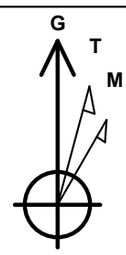
PROJECT DETAILS: North Park Basin

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level



Azimuths to Grid North
True North: 0.57°
Magnetic North: 10.46°

Magnetic Field
Strength: 53191.0snT
Dip Angle: 66.98°
Date: 12/31/2009
Model: IGRF200510

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
7280.0	7419.3	Niobrara	0.00	

CASING DETAILS

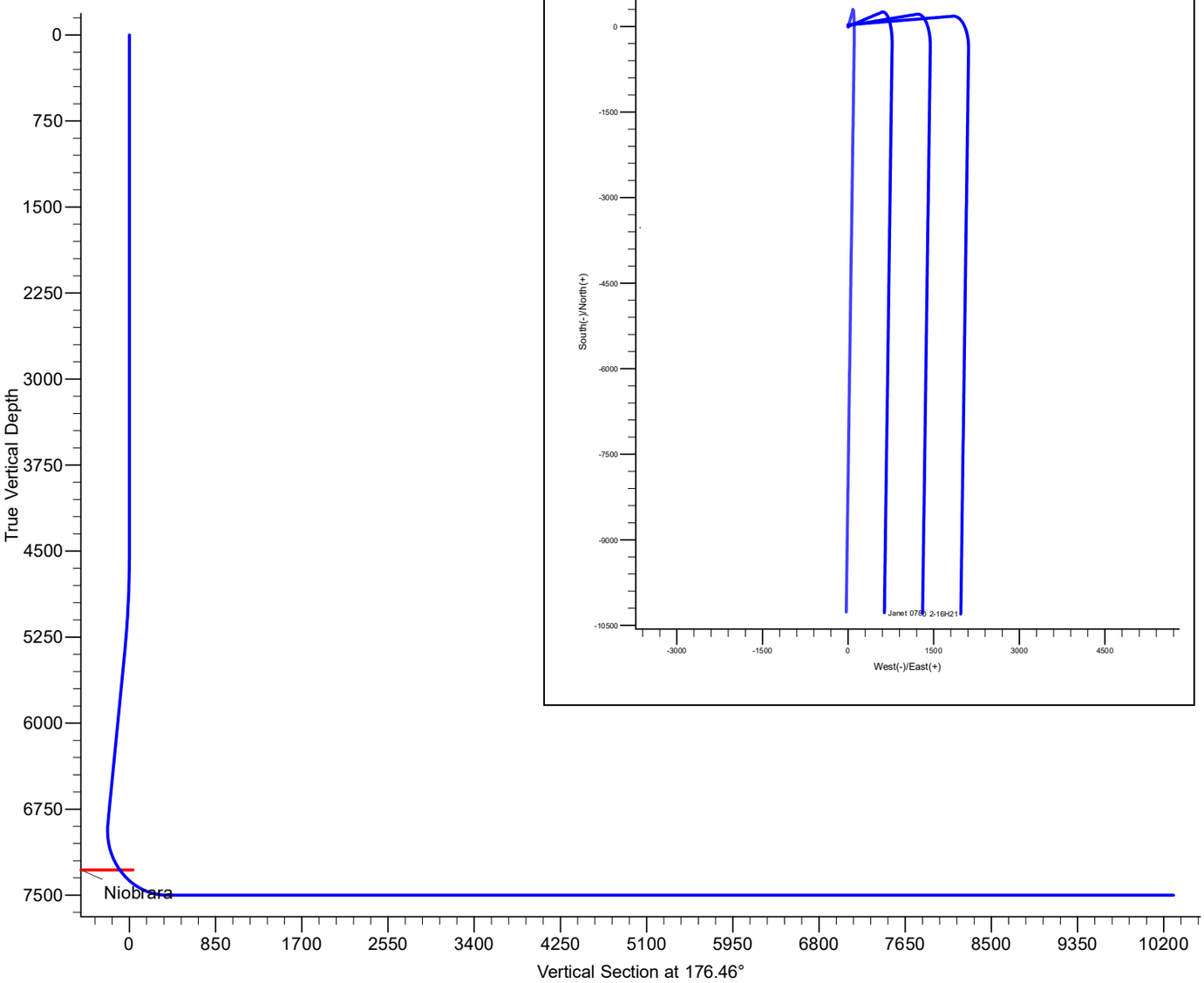
No casing data is available

DESIGN DETAILS: Design #1

0' Vertical Section coordinates

Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD		176.46	Slot	0.0	0.0	0.0

Project: North Park Basin
Site: T7N-R80W-S9
Well: Janet 0780 2-16H21
Wellbore: Wellbore #1
Design: Design #1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4500.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.0	
3	5424.7	18.49	67.04	5408.7	57.7	136.2	2.00	67.04	-49.2	
4	6978.4	18.49	67.04	6882.2	250.0	590.0	0.00	0.00	-213.1	
5	7951.8	90.00	180.78	7500.0	-320.8	771.4	10.00	112.64	367.8	Janet 2 BHL
6	17908.8	90.00	180.78	7500.0	-10276.9	635.8	0.00	0.00	10296.5	Janet 2 BHL

SandRidge Energy

North Park Basin
T7N-R80W-S9
Janet 0780 2-16H21

Wellbore #1

Plan: Design #1

Standard Survey Report

08 August, 2017

SandRidge Energy

Survey Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 2-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Well:	Janet 0780 2-16H21	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDMProd

Project	North Park Basin		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	T7N-R80W-S9				
Site Position:		**Northing:**	1,457,270.18 usft	**Latitude:**	40° 35' 6.782 N
From:	Map	**Easting:**	2,753,429.57 usft	**Longitude:**	106° 23' 15.932 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-0.57 °

Well	Janet 0780 2-16H21					
Well Position	**+N/-S**	0.0 usft	**Northing:**	1,456,896.03 usft	**Latitude:**	40° 35' 3.096 N
	+E/-W	0.0 usft	**Easting:**	2,753,543.41 usft	**Longitude:**	106° 23' 14.408 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	8,126.0 usft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	12/31/2009	9.88	66.98	53,191

Design	Design #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	176.46

Survey Tool Program **Date** 8/8/2017

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.0	17,908.6	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination

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

SandRidge Energy

Survey Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 2-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Well:	Janet 0780 2-16H21	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDMProd

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)
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
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	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
4,600.0	2.00	67.04	4,600.0	0.7	1.6	-0.6	2.00	2.00	0.00
4,700.0	4.00	67.04	4,699.8	2.7	6.4	-2.3	2.00	2.00	0.00
4,800.0	6.00	67.04	4,799.5	6.1	14.4	-5.2	2.00	2.00	0.00
4,900.0	8.00	67.04	4,898.7	10.9	25.7	-9.3	2.00	2.00	0.00
5,000.0	10.00	67.04	4,997.5	17.0	40.1	-14.5	2.00	2.00	0.00
5,100.0	12.00	67.04	5,095.6	24.4	57.6	-20.8	2.00	2.00	0.00
5,200.0	14.00	67.04	5,193.1	33.2	78.4	-28.3	2.00	2.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 2-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Well:	Janet 0780 2-16H21	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDMProd

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)
5,300.0	16.00	67.04	5,289.6	43.3	102.2	-36.9	2.00	2.00	0.00
5,400.0	18.00	67.04	5,385.3	54.7	129.1	-46.6	2.00	2.00	0.00
5,424.7	18.49	67.04	5,408.7	57.7	136.2	-49.2	2.00	2.00	0.00
Start 1553.7 hold at 5424.7 MD									
5,500.0	18.49	67.04	5,480.1	67.0	158.2	-57.1	0.00	0.00	0.00
5,600.0	18.49	67.04	5,575.0	79.4	187.4	-67.7	0.00	0.00	0.00
5,700.0	18.49	67.04	5,669.8	91.8	216.6	-78.2	0.00	0.00	0.00
5,800.0	18.49	67.04	5,764.6	104.2	245.8	-88.8	0.00	0.00	0.00
5,900.0	18.49	67.04	5,859.5	116.5	275.0	-99.3	0.00	0.00	0.00
6,000.0	18.49	67.04	5,954.3	128.9	304.2	-109.9	0.00	0.00	0.00
6,100.0	18.49	67.04	6,049.2	141.3	333.5	-120.4	0.00	0.00	0.00
6,200.0	18.49	67.04	6,144.0	153.7	362.7	-131.0	0.00	0.00	0.00
6,300.0	18.49	67.04	6,238.8	166.0	391.9	-141.5	0.00	0.00	0.00
6,400.0	18.49	67.04	6,333.7	178.4	421.1	-152.1	0.00	0.00	0.00
6,500.0	18.49	67.04	6,428.5	190.8	450.3	-162.6	0.00	0.00	0.00
6,600.0	18.49	67.04	6,523.3	203.2	479.5	-173.2	0.00	0.00	0.00
6,700.0	18.49	67.04	6,618.2	215.5	508.7	-183.7	0.00	0.00	0.00
6,800.0	18.49	67.04	6,713.0	227.9	537.9	-194.3	0.00	0.00	0.00
6,900.0	18.49	67.04	6,807.8	240.3	567.1	-204.8	0.00	0.00	0.00
6,978.4	18.49	67.04	6,882.2	250.0	590.0	-213.1	0.00	0.00	0.00
Start DLS 10.00 TFO 112.64									
7,000.0	17.77	73.58	6,902.7	252.3	596.3	-215.0	10.00	-3.35	30.30
7,100.0	17.67	106.85	6,998.2	252.2	625.6	-213.1	10.00	-0.10	33.28
7,200.0	22.43	132.89	7,092.3	234.8	654.1	-193.9	10.00	4.75	26.04
7,300.0	29.79	148.45	7,182.2	200.5	681.2	-158.1	10.00	7.36	15.56
7,400.0	38.28	157.96	7,265.0	150.5	705.9	-106.6	10.00	8.49	9.51
7,419.3	39.99	159.38	7,280.0	139.1	710.3	-95.0	10.00	8.86	7.35
Niobrara									
7,500.0	47.29	164.37	7,338.4	86.3	727.4	-41.2	10.00	9.05	6.19
7,600.0	56.57	169.12	7,400.0	9.7	745.3	36.3	10.00	9.28	4.75
7,700.0	66.00	172.94	7,448.0	-76.8	758.8	123.5	10.00	9.42	3.82
7,800.0	75.50	176.24	7,480.9	-170.7	767.6	217.8	10.00	9.51	3.30
7,900.0	85.05	179.26	7,497.8	-269.1	771.4	316.2	10.00	9.55	3.02
7,951.8	90.00	180.78	7,500.0	-320.8	771.4	367.8	10.00	9.56	2.93
Start 9957.0 hold at 7951.8 MD									
8,000.0	90.00	180.78	7,500.0	-369.0	770.7	415.9	0.00	0.00	0.00
8,100.0	90.00	180.78	7,500.0	-469.0	769.4	515.6	0.00	0.00	0.00
8,200.0	90.00	180.78	7,500.0	-569.0	768.0	615.3	0.00	0.00	0.00
8,300.0	90.00	180.78	7,500.0	-669.0	766.7	715.0	0.00	0.00	0.00
8,400.0	90.00	180.78	7,500.0	-769.0	765.3	814.7	0.00	0.00	0.00
8,500.0	90.00	180.78	7,500.0	-869.0	763.9	914.5	0.00	0.00	0.00
8,600.0	90.00	180.78	7,500.0	-968.9	762.6	1,014.2	0.00	0.00	0.00
8,700.0	90.00	180.78	7,500.0	-1,068.9	761.2	1,113.9	0.00	0.00	0.00
8,800.0	90.00	180.78	7,500.0	-1,168.9	759.8	1,213.6	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 2-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Well:	Janet 0780 2-16H21	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDMProd

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)
8,900.0	90.00	180.78	7,500.0	-1,268.9	758.5	1,313.3	0.00	0.00	0.00
9,000.0	90.00	180.78	7,500.0	-1,368.9	757.1	1,413.0	0.00	0.00	0.00
9,100.0	90.00	180.78	7,500.0	-1,468.9	755.8	1,512.8	0.00	0.00	0.00
9,200.0	90.00	180.78	7,500.0	-1,568.9	754.4	1,612.5	0.00	0.00	0.00
9,300.0	90.00	180.78	7,500.0	-1,668.9	753.0	1,712.2	0.00	0.00	0.00
9,400.0	90.00	180.78	7,500.0	-1,768.9	751.7	1,811.9	0.00	0.00	0.00
9,500.0	90.00	180.78	7,500.0	-1,868.9	750.3	1,911.6	0.00	0.00	0.00
9,600.0	90.00	180.78	7,500.0	-1,968.8	749.0	2,011.3	0.00	0.00	0.00
9,700.0	90.00	180.78	7,500.0	-2,068.8	747.6	2,111.1	0.00	0.00	0.00
9,800.0	90.00	180.78	7,500.0	-2,168.8	746.2	2,210.8	0.00	0.00	0.00
9,900.0	90.00	180.78	7,500.0	-2,268.8	744.9	2,310.5	0.00	0.00	0.00
10,000.0	90.00	180.78	7,500.0	-2,368.8	743.5	2,410.2	0.00	0.00	0.00
10,100.0	90.00	180.78	7,500.0	-2,468.8	742.1	2,509.9	0.00	0.00	0.00
10,200.0	90.00	180.78	7,500.0	-2,568.8	740.8	2,609.6	0.00	0.00	0.00
10,300.0	90.00	180.78	7,500.0	-2,668.8	739.4	2,709.4	0.00	0.00	0.00
10,400.0	90.00	180.78	7,500.0	-2,768.8	738.1	2,809.1	0.00	0.00	0.00
10,500.0	90.00	180.78	7,500.0	-2,868.8	736.7	2,908.8	0.00	0.00	0.00
10,600.0	90.00	180.78	7,500.0	-2,968.8	735.3	3,008.5	0.00	0.00	0.00
10,700.0	90.00	180.78	7,500.0	-3,068.7	734.0	3,108.2	0.00	0.00	0.00
10,800.0	90.00	180.78	7,500.0	-3,168.7	732.6	3,207.9	0.00	0.00	0.00
10,900.0	90.00	180.78	7,500.0	-3,268.7	731.3	3,307.6	0.00	0.00	0.00
11,000.0	90.00	180.78	7,500.0	-3,368.7	729.9	3,407.4	0.00	0.00	0.00
11,100.0	90.00	180.78	7,500.0	-3,468.7	728.5	3,507.1	0.00	0.00	0.00
11,200.0	90.00	180.78	7,500.0	-3,568.7	727.2	3,606.8	0.00	0.00	0.00
11,300.0	90.00	180.78	7,500.0	-3,668.7	725.8	3,706.5	0.00	0.00	0.00
11,400.0	90.00	180.78	7,500.0	-3,768.7	724.4	3,806.2	0.00	0.00	0.00
11,500.0	90.00	180.78	7,500.0	-3,868.7	723.1	3,905.9	0.00	0.00	0.00
11,600.0	90.00	180.78	7,500.0	-3,968.7	721.7	4,005.7	0.00	0.00	0.00
11,700.0	90.00	180.78	7,500.0	-4,068.7	720.4	4,105.4	0.00	0.00	0.00
11,800.0	90.00	180.78	7,500.0	-4,168.6	719.0	4,205.1	0.00	0.00	0.00
11,900.0	90.00	180.78	7,500.0	-4,268.6	717.6	4,304.8	0.00	0.00	0.00
12,000.0	90.00	180.78	7,500.0	-4,368.6	716.3	4,404.5	0.00	0.00	0.00
12,100.0	90.00	180.78	7,500.0	-4,468.6	714.9	4,504.2	0.00	0.00	0.00
12,200.0	90.00	180.78	7,500.0	-4,568.6	713.6	4,604.0	0.00	0.00	0.00
12,300.0	90.00	180.78	7,500.0	-4,668.6	712.2	4,703.7	0.00	0.00	0.00
12,400.0	90.00	180.78	7,500.0	-4,768.6	710.8	4,803.4	0.00	0.00	0.00
12,500.0	90.00	180.78	7,500.0	-4,868.6	709.5	4,903.1	0.00	0.00	0.00
12,600.0	90.00	180.78	7,500.0	-4,968.6	708.1	5,002.8	0.00	0.00	0.00
12,700.0	90.00	180.78	7,500.0	-5,068.6	706.7	5,102.5	0.00	0.00	0.00
12,800.0	90.00	180.78	7,500.0	-5,168.6	705.4	5,202.2	0.00	0.00	0.00
12,900.0	90.00	180.78	7,500.0	-5,268.5	704.0	5,302.0	0.00	0.00	0.00
13,000.0	90.00	180.78	7,500.0	-5,368.5	702.7	5,401.7	0.00	0.00	0.00
13,100.0	90.00	180.78	7,500.0	-5,468.5	701.3	5,501.4	0.00	0.00	0.00

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 2-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Well:	Janet 0780 2-16H21	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDMProd

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)
13,200.0	90.00	180.78	7,500.0	-5,568.5	699.9	5,601.1	0.00	0.00	0.00
13,300.0	90.00	180.78	7,500.0	-5,668.5	698.6	5,700.8	0.00	0.00	0.00
13,400.0	90.00	180.78	7,500.0	-5,768.5	697.2	5,800.5	0.00	0.00	0.00
13,500.0	90.00	180.78	7,500.0	-5,868.5	695.9	5,900.3	0.00	0.00	0.00
13,600.0	90.00	180.78	7,500.0	-5,968.5	694.5	6,000.0	0.00	0.00	0.00
13,700.0	90.00	180.78	7,500.0	-6,068.5	693.1	6,099.7	0.00	0.00	0.00
13,800.0	90.00	180.78	7,500.0	-6,168.5	691.8	6,199.4	0.00	0.00	0.00
13,900.0	90.00	180.78	7,500.0	-6,268.4	690.4	6,299.1	0.00	0.00	0.00
14,000.0	90.00	180.78	7,500.0	-6,368.4	689.0	6,398.8	0.00	0.00	0.00
14,100.0	90.00	180.78	7,500.0	-6,468.4	687.7	6,498.6	0.00	0.00	0.00
14,200.0	90.00	180.78	7,500.0	-6,568.4	686.3	6,598.3	0.00	0.00	0.00
14,300.0	90.00	180.78	7,500.0	-6,668.4	685.0	6,698.0	0.00	0.00	0.00
14,400.0	90.00	180.78	7,500.0	-6,768.4	683.6	6,797.7	0.00	0.00	0.00
14,500.0	90.00	180.78	7,500.0	-6,868.4	682.2	6,897.4	0.00	0.00	0.00
14,600.0	90.00	180.78	7,500.0	-6,968.4	680.9	6,997.1	0.00	0.00	0.00
14,700.0	90.00	180.78	7,500.0	-7,068.4	679.5	7,096.8	0.00	0.00	0.00
14,800.0	90.00	180.78	7,500.0	-7,168.4	678.2	7,196.6	0.00	0.00	0.00
14,900.0	90.00	180.78	7,500.0	-7,268.4	676.8	7,296.3	0.00	0.00	0.00
15,000.0	90.00	180.78	7,500.0	-7,368.3	675.4	7,396.0	0.00	0.00	0.00
15,100.0	90.00	180.78	7,500.0	-7,468.3	674.1	7,495.7	0.00	0.00	0.00
15,200.0	90.00	180.78	7,500.0	-7,568.3	672.7	7,595.4	0.00	0.00	0.00
15,300.0	90.00	180.78	7,500.0	-7,668.3	671.3	7,695.1	0.00	0.00	0.00
15,400.0	90.00	180.78	7,500.0	-7,768.3	670.0	7,794.9	0.00	0.00	0.00
15,500.0	90.00	180.78	7,500.0	-7,868.3	668.6	7,894.6	0.00	0.00	0.00
15,600.0	90.00	180.78	7,500.0	-7,968.3	667.3	7,994.3	0.00	0.00	0.00
15,700.0	90.00	180.78	7,500.0	-8,068.3	665.9	8,094.0	0.00	0.00	0.00
15,800.0	90.00	180.78	7,500.0	-8,168.3	664.5	8,193.7	0.00	0.00	0.00
15,900.0	90.00	180.78	7,500.0	-8,268.3	663.2	8,293.4	0.00	0.00	0.00
16,000.0	90.00	180.78	7,500.0	-8,368.3	661.8	8,393.2	0.00	0.00	0.00
16,100.0	90.00	180.78	7,500.0	-8,468.2	660.4	8,492.9	0.00	0.00	0.00
16,200.0	90.00	180.78	7,500.0	-8,568.2	659.1	8,592.6	0.00	0.00	0.00
16,300.0	90.00	180.78	7,500.0	-8,668.2	657.7	8,692.3	0.00	0.00	0.00
16,400.0	90.00	180.78	7,500.0	-8,768.2	656.4	8,792.0	0.00	0.00	0.00
16,500.0	90.00	180.78	7,500.0	-8,868.2	655.0	8,891.7	0.00	0.00	0.00
16,600.0	90.00	180.78	7,500.0	-8,968.2	653.6	8,991.4	0.00	0.00	0.00
16,700.0	90.00	180.78	7,500.0	-9,068.2	652.3	9,091.2	0.00	0.00	0.00
16,800.0	90.00	180.78	7,500.0	-9,168.2	650.9	9,190.9	0.00	0.00	0.00
16,900.0	90.00	180.78	7,500.0	-9,268.2	649.6	9,290.6	0.00	0.00	0.00
17,000.0	90.00	180.78	7,500.0	-9,368.2	648.2	9,390.3	0.00	0.00	0.00
17,100.0	90.00	180.78	7,500.0	-9,468.2	646.8	9,490.0	0.00	0.00	0.00
17,200.0	90.00	180.78	7,500.0	-9,568.1	645.5	9,589.7	0.00	0.00	0.00
17,300.0	90.00	180.78	7,500.0	-9,668.1	644.1	9,689.5	0.00	0.00	0.00
17,400.0	90.00	180.78	7,500.0	-9,768.1	642.7	9,789.2	0.00	0.00	0.00
17,500.0	90.00	180.78	7,500.0	-9,868.1	641.4	9,888.9	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 2-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Well:	Janet 0780 2-16H21	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDMProd

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)
17,600.0	90.00	180.78	7,500.0	-9,968.1	640.0	9,988.6	0.00	0.00	0.00
17,700.0	90.00	180.78	7,500.0	-10,068.1	638.7	10,088.3	0.00	0.00	0.00
17,800.0	90.00	180.78	7,500.0	-10,168.1	637.3	10,188.0	0.00	0.00	0.00
17,900.0	90.00	180.78	7,500.0	-10,268.1	635.9	10,287.8	0.00	0.00	0.00
17,908.8	90.00	180.78	7,500.0	-10,276.9	635.8	10,296.5	0.00	0.00	0.00
TD at 17908.8									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Janet 2 BHL - plan hits target center - Point	0.00	360.00	7,500.0	-10,276.9	635.8	1,446,619.15	2,754,179.23	40° 33' 21.611 N	106° 23' 4.839 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,419.3	7,280.0	Niobrara		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4500	4500	0	0	Start Build 2.00
5425	5409	58	136	Start 1553.7 hold at 5424.7 MD
6978	6882	250	590	Start DLS 10.00 TFO 112.64
7952	7500	-321	771	Start 9957.0 hold at 7951.8 MD
17,909	7500	-10,277	636	TD at 17908.8

Checked By: _____ Approved By: _____ Date: _____

SandRidge Energy

North Park Basin
T7N-R80W-S9
Janet 0780 2-16H21

Wellbore #1
Design #1

Anticollision Summary Report

08 August, 2017

SandRidge Energy

Anticollision Summary Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 2-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Janet 0780 2-16H21	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDMProd
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Reference Design #1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria	WARNING: There is hidden tight data in this project	
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 usft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 8/8/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,908.6	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination

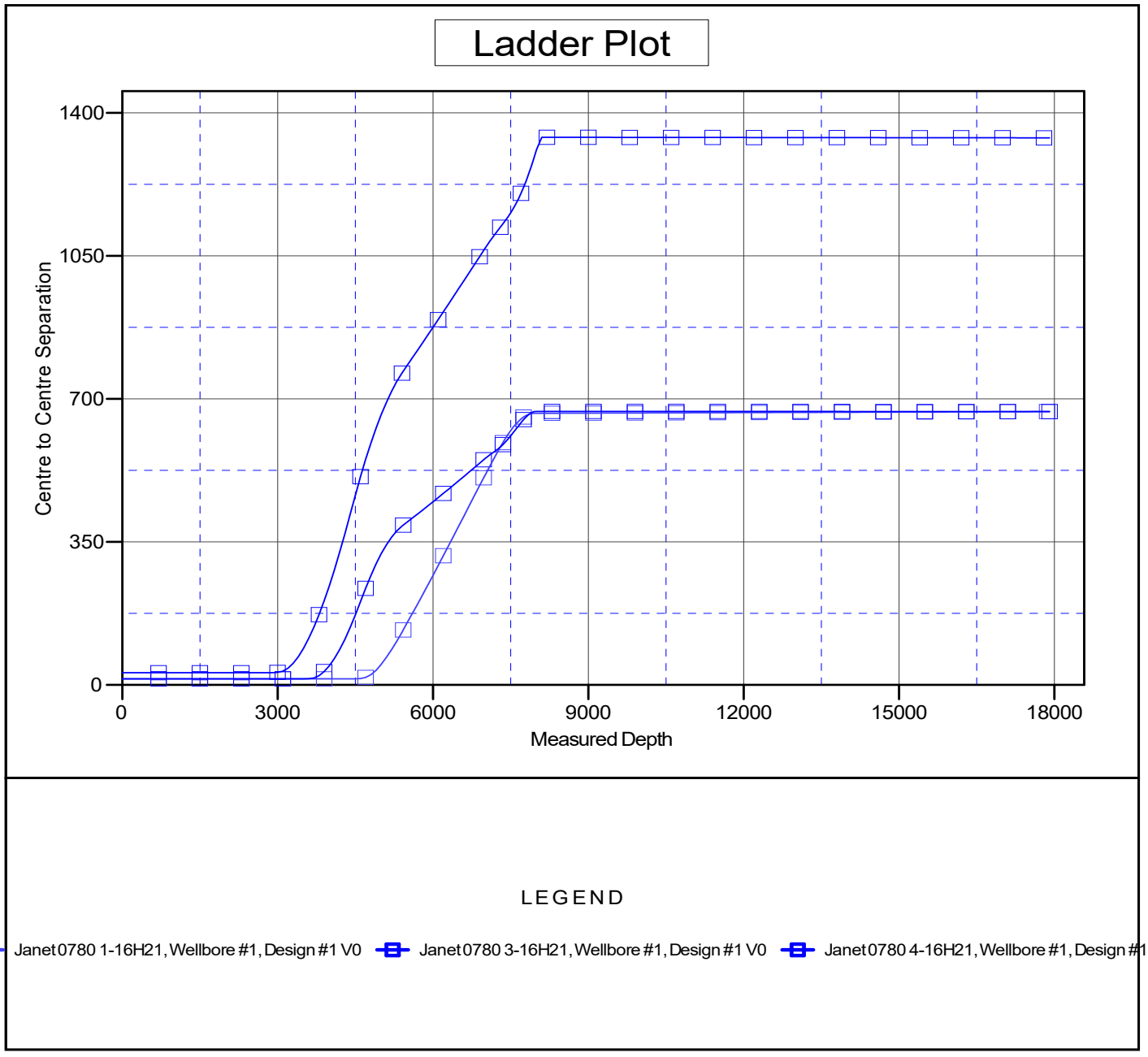
Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
T7N-R80W-S9						
Janet 0780 1-16H21 - Wellbore #1 - Design #1	4,500.0	4,500.0	15.0	-4.9	0.752	Level 1, CC, ES, SF
Janet 0780 3-16H21 - Wellbore #1 - Design #1	3,500.0	3,500.0	15.0	-0.5	0.971	Level 1, CC
Janet 0780 3-16H21 - Wellbore #1 - Design #1	3,600.0	3,599.9	15.2	-0.6	0.959	Level 1, ES, SF
Janet 0780 4-16H21 - Wellbore #1 - Design #1	2,800.0	2,800.0	30.0	17.7	2.438	CC
Janet 0780 4-16H21 - Wellbore #1 - Design #1	2,900.0	2,900.0	30.1	17.3	2.358	ES
Janet 0780 4-16H21 - Wellbore #1 - Design #1	3,000.0	2,999.7	30.8	17.6	2.339	SF

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 2-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Janet 0780 2-16H21	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDMProd
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 8151.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Janet 0780 2-16H21
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.57°



Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 2-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Janet 0780 2-16H21	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDMProd
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 8151.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Janet 0780 2-16H21
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.57°