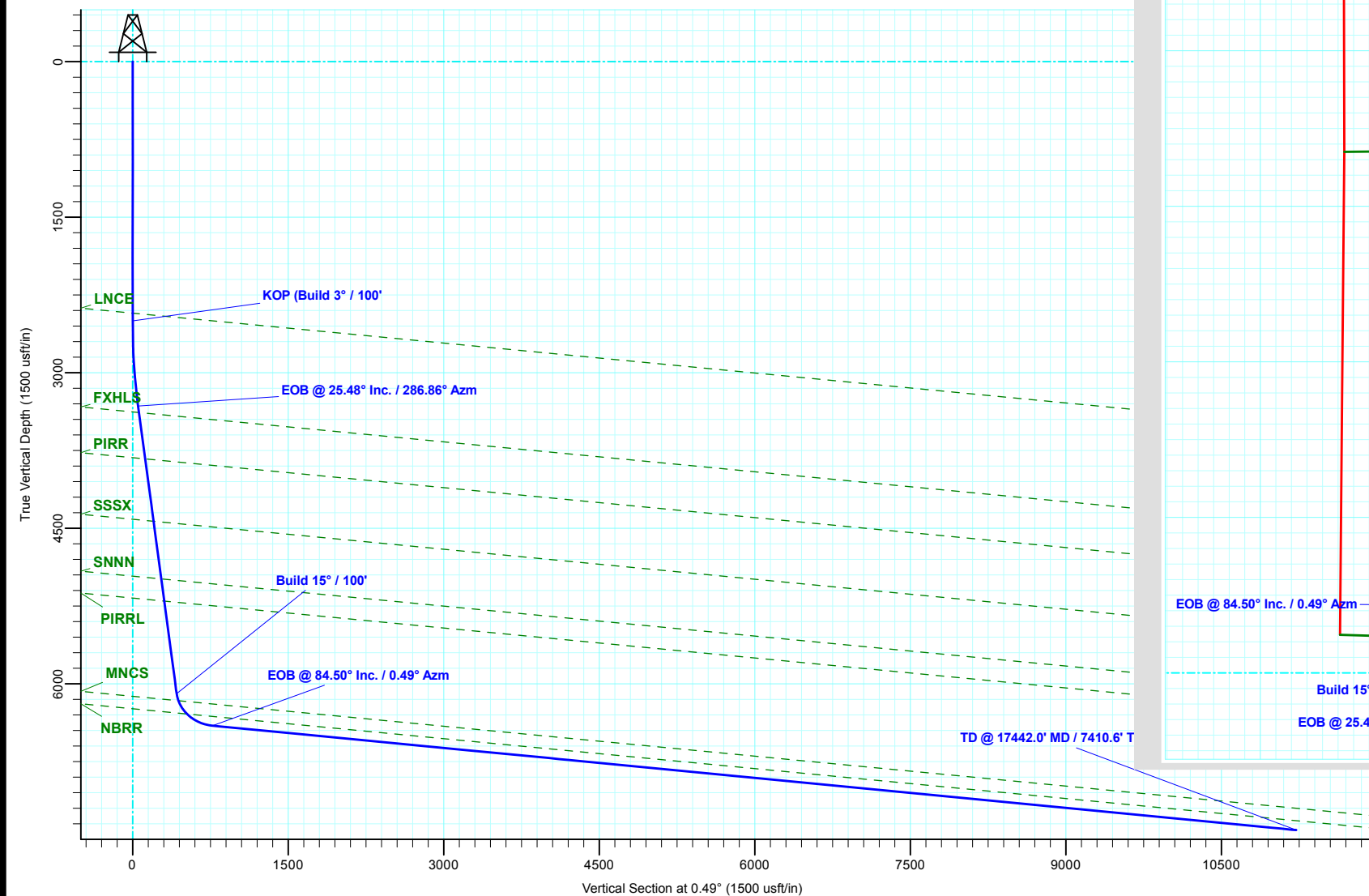
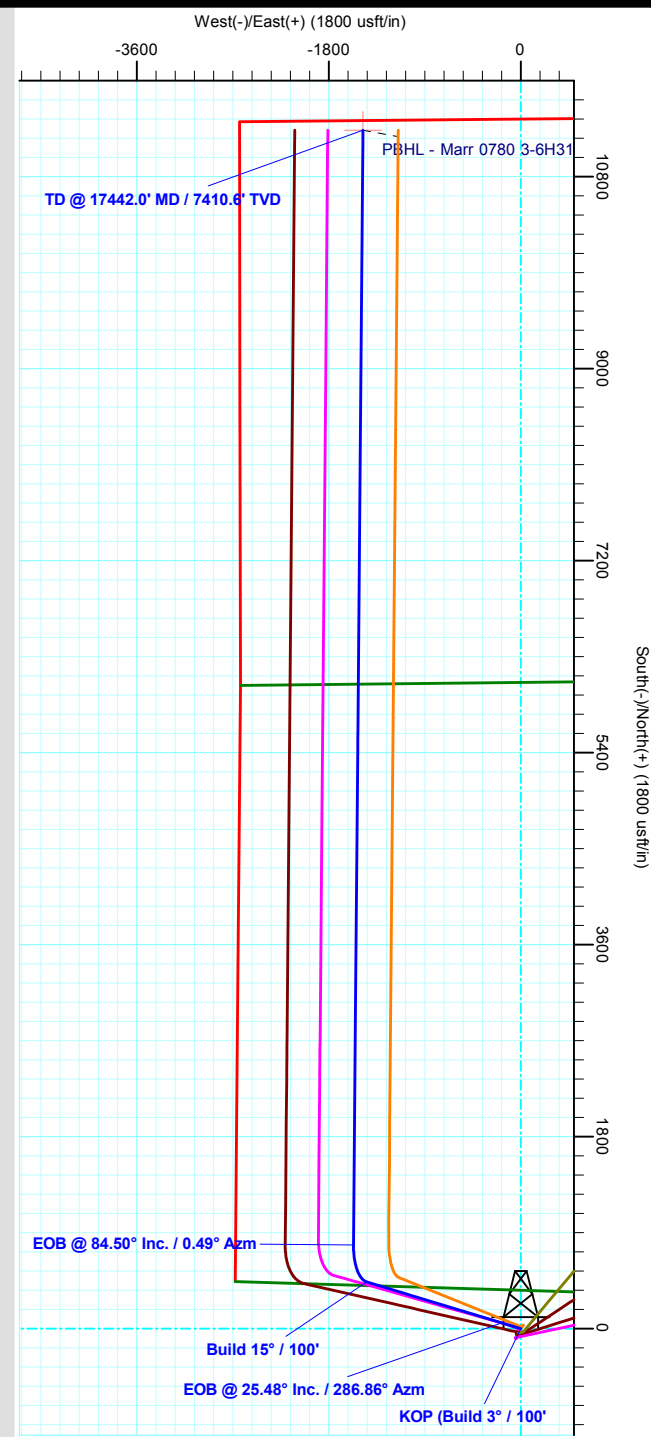


SandRidge Energy  
Jackson County, Colorado  
Sec 7, T7N, R80W, 6th PM  
Marr 0780 3-6H31  
Design #1  
Cyclone #33



ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
2500.0	0.00	0.00	2500.0	0.0	0.0	0.0	0.0	KOP (Build 3° / 100'	
3349.5	25.48	286.86	3321.7	53.9	-177.8	52.4	185.8	EOB @ 25.48° Inc. / 286.86° Azm	
6421.7	25.48	286.86	6095.1	437.3	-1442.9	424.9	1507.7	Build 15° / 100'	
6942.0	84.50	0.49	6404.2	784.0	-1567.7	770.6	1894.7	EOB @ 84.50° Inc. / 0.49° Azm	
17442.0	84.50	0.49	7410.6	11235.3	-1478.3	11222.2	12346.4	TD @ 17442.0' MD / 7410.6' TVD	

WELL DETAILS: Marr 0780 3-6H31						
+N/-S	+E/-W	Northing	Easting	8130.0	Latitude	Longitude
0.0	0.0	1462178.46	2745756.97		40° 35' 54.510 N	106° 24' 56.031 W



# **SandRidge Energy**

**Jackson County, Colorado  
Sec 7, T7N, R80W, 6th PM  
Marr 0780 3-6H31**

**Wellbore #1**

**Plan: Design #1**

## **QES Well Planning Report**

**13 September, 2018**



## Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Marr 0780 3-6H31
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Site:</b>	Sec 7, T7N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	Marr 0780 3-6H31	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Jackson 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		

<b>Site</b>	Sec 7, T7N, R80W, 6th PM		
<b>Site Position:</b>		<b>Northing:</b>	1,461,937.18 usft
<b>From:</b>	Map	<b>Easting:</b>	2,743,084.61 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	40° 35' 51.852 N
		<b>Longitude:</b>	106° 25' 30.641 W
		<b>Grid Convergence:</b>	-0.60 °

<b>Well</b>	Marr 0780 3-6H31		
<b>Well Position</b>	<b>+N/-S</b>	241.3 usft	<b>Northing:</b> 1,462,178.46 usft
	<b>+E/-W</b>	2,672.4 usft	<b>Easting:</b> 2,745,756.97 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 40° 35' 54.510 N
			<b>Longitude:</b> 106° 24' 56.031 W
			<b>Ground Level:</b> 8,130.0 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	9/13/2018	8.95	66.72	52,146.11138945

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<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	0.49

<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	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,349.5	25.48	286.86	3,321.7	53.9	-177.8	3.00	3.00	0.00	286.86	
6,421.7	25.48	286.86	6,095.1	437.3	-1,442.9	0.00	0.00	0.00	0.00	
6,942.0	84.50	0.49	6,404.2	784.0	-1,567.7	15.00	11.34	14.15	77.48	
17,442.0	84.50	0.49	7,410.6	11,235.3	-1,478.3	0.00	0.00	0.00	0.00	PBHL - Marr 0780 3

# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Marr 0780 3-6H31
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Site:</b>	Sec 7, T7N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	Marr 0780 3-6H31	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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
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	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>LNCE</b>									
2,426.0	0.00	0.00	2,426.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP (Build 3° / 100'</b>									
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	3.00	286.86	2,600.0	0.8	-2.5	0.7	3.00	3.00	0.00
2,700.0	6.00	286.86	2,699.6	3.0	-10.0	2.9	3.00	3.00	0.00
2,800.0	9.00	286.86	2,798.8	6.8	-22.5	6.6	3.00	3.00	0.00
2,900.0	12.00	286.86	2,897.1	12.1	-39.9	11.8	3.00	3.00	0.00
3,000.0	15.00	286.86	2,994.3	18.9	-62.3	18.3	3.00	3.00	0.00
3,100.0	18.00	286.86	3,090.2	27.1	-89.5	26.3	3.00	3.00	0.00
3,200.0	21.00	286.86	3,184.4	36.8	-121.4	35.8	3.00	3.00	0.00
3,300.0	24.00	286.86	3,276.8	47.9	-158.0	46.5	3.00	3.00	0.00
<b>EOB @ 25.48° Inc. / 286.86° Azm</b>									
3,349.5	25.48	286.86	3,321.7	53.9	-177.8	52.4	3.00	3.00	0.00
3,400.0	25.48	286.86	3,367.4	60.2	-198.6	58.5	0.00	0.00	0.00
<b>FXHLS</b>									
3,418.3	25.48	286.86	3,383.8	62.5	-206.2	60.7	0.00	0.00	0.00
3,500.0	25.48	286.86	3,457.6	72.7	-239.8	70.6	0.00	0.00	0.00
3,600.0	25.48	286.86	3,547.9	85.2	-281.0	82.8	0.00	0.00	0.00
3,700.0	25.48	286.86	3,638.2	97.6	-322.2	94.9	0.00	0.00	0.00
3,800.0	25.48	286.86	3,728.4	110.1	-363.3	107.0	0.00	0.00	0.00
3,900.0	25.48	286.86	3,818.7	122.6	-404.5	119.1	0.00	0.00	0.00
<b>PIRR</b>									
3,914.3	25.48	286.86	3,831.6	124.4	-410.4	120.9	0.00	0.00	0.00
4,000.0	25.48	286.86	3,909.0	135.1	-445.7	131.3	0.00	0.00	0.00
4,100.0	25.48	286.86	3,999.2	147.6	-486.9	143.4	0.00	0.00	0.00
4,200.0	25.48	286.86	4,089.5	160.0	-528.0	155.5	0.00	0.00	0.00
4,300.0	25.48	286.86	4,179.8	172.5	-569.2	167.6	0.00	0.00	0.00
4,400.0	25.48	286.86	4,270.1	185.0	-610.4	179.8	0.00	0.00	0.00

# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Marr 0780 3-6H31
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Site:</b>	Sec 7, T7N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	Marr 0780 3-6H31	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
4,500.0	25.48	286.86	4,360.3	197.5	-651.6	191.9	0.00	0.00	0.00
<b>SSSX</b>									
4,581.0	25.48	286.86	4,433.4	207.6	-684.9	201.7	0.00	0.00	0.00
4,600.0	25.48	286.86	4,450.6	210.0	-692.8	204.0	0.00	0.00	0.00
4,700.0	25.48	286.86	4,540.9	222.4	-733.9	216.1	0.00	0.00	0.00
4,800.0	25.48	286.86	4,631.1	234.9	-775.1	228.3	0.00	0.00	0.00
4,900.0	25.48	286.86	4,721.4	247.4	-816.3	240.4	0.00	0.00	0.00
5,000.0	25.48	286.86	4,811.7	259.9	-857.5	252.5	0.00	0.00	0.00
5,100.0	25.48	286.86	4,902.0	272.4	-898.6	264.7	0.00	0.00	0.00
<b>SNNN</b>									
5,196.0	25.48	286.86	4,988.6	284.3	-938.2	276.3	0.00	0.00	0.00
5,200.0	25.48	286.86	4,992.2	284.8	-939.8	276.8	0.00	0.00	0.00
5,300.0	25.48	286.86	5,082.5	297.3	-981.0	288.9	0.00	0.00	0.00
5,400.0	25.48	286.86	5,172.8	309.8	-1,022.2	301.0	0.00	0.00	0.00
<b>PIRRL</b>									
5,433.9	25.48	286.86	5,203.4	314.0	-1,036.1	305.1	0.00	0.00	0.00
5,500.0	25.48	286.86	5,263.0	322.3	-1,063.3	313.2	0.00	0.00	0.00
5,600.0	25.48	286.86	5,353.3	334.7	-1,104.5	325.3	0.00	0.00	0.00
5,700.0	25.48	286.86	5,443.6	347.2	-1,145.7	337.4	0.00	0.00	0.00
5,800.0	25.48	286.86	5,533.8	359.7	-1,186.9	349.5	0.00	0.00	0.00
5,900.0	25.48	286.86	5,624.1	372.2	-1,228.0	361.7	0.00	0.00	0.00
6,000.0	25.48	286.86	5,714.4	384.7	-1,269.2	373.8	0.00	0.00	0.00
6,100.0	25.48	286.86	5,804.7	397.1	-1,310.4	385.9	0.00	0.00	0.00
6,200.0	25.48	286.86	5,894.9	409.6	-1,351.6	398.0	0.00	0.00	0.00
6,300.0	25.48	286.86	5,985.2	422.1	-1,392.7	410.2	0.00	0.00	0.00
6,400.0	25.48	286.86	6,075.5	434.6	-1,433.9	422.3	0.00	0.00	0.00
<b>Build 15° / 100'</b>									
6,421.7	25.48	286.86	6,095.1	437.3	-1,442.9	424.9	0.00	0.00	0.00
6,425.0	25.59	287.96	6,098.0	437.7	-1,444.2	425.3	15.00	3.38	33.90
6,450.0	26.70	296.10	6,120.5	441.9	-1,454.4	429.4	15.00	4.44	32.54
6,475.0	28.24	303.52	6,142.7	447.6	-1,464.4	435.1	15.00	6.14	29.70
<b>MNCS</b>									
6,497.7	29.95	309.59	6,162.5	454.2	-1,473.2	441.6	15.00	7.52	26.71
6,500.0	30.13	310.16	6,164.5	454.9	-1,474.1	442.3	15.00	8.16	25.14
6,525.0	32.32	316.04	6,185.9	463.8	-1,483.5	451.1	15.00	8.77	23.50
6,550.0	34.76	321.21	6,206.7	474.1	-1,492.6	461.4	15.00	9.73	20.68
6,575.0	37.38	325.76	6,226.9	486.0	-1,501.4	473.1	15.00	10.50	18.21
6,600.0	40.16	329.78	6,246.4	499.2	-1,509.7	486.3	15.00	11.12	16.09
6,625.0	43.06	333.36	6,265.1	513.8	-1,517.6	500.8	15.00	11.61	14.31
6,650.0	46.07	336.56	6,282.9	529.7	-1,525.0	516.6	15.00	12.01	12.81
<b>NBRR</b>									
6,661.0	47.41	337.87	6,290.5	537.1	-1,528.1	524.0	15.00	12.25	11.88
6,675.0	49.15	339.45	6,299.8	546.8	-1,531.9	533.7	15.00	12.40	11.31
6,700.0	52.30	342.08	6,315.6	565.1	-1,538.3	551.9	15.00	12.60	10.52
6,725.0	55.50	344.50	6,330.3	584.4	-1,544.1	571.2	15.00	12.81	9.66
6,750.0	58.75	346.73	6,343.9	604.8	-1,549.3	591.5	15.00	12.99	8.94
6,775.0	62.03	348.82	6,356.3	626.0	-1,553.9	612.7	15.00	13.13	8.34
6,800.0	65.35	350.78	6,367.3	648.1	-1,557.8	634.7	15.00	13.25	7.84
6,825.0	68.68	352.64	6,377.1	670.8	-1,561.2	657.5	15.00	13.35	7.44
6,850.0	72.04	354.42	6,385.5	694.2	-1,563.8	680.8	15.00	13.42	7.11
6,875.0	75.41	356.13	6,392.5	718.1	-1,565.8	704.7	15.00	13.49	6.84
6,900.0	78.79	357.78	6,398.1	742.5	-1,567.1	729.0	15.00	13.54	6.63
6,925.0	82.19	359.40	6,402.2	767.1	-1,567.7	753.7	15.00	13.57	6.48

# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Marr 0780 3-6H31
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Site:</b>	Sec 7, T7N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	Marr 0780 3-6H31	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
EOB @ 84.50° Inc. / 0.49° Azm									
6,942.0	84.50	0.49	6,404.2	784.0	-1,567.7	770.6	15.00	13.59	6.39
7,000.0	84.50	0.49	6,409.8	841.7	-1,567.2	828.3	0.00	0.00	0.00
7,100.0	84.50	0.49	6,419.3	941.3	-1,566.3	927.8	0.00	0.00	0.00
7,200.0	84.50	0.49	6,428.9	1,040.8	-1,565.5	1,027.4	0.00	0.00	0.00
7,300.0	84.50	0.49	6,438.5	1,140.3	-1,564.6	1,126.9	0.00	0.00	0.00
7,400.0	84.50	0.49	6,448.1	1,239.9	-1,563.8	1,226.5	0.00	0.00	0.00
7,500.0	84.50	0.49	6,457.7	1,339.4	-1,562.9	1,326.0	0.00	0.00	0.00
7,600.0	84.50	0.49	6,467.3	1,439.0	-1,562.1	1,425.5	0.00	0.00	0.00
7,700.0	84.50	0.49	6,476.8	1,538.5	-1,561.2	1,525.1	0.00	0.00	0.00
7,800.0	84.50	0.49	6,486.4	1,638.0	-1,560.4	1,624.6	0.00	0.00	0.00
7,900.0	84.50	0.49	6,496.0	1,737.6	-1,559.5	1,724.2	0.00	0.00	0.00
8,000.0	84.50	0.49	6,505.6	1,837.1	-1,558.7	1,823.7	0.00	0.00	0.00
8,100.0	84.50	0.49	6,515.2	1,936.6	-1,557.8	1,923.2	0.00	0.00	0.00
8,200.0	84.50	0.49	6,524.8	2,036.2	-1,557.0	2,022.8	0.00	0.00	0.00
8,300.0	84.50	0.49	6,534.4	2,135.7	-1,556.1	2,122.3	0.00	0.00	0.00
8,400.0	84.50	0.49	6,543.9	2,235.2	-1,555.3	2,221.9	0.00	0.00	0.00
8,500.0	84.50	0.49	6,553.5	2,334.8	-1,554.4	2,321.4	0.00	0.00	0.00
8,600.0	84.50	0.49	6,563.1	2,434.3	-1,553.6	2,420.9	0.00	0.00	0.00
8,700.0	84.50	0.49	6,572.7	2,533.8	-1,552.7	2,520.5	0.00	0.00	0.00
8,800.0	84.50	0.49	6,582.3	2,633.4	-1,551.9	2,620.0	0.00	0.00	0.00
8,900.0	84.50	0.49	6,591.9	2,732.9	-1,551.0	2,719.6	0.00	0.00	0.00
9,000.0	84.50	0.49	6,601.4	2,832.5	-1,550.2	2,819.1	0.00	0.00	0.00
9,100.0	84.50	0.49	6,611.0	2,932.0	-1,549.3	2,918.6	0.00	0.00	0.00
9,200.0	84.50	0.49	6,620.6	3,031.5	-1,548.5	3,018.2	0.00	0.00	0.00
9,300.0	84.50	0.49	6,630.2	3,131.1	-1,547.6	3,117.7	0.00	0.00	0.00
9,400.0	84.50	0.49	6,639.8	3,230.6	-1,546.8	3,217.3	0.00	0.00	0.00
9,500.0	84.50	0.49	6,649.4	3,330.1	-1,545.9	3,316.8	0.00	0.00	0.00
9,600.0	84.50	0.49	6,659.0	3,429.7	-1,545.1	3,416.3	0.00	0.00	0.00
9,700.0	84.50	0.49	6,668.5	3,529.2	-1,544.2	3,515.9	0.00	0.00	0.00
9,800.0	84.50	0.49	6,678.1	3,628.7	-1,543.4	3,615.4	0.00	0.00	0.00
9,900.0	84.50	0.49	6,687.7	3,728.3	-1,542.5	3,715.0	0.00	0.00	0.00
10,000.0	84.50	0.49	6,697.3	3,827.8	-1,541.7	3,814.5	0.00	0.00	0.00
10,100.0	84.50	0.49	6,706.9	3,927.4	-1,540.8	3,914.0	0.00	0.00	0.00
10,200.0	84.50	0.49	6,716.5	4,026.9	-1,540.0	4,013.6	0.00	0.00	0.00
10,300.0	84.50	0.49	6,726.0	4,126.4	-1,539.1	4,113.1	0.00	0.00	0.00
10,400.0	84.50	0.49	6,735.6	4,226.0	-1,538.3	4,212.7	0.00	0.00	0.00
10,500.0	84.50	0.49	6,745.2	4,325.5	-1,537.4	4,312.2	0.00	0.00	0.00
10,600.0	84.50	0.49	6,754.8	4,425.0	-1,536.6	4,411.7	0.00	0.00	0.00
10,700.0	84.50	0.49	6,764.4	4,524.6	-1,535.7	4,511.3	0.00	0.00	0.00
10,800.0	84.50	0.49	6,774.0	4,624.1	-1,534.9	4,610.8	0.00	0.00	0.00
10,900.0	84.50	0.49	6,783.6	4,723.6	-1,534.0	4,710.3	0.00	0.00	0.00
11,000.0	84.50	0.49	6,793.1	4,823.2	-1,533.1	4,809.9	0.00	0.00	0.00
11,100.0	84.50	0.49	6,802.7	4,922.7	-1,532.3	4,909.4	0.00	0.00	0.00
11,200.0	84.50	0.49	6,812.3	5,022.2	-1,531.4	5,009.0	0.00	0.00	0.00
11,300.0	84.50	0.49	6,821.9	5,121.8	-1,530.6	5,108.5	0.00	0.00	0.00
11,400.0	84.50	0.49	6,831.5	5,221.3	-1,529.7	5,208.0	0.00	0.00	0.00
11,500.0	84.50	0.49	6,841.1	5,320.9	-1,528.9	5,307.6	0.00	0.00	0.00
11,600.0	84.50	0.49	6,850.6	5,420.4	-1,528.0	5,407.1	0.00	0.00	0.00
11,700.0	84.50	0.49	6,860.2	5,519.9	-1,527.2	5,506.7	0.00	0.00	0.00
11,800.0	84.50	0.49	6,869.8	5,619.5	-1,526.3	5,606.2	0.00	0.00	0.00
11,900.0	84.50	0.49	6,879.4	5,719.0	-1,525.5	5,705.7	0.00	0.00	0.00
12,000.0	84.50	0.49	6,889.0	5,818.5	-1,524.6	5,805.3	0.00	0.00	0.00
12,100.0	84.50	0.49	6,898.6	5,918.1	-1,523.8	5,904.8	0.00	0.00	0.00

# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Marr 0780 3-6H31
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Site:</b>	Sec 7, T7N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	Marr 0780 3-6H31	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
12,200.0	84.50	0.49	6,908.1	6,017.6	-1,522.9	6,004.4	0.00	0.00	0.00
12,300.0	84.50	0.49	6,917.7	6,117.1	-1,522.1	6,103.9	0.00	0.00	0.00
12,400.0	84.50	0.49	6,927.3	6,216.7	-1,521.2	6,203.4	0.00	0.00	0.00
12,500.0	84.50	0.49	6,936.9	6,316.2	-1,520.4	6,303.0	0.00	0.00	0.00
12,600.0	84.50	0.49	6,946.5	6,415.8	-1,519.5	6,402.5	0.00	0.00	0.00
12,700.0	84.50	0.49	6,956.1	6,515.3	-1,518.7	6,502.1	0.00	0.00	0.00
12,800.0	84.50	0.49	6,965.7	6,614.8	-1,517.8	6,601.6	0.00	0.00	0.00
12,900.0	84.50	0.49	6,975.2	6,714.4	-1,517.0	6,701.1	0.00	0.00	0.00
13,000.0	84.50	0.49	6,984.8	6,813.9	-1,516.1	6,800.7	0.00	0.00	0.00
13,100.0	84.50	0.49	6,994.4	6,913.4	-1,515.3	6,900.2	0.00	0.00	0.00
13,200.0	84.50	0.49	7,004.0	7,013.0	-1,514.4	6,999.8	0.00	0.00	0.00
13,300.0	84.50	0.49	7,013.6	7,112.5	-1,513.6	7,099.3	0.00	0.00	0.00
13,400.0	84.50	0.49	7,023.2	7,212.0	-1,512.7	7,198.8	0.00	0.00	0.00
13,500.0	84.50	0.49	7,032.7	7,311.6	-1,511.9	7,298.4	0.00	0.00	0.00
13,600.0	84.50	0.49	7,042.3	7,411.1	-1,511.0	7,397.9	0.00	0.00	0.00
13,700.0	84.50	0.49	7,051.9	7,510.6	-1,510.2	7,497.5	0.00	0.00	0.00
13,800.0	84.50	0.49	7,061.5	7,610.2	-1,509.3	7,597.0	0.00	0.00	0.00
13,900.0	84.50	0.49	7,071.1	7,709.7	-1,508.5	7,696.5	0.00	0.00	0.00
14,000.0	84.50	0.49	7,080.7	7,809.3	-1,507.6	7,796.1	0.00	0.00	0.00
14,100.0	84.50	0.49	7,090.3	7,908.8	-1,506.8	7,895.6	0.00	0.00	0.00
14,200.0	84.50	0.49	7,099.8	8,008.3	-1,505.9	7,995.2	0.00	0.00	0.00
14,300.0	84.50	0.49	7,109.4	8,107.9	-1,505.1	8,094.7	0.00	0.00	0.00
14,400.0	84.50	0.49	7,119.0	8,207.4	-1,504.2	8,194.2	0.00	0.00	0.00
14,500.0	84.50	0.49	7,128.6	8,306.9	-1,503.4	8,293.8	0.00	0.00	0.00
14,600.0	84.50	0.49	7,138.2	8,406.5	-1,502.5	8,393.3	0.00	0.00	0.00
14,700.0	84.50	0.49	7,147.8	8,506.0	-1,501.7	8,492.9	0.00	0.00	0.00
14,800.0	84.50	0.49	7,157.3	8,605.5	-1,500.8	8,592.4	0.00	0.00	0.00
14,900.0	84.50	0.49	7,166.9	8,705.1	-1,499.9	8,691.9	0.00	0.00	0.00
15,000.0	84.50	0.49	7,176.5	8,804.6	-1,499.1	8,791.5	0.00	0.00	0.00
15,100.0	84.50	0.49	7,186.1	8,904.2	-1,498.2	8,891.0	0.00	0.00	0.00
15,200.0	84.50	0.49	7,195.7	9,003.7	-1,497.4	8,990.6	0.00	0.00	0.00
15,300.0	84.50	0.49	7,205.3	9,103.2	-1,496.5	9,090.1	0.00	0.00	0.00
15,400.0	84.50	0.49	7,214.9	9,202.8	-1,495.7	9,189.6	0.00	0.00	0.00
15,500.0	84.50	0.49	7,224.4	9,302.3	-1,494.8	9,289.2	0.00	0.00	0.00
15,600.0	84.50	0.49	7,234.0	9,401.8	-1,494.0	9,388.7	0.00	0.00	0.00
15,700.0	84.50	0.49	7,243.6	9,501.4	-1,493.1	9,488.3	0.00	0.00	0.00
15,800.0	84.50	0.49	7,253.2	9,600.9	-1,492.3	9,587.8	0.00	0.00	0.00
15,900.0	84.50	0.49	7,262.8	9,700.4	-1,491.4	9,687.3	0.00	0.00	0.00
16,000.0	84.50	0.49	7,272.4	9,800.0	-1,490.6	9,786.9	0.00	0.00	0.00
16,100.0	84.50	0.49	7,281.9	9,899.5	-1,489.7	9,886.4	0.00	0.00	0.00
16,200.0	84.50	0.49	7,291.5	9,999.0	-1,488.9	9,985.9	0.00	0.00	0.00
16,300.0	84.50	0.49	7,301.1	10,098.6	-1,488.0	10,085.5	0.00	0.00	0.00
16,400.0	84.50	0.49	7,310.7	10,198.1	-1,487.2	10,185.0	0.00	0.00	0.00
16,500.0	84.50	0.49	7,320.3	10,297.7	-1,486.3	10,284.6	0.00	0.00	0.00
16,600.0	84.50	0.49	7,329.9	10,397.2	-1,485.5	10,384.1	0.00	0.00	0.00
16,700.0	84.50	0.49	7,339.5	10,496.7	-1,484.6	10,483.6	0.00	0.00	0.00
16,800.0	84.50	0.49	7,349.0	10,596.3	-1,483.8	10,583.2	0.00	0.00	0.00
16,900.0	84.50	0.49	7,358.6	10,695.8	-1,482.9	10,682.7	0.00	0.00	0.00
17,000.0	84.50	0.49	7,368.2	10,795.3	-1,482.1	10,782.3	0.00	0.00	0.00
17,100.0	84.50	0.49	7,377.8	10,894.9	-1,481.2	10,881.8	0.00	0.00	0.00
17,200.0	84.50	0.49	7,387.4	10,994.4	-1,480.4	10,981.3	0.00	0.00	0.00
17,300.0	84.50	0.49	7,397.0	11,093.9	-1,479.5	11,080.9	0.00	0.00	0.00
17,400.0	84.50	0.49	7,406.5	11,193.5	-1,478.7	11,180.4	0.00	0.00	0.00

# Well Planning Report



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Marr 0780 3-6H31
<b>Company:</b>	SandRidge Energy	<b>TVD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Project:</b>	Jackson County, Colorado	<b>MD Reference:</b>	RKB @ 8156.0usft (Cyclone #33)
<b>Site:</b>	Sec 7, T7N, R80W, 6th PM	<b>North Reference:</b>	Grid
<b>Well:</b>	Marr 0780 3-6H31	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
TD @ 17442.0' MD / 7410.6' TVD									
17,442.0	84.50	0.49	7,410.6	11,235.3	-1,478.3	11,222.2	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
LP (plat) - Marr 0780 3-6	0.00	0.00	0.0	978.0	-1,670.4	1,463,156.44	2,744,086.58	40° 36' 4.002 N	106° 25' 17.816 W
- plan misses target center by 1935.6usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Point									
KOP (plat) - Marr 0780 3-6	0.00	360.00	0.0	528.1	-1,678.9	1,462,706.59	2,744,078.08	40° 35' 59.556 N	106° 25' 17.866 W
- plan misses target center by 1760.0usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Point									
PBHL - Marr 0780 3-6	0.00	360.00	7,410.6	11,235.3	-1,478.3	1,473,413.76	2,744,278.66	40° 37' 45.374 N	106° 25' 16.708 W
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,426.0	2,426.0	LNCE		5.50	0.49	
3,418.3	3,383.8	FXHLS		5.50	0.49	
3,914.3	3,831.6	PIRR		5.50	0.49	
4,581.0	4,433.4	SSSX		5.50	0.49	
5,196.0	4,988.6	SNNN		5.50	0.49	
5,433.9	5,203.4	PIRRL		5.50	0.49	
6,497.7	6,162.5	MNCS		5.50	0.49	
6,661.0	6,290.5	NBRR		5.50	0.49	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,500.0	2,500.0	0.0	0.0	KOP (Build 3° / 100'
3,349.5	3,321.7	53.9	-177.8	EOB @ 25.48° Inc. / 286.86° Azm
6,421.7	6,095.1	437.3	-1,442.9	Build 15° / 100'
6,942.0	6,404.2	784.0	-1,567.7	EOB @ 84.50° Inc. / 0.49° Azm
17,442.0	7,410.6	11,235.3	-1,478.3	TD @ 17442.0' MD / 7410.6' TVD