

Company Name: SandRidge Energy

SU 0680 3-9H16

Jackson County, Colorado

Rig:

Created By: Shane Robbins

Date: 6/5/2018

SU 0680 3-9H16

Jackson County, Colorado

Q180*** & RM-180***

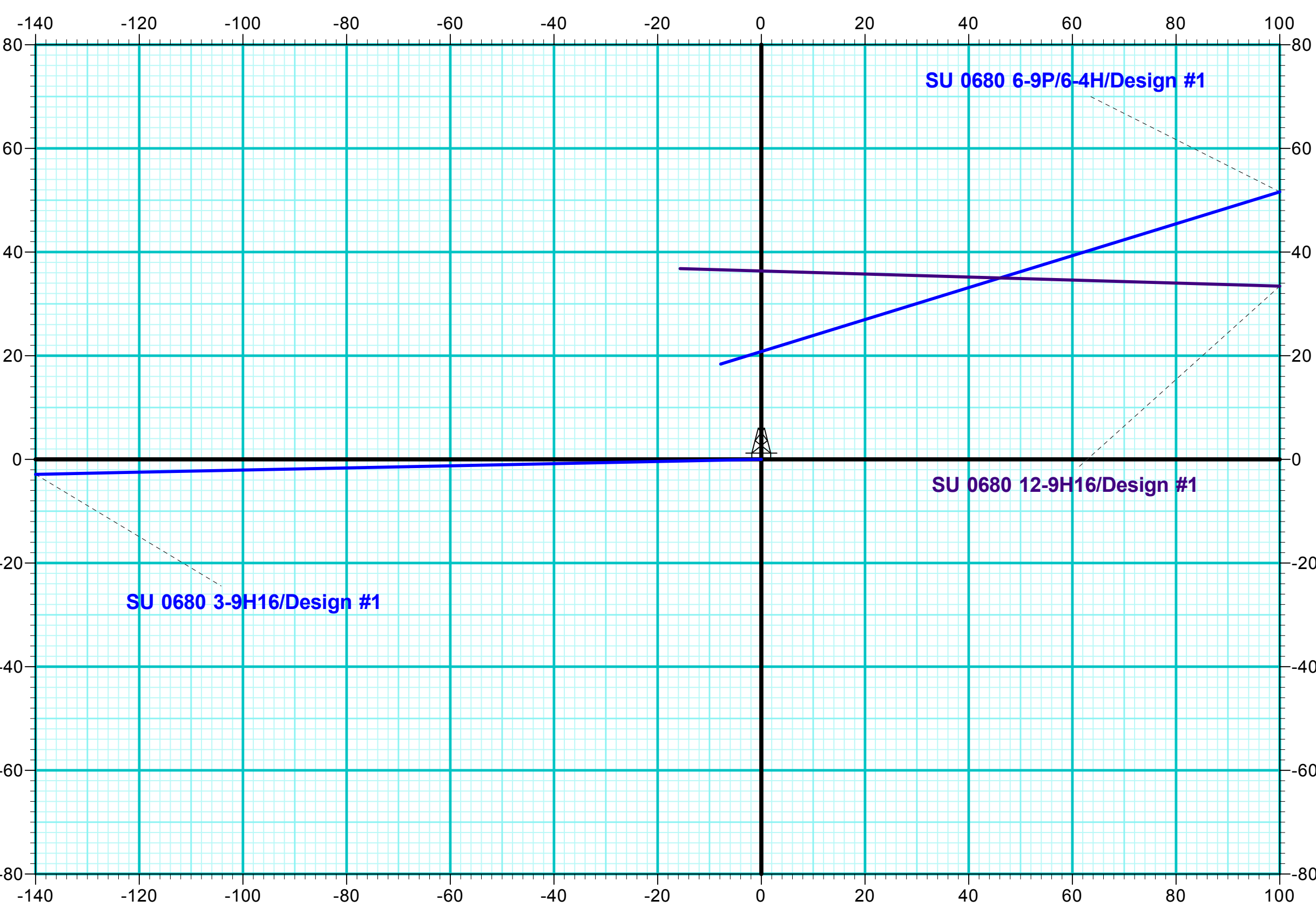
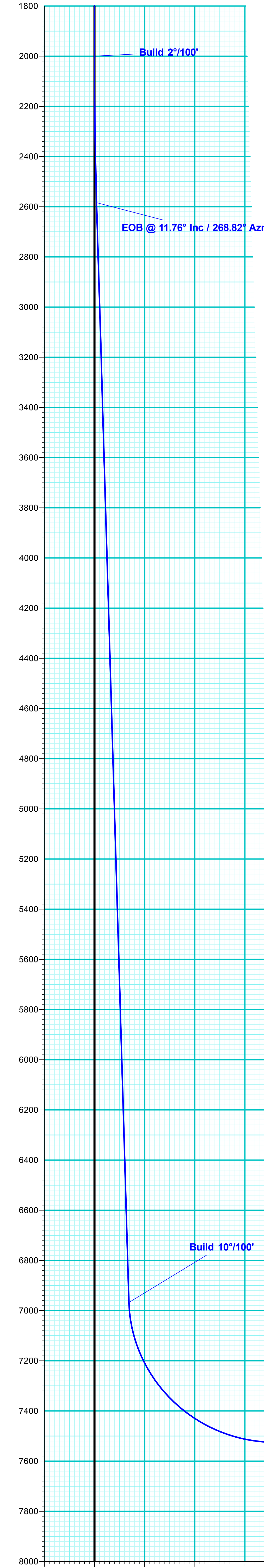
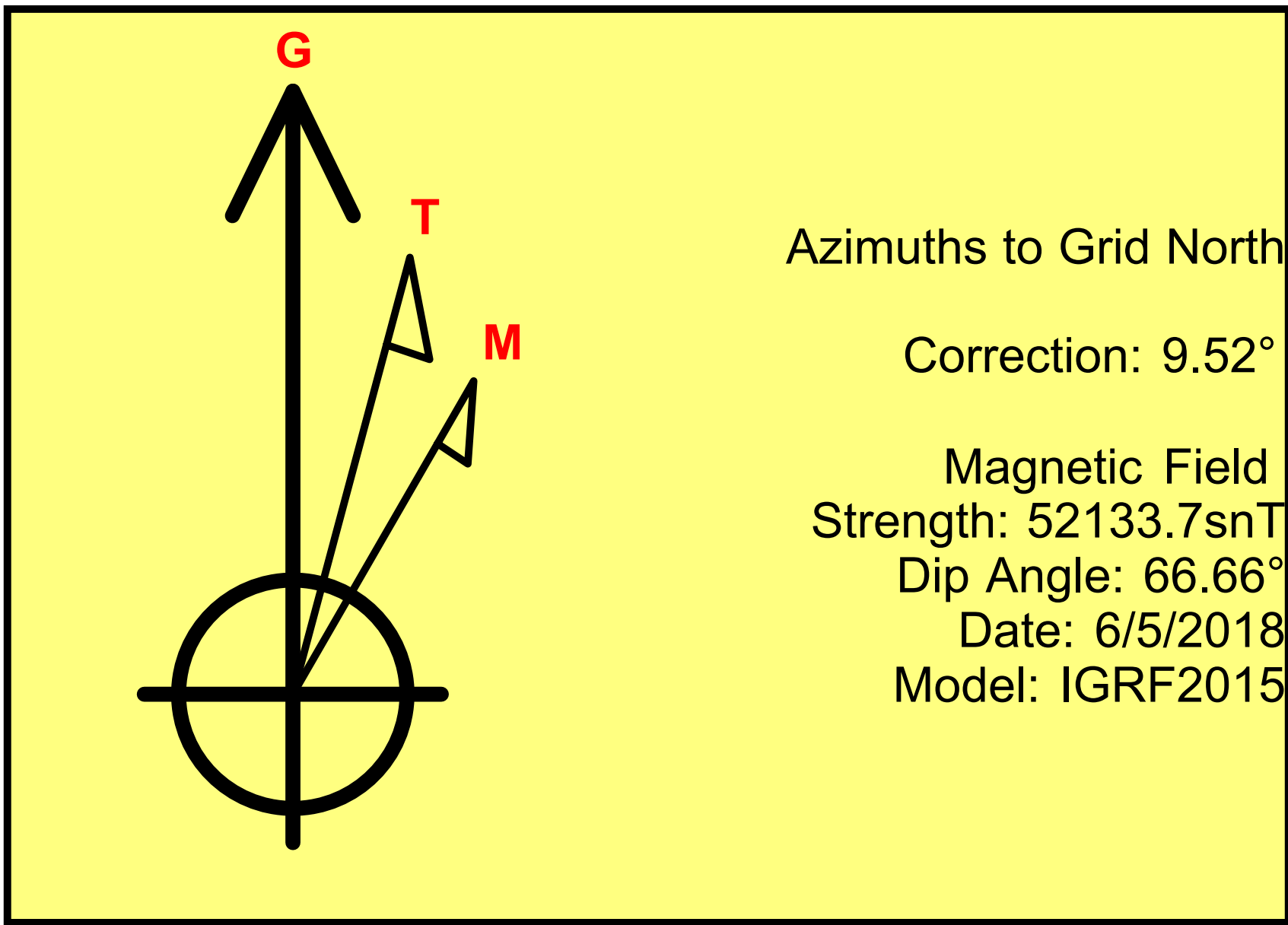
Design #1

SandRidge Energy



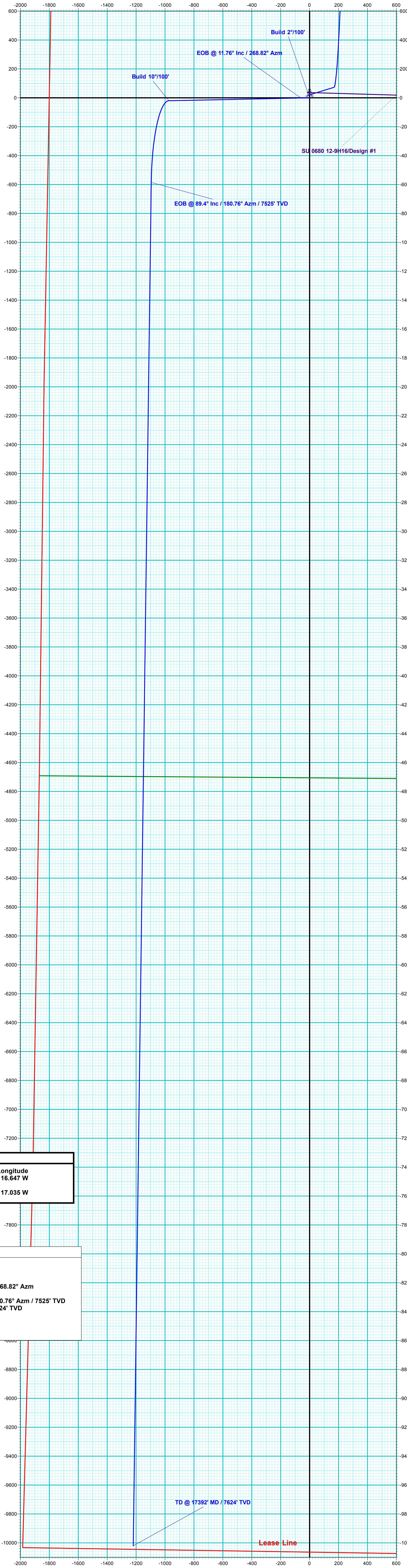
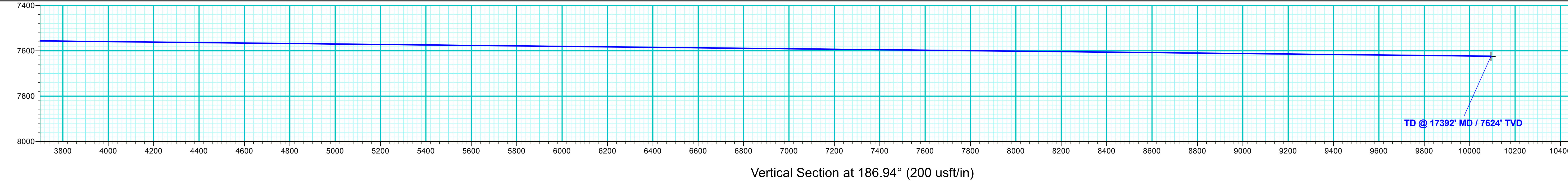
WELL DETAILS: SU 0680 3-9H16						
			8264.0			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1429851.40	2754189.01	40° 30' 35.926 N	106° 23' 2.547 W	

PROJECT DETAILS: Jackson County, Colorado	
Geodetic System: US State Plane 1983	
Datum: North American Datum 1983	
Ellipsoid: GRS 1980	
Zone: Colorado Northern Zone	
System Datum: Mean Sea Level	



DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
LP 3-9H16	7525.0	-585.6	-1095.0	1429265.79	2753094.02	40° 30' 30.031 N	106° 23' 16.647 W	
- plan hits target center								
PBHL 3-9H16	7624.0	-10020.2	-1219.4	1419831.15	2752969.57	40° 28' 56.792 N	106° 23' 17.035 W	
- plan hits target center								

SECTION DETAILS											Annotation
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect		
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		Build 2"/100'
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0		
3	2588.1	11.76	268.82	2584.0	-1.2	-60.1	2.00	268.82	8.5		EOB @ 11.76° Inc / 268.82° Azm
4	7065.9	11.76	268.82	6967.7	-20.1	-972.8	0.00	0.00	137.5		Build 10"/100'
5	7956.0	89.40	180.76	7525.0	-585.6	-1095.0	10.00	-88.22	713.6	LP 3-9H16	EOB @ 89.4° Inc / 180.76° Azm / 7525' TVD
6	17392.0	89.40	180.76	7624.0	-10020.2	-1219.4	0.00	0.00	10094.2	PBHL 3-9H16	TD @ 17392' MD / 7624' TVD



SandRidge Energy

**Jackson County, Colorado
Sec 9, T6N, R80W, 6th PM
SU 0680 3-9H16**

Wellbore #1

Plan: Design #1

QES Well Planning Report

05 June, 2018



Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well SU 0680 3-9H16
Company:	SandRidge Energy	TVD Reference:	WELL @ 8289.0usft
Project:	Jackson County, Colorado	MD Reference:	WELL @ 8289.0usft
Site:	Sec 9, T6N, R80W, 6th PM	North Reference:	Grid
Well:	SU 0680 3-9H16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Jackson County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Sec 9, T6N, R80W, 6th PM		
Site Position:		Northing:	1,429,883.61 usft
From:	Map	Easting:	2,754,175.30 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	40° 30' 36.243 N
		Longitude:	106° 23' 2.728 W
		Grid Convergence:	-0.57 °

Well	SU 0680 3-9H16		
Well Position	+N/-S	-32.2 usft	Northing:
	+E/-W	13.7 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/5/2018	8.95	66.66	52,133.74586052

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	186.94

Plan Sections										
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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,588.1	11.76	268.82	2,584.0	-1.2	-60.1	2.00	2.00	0.00	268.82	
7,065.9	11.76	268.82	6,967.7	-20.1	-972.8	0.00	0.00	0.00	0.00	
7,956.0	89.40	180.76	7,525.0	-585.6	-1,095.0	10.00	8.72	-9.89	-88.22	LP 3-9H16
17,392.0	89.40	180.76	7,624.0	-10,020.2	-1,219.4	0.00	0.00	0.00	0.00	PBHL 3-9H16

Well Planning Report



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Company:	SandRidge Energy	TVD Reference:	WELL @ 8289.0usft
Project:	Jackson County, Colorado	MD Reference:	WELL @ 8289.0usft
Site:	Sec 9, T6N, R80W, 6th PM	North Reference:	Grid
Well:	SU 0680 3-9H16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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
Build 2°/100'									
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	2.00	268.82	2,100.0	0.0	-1.7	0.2	2.00	2.00	0.00
2,200.0	4.00	268.82	2,199.8	-0.1	-7.0	1.0	2.00	2.00	0.00
2,300.0	6.00	268.82	2,299.5	-0.3	-15.7	2.2	2.00	2.00	0.00
2,400.0	8.00	268.82	2,398.7	-0.6	-27.9	3.9	2.00	2.00	0.00
2,500.0	10.00	268.82	2,497.5	-0.9	-43.5	6.1	2.00	2.00	0.00
EOB @ 11.76° Inc / 268.82° Azm									
2,588.1	11.76	268.82	2,584.0	-1.2	-60.1	8.5	2.00	2.00	0.00
2,600.0	11.76	268.82	2,595.6	-1.3	-62.6	8.8	0.01	0.01	0.00
2,700.0	11.76	268.82	2,693.5	-1.7	-82.9	11.7	0.00	0.00	0.00
2,800.0	11.76	268.82	2,791.4	-2.1	-103.3	14.6	0.00	0.00	0.00
2,900.0	11.76	268.82	2,889.3	-2.6	-123.7	17.5	0.00	0.00	0.00
3,000.0	11.76	268.82	2,987.2	-3.0	-144.1	20.4	0.00	0.00	0.00
3,100.0	11.76	268.82	3,085.1	-3.4	-164.5	23.2	0.00	0.00	0.00
3,200.0	11.76	268.82	3,183.0	-3.8	-184.9	26.1	0.00	0.00	0.00
3,300.0	11.76	268.82	3,280.9	-4.2	-205.2	29.0	0.00	0.00	0.00
3,400.0	11.76	268.82	3,378.8	-4.7	-225.6	31.9	0.00	0.00	0.00
3,500.0	11.76	268.82	3,476.7	-5.1	-246.0	34.8	0.00	0.00	0.00
3,600.0	11.76	268.82	3,574.6	-5.5	-266.4	37.6	0.00	0.00	0.00
3,700.0	11.76	268.82	3,672.5	-5.9	-286.8	40.5	0.00	0.00	0.00
3,800.0	11.76	268.82	3,770.4	-6.3	-307.1	43.4	0.00	0.00	0.00
3,900.0	11.76	268.82	3,868.3	-6.8	-327.5	46.3	0.00	0.00	0.00
4,000.0	11.76	268.82	3,966.2	-7.2	-347.9	49.2	0.00	0.00	0.00
4,100.0	11.76	268.82	4,064.1	-7.6	-368.3	52.0	0.00	0.00	0.00
4,200.0	11.76	268.82	4,162.0	-8.0	-388.7	54.9	0.00	0.00	0.00
4,300.0	11.76	268.82	4,259.9	-8.5	-409.0	57.8	0.00	0.00	0.00
4,400.0	11.76	268.82	4,357.8	-8.9	-429.4	60.7	0.00	0.00	0.00
4,500.0	11.76	268.82	4,455.7	-9.3	-449.8	63.6	0.00	0.00	0.00
4,600.0	11.76	268.82	4,553.6	-9.7	-470.2	66.4	0.00	0.00	0.00
4,700.0	11.76	268.82	4,651.5	-10.1	-490.6	69.3	0.00	0.00	0.00
4,800.0	11.76	268.82	4,749.4	-10.6	-511.0	72.2	0.00	0.00	0.00
4,900.0	11.76	268.82	4,847.3	-11.0	-531.3	75.1	0.00	0.00	0.00
5,000.0	11.76	268.82	4,945.2	-11.4	-551.7	78.0	0.00	0.00	0.00

Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well SU 0680 3-9H16
Company:	SandRidge Energy	TVD Reference:	WELL @ 8289.0usft
Project:	Jackson County, Colorado	MD Reference:	WELL @ 8289.0usft
Site:	Sec 9, T6N, R80W, 6th PM	North Reference:	Grid
Well:	SU 0680 3-9H16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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)
5,100.0	11.76	268.82	5,043.1	-11.8	-572.1	80.9	0.00	0.00	0.00
5,200.0	11.76	268.82	5,141.0	-12.2	-592.5	83.7	0.00	0.00	0.00
5,300.0	11.76	268.82	5,238.9	-12.7	-612.9	86.6	0.00	0.00	0.00
5,400.0	11.76	268.82	5,336.8	-13.1	-633.2	89.5	0.00	0.00	0.00
5,500.0	11.76	268.82	5,434.7	-13.5	-653.6	92.4	0.00	0.00	0.00
5,600.0	11.76	268.82	5,532.6	-13.9	-674.0	95.3	0.00	0.00	0.00
5,700.0	11.76	268.82	5,630.5	-14.4	-694.4	98.1	0.00	0.00	0.00
5,800.0	11.76	268.82	5,728.4	-14.8	-714.8	101.0	0.00	0.00	0.00
5,900.0	11.76	268.82	5,826.3	-15.2	-735.2	103.9	0.00	0.00	0.00
6,000.0	11.76	268.82	5,924.2	-15.6	-755.5	106.8	0.00	0.00	0.00
6,100.0	11.76	268.82	6,022.1	-16.0	-775.9	109.7	0.00	0.00	0.00
6,200.0	11.76	268.82	6,120.0	-16.5	-796.3	112.5	0.00	0.00	0.00
6,300.0	11.76	268.82	6,217.9	-16.9	-816.7	115.4	0.00	0.00	0.00
6,400.0	11.76	268.82	6,315.8	-17.3	-837.1	118.3	0.00	0.00	0.00
6,500.0	11.76	268.82	6,413.7	-17.7	-857.4	121.2	0.00	0.00	0.00
6,600.0	11.76	268.82	6,511.6	-18.1	-877.8	124.1	0.00	0.00	0.00
6,700.0	11.76	268.82	6,609.5	-18.6	-898.2	126.9	0.00	0.00	0.00
6,800.0	11.76	268.82	6,707.4	-19.0	-918.6	129.8	0.00	0.00	0.00
6,900.0	11.76	268.82	6,805.3	-19.4	-939.0	132.7	0.00	0.00	0.00
7,000.0	11.76	268.82	6,903.2	-19.8	-959.3	135.6	0.00	0.00	0.00
Build 10°/100'									
7,065.9	11.76	268.82	6,967.7	-20.1	-972.8	137.5	0.00	0.00	0.00
7,100.0	12.34	252.65	7,001.1	-21.3	-979.7	139.5	10.01	1.70	-47.40
7,150.0	14.64	233.46	7,049.7	-26.6	-989.9	146.0	10.00	4.59	-38.39
7,200.0	18.04	220.34	7,097.7	-36.3	-1,000.0	156.8	10.00	6.81	-26.23
7,250.0	22.05	211.56	7,144.7	-50.2	-1,009.9	171.8	10.00	8.01	-17.57
7,300.0	26.38	205.44	7,190.3	-68.2	-1,019.6	190.9	10.00	8.66	-12.23
7,350.0	30.90	200.98	7,234.2	-90.3	-1,029.0	213.9	10.00	9.04	-8.93
7,400.0	35.54	197.57	7,276.0	-116.1	-1,038.0	240.7	10.00	9.28	-6.82
7,450.0	40.26	194.86	7,315.5	-145.6	-1,046.5	271.0	10.00	9.43	-5.42
7,500.0	45.02	192.63	7,352.2	-178.5	-1,054.5	304.6	10.00	9.54	-4.45
7,550.0	49.83	190.75	7,386.0	-214.6	-1,062.0	341.3	10.00	9.61	-3.77
7,600.0	54.66	189.12	7,416.7	-253.5	-1,068.8	380.7	10.00	9.66	-3.27
7,650.0	59.51	187.67	7,443.8	-295.0	-1,074.9	422.7	10.00	9.70	-2.90
7,700.0	64.37	186.36	7,467.3	-338.8	-1,080.3	466.8	10.00	9.73	-2.62
7,750.0	69.25	185.15	7,487.0	-384.5	-1,084.9	512.7	10.00	9.75	-2.41
7,800.0	74.13	184.02	7,502.7	-431.8	-1,088.7	560.1	10.00	9.77	-2.26
7,850.0	79.02	182.94	7,514.3	-480.3	-1,091.6	608.7	10.00	9.78	-2.16
7,900.0	83.91	181.90	7,521.7	-529.7	-1,093.7	657.9	10.00	9.79	-2.08
7,950.0	88.81	180.88	7,524.9	-579.6	-1,094.9	707.6	10.00	9.79	-2.05
EOB @ 89.4° Inc / 180.76° Azm / 7525' TVD									
7,956.0	89.40	180.76	7,525.0	-585.6	-1,095.0	713.6	10.00	9.79	-2.04
8,000.0	89.40	180.76	7,525.5	-629.6	-1,095.6	757.3	0.01	0.01	0.00
8,100.0	89.40	180.76	7,526.5	-729.5	-1,096.9	856.7	0.00	0.00	0.00
8,200.0	89.40	180.76	7,527.6	-829.5	-1,098.2	956.1	0.00	0.00	0.00
8,300.0	89.40	180.76	7,528.6	-929.5	-1,099.5	1,055.5	0.00	0.00	0.00
8,400.0	89.40	180.76	7,529.6	-1,029.5	-1,100.8	1,155.0	0.00	0.00	0.00
8,500.0	89.40	180.76	7,530.7	-1,129.5	-1,102.2	1,254.4	0.00	0.00	0.00
8,600.0	89.40	180.76	7,531.7	-1,229.5	-1,103.5	1,353.8	0.00	0.00	0.00
8,700.0	89.40	180.76	7,532.8	-1,329.5	-1,104.8	1,453.2	0.00	0.00	0.00
8,800.0	89.40	180.76	7,533.8	-1,429.4	-1,106.1	1,552.6	0.00	0.00	0.00
8,900.0	89.40	180.76	7,534.9	-1,529.4	-1,107.4	1,652.0	0.00	0.00	0.00
9,000.0	89.40	180.76	7,535.9	-1,629.4	-1,108.8	1,751.4	0.00	0.00	0.00
9,100.0	89.40	180.76	7,537.0	-1,729.4	-1,110.1	1,850.8	0.00	0.00	0.00

Well Planning Report



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Site:	Sec 9, T6N, R80W, 6th PM	North Reference:	Grid
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Wellbore:	Wellbore #1		
Design:	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)
9,200.0	89.40	180.76	7,538.0	-1,829.4	-1,111.4	1,950.3	0.00	0.00	0.00
9,300.0	89.40	180.76	7,539.1	-1,929.4	-1,112.7	2,049.7	0.00	0.00	0.00
9,400.0	89.40	180.76	7,540.1	-2,029.4	-1,114.0	2,149.1	0.00	0.00	0.00
9,500.0	89.40	180.76	7,541.2	-2,129.4	-1,115.4	2,248.5	0.00	0.00	0.00
9,600.0	89.40	180.76	7,542.2	-2,229.3	-1,116.7	2,347.9	0.00	0.00	0.00
9,700.0	89.40	180.76	7,543.3	-2,329.3	-1,118.0	2,447.3	0.00	0.00	0.00
9,800.0	89.40	180.76	7,544.3	-2,429.3	-1,119.3	2,546.7	0.00	0.00	0.00
9,900.0	89.40	180.76	7,545.4	-2,529.3	-1,120.6	2,646.1	0.00	0.00	0.00
10,000.0	89.40	180.76	7,546.4	-2,629.3	-1,121.9	2,745.6	0.00	0.00	0.00
10,100.0	89.40	180.76	7,547.5	-2,729.3	-1,123.3	2,845.0	0.00	0.00	0.00
10,200.0	89.40	180.76	7,548.5	-2,829.3	-1,124.6	2,944.4	0.00	0.00	0.00
10,300.0	89.40	180.76	7,549.5	-2,929.2	-1,125.9	3,043.8	0.00	0.00	0.00
10,400.0	89.40	180.76	7,550.6	-3,029.2	-1,127.2	3,143.2	0.00	0.00	0.00
10,500.0	89.40	180.76	7,551.6	-3,129.2	-1,128.5	3,242.6	0.00	0.00	0.00
10,600.0	89.40	180.76	7,552.7	-3,229.2	-1,129.9	3,342.0	0.00	0.00	0.00
10,700.0	89.40	180.76	7,553.7	-3,329.2	-1,131.2	3,441.5	0.00	0.00	0.00
10,800.0	89.40	180.76	7,554.8	-3,429.2	-1,132.5	3,540.9	0.00	0.00	0.00
10,900.0	89.40	180.76	7,555.8	-3,529.2	-1,133.8	3,640.3	0.00	0.00	0.00
11,000.0	89.40	180.76	7,556.9	-3,629.1	-1,135.1	3,739.7	0.00	0.00	0.00
11,100.0	89.40	180.76	7,557.9	-3,729.1	-1,136.5	3,839.1	0.00	0.00	0.00
11,200.0	89.40	180.76	7,559.0	-3,829.1	-1,137.8	3,938.5	0.00	0.00	0.00
11,300.0	89.40	180.76	7,560.0	-3,929.1	-1,139.1	4,037.9	0.00	0.00	0.00
11,400.0	89.40	180.76	7,561.1	-4,029.1	-1,140.4	4,137.3	0.00	0.00	0.00
11,500.0	89.40	180.76	7,562.1	-4,129.1	-1,141.7	4,236.8	0.00	0.00	0.00
11,600.0	89.40	180.76	7,563.2	-4,229.1	-1,143.0	4,336.2	0.00	0.00	0.00
11,700.0	89.40	180.76	7,564.2	-4,329.0	-1,144.4	4,435.6	0.00	0.00	0.00
11,800.0	89.40	180.76	7,565.3	-4,429.0	-1,145.7	4,535.0	0.00	0.00	0.00
11,900.0	89.40	180.76	7,566.3	-4,529.0	-1,147.0	4,634.4	0.00	0.00	0.00
12,000.0	89.40	180.76	7,567.3	-4,629.0	-1,148.3	4,733.8	0.00	0.00	0.00
12,100.0	89.40	180.76	7,568.4	-4,729.0	-1,149.6	4,833.2	0.00	0.00	0.00
12,200.0	89.40	180.76	7,569.4	-4,829.0	-1,151.0	4,932.6	0.00	0.00	0.00
12,300.0	89.40	180.76	7,570.5	-4,929.0	-1,152.3	5,032.1	0.00	0.00	0.00
12,400.0	89.40	180.76	7,571.5	-5,028.9	-1,153.6	5,131.5	0.00	0.00	0.00
12,500.0	89.40	180.76	7,572.6	-5,128.9	-1,154.9	5,230.9	0.00	0.00	0.00
12,600.0	89.40	180.76	7,573.6	-5,228.9	-1,156.2	5,330.3	0.00	0.00	0.00
12,700.0	89.40	180.76	7,574.7	-5,328.9	-1,157.6	5,429.7	0.00	0.00	0.00
12,800.0	89.40	180.76	7,575.7	-5,428.9	-1,158.9	5,529.1	0.00	0.00	0.00
12,900.0	89.40	180.76	7,576.8	-5,528.9	-1,160.2	5,628.5	0.00	0.00	0.00
13,000.0	89.40	180.76	7,577.8	-5,628.9	-1,161.5	5,727.9	0.00	0.00	0.00
13,100.0	89.40	180.76	7,578.9	-5,728.8	-1,162.8	5,827.4	0.00	0.00	0.00
13,200.0	89.40	180.76	7,579.9	-5,828.8	-1,164.2	5,926.8	0.00	0.00	0.00
13,300.0	89.40	180.76	7,581.0	-5,928.8	-1,165.5	6,026.2	0.00	0.00	0.00
13,400.0	89.40	180.76	7,582.0	-6,028.8	-1,166.8	6,125.6	0.00	0.00	0.00
13,500.0	89.40	180.76	7,583.1	-6,128.8	-1,168.1	6,225.0	0.00	0.00	0.00
13,600.0	89.40	180.76	7,584.1	-6,228.8	-1,169.4	6,324.4	0.00	0.00	0.00
13,700.0	89.40	180.76	7,585.1	-6,328.8	-1,170.7	6,423.8	0.00	0.00	0.00
13,800.0	89.40	180.76	7,586.2	-6,428.7	-1,172.1	6,523.2	0.00	0.00	0.00
13,900.0	89.40	180.76	7,587.2	-6,528.7	-1,173.4	6,622.7	0.00	0.00	0.00
14,000.0	89.40	180.76	7,588.3	-6,628.7	-1,174.7	6,722.1	0.00	0.00	0.00
14,100.0	89.40	180.76	7,589.3	-6,728.7	-1,176.0	6,821.5	0.00	0.00	0.00
14,200.0	89.40	180.76	7,590.4	-6,828.7	-1,177.3	6,920.9	0.00	0.00	0.00
14,300.0	89.40	180.76	7,591.4	-6,928.7	-1,178.7	7,020.3	0.00	0.00	0.00
14,400.0	89.40	180.76	7,592.5	-7,028.7	-1,180.0	7,119.7	0.00	0.00	0.00
14,500.0	89.40	180.76	7,593.5	-7,128.6	-1,181.3	7,219.1	0.00	0.00	0.00

Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well SU 0680 3-9H16
Company:	SandRidge Energy	TVD Reference:	WELL @ 8289.0usft
Project:	Jackson County, Colorado	MD Reference:	WELL @ 8289.0usft
Site:	Sec 9, T6N, R80W, 6th PM	North Reference:	Grid
Well:	SU 0680 3-9H16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	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)	
14,600.0	89.40	180.76	7,594.6	-7,228.6	-1,182.6	7,318.6	0.00	0.00	0.00	
14,700.0	89.40	180.76	7,595.6	-7,328.6	-1,183.9	7,418.0	0.00	0.00	0.00	
14,800.0	89.40	180.76	7,596.7	-7,428.6	-1,185.3	7,517.4	0.00	0.00	0.00	
14,900.0	89.40	180.76	7,597.7	-7,528.6	-1,186.6	7,616.8	0.00	0.00	0.00	
15,000.0	89.40	180.76	7,598.8	-7,628.6	-1,187.9	7,716.2	0.00	0.00	0.00	
15,100.0	89.40	180.76	7,599.8	-7,728.6	-1,189.2	7,815.6	0.00	0.00	0.00	
15,200.0	89.40	180.76	7,600.9	-7,828.5	-1,190.5	7,915.0	0.00	0.00	0.00	
15,300.0	89.40	180.76	7,601.9	-7,928.5	-1,191.8	8,014.4	0.00	0.00	0.00	
15,400.0	89.40	180.76	7,603.0	-8,028.5	-1,193.2	8,113.9	0.00	0.00	0.00	
15,500.0	89.40	180.76	7,604.0	-8,128.5	-1,194.5	8,213.3	0.00	0.00	0.00	
15,600.0	89.40	180.76	7,605.0	-8,228.5	-1,195.8	8,312.7	0.00	0.00	0.00	
15,700.0	89.40	180.76	7,606.1	-8,328.5	-1,197.1	8,412.1	0.00	0.00	0.00	
15,800.0	89.40	180.76	7,607.1	-8,428.5	-1,198.4	8,511.5	0.00	0.00	0.00	
15,900.0	89.40	180.76	7,608.2	-8,528.4	-1,199.8	8,610.9	0.00	0.00	0.00	
16,000.0	89.40	180.76	7,609.2	-8,628.4	-1,201.1	8,710.3	0.00	0.00	0.00	
16,100.0	89.40	180.76	7,610.3	-8,728.4	-1,202.4	8,809.7	0.00	0.00	0.00	
16,200.0	89.40	180.76	7,611.3	-8,828.4	-1,203.7	8,909.2	0.00	0.00	0.00	
16,300.0	89.40	180.76	7,612.4	-8,928.4	-1,205.0	9,008.6	0.00	0.00	0.00	
16,400.0	89.40	180.76	7,613.4	-9,028.4	-1,206.4	9,108.0	0.00	0.00	0.00	
16,500.0	89.40	180.76	7,614.5	-9,128.4	-1,207.7	9,207.4	0.00	0.00	0.00	
16,600.0	89.40	180.76	7,615.5	-9,228.3	-1,209.0	9,306.8	0.00	0.00	0.00	
16,700.0	89.40	180.76	7,616.6	-9,328.3	-1,210.3	9,406.2	0.00	0.00	0.00	
16,800.0	89.40	180.76	7,617.6	-9,428.3	-1,211.6	9,505.6	0.00	0.00	0.00	
16,900.0	89.40	180.76	7,618.7	-9,528.3	-1,213.0	9,605.0	0.00	0.00	0.00	
17,000.0	89.40	180.76	7,619.7	-9,628.3	-1,214.3	9,704.5	0.00	0.00	0.00	
17,100.0	89.40	180.76	7,620.8	-9,728.3	-1,215.6	9,803.9	0.00	0.00	0.00	
17,200.0	89.40	180.76	7,621.8	-9,828.3	-1,216.9	9,903.3	0.00	0.00	0.00	
17,300.0	89.40	180.76	7,622.8	-9,928.2	-1,218.2	10,002.7	0.00	0.00	0.00	
TD @ 17392' MD / 7624' TVD										
17,392.0	89.40	180.76	7,623.8	-10,020.2	-1,219.4	10,094.2	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
LP 3-9H16 - hit/miss target - Shape - Point	0.00	0.00	7,525.0	-585.6	-1,095.0	1,429,265.79	2,753,094.02	40° 30' 30.031 N		106° 23' 16.647 W
PBHL 3-9H16 - plan misses target center by 0.2usft at 17392.0usft MD (7623.8 TVD, -10020.2 N, -1219.4 E) - Point	0.00	0.00	7,624.0	-10,020.2	-1,219.4	1,419,831.15	2,752,969.57	40° 28' 56.792 N		106° 23' 17.035 W

Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well SU 0680 3-9H16
Company:	SandRidge Energy	TVD Reference:	WELL @ 8289.0usft
Project:	Jackson County, Colorado	MD Reference:	WELL @ 8289.0usft
Site:	Sec 9, T6N, R80W, 6th PM	North Reference:	Grid
Well:	SU 0680 3-9H16	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.0	2,000.0	0.0	0.0	Build 2°/100'
2,588.1	2,584.0	-1.2	-60.1	EOB @ 11.76° Inc / 268.82° Azm
7,065.9	6,967.7	-20.1	-972.8	Build 10°/100'
7,956.0	7,525.0	-585.6	-1,095.0	EOB @ 89.4° Inc / 180.76° Azm / 7525' TVD
17,392.0	7,623.8	-10,020.2	-1,219.4	TD @ 17392' MD / 7624' TVD