

SandRidge Energy

North Park Basin

T7N-R80W-S16

Ray Ranch 0780 7-16H

Wellbore #1

Design #1

Anticollision Summary Report

08 July, 2016

SandRidge Energy

Anticollision Summary Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Ray Ranch 0780 7-16H
Project:	North Park Basin	TVD Reference:	KB @ 8152.0usft
Reference Site:	T7N-R80W-S16	MD Reference:	KB @ 8152.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Ray Ranch 0780 7-16H	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	7/8/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	12,429.9	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
T7N-R80W-S16						
Evans 0780 5-21H - Wellbore #1 - Design #1	4,287.9	4,283.7	44.9	26.1	2.386	CC, ES
Evans 0780 5-21H - Wellbore #1 - Design #1	4,300.0	4,295.6	44.9	26.1	2.383	SF
Evans 0780 6-21H - Wellbore #1 - Design #1	4,225.6	4,224.7	35.9	17.4	1.936	Level 4, CC, ES, SF
Evans 0780 7-21H - Wellbore #1 - Design #1	4,155.0	4,153.1	26.9	8.7	1.476	Level 3, CC, ES, SF
Evans 0780 8-21H - Wellbore #1 - Design #1	4,173.6	4,171.5	21.1	3.0	1.166	Level 2, CC, ES, SF
Ray Ranch 0780 5-16H - Wellbore #1 - Design #1	3,700.0	3,700.0	30.0	13.6	1.832	Level 4, CC, ES, SF
Ray Ranch 0780 6-16H - Wellbore #1 - Design #1	3,700.0	3,700.0	15.0	-1.4	0.916	Level 1, CC, ES, SF
Ray Ranch 0780 8-16H - Wellbore #1 - Design #1	2,500.0	2,500.0	15.0	4.0	1.366	Level 3, CC, ES, SF
T7N-R80W-S21						
Evans 0780 1-21H - Wellbore #1 - Design #1	7,753.6	7,850.0	2,005.1	1,962.3	46.933	CC, ES, SF
Evans 0780 2-21H - Wellbore #1 - Design #1	5,883.8	5,996.3	2,307.0	2,278.1	79.868	CC
Evans 0780 2-21H - Wellbore #1 - Design #1	6,000.0	6,102.0	2,307.5	2,277.8	77.633	ES
Evans 0780 2-21H - Wellbore #1 - Design #1	7,800.0	7,736.5	2,425.6	2,383.7	57.936	SF
Evans 0780 3-21H - Wellbore #1 - Design #1	5,052.0	5,086.2	2,352.1	2,329.2	102.487	CC
Evans 0780 3-21H - Wellbore #1 - Design #1	5,100.0	5,119.4	2,352.3	2,329.1	101.331	ES
Evans 0780 3-21H - Wellbore #1 - Design #1	12,429.9	8,000.0	5,783.7	5,691.1	62.479	SF
Evans 0780 4-21H - Wellbore #1 - Design #1	4,604.4	4,623.4	2,377.9	2,357.6	117.134	CC, ES
Evans 0780 4-21H - Wellbore #1 - Design #1	12,429.9	7,806.7	6,008.8	5,918.3	66.338	SF
Ray Ranch 0780 1-16H - Wellbore #1 - Design #1	8,338.1	9,421.7	2,016.2	1,965.3	39.595	CC
Ray Ranch 0780 1-16H - Wellbore #1 - Design #1	12,429.9	13,485.3	2,024.1	1,846.0	11.364	ES, SF
Ray Ranch 0780 2-16H - Wellbore #1 - Design #1	5,432.3	5,483.1	2,426.1	2,401.0	96.691	CC
Ray Ranch 0780 2-16H - Wellbore #1 - Design #1	5,500.0	5,526.1	2,426.4	2,400.9	95.192	ES
Ray Ranch 0780 2-16H - Wellbore #1 - Design #1	12,429.9	13,609.8	2,676.9	2,498.4	14.996	SF
Ray Ranch 0780 3-16H - Wellbore #1 - Design #1	2,400.0	2,498.0	2,451.1	2,440.4	228.045	CC
Ray Ranch 0780 3-16H - Wellbore #1 - Design #1	5,000.0	5,038.3	2,456.9	2,434.6	110.003	ES
Ray Ranch 0780 3-16H - Wellbore #1 - Design #1	12,429.9	13,865.9	3,336.7	3,158.7	18.747	SF
Ray Ranch 0780 4-16H - Wellbore #1 - Design #1	2,400.0	2,498.0	2,462.1	2,451.3	229.065	CC, ES
Ray Ranch 0780 4-16H - Wellbore #1 - Design #1	12,429.9	13,778.6	3,978.8	3,802.6	22.576	SF

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

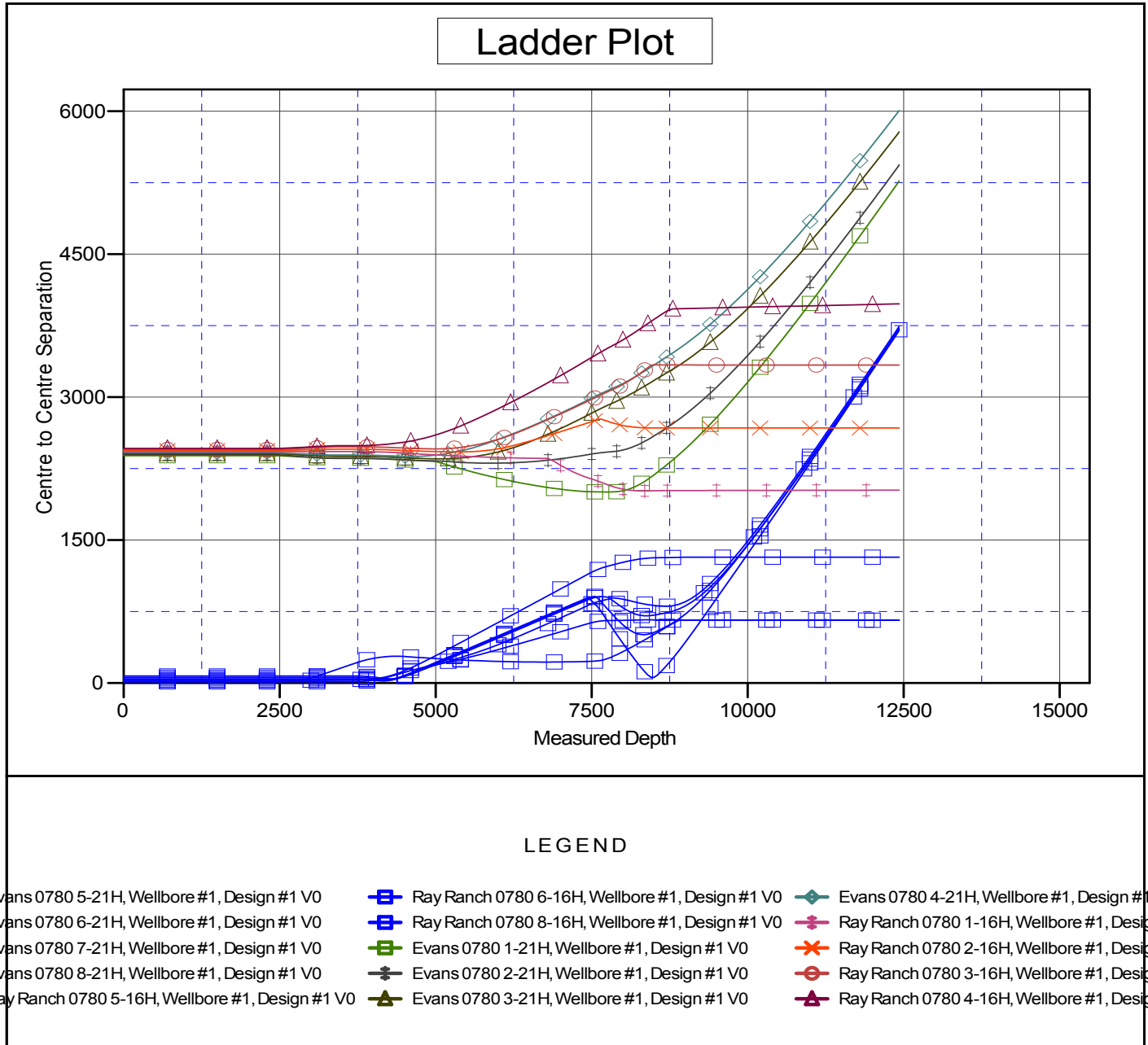
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Reference Depths are relative to KB @ 8152.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Ray Ranch 0780 7-16H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.57°



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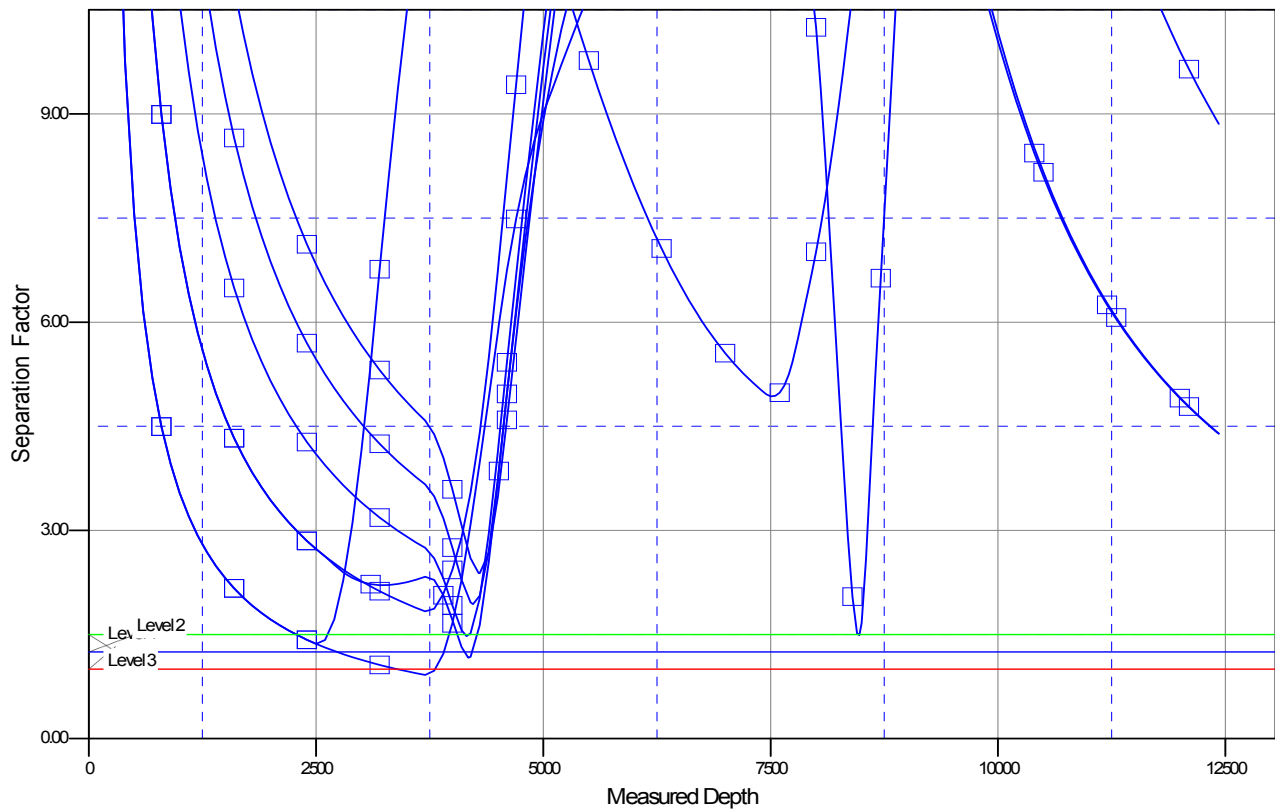
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Separation Factor Plot



LEGEND

Evans 0780 5-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 6-16H, Wellbore #1, Design #1 V0	Evans 0780 4-21H, Wellbore #1, Design #1 V0
Evans 0780 6-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 8-16H, Wellbore #1, Design #1 V0	Ray Ranch 0780 1-16H, Wellbore #1, Design #1 V0
Evans 0780 7-21H, Wellbore #1, Design #1 V0	Evans 0780 1-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 2-16H, Wellbore #1, Design #1 V0
Evans 0780 8-21H, Wellbore #1, Design #1 V0	Evans 0780 2-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 3-16H, Wellbore #1, Design #1 V0
Ray Ranch 0780 5-16H, Wellbore #1, Design #1 V0	Evans 0780 3-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 4-16H, Wellbore #1, Design #1 V0