67	-2.40	-2.71	
1,529.0	25.14	341.96	1,468.1	346.4	329.7	-106.6	1.15	1.14	-0.42	
1,572.0	25.62	342.71	1,506.9	364.8	347.2	-112.1	1.34	1.12	1.74	
1,615.0	26.02	342.45	1,545.6	383.6	365.1	-117.7	0.97	0.93	-0.60	
1,657.0	24.79	340.77	1,583.6	401.6	382.2	-123.4	3.39	-2.93	-4.00	
1,700.0	24.92	339.33	1,622.6	419.6	399.2	-129.6	1.44	0.30	-3.35	
1,743.0	25.61	338.82	1,661.5	438.0	416.3	-136.2	1.68	1.60	-1.19	
1,806.0	25.75	340.34	1,718.2	465.3	441.9	-145.7	1.07	0.22	2.41	
1,891.0	24.26	340.29	1,795.3	501.2	475.7	-157.8	1.75	-1.75	-0.06	
1,976.0	22.68	342.01	1,873.2	535.0	507.8	-168.7	2.03	-1.86	2.02	
2,061.0	23.03	341.39	1,951.6	568.1	539.1	-179.1	0.50	0.41	-0.73	
2,147.0	22.59	341.79	2,030.8	601.4	570.7	-189.6	0.54	-0.51	0.47	
2,232.0	22.72	342.53	2,109.3	634.1	601.9	-199.7	0.37	0.15	0.87	

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2,318.0	23.42	342.84	2,188.4	667.8	634.1	-209.7	0.83	0.81	0.36	
2,403.0	22.11	343.23	2,266.8	700.7	665.5	-219.3	1.55	-1.54	0.46	
2,489.0	22.58	342.58	2,346.3	733.4	696.8	-228.9	0.62	0.55	-0.76	
2,574.0	21.40	341.79	2,425.1	765.2	727.1	-238.6	1.43	-1.39	-0.93	
2,660.0	22.19	342.41	2,505.0	797.1	757.5	-248.4	0.96	0.92	0.72	
2,745.0	22.94	342.62	2,583.5	829.7	788.6	-258.2	0.89	0.88	0.25	
2,830.0	21.88	342.71	2,662.1	862.1	819.5	-267.9	1.25	-1.25	0.11	
2,916.0	23.33	341.48	2,741.5	895.2	851.0	-278.1	1.77	1.69	-1.43	
3,001.0	22.98	341.08	2,819.6	928.6	882.6	-288.8	0.45	-0.41	-0.47	
3,087.0	21.71	340.91	2,899.2	961.3	913.5	-299.4	1.48	-1.48	-0.20	
3,172.0	23.03	341.52	2,977.8	993.6	944.2	-309.8	1.58	1.55	0.72	
3,257.0	22.73	340.78	3,056.1	1,026.7	975.4	-320.5	0.49	-0.35	-0.87	
3,343.0	24.08	342.27	3,135.0	1,060.8	1,007.8	-331.3	1.71	1.57	1.73	
3,428.0	23.20	342.06	3,212.9	1,094.9	1,040.3	-341.8	1.04	-1.04	-0.25	
3,514.0	21.97	341.35	3,292.3	1,127.9	1,071.6	-352.1	1.46	-1.43	-0.83	
3,599.0	22.90	343.06	3,370.8	1,160.4	1,102.5	-362.0	1.34	1.09	2.01	
3,684.0	22.50	343.37	3,449.2	1,193.1	1,133.9	-371.5	0.49	-0.47	0.36	
3,770.0	23.07	344.57	3,528.5	1,226.4	1,165.9	-380.7	0.86	0.66	1.40	
3,855.0	22.72	344.38	3,606.8	1,259.4	1,197.8	-389.6	0.42	-0.41	-0.22	
3,941.0	20.43	344.29	3,686.8	1,291.0	1,228.2	-398.1	2.66	-2.66	-0.10	
4,026.0	20.70	342.97	3,766.4	1,320.8	1,256.9	-406.5	0.63	0.32	-1.55	
4,112.0	20.78	343.82	3,846.8	1,351.3	1,286.1	-415.2	0.36	0.09	0.99	
4,197.0	19.94	342.93	3,926.5	1,380.8	1,314.4	-423.7	1.05	-0.99	-1.05	
4,282.0	21.09	341.61	4,006.1	1,410.6	1,342.8	-432.8	1.46	1.35	-1.55	
4,368.0	19.47	341.04	4,086.8	1,440.4	1,371.0	-442.3	1.90	-1.88	-0.66	
4,453.0	19.51	341.26	4,166.9	1,468.8	1,397.9	-451.5	0.10	0.05	0.26	
4,539.0	18.41	341.07	4,248.2	1,496.7	1,424.3	-460.5	1.28	-1.28	-0.22	

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4,624.0	15.38	340.47	4,329.6	1,521.4	1,447.6	-468.6	3.57	-3.56	-0.71	
4,710.0	13.89	339.15	4,412.8	1,543.1	1,468.0	-476.1	1.78	-1.73	-1.53	
4,795.0	12.48	336.51	4,495.5	1,562.5	1,486.0	-483.4	1.80	-1.66	-3.11	
4,880.0	10.42	340.86	4,578.8	1,579.3	1,501.7	-489.6	2.63	-2.42	5.12	
4,966.0	8.09	347.02	4,663.7	1,593.1	1,514.9	-493.5	2.94	-2.71	7.16	
5,051.0	5.71	340.69	4,748.1	1,603.3	1,524.7	-496.2	2.94	-2.80	-7.45	
5,137.0	3.30	348.03	4,833.8	1,610.0	1,531.2	-498.1	2.88	-2.80	8.53	
5,223.0	2.50	350.75	4,919.7	1,614.3	1,535.5	-499.0	0.94	-0.93	3.16	
5,308.0	1.19	347.59	5,004.7	1,617.0	1,538.2	-499.4	1.55	-1.54	-3.72	
5,393.0	1.58	149.31	5,089.7	1,616.8	1,538.0	-499.0	3.22	0.46	190.26	
5,478.0	1.54	138.94	5,174.6	1,614.6	1,536.1	-497.7	0.33	-0.05	-12.20	
5,564.0	1.40	138.34	5,260.6	1,612.5	1,534.5	-496.2	0.16	-0.16	-0.70	
5,649.0	1.36	130.98	5,345.6	1,610.7	1,533.1	-494.8	0.21	-0.05	-8.66	
5,734.0	1.41	121.53	5,430.5	1,609.0	1,531.8	-493.1	0.27	0.06	-11.12	
5,819.0	1.27	137.18	5,515.5	1,607.4	1,530.6	-491.6	0.46	-0.16	18.41	
5,904.0	1.27	149.22	5,600.5	1,605.6	1,529.1	-490.5	0.31	0.00	14.16	
5,990.0	1.41	174.53	5,686.5	1,603.6	1,527.2	-489.9	0.70	0.16	29.43	
6,075.0	1.76	183.89	5,771.4	1,601.4	1,524.9	-489.9	0.51	0.41	11.01	
6,160.0	1.93	194.31	5,856.4	1,599.0	1,522.2	-490.3	0.44	0.20	12.26	
6,246.0	1.45	232.76	5,942.4	1,597.4	1,520.1	-491.5	1.40	-0.56	44.71	
6,331.0	1.23	292.66	6,027.3	1,597.7	1,519.8	-493.2	1.59	-0.26	70.47	
6,417.0	2.07	327.24	6,113.3	1,599.8	1,521.5	-494.9	1.47	0.98	40.21	
6,502.0	1.76	318.89	6,198.3	1,602.5	1,523.8	-496.6	0.49	-0.36	-9.82	
6,587.0	1.23	282.11	6,283.2	1,604.2	1,525.0	-498.4	1.26	-0.62	-43.27	
6,673.0	1.54	255.57	6,369.2	1,604.8	1,524.9	-500.4	0.82	0.36	-30.86	
6,758.0	1.45	256.31	6,454.2	1,604.9	1,524.3	-502.5	0.11	-0.11	0.87	
6,843.0	1.71	270.77	6,539.2	1,605.5	1,524.1	-504.9	0.56	0.31	17.01	

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6,929.0	1.89	262.03	6,625.1	1,606.2	1,523.9	-507.5	0.38	0.21	-10.16	
7,014.0	1.63	255.13	6,710.1	1,606.5	1,523.4	-510.1	0.39	-0.31	-8.12	
7,100.0	1.98	243.33	6,796.0	1,606.4	1,522.4	-512.6	0.59	0.41	-13.72	
7,186.0	2.02	243.31	6,882.0	1,606.0	1,521.1	-515.3	0.05	0.05	-0.02	
7,230.0	1.98	238.69	6,925.9	1,605.7	1,520.3	-516.6	0.38	-0.09	-10.50	
Straightline projection to bit										
7,285.0	1.98	238.69	6,980.9	1,605.3	1,519.3	-518.3	0.00	0.00	0.00	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,230.0	6,925.9	1,520.3	-516.6	Straightline projection to bit	

Checked By: _____ Approved By: _____ Date: _____

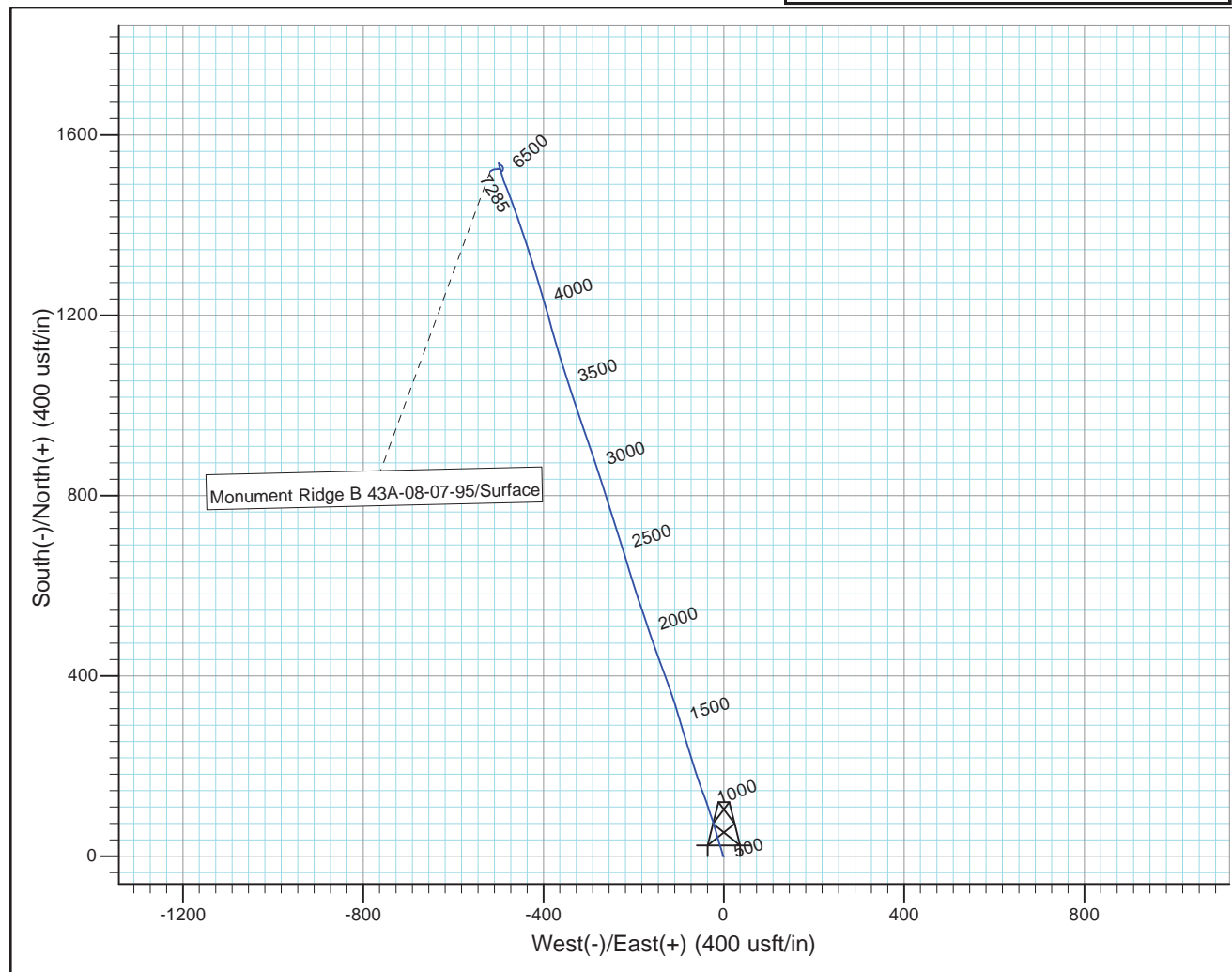
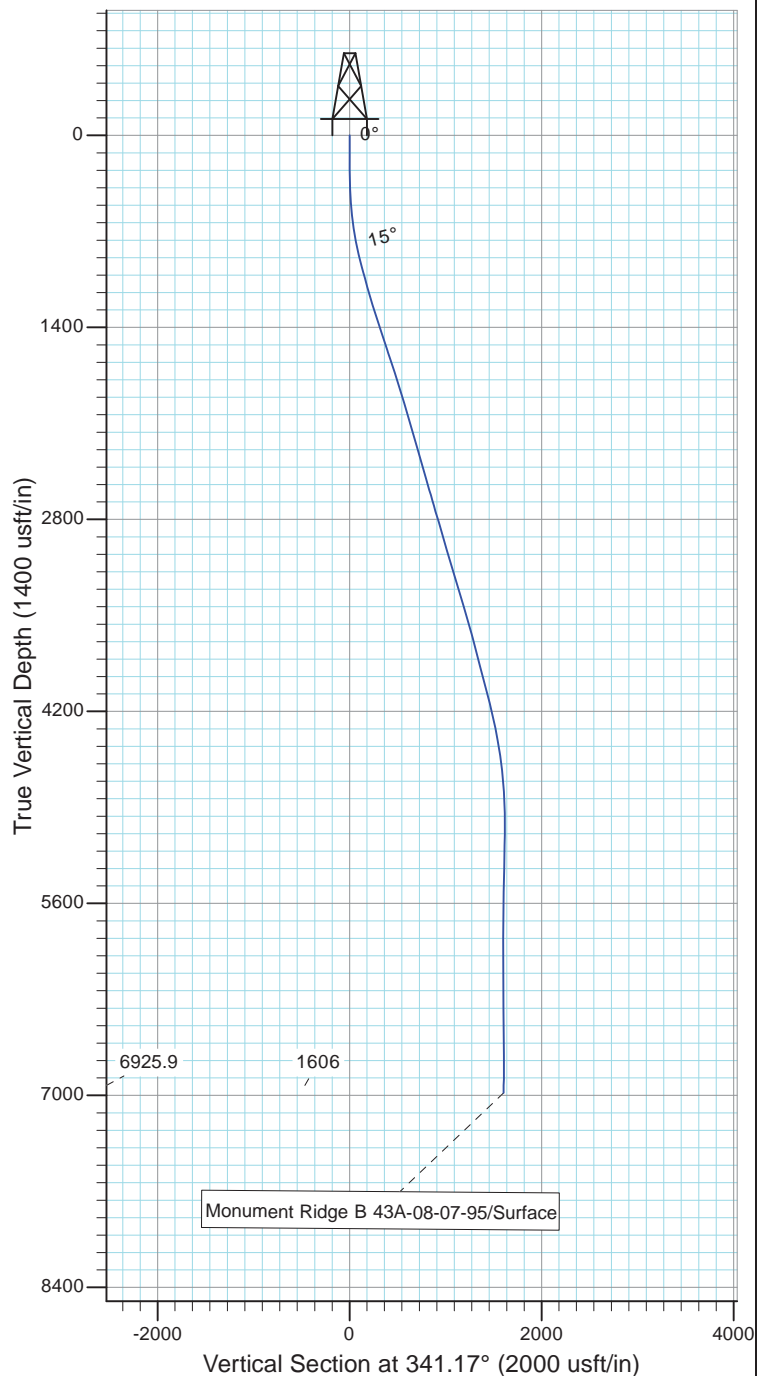


Project: Rockies Region
 Site: Monument Ridge B
 Well: Monument Ridge B 43A-08-07-95
 Wellbore: Wellbore #1
 Design: Production



Azimuths to True North
 Magnetic North: 9.78°

Magnetic Field
 Strength: 51777.9snT
 Dip Angle: 65.57°
 Date: 11/17/2015
 Model: IGRF2010



Design: Production (Monument Ridge B 43A-08-07-95/Wellbore #1)

Created By: Matthew Linton

Date: 9:03, December 16 20

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