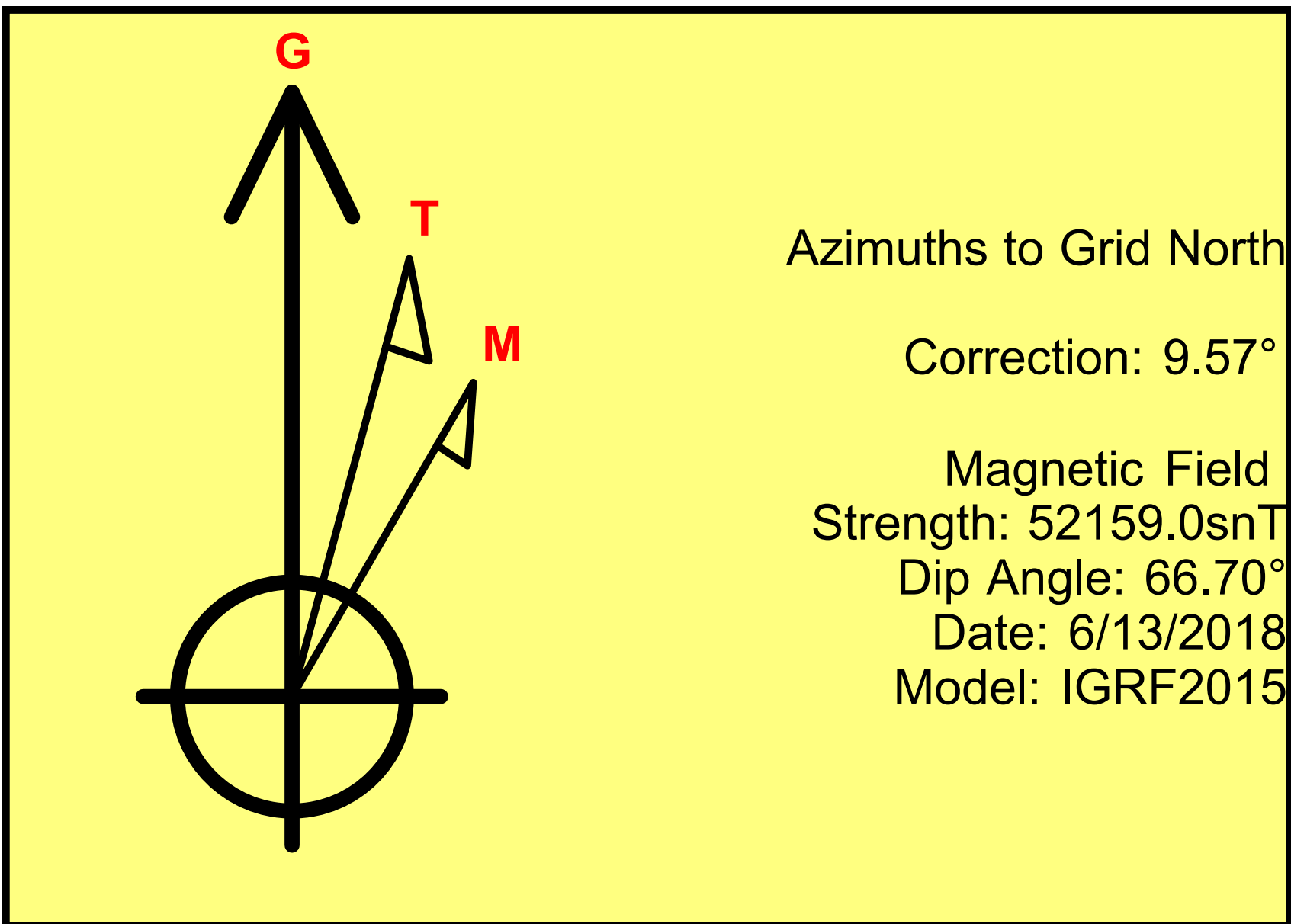


Company Name: SandRidge Energy
Peters 0781 9-13
Jackson County, Colorado
Rig:
Created By: Shane Robbins
Date: 6/13/2018

Peters 0781 9-13
Jackson County, Colorado
Q180*** & RM-180***
Design #1

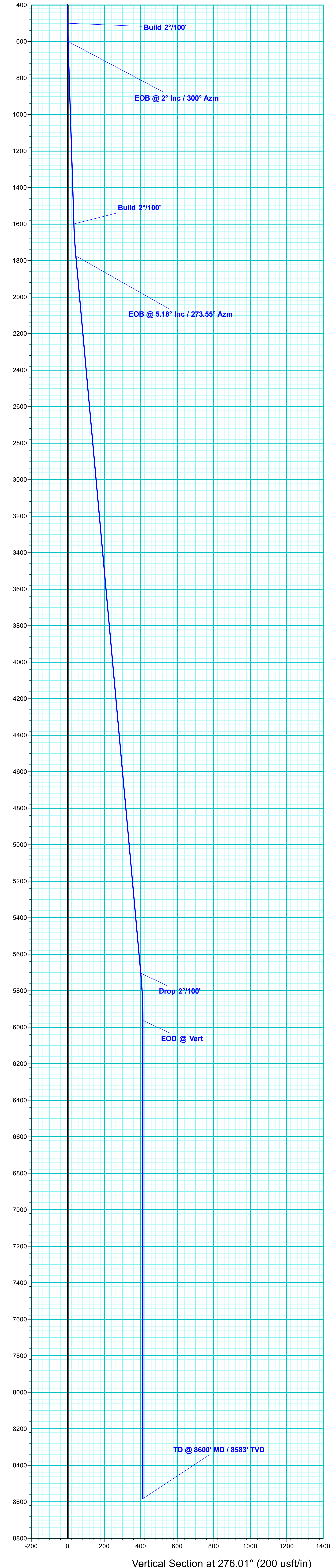
SandRidge Energy



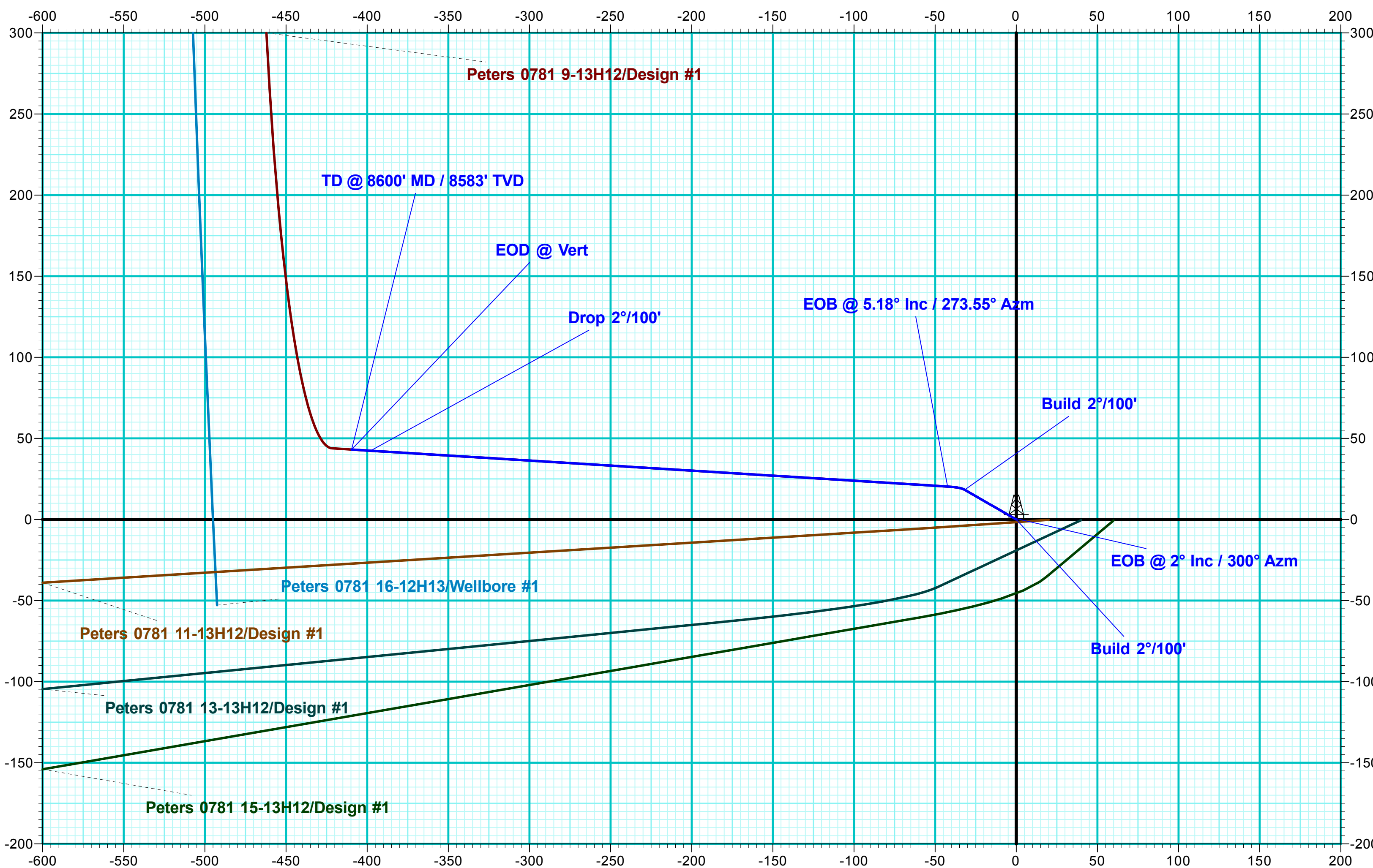
PROJECT DETAILS: Jackson County, Colorado	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	Colorado Northern Zone
System Datum:	Mean Sea Level

WELL DETAILS: Peters 0781 9-13						
			8207.2			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	1452362.47	2743129.82	40° 34' 17.248 N	106° 25' 28.760 W	

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Build 2°/100'
2	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	EOB @ 2° Inc / 300° Azm
3	600.0	2.00	300.00	600.0	0.9	-1.5	2.00	300.00	1.6	Build 2°/100'
4	1600.0	2.00	300.00	1599.4	18.3	-31.7	0.00	0.00	33.5	EOB @ 5.18° Inc / 273.55° Azm
5	1775.2	5.18	273.55	1774.2	20.3	-42.3	2.00	-41.14	44.2	Drop 2°/100'
6	5721.0	5.18	273.55	5703.9	42.4	-397.8	0.00	0.00	400.1	EOD @ Vert
7	5960.0	0.00	0.00	5962.5	43.1	-409.5	2.00	180.00	411.8	TD @ 8600' MD / 8583' TVD
8	8600.0	0.00	0.00	8582.5	43.1	-409.5	0.00	0.00	411.8	



Vertical Section at 276.01° (200 usft/in)



SandRidge Energy

**Jackson County, Colorado
Sec 18, T7N, R80W, 6th PM
Peters 0781 9-13**

Wellbore #1

Plan: Design #1

QES Well Planning Report

13 June, 2018



Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Peters 0781 9-13
Company:	SandRidge Energy	TVD Reference:	WELL @ 8232.2usft
Project:	Jackson County, Colorado	MD Reference:	WELL @ 8232.2usft
Site:	Sec 18, T7N, R80W, 6th PM	North Reference:	Grid
Well:	Peters 0781 9-13	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 18, T7N, R80W, 6th PM			
Site Position:		Northing:	1,452,362.47 usft	Latitude:	40° 34' 17.248 N
From:	Map	Easting:	2,743,129.82 usft	Longitude:	106° 25' 28.760 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.60 °

Well	Peters 0781 9-13					
Well Position	+N/-S	0.0 usft	Northing:	1,452,362.47 usft	Latitude:	40° 34' 17.248 N
	+E/-W	0.0 usft	Easting:	2,743,129.82 usft	Longitude:	106° 25' 28.760 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	8,207.2 usft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/13/2018	8.98	66.70	52,159.02322387

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	276.01

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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	2.00	300.00	600.0	0.9	-1.5	2.00	2.00	0.00	300.00	
1,600.0	2.00	300.00	1,599.4	18.3	-31.7	0.00	0.00	0.00	0.00	
1,775.2	5.18	273.55	1,774.2	20.3	-42.3	2.00	1.81	-15.10	-41.14	
5,721.0	5.18	273.55	5,703.9	42.4	-397.8	0.00	0.00	0.00	0.00	
5,980.0	0.00	0.00	5,962.5	43.1	-409.5	2.00	-2.00	0.00	180.00	
8,600.0	0.00	0.00	8,582.5	43.1	-409.5	0.00	0.00	0.00	0.00	

Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Peters 0781 9-13
Company:	SandRidge Energy	TVD Reference:	WELL @ 8232.2usft
Project:	Jackson County, Colorado	MD Reference:	WELL @ 8232.2usft
Site:	Sec 18, T7N, R80W, 6th PM	North Reference:	Grid
Well:	Peters 0781 9-13	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
Build 2°/100'									
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
EOB @ 2° Inc / 300° Azm									
600.0	2.00	300.00	600.0	0.9	-1.5	1.6	2.00	2.00	0.00
700.0	2.00	300.00	699.9	2.6	-4.5	4.8	0.00	0.00	0.00
800.0	2.00	300.00	799.9	4.4	-7.6	8.0	0.00	0.00	0.00
900.0	2.00	300.00	899.8	6.1	-10.6	11.2	0.00	0.00	0.00
1,000.0	2.00	300.00	999.7	7.9	-13.6	14.3	0.00	0.00	0.00
1,100.0	2.00	300.00	1,099.7	9.6	-16.6	17.5	0.00	0.00	0.00
1,200.0	2.00	300.00	1,199.6	11.3	-19.6	20.7	0.00	0.00	0.00
1,300.0	2.00	300.00	1,299.6	13.1	-22.7	23.9	0.00	0.00	0.00
1,400.0	2.00	300.00	1,399.5	14.8	-25.7	27.1	0.00	0.00	0.00
1,500.0	2.00	300.00	1,499.4	16.6	-28.7	30.3	0.00	0.00	0.00
Build 2°/100'									
1,600.0	2.00	300.00	1,599.4	18.3	-31.7	33.5	0.00	0.00	0.00
1,700.0	3.74	279.42	1,699.2	19.7	-36.5	38.3	2.00	1.74	-20.58
EOB @ 5.18° Inc / 273.55° Azm									
1,775.2	5.18	273.55	1,774.2	20.3	-42.3	44.2	2.00	1.91	-7.80
1,800.0	5.18	273.55	1,798.9	20.5	-44.5	46.4	0.00	0.00	0.00
1,900.0	5.18	273.55	1,898.5	21.0	-53.5	55.4	0.00	0.00	0.00
2,000.0	5.18	273.55	1,998.1	21.6	-62.5	64.5	0.00	0.00	0.00
2,100.0	5.18	273.55	2,097.7	22.2	-71.5	73.5	0.00	0.00	0.00
2,200.0	5.18	273.55	2,197.3	22.7	-80.6	82.5	0.00	0.00	0.00
2,300.0	5.18	273.55	2,296.9	23.3	-89.6	91.5	0.00	0.00	0.00
2,400.0	5.18	273.55	2,396.5	23.8	-98.6	100.5	0.00	0.00	0.00
2,500.0	5.18	273.55	2,496.1	24.4	-107.6	109.6	0.00	0.00	0.00
2,600.0	5.18	273.55	2,595.6	25.0	-116.6	118.6	0.00	0.00	0.00
2,700.0	5.18	273.55	2,695.2	25.5	-125.6	127.6	0.00	0.00	0.00
2,800.0	5.18	273.55	2,794.8	26.1	-134.6	136.6	0.00	0.00	0.00
2,900.0	5.18	273.55	2,894.4	26.6	-143.6	145.6	0.00	0.00	0.00
3,000.0	5.18	273.55	2,994.0	27.2	-152.6	154.7	0.00	0.00	0.00
3,100.0	5.18	273.55	3,093.6	27.7	-161.7	163.7	0.00	0.00	0.00
3,200.0	5.18	273.55	3,193.2	28.3	-170.7	172.7	0.00	0.00	0.00
3,300.0	5.18	273.55	3,292.8	28.9	-179.7	181.7	0.00	0.00	0.00
3,400.0	5.18	273.55	3,392.4	29.4	-188.7	190.7	0.00	0.00	0.00
3,500.0	5.18	273.55	3,492.0	30.0	-197.7	199.8	0.00	0.00	0.00
3,600.0	5.18	273.55	3,591.6	30.5	-206.7	208.8	0.00	0.00	0.00
3,700.0	5.18	273.55	3,691.2	31.1	-215.7	217.8	0.00	0.00	0.00
3,800.0	5.18	273.55	3,790.7	31.7	-224.7	226.8	0.00	0.00	0.00
3,900.0	5.18	273.55	3,890.3	32.2	-233.7	235.8	0.00	0.00	0.00
4,000.0	5.18	273.55	3,989.9	32.8	-242.8	244.9	0.00	0.00	0.00
4,100.0	5.18	273.55	4,089.5	33.3	-251.8	253.9	0.00	0.00	0.00
4,200.0	5.18	273.55	4,189.1	33.9	-260.8	262.9	0.00	0.00	0.00
4,300.0	5.18	273.55	4,288.7	34.5	-269.8	271.9	0.00	0.00	0.00
4,400.0	5.18	273.55	4,388.3	35.0	-278.8	280.9	0.00	0.00	0.00
4,500.0	5.18	273.55	4,487.9	35.6	-287.8	290.0	0.00	0.00	0.00
4,600.0	5.18	273.55	4,587.5	36.1	-296.8	299.0	0.00	0.00	0.00
4,700.0	5.18	273.55	4,687.1	36.7	-305.8	308.0	0.00	0.00	0.00
4,800.0	5.18	273.55	4,786.7	37.3	-314.8	317.0	0.00	0.00	0.00

Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Peters 0781 9-13
Company:	SandRidge Energy	TVD Reference:	WELL @ 8232.2usft
Project:	Jackson County, Colorado	MD Reference:	WELL @ 8232.2usft
Site:	Sec 18, T7N, R80W, 6th PM	North Reference:	Grid
Well:	Peters 0781 9-13	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)
4,900.0	5.18	273.55	4,886.3	37.8	-323.9	326.0	0.00	0.00	0.00
5,000.0	5.18	273.55	4,985.8	38.4	-332.9	335.1	0.00	0.00	0.00
5,100.0	5.18	273.55	5,085.4	38.9	-341.9	344.1	0.00	0.00	0.00
5,200.0	5.18	273.55	5,185.0	39.5	-350.9	353.1	0.00	0.00	0.00
5,300.0	5.18	273.55	5,284.6	40.0	-359.9	362.1	0.00	0.00	0.00
5,400.0	5.18	273.55	5,384.2	40.6	-368.9	371.1	0.00	0.00	0.00
5,500.0	5.18	273.55	5,483.8	41.2	-377.9	380.2	0.00	0.00	0.00
5,600.0	5.18	273.55	5,583.4	41.7	-386.9	389.2	0.00	0.00	0.00
5,700.0	5.18	273.55	5,683.0	42.3	-396.0	398.2	0.00	0.00	0.00
Drop 2°/100'									
5,721.0	5.18	273.55	5,703.9	42.4	-397.8	400.1	0.00	0.00	0.00
5,800.0	3.60	273.55	5,782.7	42.8	-403.9	406.1	2.00	-2.00	0.00
5,900.0	1.60	273.55	5,882.6	43.1	-408.4	410.7	2.00	-2.00	0.00
EOD @ Vert									
5,980.0	0.00	0.00	5,962.5	43.1	-409.5	411.8	2.00	-2.00	0.00
6,000.0	0.00	0.00	5,982.5	43.1	-409.5	411.8	0.00	0.00	0.00
6,100.0	0.00	0.00	6,082.5	43.1	-409.5	411.8	0.00	0.00	0.00
6,200.0	0.00	0.00	6,182.5	43.1	-409.5	411.8	0.00	0.00	0.00
6,300.0	0.00	0.00	6,282.5	43.1	-409.5	411.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,382.5	43.1	-409.5	411.8	0.00	0.00	0.00
6,500.0	0.00	0.00	6,482.5	43.1	-409.5	411.8	0.00	0.00	0.00
6,600.0	0.00	0.00	6,582.5	43.1	-409.5	411.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,682.5	43.1	-409.5	411.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,782.5	43.1	-409.5	411.8	0.00	0.00	0.00
6,900.0	0.00	0.00	6,882.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,982.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,100.0	0.00	0.00	7,082.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,200.0	0.00	0.00	7,182.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,282.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,382.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,482.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,582.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,700.0	0.00	0.00	7,682.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,782.5	43.1	-409.5	411.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,882.5	43.1	-409.5	411.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,982.5	43.1	-409.5	411.8	0.00	0.00	0.00
8,100.0	0.00	0.00	8,082.5	43.1	-409.5	411.8	0.00	0.00	0.00
8,200.0	0.00	0.00	8,182.5	43.1	-409.5	411.8	0.00	0.00	0.00
8,300.0	0.00	0.00	8,282.5	43.1	-409.5	411.8	0.00	0.00	0.00
8,400.0	0.00	0.00	8,382.5	43.1	-409.5	411.8	0.00	0.00	0.00
8,500.0	0.00	0.00	8,482.5	43.1	-409.5	411.8	0.00	0.00	0.00
TD @ 8600' MD / 8583' TVD									
8,600.0	0.00	0.00	8,582.5	43.1	-409.5	411.8	0.00	0.00	0.00

Well Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Peters 0781 9-13
Company:	SandRidge Energy	TVD Reference:	WELL @ 8232.2usft
Project:	Jackson County, Colorado	MD Reference:	WELL @ 8232.2usft
Site:	Sec 18, T7N, R80W, 6th PM	North Reference:	Grid
Well:	Peters 0781 9-13	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)	
500.0	500.0	0.0	0.0	Build 2°/100'
600.0	600.0	0.9	-1.5	EOB @ 2° Inc / 300° Azm
1,600.0	1,599.4	18.3	-31.7	Build 2°/100'
1,775.2	1,774.2	20.3	-42.3	EOB @ 5.18° Inc / 273.55° Azm
5,721.0	5,703.9	42.4	-397.8	Drop 2°/100'
5,980.0	5,962.5	43.1	-409.5	EOD @ Vert
8,600.0	8,582.5	43.1	-409.5	TD @ 8600' MD / 8583' TVD