

SandRidge Energy

North Park Basin

T7N-R80W-S9

Castle 0780 7-17H20

Wellbore #1

Design #1

Anticollision Summary Report

29 August, 2016

SandRidge Energy

Anticollision Summary Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 7-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8136.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S9	MD Reference:	WELL @ 8136.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 7-17H20	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 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	8/10/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	18,135.5	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Summary						
Offset Well - Wellbore - Design						
T7N-R80W-S9						
Castle 0780 5-17H20 - Wellbore #1 - Design #1	2,500.0	2,498.0	30.2	19.3	2.756	CC, ES, SF
Castle 0780 6-17H20 - Wellbore #1 - Design #1	2,633.4	2,633.4	15.1	3.5	1.306	Level 3, CC, ES, SF
Castle 0780 8-17H20 - Wellbore #1 - Design #1	2,800.0	2,798.0	15.1	2.8	1.227	Level 2, CC, ES, SF
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	0.0	1.0	165.7			
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	100.0	100.3	165.9	165.7	860.536	ES
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	3,800.0	3,782.1	336.9	320.3	20.268	SF
Gregory 0780 2-9H - Wellbore #1 - Design #1	2,800.0	2,798.0	170.8	158.5	13.868	CC, ES
Gregory 0780 2-9H - Wellbore #1 - Design #1	3,100.0	3,097.5	180.3	166.7	13.255	SF
Gregory 0780 3-9H - Wellbore #1 - Design #1	2,800.0	2,798.0	181.7	169.4	14.748	CC, ES
Gregory 0780 3-9H - Wellbore #1 - Design #1	3,000.0	2,994.5	186.3	173.2	14.160	SF
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,500.0	2,498.0	193.1	182.1	17.600	CC, ES
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,900.0	2,886.2	205.1	192.4	16.195	SF
Mutual 0780 5-8H - Wellbore #1 - Design #1	3,515.5	3,510.9	133.5	117.5	8.331	CC, ES
Mutual 0780 5-8H - Wellbore #1 - Design #1	3,800.0	3,792.4	139.8	122.0	7.862	SF
Mutual 0780 6-8H - Wellbore #1 - Design #1	4,457.9	4,470.6	37.5	17.8	1.904	Level 4, CC
Mutual 0780 6-8H - Wellbore #1 - Design #1	4,500.0	4,512.4	37.8	17.7	1.876	Level 4, ES, SF
Mutual 0780 7-8H - Wellbore #1 - Design #1	2,800.0	2,798.0	180.2	167.8	14.624	CC
Mutual 0780 7-8H - Wellbore #1 - Design #1	2,900.0	2,898.0	180.4	167.6	14.141	ES
Mutual 0780 7-8H - Wellbore #1 - Design #1	7,500.0	7,556.2	334.7	294.0	8.236	SF
Mutual 0780 8-8H - Wellbore #1 - Design #1	2,800.0	2,798.0	195.1	182.8	15.835	CC
Mutual 0780 8-8H - Wellbore #1 - Design #1	2,900.0	2,898.0	195.3	182.6	15.312	ES
Mutual 0780 8-8H - Wellbore #1 - Design #1	3,300.0	3,295.5	206.2	191.7	14.215	SF

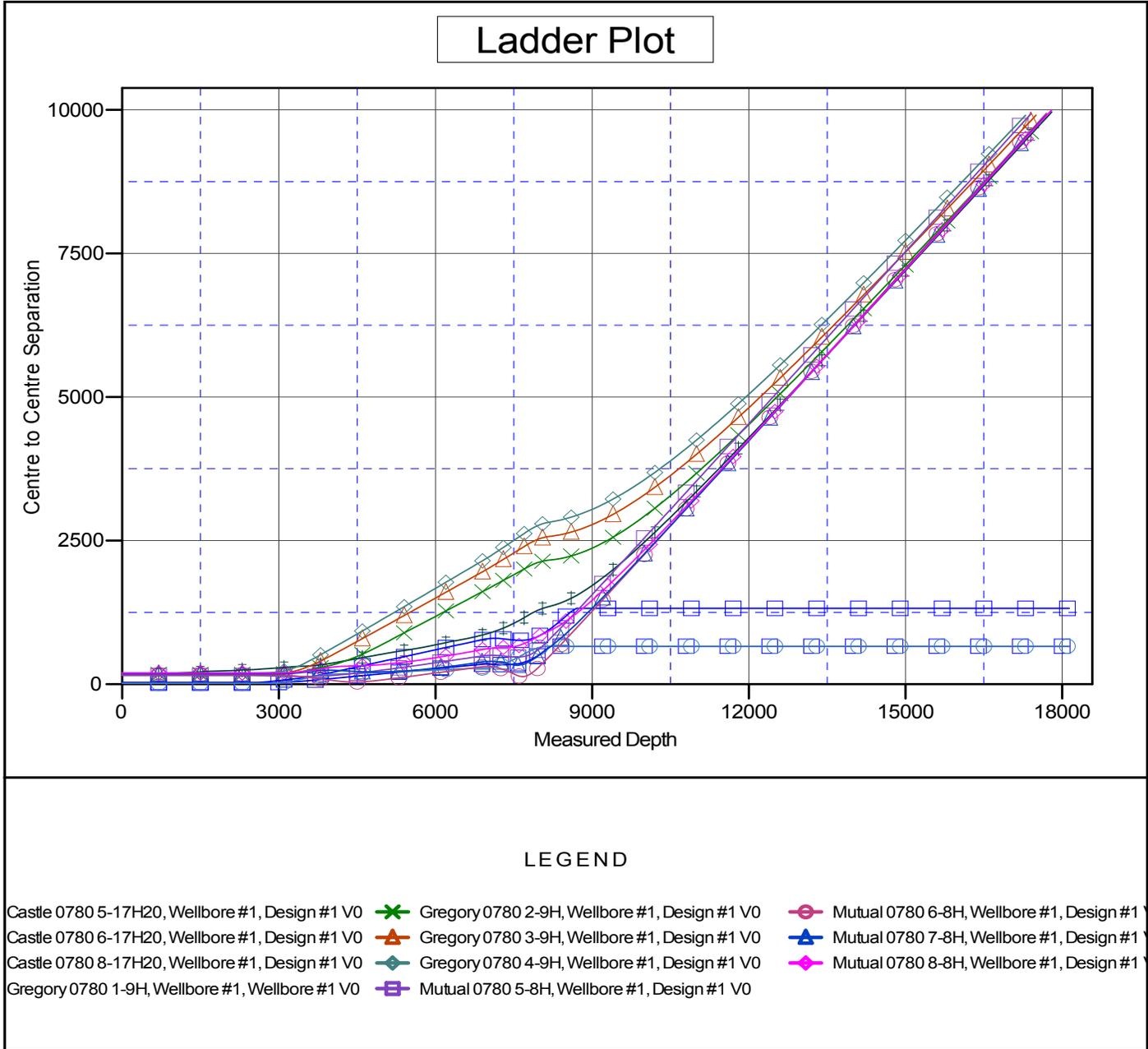
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Reference Wellbore Wellbore #1	Database: EDMProd	
Reference Design: Design #1	Offset TVD Reference: Offset Datum	

Reference Depths are relative to WELL @ 8136.0usft (Original Well Ele) Coordinates are relative to: Castle 0780 7-17H20
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is 105° 30' 0.000 W Grid Convergence at Surface is: -0.57°



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

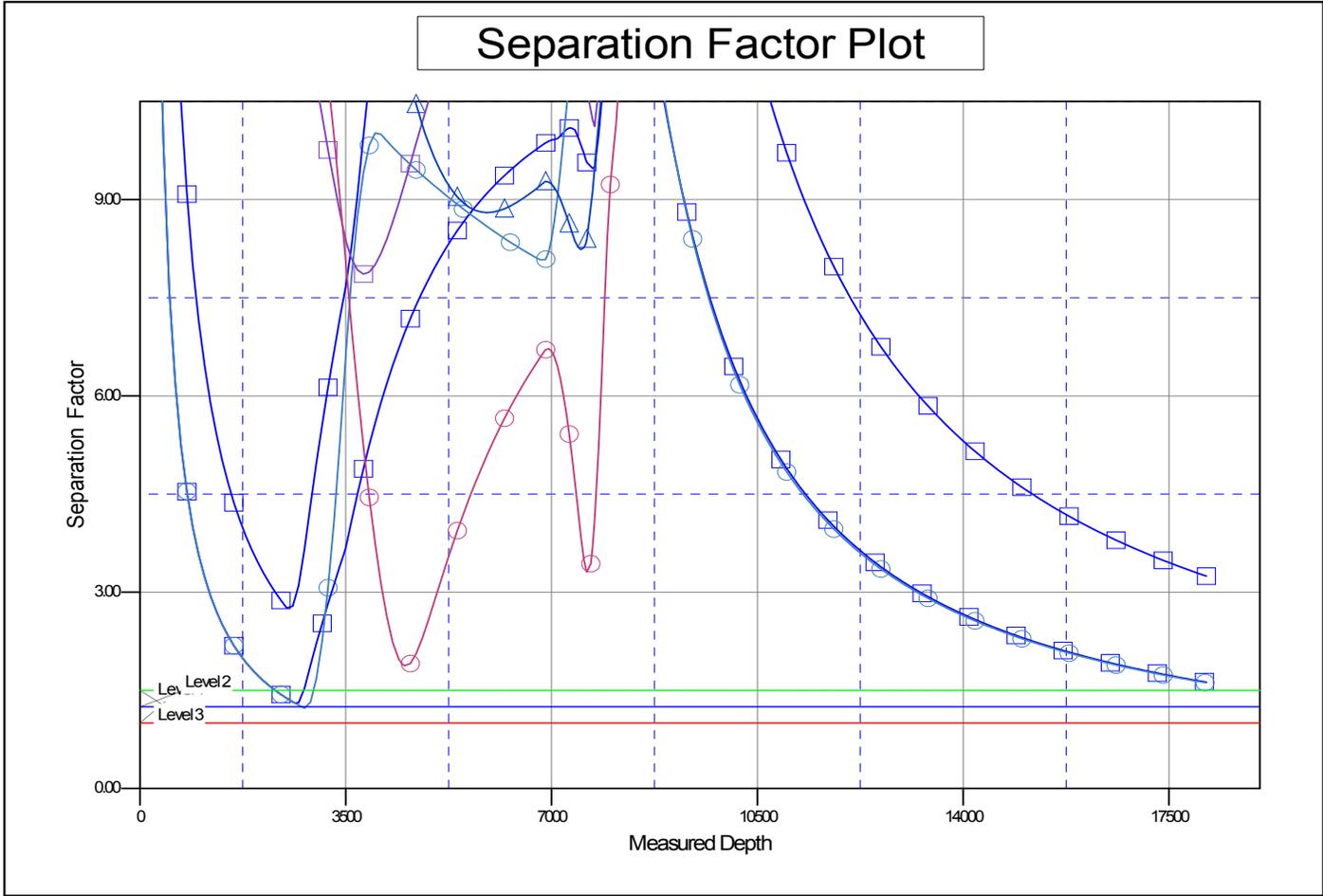
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Coordinates are relative to: Castle 0780 7-17H20
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: -0.57°



LEGEND

- Castle 0780 5-17H20, Wellbore #1, Design #1 V0
- Castle 0780 6-17H20, Wellbore #1, Design #1 V0
- Castle 0780 8-17H20, Wellbore #1, Design #1 V0
- Gregory 0780 1-9H, Wellbore #1, Wellbore #1 V0
- ✖ Gregory 0780 2-9H, Wellbore #1, Design #1 V0
- ▲ Gregory 0780 3-9H, Wellbore #1, Design #1 V0
- ◆ Gregory 0780 4-9H, Wellbore #1, Design #1 V0
- ◻ Mutual 0780 5-8H, Wellbore #1, Design #1 V0
- Mutual 0780 6-8H, Wellbore #1, Design #1 V0
- ▲ Mutual 0780 7-8H, Wellbore #1, Design #1 V0
- ◆ Mutual 0780 8-8H, Wellbore #1, Design #1 V0