

WCDSC Permian NM

Eddy County (NAD 83 NM Eastern)

Sec 27-T19S-R29E

Coral PWU 28-27 62H

**NM OIL CONSERVATION
ARTESIA DISTRICT**

MAY 10 2018

Wellbore #1

Perlim Plan 1

RECEIVED

Anticollision Report

08 May, 2018

Anticollision Report

Company:	WCDSC Permian.NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141 Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Reference	Perlim Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,500.00 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date: 5/8/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	16,941.97	Perlim Plan 1 (Wellbore #1)	MWD+HDGM	OWSG MWD + HDGM

Summary						
Site Name	Reference Measure	Offset Measure	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation	Warning
Offset Well - Wellbore - Design						
Sec 27-T19S-R29E						
(Proposed) Turquoise PWU 27-61H - Wellbore #1 - Design						Out of range
(Proposed) Turquoise PWU 27-9H - Wellbore #1 - Design						Out of range
Coral PWU 28-27 11H - Wellbore #1 - Prelim Plan 1	2,500.00	2,500.00	30.00	12.50	1.714	Minor Risk, CC
Coral PWU 28-27 11H - Wellbore #1 - Prelim Plan 1	2,600.00	2,599.59	30.67	12.45	1.684	Minor Risk, ES
Coral PWU 28-27 11H - Wellbore #1 - Prelim Plan 1	16,941.97	17,049.52	656.48	199.74	1.437	Major Risk, SF
Coral PWU 28-27 12H - Wellbore #1 - Prelim Plan 1	2,500.00	2,500.00	30.00	12.50	1.714	Minor Risk, CC, ES
Coral PWU 28-27 12H - Wellbore #1 - Prelim Plan 1	2,600.00	2,599.53	30.77	12.57	1.691	Minor Risk, SF
Parkway West Unit #20 (Active) - Wellbore #1 - Wellbor	12,534.27	9,129.23	556.40	274.45	1.973	Minor Risk, CC, ES, SF
Parkway West Unit 10 - Original Hole - Original Hole						Out of range
Parkway West Unit SWD - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-10H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1	16,500.00	12,056.00	1,067.61	940.66	8.410	SF
Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1	16,584.61	12,121.94	1,066.82	940.30	8.432	ES
Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1	16,815.77	12,368.89	1,064.98	940.68	8.568	CC
Turquoise PWU 27-5H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-1H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-3H - Wellbore #1 - Wellbore #1	16,941.97	12,164.18	1,489.93	1,229.69	5.725	CC, ES, SF
Turquoise PWU 27-7H - Wellbore #1 - Wellbore #1						Out of range
Turquoise PWU 27-8H - Wellbore #1 - Wellbore #1						Out of range

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

Anticollision Report

Company:	WCDCS Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measure	Offset Measure	Distance Between Centres	Distance Between Ellipses	Separation	Warning
Offset Well - Wellbore - Design						
Sec 28-T19S-R29E						
Coral PWU 28-3H - Wellbore #1 - Wellbore #1	8,018.24	8,499.57	1,235.35	1,165.41	17.663	SF
Coral PWU 28-3H - Wellbore #1 - Wellbore #1	10,162.41	8,503.58	1,149.74	1,116.92	35.035	CC, ES
Coral PWU 28-4H - Wellbore #1 - Wellbore #1	11,022.85	8,553.54	1,153.97	1,116.96	31.178	CC, ES
Coral PWU 28-4H - Wellbore #1 - Wellbore #1	11,800.00	8,588.57	1,390.83	1,337.09	25.884	SF
Coral PWU 28-7H - Wellbore #1 - Wellbore #1	7,044.77	9,511.98	780.56	669.20	7.009	CC, ES, SF
Onyx PWU 29-28 61H - Wellbore #1 - Wellbore #1						Out of range
Onyx PWU 29-28 62H - Wellbore #1 - Wellbore #1						Out of range
Onyx PWU 29-28011H - Wellbore #1 - Wellbore #1						Out of range
Parkway #021 (Active) - Wellbore #1 - Wellbore #1						Out of range
Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1	9,906.46	9,130.79	213.81	-57.83	0.787	Collision, CC, ES, SF
Parkway West Unit #3 - Wellbore #1 - Wellbore #1	8,093.99	8,046.46	1,024.69	874.88	6.840	CC
Parkway West Unit #3 - Wellbore #1 - Wellbore #1	8,600.00	8,552.47	1,024.93	865.81	6.441	ES
Parkway West Unit #3 - Wellbore #1 - Wellbore #1	8,700.00	8,651.97	1,033.49	872.56	6.422	SF
Turquoise PWU 27 10H - Original Hole - Actuals						Out of range
Turquoise PWU 27 10H - Original Hole - P3v1						Out of range
Turquoise PWU 27 10H - Original Hole - Plan 1						Out of range
Turquoise PWU 27 10H - Original Hole - PTL						Out of range
Turquoise PWU 27 10H - Original Hole - T&D						Out of range

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27.11H - Wellbore #1 - Prelim Plan 1										Offset Site Error:	5.00 ft
Survey Program: O-MWD+HDGM										Offset Well Error:	0.50 ft
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Semi Major Axis	Highside Toolface	Offset Wellbore Centre	Distance	Minimum Separation	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N-S (ft)	+E-W (ft)	(ft)	
0.00	0.00	0.00	0.00	0.50	0.50	0.00	0.00	30.00	0.00	30.00	
100.00	100.00	100.00	100.00	0.52	0.52	0.00	0.00	30.00	0.00	28.96	1.04 28.971
200.00	200.00	200.00	200.00	0.70	0.70	0.00	0.00	30.00	0.00	28.60	1.40 21.364
300.00	300.00	300.00	300.00	0.99	0.99	0.00	0.00	30.00	0.00	28.03	1.97 15.192
400.00	400.00	400.00	400.00	1.31	1.31	0.00	0.00	30.00	0.00	27.38	2.62 11.458
500.00	500.00	500.00	500.00	1.65	1.65	0.00	0.00	30.00	0.00	26.71	3.29 9.113
600.00	600.00	600.00	600.00	1.99	1.99	0.00	0.00	30.00	0.00	26.02	3.98 7.535
700.00	700.00	700.00	700.00	2.34	2.34	0.00	0.00	30.00	0.00	25.32	4.68 6.412
800.00	800.00	800.00	800.00	2.69	2.69	0.00	0.00	30.00	0.00	24.62	5.38 5.575
900.00	900.00	900.00	900.00	3.04	3.04	0.00	0.00	30.00	0.00	23.91	6.09 4.928 Alert
1,000.00	1,000.00	1,000.00	1,000.00	3.40	3.40	0.00	0.00	30.00	0.00	23.20	6.80 4.415 Alert
1,100.00	1,100.00	1,100.00	1,100.00	3.75	3.75	0.00	0.00	30.00	0.00	22.49	7.51 3.997 Alert
1,200.00	1,200.00	1,200.00	1,200.00	4.11	4.11	0.00	0.00	30.00	0.00	21.78	8.22 3.651 Alert
1,300.00	1,300.00	1,300.00	1,300.00	4.46	4.46	0.00	0.00	30.00	0.00	21.07	8.93 3.360 Alert
1,400.00	1,400.00	1,400.00	1,400.00	4.82	4.82	0.00	0.00	30.00	0.00	20.36	9.64 3.112 Alert
1,500.00	1,500.00	1,500.00	1,500.00	5.18	5.18	0.00	0.00	30.00	0.00	19.65	10.35 2.897 Alert
1,600.00	1,600.00	1,600.00	1,600.00	5.53	5.53	0.00	0.00	30.00	0.00	18.93	11.07 2.710 Alert
1,700.00	1,700.00	1,700.00	1,700.00	5.89	5.89	0.00	0.00	30.00	0.00	18.22	11.78 2.546 Alert
1,800.00	1,800.00	1,800.00	1,800.00	6.25	6.25	0.00	0.00	30.00	0.00	17.50	12.50 2.401 Minor Risk
1,900.00	1,900.00	1,900.00	1,900.00	6.61	6.61	0.00	0.00	30.00	0.00	16.79	13.21 2.271 Minor Risk
2,000.00	2,000.00	2,000.00	2,000.00	6.96	6.96	0.00	0.00	30.00	0.00	16.07	13.93 2.154 Minor Risk
2,100.00	2,100.00	2,100.00	2,100.00	7.32	7.32	0.00	0.00	30.00	0.00	15.36	14.64 2.049 Minor Risk
2,200.00	2,200.00	2,200.00	2,200.00	7.68	7.68	0.00	0.00	30.00	0.00	14.64	15.36 1.953 Minor Risk
2,300.00	2,300.00	2,300.00	2,300.00	8.04	8.04	0.00	0.00	30.00	0.00	13.93	16.07 1.867 Minor Risk
2,400.00	2,400.00	2,400.00	2,400.00	8.39	8.39	0.00	0.00	30.00	0.00	13.21	16.79 1.787 Minor Risk

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

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Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
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Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141 Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Sec 27-T19S-R29E - Coral PWU 28-27 11H - Wellbore #1 - Prelim Plan 1														Offset Site Error:	5.00 ft
Survey Program: O-MWD+HDGM														Offset Well Error:	0.50 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Half Major Axis (ft)	Highside Toolface (°)	Offset Wellbore Centre (ft)	+N/-S	+E/-W	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,500.00	2,500.00	2,500.00	2,500.00	8.75	8.75	0.00		30.00	0.00		30.00	12.50	17.50	1.714	Minor Risk, CC
2,600.00	2,600.00	2,599.59	2,599.59	9.11	9.11	-1.04		30.66	-0.56		30.67	12.45	18.22	1.684	Minor Risk, ES
2,700.00	2,700.00	2,699.12	2,699.08	9.47	9.46	-3.90		32.65	-2.23		32.74	13.81	18.92	1.730	Minor Risk
2,800.00	2,800.00	2,798.53	2,798.40	9.83	9.81	-7.93		35.95	-5.01		36.33	16.71	19.62	1.852	Minor Risk
2,900.00	2,900.00	2,897.76	2,897.44	10.18	10.16	-12.36		40.56	-8.89		41.60	21.28	20.32	2.048	Minor Risk
3,000.00	3,000.00	2,996.76	2,996.13	10.54	10.52	-16.61		46.46	-13.66		48.64	27.64	21.00	2.316	Minor Risk
3,100.00	3,100.00	3,095.45	3,094.38	10.90	10.87	-20.36		53.65	-19.91		57.50	35.81	21.68	2.652	Alert
3,200.00	3,200.00	3,193.80	3,192.10	11.26	11.22	-23.52		62.09	-27.02		68.18	45.82	22.35	3.050	Alert
3,300.00	3,300.00	3,291.73	3,289.21	11.62	11.58	-26.11		71.78	-35.18		80.68	57.64	23.02	3.504	Alert
3,400.00	3,400.00	3,389.65	3,386.09	11.97	11.94	-28.21		82.67	-44.35		94.85	71.16	23.69	4.004	Alert
3,500.00	3,500.00	3,488.53	3,483.85	12.33	12.30	-29.83		94.00	-53.89		109.55	85.16	24.39	4.491	Alert
3,600.00	3,600.00	3,587.40	3,581.61	12.69	12.67	-31.06		105.33	-63.43		124.32	99.22	25.10	4.953	Alert
3,700.00	3,700.00	3,686.27	3,679.37	13.05	13.04	-32.03		116.65	-72.97		139.13	113.32	25.81	5.391	
3,800.00	3,800.00	3,785.14	3,777.12	13.41	13.41	-32.81		127.98	-82.50		153.97	127.46	26.52	5.806	
3,900.00	3,900.00	3,884.02	3,874.88	13.77	13.78	-33.45		139.30	-92.04		168.84	141.61	27.23	6.201	
4,000.00	4,000.00	3,982.89	3,972.64	14.12	14.16	-33.99		150.63	-101.58		183.73	155.79	27.94	6.575	
4,100.00	4,099.99	4,081.86	4,070.50	14.47	14.53	53.75		161.97	-111.12		197.99	169.34	28.65	6.912	
4,200.00	4,199.94	4,181.01	4,168.52	14.82	14.91	53.92		173.32	-120.69		210.97	181.63	29.35	7.189	
4,300.00	4,299.79	4,280.28	4,266.87	15.16	15.29	54.53		184.70	-130.26		222.70	192.65	30.05	7.411	
4,400.00	4,399.49	4,379.62	4,364.90	15.50	15.68	55.52		196.08	-139.84		233.24	202.48	30.76	7.583	
4,500.00	4,499.01	4,479.00	4,463.16	15.85	16.06	56.85		207.46	-149.43		242.66	211.19	31.47	7.711	
4,600.00	4,598.33	4,578.37	4,561.40	16.20	16.45	58.49		218.84	-159.01		251.26	219.07	32.19	7.806	
4,700.00	4,697.63	4,677.73	4,659.65	16.55	16.83	60.09		230.22	-168.60		259.97	227.06	32.91	7.900	
4,800.00	4,796.93	4,777.10	4,757.89	16.91	17.22	61.59		241.61	-178.18		268.86	235.23	33.63	7.994	
4,900.00	4,896.23	4,876.46	4,856.13	17.26	17.61	62.99		252.99	-187.77		277.93	243.57	34.38	8.089	
5,000.00	4,895.53	4,875.82	4,854.38	17.62	18.00	64.30		264.37	-197.35		287.16	252.07	35.09	8.183	
5,100.00	5,094.83	5,075.19	5,052.82	17.98	18.39	65.53		275.75	-206.94		296.52	260.70	35.82	8.277	
5,200.00	5,194.13	5,174.55	5,150.87	18.34	18.78	66.69		287.13	-216.52		306.01	269.45	36.56	8.370	
5,300.00	5,293.43	5,273.92	5,249.11	18.70	19.17	67.78		298.52	-226.11		315.62	278.32	37.30	8.462	
5,400.00	5,392.73	5,373.28	5,347.35	19.06	19.57	68.80		309.90	-235.69		325.34	287.30	38.04	8.553	
5,500.00	5,492.03	5,472.64	5,445.60	19.43	19.96	69.76		321.28	-245.27		335.15	296.36	38.78	8.642	
5,600.00	5,591.33	5,572.01	5,543.84	19.79	20.35	70.67		332.66	-254.86		345.05	305.52	39.53	8.729	
5,700.00	5,690.63	5,671.37	5,642.08	20.16	20.75	71.52		344.04	-264.44		355.03	314.75	40.27	8.816	
5,800.00	5,789.93	5,770.74	5,740.33	20.53	21.14	72.33		355.43	-274.03		365.08	324.06	41.02	8.900	
5,900.00	5,889.23	5,870.10	5,838.57	20.90	21.54	73.10		366.81	-283.61		375.21	333.43	41.77	8.983	
6,000.00	5,988.53	5,969.46	5,936.81	21.26	21.93	73.82		378.19	-293.20		385.39	342.87	42.52	9.063	
6,100.00	6,087.83	6,068.83	6,035.06	21.63	22.33	74.51		389.57	-302.78		395.64	352.36	43.27	9.142	
6,200.00	6,187.13	6,168.19	6,133.30	22.01	22.73	75.17		400.96	-312.37		405.94	361.91	44.03	9.220	
6,300.00	6,286.43	6,267.56	6,231.54	22.38	23.12	75.79		412.34	-321.95		416.28	371.50	44.78	9.295	
6,400.00	6,385.73	6,366.92	6,329.79	22.75	23.52	76.38		423.72	-331.53		426.68	381.14	45.54	9.369	
6,500.00	6,485.03	6,466.28	6,428.03	23.12	23.92	76.94		435.10	-341.12		437.12	390.82	46.30	9.441	
6,600.00	6,584.33	6,565.65	6,526.27	23.50	24.32	77.48		446.48	-350.70		447.59	400.54	47.06	9.512	
6,700.00	6,683.63	6,665.01	6,624.52	23.87	24.72	77.99		457.87	-360.29		458.11	410.29	47.82	9.580	
6,800.00	6,782.93	6,764.38	6,722.76	24.25	25.12	78.48		469.25	-369.87		468.66	420.08	48.58	9.648	
6,900.00	6,882.23	6,863.74	6,821.01	24.63	25.52	78.95		480.63	-379.46		479.24	429.90	49.34	9.713	
7,000.00	6,981.53	6,963.10	6,919.25	25.00	25.92	79.40		492.01	-389.04		489.85	439.75	50.10	9.777	
7,100.00	7,080.83	7,062.47	7,017.49	25.38	26.32	79.82		503.39	-398.62		500.49	449.62	50.87	9.839	
7,200.00	7,180.13	7,161.83	7,115.74	25.76	26.72	80.23		514.78	-408.21		511.16	459.53	51.63	9.900	
7,300.00	7,279.43	7,261.20	7,213.98	26.14	27.12	80.63		526.16	-417.79		521.85	469.45	52.40	9.960	
7,400.00	7,378.73	7,360.56	7,312.22	26.51	27.52	81.01		537.54	-427.38		532.66	479.40	53.16	10.018	
7,500.00	7,478.02	7,459.92	7,410.47	26.89	27.92	81.37		548.92	-436.96		543.30	489.37	53.93	10.075	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM r5000.141 Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Sec 27-T19S-R29E - Coral PWU 28-27 11H - Wellbore #1 - Prelim Plan 1													Offset Well Error:	0.50 ft
Survey Program:		0-MWD-HDGM												
Reference		Offset		Semi-Major Axis			Distance		Minimum		Separation		Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Separation	Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)				
7,600.00	7,577.34	7,570.40	7,519.88	27.27	28.36	81.85	560.73	-446.90	553.25	498.46	54.80	10.096		
7,700.00	7,676.88	7,683.66	7,632.41	27.85	28.80	82.37	570.34	-455.00	561.11	505.45	55.65	10.082		
7,800.00	7,776.60	7,797.25	7,745.62	28.01	29.22	82.74	577.41	-460.95	566.89	510.42	56.47	10.039		
7,900.00	7,876.49	7,911.06	7,859.28	28.37	29.63	82.97	581.92	-464.75	570.57	513.33	57.24	9.968		
8,000.00	7,976.47	8,025.00	7,973.18	28.72	30.02	83.07	583.83	-466.35	572.13	514.16	57.97	9.870		
8,100.00	8,076.47	8,128.29	8,076.47	29.07	30.37	-5.02	583.90	-466.42	572.19	513.53	58.66	9.754		
8,200.00	8,176.47	8,228.29	8,176.47	29.42	30.71	-5.02	583.90	-466.42	572.19	512.84	59.36	9.640		
8,300.00	8,276.47	8,328.29	8,276.47	29.77	31.04	-5.02	583.90	-466.42	572.19	512.14	60.05	9.529		
8,400.00	8,376.47	8,428.29	8,376.47	30.11	31.38	-5.02	583.90	-466.42	572.19	511.45	60.74	9.420		
8,500.00	8,476.47	8,528.29	8,476.47	30.46	31.72	-5.02	583.90	-466.42	572.19	510.76	61.44	9.314		
8,600.00	8,576.47	8,628.29	8,576.47	30.81	32.06	-5.02	583.90	-466.42	572.19	510.06	62.13	9.209		
8,700.00	8,675.97	8,730.45	8,678.18	31.13	32.37	-95.07	584.44	-458.09	572.77	510.00	62.76	9.126		
8,800.00	8,772.47	8,832.76	8,777.25	31.42	32.65	-95.02	586.06	-433.12	574.50	511.16	63.34	9.070		
8,900.00	8,863.03	8,935.31	8,871.07	31.70	32.90	-94.95	588.72	-392.07	577.33	513.45	63.88	9.038		
9,000.00	8,944.89	9,038.25	8,957.09	31.98	33.11	-94.85	592.37	-335.87	581.19	516.77	64.42	9.022		
9,100.00	9,015.58	9,141.69	9,032.91	32.31	33.32	-94.73	596.91	-265.84	585.97	520.92	65.05	9.008		
9,200.00	9,072.95	9,245.76	9,096.32	32.74	33.58	-94.59	602.24	-183.64	591.53	525.68	65.86	8.982		
9,300.00	9,115.25	9,350.59	9,145.30	33.33	34.00	-94.43	608.23	-91.29	597.73	530.77	66.96	8.927		
9,400.00	9,141.20	9,456.29	9,178.14	34.09	34.67	-94.26	614.72	8.82	604.39	535.95	68.44	8.831		
9,500.00	9,150.00	9,562.95	9,193.48	35.03	35.60	-94.09	621.54	114.03	611.30	541.00	70.30	8.696		
9,600.00	9,150.00	9,670.13	9,190.40	36.15	36.75	-93.76	628.47	220.80	617.67	545.08	72.61	8.506		
9,700.00	9,150.00	9,775.05	9,169.71	37.45	38.06	-91.82	635.09	323.34	623.28	547.86	75.40	8.266		
9,800.00	9,150.00	9,900.21	9,150.87	38.92	39.86	-90.08	639.70	446.77	626.88	548.11	78.77	7.958		
9,900.00	9,150.00	10,007.61	9,150.00	40.54	41.62	-90.00	640.22	554.14	627.45	545.31	82.13	7.639		
10,000.00	9,150.00	10,107.61	9,150.00	42.30	43.38	-90.00	640.52	654.14	627.86	542.22	85.64	7.331		
10,100.00	9,150.00	10,207.60	9,150.00	44.17	45.25	-90.00	640.81	754.14	628.27	538.89	89.38	7.029		
10,200.00	9,150.00	10,307.60	9,150.00	46.14	47.22	-90.00	641.11	854.14	628.68	535.36	93.32	6.736		
10,300.00	9,150.00	10,407.60	9,150.00	48.21	49.28	-90.00	641.41	954.14	629.09	531.65	97.45	6.456		
10,400.00	9,150.00	10,507.60	9,150.00	50.35	51.42	-90.00	641.70	1,054.14	629.51	527.78	101.72	6.188		
10,500.00	9,150.00	10,607.60	9,150.00	52.56	53.62	-90.00	642.00	1,154.14	629.92	523.78	106.14	5.935		
10,600.00	9,150.00	10,707.60	9,150.00	54.83	55.89	-90.00	642.30	1,254.14	630.33	519.65	110.68	5.695		
10,700.00	9,150.00	10,807.60	9,150.00	57.16	58.20	-90.00	642.59	1,354.13	630.74	515.42	115.32	5.469		
10,800.00	9,150.00	10,907.60	9,150.00	59.54	60.57	-90.00	642.89	1,454.13	631.16	511.10	120.06	5.257		
10,900.00	9,150.00	11,007.60	9,150.00	61.95	62.98	-90.00	643.19	1,554.13	631.57	506.68	124.88	5.057		
11,000.00	9,150.00	11,107.60	9,150.00	64.40	65.42	-90.00	643.48	1,654.13	631.98	502.20	129.78	4.870 Alert		
11,100.00	9,150.00	11,207.60	9,150.00	66.89	67.90	-90.00	643.78	1,754.13	632.39	497.65	134.74	4.693 Alert		
11,200.00	9,150.00	11,307.60	9,150.00	69.41	70.40	-90.00	644.08	1,854.13	632.81	493.04	139.77	4.528 Alert		
11,300.00	9,150.00	11,407.59	9,150.00	71.95	72.93	-90.00	644.37	1,954.13	633.22	488.38	144.84	4.372 Alert		
11,400.00	9,150.00	11,507.59	9,150.00	74.52	75.49	-90.00	644.67	2,054.13	633.63	483.66	149.97	4.225 Alert		
11,500.00	9,150.00	11,607.59	9,150.00	77.10	78.07	-90.00	644.97	2,154.12	634.04	478.91	155.13	4.087 Alert		
11,600.00	9,150.00	11,707.59	9,150.00	79.71	80.67	-90.00	645.26	2,254.12	634.45	474.11	160.34	3.957 Alert		
11,700.00	9,150.00	11,807.59	9,150.00	82.33	83.28	-90.00	645.56	2,354.12	634.87	469.29	165.58	3.834 Alert		
11,800.00	9,150.00	11,907.59	9,150.00	84.97	85.92	-90.00	645.86	2,454.12	635.28	464.43	170.85	3.718 Alert		
11,900.00	9,150.00	12,007.59	9,150.00	87.63	88.56	-90.00	646.15	2,554.12	635.69	459.54	176.15	3.609 Alert		
12,000.00	9,150.00	12,107.59	9,150.00	90.30	91.22	-90.00	646.45	2,654.12	636.10	454.62	181.48	3.505 Alert		
12,100.00	9,150.00	12,207.59	9,150.00	92.98	93.90	-90.00	646.75	2,754.12	636.52	449.68	186.84	3.407 Alert		
12,200.00	9,150.00	12,307.59	9,150.00	95.67	96.58	-90.00	647.04	2,854.11	636.93	444.72	192.21	3.314 Alert		
12,300.00	9,150.00	12,407.59	9,150.00	98.37	99.27	-90.00	647.34	2,954.11	637.34	439.73	197.61	3.225 Alert		
12,400.00	9,150.00	12,507.59	9,150.00	101.08	101.98	-90.00	647.64	3,054.11	637.75	434.73	203.02	3.141 Alert		
12,500.00	9,150.00	12,607.58	9,150.00	103.80	104.69	-90.00	647.93	3,154.11	638.16	429.71	208.45	3.061 Alert		
12,600.00	9,150.00	12,707.58	9,150.00	106.52	107.41	-90.00	648.23	3,254.11	638.58	424.68	213.90	2.985 Alert		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Prelim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 11H - Wellbore #1 - Prelim Plan 1													Offset Site Error:
Survey Program 0-MWD+HDGM													5.00 ft
Reference													Offset Well Error:
Offset													0.50 ft
Measured	Vertical	Measured	Vertical	Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Depth	Depth	Depth	Depth	Reference	Offset	Toolface	+N-S	+E-W	Between	Between	Separation	Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	Centres	Ellipses	(ft)		
12,700.00	9,150.00	12,807.58	9,150.00	109.26	110.14	-90.00	648.53	3,354.11	638.99	419.63	219.36	2.913 Alert	
12,800.00	9,150.00	12,907.58	9,150.00	112.00	112.87	-90.00	648.82	3,454.11	639.40	414.57	224.84	2.844 Alert	
12,900.00	9,150.00	13,007.58	9,150.00	114.74	115.61	-90.00	649.12	3,554.11	639.81	409.49	230.32	2.778 Alert	
13,000.00	9,150.00	13,107.58	9,150.00	117.50	118.36	-90.00	649.42	3,654.10	640.23	404.40	235.82	2.715 Alert	
13,100.00	9,150.00	13,207.58	9,150.00	120.26	121.11	-90.00	649.71	3,754.10	640.64	399.30	241.34	2.655 Alert	
13,200.00	9,150.00	13,307.58	9,150.00	123.02	123.87	-90.00	650.01	3,854.10	641.05	394.19	246.86	2.597 Alert	
13,300.00	9,150.00	13,407.58	9,150.00	125.79	126.63	-90.00	650.31	3,954.10	641.46	389.07	252.39	2.542 Alert	
13,400.00	9,150.00	13,507.58	9,150.00	128.56	129.40	-90.00	650.60	4,054.10	641.87	383.95	257.93	2.489 Minor Risk	
13,500.00	9,150.00	13,607.58	9,150.00	131.34	132.17	-90.00	650.90	4,154.10	642.29	378.81	263.48	2.438 Minor Risk	
13,600.00	9,150.00	13,707.57	9,150.00	134.12	134.95	-90.00	651.20	4,254.10	642.70	373.66	269.04	2.389 Minor Risk	
13,700.00	9,150.00	13,807.57	9,150.00	136.90	137.73	-90.00	651.49	4,354.10	643.11	368.51	274.60	2.342 Minor Risk	
13,800.00	9,150.00	13,907.57	9,150.00	139.69	140.51	-90.00	651.79	4,454.09	643.52	363.35	280.17	2.297 Minor Risk	
13,900.00	9,150.00	14,007.57	9,150.00	142.48	143.30	-90.00	652.09	4,554.09	643.94	358.19	285.75	2.254 Minor Risk	
14,000.00	9,150.00	14,107.57	9,150.00	145.27	146.09	-90.00	652.38	4,654.09	644.35	353.02	291.33	2.212 Minor Risk	
14,100.00	9,150.00	14,207.57	9,150.00	148.07	148.88	-90.00	652.68	4,754.09	644.76	347.84	296.92	2.171 Minor Risk	
14,200.00	9,150.00	14,307.57	9,150.00	150.87	151.67	-90.00	652.98	4,854.09	645.17	342.65	302.52	2.133 Minor Risk	
14,300.00	9,150.00	14,407.57	9,150.00	153.67	154.47	-90.00	653.27	4,954.09	645.58	337.47	308.12	2.095 Minor Risk	
14,400.00	9,150.00	14,507.57	9,150.00	156.48	157.27	-90.00	653.57	5,054.09	646.00	332.27	313.72	2.059 Minor Risk	
14,500.00	9,150.00	14,607.57	9,150.00	159.28	160.07	-90.00	653.87	5,154.09	646.41	327.08	319.33	2.024 Minor Risk	
14,600.00	9,150.00	14,707.57	9,150.00	162.09	162.86	-90.00	654.17	5,254.08	646.82	321.87	324.95	1.991 Minor Risk	
14,700.00	9,150.00	14,807.57	9,150.00	164.91	165.69	-90.00	654.46	5,354.08	647.23	316.67	330.57	1.958 Minor Risk	
14,800.00	9,150.00	14,907.56	9,150.00	167.72	168.50	-90.00	654.76	5,454.08	647.65	311.46	336.19	1.926 Minor Risk	
14,900.00	9,150.00	15,007.56	9,150.00	170.53	171.31	-90.00	655.06	5,554.08	648.06	306.24	341.82	1.896 Minor Risk	
15,000.00	9,150.00	15,107.56	9,150.00	173.35	174.12	-90.00	655.35	5,654.08	648.47	301.02	347.45	1.866 Minor Risk	
15,100.00	9,150.00	15,207.56	9,150.00	176.17	176.94	-90.00	655.65	5,754.08	648.88	295.80	353.08	1.838 Minor Risk	
15,200.00	9,150.00	15,307.56	9,150.00	178.99	179.75	-90.00	655.95	5,854.08	649.30	290.58	358.72	1.810 Minor Risk	
15,300.00	9,150.00	15,407.56	9,150.00	181.81	182.57	-90.00	656.24	5,954.07	649.71	285.35	364.36	1.783 Minor Risk	
15,400.00	9,150.00	15,507.56	9,150.00	184.63	185.39	-90.00	656.54	6,054.07	650.12	280.12	370.00	1.757 Minor Risk	
15,500.00	9,150.00	15,607.56	9,150.00	187.46	188.21	-90.00	656.84	6,154.07	650.53	274.88	375.65	1.732 Minor Risk	
15,600.00	9,150.00	15,707.56	9,150.00	190.28	191.04	-90.00	657.13	6,254.07	650.94	269.65	381.30	1.707 Minor Risk	
15,700.00	9,150.00	15,807.56	9,150.00	193.11	193.86	-90.00	657.43	6,354.07	651.36	264.41	386.95	1.683 Minor Risk	
15,800.00	9,150.00	15,907.56	9,150.00	195.94	196.69	-90.00	657.73	6,454.07	651.77	259.17	392.60	1.660 Minor Risk	
15,900.00	9,150.00	16,007.56	9,150.00	198.77	199.51	-90.00	658.02	6,554.07	652.18	253.92	398.26	1.638 Minor Risk	
16,000.00	9,150.00	16,107.56	9,150.00	201.60	202.34	-90.00	658.32	6,654.07	652.59	248.67	403.92	1.616 Minor Risk	
16,100.00	9,150.00	16,207.55	9,150.00	204.43	205.17	-90.00	658.62	6,754.06	653.01	243.43	409.58	1.594 Minor Risk	
16,200.00	9,150.00	16,307.55	9,150.00	207.26	208.00	-90.00	658.91	6,854.06	653.42	238.18	415.24	1.574 Minor Risk	
16,300.00	9,150.00	16,407.55	9,150.00	210.10	210.83	-90.00	659.21	6,954.06	653.83	232.92	420.91	1.553 Minor Risk	
16,400.00	9,150.00	16,507.55	9,150.00	212.93	213.66	-90.00	659.51	7,054.06	654.24	227.67	426.57	1.534 Minor Risk	
16,500.00	9,150.00	16,607.55	9,150.00	215.77	216.49	-90.00	659.80	7,154.06	654.65	222.41	432.24	1.515 Minor Risk	
16,600.00	9,150.00	16,707.55	9,150.00	218.61	219.33	-90.00	660.10	7,254.06	655.07	217.15	437.91	1.496 Major Risk	
16,700.00	9,150.00	16,807.55	9,150.00	221.44	222.16	-90.00	660.40	7,354.06	655.48	211.89	443.59	1.478 Major Risk	
16,800.00	9,150.00	16,907.55	9,150.00	224.28	225.00	-90.00	660.69	7,454.06	655.89	206.63	449.26	1.460 Major Risk	
16,900.00	9,150.00	17,007.55	9,150.00	227.12	227.75	-90.00	660.99	7,554.05	656.30	201.46	454.95	1.443 Major Risk	
16,941.97	9,150.00	17,049.52	9,150.00	228.31	228.45	-90.00	661.11	7,596.03	656.48	199.74	458.74	1.437 Major Risk, SF	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 12H - Wellbore #1 - Prelim Plan 1													Offset Site Error:
Survey Program: C-MWD-HDGM													Offset Well Error:
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Footcandle (ft)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.50	0.50	180.00	-30.00	0.00	30.00	28.96	1.04	28.971	
100.00	100.00	100.00	100.00	0.52	0.52	180.00	-30.00	0.00	30.00	28.60	1.40	21.364	
200.00	200.00	200.00	200.00	0.70	0.70	180.00	-30.00	0.00	30.00	28.03	1.97	15.192	
300.00	300.00	300.00	300.00	0.99	0.99	180.00	-30.00	0.00	30.00	27.38	2.62	11.458	
400.00	400.00	400.00	400.00	1.31	1.31	180.00	-30.00	0.00	30.00	26.71	3.29	9.113	
500.00	500.00	500.00	500.00	1.65	1.65	180.00	-30.00	0.00	30.00	26.02	3.98	7.535	
600.00	600.00	600.00	600.00	1.99	1.99	180.00	-30.00	0.00	30.00	25.32	4.68	6.412	
700.00	700.00	700.00	700.00	2.34	2.34	180.00	-30.00	0.00	30.00	24.62	5.38	5.575	
800.00	800.00	800.00	800.00	2.69	2.69	180.00	-30.00	0.00	30.00	23.91	6.09	4.928	Alert
900.00	900.00	900.00	900.00	3.04	3.04	180.00	-30.00	0.00	30.00	23.20	6.80	4.415	Alert
1,000.00	1,000.00	1,000.00	1,000.00	3.40	3.40	180.00	-30.00	0.00	30.00	22.49	7.51	3.997	Alert
1,100.00	1,100.00	1,100.00	1,100.00	3.75	3.75	180.00	-30.00	0.00	30.00	21.78	8.22	3.651	Alert
1,200.00	1,200.00	1,200.00	1,200.00	4.11	4.11	180.00	-30.00	0.00	30.00	21.07	8.93	3.360	Alert
1,300.00	1,300.00	1,300.00	1,300.00	4.46	4.46	180.00	-30.00	0.00	30.00	20.36	9.64	3.112	Alert
1,400.00	1,400.00	1,400.00	1,400.00	4.82	4.82	180.00	-30.00	0.00	30.00	19.65	10.35	2.897	Alert
1,500.00	1,500.00	1,500.00	1,500.00	5.18	5.18	180.00	-30.00	0.00	30.00	18.93	11.07	2.710	Alert
1,600.00	1,600.00	1,600.00	1,600.00	5.53	5.53	180.00	-30.00	0.00	30.00	18.22	11.78	2.548	Alert
1,700.00	1,700.00	1,700.00	1,700.00	5.89	5.89	180.00	-30.00	0.00	30.00	17.50	12.50	2.401	Minor Risk
1,800.00	1,800.00	1,800.00	1,800.00	6.25	6.25	180.00	-30.00	0.00	30.00	16.79	13.21	2.271	Minor Risk
1,900.00	1,900.00	1,900.00	1,900.00	6.61	6.61	180.00	-30.00	0.00	30.00	16.07	13.93	2.154	Minor Risk
2,000.00	2,000.00	2,000.00	2,000.00	6.96	6.96	180.00	-30.00	0.00	30.00	15.36	14.64	2.049	Minor Risk
2,100.00	2,100.00	2,100.00	2,100.00	7.32	7.32	180.00	-30.00	0.00	30.00	14.64	15.36	1.953	Minor Risk
2,200.00	2,200.00	2,200.00	2,200.00	7.68	7.68	180.00	-30.00	0.00	30.00	13.93	16.07	1.867	Minor Risk
2,300.00	2,300.00	2,300.00	2,300.00	8.04	8.04	180.00	-30.00	0.00	30.00	13.21	16.79	1.787	Minor Risk
2,400.00	2,400.00	2,400.00	2,400.00	8.39	8.39	180.00	-30.00	0.00	30.00	12.50	17.50	1.714	Minor Risk, CC, ES
2,500.00	2,500.00	2,500.00	2,500.00	8.75	8.75	180.00	-30.00	0.00	30.00	11.78	18.22	1.691	Minor Risk, SF
2,600.00	2,600.00	2,599.53	2,599.52	9.11	9.09	-179.25	-30.76	-0.40	30.77	12.57	18.20	1.754	Minor Risk
2,700.00	2,700.00	2,699.00	2,698.96	9.47	9.42	-177.20	-33.05	-1.62	33.11	14.23	18.88	1.897	Minor Risk
2,800.00	2,800.00	2,798.35	2,798.21	9.83	9.74	-174.37	-36.86	-3.63	37.09	17.54	19.55	2.115	Minor Risk
2,900.00	2,900.00	2,897.52	2,897.20	10.18	10.07	-171.31	-42.18	-6.45	42.76	22.55	20.22	2.404	Minor Risk
3,000.00	3,000.00	2,996.45	2,995.83	10.54	10.40	-168.40	-49.00	-10.06	50.19	29.31	20.88		
3,100.00	3,100.00	3,095.09	3,094.02	10.90	10.73	-165.85	-57.29	-14.45	59.38	37.85	21.54	2.757	Alert
3,200.00	3,200.00	3,193.37	3,191.68	11.26	11.06	-163.70	-67.03	-19.61	70.34	48.15	22.19	3.170	Alert
3,300.00	3,300.00	3,291.25	3,288.73	11.62	11.40	-161.93	-78.21	-25.52	83.04	60.20	22.83	3.637	Alert
3,400.00	3,400.00	3,388.66	3,385.10	11.97	11.74	-160.48	-90.78	-32.18	97.46	73.99	23.47	4.153	Alert
3,500.00	3,500.00	3,485.56	3,480.70	12.33	12.08	-159.30	-104.73	-39.57	113.60	89.50	24.10	4.714	Alert
3,600.00	3,600.00	3,583.19	3,576.80	12.69	12.43	-158.34	-119.96	-47.63	131.14	106.37	24.76	5.295	
3,700.00	3,700.00	3,681.60	3,673.64	13.05	12.79	-157.60	-135.43	-55.82	148.84	123.38	25.46	5.847	
3,800.00	3,800.00	3,780.00	3,770.47	13.41	13.15	-157.01	-150.90	-64.01	166.56	140.41	26.15	6.369	
3,900.00	3,900.00	3,878.41	3,867.31	13.77	13.52	-156.54	-166.38	-72.21	184.29	157.45	26.85	6.865	
4,000.00	4,000.00	3,876.81	3,864.14	14.12	13.89	-156.15	-181.85	-80.40	202.04	174.49	27.54	7.335	
4,100.00	4,099.99	4,075.29	4,061.06	14.47	14.26	-67.80	-197.33	-88.60	219.38	191.15	28.23	7.770	
4,200.00	4,199.94	4,173.90	4,158.09	14.82	14.64	-68.05	-212.84	-96.80	235.92	207.00	28.92	8.158	
4,300.00	4,299.79	4,272.58	4,255.19	15.16	15.02	-68.72	-228.35	-105.02	251.69	222.08	29.61	8.500	
4,400.00	4,399.49	4,371.29	4,352.33	15.50	15.41	-69.74	-243.87	-113.24	266.76	236.45	30.31	8.802	
4,500.00	4,499.01	4,469.98	4,449.45	15.85	15.79	-71.06	-259.39	-121.45	281.23	250.22	31.01	9.070	
4,600.00	4,598.33	4,568.63	4,546.52	16.20	16.18	-72.66	-274.90	-129.68	295.32	263.61	31.71	9.313	
4,700.00	4,697.63	4,667.26	4,643.58	16.55	16.57	-74.23	-290.41	-137.87	309.60	277.18	32.42	9.549	
4,800.00	4,796.93	4,765.80	4,740.65	16.91	16.96	-75.65	-305.91	-146.09	324.08	290.94	33.14	9.780	
4,900.00	4,896.23	4,864.54	4,837.71	17.26	17.36	-76.96	-321.42	-154.30	338.74	304.88	33.85	10.006	
5,000.00	4,895.53	4,863.17	4,834.77	17.62	17.76	-78.15	-336.93	-162.51	353.56	318.98	34.57	10.226	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00R
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00R
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 27-T19S-R29E- Coral PWU 28-27-12H - Wellbore #1 - Prelim Plan 1														Offset Site Error:
Survey Program: O-MWD+HDCM														Offset Well Error:
Reference		Offset		Semi-Major Axis			Offset Wellbore Centre		Distance		Minimum Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,094.83	5,061.81	5,031.84	17.98	18.15	-79.25	-352.44	-170.72	368.51	333.21	35.30	10.440		
5,200.00	5,194.13	5,160.45	5,128.90	18.34	18.55	-80.26	-367.95	-178.93	383.59	347.57	36.02	10.648		
5,300.00	5,293.43	5,259.08	5,225.96	18.70	18.95	-81.20	-383.45	-187.14	398.78	362.03	36.75	10.850		
5,400.00	5,392.73	5,357.72	5,323.02	19.06	19.36	-82.07	-398.96	-195.35	414.07	376.58	37.49	11.046		
5,500.00	5,492.03	5,456.36	5,420.09	19.43	19.76	-82.88	-414.47	-203.56	429.44	391.22	38.22	11.236		
5,600.00	5,591.33	5,554.99	5,517.15	19.79	20.17	-83.63	-429.98	-211.77	444.89	405.93	38.96	11.420		
5,700.00	5,690.63	5,653.63	5,614.21	20.16	20.57	-84.33	-445.49	-219.98	460.41	420.72	39.69	11.599		
5,800.00	5,789.93	5,752.27	5,711.28	20.53	20.98	-84.98	-461.00	-228.19	475.99	435.56	40.43	11.772		
5,900.00	5,889.23	5,850.90	5,808.34	20.90	21.39	-85.59	-476.50	-236.41	491.63	450.45	41.18	11.939		
6,000.00	5,988.53	5,949.54	5,905.40	21.26	21.80	-86.17	-492.01	-244.62	507.32	465.40	41.92	12.102		
6,100.00	6,087.83	6,048.18	6,002.47	21.63	22.21	-86.71	-507.52	-252.83	523.06	480.39	42.67	12.259		
6,200.00	6,187.13	6,146.81	6,099.53	22.01	22.82	-87.22	-523.03	-261.04	538.84	495.43	43.41	12.412		
6,300.00	6,286.43	6,245.45	6,196.59	22.38	23.03	-87.70	-538.54	-269.25	554.66	510.50	44.16	12.559		
6,400.00	6,385.73	6,344.09	6,293.66	22.75	23.44	-88.15	-554.05	-277.46	570.52	525.61	44.91	12.703		
6,500.00	6,485.03	6,442.72	6,390.72	23.12	23.85	-88.58	-569.55	-285.67	586.41	540.74	45.67	12.841		
6,600.00	6,584.33	6,541.36	6,487.78	23.50	24.27	-88.99	-585.06	-293.88	602.33	555.91	46.42	12.976		
6,700.00	6,683.63	6,640.00	6,584.85	23.87	24.68	-89.38	-600.57	-302.09	618.28	571.11	47.17	13.107		
6,800.00	6,782.93	6,738.83	6,681.91	24.25	25.10	-89.74	-616.08	-310.30	634.25	586.32	47.93	13.234		
6,900.00	6,882.23	6,837.27	6,778.97	24.63	25.51	-90.09	-631.59	-318.52	650.25	601.57	48.68	13.356		
7,000.00	6,981.53	6,935.91	6,878.04	25.00	25.93	-90.42	-647.09	-326.73	666.27	616.83	49.44	13.476		
7,100.00	7,080.83	7,034.54	6,973.10	25.38	26.35	-90.74	-662.60	-334.94	682.31	632.11	50.20	13.592		
7,200.00	7,180.13	7,133.18	7,070.16	25.76	26.76	-91.04	-678.11	-343.15	698.37	647.41	50.96	13.704		
7,300.00	7,279.43	7,231.81	7,167.22	26.14	27.18	-91.33	-693.62	-351.36	714.45	662.73	51.72	13.814		
7,400.00	7,378.73	7,330.45	7,264.29	26.51	27.60	-91.60	-709.13	-359.57	730.55	678.06	52.48	13.920		
7,500.00	7,478.02	7,429.09	7,361.35	26.89	28.02	-91.87	-724.64	-367.78	746.66	693.41	53.24	14.023		
7,600.00	7,577.32	7,527.73	7,458.42	27.27	28.44	-92.18	-740.14	-375.99	762.78	708.77	54.01	14.124		
7,700.00	7,676.62	7,626.42	7,555.54	27.65	28.86	-92.51	-755.66	-384.21	778.83	724.07	54.76	14.223		
7,800.00	7,776.60	7,738.09	7,665.54	28.01	29.33	-92.85	-772.64	-393.20	794.30	738.68	55.62	14.280		
7,900.00	7,876.49	7,839.57	7,785.75	28.37	29.82	-93.63	-788.08	-401.38	807.14	750.61	56.53	14.278		
8,000.00	7,976.47	7,981.86	7,907.27	28.72	30.30	-92.48	-800.21	-407.80	817.09	759.70	57.39	14.237		
8,100.00	8,076.47	8,104.81	8,029.81	29.07	30.76	179.72	-808.93	-412.41	824.16	765.95	58.21	14.159		
8,200.00	8,176.47	8,228.27	8,153.13	29.42	31.19	179.92	-814.17	-415.19	828.40	769.42	58.98	14.046		
8,300.00	8,276.47	8,351.99	8,276.82	29.77	31.60	179.98	-815.89	-416.10	829.79	770.08	59.71	13.898		
8,306.89	8,283.36	8,360.51	8,285.35	29.79	31.63	179.98	-815.88	-416.09	829.78	770.03	59.76	13.886		
8,400.00	8,376.47	8,451.64	8,376.47	30.11	31.91	179.98	-815.89	-416.10	829.79	769.41	60.38	13.742		
8,500.00	8,476.47	8,551.64	8,476.47	30.46	32.22	179.98	-815.89	-416.10	829.79	768.73	61.06	13.590		
8,600.00	8,576.47	8,651.64	8,576.47	30.81	32.53	179.98	-815.89	-416.10	829.79	768.06	61.74	13.441		
8,700.00	8,675.97	8,750.54	8,674.89	31.13	32.83	89.92	-815.95	-407.68	829.84	767.48	62.36	13.306		
8,800.00	8,772.47	8,849.46	8,770.42	31.42	33.09	89.92	-816.14	-382.48	830.00	767.08	62.93	13.190		
8,900.00	8,863.03	8,948.45	8,860.28	31.70	33.30	89.93	-816.45	-341.20	830.26	766.82	63.45	13.086		
9,000.00	8,944.89	9,047.54	8,941.74	31.98	33.47	89.93	-816.86	-285.04	830.62	766.65	63.97	12.984		
9,100.00	9,015.58	9,146.74	9,012.42	32.31	33.60	89.94	-817.38	-215.61	831.06	766.48	64.58	12.869		
9,200.00	9,072.95	9,246.09	9,070.15	32.74	33.71	89.96	-817.98	-134.91	831.56	766.18	65.38	12.719		
9,300.00	9,115.25	9,345.61	9,113.15	33.33	33.82	89.97	-818.64	-45.31	832.13	765.65	66.48	12.517		
9,400.00	9,141.20	9,445.30	9,140.05	34.09	34.11	89.98	-819.35	50.58	832.73	764.78	67.95	12.256		
9,500.00	9,150.00	9,545.19	9,149.96	35.03	34.81	90.00	-820.09	149.82	833.35	763.57	69.78	11.943		
9,600.00	9,150.00	9,645.19	9,150.00	36.15	35.85	90.00	-820.83	249.82	833.98	761.99	71.99	11.585		
9,700.00	9,150.00	9,745.18	9,150.00	37.45	37.11	90.00	-821.57	349.81	834.60	760.05	74.56	11.194		
9,800.00	9,150.00	9,845.18	9,150.00	38.92	38.54	90.00	-822.32	449.81	835.23	757.77	77.46	10.782		
9,900.00	9,150.00	9,945.18	9,150.00	40.54	40.14	90.00	-823.06	549.80	835.88	755.18	80.88	10.361		
10,000.00	9,150.00	10,045.18	9,150.00	42.30	41.87	90.00	-823.80	649.80	836.48	752.33	84.16	9.939		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Sec 27-T19S-R29E - Coral PWU 28-27.12H - Wellbore #1 - Prelim Plan 1														Offset Site Error:	5.00 ft
Survey Program: 0-MWD-HDGM														Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (ft)	Offset Wellbore Centre N-S (ft)	Offset Wellbore Centre E-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
10,100.00	9,150.00	10,145.18	9,150.00	44.17	43.72	90.00	-824.54	749.79	837.11	749.23	87.88	9.528			
10,200.00	9,150.00	10,245.17	9,150.00	46.14	45.68	90.00	-825.28	849.79	837.74	745.93	91.80	9.125			
10,300.00	9,150.00	10,345.17	9,150.00	48.21	47.73	90.00	-826.03	949.78	838.36	742.45	95.92	8.741			
10,400.00	9,150.00	10,445.17	9,150.00	50.35	49.86	90.00	-826.77	1,049.78	838.99	738.80	100.19	8.374			
10,500.00	9,150.00	10,545.17	9,150.00	52.56	52.08	90.00	-827.51	1,149.78	839.62	735.02	104.60	8.027			
10,600.00	9,150.00	10,645.17	9,150.00	54.83	54.33	90.00	-828.25	1,249.77	840.24	731.11	109.13	7.699			
10,700.00	9,150.00	10,745.16	9,150.00	57.16	56.65	90.00	-828.99	1,349.77	840.87	727.09	113.78	7.390			
10,800.00	9,150.00	10,845.16	9,150.00	59.54	59.02	90.00	-829.74	1,449.76	841.50	722.98	118.52	7.100			
10,900.00	9,150.00	10,945.16	9,150.00	61.95	61.43	90.00	-830.48	1,549.76	842.12	718.78	123.34	6.827			
11,000.00	9,150.00	11,045.16	9,150.00	64.40	63.87	90.00	-831.22	1,649.75	842.75	714.50	128.25	6.571			
11,100.00	9,150.00	11,145.16	9,150.00	66.89	66.36	90.00	-831.96	1,749.75	843.38	710.16	133.21	6.331			
11,200.00	9,150.00	11,245.15	9,150.00	69.41	68.87	90.00	-832.70	1,849.74	844.00	705.76	138.24	6.105			
11,300.00	9,150.00	11,345.15	9,150.00	71.95	71.41	90.00	-833.45	1,949.74	844.63	701.31	143.32	5.893			
11,400.00	9,150.00	11,445.15	9,150.00	74.52	73.97	90.00	-834.19	2,049.73	845.26	696.80	148.45	5.694			
11,500.00	9,150.00	11,545.15	9,150.00	77.10	76.56	90.00	-834.93	2,149.73	845.88	692.26	153.63	5.506			
11,600.00	9,150.00	11,645.15	9,150.00	79.71	79.16	90.00	-835.67	2,249.72	846.51	687.67	158.84	5.329			
11,700.00	9,150.00	11,745.14	9,150.00	82.33	81.78	90.00	-836.41	2,349.72	847.13	683.05	164.08	5.163			
11,800.00	9,150.00	11,845.14	9,150.00	84.97	84.42	90.00	-837.16	2,449.71	847.76	678.40	169.36	5.006			
11,900.00	9,150.00	11,945.14	9,150.00	87.63	87.08	90.00	-837.90	2,549.71	848.39	673.72	174.67	4.857 Alert			
12,000.00	9,150.00	12,045.14	9,150.00	90.30	89.74	90.00	-838.64	2,649.70	849.01	669.01	180.01	4.717 Alert			
12,100.00	9,150.00	12,145.14	9,150.00	92.98	92.42	90.00	-839.38	2,749.70	849.64	664.28	185.36	4.584 Alert			
12,200.00	9,150.00	12,245.13	9,150.00	95.67	95.11	90.00	-840.12	2,849.70	850.27	659.52	190.75	4.458 Alert			
12,300.00	9,150.00	12,345.13	9,150.00	98.37	97.81	90.00	-840.87	2,949.69	850.89	654.75	196.15	4.338 Alert			
12,400.00	9,150.00	12,445.13	9,150.00	101.08	100.52	90.00	-841.61	3,049.69	851.52	649.95	201.57	4.224 Alert			
12,500.00	9,150.00	12,545.13	9,150.00	103.80	103.24	90.00	-842.35	3,149.68	852.15	645.14	207.01	4.117 Alert			
12,600.00	9,150.00	12,645.13	9,150.00	106.52	105.97	90.00	-843.09	3,249.68	852.77	640.31	212.46	4.014 Alert			
12,700.00	9,150.00	12,745.12	9,150.00	109.26	108.70	90.00	-843.83	3,349.67	853.40	635.47	217.93	3.916 Alert			
12,800.00	9,150.00	12,845.12	9,150.00	112.00	111.44	90.00	-844.58	3,449.67	854.03	630.62	223.41	3.823 Alert			
12,900.00	9,150.00	12,945.12	9,150.00	114.74	114.19	90.00	-845.32	3,549.66	854.65	625.75	228.90	3.734 Alert			
13,000.00	9,150.00	13,045.12	9,150.00	117.50	116.94	90.00	-846.06	3,649.66	855.28	620.87	234.41	3.649 Alert			
13,100.00	9,150.00	13,145.12	9,150.00	120.26	119.70	90.00	-846.80	3,749.65	855.91	615.98	239.93	3.567 Alert			
13,200.00	9,150.00	13,245.11	9,150.00	123.02	122.46	90.00	-847.54	3,849.65	856.53	611.08	245.45	3.490 Alert			
13,300.00	9,150.00	13,345.11	9,150.00	125.79	125.23	90.00	-848.29	3,949.64	857.16	606.17	250.99	3.415 Alert			
13,400.00	9,150.00	13,445.11	9,150.00	128.56	128.01	90.00	-849.03	4,049.64	857.78	601.25	256.54	3.344 Alert			
13,500.00	9,150.00	13,545.11	9,150.00	131.34	130.78	90.00	-849.77	4,149.63	858.41	596.32	262.09	3.275 Alert			
13,600.00	9,150.00	13,645.11	9,150.00	134.12	133.56	90.00	-850.51	4,249.63	859.04	591.38	267.65	3.210 Alert			
13,700.00	9,150.00	13,745.10	9,150.00	136.90	136.35	90.00	-851.25	4,349.62	859.66	586.44	273.22	3.146 Alert			
13,800.00	9,150.00	13,845.10	9,150.00	139.69	139.14	90.00	-852.00	4,449.62	860.29	581.49	278.80	3.086 Alert			
13,900.00	9,150.00	13,945.10	9,150.00	142.48	141.93	90.00	-852.74	4,549.62	860.92	576.53	284.38	3.027 Alert			
14,000.00	9,150.00	14,045.10	9,150.00	145.27	144.72	90.00	-853.48	4,649.61	861.54	571.57	289.97	2.971 Alert			
14,100.00	9,150.00	14,145.10	9,150.00	148.07	147.52	90.00	-854.22	4,749.61	862.17	566.60	295.57	2.917 Alert			
14,200.00	9,150.00	14,245.10	9,150.00	150.87	150.32	90.00	-854.96	4,849.60	862.80	561.63	301.17	2.865 Alert			
14,300.00	9,150.00	14,345.09	9,150.00	153.67	153.13	90.00	-855.71	4,949.60	863.42	556.65	306.77	2.815 Alert			
14,400.00	9,150.00	14,445.09	9,150.00	156.48	155.93	90.00	-856.45	5,049.59	864.05	551.67	312.38	2.766 Alert			
14,500.00	9,150.00	14,545.09	9,150.00	159.28	158.74	90.00	-857.19	5,149.59	864.68	546.68	318.00	2.719 Alert			
14,600.00	9,150.00	14,645.09	9,150.00	162.09	161.55	90.00	-857.93	5,249.58	865.30	541.68	323.62	2.674 Alert			
14,700.00	9,150.00	14,745.09	9,150.00	164.91	164.36	90.00	-858.67	5,349.58	865.93	536.69	329.24	2.630 Alert			
14,800.00	9,150.00	14,845.08	9,150.00	167.72	167.18	90.00	-859.42	5,449.57	866.56	531.69	334.87	2.588 Alert			
14,900.00	9,150.00	14,945.08	9,150.00	170.53	169.99	90.00	-860.16	5,549.57	867.18	526.68	340.50	2.547 Alert			
15,000.00	9,150.00	15,045.08	9,150.00	173.35	172.81	90.00	-860.90	5,649.56	867.81	521.67	346.14	2.507 Alert			
15,100.00	9,150.00	15,145.08	9,150.00	176.17	175.63	90.00	-861.64	5,749.56	868.44	516.66	351.77	2.469 Minor Risk			

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Prelim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 27-T19S-R29E - Coral PWU 28-27 12H - Wellbore #1 - Prelim Plan 1														Offset Site Error:	5.00 ft
Survey Program: C-MWD+HDGM														Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		-N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)					
15,200.00	9,150.00	15,245.08	9,150.00	178.99	178.45	90.00	-862.38	5,849.55	869.06	511.65	357.42	2.432	Minor Risk		
15,300.00	9,150.00	15,345.07	9,150.00	181.81	181.27	90.00	-863.13	5,949.55	869.69	506.63	363.06	2.395	Minor Risk		
15,400.00	9,150.00	15,445.07	9,150.00	184.63	184.10	90.00	-863.87	6,049.54	870.31	501.61	368.71	2.360	Minor Risk		
15,500.00	9,150.00	15,545.07	9,150.00	187.46	186.92	90.00	-864.61	6,149.54	870.94	496.58	374.36	2.326	Minor Risk		
15,600.00	9,150.00	15,645.07	9,150.00	190.28	189.75	90.00	-865.35	6,249.54	871.57	491.56	380.01	2.294	Minor Risk		
15,700.00	9,150.00	15,745.07	9,150.00	193.11	192.58	90.00	-866.10	6,349.53	872.19	486.53	385.67	2.262	Minor Risk		
15,800.00	9,150.00	15,845.06	9,150.00	195.94	195.41	90.00	-866.84	6,449.53	872.82	481.49	391.33	2.230	Minor Risk		
15,900.00	9,150.00	15,945.06	9,150.00	198.77	198.24	90.00	-867.58	6,549.52	873.45	476.46	396.99	2.200	Minor Risk		
16,000.00	9,150.00	16,045.06	9,150.00	201.60	201.07	90.00	-868.32	6,649.52	874.07	471.42	402.65	2.171	Minor Risk		
16,100.00	9,150.00	16,145.06	9,150.00	204.43	203.91	90.00	-869.06	6,749.51	874.70	466.39	408.31	2.142	Minor Risk		
16,200.00	9,150.00	16,245.06	9,150.00	207.26	206.74	90.00	-869.81	6,849.51	875.33	461.35	413.98	2.114	Minor Risk		
16,300.00	9,150.00	16,345.05	9,150.00	210.10	209.57	90.00	-870.55	6,949.50	875.95	456.30	419.65	2.087	Minor Risk		
16,400.00	9,150.00	16,445.05	9,150.00	212.93	212.41	90.00	-871.29	7,049.50	876.58	451.26	425.32	2.061	Minor Risk		
16,500.00	9,150.00	16,545.05	9,150.00	215.77	215.25	90.00	-872.03	7,149.49	877.21	446.21	430.99	2.035	Minor Risk		
16,600.00	9,150.00	16,645.05	9,150.00	218.61	218.09	90.00	-872.77	7,249.49	877.83	441.16	436.67	2.010	Minor Risk		
16,700.00	9,150.00	16,745.05	9,150.00	221.44	220.92	90.00	-873.52	7,349.48	878.46	436.11	442.35	1.986	Minor Risk		
16,800.00	9,150.00	16,845.04	9,150.00	224.28	223.76	90.00	-874.26	7,449.48	879.09	431.06	448.02	1.962	Minor Risk		
16,900.00	9,150.00	16,945.04	9,150.00	227.12	226.60	90.00	-875.00	7,549.47	879.71	426.01	453.70	1.939	Minor Risk		
16,941.97	9,150.00	16,987.02	9,150.00	228.31	227.80	90.00	-875.31	7,591.45	879.98	423.89	456.09	1.929	Minor Risk		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 27-T19S-R29E - Parkway West Unit #20 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft
Survey Program: 412-INC-ONLY, 1338-MWD+IGRF, 3240-INC-ONLY													Offset Well Error: 10.00 ft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
11,200.00	9,150.00	9,129.20	9,126.06	69.41	177.26	89.08	-546.60	3,189.63	1,445.63	1,228.63	217.00	6.662	
11,300.00	9,150.00	9,129.21	9,126.06	71.95	177.26	89.08	-546.60	3,189.63	1,353.88	1,135.15	218.73	6.190	
11,400.00	9,150.00	9,129.21	9,126.07	74.52	177.26	89.08	-546.60	3,189.63	1,263.39	1,042.56	220.83	5.721	
11,500.00	9,150.00	9,129.21	9,126.07	77.10	177.26	89.08	-546.60	3,189.63	1,174.43	951.07	223.36	5.258	
11,600.00	9,150.00	9,129.21	9,126.07	79.71	177.26	89.08	-546.60	3,189.63	1,087.40	860.97	226.43	4.802	Alert
11,700.00	9,150.00	9,129.21	9,126.07	82.33	177.26	89.08	-546.60	3,189.63	1,002.79	772.66	230.13	4.358	Alert
11,800.00	9,150.00	9,129.21	9,126.07	84.97	177.26	89.08	-546.60	3,189.63	921.27	686.70	234.57	3.928	Alert
11,900.00	9,150.00	9,129.22	9,126.07	87.63	177.26	89.08	-546.60	3,189.63	843.73	603.87	239.86	3.518	Alert
12,000.00	9,150.00	9,129.22	9,126.08	90.30	177.26	89.08	-546.60	3,189.63	771.38	525.32	246.06	3.135	Alert
12,100.00	9,150.00	9,129.22	9,126.08	92.98	177.26	89.08	-546.60	3,189.63	705.81	452.66	253.15	2.788	Alert
12,200.00	9,150.00	9,129.22	9,126.08	95.67	177.26	89.08	-546.60	3,189.63	649.09	388.20	260.90	2.488	Minor Risk
12,300.00	9,150.00	9,129.22	9,126.08	98.37	177.26	89.08	-546.60	3,189.63	603.71	334.96	268.75	2.246	Minor Risk
12,400.00	9,150.00	9,129.22	9,126.08	101.08	177.26	89.08	-546.60	3,189.63	572.37	296.60	275.77	2.076	Minor Risk
12,500.00	9,150.00	9,129.23	9,126.08	103.80	177.26	89.08	-546.60	3,189.63	557.46	276.62	280.84	1.985	Minor Risk
12,534.27	9,150.00	9,129.23	9,126.09	104.73	177.26	89.08	-546.60	3,189.63	556.40	274.45	281.95	1.973	Minor Risk, CC, ES, SF
12,600.00	9,150.00	9,129.23	9,126.09	106.52	177.26	89.08	-546.60	3,189.63	560.27	277.20	283.07	1.979	Minor Risk
12,700.00	9,150.00	9,129.23	9,126.09	109.26	177.26	89.08	-546.60	3,189.63	580.56	298.23	282.33	2.056	Minor Risk
12,800.00	9,150.00	9,129.23	9,126.09	112.00	177.26	89.08	-546.60	3,189.63	616.60	337.37	279.24	2.208	Minor Risk
12,900.00	9,150.00	9,129.23	9,126.09	114.74	177.26	89.08	-546.60	3,189.63	665.84	391.11	274.74	2.424	Minor Risk
13,000.00	9,150.00	9,129.23	9,126.09	117.50	177.26	89.08	-546.60	3,189.63	725.60	455.91	269.69	2.691	Alert
13,100.00	9,150.00	9,129.24	9,126.09	120.26	177.26	89.08	-546.60	3,189.63	793.50	528.84	264.66	2.998	Alert
13,200.00	9,150.00	9,129.24	9,126.10	123.02	177.26	89.08	-546.60	3,189.63	867.63	607.68	259.96	3.338	Alert
13,300.00	9,150.00	9,129.24	9,126.10	125.79	177.26	89.08	-546.60	3,189.63	946.54	690.83	255.71	3.702	Alert
13,400.00	9,150.00	9,129.24	9,126.10	128.56	177.26	89.08	-546.60	3,189.63	1,029.12	777.18	251.93	4.085	Alert
13,500.00	9,150.00	9,129.24	9,126.10	131.34	177.26	89.08	-546.60	3,189.63	1,114.55	865.94	248.62	4.483	Alert
13,600.00	9,150.00	9,129.24	9,126.10	134.12	177.26	89.08	-546.60	3,189.63	1,202.24	956.53	245.71	4.893	Alert
13,700.00	9,150.00	9,129.25	9,126.11	136.90	177.26	89.08	-546.60	3,189.63	1,291.71	1,048.55	243.16	5.312	
13,800.00	9,150.00	9,129.25	9,126.11	139.69	177.26	89.08	-546.60	3,189.63	1,382.63	1,141.70	240.93	5.739	
13,900.00	9,150.00	9,129.25	9,126.11	142.48	177.26	89.08	-546.60	3,189.63	1,474.73	1,235.76	238.96	6.171	

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral.PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 27-T19S-R29E - Turquoise PWU 27-4H - Wellbore #1 - Wellbore #1														Offset Site Error:	5.00 ft
Survey Program: 64-GYRO-NS-CT 7413-MWD-HGRF														Offset Well Error:	0.50 ft
Reference				Offset				Semi Major Axis		Distance					
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N-S	+E-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)				
12,300.00	9,150.00	8,204.00	7,974.55	98.37	28.56	34.69	-798.78	3,367.33	1,478.99	1,400.17	78.82	18.764			
12,400.00	9,150.00	8,236.00	7,981.85	101.08	28.97	34.72	-794.87	3,398.24	1,453.23	1,372.14	81.09	17.921			
12,500.00	9,150.00	8,267.00	7,987.24	103.80	29.39	34.71	-790.67	3,428.47	1,431.64	1,348.32	83.31	17.184			
12,600.00	9,150.00	8,309.38	7,992.21	106.52	30.01	34.62	-784.71	3,470.13	1,414.23	1,328.76	85.46	16.547			
12,700.00	9,150.00	8,355.53	7,994.97	109.28	30.73	34.47	-778.35	3,515.76	1,401.11	1,313.59	87.52	16.008			
12,800.00	9,150.00	8,450.39	7,998.65	112.00	32.37	34.10	-765.10	3,609.61	1,389.92	1,300.44	89.48	15.534			
12,900.00	9,150.00	8,558.70	8,002.79	114.74	34.43	33.64	-749.37	3,716.69	1,378.53	1,287.10	91.43	15.077			
13,000.00	9,150.00	8,624.84	8,005.14	117.50	35.81	33.39	-740.66	3,782.21	1,368.13	1,274.61	93.52	14.630			
13,100.00	9,150.00	8,718.38	8,007.11	120.26	37.84	33.02	-728.86	3,874.98	1,359.35	1,263.76	95.59	14.221			
13,200.00	9,150.00	8,813.07	8,008.62	123.02	40.00	32.60	-716.21	3,968.81	1,350.66	1,253.07	97.59	13.840			
13,300.00	9,150.00	8,903.95	8,009.12	125.79	42.16	32.15	-703.48	4,058.79	1,342.58	1,243.08	99.51	13.492			
13,400.00	9,150.00	9,023.32	8,008.26	128.56	45.08	31.41	-683.94	4,176.54	1,334.47	1,233.40	101.08	13.203			
13,500.00	9,150.00	9,159.49	8,009.80	131.34	48.52	30.51	-659.16	4,310.43	1,323.92	1,221.52	102.41	12.928			
13,600.00	9,150.00	9,259.81	8,012.67	134.12	51.13	29.86	-640.32	4,408.92	1,311.82	1,207.96	103.86	12.630			
13,700.00	9,150.00	9,352.29	8,015.15	136.90	53.57	29.29	-624.09	4,499.92	1,300.64	1,195.28	105.38	12.342			
13,800.00	9,150.00	9,449.10	8,018.09	139.69	56.17	28.70	-607.36	4,595.24	1,289.45	1,182.62	106.83	12.070			
13,900.00	9,150.00	9,527.16	8,020.12	142.48	58.30	28.23	-594.55	4,672.21	1,279.26	1,170.91	108.35	11.807			
14,000.00	9,150.00	9,593.84	8,020.46	145.27	60.14	27.83	-584.28	4,738.09	1,271.44	1,161.62	109.82	11.578			
14,100.00	9,150.00	9,685.36	8,018.95	148.07	62.67	27.19	-569.44	4,828.38	1,265.29	1,154.37	110.92	11.407			
14,200.00	9,150.00	9,778.18	8,016.87	150.87	65.27	26.54	-554.40	4,919.95	1,259.85	1,147.96	111.89	11.260			
14,300.00	9,150.00	9,919.87	8,018.38	153.67	69.30	25.80	-535.92	5,060.38	1,253.01	1,139.85	113.17	11.072			
14,400.00	9,150.00	10,022.83	8,024.59	156.48	72.26	25.58	-527.79	5,162.83	1,244.08	1,128.75	115.33	10.787			
14,500.00	9,150.00	10,122.96	8,031.50	159.28	75.17	25.52	-522.97	5,262.60	1,235.74	1,117.86	117.88	10.483			
14,600.00	9,150.00	10,236.57	8,039.31	162.09	78.48	25.33	-515.03	5,375.68	1,226.46	1,106.24	120.23	10.201			
14,700.00	9,150.00	10,338.03	8,045.84	164.91	81.45	25.05	-505.34	5,478.44	1,216.51	1,094.39	122.12	9.961			
14,800.00	9,150.00	10,449.88	8,053.05	167.72	84.73	24.67	-493.46	5,587.43	1,206.13	1,082.32	123.81	9.742			
14,900.00	9,150.00	10,526.70	8,057.44	170.53	86.99	24.38	-484.87	5,683.64	1,196.20	1,070.81	125.38	9.540			
15,000.00	9,150.00	10,610.90	8,060.47	173.35	89.47	23.99	-474.66	5,747.16	1,187.85	1,061.21	126.64	9.380			
15,100.00	9,150.00	10,710.39	8,062.51	176.17	92.40	23.41	-460.95	5,845.67	1,180.33	1,052.91	127.42	9.263			
15,200.00	9,150.00	10,812.77	8,064.31	178.99	95.42	22.74	-445.26	5,946.83	1,172.59	1,044.77	127.82	9.174			
15,300.00	9,150.00	10,910.22	8,066.01	181.81	98.30	22.07	-430.08	6,043.08	1,164.92	1,036.80	128.12	9.092			
15,400.00	9,150.00	11,002.64	8,067.52	184.63	101.04	21.46	-416.20	6,134.44	1,157.73	1,029.28	128.45	9.013			
15,500.00	9,150.00	11,102.49	8,069.34	187.46	104.02	20.85	-402.51	6,233.32	1,150.99	1,022.17	128.83	8.934			
15,600.00	9,150.00	11,229.83	8,073.77	190.28	107.62	20.14	-385.85	6,359.49	1,143.06	1,013.99	129.07	8.856			
15,700.00	9,150.00	11,350.02	8,079.82	193.11	111.40	19.37	-367.71	6,478.15	1,133.11	1,004.19	128.92	8.789			
15,800.00	9,150.00	11,447.49	8,085.58	195.94	114.30	18.69	-351.80	6,574.13	1,122.06	993.26	128.80	8.711			
15,900.00	9,150.00	11,542.78	8,090.78	198.77	117.15	18.06	-337.22	6,668.16	1,111.93	983.17	128.76	8.636			
16,000.00	9,150.00	11,636.20	8,095.80	201.60	119.94	17.41	-322.61	6,760.29	1,101.93	973.35	128.58	8.570			
16,100.00	9,150.00	11,718.70	8,099.18	204.43	122.41	16.79	-309.27	6,841.63	1,093.16	964.82	128.34	8.518			
16,200.00	9,150.00	11,816.53	8,101.84	207.26	125.34	16.05	-293.95	6,938.22	1,086.00	958.24	127.76	8.500			
16,300.00	9,150.00	11,918.07	8,106.05	210.10	128.40	15.31	-278.49	7,036.49	1,077.78	950.59	127.19	8.474			
16,400.00	9,150.00	11,991.69	8,108.40	212.93	130.61	14.82	-268.43	7,111.38	1,071.14	943.98	127.16	8.424			
16,500.00	9,150.00	12,056.00	8,108.35	215.77	132.55	14.35	-259.35	7,175.04	1,067.61	940.66	126.95	8.410 SF			
16,584.61	9,150.00	12,121.94	8,106.67	218.17	134.54	13.85	-250.25	7,240.32	1,066.82	940.30	126.53	8.432 ES			
16,600.00	9,150.00	12,133.85	8,106.27	218.61	134.80	13.76	-248.71	7,252.13	1,066.85	940.39	126.46	8.436			
16,700.00	9,150.00	12,257.78	8,102.78	221.44	138.65	12.84	-231.99	7,374.86	1,066.54	941.07	125.47	8.501			
16,800.00	9,150.00	12,353.32	8,100.80	224.28	141.53	12.03	-217.22	7,469.24	1,065.18	940.71	124.47	8.558			
16,815.77	9,150.00	12,368.89	8,100.49	224.73	142.00	11.90	-214.81	7,484.62	1,064.98	940.68	124.30	8.568 CC			
16,900.00	9,150.00	12,360.00	8,100.67	227.12	141.73	11.97	-216.19	7,475.84	1,068.00	943.58	124.43	8.583			
16,941.97	9,150.00	12,360.00	8,100.67	228.31	141.73	11.97	-216.19	7,475.84	1,071.96	947.74	124.22	8.629			

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well: Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Sec 27-T19S-R29E - Turquoise PWU 27-3H - Wellbore #1 - Wellbore #1		Offset Site Error:		5.00 ft
Survey Program:													100-NS-Gyro-DP 7435-MWD+HDGM		Offset Well Error:		0.50 ft
Reference		Offset		Semi Major Axis			Distance										
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning				
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)						
16,800.00	9,150.00	11,960.44	8,081.38	224.28	123.83	-44.52	1,054.74	7,539.17	1,499.91	1,245.98	253.94	5.907					
16,900.00	9,150.00	12,112.23	8,087.98	227.12	127.42	-44.54	1,048.86	7,670.85	1,493.26	1,234.89	258.37	5.780					
16,941.97	9,150.00	12,164.18	8,091.38	228.31	128.84	-44.56	1,046.38	7,722.44	1,489.93	1,229.69	260.24	5.725 CC, ES, SF					

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Sec 28-T19S-R29E - Coral PWU 28-3H - Wellbore #1 - Wellbore #1		Offset Site Error:	5.00 ft
Survey Program: 100-NS-Gyro-DP, 7342-MWD+IGRF															Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.00	0.00	0.00	0.00	5.02	5.02	134.89	-862.87	866.23	1,222.73							
100.00	100.00	89.80	89.80	5.03	5.03	134.89	-862.85	866.11	1,222.56	1,212.51	10.06	121.578				
200.00	200.00	192.51	192.51	5.05	5.08	134.91	-862.91	865.55	1,222.22	1,212.09	10.13	120.670				
300.00	300.00	290.40	290.39	5.10	5.19	134.95	-863.24	864.70	1,221.84	1,211.56	10.28	118.809				
400.00	400.00	390.69	390.68	5.17	5.35	134.99	-863.58	863.96	1,221.56	1,211.04	10.52	116.089				
500.00	500.00	490.54	490.53	5.26	5.57	135.01	-863.66	863.46	1,221.27	1,210.43	10.84	112.705				
600.00	600.00	591.99	591.98	5.38	5.83	135.02	-863.57	863.07	1,220.93	1,209.71	11.21	108.868				
700.00	700.00	688.83	688.81	5.52	6.09	135.00	-863.10	863.13	1,220.63	1,209.02	11.61	105.097				
750.27	750.27	737.29	737.27	5.60	6.23	134.98	-862.74	863.44	1,220.59	1,208.77	11.83	103.212				
800.00	800.00	785.22	785.20	5.68	6.37	134.95	-862.31	863.92	1,220.63	1,208.59	12.04	101.347				
900.00	900.00	879.65	879.62	5.85	6.66	134.87	-861.35	865.36	1,220.99	1,208.48	12.51	97.594				
1,000.00	1,000.00	973.23	973.17	6.05	6.97	134.77	-860.48	867.36	1,221.86	1,208.84	13.02	93.877				
1,100.00	1,100.00	1,073.69	1,073.60	6.25	7.33	134.67	-859.82	869.71	1,223.05	1,209.47	13.58	90.040				
1,200.00	1,200.00	1,171.01	1,170.89	6.47	7.71	134.58	-859.18	871.90	1,224.20	1,210.02	14.18	86.359				
1,300.00	1,300.00	1,272.43	1,272.29	6.70	8.11	134.48	-858.69	874.28	1,225.53	1,210.72	14.82	82.714				
1,400.00	1,400.00	1,372.22	1,372.05	6.95	8.53	134.40	-858.21	876.37	1,226.70	1,211.22	15.48	79.251				
1,500.00	1,500.00	1,471.61	1,471.42	7.20	8.97	134.33	-858.01	878.31	1,227.95	1,211.79	16.16	75.972				
1,600.00	1,600.00	1,571.51	1,571.30	7.46	9.41	134.27	-857.93	880.18	1,229.23	1,212.36	16.87	72.860				
1,700.00	1,700.00	1,671.77	1,671.55	7.73	9.87	134.21	-857.94	881.95	1,230.50	1,212.90	17.60	69.916				
1,800.00	1,800.00	1,774.36	1,774.12	8.00	10.35	134.16	-857.94	883.62	1,231.67	1,213.32	18.36	67.098				
1,900.00	1,900.00	1,876.25	1,876.01	8.28	10.84	134.12	-858.03	884.89	1,232.63	1,213.50	19.12	64.454				
2,000.00	2,000.00	1,979.05	1,978.80	8.57	11.34	134.09	-858.22	885.84	1,233.42	1,213.51	19.91	61.953				
2,100.00	2,100.00	2,078.93	2,078.68	8.87	11.83	134.07	-858.34	886.62	1,234.06	1,213.37	20.69	59.640				
2,200.00	2,200.00	2,176.08	2,175.82	9.16	12.31	134.05	-858.55	887.46	1,234.83	1,213.36	21.47	57.514				
2,300.00	2,300.00	2,274.53	2,274.27	9.46	12.80	134.04	-858.99	888.38	1,235.82	1,213.56	22.26	55.514				
2,400.00	2,400.00	2,374.84	2,374.57	9.77	13.30	134.02	-859.52	889.31	1,236.85	1,213.78	23.07	53.613				
2,500.00	2,500.00	2,479.49	2,479.22	10.08	13.83	134.01	-859.88	890.20	1,237.71	1,213.79	23.91	51.763				
2,600.00	2,600.00	2,583.46	2,583.18	10.39	14.37	133.99	-859.87	890.87	1,238.16	1,213.40	24.76	50.010				
2,700.00	2,700.00	2,687.15	2,686.87	10.71	14.90	133.97	-859.75	891.22	1,238.32	1,212.71	25.61	48.362				
2,800.00	2,800.00	2,784.21	2,783.94	11.02	15.40	133.96	-859.62	891.47	1,238.41	1,211.99	26.42	46.868				
2,900.00	2,900.00	2,881.92	2,881.64	11.35	15.91	133.94	-859.55	892.01	1,238.77	1,211.51	27.25	45.452				
3,000.00	3,000.00	2,983.67	2,983.39	11.67	16.44	133.92	-859.55	892.56	1,239.15	1,211.04	28.11	44.079				
3,100.00	3,100.00	3,085.51	3,085.23	11.99	16.98	133.91	-859.51	892.90	1,239.37	1,210.39	28.97	42.775				
3,200.00	3,200.00	3,183.79	3,183.51	12.32	17.49	133.90	-859.53	893.14	1,239.56	1,209.75	29.81	41.578				
3,300.00	3,300.00	3,286.40	3,286.12	12.65	18.00	133.91	-859.78	893.20	1,239.77	1,209.12	30.65	40.453				
3,400.00	3,400.00	3,388.41	3,388.13	12.98	18.48	133.93	-860.09	892.87	1,239.75	1,208.30	31.45	39.416				
3,436.46	3,436.46	3,423.74	3,423.46	13.10	18.64	133.94	-860.23	892.71	1,239.73	1,207.99	31.74	39.058				
3,500.00	3,500.00	3,483.92	3,483.64	13.31	18.93	133.95	-860.52	892.54	1,239.81	1,207.57	32.24	38.457				
3,600.00	3,600.00	3,582.50	3,582.21	13.64	19.42	133.97	-861.10	892.47	1,240.17	1,207.11	33.06	37.517				
3,700.00	3,700.00	3,683.06	3,682.77	13.97	19.91	134.00	-861.75	892.36	1,240.54	1,206.65	33.89	36.607				
3,800.00	3,800.00	3,782.97	3,782.68	14.31	20.41	134.04	-862.66	891.95	1,240.88	1,206.16	34.71	35.746				
3,900.00	3,900.00	3,886.00	3,885.70	14.65	20.91	134.11	-863.88	891.13	1,241.13	1,205.57	35.55	34.908				
4,000.00	4,000.00	3,982.11	3,981.79	14.98	21.38	134.19	-865.24	890.10	1,241.35	1,204.98	36.36	34.137				
4,100.00	4,099.99	4,083.28	4,082.95	15.31	21.88	-137.67	-866.82	889.16	1,242.57	1,205.38	37.20	33.406				
4,200.00	4,199.94	4,193.19	4,192.85	15.64	22.42	-137.70	-867.74	888.21	1,244.97	1,206.91	38.06	32.713				
4,300.00	4,299.79	4,293.91	4,293.57	15.96	22.91	-137.81	-867.76	887.44	1,248.47	1,209.60	38.87	32.121				
4,400.00	4,399.49	4,398.56	4,398.21	16.29	23.42	-137.99	-867.55	886.58	1,253.41	1,213.71	39.70	31.572				
4,500.00	4,499.01	4,497.05	4,496.70	16.62	23.90	-138.21	-867.31	885.59	1,259.83	1,219.32	40.51	31.099				
4,600.00	4,598.33	4,495.48	4,495.12	16.96	24.38	-138.50	-867.27	884.53	1,267.72	1,226.40	41.32	30.678				
4,700.00	4,697.63	4,498.12	4,497.75	17.29	24.89	-138.82	-867.37	883.19	1,275.73	1,233.56	42.16	30.257				
4,800.00	4,796.93	4,403.72	4,403.33	17.63	25.42	-139.13	-867.38	881.36	1,283.40	1,240.38	43.02	29.833				

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-3H - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 100-NS-Gyro-DP-7342-MWD-IGRF													Offset Well Error:
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre	Between	Between	Minimum	Separation	Factor	
Depth	Depth	Depth	Depth	(ft)	(ft)	Tooface	+N/S	Centres	Ellipses	(ft)	(ft)		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		
4,900.00	4,896.23	4,907.03	4,906.62	17.97	25.93	-139.44	-866.98	879.39	1,290.72	1,246.85	43.87	29.423	
5,000.00	4,995.53	5,009.03	5,008.60	18.32	26.44	-139.74	-866.40	877.33	1,297.86	1,253.15	44.71	29.025	
5,100.00	5,094.83	5,116.86	5,116.40	18.66	26.98	-140.08	-865.12	875.03	1,304.54	1,258.95	45.59	28.614	
5,200.00	5,194.13	5,216.88	5,216.19	19.01	27.49	-140.41	-863.41	873.00	1,311.00	1,264.56	46.43	28.234	
5,300.00	5,293.43	5,317.52	5,316.99	19.36	28.00	-140.74	-861.49	871.01	1,317.41	1,270.12	47.29	27.861	
5,400.00	5,392.73	5,415.08	5,414.51	19.71	28.49	-141.05	-859.90	868.86	1,323.86	1,275.74	48.13	27.508	
5,500.00	5,492.03	5,508.12	5,507.52	20.06	28.97	-141.33	-858.75	866.98	1,330.76	1,281.81	48.95	27.187	
5,600.00	5,591.33	5,615.81	5,615.18	20.41	29.52	-141.67	-857.10	864.85	1,337.52	1,287.68	49.84	26.836	
5,700.00	5,690.63	5,717.13	5,716.46	20.77	30.04	-141.99	-855.29	862.77	1,344.12	1,293.42	50.71	26.508	
5,800.00	5,789.93	5,834.02	5,833.27	21.13	30.65	-142.38	-851.98	859.98	1,349.81	1,298.17	51.64	26.138	
5,900.00	5,889.23	5,937.62	5,936.77	21.48	31.18	-142.73	-848.48	857.00	1,354.85	1,302.33	52.52	25.796	
6,000.00	5,988.53	6,040.84	6,039.68	21.84	31.72	-143.07	-845.00	853.81	1,359.76	1,306.36	53.40	25.464	
6,100.00	6,087.83	6,149.38	6,148.27	22.21	32.28	-143.45	-840.61	850.32	1,364.22	1,309.92	54.30	25.122	
6,200.00	6,187.13	6,253.28	6,252.00	22.57	32.82	-143.82	-835.78	846.67	1,368.11	1,312.92	55.19	24.789	
6,300.00	6,286.43	6,351.93	6,350.49	22.93	33.34	-144.15	-831.50	842.94	1,372.04	1,315.98	56.06	24.475	
6,400.00	6,385.73	6,451.56	6,449.96	23.29	33.86	-144.46	-827.58	838.91	1,376.05	1,319.12	56.93	24.170	
6,500.00	6,485.03	6,547.82	6,546.07	23.66	34.37	-144.76	-824.00	834.91	1,380.14	1,322.34	57.80	23.879	
6,600.00	6,584.33	6,641.38	6,639.50	24.03	34.86	-145.05	-820.48	831.57	1,384.71	1,326.06	58.65	23.610	
6,700.00	6,683.63	6,737.49	6,735.50	24.39	35.37	-145.36	-817.08	828.38	1,389.86	1,330.14	59.51	23.350	
6,800.00	6,782.93	6,834.51	6,832.41	24.76	35.88	-145.64	-814.18	824.99	1,394.83	1,334.45	60.38	23.099	
6,900.00	6,882.23	6,930.50	6,928.30	25.13	36.39	-145.96	-810.58	822.45	1,400.28	1,339.03	61.25	22.861	
7,000.00	6,981.53	7,028.12	7,025.83	25.50	36.91	-146.26	-807.52	819.71	1,406.00	1,343.87	62.12	22.632	
7,100.00	7,080.83	7,126.49	7,124.12	25.87	37.43	-146.52	-805.07	816.49	1,411.75	1,348.75	63.00	22.407	
7,200.00	7,180.13	7,216.35	7,213.92	26.24	37.91	-146.77	-802.91	813.98	1,417.97	1,354.13	63.84	22.210	
7,300.00	7,279.43	7,316.23	7,313.63	26.61	38.39	-147.02	-800.75	811.47	1,424.19	1,359.51	64.69	22.002	
7,400.00	7,378.73	7,415.69	7,413.09	26.98	38.86	-147.26	-798.58	809.00	1,430.41	1,364.89	65.54	21.798	
7,500.00	7,478.03	7,515.27	7,512.47	27.36	39.34	-147.50	-796.40	806.50	1,436.63	1,370.17	66.39	21.594	
7,600.00	7,577.33	7,614.38	7,611.48	27.73	39.81	-147.74	-794.22	804.00	1,442.85	1,375.45	67.24	21.390	
7,700.00	7,676.63	7,713.49	7,710.49	28.10	40.28	-147.98	-792.04	801.50	1,449.07	1,380.73	68.09	21.186	
7,800.00	7,775.93	7,812.50	7,809.50	28.46	40.75	-148.22	-789.86	799.00	1,455.29	1,386.01	68.94	20.982	
7,900.00	7,875.23	7,912.50	7,909.50	28.81	41.23	-148.46	-787.68	796.50	1,461.51	1,391.29	69.79	20.778	
8,000.00	7,974.53	8,012.50	8,009.50	29.16	41.70	-148.70	-785.50	794.00	1,467.73	1,396.57	70.64	20.574	
8,100.00	8,073.83	8,110.50	8,109.50	29.51	42.18	-148.94	-783.32	791.50	1,473.95	1,401.85	71.49	20.370	
8,200.00	8,173.13	8,208.50	8,207.50	29.86	42.65	-149.18	-781.14	789.00	1,480.17	1,407.13	72.34	20.166	
8,300.00	8,272.43	8,307.50	8,306.50	30.21	43.13	-149.42	-778.96	786.50	1,486.39	1,412.41	73.19	19.962	
8,400.00	8,371.73	8,406.50	8,405.50	30.56	43.60	-149.66	-776.78	784.00	1,492.61	1,417.69	74.04	19.758	
8,500.00	8,471.03	8,505.50	8,504.50	30.91	44.08	-149.90	-774.60	781.50	1,498.83	1,422.97	74.89	19.554	
8,600.00	8,570.33	8,604.50	8,603.50	31.26	44.55	-150.14	-772.42	779.00	1,505.05	1,428.25	75.74	19.350	
8,700.00	8,669.63	8,708.50	8,707.50	31.61	45.03	-150.38	-770.24	776.50	1,511.27	1,433.53	76.59	19.146	
8,800.00	8,768.93	8,807.50	8,806.50	31.96	45.50	-150.62	-768.06	774.00	1,517.49	1,438.81	77.44	18.942	
8,900.00	8,868.23	8,906.50	8,905.50	32.31	45.98	-150.86	-765.88	771.50	1,523.71	1,444.09	78.29	18.738	
9,000.00	8,967.53	9,005.50	9,004.50	32.66	46.45	-151.10	-763.70	769.00	1,529.93	1,449.37	79.14	18.534	
9,100.00	9,066.83	9,104.50	9,103.50	33.01	46.93	-151.34	-761.52	766.50	1,536.15	1,454.65	80.00	18.330	
9,200.00	9,166.13	9,203.50	9,202.50	33.36	47.40	-151.58	-759.34	764.00	1,542.37	1,459.93	80.85	18.126	
9,300.00	9,265.43	9,302.50	9,301.50	33.71	47.88	-151.82	-757.16	761.50	1,548.59	1,465.21	81.70	17.922	
9,400.00	9,364.73	9,401.50	9,400.50	34.06	48.35	-152.06	-754.98	759.00	1,554.81	1,470.49	82.55	17.718	
9,500.00	9,464.03	9,500.50	9,499.50	34.41	48.83	-152.30	-752.80	756.50	1,561.03	1,475.77	83.40	17.514	
9,600.00	9,563.33	9,599.50	9,598.50	34.76	49.30	-152.54	-750.62	754.00	1,567.25	1,481.05	84.25	17.310	
9,700.00	9,662.63	9,698.50	9,697.50	35.11	49.78	-152.78	-748.44	751.50	1,573.47	1,486.33	85.10	17.106	
9,800.00	9,761.93	9,797.50	9,796.50	35.46	50.25	-153.02	-746.26	749.00	1,579.69	1,491.61	85.95	16.902	
9,900.00	9,861.23	9,896.50	9,895.50	35.81	50.73	-153.26	-744.08	746.50	1,585.91	1,496.89	86.80	16.698	
10,000.00	9,960.53	9,995.50	9,994.50	36.16	51.20	-153.50	-741.90	744.00	1,592.13	1,502.17	87.65	16.494	

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-3H - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 100-NS-Gyro-DP, 7342-MWD+IGRF													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (ft)	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
9,900.00	9,150.00	8,500.00	7,987.92	40.85	41.29	1.96	-26.85	818.25	1,179.29	1,144.59	34.70	33.984		
10,000.00	9,150.00	8,501.38	7,987.88	42.59	41.30	1.89	-25.46	818.30	1,161.15	1,127.95	33.19	34.983		
10,100.00	9,150.00	8,502.74	7,987.84	44.45	41.31	1.82	-24.10	818.35	1,151.43	1,118.81	32.62	35.302		
10,162.41	9,150.00	8,503.58	7,987.82	45.68	41.32	1.78	-23.27	818.37	1,149.74	1,116.92	32.82	35.035 CC, ES		
10,200.00	9,150.00	8,504.07	7,987.80	46.41	41.32	1.76	-22.77	818.39	1,150.35	1,117.20	33.15	34.706		
10,300.00	9,150.00	8,505.38	7,987.76	48.46	41.33	1.69	-21.47	818.43	1,157.94	1,123.20	34.74	33.330		
10,400.00	9,150.00	8,506.67	7,987.72	50.60	41.34	1.63	-20.18	818.47	1,174.02	1,136.85	37.17	31.589		
10,500.00	9,150.00	8,507.93	7,987.67	52.80	41.35	1.56	-18.92	818.51	1,198.26	1,158.16	40.10	29.882		
10,600.00	9,150.00	8,509.16	7,987.63	55.06	41.36	1.50	-17.69	818.55	1,230.16	1,186.91	43.25	28.440		
10,700.00	9,150.00	8,510.38	7,987.58	57.38	41.37	1.44	-16.48	818.59	1,269.17	1,222.75	46.42	27.342		
10,800.00	9,150.00	8,511.57	7,987.53	59.74	41.37	1.38	-15.28	818.63	1,314.63	1,265.18	49.45	26.585		
10,900.00	9,150.00	8,512.74	7,987.48	62.15	41.38	1.32	-14.11	818.66	1,365.91	1,313.64	52.27	26.132		
11,000.00	9,150.00	8,522.00	7,987.05	64.60	41.45	0.86	-4.87	818.93	1,422.44	1,367.58	54.86	25.928		
11,100.00	9,150.00	8,522.00	7,987.05	67.08	41.45	0.86	-4.87	818.93	1,483.50	1,426.32	57.18	25.945		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27-62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27-62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM.r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-4H - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 200-NSG-GYC-Drop 7357-MWD-HGRF													Offset Well Error:
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/S (ft)	+E/W (ft)	Between Centres (ft)	Between Ellipses (ft)			
10,100.00	9,150.00	8,479.77	7,990.13	44.45	34.27	3.49	-58.83	1,674.62	1,476.61	1,428.76	47.84	30.863	
10,200.00	9,150.00	8,491.85	7,990.07	48.41	34.37	2.89	-46.77	1,675.45	1,416.52	1,370.34	46.18	30.672	
10,300.00	9,150.00	8,502.53	7,990.03	48.46	34.46	2.38	-36.12	1,676.14	1,361.09	1,316.67	44.42	30.638	
10,400.00	9,150.00	8,512.02	7,990.01	50.60	34.54	1.89	-26.64	1,676.71	1,310.91	1,268.29	42.82	30.758	
10,500.00	9,150.00	8,520.51	7,990.00	52.80	34.61	1.47	-18.16	1,677.20	1,266.60	1,225.76	40.84	31.010	
10,600.00	9,150.00	8,528.16	7,990.00	55.06	34.67	1.09	-10.53	1,677.62	1,228.82	1,189.61	39.20	31.345	
10,700.00	9,150.00	8,535.08	7,990.00	57.38	34.73	0.75	-3.61	1,677.98	1,198.17	1,160.34	37.83	31.673	
10,800.00	9,150.00	8,541.38	7,990.01	59.74	34.78	0.44	2.67	1,678.29	1,175.24	1,138.36	36.88	31.867	
10,900.00	9,150.00	8,547.13	7,990.02	62.15	34.83	0.15	8.42	1,678.57	1,160.48	1,123.97	36.51	31.786	
11,000.00	9,150.00	8,552.40	7,990.03	64.60	34.88	-0.11	13.68	1,678.81	1,154.20	1,117.36	36.83	31.336	
11,022.85	9,150.00	8,553.54	7,990.03	65.16	34.89	-0.17	14.83	1,678.86	1,153.97	1,116.96	37.01	31.178 CC, ES	
11,100.00	9,150.00	8,557.25	7,990.05	67.08	34.92	-0.35	18.53	1,679.02	1,156.54	1,118.66	37.88	30.529	
11,200.00	9,150.00	8,561.86	7,990.06	69.59	34.97	-0.58	23.13	1,679.24	1,167.46	1,127.88	39.58	29.496	
11,300.00	9,150.00	8,566.54	7,990.08	72.12	35.01	-0.81	27.81	1,679.45	1,168.72	1,144.97	41.75	28.427	
11,400.00	9,150.00	8,571.13	7,990.09	74.68	35.05	-1.04	32.39	1,679.65	1,213.92	1,169.73	44.18	27.475	
11,500.00	9,150.00	8,575.62	7,990.11	77.26	35.09	-1.26	36.88	1,679.85	1,248.54	1,201.83	46.71	26.729	
11,600.00	9,150.00	8,580.03	7,990.13	79.87	35.13	-1.48	41.28	1,680.04	1,289.99	1,240.79	49.20	26.221	
11,700.00	9,150.00	8,584.34	7,990.16	82.49	35.17	-1.69	45.59	1,680.22	1,337.63	1,286.08	51.55	25.946	
11,800.00	9,150.00	8,588.57	7,990.18	85.12	35.21	-1.90	49.82	1,680.40	1,390.83	1,337.09	53.73	25.884 SF	
11,900.00	9,150.00	8,592.72	7,990.20	87.77	35.25	-2.11	53.96	1,680.58	1,448.97	1,393.26	55.71	26.009	

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 28-T19S-R29E - Coral PWU 28-7H - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft	
Survey Program: 0-NSG-GYC_Drop, 6525-MWD+IGRF													Offset Well Error: 0.50 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			Minimum Separation (ft)	
5,800.00	5,789.93	9,326.96	7,011.97	21.13	80.32	101.39	791.42	-140.59	1,456.58	1,396.15	60.43	24.104		
5,900.00	5,889.23	9,339.41	7,012.37	21.48	80.68	100.53	791.44	-153.03	1,374.14	1,310.55	63.59	21.608		
6,000.00	5,988.53	9,352.26	7,012.82	21.84	81.06	99.64	791.46	-165.88	1,294.03	1,226.94	67.10	19.287		
6,100.00	6,087.83	9,365.53	7,013.32	22.21	81.45	98.72	791.48	-179.14	1,216.71	1,145.75	70.96	17.146		
6,200.00	6,187.13	9,379.25	7,013.87	22.57	81.86	97.75	791.49	-192.84	1,142.73	1,067.52	75.21	15.194		
6,300.00	6,286.43	9,393.52	7,014.48	22.93	82.27	96.74	791.50	-207.10	1,072.76	992.94	79.83	13.438		
6,400.00	6,385.73	9,410.73	7,015.22	23.29	82.78	95.52	791.50	-224.29	1,007.63	922.78	84.85	11.876		
6,500.00	6,485.03	9,427.66	7,015.93	23.66	83.28	94.31	791.50	-241.20	948.29	858.19	90.10	10.525		
6,600.00	6,584.33	9,444.31	7,016.61	24.03	83.77	93.12	791.50	-257.85	895.91	800.50	95.41	9.390		
6,700.00	6,683.63	9,460.70	7,017.25	24.39	84.26	91.94	791.49	-274.22	851.79	751.26	100.52	8.474		
6,800.00	6,782.93	9,476.83	7,017.86	24.76	84.74	90.77	791.48	-290.34	817.26	712.18	105.08	7.778		
6,900.00	6,882.23	9,492.70	7,018.45	25.13	85.20	89.62	791.46	-306.20	793.60	684.92	108.68	7.302		
7,000.00	6,981.53	9,505.88	7,018.91	25.50	85.60	88.67	791.47	-319.38	781.82	670.95	110.87	7.051		
7,044.77	7,025.98	9,511.98	7,019.12	25.66	85.78	88.22	791.49	-325.47	780.56	669.20	111.37	7.009 CC, ES, SF		
7,100.00	7,080.83	9,519.42	7,019.37	25.87	86.00	87.68	791.51	-332.91	782.47	670.95	111.53	7.016		
7,200.00	7,180.13	9,532.69	7,019.79	26.24	86.39	86.72	791.58	-346.17	795.54	684.94	110.60	7.193		
7,300.00	7,279.43	9,545.69	7,020.19	26.61	86.78	85.78	791.66	-359.16	820.44	712.13	108.30	7.575		
7,400.00	7,378.73	9,558.43	7,020.56	26.98	87.15	84.86	791.78	-371.90	856.14	751.16	104.97	8.156		
7,500.00	7,478.02	9,570.92	7,020.90	27.36	87.53	83.95	791.91	-384.38	901.36	800.36	101.00	8.925		
7,600.00	7,577.34	9,583.03	7,021.22	27.73	87.89	83.37	792.06	-396.49	954.77	858.05	96.72	9.871		
7,700.00	7,676.86	9,592.95	7,021.46	28.10	88.18	83.79	792.19	-406.40	1,015.28	922.91	92.36	10.992		
7,800.00	7,776.60	9,600.36	7,021.61	28.46	88.40	84.58	792.30	-413.81	1,081.77	993.67	88.10	12.279		
7,900.00	7,876.49	9,605.44	7,021.71	28.81	88.55	85.74	792.37	-418.88	1,153.24	1,069.18	84.06	13.719		
8,000.00	7,976.47	9,608.31	7,021.76	29.16	88.64	87.26	792.41	-421.76	1,228.80	1,148.49	80.31	15.300		
8,100.00	8,076.47	9,609.69	7,021.79	29.50	88.68	-0.50	792.44	-423.14	1,307.70	1,230.81	76.90	17.006		
8,200.00	8,176.47	9,610.97	7,021.81	29.84	88.72	-0.59	792.45	-424.41	1,389.33	1,315.49	73.84	18.816		
8,300.00	8,276.47	9,612.19	7,021.83	30.18	88.75	-0.68	792.47	-425.64	1,473.21	1,402.11	71.11	20.719		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Sec 28-T19S-R29E - Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 486-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	22.00	-22.00	5.02	11.18	109.75	-201.84	562.22	597.35					
100.00	100.00	78.00	78.00	5.03	11.21	109.75	-201.84	562.22	597.35	581.11	16.24	36.791		
200.00	200.00	178.00	178.00	5.05	11.33	109.75	-201.84	562.22	597.35	580.97	16.38	36.466		
300.00	300.00	278.00	278.00	5.10	11.55	109.75	-201.84	562.22	597.35	580.71	16.64	35.892		
400.00	400.00	378.00	378.00	5.17	11.85	109.75	-201.84	562.22	597.35	580.33	17.02	35.103		
500.00	500.00	493.98	478.00	5.26	12.34	109.75	-201.84	562.22	597.35	579.75	17.60	33.940		
600.00	600.00	578.02	578.00	5.38	13.19	109.75	-201.84	562.22	597.35	578.78	18.57	32.161		
700.00	700.00	678.02	678.00	5.52	14.44	109.75	-201.84	562.22	597.35	577.40	19.96	29.934		
793.97	793.97	771.97	771.93	5.67	15.78	109.64	-200.61	562.22	596.94	575.49	21.44	27.837		
800.00	800.00	777.96	777.93	5.68	15.87	109.64	-200.61	562.22	596.94	575.39	21.54	27.707		
900.00	900.00	877.36	877.32	5.85	17.43	109.65	-200.79	562.22	597.00	573.71	23.28	25.639		
1,000.00	1,000.00	976.77	976.72	6.05	19.10	109.70	-201.28	562.22	597.17	572.02	25.15	23.746		
1,100.00	1,100.00	1,078.11	1,078.00	6.25	20.93	109.75	-201.84	562.22	597.35	570.17	27.18	21.974		
1,200.00	1,200.00	1,178.11	1,178.00	6.47	22.92	109.75	-201.84	562.22	597.35	567.96	29.39	20.326		
1,300.00	1,300.00	1,278.11	1,278.00	6.70	24.96	109.75	-201.84	562.22	597.35	565.69	31.66	18.868		
1,338.54	1,338.54	1,316.39	1,316.27	6.80	25.75	109.66	-200.85	562.22	597.02	564.47	32.54	18.345		
1,400.00	1,400.00	1,377.40	1,377.28	6.95	27.02	109.67	-201.00	562.22	597.07	563.10	33.97	17.576		
1,500.00	1,500.00	1,476.67	1,476.54	7.20	29.13	109.72	-201.54	562.22	597.25	560.93	36.32	16.443		
1,600.00	1,600.00	1,578.22	1,578.00	7.46	31.31	109.75	-201.84	562.22	597.35	558.59	38.76	15.410		
1,700.00	1,700.00	1,678.22	1,678.00	7.73	33.48	109.75	-201.84	562.22	597.35	556.15	41.20	14.498		
1,783.28	1,783.28	1,761.46	1,761.22	7.96	35.30	109.60	-200.23	562.22	596.81	553.56	43.25	13.798		
1,800.00	1,800.00	1,778.01	1,777.77	8.00	35.66	109.60	-200.24	562.22	596.82	553.15	43.66	13.669		
1,900.00	1,900.00	1,876.99	1,876.74	8.28	37.84	109.64	-200.61	562.22	596.94	550.82	46.12	12.942		
2,000.00	2,000.00	1,975.99	1,975.72	8.57	40.03	109.72	-201.50	562.22	597.24	548.64	48.60	12.288		
2,100.00	2,100.00	2,078.34	2,078.00	8.87	42.17	109.75	-201.84	562.22	597.35	546.31	51.04	11.704		
2,200.00	2,200.00	2,178.34	2,178.00	9.16	44.23	109.75	-201.84	562.22	597.35	543.96	53.39	11.189		
2,285.70	2,285.70	2,264.04	2,263.69	9.42	45.99	109.65	-200.70	562.22	596.97	541.56	55.41	10.773		
2,300.00	2,300.00	2,278.25	2,277.90	9.46	46.28	109.65	-200.70	562.22	596.97	541.22	55.75	10.708		
2,400.00	2,400.00	2,377.60	2,377.24	9.77	48.34	109.66	-200.91	562.22	597.04	538.93	58.11	10.275		
2,500.00	2,500.00	2,476.95	2,476.59	10.08	50.39	109.71	-201.46	562.22	597.22	536.75	60.47	9.876		
2,600.00	2,600.00	2,578.42	2,578.00	10.39	52.60	109.75	-201.84	562.22	597.35	534.36	62.99	9.484		
2,700.00	2,700.00	2,678.42	2,678.00	10.71	54.86	109.75	-201.84	562.22	597.35	531.79	65.56	9.111		
2,800.00	2,800.00	2,778.42	2,778.00	11.02	57.12	109.75	-201.84	562.22	597.35	529.20	68.15	8.765		
2,900.00	2,900.00	2,878.42	2,878.00	11.35	59.40	109.75	-201.84	562.22	597.35	526.61	70.74	8.444		
3,000.00	3,000.00	2,978.42	2,978.00	11.67	61.67	109.75	-201.84	562.22	597.35	524.02	73.34	8.145		
3,100.00	3,100.00	3,078.42	3,078.00	11.99	63.94	109.75	-201.84	562.22	597.35	521.41	75.94	7.866		
3,143.85	3,143.85	3,122.27	3,121.82	12.14	64.94	109.51	-199.24	562.22	596.48	519.40	77.08	7.739		
3,200.00	3,200.00	3,178.26	3,177.81	12.32	66.22	109.52	-199.26	562.22	596.49	517.95	78.54	7.595		
3,300.00	3,300.00	3,277.98	3,277.53	12.65	68.50	109.53	-199.42	562.22	596.54	515.40	81.14	7.352		
3,400.00	3,400.00	3,377.71	3,377.26	12.98	70.77	109.56	-199.72	562.22	596.64	512.89	83.75	7.124		
3,500.00	3,500.00	3,477.44	3,476.98	13.31	73.05	109.60	-200.17	562.22	596.79	510.43	86.36	6.911		
3,600.00	3,600.00	3,577.18	3,576.71	13.64	75.33	109.65	-200.77	562.22	596.99	508.02	88.97	6.710		
3,700.00	3,700.00	3,676.91	3,676.44	13.97	77.61	109.72	-201.51	562.22	597.24	505.65	91.59	6.521		
3,800.00	3,800.00	3,778.71	3,778.00	14.31	80.07	109.75	-201.84	562.22	597.35	502.98	94.38	6.330		
3,900.00	3,900.00	3,878.71	3,878.00	14.65	82.55	109.75	-201.84	562.22	597.35	500.16	97.20	6.146		
3,984.75	3,984.75	3,963.46	3,962.73	14.93	84.66	109.60	-200.22	562.22	596.81	497.22	99.59	5.993		
4,000.00	4,000.00	3,978.55	3,977.82	14.98	85.03	109.60	-200.22	562.22	596.81	496.79	100.02	5.967		
4,100.00	4,099.99	4,077.53	4,076.79	15.31	87.49	-162.31	-200.56	562.22	597.96	495.16	102.81	5.816		
4,200.00	4,199.94	4,176.48	4,175.73	15.64	89.96	-162.31	-201.42	562.22	601.37	495.78	105.59	5.695		
4,300.00	4,299.79	4,278.66	4,277.79	15.96	92.57	-162.41	-201.84	562.22	606.70	498.17	108.53	5.590		
4,400.00	4,399.49	4,378.37	4,377.49	16.29	95.16	-162.60	-201.84	562.22	613.98	502.54	111.44	5.509		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Sec 28-T19S-R29E - Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1														Offset Site Error:	5.00 ft
Survey Program: 486-INC-ONLY														Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance		Minimum		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor			
4,500.00	4,499.01	4,477.67	4,476.77	16.62	97.73	-162.97	-200.24	562.22	622.82	508.48	114.34	5.447			
4,600.00	4,598.33	4,575.98	4,575.07	16.96	100.28	-163.23	-200.60	562.22	634.06	516.84	117.22	5.409			
4,700.00	4,697.63	4,674.27	4,673.35	17.29	102.84	-163.45	-201.48	562.22	645.67	525.57	120.10	5.376			
4,800.00	4,796.93	4,776.01	4,774.93	17.63	105.56	-163.73	-201.84	562.22	657.11	533.96	123.15	5.336			
4,900.00	4,896.23	4,875.31	4,874.23	17.97	108.24	-164.01	-201.84	562.22	668.47	542.30	126.17	5.298			
5,000.00	4,995.53	4,974.31	4,973.20	18.32	110.92	-164.43	-199.97	562.22	679.28	550.10	129.18	5.258			
5,100.00	5,094.83	5,072.43	5,071.31	18.66	113.58	-164.66	-200.42	562.22	690.80	558.64	132.17	5.227			
5,200.00	5,194.13	5,170.57	5,169.42	19.01	116.23	-164.83	-201.46	562.22	702.52	567.36	135.16	5.198			
5,300.00	5,293.43	5,272.74	5,271.43	19.36	119.24	-165.05	-201.84	562.22	714.03	575.53	138.50	5.155			
5,400.00	5,392.73	5,372.04	5,370.73	19.71	122.25	-165.29	-201.84	562.22	725.46	583.61	141.85	5.114			
5,500.00	5,492.03	5,471.03	5,469.70	20.06	125.25	-165.67	-199.95	562.22	736.37	591.19	145.18	5.072			
5,600.00	5,591.33	5,569.16	5,567.80	20.41	128.22	-165.86	-200.39	562.22	747.95	599.46	148.49	5.037			
5,700.00	5,690.63	5,667.29	5,665.92	20.77	131.19	-166.00	-201.43	562.22	759.70	607.90	151.80	5.004			
5,800.00	5,789.93	5,769.58	5,767.93	21.13	134.85	-166.18	-201.84	562.22	771.28	615.47	155.81	4.950 Alert			
5,900.00	5,889.23	5,867.13	5,865.44	21.48	138.55	-166.47	-200.71	562.22	782.46	622.62	159.84	4.895 Alert			
6,000.00	5,988.53	5,968.52	5,966.53	21.84	142.46	-166.59	-201.84	562.22	794.25	630.15	164.10	4.840 Alert			
6,100.00	6,087.83	6,067.79	6,065.74	22.21	146.48	-166.92	-199.91	562.22	805.25	636.79	168.46	4.780 Alert			
6,200.00	6,187.13	6,162.58	6,160.46	22.57	150.31	-167.02	-201.00	562.22	817.06	644.43	172.63	4.733 Alert			
6,300.00	6,286.43	6,266.83	6,264.43	22.93	154.15	-167.16	-201.84	562.22	828.78	651.95	176.83	4.687 Alert			
6,400.00	6,385.73	6,366.13	6,363.73	23.29	157.66	-167.34	-201.84	562.22	840.30	659.62	180.68	4.651 Alert			
6,500.00	6,485.03	6,465.43	6,463.03	23.66	161.17	-167.51	-201.84	562.22	851.84	667.30	184.53	4.616 Alert			
6,600.00	6,584.33	6,564.73	6,562.33	24.03	164.68	-167.68	-201.84	562.22	863.38	674.99	188.39	4.583 Alert			
6,700.00	6,683.63	6,663.14	6,660.58	24.39	168.15	-168.17	-196.80	562.22	873.73	681.51	192.21	4.546 Alert			
6,800.00	6,782.93	6,761.27	6,758.66	24.76	171.62	-168.27	-197.58	562.22	885.48	689.45	196.03	4.517 Alert			
6,900.00	6,882.23	6,859.43	6,856.77	25.13	175.09	-168.34	-198.99	562.22	897.38	697.54	199.84	4.490 Alert			
7,000.00	6,981.53	6,957.62	6,954.89	25.50	178.56	-168.36	-201.04	562.22	909.44	705.78	203.66	4.465 Alert			
7,100.00	7,080.83	7,062.07	7,058.83	25.87	181.93	-168.47	-201.84	562.22	921.19	713.80	207.39	4.442 Alert			
7,200.00	7,180.13	7,159.09	7,155.81	26.24	184.93	-168.65	-201.11	562.22	932.61	721.87	210.74	4.425 Alert			
7,300.00	7,279.43	7,260.81	7,257.43	26.61	187.89	-168.75	-201.84	562.22	944.36	730.30	214.05	4.412 Alert			
7,400.00	7,378.73	7,360.11	7,356.73	26.98	190.62	-168.89	-201.84	562.22	955.95	738.82	217.13	4.403 Alert			
7,500.00	7,478.02	7,459.29	7,455.86	27.36	193.35	-169.15	-199.71	562.22	967.08	746.87	220.21	4.392 Alert			
7,600.00	7,577.32	7,557.18	7,553.73	27.73	196.04	-169.26	-200.11	562.22	978.67	755.42	223.25	4.384 Alert			
7,700.00	7,676.86	7,655.30	7,651.82	28.10	198.74	-169.33	-201.20	562.22	988.50	762.20	226.30	4.368 Alert			
7,800.00	7,776.60	7,758.22	7,754.60	28.46	201.28	-169.39	-201.84	562.22	995.67	766.47	229.19	4.344 Alert			
7,900.00	7,876.49	7,858.11	7,854.49	28.81	203.57	-169.45	-201.84	562.22	1,000.13	768.30	231.83	4.314 Alert			
8,000.00	7,976.47	7,958.05	7,954.41	29.16	205.86	-169.57	-200.14	562.22	1,001.66	767.20	234.47	4.272 Alert			
8,100.00	8,076.47	8,057.02	8,053.37	29.50	208.12	102.35	-200.40	562.22	1,001.79	764.71	237.08	4.226 Alert			
8,200.00	8,176.47	8,156.00	8,152.34	29.84	210.39	102.39	-201.16	562.22	1,001.96	762.27	239.69	4.180 Alert			
8,300.00	8,276.47	8,258.21	8,254.47	30.18	212.63	102.43	-201.84	562.22	1,002.10	759.82	242.28	4.136 Alert			
8,400.00	8,376.47	8,358.21	8,354.47	30.53	214.70	102.43	-201.84	562.22	1,002.10	757.41	244.69	4.095 Alert			
8,500.00	8,476.47	8,458.21	8,454.47	30.87	216.76	102.43	-201.84	562.22	1,002.10	754.99	247.10	4.055 Alert			
8,600.00	8,576.47	8,557.49	8,553.73	31.21	218.81	102.38	-200.93	562.22	1,001.90	752.40	249.50	4.016 Alert			
8,645.12	8,621.55	8,602.24	8,598.48	31.36	219.74	12.38	-201.12	562.22	1,000.22	749.65	250.57	3.992 Alert			
8,700.00	8,676.97	8,656.27	8,652.50	31.53	220.85	12.63	-201.44	562.22	993.61	741.74	251.87	3.945 Alert			
8,800.00	8,772.47	8,754.29	8,750.47	31.82	222.88	13.59	-201.84	562.22	968.56	714.38	254.19	3.810 Alert			
8,900.00	8,863.03	8,844.84	8,841.03	32.09	224.75	15.35	-201.84	562.22	927.54	671.22	256.32	3.619 Alert			
9,000.00	8,944.89	8,926.71	8,922.89	32.37	226.45	18.32	-201.84	562.22	871.99	613.76	258.23	3.377 Alert			
9,100.00	9,015.58	8,997.27	8,993.44	32.70	227.91	23.17	-200.66	562.22	803.48	543.62	259.87	3.092 Alert			
9,200.00	9,072.95	9,054.25	9,050.42	33.12	229.09	31.57	-200.75	562.22	725.02	463.82	261.19	2.776 Alert			
9,300.00	9,115.25	9,096.27	9,092.43	33.70	229.96	45.86	-200.88	562.22	639.16	376.94	262.21	2.438 Minor Risk			
9,400.00	9,141.20	9,122.04	9,118.20	34.46	230.50	67.32	-200.99	562.22	549.25	286.29	262.96	2.089 Minor Risk			

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway Unit 16 (Active) - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 486-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,500.00	9,150.00	9,130.79	9,126.95	35.39	230.68	89.61	-201.04	562.22	459.26	195.74	263.53	1.743	Minor Risk	
9,600.00	9,150.00	9,130.79	9,126.95	36.49	230.68	89.72	-201.04	562.22	373.67	109.38	264.29	1.414	Major Risk	
9,700.00	9,150.00	9,130.79	9,126.95	37.78	230.68	89.72	-201.04	562.22	297.22	31.37	265.85	1.118	Major Risk	
9,800.00	9,150.00	9,130.79	9,126.95	39.24	230.68	89.72	-201.04	562.22	238.85	-29.78	268.63	0.889	Collision	
9,900.00	9,150.00	9,130.79	9,126.95	40.85	230.68	89.72	-201.04	562.22	213.91	-57.61	271.52	0.788	Collision	
9,906.46	9,150.00	9,130.79	9,126.95	40.96	230.68	89.72	-201.04	562.22	213.81	-57.83	271.64	0.787	Collision, CC, ES, SF	
10,000.00	9,150.00	9,130.79	9,126.95	42.59	230.68	89.72	-201.04	562.22	233.37	-38.37	271.74	0.859	Collision	
10,100.00	9,150.00	9,130.79	9,126.95	44.45	230.68	89.72	-201.04	562.22	288.39	18.37	270.02	1.068	Major Risk	
10,200.00	9,150.00	9,130.79	9,126.95	46.41	230.68	89.72	-201.04	562.22	363.15	94.81	268.34	1.353	Major Risk	
10,300.00	9,150.00	9,130.79	9,126.96	48.46	230.68	89.72	-201.04	562.22	447.87	180.72	267.15	1.676	Minor Risk	
10,400.00	9,150.00	9,130.79	9,126.96	50.60	230.68	89.72	-201.04	562.22	537.86	271.51	266.35	2.019	Minor Risk	
10,500.00	9,150.00	9,130.79	9,126.96	52.80	230.68	89.72	-201.04	562.22	630.87	365.07	265.80	2.373	Minor Risk	
10,600.00	9,150.00	9,130.79	9,126.96	55.06	230.68	89.72	-201.04	562.22	725.75	460.33	265.41	2.734	Alert	
10,700.00	9,150.00	9,130.79	9,126.96	57.38	230.68	89.72	-201.04	562.22	821.84	556.71	265.13	3.100	Alert	
10,800.00	9,150.00	9,130.79	9,126.96	59.74	230.68	89.72	-201.04	562.22	918.76	653.84	264.92	3.468	Alert	
10,900.00	9,150.00	9,130.79	9,126.96	62.15	230.68	89.72	-201.04	562.22	1,016.28	751.53	264.76	3.839	Alert	
11,000.00	9,150.00	9,130.80	9,126.96	64.60	230.68	89.72	-201.04	562.22	1,114.25	849.61	264.63	4.211	Alert	
11,100.00	9,150.00	9,130.80	9,126.96	67.08	230.68	89.72	-201.04	562.22	1,212.54	948.00	264.54	4.584	Alert	
11,200.00	9,150.00	9,130.80	9,126.96	69.59	230.68	89.72	-201.04	562.22	1,311.09	1,046.63	264.46	4.958	Alert	
11,300.00	9,150.00	9,130.80	9,126.96	72.12	230.68	89.72	-201.04	562.22	1,409.85	1,145.45	264.40	5.332		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway West Unit #3 - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 10-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance		Minimum		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Separation (ft)	Factor		
0.00	0.00	0.00	0.00	5.02	11.18	-85.41	115.19	-1,436.29	1,441.10					
100.00	100.00	76.00	76.00	5.03	11.22	-85.41	115.19	-1,436.29	1,440.90	1,424.65	16.25	88.667		
200.00	200.00	176.00	176.00	5.05	11.45	-85.41	115.19	-1,436.29	1,440.90	1,424.40	16.50	87.314		
300.00	300.00	276.00	276.00	5.10	11.87	-85.41	115.19	-1,436.29	1,440.90	1,423.93	16.97	84.930		
400.00	400.00	376.00	376.00	5.17	12.45	-85.41	115.19	-1,436.29	1,440.90	1,423.28	17.62	81.773		
500.00	500.00	476.00	476.00	5.26	13.18	-85.41	115.19	-1,436.29	1,440.90	1,422.46	18.44	78.121		
600.00	600.00	576.00	576.00	5.38	14.03	-85.41	115.19	-1,436.29	1,440.90	1,421.49	19.41	74.223		
700.00	700.00	676.00	676.00	5.52	14.98	-85.41	115.19	-1,436.29	1,440.90	1,420.40	20.50	70.272		
800.00	800.00	776.00	776.00	5.68	16.02	-85.41	115.19	-1,436.29	1,440.90	1,419.20	21.70	66.405		
900.00	900.00	876.00	876.00	5.85	17.13	-85.41	115.19	-1,436.29	1,440.90	1,417.92	22.98	62.705		
1,000.00	1,000.00	976.00	976.00	6.05	18.29	-85.41	115.19	-1,436.29	1,440.90	1,416.57	24.33	59.219		
1,100.00	1,100.00	1,076.00	1,076.00	6.25	19.49	-85.41	115.19	-1,436.29	1,440.90	1,415.16	25.74	55.969		
1,200.00	1,200.00	1,176.00	1,176.00	6.47	20.74	-85.41	115.19	-1,436.29	1,440.90	1,413.69	27.21	52.956		
1,300.00	1,300.00	1,276.00	1,276.00	6.70	22.02	-85.41	115.19	-1,436.29	1,440.90	1,412.18	28.72	50.175		
1,400.00	1,400.00	1,376.00	1,376.00	6.95	23.32	-85.41	115.19	-1,436.29	1,440.90	1,410.64	30.26	47.613		
1,500.00	1,500.00	1,476.00	1,476.00	7.20	24.64	-85.41	115.19	-1,436.29	1,440.90	1,409.06	31.84	45.254		
1,600.00	1,600.00	1,576.00	1,576.00	7.46	25.99	-85.41	115.19	-1,436.29	1,440.90	1,407.46	33.44	43.083		
1,700.00	1,700.00	1,676.00	1,676.00	7.73	27.35	-85.41	115.19	-1,436.29	1,440.90	1,405.83	35.07	41.083		
1,800.00	1,800.00	1,776.00	1,776.00	8.00	28.72	-85.41	115.19	-1,436.29	1,440.90	1,404.18	36.72	39.238		
1,900.00	1,900.00	1,876.00	1,876.00	8.28	30.11	-85.41	115.19	-1,436.29	1,440.90	1,402.51	38.39	37.533		
2,000.00	2,000.00	1,976.00	1,976.00	8.57	31.50	-85.41	115.19	-1,436.29	1,440.90	1,400.83	40.07	35.957		
2,100.00	2,100.00	2,076.00	2,076.00	8.87	32.91	-85.41	115.19	-1,436.29	1,440.90	1,399.13	41.77	34.495		
2,200.00	2,200.00	2,176.00	2,176.00	9.16	34.32	-85.41	115.19	-1,436.29	1,440.90	1,397.42	43.48	33.138		
2,300.00	2,300.00	2,276.00	2,276.00	9.46	35.74	-85.41	115.19	-1,436.29	1,440.90	1,395.70	45.20	31.876		
2,400.00	2,400.00	2,376.00	2,376.00	9.77	37.16	-85.41	115.19	-1,436.29	1,440.90	1,393.97	46.93	30.701		
2,500.00	2,500.00	2,476.00	2,476.00	10.08	38.60	-85.41	115.19	-1,436.29	1,440.90	1,392.23	48.67	29.603		
2,600.00	2,600.00	2,576.00	2,576.00	10.39	40.03	-85.41	115.19	-1,436.29	1,440.90	1,390.48	50.42	28.576		
2,700.00	2,700.00	2,676.00	2,676.00	10.71	41.47	-85.41	115.19	-1,436.29	1,440.90	1,388.72	52.18	27.615		
2,800.00	2,800.00	2,776.00	2,776.00	11.02	42.92	-85.41	115.19	-1,436.29	1,440.90	1,386.96	53.94	26.713		
2,900.00	2,900.00	2,876.00	2,876.00	11.35	44.37	-85.41	115.19	-1,436.29	1,440.90	1,385.19	55.71	25.865		
3,000.00	3,000.00	2,976.00	2,976.00	11.67	45.82	-85.41	115.19	-1,436.29	1,440.90	1,383.42	57.48	25.067		
3,100.00	3,100.00	3,076.00	3,076.00	11.99	47.27	-85.41	115.19	-1,436.29	1,440.90	1,381.64	59.26	24.314		
3,200.00	3,200.00	3,176.00	3,176.00	12.32	48.73	-85.41	115.19	-1,436.29	1,440.90	1,379.86	61.04	23.604		
3,300.00	3,300.00	3,276.00	3,276.00	12.65	50.19	-85.41	115.19	-1,436.29	1,440.90	1,378.07	62.83	22.933		
3,400.00	3,400.00	3,376.00	3,376.00	12.98	51.65	-85.41	115.19	-1,436.29	1,440.90	1,376.28	64.62	22.297		
3,500.00	3,500.00	3,476.00	3,476.00	13.31	53.11	-85.41	115.19	-1,436.29	1,440.90	1,374.48	66.42	21.695		
3,600.00	3,600.00	3,576.00	3,576.00	13.64	54.58	-85.41	115.19	-1,436.29	1,440.90	1,372.68	68.22	21.123		
3,700.00	3,700.00	3,676.00	3,676.00	13.97	56.04	-85.41	115.19	-1,436.29	1,440.90	1,370.88	70.02	20.580		
3,800.00	3,800.00	3,776.00	3,776.00	14.31	57.51	-85.41	115.19	-1,436.29	1,440.90	1,369.08	71.82	20.063		
3,900.00	3,900.00	3,876.00	3,876.00	14.65	58.98	-85.41	115.19	-1,436.29	1,440.90	1,367.27	73.63	19.570		
4,000.00	4,000.00	3,976.00	3,976.00	14.98	60.45	-85.41	115.19	-1,436.29	1,440.90	1,365.47	75.43	19.101		
4,100.00	4,099.99	4,075.99	4,075.99	15.31	61.93	2.68	115.19	-1,436.29	1,439.81	1,362.57	77.24	18.641		
4,200.00	4,199.94	4,175.94	4,175.94	15.64	63.40	2.68	115.19	-1,436.29	1,436.54	1,357.51	79.03	18.176		
4,300.00	4,299.79	4,275.79	4,275.79	15.96	64.87	2.70	115.19	-1,436.29	1,431.10	1,350.27	80.83	17.705		
4,400.00	4,399.49	4,375.49	4,375.49	16.29	66.34	2.72	115.19	-1,436.29	1,423.48	1,340.85	82.63	17.228		
4,500.00	4,499.01	4,475.01	4,475.01	16.62	67.81	2.74	115.19	-1,436.29	1,413.69	1,329.26	84.42	16.746		
4,600.00	4,598.33	4,574.33	4,574.33	16.96	69.28	2.77	115.19	-1,436.29	1,402.08	1,315.87	86.22	16.263		
4,700.00	4,697.63	4,673.63	4,673.63	17.29	70.75	2.79	115.19	-1,436.29	1,390.28	1,302.27	88.01	15.797		
4,800.00	4,796.93	4,772.93	4,772.93	17.63	72.22	2.81	115.19	-1,436.29	1,378.48	1,288.68	89.81	15.349		
4,900.00	4,896.23	4,872.23	4,872.23	17.97	73.69	2.84	115.19	-1,436.29	1,366.69	1,275.08	91.61	14.919		
5,000.00	4,995.53	4,971.53	4,971.53	18.32	75.16	2.86	115.19	-1,436.29	1,354.89	1,261.48	93.41	14.505		

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

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM.r5000.141 Prod US
Reference Design:	Perlin Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 28-T19S-R29E - Parkway West Unit #3 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 10-INC-ONLY													Offset Well Error:
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Footface (ft)	Offset Wellbore Centre (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,094.83	5,070.83	5,070.83	18.66	76.63	2.89	115.19	-1,436.29	1,343.09	1,247.87	95.21	14.106	
5,200.00	5,194.13	5,170.13	5,170.13	19.01	78.10	2.91	115.19	-1,436.29	1,331.29	1,234.27	97.02	13.722	
5,300.00	5,293.43	5,269.43	5,269.43	19.36	79.58	2.94	115.19	-1,436.29	1,319.49	1,220.66	98.83	13.351	
5,400.00	5,392.73	5,368.73	5,368.73	19.71	81.05	2.97	115.19	-1,436.29	1,307.69	1,207.06	100.64	12.994	
5,500.00	5,492.03	5,468.03	5,468.03	20.06	82.52	2.99	115.19	-1,436.29	1,295.90	1,193.45	102.45	12.649	
5,600.00	5,591.33	5,567.33	5,567.33	20.41	84.00	3.02	115.19	-1,436.29	1,284.10	1,179.84	104.26	12.316	
5,700.00	5,690.63	5,666.63	5,666.63	20.77	85.47	3.05	115.19	-1,436.29	1,272.30	1,166.23	106.07	11.994	
5,800.00	5,789.93	5,765.93	5,765.93	21.13	86.95	3.08	115.19	-1,436.29	1,260.50	1,152.61	107.89	11.683	
5,900.00	5,889.23	5,865.23	5,865.23	21.48	88.42	3.11	115.19	-1,436.29	1,248.71	1,139.00	109.71	11.382	
6,000.00	5,988.53	5,964.53	5,964.53	21.84	89.90	3.14	115.19	-1,436.29	1,236.91	1,125.39	111.52	11.091	
6,100.00	6,087.83	6,063.83	6,063.83	22.21	91.37	3.17	115.19	-1,436.29	1,225.12	1,111.77	113.34	10.809	
6,200.00	6,187.13	6,163.13	6,163.13	22.57	92.85	3.20	115.19	-1,436.29	1,213.32	1,098.16	115.16	10.536	
6,300.00	6,286.43	6,262.43	6,262.43	22.93	94.33	3.23	115.19	-1,436.29	1,201.52	1,084.54	116.98	10.271	
6,400.00	6,385.73	6,361.73	6,361.73	23.29	95.80	3.26	115.19	-1,436.29	1,189.73	1,070.92	118.81	10.014	
6,500.00	6,485.03	6,461.03	6,461.03	23.66	97.28	3.29	115.19	-1,436.29	1,177.94	1,057.31	120.63	9.765	
6,600.00	6,584.33	6,560.33	6,560.33	24.03	98.76	3.33	115.19	-1,436.29	1,166.14	1,043.69	122.45	9.523	
6,700.00	6,683.63	6,659.63	6,659.63	24.39	100.24	3.36	115.19	-1,436.29	1,154.35	1,030.07	124.28	9.288	
6,800.00	6,782.93	6,758.93	6,758.93	24.76	101.72	3.40	115.19	-1,436.29	1,142.55	1,016.45	126.10	9.060	
6,900.00	6,882.23	6,858.23	6,858.23	25.13	103.19	3.43	115.19	-1,436.29	1,130.76	1,002.83	127.93	8.839	
7,000.00	6,981.53	6,957.53	6,957.53	25.50	104.67	3.47	115.19	-1,436.29	1,118.97	989.21	129.76	8.623	
7,100.00	7,080.83	7,056.83	7,056.83	25.87	106.15	3.50	115.19	-1,436.29	1,107.18	975.59	131.59	8.414	
7,200.00	7,180.13	7,156.13	7,156.13	26.24	107.63	3.54	115.19	-1,436.29	1,095.39	961.97	133.42	8.210	
7,300.00	7,279.43	7,255.43	7,255.43	26.61	109.11	3.58	115.19	-1,436.29	1,083.60	948.35	135.25	8.012	
7,400.00	7,378.73	7,354.73	7,354.73	26.98	110.59	3.62	115.19	-1,436.29	1,071.80	934.73	137.08	7.819	
7,500.00	7,478.02	7,454.02	7,454.02	27.36	112.07	3.66	115.19	-1,436.29	1,060.01	921.11	138.91	7.631	
7,600.00	7,577.34	7,553.34	7,553.34	27.73	113.55	3.70	115.19	-1,436.29	1,048.33	907.59	140.74	7.449	
7,700.00	7,676.66	7,652.66	7,652.66	28.10	115.04	3.72	115.19	-1,436.29	1,036.59	896.02	142.57	7.285	
7,800.00	7,776.00	7,752.00	7,752.00	28.46	116.52	3.74	115.19	-1,436.29	1,031.45	887.04	144.41	7.142	
7,900.00	7,876.49	7,852.49	7,852.49	28.81	118.01	3.75	115.19	-1,436.29	1,026.92	880.67	146.25	7.022	
8,000.00	7,976.47	7,952.47	7,952.47	29.16	119.50	3.76	115.19	-1,436.29	1,025.00	876.91	148.09	6.922	
8,093.99	8,070.46	8,046.46	8,046.46	29.48	120.91	3.76	115.19	-1,436.29	1,024.69	874.88	149.82	6.840 CC	
8,100.00	8,076.47	8,052.47	8,052.47	29.50	121.00	-84.33	115.19	-1,436.29	1,024.93	875.00	149.93	6.836	
8,200.00	8,176.47	8,152.47	8,152.47	29.84	122.49	-84.33	115.19	-1,436.29	1,024.93	873.16	151.76	6.753	
8,300.00	8,276.47	8,252.47	8,252.47	30.18	123.98	-84.33	115.19	-1,436.29	1,024.93	871.32	153.60	6.673	
8,400.00	8,376.47	8,352.47	8,352.47	30.53	125.47	-84.33	115.19	-1,436.29	1,024.93	869.48	155.44	6.594	
8,500.00	8,476.47	8,452.47	8,452.47	30.87	126.96	-84.33	115.19	-1,436.29	1,024.93	867.64	157.28	6.517	
8,600.00	8,576.47	8,552.47	8,552.47	31.21	128.46	-84.33	115.19	-1,436.29	1,024.93	865.81	159.12	6.441 ES	
8,700.00	8,675.97	8,651.97	8,651.97	31.53	129.94	-174.36	115.19	-1,436.29	1,033.49	872.56	160.93	6.422 SF	
8,800.00	8,772.47	8,748.47	8,748.47	31.82	131.38	-174.23	115.19	-1,436.29	1,059.13	896.48	162.66	6.511	
8,900.00	8,863.03	8,839.03	8,839.03	32.09	132.73	-173.99	115.19	-1,436.29	1,101.06	936.80	164.27	6.703	
9,000.00	8,944.89	8,920.89	8,920.89	32.37	133.95	-173.54	115.19	-1,436.29	1,158.04	992.35	165.69	6.989	
9,100.00	9,015.58	8,991.58	8,991.58	32.70	135.01	-172.76	115.19	-1,436.29	1,228.34	1,061.44	166.90	7.360	
9,200.00	9,072.95	9,048.95	9,048.95	33.12	135.87	-171.30	115.19	-1,436.29	1,309.84	1,141.98	167.86	7.803	
9,300.00	9,115.25	9,091.25	9,091.25	33.70	136.50	-168.19	115.19	-1,436.29	1,400.07	1,231.51	168.55	8.306	
9,400.00	9,141.20	9,117.20	9,117.20	34.46	136.88	-158.99	115.19	-1,436.29	1,486.28	1,327.31	168.97	8.855	

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

Anticollision Report

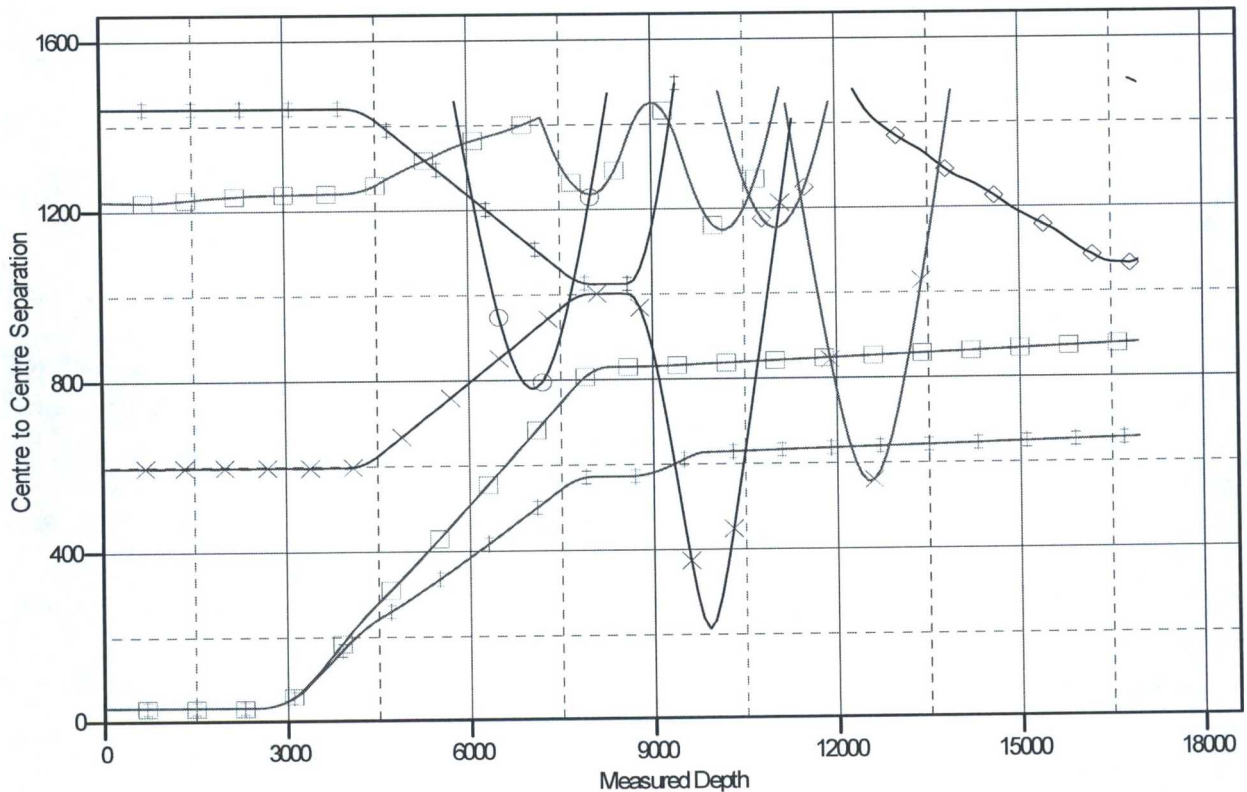
Company: WCDSC Permian NM
Project: Eddy County (NAD 83 NM Eastern)
Reference Site: Sec 27-T19S-R29E
Site Error: 5.00 ft
Reference Well: Coral PWU 28-27 62H
Well Error: 0.50 ft
Reference Wellbore: Wellbore #1
Reference Design: Prelim Plan 1

Local Co-ordinate Reference
TVD Reference: RKB @ 3333.00ft
MD Reference: RKB @ 3333.00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM r5000.141_Prod US
Offset TVD Reference: Offset Datum

Reference Depths are relative to RKB @ 3333.00ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334

Coordinates are relative to: Coral PWU 28-27 62H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.14°

Ladder Plot



LEGEND

Turquoise PWU 27-3H, Wellbore #1, Wellbore #1 V0
 Coral PWU 28-27 11H, Wellbore #1, Prelim Plan 1 V0
 Coral PWU 28-27 12H, Wellbore #1, Prelim Plan 1 V0
 Turquoise PWU 27-4H, Wellbore #1, Wellbore #1 V0
 Parkway West Unit #20 (Active), Wellbore #1, Wellbore #1 V0
 Coral PWU 28-3H, Wellbore #1, Wellbore #1 V0
 Parkway Unit 16 (Active), Wellbore #1, Wellbore #1 V0
 Coral PWU 28-7H, Wellbore #1, Wellbore #1 V0
 Parkway West Unit #3, Wellbore #1, Wellbore #1 V0
 Coral PWU 28-4H, Wellbore #1, Wellbore #1 V0

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

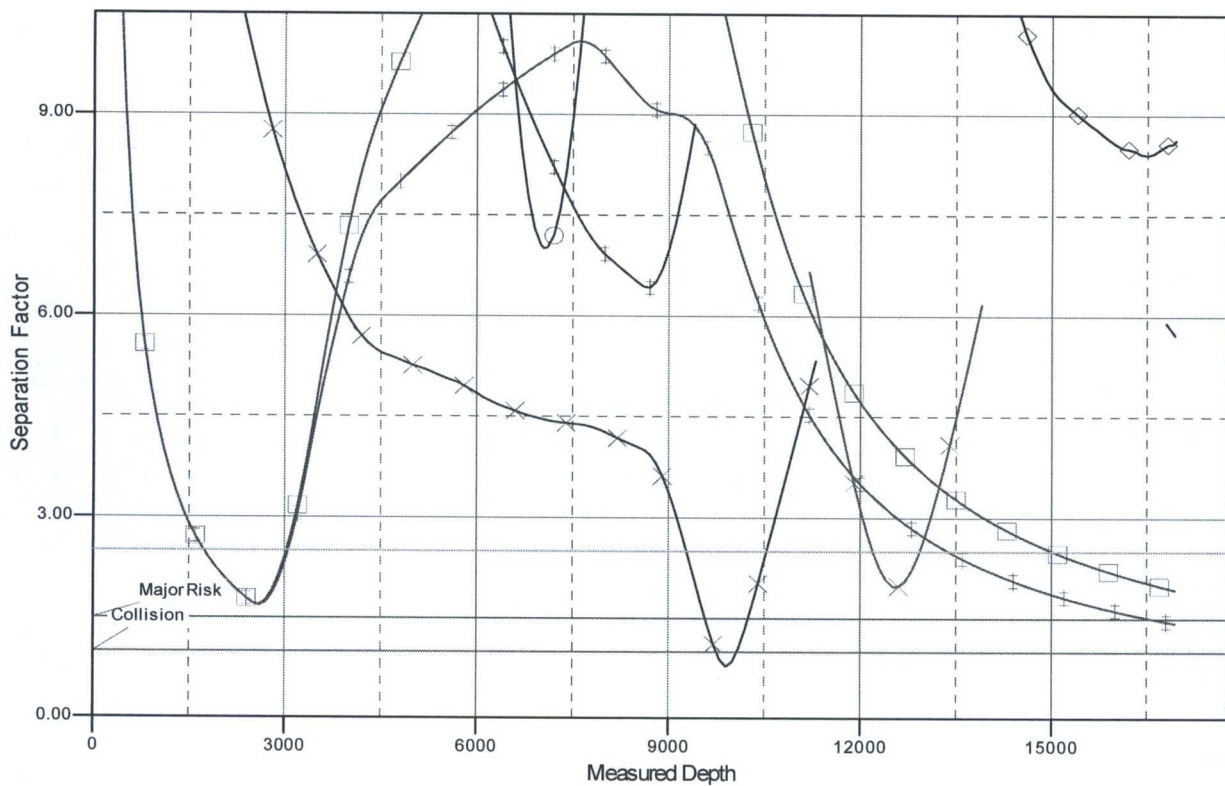
Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference	Well Coral PWU 28-27 62H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3333.00ft
Reference Site:	Sec 27-T19S-R29E	MD Reference:	RKB @ 3333.00ft
Site Error:	5.00 ft	North Reference:	Grid
Reference Well:	Coral PWU 28-27 62H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Perlim Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 3333.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Coral PWU 28-27 62H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.14°

Separation Factor Plot



LEGEND

Turquoise PWU 27-3H, Wellbore #1, Wellbore #1 V0	Parkway West Unit #20 (Active), Wellbore #1, Wellbore #1 V0	Parkway West Unit #3, Wellbore #1, Wellbore #1 V0
Coral PWU 28-27 11H, Wellbore #1, P. relim Plan 1 V0	Coral PWU 28-3H, Wellbore #1, Wellbore #1 V0	Coral PWU 28-4H, Wellbore #1, Wellbore #1 V0
Coral PWU 28-27 12H, Wellbore #1, P. relim Plan 1 V0	Parkway Unit 16 (Active), Wellbore #1, Wellbore #1 V0	
Turquoise PWU 27-4H, Wellbore #1, Wellbore #1 V0	Coral PWU 28-7H, Wellbore #1, Wellbore #1 V0	

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