

SandRidge Energy

North Park Basin

T7N-R80W-S7

Hebron 1-18HR

Wellbore #1

Hebron 1-18HR

Anticollision Report

05 January, 2016

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Reference	Hebron 1-18HR		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		WARNING: There is hidden tight data in this project
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 usft		Error Surface: Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	12/18/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	11,956.1	Hebron 1-18HR (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
Offset Well - Wellbore - Design						
T7N-R80W-S7						
Hebron 01-18H - Wellbore #1 - Wellbore #1	3,177.7	3,199.6	83.6	76.6	11.891	CC, ES
Hebron 01-18H - Wellbore #1 - Wellbore #1	7,500.0	7,005.0	117.9	99.2	6.289	SF
Hebron 0780 2-18H - Wellbore #1 - Design #1	4,296.4	4,318.0	27.6	8.5	1.446	Level 3, CC
Hebron 0780 2-18H - Wellbore #1 - Design #1	4,300.0	4,321.6	27.6	8.5	1.445	Level 3, ES, SF
Hebron 5-18H - Wellbore #1 - Wellbore #1	5,733.5	5,726.4	48.2	23.6	1.962	Level 4, CC, ES, SF

Offset Design	T7N-R80W-S7 - Hebron 01-18H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program:	50-Gyro												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	19.1	19.1	0.0	0.0	130.28	-72.0	85.0	111.4					
100.0	100.0	118.9	118.9	0.1	0.0	130.67	-72.5	84.4	111.2	111.1	0.11	988.023		
200.0	200.0	217.7	217.7	0.3	0.0	131.30	-73.8	84.1	111.9	111.5	0.34	331.664		
300.0	300.0	317.0	317.0	0.6	0.0	131.97	-75.9	84.3	113.5	112.9	0.56	201.855		
400.0	400.0	417.2	417.2	0.8	0.0	132.69	-78.1	84.7	115.2	114.4	0.79	146.396		
500.0	500.0	517.2	517.2	1.0	0.0	133.50	-80.4	84.7	116.8	115.8	1.01	115.418		
600.0	600.0	617.7	617.6	1.2	0.0	134.43	-82.8	84.5	118.3	117.0	1.24	95.652		
700.0	700.0	719.0	718.9	1.5	0.0	135.60	-84.9	83.2	118.9	117.4	1.46	81.357		
800.0	800.0	819.9	819.7	1.7	0.0	136.90	-86.5	81.0	118.5	116.8	1.69	70.308		
900.0	900.0	919.6	919.3	1.9	0.0	138.27	-88.1	78.6	118.1	116.2	1.91	61.791		
1,000.0	1,000.0	1,019.5	1,019.3	2.1	0.0	139.74	-89.9	76.2	117.8	115.7	2.14	55.176		
1,084.1	1,084.1	1,103.4	1,103.1	2.3	0.0	140.89	-91.3	74.2	117.6	115.3	2.32	50.612		
1,100.0	1,100.0	1,119.0	1,118.7	2.4	0.0	141.11	-91.6	73.9	117.7	115.3	2.36	49.855		
1,200.0	1,200.0	1,220.2	1,219.8	2.6	0.0	142.64	-93.2	71.1	117.2	114.7	2.59	45.356		
1,300.0	1,300.0	1,320.4	1,320.0	2.8	0.0	143.88	-94.1	68.7	116.5	113.7	2.81	41.469		
1,400.0	1,400.0	1,423.2	1,422.8	3.0	0.0	144.63	-93.4	66.3	114.7	111.6	3.03	37.782		
1,500.0	1,500.0	1,525.8	1,525.2	3.3	0.0	144.23	-89.1	64.2	110.0	106.7	3.26	33.743		
1,600.0	1,600.0	1,626.1	1,625.3	3.5	0.0	141.91	-81.5	63.9	103.8	100.3	3.48	29.781		
1,700.0	1,700.0	1,724.1	1,722.9	3.7	0.0	138.30	-73.6	65.6	98.7	94.9	3.71	26.601		
1,800.0	1,800.0	1,823.2	1,821.8	3.9	0.0	134.88	-67.3	67.6	95.4	91.4	3.93	24.247		
1,900.0	1,900.0	1,923.2	1,921.7	4.2	0.0	133.01	-63.0	67.6	92.5	88.3	4.16	22.238		
2,000.0	2,000.0	2,021.8	2,020.2	4.4	0.0	132.73	-61.1	66.1	90.0	85.6	4.38	20.532		

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

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Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S7 - Hebron 01-18H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 50-Gyro													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		
2,100.0	2,100.0	2,120.8	2,119.3	4.6	0.0	132.64	-60.6	65.8	89.5	84.9	4.61	19.419		
2,189.0	2,189.0	2,209.5	2,208.0	4.8	0.0	132.57	-60.4	65.8	89.3	84.5	4.81	18.577		
2,200.0	2,200.0	2,220.5	2,219.0	4.8	0.0	132.58	-60.4	65.8	89.3	84.5	4.83	18.483		
2,300.0	2,300.0	2,320.7	2,319.2	5.1	0.0	132.68	-60.6	65.7	89.4	84.3	5.06	17.668		
2,380.8	2,380.8	2,401.3	2,399.8	5.2	0.0	132.65	-60.4	65.6	89.2	84.0	5.24	17.028		
2,400.0	2,400.0	2,420.4	2,418.9	5.3	0.0	132.67	-60.5	65.6	89.2	83.9	5.28	16.891		
2,500.0	2,500.0	2,520.2	2,518.7	5.5	0.0	132.77	-60.8	65.7	89.5	84.0	5.51	16.247		
2,600.0	2,600.0	2,620.3	2,618.8	5.7	0.0	132.70	-60.9	66.0	89.8	84.0	5.73	15.662		
2,700.0	2,700.0	2,720.6	2,719.1	6.0	0.0	132.50	-60.7	66.2	89.9	83.9	5.96	15.087		
2,800.0	2,800.0	2,821.1	2,819.5	6.2	0.0	131.53	-59.4	67.0	89.5	83.4	6.18	14.486		
2,900.0	2,900.0	2,922.0	2,920.4	6.4	0.0	129.14	-55.8	68.6	88.4	82.0	6.41	13.802		
3,000.0	3,000.0	3,022.5	3,020.7	6.6	0.0	125.02	-49.7	70.9	86.6	80.0	6.63	13.064		
3,100.0	3,100.0	3,123.0	3,120.7	6.9	0.0	119.06	-41.0	73.8	84.5	77.6	6.86	12.325		
3,177.7	3,177.7	3,199.6	3,196.7	7.0	0.0	112.22	-31.6	77.4	83.6	76.6	7.03	11.891	CC, ES	
3,200.0	3,200.0	3,221.7	3,218.5	7.1	0.0	109.86	-28.4	78.7	83.7	76.6	7.08	11.816		
3,300.0	3,300.0	3,320.1	3,315.6	7.3	0.0	99.00	-13.4	84.7	85.8	78.5	7.31	11.742		
3,400.0	3,400.0	3,417.4	3,411.1	7.5	0.0	87.83	3.5	91.8	92.2	84.6	7.53	12.240		
3,500.0	3,500.0	3,515.5	3,507.3	7.8	0.0	77.80	21.5	99.4	102.3	94.6	7.75	13.196		
3,600.0	3,600.0	3,614.3	3,604.3	8.0	0.0	70.09	38.7	106.8	114.6	106.6	7.98	14.356		
3,700.0	3,700.0	3,714.1	3,702.5	8.2	0.0	64.46	54.6	114.3	127.7	119.5	8.20	15.565		
3,800.0	3,800.0	3,815.5	3,802.7	8.4	0.0	60.23	69.0	120.7	140.0	131.5	8.43	16.606		
3,900.0	3,900.0	3,916.7	3,902.8	8.7	0.0	56.58	82.7	125.4	151.1	142.5	8.65	17.463		
4,000.0	4,000.0	4,017.0	4,002.1	8.9	0.0	53.03	96.6	128.4	161.6	152.7	8.88	18.199		
4,100.0	4,100.0	4,117.0	4,101.0	9.1	0.0	49.60	110.9	130.3	172.1	163.0	9.10	18.903		
4,200.0	4,200.0	4,216.5	4,199.6	9.3	0.0	46.64	124.6	132.0	182.5	173.2	9.33	19.569		
4,300.0	4,300.0	4,315.1	4,297.2	9.6	0.0	43.98	138.3	133.5	193.4	183.9	9.55	20.250		
4,400.0	4,400.0	4,412.2	4,393.4	9.8	0.0	41.97	151.4	136.2	205.2	195.5	9.78	20.991		
4,500.0	4,500.0	4,510.4	4,490.6	10.0	0.0	40.67	164.0	140.9	218.1	208.1	10.00	21.805		
4,600.0	4,600.0	4,609.7	4,589.1	10.2	0.0	39.87	175.9	146.9	231.1	220.9	10.23	22.601		
4,700.0	4,700.0	4,711.1	4,689.6	10.5	0.0	39.05	187.8	152.4	243.7	233.2	10.45	23.312		
4,800.0	4,800.0	4,813.1	4,790.8	10.7	0.0	37.91	200.1	155.9	255.2	244.5	10.68	23.903		
4,900.0	4,900.0	4,910.5	4,887.4	10.9	0.0	36.76	212.1	158.4	266.6	255.7	10.90	24.457		
5,000.0	5,000.0	5,009.2	4,985.4	11.1	0.0	35.99	223.8	162.5	278.6	267.5	11.13	25.039		
5,100.0	5,100.0	5,110.8	5,086.3	11.3	0.0	-95.17	234.8	167.5	290.4	279.1	11.33	25.639		
5,200.0	5,199.8	5,213.0	5,187.8	11.5	0.0	-96.66	245.8	170.9	301.8	290.3	11.51	26.226		
5,300.0	5,299.5	5,315.0	5,289.1	11.7	0.0	-99.07	256.9	171.7	312.6	300.9	11.69	26.738		
5,400.0	5,398.7	5,409.0	5,382.5	11.9	0.0	-101.89	267.9	171.4	325.1	313.2	11.88	27.362		
5,500.0	5,497.5	5,505.2	5,478.0	12.1	0.0	-105.18	280.1	170.8	340.0	327.9	12.08	28.150		
5,600.0	5,595.6	5,601.6	5,573.6	12.3	0.0	-108.52	292.0	170.8	357.1	344.9	12.28	29.074		
5,704.7	5,697.6	5,700.7	5,672.0	12.5	0.0	-111.96	304.0	171.6	378.0	365.5	12.51	30.210		
5,800.0	5,790.0	5,791.9	5,762.5	12.8	0.0	-115.29	314.7	172.7	398.8	386.1	12.74	31.316		
5,900.0	5,887.0	5,886.0	5,856.0	13.1	0.0	-118.32	325.7	174.4	422.1	409.1	12.98	32.519		
6,000.0	5,984.0	5,980.4	5,949.7	13.4	0.0	-120.99	336.8	176.7	446.5	433.3	13.23	33.749		
6,100.0	6,081.0	6,074.9	6,043.5	13.7	0.0	-123.37	347.8	179.0	471.7	458.2	13.49	34.976		
6,200.0	6,178.0	6,164.9	6,132.8	14.0	0.0	-125.35	358.9	182.0	498.2	484.5	13.75	36.242		
6,297.7	6,272.8	6,257.1	6,224.2	14.3	0.0	-127.08	370.6	185.8	525.1	511.1	14.01	37.488		
6,300.0	6,275.0	6,259.1	6,226.2	14.3	0.0	-126.36	370.9	185.9	525.7	511.7	14.02	37.504		
6,325.0	6,299.4	6,281.5	6,248.4	14.4	0.0	-116.78	373.8	186.8	532.0	517.9	14.12	37.674		
6,350.0	6,323.9	6,304.9	6,271.5	14.5	0.0	-103.90	376.8	187.7	537.1	522.9	14.20	37.811		
6,375.0	6,348.5	6,327.9	6,294.3	14.5	0.0	-88.05	379.9	188.5	541.0	526.7	14.27	37.917		
6,400.0	6,373.1	6,350.7	6,316.9	14.6	0.0	-71.32	383.0	189.3	543.6	529.3	14.31	37.995		
6,425.0	6,397.7	6,373.0	6,338.9	14.7	0.0	-56.47	386.2	190.0	545.2	530.8	14.33	38.048		

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Survey Program: 50-Gyro													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		
6,450.0	6,422.2	6,397.4	6,363.1	14.7	0.0	-44.87	389.7	190.8	545.5	531.1	14.33	38.074		
6,475.0	6,446.5	6,420.7	6,386.1	14.8	0.0	-36.28	393.0	191.6	544.5	530.2	14.30	38.070		
6,500.0	6,470.5	6,443.1	6,408.3	14.8	0.0	-29.98	396.4	192.3	542.4	528.1	14.26	38.038		
6,525.0	6,494.2	6,466.0	6,430.9	14.9	0.0	-25.30	399.9	193.2	539.1	524.9	14.19	37.981		
6,550.0	6,517.5	6,479.9	6,444.5	14.9	0.0	-21.64	402.2	193.9	534.8	520.7	14.11	37.905		
6,575.0	6,540.4	6,498.0	6,462.3	15.0	0.0	-18.78	405.6	195.2	529.6	515.6	14.00	37.823		
6,600.0	6,562.8	6,508.9	6,472.9	15.0	0.0	-16.43	407.8	196.2	523.7	509.8	13.88	37.727		
6,625.0	6,584.6	6,523.1	6,486.6	15.0	0.0	-14.48	410.9	197.9	516.9	503.2	13.74	37.620		
6,650.0	6,605.8	6,536.9	6,499.9	15.1	0.0	-12.79	414.3	199.9	509.4	495.8	13.58	37.497		
6,675.0	6,626.3	6,550.5	6,512.8	15.1	0.0	-11.31	417.8	202.1	501.1	487.7	13.41	37.355		
6,700.0	6,646.1	6,562.0	6,523.7	15.1	0.0	-10.00	421.0	204.3	492.0	478.8	13.23	37.188		
6,725.0	6,665.1	6,576.1	6,536.8	15.1	0.0	-8.76	425.2	207.1	482.3	469.2	13.04	36.992		
6,750.0	6,683.2	6,593.0	6,552.4	15.2	0.0	-7.53	430.6	210.8	471.8	459.0	12.83	36.764		
6,775.0	6,700.4	6,600.8	6,559.5	15.2	0.0	-6.52	433.3	212.5	460.7	448.0	12.63	36.486		
6,800.0	6,716.7	6,613.3	6,570.8	15.2	0.0	-5.44	437.8	215.5	448.8	436.4	12.41	36.157		
6,825.0	6,732.0	6,625.0	6,581.3	15.2	0.0	-4.38	442.2	218.3	436.4	424.2	12.20	35.762		
6,850.0	6,746.3	6,638.0	6,592.8	15.3	0.0	-3.25	447.3	221.6	423.2	411.2	11.99	35.289		
6,875.0	6,759.4	6,650.1	6,603.4	15.3	0.0	-2.10	452.3	224.8	409.4	397.7	11.79	34.723		
6,878.1	6,761.0	6,657.0	6,609.3	15.3	0.0	-1.73	455.2	226.6	407.7	396.0	11.77	34.649		
6,900.0	6,771.9	6,657.0	6,609.3	15.3	0.0	-1.73	455.2	226.6	395.5	383.7	11.80	33.514		
7,000.0	6,821.9	6,720.0	6,662.2	15.6	0.0	1.44	484.4	244.2	344.0	332.0	11.99	28.704		
7,028.1	6,836.0	6,740.7	6,679.3	15.8	0.0	2.63	494.7	250.0	330.6	318.6	12.05	27.446		
7,050.0	6,846.5	6,752.0	6,688.5	15.9	0.0	3.37	500.4	253.1	320.2	308.3	11.90	26.894		
7,075.0	6,857.4	6,770.4	6,703.4	16.0	0.0	4.69	509.9	258.2	307.5	295.7	11.77	26.132		
7,100.0	6,867.1	6,784.0	6,714.3	16.2	0.0	5.86	517.2	261.9	294.2	282.6	11.65	25.248		
7,125.0	6,875.6	6,800.5	6,727.3	16.4	0.0	7.45	526.1	266.6	280.4	268.8	11.58	24.203		
7,150.0	6,882.9	6,815.0	6,738.6	16.6	0.0	9.15	534.2	270.8	265.9	254.4	11.56	23.005		
7,175.0	6,888.9	6,828.2	6,748.7	16.8	0.0	11.01	541.6	274.8	251.0	239.4	11.59	21.658		
7,200.0	6,893.6	6,840.9	6,758.3	17.0	0.0	13.16	549.0	278.8	235.7	224.0	11.69	20.163		
7,225.0	6,897.0	6,853.4	6,767.5	17.2	0.0	15.67	556.4	282.9	220.1	208.3	11.88	18.532		
7,250.0	6,899.1	6,865.5	6,776.2	17.5	0.0	18.59	563.7	287.0	204.4	192.2	12.17	16.789		
7,275.0	6,900.0	6,879.0	6,785.8	17.7	0.0	22.34	572.0	291.7	188.5	175.9	12.62	14.936		
7,278.1	6,900.0	6,879.0	6,785.8	17.8	0.0	22.45	572.0	291.7	186.5	173.9	12.65	14.745		
7,300.0	6,900.0	6,889.5	6,793.0	18.0	0.0	25.01	578.6	295.4	173.0	160.0	13.01	13.304		
7,400.0	6,900.0	6,942.0	6,827.2	19.1	0.0	40.37	613.5	314.7	126.3	110.9	15.44	8.180		
7,468.2	6,900.0	6,983.6	6,851.0	19.9	0.0	54.07	643.7	330.4	115.8	98.1	17.71	6.535		
7,500.0	6,900.0	7,005.0	6,861.9	20.3	0.0	60.77	660.2	338.7	117.9	99.2	18.75	6.289 SF		
7,600.0	6,900.0	7,078.7	6,891.3	21.6	0.0	78.16	720.7	368.6	145.5	124.3	21.24	6.852		
7,700.0	6,900.0	7,168.4	6,910.5	23.0	0.0	87.13	799.6	406.4	186.2	163.3	22.84	8.152		
7,800.0	6,900.0	7,259.0	6,918.4	24.5	0.0	89.84	881.7	443.6	227.2	202.9	24.31	9.347		
7,900.0	6,900.0	7,355.2	6,919.9	26.0	0.0	90.20	969.4	483.1	268.3	242.4	25.85	10.379		
8,000.0	6,900.0	7,465.7	6,919.7	27.6	0.0	90.15	1,072.2	523.7	305.0	277.6	27.44	11.115		
8,100.0	6,900.0	7,565.4	6,919.5	29.2	0.0	90.09	1,166.4	556.3	337.7	308.7	29.08	11.615		
8,200.0	6,900.0	7,657.2	6,920.0	30.9	0.0	90.16	1,253.2	586.2	370.3	339.6	30.74	12.045		
8,300.0	6,900.0	7,761.4	6,921.3	32.6	0.0	90.34	1,351.9	619.5	402.3	369.8	32.44	12.400		
8,400.0	6,900.0	7,861.1	6,922.0	34.3	0.0	90.42	1,446.9	649.7	432.6	398.4	34.16	12.663		
8,500.0	6,900.0	7,953.8	6,923.3	36.1	0.0	90.57	1,535.4	677.2	462.3	426.4	35.90	12.877		
8,600.0	6,900.0	8,039.4	6,922.5	37.8	0.0	90.44	1,616.7	704.1	493.6	456.0	37.67	13.106		
8,700.0	6,900.0	8,132.1	6,920.3	39.6	0.0	90.15	1,704.5	733.7	525.6	486.2	39.45	13.325		
8,800.0	6,900.0	8,233.1	6,916.2	41.4	0.0	89.70	1,800.1	766.0	557.6	516.4	41.24	13.520		
8,900.0	6,900.0	8,329.3	6,910.8	43.2	0.0	89.16	1,891.3	796.2	589.1	546.0	43.05	13.683		
9,000.0	6,900.0	8,428.6	6,906.0	45.0	0.0	88.74	1,985.5	827.3	620.5	575.7	44.87	13.831		

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 Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S7 - Hebron 01-18H - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 50-Gyro													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	6,900.0	8,519.6	6,900.7	46.8	0.0	88.31	2,071.9	855.2	651.4	604.7	46.69	13.952		
9,200.0	6,900.0	8,619.4	6,897.1	48.6	0.0	88.07	2,166.9	885.9	682.2	633.7	48.52	14.062		
9,300.0	6,900.0	8,694.8	6,895.6	50.5	0.0	88.01	2,238.4	909.5	713.7	663.3	50.35	14.174		
9,400.0	6,900.0	8,778.5	6,892.0	52.3	0.0	87.80	2,316.8	938.6	748.5	696.4	52.19	14.341		
9,500.0	6,900.0	8,880.1	6,889.4	54.2	0.0	87.70	2,412.5	972.6	782.0	728.0	54.04	14.470		
9,600.0	6,900.0	8,971.9	6,889.2	56.0	0.0	87.77	2,498.9	1,003.6	815.7	759.8	55.90	14.593		
9,700.0	6,900.0	9,064.7	6,891.7	57.9	0.0	88.04	2,586.1	1,035.2	849.7	791.9	57.77	14.708		
9,800.0	6,900.0	9,177.0	6,895.5	59.7	0.0	88.39	2,691.9	1,072.7	883.0	823.4	59.64	14.806		
9,900.0	6,900.0	9,276.0	6,896.7	61.6	0.0	88.53	2,785.7	1,104.4	915.1	853.5	61.51	14.877		
10,000.0	6,900.0	9,352.4	6,893.0	63.5	0.0	88.33	2,857.5	1,130.0	948.5	885.1	63.38	14.965		
10,100.0	6,900.0	9,473.8	6,887.9	65.3	0.0	88.09	2,972.3	1,169.2	981.0	915.8	65.25	15.034		
10,200.0	6,900.0	9,569.4	6,884.4	67.2	0.0	87.94	3,063.0	1,199.2	1,012.5	945.3	67.13	15.082		
10,300.0	6,900.0	9,723.6	6,879.1	69.1	0.0	87.73	3,210.8	1,243.0	1,041.2	972.2	69.01	15.089		
10,400.0	6,900.0	9,836.3	6,874.5	71.0	0.0	87.54	3,320.0	1,270.3	1,065.6	994.7	70.89	15.032		
10,500.0	6,900.0	9,905.2	6,867.4	72.9	0.0	87.19	3,386.4	1,287.2	1,090.7	1,018.0	72.76	14.991		
10,600.0	6,900.0	9,944.0	6,862.5	74.8	0.0	86.95	3,423.5	1,297.5	1,119.0	1,044.4	74.64	14.993		
10,700.0	6,900.0	9,944.0	6,862.5	76.7	0.0	86.95	3,423.5	1,297.5	1,154.4	1,077.9	76.53	15.085		
10,800.0	6,900.0	9,944.0	6,862.5	78.5	0.0	86.95	3,423.5	1,297.5	1,197.1	1,118.7	78.42	15.265		
10,900.0	6,900.0	9,944.0	6,862.5	80.4	0.0	86.95	3,423.5	1,297.5	1,246.4	1,166.1	80.31	15.519		
11,000.0	6,900.0	9,944.0	6,862.5	82.3	0.0	86.95	3,423.5	1,297.5	1,301.5	1,219.3	82.21	15.831		
11,100.0	6,900.0	9,944.0	6,862.5	84.2	0.0	86.95	3,423.5	1,297.5	1,361.7	1,277.6	84.11	16.190		
11,200.0	6,900.0	9,944.0	6,862.5	86.1	0.0	86.95	3,423.5	1,297.5	1,426.4	1,340.4	86.01	16.585		
11,300.0	6,900.0	9,944.0	6,862.5	88.0	0.0	86.95	3,423.5	1,297.5	1,495.0	1,407.1	87.90	17.007		
11,400.0	6,900.0	9,944.0	6,862.5	89.9	0.0	86.95	3,423.5	1,297.5	1,567.0	1,477.2	89.81	17.449		
11,500.0	6,900.0	9,944.0	6,862.5	91.8	0.0	86.95	3,423.5	1,297.5	1,641.9	1,550.2	91.71	17.904		
11,600.0	6,900.0	9,944.0	6,862.5	93.7	0.0	86.95	3,423.5	1,297.5	1,719.4	1,625.8	93.61	18.367		
11,700.0	6,900.0	9,944.0	6,862.5	95.6	0.0	86.95	3,423.5	1,297.5	1,799.1	1,703.6	95.52	18.835		
11,800.0	6,900.0	9,944.0	6,862.5	97.6	0.0	86.95	3,423.5	1,297.5	1,880.7	1,783.3	97.42	19.305		
11,900.0	6,900.0	9,944.0	6,862.5	99.5	0.0	86.95	3,423.5	1,297.5	1,964.0	1,864.7	99.33	19.774		
11,957.6	6,900.0	9,944.0	6,862.5	100.4	0.0	86.95	3,423.5	1,297.5	2,012.8	1,912.5	100.21	20.085		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S7 - Hebron 0780 2-18H - 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	21.0	21.0	0.0	0.0	-165.84	-31.7	-8.0	32.7	32.7	0.02	1,712.586		
100.0	100.0	121.0	121.0	0.1	0.1	-165.84	-31.7	-8.0	32.7	32.5	0.25	130.633		
200.0	200.0	221.0	221.0	0.3	0.4	-165.84	-31.7	-8.0	32.7	32.0	0.70	46.759		
300.0	300.0	321.0	321.0	0.6	0.6	-165.84	-31.7	-8.0	32.7	31.6	1.15	28.476		
400.0	400.0	421.0	421.0	0.8	0.8	-165.84	-31.7	-8.0	32.7	31.1	1.60	20.472		
500.0	500.0	521.0	521.0	1.0	1.0	-165.84	-31.7	-8.0	32.7	30.7	2.05	15.980		
600.0	600.0	621.0	621.0	1.2	1.3	-165.84	-31.7	-8.0	32.7	30.2	2.50	13.104		
700.0	700.0	721.0	721.0	1.5	1.5	-165.84	-31.7	-8.0	32.7	29.8	2.95	11.106		
800.0	800.0	821.0	821.0	1.7	1.7	-165.84	-31.7	-8.0	32.7	29.3	3.40	9.636		
900.0	900.0	921.0	921.0	1.9	1.9	-165.84	-31.7	-8.0	32.7	28.9	3.85	8.510		
1,000.0	1,000.0	1,021.0	1,021.0	2.1	2.2	-165.84	-31.7	-8.0	32.7	28.4	4.30	7.620		
1,100.0	1,100.0	1,121.0	1,121.0	2.4	2.4	-165.84	-31.7	-8.0	32.7	28.0	4.75	6.898		
1,200.0	1,200.0	1,221.0	1,221.0	2.6	2.6	-165.84	-31.7	-8.0	32.7	27.5	5.20	6.301		
1,300.0	1,300.0	1,321.0	1,321.0	2.8	2.8	-165.84	-31.7	-8.0	32.7	27.1	5.64	5.800		
1,400.0	1,400.0	1,421.0	1,421.0	3.0	3.1	-165.84	-31.7	-8.0	32.7	26.6	6.09	5.372		
1,500.0	1,500.0	1,521.0	1,521.0	3.3	3.3	-165.84	-31.7	-8.0	32.7	26.2	6.54	5.003		
1,600.0	1,600.0	1,621.0	1,621.0	3.5	3.5	-165.84	-31.7	-8.0	32.7	25.7	6.99	4.681		
1,700.0	1,700.0	1,721.0	1,721.0	3.7	3.7	-165.84	-31.7	-8.0	32.7	25.3	7.44	4.398		
1,800.0	1,800.0	1,821.0	1,821.0	3.9	4.0	-165.84	-31.7	-8.0	32.7	24.8	7.89	4.148		
1,900.0	1,900.0	1,921.0	1,921.0	4.2	4.2	-165.84	-31.7	-8.0	32.7	24.4	8.34	3.924		
2,000.0	2,000.0	2,021.0	2,021.0	4.4	4.4	-165.84	-31.7	-8.0	32.7	23.9	8.79	3.724		
2,100.0	2,100.0	2,121.0	2,121.0	4.6	4.6	-165.84	-31.7	-8.0	32.7	23.5	9.24	3.543		
2,200.0	2,200.0	2,221.0	2,221.0	4.8	4.9	-165.84	-31.7	-8.0	32.7	23.0	9.69	3.378		
2,300.0	2,300.0	2,321.0	2,321.0	5.1	5.1	-165.84	-31.7	-8.0	32.7	22.6	10.14	3.229		
2,400.0	2,400.0	2,421.0	2,421.0	5.3	5.3	-165.84	-31.7	-8.0	32.7	22.1	10.59	3.091		
2,500.0	2,500.0	2,521.0	2,521.0	5.5	5.5	-165.84	-31.7	-8.0	32.7	21.7	11.04	2.966		
2,600.0	2,600.0	2,621.0	2,621.0	5.7	5.8	-165.84	-31.7	-8.0	32.7	21.2	11.49	2.850		
2,700.0	2,700.0	2,721.0	2,721.0	6.0	6.0	-165.84	-31.7	-8.0	32.7	20.8	11.94	2.742		
2,800.0	2,800.0	2,821.0	2,821.0	6.2	6.2	-165.84	-31.7	-8.0	32.7	20.4	12.39	2.643		
2,900.0	2,900.0	2,921.0	2,921.0	6.4	6.4	-165.84	-31.7	-8.0	32.7	19.9	12.84	2.550		
3,000.0	3,000.0	3,021.0	3,021.0	6.6	6.7	-165.84	-31.7	-8.0	32.7	19.5	13.29	2.464		
3,100.0	3,100.0	3,121.0	3,121.0	6.9	6.9	-165.84	-31.7	-8.0	32.7	19.0	13.74	2.383		
3,200.0	3,200.0	3,221.0	3,221.0	7.1	7.1	-165.84	-31.7	-8.0	32.7	18.6	14.19	2.308		
3,300.0	3,300.0	3,321.0	3,321.0	7.3	7.3	-165.84	-31.7	-8.0	32.7	18.1	14.64	2.237		
3,400.0	3,400.0	3,421.0	3,421.0	7.5	7.6	-165.84	-31.7	-8.0	32.7	17.7	15.09	2.170		
3,500.0	3,500.0	3,521.0	3,521.0	7.8	7.8	-165.84	-31.7	-8.0	32.7	17.2	15.53	2.107		
3,600.0	3,600.0	3,621.0	3,621.0	8.0	8.0	-165.84	-31.7	-8.0	32.7	16.8	15.98	2.048		
3,700.0	3,700.0	3,721.0	3,721.0	8.2	8.2	-165.84	-31.7	-8.0	32.7	16.3	16.43	1.992 Level 4		
3,800.0	3,800.0	3,821.0	3,821.0	8.4	8.5	-165.84	-31.7	-8.0	32.7	15.9	16.88	1.939 Level 4		
3,900.0	3,900.0	3,921.0	3,921.0	8.7	8.7	-165.84	-31.7	-8.0	32.7	15.4	17.33	1.889 Level 4		
4,000.0	4,000.0	4,021.1	4,021.1	8.9	8.9	-165.96	-31.7	-7.9	32.7	14.9	17.78	1.839 Level 4		
4,100.0	4,100.0	4,121.7	4,121.6	9.1	9.1	-169.82	-30.9	-5.6	31.4	13.2	18.22	1.725 Level 4		
4,200.0	4,200.0	4,221.9	4,221.7	9.3	9.3	179.72	-29.0	0.1	29.0	10.4	18.65	1.557 Level 4		
4,296.4	4,296.4	4,318.0	4,317.4	9.5	9.5	161.57	-26.2	8.7	27.6	8.5	19.08	1.446 Level 3, CC		
4,300.0	4,300.0	4,321.6	4,321.0	9.6	9.5	160.73	-26.0	9.1	27.6	8.5	19.09	1.445 Level 3, ES, SF		
4,400.0	4,400.0	4,420.6	4,419.1	9.8	9.8	136.03	-22.0	21.2	30.6	11.1	19.54	1.568 Level 4		
4,500.0	4,500.0	4,518.5	4,515.7	10.0	10.0	114.98	-16.9	36.4	40.5	20.5	19.99	2.025		
4,600.0	4,600.0	4,615.2	4,610.5	10.2	10.2	101.36	-10.9	54.4	56.5	36.0	20.45	2.763		
4,700.0	4,700.0	4,710.5	4,703.3	10.5	10.5	93.06	-4.0	75.2	77.3	56.4	20.91	3.697		
4,800.0	4,800.0	4,804.3	4,793.7	10.7	10.8	87.83	3.7	98.4	102.2	80.8	21.39	4.777		
4,900.0	4,900.0	4,896.3	4,881.7	10.9	11.1	84.36	12.2	123.9	130.6	108.7	21.88	5.968		
5,000.0	5,000.0	4,986.4	4,967.0	11.1	11.4	81.95	21.4	151.5	162.3	139.9	22.38	7.249		

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

SandRidge Energy

Anticollision Report

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Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S7 - Hebron 0780 2-18H - 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		
5,100.0	5,100.0	5,080.0	5,055.0	11.3	11.8	-50.29	31.5	181.8	194.9	172.5	22.47	8.677		
5,200.0	5,199.8	5,174.7	5,144.0	11.5	12.2	-52.09	41.8	212.5	225.8	203.0	22.85	9.884		
5,300.0	5,299.5	5,269.9	5,233.4	11.7	12.6	-54.01	52.1	243.4	255.0	231.8	23.23	10.977		
5,400.0	5,398.7	5,365.3	5,323.1	11.9	13.1	-56.05	62.4	274.3	282.7	259.0	23.62	11.965		
5,500.0	5,497.5	5,460.9	5,412.9	12.1	13.6	-58.21	72.7	305.3	309.0	284.9	24.03	12.855		
5,600.0	5,595.6	5,556.5	5,502.8	12.3	14.1	-60.49	83.0	336.3	334.1	309.7	24.47	13.655		
5,704.7	5,697.6	5,656.4	5,596.7	12.5	14.6	-63.00	93.8	368.7	359.5	334.6	24.97	14.401		
5,800.0	5,790.0	5,747.4	5,682.2	12.8	15.1	-65.60	103.7	398.2	382.7	357.2	25.48	15.021		
5,900.0	5,887.0	5,842.9	5,771.9	13.1	15.7	-68.01	114.0	429.2	407.7	381.6	26.04	15.654		
6,000.0	5,984.0	5,938.3	5,861.6	13.4	16.2	-70.15	124.3	460.1	433.3	406.7	26.64	16.265		
6,100.0	6,081.0	6,033.7	5,951.3	13.7	16.8	-72.05	134.6	491.1	459.4	432.2	27.27	16.849		
6,200.0	6,178.0	6,129.2	6,041.0	14.0	17.3	-73.75	144.9	522.0	486.0	458.1	27.92	17.405		
6,297.7	6,272.8	6,222.4	6,128.7	14.3	17.9	-75.24	155.0	552.2	512.3	483.7	28.59	17.921		
6,300.0	6,275.0	6,224.6	6,130.7	14.3	17.9	-74.57	155.2	552.9	512.9	484.3	28.61	17.929		
6,325.0	6,299.4	6,248.6	6,153.3	14.4	18.0	-65.47	157.8	560.7	519.3	490.5	28.82	18.020		
6,350.0	6,323.9	6,272.9	6,176.1	14.5	18.2	-52.90	160.5	568.6	525.1	496.1	29.01	18.102		
6,375.0	6,348.5	6,297.4	6,199.1	14.5	18.3	-37.19	163.1	576.5	530.2	501.0	29.16	18.178		
6,400.0	6,373.1	6,322.0	6,222.2	14.6	18.5	-20.45	165.8	584.5	534.6	505.3	29.29	18.251		
6,425.0	6,397.7	6,358.3	6,256.4	14.7	18.7	-5.29	169.5	596.3	538.3	508.9	29.40	18.307		
6,450.0	6,422.2	6,555.4	6,443.5	14.7	19.5	12.42	146.4	648.7	536.8	507.2	29.60	18.137		
6,475.0	6,446.5	6,653.6	6,531.5	14.8	19.7	27.70	106.8	665.6	529.0	499.5	29.52	17.921		
6,500.0	6,470.5	6,672.1	6,547.6	14.8	19.7	36.61	97.9	668.3	520.4	491.0	29.45	17.672		
6,525.0	6,494.2	6,689.8	6,562.8	14.9	19.7	43.93	89.4	670.8	511.8	482.4	29.38	17.418		
6,550.0	6,517.5	6,706.4	6,577.3	14.9	19.8	50.13	81.4	673.1	503.4	474.1	29.34	17.157		
6,575.0	6,540.4	6,722.1	6,590.8	15.0	19.8	55.48	73.9	675.3	495.3	466.0	29.32	16.890		
6,600.0	6,562.8	6,736.7	6,603.5	15.0	19.8	60.17	66.9	677.4	487.6	458.3	29.33	16.627		
6,625.0	6,584.6	6,750.3	6,615.3	15.0	19.8	64.32	60.4	679.3	480.5	451.2	29.35	16.374		
6,650.0	6,605.8	6,762.7	6,626.0	15.1	19.9	67.98	54.4	681.1	474.2	444.8	29.38	16.136		
6,675.0	6,626.3	6,774.0	6,635.8	15.1	19.9	71.19	49.0	682.7	468.6	439.2	29.43	15.923		
6,700.0	6,646.1	6,784.1	6,644.6	15.1	19.9	73.98	44.2	684.2	464.1	434.6	29.49	15.739		
6,725.0	6,665.1	6,793.0	6,652.3	15.1	19.9	76.35	39.9	685.4	460.7	431.2	29.55	15.592		
6,750.0	6,683.2	6,801.4	6,659.5	15.2	19.9	78.39	35.9	686.6	458.5	428.9	29.61	15.483		
6,775.0	6,700.4	6,808.0	6,665.2	15.2	19.9	79.98	32.6	687.5	457.6	427.9	29.68	15.418		
6,779.2	6,703.2	6,808.9	6,666.0	15.2	19.9	80.20	32.1	687.7	457.6	427.9	29.69	15.412		
6,800.0	6,716.7	6,812.7	6,669.1	15.2	20.0	81.08	30.3	688.2	458.1	428.3	29.74	15.401		
6,825.0	6,732.0	6,815.6	6,671.6	15.2	20.0	81.71	28.8	688.6	459.9	430.1	29.81	15.431		
6,850.0	6,746.3	6,817.0	6,672.8	15.3	20.0	81.92	28.0	688.8	463.3	433.4	29.87	15.508		
6,875.0	6,759.4	6,817.1	6,672.9	15.3	20.0	81.74	28.0	688.8	467.9	438.0	29.94	15.628		
6,878.1	6,761.0	6,817.1	6,672.9	15.3	20.0	81.70	28.0	688.8	468.6	438.7	29.95	15.646		
6,900.0	6,771.9	6,816.6	6,672.4	15.3	20.0	81.63	28.2	688.7	474.0	443.9	30.02	15.786		
7,000.0	6,821.9	6,814.7	6,670.9	15.6	20.0	81.40	29.2	688.5	509.7	479.3	30.45	16.740		
7,028.1	6,836.0	6,814.3	6,670.5	15.8	20.0	81.35	29.4	688.4	522.8	492.2	30.60	17.085		
7,050.0	6,846.5	6,813.7	6,670.0	15.9	20.0	79.78	29.7	688.3	533.7	503.0	30.69	17.387		
7,075.0	6,857.4	6,812.2	6,668.8	16.0	20.0	77.80	30.5	688.1	546.8	516.0	30.79	17.756		
7,100.0	6,867.1	6,810.0	6,666.9	16.2	19.9	75.63	31.6	687.8	560.4	529.5	30.87	18.154		
7,125.0	6,875.6	6,807.2	6,664.5	16.4	19.9	73.32	33.0	687.4	574.5	543.6	30.92	18.581		
7,150.0	6,882.9	6,800.0	6,658.3	16.6	19.9	70.44	36.6	686.4	589.1	558.2	30.90	19.061		
7,175.0	6,888.9	6,800.0	6,658.3	16.8	19.9	68.38	36.6	686.4	603.9	572.9	30.94	19.520		
7,200.0	6,893.6	6,795.4	6,654.3	17.0	19.9	65.80	38.8	685.8	618.9	588.0	30.90	20.033		
7,225.0	6,897.0	6,786.5	6,646.6	17.2	19.9	62.82	43.0	684.5	634.1	603.3	30.78	20.599		
7,250.0	6,899.1	6,776.4	6,637.9	17.5	19.9	59.83	47.9	683.1	649.3	618.7	30.64	21.192		
7,275.0	6,900.0	6,765.1	6,628.1	17.7	19.9	56.88	53.3	681.5	664.4	633.9	30.48	21.801		

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 Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S7 - Hebron 0780 2-18H - 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		
7,278.1	6,900.0	6,763.6	6,626.8	17.8	19.9	56.51	54.0	681.2	666.3	635.8	30.45	21.878		
7,300.0	6,900.0	6,753.1	6,617.7	18.0	19.8	55.62	59.0	679.8	679.5	649.1	30.49	22.286		
7,400.0	6,900.0	6,705.2	6,576.2	19.1	19.8	51.69	82.0	672.9	743.5	712.8	30.67	24.244		
7,500.0	6,900.0	6,657.3	6,534.7	20.3	19.7	48.03	105.0	666.1	811.9	781.1	30.85	26.317		
7,600.0	6,900.0	6,625.0	6,506.6	21.6	19.6	45.71	120.1	661.4	884.2	852.9	31.29	28.258		
7,700.0	6,900.0	6,610.2	6,493.4	23.0	19.6	44.65	126.4	659.0	960.4	928.3	32.04	29.972		
7,800.0	6,900.0	6,600.0	6,484.3	24.5	19.6	43.93	130.6	657.2	1,040.0	1,007.1	32.91	31.605		
7,900.0	6,900.0	6,575.0	6,461.6	26.0	19.5	42.16	139.9	652.6	1,122.3	1,088.8	33.47	33.535		
8,000.0	6,900.0	6,575.0	6,461.6	27.6	19.5	42.16	139.9	652.6	1,206.9	1,172.3	34.58	34.906		
8,100.0	6,900.0	6,550.0	6,438.5	29.2	19.5	40.42	148.1	647.6	1,293.4	1,258.3	35.11	36.841		
8,200.0	6,900.0	6,550.0	6,438.5	30.9	19.5	40.42	148.1	647.6	1,381.4	1,345.2	36.25	38.113		
8,300.0	6,900.0	6,539.0	6,428.2	32.6	19.4	39.66	151.3	645.2	1,470.9	1,433.8	37.11	39.638		
8,400.0	6,900.0	6,525.0	6,415.1	34.3	19.4	38.71	155.0	642.1	1,561.5	1,523.6	37.88	41.225		
8,500.0	6,900.0	6,525.0	6,415.1	36.1	19.4	38.71	155.0	642.1	1,653.0	1,613.9	39.04	42.336		
8,600.0	6,900.0	6,525.0	6,415.1	37.8	19.4	38.71	155.0	642.1	1,745.4	1,705.2	40.23	43.389		
8,700.0	6,900.0	6,512.8	6,403.6	39.6	19.3	37.89	158.0	639.3	1,838.5	1,797.4	41.03	44.812		
8,800.0	6,900.0	6,500.0	6,391.5	41.4	19.3	37.04	160.7	636.3	1,932.2	1,890.5	41.79	46.241		
8,900.0	6,900.0	6,500.0	6,391.5	43.2	19.3	37.04	160.7	636.3	2,026.5	1,983.5	42.97	47.159		
9,000.0	6,900.0	6,500.0	6,391.5	45.0	19.3	37.04	160.7	636.3	2,121.2	2,077.0	44.16	48.030		
9,100.0	6,900.0	6,500.0	6,391.5	46.8	19.3	37.04	160.7	636.3	2,216.4	2,171.0	45.37	48.856		
9,200.0	6,900.0	6,500.0	6,391.5	48.6	19.3	37.04	160.7	636.3	2,312.0	2,265.4	46.58	49.640		
9,300.0	6,900.0	6,487.7	6,379.8	50.5	19.3	36.23	163.1	633.2	2,407.8	2,360.5	47.30	50.910		
9,400.0	6,900.0	6,475.0	6,367.7	52.3	19.2	35.41	165.2	630.0	2,504.1	2,456.1	47.98	52.193		
9,500.0	6,900.0	6,475.0	6,367.7	54.2	19.2	35.41	165.2	630.0	2,600.5	2,551.3	49.17	52.886		
9,600.0	6,900.0	6,475.0	6,367.7	56.0	19.2	35.41	165.2	630.0	2,697.1	2,646.8	50.37	53.546		
9,700.0	6,900.0	6,475.0	6,367.7	57.9	19.2	35.41	165.2	630.0	2,794.0	2,742.5	51.57	54.176		
9,800.0	6,900.0	6,475.0	6,367.7	59.7	19.2	35.41	165.2	630.0	2,891.1	2,838.4	52.78	54.776		
9,900.0	6,900.0	6,475.0	6,367.7	61.6	19.2	35.41	165.2	630.0	2,988.4	2,934.5	53.99	55.350		
10,000.0	6,900.0	6,475.0	6,367.7	63.5	19.2	35.41	165.2	630.0	3,085.9	3,030.7	55.21	55.898		
10,100.0	6,900.0	6,475.0	6,367.7	65.3	19.2	35.41	165.2	630.0	3,183.5	3,127.1	56.42	56.422		
10,200.0	6,900.0	6,475.0	6,367.7	67.2	19.2	35.41	165.2	630.0	3,281.3	3,223.7	57.64	56.923		
10,300.0	6,900.0	6,463.6	6,356.8	69.1	19.2	34.69	166.8	627.1	3,379.1	3,320.8	58.27	57.994		
10,400.0	6,900.0	6,461.9	6,355.2	71.0	19.2	34.58	167.1	626.6	3,477.0	3,417.7	59.38	58.553		
10,500.0	6,900.0	6,450.0	6,343.8	72.9	19.1	33.83	168.5	623.4	3,575.2	3,515.3	59.94	59.650		
10,600.0	6,900.0	6,450.0	6,343.8	74.8	19.1	33.83	168.5	623.4	3,673.4	3,612.2	61.13	60.088		
10,700.0	6,900.0	6,450.0	6,343.8	76.7	19.1	33.83	168.5	623.4	3,771.6	3,709.3	62.33	60.508		
10,800.0	6,900.0	6,450.0	6,343.8	78.5	19.1	33.83	168.5	623.4	3,870.0	3,806.4	63.53	60.913		
10,900.0	6,900.0	6,450.0	6,343.8	80.4	19.1	33.83	168.5	623.4	3,968.4	3,903.6	64.73	61.302		
11,000.0	6,900.0	6,450.0	6,343.8	82.3	19.1	33.83	168.5	623.4	4,066.9	4,000.9	65.94	61.677		
11,100.0	6,900.0	6,450.0	6,343.8	84.2	19.1	33.83	168.5	623.4	4,165.4	4,098.3	67.14	62.037		
11,200.0	6,900.0	6,450.0	6,343.8	86.1	19.1	33.83	168.5	623.4	4,264.1	4,195.7	68.35	62.385		
11,300.0	6,900.0	6,450.0	6,343.8	88.0	19.1	33.83	168.5	623.4	4,362.8	4,293.2	69.56	62.721		
11,400.0	6,900.0	6,450.0	6,343.8	89.9	19.1	33.83	168.5	623.4	4,461.5	4,390.7	70.77	63.045		
11,500.0	6,900.0	6,450.0	6,343.8	91.8	19.1	33.83	168.5	623.4	4,560.3	4,488.3	71.98	63.358		
11,600.0	6,900.0	6,450.0	6,343.8	93.7	19.1	33.83	168.5	623.4	4,659.2	4,586.0	73.19	63.660		
11,700.0	6,900.0	6,450.0	6,343.8	95.6	19.1	33.83	168.5	623.4	4,758.1	4,683.7	74.40	63.952		
11,800.0	6,900.0	6,450.0	6,343.8	97.6	19.1	33.83	168.5	623.4	4,857.0	4,781.4	75.61	64.235		
11,900.0	6,900.0	6,450.0	6,343.8	99.5	19.1	33.83	168.5	623.4	4,956.0	4,879.2	76.83	64.508		
11,957.6	6,900.0	6,450.0	6,343.8	100.4	19.1	33.83	168.5	623.4	5,013.1	4,935.7	77.34	64.820		

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 Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S7 - Hebron 5-18H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 50-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	136.22	-72.0	69.0	99.7					
100.0	100.0	100.4	100.4	0.1	0.2	136.48	-72.1	68.4	99.4	99.1	0.28	355.032		
190.2	190.2	190.1	190.1	0.3	0.4	136.93	-72.5	67.8	99.2	98.6	0.68	146.956		
200.0	200.0	200.0	200.0	0.3	0.4	136.99	-72.6	67.7	99.2	98.5	0.72	138.102		
300.0	300.0	299.5	299.5	0.6	0.6	137.64	-73.6	67.1	99.6	98.4	1.16	85.888		
400.0	400.0	399.4	399.4	0.8	0.8	138.74	-75.3	66.0	100.1	98.5	1.61	62.336		
500.0	500.0	499.2	499.2	1.0	1.0	140.11	-77.3	64.6	100.8	98.7	2.04	49.351		
600.0	600.0	599.1	599.0	1.2	1.3	142.01	-80.1	62.6	101.7	99.2	2.49	40.812		
700.0	700.0	700.0	699.8	1.5	1.5	144.28	-83.0	59.7	102.2	99.3	2.93	34.867		
800.0	800.0	799.6	799.3	1.7	1.7	147.01	-86.2	55.9	102.7	99.3	3.38	30.417		
900.0	900.0	899.6	899.1	1.9	1.9	149.91	-89.5	51.9	103.5	99.6	3.82	27.108		
1,000.0	1,000.0	999.6	999.0	2.1	2.2	152.82	-92.8	47.7	104.4	100.1	4.26	24.526		
1,100.0	1,100.0	1,100.1	1,099.4	2.4	2.4	155.52	-95.8	43.6	105.3	100.6	4.68	22.475		
1,200.0	1,200.0	1,200.8	1,200.0	2.6	2.6	156.77	-96.8	41.5	105.3	100.2	5.11	20.630		
1,216.4	1,216.4	1,217.2	1,216.4	2.6	2.6	156.86	-96.8	41.4	105.3	100.1	5.17	20.357		
1,300.0	1,300.0	1,300.7	1,300.0	2.8	2.8	157.02	-97.0	41.1	105.4	99.8	5.53	19.057		
1,400.0	1,400.0	1,400.9	1,400.1	3.0	3.0	157.04	-97.0	41.1	105.3	99.4	5.96	17.669		
1,500.0	1,500.0	1,501.0	1,500.2	3.3	3.2	157.06	-96.9	41.0	105.2	98.8	6.39	16.456		
1,600.0	1,600.0	1,600.9	1,600.1	3.5	3.4	157.05	-96.7	41.0	105.0	98.2	6.82	15.408		
1,700.0	1,700.0	1,700.8	1,700.1	3.7	3.6	157.03	-96.6	41.0	104.9	97.7	7.25	14.481		
1,737.4	1,737.4	1,738.2	1,737.4	3.8	3.7	157.06	-96.6	40.9	104.9	97.5	7.41	14.161		
1,800.0	1,800.0	1,800.6	1,799.9	3.9	3.8	157.10	-96.7	40.8	105.0	97.3	7.68	13.665		
1,900.0	1,900.0	1,900.9	1,900.2	4.2	4.0	157.14	-96.7	40.8	105.0	96.9	8.11	12.939		
2,000.0	2,000.0	2,000.9	2,000.1	4.4	4.2	157.18	-96.6	40.7	104.8	96.3	8.55	12.265		
2,100.0	2,100.0	2,100.8	2,100.1	4.6	4.4	157.27	-96.6	40.5	104.8	95.8	8.99	11.659		
2,200.0	2,200.0	2,200.9	2,200.2	4.8	4.6	157.28	-96.5	40.4	104.6	95.2	9.42	11.112		
2,300.0	2,300.0	2,300.9	2,300.1	5.1	4.8	157.31	-96.4	40.3	104.5	94.7	9.85	10.611		
2,333.3	2,333.3	2,334.1	2,333.3	5.1	4.9	157.34	-96.4	40.3	104.5	94.5	10.00	10.455		
2,400.0	2,400.0	2,400.6	2,399.9	5.3	5.0	157.39	-96.5	40.2	104.6	94.3	10.29	10.164		
2,500.0	2,500.0	2,500.7	2,499.9	5.5	5.2	157.38	-96.6	40.3	104.7	94.0	10.72	9.768		
2,600.0	2,600.0	2,600.9	2,600.1	5.7	5.4	157.39	-96.6	40.2	104.6	93.5	11.15	9.384		
2,674.4	2,674.4	2,675.2	2,674.4	5.9	5.6	157.39	-96.5	40.2	104.6	93.1	11.47	9.118		
2,700.0	2,700.0	2,700.8	2,700.0	6.0	5.7	157.40	-96.5	40.2	104.6	93.0	11.58	9.031		
2,800.0	2,800.0	2,800.7	2,799.9	6.2	5.9	157.46	-96.6	40.1	104.6	92.6	12.01	8.708		
2,900.0	2,900.0	2,900.6	2,899.8	6.4	6.1	157.45	-96.7	40.2	104.8	92.3	12.45	8.416		
3,000.0	3,000.0	3,000.8	3,000.0	6.6	6.3	157.47	-96.9	40.2	104.9	92.0	12.88	8.142		
3,100.0	3,100.0	3,100.9	3,100.1	6.9	6.5	157.46	-96.8	40.2	104.8	91.5	13.32	7.868		
3,200.0	3,200.0	3,200.8	3,200.0	7.1	6.7	157.52	-96.8	40.0	104.8	91.0	13.75	7.617		
3,300.0	3,300.0	3,300.8	3,300.0	7.3	6.9	157.55	-96.8	40.0	104.7	90.6	14.19	7.381		
3,400.0	3,400.0	3,400.8	3,400.0	7.5	7.1	157.62	-96.8	39.9	104.7	90.1	14.63	7.160		
3,424.2	3,424.2	3,425.0	3,424.2	7.6	7.2	157.62	-96.8	39.9	104.7	90.0	14.73	7.109		
3,500.0	3,500.0	3,500.7	3,499.9	7.8	7.3	157.64	-96.9	39.8	104.7	89.7	15.06	6.954		
3,600.0	3,600.0	3,600.9	3,600.1	8.0	7.5	157.68	-96.9	39.8	104.8	89.3	15.50	6.759		
3,700.0	3,700.0	3,700.8	3,700.0	8.2	7.8	157.65	-96.8	39.8	104.7	88.7	15.93	6.570		
3,743.1	3,743.1	3,743.9	3,743.1	8.3	7.8	157.65	-96.8	39.8	104.7	88.5	16.12	6.493		
3,800.0	3,800.0	3,800.8	3,800.0	8.4	8.0	157.68	-96.8	39.7	104.7	88.3	16.37	6.394		
3,900.0	3,900.0	3,900.8	3,900.1	8.7	8.2	157.70	-96.8	39.7	104.6	87.8	16.80	6.227		
4,000.0	4,000.0	4,001.0	4,000.2	8.9	8.4	157.66	-96.7	39.7	104.5	87.3	17.23	6.064		
4,073.1	4,073.1	4,073.9	4,073.1	9.0	8.5	157.64	-96.6	39.7	104.4	86.9	17.55	5.950		
4,100.0	4,100.0	4,100.7	4,099.9	9.1	8.6	157.62	-96.6	39.8	104.4	86.8	17.67	5.912		
4,200.0	4,200.0	4,200.8	4,200.0	9.3	8.8	157.58	-96.6	39.8	104.5	86.4	18.10	5.773		
4,300.0	4,300.0	4,300.9	4,300.1	9.6	9.0	157.53	-96.5	39.9	104.4	85.9	18.53	5.636		

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 Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S7 - Hebron 5-18H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 50-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		
4,400.0	4,400.0	4,400.8	4,400.0	9.8	9.2	157.44	-96.4	40.0	104.3	85.4	18.96	5.504		
4,421.4	4,421.4	4,422.1	4,421.4	9.8	9.2	157.44	-96.4	40.0	104.3	85.3	19.05	5.477		
4,500.0	4,500.0	4,500.7	4,500.0	10.0	9.4	157.48	-96.4	40.0	104.4	85.0	19.39	5.382		
4,594.5	4,594.5	4,595.2	4,594.5	10.2	9.6	157.56	-96.5	39.8	104.4	84.6	19.81	5.270		
4,600.0	4,600.0	4,600.8	4,600.0	10.2	9.6	157.57	-96.5	39.8	104.4	84.5	19.83	5.263		
4,700.0	4,700.0	4,700.6	4,699.8	10.5	9.8	157.62	-96.6	39.8	104.5	84.2	20.26	5.156		
4,800.0	4,800.0	4,800.7	4,799.9	10.7	10.0	157.64	-96.8	39.8	104.6	83.9	20.69	5.056		
4,900.0	4,900.0	4,900.7	4,899.9	10.9	10.2	157.70	-96.9	39.7	104.7	83.6	21.13	4.956		
5,000.0	5,000.0	5,000.7	4,999.9	11.1	10.5	157.70	-97.0	39.8	104.8	83.3	21.56	4.862		
5,100.0	5,100.0	5,100.7	5,100.0	11.3	10.7	27.59	-97.0	39.8	103.3	81.3	21.98	4.700		
5,200.0	5,199.8	5,200.5	5,199.8	11.5	10.9	29.13	-97.1	39.7	98.7	76.4	22.35	4.418		
5,300.0	5,299.5	5,300.2	5,299.4	11.7	11.1	31.97	-97.2	39.5	91.3	68.6	22.72	4.019		
5,400.0	5,398.7	5,399.5	5,398.7	11.9	11.3	36.73	-97.3	39.4	81.2	58.1	23.08	3.519		
5,500.0	5,497.5	5,498.3	5,497.6	12.1	11.5	44.62	-97.2	39.4	69.2	45.8	23.47	2.950		
5,600.0	5,595.6	5,596.3	5,595.6	12.3	11.7	58.19	-97.2	39.4	57.0	33.1	23.91	2.386		
5,704.7	5,697.6	5,698.4	5,697.6	12.5	11.9	82.07	-97.2	39.4	48.7	24.3	24.44	1.994 Level 4		
5,733.5	5,725.5	5,726.4	5,725.6	12.6	12.0	90.16	-97.2	39.4	48.2	23.6	24.57	1.962 Level 4, CC, ES, SF		
5,800.0	5,790.0	5,790.8	5,790.0	12.8	12.1	108.23	-97.1	39.3	50.9	26.1	24.80	2.053		
5,900.0	5,887.0	5,887.7	5,886.9	13.1	12.3	129.28	-97.2	39.2	63.3	38.2	25.06	2.525		
6,000.0	5,984.0	5,984.8	5,984.0	13.4	12.5	142.56	-97.2	39.1	81.2	55.9	25.35	3.205		
6,100.0	6,081.0	6,081.8	6,081.0	13.7	12.7	150.89	-97.2	39.1	101.9	76.2	25.68	3.967		
6,200.0	6,178.0	6,178.6	6,177.8	14.0	12.9	156.31	-97.2	39.0	123.9	97.9	26.04	4.758		
6,297.7	6,272.8	6,273.7	6,272.9	14.3	13.1	160.11	-97.0	38.9	146.3	119.9	26.41	5.538		
6,300.0	6,275.0	6,275.9	6,275.1	14.3	13.1	161.01	-97.0	38.9	146.8	120.4	26.43	5.555		
6,325.0	6,299.4	6,299.7	6,298.9	14.4	13.2	172.14	-97.1	38.8	152.2	125.6	26.59	5.725		
6,350.0	6,323.9	6,322.7	6,322.0	14.5	13.2	-174.11	-97.5	38.5	157.2	130.5	26.75	5.877		
6,375.0	6,348.5	6,345.0	6,344.2	14.5	13.3	-158.14	-98.5	37.6	162.0	135.1	26.91	6.019		
6,400.0	6,373.1	6,366.9	6,366.0	14.6	13.3	-141.98	-100.4	36.2	166.6	139.5	27.06	6.155		
6,425.0	6,397.7	6,388.6	6,387.4	14.7	13.4	-128.33	-103.0	34.1	171.1	143.9	27.20	6.289		
6,450.0	6,422.2	6,409.6	6,407.9	14.7	13.4	-118.41	-106.4	31.6	175.7	148.4	27.34	6.427		
6,475.0	6,446.5	6,430.5	6,428.2	14.8	13.5	-111.93	-110.6	28.8	180.5	153.1	27.46	6.575		
6,500.0	6,470.5	6,450.7	6,447.7	14.8	13.5	-107.97	-115.3	25.8	185.8	158.2	27.58	6.738		
6,525.0	6,494.2	6,470.1	6,466.2	14.9	13.6	-105.72	-120.3	22.8	191.7	164.0	27.69	6.923		
6,550.0	6,517.5	6,489.3	6,484.3	14.9	13.6	-104.72	-125.7	19.8	198.3	170.5	27.79	7.135		
6,575.0	6,540.4	6,506.5	6,500.4	15.0	13.7	-104.26	-131.2	17.1	205.8	178.0	27.88	7.383		
6,600.0	6,562.8	6,521.3	6,514.0	15.0	13.7	-103.87	-136.4	14.7	214.6	186.6	27.96	7.675		
6,625.0	6,584.6	6,535.0	6,526.6	15.0	13.7	-103.63	-141.5	12.5	224.6	196.6	28.02	8.015		
6,650.0	6,605.8	6,545.4	6,536.0	15.1	13.8	-102.83	-145.5	10.8	236.0	207.9	28.08	8.404		
6,675.0	6,626.3	6,554.9	6,544.5	15.1	13.8	-101.92	-149.4	9.1	248.7	220.6	28.14	8.840		
6,700.0	6,646.1	6,567.0	6,555.2	15.1	13.8	-101.62	-154.6	7.0	262.8	234.6	28.20	9.321		
6,725.0	6,665.1	6,567.0	6,555.2	15.1	13.8	-98.41	-154.6	7.0	278.0	249.8	28.26	9.837		
6,750.0	6,683.2	6,574.7	6,562.0	15.2	13.9	-96.91	-158.0	5.6	294.3	266.0	28.34	10.386		
6,775.0	6,700.4	6,578.8	6,565.6	15.2	13.9	-94.40	-159.9	4.9	311.5	283.1	28.41	10.965		
6,800.0	6,716.7	6,581.9	6,568.3	15.2	13.9	-91.52	-161.3	4.3	329.6	301.1	28.48	11.570		
6,825.0	6,732.0	6,584.2	6,570.2	15.2	13.9	-88.28	-162.4	3.9	348.2	319.7	28.54	12.202		
6,850.0	6,746.3	6,585.6	6,571.5	15.3	13.9	-84.72	-163.1	3.6	367.5	338.9	28.56	12.864		
6,875.0	6,759.4	6,586.3	6,572.0	15.3	13.9	-80.90	-163.4	3.5	387.1	358.6	28.55	13.562		
6,878.1	6,761.0	6,586.3	6,572.1	15.3	13.9	-80.41	-163.4	3.5	389.6	361.1	28.54	13.652		
6,900.0	6,771.9	6,586.6	6,572.3	15.3	13.9	-80.47	-163.5	3.4	407.2	378.6	28.62	14.227		
7,000.0	6,821.9	6,587.5	6,573.0	15.6	13.9	-80.68	-163.9	3.2	492.1	463.0	29.10	16.910		
7,028.1	6,836.0	6,587.7	6,573.2	15.8	13.9	-80.74	-164.0	3.2	516.9	487.6	29.26	17.665		
7,050.0	6,846.5	6,587.6	6,573.2	15.9	13.9	-75.67	-164.0	3.2	536.4	507.2	29.17	18.390		

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 Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S7 - Hebron 5-18H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 50-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		
7,075.0	6,857.4	6,587.0	6,572.7	16.0	13.9	-69.79	-163.7	3.3	558.8	529.8	28.92	19.320		
7,100.0	6,867.1	6,585.9	6,571.7	16.2	13.9	-64.00	-163.2	3.5	581.1	552.6	28.53	20.371		
7,125.0	6,875.6	6,584.3	6,570.3	16.4	13.9	-58.44	-162.4	3.8	603.5	575.5	28.01	21.544		
7,150.0	6,882.9	6,582.2	6,568.6	16.6	13.9	-53.25	-161.5	4.2	625.7	598.3	27.41	22.825		
7,175.0	6,888.9	6,579.8	6,566.4	16.8	13.9	-48.48	-160.3	4.7	647.8	621.0	26.78	24.192		
7,200.0	6,893.6	6,576.9	6,563.9	17.0	13.9	-44.18	-159.0	5.2	669.6	643.5	26.14	25.614		
7,225.0	6,897.0	6,567.0	6,555.2	17.2	13.8	-39.55	-154.6	7.0	691.3	665.9	25.40	27.213		
7,250.0	6,899.1	6,567.0	6,555.2	17.5	13.8	-36.60	-154.6	7.0	712.4	687.5	24.95	28.554		
7,275.0	6,900.0	6,567.0	6,555.2	17.7	13.8	-33.97	-154.6	7.0	733.3	708.7	24.57	29.849		
7,278.1	6,900.0	6,567.0	6,555.2	17.8	13.8	-33.66	-154.6	7.0	735.9	711.4	24.52	30.007		
7,300.0	6,900.0	6,567.0	6,555.2	18.0	13.8	-33.66	-154.6	7.0	754.1	729.4	24.64	30.605		
7,400.0	6,900.0	6,545.7	6,536.2	19.1	13.8	-31.84	-145.6	10.7	838.7	813.9	24.84	33.761		
7,500.0	6,900.0	6,535.0	6,526.6	20.3	13.7	-30.97	-141.5	12.5	925.8	900.5	25.28	36.617		
7,600.0	6,900.0	6,518.3	6,511.3	21.6	13.7	-29.67	-135.3	15.2	1,014.8	989.1	25.66	39.541		
7,700.0	6,900.0	6,503.0	6,497.1	23.0	13.7	-28.53	-130.1	17.6	1,105.2	1,079.1	26.10	42.347		
7,800.0	6,900.0	6,503.0	6,497.1	24.5	13.7	-28.53	-130.1	17.6	1,197.0	1,170.1	26.85	44.580		
7,900.0	6,900.0	6,486.8	6,482.0	26.0	13.6	-27.38	-125.0	20.1	1,289.6	1,262.2	27.31	47.215		
8,000.0	6,900.0	6,472.0	6,468.0	27.6	13.6	-26.36	-120.8	22.5	1,383.1	1,355.3	27.81	49.727		
8,100.0	6,900.0	6,472.0	6,468.0	29.2	13.6	-26.36	-120.8	22.5	1,477.2	1,448.6	28.63	51.598		
8,200.0	6,900.0	6,472.0	6,468.0	30.9	13.6	-26.36	-120.8	22.5	1,572.1	1,542.6	29.47	53.341		
8,300.0	6,900.0	6,454.3	6,451.1	32.6	13.5	-25.22	-116.2	25.2	1,667.2	1,637.3	29.93	55.703		
8,400.0	6,900.0	6,440.0	6,437.4	34.3	13.5	-24.33	-112.7	27.4	1,763.0	1,732.5	30.47	57.865		
8,500.0	6,900.0	6,440.0	6,437.4	36.1	13.5	-24.33	-112.7	27.4	1,859.0	1,827.6	31.33	59.336		
8,600.0	6,900.0	6,440.0	6,437.4	37.8	13.5	-24.33	-112.7	27.4	1,955.3	1,923.1	32.21	60.711		
8,700.0	6,900.0	6,440.0	6,437.4	39.6	13.5	-24.33	-112.7	27.4	2,052.1	2,019.0	33.10	61.998		
8,800.0	6,900.0	6,425.3	6,423.2	41.4	13.5	-23.48	-109.5	29.5	2,148.9	2,115.3	33.62	63.912		
8,900.0	6,900.0	6,420.9	6,419.0	43.2	13.4	-23.23	-108.6	30.1	2,246.0	2,211.6	34.40	65.283		
9,000.0	6,900.0	6,408.0	6,406.4	45.0	13.4	-22.53	-106.1	31.8	2,343.4	2,308.5	34.97	67.010		
9,100.0	6,900.0	6,408.0	6,406.4	46.8	13.4	-22.53	-106.1	31.8	2,440.9	2,405.1	35.87	68.053		
9,200.0	6,900.0	6,408.0	6,406.4	48.6	13.4	-22.53	-106.1	31.8	2,538.6	2,501.8	36.77	69.037		
9,300.0	6,900.0	6,408.0	6,406.4	50.5	13.4	-22.53	-106.1	31.8	2,636.4	2,598.7	37.68	69.965		
9,400.0	6,900.0	6,408.0	6,406.4	52.3	13.4	-22.53	-106.1	31.8	2,734.4	2,695.8	38.60	70.842		
9,500.0	6,900.0	6,408.0	6,406.4	54.2	13.4	-22.53	-106.1	31.8	2,832.6	2,793.0	39.52	71.672		
9,600.0	6,900.0	6,408.0	6,406.4	56.0	13.4	-22.53	-106.1	31.8	2,930.8	2,890.4	40.45	72.458		
9,700.0	6,900.0	6,408.0	6,406.4	57.9	13.4	-22.53	-106.1	31.8	3,029.2	2,987.8	41.38	73.203		
9,800.0	6,900.0	6,408.0	6,406.4	59.7	13.4	-22.53	-106.1	31.8	3,127.7	3,085.4	42.32	73.910		
9,900.0	6,900.0	6,392.4	6,391.1	61.6	13.4	-21.74	-103.6	33.7	3,226.0	3,183.2	42.74	75.475		
10,000.0	6,900.0	6,390.5	6,389.3	63.5	13.4	-21.65	-103.3	33.9	3,324.6	3,281.0	43.61	76.236		
10,100.0	6,900.0	6,376.0	6,375.0	65.3	13.3	-20.97	-101.4	35.4	3,423.4	3,379.3	44.08	77.668		
10,200.0	6,900.0	6,376.0	6,375.0	67.2	13.3	-20.97	-101.4	35.4	3,522.1	3,477.1	45.00	78.274		
10,300.0	6,900.0	6,376.0	6,375.0	69.1	13.3	-20.97	-101.4	35.4	3,620.9	3,574.9	45.92	78.852		
10,400.0	6,900.0	6,376.0	6,375.0	71.0	13.3	-20.97	-101.4	35.4	3,719.7	3,672.8	46.84	79.405		
10,500.0	6,900.0	6,376.0	6,375.0	72.9	13.3	-20.97	-101.4	35.4	3,818.6	3,770.8	47.77	79.934		
10,600.0	6,900.0	6,376.0	6,375.0	74.8	13.3	-20.97	-101.4	35.4	3,917.5	3,868.8	48.70	80.440		
10,700.0	6,900.0	6,376.0	6,375.0	76.7	13.3	-20.97	-101.4	35.4	4,016.5	3,966.8	49.63	80.925		
10,800.0	6,900.0	6,376.0	6,375.0	78.5	13.3	-20.97	-101.4	35.4	4,115.5	4,065.0	50.57	81.389		
10,900.0	6,900.0	6,376.0	6,375.0	80.4	13.3	-20.97	-101.4	35.4	4,214.6	4,163.1	51.50	81.835		
11,000.0	6,900.0	6,376.0	6,375.0	82.3	13.3	-20.97	-101.4	35.4	4,313.7	4,261.3	52.44	82.264		
11,100.0	6,900.0	6,376.0	6,375.0	84.2	13.3	-20.97	-101.4	35.4	4,412.9	4,359.5	53.38	82.675		
11,200.0	6,900.0	6,376.0	6,375.0	86.1	13.3	-20.97	-101.4	35.4	4,512.1	4,457.8	54.32	83.071		
11,300.0	6,900.0	6,376.0	6,375.0	88.0	13.3	-20.97	-101.4	35.4	4,611.3	4,556.1	55.26	83.452		
11,400.0	6,900.0	6,376.0	6,375.0	89.9	13.3	-20.97	-101.4	35.4	4,710.6	4,654.4	56.20	83.819		

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 Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S7 - Hebron 5-18H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 50-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	
11,500.0	6,900.0	6,376.0	6,375.0	91.8	13.3	-20.97	-101.4	35.4	4,809.9	4,752.8	57.14	84.172	
11,600.0	6,900.0	6,376.0	6,375.0	93.7	13.3	-20.97	-101.4	35.4	4,909.2	4,851.1	58.09	84.513	
11,700.0	6,900.0	6,376.0	6,375.0	95.6	13.3	-20.97	-101.4	35.4	5,008.6	4,949.6	59.03	84.842	
11,800.0	6,900.0	6,376.0	6,375.0	97.6	13.3	-20.97	-101.4	35.4	5,108.0	5,048.0	59.98	85.159	
11,900.0	6,900.0	6,376.0	6,375.0	99.5	13.3	-20.97	-101.4	35.4	5,207.4	5,146.4	60.93	85.466	
11,957.6	6,900.0	6,376.0	6,375.0	100.4	13.3	-20.97	-101.4	35.4	5,264.7	5,203.4	61.29	85.901	

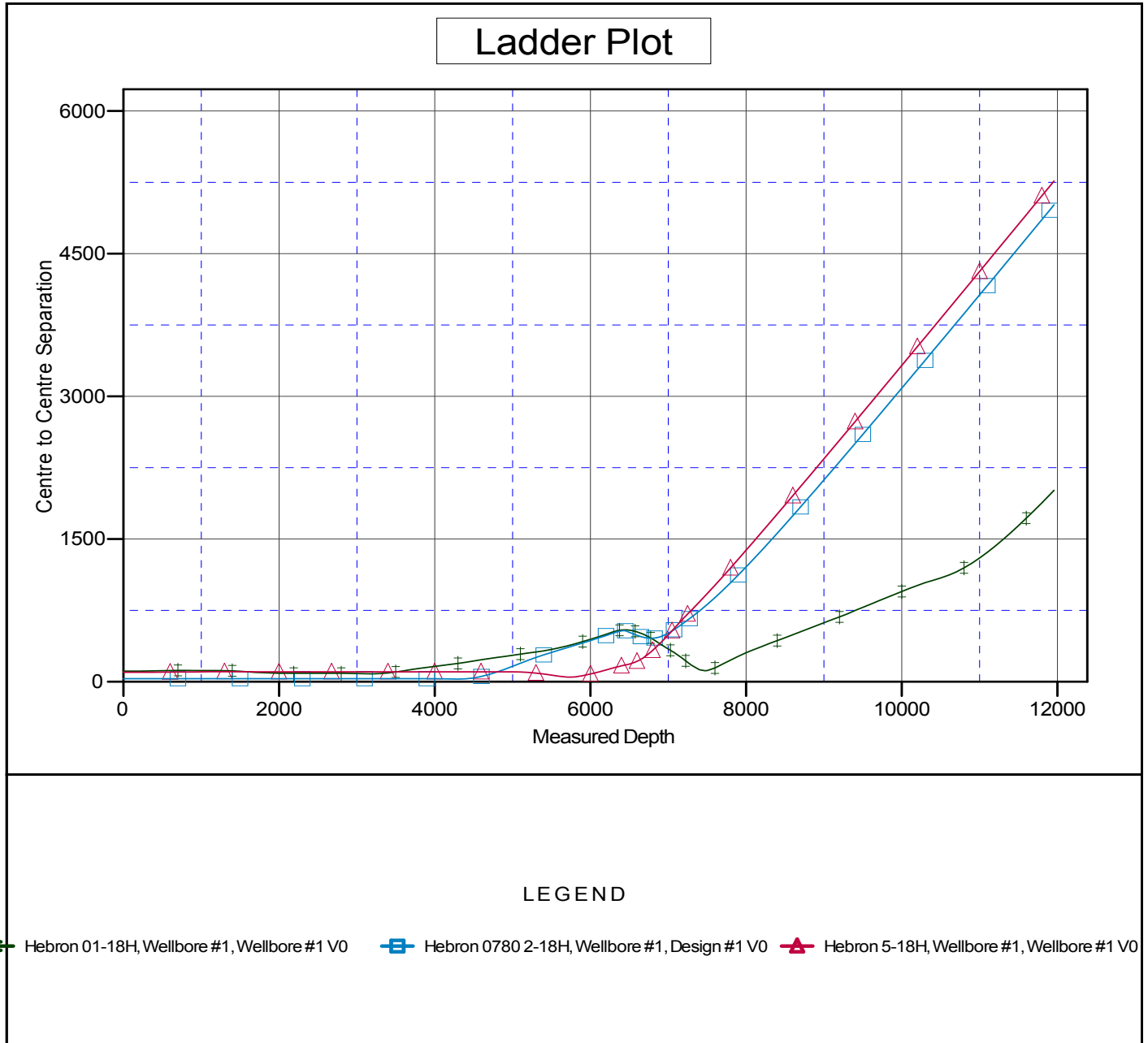
SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	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:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 8154.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Hebron 1-18HR
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.59°



SandRidge Energy

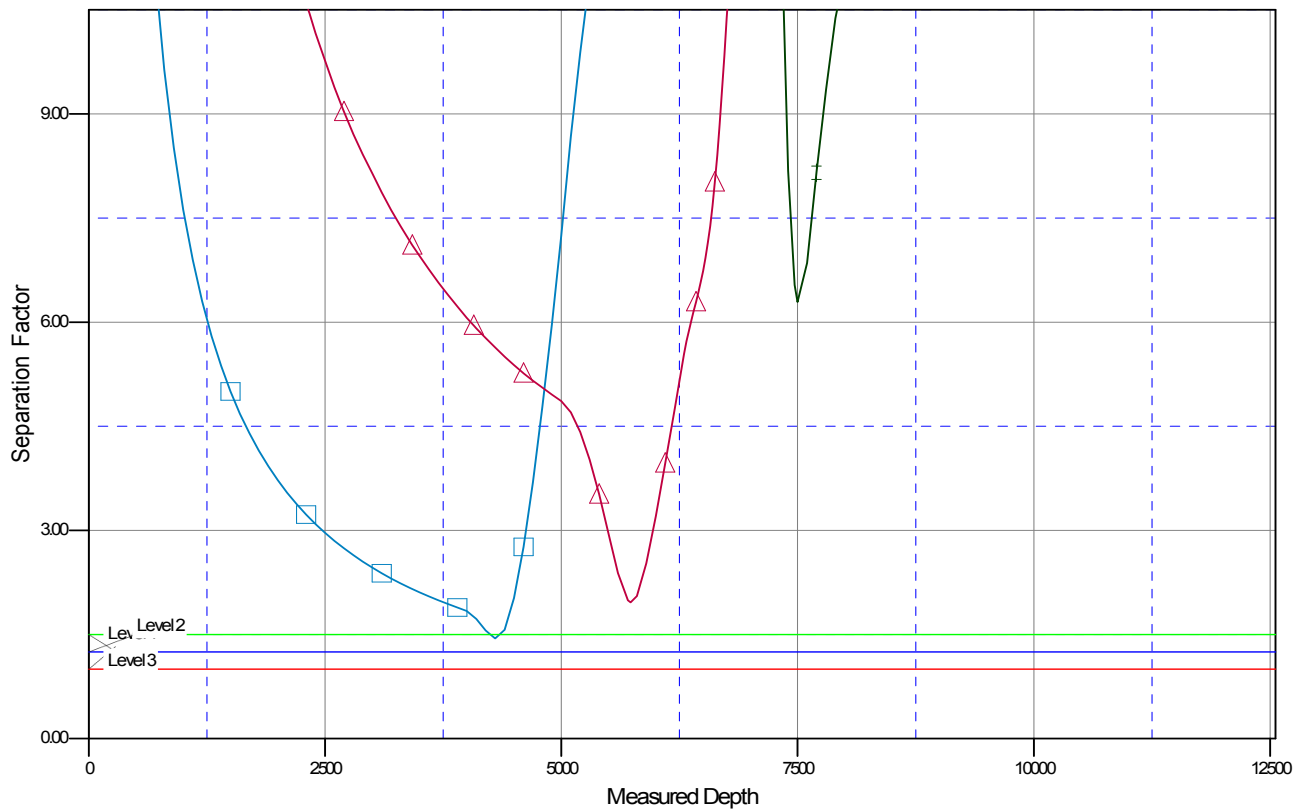
Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 1-18HR
Project:	North Park Basin	TVD Reference:	WELL @ 8154.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S7	MD Reference:	WELL @ 8154.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 1-18HR	Survey Calculation Method:	Minimum Curvature
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Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Hebron 1-18HR	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 8154.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Hebron 1-18HR
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.59°

Separation Factor Plot



LEGEND

✕ Hebron 01-18H, Wellbore #1, Wellbore #1 V0
 ■ Hebron 0780 2-18H, Wellbore #1, Design #1 V0
 ▲ Hebron 5-18H, Wellbore #1, Wellbore #1 V0