

SandRidge Energy

North Park Basin

T7N-R80W-S9

Castle 0780 6-17H20

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 6-17H20
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 6-17H20	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	18,371.9	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
Offset Well - Wellbore - Design						
T7N-R80W-S9						
Castle 0780 5-17H20 - Wellbore #1 - Design #1	2,500.0	2,498.0	15.1	4.2	1.379	Level 3, CC, ES, SF
Castle 0780 7-17H20 - Wellbore #1 - Design #1	2,650.0	2,650.0	15.1	3.5	1.298	Level 3, CC, ES, SF
Castle 0780 8-17H20 - Wellbore #1 - Design #1	2,650.0	2,648.0	30.2	18.6	2.596	CC, ES
Castle 0780 8-17H20 - Wellbore #1 - Design #1	2,700.0	2,698.0	30.7	18.8	2.584	SF
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	0.0	1.0	164.3			
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	3,600.0	3,583.0	322.4	306.6	20.391	SF
Gregory 0780 2-9H - Wellbore #1 - Design #1	2,650.0	2,648.0	181.9	170.3	15.621	CC, ES
Gregory 0780 2-9H - Wellbore #1 - Design #1	3,000.0	2,997.1	193.7	180.6	14.752	SF
Gregory 0780 3-9H - Wellbore #1 - Design #1	2,650.0	2,648.0	192.1	180.5	16.499	CC
Gregory 0780 3-9H - Wellbore #1 - Design #1	2,700.0	2,698.0	192.3	180.5	16.213	ES
Gregory 0780 3-9H - Wellbore #1 - Design #1	2,900.0	2,897.7	197.4	184.7	15.531	SF
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,500.0	2,498.0	202.9	192.0	18.499	CC, ES
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,800.0	2,788.3	211.4	199.1	17.312	SF
Mutual 0780 5-8H - Wellbore #1 - Design #1	4,651.5	4,659.5	112.9	85.0	4.039	CC
Mutual 0780 5-8H - Wellbore #1 - Design #1	7,500.0	7,477.3	123.7	58.2	1.889	Level 4, ES, SF
Mutual 0780 6-8H - Wellbore #1 - Design #1	3,796.8	3,823.2	154.4	137.8	9.271	CC
Mutual 0780 6-8H - Wellbore #1 - Design #1	3,800.0	3,826.4	154.4	137.7	9.263	ES
Mutual 0780 6-8H - Wellbore #1 - Design #1	4,200.0	4,223.7	161.5	143.2	8.831	SF
Mutual 0780 7-8H - Wellbore #1 - Design #1	2,650.0	2,648.0	180.2	168.5	15.471	CC
Mutual 0780 7-8H - Wellbore #1 - Design #1	2,700.0	2,698.0	180.3	168.5	15.200	ES
Mutual 0780 7-8H - Wellbore #1 - Design #1	3,000.0	2,997.1	188.7	175.5	14.357	SF
Mutual 0780 8-8H - Wellbore #1 - Design #1	2,650.0	2,648.0	195.2	183.6	16.765	CC
Mutual 0780 8-8H - Wellbore #1 - Design #1	2,700.0	2,698.0	195.4	183.5	16.470	ES
Mutual 0780 8-8H - Wellbore #1 - Design #1	3,100.0	3,096.2	210.4	196.8	15.497	SF

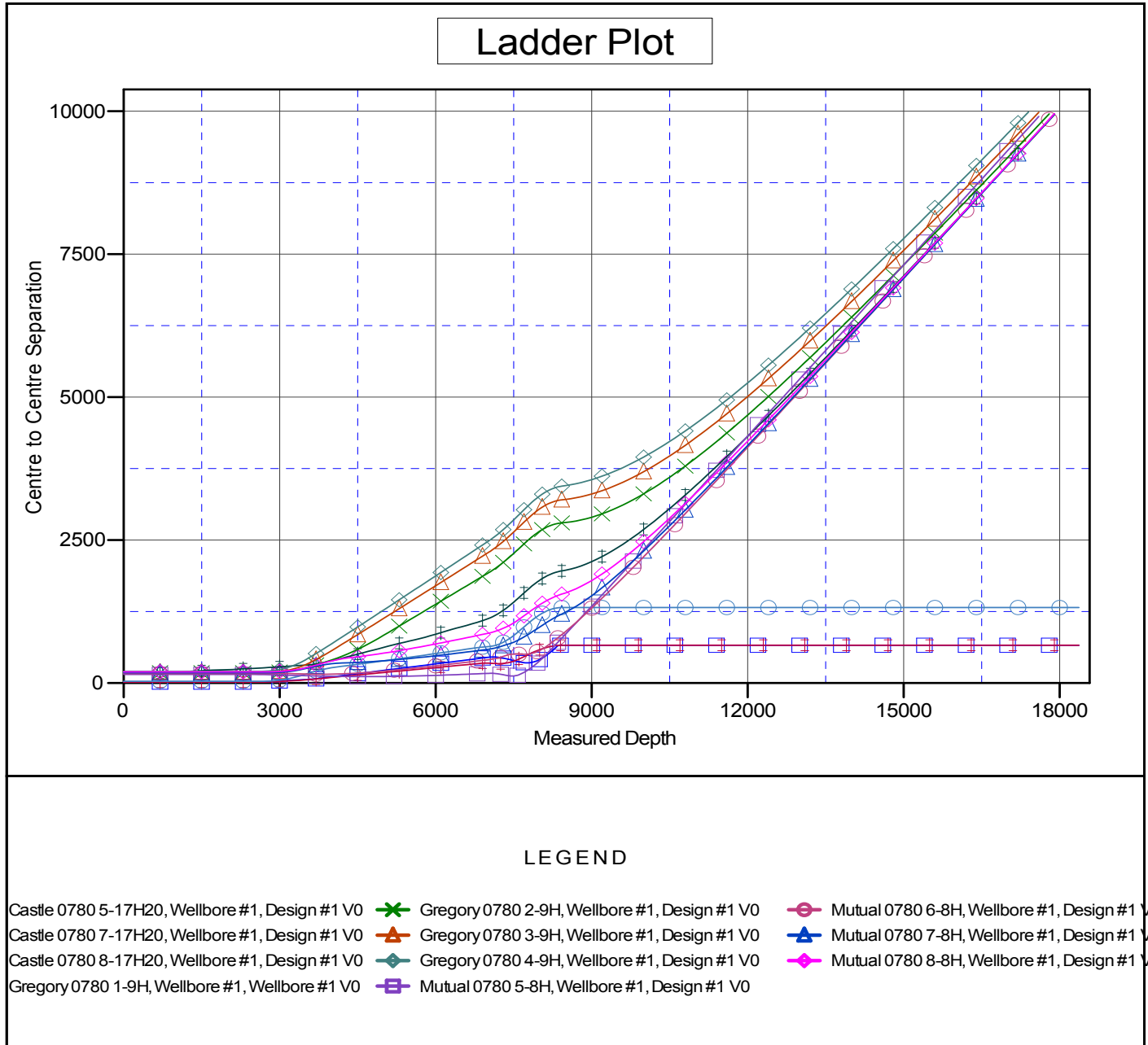
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Reference Depths are relative to WELL @ 8136.0usft (Original Well Ele)
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Castle 0780 6-17H20
Coordinate System is US State Plane 1983, Colorado Northern Zone
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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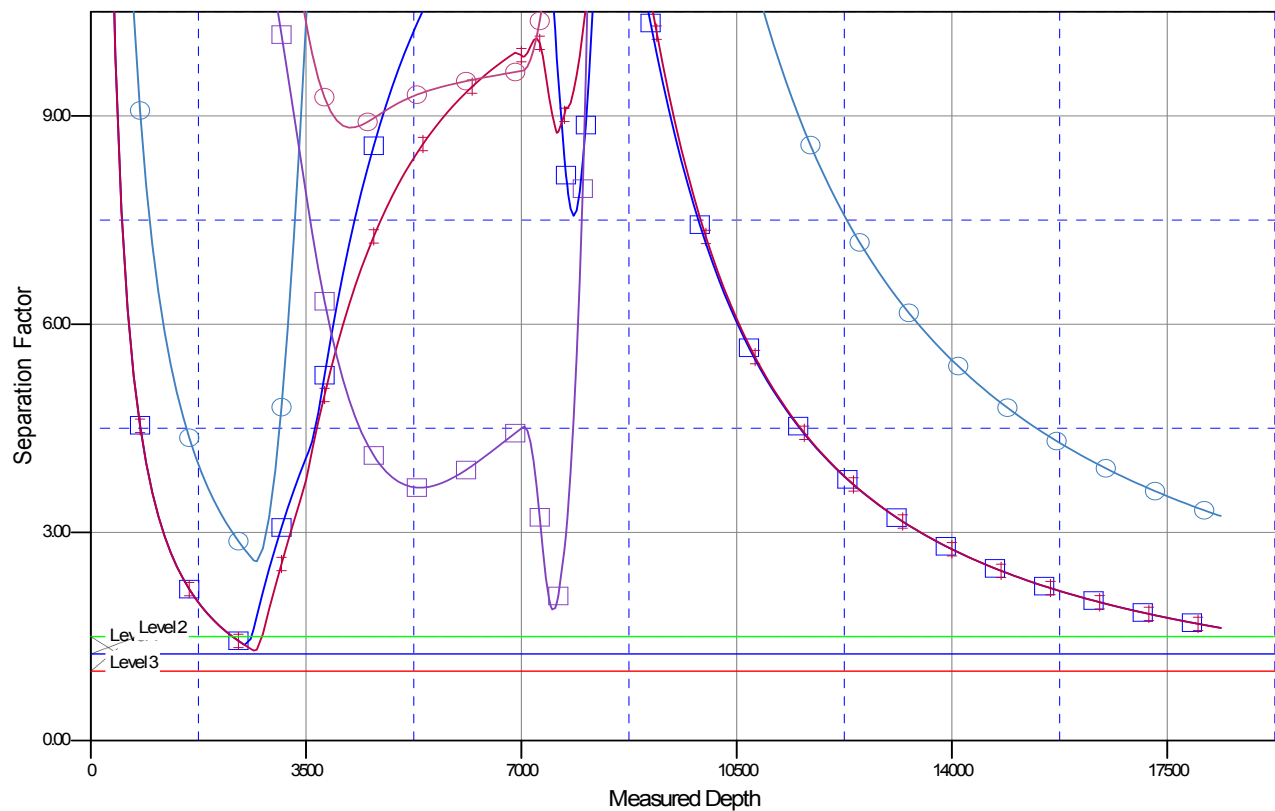
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Separation Factor Plot



LEGEND

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