

PDC ENERGY

**WELD COUNTY, COLORADO
NW NW SEC. 5 T5N R64W 6th P.M.
EHRlich 5M-343**

**ORIGINAL WELLBORE
PROPOSAL #1**

Anticollision Report

16 March, 2016



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 98.4usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 us	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	16/03/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	13,995.7	PROPOSAL #1 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offet Well - Wellbore - Design						
NW NW SEC. 5 T5N R64W 6th P.M.						
ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1	9,686.8	6,753.0	1,351.8	1,162.1	7.123	CC
ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1	9,700.0	6,752.9	1,351.9	1,161.9	7.115	ES
ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1	9,842.5	6,751.7	1,360.8	1,168.2	7.065	SF
ABDN VERT LITTLE WILL #12 - Wellbore #1 - Design #	9,880.6	6,757.4	1,024.7	833.3	5.355	CC
ABDN VERT LITTLE WILL #12 - Wellbore #1 - Design #	9,900.0	6,757.2	1,024.9	833.1	5.346	ES
ABDN VERT LITTLE WILL #12 - Wellbore #1 - Design #	10,000.0	6,756.4	1,031.6	838.1	5.330	SF
ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore	8,533.4	6,400.0	386.8	363.9	16.896	CC, ES
ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore	8,600.0	6,400.0	392.4	369.0	16.764	SF
ABDN VERT PLUMB #2 - Wellbore #1 - Wellbore #1	12,554.1	6,400.0	325.9	264.4	5.301	CC, ES, SF
EHRLICH 5E-323 - ORIGINAL WELLBORE - PROPOSA	1,200.0	1,200.0	90.0	84.9	17.583	CC, ES
EHRLICH 5E-323 - ORIGINAL WELLBORE - PROPOSA	13,995.7	13,903.8	1,562.2	1,289.2	5.722	SF
EHRLICH 5E-423 - ORIGINAL WELLBORE - PROPOSA	1,037.2	1,037.2	104.9	100.6	23.925	CC
EHRLICH 5E-423 - ORIGINAL WELLBORE - PROPOSA	1,100.0	1,099.6	105.0	100.4	22.531	ES
EHRLICH 5E-423 - ORIGINAL WELLBORE - PROPOSA	13,995.7	14,003.5	1,846.9	1,574.1	6.769	SF
EHRLICH 5J-203 - ORIGINAL WELLBORE - PROPOSA	1,637.5	1,637.5	45.2	38.1	6.377	CC
EHRLICH 5J-203 - ORIGINAL WELLBORE - PROPOSA	1,673.2	1,672.9	45.3	38.0	6.247	ES
EHRLICH 5J-203 - ORIGINAL WELLBORE - PROPOSA	13,995.7	13,803.7	702.4	431.6	2.594	SF
EHRLICH 5J-223 - ORIGINAL WELLBORE - PROPOSA	1,937.3	1,937.3	14.9	6.5	1.772	CC
EHRLICH 5J-223 - ORIGINAL WELLBORE - PROPOSA	13,995.7	13,846.0	257.8	-4.1	0.984	Level 1, ES, SF
EHRLICH 5J-243 - ORIGINAL WELLBORE - PROPOSA	1,337.5	1,337.5	75.1	69.3	13.085	CC
EHRLICH 5J-243 - ORIGINAL WELLBORE - PROPOSA	1,377.9	1,377.4	75.2	69.2	12.704	ES
EHRLICH 5J-243 - ORIGINAL WELLBORE - PROPOSA	13,995.7	13,798.1	1,199.5	927.1	4.404	SF
EHRLICH 5J-303 - ORIGINAL WELLBORE - PROPOSA	1,500.0	1,500.0	60.1	53.6	9.296	CC, ES
EHRLICH 5J-303 - ORIGINAL WELLBORE - PROPOSA	13,995.7	13,870.3	955.1	682.5	3.503	SF
EHRLICH 5J-323 - ORIGINAL WELLBORE - PROPOSA	1,800.0	1,800.0	30.2	22.4	3.869	CC, ES
EHRLICH 5J-323 - ORIGINAL WELLBORE - PROPOSA	13,995.7	13,904.2	399.1	126.9	1.466	Level 3, SF
EHRLICH 5M-243 - ORIGINAL WELLBORE - PROPOSA	2,100.0	2,100.0	14.9	5.8	1.630	CC
EHRLICH 5M-243 - ORIGINAL WELLBORE - PROPOSA	13,995.7	14,034.1	265.3	0.4	1.002	Level 2, ES, SF
EXIST DD PJ #8I - Wellbore #1 - Wellbore #1	13,995.7	6,778.3	923.9	785.3	6.665	CC, ES, SF
EXIST VERT EHRLICH #1 - Wellbore #1 - Wellbore #1	98.4	73.9	480.7	480.6	3,643.260	CC
EXIST VERT EHRLICH #1 - Wellbore #1 - Wellbore #1	787.4	762.9	482.2	480.1	232.328	ES
EXIST VERT EHRLICH #1 - Wellbore #1 - Wellbore #1	9,744.1	6,855.4	2,676.9	2,619.7	46.786	SF
EXIST VERT EHRLICH #2 - Wellbore #1 - Wellbore #1	8,571.5	6,500.0	1,374.6	1,339.2	38.842	CC
EXIST VERT EHRLICH #2 - Wellbore #1 - Wellbore #1	8,600.0	6,500.0	1,374.9	1,339.1	38.334	ES
EXIST VERT EHRLICH #2 - Wellbore #1 - Wellbore #1	9,547.2	6,500.0	1,685.7	1,633.2	32.128	SF
EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore	13,810.0	6,700.0	1,264.8	1,130.9	9.446	CC, ES
EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore	13,995.7	6,700.0	1,278.4	1,141.0	9.301	SF

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

Anticollision Report



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Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NW NW SEC. 5 T5N R64W 6th P.M.						
EXIST VERT LDS #5-25 - Wellbore #1 - Wellbore #1	10,528.8	6,724.6	622.1	550.5	8.686	CC
EXIST VERT LDS #5-25 - Wellbore #1 - Wellbore #1	10,531.5	6,724.7	622.1	550.5	8.680	ES
EXIST VERT LDS #5-25 - Wellbore #1 - Wellbore #1	10,629.9	6,728.0	630.3	556.7	8.571	SF
EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellb	7,302.8	6,791.9	78.2	59.4	4.146	CC, ES, SF
EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellb	7,037.9	6,500.0	1,247.4	1,229.1	68.171	CC, ES
EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellb	9,800.0	6,500.0	2,922.9	2,864.7	50.222	SF
EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellb	8,697.1	6,796.8	1,242.7	1,204.4	32.461	CC
EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellb	8,700.0	6,796.7	1,242.7	1,204.4	32.419	ES
EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellb	9,448.8	6,785.0	1,452.3	1,400.6	28.082	SF
EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1	13,995.7	6,694.9	292.9	155.3	2.129	CC, ES, SF
EXIST VERT PJ #3 - Wellbore #1 - Wellbore #1	13,987.7	6,500.0	1,487.7	1,351.4	10.913	CC
EXIST VERT PJ #3 - Wellbore #1 - Wellbore #1	13,995.7	6,500.0	1,487.7	1,351.2	10.901	ES, SF
EXIST VERT PJ #5 - Wellbore #1 - Wellbore #1	13,345.0	6,475.0	864.7	743.2	7.117	CC, ES
EXIST VERT PJ #5 - Wellbore #1 - Wellbore #1	13,484.2	6,475.0	875.9	751.8	7.059	SF
EXIST VERT PLUMB #1 - Wellbore #1 - Wellbore #1	12,542.4	6,700.0	1,317.0	1,207.3	12.000	CC, ES
EXIST VERT PLUMB #1 - Wellbore #1 - Wellbore #1	12,800.0	6,700.0	1,342.0	1,227.3	11.705	SF
EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore #	9,883.8	6,750.0	258.7	198.4	4.289	CC, ES
EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore #	9,900.0	6,750.0	259.2	198.6	4.277	SF
EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1	11,092.4	6,731.1	54.7	-27.9	0.662	Level 1, CC, ES, SF

Offset Design

Survey Program: 0-INC										Offset Well Error: 0.0 usft			
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-171.18	-2,655.1	-412.0	2,687.3				
98.4	98.4	50.4	50.4	0.1	0.6	-171.18	-2,655.1	-412.0	2,686.9	2,686.2	0.65	4,142.042	
100.0	100.0	52.0	52.0	0.1	0.6	-171.18	-2,655.1	-412.0	2,686.9	2,686.2	0.67	4,021.862	
196.8	196.8	148.8	148.8	0.3	2.2	-171.18	-2,655.1	-412.0	2,686.9	2,684.3	2.55	1,053.742	
200.0	200.0	152.0	152.0	0.3	2.3	-171.18	-2,655.1	-412.0	2,686.9	2,684.3	2.63	1,021.776	
295.3	295.3	247.3	247.3	0.5	4.4	-171.18	-2,655.1	-412.0	2,686.9	2,682.0	4.93	544.500	
300.0	300.0	252.0	252.0	0.5	4.5	-171.18	-2,655.1	-412.0	2,686.9	2,681.9	5.04	532.745	
393.7	393.7	345.7	345.7	0.7	6.4	-171.18	-2,655.1	-412.0	2,686.9	2,679.7	7.19	373.920	
400.0	400.0	352.0	352.0	0.8	6.6	-171.18	-2,655.1	-412.0	2,686.9	2,679.6	7.33	366.632	
492.1	492.1	444.1	444.1	1.0	8.4	-171.18	-2,655.1	-412.0	2,686.9	2,677.5	9.41	285.493	
500.0	500.0	452.0	452.0	1.0	8.6	-171.18	-2,655.1	-412.0	2,686.9	2,677.3	9.59	280.209	
590.5	590.5	542.5	542.5	1.2	10.4	-171.18	-2,655.1	-412.0	2,686.9	2,675.3	11.63	231.088	
600.0	600.0	552.0	552.0	1.2	10.6	-171.18	-2,655.1	-412.0	2,686.9	2,675.1	11.84	226.943	
689.0	689.0	641.0	641.0	1.4	12.4	-171.18	-2,655.1	-412.0	2,686.9	2,673.1	13.84	194.170	
700.0	700.0	652.0	652.0	1.4	12.7	-171.18	-2,655.1	-412.0	2,686.9	2,672.8	14.09	190.759	
787.4	787.4	739.4	739.4	1.6	14.4	-171.18	-2,655.1	-412.0	2,686.9	2,670.8	16.05	167.452	
800.0	800.0	752.0	752.0	1.7	14.7	-171.18	-2,655.1	-412.0	2,686.9	2,670.6	16.33	164.555	
885.8	885.8	837.8	837.8	1.9	16.4	-171.18	-2,655.1	-412.0	2,686.9	2,668.6	18.25	147.213	
900.0	900.0	852.0	852.0	1.9	16.7	-171.18	-2,655.1	-412.0	2,686.9	2,668.3	18.57	144.695	
984.2	984.2	936.2	936.2	2.1	18.4	-171.18	-2,655.1	-412.0	2,686.9	2,666.4	20.46	131.346	
1,000.0	1,000.0	952.0	952.0	2.1	18.7	-171.18	-2,655.1	-412.0	2,686.9	2,666.1	20.81	129.120	
1,082.7	1,082.7	1,034.7	1,034.7	2.3	20.4	-171.18	-2,655.1	-412.0	2,686.9	2,664.2	22.66	118.571	
1,100.0	1,100.0	1,052.0	1,052.0	2.3	20.7	-171.18	-2,655.1	-412.0	2,686.9	2,663.8	23.05	116.576	
1,181.1	1,181.1	1,133.1	1,133.1	2.5	22.3	-171.18	-2,655.1	-412.0	2,686.9	2,662.0	24.86	108.064	
1,200.0	1,200.0	1,152.0	1,152.0	2.6	22.7	-171.18	-2,655.1	-412.0	2,686.9	2,661.6	25.29	106.256	

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

Anticollision Report



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Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,279.5	1,279.5	1,231.5	1,231.5	2.7	24.3	-171.18	-2,655.1	-412.0	2,686.9	2,659.8	27.07	99.269	
1,300.0	1,300.0	1,252.0	1,252.0	2.8	24.7	-171.18	-2,655.1	-412.0	2,686.9	2,659.4	27.53	97.616	
1,377.9	1,377.9	1,329.9	1,329.9	3.0	26.3	-171.18	-2,655.1	-412.0	2,686.9	2,657.6	29.27	91.799	
1,400.0	1,400.0	1,352.0	1,352.0	3.0	26.8	-171.18	-2,655.1	-412.0	2,686.9	2,657.1	29.76	90.277	
1,476.4	1,476.4	1,428.4	1,428.4	3.2	28.3	-171.18	-2,655.1	-412.0	2,686.9	2,655.4	31.47	85.375	
1,500.0	1,500.0	1,452.0	1,452.0	3.2	28.8	-171.18	-2,655.1	-412.0	2,686.9	2,654.9	32.00	83.965	
1,574.8	1,574.8	1,526.8	1,526.8	3.4	30.3	-171.18	-2,655.1	-412.0	2,686.9	2,653.2	33.67	79.792	
1,600.0	1,600.0	1,552.0	1,552.0	3.5	30.8	-171.18	-2,655.1	-412.0	2,686.9	2,652.7	34.24	78.478	
1,673.2	1,673.2	1,625.2	1,625.2	3.6	32.3	-171.18	-2,655.1	-412.0	2,686.9	2,651.0	35.88	74.895	
1,700.0	1,700.0	1,652.0	1,652.0	3.7	32.8	-171.18	-2,655.1	-412.0	2,686.9	2,650.4	36.47	73.665	
1,771.6	1,771.6	1,723.6	1,723.6	3.8	34.2	-171.18	-2,655.1	-412.0	2,686.9	2,648.8	38.08	70.564	
1,800.0	1,800.0	1,752.0	1,752.0	3.9	34.8	-171.18	-2,655.1	-412.0	2,686.9	2,648.2	38.71	69.409	
1,870.1	1,870.1	1,822.1	1,822.1	4.1	36.2	-171.18	-2,655.1	-412.0	2,686.9	2,646.6	40.28	66.708	
1,900.0	1,900.0	1,852.0	1,852.0	4.1	36.8	-171.18	-2,655.1	-412.0	2,686.9	2,645.9	40.95	65.617	
1,968.5	1,968.5	1,920.5	1,920.5	4.3	38.2	-171.18	-2,655.1	-412.0	2,686.9	2,644.4	42.48	63.251	
2,000.0	2,000.0	1,952.0	1,952.0	4.4	38.8	-171.18	-2,655.1	-412.0	2,686.9	2,643.7	43.18	62.219	
2,066.9	2,066.9	2,018.9	2,018.9	4.5	40.2	-171.18	-2,655.1	-412.0	2,686.9	2,642.2	44.68	60.134	
2,100.0	2,100.0	2,052.0	2,052.0	4.6	40.8	-171.18	-2,655.1	-412.0	2,686.9	2,641.5	45.42	59.155	
2,165.3	2,165.3	2,117.3	2,117.3	4.7	42.2	120.41	-2,655.1	-412.0	2,687.3	2,640.4	46.87	57.329	
2,200.0	2,200.0	2,152.0	2,152.0	4.8	42.9	120.42	-2,655.1	-412.0	2,687.8	2,640.1	47.64	56.416	
2,263.8	2,263.7	2,215.7	2,215.7	4.9	44.1	120.45	-2,655.1	-412.0	2,689.3	2,640.2	49.05	54.832	
2,300.0	2,299.8	2,251.8	2,251.8	5.0	44.9	120.47	-2,655.1	-412.0	2,690.4	2,640.6	49.84	53.983	
2,362.2	2,361.8	2,313.8	2,313.8	5.1	46.1	120.52	-2,655.1	-412.0	2,693.0	2,641.8	51.20	52.599	
2,400.0	2,399.5	2,351.5	2,351.5	5.2	46.9	120.55	-2,655.1	-412.0	2,694.9	2,642.9	52.02	51.805	
2,460.6	2,459.7	2,411.7	2,411.7	5.4	48.1	120.62	-2,655.1	-412.0	2,698.4	2,645.1	53.33	50.595	
2,500.0	2,498.7	2,450.7	2,450.7	5.5	48.9	120.66	-2,655.1	-412.0	2,701.1	2,646.9	54.18	49.853	
2,559.0	2,557.1	2,509.1	2,509.1	5.6	50.0	120.75	-2,655.1	-412.0	2,705.7	2,650.2	55.45	48.792	
2,600.0	2,597.5	2,549.5	2,549.5	5.7	50.8	120.81	-2,655.1	-412.0	2,709.2	2,652.9	56.33	48.098	
2,657.5	2,654.0	2,606.0	2,606.0	5.9	52.0	120.90	-2,655.1	-412.0	2,714.7	2,657.1	57.56	47.166	
2,700.0	2,695.6	2,647.6	2,647.6	6.0	52.8	120.98	-2,655.1	-412.0	2,719.1	2,660.7	58.46	46.516	
2,755.9	2,750.2	2,702.2	2,702.2	6.2	53.9	121.08	-2,655.1	-412.0	2,725.5	2,665.8	59.64	45.698	
2,800.0	2,793.1	2,745.1	2,745.1	6.3	54.8	121.17	-2,655.1	-412.0	2,730.9	2,670.4	60.57	45.089	
2,854.3	2,845.6	2,797.6	2,797.6	6.5	55.8	121.28	-2,655.1	-412.0	2,738.2	2,676.5	61.72	44.368	
2,900.0	2,889.6	2,841.6	2,841.6	6.6	56.7	121.38	-2,655.1	-412.0	2,744.7	2,682.1	62.67	43.798	
2,952.7	2,940.2	2,892.2	2,892.2	6.8	57.7	121.50	-2,655.1	-412.0	2,752.8	2,689.0	63.78	43.164	
3,000.0	2,985.3	2,937.3	2,937.3	7.0	58.6	121.61	-2,655.1	-412.0	2,760.5	2,695.7	64.76	42.630	
3,016.9	3,001.4	2,953.4	2,953.4	7.1	59.0	121.65	-2,655.1	-412.0	2,763.4	2,698.3	65.11	42.443	
3,051.2	3,033.9	2,985.9	2,985.9	7.3	59.6	121.84	-2,655.1	-412.0	2,769.3	2,703.4	65.88	42.034	
3,100.0	3,080.2	3,032.2	3,032.2	7.5	60.6	122.10	-2,655.1	-412.0	2,777.7	2,710.7	66.98	41.469	
3,149.6	3,127.3	3,079.3	3,079.3	7.7	61.5	122.36	-2,655.1	-412.0	2,786.3	2,718.2	68.11	40.908	
3,200.0	3,175.1	3,127.1	3,127.1	8.0	62.5	122.62	-2,655.1	-412.0	2,795.2	2,725.9	69.26	40.359	
3,248.0	3,220.7	3,172.7	3,172.7	8.2	63.4	122.87	-2,655.1	-412.0	2,803.6	2,733.3	70.36	39.848	
3,300.0	3,270.0	3,222.0	3,222.0	8.5	64.4	123.14	-2,655.1	-412.0	2,812.9	2,741.3	71.55	39.315	
3,346.4	3,314.1	3,266.1	3,266.1	8.7	65.3	123.38	-2,655.1	-412.0	2,821.2	2,748.6	72.62	38.850	
3,400.0	3,365.0	3,317.0	3,317.0	9.0	66.3	123.66	-2,655.1	-412.0	2,830.8	2,757.0	73.85	38.333	
3,444.9	3,407.6	3,359.6	3,359.6	9.2	67.1	123.89	-2,655.1	-412.0	2,839.0	2,764.1	74.89	37.910	
3,500.0	3,459.9	3,411.9	3,411.9	9.5	68.2	124.17	-2,655.1	-412.0	2,849.0	2,772.9	76.16	37.409	
3,543.3	3,501.0	3,453.0	3,453.0	9.8	69.0	124.39	-2,655.1	-412.0	2,857.0	2,779.8	77.16	37.025	
3,600.0	3,554.8	3,506.8	3,506.8	10.1	70.1	124.67	-2,655.1	-412.0	2,867.4	2,789.0	78.48	36.539	
3,641.7	3,594.4	3,546.4	3,546.4	10.3	70.9	124.88	-2,655.1	-412.0	2,875.2	2,795.7	79.44	36.191	
3,700.0	3,649.7	3,601.7	3,601.7	10.7	72.0	125.17	-2,655.1	-412.0	2,886.1	2,805.3	80.80	35.720	
3,740.1	3,687.8	3,639.8	3,639.8	10.9	72.8	125.36	-2,655.1	-412.0	2,893.6	2,811.9	81.73	35.405	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
3,800.0	3,744.7	3,696.7	3,696.7	11.2	73.9	125.66	-2,655.1	-412.0	2,904.9	2,821.8	83.12	34.949	
3,838.6	3,781.3	3,733.3	3,733.3	11.5	74.7	125.84	-2,655.1	-412.0	2,912.3	2,828.2	84.02	34.662	
3,900.0	3,839.6	3,791.6	3,791.6	11.8	75.8	126.14	-2,655.1	-412.0	2,924.0	2,838.6	85.45	34.220	
3,937.0	3,874.7	3,826.7	3,826.7	12.1	76.5	126.32	-2,655.1	-412.0	2,931.1	2,844.8	86.31	33.961	
4,000.0	3,934.5	3,886.5	3,886.5	12.4	77.7	126.62	-2,655.1	-412.0	2,943.3	2,855.5	87.77	33.533	
4,035.4	3,968.1	3,920.1	3,920.1	12.6	78.4	126.79	-2,655.1	-412.0	2,950.2	2,861.6	88.60	33.299	
4,100.0	4,029.4	3,981.4	3,981.4	13.0	79.6	127.09	-2,655.1	-412.0	2,962.8	2,872.7	90.10	32.884	
4,133.8	4,061.5	4,013.5	4,013.5	13.2	80.3	127.25	-2,655.1	-412.0	2,969.4	2,878.6	90.89	32.672	
4,200.0	4,124.3	4,076.3	4,076.3	13.6	81.6	127.56	-2,655.1	-412.0	2,982.5	2,890.1	92.43	32.269	
4,232.3	4,155.0	4,107.0	4,107.0	13.8	82.2	127.71	-2,655.1	-412.0	2,988.9	2,895.7	93.18	32.078	
4,300.0	4,219.3	4,171.3	4,171.3	14.2	83.5	128.02	-2,655.1	-412.0	3,002.4	2,907.7	94.75	31.688	
4,330.7	4,248.4	4,200.4	4,200.4	14.4	84.1	128.16	-2,655.1	-412.0	3,008.6	2,913.1	95.46	31.515	
4,400.0	4,314.2	4,266.2	4,266.2	14.9	85.4	128.48	-2,655.1	-412.0	3,022.5	2,925.4	97.07	31.137	
4,429.1	4,341.8	4,293.8	4,293.8	15.0	85.9	128.61	-2,655.1	-412.0	3,028.4	2,930.7	97.75	30.981	
4,500.0	4,409.1	4,361.1	4,361.1	15.5	87.3	128.93	-2,655.1	-412.0	3,042.8	2,943.4	99.39	30.614	
4,527.5	4,435.3	4,387.3	4,387.3	15.7	87.8	129.05	-2,655.1	-412.0	3,048.4	2,948.4	100.03	30.474	
4,600.0	4,504.0	4,456.0	4,456.0	16.1	89.2	129.37	-2,655.1	-412.0	3,063.3	2,961.6	101.71	30.117	
4,626.0	4,528.7	4,480.7	4,480.7	16.3	89.7	129.48	-2,655.1	-412.0	3,068.6	2,966.3	102.31	29.992	
4,700.0	4,598.9	4,550.9	4,550.9	16.7	91.1	129.81	-2,655.1	-412.0	3,084.0	2,979.9	104.03	29.646	
4,724.4	4,622.1	4,574.1	4,574.1	16.9	91.6	129.91	-2,655.1	-412.0	3,089.0	2,984.4	104.59	29.534	
4,800.0	4,693.9	4,645.9	4,645.9	17.4	93.0	130.24	-2,655.1	-412.0	3,104.8	2,998.5	106.34	29.197	
4,822.8	4,715.5	4,667.5	4,667.5	17.5	93.4	130.34	-2,655.1	-412.0	3,109.6	3,002.7	106.87	29.098	
4,900.0	4,788.8	4,740.8	4,740.8	18.0	94.9	130.67	-2,655.1	-412.0	3,125.8	3,017.2	108.65	28.770	
4,921.2	4,809.0	4,761.0	4,761.0	18.1	95.3	130.76	-2,655.1	-412.0	3,130.3	3,021.2	109.14	28.682	
5,000.0	4,883.7	4,835.7	4,835.7	18.6	96.8	131.09	-2,655.1	-412.0	3,147.0	3,036.1	110.96	28.363	
5,019.7	4,902.4	4,854.4	4,854.4	18.7	97.2	131.17	-2,655.1	-412.0	3,151.2	3,039.8	111.41	28.285	
5,100.0	4,978.6	4,930.6	4,930.6	19.3	98.7	131.51	-2,655.1	-412.0	3,168.4	3,055.1	113.26	27.975	
5,118.1	4,995.8	4,947.8	4,947.8	19.4	99.1	131.58	-2,655.1	-412.0	3,172.3	3,058.6	113.68	27.907	
5,200.0	5,073.6	5,025.6	5,025.6	19.9	100.6	131.92	-2,655.1	-412.0	3,189.9	3,074.4	115.56	27.605	
5,216.5	5,089.2	5,041.2	5,041.2	20.0	101.0	131.99	-2,655.1	-412.0	3,193.5	3,077.6	115.94	27.545	
5,304.2	5,172.4	5,124.4	5,124.4	20.6	102.6	132.34	-2,655.1	-412.0	3,212.6	3,094.6	117.95	27.237	
5,314.9	5,182.7	5,134.7	5,134.7	20.6	102.8	132.42	-2,655.1	-412.0	3,214.9	3,096.7	118.24	27.190	
5,400.0	5,263.9	5,215.9	5,215.9	21.1	104.5	133.01	-2,655.1	-412.0	3,232.4	3,111.9	120.51	26.824	
5,413.4	5,276.7	5,228.7	5,228.7	21.1	104.7	133.09	-2,655.1	-412.0	3,235.1	3,114.2	120.85	26.768	
5,500.0	5,360.3	5,312.3	5,312.3	21.5	106.4	133.62	-2,655.1	-412.0	3,251.0	3,127.9	123.10	26.409	
5,511.8	5,371.7	5,323.7	5,323.7	21.6	106.6	133.68	-2,655.1	-412.0	3,253.1	3,129.7	123.41	26.361	
5,600.0	5,457.5	5,409.5	5,409.5	21.9	108.4	134.15	-2,655.1	-412.0	3,267.4	3,141.7	125.67	25.999	
5,610.2	5,467.5	5,419.5	5,419.5	21.9	108.6	134.19	-2,655.1	-412.0	3,268.9	3,143.0	125.93	25.958	
5,700.0	5,555.6	5,507.6	5,507.6	22.3	110.3	134.59	-2,655.1	-412.0	3,281.3	3,153.2	128.20	25.596	
5,708.6	5,564.1	5,516.1	5,516.1	22.3	110.5	134.63	-2,655.1	-412.0	3,282.4	3,154.0	128.41	25.562	
5,800.0	5,654.2	5,606.2	5,606.2	22.6	112.3	134.96	-2,655.1	-412.0	3,293.0	3,162.3	130.67	25.200	
5,807.1	5,661.2	5,613.2	5,613.2	22.6	112.5	134.98	-2,655.1	-412.0	3,293.7	3,162.8	130.84	25.173	
5,900.0	5,753.4	5,705.4	5,705.4	22.8	114.3	135.25	-2,655.1	-412.0	3,302.1	3,169.1	133.08	24.813	
5,905.5	5,758.8	5,710.8	5,710.8	22.8	114.4	135.26	-2,655.1	-412.0	3,302.6	3,169.4	133.21	24.792	
6,000.0	5,852.9	5,804.9	5,804.9	23.1	116.3	135.46	-2,655.1	-412.0	3,308.9	3,173.5	135.42	24.434	
6,003.9	5,856.8	5,808.8	5,808.8	23.1	116.4	135.46	-2,655.1	-412.0	3,309.1	3,173.6	135.51	24.420	
6,100.0	5,952.7	5,904.7	5,904.7	23.2	118.3	135.59	-2,655.1	-412.0	3,313.1	3,175.5	137.68	24.065	
6,102.3	5,955.1	5,907.1	5,907.1	23.2	118.4	135.59	-2,655.1	-412.0	3,313.2	3,175.5	137.73	24.056	
6,200.0	6,052.7	6,004.7	6,004.7	23.4	120.3	135.64	-2,655.1	-412.0	3,314.9	3,175.1	139.84	23.705	
6,200.8	6,053.5	6,005.5	6,005.5	23.4	120.4	135.64	-2,655.1	-412.0	3,314.9	3,175.1	139.86	23.702	
6,221.1	6,073.8	6,025.8	6,025.8	23.4	120.8	-155.93	-2,655.1	-412.0	3,315.0	3,174.7	140.29	23.630	
6,251.1	6,103.8	6,055.8	6,055.8	23.4	121.4	-155.93	-2,655.1	-412.0	3,315.0	3,174.0	140.93	23.522	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,299.2	6,151.8	6,103.8	6,103.8	23.5	122.3	24.13	-2,655.1	-412.0	3,313.5	3,171.9	141.61	23.400	
6,300.0	6,152.6	6,104.6	6,104.6	23.5	122.3	24.13	-2,655.1	-412.0	3,313.5	3,171.8	141.61	23.398	
6,350.0	6,202.4	6,154.4	6,154.4	23.5	123.3	24.32	-2,655.1	-412.0	3,308.8	3,167.0	141.71	23.349	
6,397.6	6,249.3	6,201.3	6,201.3	23.5	124.3	24.63	-2,655.1	-412.0	3,301.3	3,160.1	141.25	23.373	
6,400.0	6,251.6	6,203.6	6,203.6	23.5	124.3	24.65	-2,655.1	-412.0	3,300.9	3,159.7	141.21	23.376	
6,450.0	6,300.1	6,252.1	6,252.1	23.5	125.3	25.11	-2,655.1	-412.0	3,289.9	3,149.8	140.12	23.479	
6,496.0	6,344.0	6,296.0	6,296.0	23.5	126.2	25.67	-2,655.1	-412.0	3,277.2	3,138.5	138.63	23.639	
6,500.0	6,347.7	6,299.7	6,299.7	23.5	126.3	25.73	-2,655.1	-412.0	3,275.9	3,137.5	138.48	23.656	
6,550.0	6,394.1	6,346.1	6,346.1	23.5	127.2	26.50	-2,655.1	-412.0	3,259.0	3,122.6	136.34	23.903	
6,594.5	6,434.2	6,386.2	6,386.2	23.4	128.0	27.35	-2,655.1	-412.0	3,241.4	3,107.4	134.07	24.178	
6,600.0	6,439.0	6,391.0	6,391.0	23.4	128.1	27.46	-2,655.1	-412.0	3,239.1	3,105.3	133.76	24.215	
6,650.0	6,482.4	6,434.4	6,434.4	23.4	129.0	28.62	-2,655.1	-412.0	3,216.5	3,085.6	130.86	24.580	
6,692.9	6,518.1	6,470.1	6,470.1	23.3	129.7	29.79	-2,655.1	-412.0	3,194.9	3,066.7	128.21	24.920	
6,700.0	6,523.9	6,475.9	6,475.9	23.3	129.8	30.00	-2,655.1	-412.0	3,191.2	3,063.4	127.76	24.977	
6,750.0	6,563.3	6,515.3	6,515.3	23.3	130.6	31.64	-2,655.1	-412.0	3,163.4	3,038.7	124.67	25.374	
6,791.3	6,594.2	6,546.2	6,546.2	23.2	131.2	33.22	-2,655.1	-412.0	3,138.6	3,016.3	122.28	25.667	
6,800.0	6,600.5	6,552.5	6,552.5	23.2	131.4	33.58	-2,655.1	-412.0	3,133.2	3,011.4	121.81	25.722	
6,850.0	6,635.3	6,587.3	6,587.3	23.2	132.1	35.86	-2,655.1	-412.0	3,100.9	2,981.4	119.48	25.952	
6,889.7	6,661.1	6,613.1	6,613.1	23.1	132.6	37.94	-2,655.1	-412.0	3,073.7	2,955.5	118.24	25.996	
6,900.0	6,667.5	6,619.5	6,619.5	23.1	132.7	38.53	-2,655.1	-412.0	3,066.5	2,948.5	118.02	25.982	
6,950.0	6,696.9	6,648.9	6,648.9	23.1	133.3	41.65	-2,655.1	-412.0	3,030.3	2,912.5	117.78	25.928	
6,988.2	6,717.5	6,669.5	6,669.5	23.1	133.7	44.38	-2,655.1	-412.0	3,001.5	2,882.9	118.62	25.305	
7,000.0	6,723.5	6,675.5	6,675.5	23.1	133.8	45.29	-2,655.1	-412.0	2,992.4	2,873.4	119.06	25.134	
7,050.0	6,747.0	6,699.0	6,699.0	23.1	134.3	49.50	-2,655.1	-412.0	2,953.2	2,831.1	122.02	24.202	
7,086.6	6,762.3	6,714.3	6,714.3	23.1	134.6	52.98	-2,655.1	-412.0	2,923.6	2,798.4	125.23	23.345	
7,100.0	6,767.4	6,719.4	6,719.4	23.1	134.7	54.33	-2,655.1	-412.0	2,912.7	2,786.1	126.60	23.006	
7,150.0	6,784.6	6,736.6	6,736.6	23.1	135.1	59.81	-2,655.1	-412.0	2,871.2	2,738.7	132.43	21.681	
7,185.0	6,794.7	6,746.7	6,746.7	23.1	135.3	64.01	-2,655.1	-412.0	2,841.6	2,704.7	136.90	20.757	
7,200.0	6,798.5	6,750.5	6,750.5	23.2	135.3	65.89	-2,655.1	-412.0	2,828.9	2,690.1	138.82	20.378	
7,250.0	6,808.9	6,760.9	6,760.9	23.2	135.5	72.48	-2,655.1	-412.0	2,786.0	2,641.1	144.89	19.228	
7,283.4	6,814.0	6,766.0	6,766.0	23.3	135.6	77.08	-2,655.1	-412.0	2,757.2	2,608.8	148.33	18.588	
7,300.0	6,816.0	6,768.0	6,768.0	23.4	135.7	79.39	-2,655.1	-412.0	2,742.9	2,593.1	149.76	18.316	
7,350.0	6,819.5	6,771.5	6,771.5	23.5	135.8	86.39	-2,655.1	-412.0	2,699.6	2,546.8	152.74	17.674	
7,381.9	6,820.0	6,772.0	6,772.0	23.7	135.8	90.79	-2,655.1	-412.0	2,672.0	2,518.5	153.54	17.402	
7,382.0	6,820.0	6,772.0	6,772.0	23.7	135.8	90.80	-2,655.1	-412.0	2,671.9	2,518.4	153.55	17.402	
7,400.0	6,819.8	6,771.8	6,771.8	23.8	135.8	90.79	-2,655.1	-412.0	2,656.4	2,502.7	153.70	17.284	
7,480.3	6,819.2	6,771.2	6,771.2	24.2	135.8	90.77	-2,655.1	-412.0	2,587.6	2,433.2	154.44	16.755	
7,500.0	6,819.0	6,771.0	6,771.0	24.3	135.7	90.76	-2,655.1	-412.0	2,570.9	2,416.2	154.62	16.627	
7,578.7	6,818.4	6,770.4	6,770.4	24.9	135.7	90.73	-2,655.1	-412.0	2,504.2	2,348.8	155.46	16.109	
7,600.0	6,818.2	6,770.2	6,770.2	25.0	135.7	90.73	-2,655.1	-412.0	2,486.4	2,330.7	155.69	15.970	
7,677.1	6,817.6	6,769.6	6,769.6	25.7	135.7	90.70	-2,655.1	-412.0	2,422.0	2,265.4	156.60	15.466	
7,700.0	6,817.4	6,769.4	6,769.4	25.9	135.7	90.69	-2,655.1	-412.0	2,403.0	2,246.2	156.87	15.319	
7,775.6	6,816.7	6,768.7	6,768.7	26.6	135.7	90.67	-2,655.1	-412.0	2,341.0	2,183.1	157.84	14.831	
7,800.0	6,816.5	6,768.5	6,768.5	26.9	135.7	90.66	-2,655.1	-412.0	2,321.1	2,162.9	158.16	14.676	
7,874.0	6,815.9	6,767.9	6,767.9	27.7	135.7	90.63	-2,655.1	-412.0	2,261.3	2,102.1	159.17	14.207	
7,900.0	6,815.7	6,767.7	6,767.7	28.0	135.7	90.62	-2,655.1	-412.0	2,240.5	2,081.0	159.52	14.045	
7,972.4	6,815.1	6,767.1	6,767.1	28.9	135.7	90.60	-2,655.1	-412.0	2,183.2	2,022.6	160.57	13.597	
8,000.0	6,814.9	6,766.9	6,766.9	29.2	135.7	90.59	-2,655.1	-412.0	2,161.6	2,000.7	160.96	13.429	
8,070.8	6,814.3	6,766.3	6,766.3	30.1	135.7	90.56	-2,655.1	-412.0	2,106.8	1,944.8	162.02	13.003	
8,100.0	6,814.1	6,766.1	6,766.1	30.5	135.6	90.55	-2,655.1	-412.0	2,084.5	1,922.1	162.46	12.831	
8,169.3	6,813.5	6,765.5	6,765.5	31.5	135.6	90.53	-2,655.1	-412.0	2,032.3	1,868.8	163.53	12.427	
8,200.0	6,813.3	6,765.3	6,765.3	31.9	135.6	90.52	-2,655.1	-412.0	2,009.5	1,845.5	164.01	12.252	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - - ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,267.7	6,812.7	6,764.7	6,764.7	32.9	135.6	90.49	-2,655.1	-412.0	1,959.9	1,794.8	165.08	11.872		
8,300.0	6,812.4	6,764.4	6,764.4	33.3	135.6	90.48	-2,655.1	-412.0	1,936.6	1,771.0	165.60	11.695		
8,366.1	6,811.9	6,763.9	6,763.9	34.3	135.6	90.46	-2,655.1	-412.0	1,889.9	1,723.2	166.67	11.339		
8,400.0	6,811.6	6,763.6	6,763.6	34.8	135.6	90.45	-2,655.1	-412.0	1,866.3	1,699.1	167.22	11.161		
8,464.5	6,811.1	6,763.1	6,763.1	35.8	135.6	90.43	-2,655.1	-412.0	1,822.4	1,654.2	168.29	10.829		
8,500.0	6,810.8	6,762.8	6,762.8	36.3	135.6	90.41	-2,655.1	-412.0	1,798.9	1,630.0	168.87	10.652		
8,563.0	6,810.3	6,762.3	6,762.3	37.3	135.6	90.39	-2,655.1	-412.0	1,758.0	1,588.0	169.93	10.345		
8,600.0	6,810.0	6,762.0	6,762.0	37.9	135.6	90.38	-2,655.1	-412.0	1,734.5	1,564.0	170.55	10.170		
8,661.4	6,809.5	6,761.5	6,761.5	38.9	135.6	90.36	-2,655.1	-412.0	1,696.7	1,525.1	171.60	9.888		
8,700.0	6,809.1	6,761.1	6,761.1	39.5	135.5	90.34	-2,655.1	-412.0	1,673.7	1,501.4	172.26	9.716		
8,759.8	6,808.6	6,760.6	6,760.6	40.5	135.5	90.32	-2,655.1	-412.0	1,639.1	1,465.8	173.29	9.459		
8,800.0	6,808.3	6,760.3	6,760.3	41.1	135.5	90.31	-2,655.1	-412.0	1,616.7	1,442.8	173.98	9.293		
8,858.2	6,807.8	6,759.8	6,759.8	42.1	135.5	90.29	-2,655.1	-412.0	1,585.5	1,410.6	174.99	9.061		
8,900.0	6,807.5	6,759.5	6,759.5	42.8	135.5	90.28	-2,655.1	-412.0	1,564.1	1,388.4	175.71	8.902		
8,956.7	6,807.0	6,759.0	6,759.0	43.7	135.5	90.26	-2,655.1	-412.0	1,536.4	1,359.7	176.71	8.695		
9,000.0	6,806.7	6,758.7	6,758.7	44.4	135.5	90.24	-2,655.1	-412.0	1,516.3	1,338.8	177.47	8.544		
9,055.1	6,806.2	6,758.2	6,758.2	45.4	135.5	90.22	-2,655.1	-412.0	1,492.2	1,313.7	178.44	8.362		
9,100.0	6,805.8	6,757.8	6,757.8	46.1	135.5	90.21	-2,655.1	-412.0	1,473.7	1,294.5	179.23	8.222		
9,153.5	6,805.4	6,757.4	6,757.4	47.0	135.5	90.19	-2,655.1	-412.0	1,453.2	1,273.0	180.18	8.065		
9,200.0	6,805.0	6,757.0	6,757.0	47.8	135.5	90.17	-2,655.1	-412.0	1,436.8	1,255.8	181.01	7.938		
9,251.9	6,804.6	6,756.6	6,756.6	48.7	135.5	90.15	-2,655.1	-412.0	1,420.1	1,238.1	181.94	7.805		
9,300.0	6,804.2	6,756.2	6,756.2	49.6	135.4	90.14	-2,655.1	-412.0	1,406.1	1,223.3	182.79	7.692		
9,350.4	6,803.8	6,755.8	6,755.8	50.4	135.4	90.12	-2,655.1	-412.0	1,393.1	1,209.4	183.70	7.584		
9,400.0	6,803.4	6,755.4	6,755.4	51.3	135.4	90.10	-2,655.1	-412.0	1,381.9	1,197.3	184.59	7.487		
9,448.8	6,802.9	6,754.9	6,754.9	52.1	135.4	90.08	-2,655.1	-412.0	1,372.6	1,187.2	185.47	7.401		
9,500.0	6,802.5	6,754.5	6,754.5	53.0	135.4	90.07	-2,655.1	-412.0	1,364.7	1,178.3	186.39	7.322		
9,547.2	6,802.1	6,754.1	6,754.1	53.9	135.4	90.05	-2,655.1	-412.0	1,359.0	1,171.8	187.25	7.258		
9,600.0	6,801.7	6,753.7	6,753.7	54.8	135.4	90.03	-2,655.1	-412.0	1,354.6	1,166.4	188.20	7.198		
9,645.6	6,801.3	6,753.3	6,753.3	55.6	135.4	90.01	-2,655.1	-412.0	1,352.5	1,163.4	189.03	7.155		
9,686.8	6,801.0	6,753.0	6,753.0	56.3	135.4	90.00	-2,655.1	-412.0	1,351.8	1,162.1	189.78	7.123 CC		
9,700.0	6,800.9	6,752.9	6,752.9	56.6	135.4	90.00	-2,655.1	-412.0	1,351.9	1,161.9	190.02	7.115 ES		
9,744.1	6,800.5	6,752.5	6,752.5	57.4	135.4	89.98	-2,655.1	-412.0	1,353.1	1,162.2	190.82	7.091		
9,800.0	6,800.0	6,752.0	6,752.0	58.4	135.4	89.96	-2,655.1	-412.0	1,356.6	1,164.7	191.84	7.071		
9,842.5	6,799.7	6,751.7	6,751.7	59.1	135.4	89.95	-2,655.1	-412.0	1,360.8	1,168.2	192.62	7.065 SF		
9,900.0	6,799.2	6,751.2	6,751.2	60.2	135.3	89.93	-2,655.1	-412.0	1,368.6	1,174.9	193.67	7.066		
9,940.9	6,798.9	6,750.9	6,750.9	60.9	135.3	89.91	-2,655.1	-412.0	1,375.5	1,181.1	194.42	7.075		
10,000.0	6,798.4	6,750.4	6,750.4	62.0	135.3	89.89	-2,655.1	-412.0	1,387.7	1,192.1	195.50	7.098		
10,039.3	6,798.1	6,750.1	6,750.1	62.7	135.3	89.88	-2,655.1	-412.0	1,397.1	1,200.8	196.22	7.120		
10,100.0	6,797.6	6,749.6	6,749.6	63.8	135.3	89.85	-2,655.1	-412.0	1,413.6	1,216.2	197.34	7.163		
10,137.8	6,797.2	6,749.2	6,749.2	64.4	135.3	89.84	-2,655.1	-412.0	1,425.1	1,227.0	198.03	7.196		
10,200.0	6,796.7	6,748.7	6,748.7	65.6	135.3	89.82	-2,655.1	-412.0	1,446.0	1,246.8	199.18	7.260		
10,236.2	6,796.4	6,748.4	6,748.4	66.2	135.3	89.81	-2,655.1	-412.0	1,459.2	1,259.4	199.85	7.302		
10,300.0	6,795.9	6,747.9	6,747.9	67.4	135.3	89.78	-2,655.1	-412.0	1,484.4	1,283.4	201.02	7.384		
10,334.6	6,795.6	6,747.6	6,747.6	68.0	135.3	89.77	-2,655.1	-412.0	1,499.0	1,297.4	201.66	7.433		
10,400.0	6,795.1	6,747.1	6,747.1	69.2	135.3	89.75	-2,655.1	-412.0	1,528.4	1,325.6	202.87	7.534		
10,433.0	6,794.8	6,746.8	6,746.8	69.8	135.3	89.74	-2,655.1	-412.0	1,544.1	1,340.6	203.48	7.589		
10,500.0	6,794.2	6,746.2	6,746.2	71.0	135.2	89.71	-2,655.1	-412.0	1,577.6	1,372.9	204.72	7.706		
10,531.5	6,794.0	6,746.0	6,746.0	71.6	135.2	89.70	-2,655.1	-412.0	1,594.0	1,388.7	205.30	7.764		
10,600.0	6,793.4	6,745.4	6,745.4	72.9	135.2	89.68	-2,655.1	-412.0	1,631.4	1,424.8	206.57	7.897		
10,629.9	6,793.2	6,745.2	6,745.2	73.4	135.2	89.67	-2,655.1	-412.0	1,648.3	1,441.2	207.13	7.958		
10,700.0	6,792.6	6,744.6	6,744.6	74.7	135.2	89.64	-2,655.1	-412.0	1,689.4	1,480.9	208.43	8.105		
10,728.3	6,792.3	6,744.3	6,744.3	75.2	135.2	89.63	-2,655.1	-412.0	1,706.5	1,497.6	208.95	8.167		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,800.0	6,791.7	6,743.7	6,743.7	76.6	135.2	89.61	-2,655.1	-412.0	1,751.2	1,540.9	210.29	8.328	
10,826.7	6,791.5	6,743.5	6,743.5	77.1	135.2	89.60	-2,655.1	-412.0	1,768.3	1,557.5	210.78	8.389	
10,900.0	6,790.9	6,742.9	6,742.9	78.4	135.2	89.57	-2,655.1	-412.0	1,816.4	1,604.2	212.15	8.562	
10,925.2	6,790.7	6,742.7	6,742.7	78.9	135.2	89.56	-2,655.1	-412.0	1,833.3	1,620.7	212.61	8.623	
11,000.0	6,790.1	6,742.1	6,742.1	80.3	135.2	89.54	-2,655.1	-412.0	1,884.6	1,670.6	214.01	8.806	
11,023.6	6,789.9	6,741.9	6,741.9	80.7	135.2	89.53	-2,655.1	-412.0	1,901.2	1,686.7	214.45	8.865	
11,100.0	6,789.2	6,741.2	6,741.2	82.1	135.1	89.50	-2,655.1	-412.0	1,955.6	1,739.8	215.87	9.059	
11,122.0	6,789.1	6,741.1	6,741.1	82.5	135.1	89.49	-2,655.1	-412.0	1,971.6	1,755.3	216.28	9.116	
11,200.0	6,788.4	6,740.4	6,740.4	84.0	135.1	89.47	-2,655.1	-412.0	2,029.1	1,811.3	217.74	9.319	
11,220.4	6,788.2	6,740.2	6,740.2	84.3	135.1	89.46	-2,655.1	-412.0	2,044.4	1,826.2	218.12	9.373	
11,300.0	6,787.6	6,739.6	6,739.6	85.8	135.1	89.43	-2,655.1	-412.0	2,104.7	1,885.1	219.60	9.584	
11,318.9	6,787.4	6,739.4	6,739.4	86.2	135.1	89.42	-2,655.1	-412.0	2,119.2	1,899.2	219.96	9.635	
11,400.0	6,786.7	6,738.7	6,738.7	87.7	135.1	89.39	-2,655.1	-412.0	2,182.3	1,960.8	221.47	9.853	
11,417.3	6,786.6	6,738.6	6,738.6	88.0	135.1	89.39	-2,655.1	-412.0	2,195.9	1,974.1	221.80	9.900	
11,500.0	6,785.9	6,737.9	6,737.9	89.5	135.0	89.36	-2,655.1	-412.0	2,261.6	2,038.3	223.34	10.126	
11,515.7	6,785.8	6,737.8	6,737.8	89.8	135.1	89.35	-2,655.1	-412.0	2,274.2	2,050.6	223.64	10.169	
11,600.0	6,785.1	6,737.1	6,737.1	91.4	135.1	89.32	-2,655.1	-412.0	2,342.6	2,117.3	225.21	10.401	
11,614.1	6,785.0	6,737.0	6,737.0	91.7	135.1	89.32	-2,655.1	-412.0	2,354.1	2,128.6	225.48	10.441	
11,700.0	6,784.2	6,736.2	6,736.2	93.3	135.0	89.29	-2,655.1	-412.0	2,424.9	2,197.8	227.09	10.678	
11,712.6	6,784.1	6,736.1	6,736.1	93.5	135.0	89.28	-2,655.1	-412.0	2,435.4	2,208.0	227.32	10.713	
11,800.0	6,783.4	6,735.4	6,735.4	95.2	135.0	89.25	-2,655.1	-412.0	2,508.5	2,279.6	228.96	10.956	
11,811.0	6,783.3	6,735.3	6,735.3	95.4	135.0	89.25	-2,655.1	-412.0	2,517.8	2,288.6	229.17	10.987	
11,900.0	6,782.6	6,734.6	6,734.6	97.0	135.0	89.22	-2,655.1	-412.0	2,593.3	2,362.5	230.83	11.235	
11,909.4	6,782.5	6,734.5	6,734.5	97.2	135.0	89.21	-2,655.1	-412.0	2,601.4	2,370.4	231.01	11.261	
12,000.0	6,781.7	6,733.7	6,733.7	98.9	135.0	89.18	-2,655.1	-412.0	2,679.2	2,446.5	232.71	11.513	
12,007.8	6,781.7	6,733.7	6,733.7	99.1	135.0	89.18	-2,655.1	-412.0	2,686.0	2,453.1	232.86	11.535	
12,100.0	6,780.9	6,732.9	6,732.9	100.8	135.0	89.15	-2,655.1	-412.0	2,766.0	2,531.4	234.59	11.791	
12,106.3	6,780.9	6,732.9	6,732.9	100.9	135.0	89.14	-2,655.1	-412.0	2,771.4	2,536.7	234.70	11.808	
12,200.0	6,780.1	6,732.1	6,732.1	102.7	135.0	89.11	-2,655.1	-412.0	2,853.6	2,617.2	236.46	12.068	
12,204.7	6,780.0	6,732.0	6,732.0	102.7	135.0	89.11	-2,655.1	-412.0	2,857.8	2,621.2	236.55	12.081	
12,300.0	6,779.2	6,731.2	6,731.2	104.5	134.9	89.07	-2,655.1	-412.0	2,942.1	2,703.7	238.34	12.344	
12,303.1	6,779.2	6,731.2	6,731.2	104.6	134.9	89.07	-2,655.1	-412.0	2,944.8	2,706.4	238.40	12.353	
12,400.0	6,778.4	6,730.4	6,730.4	106.4	134.9	89.04	-2,655.1	-412.0	3,031.2	2,791.0	240.22	12.619	
12,401.5	6,778.4	6,730.4	6,730.4	106.4	134.9	89.04	-2,655.1	-412.0	3,032.6	2,792.4	240.25	12.623	
12,500.0	6,777.6	6,729.6	6,729.6	108.3	134.9	89.00	-2,655.1	-412.0	3,121.1	2,879.0	242.10	12.892	
12,598.4	6,776.7	6,728.7	6,728.7	110.2	134.9	88.97	-2,655.1	-412.0	3,210.0	2,966.1	243.95	13.159	
12,600.0	6,776.7	6,728.7	6,728.7	110.2	134.9	88.97	-2,655.1	-412.0	3,211.5	2,967.5	243.98	13.163	
12,696.8	6,775.9	6,727.9	6,727.9	112.0	134.9	88.93	-2,655.1	-412.0	3,299.6	3,053.8	245.80	13.424	
12,700.0	6,775.9	6,727.9	6,727.9	112.1	134.9	88.93	-2,655.1	-412.0	3,302.5	3,056.6	245.86	13.432	
12,795.2	6,775.1	6,727.1	6,727.1	113.9	134.9	88.90	-2,655.1	-412.0	3,389.6	3,141.9	247.65	13.687	
12,800.0	6,775.0	6,727.0	6,727.0	114.0	134.9	88.89	-2,655.1	-412.0	3,393.9	3,146.2	247.74	13.700	
12,893.7	6,774.3	6,726.3	6,726.3	115.7	134.8	88.86	-2,655.1	-412.0	3,480.1	3,230.6	249.50	13.948	
12,900.0	6,774.2	6,726.2	6,726.2	115.8	134.8	88.86	-2,655.1	-412.0	3,485.9	3,236.3	249.62	13.965	
12,992.1	6,773.4	6,725.4	6,725.4	117.6	134.8	88.83	-2,655.1	-412.0	3,571.0	3,319.6	251.36	14.207	
13,000.0	6,773.4	6,725.4	6,725.4	117.7	134.8	88.82	-2,655.1	-412.0	3,578.3	3,326.8	251.50	14.227	
13,090.5	6,772.6	6,724.6	6,724.6	119.4	134.8	88.79	-2,655.1	-412.0	3,662.2	3,409.0	253.21	14.463	
13,100.0	6,772.5	6,724.5	6,724.5	119.6	134.8	88.79	-2,655.1	-412.0	3,671.0	3,417.7	253.39	14.488	
13,188.9	6,771.8	6,723.8	6,723.8	121.3	134.8	88.75	-2,655.1	-412.0	3,753.9	3,498.8	255.06	14.718	
13,200.0	6,771.7	6,723.7	6,723.7	121.5	134.8	88.75	-2,655.1	-412.0	3,764.2	3,508.9	255.27	14.746	
13,287.4	6,771.0	6,723.0	6,723.0	123.2	134.8	88.72	-2,655.1	-412.0	3,845.9	3,588.9	256.92	14.969	
13,300.0	6,770.9	6,722.9	6,722.9	123.4	134.8	88.71	-2,655.1	-412.0	3,857.7	3,600.5	257.15	15.002	
13,385.8	6,770.1	6,722.1	6,722.1	125.0	134.8	88.68	-2,655.1	-412.0	3,938.2	3,679.4	258.77	15.219	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT LITTLE WILL #11 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,400.0	6,770.0	6,722.0	6,722.0	125.3	134.8	88.68	-2,655.1	-412.0	3,951.5	3,692.5	259.04	15.255	
13,484.2	6,769.3	6,721.3	6,721.3	126.9	134.7	88.65	-2,655.1	-412.0	4,030.7	3,770.1	260.62	15.466	
13,500.0	6,769.2	6,721.2	6,721.2	127.2	134.7	88.64	-2,655.1	-412.0	4,045.6	3,784.7	260.92	15.505	
13,582.6	6,768.5	6,720.5	6,720.5	128.8	134.7	88.61	-2,655.1	-412.0	4,123.6	3,861.1	262.48	15.710	
13,600.0	6,768.3	6,720.3	6,720.3	129.1	134.7	88.61	-2,655.1	-412.0	4,140.0	3,877.2	262.81	15.753	
13,681.1	6,767.6	6,719.6	6,719.6	130.6	134.7	88.58	-2,655.1	-412.0	4,216.7	3,952.4	264.33	15.952	
13,700.0	6,767.5	6,719.5	6,719.5	131.0	134.7	88.57	-2,655.1	-412.0	4,234.6	3,969.9	264.69	15.998	
13,779.5	6,766.8	6,718.8	6,718.8	132.5	134.7	88.54	-2,655.1	-412.0	4,310.0	4,043.9	266.19	16.192	
13,800.0	6,766.6	6,718.6	6,718.6	132.9	134.7	88.53	-2,655.1	-412.0	4,329.5	4,062.9	266.57	16.241	
13,877.9	6,766.0	6,718.0	6,718.0	134.4	134.7	88.51	-2,655.1	-412.0	4,403.6	4,135.6	268.04	16.429	
13,900.0	6,765.8	6,717.8	6,717.8	134.8	134.7	88.50	-2,655.1	-412.0	4,424.6	4,156.2	268.46	16.481	
13,976.3	6,765.2	6,717.2	6,717.2	136.2	134.7	88.47	-2,655.1	-412.0	4,497.4	4,227.5	269.90	16.663	
13,995.7	6,765.0	6,717.0	6,717.0	136.6	134.7	88.46	-2,655.1	-412.0	4,515.8	4,245.5	270.26	16.709	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	145.41	-2,848.9	1,964.5	3,460.8				
98.4	98.4	56.4	56.4	0.1	0.0	145.41	-2,848.9	1,964.5	3,460.5	3,460.4	0.08	N/A	
100.0	100.0	58.0	58.0	0.1	0.0	145.41	-2,848.9	1,964.5	3,460.5	3,460.4	0.09	N/A	
196.8	196.8	154.8	154.8	0.3	0.6	145.41	-2,848.9	1,964.5	3,460.5	3,459.6	0.87	3,960.228	
200.0	200.0	158.0	158.0	0.3	0.6	145.41	-2,848.9	1,964.5	3,460.5	3,459.6	0.91	3,787.743	
295.3	295.3	253.3	253.3	0.5	2.3	145.41	-2,848.9	1,964.5	3,460.5	3,457.7	2.80	1,234.430	
300.0	300.0	258.0	258.0	0.5	2.4	145.41	-2,848.9	1,964.5	3,460.5	3,457.6	2.92	1,183.537	
393.7	393.7	351.7	351.7	0.7	4.4	145.41	-2,848.9	1,964.5	3,460.5	3,455.3	5.19	667.111	
400.0	400.0	358.0	358.0	0.8	4.6	145.41	-2,848.9	1,964.5	3,460.5	3,455.2	5.33	648.941	
492.1	492.1	450.1	450.1	1.0	6.5	145.41	-2,848.9	1,964.5	3,460.5	3,453.1	7.44	465.285	
500.0	500.0	458.0	458.0	1.0	6.6	145.41	-2,848.9	1,964.5	3,460.5	3,452.9	7.62	454.376	
590.5	590.5	548.5	548.5	1.2	8.5	145.41	-2,848.9	1,964.5	3,460.5	3,450.8	9.66	358.136	
600.0	600.0	558.0	558.0	1.2	8.7	145.41	-2,848.9	1,964.5	3,460.5	3,450.6	9.88	350.411	
689.0	689.0	647.0	647.0	1.4	10.5	145.41	-2,848.9	1,964.5	3,460.5	3,448.6	11.88	291.338	
700.0	700.0	658.0	658.0	1.4	10.7	145.41	-2,848.9	1,964.5	3,460.5	3,448.4	12.13	285.384	
787.4	787.4	745.4	745.4	1.6	12.5	145.41	-2,848.9	1,964.5	3,460.5	3,446.4	14.09	245.626	
800.0	800.0	758.0	758.0	1.7	12.7	145.41	-2,848.9	1,964.5	3,460.5	3,446.1	14.37	240.793	
885.8	885.8	843.8	843.8	1.9	14.4	145.41	-2,848.9	1,964.5	3,460.5	3,444.2	16.30	212.350	
900.0	900.0	858.0	858.0	1.9	14.7	145.41	-2,848.9	1,964.5	3,460.5	3,443.9	16.61	208.288	
984.2	984.2	942.2	942.2	2.1	16.4	145.41	-2,848.9	1,964.5	3,460.5	3,442.0	18.50	187.032	
1,000.0	1,000.0	958.0	958.0	2.1	16.7	145.41	-2,848.9	1,964.5	3,460.5	3,441.7	18.86	183.531	
1,082.7	1,082.7	1,040.7	1,040.7	2.3	18.4	145.41	-2,848.9	1,964.5	3,460.5	3,439.8	20.71	167.118	
1,100.0	1,100.0	1,058.0	1,058.0	2.3	18.8	145.41	-2,848.9	1,964.5	3,460.5	3,439.4	21.10	164.044	
1,181.1	1,181.1	1,139.1	1,139.1	2.5	20.4	145.41	-2,848.9	1,964.5	3,460.5	3,437.6	22.91	151.042	
1,200.0	1,200.0	1,158.0	1,158.0	2.6	20.8	145.41	-2,848.9	1,964.5	3,460.5	3,437.2	23.33	148.303	
1,279.5	1,279.5	1,237.5	1,237.5	2.7	22.4	145.41	-2,848.9	1,964.5	3,460.5	3,435.4	25.11	137.790	
1,300.0	1,300.0	1,258.0	1,258.0	2.8	22.8	145.41	-2,848.9	1,964.5	3,460.5	3,434.9	25.57	135.321	
1,377.9	1,377.9	1,335.9	1,335.9	3.0	24.4	145.41	-2,848.9	1,964.5	3,460.5	3,433.2	27.32	126.679	
1,400.0	1,400.0	1,358.0	1,358.0	3.0	24.8	145.41	-2,848.9	1,964.5	3,460.5	3,432.7	27.81	124.431	
1,476.4	1,476.4	1,434.4	1,434.4	3.2	26.3	145.41	-2,848.9	1,964.5	3,460.5	3,431.0	29.52	117.227	
1,500.0	1,500.0	1,458.0	1,458.0	3.2	26.8	145.41	-2,848.9	1,964.5	3,460.5	3,430.5	30.05	115.165	
1,574.8	1,574.8	1,532.8	1,532.8	3.4	28.3	145.41	-2,848.9	1,964.5	3,460.5	3,428.8	31.72	109.089	
1,600.0	1,600.0	1,558.0	1,558.0	3.5	28.8	145.41	-2,848.9	1,964.5	3,460.5	3,428.2	32.29	107.184	
1,673.2	1,673.2	1,631.2	1,631.2	3.6	30.3	145.41	-2,848.9	1,964.5	3,460.5	3,426.6	33.92	102.008	
1,700.0	1,700.0	1,658.0	1,658.0	3.7	30.8	145.41	-2,848.9	1,964.5	3,460.5	3,426.0	34.52	100.238	
1,771.6	1,771.6	1,729.6	1,729.6	3.8	32.3	145.41	-2,848.9	1,964.5	3,460.5	3,424.4	36.13	95.791	
1,800.0	1,800.0	1,758.0	1,758.0	3.9	32.9	145.41	-2,848.9	1,964.5	3,460.5	3,423.8	36.76	94.138	
1,870.1	1,870.1	1,828.1	1,828.1	4.1	34.3	145.41	-2,848.9	1,964.5	3,460.5	3,422.2	38.33	90.288	
1,900.0	1,900.0	1,858.0	1,858.0	4.1	34.9	145.41	-2,848.9	1,964.5	3,460.5	3,421.5	39.00	88.739	
1,968.5	1,968.5	1,926.5	1,926.5	4.3	36.2	145.41	-2,848.9	1,964.5	3,460.5	3,420.0	40.53	85.384	
2,000.0	2,000.0	1,958.0	1,958.0	4.4	36.9	145.41	-2,848.9	1,964.5	3,460.5	3,419.3	41.23	83.925	
2,066.9	2,066.9	2,024.9	2,024.9	4.5	38.2	145.41	-2,848.9	1,964.5	3,460.5	3,417.8	42.73	80.985	
2,100.0	2,100.0	2,058.0	2,058.0	4.6	38.9	145.41	-2,848.9	1,964.5	3,460.5	3,417.0	43.47	79.607	
2,165.3	2,165.3	2,123.3	2,123.3	4.7	40.2	77.01	-2,848.9	1,964.5	3,460.3	3,415.4	44.93	77.024	
2,200.0	2,200.0	2,158.0	2,158.0	4.8	40.9	77.03	-2,848.9	1,964.5	3,460.1	3,414.4	45.70	75.720	
2,263.8	2,263.7	2,221.7	2,221.7	4.9	42.2	77.09	-2,848.9	1,964.5	3,459.5	3,412.4	47.11	73.435	
2,300.0	2,299.8	2,257.8	2,257.8	5.0	42.9	77.13	-2,848.9	1,964.5	3,458.9	3,411.0	47.91	72.196	
2,362.2	2,361.8	2,319.8	2,319.8	5.1	44.2	77.24	-2,848.9	1,964.5	3,457.8	3,408.5	49.29	70.155	
2,400.0	2,399.5	2,357.5	2,357.5	5.2	44.9	77.31	-2,848.9	1,964.5	3,457.0	3,406.9	50.12	68.969	
2,460.6	2,459.7	2,417.7	2,417.7	5.4	46.1	77.45	-2,848.9	1,964.5	3,455.5	3,404.0	51.47	67.140	
2,500.0	2,498.7	2,456.7	2,456.7	5.5	46.9	77.56	-2,848.9	1,964.5	3,454.3	3,402.0	52.34	66.001	
2,559.0	2,557.1	2,515.1	2,515.1	5.6	48.1	77.74	-2,848.9	1,964.5	3,452.4	3,398.8	53.65	64.352	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,597.5	2,555.5	2,555.5	5.7	48.9	77.88	-2,848.9	1,964.5	3,451.0	3,396.4	54.56	63.255	
2,657.5	2,654.0	2,612.0	2,612.0	5.9	50.0	78.09	-2,848.9	1,964.5	3,448.7	3,392.9	55.84	61.762	
2,700.0	2,695.6	2,653.6	2,653.6	6.0	50.9	78.26	-2,848.9	1,964.5	3,447.0	3,390.2	56.79	60.700	
2,755.9	2,750.2	2,708.2	2,708.2	6.2	52.0	78.50	-2,848.9	1,964.5	3,444.5	3,386.4	58.04	59.342	
2,800.0	2,793.1	2,751.1	2,751.1	6.3	52.8	78.71	-2,848.9	1,964.5	3,442.4	3,383.3	59.03	58.311	
2,854.3	2,845.6	2,803.6	2,803.6	6.5	53.9	78.98	-2,848.9	1,964.5	3,439.6	3,379.4	60.27	57.070	
2,900.0	2,889.6	2,847.6	2,847.6	6.6	54.8	79.22	-2,848.9	1,964.5	3,437.2	3,375.9	61.31	56.066	
2,952.7	2,940.2	2,898.2	2,898.2	6.8	55.8	79.51	-2,848.9	1,964.5	3,434.3	3,371.8	62.52	54.928	
3,000.0	2,985.3	2,943.3	2,943.3	7.0	56.7	79.79	-2,848.9	1,964.5	3,431.7	3,368.1	63.61	53.946	
3,016.9	3,001.4	2,959.4	2,959.4	7.1	57.0	79.89	-2,848.9	1,964.5	3,430.7	3,366.7	64.01	53.598	
3,051.2	3,033.9	2,991.9	2,991.9	7.3	57.7	80.06	-2,848.9	1,964.5	3,428.7	3,363.9	64.82	52.900	
3,100.0	3,080.2	3,038.2	3,038.2	7.5	58.6	80.30	-2,848.9	1,964.5	3,426.0	3,360.0	65.97	51.932	
3,149.6	3,127.3	3,085.3	3,085.3	7.7	59.6	80.54	-2,848.9	1,964.5	3,423.2	3,356.1	67.15	50.975	
3,200.0	3,175.1	3,133.1	3,133.1	8.0	60.5	80.79	-2,848.9	1,964.5	3,420.5	3,352.2	68.36	50.037	
3,248.0	3,220.7	3,178.7	3,178.7	8.2	61.4	81.03	-2,848.9	1,964.5	3,418.0	3,348.5	69.52	49.166	
3,300.0	3,270.0	3,228.0	3,228.0	8.5	62.4	81.29	-2,848.9	1,964.5	3,415.4	3,344.6	70.78	48.256	
3,346.4	3,314.1	3,272.1	3,272.1	8.7	63.3	81.52	-2,848.9	1,964.5	3,413.1	3,341.2	71.91	47.464	
3,400.0	3,365.0	3,323.0	3,323.0	9.0	64.3	81.78	-2,848.9	1,964.5	3,410.5	3,337.3	73.21	46.582	
3,444.9	3,407.6	3,365.6	3,365.6	9.2	65.2	82.01	-2,848.9	1,964.5	3,408.4	3,334.1	74.32	45.864	
3,500.0	3,459.9	3,417.9	3,417.9	9.5	66.2	82.28	-2,848.9	1,964.5	3,405.9	3,330.2	75.67	45.010	
3,543.3	3,501.0	3,459.0	3,459.0	9.8	67.1	82.50	-2,848.9	1,964.5	3,404.0	3,327.3	76.74	44.358	
3,600.0	3,554.8	3,512.8	3,512.8	10.1	68.2	82.78	-2,848.9	1,964.5	3,401.6	3,323.5	78.14	43.532	
3,641.7	3,594.4	3,552.4	3,552.4	10.3	68.9	82.99	-2,848.9	1,964.5	3,399.9	3,320.7	79.18	42.941	
3,700.0	3,649.7	3,607.7	3,607.7	10.7	70.1	83.28	-2,848.9	1,964.5	3,397.6	3,316.9	80.62	42.141	
3,740.1	3,687.8	3,645.8	3,645.8	10.9	70.8	83.48	-2,848.9	1,964.5	3,396.0	3,314.4	81.63	41.605	
3,800.0	3,744.7	3,702.7	3,702.7	11.2	72.0	83.78	-2,848.9	1,964.5	3,393.8	3,310.7	83.12	40.831	
3,838.6	3,781.3	3,739.3	3,739.3	11.5	72.7	83.97	-2,848.9	1,964.5	3,392.5	3,308.4	84.08	40.346	
3,900.0	3,839.6	3,797.6	3,797.6	11.8	73.9	84.28	-2,848.9	1,964.5	3,390.4	3,304.8	85.62	39.597	
3,937.0	3,874.7	3,832.7	3,832.7	12.1	74.6	84.47	-2,848.9	1,964.5	3,389.2	3,302.6	86.55	39.158	
4,000.0	3,934.5	3,892.5	3,892.5	12.4	75.8	84.78	-2,848.9	1,964.5	3,387.2	3,299.1	88.13	38.432	
4,035.4	3,968.1	3,926.1	3,926.1	12.6	76.5	84.96	-2,848.9	1,964.5	3,386.2	3,297.2	89.03	38.036	
4,100.0	4,029.4	3,987.4	3,987.4	13.0	77.7	85.29	-2,848.9	1,964.5	3,384.4	3,293.7	90.65	37.333	
4,133.8	4,061.5	4,019.5	4,019.5	13.2	78.3	85.46	-2,848.9	1,964.5	3,383.5	3,292.0	91.51	36.975	
4,200.0	4,124.3	4,082.3	4,082.3	13.6	79.6	85.79	-2,848.9	1,964.5	3,381.8	3,288.6	93.18	36.294	
4,232.3	4,155.0	4,113.0	4,113.0	13.8	80.2	85.96	-2,848.9	1,964.5	3,381.0	3,287.0	93.99	35.971	
4,300.0	4,219.3	4,177.3	4,177.3	14.2	81.5	86.30	-2,848.9	1,964.5	3,379.5	3,283.8	95.71	35.311	
4,330.7	4,248.4	4,206.4	4,206.4	14.4	82.1	86.45	-2,848.9	1,964.5	3,378.9	3,282.4	96.48	35.020	
4,400.0	4,314.2	4,272.2	4,272.2	14.9	83.4	86.80	-2,848.9	1,964.5	3,377.5	3,279.3	98.24	34.380	
4,429.1	4,341.8	4,299.8	4,299.8	15.0	84.0	86.95	-2,848.9	1,964.5	3,377.0	3,278.0	98.98	34.118	
4,500.0	4,409.1	4,367.1	4,367.1	15.5	85.3	87.31	-2,848.9	1,964.5	3,375.8	3,275.0	100.78	33.498	
4,527.5	4,435.3	4,393.3	4,393.3	15.7	85.9	87.45	-2,848.9	1,964.5	3,375.4	3,273.9	101.48	33.263	
4,600.0	4,504.0	4,462.0	4,462.0	16.1	87.2	87.82	-2,848.9	1,964.5	3,374.4	3,271.1	103.32	32.661	
4,626.0	4,528.7	4,486.7	4,486.7	16.3	87.7	87.95	-2,848.9	1,964.5	3,374.1	3,270.1	103.98	32.450	
4,700.0	4,598.9	4,556.9	4,556.9	16.7	89.1	88.32	-2,848.9	1,964.5	3,373.3	3,267.4	105.86	31.866	
4,724.4	4,622.1	4,580.1	4,580.1	16.9	89.6	88.45	-2,848.9	1,964.5	3,373.1	3,266.6	106.48	31.678	
4,800.0	4,693.9	4,651.9	4,651.9	17.4	91.1	88.83	-2,848.9	1,964.5	3,372.5	3,264.1	108.40	31.111	
4,822.8	4,715.5	4,673.5	4,673.5	17.5	91.5	88.95	-2,848.9	1,964.5	3,372.3	3,263.3	108.98	30.944	
4,900.0	4,788.8	4,746.8	4,746.8	18.0	93.0	89.34	-2,848.9	1,964.5	3,371.9	3,261.0	110.95	30.393	
4,921.2	4,809.0	4,767.0	4,767.0	18.1	93.4	89.45	-2,848.9	1,964.5	3,371.9	3,260.4	111.49	30.244	
5,000.0	4,883.7	4,841.7	4,841.7	18.6	94.9	89.85	-2,848.9	1,964.5	3,371.7	3,258.2	113.49	29.709	
5,019.7	4,902.4	4,860.4	4,860.4	18.7	95.3	89.95	-2,848.9	1,964.5	3,371.7	3,257.7	113.99	29.578	
5,030.4	4,912.6	4,870.6	4,870.6	18.8	95.5	90.00	-2,848.9	1,964.5	3,371.7	3,257.4	114.27	29.507	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,978.6	4,936.6	4,936.6	19.3	96.8	90.35	-2,848.9	1,964.5	3,371.8	3,255.7	116.04	29.057	
5,118.1	4,995.8	4,953.8	4,953.8	19.4	97.1	90.44	-2,848.9	1,964.5	3,371.8	3,255.3	116.50	28.943	
5,200.0	5,073.6	5,031.6	5,031.6	19.9	98.7	90.86	-2,848.9	1,964.5	3,372.1	3,253.5	118.58	28.437	
5,216.5	5,089.2	5,047.2	5,047.2	20.0	99.0	90.94	-2,848.9	1,964.5	3,372.2	3,253.2	119.00	28.337	
5,304.2	5,172.4	5,130.4	5,130.4	20.6	100.7	91.39	-2,848.9	1,964.5	3,372.8	3,251.6	121.24	27.820	
5,314.9	5,182.7	5,140.7	5,140.7	20.6	100.9	91.45	-2,848.9	1,964.5	3,372.9	3,251.4	121.50	27.760	
5,400.0	5,263.9	5,221.9	5,221.9	21.1	102.5	91.87	-2,848.9	1,964.5	3,373.6	3,250.0	123.60	27.295	
5,413.4	5,276.7	5,234.7	5,234.7	21.1	102.8	91.93	-2,848.9	1,964.5	3,373.8	3,249.9	123.91	27.227	
5,500.0	5,360.3	5,318.3	5,318.3	21.5	104.5	92.32	-2,848.9	1,964.5	3,374.6	3,248.7	125.97	26.789	
5,511.8	5,371.7	5,329.7	5,329.7	21.6	104.7	92.38	-2,848.9	1,964.5	3,374.8	3,248.5	126.25	26.731	
5,600.0	5,457.5	5,415.5	5,415.5	21.9	106.4	92.73	-2,848.9	1,964.5	3,375.7	3,247.4	128.32	26.307	
5,610.2	5,467.5	5,425.5	5,425.5	21.9	106.6	92.77	-2,848.9	1,964.5	3,375.8	3,247.2	128.56	26.259	
5,700.0	5,555.6	5,513.6	5,513.6	22.3	108.4	93.08	-2,848.9	1,964.5	3,376.7	3,246.1	130.64	25.848	
5,708.6	5,564.1	5,522.1	5,522.1	22.3	108.6	93.11	-2,848.9	1,964.5	3,376.8	3,246.0	130.84	25.809	
5,800.0	5,654.2	5,612.2	5,612.2	22.6	110.4	93.37	-2,848.9	1,964.5	3,377.7	3,244.7	132.93	25.409	
5,807.1	5,661.2	5,619.2	5,619.2	22.6	110.5	93.39	-2,848.9	1,964.5	3,377.7	3,244.6	133.09	25.379	
5,900.0	5,753.4	5,711.4	5,711.4	22.8	112.4	93.60	-2,848.9	1,964.5	3,378.4	3,243.3	135.19	24.991	
5,905.5	5,758.8	5,716.8	5,716.8	22.8	112.5	93.61	-2,848.9	1,964.5	3,378.5	3,243.2	135.31	24.969	
6,000.0	5,852.9	5,810.9	5,810.9	23.1	114.4	93.77	-2,848.9	1,964.5	3,379.1	3,241.7	137.41	24.592	
6,003.9	5,856.8	5,814.8	5,814.8	23.1	114.4	93.78	-2,848.9	1,964.5	3,379.1	3,241.6	137.49	24.577	
6,100.0	5,952.7	5,910.7	5,910.7	23.2	116.4	93.88	-2,848.9	1,964.5	3,379.5	3,239.9	139.59	24.210	
6,102.3	5,955.1	5,913.1	5,913.1	23.2	116.4	93.88	-2,848.9	1,964.5	3,379.5	3,239.8	139.64	24.201	
6,200.0	6,052.7	6,010.7	6,010.7	23.4	118.4	93.93	-2,848.9	1,964.5	3,379.6	3,237.9	141.73	23.845	
6,200.8	6,053.5	6,011.5	6,011.5	23.4	118.4	93.93	-2,848.9	1,964.5	3,379.6	3,237.9	141.75	23.842	
6,221.1	6,073.8	6,031.8	6,031.8	23.4	118.8	162.35	-2,848.9	1,964.5	3,379.6	3,237.5	142.18	23.770	
6,251.1	6,103.8	6,061.8	6,061.8	23.4	119.4	162.35	-2,848.9	1,964.5	3,379.6	3,236.8	142.82	23.664	
6,299.2	6,151.8	6,109.8	6,109.8	23.5	120.4	-17.70	-2,848.9	1,964.5	3,378.1	3,234.6	143.53	23.535	
6,300.0	6,152.6	6,110.6	6,110.6	23.5	120.4	-17.70	-2,848.9	1,964.5	3,378.0	3,234.5	143.54	23.534	
6,350.0	6,202.4	6,160.4	6,160.4	23.5	121.4	-17.84	-2,848.9	1,964.5	3,373.1	3,229.5	143.63	23.485	
6,397.6	6,249.3	6,207.3	6,207.3	23.5	122.3	-18.08	-2,848.9	1,964.5	3,365.4	3,222.3	143.11	23.515	
6,400.0	6,251.6	6,209.6	6,209.6	23.5	122.4	-18.09	-2,848.9	1,964.5	3,364.9	3,221.9	143.07	23.519	
6,450.0	6,300.1	6,258.1	6,258.1	23.5	123.4	-18.45	-2,848.9	1,964.5	3,353.5	3,211.6	141.87	23.638	
6,496.0	6,344.0	6,302.0	6,302.0	23.5	124.2	-18.89	-2,848.9	1,964.5	3,340.1	3,199.9	140.20	23.824	
6,500.0	6,347.7	6,305.7	6,305.7	23.5	124.3	-18.93	-2,848.9	1,964.5	3,338.9	3,198.8	140.03	23.843	
6,550.0	6,394.1	6,352.1	6,352.1	23.5	125.3	-19.54	-2,848.9	1,964.5	3,321.1	3,183.5	137.60	24.136	
6,594.5	6,434.2	6,392.2	6,392.2	23.4	126.1	-20.19	-2,848.9	1,964.5	3,302.8	3,167.8	134.97	24.471	
6,600.0	6,439.0	6,397.0	6,397.0	23.4	126.2	-20.28	-2,848.9	1,964.5	3,300.3	3,165.7	134.62	24.517	
6,650.0	6,482.4	6,440.4	6,440.4	23.4	127.0	-21.20	-2,848.9	1,964.5	3,276.7	3,145.5	131.15	24.983	
6,692.9	6,518.1	6,476.1	6,476.1	23.3	127.7	-22.13	-2,848.9	1,964.5	3,254.1	3,126.2	127.88	25.446	
6,700.0	6,523.9	6,481.9	6,481.9	23.3	127.9	-22.30	-2,848.9	1,964.5	3,250.2	3,122.9	127.32	25.528	
6,750.0	6,563.3	6,521.3	6,521.3	23.3	128.7	-23.63	-2,848.9	1,964.5	3,221.0	3,097.8	123.26	26.133	
6,791.3	6,594.2	6,552.2	6,552.2	23.2	129.3	-24.92	-2,848.9	1,964.5	3,195.1	3,075.2	119.87	26.655	
6,800.0	6,600.5	6,558.5	6,558.5	23.2	129.4	-25.22	-2,848.9	1,964.5	3,189.4	3,070.2	119.17	26.763	
6,850.0	6,635.3	6,593.3	6,593.3	23.2	130.1	-27.12	-2,848.9	1,964.5	3,155.4	3,040.1	115.33	27.359	
6,889.7	6,661.1	6,619.1	6,619.1	23.1	130.6	-28.91	-2,848.9	1,964.5	3,126.9	3,014.2	112.70	27.745	
6,900.0	6,667.5	6,625.5	6,625.5	23.1	130.7	-29.41	-2,848.9	1,964.5	3,119.3	3,007.2	112.11	27.823	
6,950.0	6,696.9	6,654.9	6,654.9	23.1	131.3	-32.18	-2,848.9	1,964.5	3,081.1	2,971.2	109.97	28.019	
6,988.2	6,717.5	6,675.5	6,675.5	23.1	131.8	-34.67	-2,848.9	1,964.5	3,050.8	2,941.4	109.38	27.892	
7,000.0	6,723.5	6,681.5	6,681.5	23.1	131.9	-35.52	-2,848.9	1,964.5	3,041.2	2,931.8	109.43	27.792	
7,050.0	6,747.0	6,705.0	6,705.0	23.1	132.3	-39.57	-2,848.9	1,964.5	2,999.8	2,888.7	111.02	27.019	
7,086.6	6,762.3	6,720.3	6,720.3	23.1	132.7	-43.08	-2,848.9	1,964.5	2,968.5	2,854.7	113.77	26.093	
7,100.0	6,767.4	6,725.4	6,725.4	23.1	132.8	-44.49	-2,848.9	1,964.5	2,956.9	2,841.8	115.11	25.687	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,150.0	6,784.6	6,742.6	6,742.6	23.1	133.1	-50.43	-2,848.9	1,964.5	2,912.9	2,791.2	121.69	23.937	
7,185.0	6,794.7	6,752.7	6,752.7	23.1	133.3	-55.28	-2,848.9	1,964.5	2,881.5	2,754.0	127.49	22.602	
7,200.0	6,798.5	6,756.5	6,756.5	23.2	133.4	-57.53	-2,848.9	1,964.5	2,868.0	2,737.8	130.15	22.036	
7,250.0	6,808.9	6,766.9	6,766.9	23.2	133.6	-65.79	-2,848.9	1,964.5	2,822.4	2,683.3	139.14	20.284	
7,283.4	6,814.0	6,772.0	6,772.0	23.3	133.7	-71.89	-2,848.9	1,964.5	2,791.6	2,647.1	144.51	19.318	
7,300.0	6,816.0	6,774.0	6,774.0	23.4	133.7	-75.04	-2,848.9	1,964.5	2,776.3	2,629.6	146.73	18.921	
7,350.0	6,819.5	6,777.5	6,777.5	23.5	133.8	-84.86	-2,848.9	1,964.5	2,730.1	2,579.1	151.00	18.080	
7,381.9	6,820.0	6,778.0	6,778.0	23.7	133.8	-91.12	-2,848.9	1,964.5	2,700.5	2,549.1	151.46	17.830	
7,382.0	6,820.0	6,778.0	6,778.0	23.7	133.8	-91.15	-2,848.9	1,964.5	2,700.4	2,549.0	151.46	17.829	
7,400.0	6,819.8	6,777.8	6,777.8	23.8	133.8	-91.14	-2,848.9	1,964.5	2,683.8	2,532.2	151.61	17.702	
7,480.3	6,819.2	6,777.2	6,777.2	24.2	133.8	-91.10	-2,848.9	1,964.5	2,609.8	2,457.4	152.36	17.129	
7,500.0	6,819.0	6,777.0	6,777.0	24.3	133.8	-91.09	-2,848.9	1,964.5	2,591.6	2,439.1	152.54	16.990	
7,578.7	6,818.4	6,776.4	6,776.4	24.9	133.8	-91.06	-2,848.9	1,964.5	2,519.5	2,366.1	153.38	16.427	
7,600.0	6,818.2	6,776.2	6,776.2	25.0	133.8	-91.05	-2,848.9	1,964.5	2,500.1	2,346.5	153.61	16.276	
7,677.1	6,817.6	6,775.6	6,775.6	25.7	133.8	-91.01	-2,848.9	1,964.5	2,429.9	2,275.4	154.53	15.725	
7,700.0	6,817.4	6,775.4	6,775.4	25.9	133.8	-91.00	-2,848.9	1,964.5	2,409.2	2,254.4	154.80	15.564	
7,775.6	6,816.7	6,774.7	6,774.7	26.6	133.8	-90.97	-2,848.9	1,964.5	2,341.1	2,185.3	155.77	15.029	
7,800.0	6,816.5	6,774.5	6,774.5	26.9	133.7	-90.96	-2,848.9	1,964.5	2,319.1	2,163.0	156.09	14.858	
7,874.0	6,815.9	6,773.9	6,773.9	27.7	133.7	-90.92	-2,848.9	1,964.5	2,253.0	2,095.9	157.11	14.341	
7,900.0	6,815.7	6,773.7	6,773.7	28.0	133.7	-90.91	-2,848.9	1,964.5	2,229.9	2,072.4	157.46	14.161	
7,972.4	6,815.1	6,773.1	6,773.1	28.9	133.7	-90.88	-2,848.9	1,964.5	2,165.8	2,007.3	158.51	13.663	
8,000.0	6,814.9	6,772.9	6,772.9	29.2	133.7	-90.86	-2,848.9	1,964.5	2,141.5	1,982.6	158.91	13.477	
8,070.8	6,814.3	6,772.3	6,772.3	30.1	133.7	-90.83	-2,848.9	1,964.5	2,079.6	1,919.6	159.98	13.000	
8,100.0	6,814.1	6,772.1	6,772.1	30.5	133.7	-90.82	-2,848.9	1,964.5	2,054.3	1,893.9	160.41	12.806	
8,169.3	6,813.5	6,771.5	6,771.5	31.5	133.7	-90.79	-2,848.9	1,964.5	1,994.6	1,833.1	161.49	12.351	
8,200.0	6,813.3	6,771.3	6,771.3	31.9	133.7	-90.77	-2,848.9	1,964.5	1,968.3	1,806.3	161.97	12.152	
8,267.7	6,812.7	6,770.7	6,770.7	32.9	133.7	-90.74	-2,848.9	1,964.5	1,910.8	1,747.7	163.05	11.719	
8,300.0	6,812.4	6,770.4	6,770.4	33.3	133.7	-90.73	-2,848.9	1,964.5	1,883.6	1,720.0	163.56	11.516	
8,366.1	6,811.9	6,769.9	6,769.9	34.3	133.7	-90.70	-2,848.9	1,964.5	1,828.5	1,663.8	164.64	11.106	
8,400.0	6,811.6	6,769.6	6,769.6	34.8	133.6	-90.68	-2,848.9	1,964.5	1,800.5	1,635.3	165.19	10.900	
8,464.5	6,811.1	6,769.1	6,769.1	35.8	133.6	-90.65	-2,848.9	1,964.5	1,747.8	1,581.6	166.26	10.512	
8,500.0	6,810.8	6,768.8	6,768.8	36.3	133.6	-90.64	-2,848.9	1,964.5	1,719.2	1,552.4	166.85	10.304	
8,563.0	6,810.3	6,768.3	6,768.3	37.3	133.6	-90.61	-2,848.9	1,964.5	1,669.1	1,501.2	167.91	9.940	
8,600.0	6,810.0	6,768.0	6,768.0	37.9	133.6	-90.59	-2,848.9	1,964.5	1,640.0	1,471.5	168.54	9.731	
8,661.4	6,809.5	6,767.5	6,767.5	38.9	133.6	-90.56	-2,848.9	1,964.5	1,592.5	1,423.0	169.59	9.391	
8,700.0	6,809.1	6,767.1	6,767.1	39.5	133.6	-90.54	-2,848.9	1,964.5	1,563.2	1,392.9	170.25	9.182	
8,759.8	6,808.6	6,766.6	6,766.6	40.5	133.6	-90.52	-2,848.9	1,964.5	1,518.5	1,347.2	171.28	8.866	
8,800.0	6,808.3	6,766.3	6,766.3	41.1	133.6	-90.50	-2,848.9	1,964.5	1,489.1	1,317.1	171.97	8.659	
8,858.2	6,807.8	6,765.8	6,765.8	42.1	133.6	-90.47	-2,848.9	1,964.5	1,447.4	1,274.4	172.99	8.367	
8,900.0	6,807.5	6,765.5	6,765.5	42.8	133.6	-90.45	-2,848.9	1,964.5	1,418.2	1,244.5	173.72	8.164	
8,956.7	6,807.0	6,765.0	6,765.0	43.7	133.6	-90.43	-2,848.9	1,964.5	1,379.7	1,204.9	174.71	7.897	
9,000.0	6,806.7	6,764.7	6,764.7	44.4	133.5	-90.41	-2,848.9	1,964.5	1,351.0	1,175.6	175.47	7.699	
9,055.1	6,806.2	6,764.2	6,764.2	45.4	133.5	-90.38	-2,848.9	1,964.5	1,315.8	1,139.3	176.45	7.457	
9,100.0	6,805.8	6,763.8	6,763.8	46.1	133.5	-90.36	-2,848.9	1,964.5	1,288.1	1,110.9	177.24	7.267	
9,153.5	6,805.4	6,763.4	6,763.4	47.0	133.5	-90.34	-2,848.9	1,964.5	1,256.4	1,078.2	178.20	7.050	
9,200.0	6,805.0	6,763.0	6,763.0	47.8	133.5	-90.31	-2,848.9	1,964.5	1,230.1	1,051.1	179.03	6.871	
9,251.9	6,804.6	6,762.6	6,762.6	48.7	133.5	-90.29	-2,848.9	1,964.5	1,202.1	1,022.2	179.96	6.680	
9,300.0	6,804.2	6,762.2	6,762.2	49.6	133.5	-90.27	-2,848.9	1,964.5	1,177.7	996.9	180.82	6.513	
9,350.4	6,803.8	6,761.8	6,761.8	50.4	133.5	-90.25	-2,848.9	1,964.5	1,153.7	972.0	181.73	6.349	
9,400.0	6,803.4	6,761.4	6,761.4	51.3	133.5	-90.22	-2,848.9	1,964.5	1,131.8	949.1	182.62	6.197	
9,448.8	6,802.9	6,760.9	6,760.9	52.1	133.5	-90.20	-2,848.9	1,964.5	1,111.9	928.4	183.50	6.059	
9,500.0	6,802.5	6,760.5	6,760.5	53.0	133.5	-90.18	-2,848.9	1,964.5	1,093.1	908.6	184.43	5.927	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,802.1	6,760.1	6,760.1	53.9	133.5	-90.15	-2,848.9	1,964.5	1,077.5	892.2	185.28	5.816	
9,600.0	6,801.7	6,759.7	6,759.7	54.8	133.4	-90.13	-2,848.9	1,964.5	1,062.4	876.1	186.24	5.704	
9,645.6	6,801.3	6,759.3	6,759.3	55.6	133.4	-90.11	-2,848.9	1,964.5	1,051.3	864.2	187.07	5.619	
9,700.0	6,800.9	6,758.9	6,758.9	56.6	133.4	-90.08	-2,848.9	1,964.5	1,040.5	852.4	188.06	5.532	
9,744.1	6,800.5	6,758.5	6,758.5	57.4	133.4	-90.06	-2,848.9	1,964.5	1,033.7	844.9	188.87	5.473	
9,800.0	6,800.0	6,758.0	6,758.0	58.4	133.4	-90.04	-2,848.9	1,964.5	1,027.8	837.9	189.89	5.413	
9,842.5	6,799.7	6,757.7	6,757.7	59.1	133.4	-90.02	-2,848.9	1,964.5	1,025.4	834.7	190.67	5.378	
9,880.6	6,799.4	6,757.4	6,757.4	59.8	133.4	-90.00	-2,848.9	1,964.5	1,024.7	833.3	191.37	5.355 CC	
9,900.0	6,799.2	6,757.2	6,757.2	60.2	133.4	-89.99	-2,848.9	1,964.5	1,024.9	833.1	191.72	5.346 ES	
9,940.9	6,798.9	6,756.9	6,756.9	60.9	133.4	-89.97	-2,848.9	1,964.5	1,026.5	834.0	192.48	5.333	
10,000.0	6,798.4	6,756.4	6,756.4	62.0	133.4	-89.94	-2,848.9	1,964.5	1,031.6	838.1	193.56	5.330 SF	
10,039.3	6,798.1	6,756.1	6,756.1	62.7	133.4	-89.93	-2,848.9	1,964.5	1,036.9	842.6	194.29	5.337	
10,100.0	6,797.6	6,755.6	6,755.6	63.8	133.4	-89.90	-2,848.9	1,964.5	1,047.9	852.5	195.40	5.363	
10,137.8	6,797.2	6,755.2	6,755.2	64.4	133.4	-89.88	-2,848.9	1,964.5	1,056.5	860.4	196.10	5.387	
10,200.0	6,796.7	6,754.7	6,754.7	65.6	133.3	-89.85	-2,848.9	1,964.5	1,073.3	876.1	197.25	5.441	
10,236.2	6,796.4	6,754.4	6,754.4	66.2	133.3	-89.84	-2,848.9	1,964.5	1,084.6	886.7	197.92	5.480	
10,300.0	6,795.9	6,753.9	6,753.9	67.4	133.3	-89.81	-2,848.9	1,964.5	1,107.2	908.1	199.10	5.561	
10,334.6	6,795.6	6,753.6	6,753.6	68.0	133.3	-89.79	-2,848.9	1,964.5	1,120.8	921.0	199.74	5.611	
10,400.0	6,795.1	6,753.1	6,753.1	69.2	133.3	-89.76	-2,848.9	1,964.5	1,148.8	947.9	200.95	5.717	
10,433.0	6,794.8	6,752.8	6,752.8	69.8	133.3	-89.74	-2,848.9	1,964.5	1,164.1	962.6	201.56	5.776	
10,500.0	6,794.2	6,752.2	6,752.2	71.0	133.3	-89.71	-2,848.9	1,964.5	1,197.4	994.6	202.80	5.904	
10,531.5	6,794.0	6,752.0	6,752.0	71.6	133.3	-89.70	-2,848.9	1,964.5	1,213.9	1,010.5	203.39	5.969	
10,600.0	6,793.4	6,751.4	6,751.4	72.9	133.3	-89.67	-2,848.9	1,964.5	1,252.0	1,047.4	204.66	6.118	
10,629.9	6,793.2	6,751.2	6,751.2	73.4	133.3	-89.65	-2,848.9	1,964.5	1,269.4	1,064.2	205.21	6.186	
10,700.0	6,792.6	6,750.6	6,750.6	74.7	133.3	-89.62	-2,848.9	1,964.5	1,312.0	1,105.5	206.52	6.353	
10,728.3	6,792.3	6,750.3	6,750.3	75.2	133.3	-89.61	-2,848.9	1,964.5	1,329.9	1,122.9	207.05	6.423	
10,800.0	6,791.7	6,749.7	6,749.7	76.6	133.2	-89.57	-2,848.9	1,964.5	1,376.7	1,168.3	208.38	6.607	
10,826.7	6,791.5	6,749.5	6,749.5	77.1	133.2	-89.56	-2,848.9	1,964.5	1,394.7	1,185.8	208.88	6.677	
10,900.0	6,790.9	6,748.9	6,748.9	78.4	133.2	-89.53	-2,848.9	1,964.5	1,445.4	1,235.2	210.24	6.875	
10,925.2	6,790.7	6,748.7	6,748.7	78.9	133.2	-89.51	-2,848.9	1,964.5	1,463.3	1,252.5	210.71	6.944	
11,000.0	6,790.1	6,748.1	6,748.1	80.3	133.2	-89.48	-2,848.9	1,964.5	1,517.6	1,305.5	212.11	7.155	
11,023.6	6,789.9	6,747.9	6,747.9	80.7	133.2	-89.47	-2,848.9	1,964.5	1,535.1	1,322.5	212.55	7.222	
11,100.0	6,789.2	6,747.2	6,747.2	82.1	133.2	-89.43	-2,848.9	1,964.5	1,592.8	1,378.8	213.98	7.444	
11,122.0	6,789.1	6,747.1	6,747.1	82.5	133.2	-89.42	-2,848.9	1,964.5	1,609.7	1,395.3	214.39	7.508	
11,200.0	6,788.4	6,746.4	6,746.4	84.0	133.2	-89.39	-2,848.9	1,964.5	1,670.6	1,454.7	215.85	7.740	
11,220.4	6,788.2	6,746.2	6,746.2	84.3	133.2	-89.38	-2,848.9	1,964.5	1,686.8	1,470.5	216.23	7.801	
11,300.0	6,787.6	6,745.6	6,745.6	85.8	133.2	-89.34	-2,848.9	1,964.5	1,750.6	1,532.9	217.72	8.041	
11,318.9	6,787.4	6,745.4	6,745.4	86.2	133.2	-89.33	-2,848.9	1,964.5	1,766.0	1,547.9	218.07	8.098	
11,400.0	6,786.7	6,744.7	6,744.7	87.7	133.1	-89.29	-2,848.9	1,964.5	1,832.6	1,613.0	219.59	8.346	
11,417.3	6,786.6	6,744.6	6,744.6	88.0	133.1	-89.28	-2,848.9	1,964.5	1,847.0	1,627.1	219.91	8.399	
11,500.0	6,785.9	6,743.9	6,743.9	89.5	133.1	-89.24	-2,848.9	1,964.5	1,916.3	1,694.9	221.46	8.653	
11,515.7	6,785.8	6,743.8	6,743.8	89.8	133.1	-89.24	-2,848.9	1,964.5	1,929.7	1,707.9	221.76	8.702	
11,600.0	6,785.1	6,743.1	6,743.1	91.4	133.1	-89.20	-2,848.9	1,964.5	2,001.6	1,778.2	223.34	8.962	
11,614.1	6,785.0	6,743.0	6,743.0	91.7	133.1	-89.19	-2,848.9	1,964.5	2,013.7	1,790.1	223.60	9.006	
11,700.0	6,784.2	6,742.2	6,742.2	93.3	133.1	-89.15	-2,848.9	1,964.5	2,088.1	1,862.9	225.21	9.272	
11,712.6	6,784.1	6,742.1	6,742.1	93.5	133.1	-89.15	-2,848.9	1,964.5	2,099.1	1,873.6	225.45	9.311	
11,800.0	6,783.4	6,741.4	6,741.4	95.2	133.1	-89.10	-2,848.9	1,964.5	2,175.8	1,948.7	227.09	9.581	
11,811.0	6,783.3	6,741.3	6,741.3	95.4	133.1	-89.10	-2,848.9	1,964.5	2,185.5	1,958.2	227.30	9.615	
11,900.0	6,782.6	6,740.6	6,740.6	97.0	133.1	-89.06	-2,848.9	1,964.5	2,264.5	2,035.5	228.97	9.890	
11,909.4	6,782.5	6,740.5	6,740.5	97.2	133.1	-89.05	-2,848.9	1,964.5	2,272.9	2,043.7	229.15	9.919	
12,000.0	6,781.7	6,739.7	6,739.7	98.9	133.0	-89.01	-2,848.9	1,964.5	2,354.1	2,123.2	230.85	10.198	
12,007.8	6,781.7	6,739.7	6,739.7	99.1	133.0	-89.01	-2,848.9	1,964.5	2,361.2	2,130.2	230.99	10.222	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,100.0	6,780.9	6,738.9	6,738.9	100.8	133.0	-88.96	-2,848.9	1,964.5	2,444.5	2,211.8	232.73	10.504	
12,106.3	6,780.9	6,738.9	6,738.9	100.9	133.0	-88.96	-2,848.9	1,964.5	2,450.2	2,217.4	232.84	10.523	
12,200.0	6,780.1	6,738.1	6,738.1	102.7	133.0	-88.92	-2,848.9	1,964.5	2,535.6	2,301.0	234.61	10.808	
12,204.7	6,780.0	6,738.0	6,738.0	102.7	133.0	-88.91	-2,848.9	1,964.5	2,539.9	2,305.2	234.69	10.822	
12,300.0	6,779.2	6,737.2	6,737.2	104.5	133.0	-88.87	-2,848.9	1,964.5	2,627.4	2,390.9	236.49	11.110	
12,303.1	6,779.2	6,737.2	6,737.2	104.6	133.0	-88.87	-2,848.9	1,964.5	2,630.3	2,393.7	236.55	11.120	
12,400.0	6,778.4	6,736.4	6,736.4	106.4	133.0	-88.82	-2,848.9	1,964.5	2,719.8	2,481.4	238.37	11.410	
12,401.5	6,778.4	6,736.4	6,736.4	106.4	133.0	-88.82	-2,848.9	1,964.5	2,721.2	2,482.8	238.40	11.415	
12,500.0	6,777.6	6,735.6	6,735.6	108.3	133.0	-88.77	-2,848.9	1,964.5	2,812.6	2,572.4	240.25	11.707	
12,598.4	6,776.7	6,734.7	6,734.7	110.2	132.9	-88.73	-2,848.9	1,964.5	2,904.5	2,662.4	242.10	11.997	
12,600.0	6,776.7	6,734.7	6,734.7	110.2	132.9	-88.73	-2,848.9	1,964.5	2,906.0	2,663.9	242.13	12.002	
12,696.8	6,775.9	6,733.9	6,733.9	112.0	132.9	-88.68	-2,848.9	1,964.5	2,996.8	2,752.8	243.96	12.284	
12,700.0	6,775.9	6,733.9	6,733.9	112.1	132.9	-88.68	-2,848.9	1,964.5	2,999.8	2,755.8	244.02	12.293	
12,795.2	6,775.1	6,733.1	6,733.1	113.9	132.9	-88.63	-2,848.9	1,964.5	3,089.5	2,843.7	245.81	12.569	
12,800.0	6,775.0	6,733.0	6,733.0	114.0	132.9	-88.63	-2,848.9	1,964.5	3,094.0	2,848.1	245.90	12.582	
12,893.7	6,774.3	6,732.3	6,732.3	115.7	132.9	-88.59	-2,848.9	1,964.5	3,182.5	2,934.8	247.66	12.850	
12,900.0	6,774.2	6,732.2	6,732.2	115.8	132.9	-88.58	-2,848.9	1,964.5	3,188.5	2,940.7	247.78	12.868	
12,992.1	6,773.4	6,731.4	6,731.4	117.6	132.9	-88.54	-2,848.9	1,964.5	3,275.8	3,026.3	249.52	13.129	
13,000.0	6,773.4	6,731.4	6,731.4	117.7	132.9	-88.54	-2,848.9	1,964.5	3,283.3	3,033.7	249.67	13.151	
13,090.5	6,772.6	6,730.6	6,730.6	119.4	132.9	-88.49	-2,848.9	1,964.5	3,369.4	3,118.1	251.37	13.404	
13,100.0	6,772.5	6,730.5	6,730.5	119.6	132.9	-88.49	-2,848.9	1,964.5	3,378.5	3,126.9	251.55	13.430	
13,188.9	6,771.8	6,729.8	6,729.8	121.3	132.8	-88.45	-2,848.9	1,964.5	3,463.3	3,210.1	253.23	13.677	
13,200.0	6,771.7	6,729.7	6,729.7	121.5	132.8	-88.44	-2,848.9	1,964.5	3,473.9	3,220.5	253.44	13.707	
13,287.4	6,771.0	6,729.0	6,729.0	123.2	132.8	-88.40	-2,848.9	1,964.5	3,557.5	3,302.4	255.09	13.946	
13,300.0	6,770.9	6,728.9	6,728.9	123.4	132.8	-88.39	-2,848.9	1,964.5	3,569.6	3,314.2	255.32	13.981	
13,385.8	6,770.1	6,728.1	6,728.1	125.0	132.8	-88.35	-2,848.9	1,964.5	3,651.8	3,394.9	256.94	14.213	
13,400.0	6,770.0	6,728.0	6,728.0	125.3	132.8	-88.35	-2,848.9	1,964.5	3,665.5	3,408.3	257.21	14.251	
13,484.2	6,769.3	6,727.3	6,727.3	126.9	132.8	-88.31	-2,848.9	1,964.5	3,746.4	3,487.6	258.80	14.476	
13,500.0	6,769.2	6,727.2	6,727.2	127.2	132.8	-88.30	-2,848.9	1,964.5	3,761.6	3,502.5	259.09	14.518	
13,582.6	6,768.5	6,726.5	6,726.5	128.8	132.8	-88.26	-2,848.9	1,964.5	3,841.2	3,580.5	260.65	14.737	
13,600.0	6,768.3	6,726.3	6,726.3	129.1	132.8	-88.25	-2,848.9	1,964.5	3,857.9	3,596.9	260.98	14.782	
13,681.1	6,767.6	6,725.6	6,725.6	130.6	132.8	-88.21	-2,848.9	1,964.5	3,936.1	3,673.6	262.51	14.994	
13,700.0	6,767.5	6,725.5	6,725.5	131.0	132.8	-88.20	-2,848.9	1,964.5	3,954.4	3,691.5	262.87	15.043	
13,779.5	6,766.8	6,724.8	6,724.8	132.5	132.7	-88.17	-2,848.9	1,964.5	4,031.2	3,766.8	264.37	15.249	
13,800.0	6,766.6	6,724.6	6,724.6	132.9	132.7	-88.16	-2,848.9	1,964.5	4,051.0	3,786.3	264.75	15.301	
13,877.9	6,766.0	6,724.0	6,724.0	134.4	132.7	-88.12	-2,848.9	1,964.5	4,126.5	3,860.3	266.22	15.500	
13,900.0	6,765.8	6,723.8	6,723.8	134.8	132.7	-88.11	-2,848.9	1,964.5	4,147.9	3,881.2	266.64	15.556	
13,976.3	6,765.2	6,723.2	6,723.2	136.2	132.7	-88.07	-2,848.9	1,964.5	4,221.9	3,953.8	268.08	15.749	
13,995.7	6,765.0	6,723.0	6,723.0	136.6	132.7	-88.06	-2,848.9	1,964.5	4,240.6	3,972.2	268.44	15.797	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	150.89	-1,515.5	843.8	1,735.0				
98.4	98.4	63.0	63.0	0.1	0.0	150.89	-1,515.5	843.8	1,734.6	1,734.5	0.08	N/A	
100.0	100.0	64.6	64.6	0.1	0.0	150.89	-1,515.5	843.8	1,734.6	1,734.5	0.09	N/A	
196.8	196.8	169.6	169.6	0.3	0.1	150.89	-1,515.1	843.7	1,734.2	1,733.9	0.36	4,839.065	
200.0	200.0	173.0	173.0	0.3	0.1	150.89	-1,515.1	843.7	1,734.2	1,733.8	0.37	4,710.315	
295.3	295.3	263.9	263.9	0.5	0.1	150.88	-1,514.5	843.6	1,733.6	1,733.0	0.67	2,593.583	
300.0	300.0	268.1	268.1	0.5	0.1	150.88	-1,514.5	843.6	1,733.6	1,732.9	0.68	2,536.855	
393.7	393.7	356.2	356.2	0.7	0.2	150.85	-1,514.0	844.3	1,733.5	1,732.5	0.98	1,766.417	
400.0	400.0	362.2	362.2	0.8	0.2	150.85	-1,514.0	844.3	1,733.5	1,732.5	1.00	1,730.941	
406.3	406.3	368.3	368.3	0.8	0.2	150.85	-1,513.9	844.3	1,733.5	1,732.4	1.02	1,697.120	
492.1	492.1	453.2	453.2	1.0	0.3	150.83	-1,513.7	844.9	1,733.5	1,732.2	1.29	1,348.707	
500.0	500.0	461.2	461.1	1.0	0.3	150.83	-1,513.6	845.0	1,733.5	1,732.2	1.31	1,324.379	
590.5	590.5	559.7	559.6	1.2	0.4	150.80	-1,513.2	845.6	1,733.4	1,731.9	1.58	1,100.533	
600.0	600.0	570.5	570.5	1.2	0.4	150.80	-1,513.1	845.7	1,733.4	1,731.8	1.60	1,081.713	
689.0	689.0	657.8	657.8	1.4	0.4	150.78	-1,512.3	846.0	1,732.9	1,731.1	1.83	946.706	
700.0	700.0	667.9	667.9	1.4	0.4	150.78	-1,512.3	846.0	1,732.8	1,731.0	1.86	933.044	
787.4	787.4	753.0	753.0	1.6	0.5	150.78	-1,512.2	845.8	1,732.7	1,730.6	2.08	831.821	
800.0	800.0	765.8	765.7	1.7	0.5	150.78	-1,512.2	845.8	1,732.6	1,730.5	2.12	818.491	
885.8	885.8	857.8	857.8	1.9	0.5	150.79	-1,512.0	845.5	1,732.3	1,730.0	2.33	742.150	
900.0	900.0	873.5	873.5	1.9	0.5	150.78	-1,511.9	845.5	1,732.3	1,729.9	2.37	731.320	
984.2	984.2	962.9	962.9	2.1	0.5	150.76	-1,510.9	845.7	1,731.5	1,728.9	2.59	668.716	
1,000.0	1,000.0	979.3	979.3	2.1	0.5	150.76	-1,510.7	845.7	1,731.4	1,728.8	2.63	657.875	
1,082.7	1,082.7	1,054.3	1,054.3	2.3	0.6	150.75	-1,510.0	845.7	1,730.7	1,727.8	2.85	607.812	
1,100.0	1,100.0	1,069.3	1,069.3	2.3	0.6	150.75	-1,509.9	845.7	1,730.6	1,727.7	2.89	598.386	
1,181.1	1,181.1	1,156.1	1,156.1	2.5	0.6	150.74	-1,509.5	845.7	1,730.3	1,727.2	3.10	557.374	
1,200.0	1,200.0	1,179.3	1,179.3	2.6	0.6	150.74	-1,509.3	845.6	1,730.1	1,727.0	3.15	548.487	
1,279.5	1,279.5	1,252.9	1,252.8	2.7	0.7	150.73	-1,508.6	845.4	1,729.3	1,726.0	3.35	515.756	
1,300.0	1,300.0	1,270.1	1,270.1	2.8	0.7	150.73	-1,508.5	845.3	1,729.2	1,725.8	3.40	508.089	
1,377.9	1,377.9	1,349.0	1,348.9	3.0	0.7	150.74	-1,508.3	845.2	1,729.0	1,725.4	3.60	480.777	
1,400.0	1,400.0	1,374.4	1,374.3	3.0	0.7	150.74	-1,508.2	845.1	1,728.8	1,725.2	3.65	473.497	
1,476.4	1,476.4	1,454.2	1,454.1	3.2	0.7	150.72	-1,507.4	845.0	1,728.2	1,724.3	3.85	449.289	
1,500.0	1,500.0	1,477.8	1,477.8	3.2	0.7	150.72	-1,507.2	845.0	1,728.0	1,724.1	3.91	442.228	
1,574.8	1,574.8	1,550.6	1,550.6	3.4	0.8	150.71	-1,506.4	845.0	1,727.3	1,723.2	4.10	421.414	
1,600.0	1,600.0	1,574.9	1,574.8	3.5	0.8	150.71	-1,506.2	845.0	1,727.1	1,722.9	4.16	414.859	
1,673.2	1,673.2	1,643.9	1,643.9	3.6	0.8	150.70	-1,505.7	845.1	1,726.6	1,722.3	4.35	397.082	
1,700.0	1,700.0	1,668.9	1,668.8	3.7	0.8	150.69	-1,505.5	845.2	1,726.5	1,722.1	4.42	390.988	
1,771.6	1,771.6	1,741.2	1,741.2	3.8	0.8	150.68	-1,505.1	845.4	1,726.3	1,721.7	4.60	375.427	
1,800.0	1,800.0	1,771.7	1,771.7	3.9	0.8	150.67	-1,504.9	845.5	1,726.1	1,721.5	4.67	369.556	
1,870.1	1,870.1	1,838.9	1,838.8	4.1	0.9	150.66	-1,504.3	845.6	1,725.7	1,720.9	4.85	356.097	
1,900.0	1,900.0	1,865.4	1,865.4	4.1	0.9	150.65	-1,504.2	845.8	1,725.7	1,720.7	4.92	350.735	
1,930.0	1,930.0	1,892.0	1,892.0	4.2	0.9	150.65	-1,504.1	845.9	1,725.6	1,720.6	4.99	345.531	
1,968.5	1,968.5	1,928.6	1,928.6	4.3	0.9	150.64	-1,504.0	846.1	1,725.7	1,720.6	5.09	338.957	
2,000.0	2,000.0	1,959.2	1,959.1	4.4	0.9	150.63	-1,503.9	846.3	1,725.7	1,720.5	5.17	333.737	
2,066.9	2,066.9	2,025.1	2,025.1	4.5	0.9	150.63	-1,503.9	846.6	1,725.8	1,720.5	5.34	323.201	
2,100.0	2,100.0	2,058.6	2,058.5	4.6	0.9	150.62	-1,504.0	846.6	1,725.9	1,720.5	5.42	318.265	
2,165.3	2,165.3	2,128.1	2,128.0	4.7	0.9	82.23	-1,504.1	846.7	1,725.9	1,720.3	5.61	307.430	
2,200.0	2,200.0	2,167.9	2,167.9	4.8	0.9	82.27	-1,504.0	846.6	1,725.7	1,720.0	5.69	303.316	
2,263.8	2,263.7	2,236.3	2,236.2	4.9	0.9	82.40	-1,503.9	846.0	1,725.0	1,719.1	5.84	295.566	
2,300.0	2,299.8	2,272.9	2,272.9	5.0	0.9	82.50	-1,503.9	845.7	1,724.4	1,718.5	5.92	291.084	
2,362.2	2,361.8	2,332.7	2,332.6	5.1	1.0	82.70	-1,503.8	845.1	1,723.4	1,717.3	6.08	283.593	
2,400.0	2,399.5	2,367.5	2,367.4	5.2	1.0	82.83	-1,503.8	844.7	1,722.8	1,716.6	6.17	279.283	
2,460.6	2,459.7	2,426.2	2,426.1	5.4	1.0	83.10	-1,504.0	844.0	1,721.8	1,715.4	6.32	272.287	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,500.0	2,498.7	2,466.9	2,466.9	5.5	1.0	83.31	-1,504.2	843.5	1,721.0	1,714.6	6.42	267.882	
2,559.0	2,557.1	2,527.1	2,527.1	5.6	1.0	83.65	-1,504.2	842.8	1,719.8	1,713.2	6.58	261.175	
2,600.0	2,597.5	2,568.1	2,568.1	5.7	1.0	83.91	-1,504.2	842.4	1,718.8	1,712.1	6.70	256.619	
2,657.5	2,654.0	2,625.3	2,625.2	5.9	1.0	84.30	-1,504.2	841.9	1,717.4	1,710.5	6.87	249.958	
2,700.0	2,695.6	2,667.1	2,667.1	6.0	1.0	84.61	-1,504.1	841.5	1,716.3	1,709.3	7.00	245.207	
2,755.9	2,750.2	2,719.2	2,719.1	6.2	1.0	85.03	-1,504.1	841.0	1,714.9	1,707.7	7.18	238.717	
2,800.0	2,793.1	2,756.9	2,756.8	6.3	1.0	85.36	-1,504.1	840.6	1,713.9	1,706.6	7.33	233.900	
2,854.3	2,845.6	2,803.8	2,803.7	6.5	1.1	85.79	-1,504.4	840.2	1,712.9	1,705.3	7.53	227.587	
2,900.0	2,889.6	2,850.7	2,850.6	6.6	1.1	86.24	-1,504.7	839.8	1,712.0	1,704.3	7.70	222.453	
2,952.7	2,940.2	2,904.4	2,904.3	6.8	1.1	86.78	-1,504.7	839.6	1,711.1	1,703.1	7.92	216.096	
3,000.0	2,985.3	2,949.4	2,949.3	7.0	1.1	87.25	-1,504.8	839.4	1,710.2	1,702.1	8.12	210.625	
3,016.9	3,001.4	2,965.4	2,965.3	7.1	1.1	87.42	-1,504.8	839.3	1,709.9	1,701.8	8.20	208.596	
3,051.2	3,033.9	2,997.8	2,997.7	7.3	1.1	87.77	-1,504.8	839.2	1,709.4	1,701.1	8.36	204.476	
3,100.0	3,080.2	3,045.7	3,045.6	7.5	1.1	88.28	-1,504.8	838.9	1,708.8	1,700.2	8.59	198.838	
3,149.6	3,127.3	3,094.4	3,094.3	7.7	1.1	88.80	-1,504.8	838.7	1,708.3	1,699.4	8.84	193.164	
3,200.0	3,175.1	3,145.0	3,144.9	8.0	1.1	89.34	-1,504.6	838.6	1,707.8	1,698.7	9.10	187.650	
3,248.0	3,220.7	3,193.5	3,193.4	8.2	1.1	89.85	-1,504.4	838.4	1,707.4	1,698.0	9.36	182.472	
3,300.0	3,270.0	3,239.5	3,239.4	8.5	1.2	90.34	-1,504.2	838.4	1,707.1	1,697.5	9.63	177.258	
3,325.6	3,294.4	3,261.8	3,261.7	8.6	1.2	90.57	-1,504.1	838.4	1,707.1	1,697.3	9.77	174.728	
3,346.4	3,314.1	3,280.0	3,279.9	8.7	1.2	90.76	-1,504.0	838.4	1,707.1	1,697.2	9.88	172.727	
3,400.0	3,365.0	3,334.9	3,334.8	9.0	1.2	91.34	-1,503.8	838.5	1,707.3	1,697.1	10.18	167.749	
3,444.9	3,407.6	3,386.1	3,386.0	9.2	1.2	91.87	-1,503.5	838.5	1,707.4	1,697.0	10.43	163.655	
3,500.0	3,459.9	3,437.4	3,437.3	9.5	1.2	92.41	-1,502.9	838.4	1,707.5	1,696.7	10.75	158.890	
3,543.3	3,501.0	3,475.1	3,475.0	9.8	1.2	92.81	-1,502.6	838.5	1,707.8	1,696.8	11.00	155.280	
3,600.0	3,554.8	3,524.2	3,524.1	10.1	1.2	93.32	-1,502.3	838.5	1,708.4	1,697.1	11.32	150.883	
3,641.7	3,594.4	3,560.1	3,560.0	10.3	1.2	93.69	-1,502.1	838.6	1,709.1	1,697.6	11.56	147.815	
3,700.0	3,649.7	3,611.3	3,611.2	10.7	1.2	94.23	-1,502.1	838.6	1,710.4	1,698.5	11.90	143.759	
3,740.1	3,687.8	3,649.4	3,649.3	10.9	1.2	94.63	-1,502.1	838.7	1,711.5	1,699.3	12.13	141.058	
3,800.0	3,744.7	3,706.3	3,706.2	11.2	1.2	95.22	-1,502.1	838.7	1,713.2	1,700.7	12.48	137.233	
3,838.6	3,781.3	3,743.0	3,742.9	11.5	1.2	95.61	-1,502.1	838.8	1,714.4	1,701.7	12.71	134.851	
3,900.0	3,839.6	3,801.4	3,801.3	11.8	1.3	96.21	-1,502.1	838.9	1,716.5	1,703.4	13.08	131.249	
3,937.0	3,874.7	3,836.4	3,836.3	12.1	1.3	96.58	-1,502.1	838.8	1,717.9	1,704.6	13.29	129.215	
4,000.0	3,934.5	3,895.9	3,895.7	12.4	1.3	97.20	-1,502.2	838.7	1,720.4	1,706.8	13.66	125.922	
4,035.4	3,968.1	3,929.2	3,929.1	12.6	1.3	97.56	-1,502.2	838.6	1,721.9	1,708.1	13.88	124.096	
4,100.0	4,029.4	3,990.0	3,989.9	13.0	1.3	98.19	-1,502.3	838.4	1,724.9	1,710.7	14.27	120.919	
4,133.8	4,061.5	4,022.1	4,022.0	13.2	1.3	98.53	-1,502.3	838.3	1,726.6	1,712.1	14.47	119.319	
4,200.0	4,124.3	4,084.9	4,084.8	13.6	1.3	99.19	-1,502.5	838.0	1,730.0	1,715.1	14.87	116.343	
4,232.3	4,155.0	4,115.9	4,115.8	13.8	1.3	99.51	-1,502.5	837.8	1,731.8	1,716.7	15.07	114.946	
4,300.0	4,219.3	4,181.7	4,181.6	14.2	1.3	100.20	-1,502.6	837.4	1,735.6	1,720.2	15.48	112.145	
4,330.7	4,248.4	4,210.5	4,210.4	14.4	1.3	100.50	-1,502.7	837.2	1,737.5	1,721.8	15.66	110.929	
4,400.0	4,314.2	4,272.2	4,272.1	14.9	1.3	101.14	-1,502.8	836.9	1,741.8	1,725.8	16.08	108.327	
4,429.1	4,341.8	4,300.0	4,299.9	15.0	1.3	101.43	-1,502.9	836.8	1,743.8	1,727.6	16.25	107.279	
4,500.0	4,409.1	4,364.4	4,364.2	15.5	1.3	102.08	-1,503.1	836.7	1,748.9	1,732.2	16.68	104.853	
4,527.5	4,435.3	4,390.1	4,390.0	15.7	1.3	102.35	-1,503.3	836.6	1,750.9	1,734.1	16.84	103.946	
4,600.0	4,504.0	4,456.9	4,456.8	16.1	1.3	103.02	-1,503.6	836.5	1,756.5	1,739.2	17.28	101.673	
4,626.0	4,528.7	4,480.8	4,480.6	16.3	1.3	103.26	-1,503.7	836.4	1,758.6	1,741.2	17.43	100.890	
4,700.0	4,598.9	4,550.8	4,550.7	16.7	1.3	103.97	-1,504.1	836.4	1,764.8	1,747.0	17.87	98.762	
4,724.4	4,622.1	4,574.2	4,574.1	16.9	1.3	104.20	-1,504.3	836.5	1,766.9	1,748.9	18.01	98.087	
4,800.0	4,693.9	4,652.0	4,651.8	17.4	1.3	104.96	-1,504.6	836.6	1,773.6	1,755.1	18.45	96.105	
4,822.8	4,715.5	4,676.3	4,676.2	17.5	1.3	105.21	-1,504.7	836.5	1,775.6	1,757.0	18.59	95.530	
4,900.0	4,788.8	4,750.6	4,750.5	18.0	1.4	105.95	-1,504.7	836.0	1,782.4	1,763.4	19.04	93.608	
4,921.2	4,809.0	4,770.3	4,770.1	18.1	1.4	106.15	-1,504.7	835.9	1,784.4	1,765.2	19.17	93.093	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,883.7	4,839.4	4,839.3	18.6	1.4	106.82	-1,504.8	835.6	1,791.9	1,772.2	19.63	91.285	
5,019.7	4,902.4	4,856.1	4,856.0	18.7	1.4	106.99	-1,504.9	835.6	1,793.8	1,774.1	19.74	90.855	
5,100.0	4,978.6	4,933.0	4,932.8	19.3	1.4	107.72	-1,505.4	835.8	1,802.2	1,782.0	20.21	89.192	
5,118.1	4,995.8	4,953.8	4,953.7	19.4	1.4	107.92	-1,505.4	835.8	1,804.1	1,783.8	20.31	88.837	
5,200.0	5,073.6	5,043.4	5,043.3	19.9	1.4	108.78	-1,505.3	835.5	1,812.5	1,791.7	20.78	87.240	
5,216.5	5,089.2	5,060.5	5,060.4	20.0	1.4	108.95	-1,505.2	835.4	1,814.2	1,793.3	20.87	86.921	
5,304.2	5,172.4	5,145.9	5,145.8	20.6	1.4	109.76	-1,504.7	835.2	1,823.2	1,801.8	21.38	85.278	
5,314.9	5,182.7	5,155.9	5,155.8	20.6	1.4	109.87	-1,504.6	835.1	1,824.3	1,802.9	21.43	85.132	
5,400.0	5,263.9	5,231.5	5,231.4	21.1	1.4	110.71	-1,504.2	834.7	1,833.0	1,811.2	21.82	83.997	
5,413.4	5,276.7	5,242.8	5,242.7	21.1	1.4	110.83	-1,504.2	834.7	1,834.3	1,812.5	21.87	83.877	
5,500.0	5,360.3	5,317.2	5,317.0	21.5	1.4	111.58	-1,504.3	834.1	1,842.9	1,820.7	22.17	83.123	
5,511.8	5,371.7	5,327.9	5,327.8	21.6	1.4	111.68	-1,504.3	834.1	1,844.0	1,821.8	22.21	83.042	
5,600.0	5,457.5	5,409.5	5,409.3	21.9	1.4	112.37	-1,504.7	834.2	1,852.2	1,829.8	22.47	82.432	
5,610.2	5,467.5	5,419.7	5,419.6	21.9	1.4	112.45	-1,504.7	834.2	1,853.1	1,830.6	22.50	82.372	
5,700.0	5,555.6	5,511.9	5,511.7	22.3	1.4	113.09	-1,505.2	834.7	1,860.5	1,837.8	22.74	81.824	
5,708.6	5,564.1	5,522.4	5,522.2	22.3	1.4	113.15	-1,505.2	834.8	1,861.1	1,838.4	22.76	81.784	
5,800.0	5,654.2	5,628.6	5,628.5	22.6	1.5	113.72	-1,504.9	835.4	1,866.8	1,843.8	22.97	81.274	
5,807.1	5,661.2	5,635.9	5,635.8	22.6	1.5	113.76	-1,504.9	835.4	1,867.2	1,844.2	22.98	81.238	
5,900.0	5,753.4	5,731.1	5,731.0	22.8	1.5	114.17	-1,504.1	835.8	1,871.3	1,848.1	23.18	80.717	
5,905.5	5,758.8	5,736.6	5,736.5	22.8	1.5	114.19	-1,504.1	835.8	1,871.5	1,848.3	23.19	80.691	
6,000.0	5,852.9	5,831.7	5,831.6	23.1	1.5	114.48	-1,503.3	836.0	1,874.4	1,851.0	23.37	80.197	
6,003.9	5,856.8	5,835.7	5,835.6	23.1	1.5	114.49	-1,503.2	836.0	1,874.5	1,851.1	23.38	80.180	
6,100.0	5,952.7	5,932.0	5,931.8	23.2	1.5	114.68	-1,502.4	836.1	1,875.9	1,852.4	23.53	79.709	
6,102.3	5,955.1	5,934.3	5,934.1	23.2	1.5	114.68	-1,502.3	836.1	1,875.9	1,852.4	23.54	79.699	
6,200.0	6,052.7	6,031.7	6,031.5	23.4	1.5	114.74	-1,501.5	836.5	1,876.1	1,852.4	23.67	79.244	
6,200.8	6,053.5	6,032.5	6,032.3	23.4	1.5	114.74	-1,501.5	836.5	1,876.1	1,852.4	23.68	79.241	
6,221.1	6,073.8	6,053.9	6,053.7	23.4	1.5	-176.84	-1,501.3	836.5	1,875.9	1,852.2	23.70	79.147	
6,251.1	6,103.8	6,085.5	6,085.3	23.4	1.5	-176.85	-1,501.0	836.6	1,875.6	1,851.9	23.75	78.991	
6,299.2	6,151.8	6,133.2	6,133.1	23.5	1.6	3.16	-1,500.5	836.8	1,873.5	1,849.8	23.77	78.806	
6,300.0	6,152.6	6,134.0	6,133.8	23.5	1.6	3.16	-1,500.5	836.8	1,873.5	1,849.7	23.77	78.802	
6,350.0	6,202.4	6,182.2	6,182.1	23.5	1.6	3.20	-1,500.0	836.8	1,867.8	1,844.0	23.80	78.475	
6,397.6	6,249.3	6,226.5	6,226.4	23.5	1.6	3.25	-1,499.6	836.7	1,859.3	1,835.5	23.81	78.092	
6,400.0	6,251.6	6,228.7	6,228.5	23.5	1.6	3.26	-1,499.6	836.7	1,858.8	1,835.0	23.81	78.072	
6,450.0	6,300.1	6,273.7	6,273.5	23.5	1.6	3.34	-1,499.3	836.6	1,846.5	1,822.7	23.77	77.672	
6,496.0	6,344.0	6,314.9	6,314.7	23.5	1.6	3.44	-1,499.0	836.4	1,832.2	1,808.5	23.69	77.353	
6,500.0	6,347.7	6,318.4	6,318.3	23.5	1.6	3.45	-1,499.0	836.4	1,830.9	1,807.2	23.68	77.329	
6,550.0	6,394.1	6,363.0	6,362.9	23.5	1.6	3.58	-1,498.8	836.4	1,812.0	1,788.5	23.51	77.073	
6,594.5	6,434.2	6,400.0	6,399.8	23.4	1.6	3.73	-1,498.7	836.4	1,792.7	1,769.4	23.30	76.938	
6,600.0	6,439.0	6,400.0	6,399.8	23.4	1.6	3.74	-1,498.7	836.4	1,790.1	1,766.8	23.27	76.938	
6,650.0	6,482.4	6,400.0	6,399.8	23.4	1.6	3.89	-1,498.7	836.4	1,765.8	1,742.9	22.92	77.041	
6,692.9	6,518.1	6,400.0	6,399.8	23.3	1.6	4.04	-1,498.7	836.4	1,743.3	1,720.8	22.56	77.282	
6,700.0	6,523.9	6,400.0	6,399.8	23.3	1.6	4.06	-1,498.7	836.4	1,739.5	1,717.0	22.49	77.337	
6,750.0	6,563.3	6,400.0	6,399.8	23.3	1.6	4.26	-1,498.7	836.4	1,711.3	1,689.3	21.99	77.827	
6,791.3	6,594.2	6,400.0	6,399.8	23.2	1.6	4.45	-1,498.7	836.4	1,686.6	1,665.1	21.52	78.376	
6,800.0	6,600.5	6,400.0	6,399.8	23.2	1.6	4.49	-1,498.7	836.4	1,681.3	1,659.9	21.41	78.510	
6,850.0	6,635.3	6,400.0	6,399.8	23.2	1.6	4.76	-1,498.7	836.4	1,649.4	1,628.6	20.78	79.376	
6,889.7	6,661.1	6,400.0	6,399.8	23.1	1.6	5.00	-1,498.7	836.4	1,622.8	1,602.6	20.24	80.181	
6,900.0	6,667.5	6,400.0	6,399.8	23.1	1.6	5.07	-1,498.7	836.4	1,615.8	1,595.7	20.09	80.409	
6,950.0	6,696.9	6,400.0	6,399.8	23.1	1.6	5.43	-1,498.7	836.4	1,580.5	1,561.1	19.37	81.578	
6,988.2	6,717.5	6,400.0	6,399.8	23.1	1.6	5.76	-1,498.7	836.4	1,552.4	1,533.6	18.81	82.524	
7,000.0	6,723.5	6,400.0	6,399.8	23.1	1.6	5.87	-1,498.7	836.4	1,543.5	1,524.8	18.63	82.832	
7,050.0	6,747.0	6,400.0	6,399.8	23.1	1.6	6.38	-1,498.7	836.4	1,504.9	1,487.0	17.90	84.088	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,086.6	6,762.3	6,400.0	6,399.8	23.1	1.6	6.83	-1,498.7	836.4	1,475.7	1,458.4	17.38	84.933	
7,100.0	6,767.4	6,400.0	6,399.8	23.1	1.6	7.01	-1,498.7	836.4	1,464.9	1,447.7	17.19	85.220	
7,150.0	6,784.6	6,400.0	6,399.8	23.1	1.6	7.77	-1,498.7	836.4	1,423.4	1,406.8	16.54	86.050	
7,185.0	6,794.7	6,400.0	6,399.8	23.1	1.6	8.42	-1,498.7	836.4	1,393.5	1,377.3	16.14	86.333	
7,200.0	6,798.5	6,400.0	6,399.8	23.2	1.6	8.73	-1,498.7	836.4	1,380.5	1,364.5	15.99	86.353	
7,250.0	6,808.9	6,400.0	6,399.8	23.2	1.6	9.94	-1,498.7	836.4	1,336.4	1,320.8	15.56	85.889	
7,283.4	6,814.0	6,400.0	6,399.8	23.3	1.6	10.96	-1,498.7	836.4	1,306.2	1,290.9	15.36	85.046	
7,300.0	6,816.0	6,400.0	6,399.8	23.4	1.6	11.53	-1,498.7	836.4	1,291.1	1,275.9	15.29	84.467	
7,350.0	6,819.5	6,400.0	6,399.8	23.5	1.6	13.69	-1,498.7	836.4	1,244.8	1,229.6	15.18	82.028	
7,381.9	6,820.0	6,400.0	6,399.8	23.7	1.6	15.49	-1,498.7	836.4	1,214.8	1,199.6	15.19	79.982	
7,382.0	6,820.0	6,400.0	6,399.8	23.7	1.6	15.50	-1,498.7	836.4	1,214.7	1,199.5	15.19	79.974	
7,400.0	6,819.8	6,400.0	6,399.8	23.8	1.6	15.50	-1,498.7	836.4	1,197.6	1,182.3	15.27	78.417	
7,480.3	6,819.2	6,400.0	6,399.8	24.2	1.6	15.50	-1,498.7	836.4	1,121.9	1,106.2	15.67	71.575	
7,500.0	6,819.0	6,400.0	6,399.8	24.3	1.6	15.50	-1,498.7	836.4	1,103.4	1,087.7	15.77	69.956	
7,578.7	6,818.4	6,400.0	6,399.8	24.9	1.6	15.50	-1,498.7	836.4	1,030.1	1,013.9	16.21	63.550	
7,600.0	6,818.2	6,400.0	6,399.8	25.0	1.6	15.50	-1,498.7	836.4	1,010.4	994.1	16.33	61.887	
7,677.1	6,817.6	6,400.0	6,399.8	25.7	1.6	15.50	-1,498.7	836.4	939.6	922.8	16.79	55.971	
7,700.0	6,817.4	6,400.0	6,399.8	25.9	1.6	15.50	-1,498.7	836.4	918.8	901.9	16.92	54.293	
7,775.6	6,816.7	6,400.0	6,399.8	26.6	1.6	15.50	-1,498.7	836.4	850.8	833.4	17.40	48.894	
7,800.0	6,816.5	6,400.0	6,399.8	26.9	1.6	15.50	-1,498.7	836.4	829.2	811.6	17.56	47.228	
7,874.0	6,815.9	6,400.0	6,399.8	27.7	1.6	15.50	-1,498.7	836.4	764.5	746.4	18.05	42.358	
7,900.0	6,815.7	6,400.0	6,399.8	28.0	1.6	15.50	-1,498.7	836.4	742.2	724.0	18.22	40.733	
7,972.4	6,815.1	6,400.0	6,399.8	28.9	1.6	15.50	-1,498.7	836.4	681.4	662.7	18.72	36.399	
8,000.0	6,814.9	6,400.0	6,399.8	29.2	1.6	15.50	-1,498.7	836.4	658.9	640.0	18.91	34.842	
8,070.8	6,814.3	6,400.0	6,399.8	30.1	1.6	15.50	-1,498.7	836.4	603.0	583.6	19.42	31.056	
8,100.0	6,814.1	6,400.0	6,399.8	30.5	1.6	15.50	-1,498.7	836.4	580.9	561.3	19.62	29.604	
8,169.3	6,813.5	6,400.0	6,399.8	31.5	1.6	15.50	-1,498.7	836.4	531.2	511.1	20.13	26.391	
8,200.0	6,813.3	6,400.0	6,399.8	31.9	1.6	15.50	-1,498.7	836.4	510.7	490.3	20.35	25.090	
8,267.7	6,812.7	6,400.0	6,399.8	32.9	1.6	15.50	-1,498.7	836.4	469.3	448.4	20.86	22.498	
8,300.0	6,812.4	6,400.0	6,399.8	33.3	1.6	15.50	-1,498.7	836.4	451.7	430.6	21.10	21.411	
8,366.1	6,811.9	6,400.0	6,399.8	34.3	1.6	15.50	-1,498.7	836.4	421.4	399.8	21.60	19.508	
8,400.0	6,811.6	6,400.0	6,399.8	34.8	1.6	15.50	-1,498.7	836.4	409.1	387.3	21.86	18.718	
8,464.5	6,811.1	6,400.0	6,399.8	35.8	1.6	15.50	-1,498.7	836.4	392.8	370.5	22.36	17.572	
8,500.0	6,810.8	6,400.0	6,399.8	36.3	1.6	15.50	-1,498.7	836.4	388.2	365.6	22.63	17.155	
8,533.4	6,810.5	6,400.0	6,399.8	36.8	1.6	15.50	-1,498.7	836.4	386.8	363.9	22.89	16.896 CC, ES	
8,563.0	6,810.3	6,400.0	6,399.8	37.3	1.6	15.50	-1,498.7	836.4	387.9	364.8	23.12	16.776	
8,600.0	6,810.0	6,400.0	6,399.8	37.9	1.6	15.50	-1,498.7	836.4	392.4	369.0	23.41	16.764 SF	
8,661.4	6,809.5	6,400.0	6,399.8	38.9	1.6	15.50	-1,498.7	836.4	407.4	383.5	23.89	17.049	
8,700.0	6,809.1	6,400.0	6,399.8	39.5	1.6	15.50	-1,498.7	836.4	421.1	396.9	24.20	17.401	
8,759.8	6,808.6	6,400.0	6,399.8	40.5	1.6	15.50	-1,498.7	836.4	448.1	423.5	24.68	18.161	
8,800.0	6,808.3	6,400.0	6,399.8	41.1	1.6	15.50	-1,498.7	836.4	469.7	444.7	25.00	18.792	
8,858.2	6,807.8	6,400.0	6,399.8	42.1	1.6	15.50	-1,498.7	836.4	505.0	479.6	25.46	19.834	
8,900.0	6,807.5	6,400.0	6,399.8	42.8	1.6	15.50	-1,498.7	836.4	532.9	507.1	25.80	20.654	
8,956.7	6,807.0	6,400.0	6,399.8	43.7	1.6	15.50	-1,498.7	836.4	573.3	547.1	26.26	21.834	
9,000.0	6,806.7	6,400.0	6,399.8	44.4	1.6	15.50	-1,498.7	836.4	606.0	579.4	26.61	22.775	
9,055.1	6,806.2	6,400.0	6,399.8	45.4	1.6	15.50	-1,498.7	836.4	649.4	622.3	27.06	24.001	
9,100.0	6,805.8	6,400.0	6,399.8	46.1	1.6	15.50	-1,498.7	836.4	686.0	658.5	27.42	25.015	
9,153.5	6,805.4	6,400.0	6,399.8	47.0	1.6	15.50	-1,498.7	836.4	730.8	702.9	27.86	26.230	
9,200.0	6,805.0	6,400.0	6,399.8	47.8	1.6	15.50	-1,498.7	836.4	770.6	742.4	28.24	27.287	
9,251.9	6,804.6	6,400.0	6,399.8	48.7	1.6	15.50	-1,498.7	836.4	816.0	787.3	28.67	28.462	
9,300.0	6,804.2	6,400.0	6,399.8	49.6	1.6	15.50	-1,498.7	836.4	858.6	829.5	29.06	29.541	
9,350.4	6,803.8	6,400.0	6,399.8	50.4	1.6	15.50	-1,498.7	836.4	903.8	874.4	29.48	30.659	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,400.0	6,803.4	6,400.0	6,399.8	51.3	1.6	15.50	-1,498.7	836.4	948.9	919.0	29.89	31.747	
9,448.8	6,802.9	6,400.0	6,399.8	52.1	1.6	15.50	-1,498.7	836.4	993.7	963.4	30.30	32.800	
9,500.0	6,802.5	6,400.0	6,399.8	53.0	1.6	15.50	-1,498.7	836.4	1,041.1	1,010.3	30.72	33.888	
9,547.2	6,802.1	6,400.0	6,399.8	53.9	1.6	15.50	-1,498.7	836.4	1,085.0	1,053.9	31.11	34.873	
9,600.0	6,801.7	6,400.0	6,399.8	54.8	1.6	15.50	-1,498.7	836.4	1,134.5	1,103.0	31.55	35.955	
9,645.6	6,801.3	6,400.0	6,399.8	55.6	1.6	15.50	-1,498.7	836.4	1,177.5	1,145.6	31.93	36.873	
9,700.0	6,800.9	6,400.0	6,399.8	56.6	1.6	15.50	-1,498.7	836.4	1,229.0	1,196.6	32.39	37.945	
9,744.1	6,800.5	6,400.0	6,399.8	57.4	1.6	15.50	-1,498.7	836.4	1,270.9	1,238.1	32.76	38.797	
9,800.0	6,800.0	6,400.0	6,399.8	58.4	1.6	15.50	-1,498.7	836.4	1,324.3	1,291.1	33.23	39.856	
9,842.5	6,799.7	6,400.0	6,399.8	59.1	1.6	15.50	-1,498.7	836.4	1,365.0	1,331.4	33.58	40.645	
9,900.0	6,799.2	6,400.0	6,399.8	60.2	1.6	15.50	-1,498.7	836.4	1,420.2	1,386.2	34.07	41.690	
9,940.9	6,798.9	6,400.0	6,399.8	60.9	1.6	15.50	-1,498.7	836.4	1,459.6	1,425.2	34.41	42.418	
10,000.0	6,798.4	6,400.0	6,399.8	62.0	1.6	15.50	-1,498.7	836.4	1,516.7	1,481.8	34.91	43.448	
10,039.3	6,798.1	6,400.0	6,399.8	62.7	1.6	15.50	-1,498.7	836.4	1,554.8	1,519.5	35.24	44.119	
10,100.0	6,797.6	6,400.0	6,399.8	63.8	1.6	15.50	-1,498.7	836.4	1,613.6	1,577.8	35.75	45.133	
10,137.8	6,797.2	6,400.0	6,399.8	64.4	1.6	15.50	-1,498.7	836.4	1,650.3	1,614.2	36.07	45.750	
10,200.0	6,796.7	6,400.0	6,399.8	65.6	1.6	15.50	-1,498.7	836.4	1,710.8	1,674.2	36.60	46.748	
10,236.2	6,796.4	6,400.0	6,399.8	66.2	1.6	15.50	-1,498.7	836.4	1,746.1	1,709.2	36.90	47.315	
10,300.0	6,795.9	6,400.0	6,399.8	67.4	1.6	15.50	-1,498.7	836.4	1,808.4	1,770.9	37.44	48.295	
10,334.6	6,795.6	6,400.0	6,399.8	68.0	1.6	15.50	-1,498.7	836.4	1,842.2	1,804.5	37.74	48.816	
10,400.0	6,795.1	6,400.0	6,399.8	69.2	1.6	15.50	-1,498.7	836.4	1,906.2	1,867.9	38.29	49.780	
10,433.0	6,794.8	6,400.0	6,399.8	69.8	1.6	15.50	-1,498.7	836.4	1,938.6	1,900.0	38.57	50.257	
10,500.0	6,794.2	6,400.0	6,399.8	71.0	1.6	15.50	-1,498.7	836.4	2,004.2	1,965.1	39.14	51.204	
10,531.5	6,794.0	6,400.0	6,399.8	71.6	1.6	15.50	-1,498.7	836.4	2,035.1	1,995.7	39.41	51.639	
10,600.0	6,793.4	6,400.0	6,399.8	72.9	1.6	15.50	-1,498.7	836.4	2,102.4	2,062.4	39.99	52.570	
10,629.9	6,793.2	6,400.0	6,399.8	73.4	1.6	15.50	-1,498.7	836.4	2,131.8	2,091.6	40.25	52.968	
10,700.0	6,792.6	6,400.0	6,399.8	74.7	1.6	15.50	-1,498.7	836.4	2,200.8	2,159.9	40.84	53.882	
10,728.3	6,792.3	6,400.0	6,399.8	75.2	1.6	15.50	-1,498.7	836.4	2,228.7	2,187.6	41.09	54.244	
10,800.0	6,791.7	6,400.0	6,399.8	76.6	1.6	15.50	-1,498.7	836.4	2,299.3	2,257.6	41.70	55.142	
10,826.7	6,791.5	6,400.0	6,399.8	77.1	1.6	15.50	-1,498.7	836.4	2,325.7	2,283.7	41.93	55.471	
10,900.0	6,790.9	6,400.0	6,399.8	78.4	1.6	15.50	-1,498.7	836.4	2,397.9	2,355.4	42.55	56.354	
10,925.2	6,790.7	6,400.0	6,399.8	78.9	1.6	15.50	-1,498.7	836.4	2,422.8	2,380.0	42.77	56.651	
11,000.0	6,790.1	6,400.0	6,399.8	80.3	1.6	15.50	-1,498.7	836.4	2,496.7	2,453.3	43.41	57.519	
11,023.6	6,789.9	6,400.0	6,399.8	80.7	1.6	15.50	-1,498.7	836.4	2,520.0	2,476.4	43.61	57.787	
11,100.0	6,789.2	6,400.0	6,399.8	82.1	1.6	15.50	-1,498.7	836.4	2,595.5	2,551.3	44.26	58.640	
11,122.0	6,789.1	6,400.0	6,399.8	82.5	1.6	15.50	-1,498.7	836.4	2,617.3	2,572.8	44.45	58.882	
11,200.0	6,788.4	6,400.0	6,399.8	84.0	1.6	15.50	-1,498.7	836.4	2,694.4	2,649.3	45.12	59.720	
11,220.4	6,788.2	6,400.0	6,399.8	84.3	1.6	15.50	-1,498.7	836.4	2,714.7	2,669.4	45.29	59.936	
11,300.0	6,787.6	6,400.0	6,399.8	85.8	1.6	15.50	-1,498.7	836.4	2,793.4	2,747.5	45.97	60.760	
11,318.9	6,787.4	6,400.0	6,399.8	86.2	1.6	15.50	-1,498.7	836.4	2,812.1	2,766.0	46.14	60.952	
11,400.0	6,786.7	6,400.0	6,399.8	87.7	1.6	15.50	-1,498.7	836.4	2,892.5	2,845.7	46.83	61.763	
11,417.3	6,786.6	6,400.0	6,399.8	88.0	1.6	15.50	-1,498.7	836.4	2,909.7	2,862.7	46.98	61.933	
11,500.0	6,785.9	6,400.0	6,399.8	89.5	1.6	15.49	-1,498.7	836.4	2,991.6	2,943.9	47.69	62.730	
11,515.7	6,785.8	6,400.0	6,399.8	89.8	1.6	15.49	-1,498.7	836.4	3,007.2	2,959.4	47.83	62.879	
11,600.0	6,785.1	6,400.0	6,399.8	91.4	1.6	15.49	-1,498.7	836.4	3,090.8	3,042.3	48.55	63.663	
11,614.1	6,785.0	6,400.0	6,399.8	91.7	1.6	15.49	-1,498.7	836.4	3,104.9	3,056.2	48.67	63.793	
11,700.0	6,784.2	6,400.0	6,399.8	93.3	1.6	15.49	-1,498.7	836.4	3,190.1	3,140.7	49.41	64.565	
11,712.6	6,784.1	6,400.0	6,399.8	93.5	1.6	15.49	-1,498.7	836.4	3,202.5	3,153.0	49.52	64.676	
11,800.0	6,783.4	6,400.0	6,399.8	95.2	1.6	15.49	-1,498.7	836.4	3,289.3	3,239.1	50.27	65.435	
11,811.0	6,783.3	6,400.0	6,399.8	95.4	1.6	15.49	-1,498.7	836.4	3,300.3	3,249.9	50.36	65.529	
11,900.0	6,782.6	6,400.0	6,399.8	97.0	1.6	15.49	-1,498.7	836.4	3,388.7	3,337.5	51.13	66.277	
11,909.4	6,782.5	6,400.0	6,399.8	97.2	1.6	15.49	-1,498.7	836.4	3,398.0	3,346.8	51.21	66.355	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT NOFFSINGER #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,000.0	6,781.7	6,400.0	6,399.8	98.9	1.6	15.49	-1,498.7	836.4	3,488.0	3,436.0	51.99	67.091	
12,007.8	6,781.7	6,400.0	6,399.8	99.1	1.6	15.49	-1,498.7	836.4	3,495.8	3,443.8	52.06	67.154	
12,100.0	6,780.9	6,400.0	6,399.8	100.8	1.6	15.49	-1,498.7	836.4	3,587.4	3,534.6	52.85	67.878	
12,106.3	6,780.9	6,400.0	6,399.8	100.9	1.6	15.49	-1,498.7	836.4	3,593.7	3,540.8	52.91	67.927	
12,200.0	6,780.1	6,400.0	6,399.8	102.7	1.6	15.49	-1,498.7	836.4	3,686.9	3,633.2	53.71	68.641	
12,204.7	6,780.0	6,400.0	6,399.8	102.7	1.6	15.49	-1,498.7	836.4	3,691.5	3,637.8	53.75	68.676	
12,300.0	6,779.2	6,400.0	6,399.8	104.5	1.6	15.49	-1,498.7	836.4	3,786.3	3,731.8	54.57	69.379	
12,303.1	6,779.2	6,400.0	6,399.8	104.6	1.6	15.49	-1,498.7	836.4	3,789.4	3,734.8	54.60	69.402	
12,400.0	6,778.4	6,400.0	6,399.8	106.4	1.6	15.49	-1,498.7	836.4	3,885.8	3,830.4	55.44	70.094	
12,401.5	6,778.4	6,400.0	6,399.8	106.4	1.6	15.49	-1,498.7	836.4	3,887.4	3,831.9	55.45	70.105	
12,500.0	6,777.6	6,400.0	6,399.8	108.3	1.6	15.49	-1,498.7	836.4	3,985.3	3,929.0	56.30	70.788	
12,598.4	6,776.7	6,400.0	6,399.8	110.2	1.6	15.49	-1,498.7	836.4	4,083.3	4,026.1	57.15	71.450	
12,600.0	6,776.7	6,400.0	6,399.8	110.2	1.6	15.49	-1,498.7	836.4	4,084.9	4,027.7	57.16	71.461	
12,696.8	6,775.9	6,400.0	6,399.8	112.0	1.6	15.49	-1,498.7	836.4	4,181.3	4,123.3	58.00	72.092	
12,700.0	6,775.9	6,400.0	6,399.8	112.1	1.6	15.49	-1,498.7	836.4	4,184.4	4,126.4	58.03	72.113	
12,795.2	6,775.1	6,400.0	6,399.8	113.9	1.6	15.49	-1,498.7	836.4	4,279.3	4,220.4	58.85	72.717	
12,800.0	6,775.0	6,400.0	6,399.8	114.0	1.6	15.49	-1,498.7	836.4	4,284.0	4,225.1	58.89	72.747	
12,893.7	6,774.3	6,400.0	6,399.8	115.7	1.6	15.49	-1,498.7	836.4	4,377.3	4,317.6	59.70	73.323	
12,900.0	6,774.2	6,400.0	6,399.8	115.8	1.6	15.49	-1,498.7	836.4	4,383.6	4,323.9	59.75	73.362	
12,992.1	6,773.4	6,400.0	6,399.8	117.6	1.6	15.49	-1,498.7	836.4	4,475.4	4,414.8	60.55	73.913	
13,000.0	6,773.4	6,400.0	6,399.8	117.7	1.6	15.49	-1,498.7	836.4	4,483.2	4,422.6	60.62	73.960	
13,090.5	6,772.6	6,400.0	6,399.8	119.4	1.6	15.49	-1,498.7	836.4	4,573.4	4,512.0	61.40	74.486	
13,100.0	6,772.5	6,400.0	6,399.8	119.6	1.6	15.49	-1,498.7	836.4	4,582.9	4,521.4	61.48	74.541	
13,188.9	6,771.8	6,400.0	6,399.8	121.3	1.6	15.49	-1,498.7	836.4	4,671.5	4,609.3	62.25	75.043	
13,200.0	6,771.7	6,400.0	6,399.8	121.5	1.6	15.49	-1,498.7	836.4	4,682.5	4,620.2	62.35	75.105	
13,287.4	6,771.0	6,400.0	6,399.8	123.2	1.6	15.49	-1,498.7	836.4	4,769.6	4,706.5	63.10	75.586	
13,300.0	6,770.9	6,400.0	6,399.8	123.4	1.6	15.49	-1,498.7	836.4	4,782.2	4,719.0	63.21	75.655	
13,385.8	6,770.1	6,400.0	6,399.8	125.0	1.6	15.49	-1,498.7	836.4	4,867.7	4,803.8	63.95	76.113	
13,400.0	6,770.0	6,400.0	6,399.8	125.3	1.6	15.49	-1,498.7	836.4	4,881.9	4,817.8	64.08	76.189	
13,484.2	6,769.3	6,400.0	6,399.8	126.9	1.6	15.49	-1,498.7	836.4	4,965.8	4,901.0	64.80	76.627	
13,500.0	6,769.2	6,400.0	6,399.8	127.2	1.6	15.48	-1,498.7	836.4	4,981.6	4,916.6	64.94	76.709	
13,582.6	6,768.5	6,400.0	6,399.8	128.8	1.6	15.48	-1,498.7	836.4	5,064.0	4,998.3	65.66	77.128	
13,600.0	6,768.3	6,400.0	6,399.8	129.1	1.6	15.48	-1,498.7	836.4	5,081.3	5,015.5	65.81	77.216	
13,681.1	6,767.6	6,400.0	6,399.8	130.6	1.6	15.48	-1,498.7	836.4	5,162.1	5,095.6	66.51	77.616	
13,700.0	6,767.5	6,400.0	6,399.8	131.0	1.6	15.48	-1,498.7	836.4	5,181.0	5,114.3	66.67	77.709	
13,779.5	6,766.8	6,400.0	6,399.8	132.5	1.6	15.48	-1,498.7	836.4	5,260.3	5,192.9	67.36	78.091	
13,800.0	6,766.6	6,400.0	6,399.8	132.9	1.6	15.48	-1,498.7	836.4	5,280.7	5,213.2	67.54	78.190	
13,877.9	6,766.0	6,400.0	6,399.8	134.4	1.6	15.48	-1,498.7	836.4	5,358.4	5,290.2	68.21	78.555	
13,900.0	6,765.8	6,400.0	6,399.8	134.8	1.6	15.48	-1,498.7	836.4	5,380.4	5,312.0	68.40	78.658	
13,976.3	6,765.2	6,400.0	6,399.8	136.2	1.6	15.48	-1,498.7	836.4	5,456.6	5,387.5	69.06	79.007	
13,995.7	6,765.0	6,400.0	6,399.8	136.6	1.6	15.48	-1,498.7	836.4	5,475.9	5,406.6	69.23	79.095	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT PLUMB #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	171.94	-5,574.3	789.1	5,630.4				
98.4	98.4	20.6	20.6	0.1	0.0	171.94	-5,574.3	789.1	5,629.9	5,629.8	0.09	N/A	
100.0	100.0	21.9	21.9	0.1	0.0	171.94	-5,574.3	789.1	5,629.9	5,629.8	0.09	N/A	
196.8	196.8	108.8	108.8	0.3	0.0	171.94	-5,574.4	789.5	5,630.1	5,629.7	0.34	N/A	
200.0	200.0	112.4	112.4	0.3	0.0	171.94	-5,574.4	789.5	5,630.1	5,629.7	0.35	N/A	
295.3	295.3	221.7	221.7	0.5	0.2	171.93	-5,574.5	790.3	5,630.2	5,629.4	0.75	7,466.473	
300.0	300.0	227.8	227.8	0.5	0.2	171.93	-5,574.4	790.4	5,630.2	5,629.4	0.77	7,312.332	
393.7	393.7	344.2	344.2	0.7	0.3	171.92	-5,574.0	791.2	5,629.9	5,628.9	1.07	5,248.882	
400.0	400.0	351.5	351.5	0.8	0.3	171.92	-5,574.0	791.2	5,629.9	5,628.8	1.09	5,156.722	
492.1	492.1	439.6	439.6	1.0	0.4	171.92	-5,573.4	791.7	5,629.4	5,628.1	1.35	4,154.930	
500.0	500.0	445.9	445.8	1.0	0.4	171.92	-5,573.4	791.7	5,629.4	5,628.0	1.38	4,090.699	
590.5	590.5	539.9	539.9	1.2	0.4	171.91	-5,573.1	792.1	5,629.2	5,627.5	1.63	3,456.309	
600.0	600.0	556.9	556.9	1.2	0.5	171.91	-5,573.0	792.2	5,629.1	5,627.5	1.66	3,395.988	
689.0	689.0	686.3	686.3	1.4	0.5	171.90	-5,571.7	792.6	5,628.2	5,626.3	1.92	2,938.938	
700.0	700.0	700.0	700.0	1.4	0.5	171.90	-5,571.5	792.6	5,628.1	5,626.2	1.95	2,892.338	
787.4	787.4	760.9	760.9	1.6	0.6	171.90	-5,570.8	792.7	5,627.1	5,625.0	2.17	2,596.858	
800.0	800.0	769.6	769.6	1.7	0.6	171.90	-5,570.7	792.7	5,627.0	5,624.8	2.20	2,559.213	
885.8	885.8	844.5	844.5	1.9	0.6	171.90	-5,570.3	792.8	5,626.5	5,624.1	2.42	2,327.104	
900.0	900.0	859.6	859.5	1.9	0.6	171.90	-5,570.2	792.8	5,626.4	5,624.0	2.45	2,292.395	
984.2	984.2	1,002.4	1,002.4	2.1	0.7	171.90	-5,568.7	792.6	5,625.6	5,622.9	2.69	2,090.910	
1,000.0	1,000.0	1,018.1	1,018.1	2.1	0.7	171.90	-5,568.5	792.5	5,625.4	5,622.6	2.73	2,059.675	
1,082.7	1,082.7	1,100.0	1,099.9	2.3	0.7	171.90	-5,567.1	792.5	5,624.0	5,621.0	2.94	1,910.041	
1,100.0	1,100.0	1,113.6	1,113.5	2.3	0.7	171.90	-5,566.9	792.5	5,623.7	5,620.7	2.99	1,882.461	
1,181.1	1,181.1	1,174.5	1,174.5	2.5	0.7	171.90	-5,566.0	792.4	5,622.6	5,619.4	3.19	1,763.746	
1,200.0	1,200.0	1,200.0	1,199.9	2.6	0.7	171.90	-5,565.8	792.3	5,622.4	5,619.1	3.24	1,736.405	
1,279.5	1,279.5	1,300.0	1,299.9	2.7	0.8	171.90	-5,564.4	791.9	5,621.3	5,617.8	3.45	1,631.003	
1,300.0	1,300.0	1,321.3	1,321.2	2.8	0.8	171.90	-5,564.1	791.8	5,620.9	5,617.4	3.50	1,606.607	
1,377.9	1,377.9	1,397.0	1,396.9	3.0	0.8	171.91	-5,562.9	791.2	5,619.6	5,615.9	3.70	1,520.660	
1,400.0	1,400.0	1,422.9	1,422.8	3.0	0.8	171.91	-5,562.4	791.0	5,619.2	5,615.5	3.75	1,497.451	
1,476.4	1,476.4	1,500.0	1,499.9	3.2	0.8	171.91	-5,561.1	790.2	5,617.8	5,613.9	3.95	1,423.524	
1,500.0	1,500.0	1,526.0	1,525.9	3.2	0.9	171.91	-5,560.6	790.0	5,617.4	5,613.4	4.01	1,401.949	
1,574.8	1,574.8	1,579.9	1,579.7	3.4	0.9	171.92	-5,559.8	789.6	5,616.2	5,612.0	4.19	1,340.355	
1,600.0	1,600.0	1,600.0	1,599.9	3.5	0.9	171.92	-5,559.6	789.5	5,615.8	5,611.6	4.25	1,320.642	
1,673.2	1,673.2	1,700.3	1,700.1	3.6	0.9	171.93	-5,558.1	788.4	5,614.7	5,610.3	4.44	1,263.236	
1,700.0	1,700.0	1,741.1	1,740.9	3.7	0.9	171.93	-5,557.4	787.8	5,614.2	5,609.7	4.52	1,243.017	
1,771.6	1,771.6	1,840.0	1,839.8	3.8	1.0	171.95	-5,555.3	786.2	5,612.5	5,607.8	4.71	1,192.672	
1,800.0	1,800.0	1,874.4	1,874.2	3.9	1.0	171.95	-5,554.5	785.5	5,611.8	5,607.0	4.78	1,174.189	
1,870.1	1,870.1	1,950.1	1,949.8	4.1	1.0	171.96	-5,552.6	784.0	5,609.8	5,604.9	4.96	1,131.356	
1,900.0	1,900.0	1,980.6	1,980.4	4.1	1.0	171.97	-5,551.9	783.4	5,609.0	5,604.0	5.03	1,114.258	
1,968.5	1,968.5	2,102.1	2,101.7	4.3	1.1	171.99	-5,548.4	780.6	5,606.9	5,601.7	5.22	1,073.627	
2,000.0	2,000.0	2,169.5	2,169.1	4.4	1.1	172.01	-5,545.9	778.8	5,605.6	5,600.3	5.31	1,055.173	
2,066.9	2,066.9	2,296.0	2,295.5	4.5	1.1	172.03	-5,540.1	775.3	5,602.3	5,596.8	5.50	1,018.863	
2,100.0	2,100.0	2,327.2	2,326.6	4.6	1.1	172.04	-5,538.5	774.5	5,600.5	5,594.9	5.58	1,003.469	
2,165.3	2,165.3	2,384.9	2,384.2	4.7	1.2	103.70	-5,535.6	773.2	5,597.2	5,591.3	5.88	951.159	
2,200.0	2,200.0	2,400.0	2,399.3	4.8	1.2	103.73	-5,534.8	772.9	5,595.7	5,589.7	5.96	938.166	
2,263.8	2,263.7	2,457.4	2,456.6	4.9	1.2	103.81	-5,532.1	772.0	5,593.2	5,587.1	6.12	914.163	
2,300.0	2,299.8	2,483.0	2,482.2	5.0	1.2	103.85	-5,530.9	771.7	5,592.0	5,585.8	6.20	901.457	
2,362.2	2,361.8	2,529.4	2,528.5	5.1	1.2	103.92	-5,528.9	771.3	5,590.5	5,584.1	6.35	879.731	
2,400.0	2,399.5	2,558.6	2,557.7	5.2	1.2	103.96	-5,527.6	771.1	5,589.8	5,583.3	6.45	867.011	
2,460.6	2,459.7	2,607.2	2,606.2	5.4	1.2	104.04	-5,525.7	770.7	5,589.0	5,582.4	6.60	846.428	
2,500.0	2,498.7	2,648.3	2,647.3	5.5	1.3	104.10	-5,524.1	770.4	5,588.7	5,582.0	6.71	833.118	
2,559.0	2,557.1	2,709.1	2,708.0	5.6	1.3	104.19	-5,521.7	769.9	5,588.4	5,581.6	6.88	812.811	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT PLUMB #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,572.8	2,570.7	2,722.2	2,721.2	5.6	1.3	104.22	-5,521.2	769.8	5,588.4	5,581.5	6.91	808.258	
2,600.0	2,597.5	2,748.2	2,747.1	5.7	1.3	104.26	-5,520.1	769.6	5,588.5	5,581.5	6.99	799.438	
2,657.5	2,654.0	2,800.0	2,798.9	5.9	1.3	104.35	-5,518.1	769.5	5,588.8	5,581.6	7.16	780.032	
2,700.0	2,695.6	2,836.2	2,835.0	6.0	1.3	104.41	-5,516.6	769.6	5,589.3	5,582.0	7.29	766.354	
2,755.9	2,750.2	2,880.2	2,879.1	6.2	1.3	104.48	-5,515.0	769.6	5,590.2	5,582.7	7.48	747.490	
2,800.0	2,793.1	2,900.0	2,898.8	6.3	1.3	104.50	-5,514.2	769.6	5,591.3	5,583.7	7.62	733.740	
2,854.3	2,845.6	2,945.1	2,943.9	6.5	1.4	104.58	-5,512.7	769.8	5,593.0	5,585.1	7.82	714.935	
2,900.0	2,889.6	2,973.1	2,971.9	6.6	1.4	104.62	-5,511.9	770.0	5,594.8	5,586.8	7.99	700.149	
2,952.7	2,940.2	3,000.0	2,998.8	6.8	1.4	104.64	-5,511.1	770.2	5,597.3	5,589.1	8.21	681.937	
3,000.0	2,985.3	3,036.8	3,035.5	7.0	1.4	104.69	-5,510.2	770.6	5,599.9	5,591.5	8.41	666.145	
3,016.9	3,001.4	3,047.9	3,046.6	7.1	1.4	104.71	-5,509.9	770.7	5,600.9	5,592.4	8.48	660.311	
3,051.2	3,033.9	3,070.3	3,069.0	7.3	1.4	104.77	-5,509.4	771.0	5,603.0	5,594.4	8.64	648.392	
3,100.0	3,080.2	3,100.0	3,098.7	7.5	1.4	104.86	-5,508.8	771.5	5,606.2	5,597.3	8.87	632.168	
3,149.6	3,127.3	3,139.3	3,138.0	7.7	1.4	104.98	-5,508.1	772.1	5,609.6	5,600.5	9.11	615.638	
3,200.0	3,175.1	3,176.7	3,175.4	8.0	1.4	105.09	-5,507.5	772.8	5,613.1	5,603.8	9.36	599.756	
3,248.0	3,220.7	3,213.0	3,211.7	8.2	1.4	105.19	-5,507.0	773.5	5,616.7	5,607.1	9.60	584.769	
3,300.0	3,270.0	3,253.5	3,252.2	8.5	1.4	105.31	-5,506.4	774.3	5,620.6	5,610.7	9.87	569.428	
3,346.4	3,314.1	3,289.7	3,288.3	8.7	1.5	105.41	-5,506.0	775.0	5,624.2	5,614.1	10.12	555.933	
3,400.0	3,365.0	3,326.8	3,325.5	9.0	1.5	105.52	-5,505.7	775.7	5,628.5	5,618.1	10.40	541.319	
3,444.9	3,407.6	3,356.7	3,355.4	9.2	1.5	105.61	-5,505.4	776.4	5,632.2	5,621.6	10.64	529.339	
3,500.0	3,459.9	3,400.0	3,398.6	9.5	1.5	105.73	-5,505.2	777.6	5,637.0	5,626.0	10.94	515.316	
3,543.3	3,501.0	3,434.6	3,433.2	9.8	1.5	105.83	-5,505.1	778.6	5,640.8	5,629.6	11.18	504.629	
3,600.0	3,554.8	3,493.0	3,491.6	10.1	1.5	105.99	-5,504.8	780.5	5,645.8	5,634.3	11.49	491.249	
3,641.7	3,594.4	3,541.6	3,540.2	10.3	1.5	106.12	-5,504.6	782.1	5,649.5	5,637.8	11.73	481.648	
3,700.0	3,649.7	3,608.4	3,606.9	10.7	1.5	106.30	-5,504.1	784.2	5,654.6	5,642.5	12.06	468.879	
3,740.1	3,687.8	3,644.4	3,642.9	10.9	1.5	106.40	-5,503.8	785.3	5,658.1	5,645.8	12.29	460.376	
3,800.0	3,744.7	3,700.0	3,698.5	11.2	1.5	106.56	-5,503.4	786.8	5,663.4	5,650.7	12.63	448.283	
3,838.6	3,781.3	3,728.6	3,727.0	11.5	1.5	106.64	-5,503.2	787.5	5,666.8	5,654.0	12.86	440.770	
3,900.0	3,839.6	3,776.6	3,775.1	11.8	1.6	106.78	-5,503.0	788.7	5,672.5	5,659.3	13.21	429.337	
3,937.0	3,874.7	3,800.0	3,798.5	12.1	1.6	106.84	-5,502.9	789.3	5,676.0	5,662.5	13.43	422.693	
4,000.0	3,934.5	3,851.5	3,849.9	12.4	1.6	106.99	-5,502.9	790.6	5,682.1	5,668.3	13.80	411.878	
4,035.4	3,968.1	3,877.5	3,875.9	12.6	1.6	107.06	-5,502.9	791.2	5,685.6	5,671.6	14.00	406.003	
4,100.0	4,029.4	3,935.1	3,933.5	13.0	1.6	107.22	-5,503.0	792.4	5,692.1	5,677.7	14.38	395.747	
4,133.8	4,061.5	3,970.2	3,968.6	13.2	1.6	107.32	-5,503.1	793.2	5,695.5	5,680.9	14.58	390.543	
4,200.0	4,124.3	4,030.5	4,028.9	13.6	1.6	107.49	-5,503.2	794.4	5,702.3	5,687.3	14.97	380.811	
4,232.3	4,155.0	4,056.9	4,055.3	13.8	1.6	107.57	-5,503.3	794.9	5,705.6	5,690.4	15.17	376.225	
4,300.0	4,219.3	4,112.6	4,111.0	14.2	1.6	107.73	-5,503.5	795.8	5,712.7	5,697.2	15.57	366.991	
4,330.7	4,248.4	4,138.7	4,137.0	14.4	1.6	107.80	-5,503.7	796.2	5,716.0	5,700.3	15.75	362.949	
4,400.0	4,314.2	4,200.0	4,198.4	14.9	1.6	107.98	-5,504.1	797.1	5,723.5	5,707.4	16.16	354.177	
4,429.1	4,341.8	4,232.1	4,230.4	15.0	1.6	108.07	-5,504.3	797.4	5,726.7	5,710.4	16.33	350.671	
4,500.0	4,409.1	4,300.0	4,298.4	15.5	1.6	108.28	-5,504.6	797.8	5,734.4	5,717.7	16.75	342.423	
4,527.5	4,435.3	4,326.7	4,325.1	15.7	1.6	108.36	-5,504.7	797.8	5,737.4	5,720.5	16.91	339.311	
4,600.0	4,504.0	4,371.5	4,369.9	16.1	1.6	108.49	-5,505.1	797.9	5,745.6	5,728.2	17.34	331.377	
4,626.0	4,528.7	4,400.0	4,398.4	16.3	1.6	108.57	-5,505.4	797.9	5,748.6	5,731.1	17.49	328.648	
4,700.0	4,598.9	4,461.5	4,459.8	16.7	1.6	108.75	-5,506.2	798.4	5,757.3	5,739.4	17.93	321.071	
4,724.4	4,622.1	4,489.4	4,487.8	16.9	1.6	108.83	-5,506.4	798.7	5,760.2	5,742.1	18.08	318.658	
4,800.0	4,693.9	4,561.3	4,559.6	17.4	1.6	109.03	-5,507.1	800.2	5,769.1	5,750.5	18.53	311.341	
4,822.8	4,715.5	4,582.4	4,580.7	17.5	1.6	109.09	-5,507.3	800.7	5,771.8	5,753.1	18.67	309.192	
4,900.0	4,788.8	4,649.1	4,647.4	18.0	1.6	109.27	-5,508.0	802.5	5,781.0	5,761.9	19.13	302.155	
4,921.2	4,809.0	4,667.1	4,665.4	18.1	1.6	109.32	-5,508.2	803.0	5,783.6	5,764.3	19.26	300.266	
5,000.0	4,883.7	4,732.8	4,731.0	18.6	1.7	109.50	-5,509.0	804.8	5,793.2	5,773.5	19.74	293.514	
5,019.7	4,902.4	4,749.0	4,747.2	18.7	1.7	109.54	-5,509.2	805.2	5,795.7	5,775.8	19.86	291.877	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,978.6	4,816.8	4,815.0	19.3	1.7	109.73	-5,510.2	806.9	5,805.8	5,785.4	20.34	285.408	
5,118.1	4,995.8	4,833.3	4,831.5	19.4	1.7	109.77	-5,510.5	807.4	5,808.1	5,787.6	20.45	283.993	
5,200.0	5,073.6	4,912.9	4,911.1	19.9	1.7	109.99	-5,511.7	809.3	5,818.6	5,797.6	20.95	277.792	
5,216.5	5,089.2	4,936.5	4,934.7	20.0	1.7	110.05	-5,512.0	809.9	5,820.7	5,799.6	21.05	276.581	
5,304.2	5,172.4	5,042.6	5,040.7	20.6	1.7	110.34	-5,513.2	812.2	5,831.6	5,810.1	21.57	270.333	
5,314.9	5,182.7	5,053.2	5,051.3	20.6	1.7	110.39	-5,513.3	812.4	5,833.0	5,811.4	21.62	269.736	
5,400.0	5,263.9	5,205.3	5,203.4	21.1	1.7	110.97	-5,514.1	814.4	5,842.8	5,820.8	22.04	265.137	
5,413.4	5,276.7	5,218.6	5,216.8	21.1	1.7	111.03	-5,514.0	814.5	5,844.2	5,822.1	22.09	264.576	
5,500.0	5,360.3	5,300.0	5,298.1	21.5	1.7	111.38	-5,513.8	814.6	5,852.4	5,830.0	22.42	260.983	
5,511.8	5,371.7	5,300.0	5,298.1	21.6	1.7	111.40	-5,513.8	814.6	5,853.5	5,831.1	22.47	260.552	
5,600.0	5,457.5	5,361.2	5,359.3	21.9	1.7	111.68	-5,513.8	814.6	5,861.2	5,838.5	22.77	257.439	
5,610.2	5,467.5	5,367.1	5,365.3	21.9	1.7	111.70	-5,513.8	814.6	5,862.1	5,839.3	22.80	257.127	
5,700.0	5,555.6	5,444.6	5,442.7	22.3	1.7	111.97	-5,514.4	815.1	5,869.4	5,846.3	23.07	254.418	
5,708.6	5,564.1	5,456.1	5,454.2	22.3	1.7	112.00	-5,514.5	815.1	5,870.0	5,846.9	23.09	254.198	
5,800.0	5,654.2	5,557.9	5,556.1	22.6	1.8	112.26	-5,514.9	815.8	5,876.1	5,852.7	23.33	251.821	
5,807.1	5,661.2	5,565.0	5,563.1	22.6	1.8	112.28	-5,515.0	815.8	5,876.5	5,853.1	23.35	251.665	
5,900.0	5,753.4	5,659.1	5,657.2	22.8	1.8	112.47	-5,515.3	816.7	5,881.4	5,857.8	23.57	249.581	
5,905.5	5,758.8	5,664.7	5,662.9	22.8	1.8	112.48	-5,515.3	816.7	5,881.7	5,858.1	23.58	249.479	
6,000.0	5,852.9	5,745.8	5,743.9	23.1	1.8	112.61	-5,515.7	817.3	5,885.5	5,861.7	23.76	247.715	
6,003.9	5,856.8	5,748.8	5,746.9	23.1	1.8	112.61	-5,515.7	817.3	5,885.6	5,861.8	23.77	247.657	
6,100.0	5,952.7	5,843.8	5,841.9	23.2	1.8	112.71	-5,516.4	817.9	5,888.5	5,864.6	23.92	246.206	
6,102.3	5,955.1	5,847.3	5,845.4	23.2	1.8	112.71	-5,516.4	817.9	5,888.5	5,864.6	23.92	246.179	
6,200.0	6,052.7	5,956.5	5,954.6	23.4	1.8	112.75	-5,516.9	818.7	5,889.8	5,865.8	24.05	244.940	
6,200.8	6,053.5	5,957.2	5,955.3	23.4	1.8	112.75	-5,516.9	818.7	5,889.8	5,865.8	24.05	244.932	
6,221.1	6,073.8	5,975.5	5,973.6	23.4	1.8	-178.82	-5,517.0	818.9	5,889.9	5,865.9	24.07	244.710	
6,251.1	6,103.8	6,003.2	6,001.3	23.4	1.8	-178.83	-5,517.1	819.2	5,890.1	5,866.0	24.11	244.331	
6,299.2	6,151.8	6,057.4	6,055.5	23.5	1.8	1.17	-5,517.3	819.9	5,888.7	5,864.5	24.13	244.077	
6,300.0	6,152.6	6,058.3	6,056.4	23.5	1.8	1.17	-5,517.3	819.9	5,888.6	5,864.5	24.13	244.072	
6,350.0	6,202.4	6,111.7	6,109.8	23.5	1.8	1.17	-5,517.5	820.6	5,883.6	5,859.5	24.13	243.810	
6,397.6	6,249.3	6,154.7	6,152.8	23.5	1.9	1.18	-5,517.7	821.1	5,875.7	5,851.6	24.11	243.657	
6,400.0	6,251.6	6,156.8	6,154.9	23.5	1.9	1.18	-5,517.7	821.1	5,875.2	5,851.1	24.11	243.654	
6,450.0	6,300.1	6,200.0	6,198.1	23.5	1.9	1.20	-5,517.9	821.4	5,863.4	5,839.3	24.05	243.782	
6,496.0	6,344.0	6,232.4	6,230.5	23.5	1.9	1.23	-5,518.0	821.6	5,849.6	5,825.6	23.94	244.334	
6,500.0	6,347.7	6,235.0	6,233.1	23.5	1.9	1.23	-5,518.1	821.6	5,848.3	5,824.3	23.93	244.402	
6,550.0	6,394.1	6,268.3	6,266.4	23.5	1.9	1.26	-5,518.3	821.8	5,830.0	5,806.2	23.74	245.599	
6,594.5	6,434.2	6,300.0	6,298.1	23.4	1.9	1.30	-5,518.6	822.0	5,811.1	5,787.6	23.51	247.195	
6,600.0	6,439.0	6,300.9	6,299.0	23.4	1.9	1.31	-5,518.7	822.0	5,808.6	5,785.1	23.47	247.451	
6,650.0	6,482.4	6,343.9	6,342.0	23.4	1.9	1.36	-5,519.1	822.2	5,784.2	5,761.0	23.14	249.928	
6,692.9	6,518.1	6,379.5	6,377.5	23.3	1.9	1.42	-5,519.5	822.3	5,760.8	5,738.0	22.80	252.642	
6,700.0	6,523.9	6,385.2	6,383.3	23.3	1.9	1.43	-5,519.6	822.4	5,756.8	5,734.0	22.74	253.148	
6,750.0	6,563.3	6,400.0	6,398.1	23.3	1.9	1.51	-5,519.8	822.4	5,726.6	5,704.3	22.25	257.430	
6,791.3	6,594.2	6,400.0	6,398.1	23.2	1.9	1.59	-5,519.8	822.4	5,699.7	5,678.0	21.77	261.787	
6,800.0	6,600.5	6,400.0	6,398.1	23.2	1.9	1.61	-5,519.8	822.4	5,693.9	5,672.2	21.67	262.788	
6,850.0	6,635.3	6,400.0	6,398.1	23.2	1.9	1.72	-5,519.8	822.4	5,658.9	5,637.9	21.03	269.104	
6,889.7	6,661.1	6,400.0	6,398.1	23.1	1.9	1.83	-5,519.8	822.4	5,629.5	5,609.0	20.49	274.802	
6,900.0	6,667.5	6,400.0	6,398.1	23.1	1.9	1.86	-5,519.8	822.4	5,621.7	5,601.3	20.34	276.377	
6,950.0	6,696.9	6,400.0	6,398.1	23.1	1.9	2.03	-5,519.8	822.4	5,582.4	5,562.8	19.62	284.563	
6,988.2	6,717.5	6,400.0	6,398.1	23.1	1.9	2.19	-5,519.8	822.4	5,551.2	5,532.1	19.05	291.341	
7,000.0	6,723.5	6,400.0	6,398.1	23.1	1.9	2.25	-5,519.8	822.4	5,541.3	5,522.4	18.88	293.542	
7,050.0	6,747.0	6,400.0	6,398.1	23.1	1.9	2.53	-5,519.8	822.4	5,498.3	5,480.2	18.14	303.077	
7,086.6	6,762.3	6,400.0	6,398.1	23.1	1.9	2.79	-5,519.8	822.4	5,465.9	5,448.3	17.62	310.170	
7,100.0	6,767.4	6,400.0	6,398.1	23.1	1.9	2.90	-5,519.8	822.4	5,453.8	5,436.4	17.44	312.767	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT PLUMB #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,150.0	6,784.6	6,400.0	6,398.1	23.1	1.9	3.41	-5,519.8	822.4	5,407.9	5,391.1	16.79	322.006	
7,185.0	6,794.7	6,400.0	6,398.1	23.1	1.9	3.89	-5,519.8	822.4	5,375.0	5,358.6	16.40	327.786	
7,200.0	6,798.5	6,400.0	6,398.1	23.2	1.9	4.15	-5,519.8	822.4	5,360.8	5,344.6	16.24	330.014	
7,250.0	6,808.9	6,400.0	6,398.1	23.2	1.9	5.32	-5,519.8	822.4	5,312.7	5,296.9	15.81	336.030	
7,283.4	6,814.0	6,400.0	6,398.1	23.3	1.9	6.58	-5,519.8	822.4	5,280.0	5,264.4	15.59	338.753	
7,300.0	6,816.0	6,400.0	6,398.1	23.4	1.9	7.45	-5,519.8	822.4	5,263.7	5,248.3	15.49	339.805	
7,350.0	6,819.5	6,400.0	6,398.1	23.5	1.9	12.35	-5,519.8	822.4	5,214.2	5,199.0	15.23	342.316	
7,381.9	6,820.0	6,400.0	6,398.1	23.7	1.9	21.03	-5,519.8	822.4	5,182.5	5,167.3	15.20	341.031	
7,382.0	6,820.0	6,400.0	6,398.1	23.7	1.9	21.08	-5,519.8	822.4	5,182.4	5,167.2	15.20	340.999	
7,400.0	6,819.8	6,400.0	6,398.1	23.8	1.9	21.08	-5,519.8	822.4	5,164.4	5,149.1	15.28	337.893	
7,480.3	6,819.2	6,400.0	6,398.1	24.2	1.9	21.08	-5,519.8	822.4	5,084.3	5,068.5	15.71	323.723	
7,500.0	6,819.0	6,400.0	6,398.1	24.3	1.9	21.08	-5,519.8	822.4	5,064.6	5,048.8	15.81	320.365	
7,578.7	6,818.4	6,400.0	6,398.1	24.9	1.9	21.08	-5,519.8	822.4	4,986.0	4,969.8	16.27	306.372	
7,600.0	6,818.2	6,400.0	6,398.1	25.0	1.9	21.08	-5,519.8	822.4	4,964.8	4,948.4	16.40	302.731	
7,677.1	6,817.6	6,400.0	6,398.1	25.7	1.9	21.08	-5,519.8	822.4	4,887.8	4,870.9	16.90	289.233	
7,700.0	6,817.4	6,400.0	6,398.1	25.9	1.9	21.08	-5,519.8	822.4	4,865.0	4,848.0	17.05	285.392	
7,775.6	6,816.7	6,400.0	6,398.1	26.6	1.9	21.08	-5,519.8	822.4	4,789.6	4,772.1	17.57	272.591	
7,800.0	6,816.5	6,400.0	6,398.1	26.9	1.9	21.08	-5,519.8	822.4	4,765.3	4,747.5	17.74	268.620	
7,874.0	6,815.9	6,400.0	6,398.1	27.7	1.9	21.08	-5,519.8	822.4	4,691.4	4,673.2	18.28	256.627	
7,900.0	6,815.7	6,400.0	6,398.1	28.0	1.9	21.09	-5,519.8	822.4	4,665.5	4,647.0	18.47	252.586	
7,972.4	6,815.1	6,400.0	6,398.1	28.9	1.9	21.09	-5,519.8	822.4	4,593.3	4,574.2	19.02	241.447	
8,000.0	6,814.9	6,400.0	6,398.1	29.2	1.9	21.09	-5,519.8	822.4	4,565.7	4,546.5	19.23	237.380	
8,070.8	6,814.3	6,400.0	6,398.1	30.1	1.9	21.09	-5,519.8	822.4	4,495.1	4,475.3	19.79	227.098	
8,100.0	6,814.1	6,400.0	6,398.1	30.5	1.9	21.09	-5,519.8	822.4	4,466.0	4,446.0	20.02	223.039	
8,169.3	6,813.5	6,400.0	6,398.1	31.5	1.9	21.09	-5,519.8	822.4	4,396.9	4,376.3	20.59	213.588	
8,200.0	6,813.3	6,400.0	6,398.1	31.9	1.9	21.09	-5,519.8	822.4	4,366.3	4,345.4	20.84	209.564	
8,267.7	6,812.7	6,400.0	6,398.1	32.9	1.9	21.09	-5,519.8	822.4	4,298.8	4,277.4	21.40	200.901	
8,300.0	6,812.4	6,400.0	6,398.1	33.3	1.9	21.09	-5,519.8	822.4	4,266.6	4,244.9	21.67	196.929	
8,366.1	6,811.9	6,400.0	6,398.1	34.3	1.9	21.09	-5,519.8	822.4	4,200.6	4,178.4	22.23	189.003	
8,400.0	6,811.6	6,400.0	6,398.1	34.8	1.9	21.09	-5,519.8	822.4	4,166.9	4,144.4	22.51	185.098	
8,464.5	6,811.1	6,400.0	6,398.1	35.8	1.9	21.09	-5,519.8	822.4	4,102.5	4,079.5	23.07	177.854	
8,500.0	6,810.8	6,400.0	6,398.1	36.3	1.9	21.09	-5,519.8	822.4	4,067.2	4,043.8	23.37	174.025	
8,563.0	6,810.3	6,400.0	6,398.1	37.3	1.9	21.09	-5,519.8	822.4	4,004.4	3,980.5	23.92	167.408	
8,600.0	6,810.0	6,400.0	6,398.1	37.9	1.9	21.09	-5,519.8	822.4	3,967.5	3,943.3	24.24	163.660	
8,661.4	6,809.5	6,400.0	6,398.1	38.9	1.9	21.09	-5,519.8	822.4	3,906.3	3,881.5	24.78	157.617	
8,700.0	6,809.1	6,400.0	6,398.1	39.5	1.9	21.09	-5,519.8	822.4	3,867.9	3,842.7	25.12	153.954	
8,759.8	6,808.6	6,400.0	6,398.1	40.5	1.9	21.09	-5,519.8	822.4	3,808.3	3,782.6	25.66	148.435	
8,800.0	6,808.3	6,400.0	6,398.1	41.1	1.9	21.09	-5,519.8	822.4	3,768.2	3,742.2	26.01	144.858	
8,858.2	6,807.8	6,400.0	6,398.1	42.1	1.9	21.09	-5,519.8	822.4	3,710.2	3,683.7	26.54	139.817	
8,900.0	6,807.5	6,400.0	6,398.1	42.8	1.9	21.09	-5,519.8	822.4	3,668.6	3,641.7	26.91	136.326	
8,956.7	6,807.0	6,400.0	6,398.1	43.7	1.9	21.09	-5,519.8	822.4	3,612.2	3,584.7	27.42	131.721	
9,000.0	6,806.7	6,400.0	6,398.1	44.4	1.9	21.09	-5,519.8	822.4	3,569.0	3,541.2	27.81	128.316	
9,055.1	6,806.2	6,400.0	6,398.1	45.4	1.9	21.09	-5,519.8	822.4	3,514.2	3,485.8	28.32	124.107	
9,100.0	6,805.8	6,400.0	6,398.1	46.1	1.9	21.10	-5,519.8	822.4	3,469.4	3,440.7	28.72	120.787	
9,153.5	6,805.4	6,400.0	6,398.1	47.0	1.9	21.10	-5,519.8	822.4	3,416.2	3,386.9	29.21	116.938	
9,200.0	6,805.0	6,400.0	6,398.1	47.8	1.9	21.10	-5,519.8	822.4	3,369.9	3,340.3	29.64	113.700	
9,251.9	6,804.6	6,400.0	6,398.1	48.7	1.9	21.10	-5,519.8	822.4	3,318.2	3,288.1	30.12	110.181	
9,300.0	6,804.2	6,400.0	6,398.1	49.6	1.9	21.10	-5,519.8	822.4	3,270.4	3,239.8	30.56	107.024	
9,350.4	6,803.8	6,400.0	6,398.1	50.4	1.9	21.10	-5,519.8	822.4	3,220.3	3,189.2	31.02	103.803	
9,400.0	6,803.4	6,400.0	6,398.1	51.3	1.9	21.10	-5,519.8	822.4	3,170.9	3,139.4	31.48	100.725	
9,448.8	6,802.9	6,400.0	6,398.1	52.1	1.9	21.10	-5,519.8	822.4	3,122.4	3,090.4	31.93	97.778	
9,500.0	6,802.5	6,400.0	6,398.1	53.0	1.9	21.10	-5,519.8	822.4	3,071.4	3,039.0	32.41	94.776	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - ABDN VERT PLUMB #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,802.1	6,400.0	6,398.1	53.9	1.9	21.10	-5,519.8	822.4	3,024.5	2,991.6	32.85	92.079	
9,600.0	6,801.7	6,400.0	6,398.1	54.8	1.9	21.10	-5,519.8	822.4	2,972.0	2,938.7	33.34	89.150	
9,645.6	6,801.3	6,400.0	6,398.1	55.6	1.9	21.10	-5,519.8	822.4	2,926.7	2,892.9	33.76	86.681	
9,700.0	6,800.9	6,400.0	6,398.1	56.6	1.9	21.10	-5,519.8	822.4	2,872.7	2,838.4	34.27	83.823	
9,744.1	6,800.5	6,400.0	6,398.1	57.4	1.9	21.10	-5,519.8	822.4	2,828.9	2,794.2	34.68	81.564	
9,800.0	6,800.0	6,400.0	6,398.1	58.4	1.9	21.10	-5,519.8	822.4	2,773.3	2,738.1	35.21	78.774	
9,842.5	6,799.7	6,400.0	6,398.1	59.1	1.9	21.10	-5,519.8	822.4	2,731.1	2,695.5	35.60	76.707	
9,900.0	6,799.2	6,400.0	6,398.1	60.2	1.9	21.10	-5,519.8	822.4	2,674.0	2,637.9	36.14	73.983	
9,940.9	6,798.9	6,400.0	6,398.1	60.9	1.9	21.10	-5,519.8	822.4	2,633.4	2,596.9	36.53	72.092	
10,000.0	6,798.4	6,400.0	6,398.1	62.0	1.9	21.10	-5,519.8	822.4	2,574.8	2,537.7	37.08	69.432	
10,039.3	6,798.1	6,400.0	6,398.1	62.7	1.9	21.10	-5,519.8	822.4	2,535.8	2,498.3	37.45	67.703	
10,100.0	6,797.6	6,400.0	6,398.1	63.8	1.9	21.10	-5,519.8	822.4	2,475.7	2,437.6	38.03	65.104	
10,137.8	6,797.2	6,400.0	6,398.1	64.4	1.9	21.10	-5,519.8	822.4	2,438.2	2,399.8	38.38	63.524	
10,200.0	6,796.7	6,400.0	6,398.1	65.6	1.9	21.10	-5,519.8	822.4	2,376.6	2,337.6	38.97	60.984	
10,236.2	6,796.4	6,400.0	6,398.1	66.2	1.9	21.10	-5,519.8	822.4	2,340.7	2,301.4	39.31	59.541	
10,300.0	6,795.9	6,400.0	6,398.1	67.4	1.9	21.10	-5,519.8	822.4	2,277.6	2,237.6	39.92	57.059	
10,334.6	6,795.6	6,400.0	6,398.1	68.0	1.9	21.10	-5,519.8	822.4	2,243.3	2,203.0	40.24	55.743	
10,400.0	6,795.1	6,400.0	6,398.1	69.2	1.9	21.10	-5,519.8	822.4	2,178.6	2,137.8	40.86	53.316	
10,433.0	6,794.8	6,400.0	6,398.1	69.8	1.9	21.10	-5,519.8	822.4	2,146.0	2,104.8	41.18	52.116	
10,500.0	6,794.2	6,400.0	6,398.1	71.0	1.9	21.10	-5,519.8	822.4	2,079.8	2,038.0	41.81	49.743	
10,531.5	6,794.0	6,400.0	6,398.1	71.6	1.9	21.10	-5,519.8	822.4	2,048.7	2,006.6	42.11	48.652	
10,600.0	6,793.4	6,400.0	6,398.1	72.9	1.9	21.10	-5,519.8	822.4	1,981.1	1,938.3	42.76	46.330	
10,629.9	6,793.2	6,400.0	6,398.1	73.4	1.9	21.10	-5,519.8	822.4	1,951.6	1,908.6	43.05	45.339	
10,700.0	6,792.6	6,400.0	6,398.1	74.7	1.9	21.10	-5,519.8	822.4	1,882.5	1,838.8	43.71	43.067	
10,728.3	6,792.3	6,400.0	6,398.1	75.2	1.9	21.10	-5,519.8	822.4	1,854.6	1,810.7	43.98	42.169	
10,800.0	6,791.7	6,400.0	6,398.1	76.6	1.9	21.10	-5,519.8	822.4	1,784.1	1,739.5	44.66	39.946	
10,826.7	6,791.5	6,400.0	6,398.1	77.1	1.9	21.10	-5,519.8	822.4	1,757.8	1,712.9	44.92	39.134	
10,900.0	6,790.9	6,400.0	6,398.1	78.4	1.9	21.10	-5,519.8	822.4	1,685.9	1,640.3	45.62	36.958	
10,925.2	6,790.7	6,400.0	6,398.1	78.9	1.9	21.10	-5,519.8	822.4	1,661.2	1,615.4	45.86	36.226	
11,000.0	6,790.1	6,400.0	6,398.1	80.3	1.9	21.11	-5,519.8	822.4	1,587.9	1,541.4	46.57	34.097	
11,023.6	6,789.9	6,400.0	6,398.1	80.7	1.9	21.11	-5,519.8	822.4	1,564.8	1,518.0	46.80	33.439	
11,100.0	6,789.2	6,400.0	6,398.1	82.1	1.9	21.11	-5,519.8	822.4	1,490.2	1,442.7	47.53	31.356	
11,122.0	6,789.1	6,400.0	6,398.1	82.5	1.9	21.11	-5,519.8	822.4	1,468.7	1,421.0	47.74	30.767	
11,200.0	6,788.4	6,400.0	6,398.1	84.0	1.9	21.11	-5,519.8	822.4	1,392.8	1,344.3	48.48	28.728	
11,220.4	6,788.2	6,400.0	6,398.1	84.3	1.9	21.11	-5,519.8	822.4	1,372.9	1,324.2	48.68	28.205	
11,300.0	6,787.6	6,400.0	6,398.1	85.8	1.9	21.11	-5,519.8	822.4	1,295.8	1,246.3	49.44	26.210	
11,318.9	6,787.4	6,400.0	6,398.1	86.2	1.9	21.11	-5,519.8	822.4	1,277.5	1,227.9	49.62	25.747	
11,400.0	6,786.7	6,400.0	6,398.1	87.7	1.9	21.11	-5,519.8	822.4	1,199.3	1,148.9	50.39	23.797	
11,417.3	6,786.6	6,400.0	6,398.1	88.0	1.9	21.11	-5,519.8	822.4	1,182.6	1,132.1	50.56	23.390	
11,500.0	6,785.9	6,400.0	6,398.1	89.5	1.9	21.11	-5,519.8	822.4	1,103.4	1,052.0	51.35	21.486	
11,515.7	6,785.8	6,400.0	6,398.1	89.8	1.9	21.11	-5,519.8	822.4	1,088.3	1,036.8	51.50	21.131	
11,600.0	6,785.1	6,400.0	6,398.1	91.4	1.9	21.11	-5,519.8	822.4	1,008.2	955.9	52.31	19.274	
11,614.1	6,785.0	6,400.0	6,398.1	91.7	1.9	21.11	-5,519.8	822.4	994.9	942.4	52.45	18.969	
11,700.0	6,784.2	6,400.0	6,398.1	93.3	1.9	21.11	-5,519.8	822.4	914.2	860.9	53.27	17.161	
11,712.6	6,784.1	6,400.0	6,398.1	93.5	1.9	21.11	-5,519.8	822.4	902.4	849.1	53.39	16.903	
11,800.0	6,783.4	6,400.0	6,398.1	95.2	1.9	21.11	-5,519.8	822.4	821.5	767.3	54.23	15.149	
11,811.0	6,783.3	6,400.0	6,398.1	95.4	1.9	21.11	-5,519.8	822.4	811.4	757.1	54.34	14.934	
11,900.0	6,782.6	6,400.0	6,398.1	97.0	1.9	21.11	-5,519.8	822.4	730.8	675.6	55.19	13.242	
11,909.4	6,782.5	6,400.0	6,398.1	97.2	1.9	21.11	-5,519.8	822.4	722.4	667.1	55.28	13.068	
12,000.0	6,781.7	6,400.0	6,398.1	98.9	1.9	21.11	-5,519.8	822.4	642.9	586.7	56.15	11.449	
12,007.8	6,781.7	6,400.0	6,398.1	99.1	1.9	21.11	-5,519.8	822.4	636.1	579.9	56.23	11.313	
12,100.0	6,780.9	6,400.0	6,398.1	100.8	1.9	21.11	-5,519.8	822.4	559.0	501.9	57.11	9.787	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,780.9	6,400.0	6,398.1	100.9	1.9	21.11	-5,519.8	822.4	553.9	496.7	57.17	9.688	
12,200.0	6,780.1	6,400.0	6,398.1	102.7	1.9	21.11	-5,519.8	822.4	481.3	423.2	58.07	8.287	
12,204.7	6,780.0	6,400.0	6,398.1	102.7	1.9	21.11	-5,519.8	822.4	477.8	419.7	58.12	8.222	
12,300.0	6,779.2	6,400.0	6,398.1	104.5	1.9	21.11	-5,519.8	822.4	413.3	354.2	59.03	7.001	
12,303.1	6,779.2	6,400.0	6,398.1	104.6	1.9	21.11	-5,519.8	822.4	411.4	352.3	59.06	6.965	
12,400.0	6,778.4	6,400.0	6,398.1	106.4	1.9	21.11	-5,519.8	822.4	360.5	300.5	60.00	6.009	
12,401.5	6,778.4	6,400.0	6,398.1	106.4	1.9	21.11	-5,519.8	822.4	359.9	299.8	60.01	5.996	
12,500.0	6,777.6	6,400.0	6,398.1	108.3	1.9	21.11	-5,519.8	822.4	330.4	269.4	60.96	5.420	
12,554.1	6,777.1	6,400.0	6,398.1	109.3	1.9	21.11	-5,519.8	822.4	325.9	264.4	61.48	5.301 CC, ES, SF	
12,598.4	6,776.7	6,400.0	6,398.1	110.2	1.9	21.11	-5,519.8	822.4	328.9	267.0	61.91	5.313	
12,600.0	6,776.7	6,400.0	6,398.1	110.2	1.9	21.11	-5,519.8	822.4	329.1	267.2	61.92	5.315	
12,696.8	6,775.9	6,400.0	6,398.1	112.0	1.9	21.11	-5,519.8	822.4	355.8	292.9	62.85	5.660	
12,700.0	6,775.9	6,400.0	6,398.1	112.1	1.9	21.11	-5,519.8	822.4	357.1	294.2	62.88	5.678	
12,795.2	6,775.1	6,400.0	6,398.1	113.9	1.9	21.11	-5,519.8	822.4	405.4	341.6	63.80	6.354	
12,800.0	6,775.0	6,400.0	6,398.1	114.0	1.9	21.11	-5,519.8	822.4	408.3	344.4	63.85	6.394	
12,893.7	6,774.3	6,400.0	6,398.1	115.7	1.9	21.11	-5,519.8	822.4	470.7	405.9	64.75	7.269	
12,900.0	6,774.2	6,400.0	6,398.1	115.8	1.9	21.11	-5,519.8	822.4	475.2	410.4	64.81	7.333	
12,992.1	6,773.4	6,400.0	6,398.1	117.6	1.9	21.11	-5,519.8	822.4	545.9	480.2	65.70	8.309	
13,000.0	6,773.4	6,400.0	6,398.1	117.7	1.9	21.11	-5,519.8	822.4	552.3	486.5	65.78	8.397	
13,090.5	6,772.6	6,400.0	6,398.1	119.4	1.9	21.11	-5,519.8	822.4	627.6	561.0	66.65	9.417	
13,100.0	6,772.5	6,400.0	6,398.1	119.6	1.9	21.11	-5,519.8	822.4	635.8	569.0	66.74	9.526	
13,188.9	6,771.8	6,400.0	6,398.1	121.3	1.9	21.11	-5,519.8	822.4	713.6	646.0	67.60	10.556	
13,200.0	6,771.7	6,400.0	6,398.1	121.5	1.9	21.11	-5,519.8	822.4	723.4	655.7	67.70	10.685	
13,287.4	6,771.0	6,400.0	6,398.1	123.2	1.9	21.11	-5,519.8	822.4	802.4	733.9	68.55	11.706	
13,300.0	6,770.9	6,400.0	6,398.1	123.4	1.9	21.11	-5,519.8	822.4	814.0	745.3	68.67	11.853	
13,385.8	6,770.1	6,400.0	6,398.1	125.0	1.9	21.11	-5,519.8	822.4	893.3	823.8	69.50	12.853	
13,400.0	6,770.0	6,400.0	6,398.1	125.3	1.9	21.11	-5,519.8	822.4	906.5	836.9	69.63	13.018	
13,484.2	6,769.3	6,400.0	6,398.1	126.9	1.9	21.11	-5,519.8	822.4	985.5	915.1	70.45	13.990	
13,500.0	6,769.2	6,400.0	6,398.1	127.2	1.9	21.11	-5,519.8	822.4	1,000.4	929.8	70.60	14.171	
13,582.6	6,768.5	6,400.0	6,398.1	128.8	1.9	21.11	-5,519.8	822.4	1,078.9	1,007.5	71.40	15.112	
13,600.0	6,768.3	6,400.0	6,398.1	129.1	1.9	21.11	-5,519.8	822.4	1,095.5	1,023.9	71.56	15.307	
13,681.1	6,767.6	6,400.0	6,398.1	130.6	1.9	21.11	-5,519.8	822.4	1,173.1	1,100.8	72.35	16.215	
13,700.0	6,767.5	6,400.0	6,398.1	131.0	1.9	21.11	-5,519.8	822.4	1,191.3	1,118.8	72.53	16.425	
13,779.5	6,766.8	6,400.0	6,398.1	132.5	1.9	21.11	-5,519.8	822.4	1,268.0	1,194.7	73.30	17.299	
13,800.0	6,766.6	6,400.0	6,398.1	132.9	1.9	21.11	-5,519.8	822.4	1,287.8	1,214.3	73.50	17.522	
13,877.9	6,766.0	6,400.0	6,398.1	134.4	1.9	21.11	-5,519.8	822.4	1,363.3	1,289.1	74.25	18.362	
13,900.0	6,765.8	6,400.0	6,398.1	134.8	1.9	21.11	-5,519.8	822.4	1,384.8	1,310.3	74.46	18.597	
13,976.3	6,765.2	6,400.0	6,398.1	136.2	1.9	21.11	-5,519.8	822.4	1,459.1	1,383.9	75.20	19.403	
13,995.7	6,765.0	6,400.0	6,398.1	136.6	1.9	21.11	-5,519.8	822.4	1,477.9	1,402.5	75.39	19.605	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	0.53	90.0	0.8	90.0				
98.4	98.4	98.4	98.4	0.1	0.1	0.53	90.0	0.8	90.0	89.8	0.17	529.545	
100.0	100.0	100.0	100.0	0.1	0.1	0.53	90.0	0.8	90.0	89.8	0.17	519.959	
196.8	196.8	196.8	196.8	0.3	0.3	0.53	90.0	0.8	90.0	89.4	0.61	147.901	
200.0	200.0	200.0	200.0	0.3	0.3	0.53	90.0	0.8	90.0	89.4	0.62	144.537	
295.3	295.3	295.3	295.3	0.5	0.5	0.53	90.0	0.8	90.0	88.9	1.05	85.631	
300.0	300.0	300.0	300.0	0.5	0.5	0.53	90.0	0.8	90.0	88.9	1.07	83.935	
393.7	393.7	393.7	393.7	0.7	0.7	0.53	90.0	0.8	90.0	88.5	1.49	60.260	
400.0	400.0	400.0	400.0	0.8	0.8	0.53	90.0	0.8	90.0	88.5	1.52	59.139	
492.1	492.1	492.1	492.1	1.0	1.0	0.53	90.0	0.8	90.0	88.1	1.94	46.487	
500.0	500.0	500.0	500.0	1.0	1.0	0.53	90.0	0.8	90.0	88.0	1.97	45.652	
590.5	590.5	590.5	590.5	1.2	1.2	0.53	90.0	0.8	90.0	87.6	2.38	37.838	
600.0	600.0	600.0	600.0	1.2	1.2	0.53	90.0	0.8	90.0	87.6	2.42	37.174	
689.0	689.0	689.0	689.0	1.4	1.4	0.53	90.0	0.8	90.0	87.2	2.82	31.903	
700.0	700.0	700.0	700.0	1.4	1.4	0.53	90.0	0.8	90.0	87.1	2.87	31.352	
787.4	787.4	787.4	787.4	1.6	1.6	0.53	90.0	0.8	90.0	86.7	3.26	27.577	
800.0	800.0	800.0	800.0	1.7	1.7	0.53	90.0	0.8	90.0	86.7	3.32	27.107	
885.8	885.8	885.8	885.8	1.9	1.9	0.53	90.0	0.8	90.0	86.3	3.71	24.285	
900.0	900.0	900.0	900.0	1.9	1.9	0.53	90.0	0.8	90.0	86.2	3.77	23.874	
984.2	984.2	984.2	984.2	2.1	2.1	0.53	90.0	0.8	90.0	85.8	4.15	21.694	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.53	90.0	0.8	90.0	85.8	4.22	21.330	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.53	90.0	0.8	90.0	85.4	4.59	19.603	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.53	90.0	0.8	90.0	85.3	4.67	19.276	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	0.53	90.0	0.8	90.0	85.0	5.03	17.880	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.53	90.0	0.8	90.0	84.9	5.12	17.583 CC, ES	
1,279.5	1,279.5	1,278.6	1,278.6	2.7	2.7	-0.10	90.4	-0.2	90.4	84.9	5.47	16.537	
1,300.0	1,300.0	1,298.8	1,298.8	2.8	2.8	-0.47	90.6	-0.7	90.6	85.1	5.56	16.313	
1,377.9	1,377.9	1,375.7	1,375.6	3.0	2.9	-2.58	92.0	-4.1	92.2	86.3	5.89	15.635	
1,400.0	1,400.0	1,397.4	1,397.2	3.0	3.0	-3.37	92.6	-5.4	92.8	86.8	5.99	15.488	
1,476.4	1,476.4	1,472.4	1,471.9	3.2	3.2	-6.69	94.9	-11.1	95.7	89.3	6.32	15.128	
1,500.0	1,500.0	1,495.5	1,495.0	3.2	3.2	-7.87	95.8	-13.2	96.8	90.4	6.43	15.067	
1,574.8	1,574.8	1,568.4	1,567.4	3.4	3.4	-12.00	99.0	-21.0	101.5	94.7	6.75	15.024	
1,600.0	1,600.0	1,592.9	1,591.7	3.5	3.4	-13.49	100.2	-24.0	103.4	96.5	6.86	15.064	
1,673.2	1,673.2	1,663.7	1,661.6	3.6	3.6	-17.96	104.2	-33.8	110.2	103.0	7.19	15.326	
1,700.0	1,700.0	1,689.4	1,687.0	3.7	3.7	-19.61	105.9	-37.7	113.1	105.8	7.31	15.478	
1,771.6	1,771.6	1,757.9	1,754.4	3.8	3.9	-24.00	110.6	-49.2	122.3	114.7	7.64	16.016	
1,800.0	1,800.0	1,784.8	1,780.8	3.9	4.0	-25.68	112.6	-54.2	126.5	118.7	7.77	16.282	
1,870.1	1,870.1	1,852.8	1,847.3	4.1	4.2	-29.66	118.0	-67.2	137.7	129.6	8.10	16.994	
1,900.0	1,900.0	1,882.1	1,875.9	4.1	4.3	-31.19	120.3	-72.8	142.7	134.4	8.25	17.297	
1,968.5	1,968.5	1,949.1	1,941.5	4.3	4.6	-34.31	125.6	-85.7	154.5	145.9	8.59	17.974	
2,000.0	2,000.0	1,979.9	1,971.6	4.4	4.7	-35.59	128.1	-91.6	160.0	151.3	8.76	18.276	
2,066.9	2,066.9	2,045.4	2,035.7	4.5	4.9	-38.03	133.2	-104.2	172.0	162.9	9.11	18.892	
2,100.0	2,100.0	2,077.7	2,067.3	4.6	5.0	-39.12	135.8	-110.5	178.1	168.8	9.28	19.183	
2,165.3	2,165.3	2,141.6	2,129.7	4.7	5.3	-109.46	140.9	-122.7	190.4	180.9	9.54	19.958	
2,200.0	2,200.0	2,175.3	2,162.7	4.8	5.4	-110.53	143.5	-129.2	197.3	187.6	9.70	20.345	
2,263.8	2,263.7	2,237.2	2,223.2	4.9	5.6	-112.55	148.4	-141.1	210.5	200.5	9.97	21.105	
2,300.0	2,299.8	2,272.2	2,257.5	5.0	5.8	-113.72	151.2	-147.8	218.4	208.3	10.13	21.562	
2,362.2	2,361.8	2,332.1	2,316.1	5.1	6.0	-115.75	155.9	-159.3	232.7	222.3	10.39	22.385	
2,400.0	2,399.5	2,368.3	2,351.5	5.2	6.2	-116.98	158.8	-166.3	241.8	231.2	10.55	22.915	
2,460.6	2,459.7	2,426.2	2,408.1	5.4	6.4	-118.94	163.4	-177.4	257.1	246.3	10.80	23.804	
2,500.0	2,498.7	2,463.6	2,444.7	5.5	6.6	-120.19	166.3	-184.6	267.6	256.7	10.96	24.412	
2,559.0	2,557.1	2,519.4	2,499.3	5.6	6.8	-122.04	170.8	-195.4	284.2	272.9	11.20	25.360	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5E-323 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,597.5	2,557.8	2,536.9	5.7	7.0	-123.28	173.8	-202.8	296.2	284.8	11.37	26.050	
2,657.5	2,654.0	2,611.5	2,589.4	5.9	7.2	-124.98	178.1	-213.1	313.9	302.3	11.61	27.049	
2,700.0	2,695.6	2,651.0	2,628.0	6.0	7.4	-126.20	181.2	-220.7	327.7	315.9	11.78	27.823	
2,755.9	2,750.2	2,702.5	2,678.4	6.2	7.6	-127.74	185.3	-230.6	346.5	334.5	12.01	28.863	
2,800.0	2,793.1	2,742.9	2,717.9	6.3	7.7	-128.91	188.5	-238.3	362.1	349.9	12.18	29.719	
2,854.3	2,845.6	2,792.3	2,766.2	6.5	8.0	-130.28	192.4	-247.8	382.1	369.7	12.41	30.786	
2,900.0	2,889.6	2,833.5	2,806.6	6.6	8.1	-131.39	195.6	-255.8	399.7	387.1	12.60	31.724	
2,952.7	2,940.2	2,880.7	2,852.7	6.8	8.3	-132.61	199.4	-264.8	420.7	407.9	12.82	32.814	
3,000.0	2,985.3	2,922.7	2,893.8	7.0	8.5	-133.65	202.7	-272.9	440.3	427.3	13.02	33.823	
3,016.9	3,001.4	2,937.6	2,908.4	7.1	8.6	-134.01	203.9	-275.8	447.5	434.4	13.09	34.186	
3,051.2	3,033.9	2,967.8	2,937.9	7.3	8.7	-134.93	206.3	-281.6	462.2	448.9	13.25	34.875	
3,100.0	3,080.2	3,010.8	2,980.0	7.5	8.9	-136.16	209.7	-289.9	483.2	469.8	13.49	35.834	
3,149.6	3,127.3	3,054.6	3,022.8	7.7	9.1	-137.30	213.1	-298.3	504.8	491.1	13.73	36.770	
3,200.0	3,175.1	3,099.0	3,066.2	8.0	9.3	-138.37	216.7	-306.8	527.0	513.0	13.98	37.693	
3,248.0	3,220.7	3,141.3	3,107.6	8.2	9.5	-139.32	220.0	-314.9	548.2	533.9	14.22	38.537	
3,300.0	3,270.0	3,187.1	3,152.4	8.5	9.7	-140.26	223.6	-323.7	571.2	556.7	14.49	39.423	
3,346.4	3,314.1	3,228.1	3,192.5	8.7	9.9	-141.04	226.9	-331.6	592.0	577.2	14.73	40.183	
3,400.0	3,365.0	3,275.3	3,238.6	9.0	10.1	-141.88	230.6	-340.7	616.0	600.9	15.01	41.033	
3,444.9	3,407.6	3,314.8	3,277.3	9.2	10.2	-142.53	233.7	-348.3	636.1	620.9	15.25	41.717	
3,500.0	3,459.9	3,363.4	3,324.8	9.5	10.5	-143.29	237.6	-357.6	661.0	645.5	15.54	42.531	
3,543.3	3,501.0	3,401.6	3,362.2	9.8	10.6	-143.84	240.6	-365.0	680.6	664.9	15.78	43.145	
3,600.0	3,554.8	3,451.5	3,411.1	10.1	10.9	-144.52	244.6	-374.6	706.4	690.3	16.08	43.925	
3,641.7	3,594.4	3,488.3	3,447.0	10.3	11.0	-144.98	247.5	-381.6	725.4	709.1	16.31	44.478	
3,700.0	3,649.7	3,539.7	3,497.3	10.7	11.2	-145.60	251.5	-391.5	752.0	735.3	16.63	45.226	
3,740.1	3,687.8	3,575.1	3,531.9	10.9	11.4	-146.00	254.3	-398.3	770.3	753.5	16.85	45.722	
3,800.0	3,744.7	3,627.8	3,583.5	11.2	11.6	-146.56	258.5	-408.5	797.7	780.6	17.18	46.439	
3,838.6	3,781.3	3,661.8	3,616.7	11.5	11.8	-146.90	261.2	-415.0	815.5	798.1	17.39	46.885	
3,900.0	3,839.6	3,715.9	3,669.7	11.8	12.0	-147.42	265.5	-425.4	843.7	826.0	17.73	47.574	
3,937.0	3,874.7	3,748.6	3,701.6	12.1	12.2	-147.72	268.1	-431.7	860.7	842.8	17.94	47.973	
4,000.0	3,934.5	3,804.1	3,755.9	12.4	12.4	-148.19	272.5	-442.4	889.8	871.5	18.29	48.635	
4,035.4	3,968.1	3,835.3	3,786.4	12.6	12.6	-148.45	274.9	-448.4	906.1	887.6	18.49	48.994	
4,100.0	4,029.4	3,892.2	3,842.1	13.0	12.8	-148.89	279.4	-459.3	936.0	917.1	18.86	49.630	
4,133.8	4,061.5	3,922.1	3,871.3	13.2	13.0	-149.11	281.8	-465.0	951.6	932.6	19.05	49.952	
4,200.0	4,124.3	3,980.4	3,928.3	13.6	13.2	-149.52	286.4	-476.3	982.2	962.8	19.43	50.564	
4,232.3	4,155.0	4,008.8	3,956.2	13.8	13.3	-149.71	288.7	-481.7	997.2	977.6	19.61	50.852	
4,300.0	4,219.3	4,068.5	4,014.5	14.2	13.6	-150.10	293.4	-493.2	1,028.6	1,008.6	20.00	51.441	
4,330.7	4,248.4	4,095.6	4,041.0	14.4	13.7	-150.26	295.5	-498.4	1,042.9	1,022.7	20.17	51.699	
4,400.0	4,314.2	4,156.6	4,100.7	14.9	14.0	-150.62	300.4	-510.1	1,075.1	1,054.5	20.57	52.267	
4,429.1	4,341.8	4,182.3	4,125.9	15.0	14.1	-150.77	302.4	-515.1	1,088.6	1,067.9	20.74	52.498	
4,500.0	4,409.1	4,244.8	4,187.0	15.5	14.4	-151.10	307.4	-527.1	1,121.6	1,100.5	21.14	53.045	
4,527.5	4,435.3	4,269.0	4,210.7	15.7	14.5	-151.23	309.3	-531.8	1,134.4	1,113.1	21.30	53.251	
4,600.0	4,504.0	4,332.9	4,273.2	16.1	14.8	-151.55	314.3	-544.0	1,168.2	1,146.5	21.72	53.779	
4,626.0	4,528.7	4,355.8	4,295.6	16.3	14.9	-151.66	316.1	-548.4	1,180.3	1,158.4	21.87	53.963	
4,700.0	4,598.9	4,421.0	4,359.4	16.7	15.2	-151.96	321.3	-561.0	1,214.8	1,192.5	22.30	54.473	
4,724.4	4,622.1	4,444.8	4,382.7	16.9	15.3	-152.07	323.2	-565.5	1,226.2	1,203.7	22.45	54.627	
4,800.0	4,693.9	4,559.1	4,494.9	17.4	15.7	-152.59	331.3	-585.3	1,260.1	1,237.1	22.95	54.905	
4,822.8	4,715.5	4,594.4	4,529.8	17.5	15.8	-152.75	333.5	-590.5	1,269.8	1,246.7	23.10	54.972	
4,900.0	4,788.8	4,716.4	4,650.7	18.0	16.1	-153.35	339.7	-605.6	1,301.0	1,277.4	23.59	55.140	
4,921.2	4,809.0	4,750.7	4,684.8	18.1	16.2	-153.52	341.1	-608.9	1,309.0	1,285.3	23.73	55.169	
5,000.0	4,883.7	4,880.2	4,813.9	18.6	16.5	-154.20	344.9	-618.3	1,337.1	1,312.8	24.22	55.208	
5,019.7	4,902.4	4,913.2	4,846.8	18.7	16.5	-154.38	345.5	-619.8	1,343.6	1,319.2	24.34	55.203	
5,100.0	4,978.6	5,045.1	4,978.6	19.3	16.7	-155.12	346.6	-622.4	1,368.1	1,343.3	24.81	55.142	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5E-323 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,118.1	4,995.8	5,062.2	4,995.8	19.4	16.7	-155.22	346.6	-622.4	1,373.3	1,348.4	24.90	55.149	
5,200.0	5,073.6	5,140.0	5,073.6	19.9	16.8	-155.66	346.6	-622.4	1,397.0	1,371.7	25.32	55.176	
5,216.5	5,089.2	5,155.7	5,089.2	20.0	16.9	-155.75	346.6	-622.4	1,401.8	1,376.3	25.40	55.180	
5,304.2	5,172.4	5,238.9	5,172.4	20.6	17.0	-156.20	346.6	-622.4	1,427.1	1,401.3	25.85	55.203	
5,314.9	5,182.7	5,249.1	5,182.7	20.6	17.0	-156.28	346.6	-622.4	1,430.3	1,404.3	25.92	55.173	
5,400.0	5,263.9	5,330.3	5,263.9	21.1	17.1	-156.87	346.6	-622.4	1,453.6	1,427.1	26.47	54.908	
5,413.4	5,276.7	5,343.2	5,276.7	21.1	17.1	-156.95	346.6	-622.4	1,457.1	1,430.5	26.55	54.873	
5,500.0	5,360.3	5,426.7	5,360.3	21.5	17.3	-157.47	346.6	-622.4	1,478.2	1,451.2	27.07	54.608	
5,511.8	5,371.7	5,438.1	5,371.7	21.6	17.3	-157.53	346.6	-622.4	1,480.9	1,453.8	27.14	54.572	
5,600.0	5,457.5	5,524.0	5,457.5	21.9	17.4	-157.97	346.6	-622.4	1,499.8	1,472.2	27.64	54.271	
5,610.2	5,467.5	5,534.0	5,467.5	21.9	17.4	-158.02	346.6	-622.4	1,501.8	1,474.1	27.69	54.236	
5,700.0	5,555.6	5,622.0	5,555.6	22.3	17.5	-158.39	346.6	-622.4	1,518.2	1,490.1	28.17	53.900	
5,708.6	5,564.1	5,630.5	5,564.1	22.3	17.6	-158.42	346.6	-622.4	1,519.7	1,491.5	28.21	53.867	
5,800.0	5,654.2	5,720.6	5,654.2	22.6	17.7	-158.73	346.6	-622.4	1,533.5	1,504.8	28.66	53.497	
5,807.1	5,661.2	5,727.6	5,661.2	22.6	17.7	-158.75	346.6	-622.4	1,534.5	1,505.8	28.70	53.469	
5,900.0	5,753.4	5,819.8	5,753.4	22.8	17.9	-158.99	346.6	-622.4	1,545.6	1,516.4	29.13	53.065	
5,905.5	5,758.8	5,825.3	5,758.8	22.8	17.9	-159.00	346.6	-622.4	1,546.1	1,517.0	29.15	53.041	
6,000.0	5,852.9	5,919.3	5,852.9	23.1	18.0	-159.17	346.6	-622.4	1,554.4	1,524.8	29.55	52.603	
6,003.9	5,856.8	5,923.3	5,856.8	23.1	18.0	-159.18	346.6	-622.4	1,554.7	1,525.1	29.56	52.585	
6,100.0	5,952.7	6,019.2	5,952.7	23.2	18.2	-159.29	346.6	-622.4	1,560.0	1,530.0	29.94	52.112	
6,102.3	5,955.1	6,021.5	5,955.1	23.2	18.2	-159.29	346.6	-622.4	1,560.1	1,530.1	29.94	52.100	
6,200.0	6,052.7	6,119.1	6,052.7	23.4	18.3	-159.34	346.6	-622.4	1,562.3	1,532.0	30.28	51.589	
6,200.8	6,053.5	6,119.9	6,053.5	23.4	18.3	-159.34	346.6	-622.4	1,562.3	1,532.0	30.29	51.585	
6,221.1	6,073.8	6,140.2	6,073.8	23.4	18.4	-90.92	346.6	-622.4	1,562.4	1,532.0	30.35	51.475	
6,251.1	6,103.8	6,170.2	6,103.8	23.4	18.4	-90.92	346.6	-622.4	1,562.4	1,531.9	30.46	51.294	
6,299.2	6,151.8	6,217.2	6,150.7	23.5	18.5	89.11	345.8	-622.4	1,562.4	1,531.7	30.60	51.049	
6,300.0	6,152.6	6,218.0	6,151.5	23.5	18.5	89.11	345.8	-622.4	1,562.4	1,531.7	30.61	51.045	
6,350.0	6,202.4	6,266.3	6,199.7	23.5	18.5	89.15	341.9	-622.4	1,562.3	1,531.6	30.71	50.875	
6,397.6	6,249.3	6,312.5	6,245.4	23.5	18.5	89.19	335.1	-622.4	1,562.3	1,531.6	30.77	50.775	
6,400.0	6,251.6	6,314.8	6,247.6	23.5	18.5	89.20	334.7	-622.4	1,562.3	1,531.5	30.77	50.771	
6,450.0	6,300.1	6,363.3	6,295.0	23.5	18.6	89.24	324.3	-622.4	1,562.3	1,531.5	30.80	50.725	
6,496.0	6,344.0	6,408.1	6,338.1	23.5	18.6	89.29	311.9	-622.4	1,562.3	1,531.5	30.80	50.728	
6,500.0	6,347.7	6,412.0	6,341.7	23.5	18.6	89.30	310.7	-622.4	1,562.3	1,531.5	30.80	50.730	
6,550.0	6,394.1	6,460.7	6,387.4	23.5	18.6	89.35	293.9	-622.4	1,562.3	1,531.5	30.77	50.774	
6,594.5	6,434.2	6,504.1	6,427.2	23.4	18.6	89.41	276.3	-622.4	1,562.2	1,531.5	30.73	50.838	
6,600.0	6,439.0	6,509.5	6,432.0	23.4	18.6	89.41	274.0	-622.4	1,562.2	1,531.5	30.72	50.846	
6,650.0	6,482.4	6,558.4	6,475.2	23.4	18.6	89.47	251.0	-622.4	1,562.2	1,531.6	30.67	50.931	
6,692.9	6,518.1	6,600.5	6,511.0	23.3	18.6	89.53	229.0	-622.4	1,562.2	1,531.6	30.63	51.002	
6,700.0	6,523.9	6,607.5	6,516.8	23.3	18.6	89.54	225.1	-622.4	1,562.2	1,531.6	30.62	51.011	
6,750.0	6,563.3	6,656.7	6,556.7	23.3	18.6	89.60	196.3	-622.4	1,562.2	1,531.6	30.59	51.069	
6,791.3	6,594.2	6,697.4	6,588.2	23.2	18.6	89.66	170.5	-622.4	1,562.2	1,531.6	30.58	51.085	
6,800.0	6,600.5	6,705.9	6,594.6	23.2	18.6	89.67	164.8	-622.4	1,562.2	1,531.6	30.58	51.084	
6,850.0	6,635.3	6,755.4	6,630.3	23.2	18.6	89.74	130.7	-622.4	1,562.2	1,531.6	30.61	51.037	
6,889.7	6,661.1	6,794.7	6,657.0	23.1	18.6	89.80	101.8	-622.4	1,562.2	1,531.5	30.67	50.937	
6,900.0	6,667.5	6,804.9	6,663.6	23.1	18.6	89.82	94.1	-622.4	1,562.2	1,531.5	30.69	50.906	
6,950.0	6,696.9	6,854.6	6,694.5	23.1	18.6	89.89	55.1	-622.4	1,562.2	1,531.3	30.83	50.676	
6,988.2	6,717.5	6,892.6	6,716.2	23.1	18.6	89.94	23.9	-622.4	1,562.2	1,531.2	30.99	50.416	
7,000.0	6,723.5	6,904.4	6,722.6	23.1	18.6	89.96	14.0	-622.4	1,562.2	1,531.1	31.04	50.331	
7,026.3	6,736.3	6,930.7	6,736.3	23.1	18.6	90.00	-8.4	-622.4	1,562.2	1,531.0	31.19	50.086	
7,050.0	6,747.0	6,954.4	6,747.9	23.1	18.7	90.03	-29.1	-622.4	1,562.2	1,530.8	31.33	49.861	
7,086.6	6,762.3	6,991.0	6,764.5	23.1	18.7	90.09	-61.8	-622.4	1,562.2	1,530.6	31.61	49.427	
7,100.0	6,767.4	7,004.5	6,770.1	23.1	18.8	90.11	-74.0	-622.4	1,562.2	1,530.5	31.71	49.264	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,150.0	6,784.6	7,054.7	6,789.2	23.1	18.9	90.18	-120.4	-622.4	1,562.2	1,530.0	32.18	48.541	
7,185.0	6,794.7	7,090.0	6,800.7	23.1	19.0	90.23	-153.8	-622.4	1,562.2	1,529.6	32.58	47.954	
7,200.0	6,798.5	7,105.1	6,805.1	23.2	19.0	90.25	-168.2	-622.4	1,562.2	1,529.4	32.75	47.700	
7,250.0	6,808.9	7,155.6	6,817.6	23.2	19.2	90.32	-217.1	-622.4	1,562.2	1,528.8	33.41	46.756	
7,283.4	6,814.0	7,189.5	6,824.0	23.3	19.4	90.37	-250.4	-622.4	1,562.2	1,528.3	33.91	46.067	
7,300.0	6,816.0	7,206.2	6,826.6	23.4	19.5	90.39	-267.0	-622.4	1,562.2	1,528.0	34.16	45.727	
7,350.0	6,819.5	7,257.0	6,832.1	23.5	19.8	90.46	-317.5	-622.4	1,562.2	1,527.2	35.00	44.632	
7,381.9	6,820.0	7,289.5	6,833.7	23.7	20.1	90.50	-349.9	-622.4	1,562.2	1,526.6	35.58	43.909	
7,382.0	6,820.0	7,289.6	6,833.7	23.7	20.1	90.50	-350.0	-622.4	1,562.2	1,526.6	35.58	43.907	
7,400.0	6,819.8	7,308.0	6,834.0	23.8	20.2	90.52	-368.4	-622.4	1,562.2	1,526.3	35.92	43.495	
7,480.3	6,819.2	7,388.4	6,833.3	24.2	20.9	90.52	-448.8	-622.4	1,562.2	1,524.7	37.55	41.605	
7,500.0	6,819.0	7,408.1	6,833.1	24.3	21.1	90.52	-468.5	-622.4	1,562.2	1,524.3	37.96	41.156	
7,578.7	6,818.4	7,486.9	6,832.4	24.9	22.0	90.52	-547.2	-622.4	1,562.2	1,522.5	39.76	39.288	
7,600.0	6,818.2	7,508.1	6,832.2	25.0	22.2	90.51	-568.5	-622.4	1,562.2	1,522.0	40.26	38.804	
7,677.1	6,817.6	7,585.3	6,831.5	25.7	23.1	90.51	-645.6	-622.4	1,562.2	1,520.0	42.20	37.020	
7,700.0	6,817.4	7,608.1	6,831.3	25.9	23.4	90.51	-668.5	-622.4	1,562.2	1,519.4	42.78	36.516	
7,775.6	6,816.7	7,683.7	6,830.6	26.6	24.4	90.51	-744.1	-622.4	1,562.2	1,517.4	44.82	34.853	
7,800.0	6,816.5	7,708.1	6,830.4	26.9	24.7	90.51	-768.5	-622.4	1,562.2	1,516.7	45.49	34.343	
7,874.0	6,815.9	7,782.1	6,829.7	27.7	25.7	90.51	-842.5	-622.4	1,562.2	1,514.6	47.60	32.817	
7,900.0	6,815.7	7,808.1	6,829.5	28.0	26.1	90.51	-868.5	-622.4	1,562.2	1,513.9	48.35	32.310	
7,972.4	6,815.1	7,880.6	6,828.8	28.9	27.1	90.50	-940.9	-622.4	1,562.2	1,511.7	50.51	30.926	
8,000.0	6,814.9	7,908.1	6,828.6	29.2	27.5	90.50	-968.5	-622.4	1,562.2	1,510.9	51.34	30.428	
8,070.8	6,814.3	7,979.0	6,827.9	30.1	28.6	90.50	-1,039.3	-622.4	1,562.2	1,508.7	53.54	29.181	
8,100.0	6,814.1	8,008.1	6,827.7	30.5	29.0	90.50	-1,068.5	-622.4	1,562.2	1,507.8	54.44	28.696	
8,169.3	6,813.5	8,077.4	6,827.1	31.5	30.1	90.50	-1,137.8	-622.4	1,562.2	1,505.6	56.65	27.578	
8,200.0	6,813.3	8,108.1	6,826.8	31.9	30.6	90.50	-1,168.5	-622.4	1,562.2	1,504.6	57.63	27.108	
8,267.7	6,812.7	8,175.8	6,826.2	32.9	31.7	90.49	-1,236.2	-622.4	1,562.2	1,502.4	59.84	26.108	
8,300.0	6,812.4	8,208.1	6,825.9	33.3	32.2	90.49	-1,268.5	-622.4	1,562.2	1,501.3	60.89	25.655	
8,366.1	6,811.9	8,274.3	6,825.3	34.3	33.3	90.49	-1,334.6	-622.4	1,562.2	1,499.1	63.09	24.761	
8,400.0	6,811.6	8,308.1	6,825.0	34.8	33.8	90.49	-1,368.5	-622.4	1,562.2	1,498.0	64.22	24.325	
8,464.5	6,811.1	8,372.7	6,824.4	35.8	34.9	90.49	-1,433.0	-622.4	1,562.2	1,495.8	66.40	23.526	
8,500.0	6,810.8	8,408.1	6,824.1	36.3	35.5	90.49	-1,468.5	-622.4	1,562.2	1,494.6	67.61	23.108	
8,563.0	6,810.3	8,471.1	6,823.5	37.3	36.5	90.48	-1,531.4	-622.4	1,562.2	1,492.5	69.76	22.393	
8,600.0	6,810.0	8,508.1	6,823.1	37.9	37.2	90.48	-1,568.5	-622.4	1,562.2	1,491.2	71.04	21.992	
8,661.4	6,809.5	8,569.5	6,822.6	38.9	38.2	90.48	-1,629.9	-622.4	1,562.2	1,489.1	73.17	21.352	
8,700.0	6,809.1	8,608.1	6,822.2	39.5	38.9	90.48	-1,668.5	-622.4	1,562.2	1,487.7	74.51	20.967	
8,759.8	6,808.6	8,668.0	6,821.7	40.5	39.9	90.48	-1,728.3	-622.4	1,562.2	1,485.6	76.60	20.394	
8,800.0	6,808.3	8,708.1	6,821.3	41.1	40.6	90.48	-1,768.5	-622.4	1,562.2	1,484.2	78.01	20.025	
8,858.2	6,807.8	8,766.4	6,820.8	42.1	41.6	90.48	-1,826.7	-622.4	1,562.2	1,482.1	80.07	19.510	
8,900.0	6,807.5	8,808.1	6,820.4	42.8	42.3	90.47	-1,868.4	-622.4	1,562.2	1,480.7	81.55	19.157	
8,956.7	6,807.0	8,864.8	6,819.9	43.7	43.3	90.47	-1,925.1	-622.4	1,562.2	1,478.6	83.57	18.694	
9,000.0	6,806.7	8,908.1	6,819.5	44.4	44.1	90.47	-1,968.4	-622.4	1,562.2	1,477.1	85.11	18.355	
9,055.1	6,806.2	8,963.2	6,819.0	45.4	45.1	90.47	-2,023.5	-622.4	1,562.2	1,475.1	87.09	17.938	
9,100.0	6,805.8	9,008.1	6,818.6	46.1	45.9	90.47	-2,068.4	-622.4	1,562.2	1,473.5	88.70	17.612	
9,153.5	6,805.4	9,061.7	6,818.1	47.0	46.8	90.47	-2,122.0	-622.4	1,562.2	1,471.6	90.63	17.237	
9,200.0	6,805.0	9,108.1	6,817.7	47.8	47.6	90.47	-2,168.4	-622.4	1,562.2	1,469.9	92.31	16.924	
9,251.9	6,804.6	9,160.1	6,817.2	48.7	48.6	90.46	-2,220.4	-622.4	1,562.2	1,468.0	94.19	16.586	
9,300.0	6,804.2	9,208.1	6,816.8	49.6	49.4	90.46	-2,268.4	-622.4	1,562.2	1,466.3	95.93	16.284	
9,350.4	6,803.8	9,258.5	6,816.3	50.4	50.3	90.46	-2,318.8	-622.4	1,562.2	1,464.4	97.77	15.979	
9,400.0	6,803.4	9,308.1	6,815.9	51.3	51.2	90.46	-2,368.4	-622.4	1,562.2	1,462.6	99.58	15.689	
9,448.8	6,802.9	9,356.9	6,815.4	52.1	52.1	90.46	-2,417.2	-622.4	1,562.2	1,460.9	101.36	15.412	
9,500.0	6,802.5	9,408.1	6,815.0	53.0	53.0	90.46	-2,468.4	-622.4	1,562.2	1,459.0	103.23	15.133	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5E-323 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,802.1	9,455.4	6,814.5	53.9	53.9	90.45	-2,515.6	-622.4	1,562.2	1,457.2	104.97	14.883	
9,600.0	6,801.7	9,508.1	6,814.1	54.8	54.9	90.45	-2,568.4	-622.4	1,562.2	1,455.3	106.90	14.613	
9,645.6	6,801.3	9,553.8	6,813.6	55.6	55.7	90.45	-2,614.1	-622.4	1,562.2	1,453.6	108.59	14.387	
9,700.0	6,800.9	9,608.1	6,813.2	56.6	56.7	90.45	-2,668.4	-622.4	1,562.2	1,451.6	110.59	14.127	
9,744.1	6,800.5	9,652.2	6,812.7	57.4	57.5	90.45	-2,712.5	-622.4	1,562.2	1,450.0	112.21	13.922	
9,800.0	6,800.0	9,708.1	6,812.2	58.4	58.5	90.45	-2,768.4	-622.4	1,562.2	1,447.9	114.28	13.670	
9,842.5	6,799.7	9,750.6	6,811.9	59.1	59.3	90.45	-2,810.9	-622.4	1,562.2	1,446.4	115.85	13.484	
9,900.0	6,799.2	9,808.1	6,811.3	60.2	60.4	90.44	-2,868.4	-622.4	1,562.2	1,444.2	117.98	13.241	
9,940.9	6,798.9	9,849.1	6,811.0	60.9	61.1	90.44	-2,909.3	-622.4	1,562.2	1,442.7	119.50	13.073	
10,000.0	6,798.4	9,908.1	6,810.4	62.0	62.2	90.44	-2,968.4	-622.4	1,562.2	1,440.5	121.69	12.837	
10,039.3	6,798.1	9,947.5	6,810.1	62.7	62.9	90.44	-3,007.8	-622.4	1,562.2	1,439.1	123.16	12.685	
10,100.0	6,797.6	10,008.1	6,809.5	63.8	64.0	90.44	-3,068.4	-622.4	1,562.2	1,436.8	125.41	12.456	
10,137.8	6,797.2	10,045.9	6,809.2	64.4	64.7	90.44	-3,106.2	-622.4	1,562.2	1,435.4	126.82	12.318	
10,200.0	6,796.7	10,108.1	6,808.6	65.6	65.9	90.44	-3,168.4	-622.4	1,562.2	1,433.1	129.14	12.097	
10,236.2	6,796.4	10,144.3	6,808.3	66.2	66.6	90.43	-3,204.6	-622.4	1,562.2	1,431.7	130.49	11.972	
10,300.0	6,795.9	10,208.1	6,807.7	67.4	67.7	90.43	-3,268.4	-622.4	1,562.2	1,429.3	132.88	11.757	
10,334.6	6,795.6	10,242.8	6,807.4	68.0	68.4	90.43	-3,303.0	-622.4	1,562.2	1,428.0	134.17	11.644	
10,400.0	6,795.1	10,308.1	6,806.8	69.2	69.6	90.43	-3,368.4	-622.4	1,562.2	1,425.6	136.61	11.435	
10,433.0	6,794.8	10,341.2	6,806.5	69.8	70.2	90.43	-3,401.4	-622.4	1,562.2	1,424.4	137.85	11.332	
10,500.0	6,794.2	10,408.1	6,805.9	71.0	71.5	90.43	-3,468.4	-622.4	1,562.2	1,421.8	140.36	11.130	
10,531.5	6,794.0	10,439.6	6,805.6	71.6	72.1	90.43	-3,499.9	-622.4	1,562.2	1,420.7	141.54	11.037	
10,600.0	6,793.4	10,508.1	6,805.0	72.9	73.3	90.42	-3,568.4	-622.4	1,562.2	1,418.1	144.11	10.840	
10,629.9	6,793.2	10,538.0	6,804.7	73.4	73.9	90.42	-3,598.3	-622.4	1,562.2	1,417.0	145.23	10.756	
10,700.0	6,792.6	10,608.1	6,804.1	74.7	75.2	90.42	-3,668.4	-622.4	1,562.2	1,414.3	147.87	10.565	
10,728.3	6,792.3	10,636.5	6,803.8	75.2	75.7	90.42	-3,696.7	-622.4	1,562.2	1,413.3	148.93	10.489	
10,800.0	6,791.7	10,708.1	6,803.2	76.6	77.1	90.42	-3,768.4	-622.4	1,562.2	1,410.6	151.63	10.303	
10,826.7	6,791.5	10,734.9	6,802.9	77.1	77.6	90.42	-3,795.1	-622.4	1,562.2	1,409.6	152.63	10.235	
10,900.0	6,790.9	10,808.1	6,802.2	78.4	78.9	90.42	-3,868.4	-622.4	1,562.2	1,406.8	155.39	10.053	
10,925.2	6,790.7	10,833.3	6,802.0	78.9	79.4	90.41	-3,893.5	-622.4	1,562.2	1,405.9	156.34	9.992	
11,000.0	6,790.1	10,908.1	6,801.3	80.3	80.8	90.41	-3,968.4	-622.4	1,562.2	1,403.0	159.16	9.815	
11,023.6	6,789.9	10,931.7	6,801.1	80.7	81.3	90.41	-3,992.0	-622.4	1,562.2	1,402.2	160.05	9.761	
11,100.0	6,789.2	11,008.1	6,800.4	82.1	82.7	90.41	-4,068.4	-622.4	1,562.2	1,399.3	162.93	9.588	
11,122.0	6,789.1	11,030.2	6,800.2	82.5	83.1	90.41	-4,090.4	-622.4	1,562.2	1,398.4	163.76	9.539	
11,200.0	6,788.4	11,108.1	6,799.5	84.0	84.6	90.41	-4,168.4	-622.4	1,562.2	1,395.5	166.71	9.371	
11,220.4	6,788.2	11,128.6	6,799.3	84.3	85.0	90.41	-4,188.8	-622.4	1,562.2	1,394.7	167.48	9.328	
11,300.0	6,787.6	11,208.1	6,798.6	85.8	86.4	90.40	-4,268.4	-622.4	1,562.2	1,391.7	170.48	9.163	
11,318.9	6,787.4	11,227.0	6,798.4	86.2	86.8	90.40	-4,287.2	-622.4	1,562.2	1,391.0	171.20	9.125	
11,400.0	6,786.7	11,308.1	6,797.7	87.7	88.3	90.40	-4,368.3	-622.4	1,562.2	1,387.9	174.27	8.964	
11,417.3	6,786.6	11,325.4	6,797.5	88.0	88.7	90.40	-4,385.6	-622.4	1,562.2	1,387.3	174.92	8.931	
11,500.0	6,785.9	11,408.1	6,796.8	89.5	90.2	90.40	-4,468.3	-622.4	1,562.2	1,384.1	178.05	8.774	
11,515.7	6,785.8	11,423.9	6,796.6	89.8	90.5	90.40	-4,484.1	-622.4	1,562.2	1,383.6	178.65	8.745	
11,600.0	6,785.1	11,508.1	6,795.9	91.4	92.1	90.40	-4,568.3	-622.4	1,562.2	1,380.4	181.84	8.591	
11,614.1	6,785.0	11,522.3	6,795.7	91.7	92.4	90.40	-4,582.5	-622.4	1,562.2	1,379.8	182.37	8.566	
11,700.0	6,784.2	11,608.1	6,795.0	93.3	94.0	90.39	-4,668.3	-622.4	1,562.2	1,376.6	185.62	8.416	
11,712.6	6,784.1	11,620.7	6,794.9	93.5	94.2	90.39	-4,680.9	-622.4	1,562.2	1,376.1	186.10	8.394	
11,800.0	6,783.4	11,708.1	6,794.1	95.2	95.9	90.39	-4,768.3	-622.4	1,562.2	1,372.8	189.42	8.247	
11,811.0	6,783.3	11,719.1	6,794.0	95.4	96.1	90.39	-4,779.3	-622.4	1,562.2	1,372.4	189.83	8.229	
11,900.0	6,782.6	11,808.1	6,793.1	97.0	97.8	90.39	-4,868.3	-622.4	1,562.2	1,369.0	193.21	8.086	
11,909.4	6,782.5	11,817.6	6,793.1	97.2	97.9	90.39	-4,877.8	-622.4	1,562.2	1,368.6	193.57	8.071	
12,000.0	6,781.7	11,908.1	6,792.2	98.9	99.7	90.39	-4,968.3	-622.4	1,562.2	1,365.2	197.00	7.930	
12,007.8	6,781.7	11,916.0	6,792.2	99.1	99.8	90.38	-4,976.2	-622.4	1,562.2	1,364.9	197.30	7.918	
12,100.0	6,780.9	12,008.1	6,791.3	100.8	101.6	90.38	-5,068.3	-622.4	1,562.2	1,361.4	200.80	7.780	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5E-323 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,106.3	6,780.9	12,014.4	6,791.3	100.9	101.7	90.38	-5,074.6	-622.4	1,562.2	1,361.2	201.04	7.771	
12,200.0	6,780.1	12,108.1	6,790.4	102.7	103.4	90.38	-5,168.3	-622.4	1,562.2	1,357.6	204.60	7.635	
12,204.7	6,780.0	12,112.8	6,790.4	102.7	103.5	90.38	-5,173.0	-622.4	1,562.2	1,357.4	204.78	7.629	
12,300.0	6,779.2	12,208.1	6,789.5	104.5	105.3	90.38	-5,268.3	-622.4	1,562.2	1,353.8	208.40	7.496	
12,303.1	6,779.2	12,211.3	6,789.5	104.6	105.4	90.38	-5,271.4	-622.4	1,562.2	1,353.7	208.52	7.492	
12,400.0	6,778.4	12,308.1	6,788.6	106.4	107.2	90.37	-5,368.3	-622.4	1,562.2	1,350.0	212.20	7.362	
12,401.5	6,778.4	12,309.7	6,788.6	106.4	107.3	90.37	-5,369.9	-622.4	1,562.2	1,349.9	212.26	7.360	
12,500.0	6,777.6	12,408.1	6,787.7	108.3	109.1	90.37	-5,468.3	-622.4	1,562.2	1,346.2	216.01	7.232	
12,598.4	6,776.7	12,506.5	6,786.8	110.2	111.0	90.37	-5,566.7	-622.4	1,562.2	1,342.4	219.75	7.109	
12,600.0	6,776.7	12,508.1	6,786.8	110.2	111.0	90.37	-5,568.3	-622.4	1,562.2	1,342.4	219.81	7.107	
12,696.8	6,775.9	12,605.0	6,785.9	112.0	112.9	90.37	-5,665.1	-622.4	1,562.2	1,338.7	223.50	6.990	
12,700.0	6,775.9	12,608.1	6,785.9	112.1	112.9	90.37	-5,668.3	-622.4	1,562.2	1,338.6	223.62	6.986	
12,795.2	6,775.1	12,703.4	6,785.0	113.9	114.7	90.36	-5,763.5	-622.4	1,562.2	1,334.9	227.25	6.874	
12,800.0	6,775.0	12,708.1	6,785.0	114.0	114.8	90.36	-5,768.3	-622.4	1,562.2	1,334.8	227.43	6.869	
12,893.7	6,774.3	12,801.8	6,784.1	115.7	116.6	90.36	-5,862.0	-622.4	1,562.2	1,331.2	230.99	6.763	
12,900.0	6,774.2	12,808.1	6,784.0	115.8	116.7	90.36	-5,868.3	-622.4	1,562.2	1,331.0	231.24	6.756	
12,992.1	6,773.4	12,900.2	6,783.2	117.6	118.5	90.36	-5,960.4	-622.4	1,562.2	1,327.4	234.74	6.655	
13,000.0	6,773.4	12,908.1	6,783.1	117.7	118.6	90.36	-5,968.3	-622.4	1,562.2	1,327.1	235.05	6.646	
13,090.5	6,772.6	12,998.7	6,782.3	119.4	120.3	90.36	-6,058.8	-622.4	1,562.2	1,323.7	238.50	6.550	
13,100.0	6,772.5	13,008.1	6,782.2	119.6	120.5	90.36	-6,068.3	-622.4	1,562.2	1,323.3	238.86	6.540	
13,188.9	6,771.8	13,097.1	6,781.4	121.3	122.2	90.35	-6,157.2	-622.4	1,562.2	1,319.9	242.25	6.449	
13,200.0	6,771.7	13,108.1	6,781.3	121.5	122.4	90.35	-6,168.3	-622.4	1,562.2	1,319.5	242.67	6.438	
13,287.4	6,771.0	13,195.5	6,780.5	123.2	124.1	90.35	-6,255.6	-622.4	1,562.2	1,316.2	246.00	6.350	
13,300.0	6,770.9	13,208.1	6,780.4	123.4	124.3	90.35	-6,268.3	-622.4	1,562.2	1,315.7	246.48	6.338	
13,385.8	6,770.1	13,293.9	6,779.6	125.0	126.0	90.35	-6,354.1	-622.4	1,562.2	1,312.4	249.76	6.255	
13,400.0	6,770.0	13,308.1	6,779.5	125.3	126.2	90.35	-6,368.3	-622.4	1,562.2	1,311.9	250.30	6.241	
13,484.2	6,769.3	13,392.4	6,778.7	126.9	127.8	90.35	-6,452.5	-622.4	1,562.2	1,308.7	253.51	6.162	
13,500.0	6,769.2	13,408.1	6,778.6	127.2	128.1	90.35	-6,468.3	-622.4	1,562.2	1,308.1	254.11	6.148	
13,582.6	6,768.5	13,490.8	6,777.8	128.8	129.7	90.34	-6,550.9	-622.4	1,562.2	1,304.9	257.27	6.072	
13,600.0	6,768.3	13,508.1	6,777.7	129.1	130.0	90.34	-6,568.3	-622.4	1,562.2	1,304.3	257.93	6.057	
13,681.1	6,767.6	13,589.2	6,776.9	130.6	131.6	90.34	-6,649.3	-622.4	1,562.2	1,301.2	261.02	5.985	
13,700.0	6,767.5	13,608.1	6,776.8	131.0	131.9	90.34	-6,668.3	-622.4	1,562.2	1,300.4	261.75	5.968	
13,779.5	6,766.8	13,687.6	6,776.0	132.5	133.5	90.34	-6,747.7	-622.4	1,562.2	1,297.4	264.78	5.900	
13,800.0	6,766.6	13,708.1	6,775.9	132.9	133.9	90.34	-6,768.2	-622.4	1,562.2	1,296.6	265.56	5.883	
13,877.9	6,766.0	13,786.1	6,775.1	134.4	135.3	90.34	-6,846.2	-622.4	1,562.2	1,293.6	268.54	5.817	
13,900.0	6,765.8	13,808.1	6,774.9	134.8	135.8	90.34	-6,868.2	-622.4	1,562.2	1,292.8	269.38	5.799	
13,976.3	6,765.2	13,884.5	6,774.2	136.2	137.2	90.33	-6,944.6	-622.4	1,562.2	1,289.9	272.30	5.737	
13,995.7	6,765.0	13,903.8	6,774.1	136.6	137.6	90.33	-6,963.9	-622.4	1,562.2	1,289.2	273.02	5.722 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	0.61	104.9	1.1	104.9				
98.4	98.4	98.4	98.4	0.1	0.1	0.61	104.9	1.1	104.9	104.8	0.17	617.501	
100.0	100.0	100.0	100.0	0.1	0.1	0.61	104.9	1.1	104.9	104.8	0.17	606.323	
196.8	196.8	196.8	196.8	0.3	0.3	0.61	104.9	1.1	104.9	104.3	0.61	172.467	
200.0	200.0	200.0	200.0	0.3	0.3	0.61	104.9	1.1	104.9	104.3	0.62	168.545	
295.3	295.3	295.3	295.3	0.5	0.5	0.61	104.9	1.1	104.9	103.9	1.05	99.854	
300.0	300.0	300.0	300.0	0.5	0.5	0.61	104.9	1.1	104.9	103.9	1.07	97.876	
393.7	393.7	393.7	393.7	0.7	0.7	0.61	104.9	1.1	104.9	103.4	1.49	70.269	
400.0	400.0	400.0	400.0	0.8	0.8	0.61	104.9	1.1	104.9	103.4	1.52	68.961	
492.1	492.1	492.1	492.1	1.0	1.0	0.61	104.9	1.1	104.9	103.0	1.94	54.208	
500.0	500.0	500.0	500.0	1.0	1.0	0.61	104.9	1.1	104.9	103.0	1.97	53.235	
590.5	590.5	590.5	590.5	1.2	1.2	0.61	104.9	1.1	104.9	102.6	2.38	44.123	
600.0	600.0	600.0	600.0	1.2	1.2	0.61	104.9	1.1	104.9	102.5	2.42	43.349	
689.0	689.0	689.0	689.0	1.4	1.4	0.61	104.9	1.1	104.9	102.1	2.82	37.202	
700.0	700.0	700.0	700.0	1.4	1.4	0.61	104.9	1.1	104.9	102.1	2.87	36.560	
787.4	787.4	787.4	787.4	1.6	1.6	0.61	104.9	1.1	104.9	101.7	3.26	32.158	
800.0	800.0	800.0	800.0	1.7	1.7	0.61	104.9	1.1	104.9	101.6	3.32	31.609	
885.8	885.8	885.8	885.8	1.9	1.9	0.61	104.9	1.1	104.9	101.2	3.71	28.318	
900.0	900.0	900.0	900.0	1.9	1.9	0.61	104.9	1.1	104.9	101.2	3.77	27.840	
984.2	984.2	984.2	984.2	2.1	2.1	0.61	104.9	1.1	104.9	100.8	4.15	25.298	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.61	104.9	1.1	104.9	100.7	4.22	24.873	
1,037.2	1,037.2	1,037.2	1,037.2	2.2	2.2	0.61	104.9	1.1	104.9	100.6	4.39	23.925 CC	
1,082.7	1,082.7	1,082.4	1,082.4	2.3	2.3	0.51	105.0	0.9	105.0	100.4	4.59	22.889	
1,100.0	1,100.0	1,099.6	1,099.6	2.3	2.3	0.38	105.0	0.7	105.0	100.4	4.66	22.531 ES	
1,181.1	1,181.1	1,179.9	1,179.8	2.5	2.5	-0.94	105.7	-1.7	105.7	100.7	5.01	21.093	
1,200.0	1,200.0	1,198.5	1,198.5	2.6	2.5	-1.41	105.9	-2.6	106.0	100.9	5.09	20.806	
1,279.5	1,279.5	1,277.0	1,276.8	2.7	2.7	-4.05	107.2	-7.6	107.5	102.1	5.44	19.771	
1,300.0	1,300.0	1,297.2	1,296.9	2.8	2.7	-4.88	107.6	-9.2	108.1	102.5	5.53	19.554	
1,377.9	1,377.9	1,373.7	1,373.0	3.0	2.9	-8.59	109.6	-16.6	110.9	105.1	5.87	18.902	
1,400.0	1,400.0	1,395.2	1,394.4	3.0	3.0	-9.77	110.2	-19.0	112.0	106.0	5.96	18.772	
1,476.4	1,476.4	1,469.6	1,468.1	3.2	3.2	-14.22	112.7	-28.6	116.6	110.3	6.30	18.501	
1,500.0	1,500.0	1,492.5	1,490.7	3.2	3.2	-15.67	113.6	-31.9	118.3	111.9	6.40	18.476	
1,574.8	1,574.8	1,564.6	1,561.8	3.4	3.4	-20.44	116.6	-43.5	125.1	118.4	6.74	18.570	
1,600.0	1,600.0	1,588.7	1,585.5	3.5	3.5	-22.07	117.7	-47.7	127.9	121.0	6.85	18.663	
1,673.2	1,673.2	1,658.7	1,654.1	3.6	3.7	-26.77	121.3	-61.2	137.2	130.0	7.19	19.078	
1,700.0	1,700.0	1,684.9	1,679.7	3.7	3.8	-28.45	122.7	-66.5	141.0	133.7	7.32	19.267	
1,771.6	1,771.6	1,754.9	1,748.3	3.8	4.1	-32.52	126.4	-80.5	151.7	144.0	7.66	19.794	
1,800.0	1,800.0	1,782.7	1,775.4	3.9	4.2	-33.97	127.8	-86.1	156.1	148.3	7.80	20.007	
1,870.1	1,870.1	1,851.2	1,842.4	4.1	4.4	-37.24	131.4	-99.9	167.4	159.2	8.16	20.525	
1,900.0	1,900.0	1,880.5	1,871.1	4.1	4.5	-38.51	133.0	-105.8	172.4	164.1	8.31	20.742	
1,968.5	1,968.5	1,947.5	1,936.6	4.3	4.8	-41.15	136.5	-119.3	184.1	175.4	8.67	21.223	
2,000.0	2,000.0	1,978.3	1,966.7	4.4	4.9	-42.25	138.1	-125.5	189.6	180.7	8.84	21.436	
2,066.9	2,066.9	2,043.8	2,030.8	4.5	5.2	-44.40	141.6	-138.7	201.5	192.2	9.21	21.871	
2,100.0	2,100.0	2,076.1	2,062.4	4.6	5.3	-45.37	143.3	-145.2	207.4	198.0	9.40	22.076	
2,165.3	2,165.3	2,139.9	2,124.8	4.7	5.6	-115.50	146.7	-158.0	219.7	210.0	9.65	22.772	
2,200.0	2,200.0	2,173.6	2,157.8	4.8	5.7	-116.45	148.5	-164.8	226.5	216.7	9.80	23.109	
2,263.8	2,263.7	2,235.4	2,218.2	4.9	6.0	-118.26	151.7	-177.2	239.9	229.8	10.08	23.794	
2,300.0	2,299.8	2,270.4	2,252.5	5.0	6.1	-119.31	153.6	-184.2	247.8	237.6	10.23	24.217	
2,362.2	2,361.8	2,330.2	2,311.0	5.1	6.4	-121.14	156.7	-196.3	262.3	251.8	10.50	24.994	
2,400.0	2,399.5	2,366.4	2,346.3	5.2	6.5	-122.24	158.6	-203.6	271.6	261.0	10.65	25.503	
2,460.6	2,459.7	2,424.1	2,402.8	5.4	6.8	-124.01	161.7	-215.2	287.3	276.4	10.90	26.367	
2,500.0	2,498.7	2,461.4	2,439.3	5.5	6.9	-125.15	163.6	-222.7	298.1	287.0	11.06	26.964	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,557.1	2,517.0	2,493.7	5.6	7.2	-126.81	166.6	-233.9	315.1	303.8	11.29	27.905	
2,600.0	2,597.5	2,555.4	2,531.2	5.7	7.3	-127.94	168.6	-241.6	327.5	316.0	11.45	28.596	
2,657.5	2,654.0	2,608.9	2,583.5	5.9	7.6	-129.48	171.4	-252.3	345.7	334.0	11.68	29.602	
2,700.0	2,695.6	2,648.2	2,622.0	6.0	7.7	-130.59	173.5	-260.2	359.8	348.0	11.84	30.385	
2,755.9	2,750.2	2,699.5	2,672.2	6.2	8.0	-131.99	176.2	-270.6	379.3	367.2	12.06	31.443	
2,800.0	2,793.1	2,739.7	2,711.5	6.3	8.1	-133.05	178.3	-278.7	395.3	383.1	12.23	32.319	
2,854.3	2,845.6	2,788.9	2,759.6	6.5	8.4	-134.30	180.9	-288.5	415.9	403.5	12.45	33.413	
2,900.0	2,889.6	2,829.9	2,799.7	6.6	8.5	-135.31	183.1	-296.8	434.0	421.3	12.62	34.379	
2,952.7	2,940.2	2,876.8	2,845.6	6.8	8.7	-136.42	185.6	-306.2	455.6	442.8	12.83	35.506	
3,000.0	2,985.3	2,918.5	2,886.4	7.0	8.9	-137.37	187.8	-314.6	475.8	462.8	13.02	36.550	
3,016.9	3,001.4	2,933.4	2,900.9	7.1	9.0	-137.70	188.6	-317.6	483.2	470.1	13.08	36.927	
3,051.2	3,033.9	2,963.3	2,930.3	7.3	9.1	-138.55	190.1	-323.6	498.3	485.0	13.24	37.638	
3,100.0	3,080.2	3,006.1	2,972.1	7.5	9.3	-139.69	192.4	-332.2	519.9	506.5	13.46	38.626	
3,149.6	3,127.3	3,049.5	3,014.6	7.7	9.5	-140.76	194.7	-341.0	542.1	528.4	13.69	39.590	
3,200.0	3,175.1	3,093.7	3,057.7	8.0	9.7	-141.77	197.0	-349.9	564.8	550.8	13.93	40.542	
3,248.0	3,220.7	3,135.7	3,098.9	8.2	9.9	-142.65	199.2	-358.3	586.5	572.3	14.16	41.412	
3,300.0	3,270.0	3,181.2	3,143.4	8.5	10.1	-143.54	201.6	-367.5	610.1	595.7	14.42	42.326	
3,346.4	3,314.1	3,221.9	3,183.2	8.7	10.3	-144.29	203.8	-375.7	631.4	616.7	14.65	43.110	
3,400.0	3,365.0	3,268.8	3,229.0	9.0	10.5	-145.08	206.3	-385.1	655.9	641.0	14.91	43.987	
3,444.9	3,407.6	3,308.1	3,267.5	9.2	10.7	-145.71	208.3	-393.0	676.6	661.5	15.14	44.693	
3,500.0	3,459.9	3,356.4	3,314.7	9.5	10.9	-146.42	210.9	-402.7	702.1	686.6	15.42	45.534	
3,543.3	3,501.0	3,394.3	3,351.8	9.8	11.1	-146.95	212.9	-410.3	722.1	706.5	15.64	46.170	
3,600.0	3,554.8	3,444.0	3,400.4	10.1	11.3	-147.60	215.5	-420.3	748.5	732.5	15.93	46.977	
3,641.7	3,594.4	3,480.5	3,436.1	10.3	11.4	-148.05	217.4	-427.7	767.9	751.7	16.15	47.549	
3,700.0	3,649.7	3,531.5	3,486.0	10.7	11.7	-148.65	220.1	-437.9	795.1	778.6	16.45	48.324	
3,740.1	3,687.8	3,566.7	3,520.4	10.9	11.8	-149.03	222.0	-445.0	813.9	797.2	16.66	48.839	
3,800.0	3,744.7	3,619.1	3,571.7	11.2	12.1	-149.58	224.8	-455.6	841.9	824.9	16.98	49.584	
3,838.6	3,781.3	3,652.9	3,604.7	11.5	12.2	-149.91	226.5	-462.4	860.0	842.8	17.18	50.046	
3,900.0	3,839.6	3,706.7	3,657.3	11.8	12.5	-150.41	229.4	-473.2	888.9	871.3	17.51	50.762	
3,937.0	3,874.7	3,739.1	3,689.0	12.1	12.6	-150.70	231.1	-479.7	906.3	888.6	17.71	51.178	
4,000.0	3,934.5	3,794.2	3,743.0	12.4	12.9	-151.16	234.0	-490.8	936.0	917.9	18.05	51.867	
4,035.4	3,968.1	3,825.3	3,773.3	12.6	13.0	-151.41	235.6	-497.0	952.7	934.4	18.24	52.241	
4,100.0	4,029.4	3,881.8	3,828.6	13.0	13.3	-151.84	238.6	-508.4	983.2	964.6	18.58	52.904	
4,133.8	4,061.5	3,911.5	3,857.6	13.2	13.4	-152.06	240.2	-514.4	999.2	980.4	18.77	53.240	
4,200.0	4,124.3	3,969.4	3,914.3	13.6	13.7	-152.46	243.2	-526.0	1,030.5	1,011.4	19.13	53.879	
4,232.3	4,155.0	3,997.6	3,941.9	13.8	13.8	-152.65	244.7	-531.7	1,045.8	1,026.5	19.30	54.180	
4,300.0	4,219.3	4,056.9	3,999.9	14.2	14.1	-153.02	247.9	-543.6	1,077.9	1,058.2	19.67	54.796	
4,330.7	4,248.4	4,083.8	4,026.2	14.4	14.2	-153.19	249.3	-549.1	1,092.5	1,072.6	19.84	55.066	
4,400.0	4,314.2	4,144.5	4,085.6	14.9	14.5	-153.54	252.5	-561.3	1,125.4	1,105.1	20.22	55.660	
4,429.1	4,341.8	4,170.0	4,110.5	15.0	14.6	-153.68	253.8	-566.4	1,139.2	1,118.8	20.38	55.902	
4,500.0	4,409.1	4,232.1	4,171.3	15.5	14.9	-154.02	257.1	-578.9	1,172.9	1,152.1	20.77	56.476	
4,527.5	4,435.3	4,256.2	4,194.9	15.7	15.0	-154.14	258.4	-583.7	1,186.0	1,165.1	20.92	56.692	
4,600.0	4,504.0	4,319.7	4,256.9	16.1	15.3	-154.46	261.7	-596.5	1,220.5	1,199.2	21.32	57.246	
4,626.0	4,528.7	4,342.4	4,279.2	16.3	15.4	-154.56	262.9	-601.1	1,232.9	1,211.4	21.46	57.439	
4,700.0	4,598.9	4,407.2	4,342.6	16.7	15.7	-154.86	266.4	-614.1	1,268.2	1,246.3	21.87	57.975	
4,724.4	4,622.1	4,428.6	4,363.5	16.9	15.7	-154.96	267.5	-618.4	1,279.8	1,257.8	22.01	58.147	
4,800.0	4,693.9	4,494.8	4,428.2	17.4	16.1	-155.24	271.0	-631.7	1,315.9	1,293.4	22.43	58.666	
4,822.8	4,715.5	4,514.8	4,447.8	17.5	16.1	-155.32	272.0	-635.7	1,326.8	1,304.2	22.56	58.818	
4,900.0	4,788.8	4,582.4	4,513.9	18.0	16.5	-155.59	275.6	-649.3	1,363.6	1,340.6	22.99	59.320	
4,921.2	4,809.0	4,601.0	4,532.1	18.1	16.5	-155.66	276.6	-653.1	1,373.7	1,350.6	23.11	59.455	
5,000.0	4,883.7	4,669.9	4,599.5	18.6	16.9	-155.92	280.2	-667.0	1,411.4	1,387.8	23.55	59.941	
5,019.7	4,902.4	4,687.2	4,616.4	18.7	16.9	-155.98	281.1	-670.4	1,420.8	1,397.1	23.66	60.060	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5E-423 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,978.6	4,757.5	4,685.2	19.3	17.3	-156.22	284.8	-684.6	1,459.2	1,435.1	24.11	60.532	
5,118.1	4,995.8	4,773.4	4,700.7	19.4	17.3	-156.28	285.7	-687.8	1,467.8	1,443.6	24.21	60.635	
5,200.0	5,073.6	4,845.1	4,770.8	19.9	17.7	-156.51	289.5	-702.2	1,507.0	1,482.4	24.67	61.093	
5,216.5	5,089.2	4,859.6	4,785.0	20.0	17.7	-156.56	290.2	-705.1	1,514.9	1,490.2	24.76	61.183	
5,304.2	5,172.4	4,936.3	4,860.1	20.6	18.1	-156.79	294.3	-720.5	1,556.9	1,531.6	25.25	61.649	
5,314.9	5,182.7	4,945.8	4,869.3	20.6	18.1	-156.86	294.8	-722.4	1,562.0	1,536.7	25.33	61.671	
5,400.0	5,263.9	5,021.0	4,942.9	21.1	18.5	-157.40	298.8	-737.6	1,601.5	1,575.6	25.92	61.791	
5,413.4	5,276.7	5,032.9	4,954.5	21.1	18.5	-157.48	299.4	-740.0	1,607.5	1,581.5	26.01	61.814	
5,500.0	5,360.3	5,110.8	5,030.7	21.5	18.9	-157.93	303.5	-755.6	1,645.2	1,618.6	26.57	61.916	
5,511.8	5,371.7	5,121.5	5,041.2	21.6	18.9	-157.99	304.1	-757.8	1,650.2	1,623.5	26.65	61.928	
5,600.0	5,457.5	5,202.0	5,120.0	21.9	19.3	-158.37	308.3	-774.0	1,686.0	1,658.8	27.20	61.977	
5,610.2	5,467.5	5,211.4	5,129.2	21.9	19.3	-158.41	308.8	-775.9	1,690.0	1,662.8	27.27	61.982	
5,700.0	5,555.6	5,294.6	5,210.5	22.3	19.7	-158.73	313.2	-792.6	1,723.9	1,696.0	27.81	61.983	
5,708.6	5,564.1	5,302.6	5,218.4	22.3	19.7	-158.75	313.6	-794.2	1,727.0	1,699.1	27.86	61.983	
5,800.0	5,654.2	5,388.3	5,302.2	22.6	20.1	-159.00	318.1	-811.5	1,758.7	1,730.3	28.39	61.944	
5,807.1	5,661.2	5,395.0	5,308.7	22.6	20.2	-159.02	318.5	-812.8	1,761.0	1,732.6	28.43	61.941	
5,900.0	5,753.4	5,483.2	5,395.0	22.8	20.6	-159.21	323.1	-830.6	1,790.4	1,761.4	28.94	61.865	
5,905.5	5,758.8	5,488.4	5,400.1	22.8	20.6	-159.22	323.4	-831.6	1,792.0	1,763.1	28.97	61.861	
6,000.0	5,852.9	5,634.7	5,543.4	23.1	21.2	-159.30	330.8	-859.7	1,818.5	1,788.9	29.58	61.482	
6,003.9	5,856.8	5,644.5	5,553.1	23.1	21.2	-159.30	331.2	-861.3	1,819.4	1,789.8	29.61	61.450	
6,100.0	5,952.7	5,889.6	5,796.0	23.2	21.8	-159.31	339.4	-892.4	1,836.8	1,806.5	30.32	60.576	
6,102.3	5,955.1	5,895.7	5,802.1	23.2	21.8	-159.31	339.5	-892.9	1,837.1	1,806.7	30.34	60.553	
6,200.0	6,052.7	6,146.6	6,052.7	23.4	22.2	-159.34	342.2	-903.3	1,843.2	1,812.3	30.95	59.565	
6,200.8	6,053.5	6,147.4	6,053.5	23.4	22.2	-159.34	342.2	-903.3	1,843.3	1,812.3	30.95	59.560	
6,221.1	6,073.8	6,167.7	6,073.8	23.4	22.3	-90.92	342.2	-903.3	1,843.3	1,812.3	31.01	59.436	
6,251.1	6,103.8	6,197.7	6,103.8	23.4	22.3	-90.92	342.2	-903.3	1,843.3	1,812.2	31.11	59.244	
6,299.2	6,151.8	6,245.7	6,151.8	23.5	22.4	89.14	342.2	-903.3	1,843.3	1,812.0	31.27	58.948	
6,300.0	6,152.6	6,246.5	6,152.6	23.5	22.4	89.14	342.2	-903.3	1,843.3	1,812.0	31.27	58.943	
6,350.0	6,202.4	6,296.1	6,202.2	23.5	22.4	89.30	342.2	-903.3	1,843.2	1,811.8	31.41	58.685	
6,397.6	6,249.3	6,342.1	6,248.1	23.5	22.5	89.50	340.5	-903.3	1,843.2	1,811.7	31.50	58.513	
6,400.0	6,251.6	6,344.4	6,250.4	23.5	22.5	89.51	340.3	-903.3	1,843.2	1,811.7	31.50	58.505	
6,450.0	6,300.1	6,393.1	6,298.8	23.5	22.5	89.71	335.1	-903.3	1,843.1	1,811.5	31.56	58.392	
6,496.0	6,344.0	6,438.3	6,343.4	23.5	22.5	89.91	327.3	-903.3	1,843.1	1,811.5	31.59	58.345	
6,500.0	6,347.7	6,442.2	6,347.2	23.5	22.5	89.92	326.5	-903.3	1,843.1	1,811.5	31.59	58.342	
6,518.0	6,364.5	6,460.0	6,364.5	23.5	22.5	90.00	322.5	-903.3	1,843.1	1,811.5	31.59	58.340	
6,550.0	6,394.1	6,491.8	6,395.3	23.5	22.6	90.14	314.5	-903.3	1,843.1	1,811.5	31.59	58.343	
6,594.5	6,434.2	6,536.3	6,437.7	23.4	22.6	90.32	300.9	-903.3	1,843.1	1,811.5	31.57	58.380	
6,600.0	6,439.0	6,541.9	6,442.9	23.4	22.6	90.35	299.0	-903.3	1,843.1	1,811.6	31.57	58.385	
6,650.0	6,482.4	6,592.4	6,489.8	23.4	22.6	90.56	280.0	-903.3	1,843.2	1,811.6	31.53	58.454	
6,692.9	6,518.1	6,636.2	6,529.2	23.3	22.6	90.74	261.0	-903.3	1,843.2	1,811.7	31.50	58.520	
6,700.0	6,523.9	6,643.5	6,535.6	23.3	22.6	90.77	257.6	-903.3	1,843.3	1,811.8	31.49	58.532	
6,750.0	6,563.3	6,695.1	6,580.2	23.3	22.6	90.97	231.6	-903.3	1,843.4	1,811.9	31.46	58.598	
6,791.3	6,594.2	6,738.1	6,615.9	23.2	22.6	91.14	207.5	-903.3	1,843.5	1,812.0	31.44	58.627	
6,800.0	6,600.5	6,747.2	6,623.2	23.2	22.6	91.18	202.2	-903.3	1,843.5	1,812.0	31.44	58.633	
6,850.0	6,635.3	6,799.8	6,664.4	23.2	22.6	91.38	169.4	-903.3	1,843.6	1,812.2	31.46	58.610	
6,889.7	6,661.1	6,842.0	6,695.6	23.1	22.6	91.53	141.0	-903.3	1,843.8	1,812.3	31.50	58.528	
6,900.0	6,667.5	6,853.0	6,703.4	23.1	22.6	91.57	133.3	-903.3	1,843.8	1,812.3	31.52	58.504	
6,950.0	6,696.9	6,906.7	6,739.9	23.1	22.6	91.75	94.0	-903.3	1,844.0	1,812.3	31.64	58.288	
6,988.2	6,717.5	6,948.0	6,766.0	23.1	22.6	91.89	62.0	-903.3	1,844.1	1,812.3	31.77	58.042	
7,000.0	6,723.5	6,960.8	6,773.8	23.1	22.7	91.93	51.7	-903.3	1,844.1	1,812.3	31.82	57.954	
7,050.0	6,747.0	7,015.5	6,804.6	23.1	22.7	92.10	6.5	-903.3	1,844.3	1,812.2	32.09	57.469	
7,086.6	6,762.3	7,055.9	6,825.0	23.1	22.7	92.21	-28.2	-903.3	1,844.5	1,812.1	32.35	57.016	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,767.4	7,070.7	6,832.0	23.1	22.8	92.26	-41.3	-903.3	1,844.5	1,812.1	32.45	56.834	
7,150.0	6,784.6	7,126.3	6,855.9	23.1	22.9	92.40	-91.5	-903.3	1,844.7	1,811.8	32.92	56.043	
7,185.0	6,794.7	7,165.6	6,870.4	23.1	22.9	92.50	-128.0	-903.3	1,844.9	1,811.5	33.31	55.393	
7,200.0	6,798.5	7,182.4	6,876.0	23.2	23.0	92.54	-143.8	-903.3	1,844.9	1,811.4	33.48	55.104	
7,250.0	6,808.9	7,238.9	6,892.0	23.2	23.1	92.66	-198.0	-903.3	1,845.1	1,810.9	34.15	54.031	
7,283.4	6,814.0	7,276.8	6,900.4	23.3	23.3	92.73	-235.0	-903.3	1,845.2	1,810.5	34.66	53.237	
7,300.0	6,816.0	7,295.7	6,903.8	23.4	23.4	92.76	-253.5	-903.3	1,845.2	1,810.3	34.92	52.844	
7,350.0	6,819.5	7,352.8	6,911.2	23.5	23.6	92.85	-310.2	-903.3	1,845.4	1,809.6	35.79	51.566	
7,381.9	6,820.0	7,389.4	6,913.5	23.7	23.8	92.90	-346.7	-903.3	1,845.5	1,809.1	36.39	50.713	
7,382.0	6,820.0	7,389.5	6,913.5	23.7	23.8	92.90	-346.8	-903.3	1,845.5	1,809.1	36.39	50.710	
7,400.0	6,819.8	7,410.3	6,914.0	23.8	24.0	92.92	-367.5	-903.3	1,845.5	1,808.7	36.75	50.221	
7,480.3	6,819.2	7,491.8	6,913.7	24.2	24.5	92.94	-449.1	-903.3	1,845.5	1,807.1	38.37	48.101	
7,500.0	6,819.0	7,511.5	6,913.6	24.3	24.7	92.94	-468.8	-903.3	1,845.5	1,806.7	38.78	47.595	
7,578.7	6,818.4	7,590.3	6,913.2	24.9	25.3	92.95	-547.5	-903.3	1,845.5	1,805.0	40.55	45.508	
7,600.0	6,818.2	7,611.5	6,913.1	25.0	25.5	92.95	-568.8	-903.3	1,845.5	1,804.5	41.05	44.962	
7,677.1	6,817.6	7,688.7	6,912.8	25.7	26.3	92.96	-646.0	-903.3	1,845.5	1,802.6	42.96	42.958	
7,700.0	6,817.4	7,711.5	6,912.7	25.9	26.5	92.96	-668.8	-903.3	1,845.5	1,802.0	43.54	42.389	
7,775.6	6,816.7	7,787.1	6,912.3	26.6	27.3	92.97	-744.4	-903.3	1,845.6	1,800.0	45.56	40.512	
7,800.0	6,816.5	7,811.5	6,912.2	26.9	27.6	92.97	-768.8	-903.3	1,845.6	1,799.4	46.22	39.933	
7,874.0	6,815.9	7,885.5	6,911.9	27.7	28.5	92.98	-842.8	-903.3	1,845.6	1,797.3	48.31	38.205	
7,900.0	6,815.7	7,911.5	6,911.8	28.0	28.8	92.98	-868.8	-903.3	1,845.6	1,796.5	49.05	37.628	
7,972.4	6,815.1	7,984.0	6,911.4	28.9	29.7	92.99	-941.2	-903.3	1,845.6	1,794.4	51.19	36.054	
8,000.0	6,814.9	8,011.5	6,911.3	29.2	30.1	92.99	-968.8	-903.3	1,845.6	1,793.6	52.01	35.485	
8,070.8	6,814.3	8,082.4	6,911.0	30.1	31.1	93.00	-1,039.6	-903.3	1,845.6	1,791.4	54.18	34.063	
8,100.0	6,814.1	8,111.5	6,910.9	30.5	31.5	93.01	-1,068.8	-903.3	1,845.6	1,790.5	55.08	33.507	
8,169.3	6,813.5	8,180.8	6,910.5	31.5	32.5	93.01	-1,138.1	-903.3	1,845.6	1,788.4	57.27	32.228	
8,200.0	6,813.3	8,211.5	6,910.4	31.9	32.9	93.02	-1,168.8	-903.3	1,845.6	1,787.4	58.24	31.689	
8,267.7	6,812.7	8,279.2	6,910.1	32.9	33.9	93.02	-1,236.5	-903.3	1,845.7	1,785.2	60.43	30.540	
8,300.0	6,812.4	8,311.5	6,909.9	33.3	34.4	93.03	-1,268.8	-903.3	1,845.7	1,784.2	61.48	30.019	
8,366.1	6,811.9	8,377.7	6,909.6	34.3	35.4	93.04	-1,334.9	-903.3	1,845.7	1,782.0	63.67	28.990	
8,400.0	6,811.6	8,411.5	6,909.5	34.8	35.9	93.04	-1,368.8	-903.3	1,845.7	1,780.9	64.79	28.488	
8,464.5	6,811.1	8,476.1	6,909.2	35.8	36.9	93.05	-1,433.3	-903.3	1,845.7	1,778.7	66.96	27.566	
8,500.0	6,810.8	8,511.5	6,909.0	36.3	37.5	93.05	-1,468.8	-903.3	1,845.7	1,777.6	68.15	27.083	
8,563.0	6,810.3	8,574.5	6,908.8	37.3	38.5	93.06	-1,531.8	-903.3	1,845.7	1,775.4	70.29	26.257	
8,600.0	6,810.0	8,611.5	6,908.6	37.9	39.1	93.06	-1,568.8	-903.3	1,845.7	1,774.2	71.56	25.793	
8,661.4	6,809.5	8,672.9	6,908.3	38.9	40.1	93.07	-1,630.2	-903.3	1,845.7	1,772.1	73.68	25.052	
8,700.0	6,809.1	8,711.5	6,908.1	39.5	40.7	93.07	-1,668.8	-903.3	1,845.7	1,770.7	75.01	24.607	
8,759.8	6,808.6	8,771.4	6,907.9	40.5	41.7	93.08	-1,728.6	-903.3	1,845.8	1,768.7	77.09	23.941	
8,800.0	6,808.3	8,811.5	6,907.7	41.1	42.4	93.09	-1,768.8	-903.3	1,845.8	1,767.3	78.50	23.514	
8,858.2	6,807.8	8,869.8	6,907.4	42.1	43.4	93.09	-1,827.0	-903.3	1,845.8	1,765.2	80.55	22.916	
8,900.0	6,807.5	8,911.5	6,907.2	42.8	44.1	93.10	-1,868.8	-903.3	1,845.8	1,763.8	82.02	22.505	
8,956.7	6,807.0	8,968.2	6,907.0	43.7	45.0	93.10	-1,925.5	-903.3	1,845.8	1,761.8	84.02	21.967	
9,000.0	6,806.7	9,011.5	6,906.8	44.4	45.8	93.11	-1,968.8	-903.3	1,845.8	1,760.2	85.56	21.573	
9,055.1	6,806.2	9,066.6	6,906.5	45.4	46.7	93.12	-2,023.9	-903.3	1,845.8	1,758.3	87.53	21.088	
9,100.0	6,805.8	9,111.5	6,906.3	46.1	47.5	93.12	-2,068.8	-903.3	1,845.8	1,756.7	89.13	20.709	
9,153.5	6,805.4	9,165.1	6,906.1	47.0	48.4	93.13	-2,122.3	-903.3	1,845.8	1,754.8	91.05	20.272	
9,200.0	6,805.0	9,211.5	6,905.9	47.8	49.2	93.13	-2,168.8	-903.3	1,845.8	1,753.1	92.72	19.907	
9,251.9	6,804.6	9,263.5	6,905.6	48.7	50.1	93.14	-2,220.7	-903.3	1,845.9	1,751.3	94.60	19.512	
9,300.0	6,804.2	9,311.5	6,905.4	49.6	51.0	93.14	-2,268.8	-903.3	1,845.9	1,749.5	96.34	19.161	
9,350.4	6,803.8	9,361.9	6,905.2	50.4	51.8	93.15	-2,319.2	-903.3	1,845.9	1,747.7	98.16	18.804	
9,400.0	6,803.4	9,411.5	6,905.0	51.3	52.7	93.16	-2,368.8	-903.3	1,845.9	1,745.9	99.96	18.466	
9,448.8	6,802.9	9,460.3	6,904.7	52.1	53.6	93.16	-2,417.6	-903.3	1,845.9	1,744.2	101.74	18.143	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5E-423 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,802.5	9,511.5	6,904.5	53.0	54.5	93.17	-2,468.8	-903.3	1,845.9	1,742.3	103.61	17.816	
9,547.2	6,802.1	9,558.7	6,904.3	53.9	55.3	93.17	-2,516.0	-903.3	1,845.9	1,740.6	105.33	17.525	
9,600.0	6,801.7	9,611.5	6,904.0	54.8	56.3	93.18	-2,568.8	-903.3	1,845.9	1,738.7	107.26	17.209	
9,645.6	6,801.3	9,657.2	6,903.8	55.6	57.1	93.18	-2,614.4	-903.3	1,845.9	1,737.0	108.94	16.945	
9,700.0	6,800.9	9,711.5	6,903.6	56.6	58.1	93.19	-2,668.8	-903.3	1,845.9	1,735.0	110.93	16.640	
9,744.1	6,800.5	9,755.6	6,903.4	57.4	58.8	93.20	-2,712.8	-903.3	1,846.0	1,733.4	112.55	16.401	
9,800.0	6,800.0	9,811.5	6,903.1	58.4	59.8	93.20	-2,768.8	-903.3	1,846.0	1,731.4	114.61	16.106	
9,842.5	6,799.7	9,854.0	6,902.9	59.1	60.6	93.21	-2,811.3	-903.3	1,846.0	1,729.8	116.18	15.889	
9,900.0	6,799.2	9,911.5	6,902.7	60.2	61.7	93.21	-2,868.8	-903.3	1,846.0	1,727.7	118.30	15.604	
9,940.9	6,798.9	9,952.4	6,902.5	60.9	62.4	93.22	-2,909.7	-903.3	1,846.0	1,726.2	119.82	15.407	
10,000.0	6,798.4	10,011.5	6,902.2	62.0	63.5	93.22	-2,968.8	-903.3	1,846.0	1,724.0	122.00	15.131	
10,039.3	6,798.1	10,050.9	6,902.1	62.7	64.2	93.23	-3,008.1	-903.3	1,846.0	1,722.6	123.46	14.952	
10,100.0	6,797.6	10,111.5	6,901.8	63.8	65.3	93.24	-3,068.8	-903.3	1,846.0	1,720.3	125.71	14.685	
10,137.8	6,797.2	10,149.3	6,901.6	64.4	66.0	93.24	-3,106.5	-903.3	1,846.0	1,718.9	127.11	14.523	
10,200.0	6,796.7	10,211.5	6,901.3	65.6	67.1	93.25	-3,168.8	-903.3	1,846.1	1,716.6	129.43	14.263	
10,236.2	6,796.4	10,247.7	6,901.2	66.2	67.8	93.25	-3,205.0	-903.3	1,846.1	1,715.3	130.77	14.117	
10,300.0	6,795.9	10,311.5	6,900.9	67.4	68.9	93.26	-3,268.8	-903.3	1,846.1	1,712.9	133.15	13.865	
10,334.6	6,795.6	10,346.1	6,900.7	68.0	69.6	93.26	-3,303.4	-903.3	1,846.1	1,711.6	134.44	13.732	
10,400.0	6,795.1	10,411.5	6,900.4	69.2	70.8	93.27	-3,368.8	-903.3	1,846.1	1,709.2	136.88	13.487	
10,433.0	6,794.8	10,444.6	6,900.3	69.8	71.4	93.28	-3,401.8	-903.3	1,846.1	1,708.0	138.11	13.367	
10,500.0	6,794.2	10,511.5	6,900.0	71.0	72.6	93.28	-3,468.8	-903.3	1,846.1	1,705.5	140.61	13.129	
10,531.5	6,794.0	10,543.0	6,899.8	71.6	73.2	93.29	-3,500.2	-903.3	1,846.1	1,704.3	141.79	13.020	
10,600.0	6,793.4	10,611.5	6,899.5	72.9	74.4	93.29	-3,568.8	-903.3	1,846.1	1,701.8	144.35	12.789	
10,629.9	6,793.2	10,641.4	6,899.4	73.4	75.0	93.30	-3,598.7	-903.3	1,846.1	1,700.7	145.47	12.691	
10,700.0	6,792.6	10,711.5	6,899.1	74.7	76.3	93.31	-3,668.8	-903.3	1,846.2	1,698.1	148.09	12.466	
10,728.3	6,792.3	10,739.8	6,898.9	75.2	76.8	93.31	-3,697.1	-903.3	1,846.2	1,697.0	149.16	12.377	
10,800.0	6,791.7	10,811.5	6,898.6	76.6	78.1	93.32	-3,768.8	-903.3	1,846.2	1,694.3	151.84	12.158	
10,826.7	6,791.5	10,838.3	6,898.5	77.1	78.6	93.32	-3,795.5	-903.3	1,846.2	1,693.3	152.85	12.079	
10,900.0	6,790.9	10,911.5	6,898.1	78.4	80.0	93.33	-3,868.7	-903.3	1,846.2	1,690.6	155.60	11.865	
10,925.2	6,790.7	10,936.7	6,898.0	78.9	80.5	93.33	-3,893.9	-903.3	1,846.2	1,689.7	156.54	11.794	
11,000.0	6,790.1	11,011.5	6,897.7	80.3	81.9	93.34	-3,968.7	-903.3	1,846.2	1,686.9	159.35	11.586	
11,023.6	6,789.9	11,035.1	6,897.6	80.7	82.3	93.34	-3,992.3	-903.3	1,846.2	1,686.0	160.24	11.521	
11,100.0	6,789.2	11,111.5	6,897.2	82.1	83.7	93.35	-4,068.7	-903.3	1,846.2	1,683.1	163.12	11.319	
11,122.0	6,789.1	11,133.5	6,897.1	82.5	84.1	93.36	-4,090.8	-903.3	1,846.3	1,682.3	163.95	11.261	
11,200.0	6,788.4	11,211.5	6,896.8	84.0	85.6	93.37	-4,168.7	-903.3	1,846.3	1,679.4	166.88	11.063	
11,220.4	6,788.2	11,232.0	6,896.7	84.3	86.0	93.37	-4,189.2	-903.3	1,846.3	1,678.6	167.65	11.013	
11,300.0	6,787.6	11,311.5	6,896.3	85.8	87.4	93.38	-4,268.7	-903.3	1,846.3	1,675.6	170.65	10.819	
11,318.9	6,787.4	11,330.4	6,896.2	86.2	87.8	93.38	-4,287.6	-903.3	1,846.3	1,674.9	171.36	10.774	
11,400.0	6,786.7	11,411.5	6,895.9	87.7	89.3	93.39	-4,368.7	-903.3	1,846.3	1,671.9	174.42	10.585	
11,417.3	6,786.6	11,428.8	6,895.8	88.0	89.6	93.39	-4,386.0	-903.3	1,846.3	1,671.2	175.07	10.546	
11,500.0	6,785.9	11,511.5	6,895.4	89.5	91.2	93.40	-4,468.7	-903.3	1,846.3	1,668.1	178.19	10.361	
11,515.7	6,785.8	11,527.2	6,895.4	89.8	91.5	93.40	-4,484.5	-903.3	1,846.3	1,667.6	178.79	10.327	
11,600.0	6,785.1	11,611.5	6,895.0	91.4	93.0	93.41	-4,568.7	-903.3	1,846.4	1,664.4	181.97	10.147	
11,614.1	6,785.0	11,625.7	6,894.9	91.7	93.3	93.41	-4,582.9	-903.3	1,846.4	1,663.9	182.50	10.117	
11,700.0	6,784.2	11,711.5	6,894.5	93.3	94.9	93.42	-4,668.7	-903.3	1,846.4	1,660.6	185.75	9.940	
11,712.6	6,784.1	11,724.1	6,894.5	93.5	95.2	93.43	-4,681.3	-903.3	1,846.4	1,660.2	186.22	9.915	
11,800.0	6,783.4	11,811.5	6,894.1	95.2	96.8	93.44	-4,768.7	-903.3	1,846.4	1,656.9	189.53	9.742	
11,811.0	6,783.3	11,822.5	6,894.0	95.4	97.0	93.44	-4,779.7	-903.3	1,846.4	1,656.5	189.94	9.721	
11,900.0	6,782.6	11,911.5	6,893.6	97.0	98.7	93.45	-4,868.7	-903.3	1,846.4	1,653.1	193.31	9.552	
11,909.4	6,782.5	11,920.9	6,893.6	97.2	98.9	93.45	-4,878.2	-903.3	1,846.4	1,652.8	193.67	9.534	
12,000.0	6,781.7	12,011.5	6,893.2	98.9	100.6	93.46	-4,968.7	-903.3	1,846.5	1,649.4	197.10	9.368	
12,007.8	6,781.7	12,019.4	6,893.1	99.1	100.7	93.46	-4,976.6	-903.3	1,846.5	1,649.1	197.39	9.354	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	12,111.5	6,892.7	100.8	102.4	93.47	-5,068.7	-903.3	1,846.5	1,645.6	200.88	9.192	
12,106.3	6,780.9	12,117.8	6,892.7	100.9	102.6	93.47	-5,075.0	-903.3	1,846.5	1,645.4	201.12	9.181	
12,200.0	6,780.1	12,211.5	6,892.2	102.7	104.3	93.48	-5,168.7	-903.3	1,846.5	1,641.8	204.67	9.022	
12,204.7	6,780.0	12,216.2	6,892.2	102.7	104.4	93.48	-5,173.4	-903.3	1,846.5	1,641.6	204.85	9.014	
12,300.0	6,779.2	12,311.5	6,891.8	104.5	106.2	93.49	-5,268.7	-903.3	1,846.5	1,638.1	208.46	8.858	
12,303.1	6,779.2	12,314.6	6,891.8	104.6	106.3	93.50	-5,271.8	-903.3	1,846.5	1,637.9	208.58	8.853	
12,400.0	6,778.4	12,411.5	6,891.3	106.4	108.1	93.51	-5,368.7	-903.3	1,846.5	1,634.3	212.25	8.700	
12,401.5	6,778.4	12,413.1	6,891.3	106.4	108.1	93.51	-5,370.3	-903.3	1,846.5	1,634.2	212.31	8.697	
12,500.0	6,777.6	12,511.5	6,890.9	108.3	110.0	93.52	-5,468.7	-903.3	1,846.6	1,630.5	216.05	8.547	
12,598.4	6,776.7	12,609.9	6,890.4	110.2	111.8	93.53	-5,567.1	-903.3	1,846.6	1,626.8	219.78	8.402	
12,600.0	6,776.7	12,611.5	6,890.4	110.2	111.9	93.53	-5,568.7	-903.3	1,846.6	1,626.7	219.84	8.400	
12,696.8	6,775.9	12,708.3	6,890.0	112.0	113.7	93.54	-5,665.5	-903.3	1,846.6	1,623.1	223.52	8.262	
12,700.0	6,775.9	12,711.5	6,890.0	112.1	113.7	93.54	-5,668.7	-903.3	1,846.6	1,623.0	223.64	8.257	
12,795.2	6,775.1	12,806.8	6,889.5	113.9	115.5	93.55	-5,764.0	-903.3	1,846.6	1,619.4	227.26	8.126	
12,800.0	6,775.0	12,811.5	6,889.5	114.0	115.6	93.55	-5,768.7	-903.3	1,846.6	1,619.2	227.44	8.119	
12,893.7	6,774.3	12,905.2	6,889.1	115.7	117.4	93.57	-5,862.4	-903.3	1,846.7	1,615.7	230.99	7.994	
12,900.0	6,774.2	12,911.5	6,889.1	115.8	117.5	93.57	-5,868.7	-903.3	1,846.7	1,615.4	231.23	7.986	
12,992.1	6,773.4	13,003.6	6,888.7	117.6	119.3	93.58	-5,960.8	-903.3	1,846.7	1,611.9	234.73	7.867	
13,000.0	6,773.4	13,011.5	6,888.6	117.7	119.4	93.58	-5,968.7	-903.3	1,846.7	1,611.7	235.03	7.857	
13,090.5	6,772.6	13,102.0	6,888.2	119.4	121.1	93.59	-6,059.2	-903.3	1,846.7	1,608.2	238.48	7.744	
13,100.0	6,772.5	13,111.5	6,888.2	119.6	121.3	93.59	-6,068.7	-903.3	1,846.7	1,607.9	238.84	7.732	
13,188.9	6,771.8	13,200.4	6,887.8	121.3	123.0	93.60	-6,157.7	-903.3	1,846.7	1,604.5	242.22	7.624	
13,200.0	6,771.7	13,211.5	6,887.7	121.5	123.2	93.60	-6,168.7	-903.3	1,846.7	1,604.1	242.64	7.611	
13,287.4	6,771.0	13,298.9	6,887.3	123.2	124.9	93.61	-6,256.1	-903.3	1,846.8	1,600.8	245.96	7.508	
13,300.0	6,770.9	13,311.5	6,887.3	123.4	125.1	93.61	-6,268.7	-903.3	1,846.8	1,600.3	246.44	7.494	
13,385.8	6,770.1	13,397.3	6,886.9	125.0	126.7	93.62	-6,354.5	-903.3	1,846.8	1,597.1	249.70	7.396	
13,400.0	6,770.0	13,411.5	6,886.8	125.3	127.0	93.63	-6,368.7	-903.3	1,846.8	1,596.5	250.24	7.380	
13,484.2	6,769.3	13,495.7	6,886.4	126.9	128.6	93.64	-6,452.9	-903.3	1,846.8	1,593.4	253.45	7.287	
13,500.0	6,769.2	13,511.5	6,886.3	127.2	128.9	93.64	-6,468.7	-903.3	1,846.8	1,592.8	254.05	7.269	
13,582.6	6,768.5	13,594.1	6,886.0	128.8	130.5	93.65	-6,551.4	-903.3	1,846.8	1,589.6	257.19	7.181	
13,600.0	6,768.3	13,611.5	6,885.9	129.1	130.8	93.65	-6,568.7	-903.3	1,846.8	1,589.0	257.85	7.162	
13,681.1	6,767.6	13,692.6	6,885.5	130.6	132.3	93.66	-6,649.8	-903.3	1,846.9	1,585.9	260.94	7.078	
13,700.0	6,767.5	13,711.5	6,885.4	131.0	132.7	93.66	-6,668.7	-903.3	1,846.9	1,585.2	261.66	7.058	
13,779.5	6,766.8	13,791.0	6,885.1	132.5	134.2	93.67	-6,748.2	-903.3	1,846.9	1,582.2	264.69	6.978	
13,800.0	6,766.6	13,811.5	6,885.0	132.9	134.6	93.67	-6,768.7	-903.3	1,846.9	1,581.4	265.47	6.957	
13,877.9	6,766.0	13,889.4	6,884.6	134.4	136.1	93.68	-6,846.6	-903.3	1,846.9	1,578.5	268.43	6.880	
13,900.0	6,765.8	13,911.5	6,884.5	134.8	136.5	93.69	-6,868.7	-903.3	1,846.9	1,577.6	269.28	6.859	
13,976.3	6,765.2	13,987.8	6,884.2	136.2	137.9	93.69	-6,945.0	-903.3	1,846.9	1,574.7	272.18	6.786	
13,995.7	6,765.0	14,003.5	6,884.1	136.6	138.2	93.70	-6,960.7	-903.3	1,846.9	1,574.1	272.85	6.769 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-203 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	0.71	45.2	0.6	45.2				
98.4	98.4	98.4	98.4	0.1	0.1	0.71	45.2	0.6	45.2	45.0	0.17	265.853	
100.0	100.0	100.0	100.0	0.1	0.1	0.71	45.2	0.6	45.2	45.0	0.17	261.041	
196.8	196.8	196.8	196.8	0.3	0.3	0.71	45.2	0.6	45.2	44.6	0.61	74.252	
200.0	200.0	200.0	200.0	0.3	0.3	0.71	45.2	0.6	45.2	44.6	0.62	72.564	
295.3	295.3	295.3	295.3	0.5	0.5	0.71	45.2	0.6	45.2	44.1	1.05	42.990	
300.0	300.0	300.0	300.0	0.5	0.5	0.71	45.2	0.6	45.2	44.1	1.07	42.139	
393.7	393.7	393.7	393.7	0.7	0.7	0.71	45.2	0.6	45.2	43.7	1.49	30.253	
400.0	400.0	400.0	400.0	0.8	0.8	0.71	45.2	0.6	45.2	43.7	1.52	29.690	
492.1	492.1	492.1	492.1	1.0	1.0	0.71	45.2	0.6	45.2	43.2	1.94	23.338	
500.0	500.0	500.0	500.0	1.0	1.0	0.71	45.2	0.6	45.2	43.2	1.97	22.919	
590.5	590.5	590.5	590.5	1.2	1.2	0.71	45.2	0.6	45.2	42.8	2.38	18.996	
600.0	600.0	600.0	600.0	1.2	1.2	0.71	45.2	0.6	45.2	42.8	2.42	18.663	
689.0	689.0	689.0	689.0	1.4	1.4	0.71	45.2	0.6	45.2	42.4	2.82	16.017	
700.0	700.0	700.0	700.0	1.4	1.4	0.71	45.2	0.6	45.2	42.3	2.87	15.740	
787.4	787.4	787.4	787.4	1.6	1.6	0.71	45.2	0.6	45.2	41.9	3.26	13.845	
800.0	800.0	800.0	800.0	1.7	1.7	0.71	45.2	0.6	45.2	41.9	3.32	13.609	
885.8	885.8	885.8	885.8	1.9	1.9	0.71	45.2	0.6	45.2	41.5	3.71	12.192	
900.0	900.0	900.0	900.0	1.9	1.9	0.71	45.2	0.6	45.2	41.4	3.77	11.986	
984.2	984.2	984.2	984.2	2.1	2.1	0.71	45.2	0.6	45.2	41.0	4.15	10.891	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.71	45.2	0.6	45.2	41.0	4.22	10.709	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.71	45.2	0.6	45.2	40.6	4.59	9.842	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.71	45.2	0.6	45.2	40.5	4.67	9.677	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	0.71	45.2	0.6	45.2	40.1	5.03	8.976	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.71	45.2	0.6	45.2	40.1	5.12	8.827	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	0.71	45.2	0.6	45.2	39.7	5.48	8.251	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.71	45.2	0.6	45.2	39.6	5.57	8.115	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	0.71	45.2	0.6	45.2	39.3	5.92	7.634	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	0.71	45.2	0.6	45.2	39.2	6.02	7.508	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	0.71	45.2	0.6	45.2	38.8	6.36	7.103	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	0.71	45.2	0.6	45.2	38.7	6.47	6.986	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	0.71	45.2	0.6	45.2	38.4	6.80	6.641	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	0.71	45.2	0.6	45.2	38.3	6.92	6.532	
1,637.5	1,637.5	1,637.5	1,637.5	3.5	3.5	0.71	45.2	0.6	45.2	38.1	7.08	6.377 CC	
1,673.2	1,673.2	1,672.9	1,672.9	3.6	3.6	0.78	45.2	0.6	45.3	38.0	7.24	6.247 ES	
1,700.0	1,700.0	1,699.4	1,699.4	3.7	3.7	1.03	45.5	0.8	45.5	38.2	7.36	6.183	
1,771.6	1,771.6	1,770.1	1,770.0	3.8	3.8	2.53	47.2	2.1	47.2	39.6	7.68	6.154	
1,800.0	1,800.0	1,798.0	1,797.9	3.9	3.9	3.41	48.2	2.9	48.3	40.5	7.80	6.196	
1,870.1	1,870.1	1,866.9	1,866.7	4.1	4.1	6.11	51.7	5.5	52.1	44.0	8.11	6.423	
1,900.0	1,900.0	1,896.3	1,896.0	4.1	4.1	7.41	53.6	7.0	54.2	45.9	8.24	6.573	
1,968.5	1,968.5	1,963.3	1,962.6	4.3	4.3	10.53	58.8	10.9	60.1	51.5	8.55	7.026	
2,000.0	2,000.0	1,994.0	1,993.1	4.4	4.3	11.98	61.6	13.1	63.3	54.6	8.69	7.284	
2,066.9	2,066.9	2,058.9	2,057.5	4.5	4.5	14.93	68.3	18.2	71.4	62.4	9.00	7.927	
2,100.0	2,100.0	2,090.9	2,089.1	4.6	4.6	16.30	72.1	21.1	75.9	66.7	9.15	8.292	
2,165.3	2,165.3	2,153.8	2,151.2	4.7	4.7	-49.84	80.3	27.3	85.5	76.1	9.43	9.069	
2,200.0	2,200.0	2,187.0	2,183.9	4.8	4.8	-48.99	85.1	31.0	90.8	81.3	9.58	9.481	
2,263.8	2,263.7	2,248.0	2,243.7	4.9	5.0	-47.92	94.6	38.3	100.9	91.1	9.86	10.237	
2,300.0	2,299.8	2,283.7	2,278.6	5.0	5.1	-47.57	100.5	42.8	106.6	96.6	10.02	10.644	
2,362.2	2,361.8	2,345.2	2,338.8	5.1	5.3	-47.43	110.7	50.5	115.7	105.4	10.29	11.239	
2,400.0	2,399.5	2,382.7	2,375.4	5.2	5.4	-47.59	116.9	55.2	120.7	110.3	10.46	11.545	
2,460.6	2,459.7	2,442.9	2,434.3	5.4	5.6	-48.15	126.8	62.8	128.2	117.5	10.74	11.940	
2,500.0	2,498.7	2,482.0	2,472.5	5.5	5.8	-48.71	133.3	67.8	132.6	121.7	10.92	12.145	

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

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Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,557.1	2,540.6	2,529.9	5.6	6.0	-49.80	143.0	75.1	138.6	127.3	11.20	12.367	
2,600.0	2,597.5	2,581.3	2,569.7	5.7	6.1	-50.73	149.7	80.3	142.3	130.9	11.40	12.476	
2,657.5	2,654.0	2,638.5	2,625.6	5.9	6.3	-52.26	159.2	87.5	147.0	135.2	11.70	12.555	
2,700.0	2,695.6	2,680.8	2,667.0	6.0	6.5	-53.55	166.2	92.8	150.0	138.1	11.93	12.575	
2,755.9	2,750.2	2,736.3	2,721.3	6.2	6.7	-55.46	175.4	99.8	153.7	141.4	12.26	12.540	
2,800.0	2,793.1	2,780.1	2,764.1	6.3	6.8	-57.15	182.6	105.3	156.3	143.7	12.52	12.480	
2,854.3	2,845.6	2,833.9	2,816.8	6.5	7.0	-59.43	191.5	112.1	159.2	146.3	12.88	12.357	
2,900.0	2,889.6	2,879.1	2,861.0	6.6	7.2	-61.52	199.0	117.8	161.4	148.2	13.19	12.233	
2,952.7	2,940.2	2,931.3	2,912.0	6.8	7.4	-64.14	207.6	124.4	163.9	150.3	13.60	12.052	
3,000.0	2,985.3	2,977.9	2,957.6	7.0	7.6	-66.66	215.3	130.3	166.1	152.1	13.98	11.883	
3,016.9	3,001.4	2,994.6	2,973.9	7.1	7.6	-67.60	218.1	132.4	166.9	152.7	14.12	11.818	
3,051.2	3,033.9	3,028.3	3,006.9	7.3	7.8	-69.55	223.7	136.6	168.6	154.2	14.42	11.687	
3,100.0	3,080.2	3,076.3	3,053.9	7.5	8.0	-72.24	231.6	142.7	171.4	156.5	14.86	11.528	
3,149.6	3,127.3	3,125.2	3,101.7	7.7	8.2	-74.89	239.7	148.8	174.6	159.2	15.33	11.389	
3,200.0	3,175.1	3,174.8	3,150.2	8.0	8.4	-77.49	247.9	155.1	178.2	162.4	15.80	11.277	
3,248.0	3,220.7	3,222.1	3,196.4	8.2	8.5	-79.86	255.7	161.1	182.0	165.7	16.27	11.188	
3,300.0	3,270.0	3,273.2	3,246.5	8.5	8.8	-82.31	264.2	167.5	186.4	169.7	16.77	11.117	
3,346.4	3,314.1	3,319.0	3,291.2	8.7	8.9	-84.41	271.7	173.3	190.7	173.5	17.23	11.069	
3,400.0	3,365.0	3,371.7	3,342.8	9.0	9.2	-86.71	280.4	179.9	195.9	178.2	17.75	11.035	
3,444.9	3,407.6	3,415.9	3,386.0	9.2	9.3	-88.55	287.7	185.5	200.5	182.3	18.20	11.019	
3,500.0	3,459.9	3,470.1	3,439.1	9.5	9.6	-90.69	296.7	192.3	206.5	187.7	18.74	11.016	
3,543.3	3,501.0	3,512.8	3,480.8	9.8	9.7	-92.29	303.8	197.7	211.3	192.1	19.17	11.023	
3,600.0	3,554.8	3,569.1	3,535.9	10.1	10.0	-94.31	313.0	204.8	217.9	198.2	19.72	11.048	
3,641.7	3,594.4	3,611.5	3,577.5	10.3	10.1	-95.86	319.6	209.8	222.7	202.6	20.11	11.073	
3,700.0	3,649.7	3,670.5	3,635.5	10.7	10.3	-98.16	328.0	216.2	229.2	208.6	20.62	11.118	
3,740.1	3,687.8	3,711.0	3,675.5	10.9	10.4	-99.82	333.2	220.1	233.7	212.8	20.96	11.149	
3,800.0	3,744.7	3,771.2	3,735.0	11.2	10.6	-102.40	340.1	225.4	240.4	219.0	21.45	11.208	
3,838.6	3,781.3	3,809.7	3,773.3	11.5	10.7	-104.13	343.9	228.3	244.8	223.1	21.76	11.253	
3,900.0	3,839.6	3,870.8	3,834.0	11.8	10.8	-106.97	349.2	232.4	252.0	229.8	22.20	11.350	
3,937.0	3,874.7	3,907.4	3,870.4	12.1	10.9	-108.74	351.9	234.4	256.5	234.0	22.46	11.421	
4,000.0	3,934.5	3,969.2	3,932.1	12.4	11.0	-111.80	355.6	237.2	264.5	241.7	22.85	11.578	
4,035.4	3,968.1	4,003.7	3,966.6	12.6	11.1	-113.55	357.2	238.5	269.3	246.2	23.05	11.683	
4,100.0	4,029.4	4,066.2	4,029.0	13.0	11.2	-116.79	359.3	240.0	278.5	255.2	23.36	11.921	
4,133.8	4,061.5	4,098.7	4,061.4	13.2	11.3	-118.49	359.9	240.5	283.7	260.2	23.51	12.066	
4,200.0	4,124.3	4,161.6	4,124.3	13.6	11.4	-121.83	360.4	240.9	294.6	270.8	23.75	12.402	
4,232.3	4,155.0	4,192.2	4,155.0	13.8	11.4	-123.42	360.4	240.9	300.2	276.4	23.86	12.585	
4,300.0	4,219.3	4,256.5	4,219.3	14.2	11.5	-126.57	360.4	240.9	312.9	288.8	24.07	13.001	
4,330.7	4,248.4	4,285.7	4,248.4	14.4	11.6	-127.92	360.4	240.9	318.9	294.8	24.16	13.203	
4,400.0	4,314.2	4,351.4	4,314.2	14.9	11.7	-130.79	360.4	240.9	333.2	308.8	24.35	13.684	
4,429.1	4,341.8	4,379.1	4,341.8	15.0	11.8	-131.93	360.4	240.9	339.4	315.0	24.43	13.896	
4,500.0	4,409.1	4,446.4	4,409.1	15.5	11.9	-134.54	360.4	240.9	355.1	330.5	24.61	14.430	
4,527.5	4,435.3	4,472.5	4,435.3	15.7	11.9	-135.50	360.4	240.9	361.4	336.7	24.68	14.643	
4,600.0	4,504.0	4,541.3	4,504.0	16.1	12.0	-137.86	360.4	240.9	378.4	353.5	24.87	15.217	
4,626.0	4,528.7	4,565.9	4,528.7	16.3	12.1	-138.66	360.4	240.9	384.6	359.7	24.93	15.427	
4,700.0	4,598.9	4,636.2	4,598.9	16.7	12.2	-140.81	360.4	240.9	402.8	377.7	25.12	16.031	
4,724.4	4,622.1	4,659.4	4,622.1	16.9	12.2	-141.47	360.4	240.9	408.9	383.7	25.19	16.232	
4,800.0	4,693.9	4,731.1	4,693.9	17.4	12.4	-143.42	360.4	240.9	428.1	402.7	25.39	16.859	
4,822.8	4,715.5	4,752.8	4,715.5	17.5	12.4	-143.98	360.4	240.9	434.0	408.5	25.46	17.049	
4,900.0	4,788.8	4,826.0	4,788.8	18.0	12.5	-145.75	360.4	240.9	454.2	428.5	25.67	17.691	
4,921.2	4,809.0	4,846.2	4,809.0	18.1	12.6	-146.21	360.4	240.9	459.8	434.1	25.73	17.868	
5,000.0	4,883.7	4,921.0	4,883.7	18.6	12.7	-147.83	360.4	240.9	480.9	454.9	25.97	18.521	
5,019.7	4,902.4	4,939.6	4,902.4	18.7	12.8	-148.21	360.4	240.9	486.2	460.2	26.03	18.683	

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Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
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5,100.0	4,978.6	5,015.9	4,978.6	19.3	12.9	-149.70	360.4	240.9	508.2	481.9	26.27	19.341	
5,118.1	4,995.8	5,033.1	4,995.8	19.4	12.9	-150.01	360.4	240.9	513.2	486.8	26.33	19.488	
5,200.0	5,073.6	5,110.8	5,073.6	19.9	13.1	-151.37	360.4	240.9	535.9	509.3	26.60	20.149	
5,216.5	5,089.2	5,126.5	5,089.2	20.0	13.1	-151.63	360.4	240.9	540.5	513.9	26.65	20.281	
5,304.2	5,172.4	5,209.7	5,172.4	20.6	13.3	-152.95	360.4	240.9	565.2	538.3	26.95	20.975	
5,314.9	5,182.7	5,219.9	5,182.7	20.6	13.3	-153.13	360.4	240.9	568.3	541.3	26.99	21.055	
5,400.0	5,263.9	5,301.1	5,263.9	21.1	13.4	-154.43	360.4	240.9	591.1	563.8	27.33	21.633	
5,413.4	5,276.7	5,314.0	5,276.7	21.1	13.4	-154.62	360.4	240.9	594.5	567.1	27.37	21.718	
5,500.0	5,360.3	5,397.5	5,360.3	21.5	13.6	-155.70	360.4	240.9	615.4	587.7	27.70	22.212	
5,511.8	5,371.7	5,409.0	5,371.7	21.6	13.6	-155.84	360.4	240.9	618.1	590.3	27.75	22.273	
5,600.0	5,457.5	5,494.8	5,457.5	21.9	13.8	-156.73	360.4	240.9	636.7	608.6	28.09	22.671	
5,610.2	5,467.5	5,504.8	5,467.5	21.9	13.8	-156.82	360.4	240.9	638.7	610.6	28.12	22.712	
5,700.0	5,555.6	5,592.8	5,555.6	22.3	14.0	-157.56	360.4	240.9	655.0	626.6	28.46	23.015	
5,708.6	5,564.1	5,601.3	5,564.1	22.3	14.0	-157.62	360.4	240.9	656.5	628.0	28.49	23.040	
5,800.0	5,654.2	5,691.5	5,654.2	22.6	14.2	-158.20	360.4	240.9	670.2	641.4	28.83	23.251	
5,807.1	5,661.2	5,698.5	5,661.2	22.6	14.2	-158.24	360.4	240.9	671.2	642.3	28.85	23.264	
5,900.0	5,753.4	5,790.6	5,753.4	22.8	14.4	-158.69	360.4	240.9	682.2	653.1	29.17	23.385	
5,905.5	5,758.8	5,796.1	5,758.8	22.8	14.4	-158.72	360.4	240.9	682.8	653.6	29.19	23.389	
6,000.0	5,852.9	5,890.2	5,852.9	23.1	14.5	-159.04	360.4	240.9	691.1	661.6	29.51	23.420	
6,003.9	5,856.8	5,894.1	5,856.8	23.1	14.6	-159.05	360.4	240.9	691.3	661.8	29.52	23.420	
6,100.0	5,952.7	5,990.0	5,952.7	23.2	14.7	-159.26	360.4	240.9	696.6	666.8	29.82	23.362	
6,102.3	5,955.1	5,992.3	5,955.1	23.2	14.7	-159.26	360.4	240.9	696.7	666.9	29.83	23.360	
6,200.0	6,052.7	6,089.6	6,052.4	23.4	14.9	-159.37	360.1	240.9	699.0	668.9	30.10	23.221	
6,200.8	6,053.5	6,090.4	6,053.1	23.4	14.9	-159.37	360.1	240.9	699.0	668.9	30.10	23.220	
6,221.1	6,073.8	6,110.4	6,073.1	23.4	15.0	-91.02	359.3	240.9	699.1	668.9	30.14	23.196	
6,251.1	6,103.8	6,139.8	6,102.4	23.4	15.0	-91.20	357.1	240.9	699.1	668.9	30.19	23.154	
6,299.2	6,151.8	6,186.5	6,148.8	23.5	15.0	88.43	351.1	240.9	699.2	669.0	30.24	23.120	
6,300.0	6,152.6	6,187.3	6,149.5	23.5	15.0	88.42	351.0	240.9	699.2	669.0	30.24	23.119	
6,350.0	6,202.4	6,235.6	6,196.9	23.5	15.1	88.04	341.6	240.9	699.4	669.1	30.25	23.119	
6,397.6	6,249.3	6,281.4	6,241.1	23.5	15.1	87.69	329.7	240.9	699.5	669.3	30.22	23.144	
6,400.0	6,251.6	6,283.6	6,243.3	23.5	15.1	87.68	329.1	240.9	699.5	669.3	30.22	23.146	
6,450.0	6,300.1	6,331.4	6,288.5	23.5	15.1	87.32	313.6	240.9	699.7	669.5	30.17	23.195	
6,496.0	6,344.0	6,375.2	6,328.9	23.5	15.0	87.00	296.8	240.9	699.9	669.8	30.10	23.257	
6,500.0	6,347.7	6,378.9	6,332.3	23.5	15.0	86.98	295.2	240.9	699.9	669.8	30.09	23.262	
6,550.0	6,394.1	6,426.2	6,374.5	23.5	15.0	86.65	274.1	240.9	700.1	670.1	30.00	23.339	
6,594.5	6,434.2	6,468.0	6,410.8	23.4	15.0	86.37	253.1	240.9	700.4	670.4	29.91	23.412	
6,600.0	6,439.0	6,473.2	6,415.2	23.4	15.0	86.34	250.4	240.9	700.4	670.5	29.90	23.421	
6,650.0	6,482.4	6,520.0	6,453.9	23.4	15.0	86.04	224.2	240.9	700.6	670.8	29.81	23.500	
6,692.9	6,518.1	6,560.0	6,485.7	23.3	14.9	85.80	199.8	240.9	700.8	671.1	29.75	23.559	
6,700.0	6,523.9	6,566.6	6,490.8	23.3	14.9	85.77	195.6	240.9	700.9	671.1	29.74	23.568	
6,750.0	6,563.3	6,613.1	6,525.5	23.3	14.9	85.51	164.9	240.9	701.1	671.4	29.69	23.617	
6,791.3	6,594.2	6,650.0	6,551.7	23.2	14.9	85.32	138.8	240.9	701.3	671.6	29.67	23.638	
6,800.0	6,600.5	6,659.4	6,558.1	23.2	14.9	85.27	132.0	240.9	701.3	671.7	29.67	23.639	
6,850.0	6,635.3	6,705.5	6,588.4	23.2	14.8	85.06	97.3	240.9	701.6	671.9	29.69	23.626	
6,889.7	6,661.1	6,742.0	6,610.8	23.1	14.8	84.91	68.4	240.9	701.7	672.0	29.75	23.584	
6,900.0	6,667.5	6,750.0	6,615.5	23.1	14.8	84.87	61.9	240.9	701.8	672.0	29.77	23.575	
6,950.0	6,696.9	6,797.3	6,641.8	23.1	14.8	84.70	22.6	240.9	701.9	672.0	29.91	23.470	
6,988.2	6,717.5	6,832.3	6,659.6	23.1	14.8	84.59	-7.5	240.9	702.1	672.0	30.07	23.351	
7,000.0	6,723.5	6,843.1	6,664.8	23.1	14.8	84.56	-17.0	240.9	702.1	672.0	30.11	23.315	
7,050.0	6,747.0	6,888.8	6,685.1	23.1	15.0	84.44	-57.9	240.9	702.3	671.9	30.39	23.106	
7,086.6	6,762.3	6,922.2	6,698.3	23.1	15.1	84.36	-88.6	240.9	702.3	671.7	30.65	22.915	
7,100.0	6,767.4	6,934.4	6,702.7	23.1	15.2	84.34	-99.9	240.9	702.4	671.6	30.75	22.843	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-203 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,150.0	6,784.6	6,979.9	6,717.6	23.1	15.5	84.27	-143.0	240.9	702.5	671.3	31.18	22.529	
7,185.0	6,794.7	7,011.8	6,726.4	23.1	15.7	84.24	-173.6	240.9	702.5	671.0	31.53	22.278	
7,200.0	6,798.5	7,025.5	6,729.8	23.2	15.8	84.23	-186.8	240.9	702.5	670.8	31.69	22.167	
7,250.0	6,808.9	7,071.0	6,739.1	23.2	16.1	84.21	-231.4	240.9	702.5	670.2	32.28	21.763	
7,278.1	6,813.3	7,096.5	6,743.1	23.3	16.3	84.21	-256.6	240.9	702.5	669.9	32.65	21.519	
7,283.4	6,814.0	7,100.0	6,743.6	23.3	16.4	84.21	-260.1	240.9	702.5	669.8	32.71	21.480	
7,300.0	6,816.0	7,116.4	6,745.6	23.4	16.5	84.21	-276.4	240.9	702.5	669.6	32.95	21.323	
7,350.0	6,819.5	7,162.0	6,749.2	23.5	16.9	84.25	-321.7	240.9	702.5	668.8	33.68	20.856	
7,381.9	6,820.0	7,191.0	6,750.0	23.7	17.2	84.28	-350.9	240.9	702.4	668.2	34.19	20.546	
7,382.0	6,820.0	7,191.1	6,750.0	23.7	17.2	84.28	-350.9	240.9	702.4	668.2	34.19	20.545	
7,394.0	6,819.9	7,202.1	6,750.0	23.7	17.3	84.29	-361.9	240.9	702.4	668.0	34.40	20.422	
7,400.0	6,819.8	7,208.0	6,749.9	23.8	17.4	84.29	-367.8	240.9	702.4	667.9	34.51	20.355	
7,480.3	6,819.2	7,288.3	6,749.3	24.2	18.3	84.29	-448.1	240.9	702.4	666.3	36.10	19.456	
7,499.8	6,819.0	7,307.9	6,749.1	24.3	18.5	84.29	-467.6	240.9	702.4	665.9	36.50	19.244	
7,500.0	6,819.0	7,308.0	6,749.1	24.3	18.5	84.29	-467.8	240.9	702.4	665.9	36.50	19.242	
7,578.7	6,818.4	7,386.8	6,748.5	24.9	19.4	84.29	-546.5	240.9	702.4	664.1	38.29	18.347	
7,599.9	6,818.2	7,407.9	6,748.3	25.0	19.7	84.29	-567.7	240.9	702.4	663.7	38.77	18.117	
7,600.0	6,818.2	7,408.0	6,748.3	25.0	19.7	84.29	-567.8	240.9	702.4	663.7	38.78	18.116	
7,677.1	6,817.6	7,485.2	6,747.6	25.7	20.7	84.29	-644.9	240.9	702.4	661.7	40.70	17.259	
7,700.0	6,817.4	7,508.0	6,747.5	25.9	21.0	84.29	-667.8	240.9	702.4	661.2	41.28	17.018	
7,700.0	6,817.4	7,508.0	6,747.5	25.9	21.0	84.29	-667.8	240.9	702.4	661.2	41.28	17.018	
7,775.6	6,816.7	7,583.6	6,746.8	26.6	22.0	84.29	-743.4	240.9	702.4	659.1	43.31	16.220	
7,800.0	6,816.5	7,608.0	6,746.6	26.9	22.4	84.29	-767.8	240.9	702.4	658.5	43.97	15.976	
7,874.0	6,815.9	7,682.0	6,746.0	27.7	23.5	84.29	-841.8	240.9	702.4	656.4	46.07	15.246	
7,900.0	6,815.7	7,708.0	6,745.8	28.0	23.9	84.29	-867.8	240.9	702.4	655.6	46.82	15.003	
7,972.4	6,815.1	7,780.5	6,745.2	28.9	25.0	84.29	-940.2	240.9	702.4	653.5	48.98	14.342	
8,000.0	6,814.9	7,808.0	6,745.0	29.2	25.4	84.29	-967.8	240.9	702.4	652.6	49.80	14.105	
8,070.8	6,814.3	7,878.9	6,744.4	30.1	26.5	84.29	-1,038.6	240.9	702.4	650.4	51.99	13.511	
8,100.0	6,814.1	7,908.0	6,744.2	30.5	27.0	84.29	-1,067.8	240.9	702.4	649.5	52.89	13.280	
8,169.3	6,813.5	7,977.3	6,743.6	31.5	28.1	84.29	-1,137.1	240.9	702.4	647.3	55.09	12.749	
8,200.0	6,813.3	8,008.0	6,743.3	31.9	28.6	84.29	-1,167.8	240.9	702.4	646.4	56.07	12.527	
8,267.7	6,812.7	8,075.7	6,742.8	32.9	29.7	84.29	-1,235.5	240.9	702.4	644.2	58.28	12.053	
8,300.0	6,812.4	8,108.0	6,742.5	33.3	30.2	84.29	-1,267.8	240.9	702.4	643.1	59.33	11.839	
8,366.1	6,811.9	8,174.2	6,742.0	34.3	31.4	84.29	-1,333.9	240.9	702.4	640.9	61.53	11.416	
8,400.0	6,811.6	8,208.0	6,741.7	34.8	31.9	84.29	-1,367.8	240.9	702.4	639.8	62.66	11.211	
8,464.5	6,811.1	8,272.6	6,741.2	35.8	33.0	84.29	-1,432.3	240.9	702.4	637.6	64.84	10.834	
8,500.0	6,810.8	8,308.0	6,740.9	36.3	33.6	84.29	-1,467.8	240.9	702.4	636.4	66.03	10.637	
8,563.0	6,810.3	8,371.0	6,740.4	37.3	34.7	84.29	-1,530.7	240.9	702.4	634.2	68.19	10.301	
8,600.0	6,810.0	8,408.0	6,740.1	37.9	35.4	84.29	-1,567.8	240.9	702.4	633.0	69.46	10.113	
8,661.4	6,809.5	8,469.4	6,739.5	38.9	36.4	84.29	-1,629.2	240.9	702.4	630.8	71.59	9.813	
8,700.0	6,809.1	8,508.0	6,739.2	39.5	37.1	84.29	-1,667.8	240.9	702.4	629.5	72.92	9.632	
8,759.8	6,808.6	8,567.9	6,738.7	40.5	38.2	84.29	-1,727.6	240.9	702.4	627.4	75.02	9.364	
8,800.0	6,808.3	8,608.0	6,738.4	41.1	38.9	84.29	-1,767.8	240.9	702.4	626.0	76.42	9.191	
8,858.2	6,807.8	8,666.3	6,737.9	42.1	39.9	84.29	-1,826.0	240.9	702.4	624.0	78.48	8.951	
8,900.0	6,807.5	8,708.0	6,737.6	42.8	40.7	84.29	-1,867.8	240.9	702.4	622.5	79.95	8.786	
8,956.7	6,807.0	8,764.7	6,737.1	43.7	41.7	84.29	-1,924.4	240.9	702.4	620.5	81.97	8.570	
9,000.0	6,806.7	8,808.0	6,736.8	44.4	42.5	84.29	-1,967.8	240.9	702.4	618.9	83.51	8.411	
9,055.1	6,806.2	8,863.1	6,736.3	45.4	43.5	84.29	-2,022.8	240.9	702.4	616.9	85.48	8.217	
9,100.0	6,805.8	8,908.0	6,735.9	46.1	44.3	84.29	-2,067.7	240.9	702.4	615.3	87.09	8.066	
9,153.5	6,805.4	8,961.6	6,735.5	47.0	45.2	84.29	-2,121.3	240.9	702.4	613.4	89.01	7.891	
9,200.0	6,805.0	9,008.0	6,735.1	47.8	46.1	84.29	-2,167.7	240.9	702.4	611.7	90.69	7.746	
9,251.9	6,804.6	9,060.0	6,734.7	48.7	47.0	84.29	-2,219.7	240.9	702.4	609.9	92.57	7.588	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,300.0	6,804.2	9,108.0	6,734.3	49.6	47.9	84.29	-2,267.7	240.9	702.4	608.1	94.30	7.449	
9,350.4	6,803.8	9,158.4	6,733.9	50.4	48.8	84.29	-2,318.1	240.9	702.4	606.3	96.13	7.307	
9,400.0	6,803.4	9,208.0	6,733.4	51.3	49.7	84.29	-2,367.7	240.9	702.4	604.5	97.94	7.172	
9,448.8	6,802.9	9,256.8	6,733.0	52.1	50.6	84.29	-2,416.5	240.9	702.4	602.7	99.72	7.044	
9,500.0	6,802.5	9,308.0	6,732.6	53.0	51.6	84.29	-2,467.7	240.9	702.4	600.8	101.59	6.915	
9,547.2	6,802.1	9,355.3	6,732.2	53.9	52.4	84.29	-2,515.0	240.9	702.4	599.1	103.31	6.799	
9,600.0	6,801.7	9,408.0	6,731.8	54.8	53.4	84.29	-2,567.7	240.9	702.4	597.2	105.25	6.674	
9,645.6	6,801.3	9,453.7	6,731.4	55.6	54.2	84.29	-2,613.4	240.9	702.4	595.5	106.92	6.569	
9,700.0	6,800.9	9,508.0	6,731.0	56.6	55.3	84.29	-2,667.7	240.9	702.4	593.5	108.92	6.449	
9,744.1	6,800.5	9,552.1	6,730.6	57.4	56.1	84.29	-2,711.8	240.9	702.4	591.9	110.54	6.354	
9,800.0	6,800.0	9,608.0	6,730.1	58.4	57.1	84.29	-2,767.7	240.9	702.4	589.8	112.60	6.238	
9,842.5	6,799.7	9,650.5	6,729.8	59.1	57.9	84.29	-2,810.2	240.9	702.4	588.3	114.17	6.152	
9,900.0	6,799.2	9,708.0	6,729.3	60.2	59.0	84.29	-2,867.7	240.9	702.4	586.1	116.29	6.040	
9,940.9	6,798.9	9,749.0	6,729.0	60.9	59.7	84.29	-2,908.6	240.9	702.4	584.6	117.81	5.962	
10,000.0	6,798.4	9,808.0	6,728.5	62.0	60.8	84.29	-2,967.7	240.9	702.4	582.4	119.99	5.854	
10,039.3	6,798.1	9,847.4	6,728.1	62.7	61.6	84.29	-3,007.1	240.9	702.4	581.0	121.45	5.784	
10,100.0	6,797.6	9,908.0	6,727.6	63.8	62.7	84.29	-3,067.7	240.9	702.4	578.7	123.70	5.678	
10,137.8	6,797.2	9,945.8	6,727.3	64.4	63.4	84.29	-3,105.5	240.9	702.4	577.3	125.11	5.615	
10,200.0	6,796.7	10,008.0	6,726.8	65.6	64.6	84.29	-3,167.7	240.9	702.4	575.0	127.42	5.513	
10,236.2	6,796.4	10,044.2	6,726.5	66.2	65.2	84.29	-3,203.9	240.9	702.4	573.7	128.77	5.455	
10,300.0	6,795.9	10,108.0	6,726.0	67.4	66.4	84.29	-3,267.7	240.9	702.4	571.3	131.14	5.356	
10,334.6	6,795.6	10,142.7	6,725.7	68.0	67.1	84.29	-3,302.3	240.9	702.4	570.0	132.43	5.304	
10,400.0	6,795.1	10,208.0	6,725.2	69.2	68.3	84.29	-3,367.7	240.9	702.4	567.6	134.87	5.208	
10,433.0	6,794.8	10,241.1	6,724.9	69.8	68.9	84.29	-3,400.7	240.9	702.4	566.3	136.10	5.161	
10,500.0	6,794.2	10,308.0	6,724.3	71.0	70.2	84.29	-3,467.7	240.9	702.4	563.8	138.60	5.068	
10,531.5	6,794.0	10,339.5	6,724.1	71.6	70.8	84.29	-3,499.2	240.9	702.4	562.7	139.78	5.025	
10,600.0	6,793.4	10,408.0	6,723.5	72.9	72.1	84.29	-3,567.7	240.9	702.4	560.1	142.34	4.935	
10,629.9	6,793.2	10,437.9	6,723.2	73.4	72.6	84.29	-3,597.6	240.9	702.4	559.0	143.46	4.896	
10,700.0	6,792.6	10,508.0	6,722.7	74.7	73.9	84.29	-3,667.7	240.9	702.4	556.3	146.08	4.808	
10,728.3	6,792.3	10,536.4	6,722.4	75.2	74.5	84.29	-3,696.0	240.9	702.4	555.3	147.15	4.774	
10,800.0	6,791.7	10,608.0	6,721.8	76.6	75.8	84.29	-3,767.7	240.9	702.4	552.6	149.83	4.688	
10,826.7	6,791.5	10,634.8	6,721.6	77.1	76.3	84.29	-3,794.4	240.9	702.4	551.6	150.83	4.657	
10,900.0	6,790.9	10,708.0	6,721.0	78.4	77.7	84.29	-3,867.7	240.9	702.4	548.8	153.58	4.574	
10,925.2	6,790.7	10,733.2	6,720.8	78.9	78.2	84.29	-3,892.9	240.9	702.4	547.9	154.53	4.546	
11,000.0	6,790.1	10,808.0	6,720.2	80.3	79.6	84.29	-3,967.7	240.9	702.4	545.1	157.34	4.464	
11,023.6	6,789.9	10,831.6	6,720.0	80.7	80.0	84.29	-3,991.3	240.9	702.4	544.2	158.23	4.439	
11,100.0	6,789.2	10,908.0	6,719.3	82.1	81.5	84.29	-4,067.7	240.9	702.4	541.3	161.10	4.360	
11,122.0	6,789.1	10,930.1	6,719.1	82.5	81.9	84.29	-4,089.7	240.9	702.4	540.5	161.93	4.338	
11,200.0	6,788.4	11,008.0	6,718.5	84.0	83.4	84.29	-4,167.7	240.9	702.4	537.6	164.86	4.261	
11,220.4	6,788.2	11,028.5	6,718.3	84.3	83.8	84.29	-4,188.1	240.9	702.4	536.8	165.63	4.241	
11,300.0	6,787.6	11,108.0	6,717.7	85.8	85.3	84.29	-4,267.7	240.9	702.4	533.8	168.62	4.166	
11,318.9	6,787.4	11,126.9	6,717.5	86.2	85.6	84.29	-4,286.5	240.9	702.4	533.1	169.33	4.148	
11,400.0	6,786.7	11,208.0	6,716.8	87.7	87.2	84.29	-4,367.7	240.9	702.4	530.0	172.39	4.075	
11,417.3	6,786.6	11,225.3	6,716.7	88.0	87.5	84.29	-4,385.0	240.9	702.4	529.4	173.04	4.059	
11,500.0	6,785.9	11,308.0	6,716.0	89.5	89.0	84.29	-4,467.7	240.9	702.4	526.3	176.16	3.987	
11,515.7	6,785.8	11,323.8	6,715.9	89.8	89.3	84.29	-4,483.4	240.9	702.4	525.7	176.75	3.974	
11,600.0	6,785.1	11,408.0	6,715.2	91.4	90.9	84.29	-4,567.7	240.9	702.4	522.5	179.93	3.904	
11,614.1	6,785.0	11,422.2	6,715.0	91.7	91.2	84.29	-4,581.8	240.9	702.4	522.0	180.47	3.892	
11,700.0	6,784.2	11,508.0	6,714.3	93.3	92.8	84.29	-4,667.7	240.9	702.4	518.7	183.71	3.824	
11,712.6	6,784.1	11,520.6	6,714.2	93.5	93.1	84.29	-4,680.2	240.9	702.4	518.2	184.18	3.814	
11,800.0	6,783.4	11,608.0	6,713.5	95.2	94.7	84.29	-4,767.6	240.9	702.4	514.9	187.49	3.747	
11,811.0	6,783.3	11,619.0	6,713.4	95.4	94.9	84.29	-4,778.6	240.9	702.4	514.5	187.90	3.738	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-203 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,900.0	6,782.6	11,708.0	6,712.6	97.0	96.6	84.29	-4,867.6	240.9	702.4	511.2	191.27	3.673	
11,909.4	6,782.5	11,717.5	6,712.6	97.2	96.8	84.29	-4,877.1	240.9	702.4	510.8	191.62	3.666	
12,000.0	6,781.7	11,808.0	6,711.8	98.9	98.5	84.29	-4,967.6	240.9	702.4	507.4	195.05	3.601	
12,007.8	6,781.7	11,815.9	6,711.7	99.1	98.7	84.29	-4,975.5	240.9	702.4	507.1	195.34	3.596	
12,100.0	6,780.9	11,908.0	6,711.0	100.8	100.4	84.29	-5,067.6	240.9	702.4	503.6	198.83	3.533	
12,106.3	6,780.9	11,914.3	6,710.9	100.9	100.6	84.29	-5,073.9	240.9	702.4	503.4	199.07	3.529	
12,200.0	6,780.1	12,008.0	6,710.1	102.7	102.3	84.29	-5,167.6	240.9	702.4	499.8	202.61	3.467	
12,204.7	6,780.0	12,012.7	6,710.1	102.7	102.4	84.29	-5,172.3	240.9	702.4	499.6	202.79	3.464	
12,300.0	6,779.2	12,108.0	6,709.3	104.5	104.2	84.29	-5,267.6	240.9	702.4	496.0	206.40	3.403	
12,303.1	6,779.2	12,111.2	6,709.3	104.6	104.3	84.29	-5,270.8	240.9	702.4	495.9	206.52	3.401	
12,400.0	6,778.4	12,208.0	6,708.5	106.4	106.1	84.29	-5,367.6	240.9	702.4	492.2	210.19	3.342	
12,401.5	6,778.4	12,209.6	6,708.4	106.4	106.2	84.29	-5,369.2	240.9	702.4	492.2	210.25	3.341	
12,500.0	6,777.6	12,308.0	6,707.6	108.3	108.0	84.29	-5,467.6	240.9	702.4	488.4	213.98	3.283	
12,598.4	6,776.7	12,406.4	6,706.8	110.2	109.9	84.29	-5,566.0	240.9	702.4	484.7	217.71	3.226	
12,600.0	6,776.7	12,408.0	6,706.8	110.2	109.9	84.29	-5,567.6	240.9	702.4	484.7	217.77	3.226	
12,696.8	6,775.9	12,504.9	6,706.0	112.0	111.8	84.29	-5,664.4	240.9	702.4	481.0	221.44	3.172	
12,700.0	6,775.9	12,508.0	6,705.9	112.1	111.9	84.29	-5,667.6	240.9	702.4	480.9	221.56	3.170	
12,795.2	6,775.1	12,603.3	6,705.1	113.9	113.7	84.29	-5,762.9	240.9	702.4	477.3	225.17	3.120	
12,800.0	6,775.0	12,608.0	6,705.1	114.0	113.8	84.29	-5,767.6	240.9	702.4	477.1	225.35	3.117	
12,893.7	6,774.3	12,701.7	6,704.3	115.7	115.5	84.29	-5,861.3	240.9	702.4	473.5	228.91	3.069	
12,900.0	6,774.2	12,708.0	6,704.3	115.8	115.7	84.29	-5,867.6	240.9	702.4	473.3	229.15	3.065	
12,992.1	6,773.4	12,800.1	6,703.5	117.6	117.4	84.28	-5,959.7	240.9	702.4	469.8	232.64	3.019	
13,000.0	6,773.4	12,808.0	6,703.4	117.7	117.6	84.28	-5,967.6	240.9	702.4	469.5	232.94	3.015	
13,090.5	6,772.6	12,898.6	6,702.7	119.4	119.3	84.28	-6,058.1	240.9	702.4	466.0	236.38	2.972	
13,100.0	6,772.5	12,908.0	6,702.6	119.6	119.5	84.28	-6,067.6	240.9	702.4	465.7	236.74	2.967	
13,188.9	6,771.8	12,997.0	6,701.8	121.3	121.2	84.28	-6,156.5	240.9	702.4	462.3	240.12	2.925	
13,200.0	6,771.7	13,008.0	6,701.7	121.5	121.4	84.28	-6,167.6	240.9	702.4	461.9	240.54	2.920	
13,287.4	6,771.0	13,095.4	6,701.0	123.2	123.1	84.28	-6,255.0	240.9	702.4	458.6	243.86	2.881	
13,300.0	6,770.9	13,108.0	6,700.9	123.4	123.3	84.28	-6,267.6	240.9	702.4	458.1	244.34	2.875	
13,385.8	6,770.1	13,193.8	6,700.2	125.0	124.9	84.28	-6,353.4	240.9	702.4	454.8	247.59	2.837	
13,400.0	6,770.0	13,208.0	6,700.1	125.3	125.2	84.28	-6,367.6	240.9	702.4	454.3	248.13	2.831	
13,484.2	6,769.3	13,292.3	6,699.3	126.9	126.8	84.28	-6,451.8	240.9	702.4	451.1	251.34	2.795	
13,500.0	6,769.2	13,308.0	6,699.2	127.2	127.1	84.28	-6,467.6	240.9	702.4	450.5	251.93	2.788	
13,582.6	6,768.5	13,390.7	6,698.5	128.8	128.7	84.28	-6,550.2	240.9	702.4	447.3	255.08	2.754	
13,600.0	6,768.3	13,408.0	6,698.4	129.1	129.0	84.28	-6,567.6	240.9	702.4	446.7	255.74	2.747	
13,681.1	6,767.6	13,489.1	6,697.7	130.6	130.6	84.28	-6,648.7	240.9	702.4	443.6	258.82	2.714	
13,700.0	6,767.5	13,508.0	6,697.5	131.0	130.9	84.28	-6,667.6	240.9	702.4	442.9	259.54	2.706	
13,779.5	6,766.8	13,587.5	6,696.9	132.5	132.4	84.28	-6,747.1	240.9	702.4	439.9	262.56	2.675	
13,800.0	6,766.6	13,608.0	6,696.7	132.9	132.8	84.28	-6,767.6	240.9	702.4	439.1	263.34	2.667	
13,877.9	6,766.0	13,686.0	6,696.0	134.4	134.3	84.28	-6,845.5	240.9	702.4	436.1	266.30	2.638	
13,900.0	6,765.8	13,708.0	6,695.8	134.8	134.7	84.28	-6,867.6	240.9	702.4	435.3	267.14	2.629	
13,976.3	6,765.2	13,784.4	6,695.2	136.2	136.2	84.28	-6,943.9	240.9	702.4	432.4	270.05	2.601	
13,995.7	6,765.0	13,803.7	6,695.0	136.6	136.6	84.28	-6,963.2	240.9	702.4	431.6	270.78	2.594 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	1.07	14.9	0.3	14.9				
98.4	98.4	98.4	98.4	0.1	0.1	1.07	14.9	0.3	14.9	14.8	0.17	87.912	
100.0	100.0	100.0	100.0	0.1	0.1	1.07	14.9	0.3	14.9	14.8	0.17	86.320	
196.8	196.8	196.8	196.8	0.3	0.3	1.07	14.9	0.3	14.9	14.3	0.61	24.554	
200.0	200.0	200.0	200.0	0.3	0.3	1.07	14.9	0.3	14.9	14.3	0.62	23.995	
295.3	295.3	295.3	295.3	0.5	0.5	1.07	14.9	0.3	14.9	13.9	1.05	14.216	
300.0	300.0	300.0	300.0	0.5	0.5	1.07	14.9	0.3	14.9	13.9	1.07	13.934	
393.7	393.7	393.7	393.7	0.7	0.7	1.07	14.9	0.3	14.9	13.4	1.49	10.004	
400.0	400.0	400.0	400.0	0.8	0.8	1.07	14.9	0.3	14.9	13.4	1.52	9.818	
492.1	492.1	492.1	492.1	1.0	1.0	1.07	14.9	0.3	14.9	13.0	1.94	7.717	
500.0	500.0	500.0	500.0	1.0	1.0	1.07	14.9	0.3	14.9	13.0	1.97	7.579	
590.5	590.5	590.5	590.5	1.2	1.2	1.07	14.9	0.3	14.9	12.6	2.38	6.282	
600.0	600.0	600.0	600.0	1.2	1.2	1.07	14.9	0.3	14.9	12.5	2.42	6.171	
689.0	689.0	689.0	689.0	1.4	1.4	1.07	14.9	0.3	14.9	12.1	2.82	5.296	
700.0	700.0	700.0	700.0	1.4	1.4	1.07	14.9	0.3	14.9	12.1	2.87	5.205	
787.4	787.4	787.4	787.4	1.6	1.6	1.07	14.9	0.3	14.9	11.7	3.26	4.578	
800.0	800.0	800.0	800.0	1.7	1.7	1.07	14.9	0.3	14.9	11.6	3.32	4.500	
885.8	885.8	885.8	885.8	1.9	1.9	1.07	14.9	0.3	14.9	11.2	3.71	4.032	
900.0	900.0	900.0	900.0	1.9	1.9	1.07	14.9	0.3	14.9	11.2	3.77	3.963	
984.2	984.2	984.2	984.2	2.1	2.1	1.07	14.9	0.3	14.9	10.8	4.15	3.602	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	1.07	14.9	0.3	14.9	10.7	4.22	3.541	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	1.07	14.9	0.3	14.9	10.3	4.59	3.254	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	1.07	14.9	0.3	14.9	10.3	4.67	3.200	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	1.07	14.9	0.3	14.9	9.9	5.03	2.968	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	1.07	14.9	0.3	14.9	9.8	5.12	2.919	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	1.07	14.9	0.3	14.9	9.5	5.48	2.728	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	1.07	14.9	0.3	14.9	9.4	5.57	2.683	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	1.07	14.9	0.3	14.9	9.0	5.92	2.524	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	1.07	14.9	0.3	14.9	8.9	6.02	2.483	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	1.07	14.9	0.3	14.9	8.6	6.36	2.349	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	1.07	14.9	0.3	14.9	8.5	6.47	2.310	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	1.07	14.9	0.3	14.9	8.1	6.80	2.196	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	1.07	14.9	0.3	14.9	8.0	6.92	2.160	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	3.6	1.07	14.9	0.3	14.9	7.7	7.25	2.062	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	1.07	14.9	0.3	14.9	7.6	7.37	2.028	
1,771.6	1,771.6	1,771.6	1,771.6	3.8	3.8	1.07	14.9	0.3	14.9	7.3	7.69	1.943	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	1.07	14.9	0.3	14.9	7.1	7.82	1.912	
1,870.1	1,870.1	1,870.1	1,870.1	4.1	4.1	1.07	14.9	0.3	14.9	6.8	8.13	1.838	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	1.07	14.9	0.3	14.9	6.7	8.26	1.808	
1,937.3	1,937.3	1,937.3	1,937.3	4.2	4.2	1.07	14.9	0.3	14.9	6.5	8.43	1.772 CC	
1,968.5	1,968.5	1,968.5	1,968.5	4.3	4.3	1.27	15.0	0.3	15.0	6.4	8.57	1.746	
2,000.0	2,000.0	1,999.9	1,999.9	4.4	4.4	2.52	15.1	0.7	15.1	6.4	8.71	1.739	
2,066.9	2,066.9	2,066.6	2,066.5	4.5	4.5	8.49	16.0	2.4	16.2	7.2	9.00	1.800	
2,100.0	2,100.0	2,099.5	2,099.4	4.6	4.6	12.66	16.7	3.8	17.1	8.0	9.14	1.874	
2,165.3	2,165.3	2,164.5	2,164.3	4.7	4.7	-48.19	18.6	7.4	19.5	10.1	9.43	2.073	
2,200.0	2,200.0	2,198.9	2,198.6	4.8	4.8	-45.02	19.8	9.9	21.0	11.4	9.57	2.189	
2,263.8	2,263.7	2,262.2	2,261.6	4.9	4.9	-40.43	22.7	15.4	23.8	13.9	9.84	2.416	
2,300.0	2,299.8	2,298.1	2,297.2	5.0	5.0	-38.39	24.5	19.1	25.5	15.5	9.99	2.548	
2,362.2	2,361.8	2,359.7	2,358.3	5.1	5.2	-35.64	28.2	26.3	28.5	18.2	10.25	2.776	
2,400.0	2,399.5	2,397.1	2,395.3	5.2	5.2	-34.35	30.8	31.3	30.3	19.9	10.41	2.915	
2,460.6	2,459.7	2,457.1	2,454.4	5.4	5.4	-32.72	35.3	40.1	33.4	22.8	10.67	3.134	
2,500.0	2,498.7	2,496.0	2,492.7	5.5	5.5	-31.91	38.5	46.5	35.5	24.6	10.83	3.275	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,557.1	2,554.3	2,549.8	5.6	5.7	-30.99	43.8	56.8	38.6	27.5	11.08	3.480	
2,600.0	2,597.5	2,594.7	2,589.3	5.7	5.8	-30.51	47.8	64.6	40.7	29.5	11.25	3.621	
2,657.5	2,654.0	2,652.1	2,645.2	5.9	6.0	-30.37	53.6	76.0	43.3	31.8	11.51	3.762	
2,700.0	2,695.6	2,694.6	2,686.7	6.0	6.1	-30.76	57.9	84.4	44.5	32.8	11.69	3.808	
2,755.9	2,750.2	2,750.5	2,741.1	6.2	6.3	-31.88	63.5	95.5	45.4	33.4	11.96	3.792	
2,800.0	2,793.1	2,794.6	2,784.1	6.3	6.4	-33.26	68.0	104.3	45.4	33.2	12.18	3.724	
2,854.3	2,845.6	2,848.9	2,837.1	6.5	6.6	-35.65	73.5	115.0	44.7	32.2	12.49	3.576	
2,900.0	2,889.6	2,894.5	2,881.5	6.6	6.8	-38.37	78.1	124.1	43.5	30.7	12.77	3.408	
2,952.7	2,940.2	2,947.1	2,932.8	6.8	7.0	-42.51	83.4	134.5	41.6	28.5	13.16	3.165	
3,000.0	2,985.3	2,994.2	2,978.7	7.0	7.2	-47.40	88.2	143.9	39.6	26.0	13.56	2.920	
3,016.9	3,001.4	3,011.0	2,995.2	7.1	7.2	-49.48	89.9	147.2	38.8	25.1	13.72	2.828	
3,051.2	3,033.9	3,045.1	3,028.4	7.3	7.4	-54.04	93.4	154.0	37.3	23.2	14.09	2.649	
3,100.0	3,080.2	3,093.7	3,075.7	7.5	7.6	-61.11	98.3	163.6	35.7	21.0	14.65	2.435	
3,149.6	3,127.3	3,143.1	3,123.9	7.7	7.8	-68.86	103.3	173.4	34.6	19.3	15.25	2.269	
3,200.0	3,175.1	3,193.2	3,172.8	8.0	8.0	-77.08	108.4	183.4	34.2	18.4	15.83	2.160	
3,203.1	3,178.1	3,196.3	3,175.8	8.0	8.0	-77.60	108.7	184.0	34.2	18.3	15.86	2.155	
3,248.0	3,220.7	3,241.0	3,219.3	8.2	8.1	-84.94	113.2	192.8	34.5	18.1	16.34	2.109	
3,300.0	3,270.0	3,292.7	3,269.8	8.5	8.4	-93.13	118.4	203.1	35.5	18.7	16.82	2.111	
3,346.4	3,314.1	3,338.9	3,314.8	8.7	8.5	-99.95	123.1	212.3	37.0	19.8	17.17	2.155	
3,400.0	3,365.0	3,392.2	3,366.8	9.0	8.8	-107.06	128.5	222.8	39.3	21.8	17.49	2.247	
3,444.9	3,407.6	3,436.9	3,410.3	9.2	9.0	-112.35	133.0	231.7	41.7	24.0	17.72	2.352	
3,500.0	3,459.9	3,491.7	3,463.8	9.5	9.2	-118.02	138.6	242.6	45.0	27.0	17.96	2.506	
3,543.3	3,501.0	3,534.8	3,505.8	9.8	9.4	-121.91	142.9	251.1	47.9	29.8	18.13	2.641	
3,600.0	3,554.8	3,591.3	3,560.8	10.1	9.6	-126.31	148.7	262.3	52.0	33.6	18.35	2.832	
3,641.7	3,594.4	3,632.8	3,601.3	10.3	9.8	-129.13	152.9	270.6	55.1	36.6	18.51	2.978	
3,700.0	3,649.7	3,690.8	3,657.8	10.7	10.0	-132.55	158.7	282.1	59.7	41.0	18.73	3.189	
3,740.1	3,687.8	3,730.7	3,696.8	10.9	10.2	-134.62	162.8	290.0	63.0	44.1	18.89	3.336	
3,800.0	3,744.7	3,790.3	3,754.8	11.2	10.5	-137.32	168.8	301.8	68.1	48.9	19.13	3.557	
3,838.6	3,781.3	3,828.7	3,792.3	11.5	10.6	-138.86	172.7	309.4	71.4	52.1	19.30	3.698	
3,900.0	3,839.6	3,889.8	3,851.8	11.8	10.9	-141.03	178.9	321.5	76.7	57.2	19.56	3.922	
3,937.0	3,874.7	3,926.6	3,887.7	12.1	11.1	-142.20	182.6	328.9	80.0	60.3	19.73	4.056	
4,000.0	3,934.5	3,989.3	3,948.9	12.4	11.3	-143.98	188.9	341.3	85.7	65.7	20.02	4.279	
4,035.4	3,968.1	4,024.6	3,983.2	12.6	11.5	-144.88	192.5	348.3	88.9	68.7	20.19	4.403	
4,100.0	4,029.4	4,088.8	4,045.9	13.0	11.8	-146.36	199.0	361.0	94.8	74.3	20.50	4.624	
4,133.8	4,061.5	4,122.5	4,078.7	13.2	11.9	-147.07	202.4	367.7	97.9	77.2	20.67	4.737	
4,200.0	4,124.3	4,188.3	4,142.9	13.6	12.2	-148.33	209.1	380.8	104.1	83.1	21.00	4.955	
4,232.3	4,155.0	4,220.5	4,174.2	13.8	12.4	-148.89	212.3	387.1	107.1	85.9	21.17	5.058	
4,300.0	4,219.3	4,287.9	4,239.9	14.2	12.7	-149.97	219.2	400.5	113.4	91.9	21.52	5.271	
4,330.7	4,248.4	4,318.4	4,269.7	14.4	12.8	-150.42	222.3	406.6	116.3	94.6	21.68	5.365	
4,400.0	4,314.2	4,387.4	4,336.9	14.9	13.1	-151.37	229.2	420.3	122.8	100.8	22.04	5.573	
4,429.1	4,341.8	4,416.3	4,365.2	15.0	13.3	-151.73	232.2	426.0	125.6	103.4	22.20	5.658	
4,500.0	4,409.1	4,486.9	4,433.9	15.5	13.6	-152.56	239.3	440.0	132.3	109.8	22.58	5.860	
4,527.5	4,435.3	4,514.3	4,460.7	15.7	13.7	-152.86	242.1	445.4	135.0	112.2	22.73	5.937	
4,600.0	4,504.0	4,586.4	4,530.9	16.1	14.0	-153.59	249.4	459.7	141.9	118.8	23.13	6.134	
4,626.0	4,528.7	4,612.2	4,556.1	16.3	14.2	-153.84	252.0	464.9	144.4	121.1	23.27	6.203	
4,700.0	4,598.9	4,685.9	4,628.0	16.7	14.5	-154.49	259.5	479.5	151.5	127.8	23.69	6.395	
4,724.4	4,622.1	4,710.2	4,651.6	16.9	14.6	-154.70	261.9	484.3	153.8	130.0	23.82	6.457	
4,800.0	4,693.9	4,785.4	4,725.0	17.4	14.9	-155.29	269.5	499.2	161.1	136.8	24.25	6.644	
4,822.8	4,715.5	4,808.1	4,747.1	17.5	15.1	-155.46	271.8	503.7	163.3	138.9	24.38	6.699	
4,900.0	4,788.8	4,884.9	4,822.0	18.0	15.4	-155.99	279.6	519.0	170.7	145.9	24.82	6.880	
4,921.2	4,809.0	4,906.1	4,842.6	18.1	15.5	-156.13	281.7	523.2	172.8	147.9	24.94	6.929	
5,000.0	4,883.7	4,984.4	4,919.0	18.6	15.9	-156.62	289.7	538.7	180.4	155.0	25.39	7.106	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,902.4	5,004.0	4,938.1	18.7	16.0	-156.74	291.7	542.6	182.3	156.8	25.50	7.149	
5,100.0	4,978.6	5,084.0	5,016.0	19.3	16.3	-157.19	299.8	558.4	190.1	164.1	25.97	7.321	
5,118.1	4,995.8	5,102.0	5,033.6	19.4	16.4	-157.29	301.6	562.0	191.9	165.8	26.07	7.359	
5,200.0	5,073.6	5,183.5	5,113.0	19.9	16.8	-157.70	309.8	578.2	199.8	173.3	26.55	7.526	
5,216.5	5,089.2	5,199.9	5,129.1	20.0	16.9	-157.78	311.5	581.5	201.4	174.8	26.65	7.559	
5,304.2	5,172.4	5,287.1	5,214.1	20.6	17.3	-158.18	320.3	598.8	209.9	182.8	27.16	7.730	
5,314.9	5,182.7	5,297.9	5,224.5	20.6	17.3	-158.23	321.4	600.9	211.0	183.7	27.23	7.748	
5,400.0	5,263.9	5,382.6	5,307.2	21.1	17.7	-158.49	330.0	617.7	217.8	190.0	27.80	7.835	
5,413.4	5,276.7	5,396.0	5,320.2	21.1	17.8	-158.50	331.3	620.3	218.6	190.7	27.88	7.841	
5,500.0	5,360.3	5,479.2	5,401.5	21.5	18.1	-158.50	339.6	636.5	223.1	194.7	28.44	7.847	
5,511.8	5,371.7	5,490.3	5,412.2	21.6	18.2	-158.50	340.6	638.5	223.7	195.2	28.51	7.848	
5,600.0	5,457.5	5,572.6	5,493.1	21.9	18.5	-158.51	347.7	652.4	227.8	198.8	28.99	7.858	
5,610.2	5,467.5	5,582.1	5,502.5	21.9	18.5	-158.51	348.4	653.9	228.3	199.2	29.04	7.860	
5,700.0	5,555.6	5,665.8	5,585.1	22.3	18.7	-158.56	354.4	665.6	232.2	202.7	29.48	7.876	
5,708.6	5,564.1	5,673.9	5,593.1	22.3	18.8	-158.57	354.9	666.6	232.5	203.0	29.52	7.877	
5,800.0	5,654.2	5,758.9	5,677.5	22.6	19.0	-158.65	359.8	676.1	236.1	206.2	29.90	7.897	
5,807.1	5,661.2	5,765.5	5,684.0	22.6	19.0	-158.66	360.1	676.7	236.4	206.5	29.93	7.899	
5,900.0	5,753.4	5,852.0	5,770.1	22.8	19.2	-158.78	363.8	683.9	239.8	209.5	30.26	7.924	
5,905.5	5,758.8	5,857.1	5,775.2	22.8	19.2	-158.79	363.9	684.2	240.0	209.7	30.28	7.925	
6,000.0	5,852.9	5,944.9	5,862.8	23.1	19.4	-158.94	366.4	689.0	243.1	212.5	30.56	7.955	
6,003.9	5,856.8	5,948.5	5,866.5	23.1	19.4	-158.95	366.5	689.2	243.2	212.6	30.57	7.956	
6,100.0	5,952.7	6,037.8	5,955.7	23.2	19.5	-159.14	367.6	691.5	246.0	215.2	30.79	7.989	
6,102.3	5,955.1	6,039.9	5,957.8	23.2	19.5	-159.15	367.6	691.5	246.1	215.3	30.80	7.990	
6,200.0	6,052.7	6,134.6	6,052.5	23.4	19.6	-159.46	367.2	691.7	248.1	217.1	30.96	8.014	
6,200.8	6,053.5	6,135.4	6,053.3	23.4	19.6	-159.47	367.1	691.7	248.1	217.1	30.96	8.014	
6,221.1	6,073.8	6,155.5	6,073.4	23.4	19.6	-91.31	366.0	691.7	248.2	217.2	30.94	8.021	
6,251.1	6,103.8	6,185.1	6,102.9	23.4	19.7	-91.93	363.4	691.7	248.3	217.4	30.90	8.034	
6,299.2	6,151.8	6,232.2	6,149.5	23.5	19.7	86.87	356.6	691.7	248.5	217.7	30.77	8.077	
6,300.0	6,152.6	6,233.0	6,150.2	23.5	19.7	86.85	356.5	691.7	248.5	217.7	30.76	8.078	
6,350.0	6,202.4	6,281.6	6,197.7	23.5	19.7	85.61	346.3	691.7	248.9	218.3	30.59	8.135	
6,397.6	6,249.3	6,327.5	6,241.9	23.5	19.7	84.46	333.7	691.7	249.3	218.9	30.41	8.198	
6,400.0	6,251.6	6,329.8	6,244.1	23.5	19.7	84.40	333.0	691.7	249.3	218.9	30.40	8.201	
6,450.0	6,300.1	6,377.7	6,289.2	23.5	19.7	83.23	316.8	691.7	249.9	219.7	30.21	8.273	
6,496.0	6,344.0	6,421.6	6,329.4	23.5	19.7	82.18	299.3	691.7	250.5	220.4	30.03	8.342	
6,500.0	6,347.7	6,425.4	6,332.8	23.5	19.7	82.10	297.7	691.7	250.5	220.5	30.01	8.348	
6,550.0	6,394.1	6,472.7	6,374.8	23.5	19.6	81.01	275.9	691.7	251.2	221.4	29.83	8.424	
6,594.5	6,434.2	6,514.5	6,410.6	23.4	19.6	80.08	254.3	691.7	251.9	222.2	29.67	8.490	
6,600.0	6,439.0	6,519.7	6,415.0	23.4	19.6	79.97	251.5	691.7	252.0	222.4	29.65	8.498	
6,650.0	6,482.4	6,566.5	6,453.3	23.4	19.5	78.98	224.7	691.7	252.8	223.3	29.50	8.570	
6,692.9	6,518.1	6,606.4	6,484.6	23.3	19.5	78.18	199.8	691.7	253.5	224.1	29.39	8.627	
6,700.0	6,523.9	6,613.0	6,489.6	23.3	19.5	78.05	195.6	691.7	253.7	224.3	29.37	8.636	
6,750.0	6,563.3	6,659.3	6,523.8	23.3	19.4	77.18	164.3	691.7	254.5	225.2	29.27	8.694	
6,791.3	6,594.2	6,697.5	6,550.4	23.2	19.4	76.51	137.0	691.7	255.2	226.0	29.21	8.736	
6,800.0	6,600.5	6,705.5	6,555.7	23.2	19.4	76.38	131.1	691.7	255.3	226.1	29.20	8.744	
6,850.0	6,635.3	6,750.0	6,584.5	23.2	19.4	75.66	97.1	691.7	256.2	227.0	29.17	8.783	
6,889.7	6,661.1	6,787.7	6,607.2	23.1	19.3	75.10	67.0	691.7	256.8	227.6	29.18	8.801	
6,900.0	6,667.5	6,797.1	6,612.6	23.1	19.3	74.96	59.3	691.7	256.9	227.8	29.18	8.807	
6,950.0	6,696.9	6,842.7	6,637.3	23.1	19.3	74.36	21.0	691.7	257.7	228.5	29.23	8.816	
6,988.2	6,717.5	6,877.4	6,654.5	23.1	19.3	73.94	-9.1	691.7	258.2	228.9	29.32	8.808	
7,000.0	6,723.5	6,888.1	6,659.5	23.1	19.3	73.82	-18.6	691.7	258.4	229.0	29.33	8.808	
7,050.0	6,747.0	6,933.4	6,679.1	23.1	19.3	73.36	-59.5	691.7	259.0	229.5	29.46	8.791	
7,086.6	6,762.3	6,966.6	6,691.8	23.1	19.3	73.06	-90.1	691.7	259.4	229.8	29.62	8.756	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-223 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,767.4	6,978.7	6,696.0	23.1	19.4	72.97	-101.4	691.7	259.5	229.8	29.68	8.743	
7,150.0	6,784.6	7,023.8	6,710.3	23.1	19.4	72.65	-144.2	691.7	260.0	230.0	29.95	8.680	
7,185.0	6,794.7	7,055.4	6,718.6	23.1	19.5	72.47	-174.7	691.7	260.2	230.0	30.17	8.625	
7,200.0	6,798.5	7,068.9	6,721.7	23.2	19.5	72.40	-187.8	691.7	260.3	230.0	30.27	8.598	
7,250.0	6,808.9	7,113.9	6,730.5	23.2	19.7	72.23	-232.0	691.7	260.6	229.9	30.66	8.497	
7,283.4	6,814.0	7,144.0	6,734.7	23.3	19.8	72.16	-261.8	691.7	260.7	229.7	30.96	8.418	
7,300.0	6,816.0	7,158.9	6,736.4	23.4	19.9	72.13	-276.6	691.7	260.7	229.6	31.12	8.377	
7,350.0	6,819.5	7,203.8	6,739.5	23.5	20.1	72.11	-321.4	691.7	260.7	229.1	31.64	8.241	
7,381.9	6,820.0	7,232.5	6,740.0	23.7	20.3	72.13	-350.1	691.7	260.7	228.7	32.01	8.145	
7,382.0	6,820.0	7,232.6	6,740.0	23.7	20.3	72.13	-350.2	691.7	260.7	228.7	32.01	8.145	
7,400.0	6,819.8	7,250.3	6,739.9	23.8	20.4	72.14	-367.8	691.7	260.7	228.4	32.30	8.070	
7,480.3	6,819.2	7,330.6	6,739.3	24.2	21.0	72.16	-448.1	691.7	260.6	226.9	33.77	7.718	
7,500.0	6,819.0	7,350.3	6,739.2	24.3	21.2	72.17	-467.8	691.7	260.6	226.5	34.14	7.633	
7,578.7	6,818.4	7,429.0	6,738.7	24.9	21.9	72.19	-546.6	691.7	260.6	224.8	35.79	7.281	
7,600.0	6,818.2	7,450.3	6,738.5	25.0	22.1	72.20	-567.8	691.7	260.6	224.3	36.26	7.188	
7,677.1	6,817.6	7,527.4	6,738.0	25.7	23.0	72.22	-645.0	691.7	260.6	222.5	38.06	6.847	
7,700.0	6,817.4	7,550.3	6,737.8	25.9	23.2	72.23	-667.8	691.7	260.6	221.9	38.61	6.749	
7,775.6	6,816.7	7,625.9	6,737.3	26.6	24.1	72.25	-743.4	691.7	260.5	220.0	40.52	6.429	
7,800.0	6,816.5	7,650.3	6,737.2	26.9	24.4	72.26	-767.8	691.7	260.5	219.4	41.15	6.330	
7,874.0	6,815.9	7,724.3	6,736.7	27.7	25.4	72.28	-841.8	691.7	260.5	217.3	43.15	6.036	
7,900.0	6,815.7	7,750.3	6,736.5	28.0	25.7	72.29	-867.8	691.7	260.5	216.6	43.87	5.938	
7,972.4	6,815.1	7,822.7	6,736.0	28.9	26.7	72.31	-940.2	691.7	260.4	214.5	45.92	5.671	
8,000.0	6,814.9	7,850.3	6,735.8	29.2	27.1	72.32	-967.8	691.7	260.4	213.7	46.72	5.575	
8,070.8	6,814.3	7,921.1	6,735.3	30.1	28.2	72.34	-1,038.7	691.7	260.4	211.6	48.81	5.335	
8,100.0	6,814.1	7,950.3	6,735.1	30.5	28.6	72.35	-1,067.8	691.7	260.4	210.7	49.68	5.241	
8,169.3	6,813.5	8,019.6	6,734.6	31.5	29.6	72.37	-1,137.1	691.7	260.4	208.6	51.79	5.027	
8,200.0	6,813.3	8,050.3	6,734.4	31.9	30.1	72.38	-1,167.8	691.7	260.3	207.6	52.73	4.937	
8,267.7	6,812.7	8,118.0	6,734.0	32.9	31.1	72.40	-1,235.5	691.7	260.3	205.5	54.85	4.746	
8,300.0	6,812.4	8,150.3	6,733.8	33.3	31.6	72.41	-1,267.8	691.7	260.3	204.4	55.87	4.659	
8,366.1	6,811.9	8,216.4	6,733.3	34.3	32.7	72.43	-1,333.9	691.7	260.3	202.3	57.98	4.489	
8,400.0	6,811.6	8,250.3	6,733.1	34.8	33.2	72.44	-1,367.8	691.7	260.3	201.2	59.07	4.406	
8,464.5	6,811.1	8,314.8	6,732.6	35.8	34.3	72.46	-1,432.4	691.7	260.2	199.1	61.17	4.254	
8,500.0	6,810.8	8,350.3	6,732.4	36.3	34.8	72.47	-1,467.8	691.7	260.2	197.9	62.32	4.175	
8,563.0	6,810.3	8,413.3	6,732.0	37.3	35.9	72.49	-1,530.8	691.7	260.2	195.8	64.40	4.040	
8,600.0	6,810.0	8,450.3	6,731.7	37.9	36.5	72.50	-1,567.8	691.7	260.2	194.5	65.63	3.964	
8,661.4	6,809.5	8,511.7	6,731.3	38.9	37.5	72.52	-1,629.2	691.7	260.1	192.5	67.68	3.844	
8,700.0	6,809.1	8,550.3	6,731.0	39.5	38.2	72.53	-1,667.8	691.7	260.1	191.1	68.98	3.771	
8,759.8	6,808.6	8,610.1	6,730.6	40.5	39.2	72.55	-1,727.6	691.7	260.1	189.1	71.00	3.664	
8,800.0	6,808.3	8,650.3	6,730.4	41.1	39.9	72.56	-1,767.8	691.7	260.1	187.7	72.36	3.594	
8,858.2	6,807.8	8,708.5	6,730.0	42.1	40.9	72.58	-1,826.1	691.7	260.1	185.7	74.34	3.498	
8,900.0	6,807.5	8,750.3	6,729.7	42.8	41.6	72.59	-1,867.8	691.7	260.0	184.3	75.77	3.432	
8,956.7	6,807.0	8,807.0	6,729.3	43.7	42.6	72.61	-1,924.5	691.7	260.0	182.3	77.72	3.346	
9,000.0	6,806.7	8,850.3	6,729.0	44.4	43.3	72.62	-1,967.8	691.7	260.0	180.8	79.21	3.282	
9,055.1	6,806.2	8,905.4	6,728.6	45.4	44.3	72.64	-2,022.9	691.7	260.0	178.9	81.12	3.205	
9,100.0	6,805.8	8,950.3	6,728.3	46.1	45.1	72.65	-2,067.8	691.7	260.0	177.3	82.68	3.144	
9,153.5	6,805.4	9,003.8	6,727.9	47.0	46.0	72.67	-2,121.3	691.7	259.9	175.4	84.54	3.075	
9,200.0	6,805.0	9,050.3	6,727.6	47.8	46.8	72.68	-2,167.8	691.7	259.9	173.7	86.16	3.017	
9,251.9	6,804.6	9,102.2	6,727.3	48.7	47.8	72.70	-2,219.7	691.7	259.9	171.9	87.98	2.954	
9,300.0	6,804.2	9,150.3	6,726.9	49.6	48.6	72.71	-2,267.8	691.7	259.9	170.2	89.67	2.898	
9,350.4	6,803.8	9,200.6	6,726.6	50.4	49.5	72.73	-2,318.2	691.7	259.8	168.4	91.44	2.842	
9,400.0	6,803.4	9,250.3	6,726.3	51.3	50.4	72.74	-2,367.8	691.7	259.8	166.6	93.19	2.788	
9,448.8	6,802.9	9,299.1	6,725.9	52.1	51.3	72.76	-2,416.6	691.7	259.8	164.9	94.91	2.737	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-223 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,802.5	9,350.3	6,725.6	53.0	52.2	72.77	-2,467.8	691.7	259.8	163.1	96.72	2.686	
9,547.2	6,802.1	9,397.5	6,725.3	53.9	53.0	72.79	-2,515.0	691.7	259.8	161.4	98.40	2.640	
9,600.0	6,801.7	9,450.3	6,724.9	54.8	54.0	72.80	-2,567.8	691.7	259.7	159.5	100.27	2.590	
9,645.6	6,801.3	9,495.9	6,724.6	55.6	54.8	72.82	-2,613.4	691.7	259.7	157.8	101.90	2.549	
9,700.0	6,800.9	9,550.3	6,724.2	56.6	55.8	72.83	-2,667.8	691.7	259.7	155.9	103.84	2.501	
9,744.1	6,800.5	9,594.3	6,723.9	57.4	56.6	72.85	-2,711.9	691.7	259.7	154.3	105.41	2.463	
9,800.0	6,800.0	9,650.3	6,723.5	58.4	57.6	72.87	-2,767.8	691.7	259.6	152.2	107.41	2.417	
9,842.5	6,799.7	9,692.8	6,723.3	59.1	58.4	72.88	-2,810.3	691.7	259.6	150.7	108.93	2.383	
9,900.0	6,799.2	9,750.3	6,722.9	60.2	59.5	72.90	-2,867.8	691.7	259.6	148.6	111.00	2.339	
9,940.9	6,798.9	9,791.2	6,722.6	60.9	60.2	72.91	-2,908.7	691.7	259.6	147.1	112.46	2.308	
10,000.0	6,798.4	9,850.3	6,722.2	62.0	61.3	72.93	-2,967.8	691.7	259.6	145.0	114.59	2.265	
10,039.3	6,798.1	9,889.6	6,721.9	62.7	62.0	72.94	-3,007.1	691.7	259.5	143.5	116.01	2.237	
10,100.0	6,797.6	9,950.3	6,721.5	63.8	63.1	72.96	-3,067.8	691.7	259.5	141.3	118.19	2.196	
10,137.8	6,797.2	9,988.0	6,721.2	64.4	63.8	72.97	-3,105.5	691.7	259.5	139.9	119.55	2.171	
10,200.0	6,796.7	10,050.3	6,720.8	65.6	65.0	72.99	-3,167.8	691.7	259.5	137.7	121.80	2.130	
10,236.2	6,796.4	10,086.5	6,720.6	66.2	65.6	73.00	-3,204.0	691.7	259.5	136.3	123.11	2.108	
10,300.0	6,795.9	10,150.3	6,720.1	67.4	66.8	73.02	-3,267.8	691.7	259.4	134.0	125.42	2.068	
10,334.6	6,795.6	10,184.9	6,719.9	68.0	67.5	73.03	-3,302.4	691.7	259.4	132.7	126.67	2.048	
10,400.0	6,795.1	10,250.3	6,719.5	69.2	68.7	73.05	-3,367.8	691.7	259.4	130.3	129.04	2.010	
10,433.0	6,794.8	10,283.3	6,719.2	69.8	69.3	73.06	-3,400.8	691.7	259.4	129.1	130.24	1.991	
10,500.0	6,794.2	10,350.3	6,718.8	71.0	70.5	73.08	-3,467.8	691.7	259.3	126.7	132.68	1.955	
10,531.5	6,794.0	10,381.7	6,718.6	71.6	71.1	73.09	-3,499.2	691.7	259.3	125.5	133.82	1.938	
10,600.0	6,793.4	10,450.3	6,718.1	72.9	72.4	73.12	-3,567.8	691.7	259.3	123.0	136.31	1.902	
10,629.9	6,793.2	10,480.2	6,717.9	73.4	72.9	73.13	-3,597.7	691.7	259.3	121.9	137.40	1.887	
10,700.0	6,792.6	10,550.3	6,717.4	74.7	74.2	73.15	-3,667.8	691.7	259.3	119.3	139.95	1.852	
10,728.3	6,792.3	10,578.6	6,717.2	75.2	74.8	73.16	-3,696.1	691.7	259.2	118.3	140.99	1.839	
10,800.0	6,791.7	10,650.3	6,716.7	76.6	76.1	73.18	-3,767.8	691.7	259.2	115.6	143.60	1.805	
10,826.7	6,791.5	10,677.0	6,716.6	77.1	76.6	73.19	-3,794.5	691.7	259.2	114.6	144.58	1.793	
10,900.0	6,790.9	10,750.3	6,716.1	78.4	78.0	73.21	-3,867.8	691.7	259.2	111.9	147.26	1.760	
10,925.2	6,790.7	10,775.4	6,715.9	78.9	78.4	73.22	-3,892.9	691.7	259.2	111.0	148.18	1.749	
11,000.0	6,790.1	10,850.3	6,715.4	80.3	79.8	73.24	-3,967.7	691.7	259.1	108.2	150.91	1.717	
11,023.6	6,789.9	10,873.9	6,715.2	80.7	80.3	73.25	-3,991.3	691.7	259.1	107.3	151.78	1.707	
11,100.0	6,789.2	10,950.3	6,714.7	82.1	81.7	73.28	-4,067.7	691.7	259.1	104.5	154.57	1.676	
11,122.0	6,789.1	10,972.3	6,714.5	82.5	82.1	73.28	-4,089.8	691.7	259.1	103.7	155.38	1.667	
11,200.0	6,788.4	11,050.3	6,714.0	84.0	83.6	73.31	-4,167.7	691.7	259.0	100.8	158.24	1.637	
11,220.4	6,788.2	11,070.7	6,713.9	84.3	84.0	73.32	-4,188.2	691.7	259.0	100.0	158.99	1.629	
11,300.0	6,787.6	11,150.3	6,713.3	85.8	85.5	73.34	-4,267.7	691.7	259.0	97.1	161.91	1.600	
11,318.9	6,787.4	11,169.1	6,713.2	86.2	85.8	73.35	-4,286.6	691.7	259.0	96.4	162.60	1.593	
11,400.0	6,786.7	11,250.3	6,712.7	87.7	87.3	73.37	-4,367.7	691.7	258.9	93.4	165.59	1.564	
11,417.3	6,786.6	11,267.6	6,712.5	88.0	87.7	73.38	-4,385.0	691.7	258.9	92.7	166.22	1.558	
11,500.0	6,785.9	11,350.3	6,712.0	89.5	89.2	73.41	-4,467.7	691.7	258.9	89.6	169.26	1.530	
11,515.7	6,785.8	11,366.0	6,711.9	89.8	89.5	73.41	-4,483.5	691.7	258.9	89.1	169.84	1.524	
11,600.0	6,785.1	11,450.3	6,711.3	91.4	91.1	73.44	-4,567.7	691.7	258.9	85.9	172.94	1.497 Level 3	
11,614.1	6,785.0	11,464.4	6,711.2	91.7	91.4	73.44	-4,581.9	691.7	258.9	85.4	173.46	1.492 Level 3	
11,700.0	6,784.2	11,550.3	6,710.6	93.3	93.0	73.47	-4,667.7	691.7	258.8	82.2	176.63	1.465 Level 3	
11,712.6	6,784.1	11,562.8	6,710.5	93.5	93.2	73.48	-4,680.3	691.7	258.8	81.7	177.09	1.461 Level 3	
11,800.0	6,783.4	11,650.3	6,709.9	95.2	94.9	73.50	-4,767.7	691.7	258.8	78.5	180.32	1.435 Level 3	
11,811.0	6,783.3	11,661.3	6,709.9	95.4	95.1	73.51	-4,778.7	691.7	258.8	78.0	180.72	1.432 Level 3	
11,900.0	6,782.6	11,750.3	6,709.3	97.0	96.7	73.54	-4,867.7	691.7	258.7	74.7	184.01	1.406 Level 3	
11,909.4	6,782.5	11,759.7	6,709.2	97.2	96.9	73.54	-4,877.2	691.7	258.7	74.4	184.35	1.403 Level 3	
12,000.0	6,781.7	11,850.3	6,708.6	98.9	98.6	73.57	-4,967.7	691.7	258.7	71.0	187.70	1.378 Level 3	
12,007.8	6,781.7	11,858.1	6,708.5	99.1	98.8	73.57	-4,975.6	691.7	258.7	70.7	187.99	1.376 Level 3	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-223 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	11,950.3	6,707.9	100.8	100.5	73.60	-5,067.7	691.7	258.6	67.2	191.40	1.351 Level 3	
12,106.3	6,780.9	11,956.5	6,707.8	100.9	100.6	73.60	-5,074.0	691.7	258.6	67.0	191.63	1.350 Level 3	
12,200.0	6,780.1	12,050.3	6,707.2	102.7	102.4	73.64	-5,167.7	691.7	258.6	63.5	195.09	1.326 Level 3	
12,204.7	6,780.0	12,055.0	6,707.2	102.7	102.5	73.64	-5,172.4	691.7	258.6	63.3	195.27	1.324 Level 3	
12,300.0	6,779.2	12,150.3	6,706.5	104.5	104.3	73.67	-5,267.7	691.7	258.6	59.8	198.80	1.301 Level 3	
12,303.1	6,779.2	12,153.4	6,706.5	104.6	104.4	73.67	-5,270.8	691.7	258.6	59.6	198.91	1.300 Level 3	
12,400.0	6,778.4	12,250.3	6,705.8	106.4	106.2	73.70	-5,367.7	691.7	258.5	56.0	202.50	1.277 Level 3	
12,401.5	6,778.4	12,251.8	6,705.8	106.4	106.2	73.70	-5,369.3	691.7	258.5	56.0	202.56	1.276 Level 3	
12,500.0	6,777.6	12,350.3	6,705.2	108.3	108.1	73.73	-5,467.7	691.7	258.5	52.3	206.21	1.253 Level 3	
12,598.4	6,776.7	12,448.7	6,704.5	110.2	110.0	73.77	-5,566.1	691.7	258.4	48.6	209.86	1.231 Level 2	
12,600.0	6,776.7	12,450.3	6,704.5	110.2	110.0	73.77	-5,567.7	691.7	258.4	48.5	209.92	1.231 Level 2	
12,696.8	6,775.9	12,547.1	6,703.8	112.0	111.8	73.80	-5,664.5	691.7	258.4	44.9	213.51	1.210 Level 2	
12,700.0	6,775.9	12,550.3	6,703.8	112.1	111.9	73.80	-5,667.7	691.7	258.4	44.8	213.63	1.209 Level 2	
12,795.2	6,775.1	12,645.5	6,703.2	113.9	113.7	73.83	-5,763.0	691.7	258.3	41.2	217.16	1.190 Level 2	
12,800.0	6,775.0	12,650.3	6,703.1	114.0	113.8	73.84	-5,767.7	691.7	258.3	41.0	217.34	1.189 Level 2	
12,893.7	6,774.3	12,743.9	6,702.5	115.7	115.6	73.87	-5,861.4	691.7	258.3	37.5	220.82	1.170 Level 2	
12,900.0	6,774.2	12,750.3	6,702.4	115.8	115.7	73.87	-5,867.7	691.7	258.3	37.2	221.06	1.168 Level 2	
12,992.1	6,773.4	12,842.4	6,701.8	117.6	117.4	73.90	-5,959.8	691.7	258.3	33.8	224.48	1.150 Level 2	
13,000.0	6,773.4	12,850.3	6,701.8	117.7	117.6	73.90	-5,967.7	691.7	258.2	33.5	224.77	1.149 Level 2	
13,090.5	6,772.6	12,940.8	6,701.1	119.4	119.3	73.93	-6,058.2	691.7	258.2	30.1	228.14	1.132 Level 2	
13,100.0	6,772.5	12,950.3	6,701.1	119.6	119.5	73.94	-6,067.7	691.7	258.2	29.7	228.49	1.130 Level 2	
13,188.9	6,771.8	13,039.2	6,700.5	121.3	121.2	73.97	-6,156.6	691.7	258.2	26.4	231.81	1.114 Level 2	
13,200.0	6,771.7	13,050.3	6,700.4	121.5	121.4	73.97	-6,167.7	691.7	258.2	25.9	232.22	1.112 Level 2	
13,287.4	6,771.0	13,137.6	6,699.8	123.2	123.0	74.00	-6,255.1	691.7	258.1	22.7	235.47	1.096 Level 2	
13,300.0	6,770.9	13,150.3	6,699.7	123.4	123.3	74.00	-6,267.7	691.7	258.1	22.2	235.94	1.094 Level 2	
13,385.8	6,770.1	13,236.1	6,699.1	125.0	124.9	74.03	-6,353.5	691.7	258.1	18.9	239.14	1.079 Level 2	
13,400.0	6,770.0	13,250.3	6,699.0	125.3	125.2	74.04	-6,367.7	691.7	258.1	18.4	239.67	1.077 Level 2	
13,484.2	6,769.3	13,334.5	6,698.5	126.9	126.8	74.07	-6,451.9	691.7	258.0	15.2	242.81	1.063 Level 2	
13,500.0	6,769.2	13,350.3	6,698.4	127.2	127.1	74.07	-6,467.7	691.7	258.0	14.6	243.40	1.060 Level 2	
13,582.6	6,768.5	13,432.9	6,697.8	128.8	128.6	74.10	-6,550.3	691.7	258.0	11.5	246.48	1.047 Level 2	
13,600.0	6,768.3	13,450.3	6,697.7	129.1	129.0	74.11	-6,567.7	691.7	258.0	10.9	247.13	1.044 Level 2	
13,681.1	6,767.6	13,531.3	6,697.1	130.6	130.5	74.13	-6,648.8	691.7	257.9	7.8	250.15	1.031 Level 2	
13,700.0	6,767.5	13,550.3	6,697.0	131.0	130.9	74.14	-6,667.7	691.7	257.9	7.1	250.86	1.028 Level 2	
13,779.5	6,766.8	13,629.8	6,696.5	132.5	132.4	74.17	-6,747.2	691.7	257.9	4.1	253.83	1.016 Level 2	
13,800.0	6,766.6	13,650.3	6,696.3	132.9	132.8	74.17	-6,767.7	691.7	257.9	3.3	254.59	1.013 Level 2	
13,877.9	6,766.0	13,728.2	6,695.8	134.4	134.3	74.20	-6,845.6	691.7	257.9	0.4	257.50	1.001 Level 2	
13,900.0	6,765.8	13,750.3	6,695.6	134.8	134.7	74.21	-6,867.7	691.7	257.9	-0.5	258.33	0.998 Level 1	
13,976.3	6,765.2	13,826.7	6,695.1	136.2	136.1	74.24	-6,944.1	691.7	257.8	-3.4	261.18	0.987 Level 1	
13,995.7	6,765.0	13,846.0	6,695.0	136.6	136.5	74.25	-6,963.4	691.7	257.8	-4.1	261.91	0.984 Level 1, ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-243 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	0.64	75.0	0.8	75.1				
98.4	98.4	98.4	98.4	0.1	0.1	0.64	75.0	0.8	75.1	74.9	0.17	441.653	
100.0	100.0	100.0	100.0	0.1	0.1	0.64	75.0	0.8	75.1	74.9	0.17	433.658	
196.8	196.8	196.8	196.8	0.3	0.3	0.64	75.0	0.8	75.1	74.4	0.61	123.353	
200.0	200.0	200.0	200.0	0.3	0.3	0.64	75.0	0.8	75.1	74.4	0.62	120.548	
295.3	295.3	295.3	295.3	0.5	0.5	0.64	75.0	0.8	75.1	74.0	1.05	71.418	
300.0	300.0	300.0	300.0	0.5	0.5	0.64	75.0	0.8	75.1	74.0	1.07	70.004	
393.7	393.7	393.7	393.7	0.7	0.7	0.64	75.0	0.8	75.1	73.6	1.49	50.258	
400.0	400.0	400.0	400.0	0.8	0.8	0.64	75.0	0.8	75.1	73.5	1.52	49.323	
492.1	492.1	492.1	492.1	1.0	1.0	0.64	75.0	0.8	75.1	73.1	1.94	38.771	
500.0	500.0	500.0	500.0	1.0	1.0	0.64	75.0	0.8	75.1	73.1	1.97	38.075	
590.5	590.5	590.5	590.5	1.2	1.2	0.64	75.0	0.8	75.1	72.7	2.38	31.558	
600.0	600.0	600.0	600.0	1.2	1.2	0.64	75.0	0.8	75.1	72.6	2.42	31.004	
689.0	689.0	689.0	689.0	1.4	1.4	0.64	75.0	0.8	75.1	72.2	2.82	26.608	
700.0	700.0	700.0	700.0	1.4	1.4	0.64	75.0	0.8	75.1	72.2	2.87	26.149	
787.4	787.4	787.4	787.4	1.6	1.6	0.64	75.0	0.8	75.1	71.8	3.26	23.000	
800.0	800.0	800.0	800.0	1.7	1.7	0.64	75.0	0.8	75.1	71.7	3.32	22.608	
885.8	885.8	885.8	885.8	1.9	1.9	0.64	75.0	0.8	75.1	71.3	3.71	20.254	
900.0	900.0	900.0	900.0	1.9	1.9	0.64	75.0	0.8	75.1	71.3	3.77	19.912	
984.2	984.2	984.2	984.2	2.1	2.1	0.64	75.0	0.8	75.1	70.9	4.15	18.094	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.64	75.0	0.8	75.1	70.8	4.22	17.790	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.64	75.0	0.8	75.1	70.5	4.59	16.350	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.64	75.0	0.8	75.1	70.4	4.67	16.077	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	0.64	75.0	0.8	75.1	70.0	5.03	14.912	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.64	75.0	0.8	75.1	69.9	5.12	14.665	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	0.64	75.0	0.8	75.1	69.6	5.48	13.707	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.64	75.0	0.8	75.1	69.5	5.57	13.481	
1,337.5	1,337.5	1,337.5	1,337.5	2.9	2.9	0.64	75.0	0.8	75.1	69.3	5.74	13.085 CC	
1,377.9	1,377.9	1,377.4	1,377.4	3.0	3.0	0.57	75.1	0.7	75.2	69.2	5.92	12.704 ES	
1,400.0	1,400.0	1,399.1	1,399.1	3.0	3.0	0.42	75.4	0.5	75.4	69.4	6.01	12.534	
1,476.4	1,476.4	1,473.9	1,473.9	3.2	3.2	-0.74	77.0	-1.0	77.1	70.7	6.35	12.139	
1,500.0	1,500.0	1,497.1	1,497.0	3.2	3.2	-1.28	77.8	-1.7	77.9	71.4	6.45	12.073	
1,574.8	1,574.8	1,570.2	1,570.0	3.4	3.4	-3.48	81.2	-4.9	81.5	74.7	6.78	12.024	
1,600.0	1,600.0	1,594.8	1,594.5	3.5	3.4	-4.35	82.7	-6.3	83.1	76.2	6.89	12.061	
1,673.2	1,673.2	1,665.9	1,665.3	3.6	3.6	-7.17	87.8	-11.0	88.8	81.6	7.21	12.310	
1,700.0	1,700.0	1,691.9	1,691.0	3.7	3.7	-8.27	89.9	-13.1	91.3	84.0	7.33	12.454	
1,771.6	1,771.6	1,761.0	1,759.6	3.8	3.8	-11.27	96.6	-19.2	99.2	91.5	7.65	12.960	
1,800.0	1,800.0	1,788.2	1,786.5	3.9	3.9	-12.46	99.5	-22.0	102.8	95.0	7.78	13.210	
1,870.1	1,870.1	1,855.1	1,852.5	4.1	4.1	-15.33	107.5	-29.5	112.9	104.8	8.10	13.928	
1,900.0	1,900.0	1,883.5	1,880.4	4.1	4.2	-16.51	111.3	-33.0	117.7	109.4	8.24	14.278	
1,968.5	1,968.5	1,948.2	1,943.8	4.3	4.4	-19.05	120.5	-41.6	129.9	121.3	8.57	15.160	
2,000.0	2,000.0	1,978.9	1,973.9	4.4	4.5	-20.17	125.2	-46.0	135.9	127.2	8.72	15.579	
2,066.9	2,066.9	2,044.4	2,037.9	4.5	4.7	-22.24	135.1	-55.3	148.9	139.8	9.06	16.425	
2,100.0	2,100.0	2,076.7	2,069.6	4.6	4.8	-23.14	140.1	-59.9	155.3	146.1	9.23	16.823	
2,165.3	2,165.3	2,140.6	2,132.0	4.7	5.0	-93.13	149.8	-68.9	168.2	158.8	9.46	17.780	
2,200.0	2,200.0	2,174.4	2,165.1	4.8	5.1	-94.04	154.9	-73.7	175.2	165.6	9.62	18.216	
2,263.8	2,263.7	2,236.5	2,225.8	4.9	5.4	-95.86	164.3	-82.5	188.2	178.3	9.90	19.018	
2,300.0	2,299.8	2,271.6	2,260.2	5.0	5.5	-96.94	169.7	-87.5	195.8	185.7	10.05	19.474	
2,362.2	2,361.8	2,331.9	2,319.2	5.1	5.7	-98.88	178.8	-96.1	209.1	198.8	10.33	20.254	
2,400.0	2,399.5	2,368.4	2,354.9	5.2	5.9	-100.09	184.4	-101.3	217.5	207.0	10.49	20.735	
2,460.6	2,459.7	2,426.8	2,412.0	5.4	6.1	-102.07	193.3	-109.5	231.4	220.6	10.76	21.511	
2,500.0	2,498.7	2,464.6	2,449.0	5.5	6.2	-103.37	199.0	-114.9	240.7	229.8	10.93	22.025	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,557.1	2,521.0	2,504.2	5.6	6.4	-105.32	207.6	-122.9	255.2	244.0	11.19	22.803	
2,600.0	2,597.5	2,560.0	2,542.3	5.7	6.6	-106.66	213.5	-128.4	265.7	254.3	11.37	23.358	
2,657.5	2,654.0	2,614.5	2,595.6	5.9	6.8	-108.54	221.8	-136.2	280.9	269.3	11.64	24.142	
2,700.0	2,695.6	2,654.6	2,634.8	6.0	7.0	-109.91	227.9	-141.8	292.7	280.9	11.83	24.741	
2,755.9	2,750.2	2,707.0	2,686.1	6.2	7.2	-111.68	235.8	-149.3	308.9	296.8	12.10	25.530	
2,800.0	2,793.1	2,748.1	2,726.3	6.3	7.4	-113.04	242.1	-155.1	322.1	309.8	12.31	26.175	
2,854.3	2,845.6	2,798.5	2,775.6	6.5	7.6	-114.68	249.7	-162.3	339.1	326.6	12.58	26.966	
2,900.0	2,889.6	2,840.7	2,816.8	6.6	7.7	-116.01	256.1	-168.3	354.1	341.3	12.80	27.657	
2,952.7	2,940.2	2,889.0	2,864.1	6.8	8.0	-117.51	263.5	-175.1	372.0	358.9	13.08	28.447	
3,000.0	2,985.3	2,932.0	2,906.1	7.0	8.1	-118.80	270.0	-181.2	388.7	375.4	13.32	29.181	
3,016.9	3,001.4	2,947.3	2,921.1	7.1	8.2	-119.26	272.4	-183.4	394.8	381.4	13.41	29.443	
3,051.2	3,033.9	2,978.3	2,951.4	7.3	8.3	-120.37	277.1	-187.8	407.4	393.8	13.60	29.947	
3,100.0	3,080.2	3,022.4	2,994.6	7.5	8.5	-121.84	283.8	-194.0	425.5	411.6	13.88	30.652	
3,149.6	3,127.3	3,067.3	3,038.5	7.7	8.7	-123.22	290.6	-200.4	444.2	430.0	14.17	31.339	
3,200.0	3,175.1	3,112.9	3,083.1	8.0	8.9	-124.51	297.5	-206.9	463.4	448.9	14.47	32.020	
3,248.0	3,220.7	3,156.3	3,125.6	8.2	9.1	-125.65	304.1	-213.0	481.8	467.1	14.76	32.640	
3,300.0	3,270.0	3,209.3	3,177.5	8.5	9.3	-126.94	312.0	-220.4	501.8	486.7	15.08	33.279	
3,346.4	3,314.1	3,260.1	3,227.4	8.7	9.4	-128.11	318.9	-226.9	519.1	503.8	15.36	33.798	
3,400.0	3,365.0	3,319.4	3,285.9	9.0	9.6	-129.42	326.2	-233.7	538.4	522.7	15.68	34.327	
3,444.9	3,407.6	3,369.7	3,335.5	9.2	9.8	-130.48	331.7	-238.8	553.9	537.9	15.96	34.712	
3,500.0	3,459.9	3,432.1	3,397.4	9.5	9.9	-131.76	337.6	-244.3	572.2	555.9	16.29	35.125	
3,543.3	3,501.0	3,481.5	3,446.5	9.8	10.0	-132.74	341.6	-248.0	585.9	569.4	16.55	35.399	
3,600.0	3,554.8	3,546.9	3,511.6	10.1	10.2	-134.02	345.9	-252.1	603.1	586.2	16.89	35.708	
3,641.7	3,594.4	3,595.4	3,560.0	10.3	10.3	-134.95	348.4	-254.4	615.2	598.1	17.14	35.894	
3,700.0	3,649.7	3,663.6	3,628.1	10.7	10.4	-136.24	350.9	-256.7	631.2	613.8	17.48	36.115	
3,740.1	3,687.8	3,710.9	3,675.4	10.9	10.5	-137.14	352.0	-257.7	641.7	624.0	17.71	36.234	
3,800.0	3,744.7	3,780.1	3,744.7	11.2	10.6	-138.44	352.4	-258.2	656.5	638.5	18.04	36.382	
3,838.6	3,781.3	3,816.8	3,781.3	11.5	10.7	-139.12	352.4	-258.2	665.8	647.6	18.26	36.472	
3,900.0	3,839.6	3,875.1	3,839.6	11.8	10.8	-140.16	352.4	-258.2	680.9	662.3	18.60	36.614	
3,937.0	3,874.7	3,910.2	3,874.7	12.1	10.8	-140.77	352.4	-258.2	690.0	671.2	18.80	36.705	
4,000.0	3,934.5	3,970.0	3,934.5	12.4	10.9	-141.77	352.4	-258.2	705.8	686.7	19.14	36.869	
4,035.4	3,968.1	4,003.6	3,968.1	12.6	11.0	-142.31	352.4	-258.2	714.8	695.4	19.34	36.965	
4,100.0	4,029.4	4,064.9	4,029.4	13.0	11.1	-143.27	352.4	-258.2	731.3	711.6	19.68	37.148	
4,133.8	4,061.5	4,097.0	4,061.5	13.2	11.1	-143.75	352.4	-258.2	740.0	720.1	19.87	37.247	
4,200.0	4,124.3	4,159.8	4,124.3	13.6	11.3	-144.67	352.4	-258.2	757.1	736.9	20.22	37.447	
4,232.3	4,155.0	4,190.5	4,155.0	13.8	11.3	-145.10	352.4	-258.2	765.6	745.2	20.39	37.546	
4,300.0	4,219.3	4,254.7	4,219.3	14.2	11.4	-145.98	352.4	-258.2	783.4	762.7	20.75	37.761	
4,330.7	4,248.4	4,283.9	4,248.4	14.4	11.5	-146.36	352.4	-258.2	791.6	770.7	20.91	37.859	
4,400.0	4,314.2	4,349.7	4,314.2	14.9	11.6	-147.20	352.4	-258.2	810.1	788.8	21.27	38.086	
4,429.1	4,341.8	4,377.3	4,341.8	15.0	11.6	-147.55	352.4	-258.2	817.9	796.5	21.42	38.182	
4,500.0	4,409.1	4,444.6	4,409.1	15.5	11.8	-148.35	352.4	-258.2	837.1	815.3	21.79	38.420	
4,527.5	4,435.3	4,470.7	4,435.3	15.7	11.8	-148.66	352.4	-258.2	844.6	822.7	21.93	38.512	
4,600.0	4,504.0	4,539.5	4,504.0	16.1	11.9	-149.43	352.4	-258.2	864.4	842.1	22.30	38.759	
4,626.0	4,528.7	4,564.2	4,528.7	16.3	12.0	-149.70	352.4	-258.2	871.6	849.1	22.44	38.847	
4,700.0	4,598.9	4,634.4	4,598.9	16.7	12.1	-150.45	352.4	-258.2	892.0	869.2	22.81	39.101	
4,724.4	4,622.1	4,657.6	4,622.1	16.9	12.1	-150.69	352.4	-258.2	898.8	875.8	22.94	39.185	
4,800.0	4,693.9	4,729.3	4,693.9	17.4	12.3	-151.41	352.4	-258.2	919.8	896.5	23.32	39.445	
4,822.8	4,715.5	4,751.0	4,715.5	17.5	12.3	-151.62	352.4	-258.2	926.2	902.8	23.43	39.524	
4,900.0	4,788.8	4,824.3	4,788.8	18.0	12.4	-152.31	352.4	-258.2	947.9	924.1	23.82	39.789	
4,921.2	4,809.0	4,844.4	4,809.0	18.1	12.5	-152.49	352.4	-258.2	953.9	929.9	23.93	39.862	
5,000.0	4,883.7	4,919.2	4,883.7	18.6	12.6	-153.16	352.4	-258.2	976.1	951.8	24.32	40.131	
5,019.7	4,902.4	4,937.9	4,902.4	18.7	12.7	-153.32	352.4	-258.2	981.7	957.3	24.42	40.198	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,978.6	5,014.1	4,978.6	19.3	12.8	-153.96	352.4	-258.2	1,004.6	979.8	24.82	40.471	
5,118.1	4,995.8	5,031.3	4,995.8	19.4	12.8	-154.10	352.4	-258.2	1,009.8	984.9	24.91	40.532	
5,200.0	5,073.6	5,109.0	5,073.6	19.9	13.0	-154.72	352.4	-258.2	1,033.2	1,007.9	25.32	40.807	
5,216.5	5,089.2	5,124.7	5,089.2	20.0	13.0	-154.84	352.4	-258.2	1,038.0	1,012.6	25.40	40.861	
5,304.2	5,172.4	5,207.9	5,172.4	20.6	13.2	-155.47	352.4	-258.2	1,063.2	1,037.4	25.84	41.152	
5,314.9	5,182.7	5,218.2	5,182.7	20.6	13.2	-155.57	352.4	-258.2	1,066.3	1,040.4	25.90	41.170	
5,400.0	5,263.9	5,299.4	5,263.9	21.1	13.3	-156.31	352.4	-258.2	1,089.5	1,063.1	26.40	41.270	
5,413.4	5,276.7	5,312.2	5,276.7	21.1	13.4	-156.41	352.4	-258.2	1,093.0	1,066.5	26.47	41.286	
5,500.0	5,360.3	5,395.8	5,360.3	21.5	13.5	-157.05	352.4	-258.2	1,114.1	1,087.2	26.94	41.349	
5,511.8	5,371.7	5,407.2	5,371.7	21.6	13.5	-157.13	352.4	-258.2	1,116.8	1,089.8	27.01	41.354	
5,600.0	5,457.5	5,493.0	5,457.5	21.9	13.7	-157.67	352.4	-258.2	1,135.6	1,108.1	27.46	41.352	
5,610.2	5,467.5	5,503.0	5,467.5	21.9	13.7	-157.73	352.4	-258.2	1,137.6	1,110.1	27.51	41.350	
5,700.0	5,555.6	5,591.0	5,555.6	22.3	13.9	-158.19	352.4	-258.2	1,154.0	1,126.1	27.95	41.285	
5,708.6	5,564.1	5,599.5	5,564.1	22.3	13.9	-158.23	352.4	-258.2	1,155.5	1,127.5	27.99	41.278	
5,800.0	5,654.2	5,689.7	5,654.2	22.6	14.1	-158.60	352.4	-258.2	1,169.3	1,140.8	28.41	41.153	
5,807.1	5,661.2	5,696.7	5,661.2	22.6	14.1	-158.62	352.4	-258.2	1,170.2	1,141.8	28.44	41.142	
5,900.0	5,753.4	5,788.8	5,753.4	22.8	14.3	-158.91	352.4	-258.2	1,181.3	1,152.5	28.84	40.958	
5,905.5	5,758.8	5,794.3	5,758.8	22.8	14.3	-158.93	352.4	-258.2	1,181.9	1,153.0	28.86	40.946	
6,000.0	5,852.9	5,888.4	5,852.9	23.1	14.5	-159.14	352.4	-258.2	1,190.1	1,160.9	29.24	40.704	
6,003.9	5,856.8	5,892.3	5,856.8	23.1	14.5	-159.15	352.4	-258.2	1,190.4	1,161.2	29.25	40.693	
6,100.0	5,952.7	5,988.2	5,952.7	23.2	14.7	-159.28	352.4	-258.2	1,195.7	1,166.1	29.60	40.391	
6,102.3	5,955.1	5,990.5	5,955.1	23.2	14.7	-159.28	352.4	-258.2	1,195.8	1,166.2	29.61	40.383	
6,200.0	6,052.7	6,087.8	6,052.3	23.4	14.9	-159.35	352.3	-258.2	1,198.0	1,168.1	29.93	40.030	
6,200.8	6,053.5	6,088.5	6,053.0	23.4	14.9	-159.35	352.3	-258.2	1,198.1	1,168.1	29.93	40.027	
6,221.1	6,073.8	6,108.3	6,072.8	23.4	14.9	-90.96	351.6	-258.2	1,198.1	1,168.2	29.98	39.965	
6,251.1	6,103.8	6,137.4	6,101.8	23.4	14.9	-91.06	349.6	-258.2	1,198.2	1,168.1	30.06	39.865	
6,299.2	6,151.8	6,183.7	6,147.8	23.5	15.0	88.74	344.0	-258.2	1,198.3	1,168.1	30.15	39.749	
6,300.0	6,152.6	6,184.5	6,148.5	23.5	15.0	88.74	343.8	-258.2	1,198.3	1,168.1	30.15	39.747	
6,350.0	6,202.4	6,232.4	6,195.6	23.5	15.0	88.53	334.9	-258.2	1,198.4	1,168.2	30.20	39.685	
6,397.6	6,249.3	6,277.8	6,239.5	23.5	15.0	88.35	323.5	-258.2	1,198.5	1,168.3	30.21	39.672	
6,400.0	6,251.6	6,280.0	6,241.7	23.5	15.0	88.34	322.8	-258.2	1,198.5	1,168.3	30.21	39.671	
6,450.0	6,300.1	6,327.4	6,286.6	23.5	15.0	88.15	307.8	-258.2	1,198.6	1,168.4	30.19	39.698	
6,496.0	6,344.0	6,370.9	6,326.9	23.5	15.0	87.98	291.5	-258.2	1,198.7	1,168.6	30.16	39.751	
6,500.0	6,347.7	6,374.6	6,330.3	23.5	15.0	87.97	290.0	-258.2	1,198.7	1,168.6	30.15	39.756	
6,550.0	6,394.1	6,421.6	6,372.5	23.5	15.0	87.80	269.4	-258.2	1,198.9	1,168.8	30.09	39.836	
6,594.5	6,434.2	6,463.2	6,408.7	23.4	15.0	87.66	248.9	-258.2	1,199.0	1,168.9	30.04	39.917	
6,600.0	6,439.0	6,468.3	6,413.1	23.4	15.0	87.64	246.2	-258.2	1,199.0	1,169.0	30.03	39.927	
6,650.0	6,482.4	6,514.9	6,452.0	23.4	15.0	87.49	220.6	-258.2	1,199.1	1,169.2	29.97	40.016	
6,692.9	6,518.1	6,554.7	6,483.8	23.3	15.0	87.37	196.6	-258.2	1,199.2	1,169.3	29.92	40.082	
6,700.0	6,523.9	6,561.3	6,488.9	23.3	15.0	87.35	192.5	-258.2	1,199.2	1,169.3	29.91	40.090	
6,750.0	6,563.3	6,607.6	6,523.9	23.3	15.0	87.23	162.2	-258.2	1,199.4	1,169.5	29.88	40.136	
6,791.3	6,594.2	6,645.7	6,551.2	23.2	15.0	87.14	135.6	-258.2	1,199.5	1,169.6	29.88	40.141	
6,800.0	6,600.5	6,653.7	6,556.7	23.2	15.0	87.12	129.8	-258.2	1,199.5	1,169.6	29.88	40.139	
6,850.0	6,635.3	6,700.0	6,587.5	23.2	15.0	87.02	95.3	-258.2	1,199.6	1,169.7	29.93	40.084	
6,889.7	6,661.1	6,736.2	6,610.0	23.1	14.9	86.95	66.9	-258.2	1,199.7	1,169.7	30.00	39.983	
6,900.0	6,667.5	6,745.6	6,615.7	23.1	15.0	86.93	59.4	-258.2	1,199.7	1,169.7	30.02	39.957	
6,950.0	6,696.9	6,791.4	6,641.5	23.1	15.0	86.86	21.6	-258.2	1,199.8	1,169.6	30.18	39.748	
6,988.2	6,717.5	6,826.4	6,659.6	23.1	15.0	86.82	-8.3	-258.2	1,199.8	1,169.5	30.36	39.520	
7,000.0	6,723.5	6,837.2	6,664.9	23.1	15.0	86.80	-17.8	-258.2	1,199.8	1,169.4	30.42	39.448	
7,050.0	6,747.0	6,882.9	6,685.7	23.1	15.1	86.76	-58.4	-258.2	1,199.9	1,169.2	30.72	39.059	
7,086.6	6,762.3	6,916.3	6,699.2	23.1	15.3	86.74	-89.0	-258.2	1,199.9	1,168.9	31.00	38.710	
7,100.0	6,767.4	6,928.5	6,703.8	23.1	15.3	86.73	-100.3	-258.2	1,199.9	1,168.8	31.10	38.577	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-243 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,150.0	6,784.6	6,974.2	6,719.2	23.1	15.6	86.72	-143.3	-258.2	1,199.9	1,168.4	31.57	38.005	
7,185.0	6,794.7	7,006.1	6,728.4	23.1	15.9	86.72	-173.9	-258.2	1,199.9	1,168.0	31.95	37.554	
7,200.0	6,798.5	7,019.8	6,731.9	23.2	16.0	86.72	-187.1	-258.2	1,199.9	1,167.8	32.12	37.353	
7,250.0	6,808.9	7,065.4	6,741.7	23.2	16.3	86.73	-231.6	-258.2	1,199.9	1,167.2	32.76	36.629	
7,283.4	6,814.0	7,096.0	6,746.7	23.3	16.6	86.75	-261.8	-258.2	1,199.9	1,166.7	33.23	36.108	
7,300.0	6,816.0	7,111.1	6,748.7	23.4	16.7	86.76	-276.8	-258.2	1,199.9	1,166.4	33.47	35.846	
7,350.0	6,819.5	7,156.8	6,752.8	23.5	17.2	86.81	-322.3	-258.2	1,199.8	1,165.6	34.26	35.020	
7,381.9	6,820.0	7,185.9	6,753.9	23.7	17.5	86.84	-351.4	-258.2	1,199.8	1,165.0	34.80	34.472	
7,382.0	6,820.0	7,186.0	6,753.9	23.7	17.5	86.84	-351.5	-258.2	1,199.8	1,165.0	34.81	34.470	
7,400.0	6,819.8	7,203.7	6,754.0	23.8	17.7	86.85	-369.1	-258.2	1,199.8	1,164.6	35.14	34.147	
7,428.8	6,819.6	7,231.2	6,753.8	23.9	18.0	86.86	-396.6	-258.2	1,199.8	1,164.1	35.71	33.598	
7,480.3	6,819.2	7,282.7	6,753.4	24.2	18.5	86.86	-448.2	-258.2	1,199.8	1,163.0	36.76	32.635	
7,500.0	6,819.0	7,302.4	6,753.2	24.3	18.8	86.86	-467.9	-258.2	1,199.8	1,162.6	37.17	32.279	
7,578.7	6,818.4	7,381.1	6,752.6	24.9	19.7	86.86	-546.6	-258.2	1,199.8	1,160.8	38.99	30.773	
7,600.0	6,818.2	7,402.4	6,752.5	25.0	20.0	86.86	-567.9	-258.2	1,199.8	1,160.3	39.48	30.388	
7,677.1	6,817.6	7,479.6	6,751.9	25.7	21.0	86.86	-645.0	-258.2	1,199.8	1,158.3	41.44	28.954	
7,700.0	6,817.4	7,502.4	6,751.7	25.9	21.3	86.86	-667.9	-258.2	1,199.8	1,157.7	42.02	28.553	
7,775.6	6,816.7	7,578.0	6,751.2	26.6	22.4	86.87	-743.5	-258.2	1,199.8	1,155.7	44.07	27.221	
7,800.0	6,816.5	7,602.4	6,751.0	26.9	22.8	86.87	-767.9	-258.2	1,199.8	1,155.0	44.74	26.816	
7,874.0	6,815.9	7,676.4	6,750.4	27.7	23.9	86.87	-841.9	-258.2	1,199.8	1,152.9	46.87	25.598	
7,900.0	6,815.7	7,702.4	6,750.2	28.0	24.2	86.87	-867.9	-258.2	1,199.8	1,152.1	47.62	25.196	
7,972.4	6,815.1	7,774.8	6,749.7	28.9	25.4	86.87	-940.3	-258.2	1,199.8	1,150.0	49.79	24.095	
8,000.0	6,814.9	7,802.4	6,749.5	29.2	25.8	86.87	-967.9	-258.2	1,199.7	1,149.1	50.62	23.700	
8,070.8	6,814.3	7,873.3	6,748.9	30.1	26.9	86.88	-1,038.7	-258.2	1,199.7	1,146.9	52.83	22.712	
8,100.0	6,814.1	7,902.4	6,748.7	30.5	27.4	86.88	-1,067.9	-258.2	1,199.7	1,146.0	53.73	22.328	
8,169.3	6,813.5	7,971.7	6,748.2	31.5	28.5	86.88	-1,137.1	-258.2	1,199.7	1,143.8	55.95	21.443	
8,200.0	6,813.3	8,002.4	6,748.0	31.9	29.0	86.88	-1,167.9	-258.2	1,199.7	1,142.8	56.93	21.073	
8,267.7	6,812.7	8,070.1	6,747.5	32.9	30.1	86.88	-1,235.6	-258.2	1,199.7	1,140.6	59.15	20.283	
8,300.0	6,812.4	8,102.4	6,747.2	33.3	30.7	86.88	-1,267.9	-258.2	1,199.7	1,139.5	60.21	19.927	
8,366.1	6,811.9	8,168.5	6,746.7	34.3	31.8	86.89	-1,334.0	-258.2	1,199.7	1,137.3	62.42	19.222	
8,400.0	6,811.6	8,202.4	6,746.5	34.8	32.4	86.89	-1,367.9	-258.2	1,199.7	1,136.2	63.55	18.880	
8,464.5	6,811.1	8,267.0	6,746.0	35.8	33.5	86.89	-1,432.4	-258.2	1,199.7	1,134.0	65.74	18.251	
8,500.0	6,810.8	8,302.4	6,745.7	36.3	34.1	86.89	-1,467.9	-258.2	1,199.7	1,132.8	66.94	17.923	
8,563.0	6,810.3	8,365.4	6,745.2	37.3	35.2	86.89	-1,530.8	-258.2	1,199.7	1,130.6	69.10	17.361	
8,600.0	6,810.0	8,402.4	6,745.0	37.9	35.8	86.89	-1,567.9	-258.2	1,199.7	1,129.3	70.38	17.047	
8,661.4	6,809.5	8,463.8	6,744.5	38.9	36.9	86.90	-1,629.3	-258.2	1,199.7	1,127.2	72.51	16.545	
8,700.0	6,809.1	8,502.4	6,744.2	39.5	37.6	86.90	-1,667.9	-258.2	1,199.7	1,125.9	73.86	16.244	
8,759.8	6,808.6	8,562.2	6,743.8	40.5	38.6	86.90	-1,727.7	-258.2	1,199.7	1,123.8	75.96	15.795	
8,800.0	6,808.3	8,602.4	6,743.5	41.1	39.3	86.90	-1,767.8	-258.2	1,199.7	1,122.3	77.37	15.507	
8,858.2	6,807.8	8,660.7	6,743.0	42.1	40.4	86.90	-1,826.1	-258.2	1,199.7	1,120.3	79.43	15.104	
8,900.0	6,807.5	8,702.4	6,742.7	42.8	41.1	86.90	-1,867.8	-258.2	1,199.7	1,118.8	80.91	14.828	
8,956.7	6,807.0	8,759.1	6,742.3	43.7	42.1	86.91	-1,924.5	-258.2	1,199.7	1,116.8	82.93	14.466	
9,000.0	6,806.7	8,802.4	6,742.0	44.4	42.9	86.91	-1,967.8	-258.2	1,199.7	1,115.2	84.48	14.201	
9,055.1	6,806.2	8,857.5	6,741.5	45.4	43.9	86.91	-2,022.9	-258.2	1,199.7	1,113.2	86.46	13.876	
9,100.0	6,805.8	8,902.4	6,741.2	46.1	44.7	86.91	-2,067.8	-258.2	1,199.7	1,111.6	88.07	13.622	
9,153.5	6,805.4	8,955.9	6,740.8	47.0	45.7	86.91	-2,121.4	-258.2	1,199.7	1,109.7	90.00	13.330	
9,200.0	6,805.0	9,002.4	6,740.4	47.8	46.5	86.92	-2,167.8	-258.2	1,199.7	1,108.0	91.68	13.085	
9,251.9	6,804.6	9,054.4	6,740.1	48.7	47.5	86.92	-2,219.8	-258.2	1,199.7	1,106.1	93.57	12.822	
9,300.0	6,804.2	9,102.4	6,739.7	49.6	48.4	86.92	-2,267.8	-258.2	1,199.7	1,104.4	95.31	12.587	
9,350.4	6,803.8	9,152.8	6,739.3	50.4	49.3	86.92	-2,318.2	-258.2	1,199.7	1,102.5	97.15	12.349	
9,400.0	6,803.4	9,202.4	6,738.9	51.3	50.2	86.92	-2,367.8	-258.2	1,199.7	1,100.7	98.96	12.123	
9,448.8	6,802.9	9,251.2	6,738.6	52.1	51.1	86.92	-2,416.6	-258.2	1,199.7	1,098.9	100.74	11.908	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-243 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,802.5	9,302.4	6,738.2	53.0	52.0	86.93	-2,467.8	-258.2	1,199.7	1,097.1	102.62	11.691	
9,547.2	6,802.1	9,349.6	6,737.8	53.9	52.9	86.93	-2,515.1	-258.2	1,199.7	1,095.3	104.35	11.497	
9,600.0	6,801.7	9,402.4	6,737.4	54.8	53.9	86.93	-2,567.8	-258.2	1,199.7	1,093.4	106.29	11.287	
9,645.6	6,801.3	9,448.1	6,737.1	55.6	54.7	86.93	-2,613.5	-258.2	1,199.7	1,091.7	107.97	11.111	
9,700.0	6,800.9	9,502.4	6,736.7	56.6	55.7	86.93	-2,667.8	-258.2	1,199.7	1,089.7	109.97	10.909	
9,744.1	6,800.5	9,546.5	6,736.3	57.4	56.5	86.93	-2,711.9	-258.2	1,199.7	1,088.1	111.60	10.750	
9,800.0	6,800.0	9,602.4	6,735.9	58.4	57.6	86.94	-2,767.8	-258.2	1,199.7	1,086.0	113.67	10.554	
9,842.5	6,799.7	9,644.9	6,735.6	59.1	58.4	86.94	-2,810.3	-258.2	1,199.7	1,084.4	115.24	10.410	
9,900.0	6,799.2	9,702.4	6,735.2	60.2	59.4	86.94	-2,867.8	-258.2	1,199.7	1,082.3	117.37	10.221	
9,940.9	6,798.9	9,743.3	6,734.9	60.9	60.2	86.94	-2,908.7	-258.2	1,199.7	1,080.8	118.89	10.090	
10,000.0	6,798.4	9,802.4	6,734.4	62.0	61.3	86.94	-2,967.8	-258.2	1,199.7	1,078.6	121.08	9.908	
10,039.3	6,798.1	9,841.8	6,734.1	62.7	62.0	86.94	-3,007.2	-258.2	1,199.7	1,077.1	122.55	9.789	
10,100.0	6,797.6	9,902.4	6,733.7	63.8	63.2	86.95	-3,067.8	-258.2	1,199.7	1,074.9	124.80	9.612	
10,137.8	6,797.2	9,940.2	6,733.4	64.4	63.9	86.95	-3,105.6	-258.2	1,199.7	1,073.4	126.21	9.505	
10,200.0	6,796.7	10,002.4	6,732.9	65.6	65.0	86.95	-3,167.8	-258.2	1,199.7	1,071.1	128.53	9.334	
10,236.2	6,796.4	10,038.6	6,732.6	66.2	65.7	86.95	-3,204.0	-258.2	1,199.7	1,069.8	129.88	9.236	
10,300.0	6,795.9	10,102.4	6,732.1	67.4	66.9	86.95	-3,267.8	-258.2	1,199.7	1,067.4	132.27	9.070	
10,334.6	6,795.6	10,137.0	6,731.9	68.0	67.5	86.95	-3,302.4	-258.2	1,199.7	1,066.1	133.56	8.982	
10,400.0	6,795.1	10,202.4	6,731.4	69.2	68.8	86.96	-3,367.8	-258.2	1,199.6	1,063.6	136.01	8.821	
10,433.0	6,794.8	10,235.5	6,731.1	69.8	69.4	86.96	-3,400.9	-258.2	1,199.6	1,062.4	137.24	8.741	
10,500.0	6,794.2	10,302.4	6,730.6	71.0	70.6	86.96	-3,467.8	-258.2	1,199.6	1,059.9	139.75	8.584	
10,531.5	6,794.0	10,333.9	6,730.4	71.6	71.2	86.96	-3,499.3	-258.2	1,199.6	1,058.7	140.93	8.512	
10,600.0	6,793.4	10,402.4	6,729.9	72.9	72.5	86.96	-3,567.8	-258.2	1,199.6	1,056.1	143.50	8.360	
10,629.9	6,793.2	10,432.3	6,729.6	73.4	73.1	86.96	-3,597.7	-258.2	1,199.6	1,055.0	144.62	8.295	
10,700.0	6,792.6	10,502.4	6,729.1	74.7	74.4	86.97	-3,667.8	-258.2	1,199.6	1,052.4	147.26	8.147	
10,728.3	6,792.3	10,530.7	6,728.9	75.2	74.9	86.97	-3,696.1	-258.2	1,199.6	1,051.3	148.32	8.088	
10,800.0	6,791.7	10,602.4	6,728.4	76.6	76.3	86.97	-3,767.8	-258.2	1,199.6	1,048.6	151.02	7.944	
10,826.7	6,791.5	10,629.2	6,728.2	77.1	76.8	86.97	-3,794.5	-258.2	1,199.6	1,047.6	152.02	7.891	
10,900.0	6,790.9	10,702.4	6,727.6	78.4	78.2	86.97	-3,867.8	-258.2	1,199.6	1,044.8	154.78	7.751	
10,925.2	6,790.7	10,727.6	6,727.4	78.9	78.7	86.98	-3,893.0	-258.2	1,199.6	1,043.9	155.73	7.703	
11,000.0	6,790.1	10,802.4	6,726.8	80.3	80.1	86.98	-3,967.8	-258.2	1,199.6	1,041.1	158.55	7.566	
11,023.6	6,789.9	10,826.0	6,726.7	80.7	80.5	86.98	-3,991.4	-258.2	1,199.6	1,040.2	159.44	7.524	
11,100.0	6,789.2	10,902.4	6,726.1	82.1	82.0	86.98	-4,067.8	-258.2	1,199.6	1,037.3	162.32	7.391	
11,122.0	6,789.1	10,924.4	6,725.9	82.5	82.4	86.98	-4,089.8	-258.2	1,199.6	1,036.5	163.15	7.353	
11,200.0	6,788.4	11,002.4	6,725.3	84.0	83.8	86.99	-4,167.8	-258.2	1,199.6	1,033.5	166.09	7.223	
11,220.4	6,788.2	11,022.9	6,725.2	84.3	84.2	86.99	-4,188.2	-258.2	1,199.6	1,032.7	166.86	7.189	
11,300.0	6,787.6	11,102.4	6,724.6	85.8	85.7	86.99	-4,267.8	-258.2	1,199.6	1,029.7	169.87	7.062	
11,318.9	6,787.4	11,121.3	6,724.4	86.2	86.1	86.99	-4,286.7	-258.2	1,199.6	1,029.0	170.58	7.032	
11,400.0	6,786.7	11,202.4	6,723.8	87.7	87.6	86.99	-4,367.8	-258.2	1,199.6	1,026.0	173.65	6.908	
11,417.3	6,786.6	11,219.7	6,723.7	88.0	88.0	86.99	-4,385.1	-258.2	1,199.6	1,025.3	174.30	6.882	
11,500.0	6,785.9	11,302.4	6,723.0	89.5	89.5	87.00	-4,467.8	-258.2	1,199.6	1,022.2	177.43	6.761	
11,515.7	6,785.8	11,318.1	6,722.9	89.8	89.8	87.00	-4,483.5	-258.2	1,199.6	1,021.6	178.02	6.738	
11,600.0	6,785.1	11,402.4	6,722.3	91.4	91.4	87.00	-4,567.8	-258.2	1,199.6	1,018.4	181.21	6.620	
11,614.1	6,785.0	11,416.6	6,722.2	91.7	91.7	87.00	-4,581.9	-258.2	1,199.6	1,017.8	181.75	6.600	
11,700.0	6,784.2	11,502.4	6,721.5	93.3	93.3	87.00	-4,667.8	-258.2	1,199.6	1,014.6	185.00	6.484	
11,712.6	6,784.1	11,515.0	6,721.4	93.5	93.6	87.00	-4,680.3	-258.2	1,199.6	1,014.1	185.48	6.468	
11,800.0	6,783.4	11,602.4	6,720.8	95.2	95.2	87.01	-4,767.8	-258.2	1,199.6	1,010.8	188.79	6.354	
11,811.0	6,783.3	11,613.4	6,720.7	95.4	95.4	87.01	-4,778.8	-258.1	1,199.6	1,010.4	189.21	6.340	
11,900.0	6,782.6	11,702.4	6,720.0	97.0	97.1	87.01	-4,867.8	-258.1	1,199.6	1,007.0	192.58	6.229	
11,909.4	6,782.5	11,711.8	6,719.9	97.2	97.3	87.01	-4,877.2	-258.1	1,199.6	1,006.6	192.94	6.217	
12,000.0	6,781.7	11,802.4	6,719.3	98.9	99.0	87.01	-4,967.8	-258.1	1,199.6	1,003.2	196.38	6.109	
12,007.8	6,781.7	11,810.3	6,719.2	99.1	99.2	87.01	-4,975.6	-258.1	1,199.6	1,002.9	196.67	6.099	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-243 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,100.0	6,780.9	11,902.4	6,718.5	100.8	100.9	87.02	-5,067.8	-258.1	1,199.6	999.4	200.17	5.993	
12,106.3	6,780.9	11,908.7	6,718.4	100.9	101.0	87.02	-5,074.0	-258.1	1,199.6	999.2	200.41	5.986	
12,200.0	6,780.1	12,002.4	6,717.7	102.7	102.8	87.02	-5,167.8	-258.1	1,199.6	995.6	203.97	5.881	
12,204.7	6,780.0	12,007.1	6,717.7	102.7	102.9	87.02	-5,172.5	-258.1	1,199.6	995.4	204.15	5.876	
12,300.0	6,779.2	12,102.4	6,717.0	104.5	104.7	87.02	-5,267.7	-258.1	1,199.6	991.8	207.77	5.774	
12,303.1	6,779.2	12,105.5	6,716.9	104.6	104.8	87.02	-5,270.9	-258.1	1,199.6	991.7	207.89	5.770	
12,400.0	6,778.4	12,202.4	6,716.2	106.4	106.6	87.03	-5,367.7	-258.1	1,199.6	988.0	211.57	5.670	
12,401.5	6,778.4	12,204.0	6,716.2	106.4	106.6	87.03	-5,369.3	-258.1	1,199.6	987.9	211.63	5.668	
12,500.0	6,777.6	12,302.4	6,715.5	108.3	108.5	87.03	-5,467.7	-258.1	1,199.6	984.2	215.37	5.570	
12,598.4	6,776.7	12,400.8	6,714.7	110.2	110.4	87.04	-5,566.1	-258.1	1,199.5	980.4	219.11	5.475	
12,600.0	6,776.7	12,402.4	6,714.7	110.2	110.4	87.04	-5,567.7	-258.1	1,199.5	980.4	219.17	5.473	
12,696.8	6,775.9	12,499.2	6,714.0	112.0	112.3	87.04	-5,664.6	-258.1	1,199.5	976.7	222.86	5.383	
12,700.0	6,775.9	12,502.4	6,713.9	112.1	112.3	87.04	-5,667.7	-258.1	1,199.5	976.6	222.98	5.380	
12,795.2	6,775.1	12,597.7	6,713.2	113.9	114.1	87.04	-5,763.0	-258.1	1,199.5	972.9	226.60	5.294	
12,800.0	6,775.0	12,602.4	6,713.2	114.0	114.2	87.04	-5,767.7	-258.1	1,199.5	972.8	226.78	5.289	
12,893.7	6,774.3	12,696.1	6,712.5	115.7	116.0	87.05	-5,861.4	-258.1	1,199.5	969.2	230.35	5.207	
12,900.0	6,774.2	12,702.4	6,712.4	115.8	116.1	87.05	-5,867.7	-258.1	1,199.5	968.9	230.59	5.202	
12,992.1	6,773.4	12,794.5	6,711.7	117.6	117.9	87.05	-5,959.8	-258.1	1,199.5	965.4	234.10	5.124	
13,000.0	6,773.4	12,802.4	6,711.6	117.7	118.1	87.05	-5,967.7	-258.1	1,199.5	965.1	234.40	5.118	
13,090.5	6,772.6	12,892.9	6,711.0	119.4	119.8	87.05	-6,058.3	-258.1	1,199.5	961.7	237.85	5.043	
13,100.0	6,772.5	12,902.4	6,710.9	119.6	120.0	87.05	-6,067.7	-258.1	1,199.5	961.3	238.21	5.036	
13,188.9	6,771.8	12,991.4	6,710.2	121.3	121.7	87.06	-6,156.7	-258.1	1,199.5	957.9	241.60	4.965	
13,200.0	6,771.7	13,002.4	6,710.1	121.5	121.9	87.06	-6,167.7	-258.1	1,199.5	957.5	242.02	4.956	
13,287.4	6,771.0	13,089.8	6,709.5	123.2	123.5	87.06	-6,255.1	-258.1	1,199.5	954.2	245.35	4.889	
13,300.0	6,770.9	13,102.4	6,709.4	123.4	123.8	87.06	-6,267.7	-258.1	1,199.5	953.7	245.83	4.879	
13,385.8	6,770.1	13,188.2	6,708.7	125.0	125.4	87.06	-6,353.5	-258.1	1,199.5	950.4	249.10	4.815	
13,400.0	6,770.0	13,202.4	6,708.6	125.3	125.7	87.07	-6,367.7	-258.1	1,199.5	949.9	249.64	4.805	
13,484.2	6,769.3	13,286.6	6,708.0	126.9	127.3	87.07	-6,451.9	-258.1	1,199.5	946.7	252.85	4.744	
13,500.0	6,769.2	13,302.4	6,707.8	127.2	127.6	87.07	-6,467.7	-258.1	1,199.5	946.1	253.45	4.733	
13,582.6	6,768.5	13,385.1	6,707.2	128.8	129.2	87.07	-6,550.4	-258.1	1,199.5	942.9	256.60	4.675	
13,600.0	6,768.3	13,402.4	6,707.1	129.1	129.5	87.07	-6,567.7	-258.1	1,199.5	942.2	257.27	4.662	
13,681.1	6,767.6	13,483.5	6,706.5	130.6	131.0	87.08	-6,648.8	-258.1	1,199.5	939.1	260.36	4.607	
13,700.0	6,767.5	13,502.4	6,706.3	131.0	131.4	87.08	-6,667.7	-258.1	1,199.5	938.4	261.08	4.594	
13,779.5	6,766.8	13,581.9	6,705.7	132.5	132.9	87.08	-6,747.2	-258.1	1,199.5	935.4	264.11	4.542	
13,800.0	6,766.6	13,602.4	6,705.5	132.9	133.3	87.08	-6,767.7	-258.1	1,199.5	934.6	264.90	4.528	
13,877.9	6,766.0	13,680.3	6,704.9	134.4	134.8	87.08	-6,845.6	-258.1	1,199.5	931.6	267.87	4.478	
13,900.0	6,765.8	13,702.4	6,704.8	134.8	135.2	87.08	-6,867.7	-258.1	1,199.5	930.8	268.71	4.464	
13,976.3	6,765.2	13,778.8	6,704.2	136.2	136.7	87.09	-6,944.1	-258.1	1,199.5	927.9	271.63	4.416	
13,995.7	6,765.0	13,798.1	6,704.1	136.6	137.1	87.09	-6,963.4	-258.1	1,199.5	927.1	272.36	4.404 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	0.53	60.1	0.6	60.1				
98.4	98.4	98.4	98.4	0.1	0.1	0.53	60.1	0.6	60.1	59.9	0.17	353.744	
100.0	100.0	100.0	100.0	0.1	0.1	0.53	60.1	0.6	60.1	59.9	0.17	347.341	
196.8	196.8	196.8	196.8	0.3	0.3	0.53	60.1	0.6	60.1	59.5	0.61	98.800	
200.0	200.0	200.0	200.0	0.3	0.3	0.53	60.1	0.6	60.1	59.5	0.62	96.553	
295.3	295.3	295.3	295.3	0.5	0.5	0.53	60.1	0.6	60.1	59.1	1.05	57.203	
300.0	300.0	300.0	300.0	0.5	0.5	0.53	60.1	0.6	60.1	59.0	1.07	56.070	
393.7	393.7	393.7	393.7	0.7	0.7	0.53	60.1	0.6	60.1	58.6	1.49	40.255	
400.0	400.0	400.0	400.0	0.8	0.8	0.53	60.1	0.6	60.1	58.6	1.52	39.506	
492.1	492.1	492.1	492.1	1.0	1.0	0.53	60.1	0.6	60.1	58.2	1.94	31.054	
500.0	500.0	500.0	500.0	1.0	1.0	0.53	60.1	0.6	60.1	58.1	1.97	30.496	
590.5	590.5	590.5	590.5	1.2	1.2	0.53	60.1	0.6	60.1	57.7	2.38	25.277	
600.0	600.0	600.0	600.0	1.2	1.2	0.53	60.1	0.6	60.1	57.7	2.42	24.833	
689.0	689.0	689.0	689.0	1.4	1.4	0.53	60.1	0.6	60.1	57.3	2.82	21.312	
700.0	700.0	700.0	700.0	1.4	1.4	0.53	60.1	0.6	60.1	57.2	2.87	20.944	
787.4	787.4	787.4	787.4	1.6	1.6	0.53	60.1	0.6	60.1	56.9	3.26	18.422	
800.0	800.0	800.0	800.0	1.7	1.7	0.53	60.1	0.6	60.1	56.8	3.32	18.108	
885.8	885.8	885.8	885.8	1.9	1.9	0.53	60.1	0.6	60.1	56.4	3.71	16.223	
900.0	900.0	900.0	900.0	1.9	1.9	0.53	60.1	0.6	60.1	56.3	3.77	15.948	
984.2	984.2	984.2	984.2	2.1	2.1	0.53	60.1	0.6	60.1	56.0	4.15	14.492	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.53	60.1	0.6	60.1	55.9	4.22	14.249	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.53	60.1	0.6	60.1	55.5	4.59	13.095	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.53	60.1	0.6	60.1	55.4	4.67	12.877	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	0.53	60.1	0.6	60.1	55.1	5.03	11.944	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.53	60.1	0.6	60.1	55.0	5.12	11.746	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	0.53	60.1	0.6	60.1	54.6	5.48	10.979	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.53	60.1	0.6	60.1	54.5	5.57	10.797	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	0.53	60.1	0.6	60.1	54.2	5.92	10.158	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	0.53	60.1	0.6	60.1	54.1	6.02	9.991	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	0.53	60.1	0.6	60.1	53.8	6.36	9.451	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	0.53	60.1	0.6	60.1	53.6	6.47	9.296 CC, ES	
1,574.8	1,574.8	1,573.2	1,573.2	3.4	3.4	0.48	61.0	0.5	61.1	54.3	6.80	8.983	
1,600.0	1,600.0	1,597.9	1,597.9	3.5	3.5	0.43	61.8	0.5	61.8	54.9	6.91	8.946	
1,673.2	1,673.2	1,669.5	1,669.4	3.6	3.6	0.25	65.1	0.3	65.2	58.0	7.23	9.016	
1,700.0	1,700.0	1,695.6	1,695.4	3.7	3.7	0.17	66.8	0.2	66.9	59.6	7.35	9.102	
1,771.6	1,771.6	1,765.3	1,764.9	3.8	3.8	-0.08	72.4	-0.1	72.7	65.0	7.67	9.473	
1,800.0	1,800.0	1,792.8	1,792.3	3.9	3.9	-0.19	75.0	-0.2	75.4	67.6	7.80	9.673	
1,870.1	1,870.1	1,860.6	1,859.6	4.1	4.1	-0.46	82.7	-0.7	83.4	75.3	8.11	10.278	
1,900.0	1,900.0	1,889.4	1,888.2	4.1	4.1	-0.57	86.5	-0.9	87.3	79.1	8.25	10.582	
1,968.5	1,968.5	1,955.0	1,953.1	4.3	4.3	-0.82	96.1	-1.4	97.4	88.8	8.57	11.364	
2,000.0	2,000.0	1,985.1	1,982.7	4.4	4.4	-0.93	101.0	-1.6	102.5	93.8	8.71	11.763	
2,066.9	2,066.9	2,048.5	2,045.1	4.5	4.5	-1.15	112.4	-2.2	114.5	105.5	9.03	12.674	
2,100.0	2,100.0	2,079.7	2,075.7	4.6	4.6	-1.25	118.5	-2.6	121.0	111.8	9.19	13.157	
2,165.3	2,165.3	2,142.8	2,137.4	4.7	4.8	-69.90	131.5	-3.3	134.2	124.8	9.43	14.228	
2,200.0	2,200.0	2,176.7	2,170.7	4.8	4.9	-70.22	138.5	-3.7	141.1	131.5	9.59	14.717	
2,263.8	2,263.7	2,239.2	2,231.8	4.9	5.1	-71.11	151.5	-4.3	153.4	143.5	9.87	15.547	
2,300.0	2,299.8	2,274.7	2,266.5	5.0	5.2	-71.76	158.9	-4.7	160.2	150.2	10.03	15.982	
2,362.2	2,361.8	2,335.7	2,326.2	5.1	5.4	-73.08	171.6	-5.4	171.7	161.4	10.30	16.663	
2,400.0	2,399.5	2,372.7	2,362.4	5.2	5.6	-73.99	179.2	-5.8	178.6	168.1	10.47	17.046	
2,460.6	2,459.7	2,432.1	2,420.5	5.4	5.8	-75.60	191.6	-6.5	189.4	178.6	10.76	17.607	
2,500.0	2,498.7	2,470.6	2,458.2	5.5	5.9	-76.74	199.6	-6.9	196.4	185.4	10.94	17.948	
2,559.0	2,557.1	2,528.3	2,514.6	5.6	6.1	-78.55	211.5	-7.6	206.8	195.6	11.23	18.414	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.0	2,597.5	2,568.3	2,553.7	5.7	6.3	-79.88	219.8	-8.0	214.0	202.6	11.43	18.722	
2,657.5	2,654.0	2,624.2	2,608.4	5.9	6.5	-81.82	231.4	-8.6	224.3	212.6	11.73	19.114	
2,700.0	2,695.6	2,665.5	2,648.8	6.0	6.6	-83.31	240.0	-9.1	232.0	220.0	11.96	19.395	
2,755.9	2,750.2	2,719.7	2,701.8	6.2	6.9	-85.33	251.3	-9.7	242.3	230.0	12.28	19.731	
2,800.0	2,793.1	2,762.3	2,743.5	6.3	7.0	-86.95	260.1	-10.2	250.6	238.0	12.53	19.994	
2,854.3	2,845.6	2,814.7	2,794.7	6.5	7.2	-88.99	271.0	-10.8	261.1	248.3	12.87	20.289	
2,900.0	2,889.6	2,858.5	2,837.6	6.6	7.4	-90.73	280.1	-11.2	270.3	257.1	13.16	20.542	
2,952.7	2,940.2	2,909.0	2,886.9	6.8	7.6	-92.74	290.6	-11.8	281.3	267.8	13.52	20.810	
3,000.0	2,985.3	2,956.9	2,933.8	7.0	7.8	-94.69	300.3	-12.3	291.4	277.5	13.84	21.054	
3,016.9	3,001.4	2,974.6	2,951.2	7.1	7.8	-95.44	303.8	-12.5	294.9	281.0	13.96	21.128	
3,051.2	3,033.9	3,010.5	2,986.5	7.3	7.9	-97.08	310.4	-12.9	302.0	287.8	14.21	21.259	
3,100.0	3,080.2	3,061.8	3,037.0	7.5	8.1	-99.36	319.1	-13.3	311.9	297.4	14.55	21.436	
3,149.6	3,127.3	3,114.0	3,088.6	7.7	8.2	-101.61	327.0	-13.8	321.6	306.7	14.91	21.573	
3,200.0	3,175.1	3,167.1	3,141.2	8.0	8.4	-103.86	334.1	-14.1	331.1	315.9	15.27	21.689	
3,248.0	3,220.7	3,217.7	3,191.5	8.2	8.5	-105.97	340.0	-14.5	339.9	324.3	15.61	21.771	
3,300.0	3,270.0	3,272.5	3,246.1	8.5	8.6	-108.23	345.3	-14.7	349.1	333.2	15.98	21.848	
3,346.4	3,314.1	3,321.5	3,294.9	8.7	8.7	-110.24	349.2	-15.0	357.1	340.8	16.31	21.900	
3,400.0	3,365.0	3,377.9	3,351.2	9.0	8.9	-112.54	352.6	-15.1	366.1	349.4	16.67	21.958	
3,444.9	3,407.6	3,425.0	3,398.3	9.2	9.0	-114.47	354.7	-15.2	373.4	356.5	16.97	22.003	
3,500.0	3,459.9	3,482.8	3,456.0	9.5	9.1	-116.83	356.1	-15.3	382.2	364.9	17.32	22.064	
3,543.3	3,501.0	3,527.8	3,501.0	9.8	9.1	-118.68	356.4	-15.3	389.1	371.5	17.59	22.116	
3,600.0	3,554.8	3,581.6	3,554.8	10.1	9.2	-120.85	356.4	-15.3	398.3	380.3	17.93	22.211	
3,641.7	3,594.4	3,621.2	3,594.4	10.3	9.3	-122.39	356.4	-15.3	405.4	387.2	18.18	22.300	
3,700.0	3,649.7	3,676.5	3,649.7	10.7	9.4	-124.45	356.4	-15.3	415.9	397.4	18.52	22.454	
3,740.1	3,687.8	3,714.6	3,687.8	10.9	9.5	-125.81	356.4	-15.3	423.4	404.7	18.75	22.579	
3,800.0	3,744.7	3,771.4	3,744.7	11.2	9.6	-127.76	356.4	-15.3	435.1	416.0	19.09	22.794	
3,838.6	3,781.3	3,808.0	3,781.3	11.5	9.6	-128.96	356.4	-15.3	442.8	423.5	19.30	22.947	
3,900.0	3,839.6	3,866.4	3,839.6	11.8	9.7	-130.80	356.4	-15.3	455.6	436.0	19.63	23.214	
3,937.0	3,874.7	3,901.5	3,874.7	12.1	9.8	-131.86	356.4	-15.3	463.5	443.7	19.82	23.385	
4,000.0	3,934.5	3,961.3	3,934.5	12.4	9.9	-133.58	356.4	-15.3	477.3	457.2	20.15	23.694	
4,035.4	3,968.1	3,994.9	3,968.1	12.6	10.0	-134.51	356.4	-15.3	485.3	465.0	20.33	23.876	
4,100.0	4,029.4	4,056.2	4,029.4	13.0	10.1	-136.13	356.4	-15.3	500.1	479.5	20.65	24.221	
4,133.8	4,061.5	4,088.3	4,061.5	13.2	10.1	-136.95	356.4	-15.3	508.0	487.2	20.81	24.407	
4,200.0	4,124.3	4,151.1	4,124.3	13.6	10.3	-138.47	356.4	-15.3	523.8	502.6	21.14	24.782	
4,232.3	4,155.0	4,181.8	4,155.0	13.8	10.3	-139.18	356.4	-15.3	531.6	510.3	21.29	24.969	
4,300.0	4,219.3	4,246.0	4,219.3	14.2	10.4	-140.60	356.4	-15.3	548.2	526.6	21.61	25.367	
4,330.7	4,248.4	4,275.2	4,248.4	14.4	10.5	-141.22	356.4	-15.3	555.9	534.1	21.76	25.550	
4,400.0	4,314.2	4,341.0	4,314.2	14.9	10.6	-142.56	356.4	-15.3	573.4	551.3	22.08	25.968	
4,429.1	4,341.8	4,368.6	4,341.8	15.0	10.7	-143.10	356.4	-15.3	580.8	558.6	22.22	26.145	
4,500.0	4,409.1	4,435.9	4,409.1	15.5	10.8	-144.36	356.4	-15.3	599.1	576.6	22.54	26.578	
4,527.5	4,435.3	4,462.0	4,435.3	15.7	10.9	-144.83	356.4	-15.3	606.3	583.6	22.67	26.747	
4,600.0	4,504.0	4,530.8	4,504.0	16.1	11.0	-146.01	356.4	-15.3	625.4	602.4	23.00	27.192	
4,626.0	4,528.7	4,555.5	4,528.7	16.3	11.0	-146.42	356.4	-15.3	632.3	609.2	23.12	27.351	
4,700.0	4,598.9	4,625.7	4,598.9	16.7	11.2	-147.54	356.4	-15.3	652.1	628.7	23.45	27.805	
4,724.4	4,622.1	4,648.9	4,622.1	16.9	11.2	-147.89	356.4	-15.3	658.7	635.1	23.56	27.954	
4,800.0	4,693.9	4,720.6	4,693.9	17.4	11.4	-148.94	356.4	-15.3	679.2	655.3	23.90	28.415	
4,822.8	4,715.5	4,742.3	4,715.5	17.5	11.4	-149.25	356.4	-15.3	685.5	661.5	24.01	28.553	
4,900.0	4,788.8	4,815.6	4,788.8	18.0	11.6	-150.24	356.4	-15.3	706.7	682.4	24.35	29.018	
4,921.2	4,809.0	4,835.7	4,809.0	18.1	11.6	-150.51	356.4	-15.3	712.6	688.2	24.45	29.145	
5,000.0	4,883.7	4,910.5	4,883.7	18.6	11.7	-151.45	356.4	-15.3	734.5	709.7	24.80	29.613	
5,019.7	4,902.4	4,929.2	4,902.4	18.7	11.8	-151.67	356.4	-15.3	740.0	715.1	24.89	29.728	
5,100.0	4,978.6	5,005.4	4,978.6	19.3	11.9	-152.57	356.4	-15.3	762.6	737.4	25.25	30.197	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-303 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,118.1	4,995.8	5,022.6	4,995.8	19.4	12.0	-152.76	356.4	-15.3	767.7	742.4	25.34	30.301	
5,200.0	5,073.6	5,100.3	5,073.6	19.9	12.1	-153.61	356.4	-15.3	791.0	765.3	25.71	30.770	
5,216.5	5,089.2	5,116.0	5,089.2	20.0	12.2	-153.77	356.4	-15.3	795.7	769.9	25.78	30.863	
5,304.2	5,172.4	5,199.2	5,172.4	20.6	12.3	-154.61	356.4	-15.3	820.7	794.6	26.18	31.354	
5,314.9	5,182.7	5,209.4	5,182.7	20.6	12.3	-154.74	356.4	-15.3	823.8	797.6	26.23	31.404	
5,400.0	5,263.9	5,290.7	5,263.9	21.1	12.5	-155.66	356.4	-15.3	846.9	820.2	26.68	31.747	
5,413.4	5,276.7	5,303.5	5,276.7	21.1	12.5	-155.80	356.4	-15.3	850.4	823.6	26.74	31.799	
5,500.0	5,360.3	5,387.1	5,360.3	21.5	12.7	-156.58	356.4	-15.3	871.4	844.2	27.16	32.080	
5,511.8	5,371.7	5,398.5	5,371.7	21.6	12.7	-156.68	356.4	-15.3	874.1	846.8	27.22	32.113	
5,600.0	5,457.5	5,484.3	5,457.5	21.9	12.9	-157.34	356.4	-15.3	892.8	865.2	27.63	32.312	
5,610.2	5,467.5	5,494.3	5,467.5	21.9	12.9	-157.41	356.4	-15.3	894.8	867.2	27.68	32.331	
5,700.0	5,555.6	5,582.3	5,555.6	22.3	13.1	-157.96	356.4	-15.3	911.2	883.1	28.08	32.451	
5,708.6	5,564.1	5,590.8	5,564.1	22.3	13.1	-158.01	356.4	-15.3	912.6	884.5	28.12	32.460	
5,800.0	5,654.2	5,681.0	5,654.2	22.6	13.3	-158.45	356.4	-15.3	926.4	897.9	28.50	32.502	
5,807.1	5,661.2	5,688.0	5,661.2	22.6	13.3	-158.48	356.4	-15.3	927.4	898.8	28.53	32.503	
5,900.0	5,753.4	5,780.1	5,753.4	22.8	13.5	-158.83	356.4	-15.3	938.5	909.6	28.90	32.470	
5,905.5	5,758.8	5,785.6	5,758.8	22.8	13.5	-158.85	356.4	-15.3	939.0	910.1	28.92	32.467	
6,000.0	5,852.9	5,879.7	5,852.9	23.1	13.7	-159.10	356.4	-15.3	947.3	918.0	29.27	32.359	
6,003.9	5,856.8	5,883.6	5,856.8	23.1	13.7	-159.11	356.4	-15.3	947.6	918.3	29.29	32.354	
6,100.0	5,952.7	5,979.5	5,952.7	23.2	13.9	-159.27	356.4	-15.3	952.9	923.3	29.62	32.172	
6,102.3	5,955.1	5,981.8	5,955.1	23.2	13.9	-159.27	356.4	-15.3	953.0	923.3	29.63	32.167	
6,200.0	6,052.7	6,079.5	6,052.7	23.4	14.1	-159.34	356.4	-15.3	955.2	925.3	29.93	31.911	
6,200.8	6,053.5	6,080.2	6,053.5	23.4	14.1	-159.34	356.4	-15.3	955.2	925.3	29.94	31.908	
6,221.1	6,073.8	6,100.6	6,073.8	23.4	14.2	-90.92	356.4	-15.3	955.3	925.3	30.00	31.846	
6,251.1	6,103.8	6,130.6	6,103.8	23.4	14.2	-90.92	356.4	-15.3	955.3	925.2	30.11	31.729	
6,299.2	6,151.8	6,177.9	6,151.8	23.5	14.3	89.12	355.4	-15.3	955.3	925.0	30.25	31.576	
6,300.0	6,152.6	6,178.7	6,151.9	23.5	14.3	89.12	355.4	-15.3	955.3	925.0	30.25	31.573	
6,350.0	6,202.4	6,227.7	6,200.7	23.5	14.4	89.17	351.1	-15.3	955.2	924.9	30.36	31.469	
6,397.6	6,249.3	6,274.4	6,246.9	23.5	14.4	89.22	343.9	-15.3	955.2	924.8	30.41	31.410	
6,400.0	6,251.6	6,276.8	6,249.2	23.5	14.4	89.22	343.5	-15.3	955.2	924.8	30.41	31.407	
6,450.0	6,300.1	6,325.9	6,297.0	23.5	14.4	89.27	332.6	-15.3	955.2	924.8	30.44	31.384	
6,496.0	6,344.0	6,371.2	6,340.4	23.5	14.4	89.33	319.6	-15.3	955.2	924.8	30.43	31.394	
6,500.0	6,347.7	6,375.1	6,344.1	23.5	14.4	89.33	318.4	-15.3	955.2	924.8	30.43	31.395	
6,550.0	6,394.1	6,424.3	6,390.2	23.5	14.4	89.40	300.9	-15.3	955.2	924.8	30.39	31.433	
6,594.5	6,434.2	6,468.2	6,430.1	23.4	14.4	89.45	282.8	-15.3	955.2	924.8	30.34	31.483	
6,600.0	6,439.0	6,473.7	6,435.0	23.4	14.4	89.46	280.3	-15.3	955.2	924.9	30.33	31.490	
6,650.0	6,482.4	6,523.1	6,478.4	23.4	14.4	89.53	256.7	-15.3	955.2	924.9	30.27	31.557	
6,692.9	6,518.1	6,565.5	6,514.2	23.3	14.4	89.59	234.0	-15.3	955.2	925.0	30.21	31.614	
6,700.0	6,523.9	6,572.6	6,520.1	23.3	14.4	89.60	230.0	-15.3	955.2	925.0	30.21	31.623	
6,750.0	6,563.3	6,622.1	6,559.9	23.3	14.4	89.67	200.5	-15.3	955.2	925.0	30.15	31.675	
6,791.3	6,594.2	6,663.1	6,591.2	23.2	14.4	89.73	174.1	-15.3	955.2	925.0	30.13	31.699	
6,800.0	6,600.5	6,671.8	6,597.6	23.2	14.4	89.74	168.3	-15.3	955.2	925.0	30.13	31.702	
6,850.0	6,635.3	6,721.5	6,633.1	23.2	14.4	89.82	133.5	-15.3	955.1	925.0	30.14	31.690	
6,889.7	6,661.1	6,761.1	6,659.5	23.1	14.4	89.88	104.0	-15.3	955.1	925.0	30.19	31.642	
6,900.0	6,667.5	6,771.3	6,666.1	23.1	14.5	89.89	96.2	-15.3	955.1	924.9	30.20	31.625	
6,950.0	6,696.9	6,821.2	6,696.5	23.1	14.5	89.97	56.6	-15.3	955.1	924.8	30.33	31.496	
6,970.4	6,708.1	6,841.6	6,708.1	23.1	14.6	90.00	39.8	-15.3	955.1	924.7	30.40	31.421	
6,988.2	6,717.5	6,859.4	6,717.9	23.1	14.6	90.03	25.0	-15.3	955.1	924.7	30.47	31.348	
7,000.0	6,723.5	6,871.2	6,724.1	23.1	14.7	90.05	15.0	-15.3	955.1	924.6	30.52	31.294	
7,050.0	6,747.0	6,921.3	6,748.8	23.1	14.8	90.12	-28.6	-15.3	955.1	924.3	30.80	31.012	
7,086.6	6,762.3	6,958.0	6,765.0	23.1	15.0	90.18	-61.6	-15.3	955.1	924.1	31.06	30.751	
7,100.0	6,767.4	6,971.5	6,770.4	23.1	15.1	90.20	-73.9	-15.3	955.1	924.0	31.17	30.646	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-303 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,150.0	6,784.6	7,021.7	6,788.9	23.1	15.3	90.27	-120.6	-15.3	955.2	923.5	31.63	30.199	
7,185.0	6,794.7	7,057.0	6,799.8	23.1	15.6	90.32	-154.1	-15.3	955.2	923.1	32.01	29.838	
7,200.0	6,798.5	7,072.1	6,804.0	23.2	15.7	90.35	-168.6	-15.3	955.2	923.0	32.19	29.675	
7,250.0	6,808.9	7,122.5	6,815.8	23.2	16.0	90.42	-217.6	-15.3	955.2	922.3	32.84	29.084	
7,283.4	6,814.0	7,156.3	6,821.7	23.3	16.3	90.46	-250.9	-15.3	955.2	921.8	33.33	28.655	
7,300.0	6,816.0	7,173.0	6,824.0	23.4	16.4	90.49	-267.5	-15.3	955.2	921.6	33.59	28.437	
7,350.0	6,819.5	7,223.6	6,828.8	23.5	16.9	90.56	-317.8	-15.3	955.2	920.8	34.42	27.748	
7,381.9	6,820.0	7,255.9	6,829.9	23.7	17.2	90.60	-350.1	-15.3	955.2	920.2	34.99	27.295	
7,382.0	6,820.0	7,256.0	6,829.9	23.7	17.2	90.60	-350.2	-15.3	955.2	920.2	35.00	27.294	
7,400.0	6,819.8	7,274.3	6,829.9	23.8	17.4	90.61	-368.5	-15.3	955.2	919.9	35.33	27.033	
7,480.3	6,819.2	7,354.6	6,829.2	24.2	18.3	90.60	-448.8	-15.3	955.2	918.2	36.97	25.835	
7,500.0	6,819.0	7,374.3	6,829.0	24.3	18.5	90.60	-468.5	-15.3	955.2	917.8	37.38	25.553	
7,578.7	6,818.4	7,453.0	6,828.3	24.9	19.5	90.60	-547.2	-15.3	955.2	916.0	39.18	24.377	
7,600.0	6,818.2	7,474.3	6,828.1	25.0	19.7	90.60	-568.5	-15.3	955.2	915.5	39.68	24.072	
7,677.1	6,817.6	7,551.4	6,827.4	25.7	20.7	90.59	-645.6	-15.3	955.2	913.6	41.62	22.948	
7,700.0	6,817.4	7,574.3	6,827.2	25.9	21.0	90.59	-668.5	-15.3	955.2	913.0	42.21	22.631	
7,775.6	6,816.7	7,649.8	6,826.5	26.6	22.1	90.59	-744.0	-15.3	955.2	910.9	44.25	21.585	
7,800.0	6,816.5	7,674.3	6,826.3	26.9	22.5	90.59	-768.5	-15.3	955.2	910.3	44.92	21.265	
7,874.0	6,815.9	7,748.3	6,825.6	27.7	23.6	90.58	-842.5	-15.3	955.2	908.2	47.04	20.307	
7,900.0	6,815.7	7,774.3	6,825.4	28.0	23.9	90.58	-868.5	-15.3	955.2	907.4	47.79	19.988	
7,972.4	6,815.1	7,846.7	6,824.8	28.9	25.1	90.58	-940.9	-15.3	955.2	905.2	49.95	19.121	
8,000.0	6,814.9	7,874.3	6,824.5	29.2	25.5	90.58	-968.4	-15.3	955.2	904.4	50.79	18.808	
8,070.8	6,814.3	7,945.1	6,823.9	30.1	26.6	90.57	-1,039.3	-15.3	955.2	902.2	52.98	18.029	
8,100.0	6,814.1	7,974.3	6,823.6	30.5	27.1	90.57	-1,068.4	-15.3	955.2	901.3	53.89	17.725	
8,169.3	6,813.5	8,043.5	6,823.0	31.5	28.2	90.57	-1,137.7	-15.3	955.2	899.1	56.10	17.026	
8,200.0	6,813.3	8,074.3	6,822.7	31.9	28.7	90.57	-1,168.4	-15.3	955.2	898.1	57.09	16.732	
8,267.7	6,812.7	8,142.0	6,822.1	32.9	29.8	90.56	-1,236.1	-15.3	955.2	895.9	59.30	16.108	
8,300.0	6,812.4	8,174.3	6,821.8	33.3	30.4	90.56	-1,268.4	-15.3	955.2	894.8	60.36	15.826	
8,366.1	6,811.9	8,240.4	6,821.2	34.3	31.5	90.56	-1,334.6	-15.3	955.2	892.6	62.56	15.268	
8,400.0	6,811.6	8,274.3	6,820.9	34.8	32.1	90.56	-1,368.4	-15.3	955.2	891.5	63.69	14.997	
8,464.5	6,811.1	8,338.8	6,820.3	35.8	33.2	90.55	-1,433.0	-15.3	955.2	889.3	65.88	14.499	
8,500.0	6,810.8	8,374.3	6,820.0	36.3	33.8	90.55	-1,468.4	-15.3	955.2	888.1	67.08	14.239	
8,563.0	6,810.3	8,437.2	6,819.4	37.3	34.9	90.55	-1,531.4	-15.3	955.2	885.9	69.24	13.794	
8,600.0	6,810.0	8,474.3	6,819.1	37.9	35.5	90.55	-1,568.4	-15.3	955.2	884.7	70.52	13.545	
8,661.4	6,809.5	8,535.7	6,818.5	38.9	36.6	90.54	-1,629.8	-15.3	955.2	882.5	72.65	13.147	
8,700.0	6,809.1	8,574.3	6,818.1	39.5	37.3	90.54	-1,668.4	-15.3	955.2	881.2	74.00	12.909	
8,759.8	6,808.6	8,634.1	6,817.6	40.5	38.3	90.54	-1,728.2	-15.3	955.2	879.1	76.10	12.553	
8,800.0	6,808.3	8,674.3	6,817.2	41.1	39.0	90.54	-1,768.4	-15.3	955.2	877.7	77.51	12.324	
8,858.2	6,807.8	8,732.5	6,816.7	42.1	40.1	90.53	-1,826.7	-15.3	955.2	875.6	79.57	12.004	
8,900.0	6,807.5	8,774.3	6,816.3	42.8	40.8	90.53	-1,868.4	-15.3	955.2	874.1	81.05	11.785	
8,956.7	6,807.0	8,830.9	6,815.8	43.7	41.9	90.53	-1,925.1	-15.3	955.2	872.1	83.07	11.498	
9,000.0	6,806.7	8,874.3	6,815.4	44.4	42.6	90.53	-1,968.4	-15.3	955.2	870.6	84.62	11.288	
9,055.1	6,806.2	8,929.4	6,814.9	45.4	43.6	90.52	-2,023.5	-15.3	955.2	868.6	86.60	11.030	
9,100.0	6,805.8	8,974.3	6,814.5	46.1	44.4	90.52	-2,068.4	-15.3	955.2	867.0	88.21	10.829	
9,153.5	6,805.4	9,027.8	6,814.0	47.0	45.4	90.52	-2,121.9	-15.3	955.2	865.0	90.14	10.596	
9,200.0	6,805.0	9,074.3	6,813.6	47.8	46.3	90.52	-2,168.4	-15.3	955.2	863.4	91.82	10.403	
9,251.9	6,804.6	9,126.2	6,813.1	48.7	47.2	90.51	-2,220.3	-15.3	955.2	861.5	93.71	10.193	
9,300.0	6,804.2	9,174.3	6,812.7	49.6	48.1	90.51	-2,268.4	-15.3	955.2	859.7	95.45	10.007	
9,350.4	6,803.8	9,224.6	6,812.2	50.4	49.0	90.51	-2,318.8	-15.3	955.2	857.9	97.29	9.818	
9,400.0	6,803.4	9,274.3	6,811.8	51.3	49.9	90.51	-2,368.4	-15.3	955.2	856.1	99.10	9.639	
9,448.8	6,802.9	9,323.1	6,811.4	52.1	50.8	90.50	-2,417.2	-15.3	955.2	854.3	100.88	9.468	
9,500.0	6,802.5	9,374.3	6,810.9	53.0	51.8	90.50	-2,468.4	-15.3	955.2	852.4	102.76	9.295	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-303 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,802.1	9,421.5	6,810.5	53.9	52.6	90.50	-2,515.6	-15.3	955.2	850.7	104.49	9.141	
9,600.0	6,801.7	9,474.3	6,810.0	54.8	53.6	90.50	-2,568.4	-15.3	955.2	848.7	106.43	8.974	
9,645.6	6,801.3	9,519.9	6,809.6	55.6	54.4	90.49	-2,614.0	-15.3	955.2	847.1	108.11	8.835	
9,700.0	6,800.9	9,574.3	6,809.1	56.6	55.5	90.49	-2,668.4	-15.3	955.2	845.1	110.12	8.674	
9,744.1	6,800.5	9,618.3	6,808.7	57.4	56.3	90.49	-2,712.5	-15.3	955.2	843.4	111.75	8.548	
9,800.0	6,800.0	9,674.3	6,808.2	58.4	57.3	90.49	-2,768.4	-15.3	955.2	841.4	113.81	8.392	
9,842.5	6,799.7	9,716.8	6,807.8	59.1	58.1	90.49	-2,810.9	-15.3	955.2	839.8	115.39	8.278	
9,900.0	6,799.2	9,774.3	6,807.3	60.2	59.2	90.48	-2,868.4	-15.3	955.2	837.7	117.52	8.128	
9,940.9	6,798.9	9,815.2	6,806.9	60.9	59.9	90.48	-2,909.3	-15.3	955.2	836.1	119.04	8.024	
10,000.0	6,798.4	9,874.3	6,806.4	62.0	61.0	90.48	-2,968.4	-15.3	955.2	833.9	121.23	7.879	
10,039.3	6,798.1	9,913.6	6,806.0	62.7	61.8	90.48	-3,007.7	-15.3	955.2	832.5	122.70	7.785	
10,100.0	6,797.6	9,974.3	6,805.4	63.8	62.9	90.47	-3,068.4	-15.3	955.2	830.2	124.96	7.644	
10,137.8	6,797.2	10,012.0	6,805.1	64.4	63.6	90.47	-3,106.1	-15.3	955.2	828.8	126.37	7.559	
10,200.0	6,796.7	10,074.3	6,804.5	65.6	64.8	90.47	-3,168.4	-15.3	955.2	826.5	128.69	7.423	
10,236.2	6,796.4	10,110.5	6,804.2	66.2	65.5	90.47	-3,204.6	-15.3	955.2	825.1	130.04	7.345	
10,300.0	6,795.9	10,174.3	6,803.6	67.4	66.6	90.46	-3,268.4	-15.3	955.2	822.8	132.42	7.213	
10,334.6	6,795.6	10,208.9	6,803.3	68.0	67.3	90.46	-3,303.0	-15.3	955.2	821.5	133.72	7.143	
10,400.0	6,795.1	10,274.3	6,802.7	69.2	68.5	90.46	-3,368.3	-15.3	955.2	819.0	136.16	7.015	
10,433.0	6,794.8	10,307.3	6,802.4	69.8	69.1	90.46	-3,401.4	-15.3	955.2	817.8	137.40	6.952	
10,500.0	6,794.2	10,374.3	6,801.8	71.0	70.4	90.45	-3,468.3	-15.3	955.2	815.3	139.91	6.827	
10,531.5	6,794.0	10,405.7	6,801.5	71.6	71.0	90.45	-3,499.8	-15.3	955.2	814.1	141.09	6.770	
10,600.0	6,793.4	10,474.3	6,800.9	72.9	72.3	90.45	-3,568.3	-15.3	955.2	811.5	143.67	6.649	
10,629.9	6,793.2	10,504.2	6,800.6	73.4	72.8	90.45	-3,598.2	-15.3	955.2	810.4	144.79	6.597	
10,700.0	6,792.6	10,574.3	6,800.0	74.7	74.2	90.45	-3,668.3	-15.3	955.2	807.7	147.42	6.479	
10,728.3	6,792.3	10,602.6	6,799.7	75.2	74.7	90.44	-3,696.7	-15.3	955.2	806.7	148.49	6.433	
10,800.0	6,791.7	10,674.3	6,799.1	76.6	76.1	90.44	-3,768.3	-15.3	955.2	804.0	151.18	6.318	
10,826.7	6,791.5	10,701.0	6,798.8	77.1	76.6	90.44	-3,795.1	-15.3	955.2	803.0	152.19	6.276	
10,900.0	6,790.9	10,774.3	6,798.2	78.4	77.9	90.44	-3,868.3	-15.3	955.2	800.2	154.95	6.164	
10,925.2	6,790.7	10,799.4	6,798.0	78.9	78.4	90.44	-3,893.5	-15.3	955.2	799.3	155.90	6.127	
11,000.0	6,790.1	10,874.3	6,797.3	80.3	79.8	90.43	-3,968.3	-15.3	955.2	796.4	158.72	6.018	
11,023.6	6,789.9	10,897.9	6,797.1	80.7	80.3	90.43	-3,991.9	-15.3	955.2	795.6	159.61	5.984	
11,100.0	6,789.2	10,974.3	6,796.4	82.1	81.7	90.43	-4,068.3	-15.3	955.2	792.7	162.49	5.878	
11,122.0	6,789.1	10,996.3	6,796.2	82.5	82.1	90.43	-4,090.3	-15.3	955.2	791.8	163.33	5.848	
11,200.0	6,788.4	11,074.3	6,795.5	84.0	83.6	90.42	-4,168.3	-15.3	955.2	788.9	166.27	5.745	
11,220.4	6,788.2	11,094.7	6,795.3	84.3	84.0	90.42	-4,188.8	-15.3	955.2	788.1	167.04	5.718	
11,300.0	6,787.6	11,174.3	6,794.6	85.8	85.5	90.42	-4,268.3	-15.3	955.2	785.1	170.05	5.617	
11,318.9	6,787.4	11,193.1	6,794.4	86.2	85.9	90.42	-4,287.2	-15.3	955.2	784.4	170.76	5.594	
11,400.0	6,786.7	11,274.3	6,793.6	87.7	87.4	90.41	-4,368.3	-15.3	955.2	781.3	173.83	5.495	
11,417.3	6,786.6	11,291.6	6,793.5	88.0	87.7	90.41	-4,385.6	-15.3	955.2	780.7	174.49	5.474	
11,500.0	6,785.9	11,374.3	6,792.7	89.5	89.3	90.41	-4,468.3	-15.3	955.2	777.5	177.62	5.378	
11,515.7	6,785.8	11,390.0	6,792.6	89.8	89.6	90.41	-4,484.0	-15.3	955.2	777.0	178.21	5.360	
11,600.0	6,785.1	11,474.3	6,791.8	91.4	91.2	90.40	-4,568.3	-15.3	955.2	773.8	181.41	5.265	
11,614.1	6,785.0	11,488.4	6,791.7	91.7	91.5	90.40	-4,582.4	-15.3	955.2	773.2	181.94	5.250	
11,700.0	6,784.2	11,574.3	6,790.9	93.3	93.1	90.40	-4,668.3	-15.3	955.2	770.0	185.20	5.158	
11,712.6	6,784.1	11,586.8	6,790.8	93.5	93.3	90.40	-4,680.9	-15.3	955.2	769.5	185.67	5.144	
11,800.0	6,783.4	11,674.3	6,790.0	95.2	95.0	90.40	-4,768.3	-15.3	955.2	766.2	188.99	5.054	
11,811.0	6,783.3	11,685.3	6,789.9	95.4	95.2	90.40	-4,779.3	-15.3	955.2	765.8	189.41	5.043	
11,900.0	6,782.6	11,774.3	6,789.1	97.0	96.9	90.39	-4,868.3	-15.3	955.2	762.4	192.78	4.955	
11,909.4	6,782.5	11,783.7	6,789.0	97.2	97.1	90.39	-4,877.7	-15.3	955.2	762.0	193.14	4.945	
12,000.0	6,781.7	11,874.3	6,788.2	98.9	98.8	90.39	-4,968.3	-15.3	955.2	758.6	196.58	4.859	
12,007.8	6,781.7	11,882.1	6,788.1	99.1	98.9	90.39	-4,976.1	-15.3	955.2	758.3	196.88	4.852	
12,100.0	6,780.9	11,974.3	6,787.3	100.8	100.7	90.38	-5,068.3	-15.3	955.2	754.8	200.38	4.767	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,780.9	11,980.5	6,787.2	100.9	100.8	90.38	-5,074.6	-15.3	955.2	754.5	200.62	4.761	
12,200.0	6,780.1	12,074.3	6,786.4	102.7	102.6	90.38	-5,168.3	-15.3	955.2	751.0	204.18	4.678	
12,204.7	6,780.0	12,079.0	6,786.3	102.7	102.7	90.38	-5,173.0	-15.3	955.2	750.8	204.36	4.674	
12,300.0	6,779.2	12,174.3	6,785.5	104.5	104.5	90.37	-5,268.3	-15.3	955.2	747.2	207.98	4.593	
12,303.1	6,779.2	12,177.4	6,785.4	104.6	104.5	90.37	-5,271.4	-15.3	955.2	747.1	208.10	4.590	
12,400.0	6,778.4	12,274.3	6,784.6	106.4	106.4	90.37	-5,368.3	-15.3	955.2	743.4	211.78	4.510	
12,401.5	6,778.4	12,275.8	6,784.6	106.4	106.4	90.37	-5,369.8	-15.3	955.2	743.3	211.84	4.509	
12,500.0	6,777.6	12,374.3	6,783.7	108.3	108.3	90.37	-5,468.3	-15.3	955.2	739.6	215.59	4.431	
12,598.4	6,776.7	12,472.7	6,782.8	110.2	110.2	90.36	-5,566.7	-15.3	955.2	735.8	219.33	4.355	
12,600.0	6,776.7	12,474.3	6,782.8	110.2	110.2	90.36	-5,568.3	-15.3	955.2	735.8	219.39	4.354	
12,696.8	6,775.9	12,571.1	6,781.9	112.0	112.0	90.36	-5,665.1	-15.3	955.2	732.1	223.08	4.282	
12,700.0	6,775.9	12,574.3	6,781.8	112.1	112.1	90.36	-5,668.3	-15.3	955.2	732.0	223.20	4.279	
12,795.2	6,775.1	12,669.5	6,781.0	113.9	113.9	90.35	-5,763.5	-15.3	955.2	728.3	226.83	4.211	
12,800.0	6,775.0	12,674.3	6,780.9	114.0	114.0	90.35	-5,768.2	-15.3	955.2	728.2	227.01	4.208	
12,893.7	6,774.3	12,767.9	6,780.1	115.7	115.8	90.35	-5,861.9	-15.3	955.2	724.6	230.58	4.142	
12,900.0	6,774.2	12,774.3	6,780.0	115.8	115.9	90.35	-5,868.2	-15.3	955.2	724.3	230.82	4.138	
12,992.1	6,773.4	12,866.4	6,779.2	117.6	117.7	90.35	-5,960.3	-15.3	955.2	720.8	234.33	4.076	
13,000.0	6,773.4	12,874.3	6,779.1	117.7	117.8	90.35	-5,968.2	-15.3	955.2	720.5	234.63	4.071	
13,090.5	6,772.6	12,964.8	6,778.3	119.4	119.6	90.34	-6,058.8	-15.3	955.2	717.1	238.08	4.012	
13,100.0	6,772.5	12,974.3	6,778.2	119.6	119.7	90.34	-6,068.2	-15.3	955.2	716.7	238.44	4.006	
13,188.9	6,771.8	13,063.2	6,777.4	121.3	121.4	90.34	-6,157.2	-15.3	955.2	713.3	241.83	3.950	
13,200.0	6,771.7	13,074.3	6,777.3	121.5	121.6	90.34	-6,168.2	-15.3	955.2	712.9	242.25	3.943	
13,287.4	6,771.0	13,161.6	6,776.5	123.2	123.3	90.33	-6,255.6	-15.3	955.2	709.6	245.59	3.889	
13,300.0	6,770.9	13,174.3	6,776.4	123.4	123.6	90.33	-6,268.2	-15.3	955.2	709.1	246.07	3.882	
13,385.8	6,770.1	13,260.1	6,775.6	125.0	125.2	90.33	-6,354.0	-15.3	955.2	705.8	249.34	3.831	
13,400.0	6,770.0	13,274.3	6,775.5	125.3	125.5	90.33	-6,368.2	-15.3	955.2	705.3	249.88	3.822	
13,484.2	6,769.3	13,358.5	6,774.7	126.9	127.1	90.33	-6,452.4	-15.3	955.2	702.1	253.10	3.774	
13,500.0	6,769.2	13,374.3	6,774.6	127.2	127.4	90.32	-6,468.2	-15.3	955.2	701.5	253.70	3.765	
13,582.6	6,768.5	13,456.9	6,773.8	128.8	128.9	90.32	-6,550.9	-15.3	955.2	698.3	256.85	3.719	
13,600.0	6,768.3	13,474.3	6,773.7	129.1	129.3	90.32	-6,568.2	-15.3	955.2	697.6	257.52	3.709	
13,681.1	6,767.6	13,555.3	6,772.9	130.6	130.8	90.32	-6,649.3	-15.3	955.2	694.5	260.61	3.665	
13,700.0	6,767.5	13,574.3	6,772.8	131.0	131.2	90.32	-6,668.2	-15.3	955.2	693.8	261.33	3.655	
13,779.5	6,766.8	13,653.8	6,772.1	132.5	132.7	90.31	-6,747.7	-15.3	955.2	690.8	264.37	3.613	
13,800.0	6,766.6	13,674.3	6,771.9	132.9	133.1	90.31	-6,768.2	-15.3	955.2	690.0	265.15	3.602	
13,877.9	6,766.0	13,752.2	6,771.2	134.4	134.6	90.31	-6,846.1	-15.3	955.2	687.0	268.13	3.562	
13,900.0	6,765.8	13,774.3	6,771.0	134.8	135.0	90.31	-6,868.2	-15.3	955.2	686.2	268.97	3.551	
13,976.3	6,765.2	13,851.0	6,770.2	136.2	136.5	90.30	-6,944.9	-15.3	955.1	683.2	271.89	3.513	
13,995.7	6,765.0	13,870.3	6,770.0	136.6	136.8	90.30	-6,964.2	-15.3	955.1	682.5	272.63	3.503 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	0.53	30.2	0.3	30.2				
98.4	98.4	98.4	98.4	0.1	0.1	0.53	30.2	0.3	30.2	30.1	0.17	177.944	
100.0	100.0	100.0	100.0	0.1	0.1	0.53	30.2	0.3	30.2	30.1	0.17	174.723	
196.8	196.8	196.8	196.8	0.3	0.3	0.53	30.2	0.3	30.2	29.6	0.61	49.700	
200.0	200.0	200.0	200.0	0.3	0.3	0.53	30.2	0.3	30.2	29.6	0.62	48.569	
295.3	295.3	295.3	295.3	0.5	0.5	0.53	30.2	0.3	30.2	29.2	1.05	28.775	
300.0	300.0	300.0	300.0	0.5	0.5	0.53	30.2	0.3	30.2	29.2	1.07	28.205	
393.7	393.7	393.7	393.7	0.7	0.7	0.53	30.2	0.3	30.2	28.7	1.49	20.249	
400.0	400.0	400.0	400.0	0.8	0.8	0.53	30.2	0.3	30.2	28.7	1.52	19.872	
492.1	492.1	492.1	492.1	1.0	1.0	0.53	30.2	0.3	30.2	28.3	1.94	15.621	
500.0	500.0	500.0	500.0	1.0	1.0	0.53	30.2	0.3	30.2	28.3	1.97	15.341	
590.5	590.5	590.5	590.5	1.2	1.2	0.53	30.2	0.3	30.2	27.9	2.38	12.715	
600.0	600.0	600.0	600.0	1.2	1.2	0.53	30.2	0.3	30.2	27.8	2.42	12.492	
689.0	689.0	689.0	689.0	1.4	1.4	0.53	30.2	0.3	30.2	27.4	2.82	10.720	
700.0	700.0	700.0	700.0	1.4	1.4	0.53	30.2	0.3	30.2	27.4	2.87	10.535	
787.4	787.4	787.4	787.4	1.6	1.6	0.53	30.2	0.3	30.2	27.0	3.26	9.267	
800.0	800.0	800.0	800.0	1.7	1.7	0.53	30.2	0.3	30.2	26.9	3.32	9.109	
885.8	885.8	885.8	885.8	1.9	1.9	0.53	30.2	0.3	30.2	26.5	3.71	8.160	
900.0	900.0	900.0	900.0	1.9	1.9	0.53	30.2	0.3	30.2	26.5	3.77	8.022	
984.2	984.2	984.2	984.2	2.1	2.1	0.53	30.2	0.3	30.2	26.1	4.15	7.290	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	0.53	30.2	0.3	30.2	26.0	4.22	7.168	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	0.53	30.2	0.3	30.2	25.6	4.59	6.587	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	0.53	30.2	0.3	30.2	25.6	4.67	6.477	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	0.53	30.2	0.3	30.2	25.2	5.03	6.008	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	0.53	30.2	0.3	30.2	25.1	5.12	5.909	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	0.53	30.2	0.3	30.2	24.8	5.48	5.523	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	0.53	30.2	0.3	30.2	24.7	5.57	5.431	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	0.53	30.2	0.3	30.2	24.3	5.92	5.110	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	0.53	30.2	0.3	30.2	24.2	6.02	5.026	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	0.53	30.2	0.3	30.2	23.9	6.36	4.754	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	0.53	30.2	0.3	30.2	23.8	6.47	4.676	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	0.53	30.2	0.3	30.2	23.4	6.80	4.445	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	0.53	30.2	0.3	30.2	23.3	6.92	4.372	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	3.6	0.53	30.2	0.3	30.2	23.0	7.25	4.174	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	0.53	30.2	0.3	30.2	22.9	7.37	4.105	
1,771.6	1,771.6	1,771.6	1,771.6	3.8	3.8	0.53	30.2	0.3	30.2	22.6	7.69	3.933	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	0.53	30.2	0.3	30.2	22.4	7.82	3.869 CC, ES	
1,870.1	1,870.1	1,869.7	1,869.7	4.1	4.1	1.86	30.7	1.0	30.7	22.6	8.12	3.779	
1,900.0	1,900.0	1,899.4	1,899.4	4.1	4.1	3.21	31.1	1.7	31.2	22.9	8.26	3.779	
1,968.5	1,968.5	1,967.4	1,967.3	4.3	4.3	7.69	32.8	4.4	33.1	24.6	8.56	3.873	
2,000.0	2,000.0	1,998.6	1,998.4	4.4	4.3	10.25	33.9	6.1	34.4	25.8	8.69	3.963	
2,066.9	2,066.9	2,064.7	2,064.3	4.5	4.5	16.21	36.7	10.7	38.3	29.3	8.99	4.259	
2,100.0	2,100.0	2,097.2	2,096.7	4.6	4.6	19.23	38.4	13.4	40.8	31.6	9.13	4.461	
2,165.3	2,165.3	2,161.5	2,160.5	4.7	4.7	-44.03	42.2	19.6	46.3	36.9	9.42	4.912	
2,200.0	2,200.0	2,195.4	2,194.2	4.8	4.8	-41.88	44.6	23.4	49.4	39.8	9.57	5.162	
2,263.8	2,263.7	2,257.9	2,255.9	4.9	4.9	-38.72	49.5	31.3	55.4	45.5	9.84	5.626	
2,300.0	2,299.8	2,293.3	2,290.9	5.0	5.0	-37.31	52.6	36.3	58.9	48.9	10.00	5.891	
2,362.2	2,361.8	2,354.0	2,350.5	5.1	5.2	-35.39	58.4	45.7	65.0	54.8	10.26	6.338	
2,400.0	2,399.5	2,390.8	2,386.6	5.2	5.3	-34.47	62.2	51.9	68.8	58.4	10.42	6.608	
2,460.6	2,459.7	2,450.9	2,445.4	5.4	5.5	-33.44	68.8	62.5	74.6	64.0	10.68	6.987	
2,500.0	2,498.7	2,490.2	2,483.8	5.5	5.6	-33.13	73.1	69.4	77.9	67.0	10.85	7.174	
2,559.0	2,557.1	2,549.1	2,541.4	5.6	5.8	-33.09	79.5	79.8	81.8	70.7	11.12	7.361	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-323 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.0	2,597.5	2,590.0	2,581.4	5.7	5.9	-33.34	84.0	87.1	84.0	72.7	11.30	7.433	
2,657.5	2,654.0	2,647.4	2,637.6	5.9	6.1	-34.03	90.3	97.2	86.2	74.6	11.57	7.451	
2,700.0	2,695.6	2,689.9	2,679.2	6.0	6.3	-34.81	95.0	104.7	87.2	75.5	11.77	7.411	
2,755.9	2,750.2	2,745.7	2,733.8	6.2	6.5	-36.18	101.1	114.6	87.8	75.8	12.06	7.285	
2,800.0	2,793.1	2,789.8	2,776.9	6.3	6.6	-37.55	105.9	122.4	87.7	75.4	12.29	7.139	
2,854.3	2,845.6	2,844.0	2,829.9	6.5	6.8	-39.64	111.8	132.0	87.0	74.3	12.61	6.897	
2,900.0	2,889.6	2,889.6	2,874.5	6.6	7.0	-41.78	116.8	140.0	85.8	72.9	12.89	6.657	
2,952.7	2,940.2	2,942.1	2,925.9	6.8	7.2	-44.75	122.6	149.3	84.0	70.7	13.26	6.331	
3,000.0	2,985.3	2,989.1	2,971.8	7.0	7.4	-47.94	127.7	157.6	82.0	68.3	13.63	6.015	
3,016.9	3,001.4	3,005.9	2,988.3	7.1	7.4	-49.22	129.6	160.6	81.2	67.4	13.77	5.895	
3,051.2	3,033.9	3,039.9	3,021.5	7.3	7.6	-51.92	133.3	166.6	79.7	65.6	14.09	5.654	
3,100.0	3,080.2	3,088.4	3,068.9	7.5	7.7	-55.92	138.6	175.1	77.9	63.3	14.57	5.344	
3,149.6	3,127.3	3,137.6	3,117.1	7.7	7.9	-60.16	144.0	183.8	76.4	61.3	15.09	5.065	
3,200.0	3,175.1	3,187.7	3,166.1	8.0	8.1	-64.61	149.5	192.7	75.4	59.8	15.63	4.824	
3,248.0	3,220.7	3,235.3	3,212.7	8.2	8.3	-68.93	154.7	201.1	74.9	58.7	16.17	4.631	
3,282.2	3,253.1	3,269.3	3,245.9	8.4	8.5	-72.03	158.4	207.1	74.8	58.2	16.55	4.518	
3,300.0	3,270.0	3,286.9	3,263.2	8.5	8.5	-73.65	160.3	210.2	74.8	58.1	16.75	4.466	
3,346.4	3,314.1	3,333.1	3,308.3	8.7	8.7	-77.84	165.4	218.4	75.2	57.9	17.26	4.354	
3,400.0	3,365.0	3,386.2	3,360.3	9.0	8.9	-82.61	171.2	227.8	76.1	58.2	17.84	4.264	
3,444.9	3,407.6	3,430.8	3,403.9	9.2	9.1	-86.49	176.1	235.7	77.2	58.9	18.31	4.219	
3,500.0	3,459.9	3,485.5	3,457.4	9.5	9.3	-91.08	182.1	245.3	79.2	60.3	18.85	4.199	
3,543.3	3,501.0	3,528.5	3,499.5	9.8	9.5	-94.51	186.8	252.9	81.0	61.7	19.26	4.206	
3,600.0	3,554.8	3,584.8	3,554.5	10.1	9.7	-98.77	192.9	262.9	83.8	64.1	19.76	4.244	
3,641.7	3,594.4	3,626.2	3,595.0	10.3	9.9	-101.71	197.5	270.2	86.2	66.1	20.10	4.289	
3,700.0	3,649.7	3,684.1	3,651.6	10.7	10.2	-105.54	203.8	280.4	89.9	69.3	20.55	4.373	
3,740.1	3,687.8	3,723.9	3,690.6	10.9	10.3	-108.01	208.2	287.5	92.6	71.8	20.85	4.443	
3,800.0	3,744.7	3,783.4	3,748.8	11.2	10.6	-111.41	214.7	298.0	97.0	75.7	21.26	4.562	
3,838.6	3,781.3	3,821.7	3,786.2	11.5	10.7	-113.44	218.9	304.7	100.0	78.5	21.52	4.647	
3,900.0	3,839.6	3,882.6	3,845.9	11.8	11.0	-116.43	225.6	315.5	105.0	83.1	21.92	4.792	
3,937.0	3,874.7	3,919.4	3,881.8	12.1	11.1	-118.10	229.6	322.0	108.2	86.0	22.15	4.884	
4,000.0	3,934.5	3,981.9	3,943.0	12.4	11.4	-120.72	236.4	333.1	113.7	91.2	22.53	5.047	
4,035.4	3,968.1	4,017.1	3,977.4	12.6	11.6	-122.08	240.3	339.3	116.9	94.2	22.74	5.142	
4,100.0	4,029.4	4,081.2	4,040.1	13.0	11.8	-124.38	247.3	350.6	123.0	99.8	23.12	5.319	
4,133.8	4,061.5	4,114.8	4,073.0	13.2	12.0	-125.50	251.0	356.5	126.2	102.9	23.32	5.412	
4,200.0	4,124.3	4,180.5	4,137.2	13.6	12.3	-127.53	258.2	368.1	132.6	108.9	23.70	5.597	
4,232.3	4,155.0	4,212.5	4,168.6	13.8	12.4	-128.44	261.7	373.8	135.8	112.0	23.88	5.688	
4,300.0	4,219.3	4,279.8	4,234.3	14.2	12.7	-130.24	269.0	385.7	142.7	118.4	24.27	5.878	
4,330.7	4,248.4	4,310.3	4,264.2	14.4	12.8	-130.99	272.4	391.1	145.8	121.3	24.45	5.964	
4,400.0	4,314.2	4,379.1	4,331.5	14.9	13.1	-132.59	279.9	403.2	152.9	128.1	24.84	6.157	
4,429.1	4,341.8	4,408.0	4,359.7	15.0	13.2	-133.22	283.1	408.4	156.0	131.0	25.01	6.237	
4,500.0	4,409.1	4,478.4	4,428.6	15.5	13.5	-134.64	290.8	420.8	163.5	138.0	25.42	6.431	
4,527.5	4,435.3	4,505.7	4,455.3	15.7	13.7	-135.16	293.8	425.6	166.4	140.8	25.58	6.506	
4,600.0	4,504.0	4,577.6	4,525.7	16.1	14.0	-136.45	301.7	438.3	174.2	148.2	26.00	6.700	
4,626.0	4,528.7	4,603.4	4,550.9	16.3	14.1	-136.88	304.5	442.9	177.0	150.8	26.15	6.769	
4,700.0	4,598.9	4,676.9	4,622.8	16.7	14.4	-138.04	312.5	455.9	185.0	158.4	26.58	6.962	
4,724.4	4,622.1	4,701.2	4,646.5	16.9	14.5	-138.40	315.2	460.2	187.7	161.0	26.72	7.024	
4,800.0	4,693.9	4,776.2	4,719.9	17.4	14.8	-139.46	323.4	473.4	196.0	168.8	27.16	7.215	
4,822.8	4,715.5	4,798.9	4,742.1	17.5	14.9	-139.76	325.9	477.4	198.5	171.2	27.30	7.272	
4,900.0	4,788.8	4,874.6	4,816.2	18.0	15.3	-140.73	334.2	490.8	207.1	179.4	27.75	7.465	
4,921.2	4,809.0	4,894.7	4,835.9	18.1	15.3	-141.01	336.2	494.2	209.6	181.8	27.86	7.526	
5,000.0	4,883.7	4,969.0	4,908.9	18.6	15.6	-142.23	343.4	505.6	219.8	191.6	28.19	7.799	
5,019.7	4,902.4	4,987.4	4,927.1	18.7	15.6	-142.58	345.0	508.2	222.6	194.3	28.26	7.878	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,978.6	5,062.4	5,001.2	19.3	15.8	-144.11	350.9	517.8	234.9	206.4	28.50	8.243	
5,118.1	4,995.8	5,079.2	5,017.9	19.4	15.9	-144.48	352.1	519.7	237.9	209.4	28.55	8.335	
5,200.0	5,073.6	5,154.7	5,092.9	19.9	16.1	-146.23	356.8	527.3	252.6	223.9	28.72	8.796	
5,216.5	5,089.2	5,169.9	5,108.0	20.0	16.1	-146.60	357.6	528.6	255.8	227.0	28.75	8.897	
5,304.2	5,172.4	5,249.6	5,187.4	20.6	16.3	-148.58	361.2	534.4	273.9	245.0	28.87	9.486	
5,314.9	5,182.7	5,259.4	5,197.1	20.6	16.3	-148.84	361.6	535.0	276.2	247.3	28.88	9.563	
5,400.0	5,263.9	5,335.9	5,273.6	21.1	16.5	-150.84	363.8	538.6	294.7	265.8	28.99	10.166	
5,413.4	5,276.7	5,347.9	5,285.5	21.1	16.5	-151.13	364.1	539.0	297.6	268.6	29.01	10.262	
5,500.0	5,360.3	5,425.4	5,363.0	21.5	16.6	-152.93	365.1	540.6	316.3	287.2	29.10	10.872	
5,511.8	5,371.7	5,435.9	5,373.5	21.6	16.6	-153.16	365.1	540.7	318.9	289.8	29.11	10.955	
5,600.0	5,457.5	5,520.0	5,457.5	21.9	16.7	-154.82	365.1	540.8	337.1	307.9	29.21	11.543	
5,610.2	5,467.5	5,529.9	5,467.5	21.9	16.7	-155.00	365.1	540.8	339.1	309.9	29.22	11.605	
5,700.0	5,555.6	5,618.0	5,555.6	22.3	16.9	-156.33	365.1	540.8	355.2	325.9	29.38	12.090	
5,708.6	5,564.1	5,626.5	5,564.1	22.3	16.9	-156.44	365.1	540.8	356.7	327.3	29.40	12.132	
5,800.0	5,654.2	5,716.6	5,654.2	22.6	17.0	-157.46	365.1	540.8	370.3	340.7	29.60	12.513	
5,807.1	5,661.2	5,723.6	5,661.2	22.6	17.0	-157.53	365.1	540.8	371.3	341.7	29.61	12.538	
5,900.0	5,753.4	5,815.8	5,753.4	22.8	17.2	-158.29	365.1	540.8	382.3	352.5	29.83	12.816	
5,905.5	5,758.8	5,821.2	5,758.8	22.8	17.2	-158.33	365.1	540.8	382.9	353.0	29.84	12.829	
6,000.0	5,852.9	5,915.3	5,852.9	23.1	17.4	-158.87	365.1	540.8	391.1	361.0	30.08	13.004	
6,003.9	5,856.8	5,919.2	5,856.8	23.1	17.4	-158.88	365.1	540.8	391.4	361.3	30.09	13.009	
6,100.0	5,952.7	6,015.1	5,952.7	23.2	17.5	-159.22	365.1	540.8	396.7	366.4	30.33	13.081	
6,102.3	5,955.1	6,017.5	5,955.1	23.2	17.5	-159.22	365.1	540.8	396.8	366.4	30.33	13.081	
6,200.0	6,052.7	6,115.1	6,052.7	23.4	17.7	-159.36	365.1	540.8	399.0	368.4	30.57	13.051	
6,200.8	6,053.5	6,115.9	6,053.5	23.4	17.7	-159.36	365.1	540.8	399.0	368.4	30.58	13.050	
6,221.1	6,073.8	6,136.2	6,073.8	23.4	17.7	-90.94	365.1	540.8	399.1	368.5	30.63	13.031	
6,241.1	6,093.8	6,156.2	6,093.8	23.4	17.7	-90.94	365.1	540.8	399.1	368.4	30.70	13.001	
6,251.1	6,103.8	6,166.2	6,103.8	23.4	17.8	-90.94	365.1	540.8	399.1	368.3	30.73	12.986	
6,299.2	6,151.8	6,213.9	6,151.4	23.5	17.8	89.06	363.6	540.8	399.1	368.2	30.87	12.929	
6,300.0	6,152.6	6,214.7	6,152.2	23.5	17.8	89.06	363.5	540.8	399.1	368.2	30.87	12.928	
6,350.0	6,202.4	6,264.2	6,201.5	23.5	17.9	89.07	358.4	540.8	399.1	368.1	30.96	12.892	
6,397.6	6,249.3	6,311.4	6,248.0	23.5	17.9	89.08	350.5	540.8	399.1	368.1	31.00	12.873	
6,400.0	6,251.6	6,313.8	6,250.3	23.5	17.9	89.08	350.0	540.8	399.1	368.1	31.00	12.873	
6,450.0	6,300.1	6,363.3	6,298.4	23.5	17.9	89.09	338.2	540.8	399.1	368.1	31.01	12.869	
6,496.0	6,344.0	6,409.0	6,341.9	23.5	17.9	89.11	324.4	540.8	399.1	368.1	30.99	12.879	
6,500.0	6,347.7	6,412.9	6,345.6	23.5	17.9	89.11	323.1	540.8	399.1	368.1	30.98	12.880	
6,550.0	6,394.1	6,462.5	6,391.7	23.5	17.9	89.14	304.7	540.8	399.1	368.1	30.93	12.902	
6,594.5	6,434.2	6,506.6	6,431.5	23.4	17.8	89.16	285.8	540.8	399.1	368.2	30.87	12.928	
6,600.0	6,439.0	6,512.1	6,436.4	23.4	17.8	89.17	283.2	540.8	399.1	368.2	30.86	12.932	
6,650.0	6,482.4	6,561.7	6,479.5	23.4	17.8	89.20	258.7	540.8	399.1	368.3	30.78	12.966	
6,692.9	6,518.1	6,604.2	6,515.0	23.3	17.8	89.23	235.3	540.8	399.1	368.3	30.71	12.995	
6,700.0	6,523.9	6,611.3	6,520.8	23.3	17.8	89.24	231.2	540.8	399.1	368.4	30.70	13.000	
6,750.0	6,563.3	6,660.9	6,560.1	23.3	17.7	89.28	201.0	540.8	399.1	368.4	30.63	13.029	
6,791.3	6,594.2	6,702.0	6,591.0	23.2	17.7	89.31	173.9	540.8	399.1	368.5	30.59	13.046	
6,800.0	6,600.5	6,710.6	6,597.2	23.2	17.7	89.32	168.0	540.8	399.0	368.5	30.58	13.048	
6,850.0	6,635.3	6,760.3	6,632.0	23.2	17.6	89.37	132.6	540.8	399.0	368.5	30.57	13.052	
6,889.7	6,661.1	6,799.8	6,657.9	23.1	17.6	89.41	102.7	540.8	399.0	368.4	30.60	13.041	
6,900.0	6,667.5	6,810.0	6,664.3	23.1	17.6	89.42	94.8	540.8	399.0	368.4	30.61	13.036	
6,950.0	6,696.9	6,859.7	6,693.9	23.1	17.6	89.47	54.8	540.8	399.0	368.3	30.71	12.994	
6,988.2	6,717.5	6,897.7	6,714.6	23.1	17.6	89.51	23.0	540.8	399.0	368.2	30.83	12.943	
7,000.0	6,723.5	6,909.5	6,720.6	23.1	17.6	89.52	12.9	540.8	399.0	368.2	30.88	12.924	
7,050.0	6,747.0	6,959.2	6,744.4	23.1	17.6	89.58	-30.8	540.8	399.0	367.9	31.12	12.821	
7,086.6	6,762.3	6,995.7	6,759.9	23.1	17.6	89.63	-63.8	540.8	399.0	367.7	31.36	12.724	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-323 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,767.4	7,009.0	6,765.1	23.1	17.6	89.64	-76.1	540.8	399.0	367.6	31.46	12.685	
7,150.0	6,784.6	7,058.9	6,782.6	23.1	17.7	89.70	-122.8	540.8	399.0	367.1	31.88	12.516	
7,185.0	6,794.7	7,093.8	6,793.0	23.1	17.8	89.75	-156.1	540.8	399.0	366.8	32.24	12.377	
7,200.0	6,798.5	7,108.8	6,796.9	23.2	17.9	89.77	-170.6	540.8	399.0	366.6	32.40	12.315	
7,250.0	6,808.9	7,158.7	6,807.8	23.2	18.1	89.83	-219.2	540.8	399.0	366.0	33.02	12.086	
7,283.4	6,814.0	7,192.1	6,813.1	23.3	18.2	89.87	-252.2	540.8	399.0	365.5	33.48	11.917	
7,300.0	6,816.0	7,208.6	6,815.2	23.4	18.3	89.90	-268.6	540.8	399.0	365.3	33.72	11.833	
7,350.0	6,819.5	7,258.5	6,819.3	23.5	18.7	89.96	-318.4	540.8	399.0	364.5	34.51	11.561	
7,379.5	6,820.0	7,288.0	6,820.0	23.7	18.9	90.00	-347.8	540.8	399.0	364.0	35.02	11.394	
7,381.9	6,820.0	7,290.4	6,820.0	23.7	18.9	90.00	-350.3	540.8	399.0	364.0	35.06	11.381	
7,382.0	6,820.0	7,290.5	6,820.0	23.7	18.9	90.00	-350.4	540.8	399.0	364.0	35.06	11.380	
7,400.0	6,819.8	7,308.5	6,819.9	23.8	19.0	90.01	-368.4	540.8	399.0	363.6	35.39	11.275	
7,480.3	6,819.2	7,388.8	6,819.3	24.2	19.8	90.02	-448.7	540.8	399.0	362.1	36.96	10.796	
7,500.0	6,819.0	7,408.5	6,819.1	24.3	20.0	90.02	-468.4	540.8	399.0	361.7	37.36	10.681	
7,578.7	6,818.4	7,487.3	6,818.5	24.9	20.8	90.03	-547.1	540.8	399.0	359.9	39.12	10.200	
7,600.0	6,818.2	7,508.5	6,818.4	25.0	21.1	90.03	-568.4	540.8	399.0	359.4	39.60	10.075	
7,677.1	6,817.6	7,585.7	6,817.8	25.7	22.0	90.04	-645.5	540.8	399.0	357.5	41.51	9.613	
7,700.0	6,817.4	7,608.5	6,817.6	25.9	22.3	90.04	-668.4	540.8	399.0	356.9	42.08	9.482	
7,775.6	6,816.7	7,684.1	6,817.1	26.6	23.3	90.05	-743.9	540.8	399.0	354.9	44.10	9.049	
7,800.0	6,816.5	7,708.5	6,816.9	26.9	23.6	90.05	-768.4	540.8	399.0	354.3	44.75	8.916	
7,874.0	6,815.9	7,782.5	6,816.3	27.7	24.6	90.06	-842.4	540.8	399.0	352.2	46.85	8.518	
7,900.0	6,815.7	7,808.5	6,816.1	28.0	25.0	90.06	-868.4	540.8	399.0	351.4	47.59	8.385	
7,972.4	6,815.1	7,881.0	6,815.6	28.9	26.0	90.07	-940.8	540.8	399.0	349.3	49.73	8.024	
8,000.0	6,814.9	7,908.5	6,815.4	29.2	26.4	90.07	-968.4	540.8	399.0	348.5	50.55	7.893	
8,070.8	6,814.3	7,979.4	6,814.8	30.1	27.5	90.08	-1,039.2	540.8	399.0	346.3	52.73	7.567	
8,100.0	6,814.1	8,008.5	6,814.6	30.5	27.9	90.08	-1,068.4	540.8	399.0	345.4	53.63	7.440	
8,169.3	6,813.5	8,077.8	6,814.1	31.5	29.0	90.09	-1,137.6	540.8	399.0	343.2	55.83	7.148	
8,200.0	6,813.3	8,108.5	6,813.9	31.9	29.5	90.09	-1,168.4	540.8	399.0	342.2	56.80	7.025	
8,267.7	6,812.7	8,176.2	6,813.4	32.9	30.6	90.10	-1,236.1	540.8	399.0	340.0	59.00	6.763	
8,300.0	6,812.4	8,208.5	6,813.1	33.3	31.1	90.10	-1,268.4	540.8	399.0	339.0	60.05	6.644	
8,366.1	6,811.9	8,274.7	6,812.6	34.3	32.2	90.11	-1,334.5	540.8	399.0	336.8	62.25	6.410	
8,400.0	6,811.6	8,308.5	6,812.4	34.8	32.7	90.11	-1,368.4	540.8	399.0	335.7	63.37	6.297	
8,464.5	6,811.1	8,373.1	6,811.9	35.8	33.8	90.12	-1,432.9	540.8	399.0	333.5	65.55	6.088	
8,500.0	6,810.8	8,408.5	6,811.6	36.3	34.4	90.12	-1,468.4	540.8	399.0	332.3	66.74	5.978	
8,563.0	6,810.3	8,471.5	6,811.1	37.3	35.4	90.13	-1,531.3	540.8	399.0	330.1	68.90	5.791	
8,600.0	6,810.0	8,508.5	6,810.9	37.9	36.1	90.13	-1,568.3	540.8	399.0	328.9	70.17	5.687	
8,661.4	6,809.5	8,569.9	6,810.4	38.9	37.1	90.14	-1,629.7	540.8	399.0	326.7	72.29	5.519	
8,700.0	6,809.1	8,608.5	6,810.1	39.5	37.8	90.14	-1,668.3	540.8	399.0	325.4	73.63	5.419	
8,759.8	6,808.6	8,668.4	6,809.7	40.5	38.8	90.15	-1,728.2	540.8	399.0	323.3	75.73	5.269	
8,800.0	6,808.3	8,708.5	6,809.4	41.1	39.5	90.15	-1,768.3	540.8	399.0	321.9	77.13	5.173	
8,858.2	6,807.8	8,766.8	6,808.9	42.1	40.5	90.16	-1,826.6	540.8	399.0	319.8	79.19	5.039	
8,900.0	6,807.5	8,808.5	6,808.6	42.8	41.2	90.16	-1,868.3	540.8	399.0	318.4	80.66	4.947	
8,956.7	6,807.0	8,865.2	6,808.2	43.7	42.2	90.17	-1,925.0	540.8	399.0	316.3	82.68	4.826	
9,000.0	6,806.7	8,908.5	6,807.9	44.4	43.0	90.17	-1,968.3	540.8	399.0	314.8	84.22	4.738	
9,055.1	6,806.2	8,963.6	6,807.4	45.4	44.0	90.18	-2,023.4	540.8	399.0	312.8	86.20	4.629	
9,100.0	6,805.8	9,008.5	6,807.1	46.1	44.8	90.18	-2,068.3	540.8	399.0	311.2	87.81	4.544	
9,153.5	6,805.4	9,062.1	6,806.7	47.0	45.7	90.19	-2,121.9	540.8	399.0	309.3	89.74	4.447	
9,200.0	6,805.0	9,108.5	6,806.4	47.8	46.6	90.19	-2,168.3	540.8	399.0	307.6	91.41	4.365	
9,251.9	6,804.6	9,160.5	6,806.0	48.7	47.5	90.20	-2,220.3	540.8	399.0	305.7	93.30	4.277	
9,300.0	6,804.2	9,208.5	6,805.6	49.6	48.4	90.20	-2,268.3	540.8	399.0	304.0	95.04	4.199	
9,350.4	6,803.8	9,258.9	6,805.2	50.4	49.3	90.21	-2,318.7	540.8	399.0	302.2	96.87	4.119	
9,400.0	6,803.4	9,308.5	6,804.8	51.3	50.2	90.21	-2,368.3	540.8	399.0	300.3	98.68	4.044	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-323 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,448.8	6,802.9	9,357.3	6,804.5	52.1	51.0	90.22	-2,417.1	540.8	399.0	298.6	100.46	3.972	
9,500.0	6,802.5	9,408.5	6,804.1	53.0	52.0	90.22	-2,468.3	540.8	399.0	296.7	102.33	3.899	
9,547.2	6,802.1	9,455.8	6,803.7	53.9	52.8	90.23	-2,515.5	540.8	399.0	295.0	104.07	3.834	
9,600.0	6,801.7	9,508.5	6,803.3	54.8	53.8	90.24	-2,568.3	540.8	399.0	293.0	106.00	3.764	
9,645.6	6,801.3	9,554.2	6,803.0	55.6	54.6	90.24	-2,614.0	540.8	399.0	291.3	107.68	3.706	
9,700.0	6,800.9	9,608.5	6,802.6	56.6	55.6	90.25	-2,668.3	540.8	399.0	289.3	109.68	3.638	
9,744.1	6,800.5	9,652.6	6,802.2	57.4	56.4	90.25	-2,712.4	540.8	399.0	287.7	111.31	3.585	
9,800.0	6,800.0	9,708.5	6,801.8	58.4	57.4	90.26	-2,768.3	540.8	399.0	285.7	113.38	3.520	
9,842.5	6,799.7	9,751.0	6,801.5	59.1	58.2	90.26	-2,810.8	540.8	399.0	284.1	114.95	3.471	
9,900.0	6,799.2	9,808.5	6,801.1	60.2	59.3	90.27	-2,868.3	540.8	399.0	281.9	117.08	3.408	
9,940.9	6,798.9	9,849.5	6,800.8	60.9	60.0	90.27	-2,909.2	540.8	399.0	280.4	118.60	3.365	
10,000.0	6,798.4	9,908.5	6,800.3	62.0	61.1	90.28	-2,968.3	540.8	399.0	278.2	120.79	3.304	
10,039.3	6,798.1	9,947.9	6,800.0	62.7	61.9	90.28	-3,007.7	540.8	399.0	276.8	122.25	3.264	
10,100.0	6,797.6	10,008.5	6,799.6	63.8	63.0	90.29	-3,068.3	540.8	399.0	274.5	124.51	3.205	
10,137.8	6,797.2	10,046.3	6,799.3	64.4	63.7	90.29	-3,106.1	540.8	399.0	273.1	125.92	3.169	
10,200.0	6,796.7	10,108.5	6,798.8	65.6	64.8	90.30	-3,168.3	540.8	399.0	270.8	128.23	3.112	
10,236.2	6,796.4	10,144.7	6,798.5	66.2	65.5	90.30	-3,204.5	540.8	399.0	269.4	129.59	3.079	
10,300.0	6,795.9	10,208.5	6,798.1	67.4	66.7	90.31	-3,268.3	540.8	399.0	267.1	131.97	3.024	
10,334.6	6,795.6	10,243.2	6,797.8	68.0	67.3	90.31	-3,302.9	540.8	399.0	265.8	133.26	2.994	
10,400.0	6,795.1	10,308.5	6,797.3	69.2	68.5	90.32	-3,368.3	540.8	399.0	263.3	135.71	2.940	
10,433.0	6,794.8	10,341.6	6,797.0	69.8	69.2	90.32	-3,401.3	540.8	399.0	262.1	136.95	2.914	
10,500.0	6,794.2	10,408.5	6,796.5	71.0	70.4	90.33	-3,468.3	540.8	399.0	259.6	139.45	2.861	
10,531.5	6,794.0	10,440.0	6,796.3	71.6	71.0	90.33	-3,499.8	540.8	399.0	258.4	140.63	2.837	
10,600.0	6,793.4	10,508.5	6,795.8	72.9	72.3	90.34	-3,568.3	540.8	399.0	255.8	143.20	2.786	
10,629.9	6,793.2	10,538.4	6,795.6	73.4	72.8	90.34	-3,598.2	540.8	399.0	254.7	144.33	2.765	
10,700.0	6,792.6	10,608.5	6,795.0	74.7	74.1	90.35	-3,668.3	540.8	399.0	252.1	146.96	2.715	
10,728.3	6,792.3	10,636.9	6,794.8	75.2	74.7	90.36	-3,696.6	540.8	399.0	251.0	148.02	2.696	
10,800.0	6,791.7	10,708.5	6,794.3	76.6	76.0	90.36	-3,768.3	540.8	399.0	248.3	150.72	2.648	
10,826.7	6,791.5	10,735.3	6,794.1	77.1	76.5	90.37	-3,795.0	540.8	399.0	247.3	151.73	2.630	
10,900.0	6,790.9	10,808.5	6,793.5	78.4	77.9	90.37	-3,868.3	540.8	399.0	244.5	154.48	2.583	
10,925.2	6,790.7	10,833.7	6,793.3	78.9	78.4	90.38	-3,893.5	540.8	399.0	243.6	155.43	2.567	
11,000.0	6,790.1	10,908.5	6,792.8	80.3	79.8	90.38	-3,968.3	540.8	399.0	240.8	158.25	2.521	
11,023.6	6,789.9	10,932.1	6,792.6	80.7	80.2	90.39	-3,991.9	540.8	399.0	239.9	159.14	2.507	
11,100.0	6,789.2	11,008.5	6,792.0	82.1	81.6	90.40	-4,068.3	540.8	399.0	237.0	162.02	2.463	
11,122.0	6,789.1	11,030.6	6,791.8	82.5	82.1	90.40	-4,090.3	540.8	399.0	236.2	162.86	2.450	
11,200.0	6,788.4	11,108.5	6,791.2	84.0	83.5	90.41	-4,168.3	540.8	399.0	233.2	165.80	2.407	
11,220.4	6,788.2	11,129.0	6,791.1	84.3	83.9	90.41	-4,188.7	540.8	399.0	232.5	166.57	2.396	
11,300.0	6,787.6	11,208.5	6,790.5	85.8	85.4	90.42	-4,268.3	540.8	399.0	229.5	169.58	2.353	
11,318.9	6,787.4	11,227.4	6,790.3	86.2	85.8	90.42	-4,287.1	540.8	399.0	228.7	170.29	2.343	
11,400.0	6,786.7	11,308.5	6,789.7	87.7	87.3	90.43	-4,368.3	540.8	399.0	225.7	173.36	2.302	
11,417.3	6,786.6	11,325.8	6,789.6	88.0	87.6	90.43	-4,385.6	540.8	399.0	225.0	174.01	2.293	
11,500.0	6,785.9	11,408.5	6,789.0	89.5	89.2	90.44	-4,468.3	540.8	399.0	221.9	177.14	2.253	
11,515.7	6,785.8	11,424.3	6,788.9	89.8	89.5	90.44	-4,484.0	540.8	399.0	221.3	177.74	2.245	
11,600.0	6,785.1	11,508.5	6,788.2	91.4	91.1	90.45	-4,568.3	540.8	399.0	218.1	180.93	2.205	
11,614.1	6,785.0	11,522.7	6,788.1	91.7	91.3	90.45	-4,582.4	540.8	399.0	217.6	181.47	2.199	
11,700.0	6,784.2	11,608.5	6,787.5	93.3	93.0	90.46	-4,668.3	540.8	399.0	214.3	184.72	2.160	
11,712.6	6,784.1	11,621.1	6,787.4	93.5	93.2	90.46	-4,680.8	540.8	399.0	213.8	185.20	2.155	
11,800.0	6,783.4	11,708.5	6,786.7	95.2	94.8	90.47	-4,768.3	540.8	399.0	210.5	188.51	2.117	
11,811.0	6,783.3	11,719.5	6,786.6	95.4	95.1	90.47	-4,779.3	540.8	399.0	210.1	188.93	2.112	
11,900.0	6,782.6	11,808.5	6,785.9	97.0	96.7	90.48	-4,868.3	540.8	399.0	206.7	192.30	2.075	
11,909.4	6,782.5	11,818.0	6,785.9	97.2	96.9	90.48	-4,877.7	540.8	399.0	206.4	192.66	2.071	
12,000.0	6,781.7	11,908.5	6,785.2	98.9	98.6	90.49	-4,968.2	540.8	399.0	202.9	196.10	2.035	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5J-323 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,007.8	6,781.7	11,916.4	6,785.1	99.1	98.8	90.50	-4,976.1	540.8	399.0	202.6	196.40	2.032	
12,100.0	6,780.9	12,008.5	6,784.4	100.8	100.5	90.51	-5,068.2	540.8	399.0	199.1	199.90	1.996	
12,106.3	6,780.9	12,014.8	6,784.4	100.9	100.6	90.51	-5,074.5	540.8	399.0	198.9	200.14	1.994	
12,200.0	6,780.1	12,108.5	6,783.7	102.7	102.4	90.52	-5,168.2	540.8	399.0	195.3	203.70	1.959	
12,204.7	6,780.0	12,113.2	6,783.6	102.7	102.5	90.52	-5,172.9	540.8	399.0	195.2	203.88	1.957	
12,300.0	6,779.2	12,208.5	6,782.9	104.5	104.3	90.53	-5,268.2	540.8	399.0	191.5	207.50	1.923	
12,303.1	6,779.2	12,211.7	6,782.9	104.6	104.4	90.53	-5,271.4	540.8	399.0	191.4	207.62	1.922	
12,400.0	6,778.4	12,308.5	6,782.1	106.4	106.2	90.54	-5,368.2	540.8	399.0	187.7	211.30	1.889	
12,401.5	6,778.4	12,310.1	6,782.1	106.4	106.2	90.54	-5,369.8	540.8	399.0	187.7	211.36	1.888	
12,500.0	6,777.6	12,408.5	6,781.4	108.3	108.1	90.55	-5,468.2	540.8	399.0	183.9	215.10	1.855	
12,598.4	6,776.7	12,506.9	6,780.6	110.2	110.0	90.56	-5,566.6	540.8	399.0	180.2	218.85	1.823	
12,600.0	6,776.7	12,508.5	6,780.6	110.2	110.0	90.56	-5,568.2	540.8	399.0	180.1	218.91	1.823	
12,696.8	6,775.9	12,605.4	6,779.9	112.0	111.8	90.57	-5,665.1	540.8	399.0	176.5	222.60	1.793	
12,700.0	6,775.9	12,608.5	6,779.9	112.1	111.9	90.57	-5,668.2	540.8	399.0	176.3	222.72	1.792	
12,795.2	6,775.1	12,703.8	6,779.1	113.9	113.7	90.58	-5,763.5	540.8	399.0	172.7	226.34	1.763	
12,800.0	6,775.0	12,708.5	6,779.1	114.0	113.8	90.58	-5,768.2	540.8	399.0	172.5	226.52	1.762	
12,893.7	6,774.3	12,802.2	6,778.4	115.7	115.6	90.59	-5,861.9	540.8	399.1	169.0	230.09	1.734	
12,900.0	6,774.2	12,808.5	6,778.4	115.8	115.7	90.60	-5,868.2	540.8	399.1	168.7	230.33	1.732	
12,992.1	6,773.4	12,900.6	6,777.7	117.6	117.5	90.61	-5,960.3	540.8	399.1	165.2	233.84	1.706	
13,000.0	6,773.4	12,908.5	6,777.6	117.7	117.6	90.61	-5,968.2	540.8	399.1	164.9	234.14	1.704	
13,090.5	6,772.6	12,999.1	6,776.9	119.4	119.3	90.62	-6,058.7	540.8	399.1	161.5	237.59	1.680	
13,100.0	6,772.5	13,008.5	6,776.8	119.6	119.5	90.62	-6,068.2	540.8	399.1	161.1	237.96	1.677	
13,188.9	6,771.8	13,097.5	6,776.2	121.3	121.2	90.63	-6,157.2	540.8	399.1	157.7	241.35	1.653	
13,200.0	6,771.7	13,108.5	6,776.1	121.5	121.4	90.63	-6,168.2	540.8	399.1	157.3	241.77	1.651	
13,287.4	6,771.0	13,195.9	6,775.4	123.2	123.1	90.64	-6,255.6	540.8	399.1	154.0	245.10	1.628	
13,300.0	6,770.9	13,208.5	6,775.3	123.4	123.3	90.64	-6,268.2	540.8	399.1	153.5	245.58	1.625	
13,385.8	6,770.1	13,294.3	6,774.7	125.0	124.9	90.65	-6,354.0	540.8	399.1	150.2	248.85	1.604	
13,400.0	6,770.0	13,308.5	6,774.6	125.3	125.2	90.65	-6,368.2	540.8	399.1	149.7	249.40	1.600	
13,484.2	6,769.3	13,392.8	6,773.9	126.9	126.8	90.66	-6,452.4	540.8	399.1	146.4	252.61	1.580	
13,500.0	6,769.2	13,408.5	6,773.8	127.2	127.1	90.66	-6,468.2	540.8	399.1	145.8	253.21	1.576	
13,582.6	6,768.5	13,491.2	6,773.2	128.8	128.7	90.67	-6,550.9	540.8	399.1	142.7	256.37	1.557	
13,600.0	6,768.3	13,508.5	6,773.0	129.1	129.0	90.67	-6,568.2	540.8	399.1	142.0	257.03	1.553	
13,681.1	6,767.6	13,589.6	6,772.4	130.6	130.6	90.68	-6,649.3	540.8	399.1	138.9	260.12	1.534	
13,700.0	6,767.5	13,608.5	6,772.3	131.0	130.9	90.69	-6,668.2	540.8	399.1	138.2	260.85	1.530	
13,779.5	6,766.8	13,688.0	6,771.7	132.5	132.5	90.70	-6,747.7	540.8	399.1	135.2	263.88	1.512	
13,800.0	6,766.6	13,708.5	6,771.5	132.9	132.8	90.70	-6,768.2	540.8	399.1	134.4	264.66	1.508	
13,877.9	6,766.0	13,786.5	6,770.9	134.4	134.3	90.71	-6,846.1	540.8	399.1	131.4	267.64	1.491 Level 3	
13,900.0	6,765.8	13,808.5	6,770.7	134.8	134.7	90.71	-6,868.2	540.8	399.1	130.6	268.48	1.486 Level 3	
13,976.3	6,765.2	13,884.9	6,770.2	136.2	136.2	90.72	-6,944.5	540.8	399.1	127.7	271.40	1.470 Level 3	
13,995.7	6,765.0	13,904.2	6,770.0	136.6	136.6	90.72	-6,963.8	540.8	399.1	126.9	272.14	1.466 Level 3, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-178.93	-14.9	-0.3	14.9				
98.4	98.4	98.4	98.4	0.1	0.1	-178.93	-14.9	-0.3	14.9	14.8	0.17	87.912	
100.0	100.0	100.0	100.0	0.1	0.1	-178.93	-14.9	-0.3	14.9	14.8	0.17	86.320	
196.8	196.8	196.8	196.8	0.3	0.3	-178.93	-14.9	-0.3	14.9	14.3	0.61	24.554	
200.0	200.0	200.0	200.0	0.3	0.3	-178.93	-14.9	-0.3	14.9	14.3	0.62	23.995	
295.3	295.3	295.3	295.3	0.5	0.5	-178.93	-14.9	-0.3	14.9	13.9	1.05	14.216	
300.0	300.0	300.0	300.0	0.5	0.5	-178.93	-14.9	-0.3	14.9	13.9	1.07	13.934	
393.7	393.7	393.7	393.7	0.7	0.7	-178.93	-14.9	-0.3	14.9	13.4	1.49	10.004	
400.0	400.0	400.0	400.0	0.8	0.8	-178.93	-14.9	-0.3	14.9	13.4	1.52	9.818	
492.1	492.1	492.1	492.1	1.0	1.0	-178.93	-14.9	-0.3	14.9	13.0	1.94	7.717	
500.0	500.0	500.0	500.0	1.0	1.0	-178.93	-14.9	-0.3	14.9	13.0	1.97	7.579	
590.5	590.5	590.5	590.5	1.2	1.2	-178.93	-14.9	-0.3	14.9	12.6	2.38	6.282	
600.0	600.0	600.0	600.0	1.2	1.2	-178.93	-14.9	-0.3	14.9	12.5	2.42	6.171	
689.0	689.0	689.0	689.0	1.4	1.4	-178.93	-14.9	-0.3	14.9	12.1	2.82	5.296	
700.0	700.0	700.0	700.0	1.4	1.4	-178.93	-14.9	-0.3	14.9	12.1	2.87	5.205	
787.4	787.4	787.4	787.4	1.6	1.6	-178.93	-14.9	-0.3	14.9	11.7	3.26	4.578	
800.0	800.0	800.0	800.0	1.7	1.7	-178.93	-14.9	-0.3	14.9	11.6	3.32	4.500	
885.8	885.8	885.8	885.8	1.9	1.9	-178.93	-14.9	-0.3	14.9	11.2	3.71	4.032	
900.0	900.0	900.0	900.0	1.9	1.9	-178.93	-14.9	-0.3	14.9	11.2	3.77	3.963	
984.2	984.2	984.2	984.2	2.1	2.1	-178.93	-14.9	-0.3	14.9	10.8	4.15	3.602	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-178.93	-14.9	-0.3	14.9	10.7	4.22	3.541	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-178.93	-14.9	-0.3	14.9	10.3	4.59	3.254	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-178.93	-14.9	-0.3	14.9	10.3	4.67	3.200	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-178.93	-14.9	-0.3	14.9	9.9	5.03	2.968	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-178.93	-14.9	-0.3	14.9	9.8	5.12	2.919	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-178.93	-14.9	-0.3	14.9	9.5	5.48	2.728	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-178.93	-14.9	-0.3	14.9	9.4	5.57	2.683	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-178.93	-14.9	-0.3	14.9	9.0	5.92	2.524	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-178.93	-14.9	-0.3	14.9	8.9	6.02	2.483	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	-178.93	-14.9	-0.3	14.9	8.6	6.36	2.349	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	-178.93	-14.9	-0.3	14.9	8.5	6.47	2.310	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	-178.93	-14.9	-0.3	14.9	8.1	6.80	2.196	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	-178.93	-14.9	-0.3	14.9	8.0	6.92	2.160	
1,673.2	1,673.2	1,673.2	1,673.2	3.6	3.6	-178.93	-14.9	-0.3	14.9	7.7	7.25	2.062	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	-178.93	-14.9	-0.3	14.9	7.6	7.37	2.028	
1,771.6	1,771.6	1,771.6	1,771.6	3.8	3.8	-178.93	-14.9	-0.3	14.9	7.3	7.69	1.943	
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	-178.93	-14.9	-0.3	14.9	7.1	7.82	1.912	
1,870.1	1,870.1	1,870.1	1,870.1	4.1	4.1	-178.93	-14.9	-0.3	14.9	6.8	8.13	1.838	
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	-178.93	-14.9	-0.3	14.9	6.7	8.26	1.808	
1,968.5	1,968.5	1,968.5	1,968.5	4.3	4.3	-178.93	-14.9	-0.3	14.9	6.4	8.57	1.743	
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	-178.93	-14.9	-0.3	14.9	6.2	8.71	1.714	
2,066.9	2,066.9	2,066.9	2,066.9	4.5	4.5	-178.93	-14.9	-0.3	14.9	5.9	9.02	1.657	
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	-178.93	-14.9	-0.3	14.9	5.8	9.16	1.630 CC	
2,165.3	2,165.3	2,165.3	2,165.3	4.7	4.7	115.23	-14.9	-0.3	15.2	5.8	9.45	1.613	
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	118.52	-14.9	-0.3	15.7	6.1	9.60	1.634	
2,263.8	2,263.7	2,263.7	2,263.7	4.9	4.9	126.98	-14.9	-0.2	17.3	7.4	9.88	1.749	
2,300.0	2,299.8	2,300.0	2,300.0	5.0	5.0	131.63	-14.8	0.1	18.5	8.5	10.03	1.844	
2,362.2	2,361.8	2,362.4	2,362.4	5.1	5.2	138.12	-14.3	1.8	20.9	10.6	10.28	2.030	
2,400.0	2,399.5	2,400.4	2,400.3	5.2	5.2	141.29	-13.7	3.5	22.5	12.0	10.43	2.152	
2,460.6	2,459.7	2,461.3	2,461.1	5.4	5.4	145.39	-12.5	7.1	25.1	14.5	10.67	2.355	
2,500.0	2,498.7	2,500.9	2,500.6	5.5	5.5	147.53	-11.5	10.2	27.0	16.1	10.83	2.489	
2,559.0	2,557.1	2,560.4	2,559.8	5.6	5.6	150.13	-9.7	15.7	29.8	18.7	11.06	2.691	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5M-243 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.0	2,597.5	2,601.7	2,600.8	5.7	5.7	151.59	-8.2	20.2	31.8	20.6	11.22	2.831	
2,657.5	2,654.0	2,659.6	2,658.2	5.9	5.8	153.25	-5.9	27.5	34.6	23.2	11.45	3.024	
2,700.0	2,695.6	2,702.6	2,700.7	6.0	5.9	154.25	-3.9	33.6	36.8	25.2	11.62	3.166	
2,755.9	2,750.2	2,759.0	2,756.4	6.2	6.1	155.31	-0.9	42.6	39.6	27.8	11.84	3.347	
2,800.0	2,793.1	2,803.6	2,800.2	6.3	6.2	155.98	1.6	50.4	41.9	29.9	12.01	3.488	
2,854.3	2,845.6	2,858.6	2,854.1	6.5	6.3	156.65	5.1	60.9	44.7	32.5	12.24	3.654	
2,900.0	2,889.6	2,904.9	2,899.2	6.6	6.5	157.08	8.2	70.6	47.1	34.7	12.42	3.793	
2,952.7	2,940.2	2,958.4	2,951.2	6.8	6.6	157.47	12.1	82.6	49.9	37.2	12.65	3.944	
3,000.0	2,985.3	3,006.3	2,997.6	7.0	6.8	157.72	15.9	94.1	52.4	39.5	12.85	4.077	
3,016.9	3,001.4	3,023.6	3,014.2	7.1	6.9	157.79	17.3	98.4	53.3	40.4	12.92	4.123	
3,051.2	3,033.9	3,058.3	3,047.7	7.3	7.0	157.85	20.2	107.4	54.9	41.8	13.11	4.189	
3,100.0	3,080.2	3,108.0	3,095.2	7.5	7.2	157.60	24.7	120.9	56.6	43.2	13.38	4.226	
3,149.6	3,127.3	3,158.5	3,143.3	7.7	7.4	156.97	29.4	135.5	57.5	43.8	13.69	4.199	
3,200.0	3,175.1	3,209.8	3,192.0	8.0	7.6	155.95	34.5	151.1	57.6	43.6	14.01	4.112	
3,248.0	3,220.7	3,258.7	3,238.0	8.2	7.8	154.57	39.6	166.8	57.0	42.7	14.36	3.971	
3,300.0	3,270.0	3,311.5	3,287.4	8.5	8.1	152.57	45.4	184.5	55.6	40.9	14.77	3.766	
3,346.4	3,314.1	3,358.6	3,331.2	8.7	8.4	150.22	50.8	201.1	53.8	38.6	15.20	3.537	
3,400.0	3,365.0	3,412.8	3,381.2	9.0	8.7	146.68	57.3	221.0	51.0	35.2	15.77	3.232	
3,444.9	3,407.6	3,458.1	3,422.6	9.2	9.0	142.82	63.0	238.3	48.2	31.8	16.35	2.947	
3,500.0	3,459.9	3,513.5	3,473.0	9.5	9.3	136.58	70.2	260.3	44.4	27.2	17.23	2.580	
3,543.3	3,501.0	3,556.9	3,512.0	9.8	9.6	130.16	76.0	278.2	41.5	23.4	18.08	2.293	
3,600.0	3,554.8	3,613.4	3,562.5	10.1	10.0	119.16	83.9	302.3	38.0	18.6	19.39	1.961	
3,641.7	3,594.4	3,654.7	3,599.1	10.3	10.4	109.00	89.9	320.6	36.3	15.9	20.41	1.780	
3,677.1	3,628.0	3,689.6	3,629.8	10.5	10.7	99.22	95.0	336.4	35.8	14.7	21.14	1.693	
3,700.0	3,649.7	3,712.1	3,649.5	10.7	10.8	92.51	98.4	346.8	36.0	14.6	21.50	1.677	
3,740.1	3,687.8	3,751.6	3,683.9	10.9	11.2	81.11	104.4	365.0	37.7	15.9	21.84	1.726	
3,800.0	3,744.7	3,810.3	3,735.2	11.2	11.7	66.61	113.3	392.3	42.6	20.8	21.80	1.956	
3,838.6	3,781.3	3,848.2	3,768.2	11.5	12.0	59.13	119.0	409.9	47.0	25.4	21.62	2.174	
3,900.0	3,839.6	3,908.5	3,820.9	11.8	12.6	49.88	128.2	437.8	55.3	34.0	21.32	2.593	
3,937.0	3,874.7	3,944.8	3,852.6	12.1	12.9	45.57	133.7	454.7	60.8	39.6	21.19	2.869	
4,000.0	3,934.5	4,006.7	3,906.6	12.4	13.5	39.82	143.1	483.4	70.8	49.8	21.07	3.362	
4,035.4	3,968.1	4,041.5	3,937.0	12.6	13.8	37.26	148.3	499.5	76.7	55.7	21.05	3.643	
4,100.0	4,029.4	4,104.9	3,992.3	13.0	14.4	33.48	157.9	528.9	87.7	66.6	21.10	4.157	
4,133.8	4,061.5	4,138.1	4,021.3	13.2	14.7	31.85	163.0	544.3	93.6	72.5	21.17	4.424	
4,200.0	4,124.3	4,203.0	4,078.0	13.6	15.3	29.20	172.8	574.4	105.4	84.0	21.34	4.937	
4,232.3	4,155.0	4,234.7	4,105.7	13.8	15.6	28.11	177.6	589.1	111.1	89.7	21.45	5.182	
4,300.0	4,219.3	4,301.2	4,163.7	14.2	16.3	26.16	187.7	619.9	123.4	101.7	21.70	5.685	
4,330.7	4,248.4	4,331.4	4,190.0	14.4	16.6	25.40	192.2	633.9	129.0	107.1	21.83	5.908	
4,400.0	4,314.2	4,399.4	4,249.4	14.9	17.2	23.89	202.5	665.5	141.7	119.5	22.15	6.397	
4,429.1	4,341.8	4,428.0	4,274.4	15.0	17.5	23.34	206.9	678.7	147.0	124.7	22.29	6.597	
4,500.0	4,409.1	4,497.6	4,335.1	15.5	18.2	22.15	217.4	711.0	160.1	137.5	22.64	7.070	
4,527.5	4,435.3	4,524.6	4,358.7	15.7	18.5	21.74	221.5	723.5	165.2	142.4	22.79	7.249	
4,600.0	4,504.0	4,595.8	4,420.8	16.1	19.2	20.76	232.3	756.5	178.7	155.5	23.18	7.706	
4,626.0	4,528.7	4,621.3	4,443.1	16.3	19.4	20.45	236.2	768.3	183.5	160.2	23.33	7.866	
4,700.0	4,598.9	4,693.9	4,506.5	16.7	20.1	19.64	247.2	802.0	197.3	173.5	23.75	8.307	
4,724.4	4,622.1	4,717.9	4,527.5	16.9	20.4	19.40	250.8	813.2	201.9	178.0	23.89	8.448	
4,800.0	4,693.9	4,792.1	4,592.2	17.4	21.1	18.71	262.0	847.6	216.0	191.7	24.34	8.874	
4,822.8	4,715.5	4,816.0	4,613.1	17.5	21.3	18.51	265.6	858.6	220.2	195.7	24.47	8.998	
4,900.0	4,788.8	4,898.3	4,685.8	18.0	22.0	17.98	277.6	895.3	233.1	208.2	24.95	9.345	
4,921.2	4,809.0	4,921.1	4,706.2	18.1	22.2	17.87	280.8	905.1	236.3	211.2	25.08	9.421	
5,000.0	4,883.7	5,006.1	4,782.6	18.6	22.8	17.58	292.3	940.4	246.7	221.1	25.60	9.637	
5,019.7	4,902.4	5,027.5	4,802.0	18.7	23.0	17.53	295.1	948.9	249.0	223.2	25.74	9.674	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,978.6	5,114.9	4,882.1	19.3	23.6	17.44	306.0	982.3	256.7	230.4	26.29	9.762	
5,118.1	4,995.8	5,134.7	4,900.3	19.4	23.7	17.44	308.4	989.5	258.1	231.7	26.42	9.768	
5,200.0	5,073.6	5,224.3	4,983.7	19.9	24.3	17.54	318.6	1,020.8	263.0	235.9	27.02	9.734	
5,216.5	5,089.2	5,242.5	5,000.7	20.0	24.4	17.57	320.6	1,026.9	263.6	236.5	27.14	9.715	
5,304.2	5,172.4	5,338.7	5,091.5	20.6	25.0	17.87	330.5	1,057.1	265.6	237.8	27.80	9.551	
5,314.9	5,182.7	5,350.5	5,102.7	20.6	25.0	17.91	331.6	1,060.6	265.6	237.7	27.89	9.524	
5,400.0	5,263.9	5,443.9	5,192.0	21.1	25.5	18.27	340.2	1,086.9	265.9	237.4	28.55	9.315	
5,413.4	5,276.7	5,458.6	5,206.1	21.1	25.6	18.33	341.5	1,090.8	266.0	237.3	28.64	9.285	
5,500.0	5,360.3	5,553.8	5,298.0	21.5	26.1	18.67	349.1	1,114.2	265.9	236.7	29.25	9.093	
5,511.8	5,371.7	5,566.7	5,310.5	21.6	26.1	18.71	350.1	1,117.1	265.9	236.6	29.32	9.068	
5,600.0	5,457.5	5,663.6	5,405.0	21.9	26.5	19.04	356.8	1,137.6	265.6	235.7	29.88	8.887	
5,610.2	5,467.5	5,674.8	5,416.0	21.9	26.6	19.07	357.5	1,139.8	265.5	235.6	29.94	8.867	
5,700.0	5,555.6	5,773.3	5,512.8	22.3	26.9	19.38	363.1	1,157.1	264.8	234.4	30.46	8.696	
5,708.6	5,564.1	5,782.8	5,522.2	22.3	26.9	19.41	363.6	1,158.6	264.8	234.3	30.50	8.680	
5,800.0	5,654.2	5,883.1	5,621.3	22.6	27.2	19.69	368.2	1,172.6	263.7	232.8	30.96	8.517	
5,807.1	5,661.2	5,890.8	5,629.0	22.6	27.3	19.72	368.5	1,173.5	263.6	232.6	30.99	8.505	
5,900.0	5,753.4	5,992.7	5,730.2	22.8	27.5	19.99	372.0	1,184.2	262.2	230.8	31.40	8.350	
5,905.5	5,758.8	5,998.7	5,736.2	22.8	27.5	20.00	372.2	1,184.7	262.1	230.7	31.42	8.341	
6,000.0	5,852.9	6,102.2	5,839.5	23.1	27.7	20.25	374.5	1,191.8	260.3	228.5	31.77	8.193	
6,003.9	5,856.8	6,106.5	5,843.8	23.1	27.7	20.26	374.5	1,192.0	260.2	228.4	31.79	8.187	
6,100.0	5,952.7	6,211.7	5,948.8	23.2	27.9	20.50	375.7	1,195.4	258.0	226.0	32.08	8.045	
6,102.3	5,955.1	6,214.3	5,951.4	23.2	27.9	20.50	375.7	1,195.4	258.0	225.9	32.08	8.041	
6,200.0	6,052.7	6,315.7	6,052.8	23.4	28.0	20.80	375.2	1,195.7	256.0	223.7	32.33	7.920	
6,200.8	6,053.5	6,316.5	6,053.6	23.4	28.0	20.80	375.1	1,195.7	256.0	223.7	32.33	7.919	
6,221.1	6,073.8	6,336.8	6,074.0	23.4	28.0	89.48	374.0	1,195.7	255.9	223.5	32.42	7.894	
6,247.3	6,100.0	6,363.0	6,100.0	23.4	28.0	90.00	371.7	1,195.7	255.9	223.3	32.63	7.842	
6,251.1	6,103.8	6,366.8	6,103.8	23.4	28.0	90.09	371.3	1,195.7	255.9	223.3	32.67	7.834	
6,299.2	6,151.8	6,414.3	6,150.8	23.5	28.0	-88.72	364.4	1,195.7	256.0	222.9	33.11	7.732	
6,300.0	6,152.6	6,415.1	6,151.6	23.5	28.0	-88.70	364.3	1,195.7	256.0	222.9	33.12	7.730	
6,350.0	6,202.4	6,464.2	6,199.6	23.5	28.0	-87.47	353.9	1,195.7	256.2	222.6	33.53	7.641	
6,397.6	6,249.3	6,510.7	6,244.2	23.5	28.0	-86.32	341.0	1,195.7	256.5	222.6	33.87	7.571	
6,400.0	6,251.6	6,513.0	6,246.4	23.5	28.0	-86.26	340.3	1,195.7	256.5	222.6	33.89	7.568	
6,450.0	6,300.1	6,561.4	6,291.8	23.5	28.0	-85.08	323.7	1,195.7	256.9	222.7	34.19	7.514	
6,496.0	6,344.0	6,605.7	6,332.4	23.5	27.9	-84.02	305.9	1,195.7	257.3	222.9	34.40	7.481	
6,500.0	6,347.7	6,609.4	6,335.8	23.5	27.9	-83.93	304.2	1,195.7	257.4	223.0	34.41	7.479	
6,550.0	6,394.1	6,657.2	6,378.0	23.5	27.9	-82.81	282.0	1,195.7	258.0	223.4	34.57	7.463	
6,594.5	6,434.2	6,700.0	6,414.6	23.4	27.8	-81.84	259.8	1,195.7	258.6	223.9	34.64	7.464	
6,600.0	6,439.0	6,704.6	6,418.5	23.4	27.8	-81.73	257.2	1,195.7	258.6	224.0	34.64	7.466	
6,650.0	6,482.4	6,751.8	6,456.9	23.4	27.8	-80.70	229.9	1,195.7	259.4	224.7	34.65	7.486	
6,692.9	6,518.1	6,792.0	6,488.3	23.3	27.7	-79.86	204.7	1,195.7	260.0	225.4	34.59	7.516	
6,700.0	6,523.9	6,800.0	6,494.3	23.3	27.7	-79.70	199.5	1,195.7	260.1	225.5	34.58	7.522	
6,750.0	6,563.3	6,845.3	6,527.5	23.3	27.7	-78.79	168.7	1,195.7	260.9	226.5	34.46	7.572	
6,791.3	6,594.2	6,883.7	6,554.1	23.2	27.6	-78.07	141.0	1,195.7	261.6	227.3	34.33	7.620	
6,800.0	6,600.5	6,891.7	6,559.4	23.2	27.6	-77.92	135.0	1,195.7	261.8	227.5	34.30	7.631	
6,850.0	6,635.3	6,937.9	6,589.0	23.2	27.6	-77.11	99.5	1,195.7	262.6	228.5	34.12	7.696	
6,889.7	6,661.1	6,974.5	6,610.7	23.1	27.5	-76.51	70.1	1,195.7	263.2	229.2	33.97	7.748	
6,900.0	6,667.5	6,983.9	6,616.0	23.1	27.5	-76.36	62.3	1,195.7	263.4	229.4	33.93	7.761	
6,950.0	6,696.9	7,029.7	6,640.6	23.1	27.5	-75.68	23.6	1,195.7	264.2	230.4	33.78	7.821	
6,988.2	6,717.5	7,064.6	6,657.5	23.1	27.5	-75.20	-6.8	1,195.7	264.7	231.0	33.69	7.857	
7,000.0	6,723.5	7,075.4	6,662.5	23.1	27.5	-75.06	-16.4	1,195.7	264.9	231.2	33.67	7.867	
7,050.0	6,747.0	7,120.9	6,681.8	23.1	27.5	-74.51	-57.6	1,195.7	265.6	232.0	33.64	7.895	
7,086.6	6,762.3	7,154.1	6,694.2	23.1	27.5	-74.15	-88.4	1,195.7	266.1	232.4	33.70	7.895	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5M-243 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,767.4	7,166.2	6,698.4	23.1	27.5	-74.03	-99.8	1,195.7	266.2	232.5	33.74	7.889	
7,150.0	6,784.6	7,211.5	6,712.2	23.1	27.5	-73.61	-142.9	1,195.7	266.8	232.8	33.94	7.860	
7,185.0	6,794.7	7,243.2	6,720.3	23.1	27.5	-73.37	-173.5	1,195.7	267.1	232.9	34.17	7.816	
7,200.0	6,798.5	7,256.7	6,723.3	23.2	27.5	-73.27	-186.7	1,195.7	267.2	233.0	34.29	7.794	
7,250.0	6,808.9	7,300.0	6,731.3	23.2	27.6	-73.01	-229.2	1,195.7	267.6	232.8	34.78	7.696	
7,283.4	6,814.0	7,331.9	6,735.6	23.3	27.6	-72.86	-260.9	1,195.7	267.8	232.6	35.22	7.605	
7,300.0	6,816.0	7,346.8	6,737.1	23.4	27.7	-72.80	-275.7	1,195.7	267.9	232.5	35.44	7.558	
7,350.0	6,819.5	7,391.8	6,739.7	23.5	27.8	-72.68	-320.6	1,195.7	268.1	231.8	36.26	7.394	
7,381.9	6,820.0	7,420.9	6,740.0	23.7	27.8	-72.64	-349.8	1,195.7	268.1	231.3	36.85	7.276	
7,382.0	6,820.0	7,421.0	6,739.9	23.7	27.8	-72.64	-349.8	1,195.7	268.1	231.3	36.86	7.275	
7,400.0	6,819.8	7,439.0	6,739.8	23.8	27.9	-72.64	-367.8	1,195.7	268.1	231.0	37.16	7.215	
7,480.3	6,819.2	7,519.3	6,739.3	24.2	28.2	-72.66	-448.1	1,195.7	268.1	229.5	38.62	6.942	
7,500.0	6,819.0	7,539.0	6,739.1	24.3	28.3	-72.67	-467.8	1,195.7	268.1	229.1	38.99	6.875	
7,578.7	6,818.4	7,617.8	6,738.6	24.9	28.7	-72.69	-546.6	1,195.7	268.1	227.4	40.61	6.600	
7,600.0	6,818.2	7,639.0	6,738.5	25.0	28.8	-72.70	-567.8	1,195.7	268.1	227.0	41.07	6.526	
7,677.1	6,817.6	7,716.2	6,737.9	25.7	29.3	-72.72	-645.0	1,195.7	268.0	225.2	42.83	6.258	
7,700.0	6,817.4	7,739.0	6,737.8	25.9	29.5	-72.73	-667.8	1,195.7	268.0	224.6	43.37	6.180	
7,775.6	6,816.7	7,814.6	6,737.3	26.6	30.1	-72.75	-743.4	1,195.7	268.0	222.8	45.23	5.925	
7,800.0	6,816.5	7,839.0	6,737.1	26.9	30.3	-72.76	-767.8	1,195.7	268.0	222.1	45.84	5.845	
7,874.0	6,815.9	7,913.0	6,736.6	27.7	30.9	-72.78	-841.8	1,195.7	267.9	220.2	47.78	5.608	
7,900.0	6,815.7	7,939.0	6,736.4	28.0	31.2	-72.78	-867.8	1,195.7	267.9	219.4	48.48	5.527	
7,972.4	6,815.1	8,011.5	6,735.9	28.9	31.9	-72.81	-940.2	1,195.7	267.9	217.4	50.47	5.308	
8,000.0	6,814.9	8,039.0	6,735.7	29.2	32.2	-72.81	-967.8	1,195.7	267.9	216.6	51.25	5.227	
8,070.8	6,814.3	8,109.9	6,735.3	30.1	32.9	-72.83	-1,038.7	1,195.7	267.9	214.6	53.28	5.028	
8,100.0	6,814.1	8,139.0	6,735.1	30.5	33.3	-72.84	-1,067.8	1,195.7	267.8	213.7	54.12	4.949	
8,169.3	6,813.5	8,208.3	6,734.6	31.5	34.1	-72.86	-1,137.1	1,195.7	267.8	211.6	56.18	4.767	
8,200.0	6,813.3	8,239.0	6,734.4	31.9	34.5	-72.87	-1,167.8	1,195.7	267.8	210.7	57.10	4.690	
8,267.7	6,812.7	8,306.7	6,733.9	32.9	35.3	-72.89	-1,235.5	1,195.7	267.8	208.6	59.16	4.526	
8,300.0	6,812.4	8,339.0	6,733.7	33.3	35.7	-72.90	-1,267.8	1,195.7	267.8	207.6	60.16	4.451	
8,366.1	6,811.9	8,405.2	6,733.3	34.3	36.6	-72.92	-1,333.9	1,195.7	267.7	205.5	62.22	4.303	
8,400.0	6,811.6	8,439.0	6,733.0	34.8	37.1	-72.93	-1,367.8	1,195.7	267.7	204.4	63.28	4.230	
8,464.5	6,811.1	8,503.6	6,732.6	35.8	37.9	-72.95	-1,432.4	1,195.7	267.7	202.4	65.33	4.097	
8,500.0	6,810.8	8,539.0	6,732.3	36.3	38.4	-72.96	-1,467.8	1,195.7	267.7	201.2	66.47	4.027	
8,563.0	6,810.3	8,602.0	6,731.9	37.3	39.3	-72.98	-1,530.8	1,195.7	267.6	199.1	68.50	3.907	
8,600.0	6,810.0	8,639.0	6,731.7	37.9	39.9	-72.99	-1,567.8	1,195.7	267.6	197.9	69.71	3.839	
8,661.4	6,809.5	8,700.4	6,731.2	38.9	40.8	-73.01	-1,629.2	1,195.7	267.6	195.9	71.72	3.731	
8,700.0	6,809.1	8,739.0	6,731.0	39.5	41.4	-73.02	-1,667.8	1,195.7	267.6	194.6	72.99	3.666	
8,759.8	6,808.6	8,798.9	6,730.6	40.5	42.3	-73.04	-1,727.6	1,195.7	267.6	192.6	74.98	3.569	
8,800.0	6,808.3	8,839.0	6,730.3	41.1	42.9	-73.05	-1,767.8	1,195.7	267.5	191.2	76.32	3.506	
8,858.2	6,807.8	8,897.3	6,729.9	42.1	43.8	-73.06	-1,826.1	1,195.7	267.5	189.3	78.27	3.418	
8,900.0	6,807.5	8,939.0	6,729.6	42.8	44.4	-73.08	-1,867.8	1,195.7	267.5	187.8	79.68	3.357	
8,956.7	6,807.0	8,995.7	6,729.2	43.7	45.3	-73.09	-1,924.5	1,195.7	267.5	185.9	81.59	3.278	
9,000.0	6,806.7	9,039.0	6,728.9	44.4	46.0	-73.11	-1,967.8	1,195.7	267.5	184.4	83.07	3.220	
9,055.1	6,806.2	9,094.1	6,728.6	45.4	46.9	-73.12	-2,022.9	1,195.7	267.4	182.5	84.95	3.148	
9,100.0	6,805.8	9,139.0	6,728.3	46.1	47.6	-73.14	-2,067.8	1,195.7	267.4	180.9	86.48	3.092	
9,153.5	6,805.4	9,192.6	6,727.9	47.0	48.5	-73.15	-2,121.3	1,195.7	267.4	179.1	88.32	3.028	
9,200.0	6,805.0	9,239.0	6,727.6	47.8	49.2	-73.17	-2,167.8	1,195.7	267.4	177.5	89.92	2.973	
9,251.9	6,804.6	9,291.0	6,727.2	48.7	50.1	-73.18	-2,219.7	1,195.7	267.4	175.6	91.72	2.915	
9,300.0	6,804.2	9,339.0	6,726.9	49.6	50.9	-73.20	-2,267.8	1,195.7	267.3	174.0	93.39	2.863	
9,350.4	6,803.8	9,389.4	6,726.6	50.4	51.7	-73.21	-2,318.2	1,195.7	267.3	172.2	95.14	2.810	
9,400.0	6,803.4	9,439.0	6,726.2	51.3	52.6	-73.23	-2,367.8	1,195.7	267.3	170.4	96.87	2.759	
9,448.8	6,802.9	9,487.8	6,725.9	52.1	53.4	-73.24	-2,416.6	1,195.7	267.3	168.7	98.57	2.711	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EHRLICH 5M-243 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,802.5	9,539.0	6,725.5	53.0	54.3	-73.26	-2,467.8	1,195.7	267.3	166.9	100.37	2.663	
9,547.2	6,802.1	9,586.3	6,725.2	53.9	55.1	-73.27	-2,515.0	1,195.7	267.2	165.2	102.03	2.619	
9,600.0	6,801.7	9,639.0	6,724.9	54.8	56.0	-73.29	-2,567.8	1,195.7	267.2	163.3	103.88	2.572	
9,645.6	6,801.3	9,684.7	6,724.5	55.6	56.8	-73.30	-2,613.4	1,195.7	267.2	161.7	105.49	2.533	
9,700.0	6,800.9	9,739.0	6,724.2	56.6	57.7	-73.32	-2,667.8	1,195.7	267.2	159.8	107.41	2.487	
9,744.1	6,800.5	9,783.1	6,723.9	57.4	58.4	-73.33	-2,711.9	1,195.7	267.1	158.2	108.97	2.451	
9,800.0	6,800.0	9,839.0	6,723.5	58.4	59.4	-73.35	-2,767.8	1,195.7	267.1	156.2	110.96	2.407	
9,842.5	6,799.7	9,881.5	6,723.2	59.1	60.2	-73.36	-2,810.3	1,195.7	267.1	154.6	112.47	2.375	
9,900.0	6,799.2	9,939.0	6,722.8	60.2	61.2	-73.38	-2,867.8	1,195.7	267.1	152.6	114.51	2.332	
9,940.9	6,798.9	9,980.0	6,722.5	60.9	61.9	-73.39	-2,908.7	1,195.7	267.1	151.1	115.97	2.303	
10,000.0	6,798.4	10,039.0	6,722.1	62.0	62.9	-73.41	-2,967.8	1,195.7	267.0	149.0	118.08	2.262	
10,039.3	6,798.1	10,078.4	6,721.9	62.7	63.6	-73.42	-3,007.1	1,195.7	267.0	147.5	119.48	2.235	
10,100.0	6,797.6	10,139.0	6,721.4	63.8	64.7	-73.44	-3,067.8	1,195.7	267.0	145.3	121.65	2.195	
10,137.8	6,797.2	10,176.8	6,721.2	64.4	65.3	-73.45	-3,105.5	1,195.7	267.0	144.0	123.01	2.170	
10,200.0	6,796.7	10,239.0	6,720.8	65.6	66.4	-73.47	-3,167.8	1,195.7	267.0	141.7	125.24	2.132	
10,236.2	6,796.4	10,275.2	6,720.5	66.2	67.1	-73.48	-3,204.0	1,195.7	266.9	140.4	126.54	2.110	
10,300.0	6,795.9	10,339.0	6,720.1	67.4	68.2	-73.50	-3,267.8	1,195.7	266.9	138.1	128.83	2.072	
10,334.6	6,795.6	10,373.7	6,719.9	68.0	68.8	-73.51	-3,302.4	1,195.7	266.9	136.8	130.08	2.052	
10,400.0	6,795.1	10,439.0	6,719.4	69.2	70.0	-73.53	-3,367.8	1,195.7	266.9	134.4	132.44	2.015	
10,433.0	6,794.8	10,472.1	6,719.2	69.8	70.6	-73.54	-3,400.8	1,195.7	266.9	133.2	133.63	1.997	
10,500.0	6,794.2	10,539.0	6,718.7	71.0	71.8	-73.56	-3,467.8	1,195.7	266.8	130.8	136.05	1.961	
10,531.5	6,794.0	10,570.5	6,718.5	71.6	72.4	-73.57	-3,499.2	1,195.7	266.8	129.6	137.19	1.945	
10,600.0	6,793.4	10,639.0	6,718.0	72.9	73.6	-73.59	-3,567.8	1,195.7	266.8	127.1	139.66	1.910	
10,629.9	6,793.2	10,668.9	6,717.8	73.4	74.2	-73.60	-3,597.7	1,195.7	266.8	126.0	140.75	1.895	
10,700.0	6,792.6	10,739.0	6,717.4	74.7	75.4	-73.62	-3,667.8	1,195.7	266.7	123.5	143.29	1.862	
10,728.3	6,792.3	10,767.4	6,717.2	75.2	75.9	-73.63	-3,696.1	1,195.7	266.7	122.4	144.32	1.848	
10,800.0	6,791.7	10,839.0	6,716.7	76.6	77.2	-73.65	-3,767.8	1,195.7	266.7	119.8	146.92	1.815	
10,826.7	6,791.5	10,865.8	6,716.5	77.1	77.7	-73.66	-3,794.5	1,195.7	266.7	118.8	147.89	1.803	
10,900.0	6,790.9	10,939.0	6,716.0	78.4	79.1	-73.69	-3,867.8	1,195.7	266.7	116.1	150.55	1.771	
10,925.2	6,790.7	10,964.2	6,715.8	78.9	79.5	-73.69	-3,892.9	1,195.7	266.6	115.2	151.47	1.760	
11,000.0	6,790.1	11,039.0	6,715.3	80.3	80.9	-73.72	-3,967.7	1,195.7	266.6	112.4	154.19	1.729	
11,023.6	6,789.9	11,062.6	6,715.2	80.7	81.3	-73.72	-3,991.3	1,195.7	266.6	111.6	155.05	1.719	
11,100.0	6,789.2	11,139.0	6,714.6	82.1	82.7	-73.75	-4,067.7	1,195.7	266.6	108.7	157.84	1.689	
11,122.0	6,789.1	11,161.1	6,714.5	82.5	83.1	-73.75	-4,089.8	1,195.7	266.6	107.9	158.64	1.680	
11,200.0	6,788.4	11,239.0	6,714.0	84.0	84.5	-73.78	-4,167.7	1,195.7	266.5	105.0	161.49	1.650	
11,220.4	6,788.2	11,259.5	6,713.8	84.3	84.9	-73.79	-4,188.2	1,195.7	266.5	104.3	162.24	1.643	
11,300.0	6,787.6	11,339.0	6,713.3	85.8	86.4	-73.81	-4,267.7	1,195.7	266.5	101.3	165.15	1.614	
11,318.9	6,787.4	11,357.9	6,713.2	86.2	86.7	-73.82	-4,286.6	1,195.7	266.5	100.6	165.84	1.607	
11,400.0	6,786.7	11,439.0	6,712.6	87.7	88.2	-73.84	-4,367.7	1,195.7	266.4	97.6	168.81	1.578	
11,417.3	6,786.6	11,456.3	6,712.5	88.0	88.5	-73.85	-4,385.0	1,195.7	266.4	97.0	169.44	1.572	
11,500.0	6,785.9	11,539.0	6,711.9	89.5	90.0	-73.87	-4,467.7	1,195.7	266.4	93.9	172.47	1.545	
11,515.7	6,785.8	11,554.8	6,711.8	89.8	90.3	-73.88	-4,483.5	1,195.7	266.4	93.4	173.05	1.539	
11,600.0	6,785.1	11,639.0	6,711.2	91.4	91.9	-73.91	-4,567.7	1,195.7	266.4	90.2	176.14	1.512	
11,614.1	6,785.0	11,653.2	6,711.1	91.7	92.2	-73.91	-4,581.9	1,195.7	266.4	89.7	176.66	1.508	
11,700.0	6,784.2	11,739.0	6,710.6	93.3	93.7	-73.94	-4,667.7	1,195.7	266.3	86.5	179.81	1.481 Level 3	
11,712.6	6,784.1	11,751.6	6,710.5	93.5	94.0	-73.94	-4,680.3	1,195.7	266.3	86.0	180.27	1.477 Level 3	
11,800.0	6,783.4	11,839.0	6,709.9	95.2	95.6	-73.97	-4,767.7	1,195.7	266.3	82.8	183.48	1.451 Level 3	
11,811.0	6,783.3	11,850.0	6,709.8	95.4	95.8	-73.97	-4,778.7	1,195.7	266.3	82.4	183.89	1.448 Level 3	
11,900.0	6,782.6	11,939.0	6,709.2	97.0	97.5	-74.00	-4,867.7	1,195.7	266.2	79.1	187.16	1.422 Level 3	
11,909.4	6,782.5	11,948.5	6,709.1	97.2	97.6	-74.00	-4,877.2	1,195.7	266.2	78.7	187.51	1.420 Level 3	
12,000.0	6,781.7	12,039.0	6,708.5	98.9	99.3	-74.03	-4,967.7	1,195.7	266.2	75.3	190.85	1.395 Level 3	
12,007.8	6,781.7	12,046.9	6,708.5	99.1	99.5	-74.04	-4,975.6	1,195.7	266.2	75.1	191.13	1.393 Level 3	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	12,139.0	6,707.8	100.8	101.2	-74.07	-5,067.7	1,195.7	266.1	71.6	194.53	1.368	Level 3
12,106.3	6,780.9	12,145.3	6,707.8	100.9	101.3	-74.07	-5,074.0	1,195.7	266.1	71.4	194.76	1.367	Level 3
12,200.0	6,780.1	12,239.0	6,707.2	102.7	103.0	-74.10	-5,167.7	1,195.7	266.1	67.9	198.22	1.342	Level 3
12,204.7	6,780.0	12,243.7	6,707.1	102.7	103.1	-74.10	-5,172.4	1,195.7	266.1	67.7	198.39	1.341	Level 3
12,300.0	6,779.2	12,339.0	6,706.5	104.5	104.9	-74.13	-5,267.7	1,195.7	266.1	64.2	201.91	1.318	Level 3
12,303.1	6,779.2	12,342.2	6,706.5	104.6	105.0	-74.13	-5,270.8	1,195.7	266.1	64.0	202.03	1.317	Level 3
12,400.0	6,778.4	12,439.0	6,705.8	106.4	106.8	-74.16	-5,367.7	1,195.7	266.0	60.4	205.60	1.294	Level 3
12,401.5	6,778.4	12,440.6	6,705.8	106.4	106.8	-74.16	-5,369.3	1,195.7	266.0	60.4	205.66	1.293	Level 3
12,500.0	6,777.6	12,539.0	6,705.1	108.3	108.6	-74.19	-5,467.7	1,195.7	266.0	56.7	209.30	1.271	Level 3
12,598.4	6,776.7	12,637.4	6,704.4	110.2	110.5	-74.23	-5,566.1	1,195.7	265.9	53.0	212.94	1.249	Level 2
12,600.0	6,776.7	12,639.0	6,704.4	110.2	110.5	-74.23	-5,567.7	1,195.7	265.9	52.9	213.00	1.249	Level 2
12,696.8	6,775.9	12,735.9	6,703.8	112.0	112.3	-74.26	-5,664.5	1,195.7	265.9	49.3	216.59	1.228	Level 2
12,700.0	6,775.9	12,739.0	6,703.8	112.1	112.4	-74.26	-5,667.7	1,195.7	265.9	49.2	216.70	1.227	Level 2
12,795.2	6,775.1	12,834.3	6,703.1	113.9	114.2	-74.29	-5,763.0	1,195.7	265.9	45.6	220.23	1.207	Level 2
12,800.0	6,775.0	12,839.0	6,703.1	114.0	114.2	-74.29	-5,767.7	1,195.7	265.9	45.4	220.41	1.206	Level 2
12,893.7	6,774.3	12,932.7	6,702.4	115.7	116.0	-74.32	-5,861.4	1,195.7	265.8	41.9	223.88	1.187	Level 2
12,900.0	6,774.2	12,939.0	6,702.4	115.8	116.1	-74.32	-5,867.7	1,195.7	265.8	41.7	224.11	1.186	Level 2
12,992.1	6,773.4	13,031.1	6,701.8	117.6	117.8	-74.35	-5,959.8	1,195.7	265.8	38.2	227.53	1.168	Level 2
13,000.0	6,773.4	13,039.0	6,701.7	117.7	118.0	-74.36	-5,967.7	1,195.7	265.8	37.9	227.82	1.167	Level 2
13,090.5	6,772.6	13,129.6	6,701.1	119.4	119.7	-74.39	-6,058.2	1,195.7	265.7	34.5	231.18	1.149	Level 2
13,100.0	6,772.5	13,139.0	6,701.0	119.6	119.9	-74.39	-6,067.7	1,195.7	265.7	34.2	231.54	1.148	Level 2
13,188.9	6,771.8	13,228.0	6,700.4	121.3	121.5	-74.42	-6,156.6	1,195.7	265.7	30.8	234.84	1.131	Level 2
13,200.0	6,771.7	13,239.0	6,700.3	121.5	121.7	-74.42	-6,167.7	1,195.7	265.7	30.4	235.25	1.129	Level 2
13,287.4	6,771.0	13,326.4	6,699.8	123.2	123.4	-74.45	-6,255.1	1,195.7	265.6	27.1	238.50	1.114	Level 2
13,300.0	6,770.9	13,339.0	6,699.7	123.4	123.6	-74.46	-6,267.7	1,195.7	265.6	26.7	238.97	1.112	Level 2
13,385.8	6,770.1	13,424.8	6,699.1	125.0	125.2	-74.48	-6,353.5	1,195.7	265.6	23.4	242.16	1.097	Level 2
13,400.0	6,770.0	13,439.0	6,699.0	125.3	125.5	-74.49	-6,367.7	1,195.7	265.6	22.9	242.68	1.094	Level 2
13,484.2	6,769.3	13,523.3	6,698.4	126.9	127.1	-74.52	-6,451.9	1,195.7	265.6	19.7	245.82	1.080	Level 2
13,500.0	6,769.2	13,539.0	6,698.3	127.2	127.4	-74.52	-6,467.7	1,195.7	265.6	19.1	246.40	1.078	Level 2
13,582.6	6,768.5	13,621.7	6,697.7	128.8	129.0	-74.55	-6,550.3	1,195.7	265.5	16.0	249.48	1.064	Level 2
13,600.0	6,768.3	13,639.0	6,697.6	129.1	129.3	-74.56	-6,567.7	1,195.7	265.5	15.4	250.13	1.061	Level 2
13,681.1	6,767.6	13,720.1	6,697.1	130.6	130.8	-74.58	-6,648.8	1,195.7	265.5	12.3	253.15	1.049	Level 2
13,700.0	6,767.5	13,739.0	6,696.9	131.0	131.2	-74.59	-6,667.7	1,195.7	265.5	11.6	253.85	1.046	Level 2
13,779.5	6,766.8	13,818.5	6,696.4	132.5	132.7	-74.62	-6,747.2	1,195.7	265.4	8.6	256.81	1.034	Level 2
13,800.0	6,766.6	13,839.0	6,696.3	132.9	133.0	-74.62	-6,767.7	1,195.7	265.4	7.8	257.58	1.030	Level 2
13,877.9	6,766.0	13,917.0	6,695.7	134.4	134.5	-74.65	-6,845.6	1,195.7	265.4	4.9	260.48	1.019	Level 2
13,900.0	6,765.8	13,939.0	6,695.6	134.8	134.9	-74.66	-6,867.7	1,195.7	265.4	4.1	261.31	1.016	Level 2
13,976.3	6,765.2	14,015.7	6,695.1	136.2	136.4	-74.69	-6,944.3	1,195.7	265.3	1.2	264.16	1.004	Level 2
13,995.3	6,765.0	14,034.1	6,695.0	136.6	136.7	-74.70	-6,962.7	1,195.7	265.3	0.4	264.87	1.002	Level 2
13,995.7	6,765.0	14,034.1	6,695.0	136.6	136.7	-74.70	-6,962.7	1,195.7	265.3	0.4	264.87	1.002	Level 2, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 510-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-175.74	-6,919.0	-516.0	6,938.6				
98.4	98.4	31.4	31.4	0.1	0.0	-175.74	-6,919.0	-516.0	6,938.2	6,938.1	0.11	N/A	
100.0	100.0	33.1	33.1	0.1	0.0	-175.74	-6,919.0	-516.0	6,938.2	6,938.1	0.11	N/A	
196.8	196.8	140.1	140.1	0.3	0.1	-175.74	-6,918.9	-516.0	6,938.1	6,937.7	0.42	N/A	
200.0	200.0	143.6	143.6	0.3	0.1	-175.74	-6,918.9	-516.0	6,938.1	6,937.7	0.43	N/A	
295.3	295.3	248.9	248.9	0.5	0.2	-175.73	-6,918.6	-516.0	6,937.9	6,937.1	0.74	9,393.435	
300.0	300.0	254.1	254.1	0.5	0.2	-175.73	-6,918.6	-516.0	6,937.8	6,937.1	0.75	9,205.332	
393.7	393.7	357.6	357.6	0.7	0.3	-175.73	-6,918.1	-516.0	6,937.4	6,936.4	1.05	6,588.690	
400.0	400.0	364.6	364.6	0.8	0.3	-175.73	-6,918.1	-516.0	6,937.4	6,936.3	1.07	6,465.117	
492.1	492.1	466.4	466.4	1.0	0.4	-175.73	-6,917.5	-515.9	6,936.9	6,935.5	1.37	5,073.503	
500.0	500.0	475.1	475.1	1.0	0.4	-175.73	-6,917.5	-515.9	6,936.8	6,935.4	1.39	4,981.827	
590.5	590.5	595.5	595.5	1.2	0.5	-175.73	-6,916.5	-515.9	6,936.1	6,934.4	1.68	4,116.711	
600.0	600.0	609.3	609.2	1.2	0.5	-175.73	-6,916.3	-515.8	6,936.0	6,934.3	1.72	4,043.008	
689.0	689.0	701.6	701.6	1.4	0.6	-175.74	-6,915.2	-515.5	6,934.9	6,932.9	1.97	3,521.945	
700.0	700.0	709.8	709.8	1.4	0.6	-175.74	-6,915.1	-515.4	6,934.7	6,932.7	2.00	3,472.040	
787.4	787.4	774.7	774.7	1.6	0.6	-175.74	-6,914.5	-514.7	6,933.9	6,931.6	2.22	3,121.737	
800.0	800.0	784.1	784.1	1.7	0.6	-175.74	-6,914.4	-514.5	6,933.8	6,931.5	2.25	3,077.027	
885.8	885.8	820.0	820.0	1.9	0.6	-175.75	-6,914.2	-513.9	6,933.3	6,930.8	2.46	2,816.947	
900.0	900.0	852.8	852.8	1.9	0.6	-175.76	-6,914.1	-513.1	6,933.2	6,930.7	2.51	2,761.628	
962.3	962.3	892.4	892.3	2.0	0.7	-175.76	-6,914.2	-512.1	6,933.1	6,930.4	2.67	2,595.177	
984.2	984.2	906.3	906.2	2.1	0.7	-175.77	-6,914.2	-511.7	6,933.1	6,930.4	2.73	2,541.223	
1,000.0	1,000.0	916.3	916.2	2.1	0.7	-175.77	-6,914.2	-511.3	6,933.1	6,930.4	2.77	2,503.886	
1,082.7	1,082.7	977.0	976.9	2.3	0.7	-175.79	-6,914.7	-509.2	6,933.5	6,930.5	2.99	2,321.306	
1,100.0	1,100.0	984.0	983.9	2.3	0.7	-175.79	-6,914.7	-508.9	6,933.6	6,930.6	3.03	2,288.811	
1,181.1	1,181.1	1,114.7	1,114.5	2.5	0.8	-175.84	-6,915.5	-503.6	6,933.8	6,930.6	3.28	2,115.588	
1,200.0	1,200.0	1,133.0	1,132.8	2.6	0.8	-175.84	-6,915.6	-502.8	6,933.8	6,930.5	3.33	2,082.748	
1,212.2	1,212.2	1,133.0	1,132.8	2.6	0.8	-175.84	-6,915.6	-502.8	6,933.8	6,930.5	3.36	2,065.768	
1,279.5	1,279.5	1,188.0	1,187.7	2.7	0.8	-175.86	-6,915.8	-500.2	6,933.9	6,930.4	3.53	1,961.862	
1,300.0	1,300.0	1,200.9	1,200.6	2.8	0.8	-175.87	-6,915.9	-499.6	6,934.0	6,930.4	3.59	1,933.312	
1,377.9	1,377.9	1,250.1	1,249.7	3.0	0.8	-175.89	-6,916.4	-497.0	6,934.5	6,930.7	3.79	1,831.887	
1,400.0	1,400.0	1,290.0	1,289.5	3.0	0.9	-175.91	-6,917.0	-494.7	6,934.7	6,930.9	3.85	1,799.279	
1,476.4	1,476.4	1,318.5	1,318.0	3.2	0.9	-175.92	-6,917.4	-493.0	6,935.5	6,931.5	4.04	1,716.867	
1,500.0	1,500.0	1,337.6	1,337.1	3.2	0.9	-175.93	-6,917.8	-491.9	6,935.8	6,931.7	4.10	1,690.830	
1,574.8	1,574.8	1,398.3	1,397.6	3.4	0.9	-175.96	-6,918.9	-488.1	6,936.9	6,932.6	4.30	1,613.406	
1,600.0	1,600.0	1,418.7	1,418.0	3.5	0.9	-175.98	-6,919.3	-486.8	6,937.3	6,933.0	4.37	1,588.910	
1,673.2	1,673.2	1,495.0	1,494.1	3.6	1.0	-176.02	-6,920.9	-481.7	6,938.5	6,934.0	4.56	1,521.894	
1,700.0	1,700.0	1,529.0	1,528.0	3.7	1.0	-176.04	-6,921.6	-479.5	6,938.9	6,934.3	4.63	1,498.808	
1,771.6	1,771.6	1,596.6	1,595.4	3.8	1.0	-176.08	-6,922.9	-474.9	6,940.0	6,935.2	4.81	1,442.340	
1,800.0	1,800.0	1,621.9	1,620.7	3.9	1.0	-176.09	-6,923.4	-473.1	6,940.4	6,935.6	4.88	1,421.280	
1,870.1	1,870.1	1,706.6	1,705.1	4.1	1.0	-176.14	-6,925.1	-466.8	6,941.5	6,936.4	5.07	1,369.718	
1,900.0	1,900.0	1,729.0	1,727.4	4.1	1.0	-176.16	-6,925.5	-465.0	6,941.9	6,936.8	5.14	1,349.961	
1,968.5	1,968.5	1,760.6	1,758.9	4.3	1.0	-176.18	-6,926.2	-462.5	6,943.1	6,937.8	5.31	1,308.171	
2,000.0	2,000.0	1,772.8	1,771.1	4.4	1.0	-176.19	-6,926.6	-461.5	6,943.7	6,938.4	5.38	1,290.037	
2,066.9	2,066.9	1,822.0	1,820.1	4.5	1.1	-176.22	-6,928.2	-457.3	6,945.6	6,940.0	5.55	1,251.378	
2,100.0	2,100.0	1,822.0	1,820.1	4.6	1.1	-176.22	-6,928.2	-457.3	6,945.6	6,940.9	5.62	1,235.002	
2,165.3	2,165.3	1,847.3	1,845.2	4.7	1.1	115.29	-6,929.3	-455.0	6,949.0	6,943.3	5.73	1,213.321	
2,200.0	2,200.0	1,869.8	1,867.7	4.8	1.1	115.25	-6,930.2	-453.1	6,950.7	6,944.9	5.81	1,196.558	
2,263.8	2,263.7	1,915.0	1,912.6	4.9	1.1	115.17	-6,932.3	-449.2	6,954.5	6,948.5	5.96	1,167.339	
2,300.0	2,299.8	1,915.0	1,912.6	5.0	1.1	115.12	-6,932.3	-449.2	6,957.0	6,951.0	6.04	1,152.722	
2,362.2	2,361.8	1,947.1	1,944.6	5.1	1.1	115.02	-6,933.9	-446.4	6,962.1	6,955.9	6.18	1,126.098	
2,400.0	2,399.5	1,960.2	1,957.6	5.2	1.1	114.96	-6,934.7	-445.3	6,965.6	6,959.3	6.27	1,110.887	
2,460.6	2,459.7	2,009.0	2,006.1	5.4	1.1	114.85	-6,937.9	-440.5	6,972.1	6,965.7	6.43	1,084.804	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST DD PJ #8I - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 510-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,500.0	2,498.7	2,009.0	2,006.1	5.5	1.1	114.76	-6,937.9	-440.5	6,976.6	6,970.1	6.52	1,070.206		
2,559.0	2,557.1	2,009.0	2,006.1	5.6	1.1	114.62	-6,937.9	-440.5	6,984.2	6,977.5	6.67	1,047.638		
2,600.0	2,597.5	2,047.3	2,044.0	5.7	1.1	114.53	-6,940.8	-436.5	6,989.8	6,983.1	6.78	1,030.629		
2,657.5	2,654.0	2,084.9	2,081.4	5.9	1.2	114.39	-6,943.7	-432.5	6,998.4	6,991.4	6.95	1,006.605		
2,700.0	2,695.6	2,104.0	2,100.2	6.0	1.2	114.28	-6,945.2	-430.4	7,005.1	6,998.0	7.08	990.059		
2,755.9	2,750.2	2,134.3	2,130.2	6.2	1.2	114.13	-6,947.7	-427.0	7,014.5	7,007.2	7.26	966.844		
2,800.0	2,793.1	2,153.5	2,149.2	6.3	1.2	114.00	-6,949.4	-424.9	7,022.4	7,015.0	7.40	949.503		
2,854.3	2,845.6	2,198.0	2,193.3	6.5	1.2	113.85	-6,953.6	-420.0	7,032.7	7,025.1	7.60	925.766		
2,900.0	2,889.6	2,198.0	2,193.3	6.6	1.2	113.68	-6,953.6	-420.0	7,041.8	7,034.1	7.75	908.225		
2,952.7	2,940.2	2,198.0	2,193.3	6.8	1.2	113.47	-6,953.6	-420.0	7,053.0	7,045.1	7.96	886.224		
3,000.0	2,985.3	2,235.4	2,230.3	7.0	1.2	113.32	-6,957.3	-415.9	7,063.5	7,055.3	8.16	865.824		
3,016.9	3,001.4	2,241.9	2,236.7	7.1	1.2	113.26	-6,958.0	-415.2	7,067.3	7,059.1	8.23	858.528		
3,051.2	3,033.9	2,255.0	2,249.7	7.3	1.2	113.28	-6,959.4	-413.8	7,075.3	7,066.9	8.38	843.884		
3,100.0	3,080.2	2,292.0	2,286.2	7.5	1.2	113.33	-6,963.6	-409.7	7,086.9	7,078.3	8.61	823.190		
3,149.6	3,127.3	2,295.5	2,289.6	7.7	1.2	113.33	-6,964.0	-409.3	7,098.7	7,089.9	8.83	803.505		
3,200.0	3,175.1	2,385.0	2,377.9	8.0	1.3	113.46	-6,974.3	-398.4	7,110.7	7,101.6	9.09	782.288		
3,248.0	3,220.7	2,415.1	2,407.5	8.2	1.3	113.49	-6,977.7	-394.4	7,122.0	7,112.7	9.33	763.700		
3,300.0	3,270.0	2,442.0	2,434.0	8.5	1.3	113.53	-6,980.8	-390.7	7,134.5	7,124.9	9.58	744.757		
3,346.4	3,314.1	2,479.0	2,470.3	8.7	1.3	113.57	-6,985.3	-385.4	7,145.8	7,136.0	9.82	727.785		
3,400.0	3,365.0	2,479.0	2,470.3	9.0	1.3	113.57	-6,985.3	-385.4	7,159.0	7,148.9	10.08	710.043		
3,444.9	3,407.6	2,479.0	2,470.3	9.2	1.3	113.57	-6,985.3	-385.4	7,170.3	7,160.0	10.31	695.433		
3,500.0	3,459.9	2,525.5	2,515.9	9.5	1.3	113.62	-6,991.3	-378.5	7,184.2	7,173.6	10.61	677.041		
3,543.3	3,501.0	2,541.2	2,531.2	9.8	1.3	113.64	-6,993.4	-376.1	7,195.4	7,184.5	10.84	663.552		
3,600.0	3,554.8	2,573.0	2,562.3	10.1	1.4	113.67	-6,997.9	-371.1	7,210.3	7,199.1	11.15	646.476		
3,641.7	3,594.4	2,573.0	2,562.3	10.3	1.4	113.67	-6,997.9	-371.1	7,221.4	7,210.0	11.38	634.829		
3,700.0	3,649.7	2,610.7	2,599.1	10.7	1.4	113.71	-7,003.5	-364.9	7,237.1	7,225.4	11.70	618.424		
3,740.1	3,687.8	2,632.8	2,620.7	10.9	1.4	113.73	-7,006.9	-361.2	7,248.0	7,236.1	11.93	607.550		
3,800.0	3,744.7	2,668.0	2,654.9	11.2	1.4	113.76	-7,012.3	-355.2	7,264.5	7,252.2	12.27	592.059		
3,838.6	3,781.3	2,729.3	2,714.5	11.5	1.4	113.81	-7,021.8	-344.8	7,275.1	7,262.6	12.50	582.007		
3,900.0	3,839.6	2,791.5	2,775.2	11.8	1.5	113.87	-7,031.2	-334.6	7,291.8	7,278.9	12.85	567.241		
3,937.0	3,874.7	2,818.0	2,801.0	12.1	1.5	113.90	-7,035.2	-330.3	7,301.9	7,288.8	13.07	558.776		
4,000.0	3,934.5	2,869.5	2,851.2	12.4	1.5	113.94	-7,043.1	-321.9	7,319.2	7,305.8	13.43	544.901		
4,035.4	3,968.1	2,911.4	2,892.0	12.6	1.5	113.98	-7,049.5	-314.8	7,328.9	7,315.3	13.64	537.162		
4,100.0	4,029.4	3,030.3	3,007.8	13.0	1.6	114.09	-7,067.4	-294.5	7,346.5	7,332.5	14.04	523.347		
4,133.8	4,061.5	3,231.0	3,204.0	13.2	1.6	114.28	-7,094.4	-262.2	7,355.4	7,341.1	14.27	515.513		
4,200.0	4,124.3	3,270.0	3,242.3	13.6	1.6	114.31	-7,099.2	-256.0	7,371.7	7,357.0	14.65	503.071		
4,232.3	4,155.0	3,287.1	3,259.0	13.8	1.7	114.33	-7,101.3	-253.2	7,379.7	7,364.9	14.84	497.210		
4,300.0	4,219.3	3,326.0	3,297.0	14.2	1.7	114.37	-7,106.4	-246.7	7,396.8	7,381.5	15.24	485.373		
4,330.7	4,248.4	3,394.0	3,363.5	14.4	1.7	114.43	-7,115.1	-235.5	7,404.5	7,389.1	15.44	479.706		
4,400.0	4,314.2	3,442.7	3,411.2	14.9	1.7	114.48	-7,121.2	-227.8	7,421.8	7,405.9	15.85	468.300		
4,429.1	4,341.8	3,455.3	3,423.5	15.0	1.7	114.49	-7,122.9	-225.8	7,429.1	7,413.1	16.02	463.723		
4,500.0	4,409.1	3,509.0	3,476.1	15.5	1.7	114.54	-7,130.1	-217.3	7,447.3	7,430.9	16.45	452.811		
4,527.5	4,435.3	3,509.0	3,476.1	15.7	1.7	114.54	-7,130.1	-217.3	7,454.4	7,437.8	16.61	448.872		
4,600.0	4,504.0	3,509.0	3,476.1	16.1	1.7	114.54	-7,130.1	-217.3	7,473.4	7,456.4	17.03	438.895		
4,626.0	4,528.7	3,509.0	3,476.1	16.3	1.7	114.54	-7,130.1	-217.3	7,480.4	7,463.3	17.18	435.427		
4,700.0	4,598.9	3,562.4	3,528.1	16.7	1.8	114.59	-7,137.8	-208.4	7,500.3	7,482.7	17.64	425.269		
4,724.4	4,622.1	3,571.3	3,536.7	16.9	1.8	114.59	-7,139.2	-206.9	7,507.0	7,489.2	17.78	422.124		
4,800.0	4,693.9	3,603.0	3,567.6	17.4	1.8	114.62	-7,144.2	-201.2	7,528.0	7,509.8	18.24	412.674		
4,822.8	4,715.5	3,611.6	3,575.9	17.5	1.8	114.62	-7,145.5	-199.6	7,534.5	7,516.1	18.38	409.923		
4,900.0	4,788.8	3,673.5	3,635.9	18.0	1.8	114.67	-7,155.6	-188.3	7,556.3	7,537.4	18.86	400.621		
4,921.2	4,809.0	3,697.0	3,658.7	18.1	1.9	114.68	-7,159.4	-183.9	7,562.3	7,543.3	19.00	398.076		
5,000.0	4,883.7	3,770.8	3,730.2	18.6	1.9	114.73	-7,171.5	-170.3	7,584.7	7,565.2	19.49	389.210		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST DD PJ #8I - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 510-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,902.4	3,791.5	3,750.3	18.7	1.9	114.75	-7,174.8	-166.4	7,590.3	7,570.6	19.61	387.042	
5,100.0	4,978.6	3,927.1	3,881.8	19.3	2.0	114.84	-7,196.4	-141.1	7,612.7	7,592.6	20.13	378.218	
5,118.1	4,995.8	3,962.4	3,916.0	19.4	2.0	114.87	-7,201.8	-134.7	7,617.7	7,597.5	20.25	376.268	
5,200.0	5,073.6	4,041.3	3,992.7	19.9	2.0	114.92	-7,213.8	-120.4	7,640.1	7,619.3	20.76	368.101	
5,216.5	5,089.2	4,055.6	4,006.6	20.0	2.0	114.93	-7,216.0	-117.8	7,644.6	7,623.8	20.86	366.505	
5,304.2	5,172.4	4,159.3	4,107.4	20.6	2.1	115.01	-7,231.7	-99.2	7,668.6	7,647.2	21.41	358.128	
5,314.9	5,182.7	4,171.9	4,119.6	20.6	2.1	115.08	-7,233.5	-97.0	7,671.5	7,650.0	21.47	357.392	
5,400.0	5,263.9	4,258.0	4,203.5	21.1	2.1	115.55	-7,246.3	-82.2	7,693.8	7,672.0	21.87	351.771	
5,413.4	5,276.7	4,274.6	4,219.8	21.1	2.1	115.63	-7,248.7	-79.5	7,697.3	7,675.3	21.92	351.105	
5,500.0	5,360.3	4,342.3	4,285.8	21.5	2.2	116.06	-7,258.7	-68.6	7,718.9	7,696.6	22.24	347.067	
5,511.8	5,371.7	4,353.0	4,296.2	21.6	2.2	116.12	-7,260.3	-67.0	7,721.7	7,699.4	22.28	346.584	
5,600.0	5,457.5	4,515.0	4,454.6	21.9	2.2	116.54	-7,283.0	-41.5	7,741.6	7,719.0	22.60	342.617	
5,610.2	5,467.5	4,523.3	4,462.7	21.9	2.2	116.58	-7,284.2	-40.2	7,743.9	7,721.2	22.63	342.269	
5,700.0	5,555.6	4,886.3	4,818.4	22.3	2.4	116.91	-7,327.5	17.6	7,760.6	7,737.6	22.97	337.838	
5,708.6	5,564.1	4,890.8	4,822.8	22.3	2.4	116.93	-7,328.0	18.3	7,762.0	7,739.0	22.99	337.589	
5,800.0	5,654.2	4,946.2	4,877.1	22.6	2.4	117.19	-7,333.9	27.3	7,777.0	7,753.8	23.22	334.891	
5,807.1	5,661.2	4,951.3	4,882.2	22.6	2.4	117.21	-7,334.4	28.2	7,778.1	7,754.9	23.24	334.714	
5,900.0	5,753.4	5,154.0	5,081.6	22.8	2.5	117.38	-7,355.3	57.6	7,792.0	7,768.6	23.49	331.784	
5,905.5	5,758.8	5,170.3	5,097.7	22.8	2.5	117.39	-7,356.8	59.7	7,792.8	7,769.3	23.50	331.628	
6,000.0	5,852.9	5,256.4	5,182.8	23.1	2.6	117.56	-7,364.4	70.1	7,804.0	7,780.3	23.67	329.646	
6,003.9	5,856.8	5,259.1	5,185.5	23.1	2.6	117.57	-7,364.7	70.5	7,804.4	7,780.7	23.68	329.586	
6,100.0	5,952.7	5,344.8	5,270.2	23.2	2.6	117.71	-7,372.5	80.3	7,814.6	7,790.7	23.83	327.986	
6,102.3	5,955.1	5,347.2	5,272.7	23.2	2.6	117.71	-7,372.7	80.6	7,814.8	7,791.0	23.83	327.955	
6,200.0	6,052.7	5,434.3	5,358.7	23.4	2.6	117.80	-7,380.6	90.7	7,823.6	7,799.6	23.95	326.704	
6,200.8	6,053.5	5,434.9	5,359.3	23.4	2.6	117.80	-7,380.7	90.8	7,823.6	7,799.7	23.95	326.697	
6,221.1	6,073.8	5,451.0	5,375.3	23.4	2.7	-173.76	-7,382.2	92.6	7,825.3	7,801.3	23.97	326.498	
6,251.1	6,103.8	5,481.0	5,405.0	23.4	2.7	-173.79	-7,385.0	96.1	7,827.7	7,803.7	24.01	325.959	
6,299.2	6,151.8	5,610.3	5,533.1	23.5	2.7	6.09	-7,396.1	109.1	7,829.8	7,805.8	23.98	326.474	
6,300.0	6,152.6	5,611.1	5,533.9	23.5	2.7	6.09	-7,396.2	109.1	7,829.8	7,805.8	23.98	326.494	
6,350.0	6,202.4	6,024.1	5,945.5	23.5	2.9	5.96	-7,418.1	132.1	7,827.0	7,803.1	23.96	326.620	
6,397.6	6,249.3	6,078.0	5,999.4	23.5	2.9	6.02	-7,419.5	133.5	7,820.1	7,796.2	23.83	328.094	
6,400.0	6,251.6	6,080.7	6,002.1	23.5	2.9	6.02	-7,419.6	133.6	7,819.6	7,795.8	23.83	328.176	
6,450.0	6,300.1	6,155.9	6,077.2	23.5	2.9	6.12	-7,421.4	135.0	7,808.8	7,785.1	23.67	329.968	
6,496.0	6,344.0	6,242.9	6,164.2	23.5	2.9	6.25	-7,423.0	136.4	7,795.5	7,772.0	23.49	331.852	
6,500.0	6,347.7	6,250.2	6,171.6	23.5	2.9	6.26	-7,423.1	136.5	7,794.3	7,770.8	23.47	332.033	
6,550.0	6,394.1	6,328.7	6,250.1	23.5	3.0	6.45	-7,424.1	137.4	7,776.2	7,753.0	23.23	334.678	
6,594.5	6,434.2	6,394.0	6,315.3	23.4	3.0	6.66	-7,424.7	138.0	7,757.4	7,734.4	22.98	337.598	
6,600.0	6,439.0	6,402.0	6,323.3	23.4	3.0	6.69	-7,424.8	138.0	7,754.8	7,731.9	22.94	338.006	
6,650.0	6,482.4	6,454.1	6,375.4	23.4	3.0	6.98	-7,425.1	138.2	7,730.3	7,707.7	22.58	342.343	
6,692.9	6,518.1	6,490.2	6,411.5	23.3	3.0	7.28	-7,425.2	138.4	7,706.8	7,684.6	22.22	346.910	
6,700.0	6,523.9	6,496.0	6,417.3	23.3	3.0	7.33	-7,425.3	138.4	7,702.7	7,680.6	22.15	347.747	
6,750.0	6,563.3	6,535.9	6,457.2	23.3	3.0	7.76	-7,425.5	138.6	7,672.4	7,650.7	21.66	354.230	
6,791.3	6,594.2	6,567.2	6,488.5	23.2	3.0	8.19	-7,425.6	138.8	7,645.3	7,624.0	21.21	360.450	
6,800.0	6,600.5	6,573.5	6,494.9	23.2	3.0	8.29	-7,425.7	138.8	7,639.3	7,618.2	21.11	361.874	
6,850.0	6,635.3	6,642.5	6,563.8	23.2	3.0	8.98	-7,425.9	139.1	7,603.7	7,583.2	20.55	370.069	
6,889.7	6,661.1	6,699.8	6,621.2	23.1	3.0	9.65	-7,425.8	139.3	7,573.6	7,553.5	20.08	377.213	
6,900.0	6,667.5	6,713.9	6,635.3	23.1	3.1	9.85	-7,425.7	139.3	7,565.6	7,545.7	19.95	379.199	
6,950.0	6,696.9	6,739.0	6,660.3	23.1	3.1	10.88	-7,425.6	139.4	7,525.3	7,506.0	19.28	390.357	
6,988.2	6,717.5	6,765.7	6,687.0	23.1	3.1	11.87	-7,425.4	139.5	7,493.2	7,474.4	18.77	399.232	
7,000.0	6,723.5	6,769.8	6,691.2	23.1	3.1	12.21	-7,425.4	139.5	7,483.0	7,464.4	18.60	402.255	
7,050.0	6,747.0	6,786.2	6,707.5	23.1	3.1	13.94	-7,425.4	139.5	7,439.1	7,421.1	17.92	415.038	
7,086.6	6,762.3	6,796.8	6,718.1	23.1	3.1	15.57	-7,425.3	139.6	7,405.9	7,388.5	17.46	424.251	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST DD PJ #8I - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 510-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,100.0	6,767.4	6,800.4	6,721.7	23.1	3.1	16.27	-7,425.3	139.6	7,393.6	7,376.3	17.29	427.518	
7,150.0	6,784.6	6,812.3	6,733.7	23.1	3.1	19.58	-7,425.3	139.6	7,346.9	7,330.1	16.78	437.942	
7,185.0	6,794.7	6,819.4	6,740.7	23.1	3.1	22.82	-7,425.3	139.6	7,313.5	7,297.0	16.54	442.261	
7,200.0	6,798.5	6,822.0	6,743.4	23.2	3.1	24.55	-7,425.3	139.7	7,299.1	7,282.6	16.49	442.735	
7,250.0	6,808.9	6,829.4	6,750.7	23.2	3.1	32.61	-7,425.3	139.7	7,250.5	7,233.8	16.67	434.878	
7,283.4	6,814.0	6,832.9	6,754.3	23.3	3.1	41.16	-7,425.2	139.7	7,217.6	7,200.4	17.28	417.617	
7,300.0	6,816.0	6,834.3	6,755.6	23.4	3.1	46.87	-7,425.2	139.7	7,201.3	7,183.5	17.77	405.197	
7,350.0	6,819.5	6,836.8	6,758.1	23.5	3.1	72.62	-7,425.2	139.7	7,151.8	7,132.1	19.70	363.070	
7,381.9	6,820.0	6,837.1	6,758.4	23.7	3.1	94.67	-7,425.2	139.7	7,120.1	7,099.2	20.77	342.879	
7,382.0	6,820.0	6,837.1	6,758.4	23.7	3.1	94.75	-7,425.2	139.7	7,120.0	7,099.2	20.77	342.801	
7,400.0	6,819.8	6,837.0	6,758.3	23.8	3.1	94.74	-7,425.2	139.7	7,102.1	7,081.2	20.92	339.430	
7,480.3	6,819.2	6,836.5	6,757.8	24.2	3.1	94.71	-7,425.2	139.7	7,022.3	7,000.6	21.68	323.883	
7,500.0	6,819.0	6,836.4	6,757.7	24.3	3.1	94.70	-7,425.2	139.7	7,002.7	6,980.9	21.87	320.232	
7,578.7	6,818.4	6,835.9	6,757.2	24.9	3.1	94.66	-7,425.2	139.7	6,924.5	6,901.8	22.72	304.781	
7,600.0	6,818.2	6,835.7	6,757.0	25.0	3.1	94.66	-7,425.2	139.7	6,903.4	6,880.4	22.95	300.801	
7,677.1	6,817.6	6,835.2	6,756.6	25.7	3.1	94.62	-7,425.2	139.7	6,826.8	6,802.9	23.88	285.932	
7,700.0	6,817.4	6,835.1	6,756.4	25.9	3.1	94.61	-7,425.2	139.7	6,804.1	6,779.9	24.15	281.746	
7,775.6	6,816.7	6,834.6	6,755.9	26.6	3.1	94.58	-7,425.2	139.7	6,729.0	6,703.9	25.13	267.760	
7,800.0	6,816.5	6,834.4	6,755.8	26.9	3.1	94.57	-7,425.2	139.7	6,704.8	6,679.3	25.45	263.469	
7,874.0	6,815.9	6,833.9	6,755.3	27.7	3.1	94.53	-7,425.2	139.7	6,631.3	6,604.9	26.47	250.522	
7,900.0	6,815.7	6,833.8	6,755.1	28.0	3.1	94.52	-7,425.2	139.7	6,605.5	6,578.7	26.83	246.205	
7,972.4	6,815.1	6,833.3	6,754.6	28.9	3.1	94.49	-7,425.2	139.7	6,533.6	6,505.8	27.88	234.350	
8,000.0	6,814.9	6,833.1	6,754.4	29.2	3.1	94.48	-7,425.2	139.7	6,506.3	6,478.0	28.28	230.067	
8,070.8	6,814.3	6,832.6	6,754.0	30.1	3.1	94.44	-7,425.2	139.7	6,436.0	6,406.6	29.35	219.292	
8,100.0	6,814.1	6,832.4	6,753.8	30.5	3.1	94.43	-7,425.2	139.7	6,407.1	6,377.3	29.79	215.083	
8,169.3	6,813.5	6,832.0	6,753.3	31.5	3.1	94.40	-7,425.2	139.7	6,338.3	6,307.5	30.87	205.337	
8,200.0	6,813.3	6,831.8	6,753.1	31.9	3.1	94.38	-7,425.2	139.7	6,307.9	6,276.5	31.35	201.229	
8,267.7	6,812.7	6,831.3	6,752.6	32.9	3.1	94.35	-7,425.3	139.7	6,240.7	6,208.3	32.43	192.440	
8,300.0	6,812.4	6,831.1	6,752.4	33.3	3.1	94.34	-7,425.3	139.7	6,208.7	6,175.7	32.95	188.450	
8,366.1	6,811.9	6,830.6	6,752.0	34.3	3.1	94.30	-7,425.3	139.7	6,143.1	6,109.1	34.03	180.537	
8,400.0	6,811.6	6,830.4	6,751.7	34.8	3.1	94.29	-7,425.3	139.7	6,109.5	6,074.9	34.58	176.675	
8,464.5	6,811.1	6,830.0	6,751.3	35.8	3.1	94.26	-7,425.3	139.7	6,045.5	6,009.9	35.66	169.556	
8,500.0	6,810.8	6,829.7	6,751.0	36.3	3.1	94.24	-7,425.3	139.7	6,010.4	5,974.2	36.25	165.825	
8,563.0	6,810.3	6,829.3	6,750.6	37.3	3.1	94.21	-7,425.3	139.7	5,948.0	5,910.7	37.31	159.421	
8,600.0	6,810.0	6,829.0	6,750.3	37.9	3.1	94.19	-7,425.3	139.7	5,911.3	5,873.4	37.94	155.823	
8,661.4	6,809.5	6,828.6	6,749.9	38.9	3.1	94.16	-7,425.3	139.7	5,850.5	5,811.5	38.99	150.059	
8,700.0	6,809.1	6,828.3	6,749.6	39.5	3.1	94.14	-7,425.3	139.7	5,812.3	5,772.6	39.65	146.592	
8,759.8	6,808.6	6,827.9	6,749.2	40.5	3.1	94.11	-7,425.3	139.7	5,753.0	5,712.3	40.69	141.402	
8,800.0	6,808.3	6,827.6	6,748.9	41.1	3.1	94.09	-7,425.3	139.7	5,713.2	5,671.9	41.38	138.062	
8,858.2	6,807.8	6,827.2	6,748.5	42.1	3.1	94.07	-7,425.3	139.7	5,655.6	5,613.2	42.40	133.384	
8,900.0	6,807.5	6,826.9	6,748.2	42.8	3.1	94.04	-7,425.3	139.7	5,614.2	5,571.1	43.13	130.167	
8,956.7	6,807.0	6,826.5	6,747.8	43.7	3.1	94.02	-7,425.3	139.7	5,558.2	5,514.0	44.13	125.947	
9,000.0	6,806.7	6,826.1	6,747.5	44.4	3.1	93.99	-7,425.3	139.7	5,515.3	5,470.4	44.90	122.848	
9,055.1	6,806.2	6,825.7	6,747.1	45.4	3.1	93.97	-7,425.3	139.7	5,460.8	5,414.9	45.87	119.038	
9,100.0	6,805.8	6,825.4	6,746.7	46.1	3.1	93.94	-7,425.3	139.7	5,416.4	5,369.7	46.67	116.051	
9,153.5	6,805.4	6,825.0	6,746.3	47.0	3.1	93.92	-7,425.3	139.7	5,363.4	5,315.8	47.63	112.607	
9,200.0	6,805.0	6,824.7	6,746.0	47.8	3.1	93.89	-7,425.3	139.7	5,317.5	5,269.0	48.46	109.726	
9,251.9	6,804.6	6,824.3	6,745.6	48.7	3.1	93.86	-7,425.3	139.7	5,266.1	5,216.7	49.40	106.611	
9,300.0	6,804.2	6,823.9	6,745.3	49.6	3.1	93.84	-7,425.3	139.7	5,218.7	5,168.4	50.26	103.832	
9,350.4	6,803.8	6,823.5	6,744.9	50.4	3.1	93.81	-7,425.3	139.7	5,168.9	5,117.7	51.17	101.011	
9,400.0	6,803.4	6,823.2	6,744.5	51.3	3.1	93.79	-7,425.3	139.7	5,119.9	5,067.8	52.07	98.329	
9,448.8	6,802.9	6,822.8	6,744.1	52.1	3.1	93.76	-7,425.3	139.7	5,071.7	5,018.7	52.96	95.773	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST DD PJ #8I - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 510-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,500.0	6,802.5	6,822.4	6,743.7	53.0	3.1	93.73	-7,425.3	139.7	5,021.1	4,967.2	53.89	93.182	
9,547.2	6,802.1	6,822.0	6,743.4	53.9	3.1	93.71	-7,425.3	139.7	4,974.5	4,919.8	54.75	90.864	
9,600.0	6,801.7	6,821.6	6,743.0	54.8	3.1	93.68	-7,425.3	139.7	4,922.4	4,866.7	55.71	88.359	
9,645.6	6,801.3	6,821.3	6,742.6	55.6	3.1	93.65	-7,425.3	139.7	4,877.4	4,820.9	56.54	86.257	
9,700.0	6,800.9	6,820.9	6,742.2	56.6	3.1	93.63	-7,425.3	139.7	4,823.8	4,766.3	57.54	83.834	
9,744.1	6,800.5	6,820.5	6,741.8	57.4	3.1	93.60	-7,425.3	139.7	4,780.3	4,722.0	58.35	81.926	
9,800.0	6,800.0	6,820.1	6,741.4	58.4	3.1	93.57	-7,425.3	139.7	4,725.2	4,665.8	59.38	79.581	
9,842.5	6,799.7	6,819.7	6,741.1	59.1	3.1	93.55	-7,425.3	139.7	4,683.3	4,623.2	60.16	77.849	
9,900.0	6,799.2	6,819.3	6,740.6	60.2	3.1	93.52	-7,425.3	139.6	4,626.7	4,565.5	61.22	75.577	
9,940.9	6,798.9	6,819.0	6,740.3	60.9	3.1	93.49	-7,425.3	139.6	4,586.4	4,524.4	61.97	74.004	
10,000.0	6,798.4	6,818.5	6,739.8	62.0	3.1	93.46	-7,425.3	139.6	4,528.2	4,465.2	63.07	71.802	
10,039.3	6,798.1	6,818.2	6,739.5	62.7	3.1	93.44	-7,425.3	139.6	4,489.5	4,425.7	63.79	70.375	
10,100.0	6,797.6	6,817.7	6,739.0	63.8	3.1	93.40	-7,425.3	139.6	4,429.9	4,364.9	64.92	68.238	
10,137.8	6,797.2	6,817.4	6,738.7	64.4	3.1	93.38	-7,425.3	139.6	4,392.7	4,327.1	65.62	66.943	
10,200.0	6,796.7	6,816.9	6,738.2	65.6	3.1	93.35	-7,425.3	139.6	4,331.5	4,264.8	66.77	64.869	
10,236.2	6,796.4	6,816.6	6,737.9	66.2	3.1	93.32	-7,425.3	139.6	4,296.0	4,228.5	67.45	63.694	
10,300.0	6,795.9	6,816.0	6,737.4	67.4	3.1	93.29	-7,425.3	139.6	4,233.3	4,164.7	68.63	61.680	
10,334.6	6,795.6	6,815.7	6,737.1	68.0	3.1	93.27	-7,425.3	139.6	4,199.3	4,130.0	69.28	60.615	
10,400.0	6,795.1	6,815.2	6,736.5	69.2	3.1	93.23	-7,425.3	139.6	4,135.2	4,064.7	70.50	58.658	
10,433.0	6,794.8	6,814.9	6,736.2	69.8	3.1	93.21	-7,425.3	139.6	4,102.7	4,031.6	71.11	57.693	
10,500.0	6,794.2	6,814.3	6,735.7	71.0	3.1	93.17	-7,425.3	139.6	4,037.1	3,964.7	72.36	55.790	
10,531.5	6,794.0	6,814.1	6,735.4	71.6	3.1	93.15	-7,425.3	139.6	4,006.3	3,933.3	72.95	54.917	
10,600.0	6,793.4	6,813.5	6,734.8	72.9	3.1	93.11	-7,425.3	139.6	3,939.2	3,864.9	74.23	53.065	
10,629.9	6,793.2	6,813.2	6,734.6	73.4	3.1	93.09	-7,425.3	139.6	3,909.9	3,835.1	74.79	52.276	
10,700.0	6,792.6	6,812.6	6,734.0	74.7	3.1	93.05	-7,425.3	139.6	3,841.3	3,765.2	76.10	50.474	
10,728.3	6,792.3	6,812.4	6,733.7	75.2	3.1	93.03	-7,425.3	139.6	3,813.6	3,737.0	76.64	49.763	
10,800.0	6,791.7	6,811.8	6,733.1	76.6	3.1	92.99	-7,425.3	139.6	3,743.6	3,665.6	77.98	48.007	
10,826.7	6,791.5	6,811.5	6,732.9	77.1	3.1	92.97	-7,425.3	139.6	3,717.4	3,638.9	78.48	47.367	
10,900.0	6,790.9	6,810.9	6,732.2	78.4	3.1	92.93	-7,425.3	139.6	3,645.9	3,566.1	79.86	45.656	
10,925.2	6,790.7	6,810.7	6,732.0	78.9	3.1	92.91	-7,425.3	139.6	3,621.4	3,541.0	80.33	45.081	
11,000.0	6,790.1	6,810.0	6,731.3	80.3	3.1	92.86	-7,425.3	139.6	3,548.4	3,466.7	81.74	43.413	
11,023.6	6,789.9	6,809.8	6,731.1	80.7	3.1	92.85	-7,425.3	139.6	3,525.5	3,443.3	82.18	42.899	
11,100.0	6,789.2	6,809.1	6,730.4	82.1	3.1	92.80	-7,425.3	139.6	3,451.1	3,367.5	83.62	41.272	
11,122.0	6,789.1	6,808.9	6,730.2	82.5	3.1	92.79	-7,425.3	139.6	3,429.7	3,345.6	84.03	40.813	
11,200.0	6,788.4	6,808.2	6,729.5	84.0	3.1	92.74	-7,425.3	139.6	3,353.9	3,268.4	85.50	39.226	
11,220.4	6,788.2	6,808.0	6,729.3	84.3	3.1	92.72	-7,425.3	139.6	3,334.1	3,248.2	85.89	38.819	
11,300.0	6,787.6	6,807.3	6,728.6	85.8	3.1	92.67	-7,425.3	139.6	3,256.9	3,169.5	87.39	37.270	
11,318.9	6,787.4	6,807.1	6,728.4	86.2	3.1	92.66	-7,425.3	139.6	3,238.6	3,150.9	87.74	36.910	
11,400.0	6,786.7	6,806.4	6,727.7	87.7	3.1	92.61	-7,425.3	139.6	3,160.1	3,070.8	89.27	35.397	
11,417.3	6,786.6	6,806.2	6,727.5	88.0	3.1	92.59	-7,425.3	139.6	3,143.3	3,053.7	89.60	35.081	
11,500.0	6,785.9	6,805.4	6,726.7	89.5	3.1	92.54	-7,425.3	139.6	3,063.4	2,972.3	91.16	33.604	
11,515.7	6,785.8	6,805.3	6,726.6	89.8	3.1	92.53	-7,425.3	139.6	3,048.3	2,956.8	91.46	33.329	
11,600.0	6,785.1	6,804.5	6,725.8	91.4	3.1	92.47	-7,425.3	139.6	2,967.0	2,874.0	93.05	31.885	
11,614.1	6,785.0	6,804.3	6,725.7	91.7	3.1	92.46	-7,425.3	139.6	2,953.4	2,860.1	93.32	31.648	
11,700.0	6,784.2	6,803.5	6,724.8	93.3	3.1	92.40	-7,425.3	139.6	2,870.9	2,775.9	94.95	30.237	
11,712.6	6,784.1	6,803.4	6,724.7	93.5	3.1	92.40	-7,425.3	139.6	2,858.8	2,763.6	95.18	30.035	
11,800.0	6,783.4	6,802.5	6,723.9	95.2	3.1	92.34	-7,425.3	139.6	2,775.0	2,678.1	96.84	28.656	
11,811.0	6,783.3	6,802.4	6,723.8	95.4	3.1	92.33	-7,425.3	139.6	2,764.4	2,667.4	97.05	28.486	
11,900.0	6,782.6	6,801.6	6,722.9	97.0	3.1	92.27	-7,425.3	139.6	2,679.4	2,580.7	98.73	27.138	
11,909.4	6,782.5	6,801.5	6,722.8	97.2	3.1	92.26	-7,425.3	139.6	2,670.4	2,571.5	98.91	26.998	
12,000.0	6,781.7	6,800.6	6,721.9	98.9	3.1	92.20	-7,425.3	139.6	2,584.1	2,483.5	100.63	25.680	
12,007.8	6,781.7	6,800.5	6,721.8	99.1	3.1	92.19	-7,425.3	139.6	2,576.7	2,475.9	100.78	25.568	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST DD PJ #8I - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 510-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	6,799.6	6,720.9	100.8	3.1	92.13	-7,425.3	139.6	2,489.2	2,386.7	102.52	24.280	
12,106.3	6,780.9	6,799.5	6,720.8	100.9	3.1	92.12	-7,425.3	139.6	2,483.3	2,380.7	102.64	24.194	
12,200.0	6,780.1	6,798.6	6,719.9	102.7	3.1	92.05	-7,425.3	139.6	2,394.8	2,290.4	104.42	22.934	
12,204.7	6,780.0	6,798.5	6,719.8	102.7	3.1	92.05	-7,425.3	139.6	2,390.4	2,285.8	104.51	22.872	
12,300.0	6,779.2	6,797.5	6,718.9	104.5	3.1	91.98	-7,425.3	139.6	2,300.8	2,194.5	106.32	21.640	
12,303.1	6,779.2	6,797.5	6,718.8	104.6	3.1	91.98	-7,425.3	139.6	2,297.8	2,191.5	106.38	21.600	
12,400.0	6,778.4	6,796.5	6,717.8	106.4	3.1	91.91	-7,425.3	139.6	2,207.3	2,099.1	108.22	20.397	
12,401.5	6,778.4	6,796.5	6,717.8	106.4	3.1	91.91	-7,425.3	139.6	2,205.9	2,097.6	108.25	20.378	
12,500.0	6,777.6	6,795.5	6,716.8	108.3	3.1	91.83	-7,425.3	139.6	2,114.4	2,004.3	110.12	19.201	
12,598.4	6,776.7	6,794.4	6,715.7	110.2	3.1	91.76	-7,425.3	139.5	2,023.7	1,911.7	111.99	18.070	
12,600.0	6,776.7	6,794.4	6,715.7	110.2	3.1	91.76	-7,425.3	139.5	2,022.2	1,910.2	112.02	18.052	
12,696.8	6,775.9	6,793.4	6,714.7	112.0	3.1	91.68	-7,425.3	139.5	1,933.7	1,819.8	113.86	16.983	
12,700.0	6,775.9	6,793.3	6,714.7	112.1	3.1	91.68	-7,425.3	139.5	1,930.8	1,816.9	113.92	16.948	
12,795.2	6,775.1	6,792.3	6,713.6	113.9	3.1	91.61	-7,425.3	139.5	1,844.6	1,728.8	115.73	15.938	
12,800.0	6,775.0	6,792.2	6,713.6	114.0	3.1	91.60	-7,425.3	139.5	1,840.3	1,724.4	115.83	15.888	
12,893.7	6,774.3	6,791.2	6,712.6	115.7	3.1	91.53	-7,425.3	139.5	1,756.4	1,638.8	117.61	14.934	
12,900.0	6,774.2	6,791.2	6,712.5	115.8	3.1	91.53	-7,425.3	139.5	1,750.8	1,633.0	117.73	14.871	
12,992.1	6,773.4	6,790.1	6,711.5	117.6	3.1	91.45	-7,425.3	139.5	1,669.4	1,549.9	119.48	13.972	
13,000.0	6,773.4	6,790.0	6,711.4	117.7	3.1	91.45	-7,425.3	139.5	1,662.5	1,542.8	119.63	13.896	
13,090.5	6,772.6	6,789.0	6,710.4	119.4	3.1	91.38	-7,425.3	139.5	1,583.7	1,462.4	121.36	13.050	
13,100.0	6,772.5	6,788.9	6,710.3	119.6	3.1	91.37	-7,425.3	139.5	1,575.6	1,454.0	121.54	12.964	
13,188.9	6,771.8	6,787.9	6,709.2	121.3	3.1	91.30	-7,425.4	139.5	1,499.6	1,376.4	123.23	12.169	
13,200.0	6,771.7	6,787.8	6,709.1	121.5	3.1	91.29	-7,425.4	139.5	1,490.3	1,366.9	123.44	12.073	
13,287.4	6,771.0	6,786.8	6,708.1	123.2	3.1	91.22	-7,425.4	139.5	1,417.4	1,292.3	125.11	11.329	
13,300.0	6,770.9	6,786.6	6,708.0	123.4	3.1	91.21	-7,425.4	139.5	1,407.0	1,281.6	125.35	11.225	
13,385.8	6,770.1	6,785.6	6,707.0	125.0	3.1	91.13	-7,425.4	139.5	1,337.3	1,210.3	126.98	10.531	
13,400.0	6,770.0	6,785.5	6,706.8	125.3	3.1	91.12	-7,425.4	139.5	1,325.9	1,198.7	127.25	10.420	
13,484.2	6,769.3	6,784.5	6,705.8	126.9	3.1	91.05	-7,425.4	139.5	1,259.8	1,131.0	128.86	9.777	
13,500.0	6,769.2	6,784.3	6,705.6	127.2	3.1	91.04	-7,425.4	139.5	1,247.7	1,118.5	129.16	9.660	
13,582.6	6,768.5	6,783.3	6,704.7	128.8	3.1	90.97	-7,425.4	139.5	1,185.5	1,054.7	130.73	9.068	
13,600.0	6,768.3	6,783.1	6,704.4	129.1	3.1	90.95	-7,425.4	139.5	1,172.7	1,041.7	131.07	8.948	
13,681.1	6,767.6	6,782.1	6,703.5	130.6	3.1	90.88	-7,425.4	139.5	1,114.8	982.2	132.61	8.407	
13,700.0	6,767.5	6,781.9	6,703.2	131.0	3.1	90.87	-7,425.4	139.5	1,101.8	968.8	132.97	8.286	
13,779.5	6,766.8	6,780.9	6,702.3	132.5	3.1	90.80	-7,425.4	139.5	1,048.7	914.2	134.49	7.798	
13,800.0	6,766.6	6,780.7	6,702.0	132.9	3.1	90.78	-7,425.4	139.5	1,035.6	900.7	134.88	7.678	
13,877.9	6,766.0	6,779.7	6,701.1	134.4	3.1	90.71	-7,425.4	139.5	988.0	851.6	136.37	7.245	
13,900.0	6,765.8	6,779.5	6,700.8	134.8	3.1	90.69	-7,425.4	139.5	975.2	838.4	136.79	7.129	
13,976.3	6,765.2	6,778.5	6,699.8	136.2	3.1	90.62	-7,425.4	139.5	933.7	795.4	138.24	6.754	
13,995.7	6,765.0	6,778.3	6,699.6	136.6	3.1	90.61	-7,425.4	139.5	923.9	785.3	138.61	6.665 CC, ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-124.07	-269.2	-398.1	481.1				
98.4	98.4	73.9	73.9	0.1	0.0	-124.04	-269.1	-398.3	480.7	480.6	0.13	3,643.260 CC	
100.0	100.0	75.5	75.5	0.1	0.0	-124.04	-269.1	-398.3	480.7	480.6	0.13	3,568.778	
196.8	196.8	171.6	171.6	0.3	0.2	-123.97	-268.8	-399.0	481.1	480.6	0.47	1,019.370	
200.0	200.0	174.7	174.7	0.3	0.2	-123.97	-268.8	-399.0	481.1	480.6	0.48	994.850	
295.3	295.3	270.1	270.1	0.5	0.3	-123.93	-268.8	-399.6	481.6	480.8	0.80	605.746	
300.0	300.0	274.9	274.9	0.5	0.3	-123.93	-268.8	-399.6	481.6	480.8	0.81	594.769	
393.7	393.7	368.8	368.8	0.7	0.3	-123.92	-268.9	-400.0	482.0	480.9	1.06	453.093	
400.0	400.0	375.1	375.1	0.8	0.3	-123.92	-269.0	-400.0	482.0	480.9	1.08	446.326	
492.1	492.1	469.2	469.2	1.0	0.4	-123.97	-269.4	-399.9	482.2	480.9	1.32	364.757	
500.0	500.0	477.3	477.3	1.0	0.4	-123.97	-269.4	-399.9	482.2	480.9	1.34	359.087	
590.5	590.5	568.1	568.1	1.2	0.4	-123.98	-269.5	-399.7	482.1	480.5	1.57	307.276	
600.0	600.0	577.5	577.5	1.2	0.4	-123.98	-269.5	-399.7	482.1	480.5	1.59	302.810	
664.5	664.5	641.5	641.5	1.4	0.4	-123.97	-269.4	-399.8	482.0	480.3	1.76	273.981	
689.0	689.0	665.8	665.7	1.4	0.4	-123.97	-269.3	-399.8	482.0	480.2	1.82	264.154	
700.0	700.0	676.7	676.7	1.4	0.4	-123.97	-269.3	-399.8	482.1	480.2	1.85	259.952	
787.4	787.4	762.9	762.8	1.6	0.5	-123.95	-269.3	-400.0	482.2	480.1	2.08	232.328 ES	
800.0	800.0	775.3	775.2	1.7	0.5	-123.95	-269.3	-400.0	482.3	480.2	2.11	228.909	
885.8	885.8	859.6	859.6	1.9	0.5	-123.97	-269.7	-400.3	482.7	480.4	2.33	206.987	
900.0	900.0	873.5	873.5	1.9	0.5	-123.97	-269.8	-400.4	482.8	480.4	2.37	203.711	
984.2	984.2	957.9	957.9	2.1	0.5	-123.99	-270.3	-400.8	483.4	480.9	2.59	186.316	
1,000.0	1,000.0	973.8	973.8	2.1	0.5	-123.99	-270.4	-400.9	483.6	480.9	2.64	183.392	
1,082.7	1,082.7	1,055.6	1,055.6	2.3	0.6	-124.01	-270.8	-401.3	484.1	481.3	2.85	169.709	
1,100.0	1,100.0	1,072.5	1,072.5	2.3	0.6	-124.01	-270.9	-401.4	484.3	481.4	2.90	167.136	
1,181.1	1,181.1	1,154.7	1,154.7	2.5	0.6	-123.99	-271.1	-402.2	485.0	481.9	3.11	156.030	
1,200.0	1,200.0	1,174.2	1,174.2	2.6	0.6	-123.98	-271.1	-402.3	485.1	482.0	3.16	153.632	
1,279.5	1,279.5	1,255.0	1,254.9	2.7	0.7	-123.95	-271.1	-402.7	485.5	482.1	3.36	144.292	
1,300.0	1,300.0	1,275.6	1,275.6	2.8	0.7	-123.94	-271.1	-402.8	485.5	482.1	3.42	142.068	
1,377.9	1,377.9	1,353.7	1,353.7	3.0	0.7	-123.93	-271.1	-403.0	485.7	482.1	3.62	134.216	
1,400.0	1,400.0	1,375.8	1,375.7	3.0	0.7	-123.93	-271.1	-403.1	485.8	482.1	3.68	132.155	
1,476.4	1,476.4	1,452.1	1,452.0	3.2	0.7	-123.92	-271.2	-403.3	486.0	482.1	3.87	125.584	
1,500.0	1,500.0	1,475.7	1,475.7	3.2	0.8	-123.92	-271.2	-403.3	486.1	482.1	3.93	123.697	
1,574.8	1,574.8	1,548.1	1,548.1	3.4	0.8	-123.92	-271.4	-403.6	486.4	482.3	4.12	118.125	
1,600.0	1,600.0	1,572.1	1,572.1	3.5	0.8	-123.91	-271.5	-403.8	486.6	482.4	4.18	116.389	
1,673.2	1,673.2	1,645.7	1,645.6	3.6	0.8	-123.88	-271.7	-404.7	487.4	483.1	4.37	111.631	
1,700.0	1,700.0	1,673.4	1,673.4	3.7	0.8	-123.88	-271.8	-404.9	487.7	483.2	4.43	109.965	
1,771.6	1,771.6	1,744.7	1,744.7	3.8	0.9	-123.87	-272.0	-405.3	488.1	483.5	4.62	105.749	
1,800.0	1,800.0	1,772.3	1,772.2	3.9	0.9	-123.86	-272.1	-405.5	488.4	483.7	4.69	104.191	
1,870.1	1,870.1	1,840.8	1,840.7	4.1	0.9	-123.84	-272.4	-406.3	489.2	484.3	4.86	100.575	
1,900.0	1,900.0	1,870.2	1,870.1	4.1	0.9	-123.83	-272.5	-406.7	489.6	484.7	4.94	99.123	
1,968.5	1,968.5	1,938.2	1,938.1	4.3	0.9	-123.81	-273.0	-407.6	490.6	485.5	5.11	95.979	
2,000.0	2,000.0	1,969.7	1,969.7	4.4	0.9	-123.80	-273.1	-408.1	491.1	485.9	5.19	94.606	
2,066.9	2,066.9	2,036.5	2,036.4	4.5	1.0	-123.77	-273.5	-409.0	492.1	486.7	5.36	91.839	
2,100.0	2,100.0	2,069.4	2,069.3	4.6	1.0	-123.77	-273.8	-409.5	492.6	487.2	5.44	90.543	
2,165.3	2,165.3	2,134.6	2,134.5	4.7	1.0	167.79	-274.6	-410.2	494.4	488.6	5.72	86.366	
2,200.0	2,200.0	2,169.2	2,169.1	4.8	1.0	167.79	-275.0	-410.5	495.9	490.1	5.81	85.303	
2,263.8	2,263.7	2,231.8	2,231.7	4.9	1.0	167.82	-275.8	-411.2	499.8	493.8	5.97	83.671	
2,300.0	2,299.8	2,266.6	2,266.5	5.0	1.1	167.85	-276.2	-411.8	502.7	496.7	6.06	82.904	
2,362.2	2,361.8	2,329.8	2,329.7	5.1	1.1	167.94	-277.0	-412.8	509.0	502.7	6.22	81.827	
2,400.0	2,399.5	2,370.9	2,370.8	5.2	1.1	167.99	-277.5	-413.2	513.1	506.8	6.31	81.287	
2,460.6	2,459.7	2,434.6	2,434.5	5.4	1.1	168.07	-278.2	-413.2	520.3	513.9	6.46	80.566	
2,500.0	2,498.7	2,474.7	2,474.6	5.5	1.1	168.13	-278.6	-413.2	525.6	519.0	6.55	80.223	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,557.1	2,534.0	2,533.8	5.6	1.1	168.25	-278.9	-413.0	534.3	527.6	6.69	79.804	
2,600.0	2,597.5	2,574.5	2,574.4	5.7	1.1	168.34	-279.1	-412.9	541.0	534.2	6.79	79.644	
2,657.5	2,654.0	2,631.7	2,631.5	5.9	1.1	168.49	-279.4	-412.7	551.3	544.4	6.93	79.584	
2,700.0	2,695.6	2,674.1	2,674.0	6.0	1.1	168.63	-279.4	-412.6	559.6	552.6	7.02	79.691	
2,755.9	2,750.2	2,729.5	2,729.3	6.2	1.1	168.83	-279.2	-412.5	571.3	564.2	7.15	79.879	
2,800.0	2,793.1	2,772.8	2,772.7	6.3	1.1	168.99	-279.1	-412.3	581.3	574.1	7.26	80.120	
2,854.3	2,845.6	2,825.2	2,825.0	6.5	1.1	169.18	-279.1	-412.1	594.5	587.1	7.39	80.445	
2,900.0	2,889.6	2,868.2	2,868.1	6.6	1.1	169.35	-279.0	-412.0	606.4	598.9	7.50	80.863	
2,952.7	2,940.2	2,917.4	2,917.3	6.8	1.1	169.57	-278.8	-412.0	621.1	613.4	7.63	81.361	
3,000.0	2,985.3	2,960.9	2,960.8	7.0	1.1	169.74	-278.8	-412.1	635.1	627.4	7.76	81.899	
3,016.9	3,001.4	2,976.4	2,976.3	7.1	1.1	169.80	-278.8	-412.1	640.4	632.6	7.80	82.099	
3,051.2	3,033.9	3,008.6	3,008.5	7.3	1.1	169.95	-279.0	-412.1	651.1	643.3	7.89	82.499	
3,100.0	3,080.2	3,057.9	3,057.8	7.5	1.1	170.18	-279.2	-412.1	666.4	658.3	8.02	83.093	
3,149.6	3,127.3	3,107.5	3,107.4	7.7	1.1	170.42	-279.1	-412.0	681.6	673.5	8.15	83.617	
3,200.0	3,175.1	3,154.9	3,154.8	8.0	1.1	170.62	-279.1	-411.8	697.1	688.8	8.29	84.133	
3,248.0	3,220.7	3,200.0	3,199.9	8.2	1.1	170.77	-279.5	-411.4	711.9	703.4	8.41	84.604	
3,300.0	3,270.0	3,248.4	3,248.2	8.5	1.1	170.93	-279.9	-411.0	727.9	719.3	8.56	85.000	
3,346.4	3,314.1	3,291.4	3,291.2	8.7	1.2	171.08	-280.1	-410.8	742.3	733.6	8.70	85.322	
3,400.0	3,365.0	3,342.3	3,342.2	9.0	1.2	171.27	-280.2	-410.8	759.0	750.1	8.86	85.704	
3,444.9	3,407.6	3,385.3	3,385.1	9.2	1.2	171.43	-280.2	-410.7	772.9	763.9	8.99	86.007	
3,500.0	3,459.9	3,435.7	3,435.5	9.5	1.2	171.60	-280.3	-410.7	790.1	781.0	9.15	86.370	
3,543.3	3,501.0	3,474.5	3,474.4	9.8	1.2	171.71	-280.6	-410.7	803.7	794.5	9.28	86.634	
3,600.0	3,554.8	3,525.8	3,525.7	10.1	1.2	171.85	-281.1	-410.7	821.7	812.3	9.45	86.961	
3,641.7	3,594.4	3,564.0	3,563.9	10.3	1.2	171.95	-281.6	-410.8	835.1	825.5	9.58	87.158	
3,700.0	3,649.7	3,620.1	3,620.0	10.7	1.2	172.10	-282.2	-411.1	853.8	844.0	9.76	87.471	
3,740.1	3,687.8	3,663.1	3,663.0	10.9	1.2	172.19	-282.8	-411.0	866.5	856.6	9.88	87.661	
3,800.0	3,744.7	3,725.1	3,724.9	11.2	1.2	172.28	-283.9	-410.3	885.1	875.0	10.07	87.917	
3,838.6	3,781.3	3,763.1	3,762.9	11.5	1.2	172.34	-284.4	-409.8	897.0	886.8	10.18	88.079	
3,900.0	3,839.6	3,821.4	3,821.2	11.8	1.3	172.46	-284.8	-409.2	915.8	905.4	10.37	88.322	
3,937.0	3,874.7	3,854.3	3,854.1	12.1	1.3	172.52	-285.2	-408.9	927.2	916.7	10.48	88.440	
4,000.0	3,934.5	3,910.6	3,910.4	12.4	1.3	172.60	-286.1	-408.3	946.8	936.2	10.68	88.646	
4,035.4	3,968.1	3,942.8	3,942.6	12.6	1.3	172.64	-286.6	-408.1	958.0	947.2	10.80	88.734	
4,100.0	4,029.4	4,000.0	3,999.8	13.0	1.3	172.73	-287.5	-407.9	978.4	967.4	11.00	88.915	
4,133.8	4,061.5	4,029.0	4,028.8	13.2	1.3	172.77	-288.0	-407.9	989.2	978.1	11.12	88.986	
4,200.0	4,124.3	4,083.1	4,082.9	13.6	1.3	172.84	-289.3	-408.0	1,010.7	999.4	11.33	89.195	
4,232.3	4,155.0	4,110.5	4,110.2	13.8	1.3	172.87	-290.1	-408.2	1,021.4	1,010.0	11.44	89.286	
4,300.0	4,219.3	4,172.0	4,171.7	14.2	1.3	172.93	-291.9	-408.8	1,044.0	1,032.4	11.67	89.478	
4,330.7	4,248.4	4,200.0	4,199.7	14.4	1.4	172.95	-292.8	-409.1	1,054.3	1,042.6	11.77	89.558	
4,400.0	4,314.2	4,259.3	4,259.0	14.9	1.4	172.98	-295.2	-409.7	1,077.8	1,065.8	12.00	89.780	
4,429.1	4,341.8	4,284.3	4,283.9	15.0	1.4	172.98	-296.5	-409.8	1,087.7	1,075.6	12.10	89.869	
4,500.0	4,409.1	4,349.2	4,348.7	15.5	1.4	172.93	-300.4	-410.2	1,112.1	1,099.8	12.35	90.081	
4,527.5	4,435.3	4,375.1	4,374.5	15.7	1.4	172.92	-301.9	-410.4	1,121.6	1,109.2	12.44	90.156	
4,600.0	4,504.0	4,451.2	4,450.5	16.1	1.4	172.87	-306.5	-410.6	1,146.4	1,133.7	12.69	90.366	
4,626.0	4,528.7	4,480.3	4,479.6	16.3	1.4	172.84	-308.3	-410.4	1,155.1	1,142.3	12.78	90.408	
4,700.0	4,598.9	4,543.8	4,542.9	16.7	1.5	172.76	-312.6	-409.8	1,179.9	1,166.8	13.03	90.553	
4,724.4	4,622.1	4,562.6	4,561.7	16.9	1.5	172.73	-314.0	-409.7	1,188.2	1,175.1	13.11	90.612	
4,800.0	4,693.9	4,626.7	4,625.6	17.4	1.5	172.63	-319.1	-409.5	1,214.4	1,201.0	13.38	90.792	
4,822.8	4,715.5	4,649.3	4,648.1	17.5	1.5	172.59	-320.9	-409.5	1,222.3	1,208.8	13.46	90.826	
4,900.0	4,788.8	4,731.9	4,730.5	18.0	1.5	172.48	-327.3	-409.2	1,248.9	1,235.1	13.73	90.940	
4,921.2	4,809.0	4,758.2	4,756.7	18.1	1.5	172.46	-328.9	-409.0	1,256.0	1,242.2	13.81	90.968	
5,000.0	4,883.7	4,840.7	4,839.1	18.6	1.6	172.46	-332.6	-408.7	1,281.9	1,267.8	14.08	91.064	
5,019.7	4,902.4	4,858.4	4,856.8	18.7	1.6	172.47	-333.2	-408.7	1,288.4	1,274.2	14.14	91.094	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,978.6	4,936.6	4,934.9	19.3	1.6	172.52	-335.7	-408.9	1,314.8	1,300.4	14.42	91.199	
5,118.1	4,995.8	4,956.0	4,954.4	19.4	1.6	172.53	-336.3	-408.9	1,320.7	1,306.2	14.48	91.209	
5,200.0	5,073.6	5,048.9	5,047.2	19.9	1.6	172.57	-339.3	-408.3	1,347.0	1,332.2	14.76	91.236	
5,216.5	5,089.2	5,068.7	5,067.0	20.0	1.6	172.58	-339.7	-408.0	1,352.2	1,337.3	14.82	91.241	
5,304.2	5,172.4	5,151.7	5,150.0	20.6	1.6	172.66	-341.1	-407.0	1,379.3	1,364.2	15.11	91.264	
5,314.9	5,182.7	5,160.7	5,159.0	20.6	1.6	172.68	-341.2	-406.9	1,382.6	1,367.5	15.14	91.328	
5,400.0	5,263.9	5,229.0	5,227.2	21.1	1.7	172.82	-342.1	-406.8	1,408.1	1,392.7	15.35	91.760	
5,413.4	5,276.7	5,239.1	5,237.4	21.1	1.7	172.84	-342.2	-406.9	1,411.9	1,396.6	15.37	91.845	
5,500.0	5,360.3	5,307.4	5,305.6	21.5	1.7	172.94	-343.9	-407.4	1,436.1	1,420.5	15.55	92.364	
5,511.8	5,371.7	5,321.2	5,319.4	21.6	1.7	172.96	-344.2	-407.5	1,439.2	1,423.6	15.57	92.425	
5,600.0	5,457.5	5,422.8	5,421.1	21.9	1.7	173.07	-346.1	-408.1	1,460.6	1,444.8	15.74	92.811	
5,610.2	5,467.5	5,433.9	5,432.1	21.9	1.7	173.09	-346.2	-408.2	1,462.8	1,447.1	15.75	92.861	
5,700.0	5,555.6	5,523.1	5,521.3	22.3	1.7	173.22	-346.4	-408.7	1,480.9	1,465.0	15.89	93.213	
5,708.6	5,564.1	5,530.1	5,528.3	22.3	1.7	173.23	-346.4	-408.8	1,482.5	1,466.6	15.90	93.246	
5,800.0	5,654.2	5,600.0	5,598.2	22.6	1.7	173.30	-347.2	-409.4	1,498.5	1,482.5	16.02	93.537	
5,807.1	5,661.2	5,610.5	5,608.7	22.6	1.7	173.31	-347.5	-409.5	1,499.6	1,483.6	16.03	93.544	
5,900.0	5,753.4	5,692.3	5,690.5	22.8	1.8	173.36	-349.0	-410.8	1,513.6	1,497.4	16.15	93.703	
5,905.5	5,758.8	5,700.0	5,698.2	22.8	1.8	173.36	-349.2	-411.0	1,514.3	1,498.2	16.16	93.706	
6,000.0	5,852.9	5,780.2	5,778.3	23.1	1.8	173.38	-351.3	-412.6	1,525.9	1,509.7	16.27	93.792	
6,003.9	5,856.8	5,783.6	5,781.8	23.1	1.8	173.38	-351.4	-412.7	1,526.4	1,510.1	16.27	93.794	
6,100.0	5,952.7	5,878.7	5,876.7	23.2	1.8	173.29	-356.0	-414.0	1,535.3	1,519.0	16.38	93.735	
6,102.3	5,955.1	5,881.1	5,879.1	23.2	1.8	173.29	-356.2	-414.0	1,535.5	1,519.1	16.38	93.732	
6,200.0	6,052.7	5,991.5	5,989.2	23.4	1.9	173.06	-363.7	-413.8	1,540.9	1,524.4	16.49	93.450	
6,200.8	6,053.5	5,992.4	5,990.1	23.4	1.9	173.06	-363.8	-413.8	1,541.0	1,524.5	16.49	93.447	
6,221.1	6,073.8	6,013.2	6,010.9	23.4	1.9	-118.57	-365.2	-413.6	1,541.5	1,525.0	16.51	93.363	
6,251.1	6,103.8	6,042.0	6,039.7	23.4	1.9	-118.63	-367.1	-413.5	1,542.3	1,525.8	16.57	93.060	
6,299.2	6,151.8	6,088.3	6,085.9	23.5	1.9	61.28	-370.0	-413.3	1,542.9	1,526.3	16.59	93.009	
6,300.0	6,152.6	6,089.1	6,086.6	23.5	1.9	61.28	-370.1	-413.3	1,542.9	1,526.3	16.59	93.008	
6,350.0	6,202.4	6,143.1	6,140.5	23.5	1.9	61.44	-373.3	-413.2	1,541.7	1,525.2	16.59	92.936	
6,397.6	6,249.3	6,195.8	6,193.2	23.5	1.9	61.83	-376.3	-413.0	1,539.0	1,522.4	16.58	92.799	
6,400.0	6,251.6	6,198.4	6,195.8	23.5	1.9	61.85	-376.4	-413.0	1,538.8	1,522.2	16.58	92.791	
6,450.0	6,300.1	6,252.0	6,249.2	23.5	1.9	62.52	-379.1	-412.7	1,534.0	1,517.5	16.57	92.556	
6,496.0	6,344.0	6,300.0	6,297.2	23.5	2.0	63.36	-381.4	-412.4	1,528.2	1,511.6	16.57	92.244	
6,500.0	6,347.7	6,304.1	6,301.3	23.5	2.0	63.44	-381.5	-412.4	1,527.6	1,511.1	16.57	92.214	
6,550.0	6,394.1	6,350.8	6,347.9	23.5	2.0	64.54	-383.6	-412.1	1,519.7	1,503.2	16.56	91.754	
6,594.5	6,434.2	6,391.2	6,388.3	23.4	2.0	65.69	-385.2	-412.0	1,511.6	1,495.1	16.57	91.233	
6,600.0	6,439.0	6,396.1	6,393.2	23.4	2.0	65.85	-385.4	-412.0	1,510.6	1,494.0	16.57	91.164	
6,650.0	6,482.4	6,441.0	6,438.1	23.4	2.0	67.37	-387.2	-411.8	1,500.2	1,483.6	16.59	90.432	
6,692.9	6,518.1	6,478.3	6,475.3	23.3	2.0	68.81	-388.7	-411.7	1,490.6	1,473.9	16.62	89.679	
6,700.0	6,523.9	6,484.3	6,481.4	23.3	2.0	69.06	-388.9	-411.7	1,488.9	1,472.3	16.63	89.552	
6,750.0	6,563.3	6,527.3	6,524.3	23.3	2.0	70.93	-390.6	-411.5	1,476.8	1,460.1	16.68	88.523	
6,791.3	6,594.2	6,561.9	6,558.9	23.2	2.0	72.60	-391.9	-411.3	1,466.2	1,449.5	16.74	87.564	
6,800.0	6,600.5	6,568.9	6,565.9	23.2	2.0	72.96	-392.2	-411.2	1,463.9	1,447.2	16.76	87.368	
6,850.0	6,635.3	6,607.8	6,604.7	23.2	2.1	75.07	-393.6	-411.0	1,450.7	1,433.9	16.85	86.113	
6,889.7	6,661.1	6,636.2	6,633.2	23.1	2.1	76.76	-394.5	-410.7	1,440.1	1,423.1	16.93	85.049	
6,900.0	6,667.5	6,643.3	6,640.2	23.1	2.1	77.20	-394.8	-410.6	1,437.3	1,420.4	16.95	84.790	
6,950.0	6,696.9	6,675.9	6,672.8	23.1	2.1	79.32	-395.9	-410.3	1,424.0	1,407.0	17.07	83.415	
6,988.2	6,717.5	6,698.7	6,695.6	23.1	2.1	80.90	-396.7	-410.1	1,414.1	1,396.9	17.18	82.313	
7,000.0	6,723.5	6,704.9	6,701.8	23.1	2.1	81.36	-396.9	-410.0	1,411.1	1,393.9	17.21	81.998	
7,050.0	6,747.0	6,728.7	6,725.6	23.1	2.1	83.22	-397.6	-409.8	1,398.9	1,381.5	17.37	80.543	
7,086.6	6,762.3	6,744.1	6,741.0	23.1	2.1	84.49	-398.1	-409.6	1,390.4	1,372.9	17.51	79.420	
7,100.0	6,767.4	6,749.4	6,746.3	23.1	2.1	84.93	-398.3	-409.6	1,387.5	1,369.9	17.56	79.027	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,150.0	6,784.6	6,766.9	6,763.8	23.1	2.1	86.45	-398.8	-409.4	1,377.3	1,359.5	17.79	77.439	
7,185.0	6,794.7	6,777.3	6,774.2	23.1	2.1	87.38	-399.1	-409.3	1,370.9	1,353.0	17.98	76.265	
7,200.0	6,798.5	6,781.3	6,778.2	23.2	2.1	87.75	-399.2	-409.3	1,368.4	1,350.4	18.06	75.782	
7,250.0	6,808.9	6,792.4	6,789.3	23.2	2.1	88.80	-399.5	-409.2	1,361.1	1,342.7	18.37	74.075	
7,283.4	6,814.0	6,800.0	6,796.9	23.3	2.1	89.44	-399.7	-409.2	1,357.1	1,338.4	18.62	72.884	
7,300.0	6,816.0	6,800.0	6,796.9	23.4	2.1	89.57	-399.7	-409.2	1,355.4	1,336.6	18.73	72.350	
7,350.0	6,819.5	6,805.1	6,802.0	23.5	2.1	90.11	-399.8	-409.2	1,351.4	1,332.3	19.13	70.641	
7,381.9	6,820.0	6,806.4	6,803.3	23.7	2.1	90.29	-399.9	-409.2	1,349.9	1,330.5	19.40	69.582	
7,382.0	6,820.0	6,806.4	6,803.3	23.7	2.1	90.29	-399.9	-409.2	1,349.9	1,330.5	19.40	69.579	
7,400.0	6,819.8	6,806.8	6,803.6	23.8	2.1	90.30	-399.9	-409.2	1,349.4	1,329.8	19.55	69.005	
7,431.4	6,819.6	6,807.4	6,804.2	23.9	2.1	90.33	-399.9	-409.2	1,349.0	1,329.1	19.85	67.952	
7,480.3	6,819.2	6,808.3	6,805.1	24.2	2.1	90.36	-399.9	-409.2	1,349.9	1,329.6	20.31	66.449	
7,500.0	6,819.0	6,808.6	6,805.5	24.3	2.1	90.38	-399.9	-409.2	1,350.7	1,330.2	20.50	65.886	
7,578.7	6,818.4	6,810.1	6,807.0	24.9	2.1	90.44	-400.0	-409.1	1,357.0	1,335.6	21.36	63.537	
7,600.0	6,818.2	6,810.5	6,807.4	25.0	2.1	90.46	-400.0	-409.1	1,359.5	1,337.9	21.59	62.970	
7,677.1	6,817.6	6,812.0	6,808.9	25.7	2.1	90.52	-400.0	-409.1	1,371.2	1,348.6	22.52	60.884	
7,700.0	6,817.4	6,812.4	6,809.3	25.9	2.1	90.54	-400.0	-409.1	1,375.4	1,352.7	22.80	60.335	
7,775.6	6,816.7	6,813.9	6,810.7	26.6	2.1	90.60	-400.1	-409.1	1,392.2	1,368.4	23.79	58.530	
7,800.0	6,816.5	6,814.3	6,811.2	26.9	2.1	90.62	-400.1	-409.1	1,398.4	1,374.3	24.11	58.012	
7,874.0	6,815.9	6,815.8	6,812.6	27.7	2.1	90.68	-400.1	-409.1	1,419.7	1,394.6	25.14	56.481	
7,900.0	6,815.7	6,816.3	6,813.1	28.0	2.1	90.70	-400.1	-409.1	1,428.0	1,402.5	25.50	56.005	
7,972.4	6,815.1	6,817.7	6,814.6	28.9	2.1	90.76	-400.2	-409.1	1,453.4	1,426.8	26.56	54.727	
8,000.0	6,814.9	6,818.2	6,815.1	29.2	2.1	90.79	-400.2	-409.1	1,463.9	1,436.9	26.96	54.297	
8,070.8	6,814.3	6,819.6	6,816.5	30.1	2.1	90.85	-400.2	-409.1	1,492.8	1,464.8	28.04	53.242	
8,100.0	6,814.1	6,820.2	6,817.1	30.5	2.1	90.87	-400.2	-409.1	1,505.5	1,477.0	28.48	52.859	
8,169.3	6,813.5	6,821.6	6,818.4	31.5	2.1	90.93	-400.3	-409.1	1,537.5	1,507.9	29.57	51.996	
8,200.0	6,813.3	6,822.2	6,819.1	31.9	2.1	90.95	-400.3	-409.1	1,552.5	1,522.4	30.05	51.660	
8,267.7	6,812.7	6,823.5	6,820.4	32.9	2.1	91.01	-400.3	-409.1	1,587.1	1,555.9	31.14	50.960	
8,300.0	6,812.4	6,824.2	6,821.1	33.3	2.1	91.04	-400.3	-409.1	1,604.3	1,572.7	31.66	50.667	
8,366.1	6,811.9	6,825.5	6,822.4	34.3	2.1	91.10	-400.4	-409.1	1,641.1	1,608.3	32.75	50.103	
8,400.0	6,811.6	6,826.2	6,823.1	34.8	2.1	91.13	-400.4	-409.1	1,660.6	1,627.3	33.31	49.850	
8,464.5	6,811.1	6,827.5	6,824.4	35.8	2.1	91.18	-400.4	-409.0	1,699.0	1,664.6	34.39	49.399	
8,500.0	6,810.8	6,828.3	6,825.1	36.3	2.1	91.21	-400.5	-409.0	1,720.8	1,685.8	34.99	49.182	
8,563.0	6,810.3	6,829.6	6,826.4	37.3	2.1	91.27	-400.5	-409.0	1,760.6	1,724.5	36.06	48.822	
8,600.0	6,810.0	6,830.3	6,827.2	37.9	2.1	91.30	-400.5	-409.0	1,784.6	1,747.9	36.69	48.638	
8,661.4	6,809.5	6,831.6	6,828.5	38.9	2.1	91.35	-400.6	-409.0	1,825.4	1,787.6	37.75	48.354	
8,700.0	6,809.1	6,832.4	6,829.3	39.5	2.1	91.39	-400.6	-409.0	1,851.6	1,813.2	38.42	48.198	
8,759.8	6,808.6	6,833.7	6,830.5	40.5	2.1	91.44	-400.6	-409.0	1,893.1	1,853.6	39.46	47.975	
8,800.0	6,808.3	6,834.5	6,831.4	41.1	2.1	91.48	-400.6	-409.0	1,921.5	1,881.3	40.16	47.845	
8,858.2	6,807.8	6,835.8	6,832.6	42.1	2.1	91.53	-400.7	-409.0	1,963.4	1,922.2	41.19	47.671	
8,900.0	6,807.5	6,836.6	6,833.5	42.8	2.1	91.57	-400.7	-409.0	1,993.9	1,952.0	41.92	47.563	
8,956.7	6,807.0	6,837.9	6,834.7	43.7	2.1	91.62	-400.7	-409.0	2,036.0	1,993.1	42.93	47.429	
9,000.0	6,806.7	6,838.8	6,835.6	44.4	2.1	91.66	-400.8	-409.0	2,068.6	2,024.9	43.70	47.342	
9,055.1	6,806.2	6,840.0	6,836.8	45.4	2.1	91.71	-400.8	-409.0	2,110.7	2,066.0	44.68	47.240	
9,100.0	6,805.8	6,840.9	6,837.8	46.1	2.1	91.75	-400.8	-409.0	2,145.4	2,099.9	45.48	47.169	
9,153.5	6,805.4	6,842.1	6,839.0	47.0	2.1	91.80	-400.8	-409.0	2,187.3	2,140.8	46.45	47.093	
9,200.0	6,805.0	6,843.1	6,840.0	47.8	2.1	91.84	-400.9	-409.0	2,224.0	2,176.8	47.28	47.038	
9,251.9	6,804.6	6,844.3	6,841.1	48.7	2.1	91.89	-400.9	-409.0	2,265.6	2,217.3	48.22	46.982	
9,300.0	6,804.2	6,845.3	6,842.2	49.6	2.1	91.94	-400.9	-408.9	2,304.3	2,255.2	49.09	46.940	
9,350.4	6,803.8	6,846.5	6,843.3	50.4	2.1	91.98	-401.0	-408.9	2,345.3	2,295.3	50.01	46.901	
9,400.0	6,803.4	6,847.6	6,844.4	51.3	2.1	92.03	-401.0	-408.9	2,386.1	2,335.2	50.91	46.871	
9,448.8	6,802.9	6,848.7	6,845.5	52.1	2.1	92.08	-401.0	-408.9	2,426.5	2,374.7	51.80	46.845	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,500.0	6,802.5	6,849.8	6,846.7	53.0	2.1	92.12	-401.1	-408.9	2,469.2	2,416.5	52.73	46.824		
9,547.2	6,802.1	6,850.9	6,847.7	53.9	2.1	92.17	-401.1	-408.9	2,508.9	2,455.3	53.60	46.809		
9,600.0	6,801.7	6,852.1	6,848.9	54.8	2.1	92.22	-401.1	-408.9	2,553.5	2,499.0	54.57	46.798		
9,645.6	6,801.3	6,853.1	6,850.0	55.6	2.1	92.26	-401.2	-408.9	2,592.4	2,537.0	55.41	46.790		
9,700.0	6,800.9	6,854.4	6,851.2	56.6	2.1	92.32	-401.2	-408.9	2,639.0	2,582.6	56.40	46.787		
9,744.1	6,800.5	6,855.4	6,852.2	57.4	2.1	92.36	-401.2	-408.9	2,676.9	2,619.7	57.22	46.786 SF		
9,800.0	6,800.0	6,856.7	6,853.5	58.4	2.1	92.42	-401.3	-408.9	2,725.4	2,667.1	58.25	46.789		
9,842.5	6,799.7	6,857.7	6,854.5	59.1	2.1	92.46	-401.3	-408.9	2,762.4	2,703.3	59.03	46.793		
9,900.0	6,799.2	6,859.0	6,855.9	60.2	2.1	92.51	-401.3	-408.9	2,812.7	2,752.6	60.10	46.802		
9,940.9	6,798.9	6,860.0	6,856.8	60.9	2.1	92.56	-401.4	-408.9	2,848.6	2,787.8	60.86	46.810		
10,000.0	6,798.4	6,861.4	6,858.2	62.0	2.1	92.61	-401.4	-408.9	2,900.8	2,838.9	61.95	46.824		
10,039.3	6,798.1	6,862.3	6,859.2	62.7	2.1	92.65	-401.4	-408.9	2,935.7	2,873.0	62.68	46.835		
10,100.0	6,797.6	6,863.8	6,860.6	63.8	2.1	92.71	-401.5	-408.8	2,989.7	2,925.9	63.81	46.854		
10,137.8	6,797.2	6,864.7	6,861.5	64.4	2.1	92.75	-401.5	-408.8	3,023.4	2,958.9	64.51	46.866		
10,200.0	6,796.7	6,866.2	6,863.0	65.6	2.1	92.82	-401.5	-408.8	3,079.2	3,013.6	65.67	46.890		
10,236.2	6,796.4	6,867.1	6,863.9	66.2	2.1	92.85	-401.6	-408.8	3,111.8	3,045.5	66.34	46.904		
10,300.0	6,795.9	6,868.6	6,865.5	67.4	2.1	92.92	-401.6	-408.8	3,169.4	3,101.9	67.53	46.930		
10,334.6	6,795.6	6,869.5	6,866.3	68.0	2.1	92.96	-401.6	-408.8	3,200.8	3,132.6	68.18	46.945		
10,400.0	6,795.1	6,871.1	6,867.9	69.2	2.1	93.02	-401.7	-408.8	3,260.1	3,190.7	69.40	46.975		
10,433.0	6,794.8	6,871.9	6,868.7	69.8	2.1	93.06	-401.7	-408.8	3,290.3	3,220.2	70.02	46.990		
10,500.0	6,794.2	6,873.6	6,870.4	71.0	2.1	93.13	-401.8	-408.8	3,351.4	3,280.1	71.27	47.023		
10,531.5	6,794.0	6,874.3	6,871.2	71.6	2.1	93.16	-401.8	-408.8	3,380.2	3,308.4	71.86	47.038		
10,600.0	6,793.4	6,876.1	6,872.9	72.9	2.1	93.23	-401.8	-408.8	3,443.2	3,370.0	73.14	47.073		
10,629.9	6,793.2	6,876.8	6,873.7	73.4	2.1	93.27	-401.9	-408.8	3,470.7	3,397.0	73.71	47.089		
10,700.0	6,792.6	6,878.6	6,875.4	74.7	2.1	93.34	-401.9	-408.8	3,535.4	3,460.4	75.02	47.126		
10,728.3	6,792.3	6,879.3	6,876.2	75.2	2.1	93.37	-401.9	-408.8	3,561.6	3,486.0	75.55	47.141		
10,800.0	6,791.7	6,881.2	6,878.0	76.6	2.1	93.45	-402.0	-408.8	3,628.0	3,551.1	76.90	47.180		
10,826.7	6,791.5	6,881.9	6,878.7	77.1	2.1	93.48	-402.0	-408.8	3,652.8	3,575.4	77.40	47.195		
10,900.0	6,790.9	6,883.8	6,880.6	78.4	2.1	93.56	-402.1	-408.7	3,721.0	3,642.2	78.78	47.235		
10,925.2	6,790.7	6,884.4	6,881.3	78.9	2.1	93.59	-402.1	-408.7	3,744.4	3,665.2	79.25	47.249		
11,000.0	6,790.1	6,886.4	6,883.2	80.3	2.1	93.67	-402.2	-408.7	3,814.3	3,733.7	80.66	47.292		
11,023.6	6,789.9	6,887.0	6,883.8	80.7	2.1	93.69	-402.2	-408.7	3,836.4	3,755.3	81.10	47.305		
11,100.0	6,789.2	6,880.0	6,876.8	82.1	2.1	93.40	-402.0	-408.8	3,908.0	3,825.5	82.53	47.353		
11,122.0	6,789.1	6,880.0	6,876.8	82.5	2.1	93.40	-402.0	-408.8	3,928.7	3,845.7	82.94	47.365		
11,200.0	6,788.4	6,880.0	6,876.8	84.0	2.1	93.40	-402.0	-408.8	4,002.0	3,917.6	84.41	47.411		
11,220.4	6,788.2	6,880.0	6,876.8	84.3	2.1	93.40	-402.0	-408.8	4,021.2	3,936.5	84.80	47.422		
11,300.0	6,787.6	6,880.0	6,876.8	85.8	2.1	93.40	-402.0	-408.8	4,096.3	4,010.0	86.30	47.468		
11,318.9	6,787.4	6,880.0	6,876.8	86.2	2.1	93.40	-402.0	-408.8	4,114.1	4,027.4	86.65	47.479		
11,400.0	6,786.7	6,880.0	6,876.8	87.7	2.1	93.40	-402.0	-408.8	4,190.8	4,102.6	88.18	47.525		
11,417.3	6,786.6	6,880.0	6,876.8	88.0	2.1	93.40	-402.0	-408.8	4,207.2	4,118.7	88.51	47.535		
11,500.0	6,785.9	6,880.0	6,876.8	89.5	2.1	93.40	-402.0	-408.8	4,285.6	4,195.5	90.07	47.582		
11,515.7	6,785.8	6,880.0	6,876.8	89.8	2.1	93.40	-402.0	-408.8	4,300.5	4,210.1	90.36	47.591		
11,600.0	6,785.1	6,880.0	6,876.8	91.4	2.1	93.40	-402.0	-408.8	4,380.6	4,288.6	91.96	47.638		
11,614.1	6,785.0	6,880.0	6,876.8	91.7	2.1	93.40	-402.0	-408.8	4,394.1	4,301.8	92.22	47.646		
11,700.0	6,784.2	6,880.0	6,876.8	93.3	2.1	93.39	-402.0	-408.8	4,475.8	4,382.0	93.84	47.694		
11,712.6	6,784.1	6,880.0	6,876.8	93.5	2.1	93.39	-402.0	-408.8	4,487.8	4,393.7	94.08	47.701		
11,800.0	6,783.4	6,880.0	6,876.8	95.2	2.1	93.39	-402.0	-408.8	4,571.3	4,475.5	95.74	47.749		
11,811.0	6,783.3	6,880.0	6,876.8	95.4	2.1	93.39	-402.0	-408.8	4,581.8	4,485.8	95.94	47.755		
11,900.0	6,782.6	6,880.0	6,876.8	97.0	2.1	93.39	-402.0	-408.8	4,666.9	4,569.3	97.63	47.803		
11,909.4	6,782.5	6,880.0	6,876.8	97.2	2.1	93.39	-402.0	-408.8	4,675.9	4,578.1	97.81	47.808		
12,000.0	6,781.7	6,880.0	6,876.8	98.9	2.1	93.39	-402.0	-408.8	4,762.7	4,663.2	99.52	47.857		
12,007.8	6,781.7	6,880.0	6,876.8	99.1	2.1	93.39	-402.0	-408.8	4,770.2	4,670.6	99.67	47.861		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	6,880.0	6,876.8	100.8	2.1	93.39	-402.0	-408.8	4,858.7	4,757.3	101.41	47.909	
12,106.3	6,780.9	6,880.0	6,876.8	100.9	2.1	93.39	-402.0	-408.8	4,864.7	4,763.2	101.53	47.913	
12,200.0	6,780.1	6,880.0	6,876.8	102.7	2.1	93.39	-402.0	-408.8	4,954.8	4,851.5	103.31	47.961	
12,204.7	6,780.0	6,880.0	6,876.8	102.7	2.1	93.39	-402.0	-408.8	4,959.3	4,855.9	103.40	47.964	
12,300.0	6,779.2	6,880.0	6,876.8	104.5	2.1	93.39	-402.0	-408.8	5,051.1	4,945.9	105.20	48.012	
12,303.1	6,779.2	6,880.0	6,876.8	104.6	2.1	93.39	-402.0	-408.8	5,054.1	4,948.8	105.26	48.014	
12,400.0	6,778.4	6,880.0	6,876.8	106.4	2.1	93.39	-402.0	-408.8	5,147.5	5,040.4	107.10	48.062	
12,401.5	6,778.4	6,880.0	6,876.8	106.4	2.1	93.39	-402.0	-408.8	5,149.0	5,041.9	107.13	48.063	
12,500.0	6,777.6	6,880.0	6,876.8	108.3	2.1	93.39	-402.0	-408.8	5,244.1	5,135.1	109.00	48.111	
12,598.4	6,776.7	6,880.0	6,876.8	110.2	2.1	93.39	-402.0	-408.8	5,339.2	5,228.4	110.87	48.159	
12,600.0	6,776.7	6,880.0	6,876.8	110.2	2.1	93.39	-402.0	-408.8	5,340.8	5,229.9	110.90	48.160	
12,696.8	6,775.9	6,880.0	6,876.8	112.0	2.1	93.39	-402.0	-408.8	5,434.5	5,321.8	112.74	48.206	
12,700.0	6,775.9	6,880.0	6,876.8	112.1	2.1	93.39	-402.0	-408.8	5,437.6	5,324.8	112.80	48.207	
12,795.2	6,775.1	6,880.0	6,876.8	113.9	2.1	93.39	-402.0	-408.8	5,529.9	5,415.3	114.61	48.252	
12,800.0	6,775.0	6,880.0	6,876.8	114.0	2.1	93.39	-402.0	-408.8	5,534.5	5,419.8	114.70	48.254	
12,893.7	6,774.3	6,880.0	6,876.8	115.7	2.1	93.39	-402.0	-408.8	5,625.4	5,508.9	116.48	48.297	
12,900.0	6,774.2	6,880.0	6,876.8	115.8	2.1	93.39	-402.0	-408.8	5,631.5	5,514.9	116.60	48.299	
12,992.1	6,773.4	6,880.0	6,876.8	117.6	2.1	93.39	-402.0	-408.8	5,721.0	5,602.6	118.35	48.341	
13,000.0	6,773.4	6,880.0	6,876.8	117.7	2.1	93.39	-402.0	-408.8	5,728.7	5,610.2	118.50	48.344	
13,090.5	6,772.6	6,880.0	6,876.8	119.4	2.1	93.39	-402.0	-408.8	5,816.7	5,696.4	120.22	48.384	
13,100.0	6,772.5	6,880.0	6,876.8	119.6	2.1	93.38	-402.0	-408.8	5,825.9	5,705.5	120.40	48.388	
13,188.9	6,771.8	6,880.0	6,876.8	121.3	2.1	93.38	-402.0	-408.8	5,912.4	5,790.4	122.09	48.427	
13,200.0	6,771.7	6,880.0	6,876.8	121.5	2.1	93.38	-402.0	-408.8	5,923.2	5,800.9	122.30	48.431	
13,287.4	6,771.0	6,880.0	6,876.8	123.2	2.1	93.38	-402.0	-408.8	6,008.3	5,884.3	123.96	48.468	
13,300.0	6,770.9	6,880.0	6,876.8	123.4	2.1	93.38	-402.0	-408.8	6,020.6	5,896.4	124.20	48.474	
13,385.8	6,770.1	6,880.0	6,876.8	125.0	2.1	93.38	-402.0	-408.8	6,104.3	5,978.4	125.84	48.509	
13,400.0	6,770.0	6,880.0	6,876.8	125.3	2.1	93.38	-402.0	-408.8	6,118.1	5,992.0	126.11	48.515	
13,484.2	6,769.3	6,880.0	6,876.8	126.9	2.1	93.38	-402.0	-408.8	6,200.3	6,072.6	127.71	48.550	
13,500.0	6,769.2	6,880.0	6,876.8	127.2	2.1	93.38	-402.0	-408.8	6,215.7	6,087.7	128.01	48.556	
13,582.6	6,768.5	6,880.0	6,876.8	128.8	2.1	93.38	-402.0	-408.8	6,296.4	6,166.8	129.58	48.589	
13,600.0	6,768.3	6,880.0	6,876.8	129.1	2.1	93.38	-402.0	-408.8	6,313.3	6,183.4	129.91	48.596	
13,681.1	6,767.6	6,880.0	6,876.8	130.6	2.1	93.38	-402.0	-408.8	6,392.5	6,261.1	131.46	48.628	
13,700.0	6,767.5	6,880.0	6,876.8	131.0	2.1	93.38	-402.0	-408.8	6,411.0	6,279.2	131.82	48.635	
13,779.5	6,766.8	6,880.0	6,876.8	132.5	2.1	93.38	-402.0	-408.8	6,488.8	6,355.4	133.33	48.666	
13,800.0	6,766.6	6,880.0	6,876.8	132.9	2.1	93.38	-402.0	-408.8	6,508.8	6,375.1	133.72	48.673	
13,877.9	6,766.0	6,880.0	6,876.8	134.4	2.1	93.38	-402.0	-408.8	6,585.1	6,449.9	135.21	48.703	
13,900.0	6,765.8	6,880.0	6,876.8	134.8	2.1	93.38	-402.0	-408.8	6,606.7	6,471.1	135.63	48.711	
13,976.3	6,765.2	6,880.0	6,876.8	136.2	2.1	93.38	-402.0	-408.8	6,681.4	6,544.4	137.09	48.739	
13,995.7	6,765.0	6,880.0	6,876.8	136.6	2.1	93.38	-402.0	-408.8	6,700.3	6,562.9	137.45	48.746	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-164.37	-1,535.9	-429.8	1,595.2				
98.4	98.4	72.2	72.2	0.1	0.0	-164.36	-1,535.9	-430.0	1,594.9	1,594.8	0.13	N/A	
100.0	100.0	73.8	73.8	0.1	0.1	-164.36	-1,535.9	-430.0	1,594.9	1,594.8	0.14	N/A	
196.8	196.8	171.7	171.7	0.3	0.2	-164.34	-1,535.6	-430.5	1,594.9	1,594.4	0.48	3,295.655	
200.0	200.0	174.9	174.9	0.3	0.2	-164.34	-1,535.6	-430.5	1,594.9	1,594.4	0.50	3,215.666	
295.3	295.3	270.3	270.3	0.5	0.3	-164.32	-1,535.4	-431.0	1,594.7	1,593.9	0.81	1,964.593	
300.0	300.0	275.0	275.0	0.5	0.3	-164.32	-1,535.4	-431.1	1,594.7	1,593.9	0.83	1,929.363	
393.7	393.7	367.7	367.7	0.7	0.4	-164.30	-1,535.1	-431.5	1,594.6	1,593.5	1.11	1,439.822	
400.0	400.0	373.9	373.9	0.8	0.4	-164.30	-1,535.1	-431.6	1,594.6	1,593.5	1.13	1,416.065	
492.1	492.1	466.6	466.6	1.0	0.4	-164.28	-1,534.9	-432.0	1,594.6	1,593.2	1.39	1,144.813	
500.0	500.0	474.5	474.5	1.0	0.4	-164.28	-1,534.9	-432.0	1,594.6	1,593.1	1.42	1,126.497	
590.5	590.5	565.7	565.7	1.2	0.5	-164.27	-1,534.7	-432.4	1,594.5	1,592.8	1.67	953.463	
600.0	600.0	575.2	575.1	1.2	0.5	-164.26	-1,534.7	-432.4	1,594.4	1,592.7	1.70	938.492	
689.0	689.0	663.3	663.3	1.4	0.5	-164.25	-1,534.5	-432.8	1,594.3	1,592.4	1.95	819.098	
700.0	700.0	674.1	674.1	1.4	0.5	-164.24	-1,534.4	-432.9	1,594.3	1,592.4	1.98	806.454	
742.1	742.1	715.1	715.1	1.5	0.6	-164.24	-1,534.3	-433.2	1,594.3	1,592.2	2.09	761.920	
787.4	787.4	758.3	758.3	1.6	0.6	-164.22	-1,534.3	-433.5	1,594.3	1,592.1	2.21	719.857	
800.0	800.0	770.3	770.3	1.7	0.6	-164.22	-1,534.3	-433.6	1,594.4	1,592.1	2.25	708.969	
885.8	885.8	854.2	854.2	1.9	0.6	-164.20	-1,534.3	-434.3	1,594.6	1,592.1	2.48	642.910	
900.0	900.0	868.2	868.2	1.9	0.6	-164.19	-1,534.3	-434.4	1,594.6	1,592.1	2.52	633.181	
984.2	984.2	952.4	952.3	2.1	0.7	-164.17	-1,534.4	-435.2	1,594.9	1,592.1	2.74	581.122	
1,000.0	1,000.0	968.2	968.2	2.1	0.7	-164.16	-1,534.4	-435.3	1,594.9	1,592.1	2.79	572.346	
1,082.7	1,082.7	1,051.4	1,051.4	2.3	0.7	-164.14	-1,534.4	-436.0	1,595.2	1,592.2	3.01	530.433	
1,100.0	1,100.0	1,068.9	1,068.8	2.3	0.7	-164.13	-1,534.4	-436.2	1,595.2	1,592.2	3.05	522.431	
1,181.1	1,181.1	1,149.9	1,149.9	2.5	0.8	-164.11	-1,534.4	-436.8	1,595.4	1,592.2	3.27	488.104	
1,200.0	1,200.0	1,168.7	1,168.7	2.6	0.8	-164.10	-1,534.5	-437.0	1,595.5	1,592.2	3.32	480.762	
1,279.5	1,279.5	1,250.2	1,250.1	2.7	0.8	-164.08	-1,534.4	-437.8	1,595.7	1,592.1	3.53	452.051	
1,300.0	1,300.0	1,271.5	1,271.5	2.8	0.8	-164.07	-1,534.4	-438.0	1,595.7	1,592.1	3.58	445.185	
1,377.9	1,377.9	1,351.4	1,351.4	3.0	0.8	-164.04	-1,534.2	-438.8	1,595.7	1,591.9	3.79	420.843	
1,400.0	1,400.0	1,373.8	1,373.7	3.0	0.9	-164.03	-1,534.1	-439.1	1,595.7	1,591.8	3.85	414.432	
1,476.4	1,476.4	1,451.3	1,451.2	3.2	0.9	-163.99	-1,533.7	-440.1	1,595.6	1,591.6	4.05	393.674	
1,500.0	1,500.0	1,475.3	1,475.2	3.2	0.9	-163.98	-1,533.6	-440.4	1,595.6	1,591.5	4.12	387.667	
1,574.8	1,574.8	1,551.0	1,550.9	3.4	0.9	-163.94	-1,533.2	-441.4	1,595.5	1,591.2	4.31	369.824	
1,600.0	1,600.0	1,576.5	1,576.4	3.5	0.9	-163.93	-1,533.1	-441.7	1,595.4	1,591.0	4.38	364.179	
1,673.2	1,673.2	1,651.2	1,651.1	3.6	1.0	-163.89	-1,532.6	-442.6	1,595.2	1,590.7	4.57	348.696	
1,700.0	1,700.0	1,678.6	1,678.5	3.7	1.0	-163.88	-1,532.4	-443.0	1,595.1	1,590.5	4.65	343.352	
1,771.6	1,771.6	1,752.1	1,752.0	3.8	1.0	-163.84	-1,531.8	-443.9	1,594.9	1,590.0	4.84	329.817	
1,800.0	1,800.0	1,781.2	1,781.1	3.9	1.0	-163.82	-1,531.6	-444.3	1,594.7	1,589.8	4.91	324.745	
1,870.1	1,870.1	1,852.3	1,852.3	4.1	1.0	-163.78	-1,530.9	-445.3	1,594.3	1,589.2	5.10	312.875	
1,900.0	1,900.0	1,882.6	1,882.5	4.1	1.1	-163.77	-1,530.6	-445.6	1,594.2	1,589.0	5.17	308.066	
1,968.5	1,968.5	1,952.3	1,952.2	4.3	1.1	-163.73	-1,529.9	-446.5	1,593.7	1,588.4	5.36	297.593	
2,000.0	2,000.0	1,984.5	1,984.4	4.4	1.1	-163.71	-1,529.5	-446.9	1,593.5	1,588.1	5.44	293.007	
2,066.9	2,066.9	2,052.9	2,052.8	4.5	1.1	-163.68	-1,528.8	-447.7	1,593.0	1,587.4	5.61	283.723	
2,100.0	2,100.0	2,086.8	2,086.6	4.6	1.1	-163.66	-1,528.4	-448.0	1,592.7	1,587.0	5.70	279.343	
2,145.3	2,145.3	2,134.0	2,133.8	4.7	1.2	127.95	-1,527.8	-448.5	1,592.5	1,586.9	5.63	283.015	
2,165.3	2,165.3	2,154.9	2,154.8	4.7	1.2	127.97	-1,527.5	-448.6	1,592.6	1,586.9	5.68	280.613	
2,200.0	2,200.0	2,191.2	2,191.1	4.8	1.2	128.01	-1,527.0	-448.9	1,592.8	1,587.1	5.76	276.580	
2,263.8	2,263.7	2,258.0	2,257.8	4.9	1.2	128.11	-1,526.0	-449.4	1,593.8	1,587.9	5.91	269.695	
2,300.0	2,299.8	2,295.9	2,295.7	5.0	1.2	128.18	-1,525.4	-449.6	1,594.8	1,588.8	6.00	266.001	
2,362.2	2,361.8	2,357.4	2,357.3	5.1	1.2	128.30	-1,524.4	-449.9	1,597.0	1,590.8	6.15	259.854	
2,400.0	2,399.5	2,394.6	2,394.5	5.2	1.2	128.39	-1,523.8	-450.1	1,598.8	1,592.5	6.24	256.334	
2,460.6	2,459.7	2,452.6	2,452.5	5.4	1.3	128.54	-1,522.9	-450.3	1,602.3	1,595.9	6.39	250.763	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,500.0	2,498.7	2,490.1	2,489.9	5.5	1.3	128.64	-1,522.4	-450.4	1,605.1	1,598.6	6.49	247.389	
2,559.0	2,557.1	2,547.0	2,546.9	5.6	1.3	128.81	-1,521.8	-450.5	1,610.0	1,603.4	6.65	242.270	
2,600.0	2,597.5	2,586.5	2,586.4	5.7	1.3	128.94	-1,521.3	-450.6	1,613.9	1,607.2	6.75	238.949	
2,657.5	2,654.0	2,643.6	2,643.4	5.9	1.3	129.14	-1,520.7	-450.6	1,620.1	1,613.2	6.92	234.164	
2,700.0	2,695.6	2,686.1	2,685.9	6.0	1.3	129.30	-1,520.3	-450.6	1,625.1	1,618.1	7.04	230.865	
2,755.9	2,750.2	2,742.0	2,741.8	6.2	1.3	129.53	-1,519.6	-450.5	1,632.3	1,625.1	7.21	226.353	
2,800.0	2,793.1	2,786.0	2,785.8	6.3	1.3	129.72	-1,519.1	-450.5	1,638.5	1,631.1	7.35	223.025	
2,854.3	2,845.6	2,837.4	2,837.2	6.5	1.4	129.95	-1,518.5	-450.5	1,646.7	1,639.2	7.53	218.696	
2,900.0	2,889.6	2,879.6	2,879.4	6.6	1.4	130.14	-1,518.0	-450.5	1,654.3	1,646.6	7.68	215.347	
2,952.7	2,940.2	2,928.4	2,928.2	6.8	1.4	130.37	-1,517.5	-450.4	1,663.7	1,655.8	7.88	211.204	
3,000.0	2,985.3	2,972.0	2,971.8	7.0	1.4	130.58	-1,517.1	-450.4	1,672.8	1,664.8	8.05	207.759	
3,016.9	3,001.4	2,987.5	2,987.3	7.1	1.4	130.66	-1,517.0	-450.3	1,676.2	1,668.1	8.12	206.481	
3,051.2	3,033.9	3,018.3	3,018.1	7.3	1.4	130.91	-1,516.8	-450.2	1,683.2	1,675.0	8.25	203.952	
3,100.0	3,080.2	3,061.7	3,061.5	7.5	1.4	131.26	-1,516.6	-450.0	1,693.3	1,684.9	8.44	200.559	
3,149.6	3,127.3	3,105.9	3,105.7	7.7	1.4	131.61	-1,516.6	-449.7	1,703.7	1,695.1	8.64	197.089	
3,200.0	3,175.1	3,151.9	3,151.7	8.0	1.4	131.97	-1,516.6	-449.2	1,714.5	1,705.6	8.85	193.758	
3,248.0	3,220.7	3,195.9	3,195.7	8.2	1.4	132.30	-1,516.8	-448.6	1,724.8	1,715.8	9.05	190.594	
3,300.0	3,270.0	3,242.7	3,242.5	8.5	1.4	132.64	-1,517.1	-447.9	1,736.2	1,726.9	9.26	187.403	
3,346.4	3,314.1	3,284.5	3,284.3	8.7	1.4	132.94	-1,517.4	-447.1	1,746.4	1,736.9	9.46	184.536	
3,400.0	3,365.0	3,333.0	3,332.7	9.0	1.4	133.28	-1,518.0	-446.2	1,758.4	1,748.7	9.69	181.425	
3,444.9	3,407.6	3,373.6	3,373.4	9.2	1.4	133.55	-1,518.5	-445.3	1,768.5	1,758.6	9.89	178.857	
3,500.0	3,459.9	3,424.7	3,424.5	9.5	1.4	133.89	-1,519.3	-444.1	1,781.1	1,770.9	10.13	175.887	
3,543.3	3,501.0	3,465.9	3,465.6	9.8	1.4	134.17	-1,519.9	-443.2	1,791.0	1,780.7	10.32	173.596	
3,600.0	3,554.8	3,519.2	3,518.9	10.1	1.4	134.51	-1,520.7	-441.9	1,804.0	1,793.5	10.56	170.758	
3,641.7	3,594.4	3,557.5	3,557.2	10.3	1.4	134.76	-1,521.4	-441.0	1,813.7	1,803.0	10.75	168.714	
3,700.0	3,649.7	3,611.3	3,610.9	10.7	1.4	135.10	-1,522.3	-439.8	1,827.4	1,816.4	11.01	166.012	
3,740.1	3,687.8	3,648.7	3,648.4	10.9	1.4	135.33	-1,523.0	-439.0	1,836.8	1,825.6	11.19	164.191	
3,800.0	3,744.7	3,704.7	3,704.3	11.2	1.4	135.67	-1,524.0	-437.7	1,851.0	1,839.6	11.45	161.618	
3,838.6	3,781.3	3,741.5	3,741.1	11.5	1.4	135.90	-1,524.7	-436.9	1,860.2	1,848.6	11.63	160.004	
3,900.0	3,839.6	3,800.0	3,799.6	11.8	1.4	136.26	-1,525.7	-435.7	1,874.9	1,863.0	11.90	157.562	
3,937.0	3,874.7	3,834.2	3,833.8	12.1	1.4	136.46	-1,526.3	-435.0	1,883.8	1,871.7	12.07	156.127	
4,000.0	3,934.5	3,892.3	3,891.8	12.4	1.4	136.81	-1,527.4	-433.9	1,899.0	1,886.7	12.35	153.806	
4,035.4	3,968.1	3,925.9	3,925.4	12.6	1.4	137.01	-1,528.0	-433.3	1,907.7	1,895.2	12.51	152.539	
4,100.0	4,029.4	3,987.8	3,987.3	13.0	1.4	137.37	-1,529.1	-432.3	1,923.4	1,910.6	12.79	150.336	
4,133.8	4,061.5	4,020.0	4,019.5	13.2	1.4	137.56	-1,529.7	-431.7	1,931.7	1,918.8	12.95	149.215	
4,200.0	4,124.3	4,082.4	4,081.9	13.6	1.4	137.92	-1,530.7	-430.8	1,948.0	1,934.8	13.24	147.124	
4,232.3	4,155.0	4,113.5	4,113.0	13.8	1.4	138.10	-1,531.3	-430.3	1,956.0	1,942.6	13.38	146.135	
4,300.0	4,219.3	4,180.7	4,180.2	14.2	1.4	138.49	-1,532.3	-429.4	1,972.7	1,959.0	13.68	144.153	
4,330.7	4,248.4	4,211.0	4,210.5	14.4	1.4	138.66	-1,532.7	-429.0	1,980.3	1,966.5	13.82	143.280	
4,400.0	4,314.2	4,278.6	4,278.1	14.9	1.4	139.04	-1,533.5	-428.2	1,997.4	1,983.3	14.13	141.390	
4,429.1	4,341.8	4,307.1	4,306.5	15.0	1.4	139.20	-1,533.9	-427.8	2,004.6	1,990.4	14.26	140.618	
4,500.0	4,409.1	4,376.8	4,376.3	15.5	1.4	139.59	-1,534.6	-427.0	2,022.2	2,007.6	14.57	138.812	
4,527.5	4,435.3	4,403.7	4,403.1	15.7	1.4	139.74	-1,534.9	-426.6	2,029.0	2,014.3	14.69	138.129	
4,600.0	4,504.0	4,471.0	4,470.4	16.1	1.4	140.11	-1,535.6	-425.9	2,047.0	2,032.0	15.01	136.393	
4,626.0	4,528.7	4,495.1	4,494.6	16.3	1.4	140.24	-1,535.8	-425.6	2,053.5	2,038.4	15.12	135.790	
4,700.0	4,598.9	4,573.8	4,573.2	16.7	1.4	140.66	-1,536.4	-424.8	2,072.0	2,056.5	15.44	134.164	
4,724.4	4,622.1	4,600.0	4,599.4	16.9	1.4	140.80	-1,536.6	-424.5	2,078.0	2,062.4	15.55	133.641	
4,800.0	4,693.9	4,672.9	4,672.3	17.4	1.4	141.19	-1,536.8	-423.8	2,096.7	2,080.8	15.88	132.061	
4,822.8	4,715.5	4,695.0	4,694.4	17.5	1.4	141.30	-1,536.9	-423.5	2,102.3	2,086.3	15.98	131.597	
4,900.0	4,788.8	4,767.7	4,767.1	18.0	1.5	141.68	-1,537.1	-422.8	2,121.5	2,105.2	16.31	130.071	
4,921.2	4,809.0	4,787.7	4,787.1	18.1	1.5	141.78	-1,537.2	-422.6	2,126.8	2,110.4	16.40	129.663	
5,000.0	4,883.7	4,858.6	4,858.0	18.6	1.5	142.14	-1,537.5	-421.9	2,146.6	2,129.8	16.74	128.198	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,902.4	4,876.1	4,875.5	18.7	1.5	142.23	-1,537.6	-421.7	2,151.5	2,134.7	16.83	127.843	
5,100.0	4,978.6	4,951.7	4,951.1	19.3	1.5	142.61	-1,538.1	-421.0	2,172.0	2,154.8	17.18	126.457	
5,118.1	4,995.8	4,969.2	4,968.6	19.4	1.5	142.69	-1,538.2	-420.8	2,176.6	2,159.3	17.25	126.154	
5,200.0	5,073.6	5,050.7	5,050.1	19.9	1.5	143.09	-1,538.7	-420.0	2,197.5	2,179.9	17.60	124.839	
5,216.5	5,089.2	5,067.5	5,066.9	20.0	1.5	143.17	-1,538.7	-419.8	2,201.7	2,184.0	17.67	124.581	
5,304.2	5,172.4	5,155.9	5,155.3	20.6	1.5	143.58	-1,539.0	-418.8	2,223.9	2,205.9	18.04	123.257	
5,314.9	5,182.7	5,166.8	5,166.1	20.6	1.5	143.67	-1,539.1	-418.7	2,226.6	2,208.6	18.07	123.210	
5,400.0	5,263.9	5,253.7	5,253.1	21.1	1.5	144.29	-1,539.2	-417.5	2,246.9	2,228.6	18.30	122.789	
5,413.4	5,276.7	5,267.5	5,266.9	21.1	1.5	144.38	-1,539.2	-417.3	2,249.9	2,231.6	18.32	122.777	
5,500.0	5,360.3	5,352.4	5,351.8	21.5	1.5	144.90	-1,539.2	-416.0	2,268.0	2,249.5	18.50	122.621	
5,511.8	5,371.7	5,363.6	5,363.0	21.6	1.5	144.96	-1,539.2	-415.9	2,270.3	2,251.8	18.52	122.607	
5,600.0	5,457.5	5,450.7	5,450.0	21.9	1.5	145.42	-1,539.3	-414.6	2,286.4	2,267.8	18.68	122.433	
5,610.2	5,467.5	5,461.1	5,460.4	21.9	1.5	145.47	-1,539.3	-414.4	2,288.2	2,269.5	18.69	122.420	
5,700.0	5,555.6	5,553.9	5,553.3	22.3	1.6	145.85	-1,539.2	-413.0	2,302.0	2,283.1	18.83	122.221	
5,708.6	5,564.1	5,563.0	5,562.3	22.3	1.6	145.89	-1,539.1	-412.9	2,303.2	2,284.3	18.85	122.207	
5,800.0	5,654.2	5,655.6	5,654.9	22.6	1.6	146.20	-1,538.8	-411.4	2,314.4	2,295.4	18.98	121.955	
5,807.1	5,661.2	5,662.6	5,661.9	22.6	1.6	146.22	-1,538.8	-411.3	2,315.2	2,296.2	18.99	121.939	
5,900.0	5,753.4	5,750.1	5,749.4	22.8	1.6	146.45	-1,538.5	-410.0	2,324.1	2,305.0	19.11	121.626	
5,905.5	5,758.8	5,755.1	5,754.4	22.8	1.6	146.46	-1,538.5	-409.9	2,324.5	2,305.4	19.11	121.611	
6,000.0	5,852.9	5,842.9	5,842.2	23.1	1.6	146.63	-1,538.4	-408.8	2,331.1	2,311.9	19.23	121.240	
6,003.9	5,856.8	5,846.6	5,845.9	23.1	1.6	146.63	-1,538.4	-408.8	2,331.4	2,312.1	19.23	121.226	
6,100.0	5,952.7	5,944.0	5,943.3	23.2	1.6	146.74	-1,538.3	-407.8	2,335.5	2,316.1	19.34	120.769	
6,102.3	5,955.1	5,946.6	5,945.9	23.2	1.6	146.74	-1,538.3	-407.8	2,335.5	2,316.2	19.34	120.757	
6,200.0	6,052.7	6,042.2	6,041.5	23.4	1.6	146.77	-1,537.9	-406.9	2,336.7	2,317.3	19.44	120.176	
6,200.8	6,053.5	6,042.9	6,042.2	23.4	1.6	146.77	-1,537.9	-406.9	2,336.7	2,317.3	19.44	120.172	
6,221.1	6,073.8	6,060.4	6,059.7	23.4	1.6	-144.81	-1,537.9	-406.8	2,336.6	2,317.2	19.47	120.042	
6,251.1	6,103.8	6,086.2	6,085.5	23.4	1.6	-144.81	-1,537.9	-406.6	2,336.5	2,317.0	19.51	119.738	
6,299.2	6,151.8	6,130.3	6,129.6	23.5	1.7	35.27	-1,538.0	-406.3	2,335.1	2,315.6	19.49	119.780	
6,300.0	6,152.6	6,131.0	6,130.3	23.5	1.7	35.27	-1,538.0	-406.3	2,335.0	2,315.5	19.49	119.781	
6,350.0	6,202.4	6,178.1	6,177.4	23.5	1.7	35.53	-1,538.0	-406.1	2,330.7	2,311.3	19.45	119.831	
6,397.6	6,249.3	6,226.0	6,225.3	23.5	1.7	35.97	-1,538.0	-406.0	2,324.1	2,304.7	19.39	119.885	
6,400.0	6,251.6	6,228.6	6,227.9	23.5	1.7	35.99	-1,538.0	-406.0	2,323.7	2,304.3	19.38	119.891	
6,450.0	6,300.1	6,281.7	6,281.0	23.5	1.7	36.66	-1,537.9	-405.9	2,313.8	2,294.5	19.28	120.019	
6,496.0	6,344.0	6,326.7	6,326.0	23.5	1.7	37.45	-1,537.8	-405.8	2,302.2	2,283.1	19.15	120.231	
6,500.0	6,347.7	6,330.4	6,329.6	23.5	1.7	37.52	-1,537.8	-405.8	2,301.1	2,282.0	19.13	120.258	
6,550.0	6,394.1	6,376.0	6,375.3	23.5	1.7	38.59	-1,537.7	-405.6	2,285.8	2,266.9	18.95	120.635	
6,594.5	6,434.2	6,415.5	6,414.8	23.4	1.7	39.72	-1,537.6	-405.4	2,270.1	2,251.4	18.75	121.079	
6,600.0	6,439.0	6,420.3	6,419.6	23.4	1.7	39.88	-1,537.6	-405.4	2,268.1	2,249.3	18.72	121.148	
6,650.0	6,482.4	6,463.0	6,462.3	23.4	1.7	41.41	-1,537.6	-405.3	2,247.9	2,229.4	18.46	121.755	
6,692.9	6,518.1	6,498.2	6,497.5	23.3	1.7	42.93	-1,537.5	-405.2	2,228.8	2,210.6	18.23	122.278	
6,700.0	6,523.9	6,500.0	6,499.3	23.3	1.7	43.15	-1,537.5	-405.2	2,225.5	2,207.3	18.19	122.362	
6,750.0	6,563.3	6,500.0	6,499.3	23.3	1.7	44.68	-1,537.5	-405.2	2,201.4	2,183.5	17.93	122.786	
6,791.3	6,594.2	6,500.0	6,499.3	23.2	1.7	46.06	-1,537.5	-405.2	2,180.5	2,162.8	17.73	123.006	
6,800.0	6,600.5	6,500.0	6,499.3	23.2	1.7	46.36	-1,537.5	-405.2	2,176.0	2,158.3	17.68	123.056	
6,850.0	6,635.3	6,500.0	6,499.3	23.2	1.7	48.21	-1,537.5	-405.2	2,149.4	2,132.0	17.47	123.048	
6,889.7	6,661.1	6,500.0	6,499.3	23.1	1.7	49.80	-1,537.5	-405.2	2,127.5	2,110.1	17.33	122.731	
6,900.0	6,667.5	6,500.0	6,499.3	23.1	1.7	50.22	-1,537.5	-405.2	2,121.7	2,104.4	17.30	122.643	
6,950.0	6,696.9	6,500.0	6,499.3	23.1	1.7	52.42	-1,537.5	-405.2	2,092.9	2,075.7	17.19	121.738	
6,988.2	6,717.5	6,500.0	6,499.3	23.1	1.7	54.22	-1,537.5	-405.2	2,070.3	2,053.1	17.16	120.618	
7,000.0	6,723.5	6,500.0	6,499.3	23.1	1.7	54.80	-1,537.5	-405.2	2,063.2	2,046.0	17.15	120.274	
7,050.0	6,747.0	6,500.0	6,499.3	23.1	1.7	57.36	-1,537.5	-405.2	2,032.7	2,015.5	17.19	118.244	
7,086.6	6,762.3	6,500.0	6,499.3	23.1	1.7	59.35	-1,537.5	-405.2	2,009.8	1,992.6	17.27	116.400	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #2 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
7,100.0	6,767.4	6,500.0	6,499.3	23.1	1.7	60.10	-1,537.5	-405.2	2,001.4	1,984.1	17.30	115.698		
7,150.0	6,784.6	6,500.0	6,499.3	23.1	1.7	63.01	-1,537.5	-405.2	1,969.5	1,952.1	17.47	112.725		
7,185.0	6,794.7	6,500.0	6,499.3	23.1	1.7	65.14	-1,537.5	-405.2	1,946.9	1,929.3	17.63	110.433		
7,200.0	6,798.5	6,500.0	6,499.3	23.2	1.7	66.07	-1,537.5	-405.2	1,937.2	1,919.5	17.70	109.432		
7,250.0	6,808.9	6,500.0	6,499.3	23.2	1.7	69.26	-1,537.5	-405.2	1,904.5	1,886.5	17.98	105.913		
7,283.4	6,814.0	6,500.0	6,499.3	23.3	1.7	71.46	-1,537.5	-405.2	1,882.6	1,864.4	18.20	103.441		
7,300.0	6,816.0	6,500.0	6,499.3	23.4	1.7	72.56	-1,537.5	-405.2	1,871.7	1,853.4	18.31	102.234		
7,350.0	6,819.5	6,500.0	6,499.3	23.5	1.7	75.91	-1,537.5	-405.2	1,838.8	1,820.1	18.68	98.422		
7,381.9	6,820.0	6,500.0	6,499.3	23.7	1.7	78.07	-1,537.5	-405.2	1,817.9	1,799.0	18.95	95.919		
7,382.0	6,820.0	6,500.0	6,499.3	23.7	1.7	78.08	-1,537.5	-405.2	1,817.8	1,798.9	18.95	95.910		
7,400.0	6,819.8	6,500.0	6,499.3	23.8	1.7	78.08	-1,537.5	-405.2	1,806.1	1,787.0	19.10	94.563		
7,480.3	6,819.2	6,500.0	6,499.3	24.2	1.7	78.08	-1,537.5	-405.2	1,755.1	1,735.3	19.83	88.516		
7,500.0	6,819.0	6,500.0	6,499.3	24.3	1.7	78.08	-1,537.5	-405.2	1,742.9	1,722.9	20.01	87.117		
7,578.7	6,818.4	6,500.0	6,499.3	24.9	1.7	78.08	-1,537.5	-405.2	1,695.6	1,674.8	20.84	81.383		
7,600.0	6,818.2	6,500.0	6,499.3	25.0	1.7	78.08	-1,537.5	-405.2	1,683.3	1,662.2	21.06	79.931		
7,677.1	6,817.6	6,500.0	6,499.3	25.7	1.7	78.08	-1,537.5	-405.2	1,640.0	1,618.0	21.97	74.658		
7,700.0	6,817.4	6,500.0	6,499.3	25.9	1.7	78.08	-1,537.5	-405.2	1,627.6	1,605.4	22.23	73.201		
7,775.6	6,816.7	6,500.0	6,499.3	26.6	1.7	78.08	-1,537.5	-405.2	1,588.4	1,565.2	23.20	68.464		
7,800.0	6,816.5	6,500.0	6,499.3	26.9	1.7	78.08	-1,537.5	-405.2	1,576.3	1,552.8	23.51	67.041		
7,874.0	6,815.9	6,500.0	6,499.3	27.7	1.7	78.08	-1,537.5	-405.2	1,541.5	1,516.9	24.52	62.861		
7,900.0	6,815.7	6,500.0	6,499.3	28.0	1.7	78.08	-1,537.5	-405.2	1,529.9	1,505.0	24.88	61.499		
7,972.4	6,815.1	6,500.0	6,499.3	28.9	1.7	78.08	-1,537.5	-405.2	1,499.5	1,473.6	25.91	57.862		
8,000.0	6,814.9	6,500.0	6,499.3	29.2	1.7	78.08	-1,537.5	-405.2	1,488.7	1,462.4	26.31	56.582		
8,070.8	6,814.3	6,500.0	6,499.3	30.1	1.7	78.08	-1,537.5	-405.2	1,463.0	1,435.6	27.37	53.455		
8,100.0	6,814.1	6,500.0	6,499.3	30.5	1.7	78.08	-1,537.5	-405.2	1,453.2	1,425.4	27.80	52.269		
8,169.3	6,813.5	6,500.0	6,499.3	31.5	1.7	78.08	-1,537.5	-405.2	1,432.3	1,403.4	28.87	49.608		
8,200.0	6,813.3	6,500.0	6,499.3	31.9	1.7	78.08	-1,537.5	-405.2	1,423.9	1,394.6	29.35	48.524		
8,267.7	6,812.7	6,500.0	6,499.3	32.9	1.7	78.08	-1,537.5	-405.2	1,407.8	1,377.4	30.42	46.283		
8,300.0	6,812.4	6,500.0	6,499.3	33.3	1.7	78.08	-1,537.5	-405.2	1,401.2	1,370.3	30.93	45.304		
8,366.1	6,811.9	6,500.0	6,499.3	34.3	1.7	78.08	-1,537.5	-405.2	1,389.9	1,357.9	32.00	43.436		
8,400.0	6,811.6	6,500.0	6,499.3	34.8	1.7	78.08	-1,537.5	-405.2	1,385.3	1,352.7	32.55	42.563		
8,464.5	6,811.1	6,500.0	6,499.3	35.8	1.7	78.08	-1,537.5	-405.2	1,378.8	1,345.2	33.61	41.023		
8,500.0	6,810.8	6,500.0	6,499.3	36.3	1.7	78.08	-1,537.5	-405.2	1,376.5	1,342.3	34.19	40.255		
8,563.0	6,810.3	6,500.0	6,499.3	37.3	1.7	78.08	-1,537.5	-405.2	1,374.6	1,339.4	35.25	39.000		
8,571.5	6,810.2	6,500.0	6,499.3	37.4	1.7	78.08	-1,537.5	-405.2	1,374.6	1,339.2	35.39	38.842 CC		
8,600.0	6,810.0	6,500.0	6,499.3	37.9	1.7	78.08	-1,537.5	-405.2	1,374.9	1,339.1	35.87	38.334 ES		
8,661.4	6,809.5	6,500.0	6,499.3	38.9	1.7	78.08	-1,537.5	-405.2	1,377.6	1,340.7	36.91	37.325		
8,700.0	6,809.1	6,500.0	6,499.3	39.5	1.7	78.08	-1,537.5	-405.2	1,380.6	1,343.1	37.56	36.757		
8,759.8	6,808.6	6,500.0	6,499.3	40.5	1.7	78.08	-1,537.5	-405.2	1,387.5	1,348.9	38.59	35.958		
8,800.0	6,808.3	6,500.0	6,499.3	41.1	1.7	78.08	-1,537.5	-405.2	1,393.5	1,354.2	39.27	35.482		
8,858.2	6,807.8	6,500.0	6,499.3	42.1	1.7	78.08	-1,537.5	-405.2	1,404.2	1,363.9	40.28	34.861		
8,900.0	6,807.5	6,500.0	6,499.3	42.8	1.7	78.08	-1,537.5	-405.2	1,413.3	1,372.3	41.00	34.469		
8,956.7	6,807.0	6,500.0	6,499.3	43.7	1.7	78.08	-1,537.5	-405.2	1,427.6	1,385.6	41.99	33.997		
9,000.0	6,806.7	6,500.0	6,499.3	44.4	1.7	78.08	-1,537.5	-405.2	1,439.9	1,397.1	42.75	33.684		
9,055.1	6,806.2	6,500.0	6,499.3	45.4	1.7	78.08	-1,537.5	-405.2	1,457.2	1,413.5	43.71	33.336		
9,100.0	6,805.8	6,500.0	6,499.3	46.1	1.7	78.08	-1,537.5	-405.2	1,472.7	1,428.2	44.50	33.094		
9,153.5	6,805.4	6,500.0	6,499.3	47.0	1.7	78.08	-1,537.5	-405.2	1,492.8	1,447.3	45.45	32.847		
9,200.0	6,805.0	6,500.0	6,499.3	47.8	1.7	78.08	-1,537.5	-405.2	1,511.5	1,465.2	46.27	32.669		
9,251.9	6,804.6	6,500.0	6,499.3	48.7	1.7	78.08	-1,537.5	-405.2	1,533.8	1,486.6	47.19	32.503		
9,300.0	6,804.2	6,500.0	6,499.3	49.6	1.7	78.08	-1,537.5	-405.2	1,555.7	1,507.7	48.04	32.382		
9,350.4	6,803.8	6,500.0	6,499.3	50.4	1.7	78.08	-1,537.5	-405.2	1,579.9	1,531.0	48.94	32.282		
9,400.0	6,803.4	6,500.0	6,499.3	51.3	1.7	78.08	-1,537.5	-405.2	1,605.0	1,555.2	49.83	32.211		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,448.8	6,802.9	6,500.0	6,499.3	52.1	1.7	78.08	-1,537.5	-405.2	1,630.7	1,580.0	50.70	32.163	
9,500.0	6,802.5	6,500.0	6,499.3	53.0	1.7	78.08	-1,537.5	-405.2	1,658.8	1,607.2	51.62	32.135	
9,547.2	6,802.1	6,500.0	6,499.3	53.9	1.7	78.08	-1,537.5	-405.2	1,685.7	1,633.2	52.47	32.128 SF	
9,600.0	6,801.7	6,500.0	6,499.3	54.8	1.7	78.08	-1,537.5	-405.2	1,716.8	1,663.4	53.42	32.139	
9,645.6	6,801.3	6,500.0	6,499.3	55.6	1.7	78.08	-1,537.5	-405.2	1,744.5	1,690.3	54.24	32.162	
9,700.0	6,800.9	6,500.0	6,499.3	56.6	1.7	78.08	-1,537.5	-405.2	1,778.5	1,723.3	55.22	32.206	
9,744.1	6,800.5	6,500.0	6,499.3	57.4	1.7	78.08	-1,537.5	-405.2	1,806.8	1,750.8	56.02	32.252	
9,800.0	6,800.0	6,500.0	6,499.3	58.4	1.7	78.08	-1,537.5	-405.2	1,843.6	1,786.5	57.03	32.324	
9,842.5	6,799.7	6,500.0	6,499.3	59.1	1.7	78.08	-1,537.5	-405.2	1,872.2	1,814.4	57.81	32.387	
9,900.0	6,799.2	6,500.0	6,499.3	60.2	1.7	78.08	-1,537.5	-405.2	1,911.7	1,852.8	58.85	32.484	
9,940.9	6,798.9	6,500.0	6,499.3	60.9	1.7	78.08	-1,537.5	-405.2	1,940.3	1,880.7	59.59	32.559	
10,000.0	6,798.4	6,500.0	6,499.3	62.0	1.7	78.08	-1,537.5	-405.2	1,982.5	1,921.8	60.67	32.676	
10,039.3	6,798.1	6,500.0	6,499.3	62.7	1.7	78.08	-1,537.5	-405.2	2,011.0	1,949.6	61.39	32.759	
10,100.0	6,797.6	6,500.0	6,499.3	63.8	1.7	78.08	-1,537.5	-405.2	2,055.7	1,993.2	62.49	32.894	
10,137.8	6,797.2	6,500.0	6,499.3	64.4	1.7	78.08	-1,537.5	-405.2	2,083.9	2,020.7	63.18	32.982	
10,200.0	6,796.7	6,500.0	6,499.3	65.6	1.7	78.08	-1,537.5	-405.2	2,131.1	2,066.8	64.32	33.132	
10,236.2	6,796.4	6,500.0	6,499.3	66.2	1.7	78.08	-1,537.5	-405.2	2,158.9	2,093.9	64.98	33.222	
10,300.0	6,795.9	6,500.0	6,499.3	67.4	1.7	78.08	-1,537.5	-405.2	2,208.4	2,142.3	66.15	33.384	
10,334.6	6,795.6	6,500.0	6,499.3	68.0	1.7	78.08	-1,537.5	-405.2	2,235.7	2,168.9	66.79	33.474	
10,400.0	6,795.1	6,500.0	6,499.3	69.2	1.7	78.08	-1,537.5	-405.2	2,287.6	2,219.6	67.99	33.647	
10,433.0	6,794.8	6,500.0	6,499.3	69.8	1.7	78.08	-1,537.5	-405.2	2,314.1	2,245.5	68.59	33.736	
10,500.0	6,794.2	6,500.0	6,499.3	71.0	1.7	78.08	-1,537.5	-405.2	2,368.3	2,298.4	69.82	33.917	
10,531.5	6,794.0	6,500.0	6,499.3	71.6	1.7	78.08	-1,537.5	-405.2	2,394.0	2,323.6	70.40	34.003	
10,600.0	6,793.4	6,500.0	6,499.3	72.9	1.7	78.08	-1,537.5	-405.2	2,450.4	2,378.7	71.66	34.192	
10,629.9	6,793.2	6,500.0	6,499.3	73.4	1.7	78.08	-1,537.5	-405.2	2,475.2	2,403.0	72.22	34.275	
10,700.0	6,792.6	6,500.0	6,499.3	74.7	1.7	78.08	-1,537.5	-405.2	2,533.8	2,460.3	73.51	34.470	
10,728.3	6,792.3	6,500.0	6,499.3	75.2	1.7	78.08	-1,537.5	-405.2	2,557.6	2,483.6	74.03	34.549	
10,800.0	6,791.7	6,500.0	6,499.3	76.6	1.7	78.08	-1,537.5	-405.2	2,618.3	2,543.0	75.35	34.749	
10,826.7	6,791.5	6,500.0	6,499.3	77.1	1.7	78.08	-1,537.5	-405.2	2,641.1	2,565.3	75.85	34.823	
10,900.0	6,790.9	6,500.0	6,499.3	78.4	1.7	78.08	-1,537.5	-405.2	2,704.0	2,626.8	77.20	35.026	
10,925.2	6,790.7	6,500.0	6,499.3	78.9	1.7	78.08	-1,537.5	-405.2	2,725.7	2,648.0	77.66	35.096	
11,000.0	6,790.1	6,500.0	6,499.3	80.3	1.7	78.08	-1,537.5	-405.2	2,790.5	2,711.5	79.05	35.302	
11,023.6	6,789.9	6,500.0	6,499.3	80.7	1.7	78.08	-1,537.5	-405.2	2,811.1	2,731.6	79.48	35.367	
11,100.0	6,789.2	6,500.0	6,499.3	82.1	1.7	78.08	-1,537.5	-405.2	2,878.0	2,797.1	80.90	35.576	
11,122.0	6,789.1	6,500.0	6,499.3	82.5	1.7	78.08	-1,537.5	-405.2	2,897.4	2,816.1	81.31	35.636	
11,200.0	6,788.4	6,500.0	6,499.3	84.0	1.7	78.08	-1,537.5	-405.2	2,966.2	2,883.5	82.75	35.846	
11,220.4	6,788.2	6,500.0	6,499.3	84.3	1.7	78.08	-1,537.5	-405.2	2,984.4	2,901.2	83.13	35.901	
11,300.0	6,787.6	6,500.0	6,499.3	85.8	1.7	78.08	-1,537.5	-405.2	3,055.2	2,970.6	84.60	36.112	
11,318.9	6,787.4	6,500.0	6,499.3	86.2	1.7	78.08	-1,537.5	-405.2	3,072.1	2,987.1	84.95	36.162	
11,400.0	6,786.7	6,500.0	6,499.3	87.7	1.7	78.08	-1,537.5	-405.2	3,144.8	3,058.4	86.46	36.374	
11,417.3	6,786.6	6,500.0	6,499.3	88.0	1.7	78.08	-1,537.5	-405.2	3,160.4	3,073.6	86.78	36.419	
11,500.0	6,785.9	6,500.0	6,499.3	89.5	1.7	78.07	-1,537.5	-405.2	3,235.1	3,146.7	88.31	36.631	
11,515.7	6,785.8	6,500.0	6,499.3	89.8	1.7	78.07	-1,537.5	-405.2	3,249.3	3,160.7	88.61	36.671	
11,600.0	6,785.1	6,500.0	6,499.3	91.4	1.7	78.07	-1,537.5	-405.2	3,325.8	3,235.7	90.17	36.883	
11,614.1	6,785.0	6,500.0	6,499.3	91.7	1.7	78.07	-1,537.5	-405.2	3,338.7	3,248.3	90.44	36.918	
11,700.0	6,784.2	6,500.0	6,499.3	93.3	1.7	78.07	-1,537.5	-405.2	3,417.2	3,325.1	92.03	37.130	
11,712.6	6,784.1	6,500.0	6,499.3	93.5	1.7	78.07	-1,537.5	-405.2	3,428.7	3,336.4	92.27	37.161	
11,800.0	6,783.4	6,500.0	6,499.3	95.2	1.7	78.07	-1,537.5	-405.2	3,508.9	3,415.0	93.89	37.372	
11,811.0	6,783.3	6,500.0	6,499.3	95.4	1.7	78.07	-1,537.5	-405.2	3,519.1	3,425.0	94.10	37.398	
11,900.0	6,782.6	6,500.0	6,499.3	97.0	1.7	78.07	-1,537.5	-405.2	3,601.2	3,505.4	95.75	37.609	
11,909.4	6,782.5	6,500.0	6,499.3	97.2	1.7	78.07	-1,537.5	-405.2	3,609.9	3,513.9	95.93	37.631	
12,000.0	6,781.7	6,500.0	6,499.3	98.9	1.7	78.07	-1,537.5	-405.2	3,693.8	3,596.2	97.62	37.840	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT EHRLICH #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,007.8	6,781.7	6,500.0	6,499.3	99.1	1.7	78.07	-1,537.5	-405.2	3,701.1	3,603.3	97.76	37.858	
12,100.0	6,780.9	6,500.0	6,499.3	100.8	1.7	78.07	-1,537.5	-405.2	3,786.8	3,687.3	99.48	38.066	
12,106.3	6,780.9	6,500.0	6,499.3	100.9	1.7	78.07	-1,537.5	-405.2	3,792.6	3,693.0	99.60	38.080	
12,200.0	6,780.1	6,500.0	6,499.3	102.7	1.7	78.07	-1,537.5	-405.2	3,880.1	3,778.8	101.34	38.287	
12,204.7	6,780.0	6,500.0	6,499.3	102.7	1.7	78.07	-1,537.5	-405.2	3,884.5	3,783.1	101.43	38.298	
12,300.0	6,779.2	6,500.0	6,499.3	104.5	1.7	78.07	-1,537.5	-405.2	3,973.8	3,870.6	103.21	38.503	
12,303.1	6,779.2	6,500.0	6,499.3	104.6	1.7	78.07	-1,537.5	-405.2	3,976.7	3,873.5	103.27	38.510	
12,400.0	6,778.4	6,500.0	6,499.3	106.4	1.7	78.07	-1,537.5	-405.2	4,067.8	3,962.7	105.07	38.714	
12,401.5	6,778.4	6,500.0	6,499.3	106.4	1.7	78.07	-1,537.5	-405.2	4,069.2	3,964.1	105.10	38.717	
12,500.0	6,777.6	6,500.0	6,499.3	108.3	1.7	78.07	-1,537.5	-405.2	4,162.0	4,055.1	106.94	38.920	
12,598.4	6,776.7	6,500.0	6,499.3	110.2	1.7	78.07	-1,537.5	-405.2	4,255.0	4,146.3	108.78	39.117	
12,600.0	6,776.7	6,500.0	6,499.3	110.2	1.7	78.07	-1,537.5	-405.2	4,256.5	4,147.7	108.81	39.120	
12,696.8	6,775.9	6,500.0	6,499.3	112.0	1.7	78.07	-1,537.5	-405.2	4,348.3	4,237.7	110.61	39.310	
12,700.0	6,775.9	6,500.0	6,499.3	112.1	1.7	78.07	-1,537.5	-405.2	4,351.3	4,240.6	110.67	39.316	
12,795.2	6,775.1	6,500.0	6,499.3	113.9	1.7	78.07	-1,537.5	-405.2	4,441.8	4,329.3	112.45	39.499	
12,800.0	6,775.0	6,500.0	6,499.3	114.0	1.7	78.07	-1,537.5	-405.2	4,446.3	4,333.8	112.54	39.508	
12,893.7	6,774.3	6,500.0	6,499.3	115.7	1.7	78.07	-1,537.5	-405.2	4,535.5	4,421.2	114.29	39.683	
12,900.0	6,774.2	6,500.0	6,499.3	115.8	1.7	78.07	-1,537.5	-405.2	4,541.5	4,427.1	114.41	39.695	
12,992.1	6,773.4	6,500.0	6,499.3	117.6	1.7	78.07	-1,537.5	-405.2	4,629.4	4,513.2	116.13	39.863	
13,000.0	6,773.4	6,500.0	6,499.3	117.7	1.7	78.07	-1,537.5	-405.2	4,636.9	4,520.6	116.28	39.877	
13,090.5	6,772.6	6,500.0	6,499.3	119.4	1.7	78.07	-1,537.5	-405.2	4,723.4	4,605.5	117.97	40.038	
13,100.0	6,772.5	6,500.0	6,499.3	119.6	1.7	78.07	-1,537.5	-405.2	4,732.5	4,614.4	118.15	40.055	
13,188.9	6,771.8	6,500.0	6,499.3	121.3	1.7	78.07	-1,537.5	-405.2	4,817.7	4,697.9	119.82	40.209	
13,200.0	6,771.7	6,500.0	6,499.3	121.5	1.7	78.07	-1,537.5	-405.2	4,828.3	4,708.3	120.02	40.228	
13,287.4	6,771.0	6,500.0	6,499.3	123.2	1.7	78.07	-1,537.5	-405.2	4,912.1	4,790.5	121.66	40.377	
13,300.0	6,770.9	6,500.0	6,499.3	123.4	1.7	78.07	-1,537.5	-405.2	4,924.2	4,802.3	121.89	40.398	
13,385.8	6,770.1	6,500.0	6,499.3	125.0	1.7	78.07	-1,537.5	-405.2	5,006.7	4,883.2	123.50	40.540	
13,400.0	6,770.0	6,500.0	6,499.3	125.3	1.7	78.06	-1,537.5	-405.2	5,020.3	4,896.6	123.76	40.564	
13,484.2	6,769.3	6,500.0	6,499.3	126.9	1.7	78.06	-1,537.5	-405.2	5,101.4	4,976.0	125.34	40.700	
13,500.0	6,769.2	6,500.0	6,499.3	127.2	1.7	78.06	-1,537.5	-405.2	5,116.6	4,990.9	125.64	40.725	
13,582.6	6,768.5	6,500.0	6,499.3	128.8	1.7	78.06	-1,537.5	-405.2	5,196.2	5,069.1	127.18	40.856	
13,600.0	6,768.3	6,500.0	6,499.3	129.1	1.7	78.06	-1,537.5	-405.2	5,213.0	5,085.5	127.51	40.883	
13,681.1	6,767.6	6,500.0	6,499.3	130.6	1.7	78.06	-1,537.5	-405.2	5,291.2	5,162.2	129.03	41.009	
13,700.0	6,767.5	6,500.0	6,499.3	131.0	1.7	78.06	-1,537.5	-405.2	5,309.5	5,180.1	129.38	41.038	
13,779.5	6,766.8	6,500.0	6,499.3	132.5	1.7	78.06	-1,537.5	-405.2	5,386.3	5,255.5	130.87	41.158	
13,800.0	6,766.6	6,500.0	6,499.3	132.9	1.7	78.06	-1,537.5	-405.2	5,406.2	5,274.9	131.25	41.188	
13,877.9	6,766.0	6,500.0	6,499.3	134.4	1.7	78.06	-1,537.5	-405.2	5,481.6	5,348.8	132.71	41.303	
13,900.0	6,765.8	6,500.0	6,499.3	134.8	1.7	78.06	-1,537.5	-405.2	5,502.9	5,369.8	133.13	41.335	
13,976.3	6,765.2	6,500.0	6,499.3	136.2	1.7	78.06	-1,537.5	-405.2	5,576.9	5,442.3	134.56	41.446	
13,995.7	6,765.0	6,500.0	6,499.3	136.6	1.7	78.06	-1,537.5	-405.2	5,595.6	5,460.7	134.92	41.473	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	161.82	-6,760.1	2,220.1	7,115.7					
98.4	98.4	16.9	16.9	0.1	0.0	161.82	-6,760.1	2,220.1	7,115.3	7,115.2	0.09	N/A		
100.0	100.0	18.1	18.1	0.1	0.0	161.82	-6,760.1	2,220.1	7,115.3	7,115.2	0.09	N/A		
196.8	196.8	100.0	100.0	0.3	0.0	161.82	-6,760.5	2,219.9	7,115.6	7,115.3	0.32	N/A		
200.0	200.0	100.0	100.0	0.3	0.0	161.82	-6,760.5	2,219.9	7,115.6	7,115.3	0.33	N/A		
295.3	295.3	180.7	180.7	0.5	0.2	161.83	-6,761.0	2,219.6	7,116.1	7,115.4	0.69	N/A		
300.0	300.0	185.3	185.3	0.5	0.2	161.83	-6,761.0	2,219.6	7,116.2	7,115.5	0.71	9,996.642		
393.7	393.7	255.2	255.2	0.7	0.2	161.83	-6,761.5	2,219.7	7,116.8	7,115.8	0.99	7,189.249		
400.0	400.0	259.6	259.6	0.8	0.2	161.83	-6,761.5	2,219.8	7,116.9	7,115.9	1.01	7,065.486		
492.1	492.1	323.1	323.1	1.0	0.3	161.82	-6,762.1	2,220.4	7,117.9	7,116.6	1.26	5,645.686		
500.0	500.0	328.4	328.4	1.0	0.3	161.82	-6,762.1	2,220.5	7,118.0	7,116.7	1.28	5,550.497		
590.5	590.5	400.0	400.0	1.2	0.4	161.81	-6,762.8	2,222.0	7,119.4	7,117.9	1.54	4,624.629		
600.0	600.0	400.0	400.0	1.2	0.4	161.81	-6,762.8	2,222.0	7,119.6	7,118.0	1.56	4,561.792		
689.0	689.0	462.8	462.7	1.4	0.4	161.80	-6,763.5	2,224.0	7,121.4	7,119.6	1.80	3,949.503		
700.0	700.0	471.2	471.2	1.4	0.4	161.80	-6,763.6	2,224.3	7,121.6	7,119.8	1.83	3,884.003		
787.4	787.4	548.6	548.5	1.6	0.5	161.78	-6,764.5	2,227.2	7,123.6	7,121.5	2.08	3,428.765		
800.0	800.0	561.0	560.8	1.7	0.5	161.77	-6,764.6	2,227.7	7,123.9	7,121.8	2.11	3,371.378		
885.8	885.8	646.2	645.9	1.9	0.5	161.75	-6,765.6	2,231.1	7,125.9	7,123.5	2.35	3,029.203		
900.0	900.0	660.4	660.2	1.9	0.5	161.75	-6,765.7	2,231.6	7,126.2	7,123.8	2.39	2,979.659		
984.2	984.2	736.4	736.1	2.1	0.6	161.72	-6,766.6	2,234.7	7,128.2	7,125.5	2.62	2,721.620		
1,000.0	1,000.0	749.2	748.9	2.1	0.6	161.72	-6,766.8	2,235.2	7,128.5	7,125.9	2.66	2,679.215		
1,082.7	1,082.7	825.3	824.9	2.3	0.6	161.70	-6,767.8	2,238.2	7,130.7	7,127.8	2.88	2,473.319		
1,100.0	1,100.0	847.1	846.7	2.3	0.6	161.69	-6,768.1	2,239.1	7,131.1	7,128.2	2.93	2,431.969		
1,181.1	1,181.1	934.1	933.6	2.5	0.6	161.67	-6,769.1	2,242.8	7,133.0	7,129.9	3.15	2,260.984		
1,200.0	1,200.0	950.6	950.1	2.6	0.7	161.66	-6,769.3	2,243.5	7,133.5	7,130.3	3.20	2,225.889		
1,279.5	1,279.5	1,018.5	1,017.9	2.7	0.7	161.64	-6,770.1	2,246.4	7,135.5	7,132.1	3.41	2,090.108		
1,300.0	1,300.0	1,035.0	1,034.4	2.8	0.7	161.64	-6,770.4	2,247.1	7,136.1	7,132.6	3.47	2,058.190		
1,377.9	1,377.9	1,100.0	1,099.4	3.0	0.7	161.62	-6,771.3	2,249.8	7,138.2	7,134.5	3.67	1,944.707		
1,400.0	1,400.0	1,132.8	1,132.1	3.0	0.7	161.61	-6,771.8	2,251.2	7,138.8	7,135.1	3.73	1,911.855		
1,476.4	1,476.4	1,243.1	1,242.3	3.2	0.8	161.58	-6,773.2	2,255.7	7,140.7	7,136.7	3.95	1,806.973		
1,500.0	1,500.0	1,271.2	1,270.4	3.2	0.8	161.57	-6,773.4	2,256.8	7,141.2	7,137.2	4.02	1,778.031		
1,574.8	1,574.8	1,341.5	1,340.7	3.4	0.8	161.55	-6,774.2	2,259.4	7,142.8	7,138.6	4.21	1,695.582		
1,600.0	1,600.0	1,362.3	1,361.4	3.5	0.8	161.55	-6,774.4	2,260.1	7,143.4	7,139.1	4.28	1,670.041		
1,673.2	1,673.2	1,437.0	1,436.1	3.6	0.9	161.54	-6,775.5	2,262.4	7,145.1	7,140.6	4.47	1,598.155		
1,700.0	1,700.0	1,473.2	1,472.2	3.7	0.9	161.53	-6,776.0	2,263.4	7,145.7	7,141.1	4.54	1,572.269		
1,771.6	1,771.6	1,549.0	1,548.0	3.8	0.9	161.52	-6,777.0	2,265.3	7,147.2	7,142.4	4.73	1,509.616		
1,800.0	1,800.0	1,575.8	1,574.9	3.9	0.9	161.51	-6,777.4	2,265.9	7,147.8	7,142.9	4.81	1,486.583		
1,870.1	1,870.1	1,639.8	1,638.8	4.1	0.9	161.51	-6,778.4	2,267.3	7,149.2	7,144.3	4.99	1,433.110		
1,900.0	1,900.0	1,666.6	1,665.6	4.1	1.0	161.50	-6,778.9	2,267.8	7,149.9	7,144.8	5.07	1,411.565		
1,968.5	1,968.5	1,723.7	1,722.7	4.3	1.0	161.50	-6,779.9	2,268.7	7,151.5	7,146.2	5.24	1,365.169		
2,000.0	2,000.0	1,747.6	1,746.6	4.4	1.0	161.50	-6,780.4	2,269.1	7,152.2	7,146.9	5.32	1,345.146		
2,066.9	2,066.9	1,800.0	1,799.0	4.5	1.0	161.49	-6,781.6	2,269.8	7,154.0	7,148.5	5.48	1,304.400		
2,100.0	2,100.0	1,840.1	1,839.1	4.6	1.0	161.49	-6,782.6	2,270.4	7,154.9	7,149.3	5.57	1,284.366		
2,165.3	2,165.3	1,931.5	1,930.4	4.7	1.1	93.05	-6,784.6	2,271.2	7,156.5	7,150.8	5.72	1,251.874		
2,200.0	2,200.0	1,988.1	1,987.0	4.8	1.1	93.04	-6,785.7	2,271.6	7,157.3	7,151.5	5.81	1,231.453		
2,263.8	2,263.7	2,053.7	2,052.6	4.9	1.1	93.04	-6,786.9	2,271.9	7,158.6	7,152.7	5.97	1,199.015		
2,300.0	2,299.8	2,088.0	2,086.9	5.0	1.1	93.04	-6,787.6	2,272.1	7,159.5	7,153.4	6.06	1,181.558		
2,362.2	2,361.8	2,169.6	2,168.4	5.1	1.1	93.07	-6,789.0	2,272.4	7,160.9	7,154.6	6.22	1,150.472		
2,400.0	2,399.5	2,219.4	2,218.3	5.2	1.1	93.09	-6,789.8	2,272.6	7,161.7	7,155.3	6.32	1,132.375		
2,460.6	2,459.7	2,292.4	2,291.3	5.4	1.2	93.14	-6,790.8	2,272.7	7,162.9	7,156.4	6.49	1,103.822		
2,500.0	2,498.7	2,340.6	2,339.5	5.5	1.2	93.17	-6,791.4	2,272.8	7,163.7	7,157.1	6.60	1,085.905		
2,559.0	2,557.1	2,412.0	2,410.9	5.6	1.2	93.24	-6,792.2	2,272.8	7,164.8	7,158.1	6.77	1,058.663		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,597.5	2,458.5	2,457.4	5.7	1.2	93.29	-6,792.7	2,272.7	7,165.6	7,158.7	6.89	1,040.665	
2,657.5	2,654.0	2,515.8	2,514.6	5.9	1.2	93.35	-6,793.2	2,272.7	7,166.7	7,159.7	7.06	1,014.797	
2,700.0	2,695.6	2,547.9	2,546.7	6.0	1.2	93.38	-6,793.6	2,272.7	7,167.7	7,160.5	7.19	996.864	
2,755.9	2,750.2	2,600.0	2,598.8	6.2	1.3	93.45	-6,794.2	2,272.7	7,169.1	7,161.7	7.38	971.449	
2,800.0	2,793.1	2,630.1	2,628.9	6.3	1.3	93.48	-6,794.6	2,272.7	7,170.2	7,162.7	7.53	952.660	
2,854.3	2,845.6	2,683.2	2,682.1	6.5	1.3	93.56	-6,795.3	2,272.6	7,171.8	7,164.1	7.73	927.225	
2,900.0	2,889.6	2,725.2	2,724.0	6.6	1.3	93.62	-6,795.8	2,272.6	7,173.2	7,165.3	7.91	906.863	
2,952.7	2,940.2	2,771.6	2,770.4	6.8	1.3	93.69	-6,796.5	2,272.6	7,174.9	7,166.8	8.14	881.760	
3,000.0	2,985.3	2,813.6	2,812.4	7.0	1.3	93.76	-6,797.1	2,272.6	7,176.5	7,168.2	8.34	860.309	
3,016.9	3,001.4	2,829.1	2,828.0	7.1	1.3	93.79	-6,797.3	2,272.6	7,177.1	7,168.7	8.42	852.316	
3,051.2	3,033.9	2,860.5	2,859.4	7.3	1.3	93.87	-6,797.8	2,272.6	7,178.4	7,169.8	8.59	836.056	
3,100.0	3,080.2	2,900.0	2,898.8	7.5	1.4	93.97	-6,798.4	2,272.6	7,180.2	7,171.4	8.82	813.984	
3,149.6	3,127.3	2,946.9	2,945.7	7.7	1.4	94.09	-6,799.1	2,272.5	7,182.1	7,173.1	9.07	791.482	
3,200.0	3,175.1	2,989.7	2,988.5	8.0	1.4	94.20	-6,799.8	2,272.5	7,184.2	7,174.8	9.33	769.922	
3,248.0	3,220.7	3,040.9	3,039.7	8.2	1.4	94.33	-6,800.6	2,272.6	7,186.1	7,176.5	9.59	749.335	
3,300.0	3,270.0	3,100.4	3,099.2	8.5	1.4	94.48	-6,801.4	2,272.7	7,188.2	7,178.3	9.87	728.106	
3,346.4	3,314.1	3,178.0	3,176.8	8.7	1.4	94.67	-6,802.3	2,272.8	7,190.0	7,179.8	10.14	708.993	
3,400.0	3,365.0	3,369.5	3,368.3	9.0	1.5	95.15	-6,801.7	2,273.1	7,191.2	7,180.7	10.43	689.629	
3,444.9	3,407.6	3,438.0	3,436.8	9.2	1.5	95.31	-6,800.6	2,273.6	7,191.9	7,181.3	10.67	674.073	
3,500.0	3,459.9	3,518.6	3,517.4	9.5	1.5	95.51	-6,799.0	2,274.2	7,192.7	7,181.7	10.97	655.815	
3,543.3	3,501.0	3,569.8	3,568.5	9.8	1.5	95.63	-6,797.9	2,274.6	7,193.2	7,182.0	11.21	641.839	
3,600.0	3,554.8	3,627.2	3,626.0	10.1	1.5	95.77	-6,796.6	2,274.9	7,193.9	7,182.3	11.52	624.381	
3,641.7	3,594.4	3,663.8	3,662.5	10.3	1.5	95.86	-6,795.8	2,275.2	7,194.4	7,182.6	11.76	611.885	
3,700.0	3,649.7	3,713.7	3,712.4	10.7	1.5	95.97	-6,794.6	2,275.6	7,195.2	7,183.1	12.09	595.235	
3,740.1	3,687.8	3,745.9	3,744.6	10.9	1.5	96.05	-6,793.9	2,275.9	7,195.8	7,183.4	12.32	584.100	
3,800.0	3,744.7	3,800.0	3,798.7	11.2	1.5	96.18	-6,792.9	2,276.2	7,196.8	7,184.1	12.66	568.256	
3,838.6	3,781.3	3,828.9	3,827.6	11.5	1.5	96.25	-6,792.3	2,276.3	7,197.5	7,184.6	12.89	558.363	
3,900.0	3,839.6	3,886.4	3,885.1	11.8	1.5	96.39	-6,791.2	2,276.6	7,198.6	7,185.4	13.25	543.302	
3,937.0	3,874.7	3,915.1	3,913.7	12.1	1.5	96.46	-6,790.7	2,276.8	7,199.3	7,185.9	13.47	534.521	
4,000.0	3,934.5	3,957.4	3,956.0	12.4	1.5	96.56	-6,790.0	2,276.9	7,200.7	7,186.9	13.84	520.217	
4,035.4	3,968.1	3,981.1	3,979.7	12.6	1.5	96.62	-6,789.7	2,276.9	7,201.6	7,187.6	14.05	512.437	
4,100.0	4,029.4	4,026.6	4,025.3	13.0	1.5	96.73	-6,789.2	2,276.9	7,203.4	7,188.9	14.44	498.866	
4,133.8	4,061.5	4,051.4	4,050.1	13.2	1.5	96.80	-6,789.0	2,276.7	7,204.3	7,189.7	14.64	491.990	
4,200.0	4,124.3	4,100.0	4,098.6	13.6	1.5	96.92	-6,788.8	2,276.2	7,206.4	7,191.4	15.04	479.100	
4,232.3	4,155.0	4,130.5	4,129.1	13.8	1.5	97.00	-6,788.7	2,275.6	7,207.5	7,192.2	15.24	472.913	
4,300.0	4,219.3	4,195.1	4,193.7	14.2	1.5	97.17	-6,788.6	2,274.2	7,209.8	7,194.1	15.66	460.467	
4,330.7	4,248.4	4,218.9	4,217.5	14.4	1.5	97.23	-6,788.6	2,273.5	7,210.8	7,195.0	15.85	455.006	
4,400.0	4,314.2	4,270.0	4,268.6	14.9	1.5	97.37	-6,788.8	2,271.8	7,213.4	7,197.1	16.28	443.154	
4,429.1	4,341.8	4,300.0	4,298.6	15.0	1.5	97.46	-6,788.9	2,270.7	7,214.5	7,198.1	16.46	438.311	
4,500.0	4,409.1	4,354.7	4,353.2	15.5	1.5	97.61	-6,789.4	2,268.3	7,217.4	7,200.5	16.90	426.999	
4,527.5	4,435.3	4,380.1	4,378.6	15.7	1.5	97.68	-6,789.6	2,267.1	7,218.5	7,201.4	17.08	422.729	
4,600.0	4,504.0	4,433.6	4,432.0	16.1	1.5	97.84	-6,790.1	2,264.5	7,221.6	7,204.1	17.53	411.940	
4,626.0	4,528.7	4,450.7	4,449.1	16.3	1.5	97.88	-6,790.3	2,263.6	7,222.8	7,205.1	17.69	408.199	
4,700.0	4,598.9	4,500.0	4,498.3	16.7	1.5	98.03	-6,791.1	2,260.7	7,226.4	7,208.2	18.16	397.919	
4,724.4	4,622.1	4,520.7	4,519.0	16.9	1.5	98.09	-6,791.5	2,259.5	7,227.6	7,209.3	18.32	394.621	
4,800.0	4,693.9	4,587.9	4,586.1	17.4	1.5	98.29	-6,792.7	2,255.4	7,231.5	7,212.7	18.80	384.749	
4,822.8	4,715.5	4,608.9	4,607.0	17.5	1.5	98.35	-6,793.1	2,254.1	7,232.7	7,213.7	18.94	381.859	
4,900.0	4,788.8	4,683.7	4,681.7	18.0	1.5	98.57	-6,794.3	2,250.1	7,236.8	7,217.4	19.43	372.409	
4,921.2	4,809.0	4,707.6	4,705.6	18.1	1.5	98.63	-6,794.7	2,249.0	7,238.0	7,218.4	19.57	369.880	
5,000.0	4,883.7	4,821.8	4,819.6	18.6	1.5	98.95	-6,795.8	2,244.0	7,242.0	7,221.9	20.07	360.779	
5,019.7	4,902.4	4,839.5	4,837.3	18.7	1.5	99.00	-6,796.0	2,243.2	7,243.0	7,222.8	20.20	358.589	
5,100.0	4,978.6	4,912.3	4,910.0	19.3	1.6	99.20	-6,796.5	2,240.2	7,247.1	7,226.4	20.71	349.930	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,118.1	4,995.8	4,928.8	4,926.5	19.4	1.6	99.25	-6,796.7	2,239.6	7,248.0	7,227.2	20.83	348.034	
5,200.0	5,073.6	5,004.0	5,001.6	19.9	1.6	99.46	-6,797.2	2,236.7	7,252.4	7,231.0	21.35	339.714	
5,216.5	5,089.2	5,021.4	5,019.1	20.0	1.6	99.50	-6,797.3	2,236.0	7,253.3	7,231.8	21.45	338.081	
5,304.2	5,172.4	5,113.6	5,111.2	20.6	1.6	99.75	-6,797.8	2,233.0	7,258.0	7,236.0	22.01	329.686	
5,314.9	5,182.7	5,124.6	5,122.2	20.6	1.6	99.79	-6,797.9	2,232.7	7,258.6	7,236.5	22.07	328.841	
5,400.0	5,263.9	5,211.7	5,209.3	21.1	1.6	100.10	-6,798.1	2,230.3	7,262.9	7,240.4	22.53	322.321	
5,413.4	5,276.7	5,225.3	5,222.8	21.1	1.6	100.14	-6,798.2	2,229.9	7,263.6	7,241.0	22.59	321.530	
5,500.0	5,360.3	5,405.2	5,402.7	21.5	1.6	100.61	-6,797.7	2,225.6	7,267.4	7,244.4	22.96	316.493	
5,511.8	5,371.7	5,419.4	5,416.9	21.6	1.6	100.65	-6,797.5	2,225.4	7,267.8	7,244.7	23.01	315.894	
5,600.0	5,457.5	5,527.4	5,524.9	21.9	1.6	100.89	-6,795.9	2,223.5	7,270.0	7,246.7	23.34	311.445	
5,610.2	5,467.5	5,540.5	5,537.9	21.9	1.6	100.92	-6,795.6	2,223.3	7,270.2	7,246.9	23.38	310.994	
5,700.0	5,555.6	5,634.9	5,632.3	22.3	1.6	101.10	-6,793.9	2,221.9	7,271.7	7,248.1	23.68	307.058	
5,708.6	5,564.1	5,641.9	5,639.4	22.3	1.6	101.12	-6,793.7	2,221.8	7,271.9	7,248.1	23.71	306.730	
5,800.0	5,654.2	5,721.5	5,718.9	22.6	1.6	101.24	-6,792.4	2,220.7	7,272.9	7,249.0	23.98	303.294	
5,807.1	5,661.2	5,729.2	5,726.6	22.6	1.6	101.25	-6,792.2	2,220.6	7,273.0	7,249.0	24.00	303.068	
5,900.0	5,753.4	5,823.7	5,821.1	22.8	1.6	101.37	-6,790.6	2,219.3	7,273.5	7,249.3	24.24	300.105	
5,905.5	5,758.8	5,828.4	5,825.8	22.8	1.6	101.37	-6,790.5	2,219.2	7,273.5	7,249.3	24.25	299.959	
6,000.0	5,852.9	5,909.6	5,907.0	23.1	1.6	101.44	-6,789.2	2,218.0	7,273.5	7,249.1	24.45	297.449	
6,003.9	5,856.8	5,912.9	5,910.3	23.1	1.6	101.44	-6,789.1	2,218.0	7,273.5	7,249.0	24.46	297.364	
6,100.0	5,952.7	6,000.0	5,997.3	23.2	1.6	101.48	-6,788.0	2,216.3	7,273.0	7,248.4	24.63	295.289	
6,102.3	5,955.1	6,000.0	5,997.3	23.2	1.6	101.48	-6,788.0	2,216.3	7,273.0	7,248.4	24.63	295.251	
6,200.0	6,052.7	6,121.2	6,118.5	23.4	1.6	101.49	-6,786.2	2,214.0	7,271.7	7,247.0	24.77	293.551	
6,200.8	6,053.5	6,121.9	6,119.2	23.4	1.6	101.49	-6,786.1	2,213.9	7,271.7	7,246.9	24.77	293.540	
6,221.1	6,073.8	6,139.1	6,136.4	23.4	1.7	169.91	-6,785.9	2,213.7	7,271.3	7,246.5	24.80	293.250	
6,251.1	6,103.8	6,164.4	6,161.7	23.4	1.7	169.91	-6,785.5	2,213.2	7,270.8	7,245.9	24.83	292.802	
6,299.2	6,151.8	6,205.4	6,202.7	23.5	1.7	-10.12	-6,784.8	2,212.6	7,268.3	7,243.5	24.87	292.230	
6,300.0	6,152.6	6,206.2	6,203.4	23.5	1.7	-10.12	-6,784.8	2,212.5	7,268.3	7,243.4	24.87	292.219	
6,350.0	6,202.4	6,251.2	6,248.5	23.5	1.7	-10.21	-6,784.2	2,211.8	7,262.4	7,237.4	24.91	291.600	
6,397.6	6,249.3	6,293.7	6,290.9	23.5	1.7	-10.34	-6,783.6	2,211.0	7,253.6	7,228.7	24.92	291.122	
6,400.0	6,251.6	6,300.0	6,297.3	23.5	1.7	-10.35	-6,783.5	2,210.8	7,253.1	7,228.2	24.92	291.089	
6,450.0	6,300.1	6,341.8	6,339.0	23.5	1.7	-10.55	-6,783.0	2,210.0	7,240.5	7,215.6	24.89	290.948	
6,496.0	6,344.0	6,383.5	6,380.7	23.5	1.7	-10.79	-6,782.5	2,209.3	7,226.0	7,201.2	24.81	291.282	
6,500.0	6,347.7	6,387.0	6,384.3	23.5	1.7	-10.81	-6,782.4	2,209.2	7,224.6	7,199.8	24.80	291.332	
6,550.0	6,394.1	6,456.7	6,453.9	23.5	1.7	-11.16	-6,781.5	2,208.0	7,205.5	7,180.8	24.66	292.167	
6,594.5	6,434.2	6,500.0	6,497.2	23.4	1.7	-11.53	-6,780.7	2,207.2	7,185.7	7,161.2	24.47	293.635	
6,600.0	6,439.0	6,500.0	6,497.2	23.4	1.7	-11.58	-6,780.7	2,207.2	7,183.1	7,158.6	24.44	293.905	
6,650.0	6,482.4	6,538.7	6,535.9	23.4	1.7	-12.09	-6,780.1	2,206.4	7,157.7	7,133.6	24.14	296.490	
6,692.9	6,518.1	6,560.7	6,557.8	23.3	1.7	-12.61	-6,779.8	2,206.0	7,133.7	7,109.9	23.82	299.511	
6,700.0	6,523.9	6,564.2	6,561.4	23.3	1.7	-12.71	-6,779.8	2,205.9	7,129.6	7,105.8	23.76	300.067	
6,750.0	6,563.3	6,600.0	6,597.2	23.3	1.7	-13.46	-6,779.3	2,205.4	7,098.8	7,075.4	23.32	304.366	
6,791.3	6,594.2	6,611.4	6,608.6	23.2	1.7	-14.18	-6,779.2	2,205.3	7,071.4	7,048.5	22.90	308.809	
6,800.0	6,600.5	6,617.4	6,614.5	23.2	1.7	-14.35	-6,779.2	2,205.2	7,065.4	7,042.6	22.81	309.747	
6,850.0	6,635.3	6,650.1	6,647.3	23.2	1.7	-15.47	-6,778.8	2,204.9	7,029.7	7,007.4	22.27	315.601	
6,889.7	6,661.1	6,674.3	6,671.5	23.1	1.7	-16.55	-6,778.5	2,204.7	6,999.6	6,977.8	21.83	320.655	
6,900.0	6,667.5	6,680.3	6,677.5	23.1	1.7	-16.86	-6,778.5	2,204.7	6,991.7	6,969.9	21.71	321.977	
6,950.0	6,696.9	6,700.0	6,697.2	23.1	1.7	-18.55	-6,778.2	2,204.6	6,951.6	6,930.4	21.15	328.682	
6,988.2	6,717.5	6,700.0	6,697.2	23.1	1.7	-20.08	-6,778.2	2,204.6	6,919.8	6,899.0	20.72	333.910	
7,000.0	6,723.5	6,700.0	6,697.2	23.1	1.7	-20.61	-6,778.2	2,204.6	6,909.7	6,889.1	20.60	335.380	
7,050.0	6,747.0	6,700.0	6,697.2	23.1	1.7	-23.24	-6,778.2	2,204.6	6,866.2	6,846.1	20.15	340.695	
7,086.6	6,762.3	6,700.0	6,697.2	23.1	1.7	-25.67	-6,778.2	2,204.6	6,833.5	6,813.6	19.93	342.909	
7,100.0	6,767.4	6,700.0	6,697.2	23.1	1.7	-26.69	-6,778.2	2,204.6	6,821.3	6,801.5	19.87	343.275	
7,150.0	6,784.6	6,700.0	6,697.2	23.1	1.7	-31.32	-6,778.2	2,204.6	6,775.2	6,755.4	19.83	341.653	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,185.0	6,794.7	6,700.0	6,697.2	23.1	1.7	-35.58	-6,778.2	2,204.6	6,742.3	6,722.3	19.98	337.443		
7,200.0	6,798.5	6,700.0	6,697.2	23.2	1.7	-37.74	-6,778.2	2,204.6	6,728.1	6,708.0	20.08	335.076		
7,250.0	6,808.9	6,700.0	6,697.2	23.2	1.7	-46.86	-6,778.2	2,204.6	6,680.1	6,659.6	20.55	325.121		
7,283.4	6,814.0	6,700.0	6,697.2	23.3	1.7	-55.06	-6,778.2	2,204.6	6,647.7	6,626.9	20.82	319.361		
7,300.0	6,816.0	6,700.0	6,697.2	23.4	1.7	-59.87	-6,778.2	2,204.6	6,631.6	6,610.7	20.85	318.061		
7,350.0	6,819.5	6,700.0	6,697.2	23.5	1.7	-77.40	-6,778.2	2,204.6	6,582.7	6,562.4	20.21	325.647		
7,381.9	6,820.0	6,700.0	6,697.2	23.7	1.7	-90.18	-6,778.2	2,204.6	6,551.4	6,532.0	19.42	337.306		
7,382.0	6,820.0	6,700.0	6,697.2	23.7	1.7	-90.22	-6,778.2	2,204.6	6,551.3	6,531.9	19.42	337.338		
7,400.0	6,819.8	6,700.0	6,697.2	23.8	1.7	-90.22	-6,778.2	2,204.6	6,533.6	6,514.0	19.57	333.807		
7,480.3	6,819.2	6,700.0	6,697.2	24.2	1.7	-90.22	-6,778.2	2,204.6	6,454.8	6,434.5	20.33	317.535		
7,500.0	6,819.0	6,700.0	6,697.2	24.3	1.7	-90.22	-6,778.2	2,204.6	6,435.5	6,415.0	20.51	313.727		
7,578.7	6,818.4	6,700.0	6,697.2	24.9	1.7	-90.22	-6,778.2	2,204.6	6,358.4	6,337.0	21.36	297.607		
7,600.0	6,818.2	6,700.0	6,697.2	25.0	1.7	-90.23	-6,778.2	2,204.6	6,337.5	6,315.9	21.60	293.470		
7,677.1	6,817.6	6,700.0	6,697.2	25.7	1.7	-90.23	-6,778.2	2,204.6	6,261.9	6,239.4	22.52	278.031		
7,700.0	6,817.4	6,700.0	6,697.2	25.9	1.7	-90.23	-6,778.2	2,204.6	6,239.6	6,216.8	22.80	273.700		
7,775.6	6,816.7	6,700.0	6,697.2	26.6	1.7	-90.23	-6,778.2	2,204.6	6,165.6	6,141.8	23.78	259.259		
7,800.0	6,816.5	6,700.0	6,697.2	26.9	1.7	-90.23	-6,778.2	2,204.6	6,141.7	6,117.6	24.10	254.845		
7,874.0	6,815.9	6,700.0	6,697.2	27.7	1.7	-90.23	-6,778.2	2,204.6	6,069.3	6,044.1	25.13	241.554		
7,900.0	6,815.7	6,700.0	6,697.2	28.0	1.7	-90.23	-6,778.2	2,204.6	6,043.8	6,018.4	25.49	237.140		
7,972.4	6,815.1	6,700.0	6,697.2	28.9	1.7	-90.23	-6,778.2	2,204.6	5,973.0	5,946.5	26.54	225.044		
8,000.0	6,814.9	6,700.0	6,697.2	29.2	1.7	-90.23	-6,778.2	2,204.6	5,946.1	5,919.2	26.94	220.688		
8,070.8	6,814.3	6,700.0	6,697.2	30.1	1.7	-90.23	-6,778.2	2,204.6	5,876.9	5,848.9	28.02	209.758		
8,100.0	6,814.1	6,700.0	6,697.2	30.5	1.7	-90.23	-6,778.2	2,204.6	5,848.4	5,820.0	28.46	205.501		
8,169.3	6,813.5	6,700.0	6,697.2	31.5	1.7	-90.23	-6,778.2	2,204.6	5,780.8	5,751.3	29.54	195.670		
8,200.0	6,813.3	6,700.0	6,697.2	31.9	1.7	-90.23	-6,778.2	2,204.6	5,750.8	5,720.8	30.02	191.538		
8,267.7	6,812.7	6,700.0	6,697.2	32.9	1.7	-90.23	-6,778.2	2,204.6	5,684.8	5,653.7	31.11	182.718		
8,300.0	6,812.4	6,700.0	6,697.2	33.3	1.7	-90.23	-6,778.2	2,204.6	5,653.3	5,621.7	31.63	178.725		
8,366.1	6,811.9	6,700.0	6,697.2	34.3	1.7	-90.23	-6,778.2	2,204.6	5,588.9	5,556.2	32.72	170.824		
8,400.0	6,811.6	6,700.0	6,697.2	34.8	1.7	-90.23	-6,778.2	2,204.6	5,555.9	5,522.6	33.27	166.976		
8,464.5	6,811.1	6,700.0	6,697.2	35.8	1.7	-90.23	-6,778.2	2,204.6	5,493.1	5,458.7	34.35	159.901		
8,500.0	6,810.8	6,700.0	6,697.2	36.3	1.7	-90.23	-6,778.2	2,204.6	5,458.6	5,423.6	34.95	156.201		
8,563.0	6,810.3	6,700.0	6,697.2	37.3	1.7	-90.23	-6,778.2	2,204.6	5,397.3	5,361.3	36.02	149.863		
8,600.0	6,810.0	6,700.0	6,697.2	37.9	1.7	-90.23	-6,778.2	2,204.6	5,361.3	5,324.7	36.64	146.310		
8,661.4	6,809.5	6,700.0	6,697.2	38.9	1.7	-90.23	-6,778.2	2,204.6	5,301.7	5,264.0	37.70	140.629		
8,700.0	6,809.1	6,700.0	6,697.2	39.5	1.7	-90.23	-6,778.2	2,204.6	5,264.2	5,225.9	38.36	137.218		
8,759.8	6,808.6	6,700.0	6,697.2	40.5	1.7	-90.23	-6,778.2	2,204.6	5,206.2	5,166.8	39.40	132.121		
8,800.0	6,808.3	6,700.0	6,697.2	41.1	1.7	-90.24	-6,778.2	2,204.6	5,167.2	5,127.1	40.10	128.848		
8,858.2	6,807.8	6,700.0	6,697.2	42.1	1.7	-90.24	-6,778.2	2,204.6	5,110.8	5,069.6	41.13	124.270		
8,900.0	6,807.5	6,700.0	6,697.2	42.8	1.7	-90.24	-6,778.2	2,204.6	5,070.3	5,028.5	41.86	121.128		
8,956.7	6,807.0	6,700.0	6,697.2	43.7	1.7	-90.24	-6,778.2	2,204.6	5,015.4	4,972.6	42.86	117.012		
9,000.0	6,806.7	6,700.0	6,697.2	44.4	1.7	-90.24	-6,778.2	2,204.6	4,973.5	4,929.9	43.63	113.994		
9,055.1	6,806.2	6,700.0	6,697.2	45.4	1.7	-90.24	-6,778.2	2,204.6	4,920.3	4,875.7	44.61	110.289		
9,100.0	6,805.8	6,700.0	6,697.2	46.1	1.7	-90.24	-6,778.2	2,204.6	4,876.9	4,831.5	45.41	107.389		
9,153.5	6,805.4	6,700.0	6,697.2	47.0	1.7	-90.24	-6,778.2	2,204.6	4,825.2	4,778.8	46.37	104.050		
9,200.0	6,805.0	6,700.0	6,697.2	47.8	1.7	-90.24	-6,778.2	2,204.6	4,780.4	4,733.2	47.21	101.262		
9,251.9	6,804.6	6,700.0	6,697.2	48.7	1.7	-90.24	-6,778.2	2,204.6	4,730.3	4,682.2	48.15	98.250		
9,300.0	6,804.2	6,700.0	6,697.2	49.6	1.7	-90.24	-6,778.2	2,204.6	4,684.0	4,635.0	49.01	95.567		
9,350.4	6,803.8	6,700.0	6,697.2	50.4	1.7	-90.24	-6,778.2	2,204.6	4,635.5	4,585.6	49.93	92.847		
9,400.0	6,803.4	6,700.0	6,697.2	51.3	1.7	-90.24	-6,778.2	2,204.6	4,587.8	4,537.0	50.83	90.264		
9,448.8	6,802.9	6,700.0	6,697.2	52.1	1.7	-90.24	-6,778.2	2,204.6	4,540.9	4,489.2	51.72	87.806		
9,500.0	6,802.5	6,700.0	6,697.2	53.0	1.7	-90.24	-6,778.2	2,204.6	4,491.8	4,439.1	52.65	85.317		
9,547.2	6,802.1	6,700.0	6,697.2	53.9	1.7	-90.24	-6,778.2	2,204.6	4,446.5	4,393.0	53.51	83.093		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,600.0	6,801.7	6,700.0	6,697.2	54.8	1.7	-90.24	-6,778.2	2,204.6	4,395.9	4,341.4	54.48	80.693	
9,645.6	6,801.3	6,700.0	6,697.2	55.6	1.7	-90.24	-6,778.2	2,204.6	4,352.2	4,296.9	55.31	78.681	
9,700.0	6,800.9	6,700.0	6,697.2	56.6	1.7	-90.24	-6,778.2	2,204.6	4,300.2	4,243.9	56.31	76.364	
9,744.1	6,800.5	6,700.0	6,697.2	57.4	1.7	-90.24	-6,778.2	2,204.6	4,258.1	4,201.0	57.12	74.542	
9,800.0	6,800.0	6,700.0	6,697.2	58.4	1.7	-90.24	-6,778.2	2,204.6	4,204.8	4,146.6	58.15	72.305	
9,842.5	6,799.7	6,700.0	6,697.2	59.1	1.7	-90.24	-6,778.2	2,204.6	4,164.3	4,105.3	58.94	70.655	
9,900.0	6,799.2	6,700.0	6,697.2	60.2	1.7	-90.24	-6,778.2	2,204.6	4,109.5	4,049.5	60.00	68.492	
9,940.9	6,798.9	6,700.0	6,697.2	60.9	1.7	-90.24	-6,778.2	2,204.6	4,070.6	4,009.8	60.76	66.997	
10,000.0	6,798.4	6,700.0	6,697.2	62.0	1.7	-90.24	-6,778.2	2,204.6	4,014.5	3,952.6	61.85	64.906	
10,039.3	6,798.1	6,700.0	6,697.2	62.7	1.7	-90.24	-6,778.2	2,204.6	3,977.2	3,914.6	62.58	63.552	
10,100.0	6,797.6	6,700.0	6,697.2	63.8	1.7	-90.24	-6,778.2	2,204.6	3,919.7	3,856.0	63.71	61.528	
10,137.8	6,797.2	6,700.0	6,697.2	64.4	1.7	-90.24	-6,778.2	2,204.6	3,884.0	3,819.6	64.41	60.302	
10,200.0	6,796.7	6,700.0	6,697.2	65.6	1.7	-90.24	-6,778.2	2,204.6	3,825.2	3,759.6	65.57	58.341	
10,236.2	6,796.4	6,700.0	6,697.2	66.2	1.7	-90.24	-6,778.2	2,204.6	3,791.0	3,724.8	66.24	57.232	
10,300.0	6,795.9	6,700.0	6,697.2	67.4	1.7	-90.24	-6,778.2	2,204.6	3,731.0	3,663.5	67.43	55.332	
10,334.6	6,795.6	6,700.0	6,697.2	68.0	1.7	-90.24	-6,778.2	2,204.6	3,698.4	3,630.3	68.07	54.328	
10,400.0	6,795.1	6,700.0	6,697.2	69.2	1.7	-90.25	-6,778.2	2,204.6	3,637.0	3,567.7	69.30	52.486	
10,433.0	6,794.8	6,700.0	6,697.2	69.8	1.7	-90.25	-6,778.2	2,204.6	3,606.1	3,536.2	69.91	51.579	
10,500.0	6,794.2	6,700.0	6,697.2	71.0	1.7	-90.25	-6,778.2	2,204.6	3,543.4	3,472.3	71.16	49.792	
10,531.5	6,794.0	6,700.0	6,697.2	71.6	1.7	-90.25	-6,778.2	2,204.6	3,514.1	3,442.3	71.75	48.974	
10,600.0	6,793.4	6,700.0	6,697.2	72.9	1.7	-90.25	-6,778.2	2,204.6	3,450.2	3,377.2	73.04	47.240	
10,629.9	6,793.2	6,700.0	6,697.2	73.4	1.7	-90.25	-6,778.2	2,204.6	3,422.4	3,348.8	73.60	46.502	
10,700.0	6,792.6	6,700.0	6,697.2	74.7	1.7	-90.25	-6,778.2	2,204.6	3,357.4	3,282.5	74.91	44.818	
10,728.3	6,792.3	6,700.0	6,697.2	75.2	1.7	-90.25	-6,778.2	2,204.6	3,331.2	3,255.7	75.44	44.155	
10,800.0	6,791.7	6,700.0	6,697.2	76.6	1.7	-90.25	-6,778.2	2,204.6	3,265.0	3,188.2	76.79	42.519	
10,826.7	6,791.5	6,700.0	6,697.2	77.1	1.7	-90.25	-6,778.2	2,204.6	3,240.3	3,163.0	77.29	41.923	
10,900.0	6,790.9	6,700.0	6,697.2	78.4	1.7	-90.25	-6,778.2	2,204.6	3,173.0	3,094.3	78.67	40.334	
10,925.2	6,790.7	6,700.0	6,697.2	78.9	1.7	-90.25	-6,778.2	2,204.6	3,149.9	3,070.8	79.14	39.801	
11,000.0	6,790.1	6,700.0	6,697.2	80.3	1.7	-90.25	-6,778.2	2,204.6	3,081.6	3,001.0	80.55	38.257	
11,023.6	6,789.9	6,700.0	6,697.2	80.7	1.7	-90.25	-6,778.2	2,204.6	3,060.1	2,979.1	80.99	37.781	
11,100.0	6,789.2	6,700.0	6,697.2	82.1	1.7	-90.25	-6,778.2	2,204.6	2,990.7	2,908.2	82.43	36.280	
11,122.0	6,789.1	6,700.0	6,697.2	82.5	1.7	-90.25	-6,778.2	2,204.6	2,970.7	2,887.9	82.85	35.857	
11,200.0	6,788.4	6,700.0	6,697.2	84.0	1.7	-90.25	-6,778.2	2,204.6	2,900.3	2,816.0	84.32	34.397	
11,220.4	6,788.2	6,700.0	6,697.2	84.3	1.7	-90.25	-6,778.2	2,204.6	2,882.0	2,797.3	84.70	34.024	
11,300.0	6,787.6	6,700.0	6,697.2	85.8	1.7	-90.25	-6,778.2	2,204.6	2,810.7	2,724.5	86.21	32.605	
11,318.9	6,787.4	6,700.0	6,697.2	86.2	1.7	-90.25	-6,778.2	2,204.6	2,793.9	2,707.3	86.56	32.276	
11,400.0	6,786.7	6,700.0	6,697.2	87.7	1.7	-90.25	-6,778.2	2,204.6	2,721.8	2,633.7	88.09	30.896	
11,417.3	6,786.6	6,700.0	6,697.2	88.0	1.7	-90.25	-6,778.2	2,204.6	2,706.5	2,618.0	88.42	30.609	
11,500.0	6,785.9	6,700.0	6,697.2	89.5	1.7	-90.25	-6,778.2	2,204.6	2,633.6	2,543.6	89.98	29.268	
11,515.7	6,785.8	6,700.0	6,697.2	89.8	1.7	-90.25	-6,778.2	2,204.6	2,619.8	2,529.6	90.28	29.019	
11,600.0	6,785.1	6,700.0	6,697.2	91.4	1.7	-90.25	-6,778.2	2,204.6	2,546.4	2,454.5	91.88	27.715	
11,614.1	6,785.0	6,700.0	6,697.2	91.7	1.7	-90.25	-6,778.2	2,204.6	2,534.1	2,442.0	92.14	27.502	
11,700.0	6,784.2	6,700.0	6,697.2	93.3	1.7	-90.25	-6,778.2	2,204.6	2,460.1	2,366.3	93.77	26.236	
11,712.6	6,784.1	6,700.0	6,697.2	93.5	1.7	-90.25	-6,778.2	2,204.6	2,449.3	2,355.3	94.01	26.055	
11,800.0	6,783.4	6,700.0	6,697.2	95.2	1.7	-90.25	-6,778.2	2,204.6	2,374.9	2,279.2	95.66	24.826	
11,811.0	6,783.3	6,700.0	6,697.2	95.4	1.7	-90.25	-6,778.2	2,204.6	2,365.6	2,269.7	95.87	24.675	
11,900.0	6,782.6	6,700.0	6,697.2	97.0	1.7	-90.25	-6,778.2	2,204.6	2,290.8	2,193.3	97.56	23.482	
11,909.4	6,782.5	6,700.0	6,697.2	97.2	1.7	-90.25	-6,778.2	2,204.6	2,283.0	2,185.3	97.74	23.359	
12,000.0	6,781.7	6,700.0	6,697.2	98.9	1.7	-90.25	-6,778.2	2,204.6	2,208.2	2,108.7	99.45	22.203	
12,007.8	6,781.7	6,700.0	6,697.2	99.1	1.7	-90.25	-6,778.2	2,204.6	2,201.7	2,102.1	99.60	22.105	
12,100.0	6,780.9	6,700.0	6,697.2	100.8	1.7	-90.25	-6,778.2	2,204.6	2,127.0	2,025.6	101.35	20.986	
12,106.3	6,780.9	6,700.0	6,697.2	100.9	1.7	-90.25	-6,778.2	2,204.6	2,121.9	2,020.5	101.47	20.912	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis					Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,200.0	6,780.1	6,700.0	6,697.2	102.7	1.7	-90.25	-6,778.2	2,204.6	2,047.4	1,944.2	103.25	19.830	
12,204.7	6,780.0	6,700.0	6,697.2	102.7	1.7	-90.25	-6,778.2	2,204.6	2,043.7	1,940.4	103.34	19.777	
12,300.0	6,779.2	6,700.0	6,697.2	104.5	1.7	-90.25	-6,778.2	2,204.6	1,969.8	1,864.6	105.15	18.733	
12,303.1	6,779.2	6,700.0	6,697.2	104.6	1.7	-90.25	-6,778.2	2,204.6	1,967.4	1,862.2	105.21	18.700	
12,400.0	6,778.4	6,700.0	6,697.2	106.4	1.7	-90.25	-6,778.2	2,204.6	1,894.2	1,787.1	107.05	17.695	
12,401.5	6,778.4	6,700.0	6,697.2	106.4	1.7	-90.25	-6,778.2	2,204.6	1,893.0	1,786.0	107.08	17.679	
12,500.0	6,777.6	6,700.0	6,697.2	108.3	1.7	-90.25	-6,778.2	2,204.6	1,821.0	1,712.0	108.95	16.714	
12,598.4	6,776.7	6,700.0	6,697.2	110.2	1.7	-90.25	-6,778.2	2,204.6	1,751.5	1,640.7	110.82	15.805	
12,600.0	6,776.7	6,700.0	6,697.2	110.2	1.7	-90.25	-6,778.2	2,204.6	1,750.4	1,639.6	110.85	15.791	
12,696.8	6,775.9	6,700.0	6,697.2	112.0	1.7	-90.25	-6,778.2	2,204.6	1,684.9	1,572.3	112.69	14.952	
12,700.0	6,775.9	6,700.0	6,697.2	112.1	1.7	-90.25	-6,778.2	2,204.6	1,682.8	1,570.1	112.75	14.925	
12,795.2	6,775.1	6,700.0	6,697.2	113.9	1.7	-90.25	-6,778.2	2,204.6	1,621.6	1,507.0	114.56	14.155	
12,800.0	6,775.0	6,700.0	6,697.2	114.0	1.7	-90.25	-6,778.2	2,204.6	1,618.6	1,504.0	114.65	14.118	
12,893.7	6,774.3	6,700.0	6,697.2	115.7	1.7	-90.25	-6,778.2	2,204.6	1,561.9	1,445.5	116.44	13.414	
12,900.0	6,774.2	6,700.0	6,697.2	115.8	1.7	-90.25	-6,778.2	2,204.6	1,558.2	1,441.6	116.56	13.368	
12,992.1	6,773.4	6,700.0	6,697.2	117.6	1.7	-90.25	-6,778.2	2,204.6	1,506.3	1,388.0	118.31	12.731	
13,000.0	6,773.4	6,700.0	6,697.2	117.7	1.7	-90.25	-6,778.2	2,204.6	1,502.0	1,383.5	118.46	12.679	
13,090.5	6,772.6	6,700.0	6,697.2	119.4	1.7	-90.25	-6,778.2	2,204.6	1,455.2	1,335.0	120.19	12.108	
13,100.0	6,772.5	6,700.0	6,697.2	119.6	1.7	-90.25	-6,778.2	2,204.6	1,450.5	1,330.1	120.37	12.051	
13,188.9	6,771.8	6,700.0	6,697.2	121.3	1.7	-90.25	-6,778.2	2,204.6	1,409.1	1,287.0	122.06	11.544	
13,200.0	6,771.7	6,700.0	6,697.2	121.5	1.7	-90.25	-6,778.2	2,204.6	1,404.3	1,282.0	122.27	11.485	
13,287.4	6,771.0	6,700.0	6,697.2	123.2	1.7	-90.25	-6,778.2	2,204.6	1,368.6	1,244.6	123.94	11.043	
13,300.0	6,770.9	6,700.0	6,697.2	123.4	1.7	-90.25	-6,778.2	2,204.6	1,363.8	1,239.6	124.18	10.983	
13,385.8	6,770.1	6,700.0	6,697.2	125.0	1.7	-90.25	-6,778.2	2,204.6	1,334.1	1,208.3	125.81	10.604	
13,400.0	6,770.0	6,700.0	6,697.2	125.3	1.7	-90.25	-6,778.2	2,204.6	1,329.6	1,203.6	126.08	10.546	
13,484.2	6,769.3	6,700.0	6,697.2	126.9	1.7	-90.25	-6,778.2	2,204.6	1,306.1	1,178.4	127.69	10.229	
13,500.0	6,769.2	6,700.0	6,697.2	127.2	1.7	-90.25	-6,778.2	2,204.6	1,302.3	1,174.3	127.99	10.175	
13,582.6	6,768.5	6,700.0	6,697.2	128.8	1.7	-90.25	-6,778.2	2,204.6	1,285.1	1,155.6	129.57	9.919	
13,600.0	6,768.3	6,700.0	6,697.2	129.1	1.7	-90.25	-6,778.2	2,204.6	1,282.2	1,152.3	129.90	9.871	
13,681.1	6,767.6	6,700.0	6,697.2	130.6	1.7	-90.25	-6,778.2	2,204.6	1,271.4	1,140.0	131.44	9.673	
13,700.0	6,767.5	6,700.0	6,697.2	131.0	1.7	-90.25	-6,778.2	2,204.6	1,269.6	1,137.8	131.80	9.633	
13,779.5	6,766.8	6,700.0	6,697.2	132.5	1.7	-90.25	-6,778.2	2,204.6	1,265.2	1,131.9	133.32	9.490	
13,800.0	6,766.6	6,700.0	6,697.2	132.9	1.7	-90.25	-6,778.2	2,204.6	1,264.9	1,131.2	133.71	9.460	
13,810.0	6,766.6	6,700.0	6,697.2	133.1	1.7	-90.25	-6,778.2	2,204.6	1,264.8	1,130.9	133.90	9.446 CC, ES	
13,877.9	6,766.0	6,700.0	6,697.2	134.4	1.7	-90.25	-6,778.2	2,204.6	1,266.7	1,131.5	135.20	9.369	
13,900.0	6,765.8	6,700.0	6,697.2	134.8	1.7	-90.25	-6,778.2	2,204.6	1,268.0	1,132.4	135.62	9.350	
13,976.3	6,765.2	6,700.0	6,697.2	136.2	1.7	-90.25	-6,778.2	2,204.6	1,275.7	1,138.7	137.08	9.307	
13,995.7	6,765.0	6,700.0	6,697.2	136.6	1.7	-90.25	-6,778.2	2,204.6	1,278.4	1,141.0	137.45	9.301 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT LDS #5-25 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	174.64	-3,491.6	327.7	3,507.4				
98.4	98.4	54.4	54.4	0.1	0.1	174.64	-3,491.5	327.7	3,506.8	3,506.7	0.14	N/A	
100.0	100.0	56.5	56.5	0.1	0.1	174.64	-3,491.5	327.7	3,506.8	3,506.7	0.14	N/A	
196.8	196.8	163.0	163.0	0.3	0.2	174.63	-3,490.8	327.8	3,506.2	3,505.7	0.49	7,215.242	
200.0	200.0	166.2	166.2	0.3	0.2	174.63	-3,490.8	327.8	3,506.2	3,505.7	0.50	7,051.979	
295.3	295.3	294.8	294.8	0.5	0.3	174.62	-3,489.4	328.4	3,505.3	3,504.5	0.83	4,218.157	
300.0	300.0	301.5	301.5	0.5	0.3	174.62	-3,489.3	328.5	3,505.2	3,504.4	0.85	4,140.040	
393.7	393.7	403.6	403.5	0.7	0.4	174.59	-3,487.3	330.1	3,503.5	3,502.4	1.12	3,118.544	
400.0	400.0	409.8	409.8	0.8	0.4	174.59	-3,487.2	330.2	3,503.4	3,502.3	1.14	3,070.125	
492.1	492.1	500.0	499.9	1.0	0.5	174.56	-3,485.3	332.1	3,501.7	3,500.3	1.40	2,502.681	
500.0	500.0	507.7	507.6	1.0	0.5	174.55	-3,485.1	332.2	3,501.5	3,500.1	1.42	2,464.635	
590.5	590.5	588.4	588.3	1.2	0.5	174.52	-3,483.6	334.0	3,500.0	3,498.3	1.66	2,102.465	
600.0	600.0	600.0	599.9	1.2	0.5	174.52	-3,483.4	334.3	3,499.8	3,498.2	1.69	2,068.785	
689.0	689.0	704.8	704.7	1.4	0.6	174.49	-3,481.3	336.0	3,498.2	3,496.3	1.94	1,805.875	
700.0	700.0	716.5	716.3	1.4	0.6	174.48	-3,481.0	336.2	3,498.0	3,496.0	1.97	1,778.625	
787.4	787.4	807.9	807.7	1.6	0.6	174.46	-3,479.0	337.2	3,496.1	3,493.9	2.20	1,588.968	
800.0	800.0	819.5	819.3	1.7	0.6	174.46	-3,478.7	337.3	3,495.8	3,493.6	2.23	1,565.525	
885.8	885.8	900.0	899.8	1.9	0.7	174.44	-3,476.9	338.5	3,494.0	3,491.6	2.46	1,422.289	
900.0	900.0	914.0	913.8	1.9	0.7	174.43	-3,476.6	338.8	3,493.8	3,491.3	2.49	1,401.078	
984.2	984.2	1,004.8	1,004.5	2.1	0.7	174.41	-3,474.5	340.1	3,492.0	3,489.2	2.72	1,285.706	
1,000.0	1,000.0	1,019.4	1,019.1	2.1	0.7	174.41	-3,474.2	340.3	3,491.6	3,488.9	2.76	1,266.708	
1,082.7	1,082.7	1,096.1	1,095.8	2.3	0.7	174.38	-3,472.4	341.4	3,489.9	3,486.9	2.97	1,175.516	
1,100.0	1,100.0	1,113.5	1,113.2	2.3	0.8	174.38	-3,472.1	341.7	3,489.5	3,486.5	3.01	1,157.915	
1,181.1	1,181.1	1,196.9	1,196.5	2.5	0.8	174.36	-3,470.2	342.9	3,487.9	3,484.7	3.22	1,081.866	
1,200.0	1,200.0	1,215.7	1,215.3	2.6	0.8	174.35	-3,469.8	343.2	3,487.5	3,484.2	3.27	1,065.770	
1,279.5	1,279.5	1,294.4	1,294.0	2.7	0.8	174.34	-3,468.1	344.0	3,485.8	3,482.4	3.48	1,003.116	
1,300.0	1,300.0	1,314.5	1,314.1	2.8	0.8	174.33	-3,467.7	344.1	3,485.4	3,481.9	3.53	988.214	
1,377.9	1,377.9	1,390.5	1,390.1	3.0	0.9	174.32	-3,466.1	344.5	3,483.9	3,480.1	3.72	935.377	
1,400.0	1,400.0	1,411.9	1,411.5	3.0	0.9	174.32	-3,465.7	344.7	3,483.4	3,479.6	3.78	921.481	
1,476.4	1,476.4	1,485.9	1,485.4	3.2	0.9	174.31	-3,464.2	345.1	3,481.9	3,478.0	3.97	876.482	
1,500.0	1,500.0	1,510.4	1,510.0	3.2	0.9	174.31	-3,463.7	345.2	3,481.5	3,477.5	4.03	863.402	
1,574.8	1,574.8	1,596.9	1,596.5	3.4	1.0	174.31	-3,461.9	345.1	3,479.9	3,475.7	4.22	824.239	
1,600.0	1,600.0	1,600.0	1,599.6	3.5	1.0	174.31	-3,461.8	345.0	3,479.4	3,475.2	4.28	813.066	
1,673.2	1,673.2	1,665.8	1,665.3	3.6	1.0	174.31	-3,460.7	344.5	3,478.1	3,473.7	4.46	780.200	
1,700.0	1,700.0	1,684.2	1,683.7	3.7	1.0	174.32	-3,460.4	344.3	3,477.8	3,473.2	4.52	769.067	
1,771.6	1,771.6	1,748.2	1,747.7	3.8	1.0	174.33	-3,459.9	343.5	3,477.1	3,472.4	4.70	740.131	
1,800.0	1,800.0	1,776.3	1,775.8	3.9	1.0	174.33	-3,459.6	343.2	3,476.8	3,472.0	4.77	729.155	
1,870.1	1,870.1	1,846.8	1,846.3	4.1	1.0	174.35	-3,459.1	342.3	3,476.1	3,471.2	4.94	703.290	
1,900.0	1,900.0	1,877.1	1,876.6	4.1	1.0	174.36	-3,458.8	341.9	3,475.8	3,470.8	5.02	692.780	
1,968.5	1,968.5	1,944.8	1,944.3	4.3	1.0	174.37	-3,458.3	340.8	3,475.2	3,470.0	5.19	669.862	
2,000.0	2,000.0	1,975.5	1,975.0	4.4	1.0	174.38	-3,458.0	340.1	3,474.9	3,469.6	5.27	659.831	
2,066.9	2,066.9	2,048.1	2,047.6	4.5	1.1	174.41	-3,457.5	338.4	3,474.2	3,468.8	5.44	639.173	
2,100.0	2,100.0	2,086.2	2,085.6	4.6	1.1	174.43	-3,457.2	337.3	3,473.9	3,468.3	5.52	629.344	
2,165.3	2,165.3	2,154.2	2,153.6	4.7	1.1	106.06	-3,456.5	335.3	3,473.2	3,467.4	5.81	598.061	
2,200.0	2,200.0	2,189.3	2,188.8	4.8	1.1	106.10	-3,456.1	334.3	3,473.0	3,467.2	5.89	589.450	
2,229.3	2,229.3	2,216.4	2,215.8	4.9	1.1	106.13	-3,455.8	333.6	3,473.0	3,467.0	5.96	582.604	
2,263.8	2,263.7	2,246.4	2,245.8	4.9	1.1	106.16	-3,455.6	332.8	3,473.1	3,467.0	6.04	574.847	
2,300.0	2,299.8	2,278.0	2,277.3	5.0	1.1	106.20	-3,455.3	331.9	3,473.3	3,467.2	6.13	566.944	
2,362.2	2,361.8	2,331.1	2,330.5	5.1	1.1	106.28	-3,455.0	330.4	3,474.2	3,467.9	6.28	553.605	
2,400.0	2,399.5	2,363.0	2,362.3	5.2	1.1	106.33	-3,454.9	329.5	3,475.0	3,468.6	6.37	545.916	
2,460.6	2,459.7	2,427.3	2,426.7	5.4	1.2	106.44	-3,454.7	327.7	3,476.7	3,470.1	6.52	533.264	
2,500.0	2,498.7	2,492.2	2,491.5	5.5	1.2	106.59	-3,454.2	325.9	3,477.7	3,471.1	6.63	524.900	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT LDS #5-25 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,557.1	2,559.6	2,558.8	5.6	1.2	106.74	-3,453.2	324.3	3,479.3	3,472.6	6.79	512.446	
2,600.0	2,597.5	2,603.9	2,603.1	5.7	1.2	106.85	-3,452.5	323.3	3,480.6	3,473.7	6.90	504.215	
2,657.5	2,654.0	2,659.0	2,658.3	5.9	1.2	106.99	-3,451.7	322.0	3,482.7	3,475.6	7.07	492.275	
2,700.0	2,695.6	2,700.0	2,699.2	6.0	1.2	107.10	-3,451.0	321.0	3,484.5	3,477.3	7.20	483.834	
2,755.9	2,750.2	2,743.6	2,742.8	6.2	1.2	107.21	-3,450.4	320.0	3,487.3	3,479.9	7.38	472.350	
2,800.0	2,793.1	2,778.1	2,777.2	6.3	1.2	107.30	-3,450.0	319.2	3,489.8	3,482.3	7.53	463.689	
2,854.3	2,845.6	2,817.7	2,816.9	6.5	1.3	107.40	-3,449.7	318.2	3,493.4	3,485.7	7.72	452.372	
2,900.0	2,889.6	2,848.6	2,847.7	6.6	1.3	107.48	-3,449.5	317.4	3,496.9	3,489.1	7.89	443.393	
2,952.7	2,940.2	2,884.0	2,883.1	6.8	1.3	107.56	-3,449.5	316.4	3,501.5	3,493.4	8.10	432.226	
3,000.0	2,985.3	2,918.9	2,918.0	7.0	1.3	107.65	-3,449.6	315.5	3,506.1	3,497.8	8.29	422.748	
3,016.9	3,001.4	2,932.6	2,931.7	7.1	1.3	107.69	-3,449.7	315.2	3,507.8	3,499.5	8.37	419.214	
3,051.2	3,033.9	2,960.3	2,959.4	7.3	1.3	107.84	-3,449.8	314.6	3,511.4	3,502.9	8.52	412.050	
3,100.0	3,080.2	3,000.0	2,999.1	7.5	1.3	108.04	-3,450.1	313.8	3,516.7	3,507.9	8.74	402.251	
3,149.6	3,127.3	3,042.9	3,042.0	7.7	1.3	108.26	-3,450.4	313.2	3,522.2	3,513.2	8.98	392.423	
3,200.0	3,175.1	3,086.7	3,085.8	8.0	1.3	108.49	-3,450.8	312.8	3,527.9	3,518.6	9.21	382.959	
3,248.0	3,220.7	3,129.5	3,128.6	8.2	1.3	108.70	-3,451.3	312.5	3,533.4	3,523.9	9.45	374.045	
3,300.0	3,270.0	3,176.4	3,175.5	8.5	1.3	108.93	-3,451.7	312.3	3,539.5	3,529.8	9.70	364.931	
3,346.4	3,314.1	3,222.2	3,221.3	8.7	1.3	109.15	-3,452.2	312.3	3,545.0	3,535.0	9.93	356.907	
3,400.0	3,365.0	3,280.9	3,280.0	9.0	1.3	109.43	-3,452.8	312.5	3,551.3	3,541.1	10.20	348.149	
3,444.9	3,407.6	3,321.3	3,320.4	9.2	1.3	109.62	-3,453.1	312.8	3,556.6	3,546.2	10.43	340.894	
3,500.0	3,459.9	3,364.0	3,363.1	9.5	1.3	109.82	-3,453.5	313.1	3,563.3	3,552.6	10.72	332.406	
3,543.3	3,501.0	3,400.0	3,399.1	9.8	1.3	109.99	-3,453.9	313.4	3,568.7	3,557.8	10.95	325.903	
3,600.0	3,554.8	3,452.1	3,451.2	10.1	1.3	110.23	-3,454.6	313.9	3,575.9	3,564.7	11.25	317.799	
3,641.7	3,594.4	3,492.8	3,491.9	10.3	1.3	110.42	-3,455.1	314.3	3,581.2	3,569.8	11.48	311.993	
3,700.0	3,649.7	3,556.8	3,555.9	10.7	1.3	110.71	-3,455.9	315.0	3,588.7	3,576.9	11.79	304.285	
3,740.1	3,687.8	3,600.0	3,599.1	10.9	1.3	110.91	-3,456.3	315.4	3,593.8	3,581.7	12.01	299.123	
3,800.0	3,744.7	3,656.7	3,655.7	11.2	1.3	111.17	-3,456.8	316.0	3,601.4	3,589.0	12.34	291.769	
3,838.6	3,781.3	3,692.3	3,691.3	11.5	1.3	111.33	-3,457.1	316.4	3,606.3	3,593.8	12.56	287.174	
3,900.0	3,839.6	3,751.6	3,750.7	11.8	1.3	111.60	-3,457.7	317.1	3,614.3	3,601.4	12.90	280.179	
3,937.0	3,874.7	3,787.6	3,786.7	12.1	1.3	111.76	-3,458.0	317.5	3,619.1	3,606.0	13.11	276.095	
4,000.0	3,934.5	3,843.0	3,842.1	12.4	1.3	112.01	-3,458.5	318.2	3,627.4	3,614.0	13.46	269.458	
4,035.4	3,968.1	3,873.3	3,872.3	12.6	1.3	112.14	-3,458.8	318.5	3,632.2	3,618.5	13.66	265.849	
4,100.0	4,029.4	3,929.2	3,928.2	13.0	1.3	112.39	-3,459.5	319.0	3,641.0	3,627.0	14.03	259.559	
4,133.8	4,061.5	3,959.0	3,958.0	13.2	1.3	112.53	-3,459.9	319.2	3,645.7	3,631.5	14.22	256.369	
4,200.0	4,124.3	4,016.9	4,015.9	13.6	1.4	112.79	-3,460.6	319.6	3,655.0	3,640.4	14.60	250.401	
4,232.3	4,155.0	4,045.0	4,044.0	13.8	1.4	112.91	-3,461.1	319.8	3,659.6	3,644.8	14.78	247.587	
4,300.0	4,219.3	4,104.8	4,103.8	14.2	1.4	113.18	-3,462.0	320.1	3,669.4	3,654.2	15.17	241.931	
4,330.7	4,248.4	4,139.4	4,138.4	14.4	1.4	113.34	-3,462.5	320.1	3,673.9	3,658.5	15.34	239.465	
4,400.0	4,314.2	4,214.0	4,213.0	14.9	1.4	113.68	-3,463.5	319.9	3,683.9	3,668.1	15.74	234.109	
4,429.1	4,341.8	4,240.4	4,239.4	15.0	1.4	113.80	-3,463.8	319.8	3,688.1	3,672.2	15.90	231.920	
4,500.0	4,409.1	4,306.4	4,305.4	15.5	1.4	114.10	-3,464.6	319.7	3,698.5	3,682.2	16.31	226.799	
4,527.5	4,435.3	4,338.9	4,337.9	15.7	1.4	114.24	-3,465.0	319.7	3,702.5	3,686.1	16.46	224.878	
4,600.0	4,504.0	4,415.8	4,414.7	16.1	1.4	114.59	-3,465.7	319.5	3,713.0	3,696.2	16.88	219.994	
4,626.0	4,528.7	4,435.6	4,434.6	16.3	1.4	114.68	-3,465.9	319.4	3,716.8	3,699.8	17.03	218.283	
4,700.0	4,598.9	4,500.0	4,499.0	16.7	1.4	114.97	-3,466.6	319.4	3,727.9	3,710.5	17.45	213.604	
4,724.4	4,622.1	4,513.2	4,512.2	16.9	1.4	115.02	-3,466.8	319.4	3,731.7	3,714.1	17.59	212.095	
4,800.0	4,693.9	4,584.3	4,583.3	17.4	1.4	115.33	-3,467.9	319.6	3,743.3	3,725.3	18.03	207.615	
4,822.8	4,715.5	4,607.0	4,605.9	17.5	1.4	115.43	-3,468.2	319.7	3,746.9	3,728.7	18.16	206.305	
4,900.0	4,788.8	4,693.6	4,692.6	18.0	1.4	115.80	-3,469.3	320.1	3,758.8	3,740.2	18.60	202.047	
4,921.2	4,809.0	4,716.3	4,715.2	18.1	1.4	115.90	-3,469.5	320.1	3,762.1	3,743.3	18.73	200.908	
5,000.0	4,883.7	4,798.7	4,797.6	18.6	1.4	116.26	-3,470.3	320.1	3,774.1	3,755.0	19.17	196.828	
5,019.7	4,902.4	4,819.8	4,818.8	18.7	1.4	116.35	-3,470.4	320.1	3,777.1	3,757.9	19.29	195.843	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT LDS #5-25 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,978.6	4,905.6	4,904.5	19.3	1.4	116.72	-3,470.9	320.4	3,789.4	3,769.6	19.74	191.938	
5,118.1	4,995.8	4,922.1	4,921.0	19.4	1.4	116.79	-3,471.0	320.5	3,792.1	3,772.3	19.85	191.072	
5,200.0	5,073.6	4,996.6	4,995.6	19.9	1.4	117.10	-3,471.4	320.8	3,804.7	3,784.4	20.32	187.280	
5,216.5	5,089.2	5,017.1	5,016.1	20.0	1.5	117.19	-3,471.5	320.8	3,807.3	3,786.9	20.41	186.553	
5,304.2	5,172.4	5,119.7	5,118.6	20.6	1.5	117.62	-3,471.7	321.2	3,820.5	3,799.6	20.90	182.798	
5,314.9	5,182.7	5,128.0	5,126.9	20.6	1.5	117.68	-3,471.7	321.3	3,822.2	3,801.2	20.95	182.464	
5,400.0	5,263.9	5,200.0	5,198.9	21.1	1.5	118.18	-3,471.8	321.5	3,834.6	3,813.3	21.32	179.879	
5,413.4	5,276.7	5,204.7	5,203.7	21.1	1.5	118.23	-3,471.8	321.5	3,836.5	3,815.1	21.36	179.579	
5,500.0	5,360.3	5,283.2	5,282.1	21.5	1.5	118.71	-3,472.3	321.7	3,848.1	3,826.4	21.66	177.686	
5,511.8	5,371.7	5,293.9	5,292.9	21.6	1.5	118.77	-3,472.3	321.8	3,849.6	3,827.9	21.69	177.462	
5,600.0	5,457.5	5,388.8	5,387.7	21.9	1.5	119.23	-3,472.9	322.3	3,860.0	3,838.1	21.96	175.798	
5,610.2	5,467.5	5,400.0	5,398.9	21.9	1.5	119.28	-3,472.9	322.4	3,861.2	3,839.2	21.98	175.632	
5,700.0	5,555.6	5,494.3	5,493.3	22.3	1.5	119.66	-3,473.3	323.4	3,870.2	3,847.9	22.22	174.140	
5,708.6	5,564.1	5,500.0	5,498.9	22.3	1.5	119.69	-3,473.3	323.4	3,870.9	3,848.7	22.24	174.016	
5,800.0	5,654.2	5,579.2	5,578.1	22.6	1.5	119.97	-3,473.7	324.5	3,878.7	3,856.2	22.46	172.684	
5,807.1	5,661.2	5,585.1	5,584.1	22.6	1.5	119.99	-3,473.7	324.5	3,879.2	3,856.8	22.48	172.599	
5,900.0	5,753.4	5,656.3	5,655.2	22.8	1.5	120.22	-3,474.4	325.1	3,886.0	3,863.3	22.67	171.447	
5,905.5	5,758.8	5,660.4	5,659.3	22.8	1.5	120.23	-3,474.4	325.2	3,886.3	3,863.6	22.67	171.392	
6,000.0	5,852.9	5,751.9	5,750.8	23.1	1.5	120.43	-3,475.6	325.4	3,892.0	3,869.2	22.84	170.400	
6,003.9	5,856.8	5,756.8	5,755.7	23.1	1.6	120.43	-3,475.7	325.4	3,892.2	3,869.4	22.85	170.366	
6,100.0	5,952.7	5,850.2	5,849.1	23.2	1.6	120.57	-3,476.7	325.5	3,896.1	3,873.1	22.99	169.477	
6,102.3	5,955.1	5,852.1	5,851.0	23.2	1.6	120.57	-3,476.7	325.5	3,896.2	3,873.2	22.99	169.460	
6,200.0	6,052.7	5,934.2	5,933.1	23.4	1.6	120.64	-3,477.9	325.3	3,898.8	3,875.7	23.11	168.699	
6,200.8	6,053.5	5,934.9	5,933.8	23.4	1.6	120.64	-3,477.9	325.3	3,898.8	3,875.7	23.11	168.694	
6,221.1	6,073.8	5,952.8	5,951.7	23.4	1.6	-170.93	-3,478.2	325.2	3,899.2	3,876.0	23.13	168.552	
6,251.1	6,103.8	5,979.1	5,978.0	23.4	1.6	-170.93	-3,478.6	325.0	3,899.7	3,876.5	23.17	168.278	
6,299.2	6,151.8	6,019.9	6,018.8	23.5	1.6	9.09	-3,479.3	324.7	3,899.0	3,875.8	23.17	168.251	
6,300.0	6,152.6	6,020.5	6,019.4	23.5	1.6	9.09	-3,479.3	324.6	3,898.9	3,875.8	23.17	168.250	
6,350.0	6,202.4	6,061.3	6,060.2	23.5	1.6	9.15	-3,480.1	324.3	3,894.9	3,871.7	23.16	168.163	
6,397.6	6,249.3	6,100.0	6,098.9	23.5	1.6	9.26	-3,480.9	323.9	3,887.9	3,864.8	23.13	168.092	
6,400.0	6,251.6	6,103.0	6,101.8	23.5	1.6	9.27	-3,481.0	323.9	3,887.5	3,864.4	23.13	168.089	
6,450.0	6,300.1	6,167.7	6,166.5	23.5	1.6	9.46	-3,482.3	323.1	3,876.7	3,853.6	23.06	168.108	
6,496.0	6,344.0	6,218.7	6,217.6	23.5	1.6	9.69	-3,483.1	322.4	3,863.7	3,840.7	22.95	168.353	
6,500.0	6,347.7	6,222.3	6,221.1	23.5	1.6	9.71	-3,483.2	322.3	3,862.4	3,839.5	22.94	168.389	
6,550.0	6,394.1	6,266.7	6,265.6	23.5	1.6	10.02	-3,483.9	321.8	3,844.8	3,822.1	22.75	169.037	
6,594.5	6,434.2	6,300.0	6,298.8	23.4	1.6	10.35	-3,484.5	321.6	3,826.6	3,804.1	22.51	169.978	
6,600.0	6,439.0	6,300.0	6,298.8	23.4	1.6	10.39	-3,484.5	321.6	3,824.2	3,801.7	22.48	170.140	
6,650.0	6,482.4	6,344.0	6,342.8	23.4	1.6	10.85	-3,485.4	321.4	3,800.4	3,778.3	22.14	171.667	
6,692.9	6,518.1	6,373.4	6,372.2	23.3	1.7	11.32	-3,486.1	321.3	3,777.8	3,756.0	21.79	173.405	
6,700.0	6,523.9	6,378.1	6,376.9	23.3	1.7	11.40	-3,486.2	321.3	3,773.9	3,752.2	21.72	173.735	
6,750.0	6,563.3	6,400.0	6,398.8	23.3	1.7	12.04	-3,486.7	321.3	3,744.6	3,723.4	21.23	176.405	
6,791.3	6,594.2	6,432.0	6,430.7	23.2	1.7	12.70	-3,487.6	321.3	3,718.4	3,697.6	20.78	178.939	
6,800.0	6,600.5	6,436.6	6,435.3	23.2	1.7	12.85	-3,487.7	321.3	3,712.7	3,692.0	20.68	179.543	
6,850.0	6,635.3	6,462.1	6,460.9	23.2	1.7	13.81	-3,488.5	321.2	3,678.4	3,658.3	20.07	183.304	
6,889.7	6,661.1	6,481.3	6,480.0	23.1	1.7	14.72	-3,489.1	321.1	3,649.4	3,629.9	19.55	186.665	
6,900.0	6,667.5	6,500.0	6,498.7	23.1	1.7	15.05	-3,489.8	321.0	3,641.8	3,622.4	19.42	187.502	
6,950.0	6,696.9	6,517.4	6,516.1	23.1	1.7	16.49	-3,490.4	320.9	3,603.0	3,584.3	18.74	192.282	
6,988.2	6,717.5	6,550.4	6,549.1	23.1	1.7	17.98	-3,491.4	320.6	3,572.0	3,553.8	18.24	195.888	
7,000.0	6,723.5	6,560.0	6,558.7	23.1	1.7	18.50	-3,491.7	320.5	3,562.2	3,544.1	18.08	197.073	
7,050.0	6,747.0	6,597.6	6,596.2	23.1	1.7	21.09	-3,492.7	320.1	3,519.5	3,502.0	17.45	201.726	
7,086.6	6,762.3	6,600.0	6,598.7	23.1	1.7	23.19	-3,492.8	320.0	3,487.2	3,470.1	17.02	204.902	
7,100.0	6,767.4	6,600.0	6,598.7	23.1	1.7	24.05	-3,492.8	320.0	3,475.2	3,458.3	16.88	205.923	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT LDS #5-25 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,150.0	6,784.6	6,624.8	6,623.4	23.1	1.7	28.42	-3,493.4	319.7	3,429.5	3,412.9	16.51	207.736	
7,185.0	6,794.7	6,631.9	6,630.6	23.1	1.7	32.24	-3,493.6	319.6	3,396.8	3,380.4	16.40	207.072	
7,200.0	6,798.5	6,634.6	6,633.3	23.2	1.7	34.16	-3,493.7	319.5	3,382.7	3,366.3	16.42	206.064	
7,250.0	6,808.9	6,642.4	6,641.1	23.2	1.7	42.26	-3,494.0	319.4	3,335.0	3,318.3	16.74	199.237	
7,283.4	6,814.0	6,646.4	6,645.1	23.3	1.7	49.54	-3,494.1	319.3	3,302.7	3,285.5	17.22	191.821	
7,300.0	6,816.0	6,648.1	6,646.7	23.4	1.7	53.82	-3,494.1	319.3	3,286.7	3,269.1	17.51	187.678	
7,350.0	6,819.5	6,651.4	6,650.1	23.5	1.7	69.82	-3,494.2	319.2	3,237.9	3,219.4	18.47	175.290	
7,381.9	6,820.0	6,652.4	6,651.1	23.7	1.7	82.06	-3,494.3	319.2	3,206.6	3,187.6	19.04	168.411	
7,382.0	6,820.0	6,652.4	6,651.1	23.7	1.7	82.10	-3,494.3	319.2	3,206.5	3,187.5	19.04	168.384	
7,400.0	6,819.8	6,652.7	6,651.4	23.8	1.7	82.13	-3,494.3	319.2	3,188.9	3,169.7	19.19	166.151	
7,480.3	6,819.2	6,654.0	6,652.7	24.2	1.7	82.24	-3,494.3	319.2	3,110.2	3,090.2	19.94	155.999	
7,500.0	6,819.0	6,654.3	6,653.0	24.3	1.7	82.28	-3,494.3	319.2	3,090.9	3,070.7	20.12	153.623	
7,578.7	6,818.4	6,655.6	6,654.3	24.9	1.7	82.39	-3,494.4	319.2	3,013.8	2,992.8	20.96	143.756	
7,600.0	6,818.2	6,656.0	6,654.6	25.0	1.7	82.43	-3,494.4	319.2	2,993.0	2,971.8	21.19	141.224	
7,677.1	6,817.6	6,657.3	6,655.9	25.7	1.7	82.54	-3,494.4	319.1	2,917.6	2,895.5	22.12	131.919	
7,700.0	6,817.4	6,657.6	6,656.3	25.9	1.7	82.58	-3,494.4	319.1	2,895.3	2,872.9	22.39	129.311	
7,775.6	6,816.7	6,658.9	6,657.6	26.6	1.7	82.70	-3,494.5	319.1	2,821.6	2,798.2	23.37	120.720	
7,800.0	6,816.5	6,659.4	6,658.0	26.9	1.7	82.74	-3,494.5	319.1	2,797.7	2,774.0	23.69	118.096	
7,874.0	6,815.9	6,660.7	6,659.3	27.7	1.7	82.85	-3,494.5	319.1	2,725.7	2,700.9	24.72	110.278	
7,900.0	6,815.7	6,661.1	6,659.8	28.0	1.7	82.90	-3,494.6	319.1	2,700.4	2,675.3	25.08	107.684	
7,972.4	6,815.1	6,662.4	6,661.1	28.9	1.7	83.01	-3,494.6	319.1	2,630.0	2,603.8	26.13	100.639	
8,000.0	6,814.9	6,662.9	6,661.5	29.2	1.7	83.06	-3,494.6	319.0	2,603.2	2,576.7	26.53	98.104	
8,070.8	6,814.3	6,664.2	6,662.8	30.1	1.7	83.18	-3,494.7	319.0	2,534.5	2,506.9	27.61	91.793	
8,100.0	6,814.1	6,664.7	6,663.4	30.5	1.7	83.23	-3,494.7	319.0	2,506.2	2,478.2	28.05	89.338	
8,169.3	6,813.5	6,666.0	6,664.7	31.5	1.7	83.34	-3,494.7	319.0	2,439.2	2,410.1	29.14	83.707	
8,200.0	6,813.3	6,666.6	6,665.2	31.9	1.7	83.40	-3,494.7	319.0	2,409.5	2,379.9	29.62	81.342	
8,267.7	6,812.7	6,667.9	6,666.5	32.9	1.7	83.51	-3,494.8	319.0	2,344.2	2,313.5	30.71	76.326	
8,300.0	6,812.4	6,668.5	6,667.1	33.3	1.7	83.57	-3,494.8	318.9	2,313.1	2,281.9	31.23	74.058	
8,366.1	6,811.9	6,669.8	6,668.4	34.3	1.7	83.69	-3,494.9	318.9	2,249.5	2,217.2	32.32	69.595	
8,400.0	6,811.6	6,670.4	6,669.1	34.8	1.7	83.75	-3,494.9	318.9	2,217.0	2,184.1	32.88	67.424	
8,464.5	6,811.1	6,671.7	6,670.3	35.8	1.7	83.86	-3,494.9	318.9	2,155.1	2,121.1	33.96	63.452	
8,500.0	6,810.8	6,672.4	6,671.1	36.3	1.7	83.93	-3,494.9	318.9	2,121.2	2,086.6	34.56	61.379	
8,563.0	6,810.3	6,673.7	6,672.3	37.3	1.7	84.05	-3,495.0	318.9	2,061.1	2,025.5	35.63	57.842	
8,600.0	6,810.0	6,674.4	6,673.1	37.9	1.7	84.12	-3,495.0	318.8	2,025.8	1,989.6	36.26	55.863	
8,661.4	6,809.5	6,675.7	6,674.3	38.9	1.7	84.23	-3,495.1	318.8	1,967.5	1,930.2	37.33	52.713	
8,700.0	6,809.1	6,676.5	6,675.2	39.5	1.7	84.31	-3,495.1	318.8	1,931.0	1,893.0	37.99	50.825	
8,759.8	6,808.6	6,677.8	6,676.4	40.5	1.7	84.42	-3,495.1	318.8	1,874.4	1,835.4	39.04	48.016	
8,800.0	6,808.3	6,678.6	6,677.3	41.1	1.7	84.50	-3,495.2	318.8	1,836.6	1,796.9	39.74	46.215	
8,858.2	6,807.8	6,679.9	6,678.5	42.1	1.7	84.62	-3,495.2	318.7	1,781.9	1,741.2	40.77	43.708	
8,900.0	6,807.5	6,680.8	6,679.4	42.8	1.7	84.70	-3,495.2	318.7	1,742.9	1,701.4	41.51	41.991	
8,956.7	6,807.0	6,682.1	6,680.7	43.7	1.7	84.82	-3,495.3	318.7	1,690.1	1,647.6	42.52	39.752	
9,000.0	6,806.7	6,683.0	6,681.7	44.4	1.7	84.90	-3,495.3	318.7	1,649.9	1,606.6	43.29	38.115	
9,055.1	6,806.2	6,684.3	6,682.9	45.4	1.7	85.02	-3,495.4	318.7	1,599.0	1,554.7	44.28	36.114	
9,100.0	6,805.8	6,685.3	6,683.9	46.1	1.7	85.11	-3,495.4	318.6	1,557.8	1,512.7	45.08	34.554	
9,153.5	6,805.4	6,686.5	6,685.2	47.0	1.7	85.23	-3,495.5	318.6	1,508.9	1,462.8	46.05	32.766	
9,200.0	6,805.0	6,687.6	6,686.3	47.8	1.7	85.33	-3,495.5	318.6	1,466.7	1,419.8	46.89	31.279	
9,251.9	6,804.6	6,688.9	6,687.5	48.7	1.7	85.44	-3,495.5	318.6	1,419.8	1,372.0	47.83	29.682	
9,300.0	6,804.2	6,690.0	6,688.6	49.6	1.7	85.55	-3,495.6	318.5	1,376.8	1,328.1	48.71	28.267	
9,350.4	6,803.8	6,700.0	6,698.6	50.4	1.7	86.46	-3,496.0	318.3	1,332.1	1,282.4	49.69	26.809	
9,400.0	6,803.4	6,700.0	6,698.6	51.3	1.7	86.46	-3,496.0	318.3	1,288.4	1,237.9	50.59	25.470	
9,448.8	6,802.9	6,700.0	6,698.6	52.1	1.7	86.46	-3,496.0	318.3	1,245.9	1,194.5	51.48	24.205	
9,500.0	6,802.5	6,700.0	6,698.6	53.0	1.7	86.46	-3,496.0	318.3	1,201.9	1,149.5	52.41	22.933	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT LDS #5-25 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis					Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,802.1	6,700.0	6,698.6	53.9	1.7	86.46	-3,496.0	318.3	1,161.7	1,108.5	53.27	21.808	
9,600.0	6,801.7	6,700.0	6,698.6	54.8	1.7	86.46	-3,496.0	318.3	1,117.5	1,063.3	54.23	20.606	
9,645.6	6,801.3	6,700.0	6,698.6	55.6	1.7	86.46	-3,496.0	318.3	1,079.9	1,024.9	55.07	19.610	
9,700.0	6,800.9	6,700.0	6,698.6	56.6	1.7	86.46	-3,496.0	318.3	1,036.0	979.9	56.07	18.478	
9,744.1	6,800.5	6,700.0	6,698.6	57.4	1.7	86.46	-3,496.0	318.3	1,001.1	944.2	56.88	17.601	
9,800.0	6,800.0	6,700.0	6,698.6	58.4	1.7	86.46	-3,496.0	318.3	958.0	900.1	57.91	16.543	
9,842.5	6,799.7	6,704.0	6,702.6	59.1	1.7	86.83	-3,496.1	318.3	926.1	867.3	58.72	15.771	
9,900.0	6,799.2	6,705.6	6,704.2	60.2	1.7	86.98	-3,496.2	318.2	884.3	824.5	59.79	14.790	
9,940.9	6,798.9	6,706.7	6,705.3	60.9	1.7	87.08	-3,496.2	318.2	855.7	795.2	60.56	14.131	
10,000.0	6,798.4	6,708.4	6,707.0	62.0	1.7	87.24	-3,496.3	318.2	816.3	754.7	61.66	13.239	
10,039.3	6,798.1	6,709.5	6,708.1	62.7	1.7	87.34	-3,496.4	318.2	791.4	729.0	62.40	12.684	
10,100.0	6,797.6	6,711.3	6,709.9	63.8	1.7	87.50	-3,496.4	318.1	755.5	691.9	63.54	11.890	
10,137.8	6,797.2	6,712.4	6,711.0	64.4	1.7	87.61	-3,496.5	318.1	734.7	670.5	64.25	11.436	
10,200.0	6,796.7	6,714.2	6,712.9	65.6	1.7	87.78	-3,496.5	318.1	703.6	638.2	65.41	10.756	
10,236.2	6,796.4	6,715.3	6,713.9	66.2	1.7	87.88	-3,496.6	318.0	687.4	621.3	66.10	10.401	
10,300.0	6,795.9	6,717.3	6,715.9	67.4	1.7	88.06	-3,496.7	318.0	662.8	595.5	67.30	9.849	
10,334.6	6,795.6	6,718.4	6,717.0	68.0	1.7	88.16	-3,496.7	318.0	651.7	583.7	67.95	9.591	
10,400.0	6,795.1	6,720.4	6,719.0	69.2	1.7	88.35	-3,496.8	317.9	635.3	566.1	69.18	9.183	
10,433.0	6,794.8	6,721.5	6,720.1	69.8	1.7	88.44	-3,496.9	317.9	629.4	559.6	69.81	9.017	
10,500.0	6,794.2	6,723.7	6,722.3	71.0	1.7	88.64	-3,496.9	317.8	622.8	551.7	71.08	8.762	
10,528.8	6,794.0	6,724.6	6,723.2	71.6	1.7	88.73	-3,497.0	317.8	622.1	550.5	71.62	8.686 CC	
10,531.5	6,794.0	6,724.7	6,723.3	71.6	1.7	88.74	-3,497.0	317.8	622.1	550.5	71.67	8.680 ES	
10,600.0	6,793.4	6,727.0	6,725.6	72.9	1.7	88.95	-3,497.1	317.8	626.2	553.2	72.97	8.582	
10,629.9	6,793.2	6,728.0	6,726.6	73.4	1.7	89.04	-3,497.1	317.8	630.3	556.7	73.54	8.571 SF	
10,700.0	6,792.6	6,730.4	6,729.0	74.7	1.7	89.26	-3,497.2	317.7	645.2	570.4	74.86	8.619	
10,728.3	6,792.3	6,731.4	6,730.0	75.2	1.7	89.35	-3,497.3	317.7	653.3	577.9	75.40	8.664	
10,800.0	6,791.7	6,733.9	6,732.5	76.6	1.7	89.58	-3,497.4	317.6	678.6	601.8	76.76	8.840	
10,826.7	6,791.5	6,734.8	6,733.4	77.1	1.7	89.67	-3,497.4	317.6	689.7	612.4	77.27	8.926	
10,900.0	6,790.9	6,737.5	6,736.1	78.4	1.7	89.92	-3,497.6	317.5	724.3	645.7	78.66	9.208	
10,925.2	6,790.7	6,738.4	6,737.0	78.9	1.7	90.00	-3,497.6	317.5	737.5	658.4	79.14	9.319	
11,000.0	6,790.1	6,741.2	6,739.8	80.3	1.7	90.26	-3,497.7	317.4	780.2	699.7	80.56	9.685	
11,023.6	6,789.9	6,742.1	6,740.7	80.7	1.7	90.34	-3,497.8	317.4	794.7	713.7	81.01	9.810	
11,100.0	6,789.2	6,745.1	6,743.6	82.1	1.7	90.61	-3,497.9	317.4	844.3	761.9	82.47	10.238	
11,122.0	6,789.1	6,745.9	6,744.5	82.5	1.7	90.69	-3,497.9	317.3	859.4	776.5	82.88	10.368	
11,200.0	6,788.4	6,749.0	6,747.6	84.0	1.7	90.98	-3,498.1	317.3	914.8	830.5	84.37	10.844	
11,220.4	6,788.2	6,749.9	6,748.4	84.3	1.7	91.05	-3,498.1	317.2	929.9	845.2	84.76	10.972	
11,300.0	6,787.6	6,750.0	6,748.6	85.8	1.7	91.06	-3,498.1	317.2	990.5	904.2	86.26	11.482	
11,318.9	6,787.4	6,750.0	6,748.6	86.2	1.7	91.06	-3,498.1	317.2	1,005.2	918.6	86.62	11.605	
11,400.0	6,786.7	6,750.0	6,748.6	87.7	1.7	91.06	-3,498.1	317.2	1,070.1	981.9	88.15	12.140	
11,417.3	6,786.6	6,750.0	6,748.6	88.0	1.7	91.06	-3,498.1	317.2	1,084.2	995.7	88.47	12.254	
11,500.0	6,785.9	6,750.0	6,748.6	89.5	1.7	91.06	-3,498.1	317.2	1,152.9	1,062.8	90.04	12.804	
11,515.7	6,785.8	6,750.0	6,748.6	89.8	1.7	91.06	-3,498.1	317.2	1,166.1	1,075.8	90.33	12.909	
11,600.0	6,785.1	6,750.0	6,748.6	91.4	1.7	91.06	-3,498.1	317.2	1,238.2	1,146.3	91.93	13.469	
11,614.1	6,785.0	6,750.0	6,748.6	91.7	1.7	91.06	-3,498.1	317.2	1,250.5	1,158.3	92.20	13.563	
11,700.0	6,784.2	6,750.0	6,748.6	93.3	1.7	91.06	-3,498.1	317.2	1,325.6	1,231.8	93.82	14.129	
11,712.6	6,784.1	6,750.0	6,748.6	93.5	1.7	91.06	-3,498.1	317.2	1,336.7	1,242.7	94.06	14.212	
11,800.0	6,783.4	6,750.0	6,748.6	95.2	1.7	91.06	-3,498.1	317.2	1,414.7	1,318.9	95.71	14.780	
11,811.0	6,783.3	6,750.0	6,748.6	95.4	1.7	91.06	-3,498.1	317.2	1,424.5	1,328.6	95.92	14.851	
11,900.0	6,782.6	6,750.0	6,748.6	97.0	1.7	91.06	-3,498.1	317.2	1,505.1	1,407.5	97.61	15.420	
11,909.4	6,782.5	6,750.0	6,748.6	97.2	1.7	91.06	-3,498.1	317.2	1,513.7	1,415.9	97.79	15.479	
12,000.0	6,781.7	6,750.0	6,748.6	98.9	1.7	91.06	-3,498.1	317.2	1,596.7	1,497.2	99.50	16.046	
12,007.8	6,781.7	6,750.0	6,748.6	99.1	1.7	91.06	-3,498.1	317.2	1,603.9	1,504.2	99.65	16.095	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT LDS #5-25 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	6,750.0	6,748.6	100.8	1.7	91.06	-3,498.1	317.2	1,689.2	1,587.8	101.40	16.659	
12,106.3	6,780.9	6,750.0	6,748.6	100.9	1.7	91.06	-3,498.1	317.2	1,695.0	1,593.5	101.52	16.697	
12,200.0	6,780.1	6,750.0	6,748.6	102.7	1.7	91.06	-3,498.1	317.2	1,782.5	1,679.2	103.30	17.256	
12,204.7	6,780.0	6,750.0	6,748.6	102.7	1.7	91.06	-3,498.1	317.2	1,786.9	1,683.6	103.39	17.284	
12,300.0	6,779.2	6,750.0	6,748.6	104.5	1.7	91.06	-3,498.1	317.2	1,876.6	1,771.4	105.20	17.839	
12,303.1	6,779.2	6,750.0	6,748.6	104.6	1.7	91.06	-3,498.1	317.2	1,879.5	1,774.3	105.26	17.857	
12,400.0	6,778.4	6,750.0	6,748.6	106.4	1.7	91.06	-3,498.1	317.2	1,971.2	1,864.1	107.10	18.406	
12,401.5	6,778.4	6,750.0	6,748.6	106.4	1.7	91.06	-3,498.1	317.2	1,972.6	1,865.5	107.13	18.414	
12,500.0	6,777.6	6,750.0	6,748.6	108.3	1.7	91.06	-3,498.1	317.2	2,066.3	1,957.3	109.00	18.958	
12,598.4	6,776.7	6,750.0	6,748.6	110.2	1.7	91.06	-3,498.1	317.2	2,160.3	2,049.5	110.87	19.486	
12,600.0	6,776.7	6,750.0	6,748.6	110.2	1.7	91.06	-3,498.1	317.2	2,161.9	2,051.0	110.90	19.494	
12,696.8	6,775.9	6,750.0	6,748.6	112.0	1.7	91.06	-3,498.1	317.2	2,254.8	2,142.0	112.74	20.000	
12,700.0	6,775.9	6,750.0	6,748.6	112.1	1.7	91.06	-3,498.1	317.2	2,257.8	2,145.0	112.80	20.016	
12,795.2	6,775.1	6,750.0	6,748.6	113.9	1.7	91.06	-3,498.1	317.2	2,349.5	2,234.9	114.61	20.500	
12,800.0	6,775.0	6,750.0	6,748.6	114.0	1.7	91.06	-3,498.1	317.2	2,354.1	2,239.4	114.70	20.524	
12,893.7	6,774.3	6,750.0	6,748.6	115.7	1.7	91.06	-3,498.1	317.2	2,444.6	2,328.1	116.48	20.986	
12,900.0	6,774.2	6,750.0	6,748.6	115.8	1.7	91.06	-3,498.1	317.2	2,450.7	2,334.1	116.60	21.017	
12,992.1	6,773.4	6,750.0	6,748.6	117.6	1.7	91.06	-3,498.1	317.2	2,539.9	2,421.5	118.36	21.459	
13,000.0	6,773.4	6,750.0	6,748.6	117.7	1.7	91.06	-3,498.1	317.2	2,547.5	2,429.0	118.51	21.497	
13,090.5	6,772.6	6,750.0	6,748.6	119.4	1.7	91.06	-3,498.1	317.2	2,635.4	2,515.2	120.23	21.919	
13,100.0	6,772.5	6,750.0	6,748.6	119.6	1.7	91.06	-3,498.1	317.2	2,644.6	2,524.2	120.41	21.963	
13,188.9	6,771.8	6,750.0	6,748.6	121.3	1.7	91.06	-3,498.1	317.2	2,731.1	2,609.0	122.11	22.367	
13,200.0	6,771.7	6,750.0	6,748.6	121.5	1.7	91.05	-3,498.1	317.2	2,741.9	2,619.6	122.32	22.416	
13,287.4	6,771.0	6,750.0	6,748.6	123.2	1.7	91.05	-3,498.1	317.2	2,827.0	2,703.1	123.98	22.802	
13,300.0	6,770.9	6,750.0	6,748.6	123.4	1.7	91.05	-3,498.1	317.2	2,839.4	2,715.1	124.22	22.857	
13,385.8	6,770.1	6,750.0	6,748.6	125.0	1.7	91.05	-3,498.1	317.2	2,923.1	2,797.3	125.86	23.226	
13,400.0	6,770.0	6,750.0	6,748.6	125.3	1.7	91.05	-3,498.1	317.2	2,937.0	2,810.9	126.13	23.286	
13,484.2	6,769.3	6,750.0	6,748.6	126.9	1.7	91.05	-3,498.1	317.2	3,019.4	2,891.6	127.73	23.638	
13,500.0	6,769.2	6,750.0	6,748.6	127.2	1.7	91.05	-3,498.1	317.2	3,034.8	2,906.8	128.03	23.703	
13,582.6	6,768.5	6,750.0	6,748.6	128.8	1.7	91.05	-3,498.1	317.2	3,115.8	2,986.1	129.61	24.039	
13,600.0	6,768.3	6,750.0	6,748.6	129.1	1.7	91.05	-3,498.1	317.2	3,132.8	3,002.8	129.94	24.109	
13,681.1	6,767.6	6,750.0	6,748.6	130.6	1.7	91.05	-3,498.1	317.2	3,212.3	3,080.8	131.49	24.430	
13,700.0	6,767.5	6,750.0	6,748.6	131.0	1.7	91.05	-3,498.1	317.2	3,230.8	3,099.0	131.85	24.504	
13,779.5	6,766.8	6,750.0	6,748.6	132.5	1.7	91.05	-3,498.1	317.2	3,308.9	3,175.5	133.37	24.810	
13,800.0	6,766.6	6,750.0	6,748.6	132.9	1.7	91.05	-3,498.1	317.2	3,329.0	3,195.2	133.76	24.888	
13,877.9	6,766.0	6,750.0	6,748.6	134.4	1.7	91.05	-3,498.1	317.2	3,405.6	3,270.3	135.24	25.181	
13,900.0	6,765.8	6,750.0	6,748.6	134.8	1.7	91.05	-3,498.1	317.2	3,427.3	3,291.6	135.66	25.263	
13,976.3	6,765.2	6,750.0	6,748.6	136.2	1.7	91.05	-3,498.1	317.2	3,502.4	3,365.3	137.12	25.542	
13,995.7	6,765.0	6,750.0	6,748.6	136.6	1.7	91.05	-3,498.1	317.2	3,521.4	3,383.9	137.49	25.612	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	106.54	-257.2	866.1	903.8				
98.4	98.4	75.8	75.8	0.1	0.1	106.55	-257.3	865.9	903.3	903.2	0.13	6,702.324	
100.0	100.0	77.5	77.5	0.1	0.1	106.55	-257.3	865.9	903.3	903.2	0.14	6,563.843	
196.8	196.8	172.9	172.9	0.3	0.2	106.57	-257.6	865.6	903.1	902.6	0.48	1,868.491	
200.0	200.0	176.0	176.0	0.3	0.2	106.57	-257.6	865.6	903.1	902.6	0.50	1,823.833	
295.3	295.3	271.1	271.1	0.5	0.2	106.57	-257.6	865.5	903.0	902.3	0.77	1,177.680	
300.0	300.0	275.8	275.8	0.5	0.2	106.57	-257.6	865.5	903.0	902.2	0.78	1,159.571	
393.7	393.7	369.8	369.8	0.7	0.3	106.56	-257.4	865.4	902.9	901.9	1.05	863.558	
400.0	400.0	376.1	376.1	0.8	0.3	106.56	-257.4	865.4	902.9	901.8	1.06	848.257	
492.1	492.1	469.3	469.3	1.0	0.4	106.55	-257.1	865.4	902.8	901.4	1.33	678.933	
500.0	500.0	477.3	477.3	1.0	0.4	106.55	-257.1	865.3	902.7	901.4	1.35	667.724	
590.5	590.5	568.7	568.7	1.2	0.4	106.53	-256.8	865.1	902.5	900.8	1.61	562.233	
600.0	600.0	578.2	578.2	1.2	0.4	106.53	-256.8	865.1	902.4	900.8	1.63	553.150	
689.0	689.0	667.5	667.5	1.4	0.5	106.52	-256.5	864.8	902.1	900.2	1.88	481.013	
700.0	700.0	678.5	678.5	1.4	0.5	106.52	-256.5	864.8	902.0	900.1	1.91	473.400	
787.4	787.4	767.8	767.8	1.6	0.5	106.51	-256.2	864.5	901.6	899.5	2.14	421.034	
800.0	800.0	780.8	780.8	1.7	0.5	106.50	-256.1	864.4	901.6	899.4	2.18	414.437	
885.8	885.8	869.9	869.9	1.9	0.6	106.50	-255.8	863.7	900.9	898.5	2.40	374.665	
900.0	900.0	884.6	884.6	1.9	0.6	106.49	-255.7	863.6	900.7	898.3	2.44	368.815	
984.2	984.2	969.5	969.5	2.1	0.6	106.49	-255.4	862.7	899.8	897.1	2.66	337.728	
1,000.0	1,000.0	985.2	985.2	2.1	0.6	106.49	-255.4	862.5	899.6	896.9	2.71	332.494	
1,082.7	1,082.7	1,068.2	1,068.2	2.3	0.7	106.49	-255.1	861.6	898.6	895.7	2.92	307.607	
1,100.0	1,100.0	1,085.6	1,085.6	2.3	0.7	106.49	-255.0	861.4	898.4	895.5	2.97	302.857	
1,181.1	1,181.1	1,165.9	1,165.8	2.5	0.7	106.48	-254.6	860.6	897.5	894.3	3.18	282.572	
1,200.0	1,200.0	1,184.5	1,184.5	2.6	0.7	106.48	-254.5	860.4	897.3	894.1	3.22	278.236	
1,279.5	1,279.5	1,262.8	1,262.7	2.7	0.8	106.46	-254.1	859.7	896.5	893.1	3.43	261.450	
1,300.0	1,300.0	1,282.9	1,282.9	2.8	0.8	106.46	-253.9	859.6	896.3	892.8	3.48	257.458	
1,377.9	1,377.9	1,359.9	1,359.9	3.0	0.8	106.44	-253.5	859.0	895.7	892.0	3.68	243.366	
1,400.0	1,400.0	1,381.8	1,381.7	3.0	0.8	106.44	-253.4	858.9	895.5	891.8	3.74	239.660	
1,476.4	1,476.4	1,457.9	1,457.9	3.2	0.8	106.42	-253.0	858.4	895.0	891.0	3.93	227.680	
1,500.0	1,500.0	1,481.5	1,481.5	3.2	0.9	106.42	-252.9	858.3	894.8	890.8	3.99	224.214	
1,574.8	1,574.8	1,556.6	1,556.6	3.4	0.9	106.40	-252.5	857.8	894.2	890.1	4.18	213.920	
1,600.0	1,600.0	1,581.9	1,581.9	3.5	0.9	106.40	-252.3	857.7	894.0	889.8	4.24	210.661	
1,673.2	1,673.2	1,656.6	1,656.6	3.6	0.9	106.38	-251.9	857.1	893.4	889.0	4.43	201.729	
1,700.0	1,700.0	1,684.0	1,684.0	3.7	0.9	106.37	-251.8	856.9	893.2	888.7	4.50	198.641	
1,771.6	1,771.6	1,756.4	1,756.4	3.8	1.0	106.37	-251.5	856.2	892.4	887.7	4.68	190.815	
1,800.0	1,800.0	1,784.9	1,784.9	3.9	1.0	106.37	-251.4	855.9	892.1	887.4	4.75	187.882	
1,870.1	1,870.1	1,855.4	1,855.4	4.1	1.0	106.37	-251.1	855.1	891.3	886.4	4.92	181.001	
1,900.0	1,900.0	1,885.5	1,885.5	4.1	1.0	106.36	-251.0	854.8	891.0	886.0	5.00	178.210	
1,968.5	1,968.5	1,955.9	1,955.8	4.3	1.0	106.37	-250.8	853.9	890.1	884.9	5.17	172.121	
2,000.0	2,000.0	1,988.4	1,988.4	4.4	1.1	106.38	-250.8	853.5	889.6	884.4	5.25	169.445	
2,066.9	2,066.9	2,057.2	2,057.1	4.5	1.1	106.40	-250.9	852.3	888.6	883.1	5.42	163.975	
2,100.0	2,100.0	2,091.2	2,091.1	4.6	1.1	106.42	-250.9	851.6	888.0	882.5	5.50	161.384	
2,165.3	2,165.3	2,155.8	2,155.7	4.7	1.1	38.07	-250.9	850.5	886.2	880.4	5.83	152.032	
2,200.0	2,200.0	2,189.9	2,189.8	4.8	1.1	38.12	-250.8	849.9	884.8	878.9	5.92	149.534	
2,263.8	2,263.7	2,252.2	2,252.1	4.9	1.1	38.28	-250.5	848.9	881.5	875.4	6.07	145.108	
2,300.0	2,299.8	2,287.5	2,287.4	5.0	1.2	38.40	-250.3	848.4	879.2	873.0	6.16	142.630	
2,362.2	2,361.8	2,348.9	2,348.7	5.1	1.2	38.67	-250.1	847.6	874.4	868.1	6.32	138.369	
2,400.0	2,399.5	2,386.2	2,386.1	5.2	1.2	38.86	-250.0	847.1	871.0	864.6	6.41	135.810	
2,460.6	2,459.7	2,446.3	2,446.2	5.4	1.2	39.24	-249.9	846.3	864.8	858.2	6.57	131.683	
2,500.0	2,498.7	2,485.4	2,485.3	5.5	1.2	39.53	-249.9	845.8	860.2	853.5	6.67	129.014	
2,559.0	2,557.1	2,544.6	2,544.5	5.6	1.3	40.03	-249.9	844.9	852.6	845.7	6.82	124.975	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.0	2,597.5	2,585.7	2,585.6	5.7	1.3	40.43	-250.0	844.2	846.7	839.8	6.93	122.190	
2,657.5	2,654.0	2,642.2	2,642.0	5.9	1.3	41.05	-250.2	843.2	837.8	830.7	7.09	118.227	
2,700.0	2,695.6	2,683.6	2,683.4	6.0	1.3	41.55	-250.4	842.5	830.6	823.4	7.20	115.325	
2,755.9	2,750.2	2,738.4	2,738.2	6.2	1.3	42.29	-250.6	841.5	820.6	813.3	7.37	111.418	
2,800.0	2,793.1	2,781.5	2,781.4	6.3	1.3	42.92	-250.8	840.7	812.2	804.7	7.49	108.370	
2,854.3	2,845.6	2,834.2	2,834.0	6.5	1.3	43.77	-250.9	839.7	801.3	793.6	7.67	104.484	
2,900.0	2,889.6	2,878.0	2,877.8	6.6	1.4	44.54	-251.1	838.9	791.6	783.7	7.82	101.285	
2,952.7	2,940.2	2,928.5	2,928.3	6.8	1.4	45.51	-251.2	837.9	779.8	771.8	8.00	97.467	
3,000.0	2,985.3	2,973.5	2,973.3	7.0	1.4	46.44	-251.3	837.0	768.9	760.7	8.17	94.072	
3,016.9	3,001.4	2,989.6	2,989.4	7.1	1.4	46.79	-251.4	836.7	764.9	756.7	8.24	92.837	
3,051.2	3,033.9	3,020.3	3,020.0	7.3	1.4	47.36	-251.4	836.1	756.8	748.4	8.37	90.392	
3,100.0	3,080.2	3,062.9	3,062.6	7.5	1.4	48.18	-251.7	835.4	745.6	737.0	8.57	87.040	
3,149.6	3,127.3	3,106.5	3,106.2	7.7	1.4	49.04	-252.0	834.9	734.6	725.8	8.77	83.739	
3,200.0	3,175.1	3,152.2	3,152.0	8.0	1.4	49.97	-252.5	834.5	723.8	714.8	8.99	80.553	
3,248.0	3,220.7	3,195.9	3,195.7	8.2	1.5	50.88	-253.0	834.2	713.8	704.6	9.20	77.601	
3,300.0	3,270.0	3,245.0	3,244.7	8.5	1.5	51.92	-253.5	833.9	703.3	693.9	9.44	74.529	
3,346.4	3,314.1	3,289.0	3,288.7	8.7	1.5	52.89	-254.1	833.6	694.1	684.5	9.66	71.860	
3,400.0	3,365.0	3,339.1	3,338.9	9.0	1.5	54.02	-254.7	833.3	683.8	673.9	9.92	68.919	
3,444.9	3,407.6	3,381.1	3,380.8	9.2	1.5	54.98	-255.1	833.1	675.4	665.3	10.15	66.539	
3,500.0	3,459.9	3,432.4	3,432.1	9.5	1.5	56.19	-255.7	832.9	665.4	655.0	10.44	63.766	
3,543.3	3,501.0	3,472.6	3,472.3	9.8	1.5	57.15	-256.1	832.9	657.9	647.2	10.67	61.678	
3,600.0	3,554.8	3,525.4	3,525.2	10.1	1.5	58.43	-256.6	833.0	648.4	637.4	10.97	59.083	
3,641.7	3,594.4	3,564.5	3,564.2	10.3	1.5	59.40	-257.0	833.1	641.7	630.5	11.21	57.256	
3,700.0	3,649.7	3,619.2	3,619.0	10.7	1.5	60.78	-257.5	833.3	632.7	621.2	11.54	54.830	
3,740.1	3,687.8	3,657.3	3,657.1	10.9	1.5	61.77	-257.9	833.4	626.8	615.0	11.78	53.228	
3,800.0	3,744.7	3,714.0	3,713.8	11.2	1.5	63.26	-258.5	833.7	618.3	606.2	12.13	50.960	
3,838.6	3,781.3	3,750.5	3,750.2	11.5	1.5	64.25	-258.8	833.8	613.1	600.7	12.37	49.566	
3,900.0	3,839.6	3,808.6	3,808.3	11.8	1.5	65.85	-259.4	834.0	605.2	592.5	12.75	47.465	
3,937.0	3,874.7	3,843.8	3,843.5	12.1	1.5	66.83	-259.8	834.2	600.7	587.8	12.99	46.261	
4,000.0	3,934.5	3,903.7	3,903.4	12.4	1.5	68.54	-260.4	834.5	593.6	580.2	13.39	44.324	
4,035.4	3,968.1	3,937.1	3,936.8	12.6	1.5	69.50	-260.8	834.6	589.8	576.1	13.62	43.298	
4,100.0	4,029.4	3,997.9	3,997.6	13.0	1.5	71.30	-261.5	834.8	583.4	569.3	14.05	41.524	
4,133.8	4,061.5	4,029.5	4,029.2	13.2	1.5	72.25	-261.9	835.0	580.3	566.0	14.28	40.650	
4,200.0	4,124.3	4,091.2	4,090.9	13.6	1.5	74.14	-262.7	835.2	575.0	560.2	14.72	39.060	
4,232.3	4,155.0	4,121.4	4,121.1	13.8	1.5	75.07	-263.2	835.3	572.6	557.7	14.94	38.332	
4,300.0	4,219.3	4,184.7	4,184.3	14.2	1.6	77.06	-264.3	835.6	568.4	553.0	15.40	36.911	
4,330.7	4,248.4	4,213.5	4,213.2	14.4	1.6	77.98	-264.9	835.7	566.8	551.2	15.61	36.310	
4,400.0	4,314.2	4,278.9	4,278.5	14.9	1.6	80.07	-266.1	836.0	563.8	547.7	16.08	35.052	
4,429.1	4,341.8	4,306.5	4,306.1	15.0	1.6	80.96	-266.7	836.1	562.8	546.5	16.28	34.561	
4,500.0	4,409.1	4,375.0	4,374.7	15.5	1.6	83.16	-267.9	836.5	560.9	544.1	16.77	33.448	
4,527.5	4,435.3	4,401.7	4,401.3	15.7	1.6	84.02	-268.3	836.6	560.3	543.4	16.96	33.046	
4,600.0	4,504.0	4,472.0	4,471.7	16.1	1.6	86.27	-269.2	837.1	559.4	542.0	17.44	32.067	
4,626.0	4,528.7	4,497.3	4,496.9	16.3	1.6	87.08	-269.5	837.3	559.3	541.6	17.62	31.742	
4,656.7	4,557.8	4,527.2	4,526.8	16.5	1.6	88.03	-269.7	837.5	559.2	541.4	17.82	31.374	
4,700.0	4,598.9	4,569.4	4,569.0	16.7	1.6	89.37	-270.0	837.9	559.3	541.2	18.11	30.886	
4,724.4	4,622.1	4,593.2	4,592.8	16.9	1.6	90.12	-270.1	838.2	559.5	541.2	18.27	30.626	
4,800.0	4,693.9	4,667.2	4,666.8	17.4	1.6	92.42	-270.2	839.1	560.5	541.8	18.76	29.885	
4,822.8	4,715.5	4,689.6	4,689.2	17.5	1.6	93.10	-270.2	839.5	560.9	542.0	18.90	29.678	
4,900.0	4,788.8	4,764.0	4,763.6	18.0	1.6	95.35	-269.9	840.8	562.9	543.5	19.38	29.043	
4,921.2	4,809.0	4,784.4	4,784.0	18.1	1.6	95.97	-269.8	841.2	563.6	544.1	19.51	28.884	
5,000.0	4,883.7	4,859.9	4,859.5	18.6	1.6	98.22	-269.4	842.5	566.8	546.8	19.99	28.359	
5,019.7	4,902.4	4,878.8	4,878.4	18.7	1.6	98.78	-269.3	842.9	567.7	547.6	20.10	28.242	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	4,978.6	4,955.8	4,955.3	19.3	1.6	101.04	-268.8	844.3	572.1	551.5	20.56	27.821	
5,118.1	4,995.8	4,973.1	4,972.7	19.4	1.6	101.54	-268.7	844.6	573.2	552.5	20.67	27.738	
5,200.0	5,073.6	5,050.9	5,050.5	19.9	1.6	103.78	-268.2	846.1	578.8	557.7	21.11	27.415	
5,216.5	5,089.2	5,066.5	5,066.1	20.0	1.6	104.23	-268.1	846.4	580.1	558.9	21.20	27.361	
5,304.2	5,172.4	5,149.8	5,149.3	20.6	1.6	106.57	-267.7	847.9	587.5	565.9	21.66	27.128	
5,314.9	5,182.7	5,160.1	5,159.6	20.6	1.6	106.88	-267.7	848.0	588.5	566.8	21.70	27.120	
5,400.0	5,263.9	5,241.9	5,241.4	21.1	1.6	109.15	-267.3	849.2	596.3	574.3	22.02	27.075	
5,413.4	5,276.7	5,254.9	5,254.4	21.1	1.6	109.49	-267.3	849.4	597.5	575.5	22.06	27.087	
5,500.0	5,360.3	5,339.2	5,338.7	21.5	1.6	111.49	-266.8	850.9	605.3	583.0	22.29	27.162	
5,511.8	5,371.7	5,350.6	5,350.1	21.6	1.6	111.74	-266.7	851.1	606.4	584.0	22.31	27.177	
5,600.0	5,457.5	5,436.5	5,436.0	21.9	1.6	113.43	-266.3	853.0	613.8	591.3	22.51	27.271	
5,610.2	5,467.5	5,446.5	5,446.0	21.9	1.6	113.60	-266.2	853.2	614.7	592.1	22.53	27.284	
5,700.0	5,555.6	5,533.8	5,533.2	22.3	1.6	114.96	-265.9	855.7	621.5	598.8	22.71	27.375	
5,708.6	5,564.1	5,542.1	5,541.5	22.3	1.6	115.07	-265.9	856.0	622.2	599.5	22.72	27.385	
5,800.0	5,654.2	5,630.2	5,629.5	22.6	1.6	116.09	-265.9	859.0	628.4	605.5	22.88	27.461	
5,807.1	5,661.2	5,636.9	5,636.3	22.6	1.6	116.16	-265.9	859.2	628.9	606.0	22.89	27.468	
5,900.0	5,753.4	5,726.7	5,726.1	22.8	1.6	117.03	-266.3	861.0	634.4	611.4	23.04	27.541	
5,905.5	5,758.8	5,732.1	5,731.5	22.8	1.6	117.08	-266.3	861.0	634.7	611.7	23.04	27.546	
6,000.0	5,852.9	5,825.3	5,824.7	23.1	1.6	117.80	-266.8	861.6	639.2	616.1	23.16	27.599	
6,003.9	5,856.8	5,829.2	5,828.6	23.1	1.6	117.82	-266.8	861.7	639.4	616.2	23.17	27.601	
6,100.0	5,952.7	5,924.9	5,924.3	23.2	1.6	118.31	-267.3	861.7	642.6	619.3	23.28	27.605	
6,102.3	5,955.1	5,927.3	5,926.6	23.2	1.6	118.32	-267.3	861.7	642.6	619.3	23.28	27.605	
6,200.0	6,052.7	6,024.7	6,024.0	23.4	1.6	118.54	-267.9	861.6	644.3	620.9	23.39	27.548	
6,200.8	6,053.5	6,025.5	6,024.8	23.4	1.6	118.54	-267.9	861.6	644.3	620.9	23.39	27.547	
6,221.1	6,073.8	6,046.1	6,045.4	23.4	1.7	-173.03	-268.0	861.6	644.5	621.1	23.41	27.527	
6,251.1	6,103.8	6,076.5	6,075.9	23.4	1.7	-173.03	-268.1	861.5	644.6	621.2	23.45	27.484	
6,299.2	6,151.8	6,125.4	6,124.8	23.5	1.7	7.00	-268.3	861.6	643.2	619.7	23.46	27.416	
6,300.0	6,152.6	6,126.2	6,125.6	23.5	1.7	7.00	-268.3	861.6	643.2	619.7	23.46	27.414	
6,350.0	6,202.4	6,177.0	6,176.4	23.5	1.7	7.10	-268.5	861.6	638.2	614.7	23.46	27.205	
6,397.6	6,249.3	6,224.1	6,223.4	23.5	1.7	7.27	-268.5	861.7	630.2	606.7	23.43	26.892	
6,400.0	6,251.6	6,226.3	6,225.7	23.5	1.7	7.28	-268.5	861.7	629.7	606.2	23.43	26.874	
6,450.0	6,300.1	6,274.2	6,273.6	23.5	1.7	7.54	-268.6	861.8	617.9	594.5	23.36	26.448	
6,496.0	6,344.0	6,317.6	6,317.0	23.5	1.7	7.87	-268.8	861.7	604.1	580.8	23.24	25.988	
6,500.0	6,347.7	6,321.3	6,320.7	23.5	1.7	7.90	-268.8	861.7	602.7	579.5	23.23	25.946	
6,550.0	6,394.1	6,367.4	6,366.8	23.5	1.7	8.38	-268.9	861.7	584.4	561.4	23.03	25.379	
6,594.5	6,434.2	6,407.2	6,406.6	23.4	1.7	8.91	-269.1	861.7	565.5	542.7	22.78	24.823	
6,600.0	6,439.0	6,412.1	6,411.4	23.4	1.7	8.99	-269.1	861.7	563.0	540.2	22.75	24.751	
6,650.0	6,482.4	6,455.0	6,454.3	23.4	1.7	9.77	-269.4	861.6	538.5	516.1	22.38	24.062	
6,692.9	6,518.1	6,490.4	6,489.7	23.3	1.7	10.61	-269.6	861.6	515.3	493.3	22.00	23.421	
6,700.0	6,523.9	6,496.1	6,495.4	23.3	1.7	10.77	-269.6	861.6	511.2	489.3	21.93	23.311	
6,750.0	6,563.3	6,536.0	6,535.3	23.3	1.7	12.06	-269.9	861.6	481.1	459.7	21.40	22.488	
6,791.3	6,594.2	6,567.3	6,566.7	23.2	1.7	13.42	-270.0	861.6	454.3	433.4	20.89	21.745	
6,800.0	6,600.5	6,573.7	6,573.0	23.2	1.7	13.75	-270.1	861.6	448.4	427.7	20.78	21.582	
6,850.0	6,635.3	6,608.8	6,608.2	23.2	1.7	15.96	-270.3	861.5	413.3	393.2	20.09	20.578	
6,889.7	6,661.1	6,634.7	6,634.1	23.1	1.8	18.23	-270.4	861.5	383.8	364.3	19.49	19.689	
6,900.0	6,667.5	6,641.1	6,640.5	23.1	1.8	18.91	-270.4	861.5	376.0	356.7	19.33	19.448	
6,950.0	6,696.9	6,670.7	6,670.1	23.1	1.8	22.92	-270.6	861.5	336.7	318.2	18.56	18.146	
6,988.2	6,717.5	6,691.4	6,690.8	23.1	1.8	26.97	-270.7	861.5	305.7	287.7	18.00	16.978	
7,000.0	6,723.5	6,697.5	6,696.8	23.1	1.8	28.44	-270.8	861.5	295.9	278.0	17.84	16.585	
7,050.0	6,747.0	6,721.2	6,720.6	23.1	1.8	36.06	-270.9	861.5	253.7	236.4	17.34	14.634	
7,086.6	6,762.3	6,736.6	6,736.0	23.1	1.8	43.29	-271.0	861.6	222.4	205.2	17.23	12.910	
7,100.0	6,767.4	6,741.9	6,741.2	23.1	1.8	46.30	-271.0	861.6	210.9	193.7	17.25	12.229	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,150.0	6,784.6	6,759.3	6,758.7	23.1	1.8	58.92	-271.1	861.6	168.3	150.8	17.55	9.589	
7,185.0	6,794.7	6,769.6	6,768.9	23.1	1.8	68.29	-271.2	861.6	139.5	121.7	17.83	7.825	
7,200.0	6,798.5	6,773.5	6,772.8	23.2	1.8	72.14	-271.2	861.6	127.8	109.9	17.93	7.127	
7,250.0	6,808.9	6,784.3	6,783.6	23.2	1.8	83.11	-271.3	861.6	94.1	75.8	18.30	5.141	
7,283.4	6,814.0	6,789.6	6,788.9	23.3	1.8	88.12	-271.3	861.6	80.6	61.9	18.65	4.319	
7,300.0	6,816.0	6,791.6	6,791.0	23.4	1.8	89.80	-271.4	861.6	78.3	59.4	18.83	4.156	
7,302.8	6,816.2	6,791.9	6,791.3	23.4	1.8	90.03	-271.4	861.6	78.2	59.4	18.87	4.146 CC, ES, SF	
7,350.0	6,819.5	6,795.5	6,794.9	23.5	1.8	91.52	-271.4	861.6	91.3	72.0	19.31	4.727	
7,381.9	6,820.0	6,796.2	6,795.6	23.7	1.8	89.96	-271.4	861.6	111.1	91.6	19.47	5.706	
7,382.0	6,820.0	6,796.2	6,795.6	23.7	1.8	89.95	-271.4	861.6	111.2	91.7	19.47	5.710	
7,400.0	6,819.8	6,796.2	6,795.5	23.8	1.8	89.93	-271.4	861.6	124.6	105.0	19.62	6.351	
7,480.3	6,819.2	6,796.1	6,795.4	24.2	1.8	89.84	-271.4	861.6	193.8	173.4	20.37	9.513	
7,500.0	6,819.0	6,796.0	6,795.4	24.3	1.8	89.82	-271.4	861.6	212.0	191.4	20.55	10.312	
7,578.7	6,818.4	6,795.9	6,795.3	24.9	1.8	89.74	-271.4	861.6	286.6	265.2	21.40	13.392	
7,600.0	6,818.2	6,795.9	6,795.2	25.0	1.8	89.71	-271.4	861.6	307.1	285.5	21.63	14.199	
7,677.1	6,817.6	6,795.8	6,795.1	25.7	1.8	89.63	-271.4	861.6	382.2	359.7	22.55	16.949	
7,700.0	6,817.4	6,795.7	6,795.1	25.9	1.8	89.61	-271.4	861.6	404.6	381.8	22.82	17.728	
7,775.6	6,816.7	6,795.6	6,795.0	26.6	1.8	89.52	-271.4	861.6	479.0	455.2	23.80	20.123	
7,800.0	6,816.5	6,795.6	6,794.9	26.9	1.8	89.50	-271.4	861.6	503.1	479.0	24.12	20.858	
7,874.0	6,815.9	6,795.5	6,794.8	27.7	1.8	89.42	-271.4	861.6	576.3	551.2	25.14	22.923	
7,900.0	6,815.7	6,795.4	6,794.8	28.0	1.8	89.39	-271.4	861.6	602.1	576.6	25.50	23.611	
7,972.4	6,815.1	6,795.3	6,794.7	28.9	1.8	89.31	-271.4	861.6	674.0	647.4	26.55	25.384	
8,000.0	6,814.9	6,795.3	6,794.6	29.2	1.8	89.28	-271.4	861.6	701.4	674.4	26.95	26.024	
8,070.8	6,814.3	6,795.2	6,794.5	30.1	1.8	89.20	-271.4	861.6	771.8	743.8	28.02	27.545	
8,100.0	6,814.1	6,795.1	6,794.5	30.5	1.8	89.16	-271.4	861.6	800.8	772.4	28.46	28.139	
8,169.3	6,813.5	6,795.0	6,794.4	31.5	1.8	89.09	-271.4	861.6	869.8	840.3	29.54	29.445	
8,200.0	6,813.3	6,795.0	6,794.3	31.9	1.8	89.05	-271.4	861.6	900.4	870.4	30.02	29.995	
8,267.7	6,812.7	6,794.9	6,794.2	32.9	1.8	88.98	-271.4	861.6	967.9	936.8	31.10	31.119	
8,300.0	6,812.4	6,794.8	6,794.2	33.3	1.8	88.94	-271.4	861.6	1,000.1	968.4	31.62	31.629	
8,366.1	6,811.9	6,794.7	6,794.1	34.3	1.8	88.87	-271.4	861.6	1,066.0	1,033.3	32.70	32.599	
8,400.0	6,811.6	6,794.7	6,794.0	34.8	1.8	88.83	-271.4	861.6	1,099.8	1,066.5	33.25	33.072	
8,464.5	6,811.1	6,794.6	6,793.9	35.8	1.8	88.76	-271.4	861.6	1,164.2	1,129.9	34.33	33.912	
8,500.0	6,810.8	6,794.5	6,793.9	36.3	1.8	88.71	-271.4	861.6	1,199.6	1,164.6	34.92	34.351	
8,563.0	6,810.3	6,794.4	6,793.8	37.3	1.8	88.64	-271.4	861.6	1,262.4	1,226.4	35.99	35.081	
8,600.0	6,810.0	6,794.4	6,793.7	37.9	1.8	88.60	-271.4	861.6	1,299.4	1,262.7	36.61	35.491	
8,661.4	6,809.5	6,794.3	6,793.6	38.9	1.8	88.53	-271.4	861.6	1,360.7	1,323.0	37.66	36.126	
8,700.0	6,809.1	6,794.2	6,793.6	39.5	1.8	88.48	-271.4	861.6	1,399.2	1,360.9	38.32	36.509	
8,759.8	6,808.6	6,794.1	6,793.5	40.5	1.8	88.42	-271.4	861.6	1,458.9	1,419.6	39.36	37.065	
8,800.0	6,808.3	6,794.1	6,793.4	41.1	1.8	88.37	-271.4	861.6	1,499.0	1,459.0	40.06	37.423	
8,858.2	6,807.8	6,794.0	6,793.3	42.1	1.8	88.30	-271.4	861.6	1,557.2	1,516.1	41.08	37.911	
8,900.0	6,807.5	6,793.9	6,793.3	42.8	1.8	88.25	-271.4	861.6	1,598.9	1,557.1	41.81	38.246	
8,956.7	6,807.0	6,793.8	6,793.2	43.7	1.8	88.19	-271.4	861.6	1,655.5	1,612.7	42.81	38.675	
9,000.0	6,806.7	6,793.8	6,793.1	44.4	1.8	88.13	-271.4	861.6	1,698.8	1,655.2	43.57	38.991	
9,055.1	6,806.2	6,793.7	6,793.0	45.4	1.8	88.07	-271.4	861.6	1,753.8	1,709.3	44.55	39.370	
9,100.0	6,805.8	6,793.6	6,793.0	46.1	1.8	88.02	-271.4	861.6	1,798.7	1,753.4	45.35	39.667	
9,153.5	6,805.4	6,793.5	6,792.9	47.0	1.8	87.95	-271.4	861.6	1,852.2	1,805.9	46.30	40.002	
9,200.0	6,805.0	6,793.5	6,792.8	47.8	1.8	87.90	-271.4	861.6	1,898.6	1,851.5	47.13	40.282	
9,251.9	6,804.6	6,793.4	6,792.7	48.7	1.8	87.84	-271.4	861.6	1,950.5	1,902.5	48.07	40.580	
9,300.0	6,804.2	6,793.3	6,792.7	49.6	1.8	87.78	-271.4	861.6	1,998.5	1,949.6	48.93	40.845	
9,350.4	6,803.8	6,793.2	6,792.6	50.4	1.8	87.72	-271.4	861.6	2,048.9	1,999.0	49.84	41.109	
9,400.0	6,803.4	6,793.1	6,792.5	51.3	1.8	87.66	-271.4	861.6	2,098.5	2,047.7	50.74	41.361	
9,448.8	6,802.9	6,793.1	6,792.4	52.1	1.8	87.60	-271.4	861.6	2,147.2	2,095.6	51.62	41.597	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,500.0	6,802.5	6,793.0	6,792.3	53.0	1.8	87.54	-271.4	861.6	2,198.4	2,145.8	52.55	41.836	
9,547.2	6,802.1	6,792.9	6,792.3	53.9	1.8	87.48	-271.4	861.6	2,245.6	2,192.2	53.41	42.046	
9,600.0	6,801.7	6,792.8	6,792.2	54.8	1.8	87.42	-271.4	861.6	2,298.3	2,244.0	54.37	42.273	
9,645.6	6,801.3	6,792.8	6,792.1	55.6	1.8	87.36	-271.4	861.6	2,344.0	2,288.8	55.20	42.461	
9,700.0	6,800.9	6,792.7	6,792.0	56.6	1.8	87.29	-271.4	861.6	2,398.3	2,342.1	56.19	42.678	
9,744.1	6,800.5	6,792.6	6,791.9	57.4	1.8	87.24	-271.4	861.6	2,442.3	2,385.3	57.00	42.847	
9,800.0	6,800.0	6,792.5	6,791.9	58.4	1.8	87.17	-271.4	861.6	2,498.2	2,440.2	58.03	43.054	
9,842.5	6,799.7	6,792.4	6,791.8	59.1	1.8	87.12	-271.4	861.6	2,540.7	2,481.9	58.81	43.205	
9,900.0	6,799.2	6,792.3	6,791.7	60.2	1.8	87.05	-271.4	861.6	2,598.2	2,538.3	59.86	43.403	
9,940.9	6,798.9	6,792.3	6,791.6	60.9	1.8	87.00	-271.4	861.6	2,639.1	2,578.5	60.62	43.538	
10,000.0	6,798.4	6,792.2	6,791.5	62.0	1.8	86.92	-271.4	861.6	2,698.1	2,636.4	61.70	43.728	
10,039.3	6,798.1	6,792.1	6,791.5	62.7	1.8	86.88	-271.4	861.6	2,737.5	2,675.0	62.43	43.850	
10,100.0	6,797.6	6,792.0	6,791.4	63.8	1.8	86.80	-271.4	861.6	2,798.1	2,734.5	63.55	44.032	
10,137.8	6,797.2	6,792.0	6,791.3	64.4	1.8	86.75	-271.4	861.6	2,835.9	2,771.6	64.25	44.141	
10,200.0	6,796.7	6,791.9	6,791.2	65.6	1.8	86.67	-271.4	861.6	2,898.1	2,832.7	65.39	44.316	
10,236.2	6,796.4	6,791.8	6,791.2	66.2	1.8	86.63	-271.4	861.6	2,934.2	2,868.2	66.06	44.414	
10,300.0	6,795.9	6,791.7	6,791.1	67.4	1.8	86.55	-271.4	861.6	2,998.0	2,930.8	67.25	44.583	
10,334.6	6,795.6	6,791.6	6,791.0	68.0	1.8	86.51	-271.4	861.6	3,032.6	2,964.7	67.89	44.671	
10,400.0	6,795.1	6,791.5	6,790.9	69.2	1.8	86.42	-271.4	861.6	3,098.0	3,028.9	69.10	44.834	
10,433.0	6,794.8	6,791.5	6,790.8	69.8	1.8	86.38	-271.4	861.6	3,131.0	3,061.3	69.71	44.913	
10,500.0	6,794.2	6,791.4	6,790.7	71.0	1.8	86.29	-271.4	861.6	3,198.0	3,127.0	70.96	45.070	
10,531.5	6,794.0	6,791.3	6,790.7	71.6	1.8	86.26	-271.3	861.6	3,229.4	3,157.9	71.54	45.141	
10,600.0	6,793.4	6,791.2	6,790.6	72.9	1.8	86.17	-271.3	861.6	3,297.9	3,225.1	72.81	45.293	
10,629.9	6,793.2	6,791.2	6,790.5	73.4	1.8	86.13	-271.3	861.6	3,327.8	3,254.4	73.37	45.357	
10,700.0	6,792.6	6,791.0	6,790.4	74.7	1.8	86.04	-271.3	861.6	3,397.9	3,323.2	74.67	45.503	
10,728.3	6,792.3	6,791.0	6,790.3	75.2	1.8	86.00	-271.3	861.6	3,426.2	3,351.0	75.20	45.561	
10,800.0	6,791.7	6,790.9	6,790.2	76.6	1.8	85.91	-271.3	861.6	3,497.9	3,421.3	76.54	45.703	
10,826.7	6,791.5	6,790.8	6,790.2	77.1	1.8	85.88	-271.3	861.6	3,524.6	3,447.6	77.03	45.754	
10,900.0	6,790.9	6,790.7	6,790.1	78.4	1.8	85.78	-271.3	861.6	3,597.8	3,519.4	78.40	45.892	
10,925.2	6,790.7	6,790.7	6,790.0	78.9	1.8	85.75	-271.3	861.6	3,623.0	3,544.1	78.87	45.937	
11,000.0	6,790.1	6,790.5	6,789.9	80.3	1.8	85.65	-271.3	861.6	3,697.8	3,617.6	80.26	46.071	
11,023.6	6,789.9	6,790.5	6,789.9	80.7	1.8	85.62	-271.3	861.6	3,721.4	3,640.7	80.70	46.112	
11,100.0	6,789.2	6,790.4	6,789.7	82.1	1.8	85.52	-271.3	861.6	3,797.8	3,715.7	82.13	46.242	
11,122.0	6,789.1	6,790.3	6,789.7	82.5	1.8	85.49	-271.3	861.6	3,819.8	3,737.3	82.54	46.278	
11,200.0	6,788.4	6,790.2	6,789.6	84.0	1.8	85.39	-271.3	861.6	3,897.8	3,813.8	84.00	46.405	
11,220.4	6,788.2	6,790.2	6,789.5	84.3	1.8	85.36	-271.3	861.6	3,918.2	3,833.8	84.38	46.437	
11,300.0	6,787.6	6,790.0	6,789.4	85.8	1.8	85.25	-271.3	861.6	3,997.8	3,911.9	85.86	46.560	
11,318.9	6,787.4	6,790.0	6,789.4	86.2	1.8	85.23	-271.3	861.6	4,016.6	3,930.4	86.22	46.588	
11,400.0	6,786.7	6,789.9	6,789.2	87.7	1.8	85.12	-271.3	861.6	4,097.7	4,010.0	87.73	46.708	
11,417.3	6,786.6	6,789.8	6,789.2	88.0	1.8	85.10	-271.3	861.6	4,115.0	4,027.0	88.05	46.733	
11,500.0	6,785.9	6,789.7	6,789.0	89.5	1.8	84.99	-271.3	861.6	4,197.7	4,108.1	89.60	46.850	
11,515.7	6,785.8	6,789.7	6,789.0	89.8	1.8	84.97	-271.3	861.6	4,213.4	4,123.6	89.89	46.871	
11,600.0	6,785.1	6,789.5	6,788.9	91.4	1.8	84.85	-271.3	861.6	4,297.7	4,206.2	91.47	46.986	
11,614.1	6,785.0	6,789.5	6,788.9	91.7	1.8	84.83	-271.3	861.6	4,311.9	4,220.1	91.73	47.004	
11,700.0	6,784.2	6,789.4	6,788.7	93.3	1.8	84.72	-271.3	861.6	4,397.7	4,304.4	93.34	47.116	
11,712.6	6,784.1	6,789.3	6,788.7	93.5	1.8	84.70	-271.3	861.6	4,410.3	4,316.7	93.57	47.132	
11,800.0	6,783.4	6,789.2	6,788.5	95.2	1.8	84.58	-271.3	861.6	4,497.7	4,402.5	95.21	47.241	
11,811.0	6,783.3	6,789.2	6,788.5	95.4	1.8	84.57	-271.3	861.6	4,508.7	4,413.3	95.41	47.254	
11,900.0	6,782.6	6,789.0	6,788.4	97.0	1.8	84.44	-271.3	861.6	4,597.7	4,500.6	97.08	47.361	
11,909.4	6,782.5	6,789.0	6,788.3	97.2	1.8	84.43	-271.3	861.6	4,607.1	4,509.8	97.25	47.372	
12,000.0	6,781.7	6,788.8	6,788.2	98.9	1.8	84.31	-271.3	861.6	4,697.6	4,598.7	98.95	47.477	
12,007.8	6,781.7	6,788.8	6,788.2	99.1	1.8	84.30	-271.3	861.6	4,705.5	4,606.4	99.09	47.486	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #21-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	6,788.7	6,788.0	100.8	1.8	84.17	-271.3	861.6	4,797.6	4,696.8	100.81	47.589	
12,106.3	6,780.9	6,788.7	6,788.0	100.9	1.8	84.16	-271.3	861.6	4,803.9	4,703.0	100.93	47.595	
12,200.0	6,780.1	6,788.5	6,787.8	102.7	1.8	84.03	-271.3	861.6	4,897.6	4,794.9	102.68	47.696	
12,204.7	6,780.0	6,788.5	6,787.8	102.7	1.8	84.03	-271.3	861.6	4,902.3	4,799.5	102.77	47.701	
12,300.0	6,779.2	6,788.3	6,787.7	104.5	1.8	83.89	-271.3	861.6	4,997.6	4,893.1	104.55	47.800	
12,303.1	6,779.2	6,788.3	6,787.7	104.6	1.8	83.89	-271.3	861.6	5,000.7	4,896.1	104.61	47.803	
12,400.0	6,778.4	6,788.1	6,787.5	106.4	1.8	83.75	-271.3	861.6	5,097.6	4,991.2	106.42	47.901	
12,401.5	6,778.4	6,788.1	6,787.5	106.4	1.8	83.75	-271.3	861.6	5,099.1	4,992.7	106.45	47.902	
12,500.0	6,777.6	6,788.0	6,787.3	108.3	1.8	83.61	-271.3	861.6	5,197.6	5,089.3	108.29	47.998	
12,598.4	6,776.7	6,787.8	6,787.1	110.2	1.8	83.49	-271.3	861.6	5,296.0	5,185.8	110.13	48.090	
12,600.0	6,776.7	6,787.8	6,787.1	110.2	1.8	83.47	-271.3	861.6	5,297.6	5,187.4	110.15	48.092	
12,696.8	6,775.9	6,787.6	6,787.0	112.0	1.8	83.35	-271.3	861.6	5,394.4	5,282.4	111.96	48.180	
12,700.0	6,775.9	6,787.6	6,787.0	112.1	1.8	83.33	-271.3	861.6	5,397.6	5,285.5	112.02	48.184	
12,795.2	6,775.1	6,787.4	6,786.8	113.9	1.8	83.21	-271.3	861.6	5,492.8	5,379.0	113.80	48.267	
12,800.0	6,775.0	6,787.4	6,786.8	114.0	1.8	83.19	-271.3	861.6	5,497.6	5,383.7	113.89	48.273	
12,893.7	6,774.3	6,787.3	6,786.6	115.7	1.8	83.07	-271.3	861.6	5,591.2	5,475.6	115.63	48.353	
12,900.0	6,774.2	6,787.2	6,786.6	115.8	1.8	83.05	-271.3	861.6	5,597.5	5,481.8	115.75	48.359	
12,992.1	6,773.4	6,787.1	6,786.4	117.6	1.8	82.93	-271.3	861.6	5,689.6	5,572.2	117.47	48.435	
13,000.0	6,773.4	6,787.1	6,786.4	117.7	1.8	82.90	-271.3	861.6	5,697.5	5,579.9	117.61	48.443	
13,090.5	6,772.6	6,786.9	6,786.3	119.4	1.8	82.78	-271.3	861.6	5,788.0	5,668.7	119.30	48.516	
13,100.0	6,772.5	6,786.9	6,786.2	119.6	1.8	82.76	-271.3	861.6	5,797.5	5,678.0	119.48	48.525	
13,188.9	6,771.8	6,786.7	6,786.1	121.3	1.8	82.64	-271.3	861.6	5,886.5	5,765.3	121.13	48.595	
13,200.0	6,771.7	6,786.7	6,786.1	121.5	1.8	82.61	-271.3	861.6	5,897.5	5,776.2	121.34	48.604	
13,287.4	6,771.0	6,786.5	6,785.9	123.2	1.8	82.50	-271.3	861.6	5,984.9	5,861.9	122.97	48.671	
13,300.0	6,770.9	6,786.5	6,785.9	123.4	1.8	82.47	-271.3	861.6	5,997.5	5,874.3	123.20	48.682	
13,385.8	6,770.1	6,786.4	6,785.7	125.0	1.8	82.35	-271.3	861.6	6,083.3	5,958.5	124.79	48.746	
13,400.0	6,770.0	6,786.3	6,785.7	125.3	1.8	82.32	-271.3	861.6	6,097.5	5,972.4	125.06	48.758	
13,484.2	6,769.3	6,786.2	6,785.5	126.9	1.8	82.21	-271.3	861.6	6,181.7	6,055.1	126.62	48.820	
13,500.0	6,769.2	6,786.2	6,785.5	127.2	1.8	82.18	-271.3	861.6	6,197.5	6,070.6	126.91	48.832	
13,582.6	6,768.5	6,786.0	6,785.4	128.8	1.8	82.07	-271.3	861.6	6,280.1	6,151.7	128.45	48.891	
13,600.0	6,768.3	6,786.0	6,785.3	129.1	1.8	82.03	-271.3	861.6	6,297.5	6,168.7	128.77	48.905	
13,681.1	6,767.6	6,785.8	6,785.2	130.6	1.8	81.92	-271.3	861.6	6,378.5	6,248.3	130.28	48.961	
13,700.0	6,767.5	6,785.8	6,785.1	131.0	1.8	81.88	-271.3	861.6	6,397.5	6,266.8	130.62	48.976	
13,779.5	6,766.8	6,785.6	6,785.0	132.5	1.8	81.77	-271.3	861.6	6,477.0	6,344.9	132.10	49.030	
13,800.0	6,766.6	6,785.6	6,784.9	132.9	1.8	81.73	-271.3	861.6	6,497.5	6,365.0	132.48	49.046	
13,877.9	6,766.0	6,785.5	6,784.8	134.4	1.8	81.63	-271.3	861.6	6,575.4	6,441.5	133.92	49.098	
13,900.0	6,765.8	6,785.4	6,784.8	134.8	1.8	81.58	-271.3	861.6	6,597.5	6,463.1	134.33	49.114	
13,976.3	6,765.2	6,785.3	6,784.6	136.2	1.8	81.48	-271.3	861.6	6,673.8	6,538.1	135.75	49.164	
13,995.7	6,765.0	6,785.2	6,784.6	136.6	1.8	81.44	-271.3	861.6	6,693.1	6,557.0	136.10	49.178	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	91.98	-73.9	2,134.6	2,136.1				
98.4	98.4	82.1	82.1	0.1	0.1	91.98	-73.7	2,134.4	2,135.7	2,135.6	0.14	N/A	
100.0	100.0	84.0	84.0	0.1	0.1	91.98	-73.7	2,134.4	2,135.7	2,135.5	0.14	N/A	
196.8	196.8	183.6	183.6	0.3	0.2	91.97	-73.3	2,133.7	2,135.0	2,134.5	0.49	4,314.966	
200.0	200.0	186.8	186.8	0.3	0.2	91.97	-73.2	2,133.7	2,135.0	2,134.5	0.51	4,215.328	
295.3	295.3	276.3	276.3	0.5	0.3	91.97	-73.2	2,133.1	2,134.4	2,133.6	0.80	2,659.895	
300.0	300.0	280.7	280.7	0.5	0.3	91.97	-73.2	2,133.1	2,134.3	2,133.5	0.82	2,613.556	
393.7	393.7	370.8	370.8	0.7	0.4	91.97	-73.3	2,132.8	2,134.0	2,132.9	1.09	1,956.500	
400.0	400.0	376.9	376.9	0.8	0.4	91.97	-73.3	2,132.7	2,134.0	2,132.9	1.11	1,924.263	
492.1	492.1	468.8	468.8	1.0	0.4	91.97	-73.4	2,132.5	2,133.8	2,132.4	1.37	1,556.719	
500.0	500.0	476.7	476.7	1.0	0.4	91.97	-73.4	2,132.5	2,133.7	2,132.4	1.39	1,531.936	
590.5	590.5	569.6	569.6	1.2	0.5	91.97	-73.4	2,132.2	2,133.5	2,131.8	1.64	1,300.294	
600.0	600.0	579.4	579.4	1.2	0.5	91.97	-73.3	2,132.1	2,133.4	2,131.8	1.67	1,280.322	
689.0	689.0	670.5	670.5	1.4	0.5	91.97	-73.2	2,131.7	2,133.0	2,131.1	1.91	1,119.099	
700.0	700.0	681.7	681.7	1.4	0.5	91.97	-73.1	2,131.7	2,133.0	2,131.0	1.94	1,101.936	
787.4	787.4	764.6	764.5	1.6	0.6	91.96	-73.1	2,131.3	2,132.6	2,130.4	2.17	984.855	
800.0	800.0	776.3	776.2	1.7	0.6	91.96	-73.1	2,131.3	2,132.6	2,130.4	2.20	970.092	
885.8	885.8	858.4	858.4	1.9	0.6	91.97	-73.2	2,131.2	2,132.4	2,130.0	2.42	880.329	
900.0	900.0	872.1	872.1	1.9	0.6	91.97	-73.2	2,131.2	2,132.4	2,130.0	2.46	867.050	
984.2	984.2	955.5	955.5	2.1	0.6	91.97	-73.2	2,131.2	2,132.4	2,129.8	2.66	801.377	
1,000.0	1,000.0	971.2	971.2	2.1	0.6	91.97	-73.2	2,131.2	2,132.4	2,129.7	2.70	790.791	
1,049.2	1,049.2	1,020.2	1,020.2	2.2	0.6	91.97	-73.2	2,131.2	2,132.4	2,129.6	2.81	759.373	
1,082.7	1,082.7	1,053.4	1,053.3	2.3	0.6	91.97	-73.2	2,131.2	2,132.4	2,129.5	2.88	739.338	
1,100.0	1,100.0	1,070.5	1,070.5	2.3	0.6	91.97	-73.2	2,131.2	2,132.4	2,129.5	2.92	729.372	
1,181.1	1,181.1	1,151.7	1,151.6	2.5	0.6	91.97	-73.2	2,131.2	2,132.4	2,129.3	3.12	682.464	
1,200.0	1,200.0	1,170.7	1,170.7	2.6	0.6	91.97	-73.2	2,131.2	2,132.4	2,129.3	3.17	671.885	
1,279.5	1,279.5	1,249.0	1,249.0	2.7	0.7	91.97	-73.5	2,131.2	2,132.5	2,129.1	3.38	630.434	
1,300.0	1,300.0	1,269.0	1,268.9	2.8	0.7	91.98	-73.5	2,131.2	2,132.5	2,129.1	3.44	620.534	
1,377.9	1,377.9	1,344.6	1,344.6	3.0	0.7	91.99	-73.9	2,131.3	2,132.6	2,129.0	3.64	585.863	
1,400.0	1,400.0	1,365.9	1,365.9	3.0	0.7	91.99	-74.0	2,131.4	2,132.7	2,129.0	3.70	576.815	
1,476.4	1,476.4	1,441.5	1,441.5	3.2	0.7	92.00	-74.3	2,131.6	2,132.9	2,129.0	3.89	547.661	
1,500.0	1,500.0	1,465.3	1,465.3	3.2	0.7	92.00	-74.4	2,131.6	2,132.9	2,129.0	3.96	539.262	
1,574.8	1,574.8	1,542.0	1,542.0	3.4	0.8	92.00	-74.5	2,131.8	2,133.1	2,129.0	4.15	514.333	
1,600.0	1,600.0	1,568.3	1,568.2	3.5	0.8	92.00	-74.5	2,131.8	2,133.1	2,128.9	4.21	506.454	
1,673.2	1,673.2	1,643.8	1,643.8	3.6	0.8	92.01	-74.6	2,131.9	2,133.2	2,128.8	4.40	484.759	
1,700.0	1,700.0	1,671.2	1,671.2	3.7	0.8	92.01	-74.7	2,131.9	2,133.2	2,128.7	4.47	477.255	
1,771.6	1,771.6	1,743.0	1,742.9	3.8	0.8	92.01	-74.9	2,131.9	2,133.2	2,128.5	4.66	458.190	
1,791.2	1,791.2	1,762.2	1,762.2	3.9	0.8	92.01	-75.0	2,131.9	2,133.2	2,128.4	4.71	453.242	
1,800.0	1,800.0	1,770.9	1,770.9	3.9	0.8	92.01	-75.0	2,131.9	2,133.2	2,128.4	4.73	451.043	
1,870.1	1,870.1	1,838.0	1,838.0	4.1	0.8	92.02	-75.3	2,131.9	2,133.2	2,128.3	4.91	434.542	
1,900.0	1,900.0	1,866.1	1,866.1	4.1	0.9	92.03	-75.4	2,131.9	2,133.3	2,128.3	4.99	427.936	
1,968.5	1,968.5	1,932.6	1,932.6	4.3	0.9	92.03	-75.7	2,132.1	2,133.5	2,128.3	5.16	413.697	
2,000.0	2,000.0	1,964.2	1,964.2	4.4	0.9	92.03	-75.8	2,132.2	2,133.6	2,128.3	5.24	407.528	
2,066.9	2,066.9	2,033.2	2,033.2	4.5	0.9	92.04	-75.8	2,132.4	2,133.8	2,128.4	5.40	395.395	
2,100.0	2,100.0	2,068.3	2,068.3	4.6	0.9	92.04	-75.8	2,132.5	2,133.8	2,128.4	5.47	389.863	
2,165.3	2,165.3	2,136.1	2,136.1	4.7	0.9	23.63	-75.7	2,132.5	2,133.2	2,127.6	5.59	381.629	
2,200.0	2,200.0	2,171.4	2,171.4	4.8	0.9	23.64	-75.6	2,132.5	2,132.3	2,126.6	5.67	375.852	
2,263.8	2,263.7	2,237.0	2,236.9	4.9	0.9	23.70	-75.6	2,132.5	2,129.5	2,123.7	5.82	365.934	
2,300.0	2,299.8	2,274.4	2,274.4	5.0	0.9	23.74	-75.6	2,132.4	2,127.4	2,121.5	5.90	360.488	
2,362.2	2,361.8	2,339.7	2,339.7	5.1	0.9	23.84	-75.7	2,132.3	2,122.7	2,116.6	6.05	350.822	
2,400.0	2,399.5	2,379.7	2,379.7	5.2	0.9	23.91	-75.7	2,132.1	2,119.1	2,113.0	6.14	344.931	
2,460.6	2,459.7	2,457.4	2,457.4	5.4	1.0	24.07	-75.9	2,131.5	2,112.3	2,106.0	6.30	335.194	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,500.0	2,498.7	2,510.3	2,510.2	5.5	1.0	24.20	-76.2	2,130.7	2,106.9	2,100.5	6.41	328.844	
2,559.0	2,557.1	2,580.7	2,580.6	5.6	1.0	24.41	-76.6	2,129.1	2,097.5	2,091.0	6.57	319.418	
2,600.0	2,597.5	2,624.9	2,624.9	5.7	1.0	24.57	-76.8	2,127.9	2,090.2	2,083.6	6.68	313.131	
2,657.5	2,654.0	2,682.8	2,682.7	5.9	1.0	24.80	-77.0	2,126.3	2,079.1	2,072.3	6.83	304.444	
2,700.0	2,695.6	2,722.6	2,722.5	6.0	1.1	24.97	-77.2	2,125.2	2,070.2	2,063.2	6.94	298.264	
2,755.9	2,750.2	2,772.3	2,772.2	6.2	1.1	25.22	-77.3	2,123.9	2,057.7	2,050.6	7.09	290.192	
2,800.0	2,793.1	2,810.3	2,810.2	6.3	1.1	25.42	-77.3	2,123.0	2,047.3	2,040.1	7.21	284.032	
2,854.3	2,845.6	2,854.1	2,853.9	6.5	1.1	25.68	-77.2	2,122.1	2,033.8	2,026.4	7.36	276.404	
2,900.0	2,889.6	2,890.7	2,890.6	6.6	1.1	25.91	-77.1	2,121.5	2,022.0	2,014.5	7.48	270.266	
2,952.7	2,940.2	2,936.2	2,936.0	6.8	1.1	26.20	-76.9	2,120.9	2,007.7	2,000.1	7.63	263.023	
3,000.0	2,985.3	2,977.5	2,977.4	7.0	1.1	26.48	-76.7	2,120.4	1,994.3	1,986.5	7.77	256.588	
3,016.9	3,001.4	2,992.3	2,992.1	7.1	1.1	26.59	-76.6	2,120.3	1,989.4	1,981.5	7.82	254.272	
3,051.2	3,033.9	3,020.7	3,020.5	7.3	1.1	26.70	-76.4	2,120.0	1,979.3	1,971.4	7.93	249.727	
3,100.0	3,080.2	3,060.5	3,060.4	7.5	1.1	26.87	-76.1	2,119.8	1,965.2	1,957.1	8.07	243.397	
3,149.6	3,127.3	3,100.0	3,099.8	7.7	1.1	27.03	-75.9	2,119.7	1,951.0	1,942.7	8.23	237.093	
3,200.0	3,175.1	3,145.0	3,144.8	8.0	1.1	27.22	-75.5	2,119.7	1,936.7	1,928.3	8.39	230.922	
3,248.0	3,220.7	3,186.8	3,186.6	8.2	1.2	27.40	-75.2	2,119.8	1,923.2	1,914.7	8.54	225.127	
3,300.0	3,270.0	3,233.4	3,233.2	8.5	1.2	27.60	-74.9	2,120.0	1,908.7	1,900.0	8.71	219.035	
3,346.4	3,314.1	3,275.7	3,275.5	8.7	1.2	27.78	-74.7	2,120.2	1,895.8	1,887.0	8.87	213.676	
3,400.0	3,365.0	3,323.2	3,323.1	9.0	1.2	27.99	-74.4	2,120.5	1,881.1	1,872.0	9.05	207.742	
3,444.9	3,407.6	3,362.2	3,362.0	9.2	1.2	28.17	-74.2	2,120.8	1,868.8	1,859.6	9.21	202.878	
3,500.0	3,459.9	3,410.5	3,410.3	9.5	1.2	28.39	-74.0	2,121.4	1,853.9	1,844.5	9.41	197.103	
3,543.3	3,501.0	3,449.7	3,449.5	9.8	1.2	28.58	-73.9	2,121.8	1,842.3	1,832.8	9.56	192.656	
3,600.0	3,554.8	3,500.0	3,499.8	10.1	1.2	28.82	-73.9	2,122.5	1,827.2	1,817.4	9.77	187.031	
3,641.7	3,594.4	3,537.5	3,537.4	10.3	1.2	29.01	-73.9	2,123.0	1,816.2	1,806.2	9.93	182.978	
3,700.0	3,649.7	3,588.7	3,588.5	10.7	1.2	29.26	-74.0	2,123.9	1,800.9	1,790.8	10.15	177.509	
3,740.1	3,687.8	3,624.7	3,624.5	10.9	1.2	29.45	-74.2	2,124.5	1,790.5	1,780.2	10.30	173.826	
3,800.0	3,744.7	3,678.9	3,678.7	11.2	1.2	29.74	-74.5	2,125.6	1,775.1	1,764.5	10.53	168.507	
3,838.6	3,781.3	3,713.3	3,713.1	11.5	1.2	29.92	-74.8	2,126.3	1,765.2	1,754.5	10.69	165.167	
3,900.0	3,839.6	3,766.5	3,766.2	11.8	1.2	30.22	-75.3	2,127.5	1,749.7	1,738.8	10.93	160.029	
3,937.0	3,874.7	3,800.0	3,799.8	12.1	1.2	30.41	-75.7	2,128.3	1,740.5	1,729.4	11.09	157.008	
4,000.0	3,934.5	3,854.2	3,854.0	12.4	1.2	30.72	-76.5	2,129.8	1,725.0	1,713.6	11.34	152.046	
4,035.4	3,968.1	3,885.6	3,885.3	12.6	1.2	30.91	-77.0	2,130.7	1,716.3	1,704.8	11.49	149.325	
4,100.0	4,029.4	3,943.5	3,943.2	13.0	1.2	31.27	-78.2	2,132.4	1,700.7	1,689.0	11.77	144.506	
4,133.8	4,061.5	3,974.1	3,973.7	13.2	1.2	31.46	-78.8	2,133.4	1,692.7	1,680.7	11.92	142.044	
4,200.0	4,124.3	4,033.4	4,033.0	13.6	1.3	31.84	-80.2	2,135.3	1,677.0	1,664.8	12.21	137.383	
4,232.3	4,155.0	4,062.1	4,061.7	13.8	1.3	32.02	-80.9	2,136.3	1,669.5	1,657.1	12.35	135.171	
4,300.0	4,219.3	4,123.9	4,123.4	14.2	1.3	32.43	-82.5	2,138.5	1,653.8	1,641.2	12.66	130.661	
4,330.7	4,248.4	4,152.9	4,152.4	14.4	1.3	32.63	-83.3	2,139.6	1,646.8	1,634.0	12.80	128.659	
4,400.0	4,314.2	4,218.1	4,217.5	14.9	1.3	33.08	-85.2	2,141.9	1,631.0	1,617.9	13.12	124.273	
4,429.1	4,341.8	4,245.0	4,244.4	15.0	1.3	33.27	-86.0	2,142.9	1,624.4	1,611.1	13.26	122.477	
4,500.0	4,409.1	4,310.9	4,310.3	15.5	1.3	33.74	-88.0	2,145.4	1,608.5	1,594.9	13.60	118.239	
4,527.5	4,435.3	4,337.0	4,336.3	15.7	1.3	33.93	-88.8	2,146.4	1,602.4	1,588.6	13.74	116.630	
4,600.0	4,504.0	4,405.9	4,405.1	16.1	1.3	34.43	-90.9	2,149.1	1,586.4	1,572.3	14.10	112.522	
4,626.0	4,528.7	4,431.9	4,431.1	16.3	1.3	34.63	-91.7	2,150.1	1,580.6	1,566.4	14.23	111.074	
4,700.0	4,598.9	4,506.4	4,505.5	16.7	1.4	35.19	-94.0	2,152.8	1,564.3	1,549.7	14.61	107.053	
4,724.4	4,622.1	4,532.8	4,531.9	16.9	1.4	35.39	-94.7	2,153.7	1,558.9	1,544.2	14.74	105.739	
4,800.0	4,693.9	4,614.1	4,613.1	17.4	1.4	36.02	-97.1	2,156.2	1,542.0	1,526.8	15.15	101.767	
4,822.8	4,715.5	4,638.0	4,637.0	17.5	1.4	36.21	-97.8	2,156.8	1,536.8	1,521.5	15.28	100.596	
4,900.0	4,788.8	4,719.5	4,718.4	18.0	1.4	36.87	-100.2	2,158.8	1,519.2	1,503.5	15.71	96.729	
4,921.2	4,809.0	4,742.9	4,741.8	18.1	1.4	37.06	-100.9	2,159.2	1,514.4	1,498.5	15.83	95.678	
5,000.0	4,883.7	4,828.5	4,827.4	18.6	1.4	37.79	-103.7	2,160.4	1,496.0	1,479.7	16.28	91.876	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,902.4	4,849.6	4,848.4	18.7	1.4	37.97	-104.3	2,160.6	1,491.3	1,475.0	16.40	90.947	
5,100.0	4,978.6	4,932.3	4,931.1	19.3	1.5	38.71	-107.0	2,161.1	1,472.3	1,455.4	16.87	87.274	
5,118.1	4,995.8	4,949.9	4,948.7	19.4	1.5	38.87	-107.5	2,161.2	1,468.0	1,451.0	16.98	86.475	
5,200.0	5,073.6	5,029.3	5,028.0	19.9	1.5	39.59	-109.8	2,161.5	1,448.5	1,431.1	17.46	82.966	
5,216.5	5,089.2	5,045.1	5,043.8	20.0	1.5	39.74	-110.3	2,161.5	1,444.6	1,427.1	17.56	82.279	
5,304.2	5,172.4	5,128.9	5,127.6	20.6	1.5	40.53	-112.6	2,161.8	1,424.1	1,406.0	18.09	78.739	
5,314.9	5,182.7	5,139.2	5,137.9	20.6	1.5	40.59	-112.9	2,161.8	1,421.6	1,403.5	18.14	78.380	
5,400.0	5,263.9	5,222.6	5,221.2	21.1	1.5	41.10	-115.1	2,162.0	1,403.0	1,384.5	18.54	75.676	
5,413.4	5,276.7	5,236.4	5,235.1	21.1	1.5	41.18	-115.4	2,162.1	1,400.3	1,381.7	18.60	75.302	
5,500.0	5,360.3	5,324.8	5,323.4	21.5	1.6	41.66	-117.1	2,162.1	1,383.5	1,364.5	18.95	73.013	
5,511.8	5,371.7	5,336.2	5,334.8	21.6	1.6	41.72	-117.3	2,162.1	1,381.3	1,362.3	18.99	72.733	
5,600.0	5,457.5	5,424.6	5,423.2	21.9	1.6	42.13	-118.4	2,162.3	1,366.5	1,347.2	19.31	70.753	
5,610.2	5,467.5	5,435.7	5,434.4	21.9	1.6	42.18	-118.5	2,162.3	1,364.9	1,345.6	19.35	70.544	
5,700.0	5,555.6	5,537.2	5,535.8	22.3	1.6	42.60	-119.0	2,161.9	1,351.7	1,332.1	19.65	68.794	
5,708.6	5,564.1	5,547.5	5,546.1	22.3	1.6	42.64	-119.0	2,161.8	1,350.5	1,330.8	19.67	68.641	
5,800.0	5,654.2	5,638.6	5,637.2	22.6	1.6	42.92	-118.8	2,160.8	1,338.5	1,318.5	19.92	67.179	
5,807.1	5,661.2	5,644.3	5,642.9	22.6	1.6	42.93	-118.8	2,160.7	1,337.6	1,317.7	19.94	67.085	
5,900.0	5,753.4	5,722.8	5,721.5	22.8	1.6	43.14	-119.6	2,160.2	1,328.7	1,308.6	20.15	65.931	
5,905.5	5,758.8	5,728.0	5,726.6	22.8	1.6	43.16	-119.7	2,160.2	1,328.3	1,308.1	20.16	65.871	
6,000.0	5,852.9	5,817.1	5,815.8	23.1	1.6	43.39	-121.3	2,160.0	1,322.3	1,301.9	20.37	64.920	
6,003.9	5,856.8	5,821.0	5,819.6	23.1	1.6	43.40	-121.4	2,160.0	1,322.1	1,301.7	20.37	64.887	
6,100.0	5,952.7	5,917.0	5,915.6	23.2	1.7	43.60	-123.3	2,159.9	1,318.6	1,298.0	20.56	64.147	
6,102.3	5,955.1	5,919.5	5,918.1	23.2	1.7	43.60	-123.3	2,159.9	1,318.5	1,298.0	20.56	64.133	
6,200.0	6,052.7	6,019.0	6,017.6	23.4	1.7	43.72	-124.9	2,159.8	1,317.2	1,296.5	20.71	63.607	
6,200.8	6,053.5	6,019.8	6,018.3	23.4	1.7	43.72	-124.9	2,159.8	1,317.2	1,296.5	20.71	63.604	
6,202.4	6,055.1	6,021.3	6,019.8	23.4	1.7	43.73	-124.9	2,159.8	1,317.2	1,296.5	20.71	63.597	
6,221.1	6,073.8	6,038.7	6,037.3	23.4	1.7	112.16	-125.1	2,159.8	1,317.3	1,296.6	20.74	63.526	
6,251.1	6,103.8	6,066.6	6,065.1	23.4	1.7	112.17	-125.5	2,159.8	1,317.5	1,296.7	20.78	63.389	
6,299.2	6,151.8	6,111.9	6,110.4	23.5	1.7	-67.88	-126.1	2,160.0	1,317.3	1,296.4	20.85	63.166	
6,300.0	6,152.6	6,112.7	6,111.2	23.5	1.7	-67.88	-126.1	2,160.0	1,317.3	1,296.4	20.86	63.163	
6,350.0	6,202.4	6,161.4	6,160.0	23.5	1.7	-68.18	-126.7	2,160.3	1,315.8	1,295.0	20.85	63.122	
6,397.6	6,249.3	6,207.5	6,206.0	23.5	1.7	-68.68	-127.0	2,160.7	1,313.3	1,292.6	20.77	63.245	
6,400.0	6,251.6	6,209.8	6,208.3	23.5	1.7	-68.71	-127.0	2,160.7	1,313.2	1,292.4	20.76	63.253	
6,450.0	6,300.1	6,257.8	6,256.3	23.5	1.8	-69.46	-127.3	2,161.2	1,309.3	1,288.7	20.60	63.546	
6,496.0	6,344.0	6,301.2	6,299.7	23.5	1.8	-70.35	-127.5	2,161.7	1,304.8	1,284.4	20.40	63.954	
6,500.0	6,347.7	6,304.9	6,303.5	23.5	1.8	-70.43	-127.5	2,161.7	1,304.4	1,284.0	20.38	63.991	
6,550.0	6,394.1	6,351.5	6,350.0	23.5	1.8	-71.61	-127.6	2,162.2	1,298.6	1,278.4	20.11	64.579	
6,594.5	6,434.2	6,391.7	6,390.3	23.4	1.8	-72.81	-127.8	2,162.7	1,292.6	1,272.8	19.83	65.202	
6,600.0	6,439.0	6,396.6	6,395.2	23.4	1.8	-72.96	-127.8	2,162.7	1,291.9	1,272.1	19.79	65.282	
6,650.0	6,482.4	6,441.0	6,439.5	23.4	1.8	-74.49	-127.9	2,163.2	1,284.5	1,265.1	19.44	66.074	
6,692.9	6,518.1	6,477.6	6,476.1	23.3	1.8	-75.90	-128.0	2,163.6	1,277.9	1,258.7	19.13	66.789	
6,700.0	6,523.9	6,483.5	6,482.1	23.3	1.8	-76.14	-128.0	2,163.6	1,276.8	1,257.7	19.08	66.906	
6,750.0	6,563.3	6,500.0	6,498.5	23.3	1.8	-77.19	-128.1	2,163.8	1,269.0	1,250.1	18.81	67.455	
6,791.3	6,594.2	6,500.0	6,498.5	23.2	1.8	-77.64	-128.1	2,163.8	1,263.3	1,244.6	18.65	67.736	
6,800.0	6,600.5	6,500.0	6,498.5	23.2	1.8	-77.72	-128.1	2,163.8	1,262.2	1,243.6	18.62	67.792	
6,850.0	6,635.3	6,500.0	6,498.5	23.2	1.8	-78.16	-128.1	2,163.8	1,256.7	1,238.2	18.46	68.074	
6,889.7	6,661.1	6,500.0	6,498.5	23.1	1.8	-78.43	-128.1	2,163.8	1,253.2	1,234.8	18.37	68.236	
6,900.0	6,667.5	6,500.0	6,498.5	23.1	1.8	-78.49	-128.1	2,163.8	1,252.4	1,234.1	18.34	68.272	
6,950.0	6,696.9	6,500.0	6,498.5	23.1	1.8	-78.73	-128.1	2,163.8	1,249.4	1,231.1	18.28	68.360	
6,988.2	6,717.5	6,500.0	6,498.5	23.1	1.8	-78.84	-128.1	2,163.8	1,248.0	1,229.8	18.26	68.331	
7,000.0	6,723.5	6,500.0	6,498.5	23.1	1.8	-78.86	-128.1	2,163.8	1,247.7	1,229.5	18.27	68.312	
7,037.9	6,741.6	6,500.0	6,498.5	23.1	1.8	-78.89	-128.1	2,163.8	1,247.4	1,229.1	18.30	68.171 CC, ES	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,050.0	6,747.0	6,500.0	6,498.5	23.1	1.8	-78.89	-128.1	2,163.8	1,247.4	1,229.1	18.31	68.111	
7,086.6	6,762.3	6,500.0	6,498.5	23.1	1.8	-78.84	-128.1	2,163.8	1,248.0	1,229.6	18.40	67.842	
7,100.0	6,767.4	6,500.0	6,498.5	23.1	1.8	-78.81	-128.1	2,163.8	1,248.4	1,230.0	18.43	67.742	
7,150.0	6,784.6	6,500.0	6,498.5	23.1	1.8	-78.63	-128.1	2,163.8	1,250.7	1,232.1	18.61	67.198	
7,185.0	6,794.7	6,500.0	6,498.5	23.1	1.8	-78.44	-128.1	2,163.8	1,253.1	1,234.3	18.79	66.693	
7,200.0	6,798.5	6,500.0	6,498.5	23.2	1.8	-78.34	-128.1	2,163.8	1,254.3	1,235.4	18.87	66.482	
7,250.0	6,808.9	6,500.0	6,498.5	23.2	1.8	-77.96	-128.1	2,163.8	1,259.2	1,240.0	19.19	65.601	
7,283.4	6,814.0	6,500.0	6,498.5	23.3	1.8	-77.65	-128.1	2,163.8	1,263.2	1,243.7	19.46	64.912	
7,300.0	6,816.0	6,500.0	6,498.5	23.4	1.8	-77.48	-128.1	2,163.8	1,265.3	1,245.7	19.60	64.573	
7,350.0	6,819.5	6,500.0	6,498.5	23.5	1.8	-76.90	-128.1	2,163.8	1,272.6	1,252.6	20.07	63.419	
7,381.9	6,820.0	6,500.0	6,498.5	23.7	1.8	-76.48	-128.1	2,163.8	1,277.9	1,257.5	20.40	62.630	
7,382.0	6,820.0	6,500.0	6,498.5	23.7	1.8	-76.48	-128.1	2,163.8	1,277.9	1,257.5	20.41	62.627	
7,400.0	6,819.8	6,500.0	6,498.5	23.8	1.8	-76.48	-128.1	2,163.8	1,281.1	1,260.6	20.56	62.313	
7,480.3	6,819.2	6,500.0	6,498.5	24.2	1.8	-76.48	-128.1	2,163.8	1,298.5	1,277.1	21.32	60.910	
7,500.0	6,819.0	6,500.0	6,498.5	24.3	1.8	-76.48	-128.1	2,163.8	1,303.4	1,281.9	21.50	60.614	
7,578.7	6,818.4	6,500.0	6,498.5	24.9	1.8	-76.48	-128.1	2,163.8	1,326.0	1,303.7	22.35	59.333	
7,600.0	6,818.2	6,500.0	6,498.5	25.0	1.8	-76.48	-128.1	2,163.8	1,332.8	1,310.3	22.58	59.036	
7,677.1	6,817.6	6,500.0	6,498.5	25.7	1.8	-76.48	-128.1	2,163.8	1,360.2	1,336.7	23.49	57.903	
7,700.0	6,817.4	6,500.0	6,498.5	25.9	1.8	-76.48	-128.1	2,163.8	1,369.0	1,345.2	23.76	57.615	
7,775.6	6,816.7	6,500.0	6,498.5	26.6	1.8	-76.48	-128.1	2,163.8	1,400.4	1,375.7	24.73	56.637	
7,800.0	6,816.5	6,500.0	6,498.5	26.9	1.8	-76.48	-128.1	2,163.8	1,411.3	1,386.2	25.04	56.365	
7,874.0	6,815.9	6,500.0	6,498.5	27.7	1.8	-76.48	-128.1	2,163.8	1,446.2	1,420.2	26.04	55.537	
7,900.0	6,815.7	6,500.0	6,498.5	28.0	1.8	-76.48	-128.1	2,163.8	1,459.2	1,432.8	26.39	55.287	
7,972.4	6,815.1	6,500.0	6,498.5	28.9	1.8	-76.48	-128.1	2,163.8	1,497.1	1,469.7	27.42	54.595	
8,000.0	6,814.9	6,500.0	6,498.5	29.2	1.8	-76.48	-128.1	2,163.8	1,512.2	1,484.4	27.81	54.368	
8,070.8	6,814.3	6,500.0	6,498.5	30.1	1.8	-76.48	-128.1	2,163.8	1,552.6	1,523.7	28.86	53.796	
8,100.0	6,814.1	6,500.0	6,498.5	30.5	1.8	-76.48	-128.1	2,163.8	1,569.8	1,540.6	29.29	53.594	
8,169.3	6,813.5	6,500.0	6,498.5	31.5	1.8	-76.48	-128.1	2,163.8	1,612.2	1,581.8	30.35	53.125	
8,200.0	6,813.3	6,500.0	6,498.5	31.9	1.8	-76.48	-128.1	2,163.8	1,631.6	1,600.7	30.82	52.946	
8,267.7	6,812.7	6,500.0	6,498.5	32.9	1.8	-76.48	-128.1	2,163.8	1,675.4	1,643.6	31.87	52.564	
8,300.0	6,812.4	6,500.0	6,498.5	33.3	1.8	-76.48	-128.1	2,163.8	1,696.9	1,664.6	32.38	52.408	
8,366.1	6,811.9	6,500.0	6,498.5	34.3	1.8	-76.48	-128.1	2,163.8	1,742.0	1,708.5	33.44	52.099	
8,400.0	6,811.6	6,500.0	6,498.5	34.8	1.8	-76.48	-128.1	2,163.8	1,765.5	1,731.6	33.98	51.963	
8,464.5	6,811.1	6,500.0	6,498.5	35.8	1.8	-76.48	-128.1	2,163.8	1,811.4	1,776.4	35.03	51.714	
8,500.0	6,810.8	6,500.0	6,498.5	36.3	1.8	-76.48	-128.1	2,163.8	1,837.0	1,801.4	35.60	51.596	
8,563.0	6,810.3	6,500.0	6,498.5	37.3	1.8	-76.48	-128.1	2,163.8	1,883.4	1,846.8	36.64	51.397	
8,600.0	6,810.0	6,500.0	6,498.5	37.9	1.8	-76.48	-128.1	2,163.8	1,911.1	1,873.8	37.26	51.296	
8,661.4	6,809.5	6,500.0	6,498.5	38.9	1.8	-76.48	-128.1	2,163.8	1,957.7	1,919.4	38.28	51.137	
8,700.0	6,809.1	6,500.0	6,498.5	39.5	1.8	-76.48	-128.1	2,163.8	1,987.4	1,948.5	38.93	51.052	
8,759.8	6,808.6	6,500.0	6,498.5	40.5	1.8	-76.48	-128.1	2,163.8	2,034.1	1,994.1	39.94	50.926	
8,800.0	6,808.3	6,500.0	6,498.5	41.1	1.8	-76.48	-128.1	2,163.8	2,065.8	2,025.2	40.62	50.854	
8,858.2	6,807.8	6,500.0	6,498.5	42.1	1.8	-76.48	-128.1	2,163.8	2,112.3	2,070.7	41.62	50.754	
8,900.0	6,807.5	6,500.0	6,498.5	42.8	1.8	-76.48	-128.1	2,163.8	2,145.9	2,103.6	42.33	50.694	
8,956.7	6,807.0	6,500.0	6,498.5	43.7	1.8	-76.48	-128.1	2,163.8	2,192.1	2,148.8	43.31	50.617	
9,000.0	6,806.7	6,500.0	6,498.5	44.4	1.8	-76.48	-128.1	2,163.8	2,227.7	2,183.6	44.05	50.567	
9,055.1	6,806.2	6,500.0	6,498.5	45.4	1.8	-76.48	-128.1	2,163.8	2,273.4	2,228.4	45.01	50.507	
9,100.0	6,805.8	6,500.0	6,498.5	46.1	1.8	-76.48	-128.1	2,163.8	2,310.9	2,265.1	45.79	50.467	
9,153.5	6,805.4	6,500.0	6,498.5	47.0	1.8	-76.48	-128.1	2,163.8	2,356.0	2,309.2	46.73	50.421	
9,200.0	6,805.0	6,500.0	6,498.5	47.8	1.8	-76.48	-128.1	2,163.8	2,395.4	2,347.8	47.54	50.389	
9,251.9	6,804.6	6,500.0	6,498.5	48.7	1.8	-76.48	-128.1	2,163.8	2,439.7	2,391.3	48.45	50.355	
9,300.0	6,804.2	6,500.0	6,498.5	49.6	1.8	-76.48	-128.1	2,163.8	2,481.0	2,431.7	49.30	50.329	
9,350.4	6,803.8	6,500.0	6,498.5	50.4	1.8	-76.48	-128.1	2,163.8	2,524.5	2,474.4	50.19	50.305	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,400.0	6,803.4	6,500.0	6,498.5	51.3	1.8	-76.48	-128.1	2,163.8	2,567.7	2,516.6	51.06	50.286	
9,448.8	6,802.9	6,500.0	6,498.5	52.1	1.8	-76.48	-128.1	2,163.8	2,610.3	2,558.4	51.93	50.269	
9,500.0	6,802.5	6,500.0	6,498.5	53.0	1.8	-76.48	-128.1	2,163.8	2,655.3	2,602.5	52.84	50.255	
9,547.2	6,802.1	6,500.0	6,498.5	53.9	1.8	-76.48	-128.1	2,163.8	2,697.0	2,643.3	53.68	50.244	
9,600.0	6,801.7	6,500.0	6,498.5	54.8	1.8	-76.48	-128.1	2,163.8	2,743.7	2,689.1	54.62	50.236	
9,645.6	6,801.3	6,500.0	6,498.5	55.6	1.8	-76.48	-128.1	2,163.8	2,784.4	2,729.0	55.43	50.229	
9,700.0	6,800.9	6,500.0	6,498.5	56.6	1.8	-76.48	-128.1	2,163.8	2,833.0	2,776.6	56.41	50.225	
9,744.1	6,800.5	6,500.0	6,498.5	57.4	1.8	-76.48	-128.1	2,163.8	2,872.5	2,815.3	57.20	50.223	
9,800.0	6,800.0	6,500.0	6,498.5	58.4	1.8	-76.48	-128.1	2,163.8	2,922.9	2,864.7	58.20	50.222 SF	
9,842.5	6,799.7	6,500.0	6,498.5	59.1	1.8	-76.48	-128.1	2,163.8	2,961.3	2,902.3	58.96	50.223	
9,900.0	6,799.2	6,500.0	6,498.5	60.2	1.8	-76.48	-128.1	2,163.8	3,013.5	2,953.5	60.00	50.226	
9,940.9	6,798.9	6,500.0	6,498.5	60.9	1.8	-76.48	-128.1	2,163.8	3,050.7	2,989.9	60.74	50.228	
10,000.0	6,798.4	6,500.0	6,498.5	62.0	1.8	-76.48	-128.1	2,163.8	3,104.6	3,042.8	61.80	50.234	
10,039.3	6,798.1	6,500.0	6,498.5	62.7	1.8	-76.48	-128.1	2,163.8	3,140.6	3,078.1	62.51	50.239	
10,100.0	6,797.6	6,500.0	6,498.5	63.8	1.8	-76.48	-128.1	2,163.8	3,196.3	3,132.6	63.61	50.248	
10,137.8	6,797.2	6,500.0	6,498.5	64.4	1.8	-76.48	-128.1	2,163.8	3,231.0	3,166.7	64.29	50.253	
10,200.0	6,796.7	6,500.0	6,498.5	65.6	1.8	-76.48	-128.1	2,163.8	3,288.4	3,223.0	65.42	50.264	
10,236.2	6,796.4	6,500.0	6,498.5	66.2	1.8	-76.48	-128.1	2,163.8	3,321.9	3,255.8	66.08	50.271	
10,300.0	6,795.9	6,500.0	6,498.5	67.4	1.8	-76.48	-128.1	2,163.8	3,381.0	3,313.8	67.24	50.284	
10,334.6	6,795.6	6,500.0	6,498.5	68.0	1.8	-76.48	-128.1	2,163.8	3,413.2	3,345.3	67.87	50.291	
10,400.0	6,795.1	6,500.0	6,498.5	69.2	1.8	-76.47	-128.1	2,163.8	3,474.0	3,405.0	69.06	50.306	
10,433.0	6,794.8	6,500.0	6,498.5	69.8	1.8	-76.47	-128.1	2,163.8	3,504.8	3,435.2	69.66	50.313	
10,500.0	6,794.2	6,500.0	6,498.5	71.0	1.8	-76.47	-128.1	2,163.8	3,567.4	3,496.5	70.88	50.330	
10,531.5	6,794.0	6,500.0	6,498.5	71.6	1.8	-76.47	-128.1	2,163.8	3,596.9	3,525.4	71.45	50.338	
10,600.0	6,793.4	6,500.0	6,498.5	72.9	1.8	-76.47	-128.1	2,163.8	3,661.1	3,588.4	72.71	50.356	
10,629.9	6,793.2	6,500.0	6,498.5	73.4	1.8	-76.47	-128.1	2,163.8	3,689.2	3,616.0	73.25	50.363	
10,700.0	6,792.6	6,500.0	6,498.5	74.7	1.8	-76.47	-128.1	2,163.8	3,755.2	3,680.7	74.53	50.383	
10,728.3	6,792.3	6,500.0	6,498.5	75.2	1.8	-76.47	-128.1	2,163.8	3,781.9	3,706.8	75.05	50.390	
10,800.0	6,791.7	6,500.0	6,498.5	76.6	1.8	-76.47	-128.1	2,163.8	3,849.6	3,773.2	76.36	50.411	
10,826.7	6,791.5	6,500.0	6,498.5	77.1	1.8	-76.47	-128.1	2,163.8	3,874.8	3,798.0	76.85	50.418	
10,900.0	6,790.9	6,500.0	6,498.5	78.4	1.8	-76.47	-128.1	2,163.8	3,944.2	3,866.0	78.20	50.439	
10,925.2	6,790.7	6,500.0	6,498.5	78.9	1.8	-76.47	-128.1	2,163.8	3,968.1	3,889.4	78.66	50.447	
11,000.0	6,790.1	6,500.0	6,498.5	80.3	1.8	-76.47	-128.1	2,163.8	4,039.1	3,959.1	80.03	50.469	
11,023.6	6,789.9	6,500.0	6,498.5	80.7	1.8	-76.47	-128.1	2,163.8	4,061.5	3,981.1	80.47	50.476	
11,100.0	6,789.2	6,500.0	6,498.5	82.1	1.8	-76.47	-128.1	2,163.8	4,134.2	4,052.4	81.87	50.498	
11,122.0	6,789.1	6,500.0	6,498.5	82.5	1.8	-76.47	-128.1	2,163.8	4,155.2	4,072.9	82.27	50.505	
11,200.0	6,788.4	6,500.0	6,498.5	84.0	1.8	-76.47	-128.1	2,163.8	4,229.6	4,145.9	83.71	50.528	
11,220.4	6,788.2	6,500.0	6,498.5	84.3	1.8	-76.47	-128.1	2,163.8	4,249.1	4,165.0	84.08	50.535	
11,300.0	6,787.6	6,500.0	6,498.5	85.8	1.8	-76.47	-128.1	2,163.8	4,325.2	4,239.6	85.55	50.559	
11,318.9	6,787.4	6,500.0	6,498.5	86.2	1.8	-76.47	-128.1	2,163.8	4,343.2	4,257.3	85.90	50.564	
11,400.0	6,786.7	6,500.0	6,498.5	87.7	1.8	-76.47	-128.1	2,163.8	4,420.9	4,333.5	87.39	50.589	
11,417.3	6,786.6	6,500.0	6,498.5	88.0	1.8	-76.47	-128.1	2,163.8	4,437.5	4,349.8	87.71	50.594	
11,500.0	6,785.9	6,500.0	6,498.5	89.5	1.8	-76.47	-128.1	2,163.8	4,516.9	4,427.6	89.23	50.619	
11,515.7	6,785.8	6,500.0	6,498.5	89.8	1.8	-76.47	-128.1	2,163.8	4,532.0	4,442.5	89.52	50.624	
11,600.0	6,785.1	6,500.0	6,498.5	91.4	1.8	-76.47	-128.1	2,163.8	4,613.0	4,521.9	91.08	50.649	
11,614.1	6,785.0	6,500.0	6,498.5	91.7	1.8	-76.47	-128.1	2,163.8	4,626.6	4,535.3	91.34	50.653	
11,700.0	6,784.2	6,500.0	6,498.5	93.3	1.8	-76.47	-128.1	2,163.8	4,709.3	4,616.4	92.92	50.679	
11,712.6	6,784.1	6,500.0	6,498.5	93.5	1.8	-76.47	-128.1	2,163.8	4,721.4	4,628.2	93.16	50.683	
11,800.0	6,783.4	6,500.0	6,498.5	95.2	1.8	-76.47	-128.1	2,163.8	4,805.7	4,710.9	94.77	50.709	
11,811.0	6,783.3	6,500.0	6,498.5	95.4	1.8	-76.47	-128.1	2,163.8	4,816.3	4,721.4	94.97	50.712	
11,900.0	6,782.6	6,500.0	6,498.5	97.0	1.8	-76.47	-128.1	2,163.8	4,902.3	4,805.7	96.62	50.738	
11,909.4	6,782.5	6,500.0	6,498.5	97.2	1.8	-76.47	-128.1	2,163.8	4,911.4	4,814.6	96.79	50.741	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #31-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,000.0	6,781.7	6,500.0	6,498.5	98.9	1.8	-76.47	-128.1	2,163.8	4,999.0	4,900.5	98.47	50.767	
12,007.8	6,781.7	6,500.0	6,498.5	99.1	1.8	-76.47	-128.1	2,163.8	5,006.6	4,908.0	98.61	50.769	
12,100.0	6,780.9	6,500.0	6,498.5	100.8	1.8	-76.46	-128.1	2,163.8	5,095.8	4,995.5	100.32	50.796	
12,106.3	6,780.9	6,500.0	6,498.5	100.9	1.8	-76.46	-128.1	2,163.8	5,101.9	5,001.5	100.44	50.798	
12,200.0	6,780.1	6,500.0	6,498.5	102.7	1.8	-76.46	-128.1	2,163.8	5,192.8	5,090.6	102.17	50.824	
12,204.7	6,780.0	6,500.0	6,498.5	102.7	1.8	-76.46	-128.1	2,163.8	5,197.4	5,095.1	102.26	50.826	
12,300.0	6,779.2	6,500.0	6,498.5	104.5	1.8	-76.46	-128.1	2,163.8	5,289.9	5,185.8	104.02	50.852	
12,303.1	6,779.2	6,500.0	6,498.5	104.6	1.8	-76.46	-128.1	2,163.8	5,292.9	5,188.8	104.08	50.853	
12,400.0	6,778.4	6,500.0	6,498.5	106.4	1.8	-76.46	-128.1	2,163.8	5,387.1	5,281.2	105.88	50.880	
12,401.5	6,778.4	6,500.0	6,498.5	106.4	1.8	-76.46	-128.1	2,163.8	5,388.6	5,282.7	105.91	50.880	
12,500.0	6,777.6	6,500.0	6,498.5	108.3	1.8	-76.46	-128.1	2,163.8	5,484.3	5,376.6	107.73	50.907	
12,598.4	6,776.7	6,500.0	6,498.5	110.2	1.8	-76.46	-128.1	2,163.8	5,580.2	5,470.6	109.56	50.934	
12,600.0	6,776.7	6,500.0	6,498.5	110.2	1.8	-76.46	-128.1	2,163.8	5,581.7	5,472.1	109.59	50.934	
12,696.8	6,775.9	6,500.0	6,498.5	112.0	1.8	-76.46	-128.1	2,163.8	5,676.1	5,564.7	111.38	50.960	
12,700.0	6,775.9	6,500.0	6,498.5	112.1	1.8	-76.46	-128.1	2,163.8	5,679.2	5,567.7	111.44	50.961	
12,795.2	6,775.1	6,500.0	6,498.5	113.9	1.8	-76.46	-128.1	2,163.8	5,772.1	5,658.9	113.21	50.985	
12,800.0	6,775.0	6,500.0	6,498.5	114.0	1.8	-76.46	-128.1	2,163.8	5,776.7	5,663.4	113.30	50.987	
12,893.7	6,774.3	6,500.0	6,498.5	115.7	1.8	-76.46	-128.1	2,163.8	5,868.2	5,753.2	115.04	51.010	
12,900.0	6,774.2	6,500.0	6,498.5	115.8	1.8	-76.46	-128.1	2,163.8	5,874.4	5,759.2	115.16	51.012	
12,992.1	6,773.4	6,500.0	6,498.5	117.6	1.8	-76.46	-128.1	2,163.8	5,964.4	5,847.5	116.87	51.035	
13,000.0	6,773.4	6,500.0	6,498.5	117.7	1.8	-76.46	-128.1	2,163.8	5,972.1	5,855.1	117.01	51.037	
13,090.5	6,772.6	6,500.0	6,498.5	119.4	1.8	-76.46	-128.1	2,163.8	6,060.6	5,941.9	118.70	51.060	
13,100.0	6,772.5	6,500.0	6,498.5	119.6	1.8	-76.46	-128.1	2,163.8	6,069.9	5,951.0	118.87	51.062	
13,188.9	6,771.8	6,500.0	6,498.5	121.3	1.8	-76.46	-128.1	2,163.8	6,156.9	6,036.4	120.53	51.084	
13,200.0	6,771.7	6,500.0	6,498.5	121.5	1.8	-76.46	-128.1	2,163.8	6,167.7	6,047.0	120.73	51.086	
13,287.4	6,771.0	6,500.0	6,498.5	123.2	1.8	-76.46	-128.1	2,163.8	6,253.3	6,130.9	122.36	51.107	
13,300.0	6,770.9	6,500.0	6,498.5	123.4	1.8	-76.46	-128.1	2,163.8	6,265.7	6,143.1	122.59	51.110	
13,385.8	6,770.1	6,500.0	6,498.5	125.0	1.8	-76.46	-128.1	2,163.8	6,349.7	6,225.5	124.19	51.130	
13,400.0	6,770.0	6,500.0	6,498.5	125.3	1.8	-76.45	-128.1	2,163.8	6,363.7	6,239.2	124.45	51.134	
13,484.2	6,769.3	6,500.0	6,498.5	126.9	1.8	-76.45	-128.1	2,163.8	6,446.2	6,320.2	126.02	51.153	
13,500.0	6,769.2	6,500.0	6,498.5	127.2	1.8	-76.45	-128.1	2,163.8	6,461.7	6,335.4	126.31	51.157	
13,582.6	6,768.5	6,500.0	6,498.5	128.8	1.8	-76.45	-128.1	2,163.8	6,542.8	6,414.9	127.85	51.176	
13,600.0	6,768.3	6,500.0	6,498.5	129.1	1.8	-76.45	-128.1	2,163.8	6,559.8	6,431.6	128.17	51.180	
13,681.1	6,767.6	6,500.0	6,498.5	130.6	1.8	-76.45	-128.1	2,163.8	6,639.4	6,509.7	129.68	51.198	
13,700.0	6,767.5	6,500.0	6,498.5	131.0	1.8	-76.45	-128.1	2,163.8	6,658.0	6,528.0	130.03	51.202	
13,779.5	6,766.8	6,500.0	6,498.5	132.5	1.8	-76.45	-128.1	2,163.8	6,736.1	6,604.6	131.51	51.219	
13,800.0	6,766.6	6,500.0	6,498.5	132.9	1.8	-76.45	-128.1	2,163.8	6,756.2	6,624.3	131.90	51.224	
13,877.9	6,766.0	6,500.0	6,498.5	134.4	1.8	-76.45	-128.1	2,163.8	6,832.8	6,699.4	133.35	51.241	
13,900.0	6,765.8	6,500.0	6,498.5	134.8	1.8	-76.45	-128.1	2,163.8	6,854.5	6,720.7	133.76	51.245	
13,976.3	6,765.2	6,500.0	6,498.5	136.2	1.8	-76.45	-128.1	2,163.8	6,929.5	6,794.4	135.18	51.262	
13,995.7	6,765.0	6,500.0	6,498.5	136.6	1.8	-76.45	-128.1	2,163.8	6,948.5	6,813.0	135.54	51.266	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	128.37	-1,724.6	2,177.9	2,778.2				
98.4	98.4	52.6	52.6	0.1	0.0	128.37	-1,724.6	2,178.1	2,778.2	2,778.1	0.12	N/A	
100.0	100.0	53.8	53.8	0.1	0.0	128.37	-1,724.6	2,178.1	2,778.2	2,778.1	0.13	N/A	
196.8	196.8	136.4	136.4	0.3	0.1	128.36	-1,724.8	2,178.9	2,779.1	2,778.6	0.43	6,423.848	
200.0	200.0	139.5	139.5	0.3	0.1	128.36	-1,724.8	2,178.9	2,779.1	2,778.7	0.44	6,254.978	
295.3	295.3	232.5	232.5	0.5	0.3	128.35	-1,724.9	2,180.2	2,780.2	2,779.4	0.78	3,572.618	
300.0	300.0	237.2	237.2	0.5	0.3	128.35	-1,724.9	2,180.2	2,780.2	2,779.4	0.79	3,506.366	
393.7	393.7	332.7	332.7	0.7	0.3	128.33	-1,724.9	2,181.6	2,781.3	2,780.2	1.08	2,572.479	
400.0	400.0	339.5	339.5	0.8	0.3	128.33	-1,724.9	2,181.7	2,781.4	2,780.3	1.10	2,528.401	
492.1	492.1	436.4	436.4	1.0	0.4	128.32	-1,724.9	2,182.9	2,782.2	2,780.9	1.37	2,029.493	
500.0	500.0	444.5	444.4	1.0	0.4	128.31	-1,724.9	2,183.0	2,782.3	2,780.9	1.39	1,996.829	
590.5	590.5	532.2	532.1	1.2	0.5	128.31	-1,725.1	2,183.8	2,783.1	2,781.5	1.65	1,689.841	
600.0	600.0	540.6	540.6	1.2	0.5	128.31	-1,725.1	2,183.9	2,783.2	2,781.5	1.67	1,663.912	
689.0	689.0	623.5	623.5	1.4	0.5	128.30	-1,725.4	2,184.9	2,784.2	2,782.3	1.92	1,453.569	
700.0	700.0	634.9	634.9	1.4	0.5	128.30	-1,725.5	2,185.1	2,784.4	2,782.4	1.95	1,430.980	
787.4	787.4	729.7	729.7	1.6	0.6	128.28	-1,725.5	2,186.4	2,785.4	2,783.2	2.19	1,273.179	
800.0	800.0	745.0	744.9	1.7	0.6	128.28	-1,725.5	2,186.6	2,785.5	2,783.3	2.22	1,252.938	
885.8	885.8	844.1	844.0	1.9	0.6	128.26	-1,725.0	2,187.7	2,786.0	2,783.5	2.46	1,130.998	
900.0	900.0	859.5	859.5	1.9	0.6	128.25	-1,724.9	2,187.9	2,786.1	2,783.5	2.50	1,113.368	
984.2	984.2	947.8	947.7	2.1	0.7	128.24	-1,724.4	2,188.5	2,786.3	2,783.5	2.73	1,020.313	
1,000.0	1,000.0	963.8	963.7	2.1	0.7	128.23	-1,724.3	2,188.6	2,786.3	2,783.5	2.77	1,004.615	
1,082.7	1,082.7	1,044.8	1,044.7	2.3	0.7	128.22	-1,723.9	2,189.2	2,786.4	2,783.5	3.00	930.039	
1,100.0	1,100.0	1,061.3	1,061.3	2.3	0.7	128.22	-1,723.8	2,189.3	2,786.5	2,783.5	3.04	915.912	
1,181.1	1,181.1	1,143.0	1,142.9	2.5	0.8	128.20	-1,723.2	2,190.0	2,786.7	2,783.5	3.26	854.786	
1,200.0	1,200.0	1,163.0	1,163.0	2.6	0.8	128.19	-1,723.1	2,190.2	2,786.8	2,783.5	3.31	841.617	
1,279.5	1,279.5	1,247.2	1,247.1	2.7	0.8	128.17	-1,722.2	2,191.1	2,786.9	2,783.4	3.53	790.535	
1,300.0	1,300.0	1,268.8	1,268.7	2.8	0.8	128.16	-1,722.0	2,191.3	2,786.9	2,783.3	3.58	778.397	
1,377.9	1,377.9	1,352.5	1,352.5	3.0	0.8	128.14	-1,721.0	2,191.9	2,786.8	2,783.0	3.79	735.522	
1,400.0	1,400.0	1,376.5	1,376.4	3.0	0.8	128.13	-1,720.7	2,192.1	2,786.8	2,782.9	3.85	724.247	
1,476.4	1,476.4	1,457.0	1,456.9	3.2	0.9	128.11	-1,719.7	2,192.5	2,786.5	2,782.5	4.05	688.101	
1,500.0	1,500.0	1,481.6	1,481.5	3.2	0.9	128.10	-1,719.4	2,192.6	2,786.4	2,782.3	4.11	677.675	
1,574.8	1,574.8	1,558.1	1,558.0	3.4	0.9	128.09	-1,718.6	2,192.8	2,786.0	2,781.7	4.31	646.918	
1,600.0	1,600.0	1,583.7	1,583.6	3.5	0.9	128.08	-1,718.3	2,192.9	2,785.9	2,781.5	4.37	637.196	
1,673.2	1,673.2	1,658.9	1,658.8	3.6	0.9	128.07	-1,717.5	2,192.9	2,785.5	2,781.0	4.56	610.711	
1,700.0	1,700.0	1,686.5	1,686.4	3.7	0.9	128.06	-1,717.2	2,192.9	2,785.3	2,780.7	4.63	601.578	
1,771.6	1,771.6	1,757.7	1,757.6	3.8	1.0	128.05	-1,716.6	2,192.9	2,784.9	2,780.1	4.81	578.760	
1,800.0	1,800.0	1,785.6	1,785.5	3.9	1.0	128.05	-1,716.3	2,192.9	2,784.7	2,779.8	4.88	570.229	
1,870.1	1,870.1	1,855.0	1,854.9	4.1	1.0	128.04	-1,715.9	2,192.7	2,784.3	2,779.3	5.06	550.630	
1,900.0	1,900.0	1,884.7	1,884.6	4.1	1.0	128.04	-1,715.7	2,192.6	2,784.2	2,779.0	5.13	542.713	
1,968.5	1,968.5	1,949.9	1,949.7	4.3	1.0	128.04	-1,715.5	2,192.3	2,783.8	2,778.5	5.29	526.142	
2,000.0	2,000.0	1,979.5	1,979.4	4.4	1.0	128.05	-1,715.5	2,192.2	2,783.7	2,778.3	5.36	518.953	
2,066.9	2,066.9	2,049.3	2,049.2	4.5	1.0	128.05	-1,715.6	2,191.8	2,783.4	2,777.9	5.52	504.244	
2,100.0	2,100.0	2,085.5	2,085.3	4.6	1.0	128.06	-1,715.7	2,191.5	2,783.2	2,777.7	5.60	497.246	
2,165.3	2,165.3	2,156.1	2,155.9	4.7	1.0	59.68	-1,716.0	2,190.6	2,782.4	2,776.8	5.67	490.885	
2,200.0	2,200.0	2,193.4	2,193.2	4.8	1.0	59.72	-1,716.2	2,190.1	2,781.6	2,775.9	5.75	483.637	
2,263.8	2,263.7	2,255.8	2,255.7	4.9	1.0	59.83	-1,716.5	2,189.2	2,779.6	2,773.7	5.90	471.163	
2,300.0	2,299.8	2,290.9	2,290.7	5.0	1.0	59.90	-1,716.7	2,188.6	2,778.2	2,772.2	5.98	464.321	
2,362.2	2,361.8	2,352.0	2,351.9	5.1	1.0	60.06	-1,717.0	2,187.8	2,775.2	2,769.0	6.13	452.672	
2,400.0	2,399.5	2,389.2	2,389.1	5.2	1.0	60.17	-1,717.2	2,187.3	2,773.0	2,766.8	6.22	445.825	
2,460.6	2,459.7	2,447.3	2,447.1	5.4	1.1	60.37	-1,717.4	2,186.6	2,769.1	2,762.8	6.37	434.876	
2,500.0	2,498.7	2,484.6	2,484.5	5.5	1.1	60.52	-1,717.6	2,186.2	2,766.3	2,759.8	6.46	427.898	
2,559.0	2,557.1	2,544.1	2,543.9	5.6	1.1	60.77	-1,717.8	2,185.5	2,761.6	2,754.9	6.62	417.281	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,600.0	2,597.5	2,586.1	2,585.9	5.7	1.1	60.97	-1,717.9	2,185.1	2,757.9	2,751.2	6.73	410.077	
2,657.5	2,654.0	2,645.9	2,645.7	5.9	1.1	61.28	-1,718.1	2,184.3	2,752.3	2,745.4	6.89	399.632	
2,700.0	2,695.6	2,690.3	2,690.1	6.0	1.1	61.54	-1,718.2	2,183.7	2,747.8	2,740.8	7.01	392.071	
2,755.9	2,750.2	2,747.0	2,746.8	6.2	1.1	61.89	-1,718.3	2,183.0	2,741.4	2,734.2	7.18	381.705	
2,800.0	2,793.1	2,791.4	2,791.2	6.3	1.1	62.19	-1,718.3	2,182.4	2,736.0	2,728.6	7.32	373.763	
2,854.3	2,845.6	2,846.9	2,846.7	6.5	1.1	62.58	-1,718.2	2,181.6	2,728.9	2,721.3	7.51	363.406	
2,900.0	2,889.6	2,893.5	2,893.3	6.6	1.1	62.94	-1,718.1	2,181.0	2,722.5	2,714.8	7.67	354.966	
2,952.7	2,940.2	2,947.9	2,947.7	6.8	1.1	63.38	-1,717.9	2,180.2	2,714.8	2,706.9	7.88	344.620	
3,000.0	2,985.3	2,996.5	2,996.3	7.0	1.1	63.80	-1,717.6	2,179.5	2,707.5	2,699.4	8.07	335.589	
3,016.9	3,001.4	3,015.0	3,014.8	7.1	1.1	63.96	-1,717.5	2,179.2	2,704.8	2,696.7	8.14	332.230	
3,051.2	3,033.9	3,053.1	3,052.9	7.3	1.2	64.20	-1,717.1	2,178.6	2,699.3	2,691.0	8.29	325.493	
3,100.0	3,080.2	3,107.1	3,106.9	7.5	1.2	64.53	-1,716.5	2,177.8	2,691.3	2,682.8	8.51	316.192	
3,149.6	3,127.3	3,160.2	3,160.0	7.7	1.2	64.85	-1,715.5	2,177.0	2,683.2	2,674.5	8.74	306.863	
3,200.0	3,175.1	3,214.4	3,214.2	8.0	1.2	65.17	-1,714.2	2,176.4	2,674.9	2,665.9	8.99	297.710	
3,248.0	3,220.7	3,266.2	3,265.9	8.2	1.2	65.48	-1,712.7	2,175.8	2,667.0	2,657.8	9.22	289.144	
3,300.0	3,270.0	3,318.2	3,317.8	8.5	1.2	65.79	-1,711.0	2,175.3	2,658.4	2,648.9	9.48	280.322	
3,346.4	3,314.1	3,359.1	3,358.7	8.7	1.2	66.03	-1,709.7	2,174.9	2,650.7	2,641.0	9.72	272.701	
3,400.0	3,365.0	3,406.5	3,406.1	9.0	1.2	66.31	-1,708.0	2,174.6	2,642.1	2,632.1	10.00	264.312	
3,444.9	3,407.6	3,447.1	3,446.7	9.2	1.3	66.55	-1,706.6	2,174.4	2,634.9	2,624.7	10.23	257.484	
3,500.0	3,459.9	3,497.0	3,496.6	9.5	1.3	66.84	-1,704.9	2,174.2	2,626.3	2,615.8	10.53	249.473	
3,543.3	3,501.0	3,537.5	3,537.0	9.8	1.3	67.08	-1,703.6	2,174.1	2,619.6	2,608.8	10.76	243.350	
3,600.0	3,554.8	3,590.7	3,590.2	10.1	1.3	67.40	-1,701.8	2,174.0	2,610.8	2,599.8	11.08	235.690	
3,641.7	3,594.4	3,630.5	3,629.9	10.3	1.3	67.63	-1,700.4	2,173.9	2,604.5	2,593.2	11.31	230.222	
3,700.0	3,649.7	3,686.3	3,685.8	10.7	1.3	67.97	-1,698.5	2,173.8	2,595.7	2,584.1	11.64	222.918	
3,740.1	3,687.8	3,723.3	3,722.7	10.9	1.3	68.19	-1,697.2	2,173.7	2,589.7	2,577.8	11.88	218.065	
3,800.0	3,744.7	3,777.2	3,776.6	11.2	1.3	68.52	-1,695.4	2,173.6	2,580.9	2,568.7	12.22	211.162	
3,838.6	3,781.3	3,812.5	3,811.9	11.5	1.4	68.74	-1,694.3	2,173.5	2,575.3	2,562.9	12.45	206.862	
3,900.0	3,839.6	3,870.4	3,869.8	11.8	1.4	69.09	-1,692.4	2,173.5	2,566.5	2,553.7	12.81	200.298	
3,937.0	3,874.7	3,904.9	3,904.3	12.1	1.4	69.31	-1,691.3	2,173.4	2,561.3	2,548.2	13.04	196.484	
4,000.0	3,934.5	3,959.8	3,959.1	12.4	1.4	69.65	-1,689.6	2,173.4	2,552.5	2,539.1	13.41	190.297	
4,035.4	3,968.1	3,990.6	3,989.9	12.6	1.4	69.84	-1,688.7	2,173.4	2,547.7	2,534.1	13.63	186.941	
4,100.0	4,029.4	4,047.3	4,046.6	13.0	1.4	70.20	-1,687.3	2,173.3	2,539.1	2,525.1	14.02	181.080	
4,133.8	4,061.5	4,077.1	4,076.4	13.2	1.4	70.39	-1,686.5	2,173.3	2,534.7	2,520.5	14.23	178.115	
4,200.0	4,124.3	4,136.1	4,135.4	13.6	1.4	70.78	-1,685.3	2,173.2	2,526.3	2,511.6	14.64	172.551	
4,232.3	4,155.0	4,165.1	4,164.4	13.8	1.5	70.97	-1,684.7	2,173.1	2,522.2	2,507.4	14.84	169.929	
4,300.0	4,219.3	4,229.1	4,228.3	14.2	1.5	71.39	-1,683.7	2,172.7	2,513.9	2,498.6	15.27	164.619	
4,330.7	4,248.4	4,260.0	4,259.2	14.4	1.5	71.60	-1,683.3	2,172.5	2,510.2	2,494.7	15.47	162.278	
4,400.0	4,314.2	4,328.3	4,327.6	14.9	1.5	72.07	-1,682.3	2,171.8	2,501.8	2,485.9	15.91	157.200	
4,429.1	4,341.8	4,356.3	4,355.5	15.0	1.5	72.27	-1,682.0	2,171.4	2,498.3	2,482.2	16.10	155.141	
4,500.0	4,409.1	4,424.1	4,423.3	15.5	1.5	72.74	-1,681.2	2,170.4	2,490.0	2,473.4	16.56	150.320	
4,527.5	4,435.3	4,450.3	4,449.5	15.7	1.5	72.93	-1,681.0	2,169.9	2,486.8	2,470.0	16.74	148.510	
4,600.0	4,504.0	4,518.1	4,517.3	16.1	1.5	73.41	-1,680.3	2,168.9	2,478.5	2,461.3	17.22	143.935	
4,626.0	4,528.7	4,541.1	4,540.3	16.3	1.6	73.58	-1,680.0	2,168.5	2,475.6	2,458.2	17.39	142.358	
4,700.0	4,598.9	4,606.6	4,605.8	16.7	1.6	74.04	-1,679.2	2,167.8	2,467.5	2,449.6	17.88	138.034	
4,724.4	4,622.1	4,627.0	4,626.2	16.9	1.6	74.18	-1,679.0	2,167.6	2,464.9	2,446.9	18.04	136.664	
4,800.0	4,693.9	4,690.1	4,689.3	17.4	1.6	74.63	-1,678.3	2,167.2	2,457.2	2,438.7	18.53	132.579	
4,822.8	4,715.5	4,700.0	4,699.2	17.5	1.6	74.70	-1,678.2	2,167.2	2,455.0	2,436.3	18.68	131.429	
4,900.0	4,788.8	4,767.2	4,766.4	18.0	1.6	75.17	-1,677.7	2,167.1	2,447.8	2,428.7	19.18	127.598	
4,921.2	4,809.0	4,783.4	4,782.6	18.1	1.6	75.29	-1,677.6	2,167.1	2,446.0	2,426.7	19.32	126.587	
5,000.0	4,883.7	4,854.0	4,853.2	18.6	1.6	75.78	-1,677.3	2,167.4	2,439.5	2,419.6	19.84	122.948	
5,019.7	4,902.4	4,872.6	4,871.8	18.7	1.6	75.92	-1,677.3	2,167.5	2,437.9	2,417.9	19.97	122.065	
5,100.0	4,978.6	4,949.2	4,948.4	19.3	1.6	76.45	-1,676.9	2,168.0	2,431.5	2,411.0	20.51	118.571	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,118.1	4,995.8	4,966.6	4,965.7	19.4	1.6	76.58	-1,676.8	2,168.1	2,430.1	2,409.5	20.63	117.807	
5,200.0	5,073.6	5,043.8	5,042.9	19.9	1.7	77.12	-1,676.4	2,168.7	2,423.9	2,402.7	21.18	114.467	
5,216.5	5,089.2	5,059.2	5,058.3	20.0	1.7	77.23	-1,676.3	2,168.8	2,422.7	2,401.4	21.29	113.815	
5,304.2	5,172.4	5,142.6	5,141.7	20.6	1.7	77.81	-1,675.7	2,169.6	2,416.4	2,394.6	21.87	110.466	
5,314.9	5,182.7	5,153.0	5,152.2	20.6	1.7	77.87	-1,675.6	2,169.7	2,415.7	2,393.8	21.94	110.120	
5,400.0	5,263.9	5,234.7	5,233.9	21.1	1.7	78.30	-1,674.9	2,170.8	2,410.2	2,387.8	22.43	107.477	
5,413.4	5,276.7	5,247.4	5,246.5	21.1	1.7	78.36	-1,674.8	2,171.0	2,409.4	2,386.9	22.49	107.143	
5,500.0	5,360.3	5,328.4	5,327.5	21.5	1.7	78.74	-1,674.0	2,172.2	2,404.7	2,381.8	22.89	105.058	
5,511.8	5,371.7	5,339.1	5,338.3	21.6	1.7	78.78	-1,673.9	2,172.3	2,404.2	2,381.2	22.94	104.806	
5,600.0	5,457.5	5,420.9	5,420.0	21.9	1.7	79.11	-1,673.1	2,173.8	2,400.3	2,377.0	23.31	102.970	
5,610.2	5,467.5	5,430.8	5,429.9	21.9	1.7	79.15	-1,673.0	2,174.0	2,399.9	2,376.6	23.35	102.783	
5,700.0	5,555.6	5,518.4	5,517.4	22.3	1.8	79.44	-1,672.2	2,175.8	2,396.9	2,373.2	23.69	101.196	
5,708.6	5,564.1	5,527.1	5,526.2	22.3	1.8	79.47	-1,672.1	2,176.0	2,396.6	2,372.9	23.71	101.063	
5,800.0	5,654.2	5,618.9	5,617.9	22.6	1.8	79.72	-1,671.1	2,178.0	2,394.1	2,370.1	24.01	99.694	
5,807.1	5,661.2	5,625.8	5,624.9	22.6	1.8	79.74	-1,671.0	2,178.1	2,394.0	2,369.9	24.04	99.603	
5,900.0	5,753.4	5,718.2	5,717.2	22.8	1.8	79.93	-1,670.1	2,180.0	2,392.1	2,367.8	24.30	98.449	
5,905.5	5,758.8	5,723.8	5,722.8	22.8	1.8	79.94	-1,670.0	2,180.2	2,392.0	2,367.7	24.31	98.392	
6,000.0	5,852.9	5,820.5	5,819.5	23.1	1.8	80.08	-1,669.2	2,181.8	2,390.6	2,366.0	24.54	97.435	
6,003.9	5,856.8	5,824.5	5,823.5	23.1	1.8	80.08	-1,669.2	2,181.9	2,390.5	2,366.0	24.54	97.403	
6,100.0	5,952.7	5,922.9	5,921.9	23.2	1.9	80.16	-1,668.3	2,183.3	2,389.6	2,364.9	24.73	96.636	
6,102.3	5,955.1	5,925.2	5,924.2	23.2	1.9	80.16	-1,668.3	2,183.4	2,389.6	2,364.8	24.73	96.621	
6,200.0	6,052.7	6,021.9	6,020.9	23.4	1.9	80.18	-1,667.6	2,184.6	2,389.2	2,364.3	24.88	96.044	
6,200.8	6,053.5	6,022.7	6,021.7	23.4	1.9	80.18	-1,667.6	2,184.6	2,389.2	2,364.3	24.88	96.041	
6,213.9	6,066.5	6,035.5	6,034.5	23.4	1.9	80.17	-1,667.5	2,184.7	2,389.2	2,364.3	24.89	95.980	
6,221.1	6,073.8	6,042.6	6,041.6	23.4	1.9	148.59	-1,667.4	2,184.8	2,389.2	2,364.3	24.90	95.947	
6,251.1	6,103.8	6,072.1	6,071.1	23.4	1.9	148.59	-1,667.3	2,185.1	2,389.2	2,364.2	24.94	95.805	
6,299.2	6,151.8	6,119.6	6,118.6	23.5	1.9	-31.50	-1,667.1	2,185.5	2,387.8	2,362.8	25.00	95.527	
6,300.0	6,152.6	6,120.4	6,119.4	23.5	1.9	-31.50	-1,667.1	2,185.5	2,387.8	2,362.8	25.00	95.522	
6,350.0	6,202.4	6,170.2	6,169.1	23.5	1.9	-31.76	-1,666.9	2,185.8	2,383.5	2,358.4	25.01	95.296	
6,397.6	6,249.3	6,218.4	6,217.3	23.5	1.9	-32.17	-1,666.8	2,186.1	2,376.6	2,351.6	24.98	95.144	
6,400.0	6,251.6	6,220.9	6,219.8	23.5	1.9	-32.19	-1,666.8	2,186.1	2,376.2	2,351.2	24.98	95.137	
6,450.0	6,300.1	6,273.0	6,272.0	23.5	1.9	-32.81	-1,666.7	2,186.2	2,365.9	2,341.0	24.88	95.079	
6,496.0	6,344.0	6,317.9	6,316.9	23.5	1.9	-33.55	-1,666.6	2,186.2	2,353.9	2,329.2	24.74	95.160	
6,500.0	6,347.7	6,321.5	6,320.5	23.5	1.9	-33.62	-1,666.6	2,186.2	2,352.8	2,328.1	24.72	95.171	
6,550.0	6,394.1	6,366.0	6,365.0	23.5	1.9	-34.61	-1,666.6	2,186.2	2,336.9	2,312.4	24.48	95.444	
6,594.5	6,434.2	6,405.0	6,404.0	23.4	1.9	-35.67	-1,666.6	2,186.1	2,320.6	2,296.4	24.21	95.853	
6,600.0	6,439.0	6,410.3	6,409.3	23.4	1.9	-35.82	-1,666.6	2,186.1	2,318.5	2,294.3	24.17	95.910	
6,650.0	6,482.4	6,456.7	6,455.6	23.4	1.9	-37.30	-1,666.6	2,186.0	2,297.4	2,273.6	23.79	96.567	
6,692.9	6,518.1	6,494.9	6,493.8	23.3	1.9	-38.78	-1,666.6	2,185.9	2,277.4	2,254.0	23.41	97.293	
6,700.0	6,523.9	6,501.1	6,500.0	23.3	1.9	-39.04	-1,666.6	2,185.9	2,273.9	2,250.6	23.34	97.420	
6,750.0	6,563.3	6,544.8	6,543.8	23.3	2.0	-41.10	-1,666.5	2,185.6	2,248.2	2,225.3	22.84	98.432	
6,791.3	6,594.2	6,579.0	6,578.0	23.2	2.0	-43.04	-1,666.5	2,185.3	2,225.2	2,202.8	22.39	99.367	
6,800.0	6,600.5	6,586.0	6,585.0	23.2	2.0	-43.48	-1,666.4	2,185.3	2,220.2	2,197.9	22.30	99.564	
6,850.0	6,635.3	6,624.0	6,623.0	23.2	2.0	-46.20	-1,666.4	2,184.8	2,190.3	2,168.6	21.74	100.731	
6,889.7	6,661.1	6,652.0	6,651.0	23.1	2.0	-48.62	-1,666.3	2,184.5	2,165.3	2,144.0	21.31	101.613	
6,900.0	6,667.5	6,658.9	6,657.9	23.1	2.0	-49.28	-1,666.3	2,184.4	2,158.7	2,137.5	21.20	101.817	
6,950.0	6,696.9	6,690.7	6,689.7	23.1	2.0	-52.75	-1,666.2	2,183.9	2,125.5	2,104.8	20.70	102.671	
6,988.2	6,717.5	6,712.8	6,711.8	23.1	2.0	-55.65	-1,666.1	2,183.6	2,099.2	2,078.9	20.36	103.089	
7,000.0	6,723.5	6,719.3	6,718.2	23.1	2.0	-56.59	-1,666.1	2,183.5	2,091.0	2,070.7	20.27	103.158	
7,050.0	6,747.0	6,744.4	6,743.3	23.1	2.0	-60.79	-1,666.0	2,183.1	2,055.4	2,035.5	19.92	103.185	
7,086.6	6,762.3	6,760.5	6,759.5	23.1	2.0	-64.06	-1,665.9	2,182.9	2,028.8	2,009.1	19.72	102.879	
7,100.0	6,767.4	6,766.0	6,764.9	23.1	2.0	-65.30	-1,665.8	2,182.8	2,019.0	1,999.3	19.65	102.733	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis					Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,150.0	6,784.6	6,784.0	6,783.0	23.1	2.0	-70.04	-1,665.7	2,182.6	1,981.9	1,962.5	19.46	101.871	
7,185.0	6,794.7	6,794.5	6,793.5	23.1	2.0	-73.45	-1,665.6	2,182.4	1,955.8	1,936.4	19.35	101.048	
7,200.0	6,798.5	6,798.4	6,797.4	23.2	2.0	-74.91	-1,665.6	2,182.4	1,944.5	1,925.2	19.31	100.702	
7,250.0	6,808.9	6,800.0	6,799.0	23.2	2.0	-79.39	-1,665.6	2,182.3	1,907.1	1,887.8	19.24	99.115	
7,283.4	6,814.0	6,809.5	6,808.4	23.3	2.0	-82.79	-1,665.5	2,182.2	1,882.0	1,862.8	19.20	98.038	
7,300.0	6,816.0	6,810.8	6,809.7	23.4	2.0	-84.32	-1,665.5	2,182.2	1,869.7	1,850.5	19.19	97.425	
7,350.0	6,819.5	6,813.0	6,812.0	23.5	2.0	-88.82	-1,665.5	2,182.2	1,832.7	1,813.4	19.25	95.185	
7,381.9	6,820.0	6,813.2	6,812.1	23.7	2.0	-91.55	-1,665.5	2,182.2	1,809.4	1,790.0	19.35	93.514	
7,382.0	6,820.0	6,813.2	6,812.1	23.7	2.0	-91.56	-1,665.5	2,182.2	1,809.3	1,790.0	19.35	93.508	
7,400.0	6,819.8	6,813.0	6,811.9	23.8	2.0	-91.56	-1,665.5	2,182.2	1,796.3	1,776.8	19.50	92.108	
7,480.3	6,819.2	6,812.1	6,811.0	24.2	2.0	-91.51	-1,665.5	2,182.2	1,739.2	1,718.9	20.26	85.855	
7,500.0	6,819.0	6,811.8	6,810.8	24.3	2.0	-91.50	-1,665.5	2,182.2	1,725.4	1,705.0	20.44	84.406	
7,578.7	6,818.4	6,810.9	6,809.9	24.9	2.0	-91.46	-1,665.5	2,182.2	1,671.8	1,650.5	21.30	78.506	
7,600.0	6,818.2	6,810.7	6,809.7	25.0	2.0	-91.45	-1,665.5	2,182.2	1,657.6	1,636.1	21.53	77.008	
7,677.1	6,817.6	6,809.8	6,808.8	25.7	2.0	-91.41	-1,665.5	2,182.2	1,607.6	1,585.2	22.45	71.595	
7,700.0	6,817.4	6,809.6	6,808.5	25.9	2.0	-91.40	-1,665.5	2,182.2	1,593.2	1,570.5	22.73	70.095	
7,775.6	6,816.7	6,808.7	6,807.6	26.6	2.0	-91.36	-1,665.5	2,182.2	1,547.1	1,523.4	23.72	65.233	
7,800.0	6,816.5	6,808.4	6,807.4	26.9	2.0	-91.35	-1,665.5	2,182.2	1,532.6	1,508.6	24.03	63.767	
7,874.0	6,815.9	6,807.5	6,806.5	27.7	2.0	-91.31	-1,665.5	2,182.2	1,490.5	1,465.5	25.06	59.471	
7,900.0	6,815.7	6,807.2	6,806.2	28.0	2.0	-91.29	-1,665.5	2,182.2	1,476.4	1,450.9	25.42	58.068	
7,972.4	6,815.1	6,800.0	6,799.0	28.9	2.0	-90.96	-1,665.6	2,182.3	1,438.6	1,412.1	26.50	54.285	
8,000.0	6,814.9	6,800.0	6,799.0	29.2	2.0	-90.96	-1,665.6	2,182.3	1,424.9	1,398.0	26.90	52.966	
8,070.8	6,814.3	6,800.0	6,799.0	30.1	2.0	-90.96	-1,665.6	2,182.3	1,391.6	1,363.6	27.98	49.742	
8,100.0	6,814.1	6,800.0	6,799.0	30.5	2.0	-90.96	-1,665.6	2,182.3	1,378.7	1,350.3	28.42	48.516	
8,169.3	6,813.5	6,800.0	6,799.0	31.5	2.0	-90.96	-1,665.6	2,182.3	1,350.2	1,320.7	29.50	45.764	
8,200.0	6,813.3	6,800.0	6,799.0	31.9	2.0	-90.96	-1,665.6	2,182.3	1,338.4	1,308.5	29.98	44.640	
8,267.7	6,812.7	6,800.0	6,799.0	32.9	2.0	-90.96	-1,665.6	2,182.3	1,314.8	1,283.7	31.07	42.316	
8,300.0	6,812.4	6,800.0	6,799.0	33.3	2.0	-90.96	-1,665.6	2,182.3	1,304.6	1,273.0	31.59	41.298	
8,366.1	6,811.9	6,800.0	6,799.0	34.3	2.0	-90.96	-1,665.6	2,182.3	1,286.0	1,253.4	32.68	39.357	
8,400.0	6,811.6	6,800.0	6,799.0	34.8	2.0	-90.96	-1,665.6	2,182.3	1,277.7	1,244.5	33.23	38.448	
8,464.5	6,811.1	6,800.0	6,799.0	35.8	2.0	-90.96	-1,665.6	2,182.3	1,264.3	1,230.0	34.31	36.846	
8,500.0	6,810.8	6,800.0	6,799.0	36.3	2.0	-90.96	-1,665.6	2,182.3	1,258.2	1,223.3	34.91	36.048	
8,563.0	6,810.3	6,799.0	6,797.9	37.3	2.0	-90.91	-1,665.6	2,182.4	1,249.9	1,214.0	35.98	34.742	
8,600.0	6,810.0	6,798.4	6,797.3	37.9	2.0	-90.88	-1,665.6	2,182.4	1,246.5	1,209.9	36.61	34.050	
8,661.4	6,809.5	6,797.4	6,796.3	38.9	2.0	-90.84	-1,665.6	2,182.4	1,243.2	1,205.6	37.67	33.006	
8,697.1	6,809.2	6,796.8	6,795.7	39.4	2.0	-90.81	-1,665.6	2,182.4	1,242.7	1,204.4	38.28	32.461 CC	
8,700.0	6,809.1	6,796.7	6,795.7	39.5	2.0	-90.81	-1,665.6	2,182.4	1,242.7	1,204.4	38.33	32.419 ES	
8,759.8	6,808.6	6,795.8	6,794.7	40.5	2.0	-90.76	-1,665.6	2,182.4	1,244.3	1,204.9	39.38	31.600	
8,800.0	6,808.3	6,795.1	6,794.1	41.1	2.0	-90.73	-1,665.6	2,182.4	1,247.0	1,206.9	40.08	31.114	
8,858.2	6,807.8	6,794.2	6,793.1	42.1	2.0	-90.69	-1,665.6	2,182.4	1,253.1	1,212.0	41.10	30.488	
8,900.0	6,807.5	6,793.5	6,792.5	42.8	2.0	-90.66	-1,665.6	2,182.4	1,259.2	1,217.3	41.84	30.097	
8,956.7	6,807.0	6,792.6	6,791.6	43.7	2.0	-90.62	-1,665.6	2,182.4	1,269.5	1,226.7	42.84	29.632	
9,000.0	6,806.7	6,791.9	6,790.9	44.4	2.0	-90.59	-1,665.7	2,182.5	1,279.1	1,235.5	43.61	29.328	
9,055.1	6,806.2	6,791.1	6,790.0	45.4	2.0	-90.55	-1,665.7	2,182.5	1,293.2	1,248.6	44.60	28.998	
9,100.0	6,805.8	6,790.4	6,789.3	46.1	2.0	-90.51	-1,665.7	2,182.5	1,306.4	1,261.0	45.40	28.774	
9,153.5	6,805.4	6,789.5	6,788.5	47.0	2.0	-90.48	-1,665.7	2,182.5	1,323.9	1,277.5	46.36	28.554	
9,200.0	6,805.0	6,788.8	6,787.8	47.8	2.0	-90.44	-1,665.7	2,182.5	1,340.6	1,293.4	47.20	28.402	
9,251.9	6,804.6	6,788.0	6,787.0	48.7	2.0	-90.41	-1,665.7	2,182.5	1,360.9	1,312.8	48.14	28.270	
9,300.0	6,804.2	6,787.3	6,786.2	49.6	2.0	-90.37	-1,665.7	2,182.5	1,381.2	1,332.2	49.01	28.183	
9,350.4	6,803.8	6,786.5	6,785.4	50.4	2.0	-90.34	-1,665.7	2,182.5	1,403.9	1,354.0	49.92	28.121	
9,400.0	6,803.4	6,785.7	6,784.7	51.3	2.0	-90.30	-1,665.7	2,182.5	1,427.7	1,376.8	50.83	28.089	
9,448.8	6,802.9	6,785.0	6,783.9	52.1	2.0	-90.27	-1,665.7	2,182.6	1,452.3	1,400.6	51.72	28.082 SF	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,802.5	6,784.2	6,783.2	53.0	2.0	-90.23	-1,665.7	2,182.6	1,479.4	1,426.8	52.65	28.099	
9,547.2	6,802.1	6,783.5	6,782.5	53.9	2.0	-90.20	-1,665.7	2,182.6	1,505.6	1,452.1	53.52	28.133	
9,600.0	6,801.7	6,782.7	6,781.7	54.8	2.0	-90.16	-1,665.7	2,182.6	1,536.0	1,481.5	54.48	28.191	
9,645.6	6,801.3	6,782.0	6,781.0	55.6	2.0	-90.13	-1,665.7	2,182.6	1,563.3	1,507.9	55.32	28.256	
9,700.0	6,800.9	6,781.2	6,780.2	56.6	2.0	-90.09	-1,665.7	2,182.6	1,596.8	1,540.5	56.32	28.350	
9,744.1	6,800.5	6,780.6	6,779.5	57.4	2.0	-90.06	-1,665.7	2,182.6	1,624.9	1,567.7	57.14	28.438	
9,800.0	6,800.0	6,779.8	6,778.7	58.4	2.0	-90.02	-1,665.7	2,182.6	1,661.4	1,603.3	58.17	28.562	
9,842.5	6,799.7	6,779.1	6,778.1	59.1	2.0	-90.00	-1,665.8	2,182.6	1,689.9	1,631.0	58.96	28.665	
9,900.0	6,799.2	6,778.3	6,777.2	60.2	2.0	-89.96	-1,665.8	2,182.7	1,729.4	1,669.4	60.02	28.814	
9,940.9	6,798.9	6,777.7	6,776.7	60.9	2.0	-89.93	-1,665.8	2,182.7	1,758.1	1,697.3	60.78	28.927	
10,000.0	6,798.4	6,776.8	6,775.8	62.0	2.0	-89.89	-1,665.8	2,182.7	1,800.4	1,738.5	61.87	29.098	
10,039.3	6,798.1	6,776.3	6,775.2	62.7	2.0	-89.86	-1,665.8	2,182.7	1,829.1	1,766.4	62.61	29.216	
10,100.0	6,797.6	6,775.4	6,774.4	63.8	2.0	-89.82	-1,665.8	2,182.7	1,874.0	1,810.3	63.73	29.404	
10,137.8	6,797.2	6,774.9	6,773.8	64.4	2.0	-89.80	-1,665.8	2,182.7	1,902.4	1,838.0	64.44	29.524	
10,200.0	6,796.7	6,774.0	6,772.9	65.6	2.0	-89.76	-1,665.8	2,182.7	1,950.0	1,884.4	65.60	29.727	
10,236.2	6,796.4	6,773.5	6,772.4	66.2	2.0	-89.73	-1,665.8	2,182.7	1,978.0	1,911.7	66.27	29.847	
10,300.0	6,795.9	6,772.6	6,771.5	67.4	2.0	-89.69	-1,665.8	2,182.7	2,028.0	1,960.6	67.46	30.062	
10,334.6	6,795.6	6,772.1	6,771.1	68.0	2.0	-89.67	-1,665.8	2,182.7	2,055.5	1,987.4	68.11	30.179	
10,400.0	6,795.1	6,771.2	6,770.1	69.2	2.0	-89.63	-1,665.8	2,182.8	2,107.9	2,038.6	69.33	30.404	
10,433.0	6,794.8	6,770.7	6,769.7	69.8	2.0	-89.61	-1,665.8	2,182.8	2,134.7	2,064.8	69.95	30.517	
10,500.0	6,794.2	6,769.8	6,768.8	71.0	2.0	-89.56	-1,665.8	2,182.8	2,189.5	2,118.3	71.20	30.749	
10,531.5	6,794.0	6,769.4	6,768.3	71.6	2.0	-89.54	-1,665.8	2,182.8	2,215.5	2,143.7	71.79	30.858	
10,600.0	6,793.4	6,768.4	6,767.4	72.9	2.0	-89.50	-1,665.8	2,182.8	2,272.5	2,199.4	73.08	31.096	
10,629.9	6,793.2	6,768.0	6,767.0	73.4	2.0	-89.48	-1,665.8	2,182.8	2,297.6	2,224.0	73.64	31.200	
10,700.0	6,792.6	6,767.1	6,766.0	74.7	2.0	-89.44	-1,665.8	2,182.8	2,356.9	2,281.9	74.96	31.443	
10,728.3	6,792.3	6,766.7	6,765.6	75.2	2.0	-89.42	-1,665.8	2,182.8	2,381.0	2,305.5	75.49	31.540	
10,800.0	6,791.7	6,765.7	6,764.7	76.6	2.0	-89.38	-1,665.8	2,182.8	2,442.4	2,365.6	76.84	31.787	
10,826.7	6,791.5	6,765.4	6,764.3	77.1	2.0	-89.36	-1,665.8	2,182.8	2,465.5	2,388.1	77.34	31.878	
10,900.0	6,790.9	6,764.4	6,763.3	78.4	2.0	-89.31	-1,665.9	2,182.9	2,529.0	2,450.3	78.72	32.126	
10,925.2	6,790.7	6,764.0	6,763.0	78.9	2.0	-89.30	-1,665.9	2,182.9	2,550.9	2,471.7	79.19	32.211	
11,000.0	6,790.1	6,763.1	6,762.0	80.3	2.0	-89.25	-1,665.9	2,182.9	2,616.5	2,535.9	80.60	32.462	
11,023.6	6,789.9	6,762.7	6,761.7	80.7	2.0	-89.24	-1,665.9	2,182.9	2,637.3	2,556.3	81.05	32.540	
11,100.0	6,789.2	6,761.7	6,760.7	82.1	2.0	-89.19	-1,665.9	2,182.9	2,704.9	2,622.5	82.49	32.791	
11,122.0	6,789.1	6,761.5	6,760.4	82.5	2.0	-89.18	-1,665.9	2,182.9	2,724.5	2,641.6	82.91	32.863	
11,200.0	6,788.4	6,760.4	6,759.4	84.0	2.0	-89.13	-1,665.9	2,182.9	2,794.1	2,709.8	84.38	33.115	
11,220.4	6,788.2	6,760.2	6,759.1	84.3	2.0	-89.12	-1,665.9	2,182.9	2,812.5	2,727.7	84.76	33.180	
11,300.0	6,787.6	6,759.2	6,758.1	85.8	2.0	-89.07	-1,665.9	2,182.9	2,884.0	2,797.8	86.27	33.432	
11,318.9	6,787.4	6,758.9	6,757.9	86.2	2.0	-89.06	-1,665.9	2,182.9	2,901.1	2,814.5	86.62	33.491	
11,400.0	6,786.7	6,757.9	6,756.8	87.7	2.0	-89.01	-1,665.9	2,182.9	2,974.6	2,886.4	88.16	33.742	
11,417.3	6,786.6	6,757.7	6,756.6	88.0	2.0	-89.00	-1,665.9	2,183.0	2,990.3	2,901.8	88.48	33.795	
11,500.0	6,785.9	6,756.6	6,755.6	89.5	2.0	-88.95	-1,665.9	2,183.0	3,065.7	2,975.7	90.05	34.045	
11,515.7	6,785.8	6,756.4	6,755.4	89.8	2.0	-88.94	-1,665.9	2,183.0	3,080.1	2,989.7	90.35	34.092	
11,600.0	6,785.1	6,755.3	6,754.3	91.4	2.0	-88.89	-1,665.9	2,183.0	3,157.4	3,065.4	91.94	34.341	
11,614.1	6,785.0	6,755.2	6,754.1	91.7	2.0	-88.89	-1,665.9	2,183.0	3,170.4	3,078.2	92.21	34.382	
11,700.0	6,784.2	6,754.1	6,753.1	93.3	2.0	-88.84	-1,665.9	2,183.0	3,249.5	3,155.7	93.84	34.630	
11,712.6	6,784.1	6,753.9	6,752.9	93.5	2.0	-88.83	-1,665.9	2,183.0	3,261.2	3,167.1	94.08	34.665	
11,800.0	6,783.4	6,752.9	6,751.8	95.2	2.0	-88.78	-1,665.9	2,183.0	3,342.1	3,246.4	95.73	34.911	
11,811.0	6,783.3	6,752.7	6,751.7	95.4	2.0	-88.77	-1,665.9	2,183.0	3,352.4	3,256.4	95.94	34.942	
11,900.0	6,782.6	6,751.6	6,750.6	97.0	2.0	-88.72	-1,665.9	2,183.0	3,435.2	3,337.5	97.63	35.186	
11,909.4	6,782.5	6,751.5	6,750.5	97.2	2.0	-88.72	-1,665.9	2,183.0	3,443.9	3,346.1	97.81	35.212	
12,000.0	6,781.7	6,750.4	6,749.4	98.9	2.0	-88.67	-1,665.9	2,183.1	3,528.6	3,429.0	99.53	35.454	
12,007.8	6,781.7	6,750.3	6,749.3	99.1	2.0	-88.66	-1,665.9	2,183.1	3,535.9	3,436.2	99.67	35.474	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT NOFFSINGER #32-5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,100.0	6,780.9	6,749.2	6,748.2	100.8	2.0	-88.61	-1,665.9	2,183.1	3,622.3	3,520.9	101.42	35.715	
12,106.3	6,780.9	6,749.1	6,748.1	100.9	2.0	-88.61	-1,665.9	2,183.1	3,628.2	3,526.7	101.54	35.731	
12,200.0	6,780.1	6,748.0	6,747.0	102.7	2.0	-88.55	-1,666.0	2,183.1	3,716.4	3,613.1	103.32	35.969	
12,204.7	6,780.0	6,747.9	6,746.9	102.7	2.0	-88.55	-1,666.0	2,183.1	3,720.8	3,617.4	103.41	35.980	
12,300.0	6,779.2	6,746.8	6,745.8	104.5	2.0	-88.50	-1,666.0	2,183.1	3,810.8	3,705.6	105.22	36.216	
12,303.1	6,779.2	6,746.8	6,745.7	104.6	2.0	-88.50	-1,666.0	2,183.1	3,813.7	3,708.4	105.28	36.224	
12,400.0	6,778.4	6,745.6	6,744.6	106.4	2.0	-88.44	-1,666.0	2,183.1	3,905.4	3,798.3	107.12	36.457	
12,401.5	6,778.4	6,745.6	6,744.6	106.4	2.0	-88.44	-1,666.0	2,183.1	3,906.9	3,799.8	107.15	36.461	
12,500.0	6,777.6	6,744.5	6,743.4	108.3	2.0	-88.39	-1,666.0	2,183.1	4,000.4	3,891.3	109.02	36.692	
12,598.4	6,776.7	6,743.3	6,742.3	110.2	2.0	-88.34	-1,666.0	2,183.2	4,094.0	3,983.1	110.90	36.917	
12,600.0	6,776.7	6,743.3	6,742.3	110.2	2.0	-88.34	-1,666.0	2,183.2	4,095.5	3,984.6	110.93	36.921	
12,696.8	6,775.9	6,742.2	6,741.2	112.0	2.0	-88.28	-1,666.0	2,183.2	4,187.9	4,075.1	112.77	37.137	
12,700.0	6,775.9	6,742.2	6,741.1	112.1	2.0	-88.28	-1,666.0	2,183.2	4,190.9	4,078.1	112.83	37.144	
12,795.2	6,775.1	6,741.1	6,740.0	113.9	2.0	-88.23	-1,666.0	2,183.2	4,282.0	4,167.3	114.64	37.351	
12,800.0	6,775.0	6,741.0	6,740.0	114.0	2.0	-88.23	-1,666.0	2,183.2	4,286.5	4,171.8	114.73	37.361	
12,893.7	6,774.3	6,740.0	6,738.9	115.7	2.0	-88.18	-1,666.0	2,183.2	4,376.2	4,259.7	116.51	37.560	
12,900.0	6,774.2	6,739.9	6,738.8	115.8	2.0	-88.18	-1,666.0	2,183.2	4,382.3	4,265.7	116.63	37.573	
12,992.1	6,773.4	6,738.9	6,737.8	117.6	2.0	-88.13	-1,666.0	2,183.2	4,470.7	4,352.3	118.39	37.763	
13,000.0	6,773.4	6,738.8	6,737.7	117.7	2.0	-88.12	-1,666.0	2,183.2	4,478.3	4,359.7	118.54	37.779	
13,090.5	6,772.6	6,737.8	6,736.7	119.4	2.0	-88.08	-1,666.0	2,183.2	4,565.3	4,445.0	120.26	37.961	
13,100.0	6,772.5	6,737.6	6,736.6	119.6	2.0	-88.07	-1,666.0	2,183.2	4,574.4	4,454.0	120.44	37.980	
13,188.9	6,771.8	6,736.7	6,735.6	121.3	2.0	-88.03	-1,666.0	2,183.3	4,660.1	4,537.9	122.14	38.155	
13,200.0	6,771.7	6,736.5	6,735.5	121.5	2.0	-88.02	-1,666.0	2,183.3	4,670.7	4,548.4	122.35	38.176	
13,287.4	6,771.0	6,735.6	6,734.5	123.2	2.0	-87.98	-1,666.0	2,183.3	4,755.0	4,631.0	124.01	38.343	
13,300.0	6,770.9	6,735.4	6,734.4	123.4	2.0	-87.97	-1,666.0	2,183.3	4,767.2	4,642.9	124.25	38.367	
13,385.8	6,770.1	6,734.5	6,733.5	125.0	2.0	-87.93	-1,666.0	2,183.3	4,850.1	4,724.2	125.89	38.527	
13,400.0	6,770.0	6,734.4	6,733.3	125.3	2.0	-87.92	-1,666.0	2,183.3	4,863.8	4,737.6	126.16	38.553	
13,484.2	6,769.3	6,733.4	6,732.4	126.9	2.0	-87.88	-1,666.0	2,183.3	4,945.3	4,817.5	127.76	38.707	
13,500.0	6,769.2	6,733.3	6,732.2	127.2	2.0	-87.87	-1,666.0	2,183.3	4,960.5	4,832.5	128.06	38.735	
13,582.6	6,768.5	6,732.4	6,731.4	128.8	2.0	-87.83	-1,666.0	2,183.3	5,040.6	4,910.9	129.64	38.882	
13,600.0	6,768.3	6,732.2	6,731.2	129.1	2.0	-87.82	-1,666.0	2,183.3	5,057.4	4,927.4	129.97	38.912	
13,681.1	6,767.6	6,731.3	6,730.3	130.6	2.0	-87.78	-1,666.0	2,183.3	5,136.0	5,004.5	131.51	39.053	
13,700.0	6,767.5	6,731.1	6,730.1	131.0	2.0	-87.77	-1,666.0	2,183.3	5,154.4	5,022.5	131.88	39.085	
13,779.5	6,766.8	6,730.3	6,729.3	132.5	2.0	-87.73	-1,666.1	2,183.4	5,231.6	5,098.2	133.39	39.220	
13,800.0	6,766.6	6,730.1	6,729.0	132.9	2.0	-87.72	-1,666.1	2,183.4	5,251.5	5,117.7	133.78	39.254	
13,877.9	6,766.0	6,729.3	6,728.2	134.4	2.0	-87.68	-1,666.1	2,183.4	5,327.2	5,191.9	135.27	39.383	
13,900.0	6,765.8	6,729.0	6,728.0	134.8	2.0	-87.67	-1,666.1	2,183.4	5,348.7	5,213.0	135.69	39.419	
13,976.3	6,765.2	6,728.2	6,727.2	136.2	2.0	-87.63	-1,666.1	2,183.4	5,423.0	5,285.8	137.14	39.542	
13,995.7	6,765.0	6,728.0	6,727.0	136.6	2.0	-87.62	-1,666.1	2,183.4	5,441.8	5,304.2	137.51	39.573	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 25-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	174.50	-6,983.5	672.2	7,016.1				
98.4	98.4	45.6	45.6	0.1	0.0	174.50	-6,983.4	672.1	7,015.7	7,015.6	0.09	N/A	
100.0	100.0	47.0	47.0	0.1	0.0	174.50	-6,983.4	672.1	7,015.7	7,015.6	0.09	N/A	
196.8	196.8	135.7	135.7	0.3	0.1	174.50	-6,983.2	672.3	7,015.5	7,015.1	0.39	N/A	
200.0	200.0	138.7	138.7	0.3	0.1	174.50	-6,983.2	672.3	7,015.5	7,015.1	0.40	N/A	
295.3	295.3	231.7	231.7	0.5	0.2	174.50	-6,983.1	672.5	7,015.4	7,014.7	0.76	9,223.649	
300.0	300.0	236.6	236.6	0.5	0.2	174.50	-6,983.1	672.5	7,015.4	7,014.6	0.77	9,052.694	
393.7	393.7	331.7	331.7	0.7	0.3	174.50	-6,983.0	672.6	7,015.3	7,014.2	1.05	6,651.146	
400.0	400.0	338.0	338.0	0.8	0.3	174.50	-6,983.0	672.6	7,015.3	7,014.2	1.07	6,538.547	
492.1	492.1	430.7	430.7	1.0	0.4	174.50	-6,982.8	672.7	7,015.2	7,013.8	1.34	5,243.972	
500.0	500.0	438.7	438.7	1.0	0.4	174.50	-6,982.8	672.7	7,015.2	7,013.8	1.36	5,157.167	
590.5	590.5	530.1	530.1	1.2	0.4	174.50	-6,982.7	672.9	7,015.0	7,013.4	1.61	4,343.703	
600.0	600.0	539.4	539.4	1.2	0.4	174.50	-6,982.7	672.9	7,015.0	7,013.4	1.64	4,275.537	
689.0	689.0	627.1	627.1	1.4	0.5	174.50	-6,982.5	672.9	7,014.9	7,013.0	1.88	3,726.354	
700.0	700.0	638.1	638.1	1.4	0.5	174.50	-6,982.5	672.9	7,014.9	7,013.0	1.91	3,668.286	
787.4	787.4	724.5	724.5	1.6	0.5	174.49	-6,982.4	673.0	7,014.8	7,012.6	2.14	3,272.597	
800.0	800.0	736.6	736.6	1.7	0.5	174.49	-6,982.4	673.0	7,014.7	7,012.6	2.18	3,225.075	
885.8	885.8	819.4	819.4	1.9	0.6	174.50	-6,982.3	672.9	7,014.7	7,012.3	2.39	2,932.526	
900.0	900.0	833.2	833.2	1.9	0.6	174.50	-6,982.3	672.9	7,014.7	7,012.2	2.43	2,888.051	
984.2	984.2	914.1	914.1	2.1	0.6	174.50	-6,982.3	672.8	7,014.6	7,012.0	2.65	2,650.843	
992.0	992.0	921.0	921.0	2.1	0.6	174.50	-6,982.3	672.8	7,014.6	7,012.0	2.67	2,631.641	
1,000.0	1,000.0	928.1	928.1	2.1	0.6	174.50	-6,982.3	672.8	7,014.6	7,011.9	2.69	2,611.881	
1,082.7	1,082.7	1,001.7	1,001.7	2.3	0.6	174.50	-6,982.4	672.7	7,014.7	7,011.8	2.89	2,424.927	
1,100.0	1,100.0	1,018.4	1,018.4	2.3	0.6	174.50	-6,982.4	672.7	7,014.7	7,011.8	2.94	2,387.825	
1,181.1	1,181.1	1,096.8	1,096.8	2.5	0.7	174.50	-6,982.5	672.4	7,014.9	7,011.7	3.15	2,228.577	
1,200.0	1,200.0	1,112.6	1,112.6	2.6	0.7	174.50	-6,982.6	672.3	7,014.9	7,011.7	3.20	2,194.915	
1,279.5	1,279.5	1,176.7	1,176.7	2.7	0.7	174.50	-6,982.8	671.9	7,015.2	7,011.8	3.40	2,065.053	
1,300.0	1,300.0	1,200.0	1,200.0	2.8	0.7	174.51	-6,983.0	671.7	7,015.3	7,011.8	3.45	2,032.771	
1,377.9	1,377.9	1,260.3	1,260.3	3.0	0.7	174.51	-6,983.4	671.0	7,015.7	7,012.1	3.65	1,923.762	
1,400.0	1,400.0	1,279.4	1,279.4	3.0	0.7	174.51	-6,983.6	670.7	7,015.9	7,012.2	3.70	1,894.632	
1,476.4	1,476.4	1,353.6	1,353.5	3.2	0.7	174.52	-6,984.2	669.6	7,016.4	7,012.5	3.90	1,799.190	
1,500.0	1,500.0	1,377.6	1,377.6	3.2	0.7	174.53	-6,984.4	669.2	7,016.6	7,012.7	3.96	1,771.447	
1,574.8	1,574.8	1,459.0	1,459.0	3.4	0.8	174.54	-6,985.1	667.8	7,017.1	7,013.0	4.16	1,688.472	
1,600.0	1,600.0	1,487.2	1,487.1	3.5	0.8	174.54	-6,985.4	667.3	7,017.3	7,013.1	4.22	1,662.168	
1,673.2	1,673.2	1,575.2	1,575.2	3.6	0.8	174.56	-6,985.9	665.9	7,017.7	7,013.2	4.41	1,589.540	
1,700.0	1,700.0	1,608.0	1,608.0	3.7	0.8	174.56	-6,986.1	665.4	7,017.7	7,013.3	4.49	1,564.479	
1,771.6	1,771.6	1,697.1	1,697.0	3.8	0.8	174.57	-6,986.4	664.2	7,017.9	7,013.2	4.68	1,501.008	
1,800.0	1,800.0	1,734.3	1,734.2	3.9	0.8	174.57	-6,986.4	663.7	7,017.9	7,013.1	4.75	1,477.140	
1,870.1	1,870.1	1,820.2	1,820.1	4.1	0.9	174.58	-6,986.3	662.9	7,017.7	7,012.8	4.94	1,421.814	
1,900.0	1,900.0	1,850.1	1,850.0	4.1	0.9	174.58	-6,986.2	662.8	7,017.6	7,012.6	5.01	1,400.038	
1,968.5	1,968.5	1,916.0	1,915.9	4.3	0.9	174.58	-6,986.1	662.5	7,017.4	7,012.2	5.19	1,352.790	
2,000.0	2,000.0	1,943.1	1,943.1	4.4	0.9	174.58	-6,986.0	662.4	7,017.4	7,012.1	5.27	1,332.340	
2,066.9	2,066.9	2,000.0	1,999.9	4.5	0.9	174.58	-6,985.9	662.3	7,017.3	7,011.8	5.44	1,290.946	
2,073.3	2,073.3	2,000.0	1,999.9	4.5	0.9	174.58	-6,985.9	662.3	7,017.3	7,011.8	5.45	1,287.557	
2,100.0	2,100.0	2,020.8	2,020.7	4.6	0.9	174.58	-6,985.9	662.3	7,017.3	7,011.8	5.51	1,273.238	
2,165.3	2,165.3	2,060.7	2,060.6	4.7	0.9	106.16	-6,986.1	662.3	7,017.7	7,012.0	5.62	1,247.605	
2,200.0	2,200.0	2,100.0	2,099.9	4.8	0.9	106.16	-6,986.3	662.4	7,018.2	7,012.5	5.70	1,230.957	
2,263.8	2,263.7	2,126.0	2,125.9	4.9	0.9	106.14	-6,986.5	662.4	7,019.5	7,013.7	5.84	1,201.546	
2,300.0	2,299.8	2,153.8	2,153.7	5.0	0.9	106.14	-6,986.8	662.5	7,020.5	7,014.6	5.92	1,184.949	
2,362.2	2,361.8	2,200.0	2,199.9	5.1	1.0	106.13	-6,987.3	662.7	7,022.6	7,016.6	6.07	1,156.711	
2,400.0	2,399.5	2,232.6	2,232.5	5.2	1.0	106.12	-6,987.8	662.8	7,024.2	7,018.0	6.16	1,140.087	
2,460.6	2,459.7	2,282.4	2,282.3	5.4	1.0	106.11	-6,988.5	662.8	7,027.0	7,020.7	6.31	1,113.305	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 25-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,500.0	2,498.7	2,319.3	2,319.2	5.5	1.0	106.11	-6,989.1	662.8	7,029.1	7,022.7	6.41	1,096.397	
2,559.0	2,557.1	2,382.6	2,382.4	5.6	1.0	106.12	-6,990.0	662.8	7,032.4	7,025.9	6.57	1,070.094	
2,600.0	2,597.5	2,426.8	2,426.7	5.7	1.0	106.13	-6,990.7	662.7	7,035.0	7,028.3	6.68	1,052.572	
2,657.5	2,654.0	2,489.2	2,489.0	5.9	1.0	106.15	-6,991.5	662.6	7,038.7	7,031.9	6.85	1,026.883	
2,700.0	2,695.6	2,536.0	2,535.8	6.0	1.0	106.17	-6,992.2	662.6	7,041.7	7,034.7	6.98	1,008.665	
2,755.9	2,750.2	2,597.5	2,597.4	6.2	1.0	106.19	-6,992.9	662.4	7,045.9	7,038.7	7.17	983.300	
2,800.0	2,793.1	2,650.2	2,650.1	6.3	1.1	106.22	-6,993.5	662.3	7,049.3	7,042.0	7.31	963.983	
2,854.3	2,845.6	2,712.2	2,712.1	6.5	1.1	106.26	-6,994.1	662.2	7,053.8	7,046.3	7.51	938.687	
2,900.0	2,889.6	2,756.1	2,755.9	6.6	1.1	106.28	-6,994.5	662.2	7,057.8	7,050.1	7.68	918.607	
2,952.7	2,940.2	2,806.7	2,806.5	6.8	1.1	106.30	-6,994.9	662.2	7,062.6	7,054.7	7.90	893.684	
3,000.0	2,985.3	2,852.8	2,852.7	7.0	1.1	106.32	-6,995.3	662.2	7,067.2	7,059.1	8.10	872.395	
3,016.9	3,001.4	2,869.3	2,869.2	7.1	1.1	106.32	-6,995.5	662.2	7,068.9	7,060.8	8.18	864.466	
3,051.2	3,033.9	2,902.5	2,902.4	7.3	1.1	106.41	-6,995.8	662.3	7,072.4	7,064.1	8.34	848.381	
3,100.0	3,080.2	2,948.9	2,948.7	7.5	1.1	106.52	-6,996.2	662.3	7,077.4	7,068.9	8.56	826.447	
3,149.6	3,127.3	2,995.9	2,995.8	7.7	1.1	106.63	-6,996.6	662.3	7,082.5	7,073.7	8.81	804.240	
3,200.0	3,175.1	3,041.2	3,041.0	8.0	1.1	106.75	-6,997.0	662.4	7,087.8	7,078.7	9.05	782.904	
3,248.0	3,220.7	3,084.0	3,083.9	8.2	1.2	106.85	-6,997.3	662.4	7,092.8	7,083.5	9.30	762.766	
3,300.0	3,270.0	3,132.5	3,132.3	8.5	1.2	106.97	-6,997.8	662.5	7,098.3	7,088.7	9.57	742.098	
3,346.4	3,314.1	3,176.8	3,176.6	8.7	1.2	107.08	-6,998.2	662.6	7,103.2	7,093.4	9.81	723.934	
3,400.0	3,365.0	3,228.4	3,228.3	9.0	1.2	107.20	-6,998.7	662.8	7,109.0	7,098.9	10.10	704.080	
3,444.9	3,407.6	3,272.1	3,271.9	9.2	1.2	107.31	-6,999.1	663.0	7,113.8	7,103.4	10.34	687.818	
3,500.0	3,459.9	3,322.8	3,322.6	9.5	1.2	107.43	-6,999.5	663.1	7,119.7	7,109.1	10.64	668.910	
3,543.3	3,501.0	3,360.2	3,360.0	9.8	1.2	107.52	-6,999.9	663.3	7,124.5	7,113.6	10.89	654.487	
3,600.0	3,554.8	3,410.4	3,410.2	10.1	1.2	107.64	-7,000.4	663.4	7,130.7	7,119.5	11.20	636.536	
3,641.7	3,594.4	3,451.1	3,450.9	10.3	1.2	107.74	-7,000.8	663.6	7,135.3	7,123.9	11.44	623.663	
3,700.0	3,649.7	3,506.9	3,506.7	10.7	1.3	107.87	-7,001.3	663.8	7,141.8	7,130.0	11.77	606.580	
3,740.1	3,687.8	3,540.9	3,540.7	10.9	1.3	107.95	-7,001.7	663.9	7,146.3	7,134.3	12.01	595.230	
3,800.0	3,744.7	3,591.5	3,591.3	11.2	1.3	108.07	-7,002.2	664.1	7,153.1	7,140.8	12.35	579.117	
3,838.6	3,781.3	3,626.6	3,626.4	11.5	1.3	108.16	-7,002.6	664.2	7,157.5	7,145.0	12.58	569.040	
3,900.0	3,839.6	3,683.6	3,683.5	11.8	1.3	108.29	-7,003.3	664.4	7,164.6	7,151.7	12.94	553.720	
3,937.0	3,874.7	3,717.3	3,717.1	12.1	1.3	108.37	-7,003.7	664.4	7,168.9	7,155.8	13.16	544.803	
4,000.0	3,934.5	3,773.3	3,773.1	12.4	1.3	108.51	-7,004.4	664.6	7,176.3	7,162.8	13.53	530.308	
4,035.4	3,968.1	3,805.6	3,805.4	12.6	1.3	108.58	-7,004.8	664.6	7,180.5	7,166.7	13.74	522.425	
4,100.0	4,029.4	3,871.1	3,870.9	13.0	1.4	108.74	-7,005.6	664.7	7,188.1	7,174.0	14.13	508.628	
4,133.8	4,061.5	3,905.1	3,904.9	13.2	1.4	108.82	-7,006.0	664.6	7,192.2	7,177.8	14.34	501.643	
4,200.0	4,124.3	3,967.7	3,967.5	13.6	1.4	108.97	-7,006.8	664.4	7,200.0	7,185.3	14.74	488.603	
4,232.3	4,155.0	3,998.3	3,998.1	13.8	1.4	109.05	-7,007.1	664.3	7,203.9	7,189.0	14.93	482.453	
4,300.0	4,219.3	4,104.4	4,104.2	14.2	1.4	109.30	-7,008.1	663.6	7,211.9	7,196.5	15.35	469.924	
4,330.7	4,248.4	4,136.0	4,135.8	14.4	1.4	109.38	-7,008.3	663.3	7,215.4	7,199.9	15.53	464.530	
4,400.0	4,314.2	4,207.5	4,207.3	14.9	1.4	109.56	-7,008.7	662.7	7,223.4	7,207.4	15.95	452.826	
4,429.1	4,341.8	4,238.2	4,237.9	15.0	1.4	109.63	-7,008.9	662.5	7,226.8	7,210.6	16.13	448.063	
4,500.0	4,409.1	4,309.7	4,309.4	15.5	1.5	109.80	-7,009.2	661.9	7,234.9	7,218.4	16.56	436.916	
4,527.5	4,435.3	4,331.7	4,331.4	15.7	1.5	109.86	-7,009.3	661.8	7,238.1	7,221.4	16.73	432.731	
4,600.0	4,504.0	4,389.5	4,389.3	16.1	1.5	110.00	-7,009.6	661.5	7,246.7	7,229.5	17.17	422.131	
4,626.0	4,528.7	4,415.7	4,415.5	16.3	1.5	110.06	-7,009.7	661.3	7,249.8	7,232.4	17.33	418.434	
4,700.0	4,598.9	4,504.8	4,504.5	16.7	1.5	110.27	-7,010.1	660.8	7,258.5	7,240.7	17.78	408.238	
4,724.4	4,622.1	4,529.9	4,529.7	16.9	1.5	110.33	-7,010.2	660.6	7,261.4	7,243.4	17.93	405.010	
4,800.0	4,693.9	4,607.9	4,607.7	17.4	1.5	110.52	-7,010.4	659.9	7,270.3	7,251.9	18.39	395.355	
4,822.8	4,715.5	4,632.1	4,631.9	17.5	1.6	110.58	-7,010.4	659.7	7,272.9	7,254.4	18.53	392.532	
4,900.0	4,788.8	4,711.6	4,711.4	18.0	1.6	110.77	-7,010.5	659.0	7,282.0	7,263.0	19.00	383.305	
4,921.2	4,809.0	4,730.5	4,730.2	18.1	1.6	110.81	-7,010.6	658.9	7,284.5	7,265.4	19.13	380.842	
5,000.0	4,883.7	4,800.5	4,800.3	18.6	1.6	110.98	-7,010.7	658.4	7,293.9	7,274.3	19.61	372.010	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 25-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,019.7	4,902.4	4,823.0	4,822.7	18.7	1.6	111.03	-7,010.7	658.2	7,296.2	7,276.5	19.73	369.867		
5,100.0	4,978.6	4,912.6	4,912.3	19.3	1.6	111.25	-7,010.7	657.6	7,305.8	7,285.6	20.22	361.397		
5,118.1	4,995.8	4,930.3	4,930.0	19.4	1.6	111.29	-7,010.7	657.4	7,307.9	7,287.6	20.33	359.549		
5,200.0	5,073.6	5,009.5	5,009.2	19.9	1.6	111.48	-7,010.6	656.8	7,317.7	7,296.9	20.82	351.439		
5,216.5	5,089.2	5,024.1	5,023.9	20.0	1.6	111.51	-7,010.6	656.7	7,319.7	7,298.7	20.92	349.846		
5,304.2	5,172.4	5,102.1	5,101.9	20.6	1.7	111.70	-7,010.5	656.0	7,330.2	7,308.8	21.45	341.656		
5,314.9	5,182.7	5,112.0	5,111.7	20.6	1.7	111.74	-7,010.5	655.9	7,331.5	7,310.0	21.51	340.875		
5,400.0	5,263.9	5,190.0	5,189.8	21.1	1.7	112.10	-7,010.5	655.3	7,341.4	7,319.4	21.93	334.827		
5,413.4	5,276.7	5,200.0	5,199.7	21.1	1.7	112.15	-7,010.5	655.2	7,342.8	7,320.9	21.98	334.111		
5,500.0	5,360.3	5,274.1	5,273.9	21.5	1.7	112.46	-7,010.6	654.6	7,351.9	7,329.6	22.31	329.511		
5,511.8	5,371.7	5,284.0	5,283.7	21.6	1.7	112.50	-7,010.6	654.5	7,353.1	7,330.7	22.35	328.959		
5,600.0	5,457.5	5,378.3	5,378.0	21.9	1.7	112.82	-7,010.8	653.7	7,361.2	7,338.6	22.66	324.854		
5,610.2	5,467.5	5,389.9	5,389.6	21.9	1.7	112.85	-7,010.8	653.6	7,362.1	7,339.4	22.69	324.438		
5,700.0	5,555.6	5,478.8	5,478.5	22.3	1.8	113.11	-7,010.9	652.9	7,369.2	7,346.2	22.97	320.828		
5,708.6	5,564.1	5,487.2	5,486.9	22.3	1.8	113.14	-7,010.9	652.9	7,369.8	7,346.8	22.99	320.529		
5,800.0	5,654.2	5,574.7	5,574.4	22.6	1.8	113.35	-7,010.9	652.2	7,375.8	7,352.6	23.24	317.365		
5,807.1	5,661.2	5,581.5	5,581.2	22.6	1.8	113.37	-7,010.9	652.1	7,376.2	7,353.0	23.26	317.158		
5,900.0	5,753.4	5,685.6	5,685.3	22.8	1.8	113.56	-7,011.0	651.4	7,381.1	7,357.6	23.48	314.417		
5,905.5	5,758.8	5,692.0	5,691.7	22.8	1.8	113.57	-7,011.0	651.4	7,381.3	7,357.8	23.49	314.282		
6,000.0	5,852.9	5,804.3	5,804.0	23.1	1.8	113.71	-7,010.8	650.8	7,384.7	7,361.0	23.67	311.993		
6,003.9	5,856.8	5,808.4	5,808.1	23.1	1.8	113.71	-7,010.7	650.8	7,384.8	7,361.1	23.68	311.918		
6,100.0	5,952.7	5,909.7	5,909.4	23.2	1.8	113.80	-7,010.4	650.4	7,386.8	7,362.9	23.83	310.023		
6,102.3	5,955.1	5,912.1	5,911.9	23.2	1.8	113.80	-7,010.4	650.4	7,386.8	7,363.0	23.83	309.988		
6,200.0	6,052.7	6,014.9	6,014.6	23.4	1.9	113.83	-7,009.9	650.1	7,387.4	7,363.4	23.95	308.444		
6,200.8	6,053.5	6,015.7	6,015.4	23.4	1.9	113.83	-7,009.9	650.1	7,387.4	7,363.4	23.95	308.434		
6,221.1	6,073.8	6,036.4	6,036.1	23.4	1.9	-177.75	-7,009.8	650.0	7,387.3	7,363.3	23.97	308.164		
6,251.1	6,103.8	6,067.0	6,066.7	23.4	1.9	-177.75	-7,009.7	650.0	7,387.2	7,363.2	24.01	307.698		
6,299.2	6,151.8	6,100.0	6,099.7	23.5	1.9	2.25	-7,009.5	649.9	7,385.3	7,361.3	24.01	307.559		
6,300.0	6,152.6	6,112.4	6,112.1	23.5	1.9	2.26	-7,009.5	649.9	7,385.3	7,361.3	24.01	307.549		
6,350.0	6,202.4	6,150.0	6,149.7	23.5	1.9	2.27	-7,009.4	649.9	7,380.0	7,356.0	24.01	307.397		
6,397.6	6,249.3	6,185.4	6,185.1	23.5	1.9	2.30	-7,009.3	649.9	7,371.8	7,347.8	23.98	307.363		
6,400.0	6,251.6	6,187.2	6,186.9	23.5	1.9	2.30	-7,009.3	649.9	7,371.3	7,347.3	23.98	307.368		
6,450.0	6,300.1	6,230.7	6,230.4	23.5	1.9	2.35	-7,009.3	649.9	7,359.3	7,335.3	23.92	307.676		
6,496.0	6,344.0	6,273.3	6,273.1	23.5	1.9	2.40	-7,009.3	649.9	7,345.2	7,321.4	23.81	308.436		
6,500.0	6,347.7	6,277.0	6,276.7	23.5	1.9	2.41	-7,009.3	649.9	7,343.9	7,320.1	23.80	308.528		
6,550.0	6,394.1	6,325.3	6,325.0	23.5	1.9	2.48	-7,009.3	649.8	7,325.2	7,301.6	23.62	310.072		
6,594.5	6,434.2	6,370.0	6,369.7	23.4	1.9	2.56	-7,009.2	649.8	7,306.0	7,282.6	23.41	312.101		
6,600.0	6,439.0	6,375.4	6,375.1	23.4	1.9	2.58	-7,009.2	649.8	7,303.4	7,280.0	23.38	312.401		
6,650.0	6,482.4	6,422.2	6,421.9	23.4	1.9	2.69	-7,009.2	649.9	7,278.4	7,255.4	23.06	315.631		
6,692.9	6,518.1	6,459.5	6,459.2	23.3	1.9	2.81	-7,009.1	649.9	7,254.6	7,231.9	22.73	319.183		
6,700.0	6,523.9	6,465.5	6,465.2	23.3	1.9	2.83	-7,009.1	649.9	7,250.5	7,227.8	22.67	319.846		
6,750.0	6,563.3	6,505.9	6,505.6	23.3	1.9	3.00	-7,009.0	650.0	7,219.7	7,197.5	22.21	325.115		
6,791.3	6,594.2	6,534.7	6,534.4	23.2	1.9	3.17	-7,009.0	650.0	7,192.3	7,170.5	21.77	330.336		
6,800.0	6,600.5	6,540.6	6,540.3	23.2	1.9	3.21	-7,009.0	650.0	7,186.3	7,164.6	21.68	331.538		
6,850.0	6,635.3	6,573.0	6,572.7	23.2	1.9	3.47	-7,009.0	650.1	7,150.4	7,129.3	21.09	339.117		
6,889.7	6,661.1	6,600.0	6,599.7	23.1	1.9	3.71	-7,008.9	650.2	7,120.2	7,099.6	20.58	345.904		
6,900.0	6,667.5	6,603.4	6,603.1	23.1	1.9	3.78	-7,008.9	650.2	7,112.1	7,091.7	20.45	347.857		
6,950.0	6,696.9	6,634.7	6,634.5	23.1	1.9	4.19	-7,008.9	650.2	7,071.7	7,052.0	19.77	357.642		
6,988.2	6,717.5	6,656.6	6,656.3	23.1	1.9	4.58	-7,008.9	650.3	7,039.6	7,020.3	19.24	365.789		
7,000.0	6,723.5	6,663.0	6,662.7	23.1	1.9	4.71	-7,008.9	650.3	7,029.4	7,010.3	19.08	368.459		
7,050.0	6,747.0	6,688.0	6,687.7	23.1	1.9	5.41	-7,008.8	650.3	6,985.3	6,966.9	18.38	380.095		
7,086.6	6,762.3	6,700.0	6,699.7	23.1	1.9	6.06	-7,008.8	650.4	6,952.0	6,934.2	17.87	389.038		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 25-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,100.0	6,767.4	6,708.1	6,707.8	23.1	1.9	6.36	-7,008.8	650.4	6,939.7	6,922.0	17.69	392.229	
7,150.0	6,784.6	6,723.5	6,723.2	23.1	1.9	7.74	-7,008.8	650.4	6,892.7	6,875.7	17.05	404.320	
7,185.0	6,794.7	6,732.5	6,732.2	23.1	1.9	9.14	-7,008.8	650.4	6,859.2	6,842.6	16.63	412.360	
7,200.0	6,798.5	6,735.8	6,735.6	23.2	1.9	9.91	-7,008.8	650.4	6,844.7	6,828.3	16.47	415.590	
7,250.0	6,808.9	6,745.2	6,744.9	23.2	1.9	13.75	-7,008.7	650.5	6,795.9	6,779.9	15.99	424.954	
7,283.4	6,814.0	6,749.8	6,749.5	23.3	1.9	18.49	-7,008.7	650.5	6,762.8	6,747.1	15.79	428.289	
7,300.0	6,816.0	7,300.0	6,751.2	23.4	1.9	22.21	-7,008.8	650.5	6,746.4	6,729.8	16.66	405.048	
7,350.0	6,819.5	6,754.7	6,754.4	23.5	1.9	50.55	-7,008.7	650.5	6,696.6	6,679.0	17.56	381.431	
7,381.9	6,820.0	6,755.1	6,754.8	23.7	1.9	101.59	-7,008.7	650.5	6,664.8	6,644.3	20.50	325.101	
7,382.0	6,820.0	6,755.1	6,754.8	23.7	1.9	101.80	-7,008.7	650.5	6,664.6	6,644.1	20.52	324.796	
7,400.0	6,819.8	6,754.9	6,754.6	23.8	1.9	101.77	-7,008.7	650.5	6,646.7	6,626.0	20.67	321.534	
7,480.3	6,819.2	6,754.3	6,754.0	24.2	1.9	101.65	-7,008.7	650.5	6,566.4	6,545.0	21.42	306.557	
7,500.0	6,819.0	6,754.1	6,753.8	24.3	1.9	101.62	-7,008.7	650.5	6,546.8	6,525.2	21.60	303.034	
7,578.7	6,818.4	6,753.5	6,753.2	24.9	1.9	101.50	-7,008.7	650.5	6,468.1	6,445.7	22.44	288.220	
7,600.0	6,818.2	6,753.3	6,753.0	25.0	1.9	101.47	-7,008.7	650.5	6,446.9	6,424.2	22.67	284.398	
7,677.1	6,817.6	6,752.7	6,752.4	25.7	1.9	101.35	-7,008.7	650.5	6,369.8	6,346.2	23.58	270.179	
7,700.0	6,817.4	6,752.5	6,752.2	25.9	1.9	101.32	-7,008.7	650.5	6,347.0	6,323.1	23.85	266.169	
7,775.6	6,816.7	6,751.9	6,751.6	26.6	1.9	101.20	-7,008.7	650.5	6,271.5	6,246.7	24.81	252.810	
7,800.0	6,816.5	6,751.7	6,751.4	26.9	1.9	101.17	-7,008.7	650.5	6,247.1	6,222.0	25.12	248.706	
7,874.0	6,815.9	6,751.0	6,750.8	27.7	1.9	101.05	-7,008.7	650.5	6,173.2	6,147.0	26.12	236.343	
7,900.0	6,815.7	6,750.8	6,750.6	28.0	1.9	101.01	-7,008.7	650.5	6,147.2	6,120.7	26.47	232.216	
7,972.4	6,815.1	6,750.2	6,750.0	28.9	1.9	100.90	-7,008.7	650.5	6,074.8	6,047.3	27.50	220.896	
8,000.0	6,814.9	6,750.0	6,749.7	29.2	1.9	100.86	-7,008.7	650.5	6,047.3	6,019.4	27.89	216.800	
8,070.8	6,814.3	6,749.4	6,749.1	30.1	1.9	100.75	-7,008.7	650.5	5,976.5	5,947.6	28.94	206.507	
8,100.0	6,814.1	6,749.2	6,748.9	30.5	1.9	100.70	-7,008.7	650.5	5,947.4	5,918.1	29.37	202.481	
8,169.3	6,813.5	6,748.6	6,748.3	31.5	1.9	100.59	-7,008.7	650.5	5,878.2	5,847.8	30.43	193.166	
8,200.0	6,813.3	6,748.3	6,748.1	31.9	1.9	100.55	-7,008.7	650.5	5,847.5	5,816.6	30.90	189.234	
8,267.7	6,812.7	6,747.8	6,747.5	32.9	1.9	100.44	-7,008.7	650.5	5,779.9	5,748.0	31.96	180.829	
8,300.0	6,812.4	6,747.5	6,747.2	33.3	1.9	100.39	-7,008.7	650.5	5,747.7	5,715.2	32.47	177.009	
8,366.1	6,811.9	6,747.0	6,746.7	34.3	1.9	100.29	-7,008.7	650.5	5,681.6	5,648.1	33.53	169.436	
8,400.0	6,811.6	6,746.7	6,746.4	34.8	1.9	100.24	-7,008.7	650.5	5,647.8	5,613.7	34.08	165.736	
8,464.5	6,811.1	6,746.1	6,745.9	35.8	1.9	100.13	-7,008.7	650.5	5,583.3	5,548.2	35.13	158.919	
8,500.0	6,810.8	6,745.8	6,745.6	36.3	1.9	100.08	-7,008.7	650.5	5,547.9	5,512.2	35.71	155.344	
8,563.0	6,810.3	6,745.3	6,745.0	37.3	1.9	99.98	-7,008.7	650.5	5,485.1	5,448.3	36.76	149.208	
8,600.0	6,810.0	6,745.0	6,744.7	37.9	1.9	99.92	-7,008.7	650.5	5,448.1	5,410.7	37.38	145.759	
8,661.4	6,809.5	6,744.5	6,744.2	38.9	1.9	99.82	-7,008.7	650.5	5,386.8	5,348.4	38.41	140.234	
8,700.0	6,809.1	6,744.2	6,743.9	39.5	1.9	99.76	-7,008.7	650.5	5,348.2	5,309.2	39.06	136.909	
8,759.8	6,808.6	6,743.6	6,743.4	40.5	1.9	99.67	-7,008.7	650.5	5,288.5	5,248.4	40.09	131.932	
8,800.0	6,808.3	6,743.3	6,743.0	41.1	1.9	99.60	-7,008.7	650.5	5,248.4	5,207.6	40.77	128.727	
8,858.2	6,807.8	6,742.8	6,742.5	42.1	1.9	99.51	-7,008.7	650.5	5,190.2	5,148.5	41.78	124.239	
8,900.0	6,807.5	6,742.5	6,742.2	42.8	1.9	99.44	-7,008.7	650.5	5,148.6	5,106.1	42.50	121.152	
8,956.7	6,807.0	6,742.0	6,741.7	43.7	1.9	99.35	-7,008.7	650.5	5,092.0	5,048.5	43.48	117.102	
9,000.0	6,806.7	6,741.6	6,741.3	44.4	1.9	99.28	-7,008.7	650.5	5,048.7	5,004.5	44.24	114.126	
9,055.1	6,806.2	6,741.1	6,740.9	45.4	1.9	99.19	-7,008.7	650.5	4,993.7	4,948.5	45.20	110.469	
9,100.0	6,805.8	6,740.7	6,740.5	46.1	1.9	99.12	-7,008.7	650.5	4,948.9	4,902.9	45.99	107.600	
9,153.5	6,805.4	6,740.3	6,740.0	47.0	1.9	99.03	-7,008.7	650.4	4,895.5	4,848.5	46.94	104.293	
9,200.0	6,805.0	6,739.9	6,739.6	47.8	1.9	98.96	-7,008.7	650.4	4,849.1	4,801.3	47.76	101.527	
9,251.9	6,804.6	6,739.4	6,739.2	48.7	1.9	98.87	-7,008.7	650.4	4,797.2	4,748.5	48.69	98.535	
9,300.0	6,804.2	6,739.0	6,738.7	49.6	1.9	98.79	-7,008.7	650.4	4,749.3	4,699.7	49.54	95.866	
9,350.4	6,803.8	6,738.6	6,738.3	50.4	1.9	98.71	-7,008.7	650.4	4,699.0	4,648.5	50.44	93.156	
9,400.0	6,803.4	6,738.2	6,737.9	51.3	1.9	98.63	-7,008.7	650.4	4,649.5	4,598.1	51.33	90.579	
9,448.8	6,802.9	6,737.7	6,737.5	52.1	1.9	98.55	-7,008.7	650.4	4,600.7	4,548.5	52.21	88.123	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 25-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,500.0	6,802.5	6,737.3	6,737.0	53.0	1.9	98.46	-7,008.7	650.4	4,549.7	4,496.5	53.13	85.633	
9,547.2	6,802.1	6,736.9	6,736.6	53.9	1.9	98.38	-7,008.7	650.4	4,502.5	4,448.5	53.98	83.407	
9,600.0	6,801.7	6,736.4	6,736.1	54.8	1.9	98.30	-7,008.7	650.4	4,449.9	4,394.9	54.94	81.000	
9,645.6	6,801.3	6,736.0	6,735.7	55.6	1.9	98.22	-7,008.8	650.4	4,404.3	4,348.5	55.77	78.980	
9,700.0	6,800.9	6,735.5	6,735.3	56.6	1.9	98.13	-7,008.8	650.4	4,350.1	4,293.3	56.75	76.651	
9,744.1	6,800.5	6,735.2	6,734.9	57.4	1.9	98.06	-7,008.8	650.4	4,306.1	4,248.6	57.55	74.817	
9,800.0	6,800.0	6,734.7	6,734.4	58.4	1.9	97.96	-7,008.8	650.4	4,250.3	4,191.7	58.57	72.563	
9,842.5	6,799.7	6,734.3	6,734.0	59.1	1.9	97.89	-7,008.8	650.4	4,207.9	4,148.6	59.35	70.899	
9,900.0	6,799.2	6,733.8	6,733.5	60.2	1.9	97.79	-7,008.8	650.4	4,150.6	4,090.2	60.40	68.715	
9,940.9	6,798.9	6,733.4	6,733.2	60.9	1.9	97.72	-7,008.8	650.4	4,109.7	4,048.6	61.15	67.204	
10,000.0	6,798.4	6,732.9	6,732.6	62.0	1.9	97.62	-7,008.8	650.4	4,050.8	3,988.6	62.24	65.087	
10,039.3	6,798.1	6,732.6	6,732.3	62.7	1.9	97.56	-7,008.8	650.4	4,011.6	3,948.6	62.96	63.715	
10,100.0	6,797.6	6,732.0	6,731.7	63.8	1.9	97.45	-7,008.8	650.4	3,951.1	3,887.0	64.08	61.661	
10,137.8	6,797.2	6,731.7	6,731.4	64.4	1.9	97.39	-7,008.8	650.4	3,913.4	3,848.6	64.77	60.416	
10,200.0	6,796.7	6,731.1	6,730.9	65.6	1.9	97.28	-7,008.8	650.4	3,851.4	3,785.4	65.92	58.423	
10,236.2	6,796.4	6,730.8	6,730.5	66.2	1.9	97.22	-7,008.8	650.4	3,815.3	3,748.7	66.59	57.293	
10,300.0	6,795.9	6,730.2	6,730.0	67.4	1.9	97.11	-7,008.8	650.4	3,751.7	3,683.9	67.77	55.357	
10,334.6	6,795.6	6,729.9	6,729.7	68.0	1.9	97.05	-7,008.8	650.4	3,717.1	3,648.7	68.41	54.333	
10,400.0	6,795.1	6,729.3	6,729.1	69.2	1.9	96.94	-7,008.8	650.4	3,652.0	3,582.3	69.63	52.451	
10,433.0	6,794.8	6,729.0	6,728.8	69.8	1.9	96.88	-7,008.8	650.4	3,619.0	3,548.8	70.24	51.524	
10,500.0	6,794.2	6,728.4	6,728.2	71.0	1.9	96.77	-7,008.8	650.4	3,552.3	3,480.8	71.48	49.693	
10,531.5	6,794.0	6,728.2	6,727.9	71.6	1.9	96.71	-7,008.8	650.4	3,520.9	3,448.9	72.07	48.854	
10,600.0	6,793.4	6,727.5	6,727.3	72.9	1.9	96.59	-7,008.8	650.4	3,452.6	3,379.3	73.35	47.073	
10,629.9	6,793.2	6,727.3	6,727.0	73.4	1.9	96.54	-7,008.8	650.4	3,422.8	3,348.9	73.90	46.315	
10,700.0	6,792.6	6,726.6	6,726.4	74.7	1.9	96.42	-7,008.8	650.4	3,353.0	3,277.8	75.21	44.581	
10,728.3	6,792.3	6,726.4	6,726.1	75.2	1.9	96.37	-7,008.8	650.4	3,324.8	3,249.0	75.74	43.897	
10,800.0	6,791.7	6,725.7	6,725.5	76.6	1.9	96.24	-7,008.8	650.4	3,253.4	3,176.3	77.08	42.208	
10,826.7	6,791.5	6,725.5	6,725.2	77.1	1.9	96.20	-7,008.8	650.4	3,226.8	3,149.2	77.58	41.592	
10,900.0	6,790.9	6,724.8	6,724.5	78.4	1.9	96.07	-7,008.8	650.4	3,153.8	3,074.9	78.95	39.946	
10,925.2	6,790.7	6,724.6	6,724.3	78.9	1.9	96.02	-7,008.8	650.4	3,128.7	3,049.3	79.42	39.393	
11,000.0	6,790.1	6,723.9	6,723.6	80.3	1.9	95.89	-7,008.8	650.4	3,054.3	2,973.4	80.83	37.788	
11,023.6	6,789.9	6,723.7	6,723.4	80.7	1.9	95.85	-7,008.8	650.4	3,030.8	2,949.5	81.27	37.293	
11,100.0	6,789.2	6,723.0	6,722.7	82.1	1.9	95.71	-7,008.8	650.4	2,954.7	2,872.0	82.70	35.727	
11,122.0	6,789.1	6,722.8	6,722.5	82.5	1.9	95.67	-7,008.8	650.4	2,932.8	2,849.7	83.12	35.285	
11,200.0	6,788.4	6,722.1	6,721.8	84.0	1.9	95.53	-7,008.8	650.4	2,855.2	2,770.6	84.58	33.757	
11,220.4	6,788.2	6,721.9	6,721.6	84.3	1.9	95.50	-7,008.8	650.4	2,834.9	2,749.9	84.97	33.364	
11,300.0	6,787.6	6,721.1	6,720.9	85.8	1.9	95.35	-7,008.8	650.4	2,755.8	2,669.3	86.46	31.872	
11,318.9	6,787.4	6,721.0	6,720.7	86.2	1.9	95.32	-7,008.8	650.4	2,737.0	2,650.2	86.82	31.525	
11,400.0	6,786.7	6,720.2	6,719.9	87.7	1.9	95.17	-7,008.8	650.4	2,656.3	2,568.0	88.35	30.067	
11,417.3	6,786.6	6,720.1	6,719.8	88.0	1.9	95.14	-7,008.8	650.4	2,639.1	2,550.5	88.67	29.762	
11,500.0	6,785.9	6,719.3	6,719.0	89.5	1.9	94.99	-7,008.8	650.4	2,557.0	2,466.7	90.23	28.337	
11,515.7	6,785.8	6,719.1	6,718.9	89.8	1.9	94.96	-7,008.8	650.4	2,541.3	2,450.8	90.53	28.071	
11,600.0	6,785.1	6,718.3	6,718.1	91.4	1.9	94.81	-7,008.8	650.4	2,457.6	2,365.5	92.12	26.678	
11,614.1	6,785.0	6,718.2	6,717.9	91.7	1.9	94.78	-7,008.8	650.4	2,443.6	2,351.2	92.39	26.449	
11,700.0	6,784.2	6,717.4	6,717.1	93.3	1.9	94.63	-7,008.8	650.4	2,358.4	2,264.4	94.01	25.086	
11,712.6	6,784.1	6,717.3	6,717.0	93.5	1.9	94.60	-7,008.8	650.4	2,345.9	2,251.6	94.25	24.890	
11,800.0	6,783.4	6,716.5	6,716.2	95.2	1.9	94.44	-7,008.8	650.4	2,259.2	2,163.3	95.90	23.557	
11,811.0	6,783.3	6,716.4	6,716.1	95.4	1.9	94.42	-7,008.8	650.4	2,248.3	2,152.1	96.11	23.392	
11,900.0	6,782.6	6,715.5	6,715.2	97.0	1.9	94.26	-7,008.8	650.4	2,160.0	2,062.2	97.80	22.087	
11,909.4	6,782.5	6,715.4	6,715.2	97.2	1.9	94.24	-7,008.8	650.4	2,150.7	2,052.7	97.97	21.952	
12,000.0	6,781.7	6,714.6	6,714.3	98.9	1.9	94.07	-7,008.8	650.4	2,061.0	1,961.3	99.69	20.674	
12,007.8	6,781.7	6,714.5	6,714.2	99.1	1.9	94.06	-7,008.8	650.4	2,053.2	1,953.4	99.84	20.565	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 25-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	6,713.6	6,713.3	100.8	1.9	93.89	-7,008.8	650.4	1,962.0	1,860.4	101.58	19.314	
12,106.3	6,780.9	6,713.6	6,713.3	100.9	1.9	93.87	-7,008.8	650.4	1,955.8	1,854.1	101.70	19.231	
12,200.0	6,780.1	6,712.7	6,712.4	102.7	1.9	93.70	-7,008.8	650.4	1,863.2	1,759.7	103.48	18.005	
12,204.7	6,780.0	6,712.6	6,712.3	102.7	1.9	93.69	-7,008.8	650.4	1,858.5	1,755.0	103.57	17.945	
12,300.0	6,779.2	6,711.7	6,711.4	104.5	1.9	93.51	-7,008.8	650.4	1,764.5	1,659.1	105.38	16.744	
12,303.1	6,779.2	6,711.7	6,711.4	104.6	1.9	93.51	-7,008.8	650.4	1,761.4	1,655.9	105.44	16.706	
12,400.0	6,778.4	6,710.7	6,710.5	106.4	1.9	93.32	-7,008.8	650.4	1,665.9	1,558.6	107.28	15.529	
12,401.5	6,778.4	6,710.7	6,710.5	106.4	1.9	93.32	-7,008.8	650.4	1,664.4	1,557.1	107.31	15.511	
12,500.0	6,777.6	6,709.8	6,709.5	108.3	1.9	93.13	-7,008.8	650.4	1,567.5	1,458.4	109.18	14.358	
12,598.4	6,776.7	6,708.8	6,708.6	110.2	1.9	92.95	-7,008.8	650.4	1,470.9	1,359.9	111.04	13.246	
12,600.0	6,776.7	6,708.8	6,708.5	110.2	1.9	92.94	-7,008.8	650.4	1,469.4	1,358.3	111.07	13.229	
12,696.8	6,775.9	6,707.9	6,707.6	112.0	1.9	92.76	-7,008.8	650.4	1,374.6	1,261.7	112.91	12.174	
12,700.0	6,775.9	6,707.8	6,707.6	112.1	1.9	92.75	-7,008.8	650.4	1,371.5	1,258.5	112.98	12.140	
12,795.2	6,775.1	6,706.9	6,706.6	113.9	1.9	92.57	-7,008.8	650.4	1,278.5	1,163.7	114.79	11.138	
12,800.0	6,775.0	6,706.9	6,706.6	114.0	1.9	92.56	-7,008.8	650.4	1,273.9	1,159.0	114.88	11.089	
12,893.7	6,774.3	6,706.0	6,705.7	115.7	1.9	92.38	-7,008.8	650.4	1,182.9	1,066.2	116.66	10.140	
12,900.0	6,774.2	6,705.9	6,705.6	115.8	1.9	92.37	-7,008.8	650.4	1,176.7	1,060.0	116.78	10.077	
12,992.1	6,773.4	6,705.0	6,704.7	117.6	1.9	92.19	-7,008.8	650.4	1,087.7	969.2	118.53	9.177	
13,000.0	6,773.4	6,704.9	6,704.6	117.7	1.9	92.17	-7,008.8	650.4	1,080.1	961.4	118.68	9.101	
13,090.5	6,772.6	6,704.0	6,703.7	119.4	1.9	92.00	-7,008.8	650.4	993.2	872.8	120.40	8.249	
13,100.0	6,772.5	6,703.9	6,703.6	119.6	1.9	91.98	-7,008.8	650.4	984.1	863.6	120.58	8.162	
13,188.9	6,771.8	6,703.0	6,702.8	121.3	1.9	91.81	-7,008.8	650.4	899.5	777.2	122.27	7.357	
13,200.0	6,771.7	6,702.9	6,702.7	121.5	1.9	91.79	-7,008.8	650.4	889.0	766.6	122.48	7.259	
13,287.4	6,771.0	6,702.1	6,701.8	123.2	1.9	91.61	-7,008.8	650.4	806.9	682.8	124.14	6.500	
13,300.0	6,770.9	6,701.9	6,701.7	123.4	1.9	91.59	-7,008.8	650.4	795.2	670.8	124.38	6.393	
13,385.8	6,770.1	6,701.1	6,700.8	125.0	1.9	91.42	-7,008.8	650.4	715.9	589.9	126.02	5.681	
13,400.0	6,770.0	6,700.9	6,700.7	125.3	1.9	91.39	-7,008.8	650.4	703.0	576.7	126.29	5.567	
13,484.2	6,769.3	6,700.0	6,699.7	126.9	1.9	91.21	-7,008.8	650.4	627.2	499.3	127.89	4.904	
13,500.0	6,769.2	6,699.9	6,699.7	127.2	1.9	91.19	-7,008.8	650.4	613.2	485.0	128.19	4.784	
13,582.6	6,768.5	6,699.1	6,698.8	128.8	1.9	91.03	-7,008.8	650.4	541.8	412.0	129.76	4.175	
13,600.0	6,768.3	6,698.9	6,698.6	129.1	1.9	90.99	-7,008.8	650.4	527.2	397.1	130.09	4.053	
13,681.1	6,767.6	6,698.1	6,697.8	130.6	1.9	90.83	-7,008.8	650.4	461.6	330.0	131.63	3.507	
13,700.0	6,767.5	6,697.9	6,697.6	131.0	1.9	90.79	-7,008.8	650.4	447.0	315.0	131.99	3.387	
13,779.5	6,766.8	6,697.1	6,696.8	132.5	1.9	90.64	-7,008.8	650.4	389.8	256.3	133.50	2.920	
13,800.0	6,766.6	6,696.9	6,696.6	132.9	1.9	90.59	-7,008.8	650.4	376.4	242.5	133.89	2.811	
13,877.9	6,766.0	6,696.1	6,695.8	134.4	1.9	90.44	-7,008.8	650.4	332.0	196.7	135.37	2.453	
13,900.0	6,765.8	6,695.9	6,695.6	134.8	1.9	90.40	-7,008.8	650.4	321.8	186.0	135.79	2.370	
13,976.3	6,765.2	6,695.1	6,694.8	136.2	1.9	90.24	-7,008.8	650.4	296.5	159.3	137.24	2.160	
13,995.7	6,765.0	6,694.9	6,694.7	136.6	1.9	90.20	-7,008.8	650.4	292.9	155.3	137.61	2.129	CC, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-176.00	-6,911.0	-483.4	6,928.2				
98.4	98.4	40.3	40.3	0.1	0.0	-176.00	-6,911.0	-483.4	6,927.9	6,927.8	0.09	N/A	
100.0	100.0	42.5	42.5	0.1	0.0	-176.00	-6,911.0	-483.4	6,927.9	6,927.8	0.09	N/A	
196.8	196.8	156.0	156.0	0.3	0.1	-175.99	-6,910.6	-483.9	6,927.5	6,927.1	0.43	N/A	
200.0	200.0	159.2	159.2	0.3	0.1	-175.99	-6,910.5	-483.9	6,927.5	6,927.1	0.44	N/A	
295.3	295.3	254.9	254.9	0.5	0.3	-175.99	-6,910.1	-484.3	6,927.1	6,926.3	0.79	8,794.543	
300.0	300.0	259.6	259.6	0.5	0.3	-175.99	-6,910.1	-484.3	6,927.1	6,926.3	0.80	8,631.409	
393.7	393.7	340.0	340.0	0.7	0.3	-175.99	-6,909.8	-484.7	6,926.8	6,925.7	1.07	6,447.183	
400.0	400.0	344.7	344.7	0.8	0.3	-175.99	-6,909.8	-484.7	6,926.8	6,925.7	1.09	6,346.326	
455.7	455.7	386.7	386.7	0.9	0.4	-175.99	-6,909.7	-484.9	6,926.7	6,925.5	1.24	5,574.973	
492.1	492.1	417.4	417.4	1.0	0.4	-175.98	-6,909.7	-485.0	6,926.7	6,925.4	1.34	5,157.321	
500.0	500.0	424.7	424.7	1.0	0.4	-175.98	-6,909.7	-485.0	6,926.7	6,925.4	1.37	5,073.616	
590.5	590.5	508.7	508.6	1.2	0.4	-175.98	-6,909.8	-485.3	6,926.9	6,925.2	1.62	4,276.928	
600.0	600.0	517.7	517.6	1.2	0.4	-175.98	-6,909.8	-485.4	6,926.9	6,925.2	1.65	4,209.106	
689.0	689.0	602.4	602.4	1.4	0.5	-175.98	-6,910.0	-485.7	6,927.1	6,925.2	1.89	3,662.370	
700.0	700.0	613.1	613.1	1.4	0.5	-175.98	-6,910.0	-485.8	6,927.1	6,925.2	1.92	3,605.338	
787.4	787.4	697.5	697.5	1.6	0.5	-175.98	-6,910.2	-486.1	6,927.3	6,925.2	2.16	3,208.721	
800.0	800.0	708.9	708.9	1.7	0.5	-175.98	-6,910.3	-486.1	6,927.4	6,925.2	2.19	3,160.622	
885.8	885.8	785.2	785.2	1.9	0.6	-175.97	-6,910.5	-486.4	6,927.7	6,925.3	2.42	2,867.068	
900.0	900.0	800.0	800.0	1.9	0.6	-175.97	-6,910.6	-486.4	6,927.8	6,925.3	2.45	2,822.871	
984.2	984.2	872.2	872.2	2.1	0.6	-175.97	-6,911.0	-486.6	6,928.2	6,925.6	2.67	2,595.337	
1,000.0	1,000.0	886.1	886.1	2.1	0.6	-175.97	-6,911.1	-486.6	6,928.3	6,925.6	2.71	2,556.841	
1,082.7	1,082.7	964.4	964.3	2.3	0.6	-175.97	-6,911.6	-486.7	6,928.9	6,926.0	2.92	2,371.645	
1,100.0	1,100.0	981.0	981.0	2.3	0.6	-175.97	-6,911.7	-486.7	6,929.0	6,926.1	2.97	2,336.206	
1,181.1	1,181.1	1,057.0	1,057.0	2.5	0.7	-175.97	-6,912.3	-486.8	6,929.7	6,926.5	3.17	2,185.173	
1,200.0	1,200.0	1,074.6	1,074.6	2.6	0.7	-175.97	-6,912.5	-486.7	6,929.8	6,926.6	3.22	2,152.879	
1,279.5	1,279.5	1,151.9	1,151.9	2.7	0.7	-175.97	-6,913.1	-486.6	6,930.5	6,927.1	3.42	2,026.566	
1,300.0	1,300.0	1,172.3	1,172.3	2.8	0.7	-175.97	-6,913.3	-486.6	6,930.6	6,927.2	3.47	1,996.374	
1,377.9	1,377.9	1,246.7	1,246.7	3.0	0.7	-175.98	-6,914.0	-486.4	6,931.3	6,927.7	3.67	1,889.876	
1,400.0	1,400.0	1,267.3	1,267.2	3.0	0.7	-175.98	-6,914.1	-486.4	6,931.5	6,927.8	3.72	1,861.884	
1,476.4	1,476.4	1,345.0	1,345.0	3.2	0.8	-175.98	-6,914.9	-486.2	6,932.2	6,928.3	3.92	1,770.301	
1,500.0	1,500.0	1,370.8	1,370.8	3.2	0.8	-175.98	-6,915.1	-486.1	6,932.4	6,928.5	3.98	1,743.580	
1,574.8	1,574.8	1,456.3	1,456.3	3.4	0.8	-175.98	-6,915.8	-486.0	6,933.0	6,928.9	4.17	1,663.728	
1,600.0	1,600.0	1,485.8	1,485.8	3.5	0.8	-175.98	-6,916.0	-485.9	6,933.2	6,929.0	4.23	1,638.386	
1,673.2	1,673.2	1,566.9	1,566.9	3.6	0.9	-175.98	-6,916.5	-485.9	6,933.6	6,929.2	4.42	1,569.520	
1,700.0	1,700.0	1,596.3	1,596.2	3.7	0.9	-175.98	-6,916.6	-486.0	6,933.8	6,929.3	4.49	1,545.804	
1,771.6	1,771.6	1,681.1	1,681.0	3.8	0.9	-175.98	-6,917.0	-486.2	6,934.1	6,929.4	4.67	1,486.228	
1,800.0	1,800.0	1,711.9	1,711.8	3.9	0.9	-175.98	-6,917.0	-486.4	6,934.2	6,929.4	4.74	1,463.896	
1,870.1	1,870.1	1,778.8	1,778.8	4.1	0.9	-175.97	-6,917.2	-486.8	6,934.4	6,929.5	4.91	1,411.429	
1,900.0	1,900.0	1,809.2	1,809.1	4.1	0.9	-175.97	-6,917.3	-487.0	6,934.5	6,929.5	4.99	1,390.039	
1,968.5	1,968.5	1,890.0	1,890.0	4.3	1.0	-175.97	-6,917.4	-487.6	6,934.6	6,929.5	5.16	1,342.686	
2,000.0	2,000.0	1,924.1	1,924.1	4.4	1.0	-175.97	-6,917.5	-488.0	6,934.7	6,929.4	5.25	1,322.114	
2,066.9	2,066.9	1,994.2	1,994.1	4.5	1.0	-175.96	-6,917.5	-488.6	6,934.7	6,929.3	5.42	1,280.534	
2,100.0	2,100.0	2,037.5	2,037.4	4.6	1.0	-175.96	-6,917.4	-489.1	6,934.7	6,929.2	5.50	1,260.375	
2,109.4	2,109.4	2,050.2	2,050.2	4.6	1.0	115.63	-6,917.4	-489.3	6,934.7	6,929.1	5.57	1,245.020	
2,165.3	2,165.3	2,122.9	2,122.9	4.7	1.0	115.64	-6,917.1	-490.1	6,934.9	6,929.2	5.71	1,215.447	
2,200.0	2,200.0	2,163.9	2,163.8	4.8	1.0	115.64	-6,916.9	-490.5	6,935.1	6,929.4	5.79	1,198.258	
2,263.8	2,263.7	2,234.9	2,234.8	4.9	1.1	115.66	-6,916.5	-491.0	6,936.1	6,930.1	5.93	1,168.852	
2,300.0	2,299.8	2,273.0	2,272.9	5.0	1.1	115.66	-6,916.3	-491.3	6,936.9	6,930.8	6.02	1,152.977	
2,362.2	2,361.8	2,335.9	2,335.9	5.1	1.1	115.67	-6,915.9	-491.6	6,938.6	6,932.5	6.16	1,126.137	
2,400.0	2,399.5	2,373.1	2,373.1	5.2	1.1	115.67	-6,915.6	-491.8	6,940.0	6,933.8	6.25	1,110.536	
2,460.6	2,459.7	2,427.7	2,427.6	5.4	1.1	115.67	-6,915.3	-491.9	6,942.7	6,936.3	6.40	1,085.403	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #3 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,500.0	2,498.7	2,460.4	2,460.3	5.5	1.1	115.67	-6,915.1	-492.0	6,944.8	6,938.3	6.49	1,069.807	
2,559.0	2,557.1	2,509.2	2,509.1	5.6	1.1	115.66	-6,914.9	-492.1	6,948.4	6,941.8	6.64	1,045.749	
2,600.0	2,597.5	2,542.4	2,542.4	5.7	1.1	115.65	-6,914.8	-492.1	6,951.3	6,944.5	6.75	1,029.731	
2,657.5	2,654.0	2,589.0	2,588.9	5.9	1.1	115.63	-6,914.8	-492.2	6,955.8	6,948.9	6.91	1,006.215	
2,700.0	2,695.6	2,627.6	2,627.6	6.0	1.1	115.62	-6,914.8	-492.2	6,959.6	6,952.6	7.03	990.065	
2,755.9	2,750.2	2,681.0	2,681.0	6.2	1.1	115.61	-6,914.8	-492.2	6,964.9	6,957.7	7.20	967.747	
2,800.0	2,793.1	2,716.3	2,716.3	6.3	1.1	115.59	-6,914.8	-492.2	6,969.5	6,962.2	7.33	950.578	
2,854.3	2,845.6	2,752.9	2,752.8	6.5	1.1	115.54	-6,914.9	-492.2	6,975.7	6,968.2	7.52	927.562	
2,900.0	2,889.6	2,783.4	2,783.4	6.6	1.1	115.50	-6,915.0	-492.2	6,981.3	6,973.7	7.68	909.081	
2,952.7	2,940.2	2,823.3	2,823.2	6.8	1.1	115.46	-6,915.2	-492.3	6,988.4	6,980.5	7.89	885.626	
3,000.0	2,985.3	2,862.6	2,862.6	7.0	1.2	115.43	-6,915.5	-492.3	6,995.1	6,987.0	8.08	865.383	
3,016.9	3,001.4	2,876.7	2,876.6	7.1	1.2	115.41	-6,915.6	-492.4	6,997.6	6,989.4	8.16	857.845	
3,051.2	3,033.9	2,900.0	2,899.9	7.3	1.2	115.47	-6,915.8	-492.4	7,002.7	6,994.4	8.31	842.752	
3,100.0	3,080.2	2,943.9	2,943.8	7.5	1.2	115.57	-6,916.2	-492.5	7,010.0	7,001.5	8.53	821.926	
3,149.6	3,127.3	2,983.5	2,983.4	7.7	1.2	115.67	-6,916.6	-492.6	7,017.6	7,008.8	8.76	800.933	
3,200.0	3,175.1	3,021.2	3,021.1	8.0	1.2	115.76	-6,917.0	-492.8	7,025.4	7,016.4	9.00	780.794	
3,248.0	3,220.7	3,055.4	3,055.3	8.2	1.2	115.84	-6,917.4	-492.9	7,032.9	7,023.6	9.23	761.759	
3,300.0	3,270.0	3,100.0	3,099.9	8.5	1.2	115.94	-6,918.1	-493.2	7,041.1	7,031.6	9.49	742.083	
3,346.4	3,314.1	3,128.2	3,128.1	8.7	1.2	116.01	-6,918.5	-493.4	7,048.5	7,038.8	9.72	725.018	
3,400.0	3,365.0	3,170.4	3,170.3	9.0	1.2	116.11	-6,919.2	-493.7	7,057.2	7,047.2	9.99	706.173	
3,444.9	3,407.6	3,200.0	3,199.9	9.2	1.3	116.18	-6,919.7	-494.0	7,064.5	7,054.3	10.23	690.816	
3,500.0	3,459.9	3,251.7	3,251.6	9.5	1.3	116.30	-6,920.7	-494.6	7,073.6	7,063.1	10.52	672.681	
3,543.3	3,501.0	3,287.5	3,287.4	9.8	1.3	116.39	-6,921.3	-495.0	7,080.8	7,070.1	10.75	658.873	
3,600.0	3,554.8	3,340.4	3,340.2	10.1	1.3	116.52	-6,922.3	-495.7	7,090.3	7,079.2	11.05	641.641	
3,641.7	3,594.4	3,380.9	3,380.7	10.3	1.3	116.61	-6,923.1	-496.4	7,097.3	7,086.0	11.28	629.299	
3,700.0	3,649.7	3,433.7	3,433.5	10.7	1.3	116.74	-6,924.1	-497.2	7,107.1	7,095.5	11.59	612.961	
3,740.1	3,687.8	3,468.7	3,468.5	10.9	1.3	116.83	-6,924.8	-497.8	7,113.9	7,102.1	11.82	602.058	
3,800.0	3,744.7	3,521.3	3,521.1	11.2	1.4	116.95	-6,925.8	-498.9	7,124.1	7,111.9	12.15	586.562	
3,838.6	3,781.3	3,555.8	3,555.6	11.5	1.4	117.04	-6,926.4	-499.5	7,130.7	7,118.3	12.36	576.873	
3,900.0	3,839.6	3,612.2	3,612.0	11.8	1.4	117.17	-6,927.6	-500.6	7,141.3	7,128.6	12.70	562.136	
3,937.0	3,874.7	3,649.9	3,649.7	12.1	1.4	117.26	-6,928.3	-501.4	7,147.6	7,134.7	12.91	553.509	
4,000.0	3,934.5	3,712.5	3,712.3	12.4	1.4	117.41	-6,929.5	-502.5	7,158.5	7,145.2	13.27	539.484	
4,035.4	3,968.1	3,744.6	3,744.3	12.6	1.4	117.49	-6,930.1	-503.1	7,164.7	7,151.2	13.47	531.874	
4,100.0	4,029.4	3,803.1	3,802.8	13.0	1.5	117.63	-6,931.3	-504.2	7,175.9	7,162.1	13.84	518.596	
4,133.8	4,061.5	3,833.9	3,833.6	13.2	1.5	117.70	-6,931.9	-504.8	7,181.8	7,167.8	14.03	511.850	
4,200.0	4,124.3	3,894.1	3,893.8	13.6	1.5	117.85	-6,933.1	-506.0	7,193.4	7,179.0	14.41	499.213	
4,232.3	4,155.0	3,920.6	3,920.3	13.8	1.5	117.91	-6,933.6	-506.5	7,199.1	7,184.5	14.60	493.257	
4,300.0	4,219.3	3,974.9	3,974.5	14.2	1.5	118.04	-6,934.8	-507.5	7,211.2	7,196.2	14.98	481.266	
4,330.7	4,248.4	4,000.0	3,999.6	14.4	1.5	118.10	-6,935.3	-508.0	7,216.7	7,201.5	15.16	476.000	
4,400.0	4,314.2	4,075.0	4,074.6	14.9	1.5	118.28	-6,936.9	-509.8	7,229.1	7,213.6	15.56	464.514	
4,429.1	4,341.8	4,290.0	4,289.5	15.0	1.6	118.80	-6,938.0	-516.3	7,233.8	7,218.0	15.74	459.671	
4,500.0	4,409.1	4,350.2	4,349.6	15.5	1.6	118.95	-6,937.6	-518.1	7,244.8	7,228.7	16.14	448.942	
4,527.5	4,435.3	4,371.1	4,370.6	15.7	1.6	119.00	-6,937.5	-518.8	7,249.2	7,232.9	16.29	444.897	
4,600.0	4,504.0	4,424.9	4,424.4	16.1	1.6	119.13	-6,937.3	-520.3	7,260.7	7,244.0	16.71	434.614	
4,626.0	4,528.7	4,443.8	4,443.2	16.3	1.6	119.18	-6,937.2	-520.8	7,264.9	7,248.0	16.85	431.026	
4,700.0	4,598.9	4,500.0	4,499.4	16.7	1.7	119.31	-6,937.2	-522.3	7,277.0	7,259.7	17.28	421.152	
4,724.4	4,622.1	4,517.4	4,516.8	16.9	1.7	119.35	-6,937.2	-522.7	7,281.0	7,263.6	17.42	417.991	
4,800.0	4,693.9	4,581.0	4,580.4	17.4	1.7	119.50	-6,937.3	-524.3	7,293.6	7,275.8	17.85	408.511	
4,822.8	4,715.5	4,600.0	4,599.4	17.5	1.7	119.55	-6,937.4	-524.7	7,297.4	7,279.4	17.99	405.732	
4,900.0	4,788.8	4,662.3	4,661.6	18.0	1.7	119.69	-6,937.6	-526.2	7,310.5	7,292.0	18.43	396.638	
4,921.2	4,809.0	4,679.4	4,678.7	18.1	1.7	119.73	-6,937.7	-526.5	7,314.1	7,295.5	18.55	394.206	
5,000.0	4,883.7	4,752.6	4,751.9	18.6	1.7	119.90	-6,938.1	-528.0	7,327.6	7,308.6	19.01	385.454	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,902.4	4,772.1	4,771.4	18.7	1.7	119.95	-6,938.2	-528.3	7,331.0	7,311.9	19.12	383.325	
5,100.0	4,978.6	4,856.2	4,855.5	19.3	1.8	120.14	-6,938.6	-529.6	7,344.8	7,325.2	19.59	374.899	
5,118.1	4,995.8	4,875.7	4,875.0	19.4	1.8	120.18	-6,938.7	-529.9	7,347.9	7,328.2	19.70	373.052	
5,200.0	5,073.6	4,969.9	4,969.2	19.9	1.8	120.39	-6,939.1	-531.0	7,361.9	7,341.7	20.17	364.957	
5,216.5	5,089.2	4,989.4	4,988.7	20.0	1.8	120.44	-6,939.1	-531.3	7,364.7	7,344.5	20.27	363.368	
5,304.2	5,172.4	5,108.6	5,107.9	20.6	1.8	120.70	-6,939.1	-532.7	7,379.4	7,358.7	20.77	355.267	
5,314.9	5,182.7	5,118.3	5,117.6	20.6	1.9	120.75	-6,939.1	-532.8	7,381.2	7,360.4	20.82	354.541	
5,400.0	5,263.9	5,195.5	5,194.8	21.1	1.9	121.15	-6,938.9	-533.7	7,394.6	7,373.4	21.19	348.915	
5,413.4	5,276.7	5,200.0	5,199.3	21.1	1.9	121.19	-6,938.9	-533.7	7,396.6	7,375.4	21.24	348.263	
5,500.0	5,360.3	5,260.3	5,259.6	21.5	1.9	121.52	-6,938.9	-534.3	7,409.0	7,387.5	21.54	344.026	
5,511.8	5,371.7	5,267.9	5,267.1	21.6	1.9	121.56	-6,938.9	-534.3	7,410.7	7,389.1	21.57	343.521	
5,600.0	5,457.5	5,324.9	5,324.2	21.9	1.9	121.84	-6,939.2	-534.7	7,422.1	7,400.3	21.85	339.733	
5,610.2	5,467.5	5,331.6	5,330.9	21.9	1.9	121.88	-6,939.3	-534.8	7,423.4	7,401.5	21.88	339.347	
5,700.0	5,555.6	5,400.0	5,399.3	22.3	1.9	122.15	-6,940.0	-535.4	7,433.9	7,411.8	22.13	335.944	
5,708.6	5,564.1	5,400.0	5,399.3	22.3	1.9	122.16	-6,940.0	-535.4	7,434.8	7,412.7	22.15	335.681	
5,800.0	5,654.2	5,458.6	5,457.9	22.6	2.0	122.39	-6,940.8	-536.0	7,444.2	7,421.8	22.37	332.730	
5,807.1	5,661.2	5,463.5	5,462.7	22.6	2.0	122.40	-6,940.8	-536.1	7,444.9	7,422.5	22.39	332.538	
5,900.0	5,753.4	5,536.2	5,535.4	22.8	2.0	122.61	-6,942.1	-536.9	7,453.1	7,430.5	22.59	329.949	
5,905.5	5,758.8	5,541.2	5,540.5	22.8	2.0	122.62	-6,942.2	-537.0	7,453.5	7,430.9	22.60	329.820	
6,000.0	5,852.9	5,632.3	5,631.5	23.1	2.0	122.79	-6,943.9	-537.7	7,460.3	7,437.5	22.78	327.531	
6,003.9	5,856.8	5,636.4	5,635.7	23.1	2.0	122.79	-6,944.0	-537.7	7,460.5	7,437.7	22.78	327.452	
6,100.0	5,952.7	5,733.5	5,732.7	23.2	2.0	122.91	-6,946.0	-537.8	7,465.5	7,442.6	22.94	325.457	
6,102.3	5,955.1	5,735.7	5,734.9	23.2	2.0	122.92	-6,946.0	-537.8	7,465.6	7,442.7	22.94	325.418	
6,200.0	6,052.7	5,843.8	5,843.0	23.4	2.0	122.98	-6,948.3	-537.4	7,468.9	7,445.8	23.08	323.669	
6,200.8	6,053.5	5,845.0	5,844.2	23.4	2.0	122.98	-6,948.4	-537.4	7,468.9	7,445.8	23.08	323.656	
6,221.1	6,073.8	5,876.2	5,875.3	23.4	2.1	-168.59	-6,949.0	-537.2	7,469.3	7,446.2	23.10	323.297	
6,251.1	6,103.8	5,915.7	5,914.8	23.4	2.1	-168.60	-6,949.7	-537.0	7,469.8	7,446.7	23.15	322.647	
6,299.2	6,151.8	5,967.8	5,966.9	23.5	2.1	11.42	-6,950.6	-536.7	7,469.0	7,445.8	23.14	322.738	
6,300.0	6,152.6	5,968.6	5,967.8	23.5	2.1	11.42	-6,950.6	-536.7	7,469.0	7,445.8	23.14	322.741	
6,350.0	6,202.4	6,100.0	6,099.1	23.5	2.1	11.51	-6,952.2	-536.4	7,464.5	7,441.4	23.13	322.678	
6,397.6	6,249.3	6,140.6	6,139.7	23.5	2.1	11.64	-6,952.4	-536.4	7,456.8	7,433.7	23.08	323.138	
6,400.0	6,251.6	6,142.6	6,141.7	23.5	2.1	11.65	-6,952.4	-536.4	7,456.4	7,433.3	23.07	323.171	
6,450.0	6,300.1	6,183.6	6,182.7	23.5	2.1	11.86	-6,952.7	-536.3	7,444.9	7,421.9	22.97	324.098	
6,496.0	6,344.0	6,229.1	6,228.3	23.5	2.1	12.11	-6,953.0	-536.2	7,431.4	7,408.6	22.83	325.451	
6,500.0	6,347.7	6,233.6	6,232.7	23.5	2.1	12.14	-6,953.0	-536.2	7,430.1	7,407.3	22.82	325.596	
6,550.0	6,394.1	6,288.8	6,287.9	23.5	2.1	12.50	-6,953.4	-536.0	7,412.1	7,389.5	22.61	327.817	
6,594.5	6,434.2	6,335.4	6,334.5	23.4	2.1	12.90	-6,953.6	-535.9	7,393.4	7,371.0	22.37	330.536	
6,600.0	6,439.0	6,341.0	6,340.2	23.4	2.1	12.96	-6,953.6	-535.9	7,390.9	7,368.6	22.33	330.934	
6,650.0	6,482.4	6,391.1	6,390.2	23.4	2.1	13.51	-6,953.9	-535.6	7,366.6	7,344.6	21.99	335.044	
6,692.9	6,518.1	6,440.1	6,439.2	23.3	2.1	14.10	-6,954.0	-535.3	7,343.4	7,321.8	21.64	339.329	
6,700.0	6,523.9	6,448.3	6,447.5	23.3	2.1	14.20	-6,954.1	-535.3	7,339.4	7,317.8	21.58	340.125	
6,750.0	6,563.3	6,504.6	6,503.8	23.3	2.1	15.05	-6,954.2	-534.7	7,309.3	7,288.2	21.11	346.301	
6,791.3	6,594.2	6,500.0	6,499.1	23.2	2.1	15.79	-6,954.2	-534.8	7,282.5	7,261.9	20.63	353.007	
6,800.0	6,600.5	6,500.0	6,499.1	23.2	2.1	15.96	-6,954.2	-534.8	7,276.7	7,256.1	20.52	354.543	
6,850.0	6,635.3	6,500.0	6,499.1	23.2	2.1	17.07	-6,954.2	-534.8	7,241.8	7,221.9	19.89	364.044	
6,889.7	6,661.1	6,500.0	6,499.1	23.1	2.1	18.12	-6,954.2	-534.8	7,212.5	7,193.1	19.37	372.447	
6,900.0	6,667.5	6,500.0	6,499.1	23.1	2.1	18.42	-6,954.2	-534.8	7,204.7	7,185.5	19.22	374.786	
6,950.0	6,696.9	6,500.0	6,499.1	23.1	2.1	20.07	-6,954.2	-534.8	7,165.6	7,147.1	18.54	386.535	
6,988.2	6,717.5	6,500.0	6,499.1	23.1	2.1	21.59	-6,954.2	-534.8	7,134.6	7,116.5	18.03	395.772	
7,000.0	6,723.5	6,500.0	6,499.1	23.1	2.1	22.12	-6,954.2	-534.8	7,124.7	7,106.9	17.87	398.776	
7,050.0	6,747.0	6,500.0	6,499.1	23.1	2.1	24.70	-6,954.2	-534.8	7,082.1	7,064.9	17.25	410.516	
7,086.6	6,762.3	6,500.0	6,499.1	23.1	2.1	27.04	-6,954.2	-534.8	7,050.0	7,033.1	16.87	417.791	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #3 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,100.0	6,767.4	6,500.0	6,499.1	23.1	2.1	28.02	-6,954.2	-534.8	7,038.1	7,021.3	16.76	420.040	
7,150.0	6,784.6	6,500.0	6,499.1	23.1	2.1	32.36	-6,954.2	-534.8	6,992.7	6,976.2	16.46	424.764	
7,185.0	6,794.7	6,500.0	6,499.1	23.1	2.1	36.25	-6,954.2	-534.8	6,960.3	6,943.8	16.43	423.595	
7,200.0	6,798.5	6,500.0	6,499.1	23.2	2.1	38.19	-6,954.2	-534.8	6,946.2	6,929.8	16.47	421.652	
7,250.0	6,808.9	6,500.0	6,499.1	23.2	2.1	46.14	-6,954.2	-534.8	6,898.9	6,882.0	16.88	408.806	
7,283.4	6,814.0	6,500.0	6,499.1	23.3	2.1	53.07	-6,954.2	-534.8	6,866.8	6,849.4	17.37	395.381	
7,300.0	6,816.0	6,500.0	6,499.1	23.4	2.1	57.05	-6,954.2	-534.8	6,850.8	6,833.1	17.66	388.031	
7,350.0	6,819.5	6,500.0	6,499.1	23.5	2.1	71.51	-6,954.2	-534.8	6,802.3	6,783.7	18.61	365.526	
7,381.9	6,820.0	6,500.0	6,499.1	23.7	2.1	82.32	-6,954.2	-534.8	6,771.2	6,752.0	19.26	351.576	
7,382.0	6,820.0	6,500.0	6,499.1	23.7	2.1	82.37	-6,954.2	-534.8	6,771.1	6,751.8	19.26	351.521	
7,400.0	6,819.8	6,500.0	6,499.1	23.8	2.1	82.37	-6,954.2	-534.8	6,753.5	6,734.1	19.41	347.921	
7,480.3	6,819.2	6,500.0	6,499.1	24.2	2.1	82.37	-6,954.2	-534.8	6,675.2	6,655.1	20.15	331.250	
7,500.0	6,819.0	6,500.0	6,499.1	24.3	2.1	82.37	-6,954.2	-534.8	6,656.0	6,635.7	20.33	327.345	
7,578.7	6,818.4	6,500.0	6,499.1	24.9	2.1	82.37	-6,954.2	-534.8	6,579.3	6,558.1	21.17	310.732	
7,600.0	6,818.2	6,500.0	6,499.1	25.0	2.1	82.37	-6,954.2	-534.8	6,558.6	6,537.2	21.40	306.467	
7,677.1	6,817.6	6,500.0	6,499.1	25.7	2.1	82.37	-6,954.2	-534.8	6,483.5	6,461.2	22.32	290.497	
7,700.0	6,817.4	6,500.0	6,499.1	25.9	2.1	82.37	-6,954.2	-534.8	6,461.2	6,438.6	22.59	286.017	
7,775.6	6,816.7	6,500.0	6,499.1	26.6	2.1	82.37	-6,954.2	-534.8	6,387.7	6,364.2	23.57	271.045	
7,800.0	6,816.5	6,500.0	6,499.1	26.9	2.1	82.37	-6,954.2	-534.8	6,364.0	6,340.1	23.88	266.470	
7,874.0	6,815.9	6,500.0	6,499.1	27.7	2.1	82.37	-6,954.2	-534.8	6,292.0	6,267.1	24.90	252.674	
7,900.0	6,815.7	6,500.0	6,499.1	28.0	2.1	82.37	-6,954.2	-534.8	6,266.8	6,241.5	25.26	248.093	
7,972.4	6,815.1	6,500.0	6,499.1	28.9	2.1	82.37	-6,954.2	-534.8	6,196.5	6,170.1	26.31	235.528	
8,000.0	6,814.9	6,500.0	6,499.1	29.2	2.1	82.37	-6,954.2	-534.8	6,169.7	6,143.0	26.71	231.004	
8,070.8	6,814.3	6,500.0	6,499.1	30.1	2.1	82.37	-6,954.2	-534.8	6,101.0	6,073.2	27.78	219.647	
8,100.0	6,814.1	6,500.0	6,499.1	30.5	2.1	82.37	-6,954.2	-534.8	6,072.7	6,044.5	28.22	215.225	
8,169.3	6,813.5	6,500.0	6,499.1	31.5	2.1	82.37	-6,954.2	-534.8	6,005.5	5,976.3	29.29	205.009	
8,200.0	6,813.3	6,500.0	6,499.1	31.9	2.1	82.37	-6,954.2	-534.8	5,975.8	5,946.0	29.77	200.716	
8,267.7	6,812.7	6,500.0	6,499.1	32.9	2.1	82.37	-6,954.2	-534.8	5,910.2	5,879.4	30.85	191.551	
8,300.0	6,812.4	6,500.0	6,499.1	33.3	2.1	82.37	-6,954.2	-534.8	5,879.0	5,847.6	31.37	187.403	
8,366.1	6,811.9	6,500.0	6,499.1	34.3	2.1	82.37	-6,954.2	-534.8	5,815.0	5,782.6	32.45	179.194	
8,400.0	6,811.6	6,500.0	6,499.1	34.8	2.1	82.37	-6,954.2	-534.8	5,782.3	5,749.3	33.00	175.198	
8,464.5	6,811.1	6,500.0	6,499.1	35.8	2.1	82.37	-6,954.2	-534.8	5,719.9	5,685.9	34.08	167.848	
8,500.0	6,810.8	6,500.0	6,499.1	36.3	2.1	82.37	-6,954.2	-534.8	5,685.7	5,651.1	34.67	164.006	
8,563.0	6,810.3	6,500.0	6,499.1	37.3	2.1	82.37	-6,954.2	-534.8	5,625.0	5,589.2	35.73	157.423	
8,600.0	6,810.0	6,500.0	6,499.1	37.9	2.1	82.37	-6,954.2	-534.8	5,589.3	5,552.9	36.36	153.734	
8,661.4	6,809.5	6,500.0	6,499.1	38.9	2.1	82.37	-6,954.2	-534.8	5,530.1	5,492.7	37.41	147.835	
8,700.0	6,809.1	6,500.0	6,499.1	39.5	2.1	82.37	-6,954.2	-534.8	5,492.9	5,454.9	38.07	144.295	
8,759.8	6,808.6	6,500.0	6,499.1	40.5	2.1	82.37	-6,954.2	-534.8	5,435.4	5,396.3	39.10	139.004	
8,800.0	6,808.3	6,500.0	6,499.1	41.1	2.1	82.38	-6,954.2	-534.8	5,396.7	5,356.9	39.80	135.606	
8,858.2	6,807.8	6,500.0	6,499.1	42.1	2.1	82.38	-6,954.2	-534.8	5,340.8	5,300.0	40.81	130.855	
8,900.0	6,807.5	6,500.0	6,499.1	42.8	2.1	82.38	-6,954.2	-534.8	5,300.7	5,259.1	41.54	127.594	
8,956.7	6,807.0	6,500.0	6,499.1	43.7	2.1	82.38	-6,954.2	-534.8	5,246.3	5,203.8	42.54	123.323	
9,000.0	6,806.7	6,500.0	6,499.1	44.4	2.1	82.38	-6,954.2	-534.8	5,204.8	5,161.5	43.30	120.192	
9,055.1	6,806.2	6,500.0	6,499.1	45.4	2.1	82.38	-6,954.2	-534.8	5,152.0	5,107.7	44.28	116.348	
9,100.0	6,805.8	6,500.0	6,499.1	46.1	2.1	82.38	-6,954.2	-534.8	5,109.0	5,064.0	45.08	113.340	
9,153.5	6,805.4	6,500.0	6,499.1	47.0	2.1	82.38	-6,954.2	-534.8	5,057.9	5,011.8	46.03	109.877	
9,200.0	6,805.0	6,500.0	6,499.1	47.8	2.1	82.38	-6,954.2	-534.8	5,013.5	4,966.6	46.86	106.985	
9,251.9	6,804.6	6,500.0	6,499.1	48.7	2.1	82.38	-6,954.2	-534.8	4,963.9	4,916.1	47.79	103.861	
9,300.0	6,804.2	6,500.0	6,499.1	49.6	2.1	82.38	-6,954.2	-534.8	4,918.0	4,869.4	48.66	101.080	
9,350.4	6,803.8	6,500.0	6,499.1	50.4	2.1	82.38	-6,954.2	-534.8	4,870.1	4,820.5	49.56	98.259	
9,400.0	6,803.4	6,500.0	6,499.1	51.3	2.1	82.38	-6,954.2	-534.8	4,822.8	4,772.4	50.46	95.581	
9,448.8	6,802.9	6,500.0	6,499.1	52.1	2.1	82.38	-6,954.2	-534.8	4,776.4	4,725.1	51.34	93.033	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #3 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,500.0	6,802.5	6,500.0	6,499.1	53.0	2.1	82.38	-6,954.2	-534.8	4,727.8	4,675.5	52.27	90.452	
9,547.2	6,802.1	6,500.0	6,499.1	53.9	2.1	82.38	-6,954.2	-534.8	4,683.0	4,629.9	53.13	88.148	
9,600.0	6,801.7	6,500.0	6,499.1	54.8	2.1	82.38	-6,954.2	-534.8	4,633.0	4,578.9	54.09	85.660	
9,645.6	6,801.3	6,500.0	6,499.1	55.6	2.1	82.38	-6,954.2	-534.8	4,589.8	4,534.9	54.92	83.574	
9,700.0	6,800.9	6,500.0	6,499.1	56.6	2.1	82.38	-6,954.2	-534.8	4,538.4	4,482.5	55.91	81.174	
9,744.1	6,800.5	6,500.0	6,499.1	57.4	2.1	82.38	-6,954.2	-534.8	4,496.8	4,440.1	56.72	79.286	
9,800.0	6,800.0	6,500.0	6,499.1	58.4	2.1	82.38	-6,954.2	-534.8	4,444.1	4,386.3	57.74	76.968	
9,842.5	6,799.7	6,500.0	6,499.1	59.1	2.1	82.38	-6,954.2	-534.8	4,404.0	4,345.5	58.52	75.258	
9,900.0	6,799.2	6,500.0	6,499.1	60.2	2.1	82.38	-6,954.2	-534.8	4,349.9	4,290.4	59.57	73.018	
9,940.9	6,798.9	6,500.0	6,499.1	60.9	2.1	82.38	-6,954.2	-534.8	4,311.5	4,251.2	60.33	71.470	
10,000.0	6,798.4	6,500.0	6,499.1	62.0	2.1	82.38	-6,954.2	-534.8	4,256.1	4,194.7	61.41	69.304	
10,039.3	6,798.1	6,500.0	6,499.1	62.7	2.1	82.38	-6,954.2	-534.8	4,219.3	4,157.1	62.14	67.902	
10,100.0	6,797.6	6,500.0	6,499.1	63.8	2.1	82.38	-6,954.2	-534.8	4,162.6	4,099.3	63.26	65.805	
10,137.8	6,797.2	6,500.0	6,499.1	64.4	2.1	82.38	-6,954.2	-534.8	4,127.3	4,063.4	63.95	64.536	
10,200.0	6,796.7	6,500.0	6,499.1	65.6	2.1	82.38	-6,954.2	-534.8	4,069.3	4,004.2	65.10	62.506	
10,236.2	6,796.4	6,500.0	6,499.1	66.2	2.1	82.38	-6,954.2	-534.8	4,035.7	3,969.9	65.77	61.357	
10,300.0	6,795.9	6,500.0	6,499.1	67.4	2.1	82.38	-6,954.2	-534.8	3,976.4	3,909.5	66.95	59.390	
10,334.6	6,795.6	6,500.0	6,499.1	68.0	2.1	82.38	-6,954.2	-534.8	3,944.3	3,876.7	67.60	58.352	
10,400.0	6,795.1	6,500.0	6,499.1	69.2	2.1	82.38	-6,954.2	-534.8	3,883.9	3,815.1	68.81	56.445	
10,433.0	6,794.8	6,500.0	6,499.1	69.8	2.1	82.38	-6,954.2	-534.8	3,853.4	3,783.9	69.42	55.507	
10,500.0	6,794.2	6,500.0	6,499.1	71.0	2.1	82.38	-6,954.2	-534.8	3,791.7	3,721.0	70.66	53.657	
10,531.5	6,794.0	6,500.0	6,499.1	71.6	2.1	82.38	-6,954.2	-534.8	3,762.8	3,691.5	71.25	52.811	
10,600.0	6,793.4	6,500.0	6,499.1	72.9	2.1	82.39	-6,954.2	-534.8	3,699.9	3,627.4	72.52	51.016	
10,629.9	6,793.2	6,500.0	6,499.1	73.4	2.1	82.39	-6,954.2	-534.8	3,672.6	3,599.5	73.08	50.253	
10,700.0	6,792.6	6,500.0	6,499.1	74.7	2.1	82.39	-6,954.2	-534.8	3,608.6	3,534.2	74.39	48.511	
10,728.3	6,792.3	6,500.0	6,499.1	75.2	2.1	82.39	-6,954.2	-534.8	3,582.8	3,507.9	74.91	47.825	
10,800.0	6,791.7	6,500.0	6,499.1	76.6	2.1	82.39	-6,954.2	-534.8	3,517.7	3,441.5	76.25	46.133	
10,826.7	6,791.5	6,500.0	6,499.1	77.1	2.1	82.39	-6,954.2	-534.8	3,493.5	3,416.7	76.75	45.518	
10,900.0	6,790.9	6,500.0	6,499.1	78.4	2.1	82.39	-6,954.2	-534.8	3,427.4	3,349.2	78.12	43.874	
10,925.2	6,790.7	6,500.0	6,499.1	78.9	2.1	82.39	-6,954.2	-534.8	3,404.7	3,326.1	78.59	43.323	
11,000.0	6,790.1	6,500.0	6,499.1	80.3	2.1	82.39	-6,954.2	-534.8	3,337.6	3,257.6	79.99	41.727	
11,023.6	6,789.9	6,500.0	6,499.1	80.7	2.1	82.39	-6,954.2	-534.8	3,316.4	3,236.0	80.43	41.235	
11,100.0	6,789.2	6,500.0	6,499.1	82.1	2.1	82.39	-6,954.2	-534.8	3,248.3	3,166.5	81.86	39.683	
11,122.0	6,789.1	6,500.0	6,499.1	82.5	2.1	82.39	-6,954.2	-534.8	3,228.8	3,146.5	82.27	39.247	
11,200.0	6,788.4	6,500.0	6,499.1	84.0	2.1	82.39	-6,954.2	-534.8	3,159.8	3,076.0	83.73	37.738	
11,220.4	6,788.2	6,500.0	6,499.1	84.3	2.1	82.39	-6,954.2	-534.8	3,141.8	3,057.6	84.11	37.352	
11,300.0	6,787.6	6,500.0	6,499.1	85.8	2.1	82.39	-6,954.2	-534.8	3,071.9	2,986.3	85.60	35.886	
11,318.9	6,787.4	6,500.0	6,499.1	86.2	2.1	82.39	-6,954.2	-534.8	3,055.4	2,969.5	85.96	35.546	
11,400.0	6,786.7	6,500.0	6,499.1	87.7	2.1	82.39	-6,954.2	-534.8	2,984.8	2,897.3	87.48	34.121	
11,417.3	6,786.6	6,500.0	6,499.1	88.0	2.1	82.39	-6,954.2	-534.8	2,969.8	2,882.0	87.80	33.824	
11,500.0	6,785.9	6,500.0	6,499.1	89.5	2.1	82.39	-6,954.2	-534.8	2,898.6	2,809.2	89.35	32.439	
11,515.7	6,785.8	6,500.0	6,499.1	89.8	2.1	82.39	-6,954.2	-534.8	2,885.1	2,795.4	89.65	32.181	
11,600.0	6,785.1	6,500.0	6,499.1	91.4	2.1	82.39	-6,954.2	-534.8	2,813.2	2,722.0	91.23	30.835	
11,614.1	6,785.0	6,500.0	6,499.1	91.7	2.1	82.39	-6,954.2	-534.8	2,801.2	2,709.7	91.50	30.615	
11,700.0	6,784.2	6,500.0	6,499.1	93.3	2.1	82.39	-6,954.2	-534.8	2,728.8	2,635.7	93.11	29.307	
11,712.6	6,784.1	6,500.0	6,499.1	93.5	2.1	82.39	-6,954.2	-534.8	2,718.3	2,625.0	93.35	29.120	
11,800.0	6,783.4	6,500.0	6,499.1	95.2	2.1	82.39	-6,954.2	-534.8	2,645.6	2,550.6	94.99	27.850	
11,811.0	6,783.3	6,500.0	6,499.1	95.4	2.1	82.39	-6,954.2	-534.8	2,636.5	2,541.3	95.20	27.694	
11,900.0	6,782.6	6,500.0	6,499.1	97.0	2.1	82.39	-6,954.2	-534.8	2,563.5	2,466.6	96.87	26.462	
11,909.4	6,782.5	6,500.0	6,499.1	97.2	2.1	82.39	-6,954.2	-534.8	2,555.8	2,458.8	97.05	26.335	
12,000.0	6,781.7	6,500.0	6,499.1	98.9	2.1	82.39	-6,954.2	-534.8	2,482.7	2,384.0	98.76	25.140	
12,007.8	6,781.7	6,500.0	6,499.1	99.1	2.1	82.39	-6,954.2	-534.8	2,476.5	2,377.5	98.90	25.039	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #3 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	6,500.0	6,499.1	100.8	2.1	82.39	-6,954.2	-534.8	2,403.4	2,302.8	100.64	23.881	
12,106.3	6,780.9	6,500.0	6,499.1	100.9	2.1	82.39	-6,954.2	-534.8	2,398.5	2,297.7	100.76	23.804	
12,200.0	6,780.1	6,500.0	6,499.1	102.7	2.1	82.39	-6,954.2	-534.8	2,325.7	2,223.2	102.53	22.684	
12,204.7	6,780.0	6,500.0	6,499.1	102.7	2.1	82.39	-6,954.2	-534.8	2,322.1	2,219.5	102.61	22.629	
12,300.0	6,779.2	6,500.0	6,499.1	104.5	2.1	82.39	-6,954.2	-534.8	2,249.8	2,145.3	104.41	21.547	
12,303.1	6,779.2	6,500.0	6,499.1	104.6	2.1	82.39	-6,954.2	-534.8	2,247.4	2,142.9	104.47	21.513	
12,400.0	6,778.4	6,500.0	6,499.1	106.4	2.1	82.39	-6,954.2	-534.8	2,175.7	2,069.4	106.30	20.469	
12,401.5	6,778.4	6,500.0	6,499.1	106.4	2.1	82.39	-6,954.2	-534.8	2,174.6	2,068.3	106.33	20.452	
12,500.0	6,777.6	6,500.0	6,499.1	108.3	2.1	82.39	-6,954.2	-534.8	2,103.9	1,995.7	108.18	19.447	
12,598.4	6,776.7	6,500.0	6,499.1	110.2	2.1	82.39	-6,954.2	-534.8	2,035.5	1,925.5	110.04	18.498	
12,600.0	6,776.7	6,500.0	6,499.1	110.2	2.1	82.39	-6,954.2	-534.8	2,034.4	1,924.3	110.07	18.483	
12,696.8	6,775.9	6,500.0	6,499.1	112.0	2.1	82.39	-6,954.2	-534.8	1,969.6	1,857.7	111.90	17.602	
12,700.0	6,775.9	6,500.0	6,499.1	112.1	2.1	82.39	-6,954.2	-534.8	1,967.6	1,855.6	111.96	17.574	
12,795.2	6,775.1	6,500.0	6,499.1	113.9	2.1	82.39	-6,954.2	-534.8	1,906.6	1,792.8	113.76	16.760	
12,800.0	6,775.0	6,500.0	6,499.1	114.0	2.1	82.39	-6,954.2	-534.8	1,903.6	1,789.8	113.85	16.720	
12,893.7	6,774.3	6,500.0	6,499.1	115.7	2.1	82.39	-6,954.2	-534.8	1,846.6	1,731.0	115.62	15.972	
12,900.0	6,774.2	6,500.0	6,499.1	115.8	2.1	82.39	-6,954.2	-534.8	1,842.9	1,727.1	115.74	15.923	
12,992.1	6,773.4	6,500.0	6,499.1	117.6	2.1	82.39	-6,954.2	-534.8	1,790.1	1,672.6	117.48	15.237	
13,000.0	6,773.4	6,500.0	6,499.1	117.7	2.1	82.39	-6,954.2	-534.8	1,785.7	1,668.1	117.63	15.181	
13,090.5	6,772.6	6,500.0	6,499.1	119.4	2.1	82.39	-6,954.2	-534.8	1,737.3	1,617.9	119.34	14.557	
13,100.0	6,772.5	6,500.0	6,499.1	119.6	2.1	82.39	-6,954.2	-534.8	1,732.4	1,612.9	119.52	14.494	
13,188.9	6,771.8	6,500.0	6,499.1	121.3	2.1	82.39	-6,954.2	-534.8	1,688.5	1,567.3	121.20	13.932	
13,200.0	6,771.7	6,500.0	6,499.1	121.5	2.1	82.39	-6,954.2	-534.8	1,683.3	1,561.9	121.41	13.865	
13,287.4	6,771.0	6,500.0	6,499.1	123.2	2.1	82.39	-6,954.2	-534.8	1,644.3	1,521.2	123.06	13.361	
13,300.0	6,770.9	6,500.0	6,499.1	123.4	2.1	82.39	-6,954.2	-534.8	1,638.9	1,515.6	123.30	13.292	
13,385.8	6,770.1	6,500.0	6,499.1	125.0	2.1	82.39	-6,954.2	-534.8	1,604.8	1,479.9	124.93	12.846	
13,400.0	6,770.0	6,500.0	6,499.1	125.3	2.1	82.39	-6,954.2	-534.8	1,599.5	1,474.3	125.20	12.776	
13,484.2	6,769.3	6,500.0	6,499.1	126.9	2.1	82.39	-6,954.2	-534.8	1,570.6	1,443.8	126.79	12.387	
13,500.0	6,769.2	6,500.0	6,499.1	127.2	2.1	82.39	-6,954.2	-534.8	1,565.6	1,438.5	127.09	12.319	
13,582.6	6,768.5	6,500.0	6,499.1	128.8	2.1	82.39	-6,954.2	-534.8	1,541.8	1,413.2	128.65	11.984	
13,600.0	6,768.3	6,500.0	6,499.1	129.1	2.1	82.39	-6,954.2	-534.8	1,537.4	1,408.4	128.98	11.919	
13,681.1	6,767.6	6,500.0	6,499.1	130.6	2.1	82.39	-6,954.2	-534.8	1,518.9	1,388.4	130.52	11.638	
13,700.0	6,767.5	6,500.0	6,499.1	131.0	2.1	82.39	-6,954.2	-534.8	1,515.2	1,384.4	130.88	11.578	
13,779.5	6,766.8	6,500.0	6,499.1	132.5	2.1	82.39	-6,954.2	-534.8	1,502.2	1,369.8	132.38	11.347	
13,800.0	6,766.6	6,500.0	6,499.1	132.9	2.1	82.39	-6,954.2	-534.8	1,499.5	1,366.7	132.77	11.294	
13,877.9	6,766.0	6,500.0	6,499.1	134.4	2.1	82.39	-6,954.2	-534.8	1,491.7	1,357.5	134.25	11.112	
13,900.0	6,765.8	6,500.0	6,499.1	134.8	2.1	82.39	-6,954.2	-534.8	1,490.3	1,355.6	134.66	11.067	
13,976.3	6,765.2	6,500.0	6,499.1	136.2	2.1	82.39	-6,954.2	-534.8	1,487.7	1,351.6	136.11	10.930	
13,987.7	6,765.1	6,500.0	6,499.1	136.4	2.1	82.39	-6,954.2	-534.8	1,487.7	1,351.4	136.33	10.913 CC	
13,995.7	6,765.0	6,500.0	6,499.1	136.6	2.1	82.39	-6,954.2	-534.8	1,487.7	1,351.2	136.48	10.901 ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	178.68	-6,255.6	144.2	6,257.7				
98.4	98.4	25.9	25.9	0.1	0.0	178.68	-6,255.6	144.2	6,257.3	6,257.2	0.09	N/A	
100.0	100.0	27.4	27.4	0.1	0.0	178.68	-6,255.6	144.2	6,257.3	6,257.2	0.09	N/A	
196.8	196.8	125.1	125.1	0.3	0.0	178.68	-6,255.6	144.3	6,257.3	6,256.9	0.35	N/A	
200.0	200.0	128.5	128.5	0.3	0.0	178.68	-6,255.6	144.3	6,257.3	6,256.9	0.36	N/A	
295.3	295.3	232.8	232.8	0.5	0.2	178.68	-6,255.5	144.4	6,257.2	6,256.5	0.71	8,837.338	
300.0	300.0	237.9	237.9	0.5	0.2	178.68	-6,255.5	144.4	6,257.2	6,256.5	0.72	8,647.750	
393.7	393.7	326.4	326.4	0.7	0.3	178.68	-6,255.4	144.3	6,257.0	6,256.0	1.00	6,229.987	
400.0	400.0	331.0	331.0	0.8	0.3	178.68	-6,255.4	144.3	6,257.0	6,256.0	1.02	6,132.327	
411.1	411.1	339.1	339.1	0.8	0.3	178.68	-6,255.4	144.2	6,257.0	6,256.0	1.05	5,967.075	
492.1	492.1	400.0	400.0	1.0	0.3	178.68	-6,255.5	143.8	6,257.2	6,255.9	1.25	4,986.904	
500.0	500.0	400.0	400.0	1.0	0.3	178.68	-6,255.5	143.8	6,257.2	6,255.9	1.27	4,917.556	
590.5	590.5	485.6	485.6	1.2	0.3	178.69	-6,255.9	142.8	6,257.6	6,256.1	1.54	4,072.609	
600.0	600.0	494.0	494.0	1.2	0.4	178.69	-6,255.9	142.7	6,257.7	6,256.1	1.56	4,001.630	
689.0	689.0	580.7	580.7	1.4	0.4	178.70	-6,256.5	141.4	6,258.2	6,256.4	1.82	3,444.829	
700.0	700.0	591.5	591.5	1.4	0.4	178.71	-6,256.5	141.3	6,258.2	6,256.4	1.85	3,386.521	
787.4	787.4	675.5	675.4	1.6	0.5	178.72	-6,257.1	140.0	6,258.8	6,256.7	2.09	2,994.898	
800.0	800.0	687.6	687.5	1.7	0.5	178.72	-6,257.2	139.9	6,258.8	6,256.7	2.12	2,945.917	
885.8	885.8	776.4	776.3	1.9	0.5	178.73	-6,257.7	138.6	6,259.4	6,257.0	2.36	2,650.539	
900.0	900.0	791.2	791.2	1.9	0.5	178.73	-6,257.8	138.4	6,259.5	6,257.1	2.40	2,607.473	
984.2	984.2	880.1	880.0	2.1	0.6	178.74	-6,258.3	137.4	6,259.9	6,257.3	2.63	2,379.622	
1,000.0	1,000.0	896.7	896.7	2.1	0.6	178.74	-6,258.4	137.2	6,260.0	6,257.3	2.67	2,341.443	
1,082.7	1,082.7	983.5	983.5	2.3	0.6	178.75	-6,258.9	136.2	6,260.4	6,257.5	2.90	2,161.024	
1,100.0	1,100.0	1,000.0	999.9	2.3	0.6	178.75	-6,258.9	136.1	6,260.5	6,257.5	2.94	2,127.246	
1,181.1	1,181.1	1,079.7	1,079.7	2.5	0.7	178.76	-6,259.3	135.1	6,260.8	6,257.7	3.16	1,982.242	
1,200.0	1,200.0	1,098.0	1,097.9	2.6	0.7	178.77	-6,259.4	134.9	6,260.9	6,257.7	3.21	1,951.354	
1,279.5	1,279.5	1,170.6	1,170.6	2.7	0.7	178.77	-6,259.8	134.0	6,261.4	6,257.9	3.42	1,832.998	
1,300.0	1,300.0	1,189.3	1,189.2	2.8	0.7	178.78	-6,259.9	133.8	6,261.5	6,258.0	3.47	1,804.842	
1,377.9	1,377.9	1,259.0	1,258.9	3.0	0.7	178.78	-6,260.4	132.9	6,262.0	6,258.3	3.67	1,706.091	
1,400.0	1,400.0	1,278.7	1,278.6	3.0	0.7	178.79	-6,260.6	132.7	6,262.2	6,258.5	3.73	1,680.151	
1,476.4	1,476.4	1,347.7	1,347.7	3.2	0.8	178.79	-6,261.2	132.0	6,262.8	6,258.9	3.92	1,596.492	
1,500.0	1,500.0	1,369.3	1,369.2	3.2	0.8	178.79	-6,261.4	131.8	6,263.0	6,259.1	3.98	1,572.342	
1,574.8	1,574.8	1,444.4	1,444.3	3.4	0.8	178.80	-6,262.1	131.1	6,263.8	6,259.6	4.18	1,499.872	
1,600.0	1,600.0	1,471.6	1,471.5	3.5	0.8	178.80	-6,262.4	130.8	6,264.0	6,259.8	4.24	1,476.777	
1,673.2	1,673.2	1,551.4	1,551.3	3.6	0.8	178.81	-6,263.1	130.1	6,264.6	6,260.2	4.43	1,413.526	
1,700.0	1,700.0	1,580.7	1,580.6	3.7	0.9	178.81	-6,263.3	129.8	6,264.8	6,260.3	4.50	1,391.732	
1,771.6	1,771.6	1,662.6	1,662.5	3.8	0.9	178.82	-6,263.9	129.1	6,265.3	6,260.6	4.69	1,336.268	
1,800.0	1,800.0	1,695.5	1,695.4	3.9	0.9	178.82	-6,264.1	128.9	6,265.5	6,260.7	4.76	1,315.485	
1,870.1	1,870.1	1,826.5	1,826.3	4.1	0.9	178.82	-6,264.1	128.6	6,265.5	6,260.5	4.93	1,270.493	
1,900.0	1,900.0	1,865.8	1,865.7	4.1	0.9	178.82	-6,263.9	128.8	6,265.3	6,260.3	5.01	1,251.192	
1,968.5	1,968.5	1,940.5	1,940.3	4.3	0.9	178.82	-6,263.3	129.3	6,264.8	6,259.6	5.18	1,210.107	
2,000.0	2,000.0	1,970.5	1,970.3	4.4	0.9	178.82	-6,263.1	129.5	6,264.6	6,259.3	5.25	1,192.376	
2,066.9	2,066.9	2,037.7	2,037.6	4.5	0.9	178.81	-6,262.7	130.0	6,264.2	6,258.7	5.42	1,156.216	
2,100.0	2,100.0	2,072.5	2,072.3	4.6	0.9	178.81	-6,262.4	130.2	6,263.9	6,258.4	5.50	1,139.082	
2,165.3	2,165.3	2,154.4	2,154.3	4.7	0.9	110.40	-6,261.7	130.5	6,263.7	6,258.0	5.62	1,114.073	
2,195.3	2,195.2	2,196.0	2,195.9	4.8	1.0	110.41	-6,261.3	130.4	6,263.6	6,257.9	5.69	1,100.026	
2,200.0	2,200.0	2,202.4	2,202.2	4.8	1.0	110.41	-6,261.2	130.4	6,263.6	6,257.9	5.71	1,097.821	
2,263.8	2,263.7	2,283.3	2,283.1	4.9	1.0	110.45	-6,260.2	129.7	6,263.8	6,258.0	5.86	1,069.247	
2,300.0	2,299.8	2,317.9	2,317.7	5.0	1.0	110.46	-6,259.7	129.3	6,264.1	6,258.1	5.94	1,054.120	
2,362.2	2,361.8	2,366.2	2,366.0	5.1	1.0	110.48	-6,259.0	128.8	6,265.0	6,258.9	6.09	1,028.818	
2,400.0	2,399.5	2,400.0	2,399.8	5.2	1.0	110.50	-6,258.7	128.4	6,265.9	6,259.7	6.18	1,013.906	
2,460.6	2,459.7	2,451.2	2,451.0	5.4	1.0	110.52	-6,258.1	128.0	6,267.7	6,261.4	6.33	989.928	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,500.0	2,498.7	2,488.0	2,487.8	5.5	1.0	110.54	-6,257.8	127.7	6,269.2	6,262.7	6.43	974.843	
2,559.0	2,557.1	2,540.4	2,540.2	5.6	1.1	110.56	-6,257.3	127.3	6,271.7	6,265.1	6.59	951.813	
2,600.0	2,597.5	2,576.1	2,575.9	5.7	1.1	110.57	-6,257.0	127.0	6,273.8	6,267.1	6.70	936.543	
2,657.5	2,654.0	2,624.9	2,624.7	5.9	1.1	110.59	-6,256.6	126.4	6,277.1	6,270.3	6.87	914.192	
2,700.0	2,695.6	2,660.1	2,659.9	6.0	1.1	110.61	-6,256.4	126.0	6,279.9	6,272.9	6.99	898.409	
2,755.9	2,750.2	2,706.9	2,706.7	6.2	1.1	110.62	-6,256.2	125.5	6,284.0	6,276.8	7.17	876.423	
2,800.0	2,793.1	2,747.6	2,747.4	6.3	1.1	110.64	-6,256.0	125.0	6,287.5	6,280.2	7.31	859.717	
2,854.3	2,845.6	2,797.5	2,797.3	6.5	1.1	110.66	-6,255.8	124.4	6,292.3	6,284.8	7.51	837.756	
2,900.0	2,889.6	2,838.9	2,838.7	6.6	1.1	110.68	-6,255.7	124.0	6,296.6	6,288.9	7.68	820.211	
2,952.7	2,940.2	2,886.4	2,886.2	6.8	1.2	110.70	-6,255.5	123.5	6,301.9	6,294.0	7.89	798.444	
3,000.0	2,985.3	2,924.4	2,924.2	7.0	1.2	110.71	-6,255.4	123.2	6,307.0	6,298.9	8.09	780.067	
3,016.9	3,001.4	2,937.2	2,937.0	7.1	1.2	110.70	-6,255.4	123.1	6,308.9	6,300.8	8.16	773.233	
3,051.2	3,033.9	2,963.1	2,962.9	7.3	1.2	110.78	-6,255.4	122.9	6,312.9	6,304.6	8.31	759.395	
3,100.0	3,080.2	3,000.0	2,999.8	7.5	1.2	110.88	-6,255.4	122.6	6,318.7	6,310.1	8.53	740.533	
3,149.6	3,127.3	3,026.6	3,026.4	7.7	1.2	110.95	-6,255.5	122.5	6,324.6	6,315.9	8.76	721.727	
3,200.0	3,175.1	3,053.7	3,053.5	8.0	1.2	111.02	-6,255.7	122.4	6,330.9	6,321.9	9.00	703.635	
3,248.0	3,220.7	3,100.0	3,099.8	8.2	1.2	111.15	-6,256.2	122.4	6,337.1	6,327.9	9.24	686.147	
3,300.0	3,270.0	3,111.0	3,110.7	8.5	1.2	111.18	-6,256.3	122.4	6,343.9	6,334.4	9.49	668.634	
3,346.4	3,314.1	3,147.4	3,147.2	8.7	1.2	111.27	-6,256.8	122.4	6,350.1	6,340.4	9.73	652.822	
3,400.0	3,365.0	3,189.4	3,189.2	9.0	1.2	111.38	-6,257.5	122.5	6,357.4	6,347.4	10.00	635.537	
3,444.9	3,407.6	3,457.4	3,457.1	9.2	1.3	112.12	-6,257.4	120.2	6,363.1	6,352.8	10.25	620.605	
3,500.0	3,459.9	3,521.6	3,521.4	9.5	1.3	112.29	-6,256.0	119.6	6,368.7	6,358.2	10.54	604.079	
3,543.3	3,501.0	3,550.5	3,550.2	9.8	1.3	112.37	-6,255.4	119.3	6,373.2	6,362.5	10.78	591.483	
3,600.0	3,554.8	3,600.0	3,599.7	10.1	1.3	112.50	-6,254.5	118.8	6,379.3	6,368.3	11.08	575.720	
3,641.7	3,594.4	3,617.7	3,617.4	10.3	1.3	112.55	-6,254.3	118.6	6,383.9	6,372.6	11.31	564.576	
3,700.0	3,649.7	3,660.4	3,660.1	10.7	1.3	112.67	-6,253.6	118.0	6,390.4	6,378.8	11.63	549.613	
3,740.1	3,687.8	3,700.0	3,699.7	10.9	1.3	112.78	-6,253.1	117.4	6,395.0	6,383.2	11.85	539.542	
3,800.0	3,744.7	3,747.1	3,746.8	11.2	1.4	112.91	-6,252.6	116.5	6,401.9	6,389.8	12.19	525.365	
3,838.6	3,781.3	3,786.7	3,786.4	11.5	1.4	113.02	-6,252.1	115.7	6,406.4	6,394.0	12.40	516.455	
3,900.0	3,839.6	3,800.0	3,799.7	11.8	1.4	113.06	-6,251.9	115.4	6,413.7	6,401.0	12.75	503.213	
3,937.0	3,874.7	3,840.5	3,840.1	12.1	1.4	113.17	-6,251.5	114.5	6,418.1	6,405.2	12.96	495.298	
4,000.0	3,934.5	3,870.3	3,869.9	12.4	1.4	113.25	-6,251.4	113.9	6,426.1	6,412.8	13.31	482.652	
4,035.4	3,968.1	3,900.0	3,899.6	12.6	1.4	113.34	-6,251.4	113.3	6,430.7	6,417.2	13.52	475.719	
4,100.0	4,029.4	3,920.9	3,920.5	13.0	1.4	113.39	-6,251.5	112.9	6,439.3	6,425.5	13.89	463.713	
4,133.8	4,061.5	3,939.8	3,939.4	13.2	1.4	113.44	-6,251.6	112.6	6,444.0	6,429.9	14.08	457.606	
4,200.0	4,124.3	3,976.9	3,976.5	13.6	1.4	113.55	-6,251.9	112.0	6,453.3	6,438.9	14.46	446.217	
4,232.3	4,155.0	4,000.0	3,999.6	13.8	1.4	113.61	-6,252.2	111.6	6,458.0	6,443.4	14.65	440.783	
4,300.0	4,219.3	4,036.3	4,035.9	14.2	1.4	113.71	-6,252.7	111.1	6,468.0	6,453.0	15.04	429.944	
4,330.7	4,248.4	4,055.3	4,054.9	14.4	1.4	113.76	-6,253.0	110.8	6,472.6	6,457.4	15.22	425.177	
4,400.0	4,314.2	4,100.0	4,099.6	14.9	1.5	113.88	-6,253.9	110.2	6,483.3	6,467.7	15.63	414.828	
4,429.1	4,341.8	4,117.2	4,116.8	15.0	1.5	113.92	-6,254.3	109.9	6,487.9	6,472.1	15.80	410.629	
4,500.0	4,409.1	4,163.9	4,163.4	15.5	1.5	114.05	-6,255.4	109.3	6,499.2	6,483.0	16.22	400.787	
4,527.5	4,435.3	4,182.0	4,181.5	15.7	1.5	114.10	-6,255.9	109.0	6,503.7	6,487.3	16.38	397.082	
4,600.0	4,504.0	4,237.5	4,237.0	16.1	1.5	114.25	-6,257.5	108.1	6,515.6	6,498.8	16.81	387.691	
4,626.0	4,528.7	4,259.1	4,258.7	16.3	1.5	114.30	-6,258.1	107.8	6,519.9	6,502.9	16.96	384.427	
4,700.0	4,598.9	4,321.5	4,321.0	16.7	1.5	114.47	-6,260.0	106.8	6,532.3	6,514.9	17.40	375.460	
4,724.4	4,622.1	4,342.4	4,341.9	16.9	1.5	114.53	-6,260.6	106.4	6,536.4	6,518.9	17.54	372.596	
4,800.0	4,693.9	4,400.0	4,399.4	17.4	1.5	114.68	-6,262.4	105.4	6,549.3	6,531.3	17.99	364.046	
4,822.8	4,715.5	4,422.0	4,421.4	17.5	1.5	114.74	-6,263.1	105.1	6,553.2	6,535.1	18.13	361.528	
4,900.0	4,788.8	4,475.9	4,475.3	18.0	1.5	114.88	-6,264.9	104.2	6,566.6	6,548.1	18.58	353.338	
4,921.2	4,809.0	4,500.0	4,499.4	18.1	1.5	114.95	-6,265.8	103.8	6,570.4	6,551.7	18.71	351.136	
5,000.0	4,883.7	4,546.4	4,545.8	18.6	1.6	115.07	-6,267.5	103.0	6,584.5	6,565.3	19.18	343.294	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #5 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,019.7	4,902.4	4,560.4	4,559.7	18.7	1.6	115.10	-6,268.1	102.7	6,588.0	6,568.7	19.30	341.387		
5,100.0	4,978.6	4,635.5	4,634.7	19.3	1.6	115.30	-6,271.1	101.5	6,602.7	6,583.0	19.78	333.843		
5,118.1	4,995.8	4,661.8	4,661.0	19.4	1.6	115.37	-6,272.2	101.1	6,606.0	6,586.2	19.89	332.182		
5,200.0	5,073.6	4,755.1	4,754.3	19.9	1.6	115.61	-6,275.7	100.2	6,620.8	6,600.4	20.38	324.928		
5,216.5	5,089.2	4,771.5	4,770.6	20.0	1.6	115.65	-6,276.3	100.0	6,623.8	6,603.3	20.47	323.508		
5,304.2	5,172.4	4,853.6	4,852.6	20.6	1.6	115.86	-6,279.2	99.3	6,639.6	6,618.6	21.00	316.193		
5,314.9	5,182.7	4,863.4	4,862.4	20.6	1.6	115.92	-6,279.6	99.2	6,641.6	6,620.5	21.05	315.532		
5,400.0	5,263.9	4,936.8	4,935.8	21.1	1.6	116.36	-6,282.3	98.6	6,656.4	6,635.0	21.44	310.406		
5,413.4	5,276.7	4,947.8	4,946.8	21.1	1.6	116.43	-6,282.7	98.5	6,658.7	6,637.2	21.49	309.813		
5,500.0	5,360.3	5,020.5	5,019.5	21.5	1.7	116.83	-6,285.6	97.8	6,672.7	6,650.9	21.81	306.014		
5,511.8	5,371.7	5,030.9	5,029.9	21.6	1.7	116.89	-6,286.0	97.7	6,674.5	6,652.7	21.84	305.561		
5,600.0	5,457.5	5,300.0	5,298.8	21.9	1.7	117.59	-6,293.7	94.9	6,687.2	6,665.1	22.14	302.048		
5,610.2	5,467.5	5,310.4	5,309.2	21.9	1.7	117.63	-6,293.8	94.8	6,688.4	6,666.2	22.17	301.700		
5,700.0	5,555.6	5,395.6	5,394.4	22.3	1.7	117.93	-6,294.9	94.1	6,697.9	6,675.5	22.43	298.643		
5,708.6	5,564.1	5,400.0	5,398.8	22.3	1.8	117.96	-6,294.9	94.1	6,698.8	6,676.3	22.45	298.396		
5,800.0	5,654.2	5,477.7	5,476.5	22.6	1.8	118.20	-6,296.0	94.0	6,707.2	6,684.5	22.68	295.692		
5,807.1	5,661.2	5,483.5	5,482.3	22.6	1.8	118.22	-6,296.1	94.0	6,707.8	6,685.1	22.70	295.516		
5,900.0	5,753.4	5,574.3	5,573.1	22.8	1.8	118.43	-6,297.7	94.4	6,715.0	6,692.1	22.91	293.149		
5,905.5	5,758.8	5,579.9	5,578.7	22.8	1.8	118.44	-6,297.8	94.5	6,715.4	6,692.4	22.92	293.032		
6,000.0	5,852.9	5,674.5	5,673.2	23.1	1.8	118.59	-6,299.4	95.5	6,721.1	6,698.0	23.10	290.985		
6,003.9	5,856.8	5,678.4	5,677.1	23.1	1.8	118.60	-6,299.5	95.6	6,721.3	6,698.2	23.10	290.916		
6,100.0	5,952.7	5,781.1	5,779.9	23.2	1.8	118.71	-6,301.3	96.8	6,725.5	6,702.3	23.26	289.149		
6,102.3	5,955.1	5,783.7	5,782.4	23.2	1.8	118.71	-6,301.3	96.9	6,725.6	6,702.4	23.26	289.115		
6,200.0	6,052.7	5,872.4	5,871.1	23.4	1.8	118.76	-6,302.8	98.0	6,728.3	6,704.9	23.39	287.652		
6,200.8	6,053.5	5,873.1	5,871.8	23.4	1.8	118.76	-6,302.9	98.0	6,728.3	6,704.9	23.39	287.643		
6,221.1	6,073.8	5,890.9	5,889.6	23.4	1.8	-172.81	-6,303.2	98.3	6,728.7	6,705.2	23.41	287.381		
6,251.1	6,103.8	5,923.5	5,922.2	23.4	1.8	-172.82	-6,303.8	98.7	6,729.2	6,705.7	23.46	286.866		
6,299.2	6,151.8	5,980.9	5,979.6	23.5	1.8	7.18	-6,304.8	99.4	6,728.3	6,704.9	23.45	286.878		
6,300.0	6,152.6	5,981.8	5,980.5	23.5	1.8	7.19	-6,304.8	99.4	6,728.3	6,704.8	23.45	286.878		
6,350.0	6,202.4	6,039.5	6,038.1	23.5	1.8	7.23	-6,305.7	100.1	6,723.9	6,700.4	23.44	286.911		
6,397.6	6,249.3	6,093.1	6,091.8	23.5	1.8	7.31	-6,306.5	100.7	6,716.4	6,693.0	23.40	287.023		
6,400.0	6,251.6	6,095.8	6,094.5	23.5	1.8	7.31	-6,306.5	100.8	6,716.0	6,692.6	23.40	287.035		
6,450.0	6,300.1	6,158.0	6,156.7	23.5	1.8	7.44	-6,307.4	101.4	6,704.6	6,681.3	23.33	287.427		
6,496.0	6,344.0	6,209.5	6,208.1	23.5	1.8	7.60	-6,307.9	102.0	6,691.1	6,667.9	23.21	288.247		
6,500.0	6,347.7	6,212.6	6,211.2	23.5	1.8	7.62	-6,308.0	102.0	6,689.8	6,666.6	23.20	288.351		
6,550.0	6,394.1	6,251.3	6,250.0	23.5	1.8	7.84	-6,308.4	102.4	6,671.8	6,648.8	23.00	290.045		
6,594.5	6,434.2	6,284.8	6,283.5	23.4	1.9	8.09	-6,308.8	102.7	6,653.1	6,630.4	22.77	292.224		
6,600.0	6,439.0	6,288.9	6,287.6	23.4	1.9	8.12	-6,308.9	102.8	6,650.7	6,627.9	22.73	292.546		
6,650.0	6,482.4	6,331.6	6,330.2	23.4	1.9	8.46	-6,309.5	103.2	6,626.5	6,604.1	22.40	295.880		
6,692.9	6,518.1	6,369.1	6,367.7	23.3	1.9	8.82	-6,310.0	103.6	6,603.3	6,581.3	22.05	299.468		
6,700.0	6,523.9	6,375.2	6,373.8	23.3	1.9	8.89	-6,310.1	103.7	6,599.3	6,577.3	21.99	300.139		
6,750.0	6,563.3	6,420.9	6,419.5	23.3	1.9	9.41	-6,310.7	104.2	6,569.3	6,547.8	21.51	305.354		
6,791.3	6,594.2	6,461.7	6,460.3	23.2	1.9	9.93	-6,311.1	104.7	6,542.4	6,521.3	21.08	310.372		
6,800.0	6,600.5	6,470.0	6,468.6	23.2	1.9	10.05	-6,311.2	104.8	6,536.5	6,515.6	20.98	311.534		
6,850.0	6,635.3	6,475.0	6,473.6	23.2	1.9	10.77	-6,311.3	104.8	6,501.3	6,481.0	20.35	319.487		
6,889.7	6,661.1	6,475.0	6,473.6	23.1	1.9	11.46	-6,311.3	104.8	6,471.8	6,451.9	19.81	326.717		
6,900.0	6,667.5	6,475.0	6,473.6	23.1	1.9	11.65	-6,311.3	104.8	6,463.9	6,444.3	19.66	328.737		
6,950.0	6,696.9	6,475.0	6,473.6	23.1	1.9	12.73	-6,311.3	104.8	6,424.5	6,405.6	18.94	339.151		
6,988.2	6,717.5	6,475.0	6,473.6	23.1	1.9	13.74	-6,311.3	104.8	6,393.1	6,374.7	18.39	347.718		
7,000.0	6,723.5	6,475.0	6,473.6	23.1	1.9	14.10	-6,311.3	104.8	6,383.2	6,365.0	18.21	350.548		
7,050.0	6,747.0	6,475.0	6,473.6	23.1	1.9	15.84	-6,311.3	104.8	6,340.2	6,322.7	17.49	362.517		
7,086.6	6,762.3	6,475.0	6,473.6	23.1	1.9	17.45	-6,311.3	104.8	6,307.7	6,290.8	16.99	371.163		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,100.0	6,767.4	6,475.0	6,473.6	23.1	1.9	18.13	-6,311.3	104.8	6,295.7	6,278.9	16.82	374.238	
7,150.0	6,784.6	6,475.0	6,473.6	23.1	1.9	21.23	-6,311.3	104.8	6,249.8	6,233.5	16.27	384.174	
7,185.0	6,794.7	6,475.0	6,473.6	23.1	1.9	24.14	-6,311.3	104.8	6,217.0	6,201.0	15.99	388.701	
7,200.0	6,798.5	6,475.0	6,473.6	23.2	1.9	25.63	-6,311.3	104.8	6,202.8	6,186.9	15.92	389.582	
7,250.0	6,808.9	6,475.0	6,473.6	23.2	1.9	32.19	-6,311.3	104.8	6,154.8	6,138.9	15.94	386.048	
7,283.4	6,814.0	6,475.0	6,473.6	23.3	1.9	38.55	-6,311.3	104.8	6,122.3	6,106.1	16.28	376.005	
7,300.0	6,816.0	6,475.0	6,473.6	23.4	1.9	42.54	-6,311.3	104.8	6,106.2	6,089.6	16.57	368.523	
7,350.0	6,819.5	6,475.0	6,473.6	23.5	1.9	59.48	-6,311.3	104.8	6,057.0	6,039.1	17.90	338.356	
7,381.9	6,820.0	6,475.0	6,473.6	23.7	1.9	74.83	-6,311.3	104.8	6,025.5	6,006.6	18.83	319.944	
7,382.0	6,820.0	6,475.0	6,473.6	23.7	1.9	74.89	-6,311.3	104.8	6,025.4	6,006.5	18.84	319.884	
7,400.0	6,819.8	6,475.0	6,473.6	23.8	1.9	74.89	-6,311.3	104.8	6,007.5	5,988.6	18.98	316.528	
7,480.3	6,819.2	6,475.0	6,473.6	24.2	1.9	74.89	-6,311.3	104.8	5,928.1	5,908.4	19.70	300.967	
7,500.0	6,819.0	6,475.0	6,473.6	24.3	1.9	74.89	-6,311.3	104.8	5,908.6	5,888.7	19.87	297.321	
7,578.7	6,818.4	6,475.0	6,473.6	24.9	1.9	74.89	-6,311.3	104.8	5,830.7	5,810.0	20.69	281.801	
7,600.0	6,818.2	6,475.0	6,473.6	25.0	1.9	74.89	-6,311.3	104.8	5,809.7	5,788.8	20.91	277.817	
7,677.1	6,817.6	6,475.0	6,473.6	25.7	1.9	74.89	-6,311.3	104.8	5,733.4	5,711.6	21.81	262.898	
7,700.0	6,817.4	6,475.0	6,473.6	25.9	1.9	74.89	-6,311.3	104.8	5,710.8	5,688.8	22.07	258.714	
7,775.6	6,816.7	6,475.0	6,473.6	26.6	1.9	74.89	-6,311.3	104.8	5,636.1	5,613.1	23.03	244.736	
7,800.0	6,816.5	6,475.0	6,473.6	26.9	1.9	74.89	-6,311.3	104.8	5,612.0	5,588.7	23.34	240.465	
7,874.0	6,815.9	6,475.0	6,473.6	27.7	1.9	74.89	-6,311.3	104.8	5,538.9	5,514.6	24.34	227.596	
7,900.0	6,815.7	6,475.0	6,473.6	28.0	1.9	74.90	-6,311.3	104.8	5,513.2	5,488.5	24.69	223.323	
7,972.4	6,815.1	6,475.0	6,473.6	28.9	1.9	74.90	-6,311.3	104.8	5,441.7	5,416.0	25.72	211.613	
8,000.0	6,814.9	6,475.0	6,473.6	29.2	1.9	74.90	-6,311.3	104.8	5,414.5	5,388.4	26.11	207.399	
8,070.8	6,814.3	6,475.0	6,473.6	30.1	1.9	74.90	-6,311.3	104.8	5,344.5	5,317.4	27.15	196.826	
8,100.0	6,814.1	6,475.0	6,473.6	30.5	1.9	74.90	-6,311.3	104.8	5,315.8	5,288.2	27.58	192.710	
8,169.3	6,813.5	6,475.0	6,473.6	31.5	1.9	74.90	-6,311.3	104.8	5,247.4	5,218.8	28.64	183.208	
8,200.0	6,813.3	6,475.0	6,473.6	31.9	1.9	74.90	-6,311.3	104.8	5,217.1	5,188.0	29.11	179.217	
8,267.7	6,812.7	6,475.0	6,473.6	32.9	1.9	74.90	-6,311.3	104.8	5,150.4	5,120.2	30.17	170.701	
8,300.0	6,812.4	6,475.0	6,473.6	33.3	1.9	74.90	-6,311.3	104.8	5,118.6	5,087.9	30.68	166.847	
8,366.1	6,811.9	6,475.0	6,473.6	34.3	1.9	74.90	-6,311.3	104.8	5,053.4	5,021.7	31.74	159.225	
8,400.0	6,811.6	6,475.0	6,473.6	34.8	1.9	74.90	-6,311.3	104.8	5,020.0	4,987.7	32.28	155.516	
8,464.5	6,811.1	6,475.0	6,473.6	35.8	1.9	74.90	-6,311.3	104.8	4,956.4	4,923.1	33.33	148.697	
8,500.0	6,810.8	6,475.0	6,473.6	36.3	1.9	74.90	-6,311.3	104.8	4,921.5	4,887.6	33.91	145.133	
8,563.0	6,810.3	6,475.0	6,473.6	37.3	1.9	74.90	-6,311.3	104.8	4,859.6	4,824.6	34.95	139.030	
8,600.0	6,810.0	6,475.0	6,473.6	37.9	1.9	74.90	-6,311.3	104.8	4,823.1	4,787.6	35.57	135.610	
8,661.4	6,809.5	6,475.0	6,473.6	38.9	1.9	74.90	-6,311.3	104.8	4,762.7	4,726.1	36.60	130.144	
8,700.0	6,809.1	6,475.0	6,473.6	39.5	1.9	74.90	-6,311.3	104.8	4,724.8	4,687.5	37.24	126.863	
8,759.8	6,808.6	6,475.0	6,473.6	40.5	1.9	74.90	-6,311.3	104.8	4,666.0	4,627.7	38.26	121.963	
8,800.0	6,808.3	6,475.0	6,473.6	41.1	1.9	74.90	-6,311.3	104.8	4,626.5	4,587.6	38.94	118.816	
8,858.2	6,807.8	6,475.0	6,473.6	42.1	1.9	74.90	-6,311.3	104.8	4,569.3	4,529.4	39.94	114.418	
8,900.0	6,807.5	6,475.0	6,473.6	42.8	1.9	74.91	-6,311.3	104.8	4,528.3	4,487.7	40.65	111.399	
8,956.7	6,807.0	6,475.0	6,473.6	43.7	1.9	74.91	-6,311.3	104.8	4,472.7	4,431.1	41.63	107.446	
9,000.0	6,806.7	6,475.0	6,473.6	44.4	1.9	74.91	-6,311.3	104.8	4,430.2	4,387.8	42.37	104.548	
9,055.1	6,806.2	6,475.0	6,473.6	45.4	1.9	74.91	-6,311.3	104.8	4,376.2	4,332.8	43.33	100.992	
9,100.0	6,805.8	6,475.0	6,473.6	46.1	1.9	74.91	-6,311.3	104.8	4,332.2	4,288.1	44.11	98.209	
9,153.5	6,805.4	6,475.0	6,473.6	47.0	1.9	74.91	-6,311.3	104.8	4,279.7	4,234.7	45.05	95.005	
9,200.0	6,805.0	6,475.0	6,473.6	47.8	1.9	74.91	-6,311.3	104.8	4,234.2	4,188.4	45.86	92.330	
9,251.9	6,804.6	6,475.0	6,473.6	48.7	1.9	74.91	-6,311.3	104.8	4,183.4	4,136.6	46.77	89.441	
9,300.0	6,804.2	6,475.0	6,473.6	49.6	1.9	74.91	-6,311.3	104.8	4,136.4	4,088.8	47.62	86.868	
9,350.4	6,803.8	6,475.0	6,473.6	50.4	1.9	74.91	-6,311.3	104.8	4,087.1	4,038.6	48.51	84.260	
9,400.0	6,803.4	6,475.0	6,473.6	51.3	1.9	74.91	-6,311.3	104.8	4,038.6	3,989.3	49.38	81.783	
9,448.8	6,802.9	6,475.0	6,473.6	52.1	1.9	74.91	-6,311.3	104.8	3,991.0	3,940.7	50.25	79.426	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,500.0	6,802.5	6,475.0	6,473.6	53.0	1.9	74.91	-6,311.3	104.8	3,941.0	3,889.9	51.16	77.040	
9,547.2	6,802.1	6,475.0	6,473.6	53.9	1.9	74.91	-6,311.3	104.8	3,895.0	3,843.0	52.00	74.908	
9,600.0	6,801.7	6,475.0	6,473.6	54.8	1.9	74.91	-6,311.3	104.8	3,843.5	3,790.6	52.94	72.608	
9,645.6	6,801.3	6,475.0	6,473.6	55.6	1.9	74.91	-6,311.3	104.8	3,799.1	3,745.3	53.75	70.679	
9,700.0	6,800.9	6,475.0	6,473.6	56.6	1.9	74.91	-6,311.3	104.8	3,746.2	3,691.4	54.72	68.459	
9,744.1	6,800.5	6,475.0	6,473.6	57.4	1.9	74.91	-6,311.3	104.8	3,703.3	3,647.8	55.51	66.713	
9,800.0	6,800.0	6,475.0	6,473.6	58.4	1.9	74.91	-6,311.3	104.8	3,648.9	3,592.4	56.51	64.568	
9,842.5	6,799.7	6,475.0	6,473.6	59.1	1.9	74.91	-6,311.3	104.8	3,607.7	3,550.4	57.28	62.987	
9,900.0	6,799.2	6,475.0	6,473.6	60.2	1.9	74.91	-6,311.3	104.8	3,551.9	3,493.5	58.31	60.915	
9,940.9	6,798.9	6,475.0	6,473.6	60.9	1.9	74.91	-6,311.3	104.8	3,512.2	3,453.1	59.05	59.482	
10,000.0	6,798.4	6,475.0	6,473.6	62.0	1.9	74.91	-6,311.3	104.8	3,455.0	3,394.8	60.11	57.478	
10,039.3	6,798.1	6,475.0	6,473.6	62.7	1.9	74.91	-6,311.3	104.8	3,416.9	3,356.0	60.82	56.180	
10,100.0	6,797.6	6,475.0	6,473.6	63.8	1.9	74.92	-6,311.3	104.8	3,358.2	3,296.3	61.91	54.240	
10,137.8	6,797.2	6,475.0	6,473.6	64.4	1.9	74.92	-6,311.3	104.8	3,321.7	3,259.1	62.60	53.065	
10,200.0	6,796.7	6,475.0	6,473.6	65.6	1.9	74.92	-6,311.3	104.8	3,261.7	3,198.0	63.72	51.186	
10,236.2	6,796.4	6,475.0	6,473.6	66.2	1.9	74.92	-6,311.3	104.8	3,226.8	3,162.4	64.38	50.123	
10,300.0	6,795.9	6,475.0	6,473.6	67.4	1.9	74.92	-6,311.3	104.8	3,165.4	3,099.9	65.53	48.302	
10,334.6	6,795.6	6,475.0	6,473.6	68.0	1.9	74.92	-6,311.3	104.8	3,132.1	3,065.9	66.16	47.340	
10,400.0	6,795.1	6,475.0	6,473.6	69.2	1.9	74.92	-6,311.3	104.8	3,069.3	3,002.0	67.35	45.574	
10,433.0	6,794.8	6,475.0	6,473.6	69.8	1.9	74.92	-6,311.3	104.8	3,037.6	2,969.7	67.95	44.704	
10,500.0	6,794.2	6,475.0	6,473.6	71.0	1.9	74.92	-6,311.3	104.8	2,973.5	2,904.3	69.17	42.991	
10,531.5	6,794.0	6,475.0	6,473.6	71.6	1.9	74.92	-6,311.3	104.8	2,943.4	2,873.7	69.74	42.206	
10,600.0	6,793.4	6,475.0	6,473.6	72.9	1.9	74.92	-6,311.3	104.8	2,878.0	2,807.0	70.99	40.543	
10,629.9	6,793.2	6,475.0	6,473.6	73.4	1.9	74.92	-6,311.3	104.8	2,849.5	2,777.9	71.53	39.835	
10,700.0	6,792.6	6,475.0	6,473.6	74.7	1.9	74.92	-6,311.3	104.8	2,782.8	2,709.9	72.81	38.220	
10,728.3	6,792.3	6,475.0	6,473.6	75.2	1.9	74.92	-6,311.3	104.8	2,755.8	2,682.5	73.33	37.584	
10,800.0	6,791.7	6,475.0	6,473.6	76.6	1.9	74.92	-6,311.3	104.8	2,687.9	2,613.3	74.63	36.014	
10,826.7	6,791.5	6,475.0	6,473.6	77.1	1.9	74.92	-6,311.3	104.8	2,662.6	2,587.4	75.12	35.443	
10,900.0	6,790.9	6,475.0	6,473.6	78.4	1.9	74.92	-6,311.3	104.8	2,593.4	2,516.9	76.46	33.918	
10,925.2	6,790.7	6,475.0	6,473.6	78.9	1.9	74.92	-6,311.3	104.8	2,569.7	2,492.8	76.92	33.407	
11,000.0	6,790.1	6,475.0	6,473.6	80.3	1.9	74.92	-6,311.3	104.8	2,499.3	2,421.1	78.29	31.925	
11,023.6	6,789.9	6,475.0	6,473.6	80.7	1.9	74.92	-6,311.3	104.8	2,477.2	2,398.5	78.72	31.468	
11,100.0	6,789.2	6,475.0	6,473.6	82.1	1.9	74.92	-6,311.3	104.8	2,405.8	2,325.7	80.12	30.027	
11,122.0	6,789.1	6,475.0	6,473.6	82.5	1.9	74.92	-6,311.3	104.8	2,385.2	2,304.7	80.52	29.622	
11,200.0	6,788.4	6,475.0	6,473.6	84.0	1.9	74.92	-6,311.3	104.8	2,312.7	2,230.8	81.95	28.221	
11,220.4	6,788.2	6,475.0	6,473.6	84.3	1.9	74.92	-6,311.3	104.8	2,293.8	2,211.5	82.33	27.862	
11,300.0	6,787.6	6,475.0	6,473.6	85.8	1.9	74.92	-6,311.3	104.8	2,220.3	2,136.5	83.79	26.500	
11,318.9	6,787.4	6,475.0	6,473.6	86.2	1.9	74.92	-6,311.3	104.8	2,202.9	2,118.8	84.13	26.184	
11,400.0	6,786.7	6,475.0	6,473.6	87.7	1.9	74.92	-6,311.3	104.8	2,128.6	2,042.9	85.62	24.860	
11,417.3	6,786.6	6,475.0	6,473.6	88.0	1.9	74.92	-6,311.3	104.8	2,112.8	2,026.8	85.94	24.585	
11,500.0	6,785.9	6,475.0	6,473.6	89.5	1.9	74.92	-6,311.3	104.8	2,037.6	1,950.1	87.46	23.298	
11,515.7	6,785.8	6,475.0	6,473.6	89.8	1.9	74.92	-6,311.3	104.8	2,023.4	1,935.6	87.75	23.059	
11,600.0	6,785.1	6,475.0	6,473.6	91.4	1.9	74.92	-6,311.3	104.8	1,947.5	1,858.2	89.29	21.810	
11,614.1	6,785.0	6,475.0	6,473.6	91.7	1.9	74.92	-6,311.3	104.8	1,934.8	1,845.3	89.56	21.605	
11,700.0	6,784.2	6,475.0	6,473.6	93.3	1.9	74.92	-6,311.3	104.8	1,858.4	1,767.3	91.13	20.392	
11,712.6	6,784.1	6,475.0	6,473.6	93.5	1.9	74.92	-6,311.3	104.8	1,847.3	1,755.9	91.37	20.219	
11,800.0	6,783.4	6,475.0	6,473.6	95.2	1.9	74.92	-6,311.3	104.8	1,770.5	1,677.6	92.97	19.043	
11,811.0	6,783.3	6,475.0	6,473.6	95.4	1.9	74.92	-6,311.3	104.8	1,760.9	1,667.8	93.18	18.899	
11,900.0	6,782.6	6,475.0	6,473.6	97.0	1.9	74.92	-6,311.3	104.8	1,684.0	1,589.2	94.81	17.761	
11,909.4	6,782.5	6,475.0	6,473.6	97.2	1.9	74.92	-6,311.3	104.8	1,675.9	1,580.9	94.99	17.643	
12,000.0	6,781.7	6,475.0	6,473.6	98.9	1.9	74.92	-6,311.3	104.8	1,599.0	1,502.3	96.66	16.543	
12,007.8	6,781.7	6,475.0	6,473.6	99.1	1.9	74.92	-6,311.3	104.8	1,592.4	1,495.6	96.80	16.450	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PJ #5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	6,475.0	6,473.6	100.8	1.9	74.93	-6,311.3	104.8	1,515.8	1,417.3	98.50	15.389	
12,106.3	6,780.9	6,475.0	6,473.6	100.9	1.9	74.93	-6,311.3	104.8	1,510.7	1,412.1	98.62	15.319	
12,200.0	6,780.1	6,475.0	6,473.6	102.7	1.9	74.93	-6,311.3	104.8	1,434.8	1,334.5	100.34	14.299	
12,204.7	6,780.0	6,475.0	6,473.6	102.7	1.9	74.93	-6,311.3	104.8	1,431.1	1,330.7	100.43	14.250	
12,300.0	6,779.2	6,475.0	6,473.6	104.5	1.9	74.93	-6,311.3	104.8	1,356.4	1,254.2	102.19	13.273	
12,303.1	6,779.2	6,475.0	6,473.6	104.6	1.9	74.93	-6,311.3	104.8	1,354.0	1,251.7	102.25	13.242	
12,400.0	6,778.4	6,475.0	6,473.6	106.4	1.9	74.93	-6,311.3	104.8	1,280.9	1,176.9	104.03	12.313	
12,401.5	6,778.4	6,475.0	6,473.6	106.4	1.9	74.93	-6,311.3	104.8	1,279.8	1,175.7	104.06	12.298	
12,500.0	6,777.6	6,475.0	6,473.6	108.3	1.9	74.93	-6,311.3	104.8	1,209.0	1,103.2	105.88	11.419	
12,598.4	6,776.7	6,475.0	6,473.6	110.2	1.9	74.93	-6,311.3	104.8	1,142.4	1,034.7	107.70	10.608	
12,600.0	6,776.7	6,475.0	6,473.6	110.2	1.9	74.93	-6,311.3	104.8	1,141.4	1,033.7	107.73	10.595	
12,696.8	6,775.9	6,475.0	6,473.6	112.0	1.9	74.93	-6,311.3	104.8	1,080.7	971.2	109.52	9.868	
12,700.0	6,775.9	6,475.0	6,473.6	112.1	1.9	74.93	-6,311.3	104.8	1,078.8	969.2	109.57	9.845	
12,795.2	6,775.1	6,475.0	6,473.6	113.9	1.9	74.93	-6,311.3	104.8	1,024.7	913.4	111.33	9.204	
12,800.0	6,775.0	6,475.0	6,473.6	114.0	1.9	74.93	-6,311.3	104.8	1,022.1	910.7	111.42	9.174	
12,893.7	6,774.3	6,475.0	6,473.6	115.7	1.9	74.93	-6,311.3	104.8	975.4	862.3	113.15	8.620	
12,900.0	6,774.2	6,475.0	6,473.6	115.8	1.9	74.93	-6,311.3	104.8	972.5	859.2	113.27	8.586	
12,992.1	6,773.4	6,475.0	6,473.6	117.6	1.9	74.93	-6,311.3	104.8	934.0	819.0	114.97	8.123	
13,000.0	6,773.4	6,475.0	6,473.6	117.7	1.9	74.93	-6,311.3	104.8	931.0	815.9	115.12	8.087	
13,090.5	6,772.6	6,475.0	6,473.6	119.4	1.9	74.93	-6,311.3	104.8	901.4	784.6	116.79	7.718	
13,100.0	6,772.5	6,475.0	6,473.6	119.6	1.9	74.93	-6,311.3	104.8	898.8	781.8	116.97	7.684	
13,188.9	6,771.8	6,475.0	6,473.6	121.3	1.9	74.93	-6,311.3	104.8	878.7	760.1	118.62	7.408	
13,200.0	6,771.7	6,475.0	6,473.6	121.5	1.9	74.93	-6,311.3	104.8	876.8	758.0	118.82	7.379	
13,287.4	6,771.0	6,475.0	6,473.6	123.2	1.9	74.93	-6,311.3	104.8	866.7	746.2	120.44	7.196	
13,300.0	6,770.9	6,475.0	6,473.6	123.4	1.9	74.93	-6,311.3	104.8	865.9	745.2	120.67	7.176	
13,345.0	6,770.5	6,475.0	6,473.6	124.3	1.9	74.93	-6,311.3	104.8	864.7	743.2	121.50	7.117 CC, ES	
13,385.8	6,770.1	6,475.0	6,473.6	125.0	1.9	74.93	-6,311.3	104.8	865.7	743.4	122.26	7.081	
13,400.0	6,770.0	6,475.0	6,473.6	125.3	1.9	74.93	-6,311.3	104.8	866.5	744.0	122.52	7.072	
13,484.2	6,769.3	6,475.0	6,473.6	126.9	1.9	74.93	-6,311.3	104.8	875.9	751.8	124.08	7.059 SF	
13,500.0	6,769.2	6,475.0	6,473.6	127.2	1.9	74.93	-6,311.3	104.8	878.5	754.1	124.37	7.064	
13,582.6	6,768.5	6,475.0	6,473.6	128.8	1.9	74.93	-6,311.3	104.8	896.8	770.9	125.90	7.123	
13,600.0	6,768.3	6,475.0	6,473.6	129.1	1.9	74.93	-6,311.3	104.8	901.5	775.3	126.23	7.142	
13,681.1	6,767.6	6,475.0	6,473.6	130.6	1.9	74.93	-6,311.3	104.8	927.7	800.0	127.73	7.263	
13,700.0	6,767.5	6,475.0	6,473.6	131.0	1.9	74.93	-6,311.3	104.8	934.8	806.7	128.08	7.298	
13,779.5	6,766.8	6,475.0	6,473.6	132.5	1.9	74.93	-6,311.3	104.8	967.8	838.2	129.55	7.470	
13,800.0	6,766.6	6,475.0	6,473.6	132.9	1.9	74.93	-6,311.3	104.8	977.1	847.2	129.93	7.520	
13,877.9	6,766.0	6,475.0	6,473.6	134.4	1.9	74.93	-6,311.3	104.8	1,015.8	884.4	131.37	7.732	
13,900.0	6,765.8	6,475.0	6,473.6	134.8	1.9	74.93	-6,311.3	104.8	1,027.5	895.7	131.78	7.797	
13,976.3	6,765.2	6,475.0	6,473.6	136.2	1.9	74.93	-6,311.3	104.8	1,070.7	937.5	133.20	8.038	
13,995.7	6,765.0	6,475.0	6,473.6	136.6	1.9	74.93	-6,311.3	104.8	1,082.2	948.6	133.56	8.103	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-176.14	-5,469.8	-368.7	5,482.6				
98.4	98.4	28.5	28.5	0.1	0.0	-176.14	-5,469.8	-368.6	5,482.2	5,482.1	0.09	N/A	
100.0	100.0	30.1	30.1	0.1	0.0	-176.14	-5,469.8	-368.6	5,482.2	5,482.1	0.09	N/A	
196.8	196.8	131.3	131.3	0.3	0.1	-176.15	-5,469.8	-368.4	5,482.2	5,481.8	0.37	N/A	
200.0	200.0	135.0	135.0	0.3	0.1	-176.15	-5,469.8	-368.4	5,482.2	5,481.8	0.39	N/A	
295.3	295.3	247.2	247.2	0.5	0.2	-176.15	-5,469.6	-368.0	5,482.0	5,481.2	0.77	7,128.156	
300.0	300.0	252.9	252.9	0.5	0.3	-176.15	-5,469.5	-368.0	5,481.9	5,481.2	0.78	6,986.496	
393.7	393.7	360.2	360.2	0.7	0.3	-176.15	-5,468.9	-367.6	5,481.4	5,480.3	1.08	5,094.047	
400.0	400.0	367.0	367.0	0.8	0.3	-176.15	-5,468.9	-367.6	5,481.4	5,480.3	1.09	5,006.745	
492.1	492.1	461.5	461.5	1.0	0.4	-176.16	-5,468.2	-367.4	5,480.7	5,479.4	1.36	4,033.607	
500.0	500.0	469.3	469.3	1.0	0.4	-176.16	-5,468.2	-367.3	5,480.7	5,479.3	1.38	3,968.914	
590.5	590.5	556.7	556.7	1.2	0.5	-176.16	-5,467.6	-367.1	5,480.0	5,478.4	1.63	3,361.797	
600.0	600.0	565.7	565.7	1.2	0.5	-176.16	-5,467.5	-367.1	5,480.0	5,478.3	1.66	3,309.547	
689.0	689.0	647.6	647.5	1.4	0.5	-176.16	-5,467.1	-366.9	5,479.4	5,477.5	1.89	2,892.617	
700.0	700.0	657.5	657.5	1.4	0.5	-176.16	-5,467.0	-366.9	5,479.4	5,477.4	1.92	2,848.618	
787.4	787.4	736.4	736.4	1.6	0.6	-176.16	-5,466.7	-366.7	5,479.0	5,476.9	2.15	2,543.838	
800.0	800.0	747.8	747.8	1.7	0.6	-176.16	-5,466.6	-366.7	5,479.0	5,476.8	2.19	2,505.488	
885.8	885.8	824.8	824.8	1.9	0.6	-176.16	-5,466.5	-366.5	5,478.7	5,476.3	2.41	2,274.062	
900.0	900.0	837.2	837.2	1.9	0.6	-176.16	-5,466.5	-366.5	5,478.7	5,476.3	2.45	2,240.497	
957.5	957.5	887.5	887.5	2.0	0.6	-176.17	-5,466.4	-366.4	5,478.7	5,476.1	2.59	2,113.942	
984.2	984.2	911.6	911.6	2.1	0.6	-176.17	-5,466.4	-366.3	5,478.7	5,476.0	2.66	2,059.214	
1,000.0	1,000.0	926.3	926.3	2.1	0.6	-176.17	-5,466.5	-366.2	5,478.7	5,476.0	2.70	2,027.866	
1,082.7	1,082.7	1,003.5	1,003.5	2.3	0.7	-176.17	-5,466.6	-366.0	5,478.8	5,475.9	2.92	1,877.792	
1,100.0	1,100.0	1,020.2	1,020.2	2.3	0.7	-176.17	-5,466.6	-366.0	5,478.8	5,475.9	2.96	1,848.982	
1,181.1	1,181.1	1,100.0	1,100.0	2.5	0.7	-176.17	-5,466.8	-365.8	5,479.0	5,475.8	3.18	1,724.803	
1,200.0	1,200.0	1,117.1	1,117.1	2.6	0.7	-176.17	-5,466.8	-365.7	5,479.0	5,475.8	3.23	1,698.862	
1,279.5	1,279.5	1,195.7	1,195.7	2.7	0.7	-176.17	-5,467.0	-365.7	5,479.2	5,475.8	3.43	1,596.765	
1,300.0	1,300.0	1,215.4	1,215.4	2.8	0.7	-176.17	-5,467.1	-365.6	5,479.3	5,475.8	3.48	1,572.514	
1,377.9	1,377.9	1,289.7	1,289.7	3.0	0.7	-176.17	-5,467.3	-365.6	5,479.5	5,475.8	3.69	1,486.754	
1,400.0	1,400.0	1,310.7	1,310.7	3.0	0.8	-176.17	-5,467.4	-365.6	5,479.6	5,475.9	3.74	1,464.224	
1,476.4	1,476.4	1,383.6	1,383.5	3.2	0.8	-176.17	-5,467.6	-365.6	5,479.9	5,476.0	3.94	1,391.408	
1,500.0	1,500.0	1,406.4	1,406.4	3.2	0.8	-176.18	-5,467.7	-365.6	5,480.0	5,476.0	4.00	1,370.334	
1,574.8	1,574.8	1,481.2	1,481.2	3.4	0.8	-176.18	-5,468.1	-365.5	5,480.3	5,476.1	4.19	1,307.516	
1,600.0	1,600.0	1,506.5	1,506.5	3.5	0.8	-176.18	-5,468.2	-365.5	5,480.4	5,476.2	4.26	1,287.593	
1,673.2	1,673.2	1,580.8	1,580.8	3.6	0.8	-176.18	-5,468.5	-365.5	5,480.7	5,476.3	4.44	1,233.240	
1,700.0	1,700.0	1,608.3	1,608.3	3.7	0.8	-176.18	-5,468.6	-365.5	5,480.8	5,476.3	4.51	1,214.449	
1,771.6	1,771.6	1,683.5	1,683.5	3.8	0.9	-176.18	-5,468.9	-365.4	5,481.1	5,476.4	4.70	1,166.685	
1,800.0	1,800.0	1,712.8	1,712.8	3.9	0.9	-176.18	-5,469.0	-365.3	5,481.2	5,476.4	4.77	1,148.834	
1,870.1	1,870.1	1,784.0	1,784.0	4.1	0.9	-176.18	-5,469.2	-365.2	5,481.4	5,476.5	4.95	1,107.212	
1,900.0	1,900.0	1,815.0	1,815.0	4.1	0.9	-176.18	-5,469.3	-365.2	5,481.5	5,476.5	5.03	1,090.313	
1,968.5	1,968.5	1,887.6	1,887.6	4.3	0.9	-176.18	-5,469.5	-365.2	5,481.7	5,476.5	5.20	1,053.458	
2,000.0	2,000.0	1,918.8	1,918.8	4.4	0.9	-176.18	-5,469.5	-365.1	5,481.7	5,476.4	5.28	1,037.528	
2,066.9	2,066.9	1,982.6	1,982.5	4.5	0.9	-176.18	-5,469.7	-365.1	5,481.9	5,476.4	5.45	1,005.472	
2,100.0	2,100.0	2,013.8	2,013.8	4.6	1.0	-176.18	-5,469.8	-365.1	5,482.0	5,476.4	5.54	990.370	
2,165.3	2,165.3	2,075.1	2,075.0	4.7	1.0	115.39	-5,470.0	-365.1	5,482.5	5,476.9	5.65	970.433	
2,200.0	2,200.0	2,108.1	2,108.1	4.8	1.0	115.39	-5,470.1	-365.0	5,483.1	5,477.3	5.73	956.206	
2,263.8	2,263.7	2,172.2	2,172.2	4.9	1.0	115.39	-5,470.4	-365.0	5,484.6	5,478.7	5.89	931.471	
2,300.0	2,299.8	2,209.0	2,209.0	5.0	1.0	115.39	-5,470.5	-365.0	5,485.7	5,479.7	5.98	918.031	
2,362.2	2,361.8	2,273.9	2,273.9	5.1	1.0	115.40	-5,470.7	-364.9	5,488.1	5,482.0	6.13	895.273	
2,400.0	2,399.5	2,313.0	2,313.0	5.2	1.0	115.40	-5,470.9	-364.8	5,489.8	5,483.6	6.22	882.063	
2,460.6	2,459.7	2,374.7	2,374.7	5.4	1.1	115.41	-5,471.1	-364.7	5,493.0	5,486.6	6.38	860.913	
2,500.0	2,498.7	2,414.1	2,414.0	5.5	1.1	115.42	-5,471.2	-364.7	5,495.3	5,488.9	6.48	847.790	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,557.1	2,471.2	2,471.2	5.6	1.1	115.43	-5,471.3	-364.8	5,499.3	5,492.7	6.64	827.685	
2,600.0	2,597.5	2,510.9	2,510.9	5.7	1.1	115.43	-5,471.4	-364.8	5,502.4	5,495.7	6.76	814.358	
2,657.5	2,654.0	2,567.2	2,567.1	5.9	1.1	115.45	-5,471.6	-364.9	5,507.2	5,500.3	6.93	794.861	
2,700.0	2,695.6	2,609.0	2,609.0	6.0	1.1	115.45	-5,471.7	-364.9	5,511.0	5,504.0	7.06	781.112	
2,755.9	2,750.2	2,665.7	2,665.7	6.2	1.1	115.47	-5,471.9	-365.0	5,516.5	5,509.3	7.24	762.029	
2,800.0	2,793.1	2,709.7	2,709.7	6.3	1.1	115.48	-5,472.0	-365.0	5,521.2	5,513.8	7.38	747.667	
2,854.3	2,845.6	2,761.3	2,761.2	6.5	1.2	115.49	-5,472.1	-365.0	5,527.4	5,519.8	7.58	728.934	
2,900.0	2,889.6	2,804.5	2,804.5	6.6	1.2	115.50	-5,472.2	-365.1	5,532.9	5,525.2	7.75	713.995	
2,952.7	2,940.2	2,854.9	2,854.8	6.8	1.2	115.51	-5,472.4	-365.1	5,539.7	5,531.8	7.96	695.628	
3,000.0	2,985.3	2,899.7	2,899.7	7.0	1.2	115.52	-5,472.5	-365.3	5,546.3	5,538.1	8.16	680.044	
3,016.9	3,001.4	2,914.3	2,914.3	7.1	1.2	115.52	-5,472.5	-365.3	5,548.7	5,540.5	8.23	674.266	
3,051.2	3,033.9	2,943.6	2,943.6	7.3	1.2	115.61	-5,472.6	-365.4	5,553.6	5,545.3	8.38	662.594	
3,100.0	3,080.2	2,985.5	2,985.5	7.5	1.2	115.74	-5,472.8	-365.6	5,560.8	5,552.2	8.60	646.686	
3,149.6	3,127.3	3,029.6	3,029.6	7.7	1.2	115.87	-5,472.9	-365.9	5,568.1	5,559.3	8.83	630.507	
3,200.0	3,175.1	3,075.3	3,075.3	8.0	1.2	116.01	-5,473.1	-366.2	5,575.6	5,566.5	9.07	614.937	
3,248.0	3,220.7	3,118.9	3,118.9	8.2	1.2	116.14	-5,473.4	-366.5	5,582.8	5,573.5	9.30	600.216	
3,300.0	3,270.0	3,166.2	3,166.2	8.5	1.2	116.28	-5,473.6	-367.0	5,590.7	5,581.1	9.55	585.168	
3,346.4	3,314.1	3,208.3	3,208.2	8.7	1.3	116.41	-5,473.8	-367.6	5,597.7	5,587.9	9.79	571.914	
3,400.0	3,365.0	3,256.2	3,256.2	9.0	1.3	116.55	-5,474.0	-368.2	5,605.9	5,595.9	10.06	557.450	
3,444.9	3,407.6	3,296.4	3,296.4	9.2	1.3	116.68	-5,474.3	-368.8	5,612.8	5,602.5	10.29	545.570	
3,500.0	3,459.9	3,342.3	3,342.3	9.5	1.3	116.82	-5,474.6	-369.4	5,621.4	5,610.8	10.57	531.720	
3,543.3	3,501.0	3,378.2	3,378.1	9.8	1.3	116.92	-5,474.8	-369.8	5,628.2	5,617.4	10.80	521.104	
3,600.0	3,554.8	3,430.3	3,430.2	10.1	1.3	117.08	-5,475.3	-370.5	5,637.2	5,626.1	11.10	507.848	
3,641.7	3,594.4	3,472.0	3,471.9	10.3	1.3	117.21	-5,475.6	-371.1	5,643.9	5,632.6	11.33	498.328	
3,700.0	3,649.7	3,527.2	3,527.1	10.7	1.3	117.37	-5,476.0	-371.8	5,653.2	5,641.5	11.64	485.710	
3,740.1	3,687.8	3,563.3	3,563.2	10.9	1.3	117.48	-5,476.3	-372.3	5,659.6	5,647.8	11.86	477.289	
3,800.0	3,744.7	3,618.4	3,618.3	11.2	1.3	117.64	-5,476.7	-373.0	5,669.3	5,657.1	12.18	465.317	
3,838.6	3,781.3	3,655.7	3,655.6	11.5	1.3	117.75	-5,477.1	-373.5	5,675.6	5,663.2	12.40	457.822	
3,900.0	3,839.6	3,714.3	3,714.2	11.8	1.4	117.93	-5,477.5	-374.3	5,685.6	5,672.9	12.74	446.434	
3,937.0	3,874.7	3,748.4	3,748.3	12.1	1.4	118.03	-5,477.8	-374.8	5,691.7	5,678.7	12.94	439.794	
4,000.0	3,934.5	3,806.0	3,805.9	12.4	1.4	118.20	-5,478.3	-375.6	5,702.0	5,688.7	13.29	429.006	
4,035.4	3,968.1	3,836.2	3,836.1	12.6	1.4	118.29	-5,478.5	-376.0	5,707.9	5,694.4	13.49	423.129	
4,100.0	4,029.4	3,891.3	3,891.1	13.0	1.4	118.45	-5,479.1	-376.8	5,718.7	5,704.9	13.85	412.861	
4,133.8	4,061.5	3,920.3	3,920.2	13.2	1.4	118.53	-5,479.4	-377.1	5,724.4	5,710.4	14.04	407.638	
4,200.0	4,124.3	3,977.2	3,977.1	13.6	1.4	118.70	-5,480.0	-377.8	5,735.7	5,721.3	14.42	397.846	
4,232.3	4,155.0	4,006.1	4,006.0	13.8	1.4	118.78	-5,480.4	-378.1	5,741.2	5,726.6	14.60	393.216	
4,300.0	4,219.3	4,077.4	4,077.3	14.2	1.4	118.99	-5,481.2	-378.8	5,752.8	5,737.8	14.99	383.843	
4,330.7	4,248.4	4,108.8	4,108.7	14.4	1.5	119.08	-5,481.5	-379.0	5,758.1	5,742.9	15.16	379.732	
4,400.0	4,314.2	4,174.9	4,174.7	14.9	1.5	119.26	-5,482.3	-379.6	5,770.0	5,754.4	15.56	370.829	
4,429.1	4,341.8	4,200.0	4,199.8	15.0	1.5	119.33	-5,482.6	-379.7	5,775.0	5,759.3	15.73	367.213	
4,500.0	4,409.1	4,263.3	4,263.1	15.5	1.5	119.51	-5,483.3	-380.1	5,787.3	5,771.2	16.13	358.712	
4,527.5	4,435.3	4,287.0	4,286.8	15.7	1.5	119.58	-5,483.6	-380.2	5,792.1	5,775.9	16.29	355.513	
4,600.0	4,504.0	4,348.8	4,348.6	16.1	1.5	119.74	-5,484.5	-380.3	5,804.9	5,788.2	16.71	347.397	
4,626.0	4,528.7	4,370.9	4,370.7	16.3	1.5	119.81	-5,484.8	-380.3	5,809.5	5,792.7	16.86	344.574	
4,700.0	4,598.9	4,427.6	4,427.5	16.7	1.5	119.96	-5,485.7	-380.3	5,822.8	5,805.5	17.29	336.830	
4,724.4	4,622.1	4,444.6	4,444.4	16.9	1.6	120.00	-5,486.0	-380.3	5,827.2	5,809.8	17.43	334.359	
4,800.0	4,693.9	4,500.0	4,499.8	17.4	1.6	120.15	-5,487.2	-380.3	5,841.2	5,823.3	17.87	326.962	
4,822.8	4,715.5	4,516.6	4,516.4	17.5	1.6	120.20	-5,487.5	-380.4	5,845.5	5,827.5	18.00	324.796	
4,900.0	4,788.8	4,586.1	4,585.9	18.0	1.6	120.38	-5,489.1	-380.4	5,860.0	5,841.5	18.45	317.680	
4,921.2	4,809.0	4,614.2	4,614.0	18.1	1.6	120.46	-5,489.7	-380.4	5,864.0	5,845.4	18.57	315.764	
5,000.0	4,883.7	4,758.2	4,758.0	18.6	1.6	120.84	-5,491.8	-380.5	5,878.2	5,859.1	19.03	308.856	
5,019.7	4,902.4	4,784.4	4,784.2	18.7	1.7	120.91	-5,492.1	-380.5	5,881.7	5,862.5	19.15	307.198	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	4,978.6	4,857.6	4,857.3	19.3	1.7	121.11	-5,492.7	-380.4	5,895.8	5,876.2	19.61	300.658	
5,118.1	4,995.8	4,872.8	4,872.5	19.4	1.7	121.14	-5,492.8	-380.3	5,899.1	5,879.3	19.71	299.226	
5,200.0	5,073.6	4,945.3	4,945.0	19.9	1.7	121.33	-5,493.6	-380.1	5,913.7	5,893.6	20.19	292.932	
5,216.5	5,089.2	4,960.4	4,960.2	20.0	1.7	121.37	-5,493.8	-380.1	5,916.7	5,896.4	20.28	291.695	
5,304.2	5,172.4	5,039.7	5,039.5	20.6	1.7	121.58	-5,494.6	-380.0	5,932.6	5,911.8	20.79	285.339	
5,314.9	5,182.7	5,049.4	5,049.1	20.6	1.7	121.64	-5,494.7	-379.9	5,934.5	5,913.7	20.84	284.779	
5,400.0	5,263.9	5,128.9	5,128.6	21.1	1.8	122.09	-5,495.6	-379.9	5,949.3	5,928.0	21.22	280.427	
5,413.4	5,276.7	5,142.4	5,142.2	21.1	1.8	122.15	-5,495.8	-379.8	5,951.5	5,930.2	21.26	279.924	
5,500.0	5,360.3	5,228.1	5,227.8	21.5	1.8	122.57	-5,496.7	-379.7	5,964.9	5,943.4	21.56	276.684	
5,511.8	5,371.7	5,239.2	5,239.0	21.6	1.8	122.62	-5,496.9	-379.7	5,966.7	5,945.1	21.60	276.297	
5,600.0	5,457.5	5,322.4	5,322.2	21.9	1.8	122.98	-5,497.8	-379.5	5,978.8	5,957.0	21.87	273.403	
5,610.2	5,467.5	5,332.0	5,331.8	21.9	1.8	123.02	-5,497.9	-379.5	5,980.1	5,958.3	21.90	273.112	
5,700.0	5,555.6	5,416.2	5,415.9	22.3	1.8	123.33	-5,498.9	-379.3	5,990.9	5,968.8	22.14	270.534	
5,708.6	5,564.1	5,424.1	5,423.8	22.3	1.8	123.36	-5,499.0	-379.3	5,991.9	5,969.7	22.17	270.321	
5,800.0	5,654.2	5,507.9	5,507.6	22.6	1.9	123.62	-5,500.1	-379.1	6,001.3	5,978.9	22.39	268.041	
5,807.1	5,661.2	5,514.5	5,514.2	22.6	1.9	123.64	-5,500.2	-379.1	6,001.9	5,979.5	22.40	267.891	
5,900.0	5,753.4	5,601.7	5,601.4	22.8	1.9	123.85	-5,501.4	-378.9	6,009.8	5,987.2	22.60	265.875	
5,905.5	5,758.8	5,607.5	5,607.2	22.8	1.9	123.86	-5,501.5	-378.9	6,010.2	5,987.6	22.61	265.773	
6,000.0	5,852.9	5,708.0	5,707.7	23.1	1.9	124.04	-5,502.8	-379.1	6,016.4	5,993.6	22.79	263.971	
6,003.9	5,856.8	5,712.0	5,711.7	23.1	1.9	124.05	-5,502.9	-379.1	6,016.6	5,993.8	22.80	263.909	
6,100.0	5,952.7	5,809.2	5,808.9	23.2	2.0	124.17	-5,504.0	-379.5	6,021.0	5,998.1	22.95	262.318	
6,102.3	5,955.1	5,811.4	5,811.0	23.2	2.0	124.17	-5,504.0	-379.5	6,021.1	5,998.1	22.96	262.287	
6,200.0	6,052.7	5,903.3	5,902.9	23.4	2.0	124.23	-5,505.2	-379.8	6,023.7	6,000.6	23.09	260.906	
6,200.8	6,053.5	5,904.3	5,904.0	23.4	2.0	124.23	-5,505.2	-379.8	6,023.7	6,000.6	23.09	260.895	
6,221.1	6,073.8	5,931.8	5,931.4	23.4	2.0	-167.34	-5,505.5	-379.9	6,024.0	6,000.9	23.12	260.606	
6,251.1	6,103.8	5,972.3	5,972.0	23.4	2.0	-167.34	-5,505.9	-380.1	6,024.3	6,001.2	23.17	260.061	
6,299.2	6,151.8	6,026.8	6,026.5	23.5	2.0	12.68	-5,506.4	-380.2	6,023.2	6,000.0	23.16	260.120	
6,300.0	6,152.6	6,027.6	6,027.2	23.5	2.0	12.68	-5,506.5	-380.2	6,023.2	6,000.0	23.16	260.123	
6,350.0	6,202.4	6,076.0	6,075.7	23.5	2.0	12.77	-5,506.9	-380.2	6,018.6	5,995.5	23.11	260.428	
6,397.6	6,249.3	6,126.6	6,126.2	23.5	2.1	12.92	-5,507.4	-380.3	6,011.1	5,988.1	23.04	260.905	
6,400.0	6,251.6	6,129.3	6,129.0	23.5	2.1	12.93	-5,507.4	-380.3	6,010.7	5,987.6	23.03	260.937	
6,450.0	6,300.1	6,187.1	6,186.8	23.5	2.1	13.17	-5,507.9	-380.2	5,999.3	5,976.4	22.92	261.762	
6,496.0	6,344.0	6,238.0	6,237.7	23.5	2.1	13.47	-5,508.2	-380.1	5,985.9	5,963.2	22.77	262.931	
6,500.0	6,347.7	6,242.3	6,242.0	23.5	2.1	13.49	-5,508.3	-380.1	5,984.6	5,961.9	22.75	263.056	
6,550.0	6,394.1	6,295.7	6,295.4	23.5	2.1	13.91	-5,508.6	-380.0	5,966.7	5,944.2	22.52	264.933	
6,594.5	6,434.2	6,336.9	6,336.5	23.4	2.1	14.35	-5,508.8	-379.9	5,948.1	5,925.8	22.26	267.204	
6,600.0	6,439.0	6,341.8	6,341.5	23.4	2.1	14.41	-5,508.8	-379.9	5,945.6	5,923.4	22.22	267.534	
6,650.0	6,482.4	6,385.8	6,385.4	23.4	2.1	15.03	-5,509.1	-379.8	5,921.5	5,899.6	21.86	270.915	
6,692.9	6,518.1	6,424.9	6,424.6	23.3	2.2	15.67	-5,509.3	-379.7	5,898.5	5,877.0	21.49	274.455	
6,700.0	6,523.9	6,431.5	6,431.2	23.3	2.2	15.79	-5,509.3	-379.7	5,894.5	5,873.1	21.43	275.112	
6,750.0	6,563.3	6,476.8	6,476.5	23.3	2.2	16.71	-5,509.5	-379.4	5,864.7	5,843.8	20.93	280.179	
6,791.3	6,594.2	6,511.4	6,511.0	23.2	2.2	17.62	-5,509.7	-379.2	5,838.1	5,817.6	20.48	285.045	
6,800.0	6,600.5	6,518.0	6,517.7	23.2	2.2	17.83	-5,509.7	-379.1	5,832.3	5,811.9	20.38	286.172	
6,850.0	6,635.3	6,554.9	6,554.5	23.2	2.2	19.17	-5,509.8	-378.8	5,797.4	5,777.6	19.78	293.079	
6,889.7	6,661.1	6,582.2	6,581.9	23.1	2.2	20.46	-5,510.0	-378.5	5,768.0	5,748.7	19.28	299.103	
6,900.0	6,667.5	6,589.0	6,588.7	23.1	2.2	20.82	-5,510.0	-378.4	5,760.2	5,741.0	19.15	300.775	
6,950.0	6,696.9	6,618.2	6,617.9	23.1	2.2	22.85	-5,510.1	-378.1	5,720.9	5,702.4	18.51	309.026	
6,988.2	6,717.5	6,637.9	6,637.5	23.1	2.2	24.72	-5,510.2	-377.9	5,689.6	5,671.6	18.05	315.267	
7,000.0	6,723.5	6,643.6	6,643.3	23.1	2.2	25.37	-5,510.2	-377.8	5,679.7	5,661.8	17.90	317.263	
7,050.0	6,747.0	6,666.1	6,665.8	23.1	2.2	28.56	-5,510.3	-377.6	5,636.9	5,619.5	17.37	324.472	
7,086.6	6,762.3	6,680.8	6,680.4	23.1	2.2	31.45	-5,510.4	-377.4	5,604.6	5,587.5	17.08	328.162	
7,100.0	6,767.4	6,685.7	6,685.4	23.1	2.2	32.66	-5,510.4	-377.3	5,592.6	5,575.6	17.00	329.066	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,150.0	6,784.6	6,700.0	6,699.6	23.1	2.2	37.97	-5,510.5	-377.2	5,547.0	5,530.1	16.86	329.095	
7,185.0	6,794.7	6,700.0	6,699.6	23.1	2.2	42.53	-5,510.5	-377.2	5,514.5	5,497.5	16.93	325.785	
7,200.0	6,798.5	6,700.0	6,699.6	23.2	2.2	44.76	-5,510.5	-377.2	5,500.4	5,483.4	17.01	323.393	
7,250.0	6,808.9	6,700.0	6,699.6	23.2	2.2	53.75	-5,510.5	-377.2	5,453.0	5,435.5	17.48	311.924	
7,283.4	6,814.0	6,700.0	6,699.6	23.3	2.2	61.25	-5,510.5	-377.2	5,421.0	5,403.1	17.92	302.485	
7,300.0	6,816.0	6,700.0	6,699.6	23.4	2.2	65.43	-5,510.5	-377.2	5,405.1	5,386.9	18.14	297.936	
7,350.0	6,819.5	6,700.0	6,699.6	23.5	2.2	79.71	-5,510.5	-377.2	5,356.8	5,338.0	18.79	285.046	
7,381.9	6,820.0	6,700.0	6,699.6	23.7	2.2	89.62	-5,510.5	-377.2	5,325.9	5,306.5	19.41	274.411	
7,382.0	6,820.0	6,700.0	6,699.6	23.7	2.2	89.65	-5,510.5	-377.2	5,325.8	5,306.4	19.41	274.362	
7,400.0	6,819.8	6,700.0	6,699.6	23.8	2.2	89.65	-5,510.5	-377.2	5,308.3	5,288.8	19.56	271.333	
7,480.3	6,819.2	6,700.0	6,699.6	24.2	2.2	89.65	-5,510.5	-377.2	5,230.6	5,210.3	20.32	257.426	
7,500.0	6,819.0	6,700.0	6,699.6	24.3	2.2	89.65	-5,510.5	-377.2	5,211.5	5,191.0	20.50	254.170	
7,578.7	6,818.4	6,700.0	6,699.6	24.9	2.2	89.65	-5,510.5	-377.2	5,135.4	5,114.0	21.36	240.469	
7,600.0	6,818.2	6,700.0	6,699.6	25.0	2.2	89.65	-5,510.5	-377.2	5,114.8	5,093.2	21.59	236.952	
7,677.1	6,817.6	6,700.0	6,699.6	25.7	2.2	89.65	-5,510.5	-377.2	5,040.3	5,017.8	22.51	223.882	
7,700.0	6,817.4	6,700.0	6,699.6	25.9	2.2	89.65	-5,510.5	-377.2	5,018.3	4,995.5	22.79	220.216	
7,775.6	6,816.7	6,700.0	6,699.6	26.6	2.2	89.65	-5,510.5	-377.2	4,945.4	4,921.6	23.77	208.030	
7,800.0	6,816.5	6,700.0	6,699.6	26.9	2.2	89.66	-5,510.5	-377.2	4,921.8	4,897.7	24.09	204.305	
7,874.0	6,815.9	6,700.0	6,699.6	27.7	2.2	89.66	-5,510.5	-377.2	4,850.6	4,825.5	25.12	193.121	
7,900.0	6,815.7	6,700.0	6,699.6	28.0	2.2	89.66	-5,510.5	-377.2	4,825.6	4,800.1	25.48	189.405	
7,972.4	6,815.1	6,700.0	6,699.6	28.9	2.2	89.66	-5,510.5	-377.2	4,755.9	4,729.4	26.53	179.247	
8,000.0	6,814.9	6,700.0	6,699.6	29.2	2.2	89.66	-5,510.5	-377.2	4,729.4	4,702.5	26.93	175.590	
8,070.8	6,814.3	6,700.0	6,699.6	30.1	2.2	89.66	-5,510.5	-377.2	4,661.4	4,633.4	28.01	166.428	
8,100.0	6,814.1	6,700.0	6,699.6	30.5	2.2	89.66	-5,510.5	-377.2	4,633.5	4,605.0	28.45	162.860	
8,169.3	6,813.5	6,700.0	6,699.6	31.5	2.2	89.66	-5,510.5	-377.2	4,567.1	4,537.6	29.53	154.633	
8,200.0	6,813.3	6,700.0	6,699.6	31.9	2.2	89.66	-5,510.5	-377.2	4,537.7	4,507.7	30.02	151.176	
8,267.7	6,812.7	6,700.0	6,699.6	32.9	2.2	89.66	-5,510.5	-377.2	4,472.9	4,441.8	31.10	143.807	
8,300.0	6,812.4	6,700.0	6,699.6	33.3	2.2	89.66	-5,510.5	-377.2	4,442.1	4,410.5	31.62	140.470	
8,366.1	6,811.9	6,700.0	6,699.6	34.3	2.2	89.66	-5,510.5	-377.2	4,379.0	4,346.3	32.71	133.877	
8,400.0	6,811.6	6,700.0	6,699.6	34.8	2.2	89.66	-5,510.5	-377.2	4,346.7	4,313.4	33.27	130.667	
8,464.5	6,811.1	6,700.0	6,699.6	35.8	2.2	89.66	-5,510.5	-377.2	4,285.2	4,250.9	34.34	124.770	
8,500.0	6,810.8	6,700.0	6,699.6	36.3	2.2	89.66	-5,510.5	-377.2	4,251.5	4,216.5	34.94	121.688	
8,563.0	6,810.3	6,700.0	6,699.6	37.3	2.2	89.66	-5,510.5	-377.2	4,191.7	4,155.6	36.01	116.412	
8,600.0	6,810.0	6,700.0	6,699.6	37.9	2.2	89.66	-5,510.5	-377.2	4,156.5	4,119.9	36.64	113.456	
8,661.4	6,809.5	6,700.0	6,699.6	38.9	2.2	89.66	-5,510.5	-377.2	4,098.3	4,060.6	37.69	108.732	
8,700.0	6,809.1	6,700.0	6,699.6	39.5	2.2	89.66	-5,510.5	-377.2	4,061.8	4,023.4	38.36	105.898	
8,759.8	6,808.6	6,700.0	6,699.6	40.5	2.2	89.66	-5,510.5	-377.2	4,005.2	3,965.9	39.40	101.665	
8,800.0	6,808.3	6,700.0	6,699.6	41.1	2.2	89.66	-5,510.5	-377.2	3,967.3	3,927.2	40.10	98.947	
8,858.2	6,807.8	6,700.0	6,699.6	42.1	2.2	89.66	-5,510.5	-377.2	3,912.4	3,871.3	41.12	95.151	
8,900.0	6,807.5	6,700.0	6,699.6	42.8	2.2	89.66	-5,510.5	-377.2	3,873.1	3,831.3	41.85	92.545	
8,956.7	6,807.0	6,700.0	6,699.6	43.7	2.2	89.66	-5,510.5	-377.2	3,819.9	3,777.0	42.85	89.135	
9,000.0	6,806.7	6,700.0	6,699.6	44.4	2.2	89.66	-5,510.5	-377.2	3,779.3	3,735.6	43.62	86.636	
9,055.1	6,806.2	6,700.0	6,699.6	45.4	2.2	89.66	-5,510.5	-377.2	3,727.7	3,683.1	44.60	83.571	
9,100.0	6,805.8	6,700.0	6,699.6	46.1	2.2	89.66	-5,510.5	-377.2	3,685.7	3,640.3	45.41	81.172	
9,153.5	6,805.4	6,700.0	6,699.6	47.0	2.2	89.66	-5,510.5	-377.2	3,635.7	3,589.4	46.37	78.413	
9,200.0	6,805.0	6,700.0	6,699.6	47.8	2.2	89.66	-5,510.5	-377.2	3,592.5	3,545.3	47.20	76.111	
9,251.9	6,804.6	6,700.0	6,699.6	48.7	2.2	89.66	-5,510.5	-377.2	3,544.2	3,496.0	48.14	73.625	
9,300.0	6,804.2	6,700.0	6,699.6	49.6	2.2	89.66	-5,510.5	-377.2	3,499.6	3,450.6	49.01	71.413	
9,350.4	6,803.8	6,700.0	6,699.6	50.4	2.2	89.66	-5,510.5	-377.2	3,453.0	3,403.1	49.92	69.172	
9,400.0	6,803.4	6,700.0	6,699.6	51.3	2.2	89.66	-5,510.5	-377.2	3,407.2	3,356.4	50.82	67.045	
9,448.8	6,802.9	6,700.0	6,699.6	52.1	2.2	89.66	-5,510.5	-377.2	3,362.2	3,310.5	51.71	65.023	
9,500.0	6,802.5	6,700.0	6,699.6	53.0	2.2	89.66	-5,510.5	-377.2	3,315.2	3,262.5	52.64	62.977	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,802.1	6,700.0	6,699.6	53.9	2.2	89.66	-5,510.5	-377.2	3,271.9	3,218.4	53.50	61.151	
9,600.0	6,801.7	6,700.0	6,699.6	54.8	2.2	89.67	-5,510.5	-377.2	3,223.7	3,169.2	54.47	59.182	
9,645.6	6,801.3	6,700.0	6,699.6	55.6	2.2	89.67	-5,510.5	-377.2	3,182.0	3,126.7	55.31	57.533	
9,700.0	6,800.9	6,700.0	6,699.6	56.6	2.2	89.67	-5,510.5	-377.2	3,132.6	3,076.3	56.31	55.637	
9,744.1	6,800.5	6,700.0	6,699.6	57.4	2.2	89.67	-5,510.5	-377.2	3,092.7	3,035.6	57.12	54.147	
9,800.0	6,800.0	6,700.0	6,699.6	58.4	2.2	89.67	-5,510.5	-377.2	3,042.2	2,984.1	58.15	52.320	
9,842.5	6,799.7	6,700.0	6,699.6	59.1	2.2	89.67	-5,510.5	-377.2	3,003.9	2,945.0	58.93	50.974	
9,900.0	6,799.2	6,700.0	6,699.6	60.2	2.2	89.67	-5,510.5	-377.2	2,952.4	2,892.4	59.99	49.212	
9,940.9	6,798.9	6,700.0	6,699.6	60.9	2.2	89.67	-5,510.5	-377.2	2,915.8	2,855.1	60.75	47.996	
10,000.0	6,798.4	6,700.0	6,699.6	62.0	2.2	89.67	-5,510.5	-377.2	2,863.2	2,801.4	61.84	46.298	
10,039.3	6,798.1	6,700.0	6,699.6	62.7	2.2	89.67	-5,510.5	-377.2	2,828.3	2,765.8	62.57	45.200	
10,100.0	6,797.6	6,700.0	6,699.6	63.8	2.2	89.67	-5,510.5	-377.2	2,774.8	2,711.1	63.70	43.561	
10,137.8	6,797.2	6,700.0	6,699.6	64.4	2.2	89.67	-5,510.5	-377.2	2,741.6	2,677.2	64.40	42.570	
10,200.0	6,796.7	6,700.0	6,699.6	65.6	2.2	89.67	-5,510.5	-377.2	2,687.2	2,621.7	65.56	40.989	
10,236.2	6,796.4	6,700.0	6,699.6	66.2	2.2	89.67	-5,510.5	-377.2	2,655.7	2,589.5	66.23	40.096	
10,300.0	6,795.9	6,700.0	6,699.6	67.4	2.2	89.67	-5,510.5	-377.2	2,600.5	2,533.1	67.42	38.571	
10,334.6	6,795.6	6,700.0	6,699.6	68.0	2.2	89.67	-5,510.5	-377.2	2,570.7	2,502.6	68.07	37.767	
10,400.0	6,795.1	6,700.0	6,699.6	69.2	2.2	89.67	-5,510.5	-377.2	2,514.8	2,445.5	69.29	36.294	
10,433.0	6,794.8	6,700.0	6,699.6	69.8	2.2	89.67	-5,510.5	-377.2	2,486.7	2,416.8	69.91	35.572	
10,500.0	6,794.2	6,700.0	6,699.6	71.0	2.2	89.67	-5,510.5	-377.2	2,430.2	2,359.0	71.16	34.152	
10,531.5	6,794.0	6,700.0	6,699.6	71.6	2.2	89.67	-5,510.5	-377.2	2,403.8	2,332.0	71.75	33.503	
10,600.0	6,793.4	6,700.0	6,699.6	72.9	2.2	89.67	-5,510.5	-377.2	2,346.7	2,273.7	73.03	32.134	
10,629.9	6,793.2	6,700.0	6,699.6	73.4	2.2	89.67	-5,510.5	-377.2	2,322.1	2,248.5	73.59	31.554	
10,700.0	6,792.6	6,700.0	6,699.6	74.7	2.2	89.67	-5,510.5	-377.2	2,264.7	2,189.8	74.91	30.234	
10,728.3	6,792.3	6,700.0	6,699.6	75.2	2.2	89.67	-5,510.5	-377.2	2,241.7	2,166.3	75.44	29.716	
10,800.0	6,791.7	6,700.0	6,699.6	76.6	2.2	89.67	-5,510.5	-377.2	2,184.1	2,107.3	76.78	28.445	
10,826.7	6,791.5	6,700.0	6,699.6	77.1	2.2	89.67	-5,510.5	-377.2	2,162.8	2,085.5	77.29	27.985	
10,900.0	6,790.9	6,700.0	6,699.6	78.4	2.2	89.67	-5,510.5	-377.2	2,105.2	2,026.5	78.66	26.762	
10,925.2	6,790.7	6,700.0	6,699.6	78.9	2.2	89.67	-5,510.5	-377.2	2,085.6	2,006.5	79.14	26.355	
11,000.0	6,790.1	6,700.0	6,699.6	80.3	2.2	89.67	-5,510.5	-377.2	2,028.1	1,947.6	80.54	25.181	
11,023.6	6,789.9	6,700.0	6,699.6	80.7	2.2	89.67	-5,510.5	-377.2	2,010.2	1,929.3	80.99	24.822	
11,100.0	6,789.2	6,700.0	6,699.6	82.1	2.2	89.67	-5,510.5	-377.2	1,953.2	1,870.7	82.43	23.696	
11,122.0	6,789.1	6,700.0	6,699.6	82.5	2.2	89.67	-5,510.5	-377.2	1,937.0	1,854.1	82.84	23.381	
11,200.0	6,788.4	6,700.0	6,699.6	84.0	2.2	89.67	-5,510.5	-377.2	1,880.5	1,796.2	84.31	22.304	
11,220.4	6,788.2	6,700.0	6,699.6	84.3	2.2	89.67	-5,510.5	-377.2	1,866.0	1,781.3	84.70	22.031	
11,300.0	6,787.6	6,700.0	6,699.6	85.8	2.2	89.67	-5,510.5	-377.2	1,810.5	1,724.3	86.20	21.004	
11,318.9	6,787.4	6,700.0	6,699.6	86.2	2.2	89.67	-5,510.5	-377.2	1,797.6	1,711.1	86.56	20.768	
11,400.0	6,786.7	6,700.0	6,699.6	87.7	2.2	89.67	-5,510.5	-377.2	1,743.4	1,655.3	88.09	19.792	
11,417.3	6,786.6	6,700.0	6,699.6	88.0	2.2	89.67	-5,510.5	-377.2	1,732.1	1,643.7	88.41	19.591	
11,500.0	6,785.9	6,700.0	6,699.6	89.5	2.2	89.67	-5,510.5	-377.2	1,679.6	1,589.6	89.98	18.667	
11,515.7	6,785.8	6,700.0	6,699.6	89.8	2.2	89.67	-5,510.5	-377.2	1,669.9	1,579.6	90.28	18.497	
11,600.0	6,785.1	6,700.0	6,699.6	91.4	2.2	89.67	-5,510.5	-377.2	1,619.4	1,527.5	91.87	17.627	
11,614.1	6,785.0	6,700.0	6,699.6	91.7	2.2	89.67	-5,510.5	-377.2	1,611.2	1,519.1	92.14	17.487	
11,700.0	6,784.2	6,700.0	6,699.6	93.3	2.2	89.67	-5,510.5	-377.2	1,563.3	1,469.6	93.76	16.674	
11,712.6	6,784.1	6,700.0	6,699.6	93.5	2.2	89.67	-5,510.5	-377.2	1,556.6	1,462.6	94.00	16.560	
11,800.0	6,783.4	6,700.0	6,699.6	95.2	2.2	89.67	-5,510.5	-377.2	1,511.8	1,416.2	95.66	15.805	
11,811.0	6,783.3	6,700.0	6,699.6	95.4	2.2	89.67	-5,510.5	-377.2	1,506.4	1,410.6	95.86	15.714	
11,900.0	6,782.6	6,700.0	6,699.6	97.0	2.2	89.67	-5,510.5	-377.2	1,465.3	1,367.7	97.55	15.021	
11,909.4	6,782.5	6,700.0	6,699.6	97.2	2.2	89.67	-5,510.5	-377.2	1,461.2	1,363.5	97.73	14.951	
12,000.0	6,781.7	6,700.0	6,699.6	98.9	2.2	89.67	-5,510.5	-377.2	1,424.3	1,324.9	99.45	14.322	
12,007.8	6,781.7	6,700.0	6,699.6	99.1	2.2	89.67	-5,510.5	-377.2	1,421.3	1,321.7	99.60	14.271	
12,100.0	6,780.9	6,700.0	6,699.6	100.8	2.2	89.67	-5,510.5	-377.2	1,389.3	1,288.0	101.34	13.709	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,106.3	6,780.9	6,700.0	6,699.6	100.9	2.2	89.67	-5,510.5	-377.2	1,387.3	1,285.9	101.46	13.673		
12,200.0	6,780.1	6,700.0	6,699.6	102.7	2.2	89.67	-5,510.5	-377.2	1,360.8	1,257.5	103.24	13.180		
12,204.7	6,780.0	6,700.0	6,699.6	102.7	2.2	89.67	-5,510.5	-377.2	1,359.6	1,256.3	103.33	13.158		
12,300.0	6,779.2	6,700.0	6,699.6	104.5	2.2	89.67	-5,510.5	-377.2	1,339.1	1,234.0	105.14	12.736		
12,303.1	6,779.2	6,700.0	6,699.6	104.6	2.2	89.67	-5,510.5	-377.2	1,338.6	1,233.3	105.20	12.724		
12,400.0	6,778.4	6,700.0	6,699.6	106.4	2.2	89.67	-5,510.5	-377.2	1,324.7	1,217.6	107.04	12.375		
12,401.5	6,778.4	6,700.0	6,699.6	106.4	2.2	89.67	-5,510.5	-377.2	1,324.5	1,217.4	107.07	12.370		
12,500.0	6,777.6	6,700.0	6,699.6	108.3	2.2	89.67	-5,510.5	-377.2	1,317.7	1,208.7	108.94	12.095		
12,542.4	6,777.2	6,700.0	6,699.6	109.1	2.2	89.67	-5,510.5	-377.2	1,317.0	1,207.3	109.75	12.000 CC, ES		
12,598.4	6,776.7	6,700.0	6,699.6	110.2	2.2	89.67	-5,510.5	-377.2	1,318.2	1,207.4	110.81	11.896		
12,600.0	6,776.7	6,700.0	6,699.6	110.2	2.2	89.67	-5,510.5	-377.2	1,318.3	1,207.4	110.84	11.893		
12,696.8	6,775.9	6,700.0	6,699.6	112.0	2.2	89.67	-5,510.5	-377.2	1,326.0	1,213.3	112.68	11.768		
12,700.0	6,775.9	6,700.0	6,699.6	112.1	2.2	89.67	-5,510.5	-377.2	1,326.4	1,213.7	112.74	11.765		
12,795.2	6,775.1	6,700.0	6,699.6	113.9	2.2	89.67	-5,510.5	-377.2	1,341.1	1,226.5	114.56	11.706		
12,800.0	6,775.0	6,700.0	6,699.6	114.0	2.2	89.67	-5,510.5	-377.2	1,342.0	1,227.3	114.65	11.705 SF		
12,893.7	6,774.3	6,700.0	6,699.6	115.7	2.2	89.67	-5,510.5	-377.2	1,363.1	1,246.6	116.43	11.707		
12,900.0	6,774.2	6,700.0	6,699.6	115.8	2.2	89.67	-5,510.5	-377.2	1,364.7	1,248.1	116.55	11.709		
12,992.1	6,773.4	6,700.0	6,699.6	117.6	2.2	89.67	-5,510.5	-377.2	1,391.7	1,273.4	118.30	11.763		
13,000.0	6,773.4	6,700.0	6,699.6	117.7	2.2	89.67	-5,510.5	-377.2	1,394.2	1,275.8	118.46	11.770		
13,090.5	6,772.6	6,700.0	6,699.6	119.4	2.2	89.67	-5,510.5	-377.2	1,426.5	1,306.3	120.18	11.870		
13,100.0	6,772.5	6,700.0	6,699.6	119.6	2.2	89.67	-5,510.5	-377.2	1,430.2	1,309.8	120.36	11.883		
13,188.9	6,771.8	6,700.0	6,699.6	121.3	2.2	89.67	-5,510.5	-377.2	1,467.2	1,345.1	122.05	12.021		
13,200.0	6,771.7	6,700.0	6,699.6	121.5	2.2	89.67	-5,510.5	-377.2	1,472.1	1,349.8	122.27	12.040		
13,287.4	6,771.0	6,700.0	6,699.6	123.2	2.2	89.67	-5,510.5	-377.2	1,513.1	1,389.2	123.93	12.209		
13,300.0	6,770.9	6,700.0	6,699.6	123.4	2.2	89.67	-5,510.5	-377.2	1,519.4	1,395.2	124.17	12.236		
13,385.8	6,770.1	6,700.0	6,699.6	125.0	2.2	89.67	-5,510.5	-377.2	1,563.9	1,438.1	125.81	12.431		
13,400.0	6,770.0	6,700.0	6,699.6	125.3	2.2	89.67	-5,510.5	-377.2	1,571.6	1,445.6	126.08	12.466		
13,484.2	6,769.3	6,700.0	6,699.6	126.9	2.2	89.67	-5,510.5	-377.2	1,619.1	1,491.5	127.68	12.681		
13,500.0	6,769.2	6,700.0	6,699.6	127.2	2.2	89.67	-5,510.5	-377.2	1,628.4	1,500.4	127.98	12.723		
13,582.6	6,768.5	6,700.0	6,699.6	128.8	2.2	89.67	-5,510.5	-377.2	1,678.3	1,548.7	129.56	12.954		
13,600.0	6,768.3	6,700.0	6,699.6	129.1	2.2	89.67	-5,510.5	-377.2	1,689.1	1,559.2	129.89	13.004		
13,681.1	6,767.6	6,700.0	6,699.6	130.6	2.2	89.67	-5,510.5	-377.2	1,741.0	1,609.6	131.44	13.246		
13,700.0	6,767.5	6,700.0	6,699.6	131.0	2.2	89.67	-5,510.5	-377.2	1,753.5	1,621.7	131.80	13.304		
13,779.5	6,766.8	6,700.0	6,699.6	132.5	2.2	89.67	-5,510.5	-377.2	1,806.9	1,673.6	133.32	13.554		
13,800.0	6,766.6	6,700.0	6,699.6	132.9	2.2	89.67	-5,510.5	-377.2	1,821.0	1,687.3	133.71	13.620		
13,877.9	6,766.0	6,700.0	6,699.6	134.4	2.2	89.67	-5,510.5	-377.2	1,875.7	1,740.5	135.19	13.874		
13,900.0	6,765.8	6,700.0	6,699.6	134.8	2.2	89.67	-5,510.5	-377.2	1,891.5	1,755.9	135.62	13.947		
13,976.3	6,765.2	6,700.0	6,699.6	136.2	2.2	89.67	-5,510.5	-377.2	1,947.0	1,809.9	137.07	14.204		
13,995.7	6,765.0	6,700.0	6,699.6	136.6	2.2	89.67	-5,510.5	-377.2	1,961.3	1,823.8	137.44	14.270		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	163.91	-2,969.1	856.7	3,090.6				
98.4	98.4	52.1	52.1	0.1	0.0	163.91	-2,969.2	856.6	3,090.2	3,090.1	0.13	N/A	
100.0	100.0	53.7	53.7	0.1	0.0	163.91	-2,969.2	856.5	3,090.2	3,090.1	0.14	N/A	
196.8	196.8	151.6	151.6	0.3	0.2	163.92	-2,969.2	855.7	3,090.1	3,089.6	0.47	6,586.040	
200.0	200.0	154.7	154.7	0.3	0.2	163.92	-2,969.3	855.7	3,090.1	3,089.6	0.48	6,429.812	
295.3	295.3	252.2	252.1	0.5	0.3	163.94	-2,969.4	854.7	3,090.0	3,089.2	0.80	3,846.605	
300.0	300.0	257.2	257.2	0.5	0.3	163.94	-2,969.4	854.6	3,090.0	3,089.2	0.82	3,776.255	
393.7	393.7	357.0	357.0	0.7	0.4	163.96	-2,969.4	853.6	3,089.7	3,088.6	1.11	2,793.531	
400.0	400.0	363.7	363.7	0.8	0.4	163.96	-2,969.4	853.5	3,089.7	3,088.5	1.12	2,746.582	
492.1	492.1	456.0	455.9	1.0	0.4	163.98	-2,969.3	852.4	3,089.3	3,087.9	1.39	2,218.617	
500.0	500.0	463.6	463.5	1.0	0.4	163.98	-2,969.3	852.3	3,089.2	3,087.8	1.41	2,183.430	
590.5	590.5	552.6	552.6	1.2	0.5	164.00	-2,969.3	851.2	3,088.9	3,087.2	1.67	1,848.629	
600.0	600.0	562.1	562.0	1.2	0.5	164.01	-2,969.3	851.1	3,088.9	3,087.2	1.70	1,819.652	
689.0	689.0	652.2	652.2	1.4	0.5	164.02	-2,969.2	850.1	3,088.5	3,086.6	1.95	1,586.550	
700.0	700.0	663.5	663.5	1.4	0.5	164.03	-2,969.2	850.0	3,088.5	3,086.5	1.98	1,561.841	
787.4	787.4	748.6	748.6	1.6	0.6	164.04	-2,969.1	849.0	3,088.1	3,085.9	2.22	1,392.630	
800.0	800.0	760.4	760.4	1.7	0.6	164.05	-2,969.1	848.8	3,088.1	3,085.8	2.25	1,371.450	
885.8	885.8	841.8	841.7	1.9	0.6	164.06	-2,969.2	847.9	3,087.9	3,085.4	2.48	1,243.019	
900.0	900.0	855.3	855.3	1.9	0.6	164.06	-2,969.2	847.8	3,087.9	3,085.4	2.52	1,224.136	
984.2	984.2	937.4	937.4	2.1	0.7	164.08	-2,969.3	847.2	3,087.8	3,085.1	2.75	1,122.774	
1,000.0	1,000.0	953.1	953.0	2.1	0.7	164.08	-2,969.3	847.0	3,087.8	3,085.0	2.79	1,105.659	
1,082.7	1,082.7	1,035.5	1,035.4	2.3	0.7	164.09	-2,969.5	846.4	3,087.7	3,084.7	3.02	1,023.895	
1,100.0	1,100.0	1,052.8	1,052.7	2.3	0.7	164.09	-2,969.5	846.2	3,087.7	3,084.7	3.06	1,008.309	
1,181.1	1,181.1	1,134.3	1,134.2	2.5	0.8	164.11	-2,969.6	845.6	3,087.7	3,084.4	3.28	941.305	
1,200.0	1,200.0	1,153.4	1,153.3	2.6	0.8	164.11	-2,969.6	845.5	3,087.7	3,084.3	3.33	926.968	
1,279.5	1,279.5	1,233.5	1,233.4	2.7	0.8	164.11	-2,969.7	845.2	3,087.6	3,084.1	3.54	871.211	
1,300.0	1,300.0	1,254.0	1,253.9	2.8	0.8	164.11	-2,969.7	845.1	3,087.6	3,084.0	3.60	857.950	
1,377.9	1,377.9	1,332.4	1,332.4	3.0	0.9	164.12	-2,969.7	844.9	3,087.5	3,083.7	3.81	811.011	
1,400.0	1,400.0	1,354.8	1,354.8	3.0	0.9	164.12	-2,969.7	844.8	3,087.5	3,083.6	3.87	798.672	
1,476.4	1,476.4	1,430.3	1,430.3	3.2	0.9	164.12	-2,969.6	844.6	3,087.4	3,083.3	4.07	759.467	
1,500.0	1,500.0	1,452.8	1,452.7	3.2	0.9	164.12	-2,969.6	844.6	3,087.4	3,083.2	4.13	748.436	
1,534.9	1,534.9	1,486.0	1,485.9	3.3	0.9	164.12	-2,969.6	844.5	3,087.4	3,083.1	4.21	732.719	
1,574.8	1,574.8	1,521.5	1,521.4	3.4	0.9	164.12	-2,969.6	844.5	3,087.4	3,083.1	4.31	715.964	
1,600.0	1,600.0	1,543.0	1,543.0	3.5	0.9	164.12	-2,969.7	844.5	3,087.4	3,083.1	4.37	705.934	
1,673.2	1,673.2	1,600.0	1,599.9	3.6	0.9	164.13	-2,969.9	844.6	3,087.8	3,083.2	4.55	678.562	
1,700.0	1,700.0	1,625.9	1,625.8	3.7	0.9	164.13	-2,970.1	844.6	3,087.9	3,083.3	4.62	669.054	
1,771.6	1,771.6	1,681.5	1,681.4	3.8	1.0	164.13	-2,970.7	844.8	3,088.7	3,083.9	4.79	645.285	
1,800.0	1,800.0	1,700.0	1,699.9	3.9	1.0	164.13	-2,970.9	844.8	3,089.1	3,084.3	4.85	636.450	
1,870.1	1,870.1	1,764.1	1,764.0	4.1	1.0	164.13	-2,972.0	845.0	3,090.3	3,085.3	5.02	615.169	
1,900.0	1,900.0	1,789.8	1,789.7	4.1	1.0	164.13	-2,972.5	845.0	3,090.9	3,085.8	5.10	606.567	
1,968.5	1,968.5	1,856.6	1,856.5	4.3	1.0	164.14	-2,973.9	845.0	3,092.3	3,087.0	5.26	587.445	
2,000.0	2,000.0	1,888.1	1,888.0	4.4	1.0	164.14	-2,974.6	844.9	3,092.9	3,087.6	5.34	579.027	
2,066.9	2,066.9	1,963.8	1,963.7	4.5	1.0	164.16	-2,976.2	844.7	3,094.2	3,088.7	5.51	561.601	
2,100.0	2,100.0	2,002.4	2,002.3	4.6	1.0	164.16	-2,976.9	844.5	3,094.7	3,089.2	5.59	553.313	
2,165.3	2,165.3	2,090.2	2,090.0	4.7	1.1	95.76	-2,978.2	843.6	3,095.6	3,090.0	5.65	547.813	
2,200.0	2,200.0	2,126.3	2,126.1	4.8	1.1	95.79	-2,978.7	843.2	3,096.0	3,090.3	5.73	539.871	
2,263.8	2,263.7	2,187.5	2,187.4	4.9	1.1	95.84	-2,979.4	842.4	3,096.8	3,090.9	5.88	526.266	
2,300.0	2,299.8	2,225.4	2,225.2	5.0	1.1	95.88	-2,979.9	841.9	3,097.4	3,091.4	5.97	518.805	
2,362.2	2,361.8	2,293.3	2,293.1	5.1	1.1	95.99	-2,980.7	840.9	3,098.3	3,092.2	6.12	506.068	
2,400.0	2,399.5	2,332.6	2,332.4	5.2	1.2	96.06	-2,981.1	840.2	3,099.0	3,092.8	6.21	498.692	
2,460.6	2,459.7	2,394.8	2,394.7	5.4	1.2	96.19	-2,981.8	839.1	3,100.1	3,093.7	6.37	486.818	
2,500.0	2,498.7	2,434.8	2,434.6	5.5	1.2	96.29	-2,982.2	838.4	3,100.8	3,094.4	6.47	479.381	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,557.1	2,494.5	2,494.3	5.6	1.2	96.45	-2,982.8	837.3	3,102.1	3,095.5	6.63	467.981	
2,600.0	2,597.5	2,534.1	2,533.9	5.7	1.2	96.57	-2,983.2	836.5	3,103.1	3,096.3	6.74	460.411	
2,657.5	2,654.0	2,589.1	2,588.9	5.9	1.2	96.75	-2,983.8	835.3	3,104.6	3,097.7	6.91	449.314	
2,700.0	2,695.6	2,634.5	2,634.2	6.0	1.3	96.91	-2,984.3	834.2	3,105.8	3,098.8	7.04	441.380	
2,755.9	2,750.2	2,696.2	2,695.9	6.2	1.3	97.15	-2,984.9	832.6	3,107.5	3,100.3	7.22	430.292	
2,800.0	2,793.1	2,741.6	2,741.3	6.3	1.3	97.34	-2,985.2	831.4	3,108.9	3,101.6	7.37	421.957	
2,854.3	2,845.6	2,796.9	2,796.6	6.5	1.3	97.59	-2,985.6	829.9	3,110.8	3,103.2	7.57	410.977	
2,900.0	2,889.6	2,846.5	2,846.1	6.6	1.3	97.82	-2,985.9	828.4	3,112.4	3,104.7	7.74	402.134	
2,952.7	2,940.2	2,903.5	2,903.2	6.8	1.4	98.11	-2,986.2	826.7	3,114.5	3,106.5	7.96	391.158	
3,000.0	2,985.3	2,951.6	2,951.2	7.0	1.4	98.36	-2,986.3	825.3	3,116.4	3,108.2	8.16	381.855	
3,016.9	3,001.4	2,968.7	2,968.3	7.1	1.4	98.45	-2,986.3	824.8	3,117.1	3,108.9	8.24	378.386	
3,051.2	3,033.9	3,004.8	3,004.4	7.3	1.4	98.68	-2,986.4	823.7	3,118.6	3,110.2	8.40	371.313	
3,100.0	3,080.2	3,075.2	3,074.7	7.5	1.4	99.12	-2,986.2	821.4	3,120.6	3,111.9	8.63	361.532	
3,149.6	3,127.3	3,143.2	3,142.7	7.7	1.4	99.54	-2,985.5	818.9	3,122.3	3,113.4	8.88	351.660	
3,200.0	3,175.1	3,209.8	3,209.3	8.0	1.5	99.97	-2,984.4	816.2	3,123.9	3,114.8	9.13	342.182	
3,248.0	3,220.7	3,270.5	3,269.8	8.2	1.5	100.35	-2,983.2	813.4	3,125.2	3,115.9	9.38	333.243	
3,300.0	3,270.0	3,337.7	3,337.0	8.5	1.5	100.79	-2,981.5	810.0	3,126.5	3,116.9	9.65	324.063	
3,346.4	3,314.1	3,398.9	3,398.0	8.7	1.5	101.19	-2,979.7	806.5	3,127.5	3,117.6	9.90	316.001	
3,400.0	3,365.0	3,467.4	3,466.4	9.0	1.5	101.64	-2,977.4	802.1	3,128.5	3,118.3	10.18	307.188	
3,444.9	3,407.6	3,520.9	3,519.6	9.2	1.6	102.00	-2,975.3	798.5	3,129.1	3,118.7	10.43	299.994	
3,500.0	3,459.9	3,580.2	3,578.8	9.5	1.6	102.40	-2,972.9	794.4	3,130.0	3,119.2	10.73	291.637	
3,543.3	3,501.0	3,622.4	3,620.8	9.8	1.6	102.68	-2,971.0	791.5	3,130.6	3,119.6	10.97	285.273	
3,600.0	3,554.8	3,673.5	3,671.8	10.1	1.6	103.02	-2,968.8	788.1	3,131.6	3,120.3	11.29	277.383	
3,641.7	3,594.4	3,711.7	3,709.8	10.3	1.6	103.27	-2,967.2	785.6	3,132.4	3,120.9	11.53	271.760	
3,700.0	3,649.7	3,766.4	3,764.4	10.7	1.6	103.63	-2,964.8	782.1	3,133.7	3,121.8	11.86	264.299	
3,740.1	3,687.8	3,800.0	3,797.9	10.9	1.6	103.85	-2,963.3	779.9	3,134.7	3,122.6	12.09	259.339	
3,800.0	3,744.7	3,850.7	3,848.4	11.2	1.7	104.18	-2,961.2	776.8	3,136.3	3,123.9	12.43	252.310	
3,838.6	3,781.3	3,881.2	3,878.9	11.5	1.7	104.38	-2,959.9	775.1	3,137.5	3,124.8	12.65	247.943	
3,900.0	3,839.6	3,930.0	3,927.6	11.8	1.7	104.69	-2,958.0	772.6	3,139.7	3,126.7	13.01	241.325	
3,937.0	3,874.7	3,959.4	3,956.9	12.1	1.7	104.88	-2,956.9	771.2	3,141.1	3,127.9	13.23	237.481	
4,000.0	3,934.5	4,010.6	4,008.1	12.4	1.7	105.20	-2,955.1	768.9	3,143.9	3,130.3	13.60	231.246	
4,035.4	3,968.1	4,042.1	4,039.5	12.6	1.7	105.39	-2,954.0	767.5	3,145.5	3,131.7	13.80	227.863	
4,100.0	4,029.4	4,100.0	4,097.3	13.0	1.7	105.75	-2,952.1	765.2	3,148.7	3,134.5	14.18	221.977	
4,133.8	4,061.5	4,132.9	4,130.2	13.2	1.7	105.95	-2,951.0	763.9	3,150.5	3,136.1	14.39	219.002	
4,200.0	4,124.3	4,198.4	4,195.6	13.6	1.7	106.35	-2,948.8	761.4	3,153.9	3,139.1	14.78	213.439	
4,232.3	4,155.0	4,227.8	4,225.0	13.8	1.8	106.53	-2,947.7	760.4	3,155.7	3,140.7	14.97	210.819	
4,300.0	4,219.3	4,289.2	4,286.2	14.2	1.8	106.90	-2,945.6	758.2	3,159.4	3,144.1	15.37	205.558	
4,330.7	4,248.4	4,319.1	4,316.2	14.4	1.8	107.08	-2,944.6	757.1	3,161.2	3,145.7	15.55	203.256	
4,400.0	4,314.2	4,390.0	4,386.9	14.9	1.8	107.51	-2,942.1	754.7	3,165.3	3,149.3	15.96	198.271	
4,429.1	4,341.8	4,420.0	4,416.9	15.0	1.8	107.68	-2,941.0	753.7	3,167.0	3,150.9	16.14	196.246	
4,500.0	4,409.1	4,493.6	4,490.4	15.5	1.8	108.12	-2,938.2	751.3	3,171.2	3,154.7	16.56	191.515	
4,527.5	4,435.3	4,521.6	4,518.3	15.7	1.8	108.29	-2,937.1	750.5	3,172.9	3,156.1	16.72	189.734	
4,600.0	4,504.0	4,594.5	4,591.1	16.1	1.8	108.72	-2,934.1	748.0	3,177.3	3,160.1	17.15	185.235	
4,626.0	4,528.7	4,619.2	4,615.8	16.3	1.9	108.87	-2,933.1	747.1	3,178.8	3,161.5	17.31	183.672	
4,700.0	4,598.9	4,688.7	4,685.2	16.7	1.9	109.28	-2,930.2	744.9	3,183.5	3,165.8	17.75	179.387	
4,724.4	4,622.1	4,712.1	4,708.7	16.9	1.9	109.41	-2,929.2	744.2	3,185.1	3,167.2	17.89	178.021	
4,800.0	4,693.9	4,786.3	4,782.7	17.4	1.9	109.85	-2,926.1	741.9	3,190.1	3,171.7	18.34	173.945	
4,822.8	4,715.5	4,807.9	4,804.3	17.5	1.9	109.97	-2,925.2	741.3	3,191.6	3,173.1	18.48	172.752	
4,900.0	4,788.8	4,876.5	4,872.8	18.0	1.9	110.37	-2,922.4	739.1	3,197.0	3,178.0	18.93	168.861	
4,921.2	4,809.0	4,895.4	4,891.7	18.1	1.9	110.48	-2,921.6	738.5	3,198.5	3,179.4	19.06	167.824	
5,000.0	4,883.7	4,959.2	4,955.4	18.6	1.9	110.85	-2,919.1	736.7	3,204.4	3,184.9	19.53	164.111	
5,019.7	4,902.4	4,975.1	4,971.3	18.7	1.9	110.94	-2,918.5	736.3	3,206.0	3,186.3	19.64	163.213	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.0	4,978.6	5,043.0	5,039.1	19.3	2.0	111.33	-2,916.1	734.4	3,212.5	3,192.4	20.12	159.683		
5,118.1	4,995.8	5,058.8	5,054.9	19.4	2.0	111.42	-2,915.6	733.9	3,214.1	3,193.9	20.23	158.914		
5,200.0	5,073.6	5,137.8	5,133.8	19.9	2.0	111.87	-2,912.9	731.7	3,221.2	3,200.5	20.71	155.563		
5,216.5	5,089.2	5,155.9	5,151.9	20.0	2.0	111.98	-2,912.3	731.2	3,222.6	3,201.8	20.80	154.910		
5,304.2	5,172.4	5,248.9	5,244.8	20.6	2.0	112.50	-2,908.9	728.8	3,230.2	3,208.9	21.31	151.554		
5,314.9	5,182.7	5,259.9	5,255.8	20.6	2.0	112.58	-2,908.5	728.5	3,231.2	3,209.8	21.36	151.240		
5,400.0	5,263.9	5,350.3	5,346.1	21.1	2.0	113.20	-2,904.9	725.7	3,237.9	3,216.2	21.76	148.796		
5,413.4	5,276.7	5,364.9	5,360.6	21.1	2.1	113.29	-2,904.2	725.2	3,238.9	3,217.1	21.81	148.512		
5,500.0	5,360.3	5,463.0	5,458.6	21.5	2.1	113.88	-2,899.9	721.5	3,244.5	3,222.4	22.12	146.680		
5,511.8	5,371.7	5,476.7	5,472.3	21.6	2.1	113.95	-2,899.2	721.0	3,245.2	3,223.0	22.16	146.459		
5,600.0	5,457.5	5,562.9	5,558.2	21.9	2.1	114.42	-2,895.0	717.1	3,249.5	3,227.0	22.44	144.780		
5,610.2	5,467.5	5,572.3	5,567.7	21.9	2.1	114.47	-2,894.6	716.6	3,249.9	3,227.4	22.47	144.610		
5,700.0	5,555.6	5,648.7	5,643.9	22.3	2.1	114.84	-2,891.0	712.9	3,253.3	3,230.6	22.74	143.094		
5,708.6	5,564.1	5,655.8	5,651.0	22.3	2.1	114.88	-2,890.7	712.6	3,253.6	3,230.9	22.76	142.968		
5,800.0	5,654.2	5,732.3	5,727.3	22.6	2.2	115.19	-2,887.4	708.7	3,256.3	3,233.3	22.99	141.625		
5,807.1	5,661.2	5,738.5	5,733.4	22.6	2.2	115.21	-2,887.2	708.4	3,256.5	3,233.5	23.01	141.537		
5,900.0	5,753.4	5,821.6	5,816.4	22.8	2.2	115.49	-2,884.0	704.6	3,258.3	3,235.1	23.22	140.349		
5,905.5	5,758.8	5,826.9	5,821.8	22.8	2.2	115.50	-2,883.8	704.4	3,258.4	3,235.2	23.23	140.290		
6,000.0	5,852.9	5,921.7	5,916.4	23.1	2.2	115.73	-2,880.2	700.3	3,259.0	3,235.6	23.41	139.228		
6,003.9	5,856.8	5,926.1	5,920.7	23.1	2.2	115.74	-2,880.1	700.1	3,259.0	3,235.6	23.41	139.191		
6,100.0	5,952.7	6,026.6	6,021.1	23.2	2.3	115.89	-2,876.1	696.1	3,258.0	3,234.4	23.57	138.214		
6,102.3	5,955.1	6,028.7	6,023.2	23.2	2.3	115.89	-2,876.1	696.0	3,257.9	3,234.4	23.58	138.193		
6,200.0	6,052.7	6,117.1	6,111.5	23.4	2.3	115.95	-2,872.8	692.7	3,255.6	3,231.9	23.71	137.304		
6,200.8	6,053.5	6,117.9	6,112.3	23.4	2.3	115.95	-2,872.8	692.7	3,255.6	3,231.9	23.71	137.297		
6,221.1	6,073.8	6,138.6	6,132.9	23.4	2.3	-175.63	-2,872.0	692.0	3,255.0	3,231.2	23.74	137.124		
6,251.1	6,103.8	6,169.1	6,163.4	23.4	2.3	-175.61	-2,870.9	691.0	3,254.0	3,230.2	23.78	136.857		
6,299.2	6,151.8	6,215.3	6,209.5	23.5	2.3	4.44	-2,869.3	689.6	3,250.8	3,226.9	23.82	136.460		
6,300.0	6,152.6	6,216.0	6,210.2	23.5	2.3	4.44	-2,869.3	689.6	3,250.7	3,226.9	23.82	136.452		
6,350.0	6,202.4	6,259.0	6,253.2	23.5	2.3	4.51	-2,867.8	688.5	3,244.0	3,220.1	23.86	135.973		
6,397.6	6,249.3	6,300.0	6,294.2	23.5	2.3	4.60	-2,866.5	687.6	3,234.5	3,210.6	23.87	135.528		
6,400.0	6,251.6	6,301.7	6,295.9	23.5	2.3	4.60	-2,866.4	687.6	3,233.9	3,210.1	23.87	135.509		
6,450.0	6,300.1	6,349.1	6,343.3	23.5	2.3	4.73	-2,865.0	686.5	3,220.6	3,196.7	23.83	135.163		
6,496.0	6,344.0	6,391.8	6,386.0	23.5	2.4	4.88	-2,863.7	685.5	3,205.3	3,181.6	23.74	135.028		
6,500.0	6,347.7	6,395.4	6,389.6	23.5	2.4	4.90	-2,863.6	685.4	3,203.9	3,180.2	23.73	135.027		
6,550.0	6,394.1	6,440.5	6,434.6	23.5	2.4	5.10	-2,862.2	684.3	3,184.0	3,160.4	23.56	135.152		
6,594.5	6,434.2	6,479.4	6,473.5	23.4	2.4	5.31	-2,861.1	683.6	3,163.7	3,140.3	23.34	135.518		
6,600.0	6,439.0	6,484.1	6,478.2	23.4	2.4	5.34	-2,860.9	683.5	3,161.0	3,137.6	23.31	135.582		
6,650.0	6,482.4	6,533.3	6,527.3	23.4	2.4	5.64	-2,859.5	682.8	3,134.9	3,111.9	23.00	136.307		
6,692.9	6,518.1	6,577.2	6,571.2	23.3	2.4	5.96	-2,858.0	682.2	3,110.1	3,087.4	22.67	137.186		
6,700.0	6,523.9	6,584.2	6,578.2	23.3	2.4	6.02	-2,857.8	682.1	3,105.8	3,083.2	22.61	137.359		
6,750.0	6,563.3	6,626.8	6,620.8	23.3	2.4	6.46	-2,856.3	681.6	3,073.9	3,051.7	22.14	138.810		
6,791.3	6,594.2	6,658.0	6,651.9	23.2	2.4	6.90	-2,855.2	681.3	3,045.5	3,023.8	21.70	140.313		
6,800.0	6,600.5	6,664.3	6,658.2	23.2	2.4	7.00	-2,854.9	681.3	3,039.3	3,017.7	21.61	140.669		
6,850.0	6,635.3	6,699.1	6,693.1	23.2	2.4	7.65	-2,853.7	681.2	3,002.3	2,981.3	21.00	142.939		
6,889.7	6,661.1	6,717.8	6,711.7	23.1	2.4	8.26	-2,853.1	681.2	2,971.3	2,950.9	20.48	145.088		
6,900.0	6,667.5	6,722.3	6,716.3	23.1	2.4	8.44	-2,852.9	681.2	2,963.1	2,942.8	20.34	145.697		
6,950.0	6,696.9	6,743.4	6,737.3	23.1	2.4	9.43	-2,852.2	681.2	2,922.0	2,902.4	19.63	148.860		
6,988.2	6,717.5	6,750.0	6,743.9	23.1	2.4	10.33	-2,852.0	681.2	2,889.4	2,870.3	19.06	151.563		
7,000.0	6,723.5	6,750.0	6,743.9	23.1	2.4	10.63	-2,852.0	681.2	2,879.1	2,860.2	18.88	152.479		
7,050.0	6,747.0	6,750.0	6,743.9	23.1	2.4	12.16	-2,852.0	681.2	2,834.7	2,816.6	18.13	156.386		
7,086.6	6,762.3	6,750.0	6,743.9	23.1	2.4	13.60	-2,852.0	681.2	2,801.4	2,783.8	17.59	159.246		
7,100.0	6,767.4	6,750.0	6,743.9	23.1	2.4	14.22	-2,852.0	681.2	2,789.0	2,771.6	17.40	160.276		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,150.0	6,784.6	6,750.0	6,743.9	23.1	2.4	17.11	-2,852.0	681.2	2,742.1	2,725.4	16.75	163.671	
7,185.0	6,794.7	6,750.0	6,743.9	23.1	2.4	19.94	-2,852.0	681.2	2,708.7	2,692.3	16.39	165.276	
7,200.0	6,798.5	6,750.0	6,743.9	23.2	2.4	21.45	-2,852.0	681.2	2,694.3	2,678.1	16.27	165.587	
7,250.0	6,808.9	6,750.0	6,743.9	23.2	2.4	28.46	-2,852.0	681.2	2,645.7	2,629.6	16.14	163.897	
7,283.4	6,814.0	6,750.0	6,743.9	23.3	2.4	35.96	-2,852.0	681.2	2,612.9	2,596.4	16.46	158.773	
7,300.0	6,816.0	6,750.0	6,743.9	23.4	2.4	41.05	-2,852.0	681.2	2,596.5	2,579.7	16.79	154.611	
7,350.0	6,819.5	6,750.0	6,743.9	23.5	2.4	65.30	-2,852.0	681.2	2,546.9	2,528.4	18.58	137.101	
7,381.9	6,820.0	6,750.0	6,743.9	23.7	2.4	88.46	-2,852.0	681.2	2,515.2	2,495.2	20.02	125.656	
7,382.0	6,820.0	6,750.0	6,743.9	23.7	2.4	88.55	-2,852.0	681.2	2,515.1	2,495.1	20.02	125.607	
7,400.0	6,819.8	6,750.0	6,743.9	23.8	2.4	88.55	-2,852.0	681.2	2,497.2	2,477.0	20.18	123.773	
7,480.3	6,819.2	6,750.0	6,743.9	24.2	2.4	88.55	-2,852.0	681.2	2,417.4	2,396.4	20.93	115.503	
7,500.0	6,819.0	6,750.0	6,743.9	24.3	2.4	88.55	-2,852.0	681.2	2,397.8	2,376.7	21.11	113.563	
7,578.7	6,818.4	6,750.0	6,743.9	24.9	2.4	88.55	-2,852.0	681.2	2,319.5	2,297.6	21.96	105.603	
7,600.0	6,818.2	6,750.0	6,743.9	25.0	2.4	88.56	-2,852.0	681.2	2,298.4	2,276.2	22.19	103.556	
7,677.1	6,817.6	6,750.0	6,743.9	25.7	2.4	88.56	-2,852.0	681.2	2,221.7	2,198.6	23.12	96.091	
7,700.0	6,817.4	6,750.0	6,743.9	25.9	2.4	88.56	-2,852.0	681.2	2,199.1	2,175.7	23.40	93.994	
7,775.6	6,816.7	6,750.0	6,743.9	26.6	2.4	88.56	-2,852.0	681.2	2,124.0	2,099.6	24.38	87.122	
7,800.0	6,816.5	6,750.0	6,743.9	26.9	2.4	88.56	-2,852.0	681.2	2,099.8	2,075.1	24.70	85.018	
7,874.0	6,815.9	6,750.0	6,743.9	27.7	2.4	88.56	-2,852.0	681.2	2,026.4	2,000.6	25.72	78.773	
7,900.0	6,815.7	6,750.0	6,743.9	28.0	2.4	88.56	-2,852.0	681.2	2,000.6	1,974.5	26.08	76.696	
7,972.4	6,815.1	6,750.0	6,743.9	28.9	2.4	88.56	-2,852.0	681.2	1,928.8	1,901.6	27.14	71.068	
8,000.0	6,814.9	6,750.0	6,743.9	29.2	2.4	88.56	-2,852.0	681.2	1,901.5	1,873.9	27.54	69.039	
8,070.8	6,814.3	6,750.0	6,743.9	30.1	2.4	88.56	-2,852.0	681.2	1,831.3	1,802.7	28.62	63.996	
8,100.0	6,814.1	6,750.0	6,743.9	30.5	2.4	88.56	-2,852.0	681.2	1,802.4	1,773.4	29.06	62.030	
8,169.3	6,813.5	6,750.0	6,743.9	31.5	2.4	88.56	-2,852.0	681.2	1,733.9	1,703.8	30.14	57.524	
8,200.0	6,813.3	6,750.0	6,743.9	31.9	2.4	88.56	-2,852.0	681.2	1,703.5	1,672.9	30.62	55.629	
8,267.7	6,812.7	6,750.0	6,743.9	32.9	2.4	88.56	-2,852.0	681.2	1,636.7	1,604.9	31.71	51.611	
8,300.0	6,812.4	6,750.0	6,743.9	33.3	2.4	88.57	-2,852.0	681.2	1,604.8	1,572.5	32.23	49.791	
8,366.1	6,811.9	6,750.0	6,743.9	34.3	2.4	88.57	-2,852.0	681.2	1,539.5	1,506.2	33.32	46.210	
8,400.0	6,811.6	6,750.0	6,743.9	34.8	2.4	88.57	-2,852.0	681.2	1,506.2	1,472.3	33.87	44.465	
8,464.5	6,811.1	6,750.0	6,743.9	35.8	2.4	88.57	-2,852.0	681.2	1,442.6	1,407.7	34.95	41.274	
8,500.0	6,810.8	6,750.0	6,743.9	36.3	2.4	88.57	-2,852.0	681.2	1,407.8	1,372.2	35.55	39.604	
8,563.0	6,810.3	6,750.0	6,743.9	37.3	2.4	88.57	-2,852.0	681.2	1,345.9	1,309.3	36.61	36.758	
8,600.0	6,810.0	6,750.0	6,743.9	37.9	2.4	88.57	-2,852.0	681.2	1,309.6	1,272.3	37.24	35.163	
8,661.4	6,809.5	6,750.0	6,743.9	38.9	2.4	88.57	-2,852.0	681.2	1,249.5	1,211.2	38.30	32.623	
8,700.0	6,809.1	6,750.0	6,743.9	39.5	2.4	88.57	-2,852.0	681.2	1,211.7	1,172.8	38.96	31.098	
8,759.8	6,808.6	6,750.0	6,743.9	40.5	2.4	88.57	-2,852.0	681.2	1,153.3	1,113.3	40.00	28.830	
8,800.0	6,808.3	6,750.0	6,743.9	41.1	2.4	88.57	-2,852.0	681.2	1,114.2	1,073.5	40.70	27.374	
8,858.2	6,807.8	6,750.0	6,743.9	42.1	2.4	88.57	-2,852.0	681.2	1,057.7	1,015.9	41.73	25.347	
8,900.0	6,807.5	6,750.0	6,743.9	42.8	2.4	88.57	-2,852.0	681.2	1,017.2	974.8	42.46	23.957	
8,956.7	6,807.0	6,750.0	6,743.9	43.7	2.4	88.57	-2,852.0	681.2	962.5	919.1	43.46	22.146	
9,000.0	6,806.7	6,750.0	6,743.9	44.4	2.4	88.57	-2,852.0	681.2	920.9	876.6	44.23	20.820	
9,055.1	6,806.2	6,750.0	6,743.9	45.4	2.4	88.57	-2,852.0	681.2	868.1	822.9	45.21	19.201	
9,100.0	6,805.8	6,750.0	6,743.9	46.1	2.4	88.57	-2,852.0	681.2	825.4	779.4	46.01	17.937	
9,153.5	6,805.4	6,750.0	6,743.9	47.0	2.4	88.57	-2,852.0	681.2	774.7	727.7	46.97	16.492	
9,200.0	6,805.0	6,750.0	6,743.9	47.8	2.4	88.57	-2,852.0	681.2	731.1	683.3	47.81	15.292	
9,251.9	6,804.6	6,750.0	6,743.9	48.7	2.4	88.57	-2,852.0	681.2	682.7	634.0	48.75	14.006	
9,300.0	6,804.2	6,750.0	6,743.9	49.6	2.4	88.57	-2,852.0	681.2	638.5	588.9	49.61	12.870	
9,350.4	6,803.8	6,750.0	6,743.9	50.4	2.4	88.57	-2,852.0	681.2	592.8	542.3	50.53	11.733	
9,400.0	6,803.4	6,750.0	6,743.9	51.3	2.4	88.57	-2,852.0	681.2	548.6	497.2	51.43	10.667	
9,448.8	6,802.9	6,750.0	6,743.9	52.1	2.4	88.57	-2,852.0	681.2	506.1	453.8	52.32	9.673	
9,500.0	6,802.5	6,750.0	6,743.9	53.0	2.4	88.57	-2,852.0	681.2	462.8	409.6	53.25	8.691	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,547.2	6,802.1	6,750.0	6,743.9	53.9	2.4	88.57	-2,852.0	681.2	424.5	370.4	54.11	7.844	
9,600.0	6,801.7	6,750.0	6,743.9	54.8	2.4	88.57	-2,852.0	681.2	384.0	328.9	55.08	6.971	
9,645.6	6,801.3	6,750.0	6,743.9	55.6	2.4	88.57	-2,852.0	681.2	351.6	295.7	55.92	6.288	
9,700.0	6,800.9	6,750.0	6,743.9	56.6	2.4	88.57	-2,852.0	681.2	317.3	260.4	56.91	5.575	
9,744.1	6,800.5	6,750.0	6,743.9	57.4	2.4	88.57	-2,852.0	681.2	294.0	236.2	57.72	5.093	
9,800.0	6,800.0	6,750.0	6,743.9	58.4	2.4	88.57	-2,852.0	681.2	271.9	213.1	58.75	4.628	
9,842.5	6,799.7	6,750.0	6,743.9	59.1	2.4	88.57	-2,852.0	681.2	261.9	202.4	59.54	4.399	
9,883.8	6,799.3	6,750.0	6,743.9	59.9	2.4	88.57	-2,852.0	681.2	258.7	198.4	60.30	4.289 CC, ES	
9,900.0	6,799.2	6,750.0	6,743.9	60.2	2.4	88.57	-2,852.0	681.2	259.2	198.6	60.60	4.277 SF	
9,940.9	6,798.9	6,750.0	6,743.9	60.9	2.4	88.57	-2,852.0	681.2	264.9	203.5	61.36	4.317	
10,000.0	6,798.4	6,750.0	6,743.9	62.0	2.4	88.57	-2,852.0	681.2	283.6	221.1	62.45	4.540	
10,039.3	6,798.1	6,750.0	6,743.9	62.7	2.4	88.57	-2,852.0	681.2	301.8	238.6	63.18	4.777	
10,100.0	6,797.6	6,748.7	6,742.6	63.8	2.4	88.29	-2,852.1	681.2	337.1	272.8	64.28	5.244	
10,137.8	6,797.2	6,747.2	6,741.1	64.4	2.4	87.95	-2,852.1	681.2	362.5	297.5	64.96	5.580	
10,200.0	6,796.7	6,744.7	6,738.6	65.6	2.4	87.40	-2,852.2	681.2	408.5	342.4	66.06	6.183	
10,236.2	6,796.4	6,743.2	6,737.1	66.2	2.4	87.07	-2,852.2	681.2	437.1	370.4	66.71	6.552	
10,300.0	6,795.9	6,740.5	6,734.5	67.4	2.4	86.49	-2,852.3	681.2	489.9	422.1	67.84	7.222	
10,334.6	6,795.6	6,739.1	6,733.0	68.0	2.4	86.16	-2,852.4	681.2	519.7	451.2	68.45	7.592	
10,400.0	6,795.1	6,736.3	6,730.2	69.2	2.4	85.55	-2,852.5	681.2	577.2	507.6	69.60	8.293	
10,433.0	6,794.8	6,734.9	6,728.8	69.8	2.4	85.24	-2,852.5	681.2	606.9	536.8	70.18	8.648	
10,500.0	6,794.2	6,732.0	6,725.9	71.0	2.4	84.60	-2,852.6	681.2	668.1	596.7	71.35	9.363	
10,531.5	6,794.0	6,730.6	6,724.5	71.6	2.4	84.29	-2,852.6	681.2	697.2	625.3	71.90	9.696	
10,600.0	6,793.4	6,727.5	6,721.4	72.9	2.4	83.62	-2,852.7	681.2	761.2	688.1	73.09	10.415	
10,629.9	6,793.2	6,726.2	6,720.1	73.4	2.4	83.32	-2,852.8	681.2	789.3	715.7	73.60	10.725	
10,700.0	6,792.6	6,722.9	6,716.9	74.7	2.4	82.62	-2,852.9	681.2	855.8	781.0	74.80	11.441	
10,728.3	6,792.3	6,721.6	6,715.5	75.2	2.4	82.33	-2,852.9	681.2	882.9	807.6	75.29	11.727	
10,800.0	6,791.7	6,718.2	6,712.2	76.6	2.4	81.60	-2,853.0	681.2	951.6	875.1	76.50	12.439	
10,826.7	6,791.5	6,716.9	6,710.9	77.1	2.4	81.32	-2,853.1	681.2	977.3	900.4	76.95	12.701	
10,900.0	6,790.9	6,713.4	6,707.3	78.4	2.4	80.55	-2,853.2	681.2	1,048.1	969.9	78.17	13.408	
10,925.2	6,790.7	6,712.2	6,706.1	78.9	2.4	80.29	-2,853.2	681.2	1,072.4	993.9	78.59	13.647	
11,000.0	6,790.1	6,708.4	6,702.4	80.3	2.4	79.49	-2,853.4	681.2	1,145.1	1,065.3	79.81	14.348	
11,023.6	6,789.9	6,707.2	6,701.2	80.7	2.4	79.23	-2,853.4	681.2	1,168.1	1,087.9	80.19	14.566	
11,100.0	6,789.2	6,703.3	6,697.2	82.1	2.4	78.40	-2,853.6	681.2	1,242.7	1,161.2	81.42	15.262	
11,122.0	6,789.1	6,702.2	6,696.1	82.5	2.4	78.15	-2,853.6	681.2	1,264.2	1,182.4	81.77	15.460	
11,200.0	6,788.4	6,698.3	6,692.3	84.0	2.4	77.34	-2,853.7	681.2	1,340.5	1,257.5	83.02	16.148	
11,220.4	6,788.2	6,697.4	6,691.3	84.3	2.4	77.14	-2,853.8	681.2	1,360.6	1,277.3	83.34	16.325	
11,300.0	6,787.6	6,693.8	6,687.7	85.8	2.4	76.38	-2,853.9	681.2	1,438.7	1,354.1	84.61	17.005	
11,318.9	6,787.4	6,692.9	6,686.9	86.2	2.4	76.20	-2,853.9	681.2	1,457.3	1,372.4	84.90	17.164	
11,400.0	6,786.7	6,689.2	6,683.2	87.7	2.4	75.43	-2,854.1	681.2	1,537.1	1,450.9	86.17	17.837	
11,417.3	6,786.6	6,688.4	6,682.4	88.0	2.4	75.27	-2,854.1	681.2	1,554.1	1,467.7	86.44	17.979	
11,500.0	6,785.9	6,684.7	6,678.6	89.5	2.4	74.49	-2,854.2	681.2	1,635.6	1,547.9	87.71	18.648	
11,515.7	6,785.8	6,683.9	6,677.9	89.8	2.4	74.34	-2,854.2	681.2	1,651.2	1,563.2	87.95	18.773	
11,600.0	6,785.1	6,680.1	6,674.1	91.4	2.4	73.56	-2,854.4	681.2	1,734.4	1,645.1	89.23	19.437	
11,614.1	6,785.0	6,679.5	6,673.4	91.7	2.4	73.43	-2,854.4	681.2	1,748.3	1,658.9	89.44	19.547	
11,700.0	6,784.2	6,675.6	6,669.5	93.3	2.4	72.63	-2,854.5	681.2	1,833.2	1,742.5	90.72	20.208	
11,712.6	6,784.1	6,675.0	6,668.9	93.5	2.4	72.52	-2,854.6	681.2	1,845.6	1,754.7	90.90	20.303	
11,800.0	6,783.4	6,671.0	6,665.0	95.2	2.4	71.72	-2,854.7	681.3	1,932.2	1,840.0	92.18	20.961	
11,811.0	6,783.3	6,670.5	6,664.5	95.4	2.4	71.62	-2,854.7	681.3	1,943.1	1,850.7	92.34	21.042	
11,900.0	6,782.6	6,666.5	6,660.4	97.0	2.4	70.81	-2,854.9	681.3	2,031.2	1,937.6	93.62	21.697	
11,909.4	6,782.5	6,666.0	6,660.0	97.2	2.4	70.73	-2,854.9	681.3	2,040.5	1,946.8	93.75	21.766	
12,000.0	6,781.7	6,661.9	6,655.9	98.9	2.4	69.92	-2,855.0	681.3	2,130.3	2,035.3	95.02	22.419	
12,007.8	6,781.7	6,661.6	6,655.5	99.1	2.4	69.85	-2,855.0	681.3	2,138.1	2,043.0	95.13	22.475	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB #B5-11 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	6,657.4	6,651.3	100.8	2.4	69.03	-2,855.2	681.3	2,229.5	2,133.1	96.40	23.127	
12,106.3	6,780.9	6,657.1	6,651.1	100.9	2.4	68.98	-2,855.2	681.3	2,235.8	2,139.3	96.49	23.171	
12,200.0	6,780.1	6,652.8	6,646.8	102.7	2.4	68.15	-2,855.4	681.4	2,328.8	2,231.0	97.76	23.823	
12,204.7	6,780.0	6,652.6	6,646.6	102.7	2.4	68.11	-2,855.4	681.4	2,333.4	2,235.6	97.82	23.855	
12,300.0	6,779.2	6,648.3	6,642.3	104.5	2.4	67.29	-2,855.5	681.4	2,428.1	2,329.0	99.08	24.507	
12,303.1	6,779.2	6,648.1	6,642.1	104.6	2.4	67.26	-2,855.5	681.4	2,431.2	2,332.1	99.12	24.528	
12,400.0	6,778.4	6,643.7	6,637.7	106.4	2.4	66.43	-2,855.7	681.4	2,527.4	2,427.1	100.38	25.180	
12,401.5	6,778.4	6,643.7	6,637.6	106.4	2.4	66.42	-2,855.7	681.4	2,529.0	2,428.6	100.40	25.190	
12,500.0	6,777.6	6,639.2	6,633.2	108.3	2.4	65.59	-2,855.8	681.5	2,626.8	2,525.2	101.64	25.844	
12,598.4	6,776.7	6,634.7	6,628.7	110.2	2.4	64.77	-2,856.0	681.5	2,724.7	2,621.8	102.87	26.488	
12,600.0	6,776.7	6,634.7	6,628.6	110.2	2.4	64.75	-2,856.0	681.5	2,726.3	2,623.4	102.88	26.498	
12,696.8	6,775.9	6,630.3	6,624.2	112.0	2.4	63.96	-2,856.2	681.5	2,822.6	2,718.5	104.06	27.124	
12,700.0	6,775.9	6,630.1	6,624.1	112.1	2.4	63.93	-2,856.2	681.5	2,825.7	2,721.6	104.10	27.145	
12,795.2	6,775.1	6,625.8	6,619.8	113.9	2.4	63.16	-2,856.3	681.6	2,920.5	2,815.3	105.23	27.754	
12,800.0	6,775.0	6,625.6	6,619.6	114.0	2.4	63.12	-2,856.3	681.6	2,925.2	2,820.0	105.28	27.784	
12,893.7	6,774.3	6,621.3	6,615.3	115.7	2.4	62.37	-2,856.5	681.6	3,018.5	2,912.1	106.37	28.377	
12,900.0	6,774.2	6,621.0	6,615.0	115.8	2.4	62.32	-2,856.5	681.6	3,024.8	2,918.3	106.44	28.417	
12,992.1	6,773.4	6,616.9	6,610.9	117.6	2.4	61.59	-2,856.6	681.7	3,116.4	3,009.0	107.49	28.993	
13,000.0	6,773.4	6,616.5	6,610.5	117.7	2.4	61.53	-2,856.6	681.7	3,124.3	3,016.7	107.57	29.043	
13,090.5	6,772.6	6,612.4	6,606.4	119.4	2.4	60.83	-2,856.8	681.7	3,214.4	3,105.9	108.58	29.605	
13,100.0	6,772.5	6,612.0	6,606.0	119.6	2.4	60.75	-2,856.8	681.7	3,223.9	3,115.2	108.68	29.663	
13,188.9	6,771.8	6,607.9	6,601.9	121.3	2.4	60.07	-2,857.0	681.8	3,312.5	3,202.8	109.65	30.211	
13,200.0	6,771.7	6,607.4	6,601.4	121.5	2.4	59.98	-2,857.0	681.8	3,323.5	3,213.7	109.76	30.279	
13,287.4	6,771.0	6,603.5	6,597.5	123.2	2.4	59.33	-2,857.1	681.8	3,410.5	3,299.8	110.69	30.812	
13,300.0	6,770.9	6,602.9	6,596.9	123.4	2.4	59.23	-2,857.1	681.9	3,423.1	3,312.2	110.82	30.889	
13,385.8	6,770.1	6,600.0	6,594.0	125.0	2.4	58.75	-2,857.2	681.9	3,508.5	3,396.7	111.85	31.369	
13,400.0	6,770.0	6,600.0	6,594.0	125.3	2.4	58.75	-2,857.2	681.9	3,522.7	3,410.6	112.08	31.429	
13,484.2	6,769.3	6,600.0	6,594.0	126.9	2.4	58.75	-2,857.2	681.9	3,606.6	3,493.1	113.49	31.778	
13,500.0	6,769.2	6,600.0	6,594.0	127.2	2.4	58.75	-2,857.2	681.9	3,622.3	3,508.6	113.76	31.843	
13,582.6	6,768.5	6,600.0	6,594.0	128.8	2.4	58.75	-2,857.2	681.9	3,704.7	3,589.6	115.14	32.175	
13,600.0	6,768.3	6,600.0	6,594.0	129.1	2.4	58.75	-2,857.2	681.9	3,722.0	3,606.6	115.43	32.244	
13,681.1	6,767.6	6,588.8	6,582.8	130.6	2.4	56.95	-2,857.6	682.0	3,802.8	3,687.7	115.11	33.037	
13,700.0	6,767.5	6,588.2	6,582.2	131.0	2.4	56.85	-2,857.7	682.1	3,821.6	3,706.3	115.32	33.140	
13,779.5	6,766.8	6,585.4	6,579.4	132.5	2.4	56.42	-2,857.7	682.1	3,900.9	3,784.7	116.21	33.568	
13,800.0	6,766.6	6,584.7	6,578.7	132.9	2.4	56.31	-2,857.8	682.1	3,921.3	3,804.9	116.43	33.679	
13,877.9	6,766.0	6,582.1	6,576.1	134.4	2.4	55.90	-2,857.9	682.1	3,999.0	3,881.7	117.30	34.093	
13,900.0	6,765.8	6,581.3	6,575.3	134.8	2.4	55.78	-2,857.9	682.2	4,021.0	3,903.5	117.54	34.210	
13,976.3	6,765.2	6,578.7	6,572.8	136.2	2.4	55.39	-2,858.0	682.2	4,097.1	3,978.8	118.38	34.611	
13,995.7	6,765.0	6,578.1	6,572.1	136.6	2.4	55.29	-2,858.0	682.2	4,116.4	3,997.8	118.59	34.712	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	166.54	-4,047.1	968.4	4,161.8				
98.4	98.4	42.6	42.6	0.1	0.0	166.54	-4,047.1	968.3	4,161.4	4,161.2	0.13	N/A	
100.0	100.0	44.4	44.4	0.1	0.0	166.54	-4,047.1	968.3	4,161.4	4,161.2	0.13	N/A	
196.8	196.8	141.0	141.0	0.3	0.2	166.55	-4,047.1	967.8	4,161.2	4,160.7	0.46	9,045.374	
200.0	200.0	143.8	143.8	0.3	0.2	166.55	-4,047.1	967.8	4,161.2	4,160.7	0.47	8,840.581	
295.3	295.3	244.5	244.5	0.5	0.3	166.56	-4,047.2	967.0	4,161.2	4,160.4	0.79	5,270.453	
300.0	300.0	251.2	251.2	0.5	0.3	166.56	-4,047.2	967.0	4,161.2	4,160.4	0.80	5,169.218	
393.7	393.7	360.0	360.0	0.7	0.3	166.57	-4,046.8	966.3	4,160.6	4,159.5	1.09	3,818.943	
400.0	400.0	366.4	366.3	0.8	0.3	166.57	-4,046.8	966.2	4,160.6	4,159.5	1.11	3,755.887	
492.1	492.1	462.7	462.7	1.0	0.4	166.57	-4,046.1	966.1	4,160.0	4,158.6	1.37	3,034.590	
500.0	500.0	471.1	471.1	1.0	0.4	166.57	-4,046.1	966.1	4,159.9	4,158.5	1.39	2,986.004	
590.5	590.5	565.6	565.6	1.2	0.5	166.57	-4,045.3	966.1	4,159.2	4,157.5	1.64	2,528.687	
600.0	600.0	575.4	575.3	1.2	0.5	166.57	-4,045.2	966.1	4,159.1	4,157.4	1.67	2,489.200	
689.0	689.0	658.0	658.0	1.4	0.5	166.56	-4,044.5	966.2	4,158.4	4,156.5	1.91	2,178.280	
700.0	700.0	667.8	667.8	1.4	0.5	166.56	-4,044.4	966.2	4,158.3	4,156.4	1.94	2,145.441	
787.4	787.4	755.7	755.6	1.6	0.6	166.56	-4,043.8	966.2	4,157.8	4,155.6	2.17	1,914.096	
800.0	800.0	769.3	769.3	1.7	0.6	166.56	-4,043.7	966.2	4,157.7	4,155.5	2.21	1,884.561	
885.8	885.8	863.1	863.1	1.9	0.6	166.56	-4,043.0	966.2	4,157.0	4,154.6	2.44	1,706.192	
900.0	900.0	878.7	878.7	1.9	0.6	166.56	-4,042.8	966.2	4,156.9	4,154.4	2.47	1,679.992	
984.2	984.2	961.2	961.1	2.1	0.7	166.56	-4,042.1	966.2	4,156.1	4,153.4	2.69	1,542.278	
1,000.0	1,000.0	976.0	976.0	2.1	0.7	166.56	-4,041.9	966.1	4,155.9	4,153.2	2.74	1,519.152	
1,082.7	1,082.7	1,053.1	1,053.1	2.3	0.7	166.56	-4,041.3	966.0	4,155.3	4,152.3	2.95	1,409.122	
1,100.0	1,100.0	1,069.2	1,069.2	2.3	0.7	166.56	-4,041.2	966.0	4,155.2	4,152.2	2.99	1,388.128	
1,181.1	1,181.1	1,156.3	1,156.3	2.5	0.7	166.56	-4,040.6	965.9	4,154.6	4,151.4	3.20	1,296.368	
1,200.0	1,200.0	1,178.5	1,178.5	2.6	0.7	166.56	-4,040.4	965.8	4,154.4	4,151.2	3.25	1,276.491	
1,279.5	1,279.5	1,262.4	1,262.4	2.7	0.8	166.56	-4,039.6	965.5	4,153.6	4,150.2	3.46	1,199.999	
1,300.0	1,300.0	1,283.3	1,283.3	2.8	0.8	166.56	-4,039.4	965.5	4,153.4	4,149.9	3.51	1,181.828	
1,377.9	1,377.9	1,360.7	1,360.7	3.0	0.8	166.56	-4,038.6	965.3	4,152.6	4,148.9	3.71	1,117.835	
1,400.0	1,400.0	1,382.5	1,382.4	3.0	0.8	166.56	-4,038.4	965.2	4,152.4	4,148.6	3.77	1,101.000	
1,476.4	1,476.4	1,446.3	1,446.3	3.2	0.9	166.56	-4,037.9	965.0	4,151.7	4,147.7	3.96	1,048.160	
1,500.0	1,500.0	1,465.0	1,465.0	3.2	0.9	166.56	-4,037.7	965.0	4,151.5	4,147.5	4.02	1,032.996	
1,574.8	1,574.8	1,537.5	1,537.4	3.4	0.9	166.56	-4,037.4	965.0	4,151.2	4,147.0	4.20	987.210	
1,600.0	1,600.0	1,568.4	1,568.3	3.5	0.9	166.56	-4,037.2	964.9	4,151.0	4,146.7	4.27	972.405	
1,673.2	1,673.2	1,640.0	1,640.0	3.6	0.9	166.56	-4,036.7	964.5	4,150.5	4,146.0	4.45	932.100	
1,700.0	1,700.0	1,662.7	1,662.6	3.7	0.9	166.56	-4,036.6	964.3	4,150.3	4,145.8	4.52	918.252	
1,771.6	1,771.6	1,727.1	1,727.1	3.8	0.9	166.57	-4,036.5	963.7	4,150.0	4,145.3	4.70	882.700	
1,800.0	1,800.0	1,755.1	1,755.1	3.9	1.0	166.58	-4,036.5	963.4	4,149.9	4,145.1	4.77	869.100	
1,870.1	1,870.1	1,818.5	1,818.4	4.1	1.0	166.59	-4,036.5	962.6	4,149.7	4,144.7	4.95	837.690	
1,900.0	1,900.0	1,840.8	1,840.8	4.1	1.0	166.59	-4,036.5	962.3	4,149.6	4,144.6	5.03	825.330	
1,903.0	1,903.0	1,843.1	1,843.0	4.1	1.0	166.59	-4,036.5	962.3	4,149.6	4,144.6	5.04	824.096	
1,968.5	1,968.5	1,900.0	1,899.9	4.3	1.0	166.60	-4,036.8	961.6	4,149.8	4,144.6	5.20	798.030	
2,000.0	2,000.0	1,922.7	1,922.6	4.4	1.0	166.61	-4,037.0	961.4	4,149.9	4,144.6	5.28	786.259	
2,066.9	2,066.9	1,995.3	1,995.2	4.5	1.0	166.62	-4,037.4	960.6	4,150.1	4,144.7	5.45	761.272	
2,100.0	2,100.0	2,030.1	2,030.0	4.6	1.0	166.62	-4,037.6	960.2	4,150.2	4,144.7	5.54	749.514	
2,165.3	2,165.3	2,098.5	2,098.4	4.7	1.0	98.22	-4,038.0	959.2	4,150.5	4,144.7	5.74	722.730	
2,200.0	2,200.0	2,131.1	2,131.0	4.8	1.0	98.24	-4,038.2	958.7	4,150.7	4,144.8	5.82	712.686	
2,263.8	2,263.7	2,190.9	2,190.8	4.9	1.1	98.28	-4,038.5	957.9	4,151.3	4,145.3	5.97	695.338	
2,300.0	2,299.8	2,233.5	2,233.4	5.0	1.1	98.31	-4,038.8	957.3	4,151.7	4,145.6	6.05	685.673	
2,362.2	2,361.8	2,308.6	2,308.4	5.1	1.1	98.41	-4,039.1	955.6	4,152.4	4,146.2	6.21	669.148	
2,400.0	2,399.5	2,342.6	2,342.4	5.2	1.1	98.45	-4,039.3	954.8	4,152.9	4,146.6	6.30	659.698	
2,460.6	2,459.7	2,400.0	2,399.8	5.4	1.1	98.54	-4,039.7	953.2	4,153.9	4,147.5	6.45	644.383	
2,500.0	2,498.7	2,436.5	2,436.3	5.5	1.1	98.61	-4,039.9	952.2	4,154.7	4,148.2	6.54	634.812	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,557.1	2,496.1	2,495.9	5.6	1.1	98.73	-4,040.3	950.5	4,156.1	4,149.4	6.70	620.003	
2,600.0	2,597.5	2,547.5	2,547.3	5.7	1.2	98.84	-4,040.6	949.0	4,157.1	4,150.3	6.82	609.920	
2,657.5	2,654.0	2,615.8	2,615.5	5.9	1.2	99.01	-4,040.8	947.0	4,158.5	4,151.6	6.99	595.175	
2,700.0	2,695.6	2,656.5	2,656.2	6.0	1.2	99.12	-4,040.8	945.8	4,159.7	4,152.6	7.11	584.841	
2,755.9	2,750.2	2,709.6	2,709.3	6.2	1.2	99.26	-4,040.9	944.2	4,161.4	4,154.1	7.30	570.430	
2,800.0	2,793.1	2,750.8	2,750.5	6.3	1.2	99.38	-4,041.0	943.1	4,162.9	4,155.5	7.44	559.533	
2,854.3	2,845.6	2,801.7	2,801.3	6.5	1.2	99.53	-4,041.0	941.8	4,165.0	4,157.4	7.64	545.160	
2,900.0	2,889.6	2,848.1	2,847.7	6.6	1.3	99.67	-4,041.1	940.7	4,166.9	4,159.1	7.81	533.560	
2,952.7	2,940.2	2,900.0	2,899.6	6.8	1.3	99.84	-4,041.1	939.4	4,169.3	4,161.3	8.03	519.174	
3,000.0	2,985.3	2,944.6	2,944.2	7.0	1.3	99.99	-4,041.1	938.2	4,171.7	4,163.4	8.23	506.950	
3,016.9	3,001.4	2,960.1	2,959.7	7.1	1.3	100.05	-4,041.1	937.9	4,172.6	4,164.3	8.31	502.397	
3,051.2	3,033.9	2,991.4	2,991.0	7.3	1.3	100.19	-4,041.1	937.1	4,174.4	4,165.9	8.47	493.134	
3,100.0	3,080.2	3,042.9	3,042.5	7.5	1.3	100.43	-4,041.1	935.7	4,177.1	4,168.4	8.69	480.419	
3,149.6	3,127.3	3,096.7	3,096.3	7.7	1.3	100.67	-4,041.1	934.1	4,179.7	4,170.8	8.94	467.530	
3,200.0	3,175.1	3,137.9	3,137.4	8.0	1.3	100.87	-4,041.1	932.8	4,182.5	4,173.3	9.19	455.253	
3,248.0	3,220.7	3,176.2	3,175.7	8.2	1.4	101.04	-4,041.1	931.6	4,185.3	4,175.9	9.43	443.675	
3,300.0	3,270.0	3,222.0	3,221.5	8.5	1.4	101.26	-4,041.3	930.0	4,188.5	4,178.8	9.70	431.781	
3,346.4	3,314.1	3,268.3	3,267.8	8.7	1.4	101.48	-4,041.4	928.4	4,191.4	4,181.4	9.95	421.308	
3,400.0	3,365.0	3,330.5	3,329.9	9.0	1.4	101.77	-4,041.5	926.1	4,194.7	4,184.5	10.24	409.822	
3,444.9	3,407.6	3,393.0	3,392.4	9.2	1.4	102.07	-4,041.4	923.4	4,197.4	4,186.9	10.48	400.359	
3,500.0	3,459.9	3,457.1	3,456.4	9.5	1.5	102.37	-4,041.1	920.2	4,200.5	4,189.7	10.79	389.364	
3,543.3	3,501.0	3,500.0	3,499.2	9.8	1.5	102.58	-4,040.9	918.1	4,203.0	4,192.0	11.03	381.027	
3,600.0	3,554.8	3,548.2	3,547.4	10.1	1.5	102.81	-4,040.6	915.6	4,206.3	4,194.9	11.35	370.665	
3,641.7	3,594.4	3,580.6	3,579.8	10.3	1.5	102.97	-4,040.4	914.1	4,208.9	4,197.3	11.59	363.289	
3,700.0	3,649.7	3,631.1	3,630.2	10.7	1.5	103.21	-4,040.2	911.7	4,212.6	4,200.7	11.92	353.479	
3,740.1	3,687.8	3,668.5	3,667.6	10.9	1.5	103.39	-4,040.1	910.0	4,215.3	4,203.1	12.15	346.928	
3,800.0	3,744.7	3,720.8	3,719.8	11.2	1.5	103.64	-4,039.9	907.6	4,219.3	4,206.8	12.50	337.649	
3,838.6	3,781.3	3,751.7	3,750.7	11.5	1.5	103.78	-4,039.9	906.2	4,222.0	4,209.3	12.72	331.880	
3,900.0	3,839.6	3,801.2	3,800.2	11.8	1.6	104.01	-4,039.8	904.3	4,226.5	4,213.4	13.08	323.126	
3,937.0	3,874.7	3,836.5	3,835.4	12.1	1.6	104.18	-4,039.8	902.9	4,229.3	4,216.0	13.30	318.020	
4,000.0	3,934.5	3,896.5	3,895.3	12.4	1.6	104.45	-4,039.8	900.7	4,234.1	4,220.5	13.67	309.724	
4,035.4	3,968.1	3,927.1	3,926.0	12.6	1.6	104.59	-4,039.7	899.6	4,236.9	4,223.0	13.88	305.227	
4,100.0	4,029.4	3,982.5	3,981.3	13.0	1.6	104.84	-4,039.8	897.7	4,242.1	4,227.8	14.26	297.391	
4,133.8	4,061.5	4,012.7	4,011.5	13.2	1.6	104.98	-4,039.8	896.8	4,244.9	4,230.4	14.47	293.422	
4,200.0	4,124.3	4,075.2	4,074.0	13.6	1.7	105.26	-4,039.8	894.8	4,250.4	4,235.5	14.86	285.995	
4,232.3	4,155.0	4,106.0	4,104.7	13.8	1.7	105.40	-4,039.9	893.9	4,253.2	4,238.1	15.06	282.492	
4,300.0	4,219.3	4,172.5	4,171.2	14.2	1.7	105.70	-4,039.9	892.0	4,259.0	4,243.5	15.46	275.447	
4,330.7	4,248.4	4,202.4	4,201.1	14.4	1.7	105.83	-4,039.9	891.1	4,261.6	4,246.0	15.65	272.359	
4,400.0	4,314.2	4,264.9	4,263.6	14.9	1.7	106.11	-4,039.8	889.4	4,267.7	4,251.7	16.06	265.670	
4,429.1	4,341.8	4,291.2	4,289.9	15.0	1.7	106.23	-4,039.8	888.7	4,270.3	4,254.1	16.24	262.951	
4,500.0	4,409.1	4,340.8	4,339.5	15.5	1.7	106.44	-4,039.9	887.4	4,276.9	4,260.3	16.67	256.615	
4,527.5	4,435.3	4,359.2	4,357.9	15.7	1.7	106.52	-4,040.0	887.0	4,279.6	4,262.8	16.83	254.235	
4,600.0	4,504.0	4,418.3	4,416.9	16.1	1.8	106.78	-4,040.5	885.8	4,286.9	4,269.6	17.27	248.219	
4,626.0	4,528.7	4,459.6	4,458.2	16.3	1.8	106.95	-4,040.7	885.2	4,289.5	4,272.1	17.43	246.138	
4,700.0	4,598.9	4,535.0	4,533.7	16.7	1.8	107.27	-4,040.8	884.1	4,296.7	4,278.8	17.87	240.403	
4,724.4	4,622.1	4,552.6	4,551.2	16.9	1.8	107.34	-4,040.8	883.9	4,299.2	4,281.1	18.02	238.572	
4,800.0	4,693.9	4,609.6	4,608.2	17.4	1.8	107.58	-4,041.1	883.4	4,307.0	4,288.5	18.48	233.106	
4,822.8	4,715.5	4,631.9	4,630.5	17.5	1.8	107.67	-4,041.3	883.2	4,309.4	4,290.8	18.61	231.510	
4,900.0	4,788.8	4,708.2	4,706.8	18.0	1.8	107.99	-4,041.7	882.6	4,317.7	4,298.6	19.08	226.295	
4,921.2	4,809.0	4,731.6	4,730.2	18.1	1.8	108.08	-4,041.8	882.3	4,319.9	4,300.7	19.21	224.904	
5,000.0	4,883.7	4,816.9	4,815.5	18.6	1.9	108.43	-4,042.1	881.5	4,328.3	4,308.6	19.68	219.913	
5,019.7	4,902.4	4,836.9	4,835.5	18.7	1.9	108.52	-4,042.2	881.3	4,330.4	4,310.6	19.80	218.697	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	4,978.6	4,916.0	4,914.6	19.3	1.9	108.84	-4,042.3	880.6	4,339.0	4,318.7	20.29	213.891	
5,118.1	4,995.8	4,931.8	4,930.4	19.4	1.9	108.90	-4,042.3	880.5	4,340.9	4,320.5	20.40	212.840	
5,200.0	5,073.6	5,000.0	4,998.6	19.9	1.9	109.17	-4,042.4	880.2	4,349.9	4,329.0	20.89	208.233	
5,216.5	5,089.2	5,016.5	5,015.1	20.0	1.9	109.24	-4,042.5	880.1	4,351.7	4,330.7	20.99	207.338	
5,304.2	5,172.4	5,088.5	5,087.1	20.6	1.9	109.52	-4,042.8	880.0	4,361.7	4,340.2	21.52	202.728	
5,314.9	5,182.7	5,100.0	5,098.6	20.6	1.9	109.59	-4,042.9	880.0	4,363.0	4,341.4	21.57	202.299	
5,400.0	5,263.9	5,212.4	5,211.0	21.1	1.9	110.18	-4,043.1	880.2	4,372.1	4,350.1	21.97	199.037	
5,413.4	5,276.7	5,222.6	5,221.2	21.1	1.9	110.24	-4,043.0	880.2	4,373.4	4,351.4	22.02	198.639	
5,500.0	5,360.3	5,289.1	5,287.7	21.5	1.9	110.61	-4,043.1	880.5	4,381.7	4,359.3	22.34	196.096	
5,511.8	5,371.7	5,300.0	5,298.6	21.6	1.9	110.66	-4,043.1	880.6	4,382.8	4,360.4	22.38	195.795	
5,600.0	5,457.5	5,394.3	5,392.9	21.9	1.9	111.06	-4,043.3	881.3	4,390.4	4,367.7	22.69	193.530	
5,610.2	5,467.5	5,405.6	5,404.2	21.9	1.9	111.10	-4,043.4	881.4	4,391.2	4,368.5	22.72	193.302	
5,700.0	5,555.6	5,504.5	5,503.1	22.3	1.9	111.45	-4,043.3	882.3	4,397.6	4,374.7	22.99	191.281	
5,708.6	5,564.1	5,512.4	5,511.0	22.3	1.9	111.47	-4,043.3	882.4	4,398.2	4,375.2	23.01	191.113	
5,800.0	5,654.2	5,595.6	5,594.2	22.6	1.9	111.73	-4,043.2	883.3	4,403.7	4,380.4	23.26	189.327	
5,807.1	5,661.2	5,600.0	5,598.6	22.6	1.9	111.74	-4,043.2	883.3	4,404.0	4,380.8	23.28	189.211	
5,900.0	5,753.4	5,670.5	5,669.1	22.8	1.9	111.93	-4,043.4	883.7	4,408.8	4,385.3	23.49	187.710	
5,905.5	5,758.8	5,674.6	5,673.2	22.8	1.9	111.94	-4,043.5	883.7	4,409.0	4,385.5	23.50	187.638	
6,000.0	5,852.9	5,765.0	5,763.6	23.1	1.9	112.11	-4,044.1	884.1	4,413.0	4,389.3	23.68	186.361	
6,003.9	5,856.8	5,769.2	5,767.8	23.1	1.9	112.12	-4,044.1	884.1	4,413.2	4,389.5	23.69	186.318	
6,100.0	5,952.7	5,855.5	5,854.1	23.2	1.9	112.23	-4,044.7	884.4	4,416.0	4,392.1	23.84	185.243	
6,102.3	5,955.1	5,857.4	5,856.0	23.2	1.9	112.23	-4,044.7	884.4	4,416.0	4,392.2	23.84	185.223	
6,200.0	6,052.7	5,941.7	5,940.3	23.4	1.9	112.29	-4,045.6	884.3	4,418.0	4,394.0	23.97	184.344	
6,200.8	6,053.5	5,942.4	5,941.0	23.4	1.9	112.29	-4,045.7	884.3	4,418.0	4,394.0	23.97	184.338	
6,221.1	6,073.8	5,960.9	5,959.5	23.4	1.9	-179.28	-4,045.9	884.2	4,418.3	4,394.3	23.99	184.180	
6,251.1	6,103.8	5,988.3	5,986.8	23.4	1.9	-179.28	-4,046.2	884.2	4,418.6	4,394.6	24.03	183.903	
6,299.2	6,151.8	6,036.0	6,034.6	23.5	1.9	0.72	-4,046.8	884.1	4,417.7	4,393.6	24.04	183.760	
6,300.0	6,152.6	6,036.9	6,035.4	23.5	1.9	0.72	-4,046.9	884.1	4,417.6	4,393.6	24.04	183.756	
6,350.0	6,202.4	6,087.8	6,086.4	23.5	1.9	0.73	-4,047.5	884.1	4,413.1	4,389.0	24.05	183.519	
6,397.6	6,249.3	6,128.2	6,126.7	23.5	1.9	0.74	-4,048.0	884.1	4,405.6	4,381.6	24.03	183.306	
6,400.0	6,251.6	6,130.0	6,128.6	23.5	1.9	0.74	-4,048.1	884.1	4,405.1	4,381.1	24.03	183.298	
6,450.0	6,300.1	6,169.1	6,167.6	23.5	1.9	0.75	-4,048.7	884.1	4,393.9	4,369.9	23.98	183.257	
6,496.0	6,344.0	6,200.0	6,198.5	23.5	1.9	0.77	-4,049.2	884.2	4,380.6	4,356.7	23.87	183.503	
6,500.0	6,347.7	6,200.0	6,198.5	23.5	1.9	0.77	-4,049.2	884.2	4,379.4	4,355.5	23.86	183.548	
6,550.0	6,394.1	6,246.4	6,245.0	23.5	1.9	0.79	-4,050.1	884.2	4,361.6	4,337.9	23.68	184.177	
6,594.5	6,434.2	6,280.0	6,278.6	23.4	1.9	0.82	-4,050.8	884.2	4,343.2	4,319.7	23.46	185.142	
6,600.0	6,439.0	6,284.1	6,282.7	23.4	1.9	0.82	-4,050.9	884.2	4,340.7	4,317.3	23.43	185.289	
6,650.0	6,482.4	6,324.4	6,322.9	23.4	1.9	0.86	-4,051.8	884.2	4,316.8	4,293.7	23.10	186.870	
6,692.9	6,518.1	6,360.1	6,358.6	23.3	1.9	0.89	-4,052.7	884.3	4,293.9	4,271.1	22.76	188.622	
6,700.0	6,523.9	6,365.8	6,364.3	23.3	1.9	0.90	-4,052.8	884.3	4,289.9	4,267.2	22.70	188.951	
6,750.0	6,563.3	6,405.1	6,403.6	23.3	1.9	0.95	-4,053.7	884.4	4,260.1	4,237.8	22.24	191.579	
6,791.3	6,594.2	6,435.0	6,433.5	23.2	1.9	1.00	-4,054.4	884.6	4,233.4	4,211.6	21.80	194.181	
6,800.0	6,600.5	6,441.1	6,439.6	23.2	1.9	1.02	-4,054.6	884.6	4,227.6	4,205.9	21.70	194.779	
6,850.0	6,635.3	6,474.8	6,473.3	23.2	1.9	1.10	-4,055.4	884.7	4,192.5	4,171.4	21.11	198.559	
6,889.7	6,661.1	6,500.0	6,498.5	23.1	1.9	1.17	-4,056.0	884.7	4,163.0	4,142.3	20.61	201.966	
6,900.0	6,667.5	6,509.1	6,507.6	23.1	2.0	1.20	-4,056.2	884.7	4,155.1	4,134.6	20.48	202.868	
6,950.0	6,696.9	6,551.7	6,550.1	23.1	2.0	1.33	-4,057.2	884.7	4,115.4	4,095.5	19.83	207.529	
6,988.2	6,717.5	6,581.3	6,579.8	23.1	2.0	1.45	-4,057.8	884.7	4,083.6	4,064.3	19.32	211.363	
7,000.0	6,723.5	6,589.9	6,588.4	23.1	2.0	1.50	-4,057.9	884.7	4,073.6	4,054.4	19.16	212.602	
7,050.0	6,747.0	6,615.5	6,613.9	23.1	2.0	1.72	-4,058.4	884.7	4,029.9	4,011.4	18.48	218.054	
7,086.6	6,762.3	6,629.9	6,628.3	23.1	2.0	1.93	-4,058.6	884.7	3,996.9	3,978.9	18.00	222.077	
7,100.0	6,767.4	6,634.7	6,633.2	23.1	2.0	2.01	-4,058.7	884.7	3,984.6	3,966.8	17.83	223.532	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,150.0	6,784.6	6,651.1	6,649.6	23.1	2.0	2.44	-4,059.0	884.7	3,938.0	3,920.8	17.23	228.574	
7,185.0	6,794.7	6,660.8	6,659.3	23.1	2.0	2.86	-4,059.2	884.7	3,904.7	3,887.8	16.86	231.572	
7,200.0	6,798.5	6,664.5	6,663.0	23.2	2.0	3.09	-4,059.3	884.8	3,890.3	3,873.6	16.72	232.684	
7,250.0	6,808.9	6,674.9	6,673.4	23.2	2.0	4.21	-4,059.5	884.8	3,841.6	3,825.3	16.32	235.459	
7,283.4	6,814.0	6,680.2	6,678.6	23.3	2.0	5.55	-4,059.6	884.8	3,808.7	3,792.6	16.10	236.615	
7,300.0	6,816.0	6,682.2	6,680.7	23.4	2.0	6.57	-4,059.7	884.8	3,792.3	3,776.3	15.99	237.142	
7,350.0	6,819.5	6,686.4	6,684.8	23.5	2.0	14.59	-4,059.7	884.9	3,742.5	3,726.9	15.60	239.859	
7,381.9	6,820.0	6,687.4	6,685.8	23.7	2.0	51.11	-4,059.8	884.9	3,710.6	3,693.0	17.60	210.813	
7,382.0	6,820.0	6,687.4	6,685.8	23.7	2.0	51.49	-4,059.8	884.9	3,710.5	3,692.9	17.63	210.444	
7,400.0	6,819.8	6,687.6	6,686.0	23.8	2.0	51.61	-4,059.8	884.9	3,692.5	3,674.8	17.76	207.905	
7,480.3	6,819.2	6,688.5	6,686.9	24.2	2.0	52.17	-4,059.8	884.9	3,612.2	3,593.8	18.41	196.220	
7,500.0	6,819.0	6,688.7	6,687.1	24.3	2.0	52.32	-4,059.8	884.9	3,592.5	3,574.0	18.57	193.460	
7,578.7	6,818.4	6,689.5	6,688.0	24.9	2.0	52.88	-4,059.8	884.9	3,513.8	3,494.5	19.32	181.883	
7,600.0	6,818.2	6,689.8	6,688.2	25.0	2.0	53.05	-4,059.8	884.9	3,492.6	3,473.0	19.52	178.891	
7,677.1	6,817.6	6,690.6	6,689.0	25.7	2.0	53.61	-4,059.8	884.9	3,415.4	3,395.1	20.35	167.804	
7,700.0	6,817.4	6,690.9	6,689.3	25.9	2.0	53.79	-4,059.8	884.9	3,392.6	3,372.0	20.60	164.675	
7,775.6	6,816.7	6,691.7	6,690.1	26.6	2.0	54.35	-4,059.8	884.9	3,317.0	3,295.5	21.50	154.309	
7,800.0	6,816.5	6,692.0	6,690.4	26.9	2.0	54.55	-4,059.8	884.9	3,292.6	3,270.8	21.79	151.124	
7,874.0	6,815.9	6,692.8	6,691.2	27.7	2.0	55.12	-4,059.9	884.9	3,218.6	3,195.9	22.73	141.592	
7,900.0	6,815.7	6,693.1	6,691.5	28.0	2.0	55.32	-4,059.9	884.9	3,192.6	3,169.6	23.07	138.412	
7,972.4	6,815.1	6,693.9	6,692.3	28.9	2.0	55.89	-4,059.9	884.9	3,120.2	3,096.2	24.05	129.747	
8,000.0	6,814.9	6,694.2	6,692.6	29.2	2.0	56.12	-4,059.9	884.9	3,092.6	3,068.2	24.43	126.616	
8,070.8	6,814.3	6,695.0	6,693.4	30.1	2.0	56.69	-4,059.9	884.9	3,021.8	2,996.4	25.44	118.797	
8,100.0	6,814.1	6,695.3	6,693.7	30.5	2.0	56.94	-4,059.9	884.9	2,992.7	2,966.8	25.86	115.744	
8,169.3	6,813.5	6,696.1	6,694.5	31.5	2.0	57.51	-4,059.9	884.9	2,923.4	2,896.5	26.89	108.725	
8,200.0	6,813.3	6,696.4	6,694.8	31.9	2.0	57.77	-4,059.9	884.9	2,892.7	2,865.3	27.35	105.769	
8,267.7	6,812.7	6,700.0	6,698.4	32.9	2.0	60.52	-4,060.0	884.9	2,825.0	2,796.3	28.72	98.362	
8,300.0	6,812.4	6,700.0	6,698.4	33.3	2.0	60.52	-4,060.0	884.9	2,792.7	2,763.5	29.19	95.679	
8,366.1	6,811.9	6,700.0	6,698.4	34.3	2.0	60.52	-4,060.0	884.9	2,726.6	2,696.4	30.17	90.387	
8,400.0	6,811.6	6,700.0	6,698.4	34.8	2.0	60.53	-4,060.0	884.9	2,692.7	2,662.1	30.67	87.806	
8,464.5	6,811.1	6,700.0	6,698.4	35.8	2.0	60.53	-4,060.0	884.9	2,628.2	2,596.6	31.64	83.070	
8,500.0	6,810.8	6,700.0	6,698.4	36.3	2.0	60.54	-4,060.0	884.9	2,592.8	2,560.6	32.17	80.590	
8,563.0	6,810.3	6,700.6	6,699.1	37.3	2.0	61.04	-4,060.0	884.9	2,529.8	2,496.6	33.22	76.145	
8,600.0	6,810.0	6,701.1	6,699.6	37.9	2.0	61.45	-4,060.0	884.9	2,492.8	2,458.9	33.86	73.612	
8,661.4	6,809.5	6,702.0	6,700.4	38.9	2.0	62.12	-4,060.1	884.9	2,431.4	2,396.5	34.94	69.583	
8,700.0	6,809.1	6,702.5	6,700.9	39.5	2.0	62.55	-4,060.1	884.9	2,392.8	2,357.2	35.63	67.167	
8,759.8	6,808.6	6,703.3	6,701.7	40.5	2.0	63.21	-4,060.1	885.0	2,333.0	2,296.3	36.70	63.574	
8,800.0	6,808.3	6,703.8	6,702.3	41.1	2.0	63.67	-4,060.1	885.0	2,292.9	2,255.5	37.42	61.269	
8,858.2	6,807.8	6,704.6	6,703.0	42.1	2.0	64.32	-4,060.1	885.0	2,234.6	2,196.2	38.49	58.063	
8,900.0	6,807.5	6,705.1	6,703.6	42.8	2.0	64.79	-4,060.1	885.0	2,192.9	2,153.7	39.25	55.865	
8,956.7	6,807.0	6,705.9	6,704.3	43.7	2.0	65.43	-4,060.1	885.0	2,136.3	2,096.0	40.31	53.001	
9,000.0	6,806.7	6,706.5	6,704.9	44.4	2.0	65.92	-4,060.1	885.0	2,093.0	2,051.8	41.11	50.905	
9,055.1	6,806.2	6,707.2	6,705.6	45.4	2.0	66.55	-4,060.2	885.0	2,037.9	1,995.7	42.15	48.345	
9,100.0	6,805.8	6,707.8	6,706.2	46.1	2.0	67.06	-4,060.2	885.0	1,993.0	1,950.0	43.00	46.346	
9,153.5	6,805.4	6,708.4	6,706.9	47.0	2.0	67.67	-4,060.2	885.0	1,939.5	1,895.5	44.02	44.056	
9,200.0	6,805.0	6,709.0	6,707.5	47.8	2.0	68.21	-4,060.2	885.0	1,893.0	1,848.1	44.91	42.148	
9,251.9	6,804.6	6,709.7	6,708.1	48.7	2.0	68.81	-4,060.2	885.0	1,841.1	1,795.2	45.92	40.097	
9,300.0	6,804.2	6,710.3	6,708.7	49.6	2.0	69.37	-4,060.2	885.0	1,793.1	1,746.2	46.85	38.275	
9,350.4	6,803.8	6,710.9	6,709.4	50.4	2.0	69.95	-4,060.2	885.0	1,742.7	1,694.9	47.83	36.436	
9,400.0	6,803.4	6,711.6	6,710.0	51.3	2.0	70.53	-4,060.2	885.0	1,693.1	1,644.3	48.80	34.696	
9,448.8	6,802.9	6,712.2	6,710.6	52.1	2.0	71.10	-4,060.3	885.0	1,644.4	1,594.6	49.76	33.046	
9,500.0	6,802.5	6,712.8	6,711.2	53.0	2.0	71.70	-4,060.3	885.0	1,593.2	1,542.4	50.77	31.382	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,802.1	6,713.4	6,711.8	53.9	2.0	72.25	-4,060.3	885.0	1,546.0	1,494.3	51.70	29.901	
9,600.0	6,801.7	6,714.0	6,712.5	54.8	2.0	72.87	-4,060.3	885.0	1,493.3	1,440.5	52.75	28.308	
9,645.6	6,801.3	6,714.6	6,713.0	55.6	2.0	73.41	-4,060.3	885.0	1,447.7	1,394.0	53.66	26.978	
9,700.0	6,800.9	6,715.3	6,713.7	56.6	2.0	74.05	-4,060.3	885.0	1,393.4	1,338.6	54.75	25.451	
9,744.1	6,800.5	6,715.8	6,714.2	57.4	2.0	74.57	-4,060.3	885.0	1,349.3	1,293.7	55.63	24.256	
9,800.0	6,800.0	6,716.5	6,714.9	58.4	2.0	75.23	-4,060.3	885.0	1,293.4	1,236.7	56.75	22.792	
9,842.5	6,799.7	6,717.0	6,715.4	59.1	2.0	75.73	-4,060.4	885.0	1,251.0	1,193.4	57.60	21.717	
9,900.0	6,799.2	6,717.7	6,716.1	60.2	2.0	76.41	-4,060.4	885.0	1,193.6	1,134.8	58.76	20.313	
9,940.9	6,798.9	6,718.2	6,716.6	60.9	2.0	76.89	-4,060.4	885.0	1,152.7	1,093.1	59.58	19.345	
10,000.0	6,798.4	6,718.9	6,717.3	62.0	2.0	77.59	-4,060.4	885.0	1,093.7	1,032.9	60.77	17.996	
10,039.3	6,798.1	6,719.3	6,717.7	62.7	2.0	78.05	-4,060.4	885.0	1,054.4	992.8	61.57	17.125	
10,100.0	6,797.6	6,720.0	6,718.5	63.8	2.0	78.77	-4,060.4	885.0	993.8	931.0	62.79	15.827	
10,137.8	6,797.2	6,720.5	6,718.9	64.4	2.0	79.22	-4,060.4	885.0	956.1	892.5	63.56	15.044	
10,200.0	6,796.7	6,721.2	6,719.6	65.6	2.0	79.95	-4,060.4	885.1	894.0	829.2	64.81	13.794	
10,236.2	6,796.4	6,721.6	6,720.0	66.2	2.0	80.38	-4,060.4	885.1	857.9	792.3	65.54	13.089	
10,300.0	6,795.9	6,722.3	6,720.8	67.4	2.0	81.13	-4,060.5	885.1	794.2	727.4	66.83	11.884	
10,334.6	6,795.6	6,722.7	6,721.2	68.0	2.0	81.53	-4,060.5	885.1	759.7	692.1	67.53	11.250	
10,400.0	6,795.1	6,723.5	6,721.9	69.2	2.0	82.30	-4,060.5	885.1	694.5	625.6	68.85	10.088	
10,433.0	6,794.8	6,723.9	6,722.3	69.8	2.0	82.69	-4,060.5	885.1	661.5	592.0	69.51	9.517	
10,500.0	6,794.2	6,724.6	6,723.0	71.0	2.0	83.47	-4,060.5	885.1	594.9	524.0	70.86	8.395	
10,531.5	6,794.0	6,725.0	6,723.4	71.6	2.0	83.83	-4,060.5	885.1	563.5	492.0	71.49	7.883	
10,600.0	6,793.4	6,725.7	6,724.2	72.9	2.0	84.63	-4,060.5	885.1	495.4	422.5	72.86	6.799	
10,629.9	6,793.2	6,726.1	6,724.5	73.4	2.0	84.98	-4,060.5	885.1	465.7	392.2	73.46	6.339	
10,700.0	6,792.6	6,726.9	6,725.3	74.7	2.0	85.79	-4,060.5	885.1	396.1	321.3	74.86	5.292	
10,728.3	6,792.3	6,727.2	6,725.6	75.2	2.0	86.11	-4,060.5	885.1	368.1	292.7	75.43	4.880	
10,800.0	6,791.7	6,728.0	6,726.4	76.6	2.0	86.94	-4,060.6	885.1	297.4	220.6	76.85	3.870	
10,826.7	6,791.5	6,728.3	6,726.7	77.1	2.0	87.24	-4,060.6	885.1	271.2	193.8	77.38	3.504	
10,900.0	6,790.9	6,729.0	6,727.5	78.4	2.0	88.08	-4,060.6	885.1	200.0	121.2	78.83	2.537	
10,925.2	6,790.7	6,729.3	6,727.7	78.9	2.0	88.36	-4,060.6	885.1	175.9	96.6	79.32	2.218	
11,000.0	6,790.1	6,730.1	6,728.6	80.3	2.0	89.21	-4,060.6	885.1	107.3	26.6	80.80	1.329 Level 3	
11,023.6	6,789.9	6,730.4	6,728.8	80.7	2.0	89.47	-4,060.6	885.1	87.9	6.6	81.26	1.081 Level 2	
11,092.4	6,789.3	6,731.1	6,729.5	82.0	2.0	90.24	-4,060.6	885.1	54.7	-27.9	82.60	0.662 Level 1, CC, ES, SF	
11,100.0	6,789.2	6,731.2	6,729.6	82.1	2.0	90.33	-4,060.6	885.1	55.2	-27.5	82.75	0.667 Level 1	
11,122.0	6,789.1	6,731.4	6,729.9	82.5	2.0	90.58	-4,060.6	885.1	62.2	-21.0	83.18	0.748 Level 1	
11,200.0	6,788.4	6,732.3	6,730.7	84.0	2.0	91.44	-4,060.6	885.1	120.7	36.0	84.69	1.426 Level 3	
11,220.4	6,788.2	6,732.5	6,730.9	84.3	2.0	91.67	-4,060.7	885.1	139.3	54.2	85.08	1.637	
11,300.0	6,787.6	6,733.3	6,731.7	85.8	2.0	92.54	-4,060.7	885.1	214.7	128.1	86.61	2.479	
11,318.9	6,787.4	6,733.5	6,731.9	86.2	2.0	92.75	-4,060.7	885.1	233.0	146.0	86.97	2.679	
11,400.0	6,786.7	6,734.4	6,732.8	87.7	2.0	93.63	-4,060.7	885.1	312.4	223.9	88.51	3.530	
11,417.3	6,786.6	6,734.5	6,733.0	88.0	2.0	93.82	-4,060.7	885.1	329.5	240.7	88.84	3.709	
11,500.0	6,785.9	6,735.4	6,733.8	89.5	2.0	94.71	-4,060.7	885.1	411.3	320.9	90.39	4.550	
11,515.7	6,785.8	6,735.6	6,734.0	89.8	2.0	94.87	-4,060.7	885.1	426.9	336.2	90.69	4.707	
11,600.0	6,785.1	6,736.4	6,734.8	91.4	2.0	95.77	-4,060.7	885.1	510.5	418.3	92.25	5.534	
11,614.1	6,785.0	6,736.6	6,735.0	91.7	2.0	95.92	-4,060.7	885.1	524.6	432.1	92.51	5.671	
11,700.0	6,784.2	6,737.4	6,735.9	93.3	2.0	96.82	-4,060.7	885.1	610.1	516.0	94.09	6.484	
11,712.6	6,784.1	6,737.6	6,736.0	93.5	2.0	96.95	-4,060.7	885.1	622.6	528.3	94.32	6.601	
11,800.0	6,783.4	6,738.4	6,736.9	95.2	2.0	97.85	-4,060.8	885.1	709.7	613.8	95.90	7.400	
11,811.0	6,783.3	6,738.5	6,737.0	95.4	2.0	97.97	-4,060.8	885.1	720.7	624.6	96.10	7.499	
11,900.0	6,782.6	6,739.4	6,737.9	97.0	2.0	98.87	-4,060.8	885.1	809.4	711.7	97.69	8.286	
11,909.4	6,782.5	6,739.5	6,737.9	97.2	2.0	98.97	-4,060.8	885.1	818.8	721.0	97.86	8.368	
12,000.0	6,781.7	6,740.4	6,738.8	98.9	2.0	99.88	-4,060.8	885.1	909.2	809.8	99.45	9.142	
12,007.8	6,781.7	6,740.5	6,738.9	99.1	2.0	99.96	-4,060.8	885.1	917.1	817.5	99.59	9.209	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design NW NW SEC. 5 T5N R64W 6th P.M. - EXIST VERT PLUMB B5-14 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,780.9	6,741.4	6,739.8	100.8	2.0	100.87	-4,060.8	885.1	1,009.1	907.9	101.19	9.972	
12,106.3	6,780.9	6,741.5	6,739.9	100.9	2.0	100.93	-4,060.8	885.1	1,015.3	914.0	101.29	10.024	
12,200.0	6,780.1	6,742.4	6,740.8	102.7	2.0	101.85	-4,060.8	885.1	1,108.9	1,006.0	102.89	10.777	
12,204.7	6,780.0	6,742.4	6,740.8	102.7	2.0	101.89	-4,060.8	885.1	1,113.6	1,010.6	102.97	10.815	
12,300.0	6,779.2	6,743.3	6,741.8	104.5	2.0	102.81	-4,060.9	885.1	1,208.8	1,104.2	104.57	11.560	
12,303.1	6,779.2	6,743.4	6,741.8	104.6	2.0	102.84	-4,060.9	885.1	1,211.9	1,107.3	104.62	11.584	
12,400.0	6,778.4	6,744.3	6,742.7	106.4	2.0	103.75	-4,060.9	885.1	1,308.7	1,202.5	106.22	12.320	
12,401.5	6,778.4	6,744.3	6,742.7	106.4	2.0	103.76	-4,060.9	885.1	1,310.3	1,204.0	106.25	12.332	
12,500.0	6,777.6	6,745.2	6,743.7	108.3	2.0	104.68	-4,060.9	885.2	1,408.6	1,300.8	107.84	13.062	
12,598.4	6,776.7	6,746.2	6,744.6	110.2	2.0	105.58	-4,060.9	885.2	1,506.9	1,397.5	109.41	13.773	
12,600.0	6,776.7	6,746.2	6,744.6	110.2	2.0	105.59	-4,060.9	885.2	1,508.5	1,399.1	109.44	13.784	
12,696.8	6,775.9	6,747.1	6,745.5	112.0	2.0	106.46	-4,060.9	885.2	1,605.3	1,494.4	110.95	14.468	
12,700.0	6,775.9	6,747.1	6,745.5	112.1	2.0	106.49	-4,060.9	885.2	1,608.5	1,497.5	111.00	14.490	
12,795.2	6,775.1	6,748.0	6,746.4	113.9	2.0	107.33	-4,060.9	885.2	1,703.7	1,591.2	112.47	15.148	
12,800.0	6,775.0	6,748.0	6,746.4	114.0	2.0	107.37	-4,060.9	885.2	1,708.4	1,595.9	112.54	15.180	
12,893.7	6,774.3	6,748.9	6,747.3	115.7	2.0	108.18	-4,061.0	885.2	1,802.0	1,688.1	113.95	15.814	
12,900.0	6,774.2	6,748.9	6,747.4	115.8	2.0	108.23	-4,061.0	885.2	1,808.4	1,694.3	114.05	15.856	
12,992.1	6,773.4	6,749.8	6,748.2	117.6	2.0	109.02	-4,061.0	885.2	1,900.4	1,785.0	115.41	16.466	
13,000.0	6,773.4	6,749.8	6,748.3	117.7	2.0	109.08	-4,061.0	885.2	1,908.3	1,792.8	115.53	16.517	
13,090.5	6,772.6	6,750.7	6,749.1	119.4	2.0	109.84	-4,061.0	885.2	1,998.8	1,882.0	116.85	17.106	
13,100.0	6,772.5	6,750.7	6,749.2	119.6	2.0	109.91	-4,061.0	885.2	2,008.3	1,891.3	116.99	17.166	
13,188.9	6,771.8	6,751.5	6,750.0	121.3	2.0	110.65	-4,061.0	885.2	2,097.2	1,978.9	118.26	17.734	
13,200.0	6,771.7	6,751.6	6,750.1	121.5	2.0	110.73	-4,061.0	885.2	2,108.2	1,989.8	118.42	17.803	
13,287.4	6,771.0	6,752.4	6,750.8	123.2	2.0	111.44	-4,061.0	885.2	2,195.6	2,075.9	119.64	18.351	
13,300.0	6,770.9	6,752.5	6,750.9	123.4	2.0	111.53	-4,061.0	885.2	2,208.2	2,088.4	119.82	18.429	
13,385.8	6,770.1	6,753.3	6,751.7	125.0	2.0	112.21	-4,061.0	885.2	2,294.0	2,173.0	121.00	18.958	
13,400.0	6,770.0	6,753.4	6,751.8	125.3	2.0	112.32	-4,061.0	885.2	2,308.2	2,187.0	121.20	19.045	
13,484.2	6,769.3	6,754.1	6,752.6	126.9	2.0	112.97	-4,061.1	885.2	2,392.4	2,270.0	122.34	19.556	
13,500.0	6,769.2	6,754.3	6,752.7	127.2	2.0	113.09	-4,061.1	885.2	2,408.1	2,285.6	122.55	19.650	
13,582.6	6,768.5	6,755.0	6,753.4	128.8	2.0	113.72	-4,061.1	885.2	2,490.8	2,367.1	123.65	20.144	
13,600.0	6,768.3	6,755.1	6,753.5	129.1	2.0	113.84	-4,061.1	885.2	2,508.1	2,384.2	123.88	20.246	
13,681.1	6,767.6	6,755.8	6,754.2	130.6	2.0	114.45	-4,061.1	885.2	2,589.2	2,464.2	124.94	20.724	
13,700.0	6,767.5	6,756.0	6,754.4	131.0	2.0	114.58	-4,061.1	885.2	2,608.1	2,482.9	125.19	20.834	
13,779.5	6,766.8	6,756.7	6,755.1	132.5	2.0	115.17	-4,061.1	885.2	2,687.6	2,561.3	126.20	21.295	
13,800.0	6,766.6	6,756.8	6,755.3	132.9	2.0	115.31	-4,061.1	885.2	2,708.0	2,581.6	126.47	21.413	
13,877.9	6,766.0	6,757.5	6,755.9	134.4	2.0	115.87	-4,061.1	885.2	2,786.0	2,658.5	127.45	21.859	
13,900.0	6,765.8	6,757.7	6,756.1	134.8	2.0	116.02	-4,061.1	885.2	2,808.0	2,680.3	127.73	21.984	
13,976.3	6,765.2	6,758.3	6,756.7	136.2	2.0	116.56	-4,061.1	885.2	2,884.4	2,755.7	128.67	22.416	
13,995.7	6,765.0	6,758.5	6,756.9	136.6	2.0	116.68	-4,061.1	885.2	2,903.7	2,774.7	128.92	22.524	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRLICH 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRLICH 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

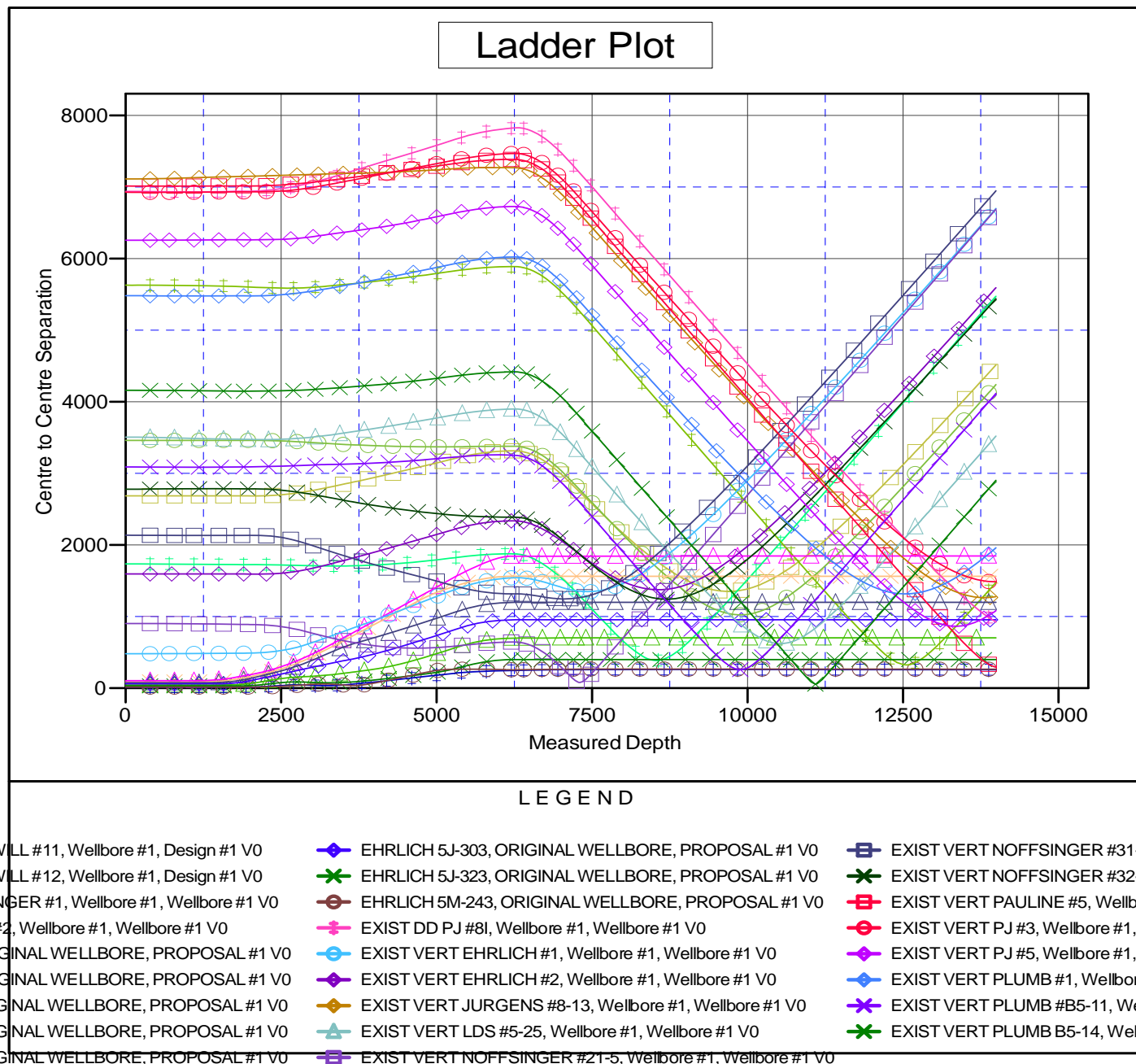
Reference Depths are relative to KB-EST @ 4664.0usft (Original Well ECoordinates are relative to: EHRLICH 5M-343

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.59°





Company:	PDC ENERGY	Local Co-ordinate Reference:	Well EHRlich 5M-343
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Reference Site:	NW NW SEC. 5 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4664.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	EHRlich 5M-343	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB-EST @ 4664.0usft (Original Well ECoordinates are relative to: EHRlich 5M-343

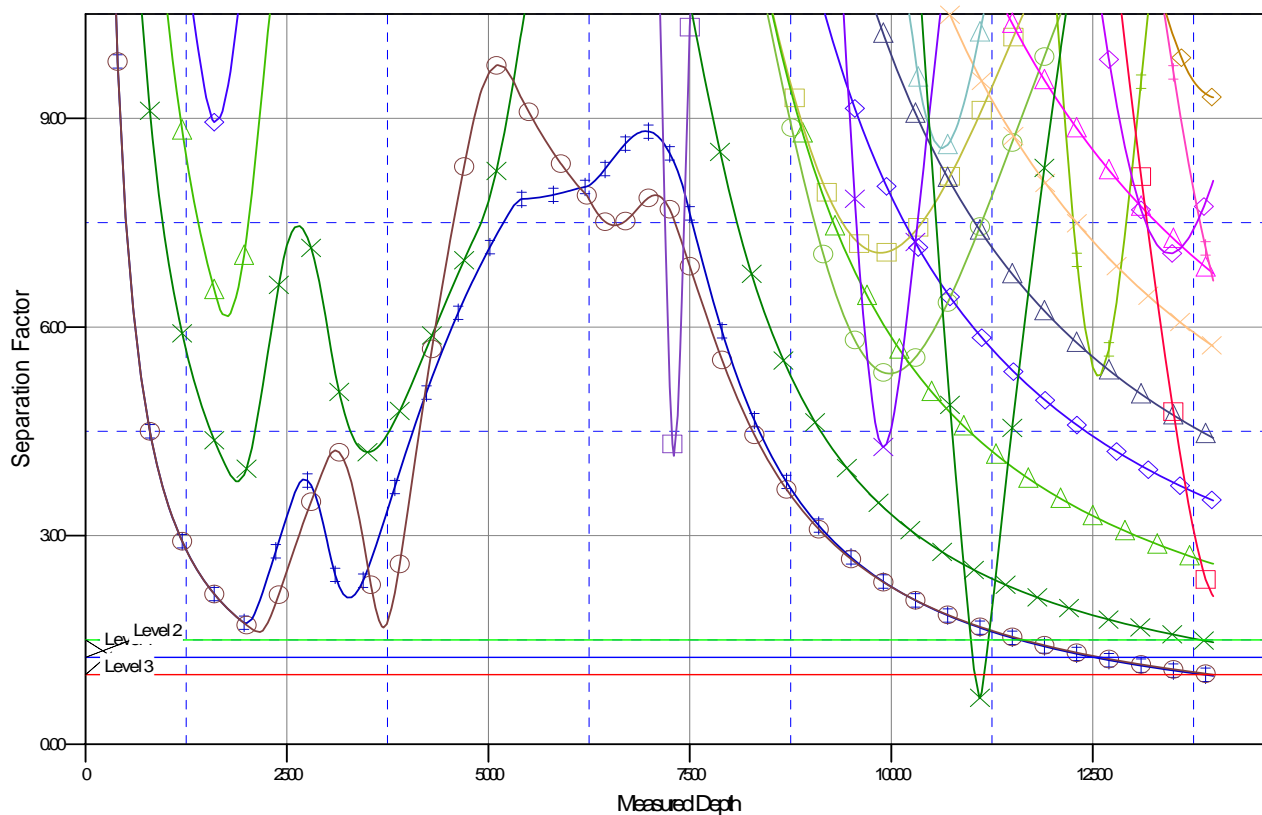
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.59°

Separation Factor Plot



LEGEND

WELL #11, Wellbore #1, Design #1 V0	◆ EHRlich 5J-303, ORIGINAL WELLBORE, PROPOSAL #1 V0	◆ EXIST VERT NOFFSINGER #31-5, '1
WELL #12, Wellbore #1, Design #1 V0	✕ EHRlich 5J-323, ORIGINAL WELLBORE, PROPOSAL #1 V0	✕ EXIST VERT NOFFSINGER #32-5, '1
NGER #1, Wellbore #1, Wellbore #1 V0	● EHRlich 5M-243, ORIGINAL WELLBORE, PROPOSAL #1 V0	■ EXIST VERT PAULINE #5, Wellbore
#2, Wellbore #1, Wellbore #1 V0	✕ EXIST DD PJ #81, Wellbore #1, Wellbore #1 V0	● EXIST VERT PJ #3, Wellbore #1, W
IGINAL WELLBORE, PROPOSAL #1 V0	○ EXIST VERT EHRlich #1, Wellbore #1, Wellbore #1 V0	◆ EXIST VERT PJ #5, Wellbore #1, W
IGINAL WELLBORE, PROPOSAL #1 V0	◆ EXIST VERT EHRlich #2, Wellbore #1, Wellbore #1 V0	○ EXIST VERT PLUMB #1, Wellbore #
IGINAL WELLBORE, PROPOSAL #1 V0	◆ EXIST VERT JURGENS #8-13, Wellbore #1, Wellbore #1 V0	✕ EXIST VERT PLUMB #B5-11, Wellb
IGINAL WELLBORE, PROPOSAL #1 V0	△ EXIST VERT LDS #5-25, Wellbore #1, Wellbore #1 V0	✕ EXIST VERT PLUMB B5-14, Wellbo
IGINAL WELLBORE, PROPOSAL #1 V0	■ EXIST VERT NOFFSINGER #21-5, Wellbore #1, Wellbore #1 V0	