

WPXENERGY®

WPX Energy

Eddy County, New Mexico (NAD 83)

Bindel 4 Fee

Bindel 4 Fee 1H

Wellbore #1

Design #1

30-015-45042

**NM OIL CONSERVATION
ARTESIA DISTRICT**

JUN 21 2018

RECEIVED

Anticollision Report

18 April, 2018

MS *Directional*

Company: WPX Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Bindel 4 Fee
 Site Error: 0.00 usft
 Reference Well: Bindel 4 Fee 1H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well Bindel 4 Fee 1H
 TVD Reference: WELL @ 3156.00usft (H&P 556)
 MD Reference: WELL @ 3156.00usft (H&P 556)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.14 Conroe DB
 Offset TVD Reference: Offset Datum

Reference	Design #1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.00 u
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program Date 4/18/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	14,181.68	Design #1 (Wellbore #1)	MWD	OWSG MWD - Standard

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						
Ape Fee						
Ape Fee #001 - Wellbore #1 - Surveys	14,119.10	9,040.37	682.47	527.54	4.405	CC, ES
Ape Fee #001 - Wellbore #1 - Surveys	14,181.68	9,040.34	685.33	529.38	4.394	SF
Canal SWD						
Canal SWD #001 - Wellbore #1 - Surveys	8,612.19	8,532.32	806.41	743.72	12.862	CC, ES
Canal SWD #001 - Wellbore #1 - Surveys	8,650.00	8,568.98	807.17	744.26	12.830	SF
Wolfman 5 4 WOLI Federal COM						
Wolfman 5 4 WOLI Federal COM #001H - Wellbore #1 -	9,500.00	19,091.27	708.44	429.33	2.538	SF
Wolfman 5 4 WOLI Federal COM #001H - Wellbore #1 -	14,181.68	14,410.05	677.43	420.79	2.640	CC, ES

Offset Design Ape Fee - Ape Fee #001 - Wellbore #1 - Surveys												Offset Site Error: 0.00 usft
Survey Program: 158-MWD												Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Azimuth from North (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-102.21	-907.74	-4,193.23	4,290.36			
100.00	100.00	99.60	99.60	0.13	0.18	-102.21	-907.48	-4,193.23	4,290.30	4,290.00	0.30	N/A
200.00	200.00	203.36	203.36	0.48	0.45	-102.20	-906.61	-4,193.25	4,290.14	4,289.21	0.93	4,596.122
300.00	300.00	305.86	305.84	0.84	0.82	-102.18	-905.42	-4,193.27	4,289.92	4,288.26	1.66	2,585.186
337.98	337.98	333.00	332.99	0.98	0.91	-102.18	-905.05	-4,193.28	4,289.84	4,287.94	1.89	2,266.260
400.00	400.00	365.81	365.80	1.20	1.03	-102.18	-904.78	-4,193.40	4,290.00	4,287.77	2.23	1,925.020
500.00	500.00	438.00	437.97	1.56	1.28	-102.18	-905.56	-4,194.51	4,291.53	4,288.69	2.84	1,513.367
600.00	600.00	473.18	473.11	1.92	1.40	-102.19	-906.34	-4,195.35	4,293.86	4,290.55	3.32	1,294.932
700.00	700.00	565.13	565.04	2.28	1.72	-102.20	-907.89	-4,197.77	4,296.80	4,292.80	3.99	1,076.472
800.00	800.00	719.08	718.93	2.63	2.26	-102.21	-909.36	-4,201.68	4,299.63	4,294.74	4.89	879.905
900.00	900.00	887.95	887.79	2.99	2.85	-102.23	-910.61	-4,202.77	4,300.29	4,294.46	5.83	737.019
1,000.00	1,000.00	1,012.38	1,012.21	3.35	3.28	-102.20	-909.02	-4,202.91	4,300.13	4,293.50	6.63	648.849
1,100.00	1,100.00	1,118.06	1,117.85	3.71	3.65	-102.17	-906.46	-4,202.96	4,299.66	4,292.31	7.36	584.480
1,200.00	1,200.00	1,219.06	1,218.81	4.07	4.01	-102.13	-903.45	-4,203.02	4,299.09	4,291.02	8.07	532.704
1,300.00	1,300.00	1,314.66	1,314.37	4.43	4.34	-102.10	-900.94	-4,203.07	4,298.59	4,289.82	8.77	490.329
1,400.00	1,400.00	1,538.25	1,537.91	4.79	5.12	-102.07	-898.12	-4,200.13	4,297.45	4,287.55	9.90	434.019
1,500.00	1,500.00	1,670.33	1,669.89	5.14	5.58	-102.08	-897.56	-4,195.16	4,293.67	4,282.95	10.72	400.695
1,600.00	1,600.00	1,738.00	1,737.50	5.50	5.82	-102.07	-896.44	-4,192.47	4,289.61	4,278.30	11.31	379.252

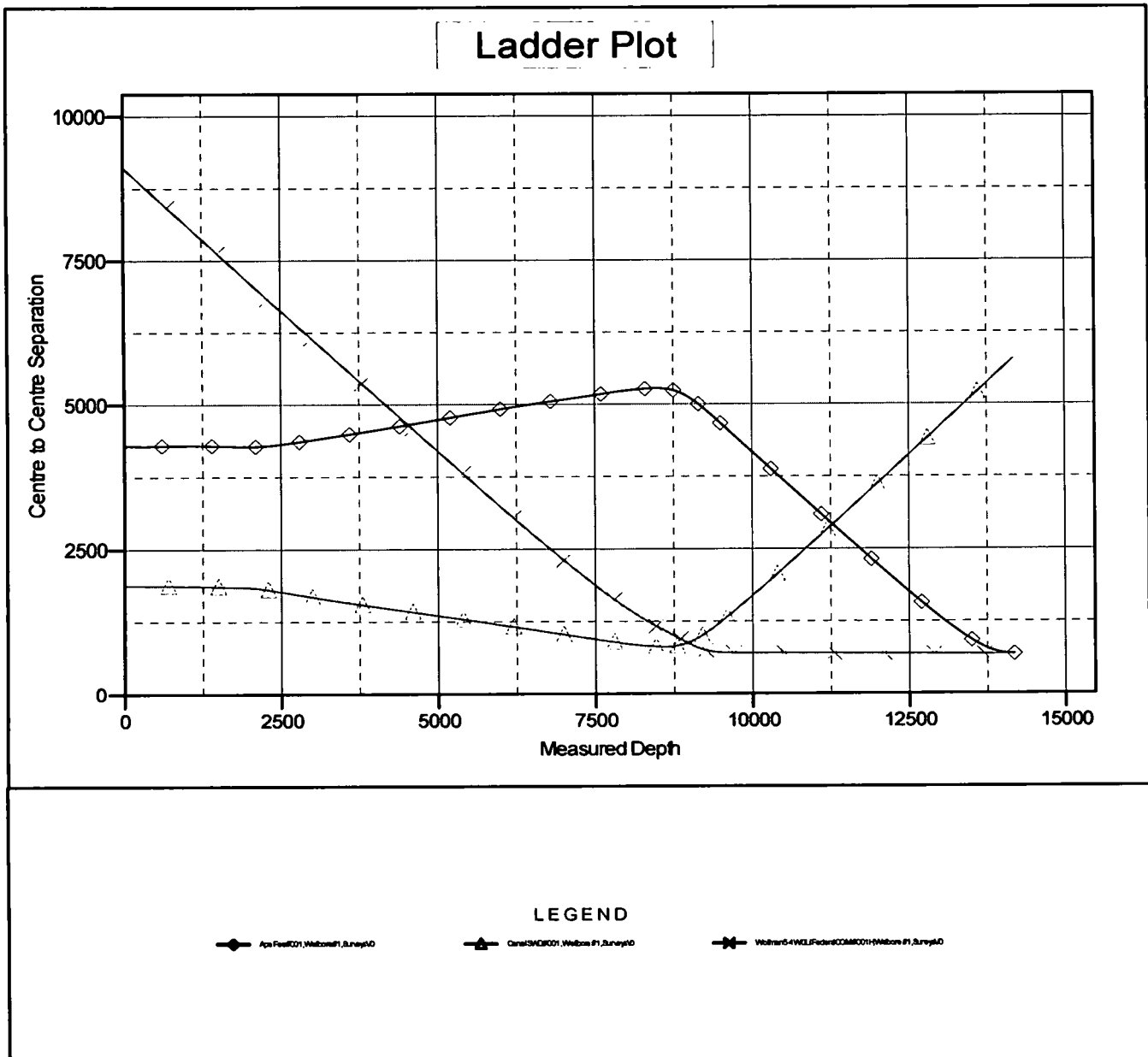
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Reference Depths are relative to WELL @ 3156.00usft (H&P 556)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Bindel 4 Fee 1H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.08°



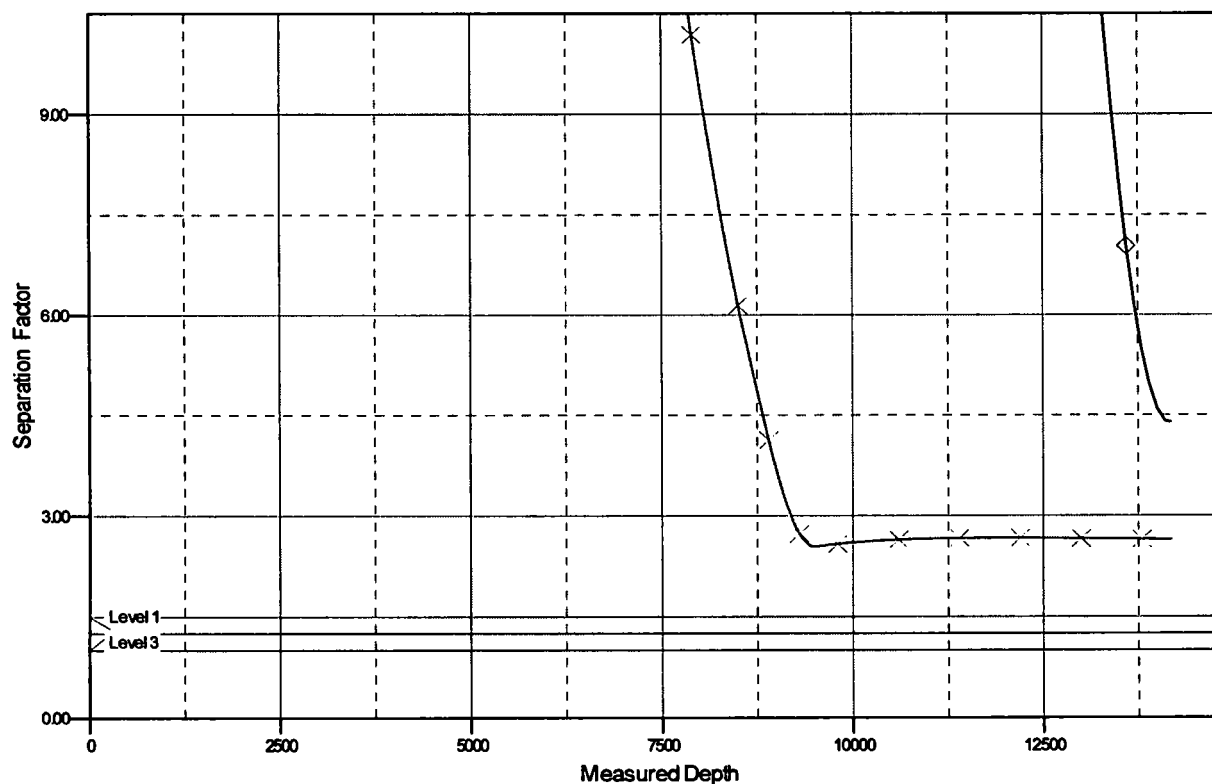
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Separation Factor Plot



LEGEND

Apex Wellbore #1, Survey #1

Central Wellbore #1, Survey #1

Wellbore #1, Survey #1