

SandRidge Energy

**North Park Basin
T7N-R80W-S17
Castle 0780 2-17H20**

**Wellbore #1
Design #1**

Anticollision Report

14 December, 2015

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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 us	Error Surface:		Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:		Not applied

Survey Tool Program		Date	12/11/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	16,924.1	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
T7N-R80W-S17						
Castle 0780 1-17H20 - Wellbore #1 - Design #1	500.0	500.0	19.9	17.9	10.032	CC, ES
Castle 0780 1-17H20 - Wellbore #1 - Design #1	16,924.5	16,978.9	639.9	249.2	1.638	Level 4, SF
Castle 0780 3-17H20 - Wellbore #1 - Design #1	500.0	500.0	20.0	18.0	10.062	CC, ES
Castle 0780 3-17H20 - Wellbore #1 - Design #1	16,924.5	16,945.6	659.8	267.4	1.681	Level 4, SF
Castle 0780 4-17H20 - Wellbore #1 - Design #1	500.0	500.0	40.0	38.0	20.143	CC, ES
Castle 0780 4-17H20 - Wellbore #1 - Design #1	16,924.5	17,510.7	1,319.7	926.6	3.357	SF
Hebron 0780 3-18H - Wellbore #1 - Design #1	500.0	500.0	189.9	187.9	95.591	CC
Hebron 0780 3-18H - Wellbore #1 - Design #1	3,300.0	3,299.4	192.8	178.5	13.539	ES
Hebron 0780 3-18H - Wellbore #1 - Design #1	11,900.0	12,281.8	1,840.7	1,647.6	9.533	SF
Hebron 0780 4-18H - Wellbore #1 - Design #1	500.0	500.0	39.9	37.9	20.099	CC, ES
Hebron 0780 4-18H - Wellbore #1 - Design #1	4,500.0	4,498.1	77.2	57.9	3.993	SF
Hebron 0780 4-7H - Wellbore #1 - Design #1	500.0	503.0	241.6	239.6	121.393	CC, ES
Hebron 0780 4-7H - Wellbore #1 - Design #1	3,800.0	3,786.8	270.3	254.0	16.522	SF
Mutual 0780 2-8H - Wellbore #1 - Design #1	500.0	500.0	155.2	153.2	78.116	CC, ES
Mutual 0780 2-8H - Wellbore #1 - Design #1	5,300.0	5,294.5	188.2	165.1	8.143	SF
Mutual 0780 3-8H - Wellbore #1 - Design #1	500.0	500.0	151.3	149.3	76.155	CC, ES
Mutual 0780 3-8H - Wellbore #1 - Design #1	3,600.0	3,589.2	227.0	211.4	14.605	SF
Mutual 0780 4-8H - Wellbore #1 - Design #1	500.0	500.0	150.0	148.0	75.493	CC, ES
Mutual 0780 4-8H - Wellbore #1 - Design #1	3,600.0	3,590.9	191.5	176.1	12.441	SF
Mutual 7-17H - Wellbore #1 - Wellbore #1	1,065.5	1,063.0	308.8	305.4	91.662	CC
Mutual 7-17H - Wellbore #1 - Wellbore #1	6,650.0	6,645.8	319.6	292.3	11.726	ES
Mutual 7-17H - Wellbore #1 - Wellbore #1	6,750.0	6,757.1	322.4	294.8	11.647	SF

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.17	0.3	-19.9	19.9				
100.0	100.0	100.0	100.0	0.1	0.1	-89.17	0.3	-19.9	19.9	19.7	0.19	105.571	
200.0	200.0	200.0	200.0	0.3	0.3	-89.17	0.3	-19.9	19.9	19.3	0.64	31.225	
300.0	300.0	300.0	300.0	0.5	0.5	-89.17	0.3	-19.9	19.9	18.8	1.09	18.322	
400.0	400.0	400.0	400.0	0.8	0.8	-89.17	0.3	-19.9	19.9	18.4	1.54	12.965	
500.0	500.0	500.0	500.0	1.0	1.0	-89.17	0.3	-19.9	19.9	17.9	1.99	10.032	CC, ES

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

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Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
600.0	600.0	599.6	599.6	1.2	1.2	91.74	-1.1	-21.0	21.0	18.6	2.38	8.803		
627.8	627.7	627.2	627.2	1.2	1.2	92.26	-2.0	-21.6	21.6	19.2	2.49	8.711		
700.0	699.9	699.2	699.1	1.4	1.4	92.09	-5.2	-24.0	24.0	21.3	2.76	8.712		
800.0	799.8	799.1	798.8	1.6	1.6	91.05	-10.0	-27.6	27.7	24.5	3.16	8.738		
900.0	899.7	899.1	898.6	1.8	1.8	90.24	-14.8	-31.3	31.3	27.7	3.59	8.709		
1,000.0	999.6	999.0	998.3	2.0	2.0	89.60	-19.6	-34.9	34.9	30.9	4.03	8.656		
1,100.0	1,099.5	1,098.9	1,098.1	2.2	2.3	89.09	-24.5	-38.5	38.5	34.0	4.48	8.596		
1,172.9	1,172.3	1,171.8	1,170.7	2.4	2.5	88.77	-28.0	-41.1	41.2	36.3	4.81	8.551		
1,200.0	1,199.4	1,198.9	1,197.8	2.5	2.5	88.50	-29.3	-42.1	42.1	37.2	4.93	8.541		
1,300.6	1,300.0	1,299.4	1,298.1	2.7	2.8	-95.16	-34.1	-45.7	46.0	40.6	5.38	8.541		
1,400.0	1,399.4	1,399.5	1,398.1	2.9	3.0	-99.60	-38.3	-48.8	49.6	43.8	5.80	8.546		
1,500.0	1,499.4	1,500.8	1,499.4	3.1	3.2	-101.01	-39.7	-49.9	50.9	44.7	6.20	8.200		
1,600.0	1,599.4	1,600.8	1,599.4	3.3	3.4	-101.01	-39.7	-49.9	50.9	44.3	6.61	7.695		
1,700.0	1,699.4	1,700.8	1,699.4	3.5	3.6	-101.01	-39.7	-49.9	50.9	43.8	7.02	7.248		
1,800.0	1,799.4	1,800.8	1,799.4	3.7	3.8	-101.01	-39.7	-49.9	50.9	43.4	7.43	6.845		
1,900.0	1,899.4	1,900.8	1,899.4	3.9	4.0	-101.01	-39.7	-49.9	50.9	43.0	7.85	6.482		
2,000.0	1,999.4	2,000.8	1,999.4	4.1	4.2	-101.01	-39.7	-49.9	50.9	42.6	8.27	6.152		
2,100.0	2,099.4	2,100.8	2,099.4	4.3	4.4	-101.01	-39.7	-49.9	50.9	42.2	8.69	5.853		
2,200.0	2,199.4	2,200.8	2,199.4	4.5	4.6	-101.01	-39.7	-49.9	50.9	41.7	9.12	5.580		
2,300.0	2,299.4	2,300.8	2,299.4	4.8	4.8	-101.01	-39.7	-49.9	50.9	41.3	9.54	5.330		
2,400.0	2,399.4	2,400.8	2,399.4	5.0	5.0	-101.01	-39.7	-49.9	50.9	40.9	9.97	5.100		
2,500.0	2,499.4	2,500.8	2,499.4	5.2	5.2	-101.01	-39.7	-49.9	50.9	40.5	10.41	4.889		
2,600.0	2,599.4	2,600.8	2,599.4	5.4	5.5	-101.01	-39.7	-49.9	50.9	40.0	10.84	4.693		
2,700.0	2,699.4	2,700.8	2,699.4	5.6	5.7	-101.01	-39.7	-49.9	50.9	39.6	11.27	4.513		
2,800.0	2,799.4	2,800.8	2,799.4	5.9	5.9	-101.01	-39.7	-49.9	50.9	39.2	11.71	4.345		
2,900.0	2,899.4	2,900.8	2,899.4	6.1	6.1	-101.01	-39.7	-49.9	50.9	38.7	12.14	4.189		
3,000.0	2,999.4	3,000.8	2,999.4	6.3	6.3	-101.01	-39.7	-49.9	50.9	38.3	12.58	4.043		
3,100.0	3,099.4	3,100.8	3,099.4	6.5	6.5	-101.01	-39.7	-49.9	50.9	37.8	13.02	3.907		
3,200.0	3,199.4	3,200.8	3,199.4	6.7	6.8	-101.01	-39.7	-49.9	50.9	37.4	13.46	3.780		
3,300.0	3,299.4	3,300.8	3,299.4	7.0	7.0	-101.01	-39.7	-49.9	50.9	37.0	13.90	3.660		
3,400.0	3,399.4	3,400.8	3,399.4	7.2	7.2	-101.01	-39.7	-49.9	50.9	36.5	14.34	3.548		
3,500.0	3,499.4	3,500.8	3,499.4	7.4	7.4	-101.01	-39.7	-49.9	50.9	36.1	14.78	3.442		
3,600.0	3,599.4	3,600.8	3,599.4	7.6	7.6	-101.01	-39.7	-49.9	50.9	35.6	15.22	3.342		
3,700.0	3,699.4	3,700.8	3,699.4	7.8	7.9	-101.01	-39.7	-49.9	50.9	35.2	15.66	3.248		
3,800.0	3,799.4	3,800.8	3,799.4	8.1	8.1	-101.01	-39.7	-49.9	50.9	34.8	16.10	3.159		
3,900.0	3,899.4	3,900.8	3,899.4	8.3	8.3	-101.01	-39.7	-49.9	50.9	34.3	16.55	3.074		
4,000.0	3,999.4	4,000.8	3,999.4	8.5	8.5	-101.01	-39.7	-49.9	50.9	33.9	16.99	2.994		
4,100.0	4,099.4	4,100.8	4,099.4	8.7	8.7	-101.01	-39.7	-49.9	50.9	33.4	17.43	2.918		
4,200.0	4,199.4	4,200.8	4,199.4	8.9	9.0	-101.01	-39.7	-49.9	50.9	33.0	17.88	2.846		
4,300.0	4,299.4	4,300.8	4,299.4	9.2	9.2	-101.01	-39.7	-49.9	50.9	32.5	18.32	2.777		
4,400.0	4,399.4	4,400.8	4,399.4	9.4	9.4	-101.01	-39.7	-49.9	50.9	32.1	18.76	2.711		
4,500.0	4,499.4	4,500.8	4,499.4	9.6	9.6	-101.01	-39.7	-49.9	50.9	31.7	19.21	2.648		
4,600.0	4,599.4	4,600.8	4,599.4	9.8	9.8	-101.01	-39.7	-49.9	50.9	31.2	19.65	2.588		
4,700.0	4,699.4	4,700.8	4,699.4	10.1	10.1	-101.01	-39.7	-49.9	50.9	30.8	20.10	2.531		
4,800.0	4,799.4	4,800.8	4,799.4	10.3	10.3	-101.01	-39.7	-49.9	50.9	30.3	20.54	2.476		
4,900.0	4,899.4	4,900.8	4,899.4	10.5	10.5	-101.01	-39.7	-49.9	50.9	29.9	20.99	2.424		
5,000.0	4,999.4	5,000.8	4,999.4	10.7	10.7	-101.01	-39.7	-49.9	50.9	29.4	21.43	2.373		
5,100.0	5,099.4	5,100.8	5,099.4	11.0	11.0	-101.01	-39.7	-49.9	50.9	29.0	21.88	2.325		
5,200.0	5,199.4	5,200.8	5,199.4	11.2	11.2	-101.01	-39.7	-49.9	50.9	28.5	22.32	2.278		
5,300.0	5,299.4	5,300.8	5,299.4	11.4	11.4	-101.01	-39.7	-49.9	50.9	28.1	22.77	2.234		
5,400.0	5,399.4	5,400.8	5,399.4	11.6	11.6	-101.01	-39.7	-49.9	50.9	27.6	23.22	2.191		
5,466.6	5,466.0	5,467.4	5,466.0	11.8	11.8	-101.01	-39.7	-49.9	50.9	27.4	23.51	2.163		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,500.0	5,499.4	5,500.7	5,499.3	11.8	11.8	-101.01	-39.7	-49.9	50.9	27.2	23.66	2.150	
5,600.0	5,599.4	5,599.0	5,597.6	12.1	12.1	-101.08	-40.1	-51.6	52.6	28.5	24.09	2.182	
5,700.0	5,699.4	5,697.0	5,695.4	12.3	12.3	-101.27	-41.2	-56.5	57.7	33.2	24.52	2.354	
5,800.0	5,799.4	5,794.5	5,792.6	12.5	12.5	-101.52	-43.2	-64.6	66.3	41.3	24.94	2.657	
5,900.0	5,899.4	5,891.4	5,888.7	12.7	12.7	-101.77	-45.8	-75.8	78.2	52.8	25.36	3.083	
6,000.0	5,999.4	5,987.3	5,983.6	13.0	12.9	-102.01	-49.2	-90.1	93.4	67.6	25.78	3.624	
6,100.0	6,099.4	6,082.2	6,076.8	13.2	13.2	-102.20	-53.2	-107.2	112.0	85.8	26.20	4.273	
6,200.0	6,199.4	6,175.8	6,168.2	13.4	13.4	-102.37	-57.8	-127.0	133.7	107.1	26.62	5.023	
6,300.0	6,299.4	6,268.1	6,257.5	13.6	13.7	-102.50	-63.1	-149.4	158.6	131.6	27.04	5.866	
6,400.0	6,399.4	6,364.5	6,350.6	13.9	14.0	-102.60	-68.9	-174.1	185.0	157.5	27.47	6.735	
6,451.7	6,451.1	6,414.4	6,398.7	14.0	14.1	-102.65	-71.9	-186.9	198.6	170.9	27.69	7.174	
6,500.0	6,499.3	6,461.0	6,443.6	14.1	14.3	81.60	-74.8	-198.9	211.1	183.2	27.87	7.575	
6,550.0	6,548.9	6,509.1	6,490.0	14.2	14.5	81.93	-77.7	-211.3	223.5	195.4	28.06	7.965	
6,600.0	6,597.7	6,550.0	6,529.5	14.3	14.6	82.75	-80.2	-221.8	235.7	207.5	28.24	8.346	
6,650.0	6,645.4	6,592.4	6,569.9	14.4	14.7	83.82	-84.6	-233.5	249.1	220.6	28.43	8.761	
6,700.0	6,691.7	6,630.2	6,605.5	14.5	14.9	84.53	-91.0	-244.9	264.1	235.5	28.62	9.228	
6,750.0	6,736.1	6,667.7	6,639.8	14.6	15.0	85.08	-99.4	-257.1	280.8	252.0	28.83	9.740	
6,800.0	6,778.3	6,704.7	6,672.9	14.7	15.2	85.46	-109.8	-270.0	299.0	270.0	29.06	10.289	
6,850.0	6,818.1	6,741.3	6,704.7	14.9	15.4	85.66	-122.2	-283.5	318.6	289.3	29.32	10.866	
6,900.0	6,855.0	6,777.7	6,735.1	15.1	15.6	85.68	-136.3	-297.5	339.5	309.9	29.62	11.464	
6,950.0	6,888.9	6,813.8	6,764.1	15.3	15.8	85.52	-152.2	-312.0	361.6	331.7	29.95	12.074	
7,000.0	6,919.4	6,850.0	6,791.8	15.6	16.0	85.22	-169.9	-327.1	384.8	354.4	30.33	12.686	
7,051.7	6,947.3	6,886.9	6,818.6	15.9	16.2	84.73	-189.7	-343.0	409.6	378.9	30.78	13.310	
7,100.0	6,971.4	6,922.3	6,842.7	16.3	16.5	86.71	-210.3	-358.7	433.7	402.4	31.30	13.856	
7,201.7	7,022.3	7,000.0	6,890.1	17.1	17.1	89.46	-260.5	-394.2	486.6	454.1	32.53	14.959	
7,250.0	7,044.7	7,038.3	6,910.4	17.6	17.5	87.02	-287.6	-412.2	512.0	478.8	33.16	15.438	
7,300.0	7,064.0	7,080.0	6,931.2	18.1	17.9	84.97	-317.9	-431.7	537.7	503.8	33.89	15.866	
7,350.0	7,079.3	7,121.1	6,951.8	18.6	18.3	83.45	-347.8	-451.1	562.7	528.0	34.68	16.225	
7,400.0	7,090.5	7,161.3	6,971.9	19.2	18.7	82.36	-377.0	-470.0	587.2	551.6	35.54	16.519	
7,450.0	7,097.4	7,224.3	7,002.8	19.8	19.4	82.76	-423.5	-499.1	610.9	574.2	36.70	16.646	
7,500.0	7,100.0	7,377.5	7,062.1	20.5	21.0	86.56	-552.7	-554.9	629.4	590.5	38.90	16.180	
7,505.5	7,100.0	7,396.8	7,067.8	20.5	21.3	86.97	-570.4	-560.2	630.8	591.7	39.18	16.102	
7,600.0	7,100.0	7,661.3	7,100.0	21.8	24.2	89.99	-829.0	-590.5	638.6	595.0	43.54	14.665	
7,700.0	7,100.0	7,761.3	7,100.0	23.2	25.4	89.99	-929.0	-590.5	638.6	592.3	46.27	13.800	
7,800.0	7,100.0	7,861.3	7,100.0	24.7	26.6	89.99	-1,029.0	-590.5	638.6	589.4	49.15	12.993	
7,900.0	7,100.0	7,961.3	7,100.0	26.3	27.9	89.99	-1,129.0	-590.5	638.6	586.4	52.15	12.246	
8,000.0	7,100.0	8,061.3	7,100.0	27.9	29.3	89.99	-1,229.0	-590.5	638.6	583.4	55.26	11.557	
8,100.0	7,100.0	8,161.3	7,100.0	29.5	30.8	89.99	-1,329.0	-590.6	638.6	580.2	58.46	10.925	
8,200.0	7,100.0	8,261.3	7,100.0	31.2	32.3	89.99	-1,429.0	-590.6	638.6	576.9	61.73	10.346	
8,300.0	7,100.0	8,361.3	7,100.0	32.9	33.8	89.99	-1,529.0	-590.6	638.7	573.6	65.07	9.815	
8,400.0	7,100.0	8,461.3	7,100.0	34.6	35.4	89.99	-1,629.0	-590.6	638.7	570.2	68.46	9.329	
8,500.0	7,100.0	8,561.3	7,100.0	36.3	37.0	89.99	-1,729.0	-590.6	638.7	566.8	71.90	8.882	
8,600.0	7,100.0	8,661.3	7,100.0	38.1	38.7	89.99	-1,829.0	-590.6	638.7	563.3	75.39	8.472	
8,700.0	7,100.0	8,761.3	7,100.0	39.9	40.4	89.99	-1,929.0	-590.6	638.7	559.8	78.90	8.095	
8,800.0	7,100.0	8,861.3	7,100.0	41.7	42.1	89.99	-2,029.0	-590.6	638.7	556.3	82.45	7.747	
8,900.0	7,100.0	8,961.3	7,100.0	43.5	43.8	89.99	-2,129.0	-590.6	638.7	552.7	86.03	7.425	
9,000.0	7,100.0	9,061.3	7,100.0	45.3	45.5	89.99	-2,229.0	-590.6	638.7	549.1	89.63	7.127	
9,100.0	7,100.0	9,161.3	7,100.0	47.1	47.3	89.99	-2,329.0	-590.6	638.8	545.5	93.25	6.850	
9,200.0	7,100.0	9,261.3	7,100.0	48.9	49.0	89.99	-2,429.0	-590.7	638.8	541.9	96.89	6.593	
9,300.0	7,100.0	9,361.3	7,100.0	50.8	50.8	89.99	-2,529.0	-590.7	638.8	538.2	100.54	6.353	
9,400.0	7,100.0	9,461.3	7,100.0	52.6	52.6	89.99	-2,629.0	-590.7	638.8	534.6	104.21	6.130	
9,500.0	7,100.0	9,561.3	7,100.0	54.5	54.4	89.99	-2,729.0	-590.7	638.8	530.9	107.90	5.921	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,600.0	7,100.0	9,661.3	7,100.0	56.3	56.2	89.99	-2,829.0	-590.7	638.8	527.2	111.59	5.725	
9,700.0	7,100.0	9,761.3	7,100.0	58.2	58.0	89.99	-2,929.0	-590.7	638.8	523.5	115.30	5.541	
9,800.0	7,100.0	9,861.3	7,100.0	60.1	59.8	89.99	-3,029.0	-590.7	638.9	519.8	119.02	5.368	
9,900.0	7,100.0	9,961.3	7,100.0	61.9	61.6	89.99	-3,129.0	-590.7	638.9	516.1	122.74	5.205	
10,000.0	7,100.0	10,061.3	7,100.0	63.8	63.5	89.99	-3,229.0	-590.7	638.9	512.4	126.48	5.051	
10,100.0	7,100.0	10,161.3	7,100.0	65.7	65.3	89.99	-3,329.0	-590.7	638.9	508.7	130.22	4.906	
10,200.0	7,100.0	10,261.3	7,100.0	67.6	67.2	89.99	-3,429.0	-590.7	638.9	504.9	133.97	4.769	
10,300.0	7,100.0	10,361.3	7,100.0	69.4	69.0	89.99	-3,529.0	-590.7	638.9	501.2	137.72	4.639	
10,400.0	7,100.0	10,461.3	7,100.0	71.3	70.9	89.99	-3,629.0	-590.8	638.9	497.5	141.48	4.516	
10,500.0	7,100.0	10,561.3	7,100.0	73.2	72.7	89.99	-3,729.0	-590.8	639.0	493.7	145.25	4.399	
10,600.0	7,100.0	10,661.3	7,100.0	75.1	74.6	89.99	-3,829.0	-590.8	639.0	489.9	149.02	4.288	
10,700.0	7,100.0	10,761.3	7,100.0	77.0	76.5	89.99	-3,929.0	-590.8	639.0	486.2	152.80	4.182	
10,800.0	7,100.0	10,861.3	7,100.0	78.9	78.3	89.99	-4,029.0	-590.8	639.0	482.4	156.58	4.081	
10,900.0	7,100.0	10,961.3	7,100.0	80.8	80.2	89.99	-4,129.0	-590.8	639.0	478.7	160.36	3.985	
11,000.0	7,100.0	11,061.3	7,100.0	82.7	82.1	89.99	-4,229.0	-590.8	639.0	474.9	164.15	3.893	
11,100.0	7,100.0	11,161.3	7,100.0	84.6	83.9	89.99	-4,329.0	-590.8	639.0	471.1	167.94	3.805	
11,200.0	7,100.0	11,261.3	7,100.0	86.5	85.8	89.99	-4,429.0	-590.8	639.1	467.3	171.73	3.721	
11,300.0	7,100.0	11,361.3	7,100.0	88.4	87.7	89.99	-4,529.0	-590.8	639.1	463.5	175.53	3.641	
11,400.0	7,100.0	11,461.3	7,100.0	90.3	89.6	89.99	-4,629.0	-590.8	639.1	459.8	179.33	3.564	
11,500.0	7,100.0	11,561.3	7,100.0	92.2	91.5	89.99	-4,729.0	-590.8	639.1	456.0	183.13	3.490	
11,600.0	7,100.0	11,661.3	7,100.0	94.1	93.4	89.99	-4,829.0	-590.9	639.1	452.2	186.94	3.419	
11,700.0	7,100.0	11,761.3	7,100.0	96.0	95.3	89.99	-4,929.0	-590.9	639.1	448.4	190.74	3.351	
11,800.0	7,100.0	11,861.3	7,100.0	97.9	97.1	89.99	-5,029.0	-590.9	639.1	444.6	194.55	3.285	
11,900.0	7,100.0	11,961.3	7,100.0	99.8	99.0	89.99	-5,129.0	-590.9	639.1	440.8	198.36	3.222	
12,000.0	7,100.0	12,061.3	7,100.0	101.7	100.9	89.99	-5,229.0	-590.9	639.2	437.0	202.18	3.161	
12,100.0	7,100.0	12,161.3	7,100.0	103.6	102.8	89.99	-5,329.0	-590.9	639.2	433.2	205.99	3.103	
12,200.0	7,100.0	12,261.3	7,100.0	105.6	104.7	89.99	-5,429.0	-590.9	639.2	429.4	209.81	3.047	
12,300.0	7,100.0	12,361.3	7,100.0	107.5	106.6	89.99	-5,529.0	-590.9	639.2	425.6	213.63	2.992	
12,400.0	7,100.0	12,461.3	7,100.0	109.4	108.5	89.99	-5,629.0	-590.9	639.2	421.8	217.45	2.940	
12,500.0	7,100.0	12,561.3	7,100.0	111.3	110.4	89.99	-5,729.0	-590.9	639.2	418.0	221.27	2.889	
12,600.0	7,100.0	12,661.3	7,100.0	113.2	112.3	89.99	-5,829.0	-590.9	639.2	414.2	225.09	2.840	
12,700.0	7,100.0	12,761.3	7,100.0	115.1	114.2	89.99	-5,929.0	-590.9	639.3	410.3	228.92	2.793	
12,800.0	7,100.0	12,861.3	7,100.0	117.0	116.1	89.99	-6,029.0	-591.0	639.3	406.5	232.74	2.747	
12,900.0	7,100.0	12,961.3	7,100.0	118.9	118.0	89.99	-6,129.0	-591.0	639.3	402.7	236.57	2.702	
13,000.0	7,100.0	13,061.3	7,100.0	120.9	119.9	89.99	-6,229.0	-591.0	639.3	398.9	240.40	2.659	
13,100.0	7,100.0	13,161.3	7,100.0	122.8	121.8	89.99	-6,329.0	-591.0	639.3	395.1	244.23	2.618	
13,200.0	7,100.0	13,261.3	7,100.0	124.7	123.8	89.99	-6,429.0	-591.0	639.3	391.3	248.06	2.577	
13,300.0	7,100.0	13,361.3	7,100.0	126.6	125.7	89.99	-6,529.0	-591.0	639.3	387.5	251.89	2.538	
13,400.0	7,100.0	13,461.3	7,100.0	128.5	127.6	89.99	-6,629.0	-591.0	639.4	383.6	255.72	2.500	
13,500.0	7,100.0	13,561.3	7,100.0	130.4	129.5	89.99	-6,729.0	-591.0	639.4	379.8	259.55	2.463	
13,600.0	7,100.0	13,661.3	7,100.0	132.4	131.4	89.99	-6,829.0	-591.0	639.4	376.0	263.38	2.428	
13,700.0	7,100.0	13,761.3	7,100.0	134.3	133.3	89.99	-6,929.0	-591.0	639.4	372.2	267.22	2.393	
13,800.0	7,100.0	13,861.3	7,100.0	136.2	135.2	89.99	-7,029.0	-591.0	639.4	368.4	271.05	2.359	
13,900.0	7,100.0	13,961.3	7,100.0	138.1	137.1	89.99	-7,129.0	-591.1	639.4	364.5	274.89	2.326	
14,000.0	7,100.0	14,061.3	7,100.0	140.0	139.0	89.99	-7,229.0	-591.1	639.4	360.7	278.73	2.294	
14,100.0	7,100.0	14,161.3	7,100.0	142.0	140.9	89.99	-7,329.0	-591.1	639.5	356.9	282.56	2.263	
14,200.0	7,100.0	14,261.3	7,100.0	143.9	142.9	89.99	-7,429.0	-591.1	639.5	353.1	286.40	2.233	
14,300.0	7,100.0	14,361.3	7,100.0	145.8	144.8	89.99	-7,529.0	-591.1	639.5	349.2	290.24	2.203	
14,400.0	7,100.0	14,461.3	7,100.0	147.7	146.7	89.99	-7,629.0	-591.1	639.5	345.4	294.08	2.175	
14,500.0	7,100.0	14,561.3	7,100.0	149.6	148.6	89.99	-7,729.0	-591.1	639.5	341.6	297.92	2.147	
14,600.0	7,100.0	14,661.3	7,100.0	151.6	150.5	89.99	-7,829.0	-591.1	639.5	337.8	301.76	2.119	
14,700.0	7,100.0	14,761.3	7,100.0	153.5	152.4	89.99	-7,929.0	-591.1	639.5	333.9	305.60	2.093	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,800.0	7,100.0	14,861.3	7,100.0	155.4	154.4	89.99	-8,029.0	-591.1	639.5	330.1	309.44	2.067	
14,900.0	7,100.0	14,961.3	7,100.0	157.3	156.3	89.99	-8,129.0	-591.1	639.6	326.3	313.29	2.041	
15,000.0	7,100.0	15,061.3	7,100.0	159.3	158.2	89.99	-8,229.0	-591.1	639.6	322.4	317.13	2.017	
15,100.0	7,100.0	15,161.3	7,100.0	161.2	160.1	89.99	-8,329.0	-591.2	639.6	318.6	320.97	1.993 Level 4	
15,200.0	7,100.0	15,261.3	7,100.0	163.1	162.0	89.99	-8,429.0	-591.2	639.6	314.8	324.82	1.969 Level 4	
15,300.0	7,100.0	15,361.3	7,100.0	165.0	163.9	89.99	-8,529.0	-591.2	639.6	311.0	328.66	1.946 Level 4	
15,400.0	7,100.0	15,461.3	7,100.0	166.9	165.9	89.99	-8,629.0	-591.2	639.6	307.1	332.50	1.924 Level 4	
15,500.0	7,100.0	15,561.3	7,100.0	168.9	167.8	89.99	-8,729.0	-591.2	639.6	303.3	336.35	1.902 Level 4	
15,600.0	7,100.0	15,661.3	7,100.0	170.8	169.7	89.99	-8,829.0	-591.2	639.7	299.5	340.19	1.880 Level 4	
15,700.0	7,100.0	15,761.3	7,100.0	172.7	171.6	89.99	-8,929.0	-591.2	639.7	295.6	344.04	1.859 Level 4	
15,800.0	7,100.0	15,861.3	7,100.0	174.6	173.5	89.99	-9,029.0	-591.2	639.7	291.8	347.89	1.839 Level 4	
15,900.0	7,100.0	15,961.3	7,100.0	176.6	175.4	89.99	-9,129.0	-591.2	639.7	288.0	351.73	1.819 Level 4	
16,000.0	7,100.0	16,061.3	7,100.0	178.5	177.4	89.99	-9,229.0	-591.2	639.7	284.1	355.58	1.799 Level 4	
16,100.0	7,100.0	16,161.3	7,100.0	180.4	179.3	89.99	-9,329.0	-591.2	639.7	280.3	359.43	1.780 Level 4	
16,200.0	7,100.0	16,261.3	7,100.0	182.3	181.2	89.99	-9,429.0	-591.2	639.7	276.5	363.27	1.761 Level 4	
16,300.0	7,100.0	16,361.3	7,100.0	184.3	183.1	89.99	-9,529.0	-591.3	639.8	272.6	367.12	1.743 Level 4	
16,400.0	7,100.0	16,461.3	7,100.0	186.2	185.0	89.99	-9,629.0	-591.3	639.8	268.8	370.97	1.725 Level 4	
16,500.0	7,100.0	16,561.3	7,100.0	188.1	187.0	89.99	-9,729.0	-591.3	639.8	265.0	374.82	1.707 Level 4	
16,600.0	7,100.0	16,661.3	7,100.0	190.0	188.9	89.99	-9,829.0	-591.3	639.8	261.1	378.67	1.690 Level 4	
16,700.0	7,100.0	16,761.3	7,100.0	192.0	190.8	89.99	-9,929.0	-591.3	639.8	257.3	382.51	1.673 Level 4	
16,800.0	7,100.0	16,861.3	7,100.0	193.9	192.7	89.99	-10,029.0	-591.3	639.8	253.5	386.36	1.656 Level 4	
16,900.0	7,100.0	16,961.3	7,100.0	195.8	194.4	89.99	-10,129.0	-591.3	639.8	249.8	389.99	1.641 Level 4	
16,907.3	7,100.0	16,968.6	7,100.0	195.9	194.5	89.99	-10,136.3	-591.3	639.8	249.6	390.22	1.640 Level 4	
16,924.5	7,100.0	16,978.9	7,100.0	196.2	194.7	89.99	-10,146.6	-591.3	639.9	249.2	390.64	1.638 Level 4, SF	

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	90.75	-0.3	20.0	20.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.75	-0.3	20.0	20.0	19.8	0.19	105.886		
200.0	200.0	200.0	200.0	0.3	0.3	90.75	-0.3	20.0	20.0	19.4	0.64	31.318		
300.0	300.0	300.0	300.0	0.5	0.5	90.75	-0.3	20.0	20.0	18.9	1.09	18.377		
400.0	400.0	400.0	400.0	0.8	0.8	90.75	-0.3	20.0	20.0	18.5	1.54	13.004		
500.0	500.0	500.0	500.0	1.0	1.0	90.75	-0.3	20.0	20.0	18.0	1.99	10.062 CC, ES		
600.0	600.0	599.3	599.3	1.2	1.2	-91.84	-1.0	21.5	21.6	19.2	2.39	9.021		
627.8	627.7	627.0	627.0	1.2	1.3	-93.37	-1.5	22.5	22.5	20.0	2.49	9.024		
700.0	699.9	699.2	699.1	1.4	1.4	-97.60	-2.7	24.9	25.1	22.4	2.77	9.062		
800.0	799.8	799.1	798.9	1.6	1.6	-102.15	-4.4	28.3	28.9	25.8	3.18	9.104		
900.0	899.7	899.0	898.8	1.8	1.8	-105.63	-6.1	31.6	32.9	29.3	3.60	9.132		
1,000.0	999.6	998.9	998.6	2.0	2.0	-108.36	-7.8	35.0	36.9	32.9	4.03	9.151		
1,100.0	1,099.5	1,098.9	1,098.5	2.2	2.3	-110.55	-9.5	38.4	41.0	36.5	4.48	9.166		
1,172.9	1,172.3	1,172.4	1,172.0	2.4	2.4	-113.00	-10.2	39.9	43.3	38.5	4.78	9.055		
1,200.0	1,199.4	1,199.8	1,199.4	2.5	2.5	-114.19	-10.3	40.0	43.8	38.9	4.90	8.953		
1,300.6	1,300.0	1,300.4	1,300.0	2.7	2.7	63.73	-10.3	40.0	44.6	39.3	5.31	8.393		
1,400.0	1,399.4	1,399.8	1,399.4	2.9	2.9	63.73	-10.3	40.0	44.6	38.9	5.73	7.785		
1,500.0	1,499.4	1,499.8	1,499.4	3.1	3.1	63.73	-10.3	40.0	44.6	38.5	6.15	7.257		
1,600.0	1,599.4	1,599.8	1,599.4	3.3	3.3	63.73	-10.3	40.0	44.6	38.0	6.57	6.792		
1,700.0	1,699.4	1,699.8	1,699.4	3.5	3.5	63.73	-10.3	40.0	44.6	37.6	6.99	6.379		
1,800.0	1,799.4	1,799.8	1,799.4	3.7	3.7	63.73	-10.3	40.0	44.6	37.2	7.42	6.012		
1,900.0	1,899.4	1,899.8	1,899.4	3.9	4.0	63.73	-10.3	40.0	44.6	36.7	7.85	5.682		
2,000.0	1,999.4	1,999.8	1,999.4	4.1	4.2	63.73	-10.3	40.0	44.6	36.3	8.28	5.386		
2,100.0	2,099.4	2,099.8	2,099.4	4.3	4.4	63.73	-10.3	40.0	44.6	35.9	8.71	5.117		
2,200.0	2,199.4	2,199.8	2,199.4	4.5	4.6	63.73	-10.3	40.0	44.6	35.4	9.15	4.874		
2,300.0	2,299.4	2,299.8	2,299.4	4.8	4.8	63.73	-10.3	40.0	44.6	35.0	9.59	4.652		
2,400.0	2,399.4	2,399.8	2,399.4	5.0	5.1	63.73	-10.3	40.0	44.6	34.6	10.02	4.449		
2,500.0	2,499.4	2,499.8	2,499.4	5.2	5.3	63.73	-10.3	40.0	44.6	34.1	10.46	4.262		
2,600.0	2,599.4	2,599.8	2,599.4	5.4	5.5	63.73	-10.3	40.0	44.6	33.7	10.90	4.090		
2,700.0	2,699.4	2,699.8	2,699.4	5.6	5.7	63.73	-10.3	40.0	44.6	33.3	11.34	3.932		
2,800.0	2,799.4	2,799.8	2,799.4	5.9	5.9	63.73	-10.3	40.0	44.6	32.8	11.78	3.784		
2,900.0	2,899.4	2,899.8	2,899.4	6.1	6.2	63.73	-10.3	40.0	44.6	32.4	12.23	3.648		
3,000.0	2,999.4	2,999.8	2,999.4	6.3	6.4	63.73	-10.3	40.0	44.6	31.9	12.67	3.520		
3,100.0	3,099.4	3,099.8	3,099.4	6.5	6.6	63.73	-10.3	40.0	44.6	31.5	13.11	3.401		
3,200.0	3,199.4	3,199.8	3,199.4	6.7	6.8	63.73	-10.3	40.0	44.6	31.0	13.55	3.290		
3,300.0	3,299.4	3,299.8	3,299.4	7.0	7.1	63.73	-10.3	40.0	44.6	30.6	14.00	3.186		
3,400.0	3,399.4	3,399.8	3,399.4	7.2	7.3	63.73	-10.3	40.0	44.6	30.2	14.44	3.088		
3,500.0	3,499.4	3,499.8	3,499.4	7.4	7.5	63.73	-10.3	40.0	44.6	29.7	14.89	2.996		
3,600.0	3,599.4	3,599.8	3,599.4	7.6	7.7	63.73	-10.3	40.0	44.6	29.3	15.33	2.909		
3,700.0	3,699.4	3,699.8	3,699.4	7.8	7.9	63.73	-10.3	40.0	44.6	28.8	15.78	2.827		
3,800.0	3,799.4	3,799.8	3,799.4	8.1	8.2	63.73	-10.3	40.0	44.6	28.4	16.22	2.749		
3,900.0	3,899.4	3,899.8	3,899.4	8.3	8.4	63.73	-10.3	40.0	44.6	27.9	16.67	2.676		
4,000.0	3,999.4	3,999.8	3,999.4	8.5	8.6	63.73	-10.3	40.0	44.6	27.5	17.11	2.606		
4,100.0	4,099.4	4,099.8	4,099.4	8.7	8.8	63.73	-10.3	40.0	44.6	27.0	17.56	2.540		
4,200.0	4,199.4	4,199.8	4,199.4	8.9	9.1	63.73	-10.3	40.0	44.6	26.6	18.00	2.477		
4,300.0	4,299.4	4,299.8	4,299.4	9.2	9.3	63.73	-10.3	40.0	44.6	26.1	18.45	2.417		
4,400.0	4,399.4	4,398.5	4,398.1	9.4	9.5	64.95	-10.5	41.7	46.0	27.1	18.88	2.436		
4,500.0	4,499.4	4,497.0	4,496.4	9.6	9.7	68.19	-11.3	46.7	50.4	31.1	19.31	2.609		
4,600.0	4,599.4	4,595.0	4,594.0	9.8	9.9	72.47	-12.6	55.0	57.9	38.2	19.73	2.935		
4,700.0	4,699.4	4,692.3	4,690.7	10.1	10.1	76.85	-14.5	66.5	68.8	48.7	20.15	3.415		
4,800.0	4,799.4	4,788.7	4,785.9	10.3	10.4	80.74	-16.8	81.1	83.2	62.6	20.57	4.045		
4,900.0	4,899.4	4,884.0	4,879.6	10.5	10.6	83.95	-19.6	98.6	101.1	80.1	20.99	4.815		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,999.4	4,978.0	4,971.3	10.7	10.9	86.52	-22.8	118.9	122.3	100.9	21.41	5.714	
5,100.0	5,099.4	5,070.6	5,060.9	11.0	11.2	88.55	-26.4	141.7	146.9	125.1	21.83	6.729	
5,200.0	5,199.4	5,161.5	5,148.2	11.2	11.5	90.14	-30.4	167.0	174.6	152.4	22.25	7.850	
5,300.0	5,299.4	5,252.5	5,234.7	11.4	11.8	91.42	-34.8	194.8	205.3	182.7	22.67	9.060	
5,400.0	5,399.4	5,347.3	5,324.6	11.6	12.2	92.44	-39.6	224.6	236.9	213.8	23.09	10.259	
5,500.0	5,499.4	5,442.1	5,414.5	11.8	12.6	93.21	-44.3	254.3	268.5	245.0	23.52	11.415	
5,600.0	5,599.4	5,536.9	5,504.4	12.1	13.0	93.83	-49.0	284.1	300.1	276.2	23.95	12.530	
5,700.0	5,699.4	5,631.7	5,594.3	12.3	13.4	94.32	-53.7	313.8	331.8	307.4	24.39	13.603	
5,800.0	5,799.4	5,726.6	5,684.2	12.5	13.9	94.73	-58.4	343.6	363.5	338.7	24.83	14.638	
5,900.0	5,899.4	5,821.4	5,774.1	12.7	14.4	95.08	-63.2	373.3	395.2	369.9	25.28	15.635	
6,000.0	5,999.4	5,916.2	5,864.0	13.0	14.8	95.37	-67.9	403.1	426.9	401.2	25.72	16.596	
6,100.0	6,099.4	6,011.0	5,953.9	13.2	15.3	95.62	-72.6	432.8	458.6	432.4	26.17	17.523	
6,200.0	6,199.4	6,105.8	6,043.8	13.4	15.8	95.84	-77.3	462.6	490.3	463.7	26.62	18.417	
6,300.0	6,299.4	6,200.7	6,133.7	13.6	16.3	96.04	-82.1	492.3	522.1	495.0	27.08	19.279	
6,400.0	6,399.4	6,295.5	6,223.6	13.9	16.9	96.21	-86.8	522.1	553.8	526.3	27.54	20.110	
6,451.7	6,451.1	6,344.5	6,270.1	14.0	17.1	96.29	-89.2	537.5	570.2	542.4	27.78	20.529	
6,500.0	6,499.3	6,390.4	6,313.6	14.1	17.4	-77.31	-91.5	551.9	585.1	557.1	28.00	20.894	
6,550.0	6,548.9	6,437.9	6,358.7	14.2	17.7	-76.37	-93.9	566.8	599.7	571.5	28.21	21.256	
6,600.0	6,597.7	6,485.0	6,403.3	14.3	17.9	-75.90	-96.2	581.6	613.4	585.0	28.42	21.582	
6,650.0	6,645.4	6,531.4	6,447.3	14.4	18.2	-75.84	-98.5	596.1	626.3	597.7	28.63	21.874	
6,700.0	6,691.7	6,578.9	6,492.4	14.5	18.5	-76.18	-101.0	611.0	638.5	609.7	28.85	22.130	
6,750.0	6,736.1	6,635.0	6,545.4	14.6	18.8	-76.93	-107.7	627.8	649.8	620.6	29.11	22.319	
6,800.0	6,778.3	6,694.2	6,600.8	14.7	19.1	-77.78	-120.6	644.2	659.6	630.2	29.41	22.427	
6,850.0	6,818.1	6,756.8	6,658.1	14.9	19.4	-78.73	-140.5	659.8	668.0	638.2	29.78	22.434	
6,900.0	6,855.0	6,822.8	6,716.2	15.1	19.7	-79.78	-168.2	674.2	674.7	644.4	30.23	22.317	
6,950.0	6,888.9	6,892.4	6,774.2	15.3	20.0	-80.90	-204.4	686.8	679.4	648.6	30.80	22.062	
7,000.0	6,919.4	6,965.2	6,830.3	15.6	20.4	-82.08	-249.6	697.0	682.1	650.6	31.50	21.652	
7,051.7	6,947.3	7,043.5	6,884.4	15.9	20.8	-83.34	-305.7	704.5	682.5	650.1	32.39	21.070	
7,100.0	6,971.4	7,119.1	6,929.6	16.3	21.2	-84.07	-366.1	708.0	680.7	647.4	33.32	20.430	
7,201.7	7,022.3	7,233.7	6,987.8	17.1	21.9	-84.09	-464.7	708.4	673.3	638.1	35.14	19.159	
7,250.0	7,044.7	7,281.8	7,011.8	17.6	22.2	-85.02	-506.4	708.4	669.8	633.8	36.04	18.586	
7,300.0	7,064.0	7,329.9	7,035.4	18.1	22.6	-86.13	-548.3	708.4	666.6	629.6	37.01	18.012	
7,350.0	7,079.3	7,377.0	7,055.4	18.6	22.9	-87.15	-591.0	708.4	664.0	626.0	38.03	17.462	
7,400.0	7,090.5	7,424.7	7,072.0	19.2	23.4	-88.04	-635.7	708.4	662.1	623.0	39.09	16.937	
7,450.0	7,097.4	7,472.9	7,084.9	19.8	23.8	-88.82	-682.1	708.4	660.9	620.7	40.20	16.441	
7,500.0	7,100.0	7,521.6	7,094.0	20.5	24.3	-89.48	-729.9	708.4	660.4	619.1	41.34	15.976	
7,505.5	7,100.0	7,527.0	7,094.8	20.5	24.4	-89.54	-735.2	708.4	660.4	618.9	41.46	15.927	
7,567.7	7,100.0	7,588.7	7,099.8	21.4	25.1	-89.98	-796.7	708.4	660.4	617.3	43.09	15.325	
7,600.0	7,100.0	7,621.0	7,100.0	21.8	25.4	-90.00	-829.1	708.4	660.4	616.4	43.96	15.022	
7,700.0	7,100.0	7,721.0	7,100.0	23.2	26.6	-90.00	-929.1	708.4	660.3	613.6	46.78	14.116	
7,800.0	7,100.0	7,821.0	7,100.0	24.7	27.9	-90.00	-1,029.1	708.4	660.3	610.6	49.74	13.276	
7,900.0	7,100.0	7,921.0	7,100.0	26.3	29.3	-90.00	-1,129.1	708.4	660.3	607.5	52.82	12.502	
8,000.0	7,100.0	8,021.0	7,100.0	27.9	30.7	-90.00	-1,229.1	708.4	660.3	604.3	55.99	11.793	
8,100.0	7,100.0	8,121.0	7,100.0	29.5	32.2	-90.00	-1,329.1	708.4	660.3	601.1	59.25	11.145	
8,200.0	7,100.0	8,221.0	7,100.0	31.2	33.7	-90.00	-1,429.1	708.4	660.3	597.7	62.57	10.553	
8,300.0	7,100.0	8,321.0	7,100.0	32.9	35.3	-90.00	-1,529.1	708.4	660.3	594.4	65.96	10.011	
8,400.0	7,100.0	8,421.0	7,100.0	34.6	36.9	-90.00	-1,629.1	708.4	660.3	590.9	69.39	9.516	
8,500.0	7,100.0	8,521.0	7,100.0	36.3	38.5	-90.00	-1,729.1	708.4	660.3	587.4	72.87	9.062	
8,600.0	7,100.0	8,621.0	7,100.0	38.1	40.2	-90.00	-1,829.1	708.4	660.3	583.9	76.38	8.645	
8,700.0	7,100.0	8,721.0	7,100.0	39.9	41.9	-90.00	-1,929.1	708.4	660.3	580.4	79.93	8.261	
8,800.0	7,100.0	8,821.0	7,100.0	41.7	43.6	-90.00	-2,029.1	708.4	660.3	576.8	83.50	7.908	
8,900.0	7,100.0	8,921.0	7,100.0	43.5	45.3	-90.00	-2,129.1	708.4	660.3	573.2	87.10	7.581	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,000.0	7,100.0	9,021.0	7,100.0	45.3	47.0	-90.00	-2,229.1	708.4	660.3	569.6	90.72	7.278	
9,100.0	7,100.0	9,121.0	7,100.0	47.1	48.8	-90.00	-2,329.1	708.4	660.3	565.9	94.36	6.997	
9,200.0	7,100.0	9,221.0	7,100.0	48.9	50.6	-90.00	-2,429.1	708.4	660.3	562.2	98.02	6.736	
9,300.0	7,100.0	9,321.0	7,100.0	50.8	52.4	-90.00	-2,529.1	708.4	660.3	558.6	101.69	6.493	
9,400.0	7,100.0	9,421.0	7,100.0	52.6	54.1	-90.00	-2,629.1	708.4	660.3	554.9	105.37	6.266	
9,500.0	7,100.0	9,521.0	7,100.0	54.5	55.9	-90.00	-2,729.1	708.4	660.2	551.2	109.07	6.053	
9,600.0	7,100.0	9,621.0	7,100.0	56.3	57.8	-90.00	-2,829.1	708.4	660.2	547.5	112.78	5.854	
9,700.0	7,100.0	9,721.0	7,100.0	58.2	59.6	-90.00	-2,929.1	708.4	660.2	543.7	116.50	5.667	
9,800.0	7,100.0	9,821.0	7,100.0	60.1	61.4	-90.00	-3,029.1	708.4	660.2	540.0	120.23	5.492	
9,900.0	7,100.0	9,921.0	7,100.0	61.9	63.2	-90.00	-3,129.1	708.4	660.2	536.3	123.96	5.326	
10,000.0	7,100.0	10,021.0	7,100.0	63.8	65.1	-90.00	-3,229.1	708.4	660.2	532.5	127.71	5.170	
10,100.0	7,100.0	10,121.0	7,100.0	65.7	66.9	-90.00	-3,329.1	708.4	660.2	528.8	131.46	5.022	
10,200.0	7,100.0	10,221.0	7,100.0	67.6	68.7	-90.00	-3,429.1	708.4	660.2	525.0	135.21	4.883	
10,300.0	7,100.0	10,321.0	7,100.0	69.4	70.6	-90.00	-3,529.1	708.4	660.2	521.2	138.97	4.751	
10,400.0	7,100.0	10,421.0	7,100.0	71.3	72.4	-90.00	-3,629.1	708.4	660.2	517.5	142.74	4.625	
10,500.0	7,100.0	10,521.0	7,100.0	73.2	74.3	-90.00	-3,729.1	708.4	660.2	513.7	146.52	4.506	
10,600.0	7,100.0	10,621.0	7,100.0	75.1	76.2	-90.00	-3,829.1	708.4	660.2	509.9	150.29	4.393	
10,700.0	7,100.0	10,721.0	7,100.0	77.0	78.0	-90.00	-3,929.1	708.4	660.2	506.1	154.07	4.285	
10,800.0	7,100.0	10,821.0	7,100.0	78.9	79.9	-90.00	-4,029.1	708.4	660.2	502.3	157.86	4.182	
10,900.0	7,100.0	10,921.0	7,100.0	80.8	81.8	-90.00	-4,129.1	708.4	660.2	498.5	161.65	4.084	
11,000.0	7,100.0	11,021.0	7,100.0	82.7	83.6	-90.00	-4,229.1	708.4	660.2	494.7	165.44	3.990	
11,100.0	7,100.0	11,121.0	7,100.0	84.6	85.5	-90.00	-4,329.1	708.4	660.2	490.9	169.24	3.901	
11,200.0	7,100.0	11,221.0	7,100.0	86.5	87.4	-90.00	-4,429.1	708.4	660.2	487.1	173.04	3.815	
11,300.0	7,100.0	11,321.0	7,100.0	88.4	89.3	-90.00	-4,529.1	708.4	660.1	483.3	176.84	3.733	
11,400.0	7,100.0	11,421.0	7,100.0	90.3	91.2	-90.00	-4,629.1	708.4	660.1	479.5	180.64	3.654	
11,500.0	7,100.0	11,521.0	7,100.0	92.2	93.1	-90.00	-4,729.1	708.4	660.1	475.7	184.45	3.579	
11,600.0	7,100.0	11,621.0	7,100.0	94.1	94.9	-90.00	-4,829.1	708.4	660.1	471.9	188.26	3.507	
11,700.0	7,100.0	11,721.0	7,100.0	96.0	96.8	-90.00	-4,929.1	708.4	660.1	468.1	192.07	3.437	
11,800.0	7,100.0	11,821.0	7,100.0	97.9	98.7	-90.00	-5,029.1	708.4	660.1	464.2	195.88	3.370	
11,900.0	7,100.0	11,921.0	7,100.0	99.8	100.6	-90.00	-5,129.1	708.4	660.1	460.4	199.69	3.306	
12,000.0	7,100.0	12,021.0	7,100.0	101.7	102.5	-90.00	-5,229.1	708.4	660.1	456.6	203.51	3.244	
12,100.0	7,100.0	12,121.0	7,100.0	103.6	104.4	-90.00	-5,329.1	708.4	660.1	452.8	207.33	3.184	
12,200.0	7,100.0	12,221.0	7,100.0	105.6	106.3	-90.00	-5,429.1	708.4	660.1	448.9	211.15	3.126	
12,300.0	7,100.0	12,321.0	7,100.0	107.5	108.2	-90.00	-5,529.1	708.4	660.1	445.1	214.97	3.071	
12,400.0	7,100.0	12,421.0	7,100.0	109.4	110.1	-90.00	-5,629.1	708.4	660.1	441.3	218.79	3.017	
12,500.0	7,100.0	12,521.0	7,100.0	111.3	112.0	-90.00	-5,729.1	708.4	660.1	437.5	222.62	2.965	
12,600.0	7,100.0	12,621.0	7,100.0	113.2	113.9	-90.00	-5,829.1	708.4	660.1	433.6	226.44	2.915	
12,700.0	7,100.0	12,721.0	7,100.0	115.1	115.8	-90.00	-5,929.1	708.4	660.1	429.8	230.27	2.867	
12,800.0	7,100.0	12,821.0	7,100.0	117.0	117.7	-90.00	-6,029.1	708.4	660.1	426.0	234.10	2.820	
12,900.0	7,100.0	12,921.0	7,100.0	118.9	119.6	-90.00	-6,129.1	708.4	660.1	422.1	237.93	2.774	
13,000.0	7,100.0	13,021.0	7,100.0	120.9	121.5	-90.00	-6,229.1	708.4	660.1	418.3	241.76	2.730	
13,100.0	7,100.0	13,121.0	7,100.0	122.8	123.4	-90.00	-6,329.1	708.4	660.0	414.5	245.59	2.688	
13,200.0	7,100.0	13,221.0	7,100.0	124.7	125.3	-90.00	-6,429.1	708.4	660.0	410.6	249.42	2.646	
13,300.0	7,100.0	13,321.0	7,100.0	126.6	127.2	-90.00	-6,529.1	708.4	660.0	406.8	253.25	2.606	
13,400.0	7,100.0	13,421.0	7,100.0	128.5	129.1	-90.00	-6,629.1	708.4	660.0	402.9	257.09	2.567	
13,500.0	7,100.0	13,521.0	7,100.0	130.4	131.0	-90.00	-6,729.1	708.4	660.0	399.1	260.92	2.530	
13,600.0	7,100.0	13,621.0	7,100.0	132.4	133.0	-90.00	-6,829.1	708.4	660.0	395.3	264.76	2.493	
13,700.0	7,100.0	13,721.0	7,100.0	134.3	134.9	-90.00	-6,929.1	708.4	660.0	391.4	268.59	2.457	
13,800.0	7,100.0	13,821.0	7,100.0	136.2	136.8	-90.00	-7,029.1	708.4	660.0	387.6	272.43	2.423	
13,900.0	7,100.0	13,921.0	7,100.0	138.1	138.7	-90.00	-7,129.1	708.4	660.0	383.7	276.27	2.389	
14,000.0	7,100.0	14,021.0	7,100.0	140.0	140.6	-90.00	-7,229.1	708.4	660.0	379.9	280.11	2.356	
14,100.0	7,100.0	14,121.0	7,100.0	142.0	142.5	-90.00	-7,329.1	708.4	660.0	376.0	283.94	2.324	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,200.0	7,100.0	14,221.0	7,100.0	143.9	144.4	-90.00	-7,429.1	708.4	660.0	372.2	287.78	2.293	
14,300.0	7,100.0	14,321.0	7,100.0	145.8	146.3	-90.00	-7,529.1	708.4	660.0	368.4	291.62	2.263	
14,400.0	7,100.0	14,421.0	7,100.0	147.7	148.2	-90.00	-7,629.1	708.4	660.0	364.5	295.46	2.234	
14,500.0	7,100.0	14,521.0	7,100.0	149.6	150.2	-90.00	-7,729.1	708.4	660.0	360.7	299.31	2.205	
14,600.0	7,100.0	14,621.0	7,100.0	151.6	152.1	-90.00	-7,829.1	708.4	660.0	356.8	303.15	2.177	
14,700.0	7,100.0	14,721.0	7,100.0	153.5	154.0	-90.00	-7,929.1	708.4	660.0	353.0	306.99	2.150	
14,800.0	7,100.0	14,821.0	7,100.0	155.4	155.9	-90.00	-8,029.1	708.4	659.9	349.1	310.83	2.123	
14,900.0	7,100.0	14,921.0	7,100.0	157.3	157.8	-90.00	-8,129.1	708.4	659.9	345.3	314.68	2.097	
15,000.0	7,100.0	15,021.0	7,100.0	159.3	159.7	-90.00	-8,229.1	708.4	659.9	341.4	318.52	2.072	
15,100.0	7,100.0	15,121.0	7,100.0	161.2	161.6	-90.00	-8,329.1	708.4	659.9	337.6	322.37	2.047	
15,200.0	7,100.0	15,221.0	7,100.0	163.1	163.6	-90.00	-8,429.1	708.4	659.9	333.7	326.21	2.023	
15,300.0	7,100.0	15,321.0	7,100.0	165.0	165.5	-90.00	-8,529.1	708.4	659.9	329.9	330.05	1.999	Level 4
15,400.0	7,100.0	15,421.0	7,100.0	166.9	167.4	-90.00	-8,629.1	708.4	659.9	326.0	333.90	1.976	Level 4
15,500.0	7,100.0	15,521.0	7,100.0	168.9	169.3	-90.00	-8,729.1	708.4	659.9	322.2	337.75	1.954	Level 4
15,600.0	7,100.0	15,621.0	7,100.0	170.8	171.2	-90.00	-8,829.1	708.4	659.9	318.3	341.59	1.932	Level 4
15,700.0	7,100.0	15,721.0	7,100.0	172.7	173.2	-90.00	-8,929.1	708.4	659.9	314.5	345.44	1.910	Level 4
15,800.0	7,100.0	15,821.0	7,100.0	174.6	175.1	-90.00	-9,029.1	708.4	659.9	310.6	349.29	1.889	Level 4
15,900.0	7,100.0	15,921.0	7,100.0	176.6	177.0	-90.00	-9,129.1	708.4	659.9	306.8	353.13	1.869	Level 4
16,000.0	7,100.0	16,021.0	7,100.0	178.5	178.9	-90.00	-9,229.1	708.4	659.9	302.9	356.98	1.849	Level 4
16,100.0	7,100.0	16,121.0	7,100.0	180.4	180.8	-90.00	-9,329.1	708.4	659.9	299.0	360.83	1.829	Level 4
16,200.0	7,100.0	16,221.0	7,100.0	182.3	182.7	-90.00	-9,429.1	708.4	659.9	295.2	364.68	1.809	Level 4
16,300.0	7,100.0	16,321.0	7,100.0	184.3	184.7	-90.00	-9,529.1	708.4	659.9	291.3	368.53	1.791	Level 4
16,400.0	7,100.0	16,421.0	7,100.0	186.2	186.6	-90.00	-9,629.1	708.4	659.9	287.5	372.37	1.772	Level 4
16,500.0	7,100.0	16,521.0	7,100.0	188.1	188.5	-90.00	-9,729.1	708.4	659.9	283.6	376.22	1.754	Level 4
16,600.0	7,100.0	16,621.0	7,100.0	190.0	190.4	-90.00	-9,829.1	708.4	659.8	279.8	380.07	1.736	Level 4
16,700.0	7,100.0	16,721.0	7,100.0	192.0	192.4	-90.00	-9,929.1	708.4	659.8	275.9	383.92	1.719	Level 4
16,800.0	7,100.0	16,821.0	7,100.0	193.9	194.3	-90.00	-10,029.1	708.4	659.8	272.1	387.77	1.702	Level 4
16,900.0	7,100.0	16,921.0	7,100.0	195.8	196.2	-90.00	-10,129.1	708.4	659.8	268.2	391.62	1.685	Level 4
16,924.5	7,100.0	16,945.6	7,100.0	196.2	196.7	-90.00	-10,153.6	708.4	659.8	267.4	392.48	1.681	Level 4, SF

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.77	-0.5	40.0	40.0				
100.0	100.0	100.0	100.0	0.1	0.1	90.77	-0.5	40.0	40.0	39.8	0.19	211.985	
200.0	200.0	200.0	200.0	0.3	0.3	90.77	-0.5	40.0	40.0	39.4	0.64	62.700	
300.0	300.0	300.0	300.0	0.5	0.5	90.77	-0.5	40.0	40.0	38.9	1.09	36.791	
400.0	400.0	400.0	400.0	0.8	0.8	90.77	-0.5	40.0	40.0	38.5	1.54	26.033	
500.0	500.0	500.0	500.0	1.0	1.0	90.77	-0.5	40.0	40.0	38.0	1.99	20.143 CC, ES	
600.0	600.0	598.6	598.6	1.2	1.2	-91.59	-0.5	41.7	41.8	39.4	2.39	17.436	
627.8	627.7	626.3	626.3	1.2	1.3	-93.01	-0.5	42.6	42.7	40.2	2.50	17.077	
700.0	699.9	698.5	698.4	1.4	1.4	-96.91	-0.5	45.0	45.4	42.6	2.78	16.299	
800.0	799.8	798.3	798.2	1.6	1.6	-101.58	-0.5	48.3	49.4	46.2	3.20	15.453	
900.0	899.7	898.2	898.0	1.8	1.8	-105.54	-0.5	51.6	53.6	50.0	3.62	14.820	
1,000.0	999.6	998.0	997.8	2.0	2.1	-108.89	-0.5	54.9	58.1	54.1	4.05	14.340	
1,100.0	1,099.5	1,097.9	1,097.6	2.2	2.3	-111.76	-0.5	58.3	62.8	58.3	4.49	13.970	
1,172.9	1,172.3	1,170.6	1,170.3	2.4	2.5	-113.59	-0.5	60.7	66.3	61.5	4.82	13.753	
1,200.0	1,199.4	1,197.7	1,197.4	2.5	2.5	-114.15	-0.5	61.6	67.5	62.6	4.94	13.678	
1,300.6	1,300.0	1,298.3	1,297.8	2.7	2.7	65.58	-0.5	64.9	71.3	65.9	5.37	13.274	
1,400.0	1,399.4	1,397.6	1,397.1	2.9	3.0	66.63	-0.5	68.2	74.3	68.5	5.80	12.820	
1,500.0	1,499.4	1,499.8	1,499.4	3.1	3.2	67.18	-0.5	70.0	76.0	69.8	6.21	12.230	
1,600.0	1,599.4	1,599.9	1,599.4	3.3	3.4	67.18	-0.5	70.0	76.0	69.3	6.62	11.477	
1,700.0	1,699.4	1,699.9	1,699.4	3.5	3.6	67.18	-0.5	70.0	76.0	68.9	7.04	10.793	
1,800.0	1,799.4	1,799.9	1,799.4	3.7	3.8	67.18	-0.5	70.0	76.0	68.5	7.46	10.180	
1,900.0	1,899.4	1,899.9	1,899.4	3.9	4.0	67.18	-0.5	70.0	76.0	68.1	7.89	9.630	
2,000.0	1,999.4	1,999.9	1,999.4	4.1	4.2	67.18	-0.5	70.0	76.0	67.6	8.32	9.134	
2,100.0	2,099.4	2,099.9	2,099.4	4.3	4.5	67.18	-0.5	70.0	76.0	67.2	8.75	8.684	
2,200.0	2,199.4	2,199.9	2,199.4	4.5	4.7	67.18	-0.5	70.0	76.0	66.8	9.18	8.275	
2,300.0	2,299.4	2,299.9	2,299.4	4.8	4.9	67.18	-0.5	70.0	76.0	66.4	9.61	7.901	
2,400.0	2,399.4	2,399.9	2,399.4	5.0	5.1	67.18	-0.5	70.0	76.0	65.9	10.05	7.559	
2,500.0	2,499.4	2,499.9	2,499.4	5.2	5.3	67.18	-0.5	70.0	76.0	65.5	10.49	7.244	
2,600.0	2,599.4	2,599.9	2,599.4	5.4	5.5	67.18	-0.5	70.0	76.0	65.0	10.92	6.954	
2,700.0	2,699.4	2,699.9	2,699.4	5.6	5.8	67.18	-0.5	70.0	76.0	64.6	11.36	6.685	
2,800.0	2,799.4	2,799.9	2,799.4	5.9	6.0	67.18	-0.5	70.0	76.0	64.2	11.80	6.436	
2,900.0	2,899.4	2,899.9	2,899.4	6.1	6.2	67.18	-0.5	70.0	76.0	63.7	12.24	6.205	
3,000.0	2,999.4	2,999.9	2,999.4	6.3	6.4	67.18	-0.5	70.0	76.0	63.3	12.68	5.989	
3,100.0	3,099.4	3,099.9	3,099.4	6.5	6.6	67.18	-0.5	70.0	76.0	62.8	13.13	5.788	
3,200.0	3,199.4	3,199.9	3,199.4	6.7	6.9	67.18	-0.5	70.0	76.0	62.4	13.57	5.599	
3,300.0	3,299.4	3,299.9	3,299.4	7.0	7.1	67.18	-0.5	70.0	76.0	62.0	14.01	5.422	
3,400.0	3,399.4	3,399.9	3,399.4	7.2	7.3	67.18	-0.5	70.0	76.0	61.5	14.45	5.256	
3,500.0	3,499.4	3,499.9	3,499.4	7.4	7.5	67.18	-0.5	70.0	76.0	61.1	14.90	5.100	
3,600.0	3,599.4	3,599.9	3,599.4	7.6	7.8	67.18	-0.5	70.0	76.0	60.6	15.34	4.952	
3,700.0	3,699.4	3,699.9	3,699.4	7.8	8.0	67.18	-0.5	70.0	76.0	60.2	15.78	4.813	
3,800.0	3,799.4	3,799.9	3,799.4	8.1	8.2	67.18	-0.5	70.0	76.0	59.7	16.23	4.681	
3,900.0	3,899.4	3,899.9	3,899.4	8.3	8.4	67.18	-0.5	70.0	76.0	59.3	16.67	4.556	
4,000.0	3,999.4	3,999.9	3,999.4	8.5	8.6	67.18	-0.5	70.0	76.0	58.8	17.12	4.438	
4,100.0	4,099.4	4,097.3	4,096.8	8.7	8.9	67.53	-0.4	71.7	77.6	60.0	17.55	4.421	
4,200.0	4,199.4	4,194.6	4,194.0	8.9	9.1	68.51	0.2	76.6	82.5	64.5	17.98	4.588	
4,300.0	4,299.4	4,291.4	4,290.4	9.2	9.3	69.89	1.0	84.7	90.7	72.3	18.41	4.926	
4,400.0	4,399.4	4,387.6	4,385.9	9.4	9.5	71.45	2.2	96.0	102.2	83.4	18.84	5.425	
4,500.0	4,499.4	4,482.8	4,480.1	9.6	9.8	73.00	3.8	110.4	117.0	97.8	19.27	6.074	
4,600.0	4,599.4	4,577.1	4,572.7	9.8	10.0	74.42	5.6	127.6	135.1	115.5	19.69	6.862	
4,700.0	4,699.4	4,671.5	4,664.9	10.1	10.3	75.68	7.7	147.8	156.4	136.2	20.12	7.770	
4,800.0	4,799.4	4,769.0	4,760.0	10.3	10.6	76.70	10.0	169.3	178.4	157.8	20.56	8.678	
4,900.0	4,899.4	4,866.5	4,855.1	10.5	10.9	77.50	12.3	190.9	200.5	179.5	20.99	9.550	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,999.4	4,964.0	4,950.1	10.7	11.2	78.14	14.6	212.5	222.6	201.2	21.43	10.387	
5,100.0	5,099.4	5,061.5	5,045.2	11.0	11.5	78.67	16.9	234.0	244.7	222.9	21.87	11.190	
5,200.0	5,199.4	5,159.0	5,140.2	11.2	11.9	79.10	19.2	255.6	266.9	244.6	22.32	11.960	
5,300.0	5,299.4	5,256.5	5,235.3	11.4	12.2	79.47	21.5	277.1	289.1	266.3	22.76	12.701	
5,400.0	5,399.4	5,354.0	5,330.3	11.6	12.6	79.79	23.8	298.7	311.2	288.0	23.21	13.412	
5,500.0	5,499.4	5,451.5	5,425.4	11.8	12.9	80.07	26.1	320.2	333.4	309.8	23.66	14.095	
5,600.0	5,599.4	5,549.0	5,520.4	12.1	13.3	80.31	28.4	341.8	355.6	331.5	24.11	14.753	
5,700.0	5,699.4	5,646.5	5,615.5	12.3	13.7	80.52	30.7	363.4	377.8	353.3	24.56	15.385	
5,800.0	5,799.4	5,744.0	5,710.6	12.5	14.1	80.71	33.0	384.9	400.0	375.0	25.01	15.994	
5,900.0	5,899.4	5,841.5	5,805.6	12.7	14.5	80.88	35.3	406.5	422.2	396.8	25.47	16.580	
6,000.0	5,999.4	5,939.0	5,900.7	13.0	14.9	81.03	37.5	428.0	444.4	418.5	25.92	17.145	
6,100.0	6,099.4	6,036.5	5,995.7	13.2	15.3	81.17	39.8	449.6	466.6	440.3	26.38	17.690	
6,200.0	6,199.4	6,134.0	6,090.8	13.4	15.7	81.30	42.1	471.2	488.9	462.0	26.84	18.215	
6,300.0	6,299.4	6,231.5	6,185.8	13.6	16.1	81.41	44.4	492.7	511.1	483.8	27.30	18.722	
6,400.0	6,399.4	6,329.0	6,280.9	13.9	16.5	81.52	46.7	514.3	533.3	505.5	27.76	19.211	
6,451.7	6,451.1	6,379.4	6,330.0	14.0	16.7	81.57	47.9	525.4	544.8	516.8	28.00	19.458	
6,500.0	6,499.3	6,426.4	6,375.9	14.1	16.9	-92.49	49.0	535.8	555.6	527.4	28.22	19.686	
6,550.0	6,548.9	6,450.0	6,398.9	14.2	17.0	-91.50	49.6	541.1	567.6	539.2	28.37	20.010	
6,600.0	6,597.7	6,484.7	6,432.4	14.3	17.1	-90.72	50.2	550.0	581.2	552.7	28.54	20.362	
6,650.0	6,645.4	6,500.0	6,447.0	14.4	17.2	-89.43	50.3	554.6	597.2	568.6	28.68	20.822	
6,700.0	6,691.7	6,530.1	6,475.3	14.5	17.4	-88.52	50.4	564.7	615.0	586.1	28.87	21.299	
6,750.0	6,736.1	6,550.0	6,493.8	14.6	17.5	-87.17	50.4	572.2	634.8	605.7	29.06	21.846	
6,800.0	6,778.3	6,570.6	6,512.6	14.7	17.7	-85.75	50.2	580.6	656.3	627.0	29.26	22.431	
6,850.0	6,818.1	6,600.0	6,538.9	14.9	17.9	-84.70	49.7	593.8	679.6	650.1	29.50	23.035	
6,900.0	6,855.0	6,600.0	6,538.9	15.1	17.9	-81.90	49.7	593.8	704.1	674.5	29.68	23.722	
6,950.0	6,888.9	6,621.2	6,557.4	15.3	18.0	-80.19	49.2	604.1	730.1	700.2	29.94	24.386	
7,000.0	6,919.4	6,635.2	6,569.4	15.6	18.1	-77.93	48.8	611.2	757.4	727.2	30.18	25.094	
7,051.7	6,947.3	6,650.0	6,581.9	15.9	18.3	-75.51	48.3	619.1	786.6	756.2	30.43	25.852	
7,100.0	6,971.4	6,650.0	6,581.9	16.3	18.3	-75.51	48.3	619.1	815.3	784.5	30.77	26.500	
7,201.7	7,022.3	6,682.7	6,608.9	17.1	18.6	-77.76	47.0	637.7	880.0	848.3	31.77	27.699	
7,250.0	7,044.7	6,700.0	6,622.6	17.6	18.7	-74.96	46.2	648.1	912.7	880.6	32.10	28.438	
7,300.0	7,064.0	6,700.0	6,622.6	18.1	18.7	-70.55	46.2	648.1	947.3	915.1	32.22	29.402	
7,350.0	7,079.3	6,700.0	6,622.6	18.6	18.7	-65.92	46.2	648.1	982.7	950.5	32.20	30.523	
7,400.0	7,090.5	6,715.2	6,634.5	19.2	18.9	-62.38	45.4	657.6	1,018.3	986.1	32.23	31.594	
7,450.0	7,097.4	6,719.3	6,637.6	19.8	18.9	-58.00	45.2	660.2	1,054.2	1,022.2	32.02	32.921	
7,500.0	7,100.0	6,721.7	6,639.4	20.5	19.0	-53.60	45.1	661.7	1,090.0	1,058.3	31.71	34.377	
7,505.5	7,100.0	6,721.8	6,639.5	20.5	19.0	-53.12	45.1	661.8	1,093.9	1,062.2	31.67	34.542	
7,600.0	7,100.0	6,724.3	6,641.4	21.8	19.0	-53.30	44.9	663.4	1,163.1	1,130.4	32.71	35.556	
7,700.0	7,100.0	6,727.0	6,643.5	23.2	19.0	-53.50	44.8	665.1	1,240.0	1,206.1	33.90	36.581	
7,800.0	7,100.0	6,729.7	6,645.6	24.7	19.0	-53.71	44.6	666.9	1,320.0	1,284.8	35.15	37.551	
7,900.0	7,100.0	8,486.1	7,100.0	26.3	39.6	-90.00	-1,131.4	1,384.2	1,336.2	1,281.6	54.51	24.512	
8,000.0	7,100.0	8,586.1	7,100.0	27.9	40.7	-90.00	-1,231.4	1,384.0	1,336.0	1,278.3	57.63	23.181	
8,100.0	7,100.0	8,686.1	7,100.0	29.5	41.8	-90.00	-1,331.4	1,383.9	1,335.8	1,275.0	60.84	21.957	
8,200.0	7,100.0	8,786.1	7,100.0	31.2	42.9	-90.00	-1,431.4	1,383.7	1,335.6	1,271.5	64.11	20.832	
8,300.0	7,100.0	8,886.1	7,100.0	32.9	44.1	-90.00	-1,531.4	1,383.5	1,335.4	1,268.0	67.45	19.798	
8,400.0	7,100.0	8,986.1	7,100.0	34.6	45.4	-90.00	-1,631.4	1,383.3	1,335.2	1,264.4	70.84	18.847	
8,500.0	7,100.0	9,086.1	7,100.0	36.3	46.7	-90.00	-1,731.4	1,383.1	1,335.1	1,260.8	74.28	17.973	
8,600.0	7,100.0	9,186.1	7,100.0	38.1	48.1	-90.00	-1,831.4	1,383.0	1,334.9	1,257.1	77.76	17.167	
8,700.0	7,100.0	9,286.1	7,100.0	39.9	49.5	-90.00	-1,931.4	1,382.8	1,334.7	1,253.4	81.27	16.422	
8,800.0	7,100.0	9,386.1	7,100.0	41.7	50.9	-90.00	-2,031.4	1,382.6	1,334.5	1,249.7	84.82	15.734	
8,900.0	7,100.0	9,486.1	7,100.0	43.5	52.3	-90.00	-2,131.4	1,382.4	1,334.3	1,245.9	88.38	15.097	
9,000.0	7,100.0	9,586.1	7,100.0	45.3	53.8	-90.00	-2,231.4	1,382.3	1,334.2	1,242.2	91.98	14.505	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,100.0	7,100.0	9,686.1	7,100.0	47.1	55.4	-90.00	-2,331.4	1,382.1	1,334.0	1,238.4	95.59	13.955		
9,200.0	7,100.0	9,786.1	7,100.0	48.9	56.9	-90.00	-2,431.4	1,381.9	1,333.8	1,234.6	99.22	13.442		
9,300.0	7,100.0	9,886.1	7,100.0	50.8	58.5	-90.00	-2,531.4	1,381.7	1,333.6	1,230.7	102.87	12.964		
9,400.0	7,100.0	9,986.1	7,100.0	52.6	60.1	-90.00	-2,631.4	1,381.6	1,333.4	1,226.9	106.54	12.516		
9,500.0	7,100.0	10,086.1	7,100.0	54.5	61.7	-90.00	-2,731.4	1,381.4	1,333.2	1,223.0	110.21	12.097		
9,600.0	7,100.0	10,186.1	7,100.0	56.3	63.3	-90.00	-2,831.4	1,381.2	1,333.1	1,219.2	113.90	11.703		
9,700.0	7,100.0	10,286.1	7,100.0	58.2	65.0	-90.00	-2,931.4	1,381.0	1,332.9	1,215.3	117.60	11.334		
9,800.0	7,100.0	10,386.1	7,100.0	60.1	66.7	-90.00	-3,031.4	1,380.8	1,332.7	1,211.4	121.31	10.985		
9,900.0	7,100.0	10,486.1	7,100.0	61.9	68.4	-90.00	-3,131.4	1,380.7	1,332.5	1,207.5	125.03	10.657		
10,000.0	7,100.0	10,586.1	7,100.0	63.8	70.1	-90.00	-3,231.4	1,380.5	1,332.3	1,203.6	128.76	10.347		
10,100.0	7,100.0	10,686.1	7,100.0	65.7	71.8	-90.00	-3,331.4	1,380.3	1,332.1	1,199.6	132.50	10.054		
10,200.0	7,100.0	10,786.1	7,100.0	67.6	73.5	-90.00	-3,431.4	1,380.1	1,332.0	1,195.7	136.24	9.777		
10,300.0	7,100.0	10,886.1	7,100.0	69.4	75.2	-90.00	-3,531.4	1,380.0	1,331.8	1,191.8	139.99	9.513		
10,400.0	7,100.0	10,986.1	7,100.0	71.3	77.0	-90.00	-3,631.4	1,379.8	1,331.6	1,187.9	143.75	9.264		
10,500.0	7,100.0	11,086.1	7,100.0	73.2	78.7	-90.00	-3,731.4	1,379.6	1,331.4	1,183.9	147.51	9.026		
10,600.0	7,100.0	11,186.1	7,100.0	75.1	80.5	-90.00	-3,831.4	1,379.4	1,331.2	1,180.0	151.27	8.800		
10,700.0	7,100.0	11,286.1	7,100.0	77.0	82.2	-90.00	-3,931.4	1,379.3	1,331.0	1,176.0	155.04	8.585		
10,800.0	7,100.0	11,386.1	7,100.0	78.9	84.0	-90.00	-4,031.4	1,379.1	1,330.9	1,172.0	158.82	8.380		
10,900.0	7,100.0	11,486.1	7,100.0	80.8	85.8	-90.00	-4,131.4	1,378.9	1,330.7	1,168.1	162.60	8.184		
11,000.0	7,100.0	11,586.1	7,100.0	82.7	87.6	-90.00	-4,231.4	1,378.7	1,330.5	1,164.1	166.38	7.997		
11,100.0	7,100.0	11,686.1	7,100.0	84.6	89.4	-90.00	-4,331.4	1,378.5	1,330.3	1,160.2	170.16	7.818		
11,200.0	7,100.0	11,786.1	7,100.0	86.5	91.2	-90.00	-4,431.4	1,378.4	1,330.1	1,156.2	173.95	7.646		
11,300.0	7,100.0	11,886.1	7,100.0	88.4	93.0	-90.00	-4,531.4	1,378.2	1,330.0	1,152.2	177.75	7.482		
11,400.0	7,100.0	11,986.1	7,100.0	90.3	94.8	-90.00	-4,631.4	1,378.0	1,329.8	1,148.2	181.54	7.325		
11,500.0	7,100.0	12,086.1	7,100.0	92.2	96.6	-90.00	-4,731.4	1,377.8	1,329.6	1,144.2	185.34	7.174		
11,600.0	7,100.0	12,186.1	7,100.0	94.1	98.5	-90.00	-4,831.4	1,377.7	1,329.4	1,140.3	189.14	7.029		
11,700.0	7,100.0	12,286.1	7,100.0	96.0	100.3	-90.00	-4,931.4	1,377.5	1,329.2	1,136.3	192.94	6.889		
11,800.0	7,100.0	12,386.1	7,100.0	97.9	102.1	-90.00	-5,031.4	1,377.3	1,329.0	1,132.3	196.75	6.755		
11,900.0	7,100.0	12,486.1	7,100.0	99.8	103.9	-90.00	-5,131.4	1,377.1	1,328.9	1,128.3	200.56	6.626		
12,000.0	7,100.0	12,586.1	7,100.0	101.7	105.8	-90.00	-5,231.4	1,376.9	1,328.7	1,124.3	204.37	6.501		
12,100.0	7,100.0	12,686.1	7,100.0	103.6	107.6	-90.00	-5,331.4	1,376.8	1,328.5	1,120.3	208.18	6.381		
12,200.0	7,100.0	12,786.1	7,100.0	105.6	109.5	-90.00	-5,431.4	1,376.6	1,328.3	1,116.3	211.99	6.266		
12,300.0	7,100.0	12,886.1	7,100.0	107.5	111.3	-90.00	-5,531.4	1,376.4	1,328.1	1,112.3	215.81	6.154		
12,400.0	7,100.0	12,986.1	7,100.0	109.4	113.2	-90.00	-5,631.4	1,376.2	1,327.9	1,108.3	219.62	6.046		
12,500.0	7,100.0	13,086.1	7,100.0	111.3	115.0	-90.00	-5,731.4	1,376.1	1,327.8	1,104.3	223.44	5.942		
12,600.0	7,100.0	13,186.1	7,100.0	113.2	116.9	-90.00	-5,831.4	1,375.9	1,327.6	1,100.3	227.26	5.842		
12,700.0	7,100.0	13,286.1	7,100.0	115.1	118.7	-90.00	-5,931.4	1,375.7	1,327.4	1,096.3	231.08	5.744		
12,800.0	7,100.0	13,386.1	7,100.0	117.0	120.6	-90.00	-6,031.4	1,375.5	1,327.2	1,092.3	234.91	5.650		
12,900.0	7,100.0	13,486.1	7,100.0	118.9	122.5	-90.00	-6,131.4	1,375.4	1,327.0	1,088.3	238.73	5.559		
13,000.0	7,100.0	13,586.1	7,100.0	120.9	124.3	-90.00	-6,231.4	1,375.2	1,326.9	1,084.3	242.55	5.470		
13,100.0	7,100.0	13,686.1	7,100.0	122.8	126.2	-90.00	-6,331.4	1,375.0	1,326.7	1,080.3	246.38	5.385		
13,200.0	7,100.0	13,786.1	7,100.0	124.7	128.1	-90.00	-6,431.4	1,374.8	1,326.5	1,076.3	250.21	5.302		
13,300.0	7,100.0	13,886.1	7,100.0	126.6	129.9	-90.00	-6,531.4	1,374.6	1,326.3	1,072.3	254.04	5.221		
13,400.0	7,100.0	13,986.1	7,100.0	128.5	131.8	-90.00	-6,631.4	1,374.5	1,326.1	1,068.3	257.87	5.143		
13,500.0	7,100.0	14,086.1	7,100.0	130.4	133.7	-90.00	-6,731.4	1,374.3	1,325.9	1,064.2	261.70	5.067		
13,600.0	7,100.0	14,186.1	7,100.0	132.4	135.6	-90.00	-6,831.4	1,374.1	1,325.8	1,060.2	265.53	4.993		
13,700.0	7,100.0	14,286.1	7,100.0	134.3	137.4	-90.00	-6,931.4	1,373.9	1,325.6	1,056.2	269.36	4.921		
13,800.0	7,100.0	14,386.1	7,100.0	136.2	139.3	-90.00	-7,031.4	1,373.8	1,325.4	1,052.2	273.19	4.852		
13,900.0	7,100.0	14,486.1	7,100.0	138.1	141.2	-90.00	-7,131.4	1,373.6	1,325.2	1,048.2	277.02	4.784		
14,000.0	7,100.0	14,586.1	7,100.0	140.0	143.1	-90.00	-7,231.4	1,373.4	1,325.0	1,044.2	280.86	4.718		
14,100.0	7,100.0	14,686.1	7,100.0	142.0	145.0	-90.00	-7,331.4	1,373.2	1,324.8	1,040.2	284.69	4.654		
14,200.0	7,100.0	14,786.1	7,100.0	143.9	146.8	-90.00	-7,431.4	1,373.0	1,324.7	1,036.1	288.53	4.591		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,300.0	7,100.0	14,886.1	7,100.0	145.8	148.7	-90.00	-7,531.4	1,372.9	1,324.5	1,032.1	292.37	4.530	
14,400.0	7,100.0	14,986.1	7,100.0	147.7	150.6	-90.00	-7,631.4	1,372.7	1,324.3	1,028.1	296.20	4.471	
14,500.0	7,100.0	15,086.1	7,100.0	149.6	152.5	-90.00	-7,731.4	1,372.5	1,324.1	1,024.1	300.04	4.413	
14,600.0	7,100.0	15,186.1	7,100.0	151.6	154.4	-90.00	-7,831.4	1,372.3	1,323.9	1,020.1	303.88	4.357	
14,700.0	7,100.0	15,286.1	7,100.0	153.5	156.3	-90.00	-7,931.4	1,372.2	1,323.8	1,016.0	307.72	4.302	
14,800.0	7,100.0	15,386.1	7,100.0	155.4	158.2	-90.00	-8,031.4	1,372.0	1,323.6	1,012.0	311.56	4.248	
14,900.0	7,100.0	15,486.1	7,100.0	157.3	160.1	-90.00	-8,131.4	1,371.8	1,323.4	1,008.0	315.40	4.196	
15,000.0	7,100.0	15,586.1	7,100.0	159.3	162.0	-90.00	-8,231.4	1,371.6	1,323.2	1,004.0	319.24	4.145	
15,100.0	7,100.0	15,686.1	7,100.0	161.2	163.8	-90.00	-8,331.4	1,371.5	1,323.0	999.9	323.08	4.095	
15,200.0	7,100.0	15,786.1	7,100.0	163.1	165.7	-90.00	-8,431.4	1,371.3	1,322.8	995.9	326.92	4.046	
15,300.0	7,100.0	15,886.1	7,100.0	165.0	167.6	-90.00	-8,531.4	1,371.1	1,322.7	991.9	330.76	3.999	
15,400.0	7,100.0	15,986.1	7,100.0	166.9	169.5	-90.00	-8,631.4	1,370.9	1,322.5	987.9	334.61	3.952	
15,500.0	7,100.0	16,086.1	7,100.0	168.9	171.4	-90.00	-8,731.4	1,370.7	1,322.3	983.8	338.45	3.907	
15,600.0	7,100.0	16,186.1	7,100.0	170.8	173.3	-90.00	-8,831.4	1,370.6	1,322.1	979.8	342.29	3.863	
15,700.0	7,100.0	16,286.1	7,100.0	172.7	175.2	-90.00	-8,931.4	1,370.4	1,321.9	975.8	346.14	3.819	
15,800.0	7,100.0	16,386.1	7,100.0	174.6	177.1	-90.00	-9,031.4	1,370.2	1,321.7	971.8	349.98	3.777	
15,900.0	7,100.0	16,486.1	7,100.0	176.6	179.0	-90.00	-9,131.4	1,370.0	1,321.6	967.7	353.82	3.735	
16,000.0	7,100.0	16,586.1	7,100.0	178.5	180.9	-90.00	-9,231.4	1,369.9	1,321.4	963.7	357.67	3.694	
16,100.0	7,100.0	16,686.1	7,100.0	180.4	182.8	-90.00	-9,331.4	1,369.7	1,321.2	959.7	361.51	3.655	
16,200.0	7,100.0	16,786.1	7,100.0	182.3	184.7	-90.00	-9,431.4	1,369.5	1,321.0	955.7	365.36	3.616	
16,300.0	7,100.0	16,886.1	7,100.0	184.3	186.6	-90.00	-9,531.4	1,369.3	1,320.8	951.6	369.21	3.577	
16,400.0	7,100.0	16,986.1	7,100.0	186.2	188.5	-90.00	-9,631.4	1,369.2	1,320.7	947.6	373.05	3.540	
16,500.0	7,100.0	17,086.1	7,100.0	188.1	190.4	-90.00	-9,731.4	1,369.0	1,320.5	943.6	376.90	3.504	
16,600.0	7,100.0	17,186.1	7,100.0	190.0	192.3	-90.00	-9,831.4	1,368.8	1,320.3	939.5	380.75	3.468	
16,700.0	7,100.0	17,286.1	7,100.0	192.0	194.3	-90.00	-9,931.4	1,368.6	1,320.1	935.5	384.59	3.432	
16,800.0	7,100.0	17,386.1	7,100.0	193.9	196.2	-90.00	-10,031.4	1,368.4	1,319.9	931.5	388.44	3.398	
16,900.0	7,100.0	17,486.1	7,100.0	195.8	198.1	-90.00	-10,131.4	1,368.3	1,319.7	927.5	392.29	3.364	
16,924.5	7,100.0	17,510.7	7,100.0	196.2	198.5	-90.00	-10,155.9	1,368.2	1,319.7	926.6	393.10	3.357 SF	

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-89.09	3.0	-189.9	189.9				
100.0	100.0	100.0	100.0	0.1	0.1	-89.09	3.0	-189.9	189.9	189.7	0.19	1,005.985	
200.0	200.0	200.0	200.0	0.3	0.3	-89.09	3.0	-189.9	189.9	189.3	0.64	297.545	
300.0	300.0	300.0	300.0	0.5	0.5	-89.09	3.0	-189.9	189.9	188.8	1.09	174.593	
400.0	400.0	400.0	400.0	0.8	0.8	-89.09	3.0	-189.9	189.9	188.4	1.54	123.542	
500.0	500.0	500.0	500.0	1.0	1.0	-89.09	3.0	-189.9	189.9	187.9	1.99	95.591 CC	
600.0	600.0	600.0	600.0	1.2	1.2	91.43	3.0	-189.9	190.0	187.6	2.41	78.870	
627.8	627.7	627.7	627.7	1.2	1.3	91.76	3.0	-189.9	190.0	187.5	2.52	75.385	
700.0	699.9	699.9	699.9	1.4	1.4	92.73	3.0	-189.9	190.1	187.3	2.82	67.464	
800.0	799.8	799.8	799.8	1.6	1.7	94.07	3.0	-189.9	190.4	187.1	3.24	58.700	
900.0	899.7	899.7	899.7	1.8	1.9	95.40	3.0	-189.9	190.8	187.1	3.68	51.850	
1,000.0	999.6	999.6	999.6	2.0	2.1	96.73	3.0	-189.9	191.2	187.1	4.12	46.396	
1,100.0	1,099.5	1,099.5	1,099.5	2.2	2.3	98.06	3.0	-189.9	191.8	187.2	4.57	41.977	
1,172.9	1,172.3	1,172.3	1,172.3	2.4	2.5	99.01	3.0	-189.9	192.3	187.4	4.90	39.261	
1,200.0	1,199.4	1,199.4	1,199.4	2.5	2.6	99.33	3.0	-189.9	192.5	187.4	5.02	38.356	
1,300.6	1,300.0	1,300.0	1,300.0	2.7	2.8	-80.14	3.0	-189.9	192.8	187.3	5.45	35.351	
1,400.0	1,399.4	1,399.4	1,399.4	2.9	3.0	-80.14	3.0	-189.9	192.8	186.9	5.88	32.783	
1,500.0	1,499.4	1,499.4	1,499.4	3.1	3.2	-80.14	3.0	-189.9	192.8	186.4	6.31	30.561	
1,600.0	1,599.4	1,599.4	1,599.4	3.3	3.5	-80.14	3.0	-189.9	192.8	186.0	6.74	28.609	
1,700.0	1,699.4	1,699.4	1,699.4	3.5	3.7	-80.14	3.0	-189.9	192.8	185.6	7.17	26.883	
1,800.0	1,799.4	1,799.4	1,799.4	3.7	3.9	-80.14	3.0	-189.9	192.8	185.2	7.60	25.346	
1,900.0	1,899.4	1,899.4	1,899.4	3.9	4.1	-80.14	3.0	-189.9	192.8	184.7	8.04	23.971	
2,000.0	1,999.4	1,999.4	1,999.4	4.1	4.4	-80.14	3.0	-189.9	192.8	184.3	8.48	22.734	
2,100.0	2,099.4	2,099.4	2,099.4	4.3	4.6	-80.14	3.0	-189.9	192.8	183.8	8.92	21.615	
2,200.0	2,199.4	2,199.4	2,199.4	4.5	4.8	-80.14	3.0	-189.9	192.8	183.4	9.36	20.599	
2,300.0	2,299.4	2,299.4	2,299.4	4.8	5.0	-80.14	3.0	-189.9	192.8	183.0	9.80	19.672	
2,400.0	2,399.4	2,399.4	2,399.4	5.0	5.3	-80.14	3.0	-189.9	192.8	182.5	10.24	18.824	
2,500.0	2,499.4	2,499.4	2,499.4	5.2	5.5	-80.14	3.0	-189.9	192.8	182.1	10.68	18.044	
2,600.0	2,599.4	2,599.4	2,599.4	5.4	5.7	-80.14	3.0	-189.9	192.8	181.6	11.13	17.326	
2,700.0	2,699.4	2,699.4	2,699.4	5.6	5.9	-80.14	3.0	-189.9	192.8	181.2	11.57	16.662	
2,800.0	2,799.4	2,799.4	2,799.4	5.9	6.2	-80.14	3.0	-189.9	192.8	180.7	12.01	16.046	
2,900.0	2,899.4	2,899.4	2,899.4	6.1	6.4	-80.14	3.0	-189.9	192.8	180.3	12.46	15.474	
3,000.0	2,999.4	2,999.4	2,999.4	6.3	6.6	-80.14	3.0	-189.9	192.8	179.9	12.90	14.941	
3,100.0	3,099.4	3,099.4	3,099.4	6.5	6.8	-80.14	3.0	-189.9	192.8	179.4	13.35	14.442	
3,200.0	3,199.4	3,199.4	3,199.4	6.7	7.1	-80.14	3.0	-189.9	192.8	179.0	13.79	13.976	
3,300.0	3,299.4	3,299.4	3,299.4	7.0	7.3	-80.14	3.0	-189.9	192.8	178.5	14.24	13.539 ES	
3,400.0	3,399.4	3,393.1	3,393.1	7.2	7.5	-80.14	3.3	-191.4	194.4	179.7	14.66	13.260	
3,500.0	3,499.4	3,486.5	3,486.4	7.4	7.7	-80.12	4.1	-195.9	199.2	184.2	15.07	13.222	
3,600.0	3,599.4	3,579.6	3,579.2	7.6	7.9	-80.09	5.5	-203.3	207.4	191.9	15.48	13.396	
3,700.0	3,699.4	3,672.1	3,671.0	7.8	8.1	-80.06	7.4	-213.6	218.7	202.8	15.89	13.763	
3,800.0	3,799.4	3,763.8	3,761.8	8.1	8.3	-80.02	9.9	-226.7	233.3	217.0	16.30	14.307	
3,900.0	3,899.4	3,854.6	3,851.1	8.3	8.5	-79.98	12.9	-242.5	250.9	234.2	16.72	15.012	
4,000.0	3,999.4	3,944.2	3,938.8	8.5	8.8	-79.93	16.3	-260.8	271.7	254.6	17.13	15.864	
4,100.0	4,099.4	4,032.6	4,024.6	8.7	9.0	-79.89	20.2	-281.5	295.5	278.0	17.54	16.850	
4,200.0	4,199.4	4,119.6	4,108.4	8.9	9.3	-79.86	24.5	-304.3	322.3	304.3	17.95	17.955	
4,300.0	4,299.4	4,214.2	4,199.1	9.2	9.6	-79.82	29.4	-330.9	350.8	332.5	18.38	19.091	
4,400.0	4,399.4	4,310.0	4,290.9	9.4	10.0	-79.78	34.5	-357.8	379.4	360.6	18.81	20.172	
4,500.0	4,499.4	4,405.8	4,382.8	9.6	10.4	-79.76	39.5	-384.8	408.0	388.8	19.25	21.200	
4,600.0	4,599.4	4,501.7	4,474.6	9.8	10.8	-79.73	44.6	-411.7	436.6	416.9	19.69	22.179	
4,700.0	4,699.4	4,597.5	4,566.4	10.1	11.2	-79.71	49.6	-438.6	465.2	445.0	20.13	23.110	
4,800.0	4,799.4	4,693.3	4,658.2	10.3	11.7	-79.69	54.7	-465.5	493.8	473.2	20.58	23.997	
4,900.0	4,899.4	4,789.1	4,750.1	10.5	12.1	-79.67	59.7	-492.4	522.3	501.3	21.03	24.842	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,999.4	4,885.0	4,841.9	10.7	12.6	-79.66	64.8	-519.4	550.9	529.4	21.48	25.648	
5,100.0	5,099.4	4,980.8	4,933.7	11.0	13.0	-79.64	69.8	-546.3	579.5	557.6	21.94	26.418	
5,200.0	5,199.4	5,076.6	5,025.6	11.2	13.5	-79.63	74.9	-573.2	608.1	585.7	22.39	27.153	
5,300.0	5,299.4	5,172.5	5,117.4	11.4	14.0	-79.62	79.9	-600.1	636.7	613.8	22.86	27.856	
5,400.0	5,399.4	5,268.3	5,209.2	11.6	14.5	-79.61	85.0	-627.0	665.2	641.9	23.32	28.528	
5,500.0	5,499.4	5,364.1	5,301.1	11.8	15.0	-79.60	90.0	-654.0	693.8	670.0	23.78	29.171	
5,600.0	5,599.4	5,459.9	5,392.9	12.1	15.5	-79.59	95.1	-680.9	722.4	698.2	24.25	29.787	
5,700.0	5,699.4	5,555.8	5,484.7	12.3	16.0	-79.58	100.1	-707.8	751.0	726.3	24.72	30.377	
5,800.0	5,799.4	5,651.6	5,576.5	12.5	16.5	-79.58	105.2	-734.7	779.6	754.4	25.19	30.943	
5,900.0	5,899.4	5,747.4	5,668.4	12.7	17.1	-79.57	110.2	-761.6	808.2	782.5	25.67	31.486	
6,000.0	5,999.4	5,843.2	5,760.2	13.0	17.6	-79.56	115.2	-788.6	836.7	810.6	26.14	32.007	
6,100.0	6,099.4	5,939.1	5,852.0	13.2	18.1	-79.56	120.3	-815.5	865.3	838.7	26.62	32.507	
6,200.0	6,199.4	6,034.9	5,943.9	13.4	18.6	-79.55	125.3	-842.4	893.9	866.8	27.10	32.988	
6,300.0	6,299.4	6,130.7	6,035.7	13.6	19.2	-79.55	130.4	-869.3	922.5	894.9	27.58	33.451	
6,400.0	6,399.4	6,226.6	6,127.5	13.9	19.7	-79.54	135.4	-896.3	951.1	923.0	28.06	33.896	
6,451.7	6,451.1	6,276.1	6,175.0	14.0	20.0	-79.54	138.0	-910.2	965.8	937.5	28.31	34.120	
6,500.0	6,499.3	6,322.2	6,219.2	14.1	20.3	104.13	140.5	-923.1	980.2	951.7	28.43	34.482	
6,550.0	6,548.9	6,369.2	6,264.2	14.2	20.5	102.88	143.0	-936.3	996.0	967.4	28.62	34.800	
6,600.0	6,597.7	6,415.2	6,308.3	14.3	20.8	101.73	145.4	-949.2	1,012.8	984.0	28.83	35.136	
6,650.0	6,645.4	6,459.7	6,351.0	14.4	21.0	100.66	147.7	-961.8	1,030.6	1,001.6	29.04	35.483	
6,700.0	6,691.7	6,502.6	6,392.0	14.5	21.3	99.63	150.0	-973.8	1,049.4	1,020.1	29.28	35.838	
6,750.0	6,736.1	6,543.4	6,431.1	14.6	21.5	98.60	152.1	-985.3	1,069.2	1,039.7	29.54	36.191	
6,800.0	6,778.3	6,559.9	6,447.0	14.7	21.6	96.79	153.0	-989.9	1,090.3	1,060.5	29.82	36.565	
6,850.0	6,818.1	6,582.7	6,468.7	14.9	21.8	95.02	154.0	-996.7	1,113.1	1,082.9	30.16	36.910	
6,900.0	6,855.0	6,600.0	6,485.0	15.1	21.9	92.90	154.6	-1,002.4	1,137.5	1,107.0	30.54	37.245	
6,950.0	6,888.9	6,600.0	6,485.0	15.3	21.9	89.86	154.6	-1,002.4	1,163.5	1,132.5	30.96	37.576	
7,000.0	6,919.4	6,617.8	6,501.6	15.6	22.0	87.40	155.0	-1,008.8	1,190.6	1,159.2	31.42	37.898	
7,051.7	6,947.3	6,627.2	6,510.3	15.9	22.1	84.31	155.1	-1,012.3	1,219.9	1,188.0	31.88	38.272	
7,100.0	6,971.4	6,650.0	6,531.2	16.3	22.2	85.41	155.2	-1,021.5	1,248.5	1,216.3	32.26	38.699	
7,201.7	7,022.3	6,650.0	6,531.2	17.1	22.2	85.41	155.2	-1,021.5	1,311.5	1,278.4	33.11	39.614	
7,250.0	7,044.7	6,650.0	6,531.2	17.6	22.2	81.08	155.2	-1,021.5	1,342.6	1,309.1	33.52	40.050	
7,300.0	7,064.0	6,666.8	6,546.4	18.1	22.4	77.63	155.0	-1,028.7	1,374.6	1,340.7	33.90	40.554	
7,350.0	7,079.3	6,672.2	6,551.3	18.6	22.4	73.85	154.9	-1,031.1	1,406.5	1,372.4	34.12	41.226	
7,400.0	7,090.5	6,676.4	6,554.9	19.2	22.4	70.26	154.8	-1,033.0	1,438.0	1,403.7	34.23	42.014	
7,450.0	7,097.4	6,679.1	6,557.4	19.8	22.5	66.90	154.8	-1,034.3	1,468.9	1,434.6	34.25	42.889	
7,500.0	7,100.0	6,680.5	6,558.6	20.5	22.5	63.76	154.7	-1,034.9	1,499.0	1,464.8	34.22	43.806	
7,505.5	7,100.0	6,680.6	6,558.7	20.5	22.5	63.44	154.7	-1,034.9	1,502.2	1,468.0	34.21	43.906	
7,600.0	7,100.0	6,681.5	6,559.5	21.8	22.5	63.48	154.7	-1,035.4	1,560.1	1,524.7	35.34	44.138	
7,700.0	7,100.0	6,682.6	6,560.5	23.2	22.5	63.54	154.7	-1,035.9	1,625.0	1,588.4	36.62	44.373	
7,800.0	7,100.0	6,683.8	6,561.5	24.7	22.5	63.59	154.6	-1,036.4	1,693.3	1,655.3	37.96	44.603	
7,900.0	7,100.0	6,685.0	6,562.6	26.3	22.5	63.65	154.6	-1,037.0	1,764.7	1,725.3	39.36	44.828	
8,000.0	7,100.0	8,686.0	7,100.0	27.9	41.3	90.00	-1,228.9	-1,766.9	1,814.9	1,758.3	56.66	32.030	
8,100.0	7,100.0	8,786.0	7,100.0	29.5	42.2	90.00	-1,328.9	-1,766.9	1,814.9	1,755.1	59.80	30.352	
8,200.0	7,100.0	8,886.0	7,100.0	31.2	43.1	90.00	-1,428.9	-1,766.9	1,815.0	1,751.9	63.01	28.804	
8,300.0	7,100.0	8,986.0	7,100.0	32.9	44.2	90.00	-1,528.9	-1,766.9	1,815.0	1,748.7	66.29	27.378	
8,400.0	7,100.0	9,086.0	7,100.0	34.6	45.2	90.00	-1,628.9	-1,766.9	1,815.0	1,745.3	69.64	26.064	
8,500.0	7,100.0	9,186.0	7,100.0	36.3	46.4	90.00	-1,728.9	-1,766.9	1,815.0	1,742.0	73.03	24.853	
8,600.0	7,100.0	9,286.0	7,100.0	38.1	47.6	90.00	-1,828.9	-1,766.9	1,815.0	1,738.5	76.47	23.736	
8,700.0	7,100.0	9,386.0	7,100.0	39.9	48.8	90.00	-1,928.9	-1,766.9	1,815.0	1,735.1	79.94	22.703	
8,800.0	7,100.0	9,486.0	7,100.0	41.7	50.1	90.00	-2,028.9	-1,766.9	1,815.0	1,731.6	83.45	21.749	
8,900.0	7,100.0	9,586.0	7,100.0	43.5	51.5	90.00	-2,128.9	-1,766.9	1,815.0	1,728.0	86.99	20.864	
9,000.0	7,100.0	9,686.0	7,100.0	45.3	52.9	90.00	-2,228.9	-1,766.9	1,815.0	1,724.5	90.56	20.042	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,100.0	7,100.0	9,786.0	7,100.0	47.1	54.3	90.00	-2,328.9	-1,766.9	1,815.1	1,720.9	94.15	19.278	
9,200.0	7,100.0	9,886.0	7,100.0	48.9	55.8	90.00	-2,428.9	-1,766.9	1,815.1	1,717.3	97.76	18.566	
9,300.0	7,100.0	9,986.0	7,100.0	50.8	57.3	90.00	-2,528.9	-1,767.0	1,815.1	1,713.7	101.39	17.902	
9,400.0	7,100.0	10,086.0	7,100.0	52.6	58.8	90.00	-2,628.9	-1,767.0	1,815.1	1,710.1	105.04	17.281	
9,500.0	7,100.0	10,186.0	7,100.0	54.5	60.3	90.00	-2,728.9	-1,767.0	1,815.1	1,706.4	108.70	16.699	
9,600.0	7,100.0	10,286.0	7,100.0	56.3	61.9	90.00	-2,828.9	-1,767.0	1,815.1	1,702.8	112.37	16.153	
9,700.0	7,100.0	10,386.0	7,100.0	58.2	63.5	90.00	-2,928.9	-1,767.0	1,815.1	1,699.1	116.06	15.640	
9,800.0	7,100.0	10,486.0	7,100.0	60.1	65.2	90.00	-3,028.9	-1,767.0	1,815.1	1,695.4	119.76	15.157	
9,900.0	7,100.0	10,586.0	7,100.0	61.9	66.8	90.00	-3,128.9	-1,767.0	1,815.2	1,691.7	123.46	14.702	
10,000.0	7,100.0	10,686.0	7,100.0	63.8	68.5	90.00	-3,228.9	-1,767.0	1,815.2	1,688.0	127.18	14.272	
10,100.0	7,100.0	10,786.0	7,100.0	65.7	70.1	90.00	-3,328.9	-1,767.0	1,815.2	1,684.3	130.90	13.866	
10,200.0	7,100.0	10,886.0	7,100.0	67.6	71.8	90.00	-3,428.9	-1,767.0	1,815.2	1,680.6	134.64	13.482	
10,300.0	7,100.0	10,986.0	7,100.0	69.4	73.5	90.00	-3,528.9	-1,767.0	1,815.2	1,676.8	138.38	13.118	
10,400.0	7,100.0	11,086.0	7,100.0	71.3	75.3	90.00	-3,628.9	-1,767.0	1,815.2	1,673.1	142.12	12.772	
10,500.0	7,100.0	11,186.0	7,100.0	73.2	77.0	90.00	-3,728.9	-1,767.0	1,815.2	1,669.4	145.88	12.444	
10,600.0	7,100.0	11,286.0	7,100.0	75.1	78.7	90.00	-3,828.9	-1,767.0	1,815.2	1,665.6	149.64	12.131	
10,700.0	7,100.0	11,386.0	7,100.0	77.0	80.5	90.00	-3,928.9	-1,767.0	1,815.3	1,661.9	153.40	11.834	
10,800.0	7,100.0	11,486.0	7,100.0	78.9	82.2	90.00	-4,028.9	-1,767.1	1,815.3	1,658.1	157.17	11.550	
10,900.0	7,100.0	11,586.0	7,100.0	80.8	84.0	90.00	-4,128.9	-1,767.1	1,815.3	1,654.3	160.94	11.279	
11,000.0	7,100.0	11,686.0	7,100.0	82.7	85.8	90.00	-4,228.9	-1,767.1	1,815.3	1,650.6	164.72	11.021	
11,100.0	7,100.0	11,786.0	7,100.0	84.6	87.6	90.00	-4,328.9	-1,767.1	1,815.3	1,646.8	168.50	10.774	
11,200.0	7,100.0	11,886.0	7,100.0	86.5	89.4	90.00	-4,428.9	-1,767.1	1,815.3	1,643.0	172.28	10.537	
11,300.0	7,100.0	11,986.0	7,100.0	88.4	91.2	90.00	-4,528.9	-1,767.1	1,815.3	1,639.3	176.07	10.310	
11,400.0	7,100.0	12,086.0	7,100.0	90.3	93.0	90.00	-4,628.9	-1,767.1	1,815.3	1,635.5	179.86	10.093	
11,500.0	7,100.0	12,186.0	7,100.0	92.2	94.8	90.00	-4,728.9	-1,767.1	1,815.4	1,631.7	183.65	9.885	
11,556.7	7,100.0	12,242.7	7,100.0	93.3	95.8	90.00	-4,785.7	-1,767.1	1,815.4	1,629.5	185.81	9.770	
11,600.0	7,100.0	12,281.8	7,100.0	94.1	96.7	90.00	-4,824.8	-1,767.1	1,815.4	1,628.0	187.37	9.689	
11,700.0	7,100.0	12,281.8	7,100.0	96.0	96.7	90.00	-4,824.8	-1,767.1	1,818.4	1,629.1	189.27	9.607	
11,800.0	7,100.0	12,281.8	7,100.0	97.9	96.7	90.00	-4,824.8	-1,767.1	1,826.8	1,635.6	191.18	9.555	
11,900.0	7,100.0	12,281.8	7,100.0	99.8	96.7	90.00	-4,824.8	-1,767.1	1,840.7	1,647.6	193.09	9.533 SF	
12,000.0	7,100.0	12,281.8	7,100.0	101.7	96.7	90.00	-4,824.8	-1,767.1	1,859.9	1,664.9	195.00	9.538	
12,100.0	7,100.0	12,281.8	7,100.0	103.6	96.7	90.00	-4,824.8	-1,767.1	1,884.1	1,687.2	196.91	9.568	
12,200.0	7,100.0	12,281.8	7,100.0	105.6	96.7	90.00	-4,824.8	-1,767.1	1,913.3	1,714.5	198.82	9.623	
12,300.0	7,100.0	12,281.8	7,100.0	107.5	96.7	90.00	-4,824.8	-1,767.1	1,947.2	1,746.5	200.73	9.701	
12,400.0	7,100.0	12,281.8	7,100.0	109.4	96.7	90.00	-4,824.8	-1,767.1	1,985.6	1,782.9	202.64	9.798	
12,500.0	7,100.0	12,281.8	7,100.0	111.3	96.7	90.00	-4,824.8	-1,767.1	2,028.2	1,823.6	204.56	9.915	
12,600.0	7,100.0	12,281.8	7,100.0	113.2	96.7	90.00	-4,824.8	-1,767.1	2,074.7	1,868.2	206.47	10.048	
12,700.0	7,100.0	12,281.8	7,100.0	115.1	96.7	90.00	-4,824.8	-1,767.1	2,124.9	1,916.5	208.38	10.197	
12,800.0	7,100.0	12,281.8	7,100.0	117.0	96.7	90.00	-4,824.8	-1,767.1	2,178.6	1,968.3	210.30	10.359	
12,900.0	7,100.0	12,281.8	7,100.0	118.9	96.7	90.00	-4,824.8	-1,767.1	2,235.4	2,023.2	212.21	10.534	
13,000.0	7,100.0	12,281.8	7,100.0	120.9	96.7	90.00	-4,824.8	-1,767.1	2,295.2	2,081.0	214.13	10.719	
13,100.0	7,100.0	12,281.8	7,100.0	122.8	96.7	90.00	-4,824.8	-1,767.1	2,357.7	2,141.6	216.05	10.913	
13,200.0	7,100.0	12,281.8	7,100.0	124.7	96.7	90.00	-4,824.8	-1,767.1	2,422.7	2,204.8	217.96	11.115	
13,300.0	7,100.0	12,281.8	7,100.0	126.6	96.7	90.00	-4,824.8	-1,767.1	2,490.1	2,270.2	219.88	11.325	
13,400.0	7,100.0	12,281.8	7,100.0	128.5	96.7	90.00	-4,824.8	-1,767.1	2,559.6	2,337.8	221.80	11.540	
13,500.0	7,100.0	12,281.8	7,100.0	130.4	96.7	90.00	-4,824.8	-1,767.1	2,631.0	2,407.3	223.71	11.761	
13,600.0	7,100.0	12,281.8	7,100.0	132.4	96.7	90.00	-4,824.8	-1,767.1	2,704.3	2,478.6	225.63	11.985	
13,700.0	7,100.0	12,281.8	7,100.0	134.3	96.7	90.00	-4,824.8	-1,767.1	2,779.2	2,551.7	227.55	12.214	
13,800.0	7,100.0	12,281.8	7,100.0	136.2	96.7	90.00	-4,824.8	-1,767.1	2,855.7	2,626.2	229.47	12.445	
13,900.0	7,100.0	12,281.8	7,100.0	138.1	96.7	90.00	-4,824.8	-1,767.1	2,933.6	2,702.2	231.39	12.678	
14,000.0	7,100.0	12,281.8	7,100.0	140.0	96.7	90.00	-4,824.8	-1,767.1	3,012.7	2,779.4	233.31	12.913	
14,100.0	7,100.0	12,281.8	7,100.0	142.0	96.7	90.00	-4,824.8	-1,767.1	3,093.1	2,857.9	235.23	13.149	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.0	7,100.0	12,281.8	7,100.0	143.9	96.7	90.00	-4,824.8	-1,767.1	3,174.6	2,937.5	237.15	13.387		
14,300.0	7,100.0	12,281.8	7,100.0	145.8	96.7	90.00	-4,824.8	-1,767.1	3,257.2	3,018.1	239.07	13.624		
14,400.0	7,100.0	12,281.8	7,100.0	147.7	96.7	90.00	-4,824.8	-1,767.1	3,340.7	3,099.7	240.99	13.862		
14,500.0	7,100.0	12,281.8	7,100.0	149.6	96.7	90.00	-4,824.8	-1,767.1	3,425.1	3,182.1	242.91	14.100		
14,600.0	7,100.0	12,281.8	7,100.0	151.6	96.7	90.00	-4,824.8	-1,767.1	3,510.3	3,265.4	244.83	14.337		
14,700.0	7,100.0	12,281.8	7,100.0	153.5	96.7	90.00	-4,824.8	-1,767.1	3,596.2	3,349.5	246.76	14.574		
14,800.0	7,100.0	12,281.8	7,100.0	155.4	96.7	90.00	-4,824.8	-1,767.1	3,682.9	3,434.2	248.68	14.810		
14,900.0	7,100.0	12,281.8	7,100.0	157.3	96.7	90.00	-4,824.8	-1,767.1	3,770.2	3,519.6	250.60	15.045		
15,000.0	7,100.0	12,281.8	7,100.0	159.3	96.7	90.00	-4,824.8	-1,767.1	3,858.2	3,605.6	252.52	15.279		
15,100.0	7,100.0	12,281.8	7,100.0	161.2	96.7	90.00	-4,824.8	-1,767.1	3,946.7	3,692.2	254.44	15.511		
15,200.0	7,100.0	12,281.8	7,100.0	163.1	96.7	90.00	-4,824.8	-1,767.1	4,035.7	3,779.4	256.37	15.742		
15,300.0	7,100.0	12,281.8	7,100.0	165.0	96.7	90.00	-4,824.8	-1,767.1	4,125.3	3,867.0	258.29	15.972		
15,400.0	7,100.0	12,281.8	7,100.0	166.9	96.7	90.00	-4,824.8	-1,767.1	4,215.3	3,955.1	260.21	16.200		
15,500.0	7,100.0	12,281.8	7,100.0	168.9	96.7	90.00	-4,824.8	-1,767.1	4,305.8	4,043.7	262.14	16.426		
15,600.0	7,100.0	12,281.8	7,100.0	170.8	96.7	90.00	-4,824.8	-1,767.1	4,396.7	4,132.6	264.06	16.650		
15,700.0	7,100.0	12,281.8	7,100.0	172.7	96.7	90.00	-4,824.8	-1,767.1	4,487.9	4,222.0	265.98	16.873		
15,800.0	7,100.0	12,281.8	7,100.0	174.6	96.7	90.00	-4,824.8	-1,767.1	4,579.6	4,311.7	267.91	17.094		
15,900.0	7,100.0	12,281.8	7,100.0	176.6	96.7	90.00	-4,824.8	-1,767.1	4,671.5	4,401.7	269.83	17.313		
16,000.0	7,100.0	12,281.8	7,100.0	178.5	96.7	90.00	-4,824.8	-1,767.1	4,763.8	4,492.1	271.75	17.530		
16,100.0	7,100.0	12,281.8	7,100.0	180.4	96.7	90.00	-4,824.8	-1,767.1	4,856.4	4,582.8	273.68	17.745		
16,200.0	7,100.0	12,281.8	7,100.0	182.3	96.7	90.00	-4,824.8	-1,767.1	4,949.3	4,673.7	275.60	17.958		
16,300.0	7,100.0	12,281.8	7,100.0	184.3	96.7	90.00	-4,824.8	-1,767.1	5,042.5	4,765.0	277.53	18.169		
16,400.0	7,100.0	12,281.8	7,100.0	186.2	96.7	90.00	-4,824.8	-1,767.1	5,135.9	4,856.5	279.45	18.378		
16,500.0	7,100.0	12,281.8	7,100.0	188.1	96.7	90.00	-4,824.8	-1,767.1	5,229.6	4,948.2	281.38	18.586		
16,600.0	7,100.0	12,281.8	7,100.0	190.0	96.7	90.00	-4,824.8	-1,767.1	5,323.5	5,040.2	283.30	18.791		
16,700.0	7,100.0	12,281.8	7,100.0	192.0	96.7	90.00	-4,824.8	-1,767.1	5,417.6	5,132.4	285.23	18.994		
16,800.0	7,100.0	12,281.8	7,100.0	193.9	96.7	90.00	-4,824.8	-1,767.1	5,511.9	5,224.8	287.15	19.195		
16,900.0	7,100.0	12,281.8	7,100.0	195.8	96.7	90.00	-4,824.8	-1,767.1	5,606.4	5,317.4	289.08	19.394		
16,924.5	7,100.0	12,281.8	7,100.0	196.2	96.7	90.00	-4,824.8	-1,767.1	5,629.6	5,340.2	289.46	19.449		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 4-18H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-89.11	0.6	-39.9	39.9				
100.0	100.0	100.0	100.0	0.1	0.1	-89.11	0.6	-39.9	39.9	39.7	0.19	211.515	
200.0	200.0	200.0	200.0	0.3	0.3	-89.11	0.6	-39.9	39.9	39.3	0.64	62.561	
300.0	300.0	300.0	300.0	0.5	0.5	-89.11	0.6	-39.9	39.9	38.8	1.09	36.709	
400.0	400.0	400.0	400.0	0.8	0.8	-89.11	0.6	-39.9	39.9	38.4	1.54	25.976	
500.0	500.0	500.0	500.0	1.0	1.0	-89.11	0.6	-39.9	39.9	37.9	1.99	20.099 CC, ES	
600.0	600.0	598.6	598.6	1.2	1.2	93.18	0.6	-41.6	41.7	39.3	2.39	17.418	
627.8	627.7	626.3	626.3	1.2	1.3	94.57	0.6	-42.5	42.7	40.2	2.50	17.072	
700.0	699.9	698.5	698.4	1.4	1.4	98.38	0.6	-44.9	45.5	42.7	2.78	16.323	
800.0	799.8	798.3	798.2	1.6	1.6	102.92	0.6	-48.2	49.5	46.3	3.19	15.505	
900.0	899.7	898.2	898.0	1.8	1.8	106.75	0.6	-51.5	53.9	50.3	3.62	14.888	
1,000.0	999.6	998.0	997.8	2.0	2.1	110.00	0.6	-54.9	58.4	54.4	4.05	14.416	
1,100.0	1,099.5	1,097.9	1,097.6	2.2	2.3	112.77	0.6	-58.2	63.2	58.7	4.49	14.051	
1,172.9	1,172.3	1,170.6	1,170.3	2.4	2.5	114.54	0.6	-60.6	66.7	61.8	4.82	13.835	
1,200.0	1,199.4	1,197.7	1,197.4	2.5	2.5	115.08	0.6	-61.5	67.9	63.0	4.94	13.759	
1,300.6	1,300.0	1,298.3	1,297.9	2.7	2.7	-64.71	0.6	-64.8	71.7	66.3	5.37	13.350	
1,400.0	1,399.4	1,397.6	1,397.1	2.9	3.0	-65.79	0.6	-68.1	74.7	68.9	5.80	12.883	
1,500.0	1,499.4	1,499.8	1,499.4	3.1	3.2	-66.35	0.6	-69.9	76.3	70.1	6.21	12.285	
1,600.0	1,599.4	1,599.9	1,599.4	3.3	3.4	-66.35	0.6	-69.9	76.3	69.7	6.62	11.529	
1,700.0	1,699.4	1,699.9	1,699.4	3.5	3.6	-66.35	0.6	-69.9	76.3	69.3	7.04	10.842	
1,800.0	1,799.4	1,799.9	1,799.4	3.7	3.8	-66.35	0.6	-69.9	76.3	68.9	7.46	10.227	
1,900.0	1,899.4	1,899.9	1,899.4	3.9	4.0	-66.35	0.6	-69.9	76.3	68.4	7.89	9.675	
2,000.0	1,999.4	1,999.9	1,999.4	4.1	4.2	-66.35	0.6	-69.9	76.3	68.0	8.32	9.176	
2,100.0	2,099.4	2,099.9	2,099.4	4.3	4.5	-66.35	0.6	-69.9	76.3	67.6	8.75	8.725	
2,200.0	2,199.4	2,199.9	2,199.4	4.5	4.7	-66.35	0.6	-69.9	76.3	67.2	9.18	8.314	
2,300.0	2,299.4	2,299.9	2,299.4	4.8	4.9	-66.35	0.6	-69.9	76.3	66.7	9.62	7.938	
2,400.0	2,399.4	2,399.9	2,399.4	5.0	5.1	-66.35	0.6	-69.9	76.3	66.3	10.05	7.595	
2,500.0	2,499.4	2,499.9	2,499.4	5.2	5.3	-66.35	0.6	-69.9	76.3	65.9	10.49	7.278	
2,600.0	2,599.4	2,599.9	2,599.4	5.4	5.5	-66.35	0.6	-69.9	76.3	65.4	10.93	6.987	
2,700.0	2,699.4	2,699.9	2,699.4	5.6	5.8	-66.35	0.6	-69.9	76.3	65.0	11.36	6.717	
2,800.0	2,799.4	2,799.9	2,799.4	5.9	6.0	-66.35	0.6	-69.9	76.3	64.5	11.80	6.467	
2,900.0	2,899.4	2,899.9	2,899.4	6.1	6.2	-66.35	0.6	-69.9	76.3	64.1	12.24	6.235	
3,000.0	2,999.4	2,999.9	2,999.4	6.3	6.4	-66.35	0.6	-69.9	76.3	63.7	12.69	6.018	
3,100.0	3,099.4	3,099.9	3,099.4	6.5	6.6	-66.35	0.6	-69.9	76.3	63.2	13.13	5.816	
3,200.0	3,199.4	3,199.9	3,199.4	6.7	6.9	-66.35	0.6	-69.9	76.3	62.8	13.57	5.626	
3,300.0	3,299.4	3,299.9	3,299.4	7.0	7.1	-66.35	0.6	-69.9	76.3	62.3	14.01	5.449	
3,400.0	3,399.4	3,399.9	3,399.4	7.2	7.3	-66.35	0.6	-69.9	76.3	61.9	14.45	5.282	
3,500.0	3,499.4	3,499.9	3,499.4	7.4	7.5	-66.35	0.6	-69.9	76.3	61.4	14.90	5.124	
3,600.0	3,599.4	3,599.9	3,599.4	7.6	7.8	-66.35	0.6	-69.9	76.3	61.0	15.34	4.976	
3,700.0	3,699.4	3,699.9	3,699.4	7.8	8.0	-66.35	0.6	-69.9	76.3	60.6	15.78	4.836	
3,800.0	3,799.4	3,799.9	3,799.4	8.1	8.2	-66.35	0.6	-69.9	76.3	60.1	16.23	4.704	
3,900.0	3,899.4	3,899.9	3,899.4	8.3	8.4	-66.35	0.6	-69.9	76.3	59.7	16.67	4.578	
4,000.0	3,999.4	3,999.9	3,999.4	8.5	8.6	-66.35	0.6	-69.9	76.3	59.2	17.12	4.460	
4,100.0	4,099.4	4,099.9	4,099.4	8.7	8.9	-66.35	0.6	-69.9	76.3	58.8	17.56	4.347	
4,200.0	4,199.4	4,199.9	4,199.4	8.9	9.1	-66.35	0.6	-69.9	76.3	58.3	18.01	4.239	
4,300.0	4,299.4	4,299.9	4,299.4	9.2	9.3	-66.35	0.6	-69.9	76.3	57.9	18.45	4.137	
4,400.0	4,399.4	4,399.9	4,399.4	9.4	9.5	-66.35	0.6	-69.9	76.3	57.4	18.90	4.039	
4,500.0	4,499.4	4,498.1	4,497.6	9.6	9.7	-66.63	0.6	-70.9	77.2	57.9	19.34	3.993 SF	
4,600.0	4,599.4	4,595.5	4,594.9	9.8	10.0	-67.79	0.6	-75.0	81.1	61.4	19.76	4.105	
4,700.0	4,699.4	4,692.5	4,691.7	10.1	10.2	-69.62	0.6	-82.4	88.3	68.1	20.19	4.371	
4,800.0	4,799.4	4,788.9	4,787.5	10.3	10.4	-71.78	0.6	-93.0	98.6	78.0	20.62	4.784	
4,900.0	4,899.4	4,884.6	4,882.1	10.5	10.6	-73.99	0.6	-106.7	112.4	91.3	21.05	5.338	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 4-18H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,999.4	4,979.1	4,975.2	10.7	10.9	-76.06	0.6	-123.4	129.4	107.9	21.48	6.024	
5,100.0	5,099.4	5,072.5	5,066.5	11.0	11.1	-77.90	0.6	-142.8	149.7	127.8	21.90	6.834	
5,200.0	5,199.4	5,164.5	5,155.8	11.2	11.4	-79.48	0.6	-164.8	173.2	150.9	22.33	7.758	
5,300.0	5,299.4	5,255.0	5,242.9	11.4	11.7	-80.81	0.6	-189.3	199.9	177.2	22.75	8.787	
5,400.0	5,399.4	5,343.8	5,327.6	11.6	12.0	-81.93	0.6	-216.0	229.7	206.5	23.17	9.910	
5,500.0	5,499.4	5,433.2	5,412.1	11.8	12.4	-82.89	0.6	-245.4	262.2	238.6	23.60	11.111	
5,600.0	5,599.4	5,527.4	5,500.9	12.1	12.8	-83.69	0.6	-277.0	295.5	271.5	24.04	12.294	
5,700.0	5,699.4	5,621.6	5,589.6	12.3	13.2	-84.33	0.6	-308.5	328.9	304.4	24.48	13.436	
5,800.0	5,799.4	5,715.9	5,678.4	12.5	13.7	-84.86	0.6	-340.1	362.3	337.4	24.92	14.536	
5,900.0	5,899.4	5,810.1	5,767.2	12.7	14.2	-85.29	0.6	-371.7	395.7	370.3	25.37	15.596	
6,000.0	5,999.4	5,904.3	5,855.9	13.0	14.6	-85.66	0.6	-403.3	429.1	403.3	25.82	16.618	
6,100.0	6,099.4	5,998.5	5,944.7	13.2	15.1	-85.97	0.6	-434.8	462.5	436.3	26.28	17.603	
6,200.0	6,199.4	6,092.7	6,033.5	13.4	15.7	-86.24	0.6	-466.4	496.0	469.2	26.73	18.553	
6,300.0	6,299.4	6,186.9	6,122.2	13.6	16.2	-86.48	0.6	-498.0	529.4	502.2	27.19	19.470	
6,400.0	6,399.4	6,281.2	6,211.0	13.9	16.7	-86.69	0.6	-529.6	562.9	535.2	27.66	20.354	
6,451.7	6,451.1	6,329.9	6,256.9	14.0	17.0	-86.79	0.6	-545.9	580.2	552.3	27.90	20.799	
6,500.0	6,499.3	6,375.3	6,299.7	14.1	17.3	96.60	0.6	-561.1	596.6	568.6	28.02	21.294	
6,550.0	6,548.9	6,421.8	6,343.5	14.2	17.5	95.28	0.6	-576.7	614.1	585.9	28.21	21.765	
6,600.0	6,597.7	6,467.5	6,386.6	14.3	17.8	94.26	0.6	-592.0	632.1	603.6	28.42	22.240	
6,650.0	6,645.4	6,512.0	6,428.5	14.4	18.1	93.50	0.6	-606.9	650.5	621.9	28.63	22.721	
6,700.0	6,691.7	6,555.0	6,469.0	14.5	18.3	92.92	0.6	-621.3	669.6	640.7	28.85	23.209	
6,750.0	6,736.1	6,596.2	6,507.8	14.6	18.6	92.43	0.6	-635.1	689.4	660.3	29.08	23.706	
6,800.0	6,778.3	6,627.6	6,537.3	14.7	18.8	91.58	0.4	-645.8	710.2	680.8	29.31	24.226	
6,850.0	6,818.1	6,650.0	6,558.2	14.9	18.9	90.18	-0.5	-653.8	732.5	702.9	29.56	24.778	
6,900.0	6,855.0	6,679.1	6,585.0	15.1	19.1	88.97	-2.9	-664.9	756.2	726.3	29.85	25.331	
6,950.0	6,888.9	6,700.0	6,604.0	15.3	19.2	87.20	-5.3	-673.3	781.2	751.0	30.16	25.900	
7,000.0	6,919.4	6,727.6	6,628.7	15.6	19.4	85.67	-9.5	-684.8	807.4	776.9	30.51	26.459	
7,051.7	6,947.3	6,750.0	6,648.4	15.9	19.6	83.62	-13.7	-694.6	835.5	804.6	30.89	27.047	
7,100.0	6,971.4	6,774.1	6,669.2	16.3	19.8	85.00	-19.1	-705.5	862.9	831.6	31.30	27.568	
7,201.7	7,022.3	6,826.4	6,712.9	17.1	20.2	87.67	-33.5	-730.6	923.6	891.3	32.26	28.634	
7,250.0	7,044.7	6,852.9	6,734.0	17.6	20.4	84.83	-42.3	-743.9	953.2	920.5	32.75	29.104	
7,300.0	7,064.0	6,880.3	6,755.1	18.1	20.7	82.08	-52.3	-758.1	983.8	950.6	33.26	29.577	
7,350.0	7,079.3	6,907.8	6,775.7	18.6	20.9	79.55	-63.4	-772.7	1,014.2	980.4	33.77	30.030	
7,400.0	7,090.5	6,935.8	6,795.6	19.2	21.2	77.23	-75.7	-787.9	1,044.1	1,009.8	34.29	30.451	
7,450.0	7,097.4	6,964.3	6,815.1	19.8	21.4	75.15	-89.2	-803.8	1,073.6	1,038.7	34.83	30.823	
7,500.0	7,100.0	6,993.7	6,834.2	20.5	21.7	73.32	-104.2	-820.4	1,102.4	1,067.0	35.42	31.127	
7,505.5	7,100.0	6,997.0	6,836.2	20.5	21.8	73.14	-105.9	-822.3	1,105.5	1,070.0	35.48	31.155	
7,600.0	7,100.0	7,061.9	6,874.0	21.8	22.5	76.02	-142.7	-860.0	1,160.5	1,123.3	37.22	31.179	
7,700.0	7,100.0	7,978.9	7,100.0	23.2	31.3	90.00	-929.1	-1,127.6	1,175.7	1,128.7	47.00	25.012	
7,800.0	7,100.0	8,078.9	7,100.0	24.7	32.2	90.00	-1,029.1	-1,127.6	1,175.7	1,125.9	49.83	23.596	
7,900.0	7,100.0	8,178.9	7,100.0	26.3	33.3	90.00	-1,129.1	-1,127.6	1,175.7	1,122.9	52.78	22.276	
8,000.0	7,100.0	8,278.9	7,100.0	27.9	34.4	90.00	-1,229.1	-1,127.6	1,175.7	1,119.8	55.84	21.053	
8,100.0	7,100.0	8,378.9	7,100.0	29.5	35.6	90.00	-1,329.1	-1,127.6	1,175.7	1,116.7	59.00	19.927	
8,200.0	7,100.0	8,478.9	7,100.0	31.2	36.8	90.00	-1,429.1	-1,127.6	1,175.7	1,113.4	62.24	18.890	
8,300.0	7,100.0	8,578.9	7,100.0	32.9	38.1	90.00	-1,529.1	-1,127.6	1,175.7	1,110.1	65.54	17.938	
8,400.0	7,100.0	8,678.9	7,100.0	34.6	39.5	90.00	-1,629.1	-1,127.6	1,175.7	1,106.8	68.90	17.062	
8,500.0	7,100.0	8,778.9	7,100.0	36.3	40.9	90.00	-1,729.1	-1,127.6	1,175.7	1,103.4	72.32	16.257	
8,600.0	7,100.0	8,878.9	7,100.0	38.1	42.3	90.00	-1,829.1	-1,127.6	1,175.7	1,099.9	75.77	15.516	
8,700.0	7,100.0	8,978.9	7,100.0	39.9	43.8	90.00	-1,929.1	-1,127.6	1,175.7	1,096.4	79.27	14.832	
8,800.0	7,100.0	9,078.9	7,100.0	41.7	45.3	90.00	-2,029.1	-1,127.6	1,175.7	1,092.9	82.79	14.200	
8,900.0	7,100.0	9,178.9	7,100.0	43.5	46.9	90.00	-2,129.1	-1,127.6	1,175.7	1,089.3	86.35	13.616	
9,000.0	7,100.0	9,278.9	7,100.0	45.3	48.5	90.00	-2,229.1	-1,127.5	1,175.7	1,085.7	89.93	13.074	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 4-18H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,100.0	7,100.0	9,378.9	7,100.0	47.1	50.1	90.00	-2,329.1	-1,127.5	1,175.7	1,082.1	93.53	12.570	
9,200.0	7,100.0	9,478.9	7,100.0	48.9	51.8	90.00	-2,429.1	-1,127.5	1,175.7	1,078.5	97.15	12.101	
9,300.0	7,100.0	9,578.9	7,100.0	50.8	53.4	90.00	-2,529.1	-1,127.5	1,175.7	1,074.9	100.79	11.664	
9,400.0	7,100.0	9,678.9	7,100.0	52.6	55.1	90.00	-2,629.1	-1,127.5	1,175.7	1,071.2	104.45	11.256	
9,500.0	7,100.0	9,778.9	7,100.0	54.5	56.8	90.00	-2,729.1	-1,127.5	1,175.7	1,067.5	108.12	10.874	
9,600.0	7,100.0	9,878.9	7,100.0	56.3	58.5	90.00	-2,829.1	-1,127.5	1,175.7	1,063.9	111.80	10.515	
9,700.0	7,100.0	9,978.9	7,100.0	58.2	60.2	90.00	-2,929.1	-1,127.5	1,175.7	1,060.2	115.50	10.179	
9,800.0	7,100.0	10,078.9	7,100.0	60.1	62.0	90.00	-3,029.1	-1,127.5	1,175.7	1,056.4	119.20	9.862	
9,900.0	7,100.0	10,178.9	7,100.0	61.9	63.7	90.00	-3,129.1	-1,127.5	1,175.7	1,052.7	122.92	9.564	
10,000.0	7,100.0	10,278.9	7,100.0	63.8	65.5	90.00	-3,229.1	-1,127.5	1,175.7	1,049.0	126.64	9.283	
10,100.0	7,100.0	10,378.9	7,100.0	65.7	67.3	90.00	-3,329.1	-1,127.5	1,175.6	1,045.3	130.38	9.017	
10,200.0	7,100.0	10,478.9	7,100.0	67.6	69.0	90.00	-3,429.1	-1,127.5	1,175.6	1,041.5	134.12	8.766	
10,300.0	7,100.0	10,578.9	7,100.0	69.4	70.8	90.00	-3,529.1	-1,127.5	1,175.6	1,037.8	137.86	8.528	
10,400.0	7,100.0	10,678.9	7,100.0	71.3	72.6	90.00	-3,629.1	-1,127.5	1,175.6	1,034.0	141.62	8.302	
10,500.0	7,100.0	10,778.9	7,100.0	73.2	74.4	90.00	-3,729.1	-1,127.5	1,175.6	1,030.3	145.38	8.087	
10,600.0	7,100.0	10,878.9	7,100.0	75.1	76.2	90.00	-3,829.1	-1,127.4	1,175.6	1,026.5	149.14	7.883	
10,700.0	7,100.0	10,978.9	7,100.0	77.0	78.1	90.00	-3,929.1	-1,127.4	1,175.6	1,022.7	152.91	7.689	
10,800.0	7,100.0	11,078.9	7,100.0	78.9	79.9	90.00	-4,029.1	-1,127.4	1,175.6	1,019.0	156.68	7.503	
10,900.0	7,100.0	11,178.9	7,100.0	80.8	81.7	90.00	-4,129.1	-1,127.4	1,175.6	1,015.2	160.46	7.327	
11,000.0	7,100.0	11,278.9	7,100.0	82.7	83.5	90.00	-4,229.1	-1,127.4	1,175.6	1,011.4	164.24	7.158	
11,100.0	7,100.0	11,378.9	7,100.0	84.6	85.4	90.00	-4,329.1	-1,127.4	1,175.6	1,007.6	168.03	6.997	
11,200.0	7,100.0	11,478.9	7,100.0	86.5	87.2	90.00	-4,429.1	-1,127.4	1,175.6	1,003.8	171.81	6.842	
11,300.0	7,100.0	11,578.9	7,100.0	88.4	89.1	90.00	-4,529.1	-1,127.4	1,175.6	1,000.0	175.61	6.695	
11,400.0	7,100.0	11,678.9	7,100.0	90.3	90.9	90.00	-4,629.1	-1,127.4	1,175.6	996.2	179.40	6.553	
11,500.0	7,100.0	11,778.9	7,100.0	92.2	92.8	90.00	-4,729.1	-1,127.4	1,175.6	992.4	183.20	6.417	
11,571.5	7,100.0	11,850.5	7,100.0	93.6	94.1	90.00	-4,800.7	-1,127.4	1,175.6	989.7	185.92	6.323	
11,600.0	7,100.0	11,877.2	7,100.0	94.1	94.6	90.00	-4,827.4	-1,127.4	1,175.6	988.7	186.97	6.288	
11,700.0	7,100.0	11,877.2	7,100.0	96.0	94.6	90.00	-4,827.4	-1,127.4	1,180.0	991.2	188.87	6.248	
11,800.0	7,100.0	11,877.2	7,100.0	97.9	94.6	90.00	-4,827.4	-1,127.4	1,192.8	1,002.0	190.78	6.252	
11,900.0	7,100.0	11,877.2	7,100.0	99.8	94.6	90.00	-4,827.4	-1,127.4	1,213.7	1,021.0	192.69	6.299	
12,000.0	7,100.0	11,877.2	7,100.0	101.7	94.6	90.00	-4,827.4	-1,127.4	1,242.4	1,047.8	194.60	6.384	
12,100.0	7,100.0	11,877.2	7,100.0	103.6	94.6	90.00	-4,827.4	-1,127.4	1,278.2	1,081.7	196.51	6.505	
12,200.0	7,100.0	11,877.2	7,100.0	105.6	94.6	90.00	-4,827.4	-1,127.4	1,320.7	1,122.3	198.42	6.656	
12,300.0	7,100.0	11,877.2	7,100.0	107.5	94.6	90.00	-4,827.4	-1,127.4	1,369.1	1,168.8	200.33	6.834	
12,400.0	7,100.0	11,877.2	7,100.0	109.4	94.6	90.00	-4,827.4	-1,127.4	1,423.0	1,220.7	202.24	7.036	
12,500.0	7,100.0	11,877.2	7,100.0	111.3	94.6	90.00	-4,827.4	-1,127.4	1,481.6	1,277.5	204.15	7.257	
12,600.0	7,100.0	11,877.2	7,100.0	113.2	94.6	90.00	-4,827.4	-1,127.4	1,544.5	1,338.4	206.07	7.495	
12,700.0	7,100.0	11,877.2	7,100.0	115.1	94.6	90.00	-4,827.4	-1,127.4	1,611.2	1,403.2	207.98	7.747	
12,800.0	7,100.0	11,877.2	7,100.0	117.0	94.6	90.00	-4,827.4	-1,127.4	1,681.1	1,471.2	209.90	8.009	
12,900.0	7,100.0	11,877.2	7,100.0	118.9	94.6	90.00	-4,827.4	-1,127.4	1,754.0	1,542.2	211.81	8.281	
13,000.0	7,100.0	11,877.2	7,100.0	120.9	94.6	90.00	-4,827.4	-1,127.4	1,829.5	1,615.7	213.73	8.560	
13,100.0	7,100.0	11,877.2	7,100.0	122.8	94.6	90.00	-4,827.4	-1,127.4	1,907.2	1,691.5	215.64	8.844	
13,200.0	7,100.0	11,877.2	7,100.0	124.7	94.6	90.00	-4,827.4	-1,127.4	1,986.9	1,769.3	217.56	9.132	
13,300.0	7,100.0	11,877.2	7,100.0	126.6	94.6	90.00	-4,827.4	-1,127.4	2,068.3	1,848.8	219.48	9.424	
13,400.0	7,100.0	11,877.2	7,100.0	128.5	94.6	90.00	-4,827.4	-1,127.4	2,151.3	1,929.9	221.39	9.717	
13,500.0	7,100.0	11,877.2	7,100.0	130.4	94.6	90.00	-4,827.4	-1,127.4	2,235.8	2,012.4	223.31	10.012	
13,600.0	7,100.0	11,877.2	7,100.0	132.4	94.6	90.00	-4,827.4	-1,127.4	2,321.4	2,096.2	225.23	10.307	
13,700.0	7,100.0	11,877.2	7,100.0	134.3	94.6	90.00	-4,827.4	-1,127.4	2,408.2	2,181.0	227.15	10.602	
13,800.0	7,100.0	11,877.2	7,100.0	136.2	94.6	90.00	-4,827.4	-1,127.4	2,495.9	2,266.9	229.07	10.896	
13,900.0	7,100.0	11,877.2	7,100.0	138.1	94.6	90.00	-4,827.4	-1,127.4	2,584.6	2,353.6	230.99	11.189	
14,000.0	7,100.0	11,877.2	7,100.0	140.0	94.6	90.00	-4,827.4	-1,127.4	2,674.0	2,441.1	232.91	11.481	
14,100.0	7,100.0	11,877.2	7,100.0	142.0	94.6	90.00	-4,827.4	-1,127.4	2,764.2	2,529.3	234.83	11.771	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 4-18H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,200.0	7,100.0	11,877.2	7,100.0	143.9	94.6	90.00	-4,827.4	-1,127.4	2,855.0	2,618.2	236.75	12.059	
14,300.0	7,100.0	11,877.2	7,100.0	145.8	94.6	90.00	-4,827.4	-1,127.4	2,946.4	2,707.7	238.67	12.345	
14,400.0	7,100.0	11,877.2	7,100.0	147.7	94.6	90.00	-4,827.4	-1,127.4	3,038.4	2,797.8	240.59	12.629	
14,500.0	7,100.0	11,877.2	7,100.0	149.6	94.6	90.00	-4,827.4	-1,127.4	3,130.8	2,888.3	242.51	12.910	
14,600.0	7,100.0	11,877.2	7,100.0	151.6	94.6	90.00	-4,827.4	-1,127.4	3,223.7	2,979.3	244.43	13.189	
14,700.0	7,100.0	11,877.2	7,100.0	153.5	94.6	90.00	-4,827.4	-1,127.4	3,317.0	3,070.7	246.35	13.465	
14,800.0	7,100.0	11,877.2	7,100.0	155.4	94.6	90.00	-4,827.4	-1,127.4	3,410.7	3,162.5	248.27	13.738	
14,900.0	7,100.0	11,877.2	7,100.0	157.3	94.6	90.00	-4,827.4	-1,127.4	3,504.8	3,254.6	250.20	14.008	
15,000.0	7,100.0	11,877.2	7,100.0	159.3	94.6	90.00	-4,827.4	-1,127.4	3,599.1	3,347.0	252.12	14.276	
15,100.0	7,100.0	11,877.2	7,100.0	161.2	94.6	90.00	-4,827.4	-1,127.4	3,693.8	3,439.7	254.04	14.540	
15,200.0	7,100.0	11,877.2	7,100.0	163.1	94.6	90.00	-4,827.4	-1,127.4	3,788.7	3,532.8	255.96	14.802	
15,300.0	7,100.0	11,877.2	7,100.0	165.0	94.6	90.00	-4,827.4	-1,127.4	3,883.9	3,626.0	257.89	15.061	
15,400.0	7,100.0	11,877.2	7,100.0	166.9	94.6	90.00	-4,827.4	-1,127.4	3,979.3	3,719.5	259.81	15.316	
15,500.0	7,100.0	11,877.2	7,100.0	168.9	94.6	90.00	-4,827.4	-1,127.4	4,075.0	3,813.2	261.73	15.569	
15,600.0	7,100.0	11,877.2	7,100.0	170.8	94.6	90.00	-4,827.4	-1,127.4	4,170.8	3,907.2	263.66	15.819	
15,700.0	7,100.0	11,877.2	7,100.0	172.7	94.6	90.00	-4,827.4	-1,127.4	4,266.9	4,001.3	265.58	16.066	
15,800.0	7,100.0	11,877.2	7,100.0	174.6	94.6	90.00	-4,827.4	-1,127.4	4,363.1	4,095.6	267.50	16.310	
15,900.0	7,100.0	11,877.2	7,100.0	176.6	94.6	90.00	-4,827.4	-1,127.4	4,459.5	4,190.0	269.43	16.552	
16,000.0	7,100.0	11,877.2	7,100.0	178.5	94.6	90.00	-4,827.4	-1,127.4	4,556.0	4,284.6	271.35	16.790	
16,100.0	7,100.0	11,877.2	7,100.0	180.4	94.6	90.00	-4,827.4	-1,127.4	4,652.7	4,379.4	273.28	17.026	
16,200.0	7,100.0	11,877.2	7,100.0	182.3	94.6	90.00	-4,827.4	-1,127.4	4,749.5	4,474.3	275.20	17.258	
16,300.0	7,100.0	11,877.2	7,100.0	184.3	94.6	90.00	-4,827.4	-1,127.4	4,846.5	4,569.3	277.13	17.488	
16,400.0	7,100.0	11,877.2	7,100.0	186.2	94.6	90.00	-4,827.4	-1,127.4	4,943.5	4,664.5	279.05	17.716	
16,500.0	7,100.0	11,877.2	7,100.0	188.1	94.6	90.00	-4,827.4	-1,127.4	5,040.7	4,759.7	280.98	17.940	
16,600.0	7,100.0	11,877.2	7,100.0	190.0	94.6	90.00	-4,827.4	-1,127.4	5,138.0	4,855.1	282.90	18.162	
16,700.0	7,100.0	11,877.2	7,100.0	192.0	94.6	90.00	-4,827.4	-1,127.4	5,235.4	4,950.6	284.83	18.381	
16,800.0	7,100.0	11,877.2	7,100.0	193.9	94.6	90.00	-4,827.4	-1,127.4	5,332.9	5,046.2	286.75	18.598	
16,900.0	7,100.0	11,877.2	7,100.0	195.8	94.6	90.00	-4,827.4	-1,127.4	5,430.5	5,141.8	288.68	18.812	
16,924.5	7,100.0	11,877.2	7,100.0	196.2	94.6	90.00	-4,827.4	-1,127.4	5,454.4	5,165.4	289.06	18.870	

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	3.0	3.0	0.0	0.0	-50.84	152.6	-187.3	241.6				
100.0	100.0	103.0	103.0	0.1	0.1	-50.84	152.6	-187.3	241.6	241.4	0.19	1,257.233	
200.0	200.0	203.0	203.0	0.3	0.3	-50.84	152.6	-187.3	241.6	241.0	0.64	376.510	
300.0	300.0	303.0	303.0	0.5	0.5	-50.84	152.6	-187.3	241.6	240.5	1.09	221.408	
400.0	400.0	403.0	403.0	0.8	0.8	-50.84	152.6	-187.3	241.6	240.1	1.54	156.810	
500.0	500.0	503.0	503.0	1.0	1.0	-50.84	152.6	-187.3	241.6	239.6	1.99	121.393 CC, ES	
600.0	600.0	603.0	603.0	1.2	1.2	129.46	152.6	-187.3	242.7	240.3	2.41	100.571	
627.8	627.7	630.7	630.7	1.2	1.3	129.65	152.6	-187.3	243.4	240.9	2.53	96.383	
700.0	699.9	702.9	702.9	1.4	1.4	130.23	152.6	-187.3	245.5	242.7	2.82	86.988	
800.0	799.8	802.8	802.8	1.6	1.7	131.02	152.6	-187.3	248.4	245.1	3.24	76.564	
900.0	899.7	902.7	902.7	1.8	1.9	131.78	152.6	-187.3	251.3	247.7	3.68	68.381	
1,000.0	999.6	1,002.6	1,002.6	2.0	2.1	132.53	152.6	-187.3	254.3	250.2	4.11	61.834	
1,100.0	1,099.5	1,102.5	1,102.5	2.2	2.3	133.26	152.6	-187.3	257.4	252.8	4.56	56.502	
1,172.9	1,172.3	1,175.3	1,175.3	2.4	2.5	133.79	152.6	-187.3	259.6	254.7	4.88	53.209	
1,200.0	1,199.4	1,202.4	1,202.4	2.5	2.6	133.97	152.6	-187.3	260.4	255.4	5.00	52.091	
1,300.6	1,300.0	1,303.0	1,303.0	2.7	2.8	-45.74	152.6	-187.3	261.6	256.2	5.43	48.172	
1,400.0	1,399.4	1,402.4	1,402.4	2.9	3.0	-45.74	152.6	-187.3	261.6	255.7	5.86	44.645	
1,500.0	1,499.4	1,502.4	1,502.4	3.1	3.2	-45.74	152.6	-187.3	261.6	255.3	6.29	41.596	
1,600.0	1,599.4	1,602.4	1,602.4	3.3	3.5	-45.74	152.6	-187.3	261.6	254.9	6.72	38.921	
1,700.0	1,699.4	1,702.4	1,702.4	3.5	3.7	-45.74	152.6	-187.3	261.6	254.4	7.16	36.558	
1,800.0	1,799.4	1,802.4	1,802.4	3.7	3.9	-45.74	152.6	-187.3	261.6	254.0	7.59	34.458	
1,900.0	1,899.4	1,902.4	1,902.4	3.9	4.1	-45.74	152.6	-187.3	261.6	253.6	8.03	32.580	
2,000.0	1,999.4	2,002.4	2,002.4	4.1	4.4	-45.74	152.6	-187.3	261.6	253.1	8.47	30.891	
2,100.0	2,099.4	2,102.4	2,102.4	4.3	4.6	-45.74	152.6	-187.3	261.6	252.7	8.91	29.365	
2,200.0	2,199.4	2,202.4	2,202.4	4.5	4.8	-45.74	152.6	-187.3	261.6	252.2	9.35	27.980	
2,300.0	2,299.4	2,302.4	2,302.4	4.8	5.0	-45.74	152.6	-187.3	261.6	251.8	9.79	26.718	
2,400.0	2,399.4	2,402.4	2,402.4	5.0	5.3	-45.74	152.6	-187.3	261.6	251.4	10.23	25.563	
2,500.0	2,499.4	2,502.4	2,502.4	5.2	5.5	-45.74	152.6	-187.3	261.6	250.9	10.68	24.502	
2,600.0	2,599.4	2,602.4	2,602.4	5.4	5.7	-45.74	152.6	-187.3	261.6	250.5	11.12	23.525	
2,700.0	2,699.4	2,702.4	2,702.4	5.6	5.9	-45.74	152.6	-187.3	261.6	250.0	11.56	22.621	
2,800.0	2,799.4	2,802.4	2,802.4	5.9	6.2	-45.74	152.6	-187.3	261.6	249.6	12.01	21.784	
2,900.0	2,899.4	2,902.4	2,902.4	6.1	6.4	-45.74	152.6	-187.3	261.6	249.1	12.45	21.006	
3,000.0	2,999.4	3,002.4	3,002.4	6.3	6.6	-45.74	152.6	-187.3	261.6	248.7	12.90	20.281	
3,100.0	3,099.4	3,102.4	3,102.4	6.5	6.8	-45.74	152.6	-187.3	261.6	248.2	13.34	19.604	
3,200.0	3,199.4	3,202.4	3,202.4	6.7	7.1	-45.74	152.6	-187.3	261.6	247.8	13.79	18.970	
3,300.0	3,299.4	3,302.4	3,302.4	7.0	7.3	-45.74	152.6	-187.3	261.6	247.4	14.24	18.376	
3,400.0	3,399.4	3,402.4	3,402.4	7.2	7.5	-45.74	152.6	-187.3	261.6	246.9	14.68	17.818	
3,465.9	3,465.2	3,468.2	3,468.2	7.3	7.7	-45.74	152.6	-187.3	261.6	246.6	14.98	17.468	
3,500.0	3,499.4	3,500.0	3,500.0	7.4	7.7	-45.74	152.6	-187.3	261.6	246.5	15.12	17.299	
3,600.0	3,599.4	3,597.4	3,597.4	7.6	7.9	-46.04	152.2	-189.0	262.6	247.0	15.55	16.889	
3,700.0	3,699.4	3,692.3	3,692.2	7.8	8.1	-46.89	151.2	-193.6	265.4	249.5	15.95	16.639	
3,800.0	3,799.4	3,786.8	3,786.3	8.1	8.3	-48.27	149.6	-201.4	270.3	254.0	16.36	16.522 SF	
3,900.0	3,899.4	3,880.7	3,879.5	8.3	8.5	-50.09	147.4	-212.0	277.4	260.6	16.77	16.537	
4,000.0	3,999.4	3,973.7	3,971.6	8.5	8.7	-52.27	144.5	-225.6	286.9	269.7	17.19	16.685	
4,100.0	4,099.4	4,065.8	4,062.1	8.7	8.9	-54.72	141.1	-241.8	298.9	281.3	17.62	16.969	
4,200.0	4,199.4	4,156.7	4,150.9	8.9	9.2	-57.33	137.1	-260.6	313.9	295.8	18.05	17.390	
4,300.0	4,299.4	4,246.2	4,237.8	9.2	9.4	-60.02	132.6	-281.9	331.8	313.3	18.49	17.947	
4,400.0	4,399.4	4,337.1	4,325.3	9.4	9.7	-62.76	127.5	-306.0	352.7	333.8	18.93	18.627	
4,500.0	4,499.4	4,433.1	4,417.6	9.6	10.0	-65.40	122.0	-332.1	375.0	355.6	19.40	19.327	
4,600.0	4,599.4	4,529.2	4,509.8	9.8	10.4	-67.75	116.5	-358.2	397.9	378.0	19.87	20.027	
4,700.0	4,699.4	4,625.3	4,602.1	10.1	10.8	-69.85	111.0	-384.3	421.4	401.1	20.34	20.721	
4,800.0	4,799.4	4,721.3	4,694.4	10.3	11.2	-71.72	105.5	-410.4	445.4	424.6	20.81	21.406	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,899.4	4,817.4	4,786.7	10.5	11.6	-73.41	100.0	-436.5	469.9	448.6	21.28	22.079	
5,000.0	4,999.4	4,913.5	4,879.0	10.7	12.0	-74.93	94.5	-462.6	494.6	472.9	21.75	22.738	
5,100.0	5,099.4	5,009.6	4,971.3	11.0	12.4	-76.31	89.0	-488.6	519.7	497.5	22.23	23.382	
5,200.0	5,199.4	5,105.6	5,063.6	11.2	12.9	-77.56	83.5	-514.7	545.1	522.4	22.70	24.010	
5,300.0	5,299.4	5,201.7	5,155.9	11.4	13.3	-78.71	78.0	-540.8	570.6	547.5	23.18	24.621	
5,400.0	5,399.4	5,297.8	5,248.2	11.6	13.8	-79.75	72.5	-566.9	596.4	572.7	23.65	25.215	
5,500.0	5,499.4	5,393.8	5,340.5	11.8	14.2	-80.71	67.0	-593.0	622.3	598.2	24.13	25.792	
5,600.0	5,599.4	5,489.9	5,432.8	12.1	14.7	-81.59	61.5	-619.1	648.4	623.8	24.61	26.353	
5,700.0	5,699.4	5,586.0	5,525.1	12.3	15.2	-82.41	56.0	-645.2	674.6	649.6	25.08	26.896	
5,800.0	5,799.4	5,682.0	5,617.4	12.5	15.7	-83.16	50.5	-671.3	701.0	675.4	25.56	27.424	
5,900.0	5,899.4	5,778.1	5,709.7	12.7	16.2	-83.86	45.0	-697.4	727.4	701.4	26.04	27.935	
6,000.0	5,999.4	5,874.2	5,802.0	13.0	16.7	-84.52	39.5	-723.5	754.0	727.4	26.52	28.430	
6,100.0	6,099.4	5,970.3	5,894.2	13.2	17.2	-85.12	34.0	-749.6	780.6	753.6	27.00	28.910	
6,200.0	6,199.4	6,066.3	5,986.5	13.4	17.7	-85.69	28.5	-775.7	807.3	779.8	27.48	29.376	
6,300.0	6,299.4	6,162.4	6,078.8	13.6	18.2	-86.22	22.9	-801.8	834.0	806.1	27.96	29.827	
6,400.0	6,399.4	6,258.5	6,171.1	13.9	18.7	-86.72	17.4	-827.9	860.9	832.4	28.45	30.264	
6,451.7	6,451.1	6,308.1	6,218.8	14.0	19.0	-86.97	14.6	-841.4	874.8	846.1	28.70	30.485	
6,500.0	6,499.3	6,354.5	6,263.4	14.1	19.3	96.58	11.9	-854.0	888.0	859.5	28.56	31.096	
6,550.0	6,548.9	6,402.4	6,309.4	14.2	19.5	95.30	9.2	-867.0	902.2	873.5	28.71	31.423	
6,600.0	6,597.7	6,449.7	6,354.8	14.3	19.8	94.24	6.5	-879.8	916.8	887.9	28.88	31.742	
6,650.0	6,645.4	6,496.0	6,399.3	14.4	20.0	93.38	3.8	-892.4	931.8	902.8	29.07	32.056	
6,700.0	6,691.7	6,543.7	6,445.2	14.5	20.3	92.77	1.7	-905.3	947.3	918.0	29.28	32.354	
6,750.0	6,736.1	6,589.2	6,489.1	14.6	20.5	92.47	2.9	-917.1	963.1	933.6	29.49	32.654	
6,800.0	6,778.3	6,628.3	6,526.7	14.7	20.6	92.19	6.8	-926.8	979.6	949.9	29.71	32.978	
6,850.0	6,818.1	6,660.4	6,557.6	14.9	20.8	91.73	11.9	-934.4	997.3	967.4	29.93	33.327	
6,900.0	6,855.0	6,685.9	6,581.8	15.1	20.9	90.92	17.3	-940.2	1,016.5	986.3	30.16	33.698	
6,950.0	6,888.9	6,705.3	6,600.2	15.3	20.9	89.68	22.0	-944.4	1,037.1	1,006.7	30.43	34.082	
7,000.0	6,919.4	6,719.3	6,613.3	15.6	21.0	87.98	25.9	-947.4	1,059.5	1,028.7	30.73	34.473	
7,051.7	6,947.3	6,728.9	6,622.2	15.9	21.0	85.73	28.7	-949.4	1,084.2	1,053.1	31.08	34.885	
7,100.0	6,971.4	6,735.3	6,628.2	16.3	21.0	86.11	30.7	-950.7	1,108.7	1,077.3	31.45	35.259	
7,201.7	7,022.3	6,750.0	6,641.7	17.1	21.1	86.98	35.4	-953.7	1,165.2	1,132.9	32.32	36.048	
7,250.0	7,044.7	6,750.0	6,641.7	17.6	21.1	83.14	35.4	-953.7	1,193.7	1,161.0	32.74	36.455	
7,300.0	7,064.0	6,750.0	6,641.7	18.1	21.1	79.27	35.4	-953.7	1,223.5	1,190.4	33.13	36.926	
7,350.0	7,079.3	6,750.0	6,641.7	18.6	21.1	75.54	35.4	-953.7	1,253.5	1,220.0	33.47	37.448	
7,400.0	7,090.5	6,750.0	6,641.7	19.2	21.1	72.00	35.4	-953.7	1,283.3	1,249.6	33.76	38.015	
7,450.0	7,097.4	6,750.0	6,641.7	19.8	21.1	68.67	35.4	-953.7	1,312.9	1,278.9	34.01	38.607	
7,500.0	7,100.0	6,734.9	6,627.8	20.5	21.0	64.86	30.5	-950.6	1,341.7	1,307.6	34.11	39.338	
7,505.5	7,100.0	6,734.1	6,627.0	20.5	21.0	64.51	30.3	-950.5	1,344.8	1,310.7	34.13	39.408	
7,600.0	7,100.0	6,721.0	6,614.8	21.8	21.0	63.88	26.4	-947.8	1,400.6	1,365.5	35.13	39.865	
7,700.0	7,100.0	6,700.0	6,595.1	23.2	20.9	62.87	20.7	-943.3	1,463.8	1,427.6	36.19	40.449	
7,800.0	7,100.0	6,700.0	6,595.1	24.7	20.9	62.87	20.7	-943.3	1,530.6	1,493.1	37.51	40.804	
7,900.0	7,100.0	6,700.0	6,595.1	26.3	20.9	62.87	20.7	-943.3	1,600.8	1,561.9	38.89	41.166	
8,000.0	7,100.0	6,681.3	6,577.4	27.9	20.8	61.97	16.2	-939.1	1,673.8	1,633.7	40.08	41.766	
8,100.0	7,100.0	6,674.0	6,570.5	29.5	20.8	61.62	14.6	-937.5	1,749.4	1,708.0	41.43	42.228	
8,200.0	7,100.0	6,667.6	6,564.4	31.2	20.8	61.30	13.3	-936.0	1,827.3	1,784.5	42.81	42.680	
8,300.0	7,100.0	6,650.0	6,547.6	32.9	20.7	60.46	10.1	-932.0	1,907.3	1,863.3	44.05	43.298	
8,400.0	7,100.0	6,650.0	6,547.6	34.6	20.7	60.46	10.1	-932.0	1,988.9	1,943.3	45.56	43.650	
8,500.0	7,100.0	6,650.0	6,547.6	36.3	20.7	60.46	10.1	-932.0	2,072.1	2,025.0	47.10	43.995	
8,600.0	7,100.0	6,650.0	6,547.6	38.1	20.7	60.46	10.1	-932.0	2,156.7	2,108.1	48.65	44.332	
8,700.0	7,100.0	6,650.0	6,547.6	39.9	20.7	60.46	10.1	-932.0	2,242.6	2,192.4	50.22	44.659	
8,800.0	7,100.0	6,650.0	6,547.6	41.7	20.7	60.46	10.1	-932.0	2,329.6	2,277.8	51.80	44.977	
8,900.0	7,100.0	6,650.0	6,547.6	43.5	20.7	60.46	10.1	-932.0	2,417.6	2,364.2	53.39	45.285	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,000.0	7,100.0	6,650.0	6,547.6	45.3	20.7	60.46	10.1	-932.0	2,506.5	2,451.5	54.99	45.583	
9,100.0	7,100.0	6,629.9	6,528.4	47.1	20.7	59.49	7.0	-927.2	2,595.9	2,539.7	56.18	46.208	
9,200.0	7,100.0	6,627.2	6,525.7	48.9	20.6	59.36	6.6	-926.5	2,686.2	2,628.5	57.72	46.536	
9,300.0	7,100.0	6,624.6	6,523.3	50.8	20.6	59.23	6.3	-925.9	2,777.2	2,717.9	59.28	46.852	
9,400.0	7,100.0	6,622.2	6,521.0	52.6	20.6	59.12	6.0	-925.3	2,868.8	2,808.0	60.84	47.156	
9,500.0	7,100.0	6,600.0	6,499.5	54.5	20.5	58.05	3.7	-919.8	2,961.3	2,899.4	61.91	47.831	
9,600.0	7,100.0	6,600.0	6,499.5	56.3	20.5	58.05	3.7	-919.8	3,053.8	2,990.3	63.52	48.076	
9,700.0	7,100.0	6,600.0	6,499.5	58.2	20.5	58.05	3.7	-919.8	3,146.8	3,081.7	65.13	48.312	
9,800.0	7,100.0	6,600.0	6,499.5	60.1	20.5	58.05	3.7	-919.8	3,240.2	3,173.4	66.75	48.540	
9,900.0	7,100.0	6,600.0	6,499.5	61.9	20.5	58.05	3.7	-919.8	3,334.0	3,265.6	68.38	48.759	
10,000.0	7,100.0	6,600.0	6,499.5	63.8	20.5	58.05	3.7	-919.8	3,428.1	3,358.1	70.00	48.971	
10,100.0	7,100.0	6,600.0	6,499.5	65.7	20.5	58.05	3.7	-919.8	3,522.6	3,450.9	71.63	49.176	
10,200.0	7,100.0	6,600.0	6,499.5	67.6	20.5	58.05	3.7	-919.8	3,617.3	3,544.1	73.26	49.374	
10,300.0	7,100.0	6,600.0	6,499.5	69.4	20.5	58.05	3.7	-919.8	3,712.4	3,637.5	74.90	49.564	
10,400.0	7,100.0	6,600.0	6,499.5	71.3	20.5	58.05	3.7	-919.8	3,807.7	3,731.1	76.54	49.749	
10,500.0	7,100.0	6,600.0	6,499.5	73.2	20.5	58.05	3.7	-919.8	3,903.2	3,825.0	78.18	49.927	
10,600.0	7,100.0	6,600.0	6,499.5	75.1	20.5	58.05	3.7	-919.8	3,998.9	3,919.1	79.82	50.099	
10,700.0	7,100.0	6,600.0	6,499.5	77.0	20.5	58.05	3.7	-919.8	4,094.9	4,013.4	81.46	50.265	
10,800.0	7,100.0	6,600.0	6,499.5	78.9	20.5	58.05	3.7	-919.8	4,191.0	4,107.9	83.11	50.427	
10,900.0	7,100.0	6,600.0	6,499.5	80.8	20.5	58.05	3.7	-919.8	4,287.3	4,202.5	84.76	50.582	
11,000.0	7,100.0	6,600.0	6,499.5	82.7	20.5	58.05	3.7	-919.8	4,383.8	4,297.4	86.41	50.733	
11,100.0	7,100.0	6,600.0	6,499.5	84.6	20.5	58.05	3.7	-919.8	4,480.4	4,392.4	88.06	50.879	
11,200.0	7,100.0	6,600.0	6,499.5	86.5	20.5	58.05	3.7	-919.8	4,577.2	4,487.5	89.71	51.021	
11,300.0	7,100.0	6,600.0	6,499.5	88.4	20.5	58.05	3.7	-919.8	4,674.1	4,582.7	91.37	51.158	
11,400.0	7,100.0	6,600.0	6,499.5	90.3	20.5	58.05	3.7	-919.8	4,771.1	4,678.1	93.02	51.291	
11,500.0	7,100.0	6,600.0	6,499.5	92.2	20.5	58.05	3.7	-919.8	4,868.3	4,773.6	94.68	51.420	
11,600.0	7,100.0	6,600.0	6,499.5	94.1	20.5	58.05	3.7	-919.8	4,965.6	4,869.2	96.34	51.545	
11,700.0	7,100.0	6,600.0	6,499.5	96.0	20.5	58.05	3.7	-919.8	5,063.0	4,965.0	97.99	51.666	
11,800.0	7,100.0	6,600.0	6,499.5	97.9	20.5	58.05	3.7	-919.8	5,160.4	5,060.8	99.65	51.784	
11,900.0	7,100.0	6,600.0	6,499.5	99.8	20.5	58.05	3.7	-919.8	5,258.0	5,156.7	101.31	51.898	
12,000.0	7,100.0	6,600.0	6,499.5	101.7	20.5	58.05	3.7	-919.8	5,355.7	5,252.7	102.98	52.009	
12,100.0	7,100.0	6,600.0	6,499.5	103.6	20.5	58.05	3.7	-919.8	5,453.4	5,348.8	104.64	52.117	
12,200.0	7,100.0	6,600.0	6,499.5	105.6	20.5	58.05	3.7	-919.8	5,551.2	5,444.9	106.30	52.222	
12,300.0	7,100.0	6,600.0	6,499.5	107.5	20.5	58.05	3.7	-919.8	5,649.1	5,541.2	107.96	52.325	
12,400.0	7,100.0	6,600.0	6,499.5	109.4	20.5	58.05	3.7	-919.8	5,747.1	5,637.5	109.63	52.424	
12,500.0	7,100.0	6,600.0	6,499.5	111.3	20.5	58.05	3.7	-919.8	5,845.2	5,733.9	111.29	52.521	
12,600.0	7,100.0	6,600.0	6,499.5	113.2	20.5	58.05	3.7	-919.8	5,943.3	5,830.3	112.96	52.615	
12,700.0	7,100.0	6,600.0	6,499.5	115.1	20.5	58.05	3.7	-919.8	6,041.5	5,926.8	114.62	52.707	
12,800.0	7,100.0	6,600.0	6,499.5	117.0	20.5	58.05	3.7	-919.8	6,139.7	6,023.4	116.29	52.796	
12,900.0	7,100.0	6,600.0	6,499.5	118.9	20.5	58.05	3.7	-919.8	6,238.0	6,120.0	117.96	52.883	
13,000.0	7,100.0	6,600.0	6,499.5	120.9	20.5	58.05	3.7	-919.8	6,336.3	6,216.7	119.63	52.968	
13,100.0	7,100.0	6,600.0	6,499.5	122.8	20.5	58.05	3.7	-919.8	6,434.7	6,313.4	121.29	53.050	
13,200.0	7,100.0	6,600.0	6,499.5	124.7	20.5	58.05	3.7	-919.8	6,533.1	6,410.2	122.96	53.131	
13,300.0	7,100.0	6,600.0	6,499.5	126.6	20.5	58.05	3.7	-919.8	6,631.6	6,507.0	124.63	53.210	
13,400.0	7,100.0	6,600.0	6,499.5	128.5	20.5	58.05	3.7	-919.8	6,730.2	6,603.9	126.30	53.286	
13,500.0	7,100.0	6,600.0	6,499.5	130.4	20.5	58.05	3.7	-919.8	6,828.7	6,700.8	127.97	53.361	
13,600.0	7,100.0	6,600.0	6,499.5	132.4	20.5	58.05	3.7	-919.8	6,927.4	6,797.7	129.64	53.435	
13,700.0	7,100.0	6,600.0	6,499.5	134.3	20.5	58.05	3.7	-919.8	7,026.0	6,894.7	131.31	53.506	
13,800.0	7,100.0	6,600.0	6,499.5	136.2	20.5	58.05	3.7	-919.8	7,124.7	6,991.7	132.98	53.576	
13,900.0	7,100.0	6,600.0	6,499.5	138.1	20.5	58.05	3.7	-919.8	7,223.4	7,088.8	134.65	53.644	
14,000.0	7,100.0	6,600.0	6,499.5	140.0	20.5	58.05	3.7	-919.8	7,322.2	7,185.9	136.33	53.711	
14,100.0	7,100.0	6,600.0	6,499.5	142.0	20.5	58.05	3.7	-919.8	7,421.0	7,283.0	138.00	53.776	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.0	7,100.0	6,600.0	6,499.5	143.9	20.5	58.05	3.7	-919.8	7,519.8	7,380.1	139.67	53.839		
14,300.0	7,100.0	6,600.0	6,499.5	145.8	20.5	58.05	3.7	-919.8	7,618.7	7,477.3	141.34	53.902		
14,400.0	7,100.0	6,600.0	6,499.5	147.7	20.5	58.05	3.7	-919.8	7,717.6	7,574.5	143.02	53.963		
14,500.0	7,100.0	6,600.0	6,499.5	149.6	20.5	58.05	3.7	-919.8	7,816.5	7,671.8	144.69	54.022		
14,600.0	7,100.0	6,600.0	6,499.5	151.6	20.5	58.05	3.7	-919.8	7,915.4	7,769.1	146.36	54.081		
14,700.0	7,100.0	6,600.0	6,499.5	153.5	20.5	58.05	3.7	-919.8	8,014.4	7,866.3	148.04	54.138		
14,800.0	7,100.0	6,600.0	6,499.5	155.4	20.5	58.05	3.7	-919.8	8,113.4	7,963.7	149.71	54.194		
14,900.0	7,100.0	6,576.5	6,476.9	157.3	20.4	56.94	2.2	-913.9	8,211.9	8,062.0	149.88	54.789		
15,000.0	7,100.0	6,576.2	6,476.6	159.3	20.4	56.92	2.2	-913.8	8,310.9	8,159.4	151.52	54.850		
15,100.0	7,100.0	6,575.9	6,476.3	161.2	20.4	56.91	2.2	-913.7	8,410.0	8,256.8	153.16	54.910		
15,200.0	7,100.0	6,575.7	6,476.0	163.1	20.4	56.90	2.2	-913.6	8,509.1	8,354.3	154.80	54.969		
15,300.0	7,100.0	6,575.4	6,475.8	165.0	20.4	56.88	2.1	-913.6	8,608.2	8,451.7	156.44	55.026		
15,400.0	7,100.0	6,575.1	6,475.5	166.9	20.4	56.87	2.1	-913.5	8,707.3	8,549.2	158.08	55.083		
15,500.0	7,100.0	6,574.9	6,475.3	168.9	20.4	56.86	2.1	-913.4	8,806.4	8,646.7	159.72	55.138		
15,600.0	7,100.0	6,574.6	6,475.0	170.8	20.4	56.85	2.1	-913.4	8,905.6	8,744.2	161.35	55.192		
15,700.0	7,100.0	6,574.3	6,474.8	172.7	20.4	56.83	2.1	-913.3	9,004.7	8,841.7	162.99	55.246		
15,800.0	7,100.0	6,574.1	6,474.5	174.6	20.4	56.82	2.1	-913.2	9,103.9	8,939.3	164.63	55.298		
15,900.0	7,100.0	6,573.9	6,474.3	176.6	20.4	56.81	2.1	-913.2	9,203.1	9,036.9	166.27	55.349		
16,000.0	7,100.0	6,573.6	6,474.1	178.5	20.4	56.80	2.1	-913.1	9,302.4	9,134.5	167.91	55.399		
16,100.0	7,100.0	6,550.0	6,451.3	180.4	20.3	55.69	1.6	-907.0	9,402.1	9,234.3	167.82	56.024		
16,200.0	7,100.0	6,550.0	6,451.3	182.3	20.3	55.69	1.6	-907.0	9,501.4	9,331.9	169.46	56.068		
16,300.0	7,100.0	6,550.0	6,451.3	184.3	20.3	55.69	1.6	-907.0	9,600.6	9,429.5	171.10	56.110		
16,400.0	7,100.0	6,550.0	6,451.3	186.2	20.3	55.69	1.6	-907.0	9,699.9	9,527.2	172.74	56.152		
16,500.0	7,100.0	6,550.0	6,451.3	188.1	20.3	55.69	1.6	-907.0	9,799.2	9,624.8	174.38	56.193		
16,600.0	7,100.0	6,550.0	6,451.3	190.0	20.3	55.69	1.6	-907.0	9,898.5	9,722.5	176.02	56.234		
16,700.0	7,100.0	6,550.0	6,451.3	192.0	20.3	55.69	1.6	-907.0	9,997.8	9,820.2	177.67	56.273		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-14.02	150.6	-37.6	155.2				
100.0	100.0	100.0	100.0	0.1	0.1	-14.02	150.6	-37.6	155.2	155.0	0.19	822.074	
200.0	200.0	200.0	200.0	0.3	0.3	-14.02	150.6	-37.6	155.2	154.6	0.64	243.149	
300.0	300.0	300.0	300.0	0.5	0.5	-14.02	150.6	-37.6	155.2	154.1	1.09	142.674	
400.0	400.0	400.0	400.0	0.8	0.8	-14.02	150.6	-37.6	155.2	153.7	1.54	100.957	
500.0	500.0	500.0	500.0	1.0	1.0	-14.02	150.6	-37.6	155.2	153.2	1.99	78.116 CC, ES	
600.0	600.0	600.0	600.0	1.2	1.2	166.13	150.6	-37.6	156.9	154.5	2.41	65.052	
627.8	627.7	627.7	627.7	1.2	1.3	166.22	150.6	-37.6	158.0	155.5	2.52	62.571	
700.0	699.9	699.9	699.9	1.4	1.4	166.49	150.6	-37.6	161.1	158.3	2.82	57.135	
800.0	799.8	799.8	799.8	1.6	1.7	166.85	150.6	-37.6	165.4	162.2	3.24	51.093	
900.0	899.7	899.7	899.7	1.8	1.9	167.20	150.6	-37.6	169.8	166.1	3.66	46.333	
1,000.0	999.6	999.6	999.6	2.0	2.1	167.52	150.6	-37.6	174.1	170.0	4.10	42.509	
1,100.0	1,099.5	1,099.5	1,099.5	2.2	2.3	167.83	150.6	-37.6	178.5	174.0	4.53	39.381	
1,172.9	1,172.3	1,172.3	1,172.3	2.4	2.5	168.05	150.6	-37.6	181.7	176.8	4.85	37.443	
1,200.0	1,199.4	1,199.4	1,199.4	2.5	2.6	168.12	150.6	-37.6	182.7	177.8	4.97	36.764	
1,300.6	1,300.0	1,300.0	1,300.0	2.7	2.8	-11.76	150.6	-37.6	184.5	179.1	5.41	34.122	
1,400.0	1,399.4	1,399.4	1,399.4	2.9	3.0	-11.76	150.6	-37.6	184.5	178.6	5.84	31.606	
1,500.0	1,499.4	1,499.4	1,499.4	3.1	3.2	-11.76	150.6	-37.6	184.5	178.2	6.27	29.430	
1,600.0	1,599.4	1,599.4	1,599.4	3.3	3.5	-11.76	150.6	-37.6	184.5	177.8	6.70	27.525	
1,700.0	1,699.4	1,699.4	1,699.4	3.5	3.7	-11.76	150.6	-37.6	184.5	177.3	7.14	25.844	
1,800.0	1,799.4	1,799.4	1,799.4	3.7	3.9	-11.76	150.6	-37.6	184.5	176.9	7.58	24.351	
1,900.0	1,899.4	1,899.4	1,899.4	3.9	4.1	-11.76	150.6	-37.6	184.5	176.4	8.01	23.018	
2,000.0	1,999.4	1,999.4	1,999.4	4.1	4.4	-11.76	150.6	-37.6	184.5	176.0	8.45	21.820	
2,100.0	2,099.4	2,099.4	2,099.4	4.3	4.6	-11.76	150.6	-37.6	184.5	175.6	8.89	20.738	
2,200.0	2,199.4	2,199.4	2,199.4	4.5	4.8	-11.76	150.6	-37.6	184.5	175.1	9.34	19.757	
2,300.0	2,299.4	2,299.4	2,299.4	4.8	5.0	-11.76	150.6	-37.6	184.5	174.7	9.78	18.863	
2,400.0	2,399.4	2,399.4	2,399.4	5.0	5.3	-11.76	150.6	-37.6	184.5	174.2	10.22	18.045	
2,500.0	2,499.4	2,499.4	2,499.4	5.2	5.5	-11.76	150.6	-37.6	184.5	173.8	10.67	17.294	
2,600.0	2,599.4	2,599.4	2,599.4	5.4	5.7	-11.76	150.6	-37.6	184.5	173.4	11.11	16.603	
2,700.0	2,699.4	2,699.4	2,699.4	5.6	5.9	-11.76	150.6	-37.6	184.5	172.9	11.55	15.964	
2,800.0	2,799.4	2,799.4	2,799.4	5.9	6.2	-11.76	150.6	-37.6	184.5	172.5	12.00	15.372	
2,900.0	2,899.4	2,899.4	2,899.4	6.1	6.4	-11.76	150.6	-37.6	184.5	172.0	12.45	14.822	
3,000.0	2,999.4	2,999.4	2,999.4	6.3	6.6	-11.76	150.6	-37.6	184.5	171.6	12.89	14.310	
3,100.0	3,099.4	3,099.4	3,099.4	6.5	6.8	-11.76	150.6	-37.6	184.5	171.1	13.34	13.831	
3,200.0	3,199.4	3,199.4	3,199.4	6.7	7.1	-11.76	150.6	-37.6	184.5	170.7	13.78	13.384	
3,300.0	3,299.4	3,299.4	3,299.4	7.0	7.3	-11.76	150.6	-37.6	184.5	170.2	14.23	12.964	
3,400.0	3,399.4	3,399.4	3,399.4	7.2	7.5	-11.76	150.6	-37.6	184.5	169.8	14.68	12.569	
3,500.0	3,499.4	3,499.4	3,499.4	7.4	7.7	-11.76	150.6	-37.6	184.5	169.3	15.12	12.198	
3,600.0	3,599.4	3,599.4	3,599.4	7.6	8.0	-11.76	150.6	-37.6	184.5	168.9	15.57	11.848	
3,700.0	3,699.4	3,699.4	3,699.4	7.8	8.2	-11.76	150.6	-37.6	184.5	168.4	16.02	11.517	
3,800.0	3,799.4	3,799.4	3,799.4	8.1	8.4	-11.76	150.6	-37.6	184.5	168.0	16.46	11.204	
3,900.0	3,899.4	3,899.4	3,899.4	8.3	8.6	-11.76	150.6	-37.6	184.5	167.6	16.91	10.908	
4,000.0	3,999.4	3,999.4	3,999.4	8.5	8.9	-11.76	150.6	-37.6	184.5	167.1	17.36	10.627	
4,100.0	4,099.4	4,099.4	4,099.4	8.7	9.1	-11.76	150.6	-37.6	184.5	166.7	17.81	10.360	
4,200.0	4,199.4	4,199.4	4,199.4	8.9	9.3	-11.76	150.6	-37.6	184.5	166.2	18.25	10.106	
4,300.0	4,299.4	4,299.4	4,299.4	9.2	9.5	-11.76	150.6	-37.6	184.5	165.8	18.70	9.864	
4,400.0	4,399.4	4,399.4	4,399.4	9.4	9.8	-11.76	150.6	-37.6	184.5	165.3	19.15	9.633	
4,500.0	4,499.4	4,499.4	4,499.4	9.6	10.0	-11.76	150.6	-37.6	184.5	164.9	19.60	9.413	
4,600.0	4,599.4	4,599.4	4,599.4	9.8	10.2	-11.76	150.6	-37.6	184.5	164.4	20.04	9.203	
4,700.0	4,699.4	4,699.4	4,699.4	10.1	10.4	-11.76	150.6	-37.6	184.5	164.0	20.49	9.001	
4,800.0	4,799.4	4,799.4	4,799.4	10.3	10.7	-11.76	150.6	-37.6	184.5	163.5	20.94	8.809	
4,900.0	4,899.4	4,899.4	4,899.4	10.5	10.9	-11.76	150.6	-37.6	184.5	163.1	21.39	8.624	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,999.4	4,999.4	4,999.4	10.7	11.1	-11.76	150.6	-37.6	184.5	162.6	21.84	8.447	
5,100.0	5,099.4	5,098.0	5,098.0	11.0	11.3	-12.27	150.6	-39.3	184.8	162.5	22.27	8.299	
5,200.0	5,199.4	5,196.5	5,196.3	11.2	11.5	-13.79	150.6	-44.3	186.0	163.3	22.69	8.196	
5,300.0	5,299.4	5,294.5	5,293.9	11.4	11.7	-16.27	150.6	-52.7	188.2	165.1	23.11	8.143 SF	
5,400.0	5,399.4	5,391.7	5,390.5	11.6	11.9	-19.61	150.6	-64.3	191.9	168.4	23.54	8.152	
5,500.0	5,499.4	5,488.4	5,486.1	11.8	12.1	-23.66	150.6	-79.1	197.6	173.6	23.98	8.242	
5,600.0	5,599.4	5,587.0	5,583.3	12.1	12.4	-27.86	150.6	-95.5	204.9	180.5	24.42	8.390	
5,700.0	5,699.4	5,685.7	5,680.6	12.3	12.6	-31.77	150.6	-111.8	213.2	188.4	24.87	8.575	
5,800.0	5,799.4	5,784.3	5,777.8	12.5	12.8	-35.37	150.6	-128.2	222.5	197.2	25.32	8.789	
5,900.0	5,899.4	5,882.9	5,875.1	12.7	13.1	-38.67	150.6	-144.5	232.6	206.8	25.77	9.026	
6,000.0	5,999.4	5,981.5	5,972.3	13.0	13.3	-41.70	150.6	-160.9	243.4	217.2	26.22	9.283	
6,100.0	6,099.4	6,080.1	6,069.6	13.2	13.6	-44.47	150.6	-177.3	254.8	228.1	26.67	9.554	
6,200.0	6,199.4	6,178.7	6,166.8	13.4	13.9	-47.00	150.6	-193.6	266.8	239.6	27.12	9.836	
6,300.0	6,299.4	6,277.3	6,264.0	13.6	14.2	-49.30	150.6	-210.0	279.2	251.6	27.57	10.126	
6,400.0	6,399.4	6,376.0	6,361.3	13.9	14.4	-51.42	150.6	-226.3	292.1	264.0	28.02	10.422	
6,451.7	6,451.1	6,426.9	6,411.6	14.0	14.6	-52.44	150.6	-234.8	298.8	270.6	28.26	10.576	
6,500.0	6,499.3	6,473.0	6,457.0	14.1	14.7	131.36	150.6	-242.5	306.6	278.2	28.38	10.805	
6,550.0	6,548.9	6,510.9	6,494.3	14.2	14.8	130.68	152.2	-248.6	318.5	290.0	28.47	11.187	
6,600.0	6,597.7	6,550.0	6,532.7	14.3	14.9	130.51	156.4	-254.6	334.8	306.3	28.53	11.737	
6,650.0	6,645.4	6,579.6	6,561.6	14.4	15.0	130.23	161.4	-259.0	355.5	327.0	28.52	12.466	
6,700.0	6,691.7	6,608.9	6,589.9	14.5	15.1	129.93	167.8	-263.1	380.6	352.1	28.47	13.366	
6,750.0	6,736.1	6,634.2	6,614.0	14.6	15.2	129.19	174.5	-266.5	409.8	381.4	28.41	14.427	
6,800.0	6,778.3	6,650.0	6,629.0	14.7	15.2	127.20	179.2	-268.6	443.1	414.7	28.37	15.617	
6,850.0	6,818.1	6,672.5	6,650.0	14.9	15.3	125.34	186.6	-271.4	479.7	451.4	28.39	16.899	
6,900.0	6,855.0	6,685.9	6,662.4	15.1	15.3	121.63	191.4	-273.0	519.5	490.9	28.57	18.184	
6,950.0	6,888.9	6,700.0	6,675.4	15.3	15.4	116.97	196.8	-274.7	561.7	532.7	28.93	19.417	
7,000.0	6,919.4	6,700.0	6,675.4	15.6	15.4	108.38	196.8	-274.7	605.7	576.1	29.64	20.438	
7,051.7	6,947.3	6,700.0	6,675.4	15.9	15.4	97.34	196.8	-274.7	652.7	622.3	30.45	21.438	
7,100.0	6,971.4	6,700.0	6,675.4	16.3	15.4	97.34	196.8	-274.7	697.4	666.6	30.80	22.646	
7,201.7	7,022.3	6,700.0	6,675.4	17.1	15.4	97.34	196.8	-274.7	792.9	761.3	31.64	25.064	
7,250.0	7,044.7	6,714.3	6,688.4	17.6	15.4	85.87	202.6	-276.3	838.4	806.1	32.25	25.999	
7,300.0	7,064.0	6,700.0	6,675.4	18.1	15.4	69.11	196.8	-274.7	886.0	854.2	31.76	27.898	
7,350.0	7,079.3	6,700.0	6,675.4	18.6	15.4	57.90	196.8	-274.7	932.8	902.1	30.76	30.323	
7,400.0	7,090.5	6,700.0	6,675.4	19.2	15.4	49.23	196.8	-274.7	979.0	949.4	29.61	33.064	
7,450.0	7,097.4	6,700.0	6,675.4	19.8	15.4	42.66	196.8	-274.7	1,024.3	995.8	28.57	35.851	
7,500.0	7,100.0	6,700.0	6,675.4	20.5	15.4	37.69	196.8	-274.7	1,068.5	1,040.7	27.76	38.491	
7,505.5	7,100.0	6,700.0	6,675.4	20.5	15.4	37.23	196.8	-274.7	1,073.2	1,045.5	27.69	38.765	
7,600.0	7,100.0	6,681.5	6,658.4	21.8	15.3	35.97	189.8	-272.5	1,155.8	1,127.7	28.07	41.170	
7,700.0	7,100.0	6,669.4	6,647.2	23.2	15.3	35.16	185.5	-271.0	1,244.7	1,216.0	28.65	43.438	
7,800.0	7,100.0	6,650.0	6,629.0	24.7	15.2	33.91	179.2	-268.6	1,334.9	1,305.8	29.11	45.852	
7,900.0	7,100.0	6,650.0	6,629.0	26.3	15.2	33.91	179.2	-268.6	1,426.1	1,396.1	29.99	47.550	
8,000.0	7,100.0	6,650.0	6,629.0	27.9	15.2	33.91	179.2	-268.6	1,518.3	1,487.4	30.91	49.124	
8,100.0	7,100.0	6,631.8	6,611.8	29.5	15.2	32.76	173.8	-266.2	1,611.1	1,579.7	31.43	51.263	
8,200.0	7,100.0	6,624.5	6,604.8	31.2	15.1	32.31	171.8	-265.3	1,704.7	1,672.5	32.21	52.933	
8,300.0	7,100.0	6,600.0	6,581.3	32.9	15.1	30.85	165.7	-261.9	1,799.3	1,766.7	32.57	55.249	
8,400.0	7,100.0	6,600.0	6,581.3	34.6	15.1	30.85	165.7	-261.9	1,893.8	1,860.2	33.53	56.479	
8,500.0	7,100.0	6,600.0	6,581.3	36.3	15.1	30.85	165.7	-261.9	1,988.8	1,954.3	34.51	57.623	
8,600.0	7,100.0	6,600.0	6,581.3	38.1	15.1	30.85	165.7	-261.9	2,084.3	2,048.8	35.51	58.689	
8,700.0	7,100.0	6,600.0	6,581.3	39.9	15.1	30.85	165.7	-261.9	2,180.2	2,143.7	36.53	59.683	
8,800.0	7,100.0	6,600.0	6,581.3	41.7	15.1	30.85	165.7	-261.9	2,276.4	2,238.9	37.56	60.612	
8,900.0	7,100.0	6,600.0	6,581.3	43.5	15.1	30.85	165.7	-261.9	2,373.0	2,334.4	38.60	61.480	
9,000.0	7,100.0	6,600.0	6,581.3	45.3	15.1	30.85	165.7	-261.9	2,469.8	2,430.2	39.65	62.294	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,100.0	7,100.0	6,579.2	6,561.2	47.1	15.0	29.66	161.3	-258.9	2,566.5	2,526.5	40.00	64.155	
9,200.0	7,100.0	6,575.7	6,557.8	48.9	15.0	29.47	160.7	-258.4	2,663.6	2,622.7	40.93	65.080	
9,300.0	7,100.0	6,572.4	6,554.6	50.8	15.0	29.29	160.1	-257.9	2,760.9	2,719.0	41.86	65.957	
9,400.0	7,100.0	6,550.0	6,532.7	52.6	14.9	28.08	156.4	-254.6	2,858.8	2,816.7	42.12	67.875	
9,500.0	7,100.0	6,550.0	6,532.7	54.5	14.9	28.08	156.4	-254.6	2,956.3	2,913.1	43.15	68.517	
9,600.0	7,100.0	6,550.0	6,532.7	56.3	14.9	28.08	156.4	-254.6	3,054.0	3,009.8	44.18	69.123	
9,700.0	7,100.0	6,550.0	6,532.7	58.2	14.9	28.08	156.4	-254.6	3,151.8	3,106.6	45.22	69.697	
9,800.0	7,100.0	6,550.0	6,532.7	60.1	14.9	28.08	156.4	-254.6	3,249.8	3,203.5	46.27	70.241	
9,900.0	7,100.0	6,550.0	6,532.7	61.9	14.9	28.08	156.4	-254.6	3,347.8	3,300.5	47.31	70.758	
10,000.0	7,100.0	6,550.0	6,532.7	63.8	14.9	28.08	156.4	-254.6	3,446.0	3,397.7	48.37	71.248	
10,100.0	7,100.0	6,550.0	6,532.7	65.7	14.9	28.08	156.4	-254.6	3,544.3	3,494.9	49.42	71.715	
10,200.0	7,100.0	6,550.0	6,532.7	67.6	14.9	28.08	156.4	-254.6	3,642.7	3,592.2	50.48	72.159	
10,300.0	7,100.0	6,550.0	6,532.7	69.4	14.9	28.08	156.4	-254.6	3,741.2	3,689.6	51.54	72.583	
10,400.0	7,100.0	6,550.0	6,532.7	71.3	14.9	28.08	156.4	-254.6	3,839.7	3,787.1	52.61	72.987	
10,500.0	7,100.0	6,550.0	6,532.7	73.2	14.9	28.08	156.4	-254.6	3,938.4	3,884.7	53.68	73.373	
10,600.0	7,100.0	6,550.0	6,532.7	75.1	14.9	28.08	156.4	-254.6	4,037.1	3,982.3	54.75	73.742	
10,700.0	7,100.0	6,550.0	6,532.7	77.0	14.9	28.08	156.4	-254.6	4,135.8	4,080.0	55.82	74.095	
10,800.0	7,100.0	6,550.0	6,532.7	78.9	14.9	28.08	156.4	-254.6	4,234.6	4,177.7	56.89	74.433	
10,900.0	7,100.0	6,550.0	6,532.7	80.8	14.9	28.08	156.4	-254.6	4,333.5	4,275.5	57.97	74.757	
11,000.0	7,100.0	6,550.0	6,532.7	82.7	14.9	28.08	156.4	-254.6	4,432.4	4,373.4	59.05	75.068	
11,100.0	7,100.0	6,550.0	6,532.7	84.6	14.9	28.08	156.4	-254.6	4,531.4	4,471.3	60.13	75.366	
11,200.0	7,100.0	6,550.0	6,532.7	86.5	14.9	28.08	156.4	-254.6	4,630.4	4,569.2	61.21	75.653	
11,300.0	7,100.0	6,550.0	6,532.7	88.4	14.9	28.08	156.4	-254.6	4,729.4	4,667.1	62.29	75.928	
11,400.0	7,100.0	6,550.0	6,532.7	90.3	14.9	28.08	156.4	-254.6	4,828.5	4,765.2	63.37	76.193	
11,500.0	7,100.0	6,550.0	6,532.7	92.2	14.9	28.08	156.4	-254.6	4,927.7	4,863.2	64.46	76.449	
11,600.0	7,100.0	6,550.0	6,532.7	94.1	14.9	28.08	156.4	-254.6	5,026.8	4,961.3	65.54	76.695	
11,700.0	7,100.0	6,550.0	6,532.7	96.0	14.9	28.08	156.4	-254.6	5,126.0	5,059.4	66.63	76.932	
11,800.0	7,100.0	6,527.1	6,510.3	97.9	14.9	26.89	153.6	-251.1	5,224.7	5,158.4	66.35	78.740	
11,900.0	7,100.0	6,526.1	6,509.3	99.8	14.9	26.84	153.5	-251.0	5,323.9	5,256.6	67.36	79.038	
12,000.0	7,100.0	6,525.1	6,508.4	101.7	14.9	26.79	153.4	-250.8	5,423.2	5,354.8	68.37	79.326	
12,100.0	7,100.0	6,524.2	6,507.4	103.6	14.9	26.75	153.3	-250.7	5,522.4	5,453.1	69.37	79.606	
12,200.0	7,100.0	6,523.3	6,506.5	105.6	14.9	26.70	153.3	-250.5	5,621.7	5,551.4	70.38	79.877	
12,300.0	7,100.0	6,500.0	6,483.6	107.5	14.8	25.56	151.5	-246.8	5,721.5	5,651.5	70.02	81.709	
12,400.0	7,100.0	6,500.0	6,483.6	109.4	14.8	25.56	151.5	-246.8	5,820.8	5,749.8	71.06	81.909	
12,500.0	7,100.0	6,500.0	6,483.6	111.3	14.8	25.56	151.5	-246.8	5,920.1	5,848.0	72.11	82.102	
12,600.0	7,100.0	6,500.0	6,483.6	113.2	14.8	25.56	151.5	-246.8	6,019.5	5,946.3	73.15	82.290	
12,700.0	7,100.0	6,500.0	6,483.6	115.1	14.8	25.56	151.5	-246.8	6,118.8	6,044.7	74.19	82.471	
12,800.0	7,100.0	6,500.0	6,483.6	117.0	14.8	25.56	151.5	-246.8	6,218.2	6,143.0	75.24	82.648	
12,900.0	7,100.0	6,500.0	6,483.6	118.9	14.8	25.56	151.5	-246.8	6,317.6	6,241.3	76.28	82.819	
13,000.0	7,100.0	6,500.0	6,483.6	120.9	14.8	25.56	151.5	-246.8	6,417.1	6,339.7	77.33	82.985	
13,100.0	7,100.0	6,500.0	6,483.6	122.8	14.8	25.56	151.5	-246.8	6,516.5	6,438.1	78.37	83.146	
13,200.0	7,100.0	6,500.0	6,483.6	124.7	14.8	25.56	151.5	-246.8	6,616.0	6,536.5	79.42	83.303	
13,300.0	7,100.0	6,500.0	6,483.6	126.6	14.8	25.56	151.5	-246.8	6,715.4	6,635.0	80.47	83.455	
13,400.0	7,100.0	6,500.0	6,483.6	128.5	14.8	25.56	151.5	-246.8	6,814.9	6,733.4	81.52	83.603	
13,500.0	7,100.0	6,500.0	6,483.6	130.4	14.8	25.56	151.5	-246.8	6,914.4	6,831.9	82.56	83.747	
13,600.0	7,100.0	6,500.0	6,483.6	132.4	14.8	25.56	151.5	-246.8	7,013.9	6,930.3	83.61	83.887	
13,700.0	7,100.0	6,500.0	6,483.6	134.3	14.8	25.56	151.5	-246.8	7,113.5	7,028.8	84.66	84.024	
13,800.0	7,100.0	6,500.0	6,483.6	136.2	14.8	25.56	151.5	-246.8	7,213.0	7,127.3	85.71	84.157	
13,900.0	7,100.0	6,500.0	6,483.6	138.1	14.8	25.56	151.5	-246.8	7,312.6	7,225.8	86.76	84.286	
14,000.0	7,100.0	6,500.0	6,483.6	140.0	14.8	25.56	151.5	-246.8	7,412.1	7,324.3	87.81	84.412	
14,100.0	7,100.0	6,500.0	6,483.6	142.0	14.8	25.56	151.5	-246.8	7,511.7	7,422.9	88.86	84.535	
14,200.0	7,100.0	6,500.0	6,483.6	143.9	14.8	25.56	151.5	-246.8	7,611.3	7,521.4	89.91	84.655	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,300.0	7,100.0	6,500.0	6,483.6	145.8	14.8	25.56	151.5	-246.8	7,710.9	7,619.9	90.96	84.772		
14,400.0	7,100.0	6,500.0	6,483.6	147.7	14.8	25.56	151.5	-246.8	7,810.5	7,718.5	92.01	84.886		
14,500.0	7,100.0	6,500.0	6,483.6	149.6	14.8	25.56	151.5	-246.8	7,910.1	7,817.1	93.06	84.997		
14,600.0	7,100.0	6,500.0	6,483.6	151.6	14.8	25.56	151.5	-246.8	8,009.8	7,915.7	94.12	85.106		
14,700.0	7,100.0	6,500.0	6,483.6	153.5	14.8	25.56	151.5	-246.8	8,109.4	8,014.2	95.17	85.212		
14,800.0	7,100.0	6,500.0	6,483.6	155.4	14.8	25.56	151.5	-246.8	8,209.1	8,112.8	96.22	85.316		
14,900.0	7,100.0	6,500.0	6,483.6	157.3	14.8	25.56	151.5	-246.8	8,308.7	8,211.4	97.27	85.417		
15,000.0	7,100.0	6,500.0	6,483.6	159.3	14.8	25.56	151.5	-246.8	8,408.4	8,310.1	98.33	85.516		
15,100.0	7,100.0	6,500.0	6,483.6	161.2	14.8	25.56	151.5	-246.8	8,508.1	8,408.7	99.38	85.612		
15,200.0	7,100.0	6,500.0	6,483.6	163.1	14.8	25.56	151.5	-246.8	8,607.7	8,507.3	100.43	85.707		
15,300.0	7,100.0	6,500.0	6,483.6	165.0	14.8	25.56	151.5	-246.8	8,707.4	8,605.9	101.49	85.800		
15,400.0	7,100.0	6,500.0	6,483.6	166.9	14.8	25.56	151.5	-246.8	8,807.1	8,704.6	102.54	85.890		
15,500.0	7,100.0	6,500.0	6,483.6	168.9	14.8	25.56	151.5	-246.8	8,906.8	8,803.2	103.59	85.979		
15,600.0	7,100.0	6,500.0	6,483.6	170.8	14.8	25.56	151.5	-246.8	9,006.5	8,901.9	104.65	86.065		
15,700.0	7,100.0	6,500.0	6,483.6	172.7	14.8	25.56	151.5	-246.8	9,106.2	9,000.5	105.70	86.150		
15,800.0	7,100.0	6,500.0	6,483.6	174.6	14.8	25.56	151.5	-246.8	9,206.0	9,099.2	106.76	86.233		
15,900.0	7,100.0	6,500.0	6,483.6	176.6	14.8	25.56	151.5	-246.8	9,305.7	9,197.9	107.81	86.314		
16,000.0	7,100.0	6,500.0	6,483.6	178.5	14.8	25.56	151.5	-246.8	9,405.4	9,296.6	108.87	86.394		
16,100.0	7,100.0	6,500.0	6,483.6	180.4	14.8	25.56	151.5	-246.8	9,505.2	9,395.2	109.92	86.472		
16,200.0	7,100.0	6,500.0	6,483.6	182.3	14.8	25.56	151.5	-246.8	9,604.9	9,493.9	110.98	86.549		
16,300.0	7,100.0	6,500.0	6,483.6	184.3	14.8	25.56	151.5	-246.8	9,704.7	9,592.6	112.03	86.624		
16,400.0	7,100.0	6,500.0	6,483.6	186.2	14.8	25.56	151.5	-246.8	9,804.4	9,691.3	113.09	86.697		
16,500.0	7,100.0	6,500.0	6,483.6	188.1	14.8	25.56	151.5	-246.8	9,904.2	9,790.0	114.14	86.769		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-6.67	150.3	-17.6	151.3				
100.0	100.0	100.0	100.0	0.1	0.1	-6.67	150.3	-17.6	151.3	151.1	0.19	801.439	
200.0	200.0	200.0	200.0	0.3	0.3	-6.67	150.3	-17.6	151.3	150.7	0.64	237.046	
300.0	300.0	300.0	300.0	0.5	0.5	-6.67	150.3	-17.6	151.3	150.2	1.09	139.093	
400.0	400.0	400.0	400.0	0.8	0.8	-6.67	150.3	-17.6	151.3	149.8	1.54	98.422	
500.0	500.0	500.0	500.0	1.0	1.0	-6.67	150.3	-17.6	151.3	149.3	1.99	76.155 CC, ES	
600.0	600.0	597.7	597.7	1.2	1.2	173.66	151.4	-17.0	154.1	151.7	2.41	64.014	
627.8	627.7	625.4	625.4	1.2	1.3	173.80	151.9	-16.8	155.7	153.1	2.52	61.751	
700.0	699.9	697.5	697.5	1.4	1.4	174.18	153.0	-16.2	160.0	157.1	2.81	56.844	
800.0	799.8	797.3	797.3	1.6	1.7	174.66	154.6	-15.4	165.9	162.7	3.23	51.360	
900.0	899.7	897.1	897.1	1.8	1.9	175.12	156.2	-14.6	171.9	168.2	3.66	47.022	
1,000.0	999.6	996.9	996.9	2.0	2.1	175.54	157.8	-13.8	177.8	173.8	4.09	43.527	
1,100.0	1,099.5	1,096.7	1,096.7	2.2	2.3	175.94	159.4	-13.0	183.8	179.3	4.52	40.663	
1,172.9	1,172.3	1,169.5	1,169.4	2.4	2.5	176.21	160.6	-12.4	188.2	183.3	4.84	38.886	
1,200.0	1,199.4	1,196.6	1,196.5	2.5	2.6	176.31	161.0	-12.2	189.7	184.7	4.96	38.263	
1,300.6	1,300.0	1,297.1	1,297.0	2.7	2.8	-3.39	162.6	-11.4	193.0	187.6	5.39	35.786	
1,400.0	1,399.4	1,396.5	1,396.3	2.9	3.0	-3.13	164.2	-10.6	194.5	188.7	5.82	33.405	
1,500.0	1,499.4	1,496.5	1,496.3	3.1	3.2	-2.87	165.8	-9.8	196.1	189.9	6.26	31.349	
1,600.0	1,599.4	1,596.5	1,596.3	3.3	3.5	-2.61	167.4	-9.0	197.7	191.0	6.69	29.548	
1,700.0	1,699.4	1,696.4	1,696.3	3.5	3.7	-2.36	169.0	-8.2	199.2	192.1	7.13	27.959	
1,800.0	1,799.4	1,796.5	1,796.3	3.7	3.9	-2.17	170.3	-7.6	200.4	192.9	7.56	26.525	
1,900.0	1,899.4	1,896.6	1,896.4	3.9	4.1	-2.17	170.3	-7.6	200.4	192.5	7.97	25.157	
2,000.0	1,999.4	1,996.6	1,996.4	4.1	4.3	-2.17	170.3	-7.6	200.4	192.0	8.41	23.846	
2,100.0	2,099.4	2,096.6	2,096.4	4.3	4.5	-2.17	170.3	-7.6	200.4	191.6	8.84	22.661	
2,200.0	2,199.4	2,196.6	2,196.4	4.5	4.8	-2.17	170.3	-7.6	200.4	191.1	9.29	21.587	
2,300.0	2,299.4	2,296.6	2,296.4	4.8	5.0	-2.17	170.3	-7.6	200.4	190.7	9.73	20.607	
2,400.0	2,399.4	2,396.6	2,396.4	5.0	5.2	-2.17	170.3	-7.6	200.4	190.3	10.17	19.712	
2,500.0	2,499.4	2,496.6	2,496.4	5.2	5.4	-2.17	170.3	-7.6	200.4	189.8	10.61	18.890	
2,600.0	2,599.4	2,596.6	2,596.4	5.4	5.7	-2.17	170.3	-7.6	200.4	189.4	11.05	18.132	
2,700.0	2,699.4	2,696.6	2,696.4	5.6	5.9	-2.17	170.3	-7.6	200.4	188.9	11.50	17.433	
2,800.0	2,799.4	2,796.6	2,796.4	5.9	6.1	-2.17	170.3	-7.6	200.4	188.5	11.94	16.784	
2,900.0	2,899.4	2,896.7	2,896.5	6.1	6.3	-1.68	170.6	-5.9	200.7	188.3	12.38	16.211	
3,000.0	2,999.4	2,997.5	2,997.2	6.3	6.5	-0.24	171.4	-0.9	201.4	188.6	12.81	15.722	
3,100.0	3,099.4	3,095.9	3,095.2	6.5	6.8	2.12	172.8	7.5	202.9	189.7	13.25	15.317	
3,200.0	3,199.4	3,193.6	3,192.2	6.7	7.0	5.33	174.6	19.1	205.7	192.0	13.69	15.017	
3,300.0	3,299.4	3,292.3	3,289.9	7.0	7.2	9.04	176.9	32.9	209.7	195.6	14.15	14.820	
3,400.0	3,399.4	3,391.3	3,387.8	7.2	7.5	12.63	179.2	46.9	214.7	200.1	14.61	14.692	
3,500.0	3,499.4	3,490.3	3,485.8	7.4	7.7	16.05	181.5	60.8	220.4	205.4	15.08	14.623	
3,600.0	3,599.4	3,589.2	3,583.8	7.6	8.0	19.28	183.7	74.8	227.0	211.4	15.54	14.605 SF	
3,700.0	3,699.4	3,688.2	3,681.7	7.8	8.3	22.33	186.0	88.7	234.2	218.2	16.00	14.632	
3,800.0	3,799.4	3,787.2	3,779.7	8.1	8.5	25.18	188.3	102.6	242.0	225.5	16.47	14.696	
3,900.0	3,899.4	3,886.2	3,877.7	8.3	8.8	27.86	190.6	116.6	250.4	233.5	16.93	14.790	
4,000.0	3,999.4	3,985.2	3,975.6	8.5	9.1	30.36	192.8	130.5	259.3	242.0	17.39	14.911	
4,100.0	4,099.4	4,084.1	4,073.6	8.7	9.4	32.69	195.1	144.5	268.7	250.9	17.85	15.052	
4,200.0	4,199.4	4,183.1	4,171.5	8.9	9.7	34.86	197.4	158.4	278.5	260.2	18.31	15.210	
4,300.0	4,299.4	4,282.1	4,269.5	9.2	10.0	36.89	199.7	172.4	288.7	269.9	18.77	15.381	
4,400.0	4,399.4	4,381.1	4,367.5	9.4	10.3	38.77	201.9	186.3	299.2	280.0	19.23	15.562	
4,500.0	4,499.4	4,480.0	4,465.4	9.6	10.6	40.53	204.2	200.2	310.0	290.3	19.68	15.751	
4,600.0	4,599.4	4,579.0	4,563.4	9.8	10.9	42.17	206.5	214.2	321.1	301.0	20.14	15.946	
4,700.0	4,699.4	4,678.0	4,661.4	10.1	11.2	43.69	208.8	228.1	332.4	311.8	20.59	16.144	
4,800.0	4,799.4	4,777.0	4,759.3	10.3	11.5	45.12	211.0	242.1	344.0	322.9	21.04	16.345	
4,900.0	4,899.4	4,875.9	4,857.3	10.5	11.8	46.46	213.3	256.0	355.7	334.2	21.50	16.546	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,999.4	4,974.9	4,955.2	10.7	12.2	47.70	215.6	270.0	367.6	345.7	21.95	16.748	
5,100.0	5,099.4	5,073.9	5,053.2	11.0	12.5	48.87	217.9	283.9	379.7	357.3	22.40	16.949	
5,200.0	5,199.4	5,172.9	5,151.2	11.2	12.8	49.97	220.2	297.8	391.9	369.1	22.86	17.148	
5,300.0	5,299.4	5,271.8	5,249.1	11.4	13.1	51.00	222.4	311.8	404.3	381.0	23.31	17.346	
5,400.0	5,399.4	5,370.8	5,347.1	11.6	13.4	51.98	224.7	325.7	416.8	393.0	23.76	17.541	
5,500.0	5,499.4	5,469.8	5,445.1	11.8	13.8	52.89	227.0	339.7	429.4	405.2	24.21	17.733	
5,600.0	5,599.4	5,568.8	5,543.0	12.1	14.1	53.75	229.3	353.6	442.1	417.4	24.67	17.922	
5,700.0	5,699.4	5,667.7	5,641.0	12.3	14.4	54.57	231.5	367.5	454.9	429.7	25.12	18.109	
5,800.0	5,799.4	5,766.7	5,738.9	12.5	14.7	55.34	233.8	381.5	467.7	442.2	25.57	18.291	
5,900.0	5,899.4	5,865.7	5,836.9	12.7	15.1	56.06	236.1	395.4	480.7	454.7	26.03	18.470	
6,000.0	5,999.4	5,964.7	5,934.9	13.0	15.4	56.75	238.4	409.4	493.7	467.3	26.48	18.646	
6,100.0	6,099.4	6,063.7	6,032.8	13.2	15.7	57.41	240.6	423.3	506.8	479.9	26.93	18.818	
6,200.0	6,199.4	6,162.6	6,130.8	13.4	16.0	58.03	242.9	437.3	520.0	492.6	27.39	18.986	
6,300.0	6,299.4	6,261.6	6,228.8	13.6	16.4	58.62	245.2	451.2	533.2	505.4	27.84	19.151	
6,400.0	6,399.4	6,360.6	6,326.7	13.9	16.7	59.18	247.5	465.1	546.5	518.2	28.30	19.312	
6,451.7	6,451.1	6,411.7	6,377.4	14.0	16.9	59.46	248.6	472.4	553.3	524.8	28.53	19.394	
6,500.0	6,499.3	6,459.5	6,424.6	14.1	17.0	-114.80	249.7	479.1	560.6	531.8	28.85	19.435	
6,550.0	6,548.9	6,500.0	6,464.7	14.2	17.2	-114.18	250.8	485.0	570.3	541.3	28.97	19.688	
6,600.0	6,597.7	6,520.1	6,484.5	14.3	17.2	-113.27	252.0	488.5	583.4	554.4	29.01	20.109	
6,650.0	6,645.4	6,550.0	6,513.6	14.4	17.4	-112.40	254.5	494.6	600.3	571.3	29.08	20.644	
6,700.0	6,691.7	6,563.9	6,527.0	14.5	17.4	-110.83	256.1	497.8	620.6	591.5	29.11	21.318	
6,750.0	6,736.1	6,583.1	6,545.4	14.6	17.5	-109.13	258.6	502.6	644.2	615.0	29.18	22.074	
6,800.0	6,778.3	6,600.0	6,561.5	14.7	17.6	-107.00	261.2	507.2	670.9	641.6	29.30	22.897	
6,850.0	6,818.1	6,615.3	6,575.9	14.9	17.7	-104.41	263.8	511.6	700.3	670.8	29.48	23.754	
6,900.0	6,855.0	6,628.2	6,588.0	15.1	17.8	-101.25	266.3	515.6	732.2	702.4	29.74	24.616	
6,950.0	6,888.9	6,650.0	6,608.0	15.3	17.9	-98.37	270.8	522.7	766.4	736.3	30.09	25.468	
7,000.0	6,919.4	6,650.0	6,608.0	15.6	17.9	-93.32	270.8	522.7	802.0	771.5	30.49	26.302	
7,051.7	6,947.3	6,650.0	6,608.0	15.9	17.9	-87.54	270.8	522.7	840.5	809.6	30.90	27.199	
7,100.0	6,971.4	6,650.0	6,608.0	16.3	17.9	-87.54	270.8	522.7	877.7	846.5	31.25	28.083	
7,201.7	7,022.3	6,671.0	6,627.1	17.1	18.0	-89.49	275.7	530.1	958.7	926.6	32.15	29.819	
7,250.0	7,044.7	6,675.0	6,630.7	17.6	18.0	-83.26	276.7	531.5	998.6	966.0	32.60	30.628	
7,300.0	7,064.0	6,677.5	6,632.9	18.1	18.0	-76.03	277.3	532.4	1,040.7	1,007.9	32.83	31.702	
7,350.0	7,079.3	6,678.4	6,633.7	18.6	18.1	-68.34	277.6	532.8	1,083.3	1,050.7	32.68	33.149	
7,400.0	7,090.5	6,677.8	6,633.2	19.2	18.0	-60.58	277.4	532.5	1,126.1	1,093.9	32.13	35.052	
7,450.0	7,097.4	6,675.8	6,631.4	19.8	18.0	-53.15	276.9	531.8	1,168.6	1,137.3	31.25	37.397	
7,500.0	7,100.0	6,672.5	6,628.4	20.5	18.0	-46.32	276.1	530.6	1,210.6	1,180.4	30.22	40.057	
7,505.5	7,100.0	6,672.0	6,628.0	20.5	18.0	-45.62	276.0	530.4	1,215.1	1,185.0	30.11	40.358	
7,600.0	7,100.0	6,650.0	6,608.0	21.8	17.9	-43.98	270.8	522.7	1,295.0	1,264.5	30.53	42.415	
7,700.0	7,100.0	6,650.0	6,608.0	23.2	17.9	-43.98	270.8	522.7	1,381.0	1,349.5	31.51	43.828	
7,800.0	7,100.0	6,650.0	6,608.0	24.7	17.9	-43.98	270.8	522.7	1,468.7	1,436.1	32.54	45.130	
7,900.0	7,100.0	6,650.0	6,608.0	26.3	17.9	-43.98	270.8	522.7	1,557.9	1,524.3	33.63	46.328	
8,000.0	7,100.0	6,650.0	6,608.0	27.9	17.9	-43.98	270.8	522.7	1,648.3	1,613.6	34.75	47.430	
8,100.0	7,100.0	6,650.0	6,608.0	29.5	17.9	-43.98	270.8	522.7	1,739.8	1,703.9	35.91	48.444	
8,200.0	7,100.0	6,627.2	6,587.1	31.2	17.8	-42.33	266.1	515.3	1,831.6	1,795.2	36.46	50.244	
8,300.0	7,100.0	6,622.3	6,582.5	32.9	17.7	-41.98	265.1	513.8	1,924.5	1,887.0	37.49	51.328	
8,400.0	7,100.0	6,600.0	6,561.5	34.6	17.6	-40.45	261.2	507.2	2,018.4	1,980.4	38.02	53.088	
8,500.0	7,100.0	6,600.0	6,561.5	36.3	17.6	-40.45	261.2	507.2	2,112.3	2,073.1	39.21	53.873	
8,600.0	7,100.0	6,600.0	6,561.5	38.1	17.6	-40.45	261.2	507.2	2,206.8	2,166.4	40.42	54.602	
8,700.0	7,100.0	6,600.0	6,561.5	39.9	17.6	-40.45	261.2	507.2	2,301.7	2,260.1	41.64	55.280	
8,800.0	7,100.0	6,600.0	6,561.5	41.7	17.6	-40.45	261.2	507.2	2,397.1	2,354.2	42.87	55.913	
8,900.0	7,100.0	6,600.0	6,561.5	43.5	17.6	-40.45	261.2	507.2	2,492.8	2,448.7	44.12	56.503	
9,000.0	7,100.0	6,600.0	6,561.5	45.3	17.6	-40.45	261.2	507.2	2,588.9	2,543.5	45.37	57.056	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,100.0	7,100.0	6,600.0	6,561.5	47.1	17.6	-40.45	261.2	507.2	2,685.2	2,638.5	46.64	57.573		
9,200.0	7,100.0	6,600.0	6,561.5	48.9	17.6	-40.45	261.2	507.2	2,781.8	2,733.9	47.91	58.059		
9,300.0	7,100.0	6,600.0	6,561.5	50.8	17.6	-40.45	261.2	507.2	2,878.6	2,829.4	49.19	58.517		
9,400.0	7,100.0	6,600.0	6,561.5	52.6	17.6	-40.45	261.2	507.2	2,975.6	2,925.1	50.48	58.947		
9,500.0	7,100.0	6,600.0	6,561.5	54.5	17.6	-40.45	261.2	507.2	3,072.8	3,021.1	51.77	59.353		
9,600.0	7,100.0	6,577.3	6,540.0	56.3	17.5	-38.97	257.8	501.1	3,169.8	3,117.8	52.05	60.901		
9,700.0	7,100.0	6,574.9	6,537.6	58.2	17.5	-38.82	257.5	500.5	3,267.3	3,214.0	53.21	61.402		
9,800.0	7,100.0	6,572.6	6,535.4	60.1	17.5	-38.67	257.2	499.9	3,364.9	3,310.5	54.38	61.881		
9,900.0	7,100.0	6,550.0	6,513.6	61.9	17.4	-37.29	254.5	494.6	3,462.9	3,408.3	54.60	63.424		
10,000.0	7,100.0	6,550.0	6,513.6	63.8	17.4	-37.29	254.5	494.6	3,560.7	3,504.9	55.85	63.756		
10,100.0	7,100.0	6,550.0	6,513.6	65.7	17.4	-37.29	254.5	494.6	3,658.6	3,601.5	57.10	64.071		
10,200.0	7,100.0	6,550.0	6,513.6	67.6	17.4	-37.29	254.5	494.6	3,756.6	3,698.2	58.36	64.371		
10,300.0	7,100.0	6,550.0	6,513.6	69.4	17.4	-37.29	254.5	494.6	3,854.7	3,795.1	59.62	64.657		
10,400.0	7,100.0	6,550.0	6,513.6	71.3	17.4	-37.29	254.5	494.6	3,952.9	3,892.0	60.88	64.930		
10,500.0	7,100.0	6,550.0	6,513.6	73.2	17.4	-37.29	254.5	494.6	4,051.2	3,989.0	62.14	65.191		
10,600.0	7,100.0	6,550.0	6,513.6	75.1	17.4	-37.29	254.5	494.6	4,149.6	4,086.2	63.41	65.440		
10,700.0	7,100.0	6,550.0	6,513.6	77.0	17.4	-37.29	254.5	494.6	4,248.0	4,183.3	64.68	65.679		
10,800.0	7,100.0	6,550.0	6,513.6	78.9	17.4	-37.29	254.5	494.6	4,346.5	4,280.6	65.95	65.908		
10,900.0	7,100.0	6,550.0	6,513.6	80.8	17.4	-37.29	254.5	494.6	4,445.1	4,377.9	67.22	66.127		
11,000.0	7,100.0	6,550.0	6,513.6	82.7	17.4	-37.29	254.5	494.6	4,543.8	4,475.3	68.49	66.337		
11,100.0	7,100.0	6,550.0	6,513.6	84.6	17.4	-37.29	254.5	494.6	4,642.5	4,572.7	69.77	66.540		
11,200.0	7,100.0	6,550.0	6,513.6	86.5	17.4	-37.29	254.5	494.6	4,741.2	4,670.2	71.05	66.734		
11,300.0	7,100.0	6,550.0	6,513.6	88.4	17.4	-37.29	254.5	494.6	4,840.0	4,767.7	72.32	66.921		
11,400.0	7,100.0	6,550.0	6,513.6	90.3	17.4	-37.29	254.5	494.6	4,938.9	4,865.3	73.60	67.100		
11,500.0	7,100.0	6,550.0	6,513.6	92.2	17.4	-37.29	254.5	494.6	5,037.8	4,962.9	74.89	67.274		
11,600.0	7,100.0	6,550.0	6,513.6	94.1	17.4	-37.29	254.5	494.6	5,136.7	5,060.6	76.17	67.440		
11,700.0	7,100.0	6,550.0	6,513.6	96.0	17.4	-37.29	254.5	494.6	5,235.7	5,158.3	77.45	67.601		
11,800.0	7,100.0	6,550.0	6,513.6	97.9	17.4	-37.29	254.5	494.6	5,334.7	5,256.0	78.73	67.757		
11,900.0	7,100.0	6,550.0	6,513.6	99.8	17.4	-37.29	254.5	494.6	5,433.8	5,353.8	80.02	67.907		
12,000.0	7,100.0	6,550.0	6,513.6	101.7	17.4	-37.29	254.5	494.6	5,532.9	5,451.6	81.30	68.052		
12,100.0	7,100.0	6,550.0	6,513.6	103.6	17.4	-37.29	254.5	494.6	5,632.0	5,549.4	82.59	68.192		
12,200.0	7,100.0	6,550.0	6,513.6	105.6	17.4	-37.29	254.5	494.6	5,731.2	5,647.3	83.88	68.327		
12,300.0	7,100.0	6,550.0	6,513.6	107.5	17.4	-37.29	254.5	494.6	5,830.4	5,745.2	85.17	68.459		
12,400.0	7,100.0	6,550.0	6,513.6	109.4	17.4	-37.29	254.5	494.6	5,929.6	5,843.1	86.45	68.586		
12,500.0	7,100.0	6,550.0	6,513.6	111.3	17.4	-37.29	254.5	494.6	6,028.8	5,941.1	87.74	68.709		
12,600.0	7,100.0	6,550.0	6,513.6	113.2	17.4	-37.29	254.5	494.6	6,128.1	6,039.0	89.03	68.828		
12,700.0	7,100.0	6,550.0	6,513.6	115.1	17.4	-37.29	254.5	494.6	6,227.3	6,137.0	90.33	68.944		
12,800.0	7,100.0	6,550.0	6,513.6	117.0	17.4	-37.29	254.5	494.6	6,326.7	6,235.0	91.62	69.056		
12,900.0	7,100.0	6,550.0	6,513.6	118.9	17.4	-37.29	254.5	494.6	6,426.0	6,333.1	92.91	69.165		
13,000.0	7,100.0	6,550.0	6,513.6	120.9	17.4	-37.29	254.5	494.6	6,525.3	6,431.1	94.20	69.271		
13,100.0	7,100.0	6,550.0	6,513.6	122.8	17.4	-37.29	254.5	494.6	6,624.7	6,529.2	95.49	69.373		
13,200.0	7,100.0	6,527.2	6,491.4	124.7	17.3	-35.98	252.5	489.8	6,723.7	6,628.8	94.88	70.865		
13,300.0	7,100.0	6,526.4	6,490.7	126.6	17.3	-35.93	252.4	489.7	6,823.1	6,727.0	96.08	71.011		
13,400.0	7,100.0	6,525.7	6,489.9	128.5	17.3	-35.89	252.4	489.5	6,922.5	6,825.2	97.29	71.155		
13,500.0	7,100.0	6,525.0	6,489.2	130.4	17.3	-35.85	252.3	489.4	7,021.9	6,923.4	98.49	71.294		
13,600.0	7,100.0	6,524.2	6,488.5	132.4	17.3	-35.81	252.3	489.2	7,121.3	7,021.6	99.70	71.430		
13,700.0	7,100.0	6,523.5	6,487.8	134.3	17.3	-35.77	252.2	489.1	7,220.8	7,119.9	100.90	71.563		
13,800.0	7,100.0	6,522.9	6,487.2	136.2	17.3	-35.74	252.2	489.0	7,320.2	7,218.1	102.11	71.693		
13,900.0	7,100.0	6,500.0	6,464.7	138.1	17.2	-34.52	250.8	485.0	7,420.1	7,318.7	101.41	73.168		
14,000.0	7,100.0	6,500.0	6,464.7	140.0	17.2	-34.52	250.8	485.0	7,519.5	7,416.9	102.65	73.254		
14,100.0	7,100.0	6,500.0	6,464.7	142.0	17.2	-34.52	250.8	485.0	7,619.0	7,515.1	103.89	73.338		
14,200.0	7,100.0	6,500.0	6,464.7	143.9	17.2	-34.52	250.8	485.0	7,718.5	7,613.4	105.13	73.419		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1													Offset Site Error: 0.0 usft	
Survey Program: 0-Sperry MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,300.0	7,100.0	6,500.0	6,464.7	145.8	17.2	-34.52	250.8	485.0	7,818.0	7,711.6	106.37	73.499		
14,400.0	7,100.0	6,500.0	6,464.7	147.7	17.2	-34.52	250.8	485.0	7,917.5	7,809.9	107.61	73.577		
14,500.0	7,100.0	6,500.0	6,464.7	149.6	17.2	-34.52	250.8	485.0	8,017.1	7,908.2	108.85	73.652		
14,600.0	7,100.0	6,500.0	6,464.7	151.6	17.2	-34.52	250.8	485.0	8,116.6	8,006.5	110.09	73.726		
14,700.0	7,100.0	6,500.0	6,464.7	153.5	17.2	-34.52	250.8	485.0	8,216.2	8,104.8	111.33	73.799		
14,800.0	7,100.0	6,500.0	6,464.7	155.4	17.2	-34.52	250.8	485.0	8,315.7	8,203.1	112.57	73.869		
14,900.0	7,100.0	6,500.0	6,464.7	157.3	17.2	-34.52	250.8	485.0	8,415.3	8,301.5	113.81	73.938		
15,000.0	7,100.0	6,500.0	6,464.7	159.3	17.2	-34.52	250.8	485.0	8,514.9	8,399.8	115.06	74.006		
15,100.0	7,100.0	6,500.0	6,464.7	161.2	17.2	-34.52	250.8	485.0	8,614.5	8,498.2	116.30	74.072		
15,200.0	7,100.0	6,500.0	6,464.7	163.1	17.2	-34.52	250.8	485.0	8,714.1	8,596.5	117.54	74.136		
15,300.0	7,100.0	6,500.0	6,464.7	165.0	17.2	-34.52	250.8	485.0	8,813.7	8,694.9	118.78	74.200		
15,400.0	7,100.0	6,500.0	6,464.7	166.9	17.2	-34.52	250.8	485.0	8,913.3	8,793.3	120.03	74.261		
15,500.0	7,100.0	6,500.0	6,464.7	168.9	17.2	-34.52	250.8	485.0	9,012.9	8,891.7	121.27	74.322		
15,600.0	7,100.0	6,500.0	6,464.7	170.8	17.2	-34.52	250.8	485.0	9,112.6	8,990.1	122.51	74.381		
15,700.0	7,100.0	6,500.0	6,464.7	172.7	17.2	-34.52	250.8	485.0	9,212.2	9,088.5	123.76	74.439		
15,800.0	7,100.0	6,500.0	6,464.7	174.6	17.2	-34.52	250.8	485.0	9,311.9	9,186.9	125.00	74.496		
15,900.0	7,100.0	6,500.0	6,464.7	176.6	17.2	-34.52	250.8	485.0	9,411.5	9,285.3	126.24	74.551		
16,000.0	7,100.0	6,500.0	6,464.7	178.5	17.2	-34.52	250.8	485.0	9,511.2	9,383.7	127.49	74.606		
16,100.0	7,100.0	6,500.0	6,464.7	180.4	17.2	-34.52	250.8	485.0	9,610.9	9,482.1	128.73	74.659		
16,200.0	7,100.0	6,500.0	6,464.7	182.3	17.2	-34.52	250.8	485.0	9,710.6	9,580.6	129.97	74.711		
16,300.0	7,100.0	6,500.0	6,464.7	184.3	17.2	-34.52	250.8	485.0	9,810.2	9,679.0	131.22	74.763		
16,400.0	7,100.0	6,500.0	6,464.7	186.2	17.2	-34.52	250.8	485.0	9,909.9	9,777.5	132.46	74.813		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 4-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.91	150.0	2.4	150.0					
100.0	100.0	100.0	100.0	0.1	0.1	0.91	150.0	2.4	150.0	149.8	0.19	794.470		
200.0	200.0	200.0	200.0	0.3	0.3	0.91	150.0	2.4	150.0	149.4	0.64	234.984		
300.0	300.0	300.0	300.0	0.5	0.5	0.91	150.0	2.4	150.0	148.9	1.09	137.883		
400.0	400.0	400.0	400.0	0.8	0.8	0.91	150.0	2.4	150.0	148.5	1.54	97.567		
500.0	500.0	500.0	500.0	1.0	1.0	0.91	150.0	2.4	150.0	148.0	1.99	75.493 CC, ES		
600.0	600.0	599.9	599.8	1.2	1.2	-178.45	150.0	4.1	151.8	149.4	2.40	63.256		
627.8	627.7	627.6	627.6	1.2	1.3	-178.11	150.0	5.0	152.9	150.4	2.51	60.976		
700.0	699.9	699.7	699.6	1.4	1.4	-177.28	150.0	7.4	156.2	153.4	2.79	55.981		
800.0	799.8	799.6	799.4	1.6	1.6	-176.18	150.0	10.7	160.9	157.7	3.20	50.290		
900.0	899.7	899.4	899.2	1.8	1.8	-175.14	150.0	14.0	165.6	161.9	3.62	45.745		
1,000.0	999.6	999.3	999.0	2.0	2.1	-174.16	150.0	17.3	170.3	166.3	4.05	42.070		
1,100.0	1,099.5	1,099.1	1,098.8	2.2	2.3	-173.24	150.0	20.6	175.1	170.6	4.48	39.055		
1,172.9	1,172.3	1,172.4	1,172.1	2.4	2.4	-172.83	150.0	22.2	178.5	173.7	4.79	37.263		
1,200.0	1,199.4	1,199.7	1,199.4	2.5	2.5	-172.84	150.0	22.4	179.6	174.7	4.90	36.623		
1,300.6	1,300.0	1,300.3	1,300.0	2.7	2.7	7.09	150.0	22.4	181.4	176.0	5.32	34.099		
1,400.0	1,399.4	1,399.7	1,399.4	2.9	2.9	7.09	150.0	22.4	181.4	175.6	5.74	31.604		
1,500.0	1,499.4	1,499.7	1,499.4	3.1	3.1	7.09	150.0	22.4	181.4	175.2	6.16	29.436		
1,600.0	1,599.4	1,599.7	1,599.4	3.3	3.3	7.09	150.0	22.4	181.4	174.8	6.59	27.532		
1,700.0	1,699.4	1,699.7	1,699.4	3.5	3.6	7.09	150.0	22.4	181.4	174.3	7.02	25.849		
1,800.0	1,799.4	1,799.7	1,799.4	3.7	3.8	7.09	150.0	22.4	181.4	173.9	7.45	24.351		
1,900.0	1,899.4	1,899.7	1,899.4	3.9	4.0	7.09	150.0	22.4	181.4	173.5	7.88	23.012		
2,000.0	1,999.4	1,999.7	1,999.4	4.1	4.2	7.09	150.0	22.4	181.4	173.0	8.32	21.808		
2,100.0	2,099.4	2,099.7	2,099.4	4.3	4.4	7.09	150.0	22.4	181.4	172.6	8.75	20.720		
2,200.0	2,199.4	2,199.7	2,199.4	4.5	4.7	7.09	150.0	22.4	181.4	172.2	9.19	19.733		
2,300.0	2,299.4	2,299.7	2,299.4	4.8	4.9	7.09	150.0	22.4	181.4	171.7	9.63	18.833		
2,400.0	2,399.4	2,399.7	2,399.4	5.0	5.1	7.09	150.0	22.4	181.4	171.3	10.07	18.010		
2,500.0	2,499.4	2,499.7	2,499.4	5.2	5.3	7.09	150.0	22.4	181.4	170.9	10.51	17.255		
2,600.0	2,599.4	2,599.7	2,599.4	5.4	5.6	7.09	150.0	22.4	181.4	170.4	10.95	16.560		
2,700.0	2,699.4	2,699.7	2,699.4	5.6	5.8	7.09	150.0	22.4	181.4	170.0	11.39	15.917		
2,800.0	2,799.4	2,799.7	2,799.4	5.9	6.0	7.09	150.0	22.4	181.4	169.5	11.84	15.322		
2,900.0	2,899.4	2,899.7	2,899.4	6.1	6.2	7.09	150.0	22.4	181.4	169.1	12.28	14.769		
3,000.0	2,999.4	2,999.7	2,999.4	6.3	6.4	7.09	150.0	22.4	181.4	168.6	12.72	14.254		
3,066.6	3,066.0	3,066.3	3,066.0	6.4	6.6	7.09	150.0	22.4	181.4	168.3	13.02	13.930		
3,100.0	3,099.4	3,099.6	3,099.3	6.5	6.7	7.09	150.0	22.4	181.4	168.2	13.17	13.774		
3,200.0	3,199.4	3,198.9	3,198.5	6.7	6.9	7.63	150.0	24.1	181.6	168.0	13.60	13.348		
3,300.0	3,299.4	3,297.8	3,297.3	7.0	7.1	9.23	150.0	29.2	182.4	168.3	14.04	12.988		
3,400.0	3,399.4	3,396.3	3,395.5	7.2	7.3	11.84	150.0	37.7	183.9	169.5	14.48	12.701		
3,500.0	3,499.4	3,494.1	3,492.5	7.4	7.5	15.38	150.0	49.5	186.8	171.9	14.93	12.509		
3,600.0	3,599.4	3,590.9	3,588.2	7.6	7.8	19.69	150.0	64.4	191.5	176.1	15.39	12.441 SF		
3,700.0	3,699.4	3,686.7	3,682.3	7.8	8.1	24.58	150.0	82.3	198.7	182.8	15.86	12.526		
3,800.0	3,799.4	3,781.1	3,774.4	8.1	8.3	29.80	150.0	103.1	208.9	192.6	16.33	12.790		
3,900.0	3,899.4	3,874.1	3,864.3	8.3	8.6	35.09	150.0	126.4	222.7	205.9	16.81	13.252		
4,000.0	3,999.4	3,969.7	3,956.4	8.5	9.0	40.25	150.0	152.4	239.7	222.4	17.29	13.866		
4,100.0	4,099.4	4,065.9	4,049.0	8.7	9.4	44.77	150.0	178.5	258.5	240.7	17.76	14.553		
4,200.0	4,199.4	4,162.1	4,141.6	8.9	9.8	48.67	150.0	204.7	278.6	260.4	18.23	15.286		
4,300.0	4,299.4	4,258.4	4,234.2	9.2	10.2	52.05	150.0	230.8	299.9	281.2	18.69	16.046		
4,400.0	4,399.4	4,354.6	4,326.8	9.4	10.6	54.99	150.0	257.0	322.0	302.9	19.14	16.819		
4,500.0	4,499.4	4,450.8	4,419.4	9.6	11.0	57.55	150.0	283.1	344.9	325.3	19.60	17.596		
4,600.0	4,599.4	4,547.1	4,512.1	9.8	11.4	59.80	150.0	309.3	368.3	348.3	20.05	18.367		
4,700.0	4,699.4	4,643.3	4,604.7	10.1	11.9	61.78	150.0	335.4	392.2	371.7	20.51	19.128		
4,800.0	4,799.4	4,739.6	4,697.3	10.3	12.4	63.54	150.0	361.6	416.6	395.6	20.96	19.876		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 4-8H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,899.4	4,835.8	4,789.9	10.5	12.8	65.10	150.0	387.7	441.2	419.8	21.41	20.607	
5,000.0	4,999.4	4,932.0	4,882.5	10.7	13.3	66.50	150.0	413.9	466.2	444.3	21.87	21.319	
5,100.0	5,099.4	5,028.3	4,975.1	11.0	13.8	67.75	150.0	440.0	491.3	469.0	22.32	22.012	
5,200.0	5,199.4	5,124.5	5,067.8	11.2	14.3	68.89	150.0	466.1	516.7	493.9	22.78	22.685	
5,300.0	5,299.4	5,220.7	5,160.4	11.4	14.8	69.92	150.0	492.3	542.3	519.0	23.24	23.338	
5,400.0	5,399.4	5,317.0	5,253.0	11.6	15.3	70.86	150.0	518.4	568.0	544.3	23.70	23.970	
5,500.0	5,499.4	5,413.2	5,345.6	11.8	15.8	71.71	150.0	544.6	593.8	569.7	24.16	24.582	
5,600.0	5,599.4	5,509.5	5,438.2	12.1	16.3	72.50	150.0	570.7	619.8	595.1	24.62	25.175	
5,700.0	5,699.4	5,605.7	5,530.9	12.3	16.8	73.22	150.0	596.9	645.8	620.7	25.08	25.748	
5,800.0	5,799.4	5,701.9	5,623.5	12.5	17.3	73.89	150.0	623.0	671.9	646.4	25.55	26.302	
5,900.0	5,899.4	5,798.2	5,716.1	12.7	17.8	74.50	150.0	649.2	698.2	672.1	26.01	26.839	
6,000.0	5,999.4	5,894.4	5,808.7	13.0	18.3	75.08	150.0	675.3	724.4	698.0	26.48	27.357	
6,100.0	6,099.4	5,990.7	5,901.3	13.2	18.8	75.61	150.0	701.5	750.8	723.8	26.95	27.858	
6,200.0	6,199.4	6,086.9	5,993.9	13.4	19.4	76.11	150.0	727.6	777.2	749.8	27.42	28.343	
6,300.0	6,299.4	6,183.1	6,086.6	13.6	19.9	76.57	150.0	753.8	803.7	775.8	27.89	28.812	
6,400.0	6,399.4	6,279.4	6,179.2	13.9	20.4	77.01	150.0	779.9	830.2	801.8	28.37	29.266	
6,451.7	6,451.1	6,329.1	6,227.1	14.0	20.7	77.22	150.0	793.4	843.9	815.3	28.61	29.495	
6,500.0	6,499.3	6,375.6	6,271.8	14.1	20.9	-96.38	150.0	806.1	857.0	827.9	29.00	29.546	
6,550.0	6,548.9	6,423.5	6,317.9	14.2	21.2	-95.16	150.0	819.1	870.9	841.8	29.15	29.875	
6,600.0	6,597.7	6,470.7	6,363.3	14.3	21.5	-94.18	150.0	831.9	885.4	856.0	29.32	30.195	
6,650.0	6,645.4	6,517.0	6,407.9	14.4	21.7	-93.39	150.0	844.5	900.2	870.7	29.51	30.508	
6,700.0	6,691.7	6,550.0	6,439.6	14.5	21.9	-92.48	150.0	853.5	915.6	885.9	29.67	30.860	
6,750.0	6,736.1	6,568.6	6,457.4	14.6	22.0	-91.18	150.1	858.9	932.5	902.7	29.81	31.283	
6,800.0	6,778.3	6,583.9	6,471.9	14.7	22.1	-89.66	150.2	863.8	951.1	921.1	29.97	31.737	
6,850.0	6,818.1	6,600.0	6,487.0	14.9	22.2	-88.05	150.5	869.4	971.3	941.1	30.17	32.198	
6,900.0	6,855.0	6,600.0	6,487.0	15.1	22.2	-85.62	150.5	869.4	993.1	962.8	30.35	32.723	
6,950.0	6,888.9	6,622.4	6,507.8	15.3	22.4	-84.03	151.1	877.9	1,016.0	985.4	30.65	33.153	
7,000.0	6,919.4	6,632.6	6,517.1	15.6	22.5	-81.78	151.4	882.0	1,040.2	1,009.3	30.93	33.635	
7,051.7	6,947.3	6,650.0	6,532.8	15.9	22.6	-79.71	152.0	889.3	1,066.5	1,035.2	31.27	34.110	
7,100.0	6,971.4	6,650.0	6,532.8	16.3	22.6	-79.71	152.0	889.3	1,091.9	1,060.3	31.61	34.543	
7,201.7	7,022.3	6,650.0	6,532.8	17.1	22.6	-79.71	152.0	889.3	1,150.4	1,117.9	32.44	35.459	
7,250.0	7,044.7	6,671.9	6,552.3	17.6	22.8	-77.57	152.9	899.3	1,179.6	1,146.7	32.86	35.894	
7,300.0	7,064.0	6,677.4	6,557.2	18.1	22.8	-74.17	153.2	901.9	1,211.1	1,177.9	33.17	36.513	
7,350.0	7,079.3	6,681.5	6,560.7	18.6	22.9	-70.48	153.4	903.8	1,243.4	1,210.0	33.39	37.243	
7,400.0	7,090.5	6,700.0	6,576.8	19.2	23.0	-67.50	154.4	913.0	1,276.5	1,242.8	33.65	37.939	
7,450.0	7,097.4	6,700.0	6,576.8	19.8	23.0	-63.38	154.4	913.0	1,309.5	1,275.9	33.64	38.931	
7,500.0	7,100.0	6,700.0	6,576.8	20.5	23.0	-59.27	154.4	913.0	1,342.6	1,309.1	33.54	40.034	
7,505.5	7,100.0	6,700.0	6,576.8	20.5	23.0	-58.83	154.4	913.0	1,346.2	1,312.7	33.52	40.159	
7,600.0	7,100.0	6,700.0	6,576.8	21.8	23.0	-58.83	154.4	913.0	1,410.4	1,375.8	34.59	40.770	
7,700.0	7,100.0	6,682.2	6,561.3	23.2	22.9	-57.82	153.4	904.2	1,481.5	1,446.0	35.54	41.681	
7,800.0	7,100.0	6,680.6	6,559.9	24.7	22.9	-57.73	153.4	903.4	1,556.1	1,519.3	36.78	42.308	
7,900.0	7,100.0	6,679.0	6,558.6	26.3	22.9	-57.64	153.3	902.6	1,633.4	1,595.3	38.07	42.907	
8,000.0	7,100.0	6,677.5	6,557.2	27.9	22.8	-57.56	153.2	901.9	1,713.0	1,673.6	39.40	43.480	
8,100.0	7,100.0	6,676.0	6,555.9	29.5	22.8	-57.47	153.1	901.2	1,794.7	1,753.9	40.76	44.027	
8,200.0	7,100.0	6,674.5	6,554.6	31.2	22.8	-57.39	153.1	900.5	1,878.1	1,835.9	42.16	44.549	
8,300.0	7,100.0	6,673.1	6,553.4	32.9	22.8	-57.31	153.0	899.8	1,963.1	1,919.5	43.58	45.047	
8,400.0	7,100.0	6,671.7	6,552.2	34.6	22.8	-57.23	152.9	899.2	2,049.4	2,004.4	45.02	45.521	
8,500.0	7,100.0	6,670.4	6,551.0	36.3	22.8	-57.15	152.9	898.5	2,136.9	2,090.4	46.48	45.974	
8,600.0	7,100.0	6,669.0	6,549.8	38.1	22.8	-57.08	152.8	897.9	2,225.5	2,177.5	47.96	46.406	
8,700.0	7,100.0	6,650.0	6,532.8	39.9	22.6	-56.01	152.0	889.3	2,315.2	2,266.2	49.03	47.221	
8,800.0	7,100.0	6,650.0	6,532.8	41.7	22.6	-56.01	152.0	889.3	2,405.5	2,355.0	50.55	47.590	
8,900.0	7,100.0	6,650.0	6,532.8	43.5	22.6	-56.01	152.0	889.3	2,496.5	2,444.4	52.07	47.941	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 4-8H - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,000.0	7,100.0	6,650.0	6,532.8	45.3	22.6	-56.01	152.0	889.3	2,588.2	2,534.6	53.61	48.275	
9,100.0	7,100.0	6,650.0	6,532.8	47.1	22.6	-56.01	152.0	889.3	2,680.5	2,625.3	55.16	48.594	
9,200.0	7,100.0	6,650.0	6,532.8	48.9	22.6	-56.01	152.0	889.3	2,773.3	2,716.6	56.72	48.897	
9,300.0	7,100.0	6,650.0	6,532.8	50.8	22.6	-56.01	152.0	889.3	2,866.6	2,808.3	58.28	49.187	
9,400.0	7,100.0	6,650.0	6,532.8	52.6	22.6	-56.01	152.0	889.3	2,960.3	2,900.5	59.85	49.463	
9,500.0	7,100.0	6,650.0	6,532.8	54.5	22.6	-56.01	152.0	889.3	3,054.5	2,993.1	61.42	49.727	
9,600.0	7,100.0	6,650.0	6,532.8	56.3	22.6	-56.01	152.0	889.3	3,149.0	3,086.0	63.01	49.980	
9,700.0	7,100.0	6,650.0	6,532.8	58.2	22.6	-56.01	152.0	889.3	3,243.8	3,179.2	64.59	50.221	
9,800.0	7,100.0	6,650.0	6,532.8	60.1	22.6	-56.01	152.0	889.3	3,338.9	3,272.8	66.18	50.452	
9,900.0	7,100.0	6,650.0	6,532.8	61.9	22.6	-56.01	152.0	889.3	3,434.3	3,366.6	67.77	50.674	
10,000.0	7,100.0	6,650.0	6,532.8	63.8	22.6	-56.01	152.0	889.3	3,530.0	3,460.6	69.37	50.886	
10,100.0	7,100.0	6,650.0	6,532.8	65.7	22.6	-56.01	152.0	889.3	3,625.9	3,554.9	70.97	51.090	
10,200.0	7,100.0	6,650.0	6,532.8	67.6	22.6	-56.01	152.0	889.3	3,722.0	3,649.4	72.57	51.286	
10,300.0	7,100.0	6,650.0	6,532.8	69.4	22.6	-56.01	152.0	889.3	3,818.3	3,744.1	74.18	51.474	
10,400.0	7,100.0	6,650.0	6,532.8	71.3	22.6	-56.01	152.0	889.3	3,914.8	3,839.0	75.79	51.654	
10,500.0	7,100.0	6,650.0	6,532.8	73.2	22.6	-56.01	152.0	889.3	4,011.5	3,934.1	77.40	51.828	
10,600.0	7,100.0	6,650.0	6,532.8	75.1	22.6	-56.01	152.0	889.3	4,108.3	4,029.3	79.01	51.995	
10,700.0	7,100.0	6,650.0	6,532.8	77.0	22.6	-56.01	152.0	889.3	4,205.3	4,124.6	80.63	52.157	
10,800.0	7,100.0	6,650.0	6,532.8	78.9	22.6	-56.01	152.0	889.3	4,302.4	4,220.1	82.24	52.312	
10,900.0	7,100.0	6,650.0	6,532.8	80.8	22.6	-56.01	152.0	889.3	4,399.6	4,315.8	83.86	52.462	
11,000.0	7,100.0	6,650.0	6,532.8	82.7	22.6	-56.01	152.0	889.3	4,497.0	4,411.5	85.48	52.606	
11,100.0	7,100.0	6,650.0	6,532.8	84.6	22.6	-56.01	152.0	889.3	4,594.5	4,507.4	87.11	52.746	
11,200.0	7,100.0	6,650.0	6,532.8	86.5	22.6	-56.01	152.0	889.3	4,692.0	4,603.3	88.73	52.881	
11,300.0	7,100.0	6,650.0	6,532.8	88.4	22.6	-56.01	152.0	889.3	4,789.7	4,699.4	90.35	53.011	
11,400.0	7,100.0	6,650.0	6,532.8	90.3	22.6	-56.01	152.0	889.3	4,887.5	4,795.5	91.98	53.137	
11,500.0	7,100.0	6,650.0	6,532.8	92.2	22.6	-56.01	152.0	889.3	4,985.4	4,891.8	93.61	53.259	
11,600.0	7,100.0	6,650.0	6,532.8	94.1	22.6	-56.01	152.0	889.3	5,083.3	4,988.1	95.23	53.377	
11,700.0	7,100.0	6,650.0	6,532.8	96.0	22.6	-56.01	152.0	889.3	5,181.3	5,084.5	96.86	53.491	
11,800.0	7,100.0	6,650.0	6,532.8	97.9	22.6	-56.01	152.0	889.3	5,279.4	5,181.0	98.49	53.602	
11,900.0	7,100.0	6,650.0	6,532.8	99.8	22.6	-56.01	152.0	889.3	5,377.6	5,277.5	100.12	53.709	
12,000.0	7,100.0	6,650.0	6,532.8	101.7	22.6	-56.01	152.0	889.3	5,475.9	5,374.1	101.76	53.814	
12,100.0	7,100.0	6,650.0	6,532.8	103.6	22.6	-56.01	152.0	889.3	5,574.2	5,470.8	103.39	53.915	
12,200.0	7,100.0	6,650.0	6,532.8	105.6	22.6	-56.01	152.0	889.3	5,672.5	5,567.5	105.02	54.013	
12,300.0	7,100.0	6,650.0	6,532.8	107.5	22.6	-56.01	152.0	889.3	5,770.9	5,664.3	106.66	54.108	
12,400.0	7,100.0	6,650.0	6,532.8	109.4	22.6	-56.01	152.0	889.3	5,869.4	5,761.1	108.29	54.200	
12,500.0	7,100.0	6,650.0	6,532.8	111.3	22.6	-56.01	152.0	889.3	5,967.9	5,858.0	109.93	54.290	
12,600.0	7,100.0	6,650.0	6,532.8	113.2	22.6	-56.01	152.0	889.3	6,066.5	5,954.9	111.56	54.378	
12,700.0	7,100.0	6,650.0	6,532.8	115.1	22.6	-56.01	152.0	889.3	6,165.1	6,051.9	113.20	54.462	
12,800.0	7,100.0	6,650.0	6,532.8	117.0	22.6	-56.01	152.0	889.3	6,263.8	6,148.9	114.84	54.545	
12,900.0	7,100.0	6,630.0	6,514.7	118.9	22.4	-54.90	151.3	880.9	6,362.3	6,247.0	115.26	55.199	
13,000.0	7,100.0	6,629.3	6,514.1	120.9	22.4	-54.87	151.3	880.6	6,461.0	6,344.2	116.84	55.297	
13,100.0	7,100.0	6,628.7	6,513.5	122.8	22.4	-54.83	151.3	880.4	6,559.8	6,441.4	118.43	55.392	
13,200.0	7,100.0	6,628.1	6,513.0	124.7	22.4	-54.80	151.2	880.1	6,658.6	6,538.6	120.01	55.485	
13,300.0	7,100.0	6,627.5	6,512.5	126.6	22.4	-54.77	151.2	879.9	6,757.4	6,635.9	121.59	55.576	
13,400.0	7,100.0	6,627.0	6,511.9	128.5	22.4	-54.73	151.2	879.7	6,856.3	6,733.1	123.17	55.664	
13,500.0	7,100.0	6,626.4	6,511.4	130.4	22.4	-54.70	151.2	879.4	6,955.2	6,830.5	124.75	55.751	
13,600.0	7,100.0	6,625.8	6,510.9	132.4	22.4	-54.67	151.2	879.2	7,054.2	6,927.8	126.34	55.836	
13,700.0	7,100.0	6,625.3	6,510.4	134.3	22.4	-54.64	151.2	879.0	7,153.1	7,025.2	127.92	55.919	
13,800.0	7,100.0	6,624.7	6,509.9	136.2	22.4	-54.61	151.1	878.8	7,252.1	7,122.6	129.50	56.001	
13,900.0	7,100.0	6,624.2	6,509.4	138.1	22.4	-54.58	151.1	878.5	7,351.1	7,220.1	131.08	56.081	
14,000.0	7,100.0	6,623.6	6,508.9	140.0	22.4	-54.55	151.1	878.3	7,450.2	7,317.5	132.66	56.159	
14,100.0	7,100.0	6,623.1	6,508.4	142.0	22.4	-54.52	151.1	878.1	7,549.3	7,415.0	134.24	56.235	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 0780 4-8H - Wellbore #1 - Design #1													Offset Site Error: 0.0 usft	
Survey Program: 0-Sperry MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.0	7,100.0	6,622.6	6,507.9	143.9	22.4	-54.49	151.1	877.9	7,648.4	7,512.5	135.83	56.310		
14,300.0	7,100.0	6,622.1	6,507.4	145.8	22.4	-54.47	151.1	877.7	7,747.5	7,610.1	137.41	56.383		
14,400.0	7,100.0	6,621.6	6,507.0	147.7	22.4	-54.44	151.0	877.5	7,846.6	7,707.6	138.99	56.455		
14,500.0	7,100.0	6,621.1	6,506.5	149.6	22.4	-54.41	151.0	877.3	7,945.8	7,805.2	140.57	56.526		
14,600.0	7,100.0	6,600.0	6,487.0	151.6	22.2	-53.27	150.5	869.4	8,045.1	7,904.5	140.58	57.229		
14,700.0	7,100.0	6,600.0	6,487.0	153.5	22.2	-53.27	150.5	869.4	8,144.3	8,002.1	142.18	57.283		
14,800.0	7,100.0	6,600.0	6,487.0	155.4	22.2	-53.27	150.5	869.4	8,243.5	8,099.7	143.78	57.336		
14,900.0	7,100.0	6,600.0	6,487.0	157.3	22.2	-53.27	150.5	869.4	8,342.8	8,197.4	145.38	57.387		
15,000.0	7,100.0	6,600.0	6,487.0	159.3	22.2	-53.27	150.5	869.4	8,442.0	8,295.0	146.98	57.437		
15,100.0	7,100.0	6,600.0	6,487.0	161.2	22.2	-53.27	150.5	869.4	8,541.3	8,392.7	148.58	57.487		
15,200.0	7,100.0	6,600.0	6,487.0	163.1	22.2	-53.27	150.5	869.4	8,640.6	8,490.4	150.18	57.535		
15,300.0	7,100.0	6,600.0	6,487.0	165.0	22.2	-53.27	150.5	869.4	8,739.9	8,588.1	151.78	57.582		
15,400.0	7,100.0	6,600.0	6,487.0	166.9	22.2	-53.27	150.5	869.4	8,839.2	8,685.8	153.38	57.628		
15,500.0	7,100.0	6,600.0	6,487.0	168.9	22.2	-53.27	150.5	869.4	8,938.5	8,783.5	154.98	57.674		
15,600.0	7,100.0	6,600.0	6,487.0	170.8	22.2	-53.27	150.5	869.4	9,037.9	8,881.3	156.59	57.718		
15,700.0	7,100.0	6,600.0	6,487.0	172.7	22.2	-53.27	150.5	869.4	9,137.2	8,979.0	158.19	57.762		
15,800.0	7,100.0	6,600.0	6,487.0	174.6	22.2	-53.27	150.5	869.4	9,236.6	9,076.8	159.79	57.805		
15,900.0	7,100.0	6,600.0	6,487.0	176.6	22.2	-53.27	150.5	869.4	9,336.0	9,174.6	161.39	57.847		
16,000.0	7,100.0	6,600.0	6,487.0	178.5	22.2	-53.27	150.5	869.4	9,435.4	9,272.4	162.99	57.888		
16,100.0	7,100.0	6,600.0	6,487.0	180.4	22.2	-53.27	150.5	869.4	9,534.8	9,370.2	164.60	57.928		
16,200.0	7,100.0	6,600.0	6,487.0	182.3	22.2	-53.27	150.5	869.4	9,634.2	9,468.0	166.20	57.968		
16,300.0	7,100.0	6,600.0	6,487.0	184.3	22.2	-53.27	150.5	869.4	9,733.7	9,565.9	167.80	58.007		
16,400.0	7,100.0	6,600.0	6,487.0	186.2	22.2	-53.27	150.5	869.4	9,833.1	9,663.7	169.41	58.045		
16,500.0	7,100.0	6,600.0	6,487.0	188.1	22.2	-53.27	150.5	869.4	9,932.6	9,761.6	171.01	58.082		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 1031-Sperry MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	3.0	3.0	0.0	0.0	-104.30	-83.5	-327.8	338.3				
100.0	100.0	104.6	104.6	0.1	0.1	-104.30	-83.5	-327.5	338.0	337.8	0.21	1,595.595	
200.0	200.0	206.2	206.2	0.3	0.2	-104.31	-83.4	-326.8	337.3	336.8	0.55	612.598	
300.0	300.0	307.7	307.7	0.5	0.4	-104.34	-83.2	-325.7	336.2	335.3	0.89	377.946	
400.0	400.0	409.2	409.2	0.8	0.5	-104.37	-83.0	-324.0	334.5	333.3	1.23	272.372	
500.0	500.0	510.8	510.7	1.0	0.6	-104.41	-82.7	-321.9	332.4	330.9	1.57	212.155	
600.0	600.0	612.2	612.1	1.2	0.7	75.89	-82.4	-319.3	329.5	327.6	1.88	175.328	
627.8	627.7	640.4	640.3	1.2	0.8	76.09	-82.2	-318.5	328.4	326.4	1.96	167.512	
700.0	699.9	713.6	713.4	1.4	0.8	76.61	-81.9	-316.3	325.4	323.2	2.18	149.403	
800.0	799.8	814.9	814.7	1.6	1.0	77.33	-81.4	-312.8	320.9	318.4	2.49	128.778	
900.0	899.7	916.1	915.9	1.8	1.1	78.07	-80.9	-308.8	316.0	313.2	2.82	112.213	
1,000.0	999.6	1,017.4	1,017.0	2.0	1.2	78.82	-80.3	-304.4	310.7	307.6	3.15	98.717	
1,065.5	1,065.1	1,063.0	1,062.6	2.2	1.3	79.03	-80.9	-303.1	308.8	305.4	3.37	91.662 CC	
1,100.0	1,099.5	1,096.7	1,096.2	2.2	1.3	79.00	-82.7	-303.5	309.2	305.7	3.51	88.145	
1,172.9	1,172.3	1,170.8	1,170.2	2.4	1.5	79.05	-85.8	-304.2	309.9	306.0	3.82	81.037	
1,200.0	1,199.4	1,198.3	1,197.7	2.5	1.5	79.09	-86.8	-304.5	310.1	306.1	3.94	78.683	
1,300.6	1,300.0	1,300.3	1,299.7	2.7	1.8	-101.01	-89.4	-305.2	311.0	306.6	4.37	71.204	
1,400.0	1,399.4	1,399.7	1,399.2	2.9	2.0	-101.17	-90.4	-306.0	312.0	307.2	4.78	65.295	
1,500.0	1,499.4	1,498.9	1,498.3	3.1	2.1	-101.30	-91.4	-307.0	313.1	307.9	5.18	60.503	
1,600.0	1,599.4	1,595.9	1,595.3	3.3	2.3	-101.48	-92.7	-308.4	314.8	309.2	5.57	56.541	
1,700.0	1,699.4	1,691.9	1,691.2	3.5	2.5	-101.70	-94.4	-310.9	317.7	311.7	5.96	53.274	
1,800.0	1,799.4	1,797.9	1,797.2	3.7	2.7	-101.91	-96.1	-313.5	320.5	314.1	6.40	50.066	
1,900.0	1,899.4	1,903.0	1,902.3	3.9	3.0	-101.95	-96.5	-314.2	321.1	314.3	6.84	46.939	
2,000.0	1,999.4	2,003.4	2,002.7	4.1	3.2	-101.97	-96.6	-314.1	321.1	313.8	7.27	44.186	
2,100.0	2,099.4	2,103.1	2,102.4	4.3	3.4	-101.98	-96.6	-314.1	321.0	313.4	7.69	41.759	
2,200.0	2,199.4	2,203.1	2,202.4	4.5	3.6	-101.98	-96.6	-314.1	321.0	312.9	8.12	39.556	
2,300.0	2,299.4	2,303.1	2,302.4	4.8	3.8	-101.98	-96.6	-314.1	321.0	312.5	8.54	37.598	
2,400.0	2,399.4	2,403.2	2,402.5	5.0	4.0	-101.96	-96.5	-314.0	321.0	312.1	8.96	35.819	
2,500.0	2,499.4	2,503.1	2,502.4	5.2	4.2	-101.95	-96.5	-314.0	321.0	311.6	9.39	34.192	
2,600.0	2,599.4	2,603.1	2,602.4	5.4	4.4	-101.93	-96.3	-314.1	321.0	311.2	9.82	32.695	
2,700.0	2,699.4	2,703.1	2,702.4	5.6	4.6	-101.92	-96.3	-314.1	321.0	310.7	10.25	31.314	
2,800.0	2,799.4	2,803.1	2,802.4	5.9	4.8	-101.92	-96.3	-314.1	321.0	310.3	10.68	30.064	
2,900.0	2,899.4	2,903.1	2,902.4	6.1	5.0	-101.92	-96.3	-314.1	321.0	309.9	11.10	28.911	
3,000.0	2,999.4	3,003.1	3,002.4	6.3	5.2	-101.92	-96.3	-314.1	321.0	309.5	11.53	27.844	
3,100.0	3,099.4	3,103.1	3,102.4	6.5	5.5	-101.92	-96.3	-314.1	321.0	309.0	11.96	26.840	
3,200.0	3,199.4	3,203.1	3,202.4	6.7	5.7	-101.92	-96.3	-314.1	321.0	308.6	12.39	25.903	
3,300.0	3,299.4	3,303.1	3,302.4	7.0	5.9	-101.92	-96.3	-314.1	321.0	308.2	12.82	25.042	
3,400.0	3,399.4	3,403.1	3,402.4	7.2	6.1	-101.92	-96.3	-314.1	321.0	307.7	13.24	24.239	
3,500.0	3,499.4	3,503.1	3,502.4	7.4	6.3	-101.92	-96.3	-314.1	321.0	307.3	13.67	23.479	
3,600.0	3,599.4	3,603.1	3,602.4	7.6	6.5	-101.92	-96.3	-314.1	321.0	306.9	14.10	22.764	
3,700.0	3,699.4	3,703.1	3,702.4	7.8	6.7	-101.92	-96.3	-314.1	321.0	306.4	14.53	22.087	
3,800.0	3,799.4	3,803.2	3,802.5	8.1	6.9	-101.91	-96.2	-314.1	321.0	306.0	14.97	21.441	
3,900.0	3,899.4	3,903.1	3,902.4	8.3	7.1	-101.89	-96.1	-314.1	320.9	305.5	15.41	20.833	
4,000.0	3,999.4	4,003.1	4,002.4	8.5	7.3	-101.89	-96.1	-314.1	320.9	305.1	15.84	20.267	
4,100.0	4,099.4	4,103.1	4,102.4	8.7	7.5	-101.89	-96.1	-314.1	320.9	304.7	16.27	19.729	
4,158.8	4,158.2	4,161.9	4,161.2	8.9	7.7	-101.89	-96.1	-314.1	320.9	304.4	16.52	19.422	
4,200.0	4,199.4	4,203.0	4,202.3	8.9	7.8	-101.89	-96.1	-314.1	320.9	304.2	16.70	19.214	
4,300.0	4,299.4	4,302.8	4,302.1	9.2	8.0	-101.88	-96.1	-314.1	321.0	303.9	17.14	18.734	
4,400.0	4,399.4	4,403.1	4,402.4	9.4	8.2	-101.87	-96.0	-314.2	321.0	303.5	17.56	18.279	
4,447.8	4,447.2	4,450.9	4,450.2	9.5	8.3	-101.87	-96.0	-314.2	321.0	303.3	17.77	18.069	
4,500.0	4,499.4	4,503.0	4,502.3	9.6	8.4	-101.87	-96.0	-314.2	321.1	303.1	17.99	17.844	
4,600.0	4,599.4	4,603.0	4,602.2	9.8	8.6	-101.85	-95.9	-314.3	321.1	302.7	18.42	17.428	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 1031-Sperry MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,700.0	4,699.4	4,703.1	4,702.4	10.1	8.8	-101.84	-95.9	-314.3	321.1	302.3	18.86	17.030		
4,800.0	4,799.4	4,803.1	4,802.4	10.3	9.0	-101.84	-95.9	-314.3	321.1	301.8	19.29	16.647		
4,900.0	4,899.4	4,903.1	4,902.4	10.5	9.2	-101.84	-95.9	-314.3	321.1	301.4	19.73	16.278		
5,000.0	4,999.4	5,003.1	5,002.4	10.7	9.4	-101.84	-95.9	-314.3	321.1	301.0	20.16	15.925		
5,100.0	5,099.4	5,103.1	5,102.4	11.0	9.7	-101.84	-95.9	-314.3	321.1	300.5	20.60	15.588		
5,200.0	5,199.4	5,203.1	5,202.4	11.2	9.9	-101.84	-95.9	-314.3	321.1	300.1	21.04	15.265		
5,300.0	5,299.4	5,303.1	5,302.4	11.4	10.1	-101.84	-95.9	-314.3	321.1	299.6	21.47	14.955		
5,400.0	5,399.4	5,403.1	5,402.4	11.6	10.3	-101.84	-95.9	-314.3	321.1	299.2	21.91	14.655		
5,500.0	5,499.4	5,503.0	5,502.3	11.8	10.5	-101.83	-95.8	-314.3	321.1	298.8	22.35	14.367		
5,600.0	5,599.4	5,603.3	5,602.6	12.1	10.7	-101.80	-95.7	-314.3	321.1	298.3	22.79	14.092		
5,700.0	5,699.4	5,703.6	5,702.9	12.3	10.9	-101.78	-95.6	-314.2	321.0	297.8	23.22	13.823		
5,800.0	5,799.4	5,803.5	5,802.7	12.5	11.1	-101.77	-95.5	-314.1	320.8	297.2	23.65	13.568		
5,837.2	5,836.6	5,840.3	5,839.6	12.6	11.2	-101.77	-95.4	-314.1	320.8	297.0	23.81	13.476		
5,900.0	5,899.4	5,902.8	5,902.1	12.7	11.3	-101.75	-95.4	-314.1	320.9	296.8	24.08	13.327		
6,000.0	5,999.4	6,003.2	6,002.4	13.0	11.6	-101.72	-95.2	-314.2	320.9	296.4	24.51	13.092		
6,100.0	6,099.4	6,103.3	6,102.6	13.2	11.8	-101.69	-95.0	-314.2	320.8	295.9	24.94	12.862		
6,200.0	6,199.4	6,203.2	6,202.5	13.4	12.0	-101.67	-94.9	-314.1	320.8	295.4	25.37	12.641		
6,218.1	6,217.5	6,221.2	6,220.5	13.5	12.0	-101.66	-94.8	-314.1	320.7	295.3	25.45	12.602		
6,300.0	6,299.4	6,303.0	6,302.3	13.6	12.2	-101.64	-94.7	-314.2	320.8	295.0	25.81	12.430		
6,400.0	6,399.4	6,402.9	6,402.2	13.9	12.4	-101.64	-94.7	-314.2	320.8	294.6	26.24	12.224		
6,451.7	6,451.1	6,454.4	6,453.7	14.0	12.5	-101.63	-94.7	-314.3	320.8	294.4	26.47	12.122		
6,500.0	6,499.3	6,502.2	6,501.5	14.1	12.6	83.75	-94.7	-314.3	320.7	294.0	26.66	12.028		
6,550.0	6,548.9	6,551.5	6,550.8	14.2	12.7	84.95	-94.5	-314.5	320.2	293.3	26.86	11.921		
6,600.0	6,597.7	6,599.7	6,598.9	14.3	12.8	86.92	-94.1	-314.8	319.6	292.6	27.06	11.814		
6,628.5	6,625.1	6,625.9	6,625.2	14.3	12.9	88.30	-93.8	-315.0	319.5	292.4	27.17	11.760		
6,650.0	6,645.4	6,645.8	6,645.0	14.4	12.9	89.48	-93.5	-315.2	319.6	292.3	27.26	11.726 ES		
6,700.0	6,691.7	6,683.3	6,682.5	14.5	13.0	91.92	-93.3	-316.1	321.1	293.6	27.44	11.700		
6,750.0	6,736.1	6,757.1	6,756.0	14.6	13.1	98.60	-87.7	-314.9	322.4	294.8	27.68	11.647 SF		
6,800.0	6,778.3	6,805.6	6,803.6	14.7	13.3	104.14	-79.1	-310.9	325.0	297.2	27.84	11.675		
6,850.0	6,818.1	6,839.1	6,836.0	14.9	13.3	108.01	-71.3	-307.1	331.8	303.9	27.94	11.875		
6,900.0	6,855.0	6,860.9	6,856.6	15.1	13.4	109.97	-65.0	-304.4	344.8	316.8	28.06	12.289		
6,950.0	6,888.9	6,876.0	6,870.7	15.3	13.4	110.35	-59.9	-302.5	364.4	336.2	28.23	12.908		
7,000.0	6,919.4	6,885.7	6,879.7	15.6	13.4	109.14	-56.4	-301.3	390.2	361.7	28.51	13.686		
7,051.7	6,947.3	6,891.7	6,885.2	15.9	13.4	106.26	-54.1	-300.5	422.4	393.5	28.94	14.596		
7,100.0	6,971.4	6,895.3	6,888.4	16.3	13.5	106.90	-52.7	-300.1	456.1	426.9	29.25	15.593		
7,201.7	7,022.3	6,907.0	6,899.0	17.1	13.5	109.00	-47.9	-298.5	534.4	504.4	29.95	17.842		
7,250.0	7,044.7	6,907.0	6,899.0	17.6	13.5	101.58	-47.9	-298.5	574.2	543.4	30.77	18.661		
7,300.0	7,064.0	6,907.0	6,899.0	18.1	13.5	93.15	-47.9	-298.5	616.7	585.2	31.53	19.562		
7,350.0	7,079.3	6,907.0	6,899.0	18.6	13.5	84.34	-47.9	-298.5	660.1	628.0	32.03	20.610		
7,400.0	7,090.5	6,896.3	6,889.3	19.2	13.5	74.02	-52.3	-299.9	703.6	671.6	32.03	21.966		
7,450.0	7,097.4	6,891.3	6,884.8	19.8	13.4	65.51	-54.3	-300.6	747.1	715.4	31.71	23.562		
7,500.0	7,100.0	6,876.0	6,870.7	20.5	13.4	57.12	-59.9	-302.5	790.3	759.3	30.99	25.506		
7,505.5	7,100.0	6,876.0	6,870.7	20.5	13.4	56.46	-59.9	-302.5	794.9	764.0	30.93	25.701		
7,600.0	7,100.0	6,876.0	6,870.7	21.8	13.4	56.46	-59.9	-302.5	876.6	844.6	31.97	27.422		
7,700.0	7,100.0	6,862.0	6,857.6	23.2	13.4	55.14	-64.6	-304.3	965.2	932.4	32.85	29.380		
7,800.0	7,100.0	6,845.0	6,841.6	24.7	13.3	53.58	-69.7	-306.4	1,055.7	1,022.0	33.70	31.327		
7,900.0	7,100.0	6,845.0	6,841.6	26.3	13.3	53.58	-69.7	-306.4	1,147.3	1,112.4	34.94	32.833		
8,000.0	7,100.0	6,845.0	6,841.6	27.9	13.3	53.58	-69.7	-306.4	1,240.3	1,204.0	36.23	34.230		
8,100.0	7,100.0	6,829.0	6,826.2	29.5	13.3	52.16	-73.9	-308.3	1,333.9	1,296.7	37.14	35.913		
8,200.0	7,100.0	6,814.0	6,811.7	31.2	13.3	50.87	-77.3	-310.0	1,428.4	1,390.3	38.06	37.526		
8,300.0	7,100.0	6,814.0	6,811.7	32.9	13.3	50.87	-77.3	-310.0	1,523.4	1,484.0	39.40	38.660		
8,400.0	7,100.0	6,814.0	6,811.7	34.6	13.3	50.87	-77.3	-310.0	1,619.0	1,578.2	40.77	39.712		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 1031-Sperry MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,500.0	7,100.0	6,800.7	6,798.8	36.3	13.2	49.75	-80.1	-311.4	1,714.9	1,673.2	41.73	41.098		
8,600.0	7,100.0	6,792.8	6,791.1	38.1	13.2	49.10	-81.6	-312.1	1,811.2	1,768.4	42.85	42.272		
8,700.0	7,100.0	6,782.0	6,780.5	39.9	13.2	48.23	-83.7	-313.1	1,907.9	1,864.0	43.86	43.496		
8,800.0	7,100.0	6,782.0	6,780.5	41.7	13.2	48.23	-83.7	-313.1	2,004.8	1,959.5	45.24	44.309		
8,900.0	7,100.0	6,782.0	6,780.5	43.5	13.2	48.23	-83.7	-313.1	2,101.9	2,055.3	46.64	45.069		
9,000.0	7,100.0	6,782.0	6,780.5	45.3	13.2	48.23	-83.7	-313.1	2,199.4	2,151.3	48.04	45.781		
9,100.0	7,100.0	6,766.6	6,765.4	47.1	13.2	47.02	-86.3	-314.3	2,296.8	2,248.0	48.84	47.026		
9,200.0	7,100.0	6,762.9	6,761.8	48.9	13.2	46.73	-86.9	-314.5	2,394.5	2,344.5	50.09	47.807		
9,300.0	7,100.0	6,751.0	6,750.0	50.8	13.1	45.82	-88.6	-315.2	2,492.5	2,441.5	50.98	48.890		
9,400.0	7,100.0	6,751.0	6,750.0	52.6	13.1	45.82	-88.6	-315.2	2,590.5	2,538.1	52.37	49.464		
9,500.0	7,100.0	6,751.0	6,750.0	54.5	13.1	45.82	-88.6	-315.2	2,688.6	2,634.9	53.77	50.005		
9,600.0	7,100.0	6,751.0	6,750.0	56.3	13.1	45.82	-88.6	-315.2	2,786.9	2,731.7	55.17	50.517		
9,700.0	7,100.0	6,751.0	6,750.0	58.2	13.1	45.82	-88.6	-315.2	2,885.3	2,828.7	56.57	51.001		
9,800.0	7,100.0	6,751.0	6,750.0	60.1	13.1	45.82	-88.6	-315.2	2,983.8	2,925.8	57.98	51.460		
9,900.0	7,100.0	6,751.0	6,750.0	61.9	13.1	45.82	-88.6	-315.2	3,082.4	3,023.0	59.40	51.895		
10,000.0	7,100.0	6,751.0	6,750.0	63.8	13.1	45.82	-88.6	-315.2	3,181.1	3,120.3	60.81	52.308		
10,100.0	7,100.0	6,751.0	6,750.0	65.7	13.1	45.82	-88.6	-315.2	3,279.8	3,217.6	62.23	52.701		
10,200.0	7,100.0	6,737.4	6,736.5	67.6	13.1	44.79	-90.3	-315.9	3,378.5	3,315.6	62.90	53.709		
10,300.0	7,100.0	6,735.6	6,734.7	69.4	13.1	44.66	-90.5	-316.0	3,477.4	3,413.2	64.21	54.156		
10,400.0	7,100.0	6,733.9	6,733.0	71.3	13.1	44.53	-90.7	-316.0	3,576.3	3,510.8	65.52	54.584		
10,500.0	7,100.0	6,720.0	6,719.2	73.2	13.1	43.52	-92.0	-316.5	3,675.4	3,609.3	66.11	55.592		
10,600.0	7,100.0	6,720.0	6,719.2	75.1	13.1	43.52	-92.0	-316.5	3,774.4	3,706.9	67.50	55.914		
10,700.0	7,100.0	6,720.0	6,719.2	77.0	13.1	43.52	-92.0	-316.5	3,873.4	3,804.5	68.89	56.222		
10,800.0	7,100.0	6,720.0	6,719.2	78.9	13.1	43.52	-92.0	-316.5	3,972.5	3,902.2	70.29	56.517		
10,900.0	7,100.0	6,720.0	6,719.2	80.8	13.1	43.52	-92.0	-316.5	4,071.6	3,999.9	71.68	56.800		
11,000.0	7,100.0	6,720.0	6,719.2	82.7	13.1	43.52	-92.0	-316.5	4,170.8	4,097.7	73.08	57.072		
11,100.0	7,100.0	6,720.0	6,719.2	84.6	13.1	43.52	-92.0	-316.5	4,270.0	4,195.5	74.48	57.332		
11,200.0	7,100.0	6,720.0	6,719.2	86.5	13.1	43.52	-92.0	-316.5	4,369.2	4,293.4	75.88	57.582		
11,300.0	7,100.0	6,720.0	6,719.2	88.4	13.1	43.52	-92.0	-316.5	4,468.5	4,391.2	77.28	57.823		
11,400.0	7,100.0	6,720.0	6,719.2	90.3	13.1	43.52	-92.0	-316.5	4,567.8	4,489.2	78.68	58.054		
11,500.0	7,100.0	6,720.0	6,719.2	92.2	13.1	43.52	-92.0	-316.5	4,667.2	4,587.1	80.09	58.277		
11,600.0	7,100.0	6,720.0	6,719.2	94.1	13.1	43.52	-92.0	-316.5	4,766.5	4,685.1	81.49	58.492		
11,700.0	7,100.0	6,720.0	6,719.2	96.0	13.1	43.52	-92.0	-316.5	4,865.9	4,783.0	82.90	58.699		
11,800.0	7,100.0	6,720.0	6,719.2	97.9	13.1	43.52	-92.0	-316.5	4,965.4	4,881.1	84.30	58.898		
11,900.0	7,100.0	6,720.0	6,719.2	99.8	13.1	43.52	-92.0	-316.5	5,064.8	4,979.1	85.71	59.091		
12,000.0	7,100.0	6,720.0	6,719.2	101.7	13.1	43.52	-92.0	-316.5	5,164.3	5,077.1	87.12	59.277		
12,100.0	7,100.0	6,720.0	6,719.2	103.6	13.1	43.52	-92.0	-316.5	5,263.7	5,175.2	88.53	59.457		
12,200.0	7,100.0	6,720.0	6,719.2	105.6	13.1	43.52	-92.0	-316.5	5,363.2	5,273.3	89.94	59.631		
12,300.0	7,100.0	6,720.0	6,719.2	107.5	13.1	43.52	-92.0	-316.5	5,462.8	5,371.4	91.35	59.800		
12,400.0	7,100.0	6,720.0	6,719.2	109.4	13.1	43.52	-92.0	-316.5	5,562.3	5,469.5	92.76	59.962		
12,500.0	7,100.0	6,720.0	6,719.2	111.3	13.1	43.52	-92.0	-316.5	5,661.9	5,567.7	94.18	60.120		
12,600.0	7,100.0	6,720.0	6,719.2	113.2	13.1	43.52	-92.0	-316.5	5,761.4	5,665.8	95.59	60.273		
12,700.0	7,100.0	6,720.0	6,719.2	115.1	13.1	43.52	-92.0	-316.5	5,861.0	5,764.0	97.00	60.421		
12,800.0	7,100.0	6,720.0	6,719.2	117.0	13.1	43.52	-92.0	-316.5	5,960.6	5,862.2	98.42	60.565		
12,900.0	7,100.0	6,720.0	6,719.2	118.9	13.1	43.52	-92.0	-316.5	6,060.2	5,960.4	99.83	60.704		
13,000.0	7,100.0	6,720.0	6,719.2	120.9	13.1	43.52	-92.0	-316.5	6,159.8	6,058.6	101.25	60.840		
13,100.0	7,100.0	6,720.0	6,719.2	122.8	13.1	43.52	-92.0	-316.5	6,259.5	6,156.8	102.66	60.971		
13,200.0	7,100.0	6,720.0	6,719.2	124.7	13.1	43.52	-92.0	-316.5	6,359.1	6,255.1	104.08	61.099		
13,300.0	7,100.0	6,720.0	6,719.2	126.6	13.1	43.52	-92.0	-316.5	6,458.8	6,353.3	105.50	61.223		
13,400.0	7,100.0	6,720.0	6,719.2	128.5	13.1	43.52	-92.0	-316.5	6,558.5	6,451.5	106.91	61.344		
13,500.0	7,100.0	6,720.0	6,719.2	130.4	13.1	43.52	-92.0	-316.5	6,658.1	6,549.8	108.33	61.461		
13,600.0	7,100.0	6,720.0	6,719.2	132.4	13.1	43.52	-92.0	-316.5	6,757.8	6,648.1	109.75	61.575		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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

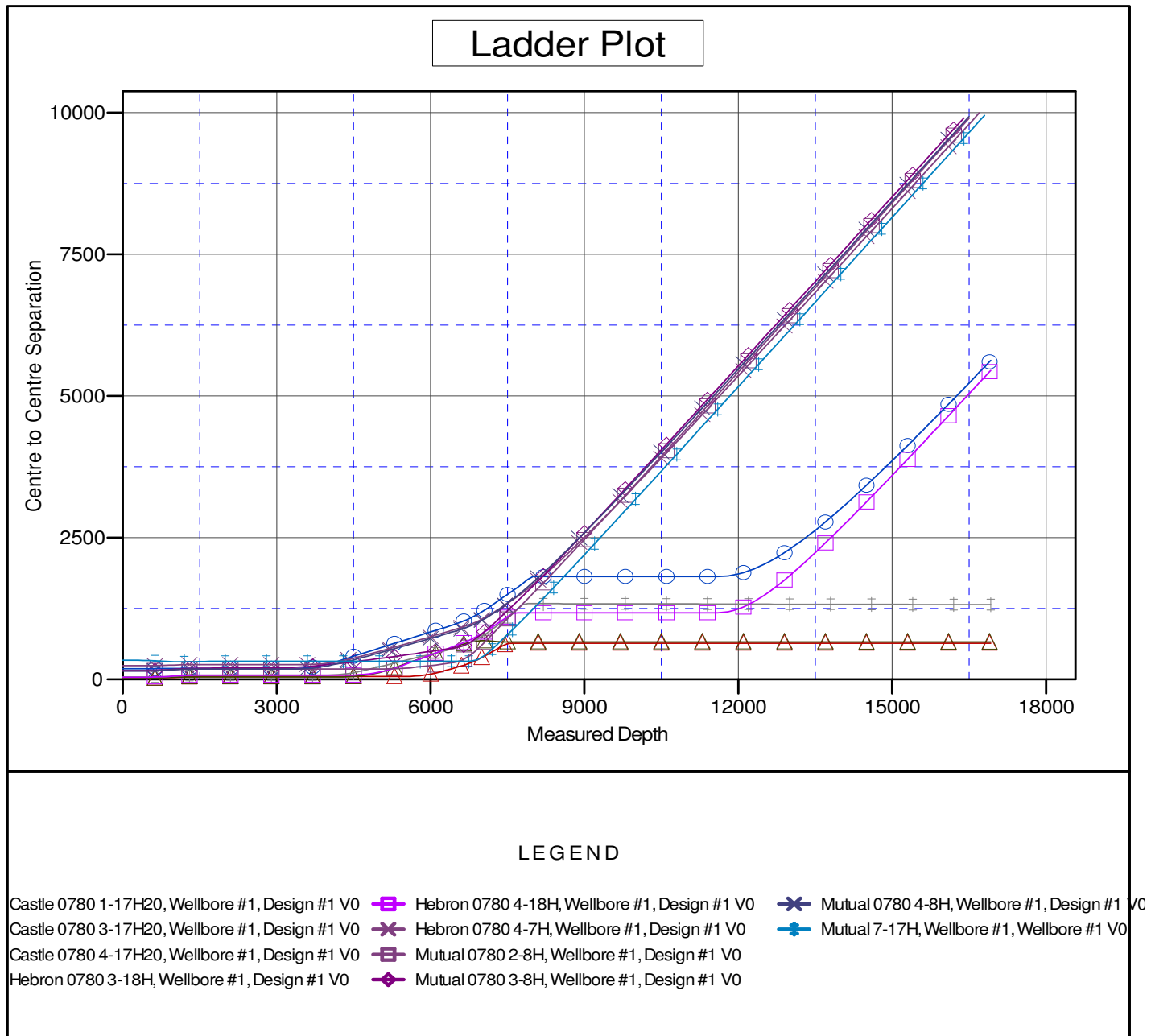
Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 1031-Sperry MWD													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,700.0	7,100.0	6,720.0	6,719.2	134.3	13.1	43.52	-92.0	-316.5	6,857.5	6,746.4	111.17	61.687		
13,800.0	7,100.0	6,720.0	6,719.2	136.2	13.1	43.52	-92.0	-316.5	6,957.2	6,844.6	112.59	61.795		
13,900.0	7,100.0	6,720.0	6,719.2	138.1	13.1	43.52	-92.0	-316.5	7,056.9	6,942.9	114.00	61.900		
14,000.0	7,100.0	6,720.0	6,719.2	140.0	13.1	43.52	-92.0	-316.5	7,156.7	7,041.2	115.42	62.003		
14,100.0	7,100.0	6,720.0	6,719.2	142.0	13.1	43.52	-92.0	-316.5	7,256.4	7,139.6	116.84	62.103		
14,200.0	7,100.0	6,720.0	6,719.2	143.9	13.1	43.52	-92.0	-316.5	7,356.1	7,237.9	118.26	62.201		
14,300.0	7,100.0	6,720.0	6,719.2	145.8	13.1	43.52	-92.0	-316.5	7,455.9	7,336.2	119.68	62.296		
14,400.0	7,100.0	6,720.0	6,719.2	147.7	13.1	43.52	-92.0	-316.5	7,555.6	7,434.5	121.11	62.389		
14,500.0	7,100.0	6,720.0	6,719.2	149.6	13.1	43.52	-92.0	-316.5	7,655.4	7,532.9	122.53	62.480		
14,600.0	7,100.0	6,720.0	6,719.2	151.6	13.1	43.52	-92.0	-316.5	7,755.2	7,631.2	123.95	62.568		
14,700.0	7,100.0	6,720.0	6,719.2	153.5	13.1	43.52	-92.0	-316.5	7,854.9	7,729.6	125.37	62.655		
14,800.0	7,100.0	6,720.0	6,719.2	155.4	13.1	43.52	-92.0	-316.5	7,954.7	7,827.9	126.79	62.739		
14,900.0	7,100.0	6,720.0	6,719.2	157.3	13.1	43.52	-92.0	-316.5	8,054.5	7,926.3	128.21	62.821		
15,000.0	7,100.0	6,720.0	6,719.2	159.3	13.1	43.52	-92.0	-316.5	8,154.3	8,024.6	129.63	62.902		
15,100.0	7,100.0	6,720.0	6,719.2	161.2	13.1	43.52	-92.0	-316.5	8,254.1	8,123.0	131.06	62.981		
15,200.0	7,100.0	6,720.0	6,719.2	163.1	13.1	43.52	-92.0	-316.5	8,353.9	8,221.4	132.48	63.058		
15,300.0	7,100.0	6,720.0	6,719.2	165.0	13.1	43.52	-92.0	-316.5	8,453.7	8,319.8	133.90	63.133		
15,400.0	7,100.0	6,720.0	6,719.2	166.9	13.1	43.52	-92.0	-316.5	8,553.5	8,418.1	135.33	63.207		
15,500.0	7,100.0	6,720.0	6,719.2	168.9	13.1	43.52	-92.0	-316.5	8,653.3	8,516.5	136.75	63.279		
15,600.0	7,100.0	6,720.0	6,719.2	170.8	13.1	43.52	-92.0	-316.5	8,753.1	8,614.9	138.17	63.349		
15,700.0	7,100.0	6,720.0	6,719.2	172.7	13.1	43.52	-92.0	-316.5	8,852.9	8,713.3	139.60	63.418		
15,800.0	7,100.0	6,720.0	6,719.2	174.6	13.1	43.52	-92.0	-316.5	8,952.7	8,811.7	141.02	63.486		
15,900.0	7,100.0	6,720.0	6,719.2	176.6	13.1	43.52	-92.0	-316.5	9,052.6	8,910.1	142.44	63.552		
16,000.0	7,100.0	6,720.0	6,719.2	178.5	13.1	43.52	-92.0	-316.5	9,152.4	9,008.5	143.87	63.617		
16,100.0	7,100.0	6,720.0	6,719.2	180.4	13.1	43.52	-92.0	-316.5	9,252.2	9,106.9	145.29	63.681		
16,200.0	7,100.0	6,720.0	6,719.2	182.3	13.1	43.52	-92.0	-316.5	9,352.1	9,205.3	146.71	63.743		
16,300.0	7,100.0	6,720.0	6,719.2	184.3	13.1	43.52	-92.0	-316.5	9,451.9	9,303.8	148.14	63.804		
16,400.0	7,100.0	6,720.0	6,719.2	186.2	13.1	43.52	-92.0	-316.5	9,551.7	9,402.2	149.56	63.864		
16,500.0	7,100.0	6,720.0	6,719.2	188.1	13.1	43.52	-92.0	-316.5	9,651.6	9,500.6	150.99	63.923		
16,600.0	7,100.0	6,720.0	6,719.2	190.0	13.1	43.52	-92.0	-316.5	9,751.4	9,599.0	152.41	63.980		
16,700.0	7,100.0	6,704.0	6,703.3	192.0	13.0	42.37	-93.0	-316.6	9,850.9	9,699.4	151.51	65.019		
16,800.0	7,100.0	6,703.9	6,703.1	193.9	13.0	42.36	-93.0	-316.6	9,950.8	9,797.9	152.89	65.085		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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 @ 8172.0usft (Original Well Elev) Coordinates are relative to: Castle 0780 2-17H20
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.58°



SandRidge Energy

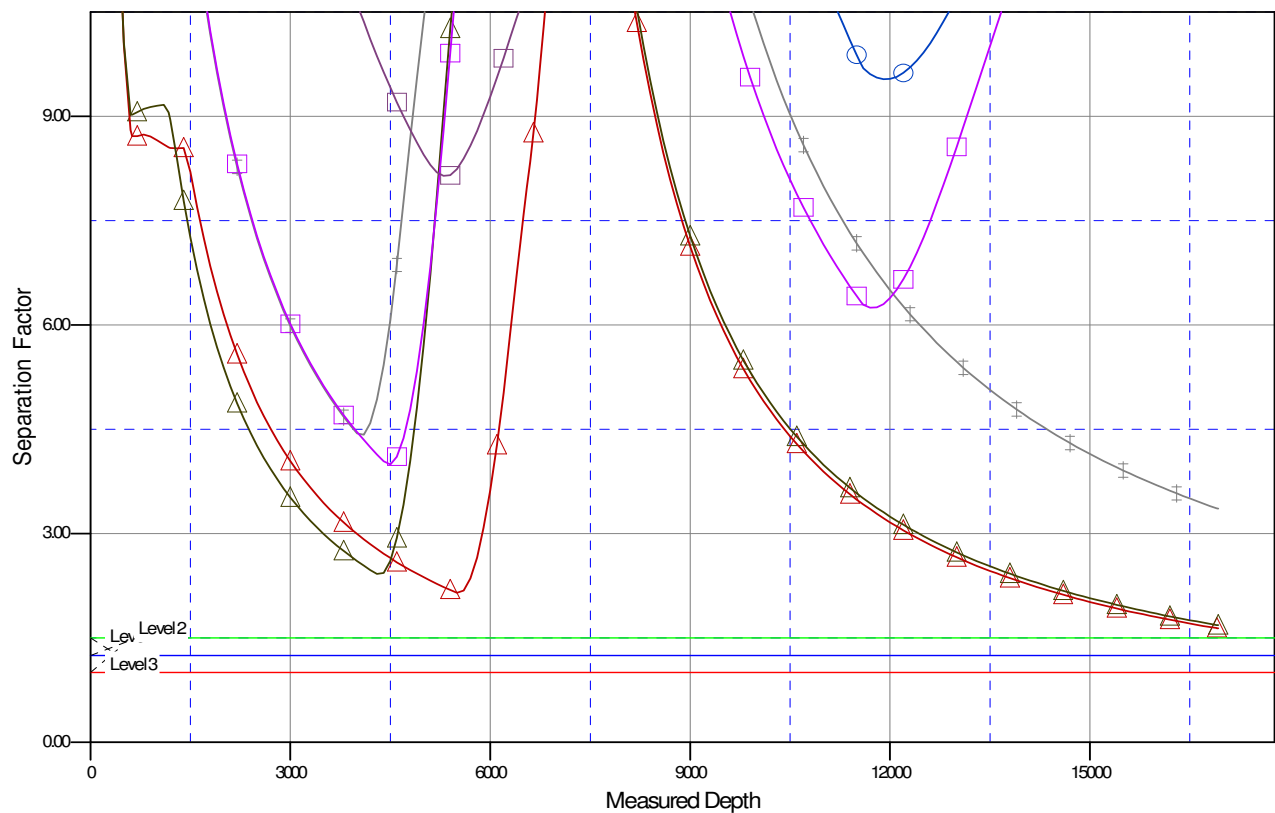
Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 2-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 2-17H20	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 @ 8172.0usft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Castle 0780 2-17H20
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: -0.58°

Separation Factor Plot



LEGEND

- Castle 0780 1-17H20, Wellbore #1, Design #1 V0
- Castle 0780 3-17H20, Wellbore #1, Design #1 V0
- Castle 0780 4-17H20, Wellbore #1, Design #1 V0
- Hebron 0780 3-18H, Wellbore #1, Design #1 V0
- Hebron 0780 4-18H, Wellbore #1, Design #1 V0
- Hebron 0780 4-7H, Wellbore #1, Design #1 V0
- Mutual 0780 2-8H, Wellbore #1, Design #1 V0
- Mutual 0780 3-8H, Wellbore #1, Design #1 V0
- Mutual 0780 4-8H, Wellbore #1, Design #1 V0
- Mutual 7-17H, Wellbore #1, Wellbore #1 V0