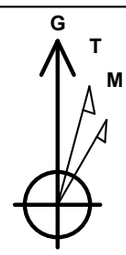
PROJECT DETAILS: North Park Basin

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: 0.60°
Magnetic North: 10.50°

Magnetic Field
Strength: 53193.7snT
Dip Angle: 66.98°
Date: 12/31/2009
Model: IGRF200510

FORMATION TOP DETAILS

No formation data is available

CASING DETAILS

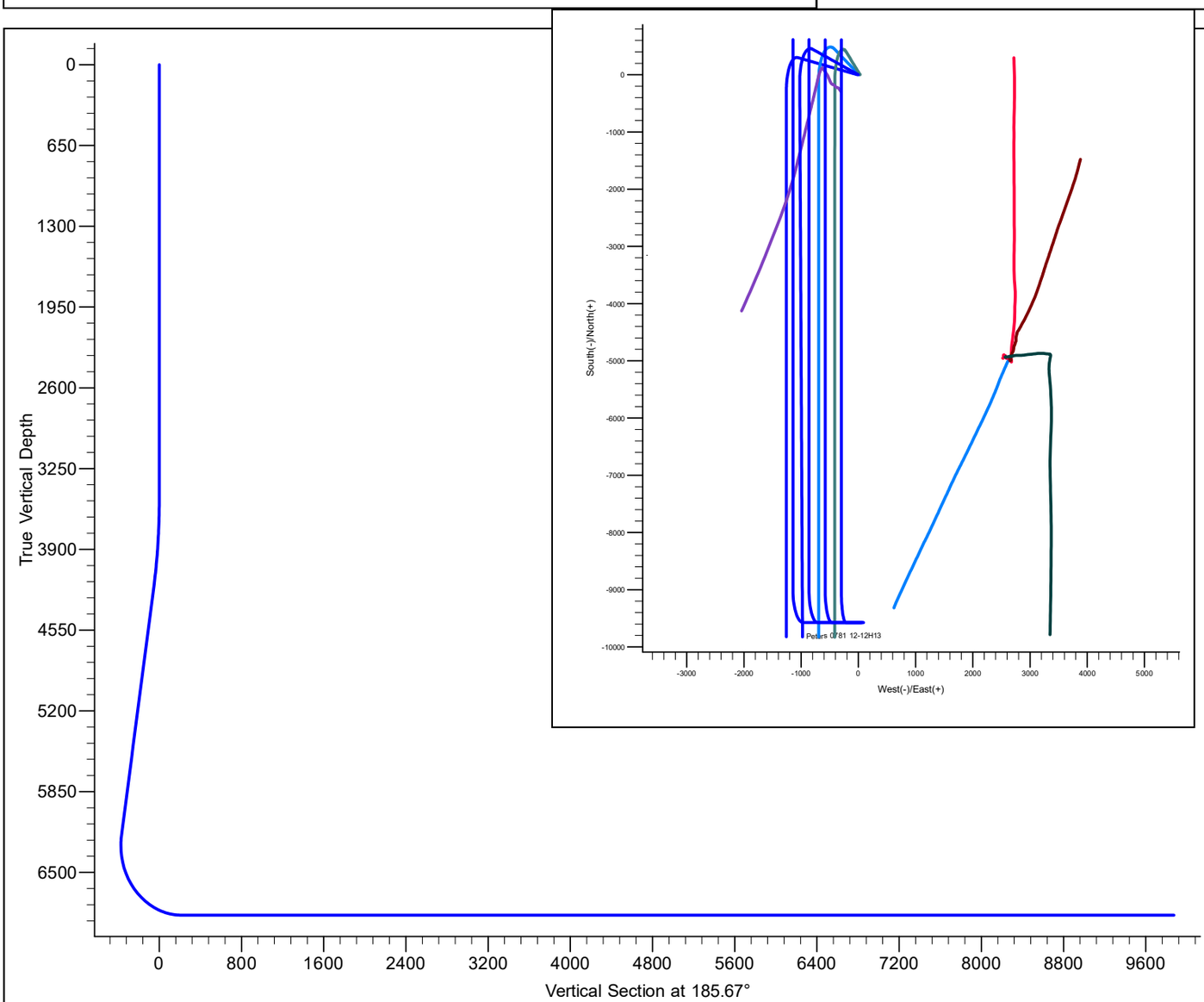
No casing data is available

DESIGN DETAILS: Design #1

0' Vertical Section coordinates

Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD		185.67	Slot	0.0	0.0	0.0

Project: North Park Basin
Site: T7N-R81W-S12
Well: Peters 0781 12-12H13
Wellbore: Wellbore #1
Design: Design #1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3500.0	0.00	0.00	3500.0	0.0	0.0	0.00	0.00	0.0	
3	4218.6	21.56	299.11	4201.7	65.0	-116.7	3.00	299.11	-53.1	
4	6372.1	21.56	299.11	6204.6	450.0	-808.0	0.00	0.00	-367.9	
5	7376.0	90.00	179.71	6844.1	-114.7	-1025.2	10.00	-117.66	215.5	Peters 12 BHL
6	17086.9	90.00	179.71	6844.1	-9825.4	-976.1	0.00	0.00	9873.8	Peters 12 BHL

SandRidge Energy

North Park Basin
T7N-R81W-S12
Peters 0781 12-12H13

Wellbore #1

Plan: Design #1

Standard Survey Report

17 October, 2017

SandRidge Energy

Survey Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Peters 0781 12-12H13
Project:	North Park Basin	**TVD Reference:**	KB @ 8156.0usft
Site:	T7N-R81W-S12	**MD Reference:**	KB @ 8156.0usft
Well:	Peters 0781 12-12H13	**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-R81W-S12				
Site Position:		**Northing:**	1,462,087.17 usft	**Latitude:**	40° 35' 53.334 N
From:	Map	**Easting:**	2,743,086.13 usft	**Longitude:**	106° 25' 30.641 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-0.60 °

Well	Peters 0781 12-12H13					
Well Position	**+N/-S**	0.0 usft	**Northing:**	1,461,937.46 usft	**Latitude:**	40° 35' 51.851 N
	+E/-W	0.0 usft	**Easting:**	2,743,054.63 usft	**Longitude:**	106° 25' 31.029 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	8,130.0 usft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	12/31/2009	9.90	66.98	53,194

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	185.67

Survey Tool Program **Date** 10/17/2017

From (usft)	**To (usft)**	**Survey (Wellbore)**	**Tool Name**	**Description**
0.0	17,086.9	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 Peters 0781 12-12H13
Project:	North Park Basin	**TVD Reference:**	KB @ 8156.0usft
Site:	T7N-R81W-S12	**MD Reference:**	KB @ 8156.0usft
Well:	Peters 0781 12-12H13	**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	3.00	299.11	3,600.0	1.3	-2.3	-1.0	3.00	3.00	0.00
3,700.0	6.00	299.11	3,699.6	5.1	-9.1	-4.2	3.00	3.00	0.00
3,800.0	9.00	299.11	3,798.8	11.4	-20.5	-9.4	3.00	3.00	0.00
3,900.0	12.00	299.11	3,897.1	20.3	-36.5	-16.6	3.00	3.00	0.00
4,000.0	15.00	299.11	3,994.3	31.7	-56.9	-25.9	3.00	3.00	0.00
4,100.0	18.00	299.11	4,090.2	45.5	-81.7	-37.2	3.00	3.00	0.00
4,200.0	21.00	299.11	4,184.4	61.7	-110.8	-50.5	3.00	3.00	0.00
4,218.6	21.56	299.11	4,201.7	65.0	-116.7	-53.1	3.00	3.00	0.00
4,300.0	21.56	299.11	4,277.5	79.6	-142.9	-65.0	0.00	0.00	0.00
4,400.0	21.56	299.11	4,370.5	97.4	-175.0	-79.7	0.00	0.00	0.00
4,500.0	21.56	299.11	4,463.5	115.3	-207.1	-94.3	0.00	0.00	0.00
4,600.0	21.56	299.11	4,556.5	133.2	-239.2	-108.9	0.00	0.00	0.00
4,700.0	21.56	299.11	4,649.5	151.1	-271.3	-123.5	0.00	0.00	0.00
4,800.0	21.56	299.11	4,742.5	168.9	-303.4	-138.1	0.00	0.00	0.00
4,900.0	21.56	299.11	4,835.5	186.8	-335.5	-152.7	0.00	0.00	0.00
5,000.0	21.56	299.11	4,928.5	204.7	-367.6	-167.4	0.00	0.00	0.00
5,100.0	21.56	299.11	5,021.5	222.6	-399.7	-182.0	0.00	0.00	0.00
5,200.0	21.56	299.11	5,114.5	240.5	-431.8	-196.6	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Peters 0781 12-12H13
Project:	North Park Basin	**TVD Reference:**	KB @ 8156.0usft
Site:	T7N-R81W-S12	**MD Reference:**	KB @ 8156.0usft
Well:	Peters 0781 12-12H13	**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	21.56	299.11	5,207.5	258.3	-463.9	-211.2	0.00	0.00	0.00
5,400.0	21.56	299.11	5,300.5	276.2	-496.0	-225.8	0.00	0.00	0.00
5,500.0	21.56	299.11	5,393.5	294.1	-528.1	-240.5	0.00	0.00	0.00
5,600.0	21.56	299.11	5,486.5	312.0	-560.2	-255.1	0.00	0.00	0.00
5,700.0	21.56	299.11	5,579.5	329.8	-592.3	-269.7	0.00	0.00	0.00
5,800.0	21.56	299.11	5,672.5	347.7	-624.4	-284.3	0.00	0.00	0.00
5,900.0	21.56	299.11	5,765.6	365.6	-656.5	-298.9	0.00	0.00	0.00
6,000.0	21.56	299.11	5,858.6	383.5	-688.6	-313.5	0.00	0.00	0.00
6,100.0	21.56	299.11	5,951.6	401.4	-720.7	-328.2	0.00	0.00	0.00
6,200.0	21.56	299.11	6,044.6	419.2	-752.8	-342.8	0.00	0.00	0.00
6,300.0	21.56	299.11	6,137.6	437.1	-784.9	-357.4	0.00	0.00	0.00
6,372.1	21.56	299.11	6,204.6	450.0	-808.0	-367.9	0.00	0.00	0.00
6,400.0	20.40	292.00	6,230.7	454.3	-817.0	-371.3	10.00	-4.13	-25.46
6,500.0	19.14	262.37	6,325.0	458.7	-849.5	-372.5	10.00	-1.27	-29.63
6,600.0	22.56	235.67	6,418.7	445.7	-881.7	-356.3	10.00	3.42	-26.70
6,700.0	29.05	218.00	6,508.8	415.6	-912.5	-323.4	10.00	6.49	-17.66
6,800.0	37.03	206.86	6,592.6	369.5	-941.1	-274.7	10.00	7.98	-11.14
6,900.0	45.71	199.33	6,667.6	308.7	-966.7	-211.7	10.00	8.69	-7.53
7,000.0	54.76	193.78	6,731.6	235.1	-988.3	-136.3	10.00	9.05	-5.55
7,100.0	64.02	189.37	6,782.5	150.9	-1,005.4	-50.8	10.00	9.25	-4.41
7,200.0	73.39	185.60	6,818.7	58.6	-1,017.4	42.2	10.00	9.37	-3.76
7,300.0	82.82	182.20	6,839.3	-38.9	-1,024.0	139.9	10.00	9.43	-3.41
7,376.0	90.00	179.71	6,844.1	-114.7	-1,025.2	215.5	10.00	9.45	-3.27
7,400.0	90.00	179.71	6,844.1	-138.7	-1,025.1	239.3	0.00	0.00	0.00
7,500.0	90.00	179.71	6,844.1	-238.7	-1,024.6	338.8	0.00	0.00	0.00
7,600.0	90.00	179.71	6,844.1	-338.7	-1,024.1	438.2	0.00	0.00	0.00
7,700.0	90.00	179.71	6,844.1	-438.7	-1,023.6	537.7	0.00	0.00	0.00
7,800.0	90.00	179.71	6,844.1	-538.7	-1,023.1	637.2	0.00	0.00	0.00
7,900.0	90.00	179.71	6,844.1	-638.7	-1,022.6	736.6	0.00	0.00	0.00
8,000.0	90.00	179.71	6,844.1	-738.7	-1,022.1	836.1	0.00	0.00	0.00
8,100.0	90.00	179.71	6,844.1	-838.7	-1,021.6	935.5	0.00	0.00	0.00
8,200.0	90.00	179.71	6,844.1	-938.7	-1,021.1	1,035.0	0.00	0.00	0.00
8,300.0	90.00	179.71	6,844.1	-1,038.6	-1,020.6	1,134.4	0.00	0.00	0.00
8,400.0	90.00	179.71	6,844.1	-1,138.6	-1,020.1	1,233.9	0.00	0.00	0.00
8,500.0	90.00	179.71	6,844.1	-1,238.6	-1,019.6	1,333.4	0.00	0.00	0.00
8,600.0	90.00	179.71	6,844.1	-1,338.6	-1,019.0	1,432.8	0.00	0.00	0.00
8,700.0	90.00	179.71	6,844.1	-1,438.6	-1,018.5	1,532.3	0.00	0.00	0.00
8,800.0	90.00	179.71	6,844.1	-1,538.6	-1,018.0	1,631.7	0.00	0.00	0.00
8,900.0	90.00	179.71	6,844.1	-1,638.6	-1,017.5	1,731.2	0.00	0.00	0.00
9,000.0	90.00	179.71	6,844.1	-1,738.6	-1,017.0	1,830.7	0.00	0.00	0.00
9,100.0	90.00	179.71	6,844.1	-1,838.6	-1,016.5	1,930.1	0.00	0.00	0.00
9,200.0	90.00	179.71	6,844.1	-1,938.6	-1,016.0	2,029.6	0.00	0.00	0.00
9,300.0	90.00	179.71	6,844.1	-2,038.6	-1,015.5	2,129.0	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Peters 0781 12-12H13
Project:	North Park Basin	**TVD Reference:**	KB @ 8156.0usft
Site:	T7N-R81W-S12	**MD Reference:**	KB @ 8156.0usft
Well:	Peters 0781 12-12H13	**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)
9,400.0	90.00	179.71	6,844.1	-2,138.6	-1,015.0	2,228.5	0.00	0.00	0.00
9,500.0	90.00	179.71	6,844.1	-2,238.6	-1,014.5	2,328.0	0.00	0.00	0.00
9,600.0	90.00	179.71	6,844.1	-2,338.6	-1,014.0	2,427.4	0.00	0.00	0.00
9,700.0	90.00	179.71	6,844.1	-2,438.6	-1,013.5	2,526.9	0.00	0.00	0.00
9,800.0	90.00	179.71	6,844.1	-2,538.6	-1,013.0	2,626.3	0.00	0.00	0.00
9,900.0	90.00	179.71	6,844.1	-2,638.6	-1,012.5	2,725.8	0.00	0.00	0.00
10,000.0	90.00	179.71	6,844.1	-2,738.6	-1,012.0	2,825.3	0.00	0.00	0.00
10,100.0	90.00	179.71	6,844.1	-2,838.6	-1,011.4	2,924.7	0.00	0.00	0.00
10,200.0	90.00	179.71	6,844.1	-2,938.6	-1,010.9	3,024.2	0.00	0.00	0.00
10,300.0	90.00	179.71	6,844.1	-3,038.6	-1,010.4	3,123.6	0.00	0.00	0.00
10,400.0	90.00	179.71	6,844.1	-3,138.6	-1,009.9	3,223.1	0.00	0.00	0.00
10,500.0	90.00	179.71	6,844.1	-3,238.6	-1,009.4	3,322.5	0.00	0.00	0.00
10,600.0	90.00	179.71	6,844.1	-3,338.6	-1,008.9	3,422.0	0.00	0.00	0.00
10,700.0	90.00	179.71	6,844.1	-3,438.6	-1,008.4	3,521.5	0.00	0.00	0.00
10,800.0	90.00	179.71	6,844.1	-3,538.6	-1,007.9	3,620.9	0.00	0.00	0.00
10,900.0	90.00	179.71	6,844.1	-3,638.6	-1,007.4	3,720.4	0.00	0.00	0.00
11,000.0	90.00	179.71	6,844.1	-3,738.6	-1,006.9	3,819.8	0.00	0.00	0.00
11,100.0	90.00	179.71	6,844.1	-3,838.6	-1,006.4	3,919.3	0.00	0.00	0.00
11,200.0	90.00	179.71	6,844.1	-3,938.6	-1,005.9	4,018.8	0.00	0.00	0.00
11,300.0	90.00	179.71	6,844.1	-4,038.6	-1,005.4	4,118.2	0.00	0.00	0.00
11,400.0	90.00	179.71	6,844.1	-4,138.6	-1,004.9	4,217.7	0.00	0.00	0.00
11,500.0	90.00	179.71	6,844.1	-4,238.6	-1,004.4	4,317.1	0.00	0.00	0.00
11,600.0	90.00	179.71	6,844.1	-4,338.6	-1,003.9	4,416.6	0.00	0.00	0.00
11,700.0	90.00	179.71	6,844.1	-4,438.6	-1,003.3	4,516.1	0.00	0.00	0.00
11,800.0	90.00	179.71	6,844.1	-4,538.6	-1,002.8	4,615.5	0.00	0.00	0.00
11,900.0	90.00	179.71	6,844.1	-4,638.6	-1,002.3	4,715.0	0.00	0.00	0.00
12,000.0	90.00	179.71	6,844.1	-4,738.6	-1,001.8	4,814.4	0.00	0.00	0.00
12,100.0	90.00	179.71	6,844.1	-4,838.6	-1,001.3	4,913.9	0.00	0.00	0.00
12,200.0	90.00	179.71	6,844.1	-4,938.6	-1,000.8	5,013.3	0.00	0.00	0.00
12,300.0	90.00	179.71	6,844.1	-5,038.6	-1,000.3	5,112.8	0.00	0.00	0.00
12,400.0	90.00	179.71	6,844.1	-5,138.6	-999.8	5,212.3	0.00	0.00	0.00
12,500.0	90.00	179.71	6,844.1	-5,238.6	-999.3	5,311.7	0.00	0.00	0.00
12,600.0	90.00	179.71	6,844.1	-5,338.6	-998.8	5,411.2	0.00	0.00	0.00
12,700.0	90.00	179.71	6,844.1	-5,438.6	-998.3	5,510.6	0.00	0.00	0.00
12,800.0	90.00	179.71	6,844.1	-5,538.6	-997.8	5,610.1	0.00	0.00	0.00
12,900.0	90.00	179.71	6,844.1	-5,638.6	-997.3	5,709.6	0.00	0.00	0.00
13,000.0	90.00	179.71	6,844.1	-5,738.6	-996.8	5,809.0	0.00	0.00	0.00
13,100.0	90.00	179.71	6,844.1	-5,838.6	-996.3	5,908.5	0.00	0.00	0.00
13,200.0	90.00	179.71	6,844.1	-5,938.6	-995.8	6,007.9	0.00	0.00	0.00
13,300.0	90.00	179.71	6,844.1	-6,038.6	-995.2	6,107.4	0.00	0.00	0.00
13,400.0	90.00	179.71	6,844.1	-6,138.6	-994.7	6,206.9	0.00	0.00	0.00
13,500.0	90.00	179.71	6,844.1	-6,238.6	-994.2	6,306.3	0.00	0.00	0.00
13,600.0	90.00	179.71	6,844.1	-6,338.6	-993.7	6,405.8	0.00	0.00	0.00

SandRidge Energy

Survey Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Peters 0781 12-12H13
Project:	North Park Basin	**TVD Reference:**	KB @ 8156.0usft
Site:	T7N-R81W-S12	**MD Reference:**	KB @ 8156.0usft
Well:	Peters 0781 12-12H13	**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)
13,700.0	90.00	179.71	6,844.1	-6,438.6	-993.2	6,505.2	0.00	0.00	0.00
13,800.0	90.00	179.71	6,844.1	-6,538.6	-992.7	6,604.7	0.00	0.00	0.00
13,900.0	90.00	179.71	6,844.1	-6,638.6	-992.2	6,704.1	0.00	0.00	0.00
14,000.0	90.00	179.71	6,844.1	-6,738.6	-991.7	6,803.6	0.00	0.00	0.00
14,100.0	90.00	179.71	6,844.1	-6,838.6	-991.2	6,903.1	0.00	0.00	0.00
14,200.0	90.00	179.71	6,844.1	-6,938.6	-990.7	7,002.5	0.00	0.00	0.00
14,300.0	90.00	179.71	6,844.1	-7,038.6	-990.2	7,102.0	0.00	0.00	0.00
14,400.0	90.00	179.71	6,844.1	-7,138.6	-989.7	7,201.4	0.00	0.00	0.00
14,500.0	90.00	179.71	6,844.1	-7,238.6	-989.2	7,300.9	0.00	0.00	0.00
14,600.0	90.00	179.71	6,844.1	-7,338.6	-988.7	7,400.4	0.00	0.00	0.00
14,700.0	90.00	179.71	6,844.1	-7,438.6	-988.2	7,499.8	0.00	0.00	0.00
14,800.0	90.00	179.71	6,844.1	-7,538.6	-987.7	7,599.3	0.00	0.00	0.00
14,900.0	90.00	179.71	6,844.1	-7,638.6	-987.1	7,698.7	0.00	0.00	0.00
15,000.0	90.00	179.71	6,844.1	-7,738.6	-986.6	7,798.2	0.00	0.00	0.00
15,100.0	90.00	179.71	6,844.1	-7,838.6	-986.1	7,897.7	0.00	0.00	0.00
15,200.0	90.00	179.71	6,844.1	-7,938.6	-985.6	7,997.1	0.00	0.00	0.00
15,300.0	90.00	179.71	6,844.1	-8,038.6	-985.1	8,096.6	0.00	0.00	0.00
15,400.0	90.00	179.71	6,844.1	-8,138.6	-984.6	8,196.0	0.00	0.00	0.00
15,500.0	90.00	179.71	6,844.1	-8,238.6	-984.1	8,295.5	0.00	0.00	0.00
15,600.0	90.00	179.71	6,844.1	-8,338.6	-983.6	8,394.9	0.00	0.00	0.00
15,700.0	90.00	179.71	6,844.1	-8,438.6	-983.1	8,494.4	0.00	0.00	0.00
15,800.0	90.00	179.71	6,844.1	-8,538.6	-982.6	8,593.9	0.00	0.00	0.00
15,900.0	90.00	179.71	6,844.1	-8,638.6	-982.1	8,693.3	0.00	0.00	0.00
16,000.0	90.00	179.71	6,844.1	-8,738.6	-981.6	8,792.8	0.00	0.00	0.00
16,100.0	90.00	179.71	6,844.1	-8,838.5	-981.1	8,892.2	0.00	0.00	0.00
16,200.0	90.00	179.71	6,844.1	-8,938.5	-980.6	8,991.7	0.00	0.00	0.00
16,300.0	90.00	179.71	6,844.1	-9,038.5	-980.1	9,091.2	0.00	0.00	0.00
16,400.0	90.00	179.71	6,844.1	-9,138.5	-979.5	9,190.6	0.00	0.00	0.00
16,500.0	90.00	179.71	6,844.1	-9,238.5	-979.0	9,290.1	0.00	0.00	0.00
16,600.0	90.00	179.71	6,844.1	-9,338.5	-978.5	9,389.5	0.00	0.00	0.00
16,700.0	90.00	179.71	6,844.1	-9,438.5	-978.0	9,489.0	0.00	0.00	0.00
16,800.0	90.00	179.71	6,844.1	-9,538.5	-977.5	9,588.5	0.00	0.00	0.00
16,900.0	90.00	179.71	6,844.1	-9,638.5	-977.0	9,687.9	0.00	0.00	0.00
17,000.0	90.00	179.71	6,844.1	-9,738.5	-976.5	9,787.4	0.00	0.00	0.00
17,086.9	90.00	179.71	6,844.1	-9,825.4	-976.1	9,873.8	0.00	0.00	0.00

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
Peters 12 BHL	0.00	0.00	6,850.0	-9,825.4	-976.1	1,452,112.03	2,742,078.56	40° 34' 14.665 N	106° 25' 42.348 W
- plan misses target center by 5.9usft at 17086.9usft MD (6844.1 TVD, -9825.4 N, -976.1 E)									
- Point									

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Peters 0781 12-12H13
Project:	North Park Basin	**TVD Reference:**	KB @ 8156.0usft
Site:	T7N-R81W-S12	**MD Reference:**	KB @ 8156.0usft
Well:	Peters 0781 12-12H13	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDMProd

Checked By: _____ Approved By: _____ Date: _____

SandRidge Energy

North Park Basin
T7N-R81W-S12
Peters 0781 12-12H13

Wellbore #1
Design #1

Anticollision Summary Report

17 October, 2017

SandRidge Energy

Anticollision Summary Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Peters 0781 12-12H13
Project:	North Park Basin	**TVD Reference:**	KB @ 8156.0usft
Reference Site:	T7N-R81W-S12	**MD Reference:**	KB @ 8156.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Peters 0781 12-12H13	**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** 10/17/2017

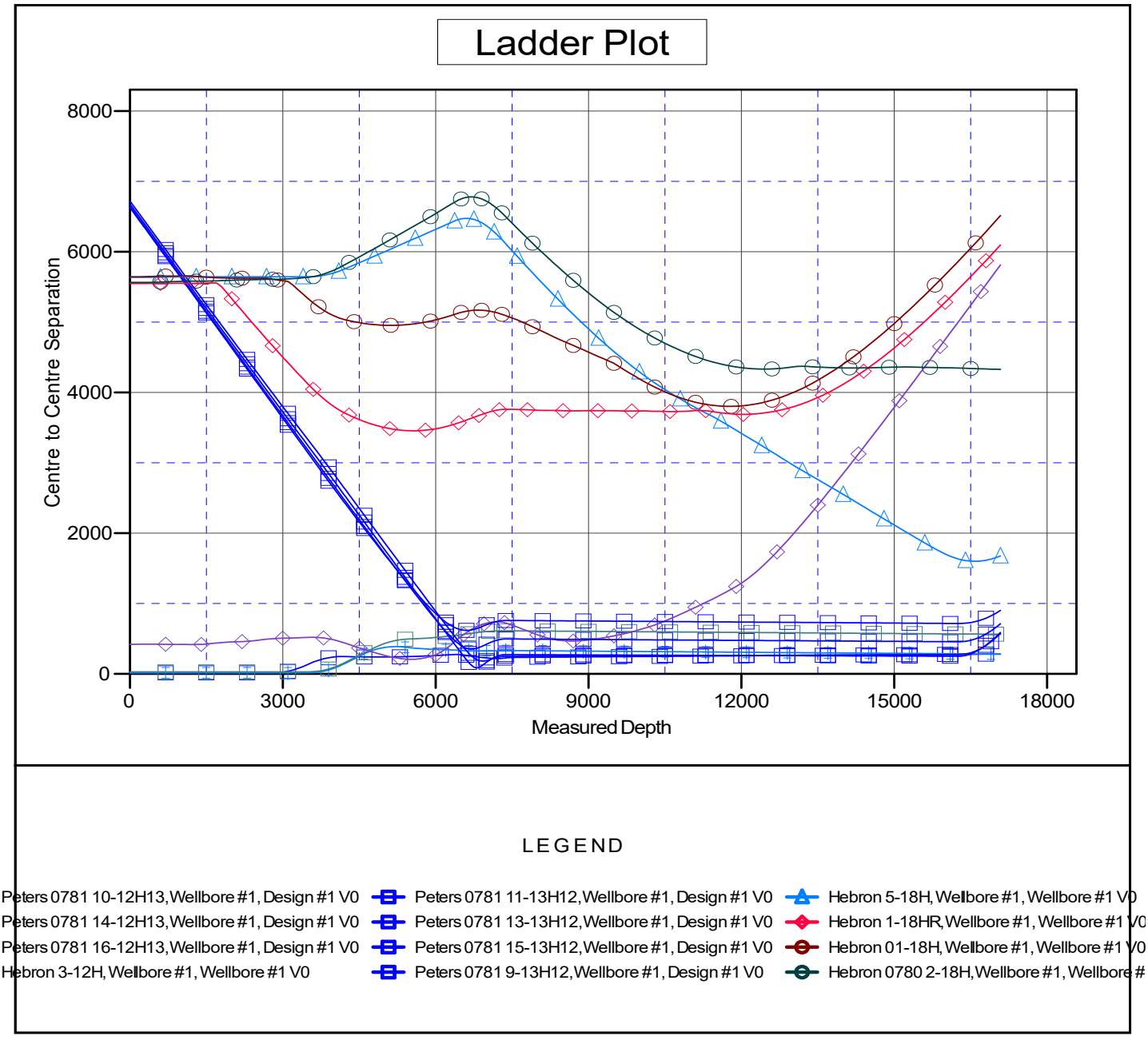
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,086.9	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination

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-S18						
Hebron 01-18H - Wellbore #1 - Wellbore #1	11,776.7	6,498.0	3,802.8	3,713.0	42.356	CC
Hebron 01-18H - Wellbore #1 - Wellbore #1	11,800.0	6,498.0	3,802.9	3,712.6	42.150	ES
Hebron 01-18H - Wellbore #1 - Wellbore #1	14,800.0	6,349.1	4,853.7	4,707.0	33.095	SF
Hebron 0780 2-18H - Wellbore #1 - Wellbore #1	17,070.7	11,630.0	4,329.7	4,048.0	15.371	CC
Hebron 0780 2-18H - Wellbore #1 - Wellbore #1	17,086.9	11,630.0	4,329.7	4,047.7	15.354	ES, SF
Hebron 1-18HR - Wellbore #1 - Wellbore #1	5,560.2	11,809.0	3,455.8	3,351.0	32.984	CC, ES
Hebron 1-18HR - Wellbore #1 - Wellbore #1	14,600.0	6,221.0	4,407.1	4,252.0	28.404	SF
Hebron 5-18H - Wellbore #1 - Wellbore #1	16,588.5	11,360.0	1,600.2	1,336.2	6.063	CC
Hebron 5-18H - Wellbore #1 - Wellbore #1	16,600.0	11,360.0	1,600.2	1,336.1	6.058	ES
Hebron 5-18H - Wellbore #1 - Wellbore #1	16,800.0	11,360.0	1,614.1	1,346.1	6.023	SF
Peters 0781 11-13H12 - Wellbore #1 - Design #1	6,803.8	16,515.0	84.7	-117.0	0.420	Level 1, CC, ES, SF
Peters 0781 13-13H12 - Wellbore #1 - Design #1	6,700.0	16,511.8	351.5	149.2	1.738	Level 4, ES, SF
Peters 0781 13-13H12 - Wellbore #1 - Design #1	6,700.5	16,511.7	351.5	149.2	1.738	Level 4, CC
Peters 0781 15-13H12 - Wellbore #1 - Design #1	6,600.0	16,501.6	618.2	415.8	3.054	ES, SF
Peters 0781 15-13H12 - Wellbore #1 - Design #1	6,604.1	16,500.7	618.2	415.8	3.054	CC
Peters 0781 9-13H12 - Wellbore #1 - Design #1	6,900.0	16,524.0	182.7	-18.9	0.906	Level 1, ES, SF
Peters 0781 9-13H12 - Wellbore #1 - Design #1	6,920.1	16,510.1	182.1	-18.6	0.907	Level 1, CC
T7N-R81W-S12						
Hebron 3-12H - Wellbore #1 - Wellbore #1	5,501.3	5,418.4	207.3	176.3	6.685	CC, ES
Hebron 3-12H - Wellbore #1 - Wellbore #1	5,600.0	5,514.5	209.2	177.8	6.654	SF
Peters 0781 10-12H13 - Wellbore #1 - Design #1	2,800.0	2,800.0	15.1	2.8	1.226	Level 2, CC
Peters 0781 10-12H13 - Wellbore #1 - Design #1	17,086.9	16,939.2	281.9	-101.2	0.736	Level 1, ES, SF
Peters 0781 14-12H13 - Wellbore #1 - Design #1	3,500.0	3,500.0	15.0	-0.5	0.970	Level 1, CC
Peters 0781 14-12H13 - Wellbore #1 - Design #1	17,086.9	17,109.1	281.9	-102.7	0.733	Level 1, ES, SF
Peters 0781 16-12H13 - Wellbore #1 - Design #1	3,500.0	3,500.0	30.0	14.5	1.940	Level 4, CC, ES
Peters 0781 16-12H13 - Wellbore #1 - Design #1	17,086.9	16,999.4	563.8	179.7	1.468	Level 3, SF

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Peters 0781 12-12H13
Project:	North Park Basin	**TVD Reference:**	KB @ 8156.0usft
Reference Site:	T7N-R81W-S12	**MD Reference:**	KB @ 8156.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Peters 0781 12-12H13	**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

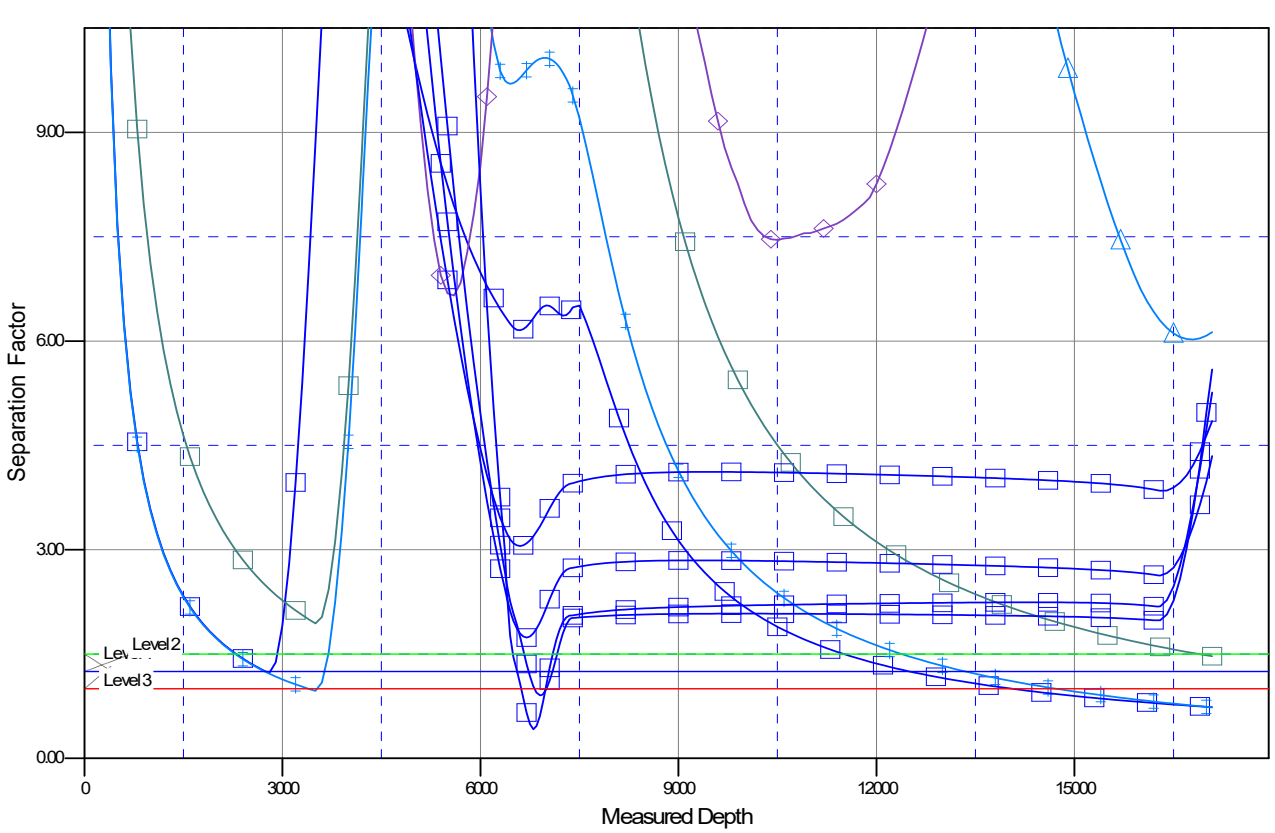
Reference Depths are relative to KB @ 8156.0usft	Coordinates are relative to: Peters 0781 12-12H13
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W	Grid Convergence at Surface is: -0.60°



Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Peters 0781 12-12H13
Project:	North Park Basin	**TVD Reference:**	KB @ 8156.0usft
Reference Site:	T7N-R81W-S12	**MD Reference:**	KB @ 8156.0usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Peters 0781 12-12H13	**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 KB @ 8156.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Peters 0781 12-12H13
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.60°



LEGEND

Peters 0781 10-12H13,Wellbore #1, Design #1 V0
Peters 0781 11-13H12,Wellbore #1, Design #1 V0
Hebron 5-18H, Wellbore #1, Wellbore #1 V0
Peters 0781 14-12H13,Wellbore #1, Design #1 V0
Peters 0781 13-13H12,Wellbore #1, Design #1 V0
Hebron 1-18HR,Wellbore #1, Wellbore #1 V0
Peters 0781 16-12H13,Wellbore #1, Design #1 V0
Peters 0781 15-13H12,Wellbore #1, Design #1 V0
Hebron 01-18H, Wellbore #1, Wellbore #1 V0
Hebron 3-12H, Wellbore #1, Wellbore #1 V0
Peters 0781 9-13H12,Wellbore #1, Design #1 V0
Hebron 0780 2-18H,Wellbore #1, Wellbore #