

PDC ENERGY

**WELD COUNTY, COLORADO
SW NW SEC. 17 T5N R64W 6th P.M.
SCHAUMBERG 17F-334**

**ORIGINAL WELLBORE
PROPOSAL #1**

Anticollision Report

18 December, 2015



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	18/12/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	12,316.1	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
NW SW SEC. 17 T5N R64W 6th P.M.						
CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBC	1,234.7	1,237.7	2,026.4	2,021.1	382.118	CC
CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBC	1,377.9	1,369.5	2,026.8	2,020.9	343.787	ES
CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBC	10,000.0	6,250.0	3,479.6	3,364.9	30.345	SF
CECIL'S KERSEY FARM 17B-214 - ORIGINAL WELLBC	6,866.0	7,433.3	2,002.3	1,956.9	44.173	CC
CECIL'S KERSEY FARM 17B-214 - ORIGINAL WELLBC	12,316.4	12,870.5	2,003.3	1,666.0	5.939	ES, SF
CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBC	1,034.2	1,037.2	2,056.4	2,052.0	467.167	CC
CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBC	1,082.7	1,078.5	2,056.5	2,051.9	447.220	ES
CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBC	10,500.0	6,300.0	3,986.4	3,856.6	30.720	SF
CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBC	1,134.5	1,137.5	2,041.4	2,036.5	420.686	CC
CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBC	12,316.4	12,955.9	2,212.1	1,874.6	6.554	ES, SF
CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBC	6,865.9	7,472.0	1,227.0	1,182.1	27.302	CC
CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBC	12,316.4	12,909.3	1,228.8	892.6	3.655	ES, SF
CECIL'S KERSEY FARM 17K-232 - ORIGINAL WELLBC	6,785.8	7,030.0	1,330.9	1,292.0	34.258	CC
CECIL'S KERSEY FARM 17K-232 - ORIGINAL WELLBC	6,800.0	7,021.0	1,330.9	1,291.9	34.161	ES
CECIL'S KERSEY FARM 17K-232 - ORIGINAL WELLBC	8,267.7	6,450.0	1,748.4	1,680.5	25.757	SF
CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBC	6,884.7	6,995.4	1,586.6	1,547.1	40.153	CC
CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBC	6,900.0	6,985.6	1,586.7	1,547.0	39.965	ES
CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBC	8,956.7	6,400.0	2,357.7	2,270.7	27.127	SF
CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBC	10,248.6	10,900.5	1,477.3	1,255.7	6.666	CC
CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBC	12,316.4	12,968.3	1,477.3	1,140.3	4.384	ES, SF
CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBC	6,968.8	7,031.4	1,103.9	1,062.7	26.785	CC
CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBC	7,000.0	7,011.6	1,104.1	1,062.4	26.463	ES
CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBC	7,900.0	6,627.7	1,325.7	1,265.4	21.990	SF
CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBC	7,206.4	7,965.5	989.5	930.6	16.811	CC
CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBC	12,316.4	13,075.3	993.8	659.0	2.968	ES, SF
EXIST VERT B&H #1 - Wellbore #1 - Design #1	11,958.1	6,775.5	1,967.0	1,677.4	6.791	CC
EXIST VERT B&H #1 - Wellbore #1 - Design #1	12,007.8	6,775.3	1,967.6	1,676.6	6.761	ES
EXIST VERT B&H #1 - Wellbore #1 - Design #1	12,316.4	6,774.0	1,999.4	1,699.7	6.673	SF
EXIST VERT BRIGHT #2 - Wellbore #1 - Design #1	11,787.9	6,776.1	468.6	183.7	1.645	CC
EXIST VERT BRIGHT #2 - Wellbore #1 - Design #1	11,800.0	6,776.1	468.8	183.6	1.644	ES
EXIST VERT BRIGHT #2 - Wellbore #1 - Design #1	11,811.0	6,776.1	469.2	183.7	1.643	SF
EXIST VERT DUNN #22-18 - Wellbore #1 - Design #1	10,604.1	6,777.9	250.3	-1.7	0.993	Level 1, CC, ES, SF
EXIST VERT DUNN/MILLER #1 - Wellbore #1 - Wellbore	3,016.2	3,005.0	1,710.5	1,703.0	226.657	CC
EXIST VERT DUNN/MILLER #1 - Wellbore #1 - Wellbore	6,692.9	6,622.6	1,711.4	1,693.2	94.302	ES
EXIST VERT DUNN/MILLER #1 - Wellbore #1 - Wellbore	12,316.4	6,800.0	5,877.0	5,711.5	35.503	SF
EXIST VERT DUNN/MILLER #17B - Wellbore #1 - Wellb	340.1	333.1	2,231.0	2,230.2	2,660.281	CC
EXIST VERT DUNN/MILLER #17B - Wellbore #1 - Wellb	393.7	377.0	2,231.1	2,230.2	2,299.954	ES

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:	SCHAUMBERG 17F-334	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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
NW SW SEC. 17 T5N R64W 6th P.M.						
EXIST VERT DUNN/MILLER #17B - Wellbore #1 - Wellb	12,316.4	6,711.7	6,658.8	6,493.5	40.278	SF
EXIST VERT DUNN/MILLER #23-17 - Wellbore #1 - Des	1,500.0	1,491.0	1,828.2	1,795.2	55.488	CC
EXIST VERT DUNN/MILLER #23-17 - Wellbore #1 - Des	1,600.0	1,591.0	1,829.3	1,794.2	52.023	ES
EXIST VERT DUNN/MILLER #23-17 - Wellbore #1 - Des	6,250.0	6,228.1	1,942.4	1,804.8	14.120	SF
EXIST VERT GUNTHER #18-2 - Wellbore #1 - Design #	8,018.1	6,784.0	357.3	176.1	1.972	CC, ES, SF
EXIST VERT GUNTHER-PM B #18-7 - Wellbore #1 - We	9,336.6	6,750.0	274.0	191.7	3.329	CC
EXIST VERT GUNTHER-PM B #18-7 - Wellbore #1 - We	9,350.4	6,750.0	274.3	191.7	3.318	ES, SF
EXIST VERT H&S #1 - Wellbore #1 - Wellbore #1	125.0	120.0	3,114.2	3,113.9	10,000.000	CC
EXIST VERT H&S #1 - Wellbore #1 - Wellbore #1	200.0	186.6	3,114.3	3,113.8	5,998.307	ES
EXIST VERT H&S #1 - Wellbore #1 - Wellbore #1	12,316.4	6,600.0	8,734.7	8,569.7	52.941	SF
EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1	8,005.6	6,788.0	1,686.0	1,505.1	9.319	CC
EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1	8,070.8	6,787.7	1,687.2	1,504.6	9.239	ES
EXIST VERT HETTINGER #1 - Wellbore #1 - Design #1	8,400.0	6,786.5	1,731.5	1,540.1	9.047	SF
EXIST VERT HETTINGER #33-18 - Wellbore #1 - Wellb	9,435.8	6,770.9	1,799.5	1,714.2	21.094	CC
EXIST VERT HETTINGER #33-18 - Wellbore #1 - Wellb	9,500.0	6,770.4	1,800.6	1,713.6	20.678	ES
EXIST VERT HETTINGER #33-18 - Wellbore #1 - Wellb	10,500.0	6,762.9	2,090.6	1,975.8	18.209	SF
EXIST VERT HETTINGER #34-18 - Wellbore #1 - Desig	9,312.1	6,782.0	3,030.2	2,814.0	14.015	CC
EXIST VERT HETTINGER #34-18 - Wellbore #1 - Desig	9,400.0	6,781.6	3,031.4	2,812.8	13.866	ES
EXIST VERT HETTINGER #34-18 - Wellbore #1 - Desig	10,500.0	6,777.3	3,254.7	3,005.6	13.070	SF
EXIST VERT HETTINGER #44-18 - Wellbore #1 - Wellb	8,040.2	6,799.8	2,921.5	2,873.6	61.025	CC
EXIST VERT HETTINGER #44-18 - Wellbore #1 - Wellb	8,100.0	6,799.7	2,922.1	2,872.6	59.091	ES
EXIST VERT HETTINGER #44-18 - Wellbore #1 - Wellb	12,316.4	6,791.2	5,178.9	5,012.9	31.201	SF
EXIST VERT HOSHIKO #32-17 - Wellbore #1 - Design #	1,500.0	1,493.0	2,325.5	2,292.6	70.541	CC
EXIST VERT HOSHIKO #32-17 - Wellbore #1 - Design #	1,574.8	1,567.8	2,326.5	2,291.9	67.201	ES
EXIST VERT HOSHIKO #32-17 - Wellbore #1 - Design #	6,150.0	6,131.4	2,479.4	2,343.6	18.253	SF
EXIST VERT HOSHIKO #42-17 - Wellbore #1 - Design #	1,500.0	1,493.0	3,644.8	3,611.8	110.559	CC
EXIST VERT HOSHIKO #42-17 - Wellbore #1 - Design #	1,574.8	1,567.8	3,645.8	3,611.2	105.308	ES
EXIST VERT HOSHIKO #42-17 - Wellbore #1 - Design #	6,150.0	6,131.4	3,798.3	3,662.5	27.963	SF
EXIST VERT HOSHIKO/SOLIS #1 - Wellbore #1 - Wellb	0.0	0.0	3,894.1			
EXIST VERT HOSHIKO/SOLIS #1 - Wellbore #1 - Wellb	200.0	184.7	3,894.4	3,893.8	7,313.424	ES
EXIST VERT HOSHIKO/SOLIS #1 - Wellbore #1 - Wellb	12,316.4	6,600.0	8,892.9	8,727.4	53.718	SF
EXIST VERT HOWARD #14-18 - Wellbore #1 - Wellbore	12,029.4	6,762.1	3,074.3	2,916.9	19.525	CC
EXIST VERT HOWARD #14-18 - Wellbore #1 - Wellbore	12,106.3	6,760.7	3,075.3	2,915.7	19.268	ES
EXIST VERT HOWARD #14-18 - Wellbore #1 - Wellbore	12,316.4	6,756.8	3,087.7	2,922.2	18.659	SF
EXIST VERT MASON #1 - Wellbore #1 - Design #1	10,635.0	6,777.8	1,915.2	1,662.4	7.576	CC
EXIST VERT MASON #1 - Wellbore #1 - Design #1	10,700.0	6,777.5	1,916.3	1,661.7	7.527	ES
EXIST VERT MASON #1 - Wellbore #1 - Design #1	11,023.6	6,776.2	1,954.2	1,690.6	7.414	SF
EXIST VERT MILLER #1 - Wellbore #1 - Wellbore #1	0.0	0.0	3,052.0			
EXIST VERT MILLER #1 - Wellbore #1 - Wellbore #1	6,750.0	6,644.8	3,053.7	3,035.0	163.169	ES
EXIST VERT MILLER #1 - Wellbore #1 - Wellbore #1	12,316.4	6,731.8	6,374.5	6,209.1	38.533	SF
EXIST VERT MILLER #2 - Wellbore #1 - Wellbore #1	1,522.0	1,530.2	3,140.5	3,136.4	761.223	CC, ES
EXIST VERT MILLER #2 - Wellbore #1 - Wellbore #1	12,316.4	6,700.0	7,606.1	7,440.6	45.944	SF
EXIST VERT SCHAUMBERG #12-17 - Wellbore #1 - De	6,328.4	6,307.3	389.1	248.4	2.766	CC
EXIST VERT SCHAUMBERG #12-17 - Wellbore #1 - De	6,397.6	6,371.3	390.0	247.8	2.743	ES
EXIST VERT SCHAUMBERG #12-17 - Wellbore #1 - De	6,450.0	6,418.0	392.3	249.1	2.739	SF
EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1	1,500.0	1,505.0	4,052.9	4,019.8	122.489	CC
EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1	1,574.8	1,579.8	4,053.9	4,019.1	116.684	ES
EXIST VERT SOLIS #43-17 - Wellbore #1 - Design #1	7,200.0	6,794.9	4,842.2	4,681.1	30.062	SF
EXIST VERT SOLIS #44-17 - Wellbore #1 - Wellbore #1	1,529.1	1,575.0	4,683.0	4,678.8	1,101.828	CC, ES
EXIST VERT SOLIS #44-17 - Wellbore #1 - Wellbore #1	12,007.8	6,516.6	9,917.1	9,761.0	63.530	SF
EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1	1,500.0	1,496.0	1,031.5	998.5	31.261	CC
EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1	1,574.8	1,570.8	1,032.5	997.8	29.797	ES
EXIST VERT STEINMETZ #1 - Wellbore #1 - Design #1	6,150.0	6,134.4	1,183.2	1,047.3	8.705	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 @ 4633.0usft (Original Well Elev)
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Reference Well:	SCHAUMBERG 17F-334	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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SW NW SEC. 17 T5N R64W 6th P.M.						
EXIST VERT BRIGHT #1 - Wellbore #1 - Design #1	11,904.5	6,763.7	955.9	667.9	3.319	CC
EXIST VERT BRIGHT #1 - Wellbore #1 - Design #1	11,909.4	6,763.7	955.9	667.7	3.318	ES
EXIST VERT BRIGHT #1 - Wellbore #1 - Design #1	12,000.0	6,763.3	960.6	670.0	3.305	SF
EXIST VERT BRIGHT DUNN #18D - Wellbore #1 - Design #1	11,138.7	6,774.8	329.1	62.5	1.235	Level 2, CC, ES, SF
EXIST VERT DUNN #1 - Wellbore #1 - Wellbore #1	10,669.3	6,767.1	973.0	853.5	8.139	CC
EXIST VERT DUNN #1 - Wellbore #1 - Wellbore #1	10,700.0	6,767.2	973.5	853.1	8.085	ES
EXIST VERT DUNN #1 - Wellbore #1 - Wellbore #1	10,900.0	6,767.3	1,000.0	874.0	7.938	SF
EXIST VERT GUNTHER #18-1 - Wellbore #1 - Design #1	9,342.3	6,769.8	893.5	676.6	4.120	CC
EXIST VERT GUNTHER #18-1 - Wellbore #1 - Design #1	9,350.4	6,769.8	893.5	676.4	4.116	ES
EXIST VERT GUNTHER #18-1 - Wellbore #1 - Design #1	9,448.8	6,769.4	899.8	680.0	4.094	SF
EXIST VERT GUNTHER B18-1 - Wellbore #1 - Design #1	8,026.6	6,772.9	925.1	744.0	5.108	CC
EXIST VERT GUNTHER B18-1 - Wellbore #1 - Design #1	8,070.8	6,772.7	926.1	743.9	5.082	ES
EXIST VERT GUNTHER B18-1 - Wellbore #1 - Design #1	8,169.3	6,772.4	936.0	751.1	5.064	SF
EXIST VERT HOSHIKO #31-17 - Wellbore #1 - Design #1	1,500.0	1,490.0	2,562.0	2,529.3	78.334	CC
EXIST VERT HOSHIKO #31-17 - Wellbore #1 - Design #1	1,574.8	1,564.8	2,562.8	2,528.5	74.583	ES
EXIST VERT HOSHIKO #31-17 - Wellbore #1 - Design #1	6,150.0	6,128.4	2,697.1	2,561.5	19.879	SF
EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Design #1	1,500.0	1,487.0	3,641.0	3,608.3	111.429	CC
EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Design #1	1,574.8	1,561.8	3,641.9	3,607.6	106.083	ES
EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Design #1	7,213.0	6,777.0	4,483.0	4,321.9	27.843	SF
EXIST VERT PUYE B #18-17 - Wellbore #1 - Design #1	8,656.7	6,785.5	281.7	83.6	1.422	Level 3, CC
EXIST VERT PUYE B #18-17 - Wellbore #1 - Design #1	8,661.4	6,785.5	281.8	83.6	1.422	Level 3, ES, SF
EXIST VERT SCHAUMBERG #1 - Wellbore #1 - Wellbore #1	6,561.4	6,504.1	864.4	847.4	50.918	CC, ES
EXIST VERT SCHAUMBERG #1 - Wellbore #1 - Wellbore #1	8,956.7	6,700.0	2,472.4	2,400.4	34.364	SF
EXIST VERT STEINMETZ #21-17 - Wellbore #1 - Wellbore #1	1,597.3	1,613.4	1,352.3	1,347.9	310.176	CC
EXIST VERT STEINMETZ #21-17 - Wellbore #1 - Wellbore #1	1,600.0	1,616.1	1,352.3	1,347.9	309.707	ES
EXIST VERT STEINMETZ #21-17 - Wellbore #1 - Wellbore #1	12,316.4	6,520.0	7,114.6	6,955.9	44.822	SF
SCHAUMBERG 17F-202 - ORIGINAL WELLBORE - PR	1,000.0	1,000.0	75.2	71.0	17.730	CC
SCHAUMBERG 17F-202 - ORIGINAL WELLBORE - PR	6,843.1	7,686.0	119.4	64.6	2.177	ES, SF
SCHAUMBERG 17F-204 - ORIGINAL WELLBORE - PR	1,500.0	1,500.0	15.0	8.6	2.318	CC
SCHAUMBERG 17F-204 - ORIGINAL WELLBORE - PR	12,316.4	12,253.4	233.7	-80.3	0.744	Level 1, ES, SF
SCHAUMBERG 17F-232 - ORIGINAL WELLBORE - PR	1,200.0	1,200.0	45.1	40.0	8.778	CC, ES
SCHAUMBERG 17F-232 - ORIGINAL WELLBORE - PR	6,843.2	7,715.1	315.6	260.2	5.699	SF
SCHAUMBERG 17F-234 - ORIGINAL WELLBORE - PR	1,500.0	1,500.0	29.8	23.3	4.593	CC
SCHAUMBERG 17F-234 - ORIGINAL WELLBORE - PR	12,316.4	12,258.9	225.4	-86.8	0.722	Level 1, ES, SF
SCHAUMBERG 17F-332 - ORIGINAL WELLBORE - PR	1,100.0	1,100.0	60.2	55.5	12.825	CC
SCHAUMBERG 17F-332 - ORIGINAL WELLBORE - PR	7,213.0	7,409.8	108.7	51.2	1.890	ES
SCHAUMBERG 17F-332 - ORIGINAL WELLBORE - PR	7,283.4	7,341.3	109.7	51.6	1.888	SF
SCHAUMBERG 17G-202 - ORIGINAL WELLBORE - PR	1,400.0	1,400.0	15.0	9.0	2.490	CC, ES, SF
SCHAUMBERG 17G-214 - ORIGINAL WELLBORE - PR	1,500.0	1,500.0	59.9	53.4	9.228	CC, ES
SCHAUMBERG 17G-214 - ORIGINAL WELLBORE - PR	12,316.4	12,317.9	759.2	432.3	2.323	SF
SCHAUMBERG 17G-312 - ORIGINAL WELLBORE - PR	1,300.0	1,300.0	30.1	24.5	5.381	CC, ES
SCHAUMBERG 17G-312 - ORIGINAL WELLBORE - PR	1,377.9	1,377.2	31.1	25.1	5.242	SF
SCHAUMBERG 17G-314 - ORIGINAL WELLBORE - PR	1,500.0	1,500.0	44.8	38.4	6.910	CC, ES
SCHAUMBERG 17G-314 - ORIGINAL WELLBORE - PR	12,316.4	12,359.6	514.0	186.1	1.568	SF

Offset Design NW SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBORE - P											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

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
0.0	0.0	3.0	3.0	0.0	0.0	-175.48	-2,020.1	-159.6	2,026.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.48	-2,020.1	-159.6	2,026.4	2,026.2	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-175.48	-2,020.1	-159.6	2,026.4	2,026.2	0.20	N/A	
196.8	196.8	199.8	199.8	0.3	0.3	-175.48	-2,020.1	-159.6	2,026.4	2,025.8	0.64	3,177.843	
200.0	200.0	203.0	203.0	0.3	0.3	-175.48	-2,020.1	-159.6	2,026.4	2,025.7	0.65	3,108.808	
295.3	295.3	298.3	298.3	0.5	0.5	-175.48	-2,020.1	-159.6	2,026.4	2,025.3	1.08	1,876.088	
300.0	300.0	303.0	303.0	0.5	0.6	-175.48	-2,020.1	-159.6	2,026.4	2,025.3	1.10	1,839.907	
393.7	393.7	396.7	396.7	0.8	0.8	-175.48	-2,020.1	-159.6	2,026.4	2,024.9	1.52	1,330.904	
400.0	400.0	403.0	403.0	0.8	0.8	-175.48	-2,020.1	-159.6	2,026.4	2,024.8	1.55	1,306.601	
492.1	492.1	495.1	495.1	1.0	1.0	-175.48	-2,020.1	-159.6	2,026.4	2,024.4	1.97	1,031.232	
500.0	500.0	503.0	503.0	1.0	1.0	-175.48	-2,020.1	-159.6	2,026.4	2,024.4	2.00	1,012.982	
590.5	590.5	593.5	593.5	1.2	1.2	-175.48	-2,020.1	-159.6	2,026.4	2,024.0	2.41	841.709	
600.0	600.0	603.0	603.0	1.2	1.2	-175.48	-2,020.1	-159.6	2,026.4	2,023.9	2.45	827.114	
689.0	689.0	692.0	692.0	1.4	1.4	-175.48	-2,020.1	-159.6	2,026.4	2,023.5	2.85	711.033	
700.0	700.0	703.0	703.0	1.4	1.5	-175.48	-2,020.1	-159.6	2,026.4	2,023.5	2.90	698.879	
787.4	787.4	790.4	790.4	1.6	1.6	-175.48	-2,020.1	-159.6	2,026.4	2,023.1	3.29	615.480	
800.0	800.0	803.0	803.0	1.7	1.7	-175.48	-2,020.1	-159.6	2,026.4	2,023.0	3.35	605.070	
885.8	885.8	888.8	888.8	1.9	1.9	-175.48	-2,020.1	-159.6	2,026.4	2,022.7	3.73	542.566	
900.0	900.0	903.0	903.0	1.9	1.9	-175.48	-2,020.1	-159.6	2,026.4	2,022.6	3.80	533.464	
984.2	984.2	987.2	987.2	2.1	2.1	-175.48	-2,020.1	-159.6	2,026.4	2,022.2	4.18	485.098	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.48	-2,020.1	-159.6	2,026.4	2,022.1	4.25	477.013	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-175.48	-2,020.1	-159.6	2,026.4	2,021.8	4.62	438.638	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-175.48	-2,020.1	-159.6	2,026.4	2,021.7	4.70	431.366	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-175.48	-2,020.1	-159.6	2,026.4	2,021.3	5.06	400.299	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-175.48	-2,020.1	-159.6	2,026.4	2,021.2	5.15	393.692	
1,234.7	1,234.7	1,237.7	1,237.7	2.6	2.7	-175.48	-2,020.1	-159.6	2,026.4	2,021.1	5.30	382.118 CC	
1,279.5	1,279.5	1,279.7	1,279.7	2.7	2.7	-175.48	-2,020.1	-159.8	2,026.4	2,020.9	5.49	368.854	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-175.47	-2,020.1	-160.0	2,026.4	2,020.9	5.58	363.007	
1,377.9	1,377.9	1,369.5	1,369.5	3.0	2.9	-175.41	-2,020.2	-162.1	2,026.8	2,020.9	5.90	343.787 ES	
1,400.0	1,400.0	1,389.6	1,389.5	3.0	3.0	-175.39	-2,020.3	-163.0	2,026.9	2,020.9	5.98	338.675	
1,476.4	1,476.4	1,459.1	1,458.9	3.2	3.1	-175.27	-2,020.5	-167.2	2,027.5	2,021.2	6.30	321.946	
1,500.0	1,500.0	1,480.5	1,480.3	3.2	3.2	-175.22	-2,020.6	-168.9	2,027.8	2,021.4	6.39	317.107	
1,574.8	1,574.8	1,548.3	1,547.8	3.4	3.3	-94.35	-2,021.0	-175.1	2,028.8	2,022.1	6.71	302.333	
1,600.0	1,600.0	1,571.1	1,570.5	3.5	3.4	-94.29	-2,021.1	-177.6	2,029.3	2,022.5	6.82	297.727	
1,673.2	1,673.1	1,637.4	1,636.2	3.6	3.5	-94.12	-2,021.6	-185.7	2,030.8	2,023.7	7.13	284.988	
1,700.0	1,699.8	1,661.5	1,660.1	3.7	3.6	-94.06	-2,021.7	-189.1	2,031.5	2,024.3	7.24	280.524	
1,771.6	1,771.2	1,726.2	1,724.0	3.8	3.7	-93.89	-2,022.3	-199.0	2,033.6	2,026.0	7.57	268.727	
1,800.0	1,799.5	1,751.7	1,749.2	3.9	3.8	-93.82	-2,022.5	-203.4	2,034.5	2,026.8	7.70	264.183	
1,870.1	1,869.0	1,814.8	1,811.2	4.0	4.0	-93.65	-2,023.2	-215.0	2,037.0	2,028.9	8.05	253.134	
1,900.0	1,898.7	1,841.7	1,837.5	4.1	4.1	-93.58	-2,023.5	-220.4	2,038.2	2,030.0	8.20	248.527	
1,968.5	1,966.4	1,909.2	1,903.5	4.3	4.3	-93.42	-2,024.3	-234.4	2,041.0	2,032.4	8.60	237.334	
2,000.0	1,997.5	1,940.6	1,934.3	4.4	4.4	-93.36	-2,024.7	-240.9	2,042.4	2,033.6	8.79	232.355	
2,066.9	2,063.2	2,007.5	1,999.7	4.6	4.7	-93.26	-2,025.4	-254.8	2,045.3	2,036.1	9.22	221.898	
2,100.1	2,095.7	2,040.6	2,032.1	4.7	4.8	-93.23	-2,025.8	-261.7	2,046.8	2,037.4	9.43	216.942	
2,165.3	2,159.5	2,105.8	2,095.8	4.9	5.0	-93.23	-2,026.6	-275.2	2,049.8	2,039.9	9.88	207.380	
2,200.0	2,193.4	2,140.4	2,129.7	5.0	5.1	-93.23	-2,027.0	-282.4	2,051.3	2,041.2	10.13	202.550	
2,224.2	2,217.1	2,164.6	2,153.3	5.1	5.2	-93.23	-2,027.3	-287.4	2,052.4	2,042.1	10.30	199.255	
2,263.8	2,255.9	2,204.1	2,192.0	5.2	5.4	-93.26	-2,027.7	-295.6	2,054.2	2,043.6	10.57	194.342	
2,300.0	2,291.5	2,240.3	2,227.4	5.3	5.5	-93.28	-2,028.1	-303.1	2,055.8	2,045.0	10.82	189.989	
2,362.2	2,352.7	2,302.4	2,288.1	5.5	5.8	-93.27	-2,028.9	-316.0	2,058.5	2,047.3	11.23	183.364	
2,400.0	2,390.1	2,340.1	2,325.0	5.6	5.9	-93.25	-2,029.3	-323.8	2,060.1	2,048.6	11.48	179.511	
2,460.6	2,450.1	2,400.5	2,384.1	5.7	6.2	-93.18	-2,030.0	-336.4	2,062.6	2,050.7	11.87	173.752	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,500.0	2,489.2	2,439.7	2,422.5	5.8	6.3	-93.12	-2,030.5	-344.5	2,064.2	2,052.0	12.13	170.171	
2,559.0	2,548.0	2,498.4	2,479.9	6.0	6.6	-93.00	-2,031.2	-356.7	2,066.5	2,054.0	12.51	165.209	
2,600.0	2,588.8	2,539.0	2,519.6	6.1	6.8	-92.89	-2,031.6	-365.1	2,068.1	2,055.4	12.77	161.913	
2,657.5	2,646.1	2,595.9	2,575.3	6.2	7.0	-92.72	-2,032.3	-376.9	2,070.4	2,057.2	13.13	157.653	
2,700.0	2,688.6	2,637.9	2,616.3	6.3	7.2	-92.57	-2,032.8	-385.6	2,072.0	2,058.6	13.40	154.632	
2,755.9	2,744.4	2,692.9	2,670.1	6.4	7.4	-92.35	-2,033.4	-397.1	2,074.1	2,060.4	13.74	150.977	
2,800.0	2,788.5	2,736.2	2,712.5	6.5	7.6	-92.16	-2,033.9	-406.0	2,075.8	2,061.8	14.01	148.211	
2,824.3	2,812.8	2,760.0	2,735.7	6.5	7.7	-172.75	-2,034.2	-411.0	2,076.8	2,064.6	12.14	171.120	
2,854.3	2,842.9	2,789.4	2,764.5	6.6	7.8	-172.58	-2,034.5	-417.1	2,077.9	2,065.6	12.27	169.304	
2,900.0	2,888.5	2,834.0	2,808.2	6.7	8.0	-172.33	-2,035.1	-426.3	2,079.7	2,067.2	12.48	166.611	
2,952.7	2,941.3	2,885.6	2,858.6	6.8	8.2	-172.04	-2,035.7	-437.1	2,081.9	2,069.1	12.73	163.490	
3,000.0	2,988.5	2,931.9	2,903.8	6.9	8.4	-171.78	-2,036.2	-446.6	2,083.8	2,070.9	12.96	160.789	
3,051.2	3,039.7	2,981.9	2,952.8	7.0	8.7	-171.50	-2,036.8	-457.0	2,086.0	2,072.8	13.21	157.959	
3,100.0	3,088.5	3,029.7	2,999.5	7.1	8.9	-171.23	-2,037.3	-467.0	2,088.1	2,074.7	13.44	155.348	
3,149.6	3,138.1	3,078.2	3,047.0	7.2	9.1	-170.96	-2,037.9	-477.0	2,090.4	2,076.7	13.68	152.779	
3,200.0	3,188.5	3,127.5	3,095.2	7.3	9.3	-170.69	-2,038.5	-487.3	2,092.6	2,078.7	13.93	150.253	
3,248.0	3,236.6	3,174.5	3,141.2	7.4	9.5	-170.43	-2,039.0	-497.0	2,094.9	2,080.7	14.16	147.919	
3,300.0	3,288.5	3,225.3	3,190.9	7.5	9.7	-170.15	-2,039.6	-507.6	2,097.3	2,082.9	14.42	145.474	
3,346.4	3,335.0	3,270.7	3,235.3	7.6	9.9	-169.90	-2,040.1	-517.0	2,099.6	2,085.0	14.65	143.353	
3,400.0	3,388.5	3,323.1	3,286.6	7.7	10.2	-169.61	-2,040.8	-527.9	2,102.2	2,087.3	14.91	140.984	
3,444.9	3,433.4	3,367.0	3,329.5	7.8	10.4	-169.36	-2,041.3	-537.0	2,104.5	2,089.4	15.13	139.057	
3,500.0	3,488.5	3,420.9	3,382.2	7.9	10.6	-169.07	-2,041.9	-548.2	2,107.3	2,091.9	15.41	136.760	
3,543.3	3,531.8	3,463.3	3,423.7	8.0	10.8	-168.84	-2,042.4	-556.9	2,109.6	2,094.0	15.63	135.007	
3,600.0	3,588.5	3,518.8	3,477.9	8.1	11.0	-168.53	-2,043.0	-568.5	2,112.6	2,096.7	15.91	132.780	
3,641.7	3,630.3	3,559.6	3,517.8	8.2	11.2	-168.31	-2,043.5	-576.9	2,114.9	2,098.8	16.12	131.186	
3,700.0	3,688.5	3,616.6	3,573.6	8.3	11.5	-168.00	-2,044.2	-588.8	2,118.1	2,101.7	16.42	129.024	
3,740.1	3,728.7	3,655.8	3,612.0	8.4	11.6	-167.79	-2,044.6	-596.9	2,120.3	2,103.7	16.62	127.575	
3,800.0	3,788.5	3,714.4	3,669.3	8.5	11.9	-167.47	-2,045.3	-609.1	2,123.8	2,106.8	16.93	125.475	
3,838.6	3,827.1	3,752.1	3,706.2	8.6	12.1	-167.27	-2,045.8	-616.9	2,126.0	2,108.9	17.12	124.158	
3,900.0	3,888.5	3,812.2	3,765.0	8.7	12.4	-166.94	-2,046.5	-629.4	2,129.6	2,112.2	17.44	122.118	
3,937.0	3,925.5	3,848.4	3,800.4	8.8	12.5	-166.75	-2,046.9	-636.9	2,131.8	2,114.2	17.63	120.920	
4,000.0	3,988.5	3,910.0	3,860.6	9.0	12.8	-166.42	-2,047.6	-649.7	2,135.6	2,117.7	17.96	118.937	
4,035.4	4,024.0	3,944.7	3,894.5	9.0	13.0	-166.23	-2,048.0	-656.9	2,137.8	2,119.7	18.14	117.850	
4,100.0	4,088.5	4,007.8	3,956.3	9.2	13.2	-165.90	-2,048.7	-670.0	2,141.9	2,123.4	18.48	115.921	
4,133.8	4,122.4	4,040.9	3,988.7	9.2	13.4	-165.72	-2,049.1	-676.8	2,144.0	2,125.4	18.65	114.935	
4,200.0	4,188.5	4,105.6	4,052.0	9.4	13.7	-165.38	-2,049.9	-690.3	2,148.3	2,129.3	19.00	113.057	
4,232.3	4,220.8	4,137.2	4,082.9	9.4	13.8	-165.21	-2,050.2	-696.8	2,150.4	2,131.2	19.17	112.163	
4,300.0	4,288.5	4,203.5	4,147.7	9.6	14.1	-164.86	-2,051.0	-710.6	2,154.8	2,135.3	19.53	110.335	
4,330.7	4,319.2	4,233.5	4,177.0	9.7	14.3	-164.70	-2,051.4	-716.8	2,156.9	2,137.2	19.69	109.526	
4,400.0	4,388.5	4,301.3	4,243.4	9.8	14.6	-164.35	-2,052.2	-730.9	2,161.6	2,141.6	20.06	107.746	
4,429.1	4,417.7	4,329.8	4,271.2	9.9	14.7	-164.20	-2,052.5	-736.8	2,163.6	2,143.4	20.22	107.015	
4,500.0	4,488.5	4,399.1	4,339.0	10.0	15.0	-163.84	-2,053.3	-751.2	2,168.6	2,148.0	20.60	105.280	
4,527.5	4,516.1	4,426.0	4,365.4	10.1	15.1	-163.70	-2,053.6	-756.8	2,170.5	2,149.8	20.75	104.621	
4,600.0	4,588.5	4,496.9	4,434.7	10.2	15.5	-163.33	-2,054.4	-771.5	2,175.7	2,154.5	21.14	102.929	
4,626.0	4,614.5	4,522.3	4,459.6	10.3	15.6	-163.20	-2,054.7	-776.8	2,177.6	2,156.3	21.28	102.336	
4,700.0	4,688.5	4,594.7	4,530.4	10.5	15.9	-162.83	-2,055.6	-791.8	2,183.0	2,161.3	21.68	100.687	
4,724.4	4,712.9	4,618.6	4,553.7	10.5	16.0	-162.71	-2,055.8	-796.7	2,184.8	2,163.0	21.81	100.155	
4,800.0	4,788.5	4,692.5	4,626.1	10.7	16.4	-162.33	-2,056.7	-812.1	2,190.4	2,168.2	22.23	98.545	
4,822.8	4,811.4	4,714.9	4,647.9	10.7	16.5	-162.22	-2,057.0	-816.7	2,192.2	2,169.8	22.35	98.070	
4,900.0	4,888.5	4,790.4	4,721.7	10.9	16.8	-161.83	-2,057.8	-832.4	2,198.1	2,175.3	22.78	96.499	
4,921.2	4,909.8	4,811.1	4,742.1	10.9	16.9	-161.73	-2,058.1	-836.7	2,199.7	2,176.8	22.90	96.076	
5,000.0	4,988.5	4,888.2	4,817.4	11.1	17.3	-161.34	-2,059.0	-852.7	2,205.9	2,182.6	23.33	94.542	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
5,019.7	5,008.2	4,907.4	4,836.2	11.1	17.3	-161.24	-2,059.2	-856.7	2,207.4	2,184.0	23.44	94.167	
5,100.0	5,088.5	4,986.0	4,913.1	11.3	17.7	-160.85	-2,060.1	-873.0	2,213.9	2,190.0	23.89	92.669	
5,118.1	5,106.6	5,003.7	4,930.4	11.4	17.8	-160.76	-2,060.3	-876.7	2,215.3	2,191.3	23.99	92.338	
5,200.0	5,188.5	5,083.8	5,008.8	11.5	18.1	-160.36	-2,061.3	-893.3	2,222.0	2,197.6	24.45	90.875	
5,216.5	5,205.1	5,100.0	5,024.6	11.6	18.2	-160.28	-2,061.5	-896.6	2,223.4	2,198.8	24.54	90.586	
5,300.0	5,288.5	5,206.0	5,128.6	11.8	18.6	-159.78	-2,062.6	-917.6	2,230.0	2,205.0	25.07	88.966	
5,314.9	5,303.5	5,227.5	5,149.7	11.8	18.7	-159.69	-2,062.8	-921.4	2,231.1	2,205.9	25.16	88.693	
5,400.0	5,388.5	5,350.6	5,271.3	12.0	19.1	-159.25	-2,063.9	-940.2	2,236.4	2,210.7	25.65	87.184	
5,413.4	5,401.9	5,370.1	5,290.6	12.0	19.1	-159.19	-2,064.0	-942.7	2,237.1	2,211.3	25.73	86.955	
5,500.0	5,488.5	5,497.1	5,417.0	12.2	19.4	-158.89	-2,064.8	-955.7	2,240.7	2,214.5	26.20	85.534	
5,511.8	5,500.3	5,514.5	5,434.3	12.2	19.4	-158.86	-2,064.8	-957.0	2,241.1	2,214.9	26.26	85.352	
5,600.0	5,588.5	5,644.8	5,564.4	12.4	19.6	-158.70	-2,065.2	-963.8	2,243.0	2,216.3	26.69	84.035	
5,610.2	5,598.8	5,659.9	5,579.6	12.4	19.7	-158.69	-2,065.2	-964.2	2,243.1	2,216.4	26.74	83.889	
5,700.0	5,688.5	5,771.9	5,691.5	12.6	19.8	-158.67	-2,065.3	-965.0	2,243.3	2,216.2	27.12	82.715	
5,708.6	5,697.2	5,780.5	5,700.2	12.6	19.8	-158.67	-2,065.3	-965.0	2,243.3	2,216.2	27.15	82.613	
5,800.0	5,788.5	5,871.9	5,791.5	12.8	19.9	-158.67	-2,065.3	-965.0	2,243.3	2,215.8	27.51	81.535	
5,807.1	5,795.6	5,879.0	5,798.6	12.9	19.9	-158.67	-2,065.3	-965.0	2,243.3	2,215.8	27.54	81.452	
5,900.0	5,888.5	5,993.8	5,913.4	13.1	20.6	-179.92	-2,065.3	-146.1	2,241.2	2,214.2	27.06	82.826	
5,905.5	5,894.0	5,993.8	5,913.4	13.1	20.6	-179.92	-2,065.3	-146.2	2,239.3	2,212.2	27.07	82.715	
6,000.0	5,988.5	6,093.5	6,013.1	13.3	20.6	-179.93	-2,065.3	-146.5	2,207.1	2,179.8	27.28	80.896	
6,003.9	5,992.5	6,093.5	6,013.1	13.3	20.6	-179.93	-2,065.3	-146.5	2,205.8	2,178.5	27.29	80.824	
6,085.3	6,073.8	6,183.2	6,103.8	13.5	20.6	-179.94	-2,065.3	-146.8	2,181.1	2,153.7	27.47	79.391	
6,100.0	6,088.5	6,193.0	6,113.6	13.5	20.6	-90.40	-2,065.3	-147.0	2,176.9	2,138.8	38.12	57.106	
6,102.3	6,090.9	6,192.9	6,113.6	13.5	20.6	-90.46	-2,065.3	-147.1	2,176.3	2,138.2	38.13	57.082	
6,150.0	6,138.4	6,290.0	6,210.6	13.6	20.6	-91.44	-2,065.3	-150.0	2,163.5	2,125.3	38.19	56.654	
6,200.0	6,188.0	6,283.6	6,203.2	13.7	20.6	-92.28	-2,065.3	-156.4	2,151.2	2,113.0	38.21	56.297	
6,200.8	6,188.8	6,283.5	6,203.1	13.7	20.6	-92.29	-2,065.3	-156.5	2,151.0	2,112.8	38.21	56.292	
6,250.0	6,237.1	6,337.7	6,257.3	13.9	20.6	-92.93	-2,065.3	-166.3	2,140.1	2,101.9	38.20	56.027	
6,299.2	6,284.6	6,387.7	6,307.3	14.0	20.6	-93.38	-2,065.3	-179.3	2,130.4	2,092.2	38.15	55.840	
6,300.0	6,285.3	6,387.7	6,307.3	14.0	20.6	-93.38	-2,065.3	-179.5	2,130.2	2,092.1	38.15	55.838	
6,350.0	6,332.5	6,437.9	6,357.5	14.2	20.6	-93.66	-2,065.3	-196.1	2,121.6	2,083.5	38.07	55.723	
6,397.6	6,376.3	6,487.5	6,407.1	14.4	20.6	-93.76	-2,065.3	-214.9	2,114.5	2,076.5	37.98	55.674	
6,400.0	6,378.5	6,487.5	6,407.1	14.4	20.6	-93.76	-2,065.3	-216.0	2,114.1	2,076.2	37.97	55.674	
6,450.0	6,423.0	6,537.0	6,457.0	14.7	20.6	-93.71	-2,065.3	-239.0	2,107.9	2,070.0	37.86	55.678	
6,496.0	6,462.4	6,587.0	6,507.0	14.9	20.6	-93.34	-2,065.3	-271.0	2,103.0	2,065.4	37.67	55.820	
6,500.0	6,465.7	6,587.0	6,507.0	14.9	20.6	-93.30	-2,065.3	-274.0	2,102.7	2,065.0	37.66	55.838	
6,550.0	6,506.6	6,637.7	6,557.3	15.2	20.6	-92.78	-2,065.3	-311.2	2,098.4	2,060.9	37.49	55.965	
6,594.5	6,541.2	6,682.1	6,602.7	15.6	20.6	-92.30	-2,065.3	-342.6	2,095.3	2,057.9	37.43	55.978	
6,600.0	6,545.3	6,682.1	6,602.7	15.6	20.6	-92.23	-2,065.3	-346.4	2,095.0	2,057.5	37.43	55.973	
6,650.0	6,581.8	6,727.2	6,647.8	16.0	20.6	-91.66	-2,065.3	-380.0	2,092.4	2,055.0	37.47	55.844	
6,692.9	6,611.1	6,767.2	6,687.8	16.4	20.6	-91.15	-2,065.3	-407.7	2,090.9	2,053.3	37.59	55.619	
6,700.0	6,615.8	6,767.2	6,687.8	16.5	20.6	-91.06	-2,065.3	-412.2	2,090.7	2,053.1	37.62	55.580	
6,750.0	6,647.1	6,817.2	6,737.8	17.1	20.6	-90.43	-2,065.3	-443.1	2,089.9	2,052.0	37.86	55.200	
6,783.0	6,666.3	6,846.8	6,766.4	17.5	20.6	-90.00	-2,065.3	-462.9	2,089.7	2,051.6	38.10	54.855	
6,791.3	6,670.9	6,851.3	6,770.9	17.6	20.6	-89.89	-2,065.3	-467.8	2,089.7	2,051.6	38.15	54.769	
6,800.0	6,675.7	6,856.3	6,775.3	17.7	20.6	-89.77	-2,065.3	-472.9	2,089.7	2,051.5	38.22	54.681	
6,850.0	6,701.3	6,901.7	6,821.3	18.4	20.3	-89.08	-2,065.3	-501.7	2,090.3	2,051.7	38.67	54.050	
6,889.7	6,719.5	6,941.7	6,861.3	19.0	20.2	-88.51	-2,065.3	-524.0	2,091.3	2,052.2	39.11	53.472	
6,900.0	6,723.8	6,946.7	6,866.4	19.1	20.1	-88.30	-2,065.3	-532.0	2,091.6	2,052.4	39.20	53.353	
6,950.0	6,743.2	6,971.0	6,890.6	20.0	20.0	-87.61	-2,065.3	-556.6	2,093.5	2,053.6	39.88	52.497	
6,988.2	6,755.8	6,999.0	6,918.6	20.6	19.9	-87.02	-2,065.3	-577.2	2,095.3	2,054.9	40.42	51.835	
7,000.0	6,759.4	7,003.8	6,923.4	20.9	19.8	-86.85	-2,065.3	-582.7	2,095.9	2,055.3	40.61	51.617	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBORE - P												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	
7,050.0	6,772.1	6,814.9	6,605.4	21.8	19.7	-86.07	-2,065.3	-608.0	2,098.9	2,057.5	41.42	50.675	
7,086.6	6,779.4	6,794.0	6,594.7	22.5	19.7	-85.49	-2,065.3	-625.9	2,101.3	2,059.3	42.05	49.968	
7,100.0	6,781.5	6,786.3	6,590.6	22.8	19.7	-85.27	-2,065.3	-632.4	2,102.3	2,060.0	42.29	49.708	
7,150.0	6,787.5	6,758.0	6,574.9	23.9	19.6	-84.47	-2,065.3	-656.1	2,106.1	2,062.8	43.22	48.731	
7,185.0	6,789.6	6,738.2	6,563.5	24.6	19.6	-83.91	-2,065.3	-672.2	2,108.9	2,065.0	43.90	48.042	
7,200.0	6,789.9	6,729.8	6,558.5	24.9	19.6	-83.67	-2,065.3	-678.9	2,110.2	2,066.0	44.19	47.752	
7,213.0	6,790.0	6,722.5	6,554.1	25.2	19.5	-83.46	-2,065.3	-684.7	2,111.3	2,066.8	44.45	47.500	
7,283.4	6,789.7	6,684.7	6,530.3	26.8	19.5	-82.82	-2,065.3	-714.1	2,118.0	2,072.1	45.93	46.111	
7,300.0	6,789.7	6,676.3	6,524.7	27.2	19.5	-82.67	-2,065.3	-720.5	2,119.8	2,073.5	46.29	45.797	
7,381.9	6,789.4	6,637.0	6,498.1	29.1	19.5	-81.95	-2,065.3	-749.3	2,129.8	2,081.7	48.11	44.266	
7,400.0	6,789.3	6,628.8	6,492.3	29.5	19.5	-81.80	-2,065.3	-755.1	2,132.3	2,083.8	48.52	43.945	
7,480.3	6,789.0	6,600.0	6,471.6	31.4	19.6	-81.25	-2,065.3	-775.1	2,144.6	2,094.2	50.39	42.558	
7,500.0	6,788.9	6,586.9	6,461.8	31.9	19.6	-80.99	-2,065.3	-783.9	2,147.9	2,097.1	50.85	42.243	
7,578.7	6,788.6	6,550.0	6,433.7	33.8	19.6	-80.24	-2,065.3	-807.7	2,162.5	2,109.8	52.71	41.024	
7,600.0	6,788.5	6,550.0	6,433.7	34.4	19.6	-80.24	-2,065.3	-807.7	2,166.8	2,113.6	53.23	40.705	
7,677.1	6,788.2	6,524.0	6,413.1	36.3	19.7	-79.69	-2,065.3	-823.6	2,183.7	2,128.6	55.11	39.626	
7,700.0	6,788.2	6,516.9	6,407.3	36.9	19.7	-79.54	-2,065.3	-827.8	2,189.1	2,133.4	55.66	39.328	
7,775.6	6,787.9	6,500.0	6,393.6	38.8	19.7	-79.18	-2,065.3	-837.6	2,208.2	2,150.7	57.53	38.384	
7,800.0	6,787.8	6,500.0	6,393.6	39.4	19.7	-79.18	-2,065.3	-837.6	2,214.9	2,156.8	58.14	38.093	
7,874.0	6,787.5	6,468.1	6,366.9	41.3	19.8	-78.47	-2,065.3	-855.2	2,236.1	2,176.2	59.96	37.295	
7,900.0	6,787.4	6,450.0	6,351.5	42.0	19.8	-78.07	-2,065.3	-864.6	2,244.1	2,183.6	60.57	37.048	
7,972.4	6,787.1	6,450.0	6,351.5	43.9	19.8	-78.07	-2,065.3	-864.6	2,267.4	2,205.0	62.43	36.320	
8,000.0	6,787.0	6,450.0	6,351.5	44.6	19.8	-78.07	-2,065.3	-864.6	2,276.8	2,213.7	63.13	36.063	
8,070.8	6,786.7	6,423.2	6,328.2	46.5	19.9	-77.46	-2,065.3	-877.9	2,301.9	2,237.1	64.88	35.479	
8,100.0	6,786.6	6,417.3	6,323.0	47.3	19.9	-77.33	-2,065.3	-880.6	2,312.8	2,247.2	65.61	35.249	
8,169.3	6,786.4	6,400.0	6,307.7	49.1	19.9	-76.93	-2,065.3	-888.6	2,339.7	2,272.4	67.35	34.741	
8,200.0	6,786.3	6,400.0	6,307.7	49.9	19.9	-76.93	-2,065.3	-888.6	2,352.2	2,284.0	68.14	34.518	
8,267.7	6,786.0	6,400.0	6,307.7	51.7	19.9	-76.93	-2,065.3	-888.6	2,380.7	2,310.8	69.91	34.055	
8,300.0	6,785.9	6,381.2	6,290.8	52.6	20.0	-76.49	-2,065.3	-896.8	2,394.7	2,324.0	70.67	33.887	
8,366.1	6,785.6	6,370.8	6,281.3	54.4	20.0	-76.24	-2,065.3	-901.2	2,424.5	2,352.2	72.35	33.512	
8,400.0	6,785.5	6,350.0	6,262.3	55.3	20.0	-75.75	-2,065.3	-909.5	2,440.5	2,367.3	73.13	33.373	
8,464.5	6,785.2	6,350.0	6,262.3	57.0	20.0	-75.75	-2,065.3	-909.5	2,471.4	2,396.6	74.82	33.032	
8,500.0	6,785.1	6,350.0	6,262.3	58.0	20.0	-75.75	-2,065.3	-909.5	2,488.9	2,413.1	75.75	32.858	
8,563.0	6,784.9	6,350.0	6,262.3	59.7	20.0	-75.75	-2,065.3	-909.5	2,520.9	2,443.5	77.40	32.569	
8,600.0	6,784.7	6,350.0	6,262.3	60.7	20.0	-75.75	-2,065.3	-909.5	2,540.3	2,462.0	78.38	32.412	
8,661.4	6,784.5	6,331.1	6,244.7	62.4	20.1	-75.30	-2,065.3	-916.6	2,573.1	2,493.2	79.88	32.214	
8,700.0	6,784.3	6,326.6	6,240.5	63.4	20.1	-75.19	-2,065.3	-918.2	2,594.3	2,513.4	80.86	32.082	
8,759.8	6,784.1	6,319.9	6,234.3	65.0	20.1	-75.04	-2,065.3	-920.5	2,627.8	2,545.4	82.40	31.892	
8,800.0	6,784.0	6,300.0	6,215.5	66.1	20.1	-74.56	-2,065.3	-927.2	2,651.0	2,567.6	83.31	31.819	
8,858.2	6,783.7	6,300.0	6,215.5	67.7	20.1	-74.56	-2,065.3	-927.2	2,684.9	2,600.1	84.85	31.643	
8,900.0	6,783.6	6,300.0	6,215.5	68.9	20.1	-74.56	-2,065.3	-927.2	2,709.7	2,623.8	85.95	31.527	
8,956.7	6,783.3	6,300.0	6,215.5	70.4	20.1	-74.56	-2,065.3	-927.2	2,744.1	2,656.7	87.45	31.380	
9,000.0	6,783.2	6,300.0	6,215.5	71.6	20.1	-74.56	-2,065.3	-927.2	2,770.9	2,682.3	88.59	31.276	
9,055.1	6,783.0	6,300.0	6,215.5	73.1	20.1	-74.56	-2,065.3	-927.2	2,805.5	2,715.5	90.05	31.154	
9,100.0	6,782.8	6,300.0	6,215.5	74.3	20.1	-74.55	-2,065.3	-927.2	2,834.2	2,743.0	91.24	31.062	
9,153.5	6,782.6	6,300.0	6,215.5	75.8	20.1	-74.55	-2,065.3	-927.2	2,869.0	2,776.3	92.66	30.961	
9,200.0	6,782.4	6,279.4	6,195.9	77.1	20.2	-74.06	-2,065.3	-933.5	2,899.4	2,805.7	93.71	30.939	
9,251.9	6,782.2	6,275.4	6,192.1	78.5	20.2	-73.96	-2,065.3	-934.7	2,934.0	2,839.0	95.05	30.868	
9,300.0	6,782.0	6,271.8	6,188.7	79.8	20.2	-73.87	-2,065.3	-935.7	2,966.5	2,870.2	96.29	30.807	
9,350.4	6,781.8	6,250.0	6,167.6	81.2	20.2	-73.34	-2,065.3	-941.5	3,001.2	2,903.8	97.41	30.810	
9,400.0	6,781.6	6,250.0	6,167.6	82.6	20.2	-73.34	-2,065.3	-941.5	3,035.5	2,936.8	98.72	30.747	
9,448.8	6,781.4	6,250.0	6,167.6	83.9	20.2	-73.34	-2,065.3	-941.5	3,069.6	2,969.6	100.02	30.691	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBORE - P												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	6,781.2	6,250.0	6,167.6	85.4	20.2	-73.34	-2,065.3	-941.5	3,105.9	3,004.5	101.37	30.638	
9,547.2	6,781.0	6,250.0	6,167.6	86.7	20.2	-73.34	-2,065.3	-941.5	3,139.6	3,037.0	102.63	30.593	
9,600.0	6,780.8	6,250.0	6,167.6	88.1	20.2	-73.34	-2,065.3	-941.5	3,177.8	3,073.8	104.03	30.548	
9,645.6	6,780.7	6,250.0	6,167.6	89.4	20.2	-73.34	-2,065.3	-941.5	3,211.2	3,105.9	105.24	30.513	
9,700.0	6,780.5	6,250.0	6,167.6	90.9	20.2	-73.34	-2,065.3	-941.5	3,251.3	3,144.6	106.68	30.476	
9,744.1	6,780.3	6,250.0	6,167.6	92.1	20.2	-73.34	-2,065.3	-941.5	3,284.1	3,176.2	107.85	30.449	
9,800.0	6,780.1	6,250.0	6,167.6	93.7	20.2	-73.34	-2,065.3	-941.5	3,326.1	3,216.8	109.34	30.419	
9,842.5	6,779.9	6,250.0	6,167.6	94.8	20.2	-73.34	-2,065.3	-941.5	3,358.3	3,247.8	110.47	30.400	
9,900.0	6,779.7	6,250.0	6,167.6	96.4	20.2	-73.34	-2,065.3	-941.5	3,402.2	3,290.2	112.00	30.376	
9,940.9	6,779.5	6,250.0	6,167.6	97.6	20.2	-73.34	-2,065.3	-941.5	3,433.7	3,320.6	113.09	30.362	
10,000.0	6,779.3	6,250.0	6,167.6	99.2	20.2	-73.34	-2,065.3	-941.5	3,479.6	3,364.9	114.67	30.345 SF	
10,039.3	6,779.1	6,228.8	6,147.1	100.3	20.2	-72.83	-2,065.3	-946.6	3,510.0	3,394.6	115.44	30.406	
10,100.0	6,778.9	6,226.1	6,144.4	102.0	20.2	-72.76	-2,065.3	-947.2	3,557.6	3,440.6	117.01	30.404	
10,137.8	6,778.7	6,224.4	6,142.7	103.0	20.2	-72.72	-2,065.3	-947.6	3,587.5	3,469.5	117.99	30.404	
10,200.0	6,778.5	6,221.7	6,140.1	104.8	20.2	-72.65	-2,065.3	-948.2	3,637.0	3,517.4	119.61	30.407	
10,236.2	6,778.3	6,200.0	6,118.9	105.8	20.2	-72.12	-2,065.3	-952.5	3,666.2	3,546.0	120.26	30.485	
10,300.0	6,778.1	6,200.0	6,118.9	107.5	20.2	-72.12	-2,065.3	-952.5	3,717.5	3,595.6	121.95	30.483	
10,334.6	6,778.0	6,200.0	6,118.9	108.5	20.2	-72.12	-2,065.3	-952.5	3,745.5	3,622.6	122.87	30.483	
10,400.0	6,777.7	6,200.0	6,118.9	110.3	20.2	-72.12	-2,065.3	-952.5	3,798.7	3,674.1	124.61	30.485	
10,433.0	6,777.6	6,200.0	6,118.9	111.2	20.2	-72.12	-2,065.3	-952.5	3,825.7	3,700.2	125.49	30.487	
10,500.0	6,777.3	6,200.0	6,118.9	113.1	20.2	-72.12	-2,065.3	-952.5	3,880.7	3,753.4	127.26	30.494	
10,531.5	6,777.2	6,200.0	6,118.9	114.0	20.2	-72.12	-2,065.3	-952.5	3,906.7	3,778.6	128.10	30.498	
10,600.0	6,776.9	6,200.0	6,118.9	115.9	20.2	-72.12	-2,065.3	-952.5	3,963.6	3,833.6	129.92	30.508	
10,629.9	6,776.8	6,200.0	6,118.9	116.7	20.2	-72.12	-2,065.3	-952.5	3,988.5	3,857.8	130.71	30.513	
10,700.0	6,776.5	6,200.0	6,118.9	118.7	20.2	-72.12	-2,065.3	-952.5	4,047.2	3,914.6	132.58	30.527	
10,728.3	6,776.4	6,200.0	6,118.9	119.5	20.2	-72.12	-2,065.3	-952.5	4,071.0	3,937.7	133.33	30.534	
10,800.0	6,776.1	6,200.0	6,118.9	121.4	20.2	-72.12	-2,065.3	-952.5	4,131.6	3,996.3	135.23	30.551	
10,826.7	6,776.0	6,200.0	6,118.9	122.2	20.2	-72.12	-2,065.3	-952.5	4,154.2	4,018.3	135.95	30.558	
10,900.0	6,775.7	6,200.0	6,118.9	124.2	20.2	-72.12	-2,065.3	-952.5	4,216.6	4,078.7	137.89	30.578	
10,925.2	6,775.6	6,200.0	6,118.9	124.9	20.2	-72.12	-2,065.3	-952.5	4,238.1	4,099.5	138.56	30.586	
11,000.0	6,775.3	6,200.0	6,118.9	127.0	20.2	-72.12	-2,065.3	-952.5	4,302.3	4,161.7	140.56	30.609	
11,023.6	6,775.2	6,200.0	6,118.9	127.7	20.2	-72.12	-2,065.3	-952.5	4,322.6	4,181.4	141.18	30.617	
11,100.0	6,774.9	6,200.0	6,118.9	129.8	20.2	-72.12	-2,065.3	-952.5	4,388.6	4,245.4	143.22	30.643	
11,122.0	6,774.8	6,200.0	6,118.9	130.4	20.2	-72.12	-2,065.3	-952.5	4,407.7	4,263.9	143.80	30.651	
11,200.0	6,774.5	6,200.0	6,118.9	132.6	20.2	-72.12	-2,065.3	-952.5	4,475.4	4,329.6	145.88	30.679	
11,220.4	6,774.4	6,200.0	6,118.9	133.2	20.2	-72.12	-2,065.3	-952.5	4,493.3	4,346.8	146.42	30.687	
11,300.0	6,774.1	6,200.0	6,118.9	135.4	20.2	-72.12	-2,065.3	-952.5	4,562.8	4,414.3	148.54	30.718	
11,318.9	6,774.0	6,200.0	6,118.9	135.9	20.2	-72.12	-2,065.3	-952.5	4,579.4	4,430.4	149.04	30.725	
11,400.0	6,773.7	6,200.0	6,118.9	138.2	20.2	-72.12	-2,065.3	-952.5	4,650.8	4,499.5	151.21	30.758	
11,417.3	6,773.6	6,200.0	6,118.9	138.7	20.2	-72.12	-2,065.3	-952.5	4,666.0	4,514.3	151.67	30.765	
11,500.0	6,773.3	6,200.0	6,118.9	141.0	20.2	-72.11	-2,065.3	-952.5	4,739.1	4,585.3	153.87	30.800	
11,515.7	6,773.2	6,200.0	6,118.9	141.4	20.2	-72.11	-2,065.3	-952.5	4,753.1	4,598.8	154.29	30.806	
11,600.0	6,772.9	6,178.3	6,097.5	143.8	20.2	-71.58	-2,065.3	-956.2	4,827.6	4,671.5	156.10	30.926	
11,614.1	6,772.8	6,178.0	6,097.1	144.2	20.2	-71.58	-2,065.3	-956.3	4,840.2	4,683.8	156.47	30.934	
11,700.0	6,772.5	6,176.1	6,095.3	146.6	20.2	-71.53	-2,065.3	-956.6	4,916.8	4,758.1	158.71	30.979	
11,712.6	6,772.4	6,175.8	6,095.0	146.9	20.2	-71.52	-2,065.3	-956.6	4,928.1	4,769.0	159.04	30.986	
11,800.0	6,772.1	6,173.9	6,093.2	149.4	20.2	-71.48	-2,065.3	-956.9	5,006.4	4,845.1	161.33	31.033	
11,811.0	6,772.1	6,173.7	6,092.9	149.7	20.2	-71.47	-2,065.3	-956.9	5,016.3	4,854.7	161.61	31.039	
11,900.0	6,771.7	6,171.9	6,091.1	152.2	20.2	-71.43	-2,065.3	-957.2	5,096.4	4,932.5	163.94	31.087	
11,909.4	6,771.7	6,171.7	6,090.9	152.4	20.2	-71.42	-2,065.3	-957.2	5,104.9	4,940.7	164.19	31.092	
12,000.0	6,771.3	6,150.0	6,069.4	154.9	20.3	-70.89	-2,065.3	-960.1	5,187.0	5,020.9	166.11	31.226	
12,007.8	6,771.3	6,150.0	6,069.4	155.2	20.3	-70.89	-2,065.3	-960.1	5,194.1	5,027.8	166.32	31.229	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-212 - ORIGINAL WELLBORE - P													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	6,770.9	6,150.0	6,069.4	157.7	20.3	-70.89	-2,065.3	-960.1	5,277.7	5,108.9	168.76	31.272		
12,106.3	6,770.9	6,150.0	6,069.4	157.9	20.3	-70.89	-2,065.3	-960.1	5,283.4	5,114.4	168.93	31.275		
12,200.0	6,770.5	6,150.0	6,069.4	160.5	20.3	-70.89	-2,065.3	-960.1	5,368.6	5,197.2	171.41	31.320		
12,204.7	6,770.5	6,150.0	6,069.4	160.7	20.3	-70.89	-2,065.3	-960.1	5,372.9	5,201.4	171.54	31.322		
12,300.0	6,770.1	6,150.0	6,069.4	163.3	20.3	-70.89	-2,065.3	-960.1	5,459.9	5,285.8	174.07	31.367		
12,303.1	6,770.1	6,150.0	6,069.4	163.4	20.3	-70.89	-2,065.3	-960.1	5,462.8	5,288.6	174.15	31.368		
12,316.4	6,770.0	6,150.0	6,069.4	163.8	20.3	-70.89	-2,065.3	-960.1	5,474.9	5,300.4	174.50	31.375		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
0.0	0.0	3.0	3.0	0.0	0.0	-175.49	-2,005.2	-158.2	2,011.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.49	-2,005.2	-158.2	2,011.4	2,011.2	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-175.49	-2,005.2	-158.2	2,011.4	2,011.2	0.20	9,943.110	
196.8	196.8	199.8	199.8	0.3	0.3	-175.49	-2,005.2	-158.2	2,011.4	2,010.8	0.64	3,154.320	
200.0	200.0	203.0	203.0	0.3	0.3	-175.49	-2,005.2	-158.2	2,011.4	2,010.7	0.65	3,085.795	
295.3	295.3	298.3	298.3	0.5	0.5	-175.49	-2,005.2	-158.2	2,011.4	2,010.3	1.08	1,862.201	
300.0	300.0	303.0	303.0	0.5	0.6	-175.49	-2,005.2	-158.2	2,011.4	2,010.3	1.10	1,826.287	
393.7	393.7	396.7	396.7	0.8	0.8	-175.49	-2,005.2	-158.2	2,011.4	2,009.9	1.52	1,321.052	
400.0	400.0	403.0	403.0	0.8	0.8	-175.49	-2,005.2	-158.2	2,011.4	2,009.8	1.55	1,296.929	
492.1	492.1	495.1	495.1	1.0	1.0	-175.49	-2,005.2	-158.2	2,011.4	2,009.4	1.97	1,023.598	
500.0	500.0	503.0	503.0	1.0	1.0	-175.49	-2,005.2	-158.2	2,011.4	2,009.4	2.00	1,005.484	
590.5	590.5	593.5	593.5	1.2	1.2	-175.49	-2,005.2	-158.2	2,011.4	2,009.0	2.41	835.478	
600.0	600.0	603.0	603.0	1.2	1.2	-175.49	-2,005.2	-158.2	2,011.4	2,008.9	2.45	820.992	
689.0	689.0	692.0	692.0	1.4	1.4	-175.49	-2,005.2	-158.2	2,011.4	2,008.5	2.85	705.770	
700.0	700.0	703.0	703.0	1.4	1.5	-175.49	-2,005.2	-158.2	2,011.4	2,008.5	2.90	693.706	
787.4	787.4	790.4	790.4	1.6	1.6	-175.49	-2,005.2	-158.2	2,011.4	2,008.1	3.29	610.924	
800.0	800.0	803.0	803.0	1.7	1.7	-175.49	-2,005.2	-158.2	2,011.4	2,008.0	3.35	600.591	
885.8	885.8	888.8	888.8	1.9	1.9	-175.49	-2,005.2	-158.2	2,011.4	2,007.7	3.73	538.550	
900.0	900.0	903.0	903.0	1.9	1.9	-175.49	-2,005.2	-158.2	2,011.4	2,007.6	3.80	529.515	
984.2	984.2	987.2	987.2	2.1	2.1	-175.49	-2,005.2	-158.2	2,011.4	2,007.2	4.18	481.507	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.49	-2,005.2	-158.2	2,011.4	2,007.1	4.25	473.482	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-175.49	-2,005.2	-158.2	2,011.4	2,006.8	4.62	435.391	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-175.49	-2,005.2	-158.2	2,011.4	2,006.7	4.70	428.173	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-175.49	-2,005.2	-158.2	2,011.4	2,006.3	5.06	397.336	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-175.49	-2,005.2	-158.2	2,011.4	2,006.2	5.15	390.778	
1,279.5	1,279.5	1,282.5	1,282.5	2.7	2.8	-175.49	-2,005.2	-158.2	2,011.4	2,005.9	5.50	365.399	
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	-175.49	-2,005.2	-158.2	2,011.4	2,005.8	5.60	359.390	
1,377.9	1,377.9	1,380.9	1,380.9	3.0	3.0	-175.49	-2,005.2	-158.2	2,011.4	2,005.4	5.95	338.214	
1,400.0	1,400.0	1,403.0	1,403.0	3.0	3.0	-175.49	-2,005.2	-158.2	2,011.4	2,005.3	6.05	332.669	
1,476.4	1,476.4	1,479.4	1,479.4	3.2	3.2	-175.49	-2,005.2	-158.2	2,011.4	2,005.0	6.39	314.794	
1,500.0	1,500.0	1,503.0	1,503.0	3.2	3.3	-175.49	-2,005.2	-158.2	2,011.4	2,004.9	6.50	309.647	
1,574.8	1,574.8	1,577.8	1,577.8	3.4	3.4	-94.82	-2,005.2	-158.2	2,011.5	2,004.6	6.82	294.768	
1,600.0	1,600.0	1,603.0	1,603.0	3.5	3.5	-94.84	-2,005.2	-158.2	2,011.5	2,004.6	6.93	290.079	
1,673.2	1,673.1	1,678.6	1,678.6	3.6	3.6	-94.94	-2,005.1	-158.1	2,011.8	2,004.6	7.25	277.386	
1,700.0	1,699.8	1,707.7	1,707.7	3.7	3.7	-95.00	-2,005.1	-157.6	2,011.9	2,004.5	7.37	273.012	
1,771.6	1,771.2	1,785.4	1,785.3	3.8	3.9	-95.25	-2,005.0	-155.0	2,012.2	2,004.5	7.68	261.922	
1,800.0	1,799.5	1,815.9	1,815.8	3.9	3.9	-95.38	-2,004.9	-153.4	2,012.2	2,004.4	7.81	257.752	
1,870.1	1,869.0	1,890.6	1,890.3	4.0	4.1	-95.77	-2,004.7	-148.1	2,012.5	2,004.4	8.13	247.602	
1,900.0	1,898.7	1,922.1	1,921.7	4.1	4.1	-95.97	-2,004.6	-145.3	2,012.6	2,004.4	8.27	243.451	
1,968.5	1,966.4	1,993.4	1,992.5	4.3	4.3	-96.48	-2,004.2	-137.7	2,013.0	2,004.4	8.60	233.999	
2,000.0	1,997.5	2,025.6	2,024.6	4.4	4.4	-96.74	-2,004.0	-133.6	2,013.3	2,004.5	8.76	229.803	
2,066.9	2,063.2	2,093.1	2,091.3	4.6	4.5	-97.34	-2,003.6	-124.0	2,014.0	2,004.8	9.12	220.863	
2,100.1	2,095.7	2,125.9	2,123.7	4.7	4.6	-97.66	-2,003.3	-118.8	2,014.4	2,005.1	9.30	216.575	
2,165.3	2,159.5	2,189.5	2,186.3	4.9	4.8	-98.34	-2,002.8	-107.6	2,015.5	2,005.9	9.68	208.168	
2,200.0	2,193.4	2,222.8	2,219.0	5.0	4.9	-98.71	-2,002.5	-101.2	2,016.2	2,006.3	9.89	203.882	
2,224.2	2,217.1	2,245.8	2,241.6	5.1	5.0	-98.97	-2,002.3	-96.5	2,016.8	2,006.7	10.04	200.913	
2,263.8	2,255.9	2,282.3	2,277.2	5.2	5.1	-99.40	-2,002.0	-89.0	2,017.6	2,007.4	10.27	196.484	
2,300.0	2,291.5	2,315.7	2,309.9	5.3	5.2	-99.78	-2,001.7	-82.0	2,018.5	2,008.0	10.48	192.549	
2,362.2	2,352.7	2,373.5	2,366.4	5.5	5.4	-100.42	-2,001.1	-70.0	2,020.0	2,009.2	10.83	186.478	
2,400.0	2,390.1	2,408.8	2,401.0	5.6	5.5	-100.79	-2,000.8	-62.7	2,020.9	2,009.8	11.05	182.940	
2,460.6	2,450.1	2,465.9	2,456.8	5.7	5.7	-101.36	-2,000.2	-50.8	2,022.3	2,010.9	11.39	177.487	
2,500.0	2,489.2	2,503.2	2,493.3	5.8	5.8	-101.72	-1,999.9	-43.1	2,023.2	2,011.6	11.62	174.102	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-214 - ORIGINAL WELLBORE - P													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		
2,559.0	2,548.0	2,559.4	2,548.3	6.0	6.0	-102.23	-1,999.3	-31.4	2,024.5	2,012.6	11.96	169.266		
2,600.0	2,588.8	2,598.6	2,586.6	6.1	6.2	-102.57	-1,999.0	-23.3	2,025.4	2,013.2	12.20	166.057		
2,657.5	2,646.1	2,653.9	2,640.7	6.2	6.4	-103.01	-1,998.4	-11.8	2,026.4	2,013.9	12.52	161.792		
2,700.0	2,688.6	2,695.0	2,680.9	6.3	6.5	-103.32	-1,998.0	-3.3	2,027.1	2,014.3	12.77	158.761		
2,755.9	2,744.4	2,749.2	2,734.0	6.4	6.7	-103.71	-1,997.5	8.0	2,027.9	2,014.8	13.08	155.001		
2,800.0	2,788.5	2,792.2	2,776.0	6.5	6.9	-103.99	-1,997.1	16.9	2,028.4	2,015.0	13.33	152.141		
2,824.3	2,812.8	2,816.0	2,799.2	6.5	7.0	175.17	-1,996.9	21.8	2,028.6	2,016.5	12.13	167.190		
2,854.3	2,842.9	2,845.4	2,828.0	6.6	7.1	174.99	-1,996.6	27.9	2,028.8	2,016.6	12.26	165.434		
2,900.0	2,888.5	2,890.0	2,871.7	6.7	7.3	174.73	-1,996.2	37.2	2,029.3	2,016.8	12.46	162.838		
2,952.7	2,941.3	2,941.6	2,922.1	6.8	7.5	174.43	-1,995.7	47.9	2,029.8	2,017.1	12.70	159.819		
3,000.0	2,988.5	2,987.8	2,967.4	6.9	7.7	174.16	-1,995.3	57.5	2,030.3	2,017.4	12.92	157.208		
3,051.2	3,039.7	3,037.9	3,016.3	7.0	7.9	173.87	-1,994.8	67.9	2,031.0	2,017.8	13.15	154.467		
3,100.0	3,088.5	3,085.7	3,063.0	7.1	8.1	173.59	-1,994.3	77.8	2,031.6	2,018.3	13.37	151.938		
3,149.6	3,138.1	3,134.2	3,110.5	7.2	8.3	173.30	-1,993.9	87.9	2,032.4	2,018.8	13.60	149.447		
3,200.0	3,188.5	3,183.5	3,158.7	7.3	8.5	173.02	-1,993.4	98.1	2,033.2	2,019.3	13.83	146.997		
3,248.0	3,236.6	3,230.5	3,204.7	7.4	8.7	172.74	-1,992.9	107.9	2,034.0	2,019.9	14.05	144.732		
3,300.0	3,288.5	3,281.3	3,254.4	7.5	8.9	172.44	-1,992.5	118.4	2,034.9	2,020.6	14.29	142.357		
3,346.4	3,335.0	3,326.7	3,298.8	7.6	9.1	172.18	-1,992.0	127.9	2,035.7	2,021.2	14.51	140.296		
3,400.0	3,388.5	3,379.1	3,350.1	7.7	9.3	171.87	-1,991.5	138.8	2,036.8	2,022.0	14.76	137.993		
3,444.9	3,433.4	3,423.0	3,393.0	7.8	9.5	171.62	-1,991.1	147.9	2,037.7	2,022.8	14.97	136.118		
3,500.0	3,488.5	3,476.9	3,445.8	7.9	9.7	171.31	-1,990.6	159.1	2,038.9	2,023.7	15.23	133.882		
3,543.3	3,531.8	3,519.3	3,487.2	8.0	9.9	171.06	-1,990.2	167.9	2,039.9	2,024.5	15.43	132.176		
3,600.0	3,588.5	3,574.7	3,541.4	8.1	10.1	170.74	-1,989.7	179.4	2,041.3	2,025.6	15.70	130.006		
3,641.7	3,630.3	3,615.6	3,581.4	8.2	10.3	170.50	-1,989.3	187.8	2,042.3	2,026.4	15.90	128.453		
3,700.0	3,688.5	3,672.6	3,637.1	8.3	10.5	170.17	-1,988.7	199.7	2,043.8	2,027.7	16.18	126.344		
3,740.1	3,728.7	3,711.8	3,675.5	8.4	10.7	169.95	-1,988.4	207.8	2,044.9	2,028.6	16.37	124.931		
3,800.0	3,788.5	3,770.4	3,732.8	8.5	10.9	169.61	-1,987.8	220.0	2,046.6	2,030.0	16.66	122.881		
3,838.6	3,827.1	3,808.1	3,769.7	8.6	11.1	169.39	-1,987.4	227.8	2,047.7	2,030.9	16.84	121.596		
3,900.0	3,888.5	3,868.2	3,828.5	8.7	11.4	169.04	-1,986.9	240.3	2,049.6	2,032.5	17.14	119.602		
3,937.0	3,925.5	3,904.4	3,863.9	8.8	11.5	168.84	-1,986.5	247.8	2,050.7	2,033.4	17.32	118.433		
4,000.0	3,988.5	3,966.0	3,924.2	9.0	11.8	168.48	-1,985.9	260.6	2,052.8	2,035.1	17.62	116.493		
4,035.4	4,024.0	4,000.7	3,958.1	9.0	12.0	168.28	-1,985.6	267.8	2,053.9	2,036.1	17.79	115.431		
4,100.0	4,088.5	4,063.8	4,019.8	9.2	12.2	167.92	-1,985.0	280.9	2,056.2	2,038.0	18.11	113.542		
4,133.8	4,122.4	4,096.9	4,052.2	9.2	12.4	167.73	-1,984.7	287.8	2,057.3	2,039.1	18.27	112.578		
4,200.0	4,188.5	4,161.6	4,115.5	9.4	12.7	167.36	-1,984.1	301.2	2,059.7	2,041.1	18.60	110.738		
4,232.3	4,220.8	4,193.2	4,146.4	9.4	12.8	167.18	-1,983.8	307.8	2,060.9	2,042.2	18.76	109.863		
4,300.0	4,288.5	4,259.5	4,211.2	9.6	13.1	166.81	-1,983.1	321.5	2,063.5	2,044.4	19.09	108.071		
4,330.7	4,319.2	4,289.5	4,240.6	9.7	13.2	166.64	-1,982.9	327.8	2,064.7	2,045.5	19.25	107.278		
4,400.0	4,388.5	4,357.3	4,306.9	9.8	13.5	166.25	-1,982.2	341.8	2,067.5	2,047.9	19.59	105.530		
4,429.1	4,417.7	4,385.8	4,334.7	9.9	13.6	166.09	-1,981.9	347.8	2,068.7	2,049.0	19.74	104.813		
4,500.0	4,488.5	4,455.1	4,402.6	10.0	14.0	165.70	-1,981.3	362.2	2,071.7	2,051.6	20.09	103.109		
4,527.5	4,516.1	4,482.0	4,428.9	10.1	14.1	165.55	-1,981.0	367.7	2,072.9	2,052.7	20.23	102.462		
4,600.0	4,588.5	4,560.5	4,505.7	10.2	14.4	165.12	-1,980.3	383.6	2,076.0	2,055.4	20.60	100.756		
4,626.0	4,614.5	4,590.8	4,535.5	10.3	14.5	164.97	-1,980.0	389.3	2,077.1	2,056.3	20.74	100.144		
4,700.0	4,688.5	4,677.7	4,621.2	10.5	14.8	164.58	-1,979.4	403.7	2,079.8	2,058.7	21.11	98.539		
4,724.4	4,712.9	4,706.6	4,649.8	10.5	14.8	164.47	-1,979.2	407.9	2,080.6	2,059.4	21.23	98.024		
4,800.0	4,788.5	4,796.4	4,738.9	10.7	15.1	164.16	-1,978.7	419.2	2,082.8	2,061.2	21.59	96.479		
4,822.8	4,811.4	4,823.7	4,766.0	10.7	15.1	164.09	-1,978.5	422.0	2,083.3	2,061.6	21.69	96.029		
4,900.0	4,888.5	4,916.2	4,858.2	10.9	15.3	163.88	-1,978.2	429.8	2,084.8	2,062.8	22.05	94.538		
4,921.2	4,909.8	4,941.8	4,883.8	10.9	15.4	163.83	-1,978.1	431.4	2,085.2	2,063.0	22.15	94.141		
5,000.0	4,988.5	5,036.7	4,978.6	11.1	15.6	163.73	-1,977.9	435.5	2,085.9	2,063.4	22.50	92.707		
5,019.7	5,008.2	5,060.5	5,002.4	11.1	15.6	163.71	-1,977.9	436.0	2,086.0	2,063.5	22.59	92.359		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
5,100.0	5,088.5	5,149.7	5,091.5	11.3	15.7	163.70	-1,977.9	436.5	2,086.1	2,063.2	22.92	91.002	
5,118.1	5,106.6	5,167.8	5,109.6	11.4	15.7	163.70	-1,977.9	436.5	2,086.1	2,063.1	23.00	90.711	
5,200.0	5,188.5	5,249.7	5,191.5	11.5	15.9	163.70	-1,977.9	436.5	2,086.1	2,062.8	23.34	89.398	
5,216.5	5,205.1	5,266.2	5,208.1	11.6	15.9	163.70	-1,977.9	436.5	2,086.1	2,062.7	23.40	89.135	
5,300.0	5,288.5	5,349.7	5,291.5	11.8	16.0	163.70	-1,977.9	436.5	2,086.1	2,062.4	23.75	87.827	
5,314.9	5,303.5	5,364.6	5,306.5	11.8	16.0	163.70	-1,977.9	436.5	2,086.1	2,062.3	23.82	87.596	
5,400.0	5,388.5	5,449.7	5,391.5	12.0	16.2	163.70	-1,977.9	436.5	2,086.1	2,062.0	24.17	86.305	
5,413.4	5,401.9	5,463.1	5,404.9	12.0	16.2	163.70	-1,977.9	436.5	2,086.1	2,061.9	24.23	86.106	
5,500.0	5,488.5	5,549.7	5,491.5	12.2	16.3	163.70	-1,977.9	436.5	2,086.1	2,061.5	24.59	84.833	
5,511.8	5,500.3	5,561.5	5,503.3	12.2	16.4	163.70	-1,977.9	436.5	2,086.1	2,061.5	24.64	84.662	
5,600.0	5,588.5	5,649.7	5,591.5	12.4	16.5	163.70	-1,977.9	436.5	2,086.1	2,061.1	25.01	83.406	
5,610.2	5,598.8	5,659.9	5,601.8	12.4	16.5	163.70	-1,977.9	436.5	2,086.1	2,061.1	25.05	83.263	
5,700.0	5,688.5	5,749.7	5,691.5	12.6	16.7	163.70	-1,977.9	436.5	2,086.1	2,060.7	25.43	82.023	
5,708.6	5,697.2	5,758.3	5,700.2	12.6	16.7	163.70	-1,977.9	436.5	2,086.1	2,060.7	25.47	81.906	
5,800.0	5,788.5	5,849.7	5,791.5	12.8	16.8	163.70	-1,977.9	436.5	2,086.1	2,060.3	25.86	80.683	
5,807.1	5,795.6	5,856.8	5,798.6	12.9	16.8	163.70	-1,977.9	436.5	2,086.1	2,060.3	25.89	80.590	
5,900.0	5,888.5	5,949.7	5,891.5	13.1	17.0	163.70	-1,977.9	436.5	2,086.1	2,059.9	26.28	79.383	
5,905.5	5,894.0	5,955.2	5,897.0	13.1	17.0	163.70	-1,977.9	436.5	2,086.1	2,059.8	26.30	79.313	
6,000.0	5,988.5	6,049.7	5,991.5	13.3	17.1	163.70	-1,977.9	436.5	2,086.1	2,059.4	26.70	78.122	
6,003.9	5,992.5	6,053.6	5,995.5	13.3	17.2	163.70	-1,977.9	436.5	2,086.1	2,059.4	26.72	78.074	
6,085.3	6,073.8	6,451.5	6,373.2	13.5	17.0	166.57	-1,977.9	329.0	2,079.8	2,052.5	27.27	76.276	
6,100.0	6,088.5	6,507.3	6,419.5	13.5	17.0	-102.76	-1,977.9	297.8	2,077.6	2,047.3	30.32	68.519	
6,102.3	6,090.9	6,515.7	6,426.2	13.5	17.0	-102.66	-1,977.9	292.7	2,077.2	2,046.9	30.32	68.501	
6,150.0	6,138.4	6,663.4	6,534.3	13.6	17.0	-100.71	-1,977.9	192.5	2,069.3	2,038.8	30.52	67.812	
6,200.0	6,188.0	6,780.4	6,603.9	13.7	17.4	-99.06	-1,977.9	98.6	2,060.5	2,029.4	31.04	66.391	
6,200.8	6,188.8	6,781.9	6,604.8	13.7	17.4	-99.04	-1,977.9	97.3	2,060.3	2,029.3	31.05	66.365	
6,250.0	6,237.1	6,871.6	6,647.1	13.9	18.0	-97.79	-1,977.9	18.3	2,051.7	2,019.9	31.77	64.580	
6,299.2	6,284.6	6,944.8	6,674.1	14.0	18.6	-96.81	-1,977.9	-49.7	2,043.4	2,010.8	32.60	62.689	
6,300.0	6,285.3	6,945.9	6,674.4	14.0	18.7	-96.79	-1,977.9	-50.8	2,043.3	2,010.7	32.61	62.660	
6,350.0	6,332.5	7,008.8	6,691.9	14.2	19.4	-95.96	-1,977.9	-111.2	2,035.6	2,002.0	33.52	60.729	
6,397.6	6,376.3	7,061.3	6,702.4	14.4	20.1	-95.28	-1,977.9	-162.6	2,028.9	1,994.4	34.41	58.953	
6,400.0	6,378.5	7,063.7	6,702.8	14.4	20.1	-95.25	-1,977.9	-165.0	2,028.5	1,994.1	34.46	58.867	
6,450.0	6,423.0	7,113.0	6,709.0	14.7	20.8	-94.59	-1,977.9	-213.8	2,022.3	1,986.9	35.42	57.091	
6,496.0	6,462.4	7,154.5	6,711.6	14.9	21.5	-94.02	-1,977.9	-255.3	2,017.4	1,981.0	36.33	55.530	
6,500.0	6,465.7	7,157.9	6,711.7	14.9	21.5	-93.97	-1,977.9	-258.7	2,017.0	1,980.6	36.41	55.400	
6,550.0	6,506.6	7,194.0	6,712.0	15.2	22.1	-93.49	-1,977.9	-294.8	2,012.5	1,975.1	37.32	53.919	
6,594.5	6,541.2	7,222.0	6,712.0	15.6	22.6	-93.13	-1,977.9	-322.7	2,009.3	1,971.1	38.15	52.668	
6,600.0	6,545.3	7,225.6	6,712.0	15.6	22.7	-93.08	-1,977.9	-326.4	2,008.9	1,970.7	38.26	52.513	
6,650.0	6,581.8	7,259.8	6,711.9	16.0	23.3	-92.58	-1,977.9	-360.5	2,006.3	1,967.0	39.30	51.049	
6,692.9	6,611.1	7,291.1	6,711.9	16.4	23.9	-92.10	-1,977.9	-391.8	2,004.7	1,964.4	40.29	49.758	
6,700.0	6,615.8	7,296.4	6,711.9	16.5	24.0	-92.01	-1,977.9	-397.2	2,004.4	1,964.0	40.45	49.548	
6,750.0	6,647.1	7,335.3	6,711.9	17.1	24.7	-91.41	-1,977.9	-436.1	2,003.2	1,961.4	41.78	47.951	
6,791.3	6,670.9	7,369.1	6,711.8	17.6	25.4	-90.90	-1,977.9	-469.8	2,002.6	1,959.7	42.96	46.613	
6,800.0	6,675.7	7,376.3	6,711.8	17.7	25.5	-90.80	-1,977.9	-477.1	2,002.5	1,959.3	43.22	46.339	
6,850.0	6,701.3	7,419.2	6,711.8	18.4	26.4	-90.19	-1,977.9	-520.0	2,002.3	1,957.5	44.79	44.707	
6,866.0	6,708.8	7,433.3	6,711.8	18.6	26.7	-90.00	-1,977.9	-534.1	2,002.3	1,956.9	45.33	44.173 CC	
6,889.7	6,719.5	7,454.6	6,711.8	19.0	27.2	-89.72	-1,977.9	-555.3	2,002.3	1,956.2	46.14	43.395	
6,900.0	6,723.8	7,463.8	6,711.8	19.1	27.4	-89.61	-1,977.9	-564.6	2,002.3	1,955.8	46.49	43.067	
6,950.0	6,743.2	7,509.9	6,711.7	20.0	28.4	-89.08	-1,977.9	-610.7	2,002.6	1,954.3	48.31	41.455	
6,988.2	6,755.8	7,545.9	6,711.7	20.6	29.2	-88.72	-1,977.9	-646.7	2,002.8	1,953.0	49.79	40.227	
7,000.0	6,759.4	7,557.2	6,711.7	20.9	29.4	-88.61	-1,977.9	-658.0	2,002.9	1,952.7	50.25	39.859	
7,050.0	6,772.1	7,605.5	6,711.6	21.8	30.5	-88.23	-1,977.9	-706.3	2,003.3	1,951.0	52.28	38.322	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
7,086.6	6,779.4	7,641.4	6,711.6	22.5	31.3	-88.01	-1,977.9	-742.1	2,003.5	1,949.7	53.83	37.217	
7,100.0	6,781.5	7,654.6	6,711.6	22.8	31.6	-87.94	-1,977.9	-755.4	2,003.6	1,949.2	54.41	36.826	
7,150.0	6,787.5	7,704.2	6,711.6	23.9	32.8	-87.75	-1,977.9	-805.0	2,003.8	1,947.2	56.60	35.406	
7,185.0	6,789.6	7,739.2	6,711.5	24.6	33.6	-87.68	-1,977.9	-840.0	2,003.9	1,945.7	58.18	34.443	
7,200.0	6,789.9	7,754.2	6,711.5	24.9	34.0	-87.67	-1,977.9	-854.9	2,003.9	1,945.1	58.86	34.046	
7,213.0	6,790.0	7,767.1	6,711.5	25.2	34.3	-87.67	-1,977.9	-867.9	2,003.9	1,944.5	59.45	33.706	
7,283.4	6,789.7	7,837.6	6,711.4	26.8	36.0	-87.68	-1,977.9	-938.4	2,003.9	1,941.2	62.74	31.942	
7,300.0	6,789.7	7,854.2	6,711.4	27.2	36.4	-87.68	-1,977.9	-954.9	2,003.9	1,940.4	63.51	31.552	
7,381.9	6,789.4	7,936.0	6,711.4	29.1	38.4	-87.68	-1,977.9	-1,036.8	2,003.9	1,936.5	67.44	29.714	
7,400.0	6,789.3	7,954.2	6,711.3	29.5	38.9	-87.68	-1,977.9	-1,054.9	2,003.9	1,935.6	68.31	29.334	
7,480.3	6,789.0	8,034.5	6,711.3	31.4	40.9	-87.69	-1,977.9	-1,135.2	2,003.9	1,931.6	72.26	27.730	
7,500.0	6,788.9	8,054.2	6,711.3	31.9	41.4	-87.69	-1,977.9	-1,154.9	2,003.9	1,930.6	73.24	27.362	
7,578.7	6,788.6	8,132.9	6,711.2	33.8	43.4	-87.70	-1,977.8	-1,233.6	2,003.9	1,926.7	77.19	25.962	
7,600.0	6,788.5	8,154.2	6,711.2	34.4	44.0	-87.70	-1,977.8	-1,254.9	2,003.9	1,925.6	78.26	25.607	
7,677.1	6,788.2	8,231.3	6,711.1	36.3	46.0	-87.71	-1,977.8	-1,332.1	2,003.9	1,921.7	82.19	24.382	
7,700.0	6,788.2	8,254.2	6,711.1	36.9	46.6	-87.71	-1,977.8	-1,354.9	2,003.9	1,920.5	83.35	24.040	
7,775.6	6,787.9	8,329.7	6,711.0	38.8	48.5	-87.72	-1,977.8	-1,430.5	2,003.9	1,916.6	87.25	22.966	
7,800.0	6,787.8	8,354.2	6,711.0	39.4	49.2	-87.72	-1,977.8	-1,454.9	2,003.8	1,915.3	88.52	22.638	
7,874.0	6,787.5	8,428.2	6,710.9	41.3	51.1	-87.72	-1,977.8	-1,528.9	2,003.8	1,911.5	92.38	21.692	
7,900.0	6,787.4	8,454.2	6,710.9	42.0	51.8	-87.73	-1,977.8	-1,554.9	2,003.8	1,910.1	93.73	21.378	
7,972.4	6,787.1	8,526.6	6,710.9	43.9	53.7	-87.73	-1,977.8	-1,627.3	2,003.8	1,906.3	97.54	20.543	
8,000.0	6,787.0	8,554.2	6,710.8	44.6	54.5	-87.74	-1,977.8	-1,654.9	2,003.8	1,904.8	99.00	20.242	
8,070.8	6,786.7	8,625.0	6,710.8	46.5	56.3	-87.74	-1,977.8	-1,725.8	2,003.8	1,901.1	102.75	19.502	
8,100.0	6,786.6	8,654.2	6,710.7	47.3	57.1	-87.74	-1,977.8	-1,754.9	2,003.8	1,899.5	104.29	19.213	
8,169.3	6,786.4	8,723.4	6,710.7	49.1	59.0	-87.75	-1,977.8	-1,824.2	2,003.8	1,895.8	107.99	18.556	
8,200.0	6,786.3	8,754.2	6,710.7	49.9	59.8	-87.75	-1,977.8	-1,854.9	2,003.8	1,894.2	109.63	18.279	
8,267.7	6,786.0	8,821.9	6,710.6	51.7	61.6	-87.76	-1,977.8	-1,922.6	2,003.8	1,890.5	113.25	17.693	
8,300.0	6,785.9	8,854.2	6,710.6	52.6	62.5	-87.76	-1,977.8	-1,954.9	2,003.8	1,888.8	114.98	17.427	
8,366.1	6,785.6	8,920.3	6,710.5	54.4	64.3	-87.77	-1,977.8	-2,021.0	2,003.8	1,885.2	118.54	16.904	
8,400.0	6,785.5	8,954.2	6,710.5	55.3	65.2	-87.77	-1,977.8	-2,054.9	2,003.8	1,883.4	120.37	16.647	
8,464.5	6,785.2	9,018.7	6,710.4	57.0	66.9	-87.77	-1,977.8	-2,119.5	2,003.8	1,879.9	123.85	16.179	
8,500.0	6,785.1	9,054.2	6,710.4	58.0	67.9	-87.78	-1,977.8	-2,154.9	2,003.8	1,878.0	125.77	15.932	
8,563.0	6,784.9	9,117.1	6,710.4	59.7	69.6	-87.78	-1,977.8	-2,217.9	2,003.8	1,874.6	129.18	15.511	
8,600.0	6,784.7	9,154.2	6,710.3	60.7	70.6	-87.79	-1,977.8	-2,254.9	2,003.8	1,872.6	131.19	15.273	
8,661.4	6,784.5	9,215.6	6,710.3	62.4	72.3	-87.79	-1,977.8	-2,316.3	2,003.7	1,869.2	134.53	14.894	
8,700.0	6,784.3	9,254.2	6,710.2	63.4	73.3	-87.79	-1,977.8	-2,354.9	2,003.7	1,867.1	136.63	14.665	
8,759.8	6,784.1	9,314.0	6,710.2	65.0	75.0	-87.80	-1,977.8	-2,414.7	2,003.7	1,863.8	139.89	14.324	
8,800.0	6,784.0	9,354.2	6,710.1	66.1	76.1	-87.80	-1,977.8	-2,454.9	2,003.7	1,861.6	142.08	14.103	
8,858.2	6,783.7	9,412.4	6,710.1	67.7	77.7	-87.81	-1,977.8	-2,513.2	2,003.7	1,858.5	145.26	13.794	
8,900.0	6,783.6	9,454.2	6,710.1	68.9	78.8	-87.81	-1,977.8	-2,554.9	2,003.7	1,856.2	147.55	13.580	
8,956.7	6,783.3	9,510.8	6,710.0	70.4	80.4	-87.82	-1,977.8	-2,611.6	2,003.7	1,853.1	150.65	13.301	
9,000.0	6,783.2	9,554.2	6,710.0	71.6	81.5	-87.82	-1,977.8	-2,654.9	2,003.7	1,850.7	153.02	13.094	
9,055.1	6,783.0	9,609.3	6,709.9	73.1	83.1	-87.83	-1,977.8	-2,710.0	2,003.7	1,847.7	156.04	12.841	
9,100.0	6,782.8	9,654.2	6,709.9	74.3	84.3	-87.83	-1,977.8	-2,754.9	2,003.7	1,845.2	158.51	12.641	
9,153.5	6,782.6	9,707.7	6,709.8	75.8	85.8	-87.83	-1,977.8	-2,808.4	2,003.7	1,842.2	161.45	12.411	
9,200.0	6,782.4	9,754.2	6,709.8	77.1	87.0	-87.84	-1,977.8	-2,854.9	2,003.7	1,839.7	164.00	12.217	
9,251.9	6,782.2	9,806.1	6,709.8	78.5	88.5	-87.84	-1,977.8	-2,906.9	2,003.7	1,836.8	166.86	12.008	
9,300.0	6,782.0	9,854.2	6,709.7	79.8	89.8	-87.85	-1,977.8	-2,954.9	2,003.7	1,834.2	169.51	11.821	
9,350.4	6,781.8	9,904.5	6,709.7	81.2	91.2	-87.85	-1,977.8	-3,005.3	2,003.7	1,831.4	172.28	11.630	
9,400.0	6,781.6	9,954.2	6,709.6	82.6	92.6	-87.85	-1,977.8	-3,054.9	2,003.7	1,828.6	175.02	11.448	
9,448.8	6,781.4	10,003.0	6,709.6	83.9	93.9	-87.86	-1,977.8	-3,103.7	2,003.7	1,825.9	177.71	11.275	
9,500.0	6,781.2	10,054.2	6,709.5	85.4	95.3	-87.86	-1,977.8	-3,154.9	2,003.6	1,823.1	180.53	11.099	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,547.2	6,781.0	10,101.4	6,709.5	86.7	96.6	-87.87	-1,977.8	-3,202.1	2,003.6	1,820.5	183.14	10.940	
9,600.0	6,780.8	10,154.2	6,709.4	88.1	98.1	-87.87	-1,977.8	-3,254.9	2,003.6	1,817.6	186.06	10.769	
9,645.6	6,780.7	10,199.8	6,709.4	89.4	99.3	-87.88	-1,977.8	-3,300.6	2,003.6	1,815.1	188.58	10.625	
9,700.0	6,780.5	10,254.2	6,709.4	90.9	100.8	-87.88	-1,977.8	-3,354.9	2,003.6	1,812.0	191.58	10.458	
9,744.1	6,780.3	10,298.2	6,709.3	92.1	102.1	-87.88	-1,977.8	-3,399.0	2,003.6	1,809.6	194.02	10.327	
9,800.0	6,780.1	10,354.2	6,709.3	93.7	103.6	-87.89	-1,977.8	-3,454.9	2,003.6	1,806.5	197.12	10.165	
9,842.5	6,779.9	10,396.7	6,709.2	94.8	104.8	-87.89	-1,977.8	-3,497.4	2,003.6	1,804.1	199.47	10.045	
9,900.0	6,779.7	10,454.2	6,709.2	96.4	106.4	-87.90	-1,977.8	-3,554.9	2,003.6	1,800.9	202.66	9.887	
9,940.9	6,779.5	10,495.1	6,709.1	97.6	107.5	-87.90	-1,977.8	-3,595.8	2,003.6	1,798.7	204.92	9.777	
10,000.0	6,779.3	10,554.2	6,709.1	99.2	109.1	-87.91	-1,977.8	-3,654.9	2,003.6	1,795.4	208.20	9.623	
10,039.3	6,779.1	10,593.5	6,709.1	100.3	110.2	-87.91	-1,977.8	-3,694.3	2,003.6	1,793.2	210.38	9.524	
10,100.0	6,778.9	10,654.2	6,709.0	102.0	111.9	-87.92	-1,977.8	-3,754.9	2,003.6	1,789.8	213.75	9.374	
10,137.8	6,778.7	10,691.9	6,709.0	103.0	113.0	-87.92	-1,977.8	-3,792.7	2,003.6	1,787.7	215.84	9.283	
10,200.0	6,778.5	10,754.1	6,708.9	104.8	114.7	-87.92	-1,977.8	-3,854.9	2,003.6	1,784.3	219.30	9.136	
10,236.2	6,778.3	10,790.3	6,708.9	105.8	115.7	-87.93	-1,977.8	-3,891.1	2,003.6	1,782.3	221.31	9.053	
10,300.0	6,778.1	10,854.1	6,708.8	107.5	117.5	-87.93	-1,977.8	-3,954.9	2,003.6	1,778.7	224.85	8.911	
10,334.6	6,778.0	10,888.8	6,708.8	108.5	118.4	-87.94	-1,977.8	-3,989.5	2,003.6	1,776.8	226.78	8.835	
10,400.0	6,777.7	10,954.1	6,708.7	110.3	120.3	-87.94	-1,977.8	-4,054.9	2,003.5	1,773.1	230.41	8.696	
10,433.0	6,777.6	10,987.2	6,708.7	111.2	121.2	-87.94	-1,977.8	-4,088.0	2,003.5	1,771.3	232.25	8.627	
10,500.0	6,777.3	11,054.1	6,708.7	113.1	123.0	-87.95	-1,977.8	-4,154.9	2,003.5	1,767.6	235.97	8.491	
10,531.5	6,777.2	11,085.6	6,708.6	114.0	123.9	-87.95	-1,977.8	-4,186.4	2,003.5	1,765.8	237.72	8.428	
10,600.0	6,776.9	11,154.1	6,708.6	115.9	125.8	-87.96	-1,977.8	-4,254.9	2,003.5	1,762.0	241.53	8.295	
10,629.9	6,776.8	11,184.0	6,708.5	116.7	126.7	-87.96	-1,977.8	-4,284.8	2,003.5	1,760.3	243.20	8.238	
10,700.0	6,776.5	11,254.1	6,708.5	118.7	128.6	-87.97	-1,977.8	-4,354.9	2,003.5	1,756.4	247.10	8.108	
10,728.3	6,776.4	11,282.5	6,708.4	119.5	129.4	-87.97	-1,977.8	-4,383.2	2,003.5	1,754.8	248.67	8.057	
10,800.0	6,776.1	11,354.1	6,708.4	121.4	131.4	-87.98	-1,977.8	-4,454.9	2,003.5	1,750.8	252.66	7.929	
10,826.7	6,776.0	11,380.9	6,708.4	122.2	132.1	-87.98	-1,977.8	-4,481.6	2,003.5	1,749.3	254.15	7.883	
10,900.0	6,775.7	11,454.1	6,708.3	124.2	134.2	-87.99	-1,977.8	-4,554.9	2,003.5	1,745.3	258.23	7.758	
10,925.2	6,775.6	11,479.3	6,708.3	124.9	134.9	-87.99	-1,977.8	-4,580.1	2,003.5	1,743.8	259.64	7.716	
11,000.0	6,775.3	11,554.1	6,708.2	127.0	137.0	-87.99	-1,977.8	-4,654.9	2,003.5	1,739.7	263.81	7.594	
11,023.6	6,775.2	11,577.7	6,708.2	127.7	137.6	-88.00	-1,977.8	-4,678.5	2,003.5	1,738.4	265.12	7.557	
11,100.0	6,774.9	11,654.1	6,708.1	129.8	139.7	-88.00	-1,977.8	-4,754.9	2,003.5	1,734.1	269.38	7.437	
11,122.0	6,774.8	11,676.2	6,708.1	130.4	140.4	-88.01	-1,977.8	-4,776.9	2,003.5	1,732.9	270.61	7.404	
11,200.0	6,774.5	11,754.1	6,708.0	132.6	142.5	-88.01	-1,977.8	-4,854.9	2,003.5	1,728.5	274.96	7.286	
11,220.4	6,774.4	11,774.6	6,708.0	133.2	143.1	-88.01	-1,977.8	-4,875.3	2,003.5	1,727.4	276.10	7.256	
11,300.0	6,774.1	11,854.1	6,707.9	135.4	145.3	-88.02	-1,977.8	-4,954.9	2,003.4	1,722.9	280.53	7.142	
11,318.9	6,774.0	11,873.0	6,707.9	135.9	145.8	-88.02	-1,977.8	-4,973.8	2,003.4	1,721.9	281.59	7.115	
11,400.0	6,773.7	11,954.1	6,707.8	138.2	148.1	-88.03	-1,977.8	-5,054.9	2,003.4	1,717.3	286.11	7.002	
11,417.3	6,773.6	11,971.4	6,707.8	138.7	148.6	-88.03	-1,977.8	-5,072.2	2,003.4	1,716.4	287.08	6.979	
11,500.0	6,773.3	12,054.1	6,707.8	141.0	150.9	-88.04	-1,977.8	-5,154.9	2,003.4	1,711.7	291.70	6.868	
11,515.7	6,773.2	12,069.9	6,707.7	141.4	151.3	-88.04	-1,977.8	-5,170.6	2,003.4	1,710.8	292.57	6.848	
11,600.0	6,772.9	12,154.1	6,707.7	143.8	153.7	-88.05	-1,977.8	-5,254.9	2,003.4	1,706.1	297.28	6.739	
11,614.1	6,772.8	12,168.3	6,707.6	144.2	154.1	-88.05	-1,977.8	-5,269.0	2,003.4	1,705.3	298.07	6.721	
11,700.0	6,772.5	12,254.1	6,707.6	146.6	156.5	-88.06	-1,977.8	-5,354.9	2,003.4	1,700.5	302.86	6.615	
11,712.6	6,772.4	12,266.7	6,707.6	146.9	156.8	-88.06	-1,977.8	-5,367.5	2,003.4	1,699.8	303.56	6.600	
11,800.0	6,772.1	12,354.1	6,707.5	149.4	159.3	-88.07	-1,977.8	-5,454.9	2,003.4	1,694.9	308.45	6.495	
11,811.0	6,772.1	12,365.1	6,707.5	149.7	159.6	-88.07	-1,977.8	-5,465.9	2,003.4	1,694.3	309.06	6.482	
11,900.0	6,771.7	12,454.1	6,707.4	152.2	162.1	-88.07	-1,977.8	-5,554.9	2,003.4	1,689.3	314.03	6.380	
11,909.4	6,771.7	12,463.6	6,707.4	152.4	162.3	-88.08	-1,977.8	-5,564.3	2,003.4	1,688.8	314.56	6.369	
12,000.0	6,771.3	12,554.1	6,707.3	154.9	164.9	-88.08	-1,977.8	-5,654.9	2,003.4	1,683.8	319.62	6.268	
12,007.8	6,771.3	12,562.0	6,707.3	155.2	165.1	-88.08	-1,977.8	-5,662.7	2,003.4	1,683.3	320.06	6.259	
12,100.0	6,770.9	12,654.1	6,707.2	157.7	167.7	-88.09	-1,977.8	-5,754.9	2,003.4	1,678.2	325.21	6.160	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-214 - ORIGINAL WELLBORE - P												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	6,770.9	12,660.4	6,707.2	157.9	167.8	-88.09	-1,977.8	-5,761.2	2,003.4	1,677.8	325.56	6.154	
12,200.0	6,770.5	12,754.1	6,707.1	160.5	170.5	-88.10	-1,977.8	-5,854.9	2,003.4	1,672.6	330.80	6.056	
12,204.7	6,770.5	12,758.8	6,707.1	160.7	170.6	-88.10	-1,977.8	-5,859.6	2,003.4	1,672.3	331.06	6.051	
12,300.0	6,770.1	12,854.1	6,707.0	163.3	173.2	-88.11	-1,977.8	-5,954.9	2,003.3	1,667.0	336.39	5.955	
12,303.1	6,770.1	12,857.3	6,707.0	163.4	173.3	-88.11	-1,977.8	-5,958.0	2,003.3	1,666.8	336.57	5.952	
12,316.4	6,770.0	12,870.5	6,707.0	163.8	173.7	-88.11	-1,977.8	-5,971.3	2,003.3	1,666.0	337.31	5.939 ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
0.0	0.0	3.0	3.0	0.0	0.0	-175.47	-2,050.0	-162.4	2,056.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.47	-2,050.0	-162.4	2,056.4	2,056.2	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-175.47	-2,050.0	-162.4	2,056.4	2,056.2	0.20	N/A	
196.8	196.8	199.8	199.8	0.3	0.3	-175.47	-2,050.0	-162.4	2,056.4	2,055.8	0.64	3,224.891	
200.0	200.0	203.0	203.0	0.3	0.3	-175.47	-2,050.0	-162.4	2,056.4	2,055.7	0.65	3,154.833	
295.3	295.3	298.3	298.3	0.5	0.5	-175.47	-2,050.0	-162.4	2,056.4	2,055.3	1.08	1,903.863	
300.0	300.0	303.0	303.0	0.5	0.6	-175.47	-2,050.0	-162.4	2,056.4	2,055.3	1.10	1,867.146	
393.7	393.7	396.7	396.7	0.8	0.8	-175.47	-2,050.0	-162.4	2,056.4	2,054.9	1.52	1,350.608	
400.0	400.0	403.0	403.0	0.8	0.8	-175.47	-2,050.0	-162.4	2,056.4	2,054.8	1.55	1,325.944	
492.1	492.1	495.1	495.1	1.0	1.0	-175.47	-2,050.0	-162.4	2,056.4	2,054.4	1.97	1,046.499	
500.0	500.0	503.0	503.0	1.0	1.0	-175.47	-2,050.0	-162.4	2,056.4	2,054.4	2.00	1,027.979	
590.5	590.5	593.5	593.5	1.2	1.2	-175.47	-2,050.0	-162.4	2,056.4	2,054.0	2.41	854.170	
600.0	600.0	603.0	603.0	1.2	1.2	-175.47	-2,050.0	-162.4	2,056.4	2,053.9	2.45	839.359	
689.0	689.0	692.0	692.0	1.4	1.4	-175.47	-2,050.0	-162.4	2,056.4	2,053.5	2.85	721.560	
700.0	700.0	703.0	703.0	1.4	1.5	-175.47	-2,050.0	-162.4	2,056.4	2,053.5	2.90	709.226	
787.4	787.4	790.4	790.4	1.6	1.6	-175.47	-2,050.0	-162.4	2,056.4	2,053.1	3.29	624.592	
800.0	800.0	803.0	803.0	1.7	1.7	-175.47	-2,050.0	-162.4	2,056.4	2,053.0	3.35	614.028	
885.8	885.8	888.8	888.8	1.9	1.9	-175.47	-2,050.0	-162.4	2,056.4	2,052.7	3.73	550.598	
900.0	900.0	903.0	903.0	1.9	1.9	-175.47	-2,050.0	-162.4	2,056.4	2,052.6	3.80	541.362	
984.2	984.2	987.2	987.2	2.1	2.1	-175.47	-2,050.0	-162.4	2,056.4	2,052.2	4.18	492.280	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.47	-2,050.0	-162.4	2,056.4	2,052.1	4.25	484.075	
1,034.2	1,034.2	1,037.2	1,037.2	2.2	2.2	-175.47	-2,050.0	-162.4	2,056.4	2,052.0	4.40	467.167 CC	
1,082.7	1,082.7	1,078.5	1,078.5	2.3	2.3	-175.47	-2,050.0	-162.5	2,056.5	2,051.9	4.60	447.220 ES	
1,100.0	1,100.0	1,092.3	1,092.3	2.3	2.3	-175.46	-2,050.1	-162.7	2,056.5	2,051.9	4.67	440.768	
1,181.1	1,181.1	1,156.9	1,156.9	2.5	2.4	-175.42	-2,050.5	-164.3	2,057.3	2,052.3	4.97	413.613	
1,200.0	1,200.0	1,172.0	1,171.9	2.6	2.5	-175.40	-2,050.7	-164.9	2,057.5	2,052.5	5.05	407.801	
1,279.5	1,279.5	1,235.2	1,235.1	2.7	2.6	-175.31	-2,051.6	-168.1	2,059.1	2,053.7	5.35	384.933	
1,300.0	1,300.0	1,251.5	1,251.3	2.8	2.6	-175.29	-2,051.9	-169.2	2,059.6	2,054.1	5.43	379.441	
1,377.9	1,377.9	1,313.2	1,312.9	3.0	2.8	-175.16	-2,053.3	-174.0	2,061.8	2,056.1	5.73	359.941	
1,400.0	1,400.0	1,330.7	1,330.2	3.0	2.8	-175.11	-2,053.8	-175.6	2,062.6	2,056.8	5.81	354.756	
1,476.4	1,476.4	1,400.0	1,399.1	3.2	3.0	-174.92	-2,055.9	-182.9	2,065.6	2,059.5	6.13	336.970	
1,500.0	1,500.0	1,400.0	1,399.1	3.2	3.0	-174.92	-2,055.9	-182.9	2,066.6	2,060.5	6.18	334.246	
1,574.8	1,574.8	1,468.1	1,466.6	3.4	3.1	-93.93	-2,058.4	-191.6	2,070.4	2,063.9	6.53	316.902	
1,600.0	1,600.0	1,487.8	1,486.1	3.5	3.2	-93.84	-2,059.3	-194.5	2,071.8	2,065.2	6.64	312.217	
1,673.2	1,673.1	1,545.1	1,542.6	3.6	3.3	-93.58	-2,061.9	-203.4	2,076.5	2,069.5	6.94	299.019	
1,700.0	1,699.8	1,566.0	1,563.2	3.7	3.4	-93.49	-2,062.9	-206.9	2,078.4	2,071.3	7.06	294.454	
1,771.6	1,771.2	1,621.8	1,618.0	3.8	3.6	-93.23	-2,065.8	-217.0	2,083.8	2,076.4	7.38	282.467	
1,800.0	1,799.5	1,643.9	1,639.6	3.9	3.6	-93.13	-2,067.0	-221.3	2,086.2	2,078.6	7.51	277.884	
1,870.1	1,869.0	1,711.8	1,706.1	4.0	3.9	-92.87	-2,071.0	-234.9	2,092.2	2,084.3	7.89	265.068	
1,900.0	1,898.7	1,741.6	1,735.2	4.1	4.0	-92.77	-2,072.7	-240.8	2,094.8	2,086.7	8.06	259.760	
1,968.5	1,966.4	1,809.7	1,801.9	4.3	4.2	-92.57	-2,076.7	-254.4	2,100.8	2,092.3	8.47	247.900	
2,000.0	1,997.5	1,841.1	1,832.6	4.4	4.4	-92.49	-2,078.5	-260.7	2,103.5	2,094.9	8.67	242.692	
2,066.9	2,063.2	1,907.8	1,897.7	4.6	4.6	-92.36	-2,082.3	-274.0	2,109.5	2,100.4	9.10	231.782	
2,100.1	2,095.7	1,940.8	1,930.1	4.7	4.7	-92.31	-2,084.2	-280.6	2,112.5	2,103.2	9.32	226.655	
2,165.3	2,159.5	2,005.8	1,993.6	4.9	5.0	-92.34	-2,088.0	-293.6	2,118.4	2,108.6	9.77	216.758	
2,200.0	2,193.4	2,040.3	2,027.4	5.0	5.1	-92.35	-2,090.0	-300.5	2,121.5	2,111.5	10.02	211.791	
2,224.2	2,217.1	2,064.4	2,050.9	5.1	5.2	-92.37	-2,091.4	-305.3	2,123.7	2,113.5	10.19	208.402	
2,263.8	2,255.9	2,103.8	2,089.5	5.2	5.4	-92.45	-2,093.7	-313.1	2,127.2	2,116.8	10.46	203.349	
2,300.0	2,291.5	2,139.9	2,124.8	5.3	5.5	-92.51	-2,095.8	-320.3	2,130.5	2,119.8	10.71	198.895	
2,362.2	2,352.7	2,201.8	2,185.4	5.5	5.8	-92.58	-2,099.4	-332.7	2,136.0	2,124.9	11.12	192.136	
2,400.0	2,390.1	2,239.4	2,222.2	5.6	6.0	-92.61	-2,101.5	-340.2	2,139.3	2,127.9	11.37	188.223	
2,460.6	2,450.1	2,299.7	2,281.2	5.7	6.2	-92.62	-2,105.0	-352.3	2,144.6	2,132.8	11.76	182.381	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
2,500.0	2,489.2	2,338.9	2,319.4	5.8	6.4	-92.62	-2,107.3	-360.1	2,148.0	2,136.0	12.02	178.763	
2,559.0	2,548.0	2,397.4	2,376.7	6.0	6.6	-92.58	-2,110.7	-371.8	2,153.1	2,140.7	12.39	173.759	
2,600.0	2,588.8	2,438.0	2,416.4	6.1	6.8	-92.53	-2,113.0	-379.9	2,156.5	2,143.9	12.65	170.445	
2,657.5	2,646.1	2,494.8	2,472.0	6.2	7.1	-92.44	-2,116.3	-391.2	2,161.4	2,148.4	13.01	166.174	
2,700.0	2,688.6	2,536.8	2,513.0	6.3	7.2	-92.35	-2,118.8	-399.6	2,165.0	2,151.7	13.27	163.152	
2,755.9	2,744.4	2,591.8	2,566.8	6.4	7.5	-92.22	-2,121.9	-410.6	2,169.7	2,156.1	13.60	159.508	
2,800.0	2,788.5	2,635.0	2,609.1	6.5	7.7	-92.09	-2,124.4	-419.2	2,173.4	2,159.6	13.87	156.757	
2,824.3	2,812.8	2,658.8	2,632.4	6.5	7.8	-172.71	-2,125.8	-424.0	2,175.5	2,163.3	12.22	177.973	
2,854.3	2,842.9	2,688.2	2,661.1	6.6	7.9	-172.57	-2,127.5	-429.8	2,178.0	2,165.6	12.37	176.034	
2,900.0	2,888.5	2,732.9	2,704.8	6.7	8.1	-172.34	-2,130.1	-438.8	2,181.9	2,169.3	12.60	173.161	
2,952.7	2,941.3	2,784.5	2,755.3	6.8	8.3	-172.08	-2,133.1	-449.1	2,186.4	2,173.6	12.87	169.843	
3,000.0	2,988.5	2,830.7	2,800.5	6.9	8.5	-171.85	-2,135.8	-458.3	2,190.5	2,177.4	13.12	166.975	
3,051.2	3,039.7	2,880.7	2,849.5	7.0	8.8	-171.60	-2,138.7	-468.3	2,195.0	2,181.6	13.39	163.975	
3,100.0	3,088.5	2,928.5	2,896.2	7.1	9.0	-171.37	-2,141.4	-477.8	2,199.4	2,185.7	13.64	161.211	
3,149.6	3,138.1	2,977.0	2,943.6	7.2	9.2	-171.13	-2,144.2	-487.5	2,203.8	2,189.9	13.90	158.497	
3,200.0	3,188.5	3,026.3	2,991.9	7.3	9.4	-170.89	-2,147.1	-497.4	2,208.3	2,194.1	14.17	155.832	
3,248.0	3,236.6	3,073.3	3,037.8	7.4	9.6	-170.66	-2,149.8	-506.7	2,212.7	2,198.2	14.43	153.374	
3,300.0	3,288.5	3,124.1	3,087.5	7.5	9.8	-170.41	-2,152.8	-516.9	2,217.4	2,202.7	14.70	150.802	
3,346.4	3,335.0	3,169.6	3,132.0	7.6	10.1	-170.19	-2,155.4	-526.0	2,221.7	2,206.8	14.95	148.575	
3,400.0	3,388.5	3,222.0	3,183.2	7.7	10.3	-169.94	-2,158.4	-536.4	2,226.7	2,211.5	15.24	146.091	
3,444.9	3,433.4	3,265.8	3,226.2	7.8	10.5	-169.73	-2,161.0	-545.2	2,230.9	2,215.4	15.48	144.072	
3,500.0	3,488.5	3,319.8	3,278.9	7.9	10.7	-169.47	-2,164.1	-556.0	2,236.1	2,220.4	15.78	141.671	
3,543.3	3,531.8	3,362.1	3,320.3	8.0	10.9	-169.27	-2,166.5	-564.4	2,240.3	2,224.3	16.02	139.841	
3,600.0	3,588.5	3,417.6	3,374.6	8.1	11.2	-169.00	-2,169.8	-575.5	2,245.7	2,229.4	16.33	137.519	
3,641.7	3,630.3	3,458.4	3,414.5	8.2	11.4	-168.81	-2,172.1	-583.6	2,249.8	2,233.2	16.56	135.860	
3,700.0	3,688.5	3,515.4	3,470.2	8.3	11.6	-168.54	-2,175.4	-595.0	2,255.5	2,238.6	16.88	133.612	
3,740.1	3,728.7	3,554.7	3,508.7	8.4	11.8	-168.36	-2,177.7	-602.9	2,259.4	2,242.3	17.10	132.108	
3,800.0	3,788.5	3,613.2	3,565.9	8.5	12.1	-168.08	-2,181.1	-614.6	2,265.3	2,247.9	17.44	129.931	
3,838.6	3,827.1	3,650.9	3,602.8	8.6	12.2	-167.91	-2,183.3	-622.1	2,269.2	2,251.6	17.65	128.567	
3,900.0	3,888.5	3,711.0	3,661.6	8.7	12.5	-167.63	-2,186.7	-634.1	2,275.4	2,257.4	17.99	126.457	
3,937.0	3,925.5	3,747.2	3,697.0	8.8	12.7	-167.46	-2,188.8	-641.3	2,279.1	2,260.9	18.20	125.221	
4,000.0	3,988.5	3,808.8	3,757.3	9.0	13.0	-167.18	-2,192.4	-653.6	2,285.6	2,267.0	18.56	123.176	
4,035.4	4,024.0	3,843.5	3,791.2	9.0	13.1	-167.02	-2,194.4	-660.6	2,289.2	2,270.4	18.76	122.056	
4,100.0	4,088.5	3,906.7	3,853.0	9.2	13.4	-166.73	-2,198.1	-673.2	2,295.9	2,276.8	19.12	120.071	
4,133.8	4,122.4	3,939.8	3,885.3	9.2	13.6	-166.58	-2,200.0	-679.8	2,299.4	2,280.1	19.31	119.058	
4,200.0	4,188.5	4,004.5	3,948.6	9.4	13.9	-166.29	-2,203.7	-692.7	2,306.3	2,286.7	19.69	117.131	
4,232.3	4,220.8	4,036.0	3,979.5	9.4	14.0	-166.15	-2,205.6	-699.0	2,309.7	2,289.9	19.87	116.215	
4,300.0	4,288.5	4,102.3	4,044.3	9.6	14.3	-165.85	-2,209.4	-712.2	2,316.9	2,296.7	20.26	114.343	
4,330.7	4,319.2	4,132.3	4,073.7	9.7	14.4	-165.72	-2,211.1	-718.2	2,320.2	2,299.8	20.44	113.516	
4,400.0	4,388.5	4,200.1	4,140.0	9.8	14.8	-165.42	-2,215.1	-731.8	2,327.7	2,306.8	20.84	111.697	
4,429.1	4,417.7	4,228.6	4,167.9	9.9	14.9	-165.29	-2,216.7	-737.5	2,330.8	2,309.8	21.01	110.952	
4,500.0	4,488.5	4,297.9	4,235.7	10.0	15.2	-164.98	-2,220.7	-751.3	2,338.6	2,317.1	21.42	109.183	
4,527.5	4,516.1	4,324.9	4,262.0	10.1	15.3	-164.87	-2,222.3	-756.7	2,341.6	2,320.0	21.58	108.512	
4,600.0	4,588.5	4,395.7	4,331.3	10.2	15.7	-164.56	-2,226.4	-770.8	2,349.6	2,327.6	22.00	106.791	
4,626.0	4,614.5	4,421.1	4,356.2	10.3	15.8	-164.45	-2,227.9	-775.9	2,352.4	2,330.3	22.15	106.189	
4,700.0	4,688.5	4,493.5	4,427.0	10.5	16.1	-164.13	-2,232.1	-790.4	2,360.7	2,338.1	22.59	104.514	
4,724.4	4,712.9	4,517.4	4,450.4	10.5	16.2	-164.03	-2,233.4	-795.1	2,363.4	2,340.7	22.73	103.975	
4,800.0	4,788.5	4,591.4	4,522.7	10.7	16.6	-163.72	-2,237.7	-809.9	2,372.0	2,348.8	23.18	102.344	
4,822.8	4,811.4	4,613.7	4,544.5	10.7	16.7	-163.62	-2,239.0	-814.4	2,374.6	2,351.2	23.31	101.863	
4,900.0	4,888.5	4,689.2	4,618.4	10.9	17.0	-163.30	-2,243.4	-829.4	2,383.4	2,359.6	23.77	100.274	
4,921.2	4,909.8	4,710.0	4,638.7	10.9	17.1	-163.21	-2,244.6	-833.6	2,385.8	2,361.9	23.89	99.847	
5,000.0	4,988.5	4,787.0	4,714.0	11.1	17.5	-162.89	-2,249.1	-849.0	2,394.9	2,370.5	24.36	98.299	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
5,019.7	5,008.2	4,806.2	4,732.9	11.1	17.5	-162.81	-2,250.2	-852.8	2,397.2	2,372.7	24.48	97.920	
5,100.0	5,088.5	4,884.8	4,809.7	11.3	17.9	-162.48	-2,254.7	-868.5	2,406.5	2,381.6	24.96	96.411	
5,118.1	5,106.6	4,902.5	4,827.0	11.4	18.0	-162.41	-2,255.7	-872.0	2,408.7	2,383.6	25.07	96.078	
5,200.0	5,188.5	4,982.6	4,905.4	11.5	18.4	-162.08	-2,260.4	-888.0	2,418.3	2,392.8	25.56	94.606	
5,216.5	5,205.1	4,998.8	4,921.2	11.6	18.4	-162.01	-2,261.3	-891.3	2,420.3	2,394.6	25.66	94.315	
5,300.0	5,288.5	5,080.4	5,001.1	11.8	18.8	-161.68	-2,266.0	-907.6	2,430.2	2,404.0	26.17	92.878	
5,314.9	5,303.5	5,096.2	5,016.5	11.8	18.9	-161.61	-2,267.0	-910.7	2,432.0	2,405.7	26.26	92.615	
5,400.0	5,388.5	5,260.7	5,178.3	12.0	19.4	-161.04	-2,275.2	-939.0	2,440.8	2,413.9	26.92	90.683	
5,413.4	5,401.9	5,286.9	5,204.2	12.0	19.5	-160.97	-2,276.2	-942.7	2,441.9	2,414.9	27.01	90.394	
5,500.0	5,488.5	5,457.8	5,374.1	12.2	19.9	-160.60	-2,281.6	-961.0	2,447.6	2,420.0	27.60	88.690	
5,511.8	5,500.3	5,481.3	5,397.4	12.2	19.9	-160.57	-2,282.1	-962.8	2,448.1	2,420.4	27.67	88.471	
5,600.0	5,588.5	5,657.2	5,573.2	12.4	20.2	-160.42	-2,284.2	-970.2	2,450.4	2,422.2	28.17	86.979	
5,610.2	5,598.8	5,677.6	5,593.6	12.4	20.2	-160.42	-2,284.2	-970.3	2,450.4	2,422.2	28.23	86.814	
5,700.0	5,688.5	5,775.6	5,691.5	12.6	20.3	-160.42	-2,284.3	-970.4	2,450.4	2,421.8	28.57	85.759	
5,708.6	5,697.2	5,784.2	5,700.2	12.6	20.3	-160.42	-2,284.3	-970.4	2,450.4	2,421.8	28.61	85.662	
5,800.0	5,788.5	5,875.6	5,791.5	12.8	20.5	-160.42	-2,284.3	-970.4	2,450.4	2,421.5	28.95	84.649	
5,807.1	5,795.6	5,882.6	5,798.6	12.9	20.5	-160.42	-2,284.3	-970.4	2,450.4	2,421.4	28.97	84.571	
5,900.0	5,888.5	5,975.6	5,891.5	13.1	20.6	-160.42	-2,284.3	-970.4	2,450.4	2,421.1	29.32	83.562	
5,905.5	5,894.0	5,981.1	5,897.0	13.1	20.6	-160.42	-2,284.3	-970.4	2,450.4	2,421.1	29.35	83.503	
6,000.0	5,988.5	7,390.8	6,780.6	13.3	24.8	179.73	-2,284.3	-138.4	2,439.8	2,411.7	28.12	86.766	
6,003.9	5,992.5	7,390.7	6,780.6	13.3	24.8	179.74	-2,284.3	-138.4	2,438.5	2,410.4	28.13	86.694	
6,085.3	6,073.8	7,389.6	6,780.6	13.5	24.8	179.76	-2,284.3	-139.5	2,413.6	2,385.3	28.31	85.254	
6,100.0	6,088.5	7,389.2	6,780.6	13.5	24.8	-90.58	-2,284.3	-139.9	2,409.3	2,371.0	38.28	62.934	
6,102.3	6,090.9	7,389.2	6,780.6	13.5	24.8	-90.64	-2,284.3	-139.9	2,408.7	2,370.4	38.29	62.909	
6,150.0	6,138.4	7,385.8	6,780.6	13.6	24.8	-91.65	-2,284.3	-143.3	2,395.5	2,357.2	38.35	62.458	
6,200.0	6,188.0	7,378.9	6,780.7	13.7	24.7	-92.53	-2,284.3	-150.2	2,382.8	2,344.4	38.38	62.085	
6,200.8	6,188.8	7,378.7	6,780.7	13.7	24.7	-92.54	-2,284.3	-150.4	2,382.6	2,344.2	38.38	62.080	
6,250.0	6,237.1	7,368.5	6,780.9	13.9	24.5	-93.23	-2,284.3	-160.6	2,371.2	2,332.8	38.36	61.809	
6,299.2	6,284.6	7,355.0	6,781.0	14.0	24.3	-93.76	-2,284.3	-174.1	2,360.8	2,322.5	38.31	61.624	
6,300.0	6,285.3	7,354.8	6,781.0	14.0	24.3	-93.76	-2,284.3	-174.3	2,360.7	2,322.4	38.31	61.621	
6,350.0	6,332.5	7,337.7	6,781.3	14.2	24.0	-94.13	-2,284.3	-191.4	2,351.3	2,313.1	38.22	61.514	
6,397.6	6,376.3	7,318.4	6,781.5	14.4	23.8	-94.33	-2,284.3	-210.6	2,343.5	2,305.3	38.12	61.475	
6,400.0	6,378.5	7,317.4	6,781.6	14.4	23.7	-94.34	-2,284.3	-211.7	2,343.1	2,305.0	38.11	61.476	
6,450.0	6,423.0	7,294.0	6,781.9	14.7	23.4	-94.40	-2,284.3	-235.1	2,336.0	2,298.0	37.99	61.483	
6,496.0	6,462.4	7,257.9	6,781.9	14.9	22.9	-94.10	-2,284.3	-271.2	2,330.3	2,292.5	37.75	61.724	
6,500.0	6,465.7	7,254.2	6,781.8	14.9	22.9	-94.06	-2,284.3	-274.9	2,329.8	2,292.1	37.73	61.757	
6,550.0	6,506.6	7,209.8	6,779.1	15.2	22.3	-93.55	-2,284.3	-319.2	2,324.5	2,287.0	37.48	62.024	
6,594.5	6,541.2	7,173.2	6,774.9	15.6	21.9	-93.11	-2,284.3	-355.6	2,320.4	2,283.0	37.37	62.092	
6,600.0	6,545.3	7,168.8	6,774.2	15.6	21.9	-93.06	-2,284.3	-359.9	2,319.9	2,282.6	37.36	62.096	
6,650.0	6,581.8	7,130.3	6,767.5	16.0	21.5	-92.56	-2,284.3	-397.8	2,316.2	2,278.8	37.37	61.986	
6,692.9	6,611.1	7,098.9	6,760.5	16.4	21.2	-92.12	-2,284.3	-428.5	2,313.6	2,276.1	37.46	61.757	
6,700.0	6,615.8	7,093.8	6,759.3	16.5	21.2	-92.05	-2,284.3	-433.4	2,313.2	2,275.7	37.49	61.706	
6,750.0	6,647.1	7,058.8	6,749.7	17.1	20.9	-91.52	-2,284.3	-467.0	2,311.0	2,273.3	37.73	61.245	
6,791.3	6,670.9	7,030.8	6,740.9	17.6	20.7	-91.06	-2,284.3	-493.6	2,309.8	2,271.7	38.03	60.730	
6,800.0	6,675.7	7,025.1	6,738.9	17.7	20.7	-90.96	-2,284.3	-499.0	2,309.6	2,271.5	38.10	60.619	
6,850.0	6,701.3	6,992.3	6,727.1	18.4	20.5	-90.38	-2,284.3	-529.5	2,308.8	2,270.2	38.57	59.862	
6,881.8	6,716.0	6,972.0	6,719.0	18.9	20.4	-90.00	-2,284.3	-548.2	2,308.7	2,269.7	38.94	59.289	
6,889.7	6,719.5	6,966.9	6,716.9	19.0	20.4	-89.90	-2,284.3	-552.8	2,308.7	2,269.7	39.03	59.148	
6,900.0	6,723.8	6,960.4	6,714.1	19.1	20.4	-89.78	-2,284.3	-558.7	2,308.7	2,269.6	39.15	58.968	
6,950.0	6,743.2	6,929.2	6,700.3	20.0	20.2	-89.15	-2,284.3	-586.6	2,309.3	2,269.4	39.84	57.967	
6,988.2	6,755.8	6,905.8	6,689.0	20.6	20.2	-88.65	-2,284.3	-607.2	2,310.1	2,269.6	40.42	57.148	
7,000.0	6,759.4	6,900.0	6,686.2	20.9	20.2	-88.52	-2,284.3	-612.2	2,310.4	2,269.8	40.61	56.892	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBORE - P												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												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
7,050.0	6,772.1	6,868.4	6,669.8	21.8	20.1	-87.82	-2,284.3	-639.2	2,312.1	2,270.6	41.47	55.751	
7,086.6	6,779.4	6,850.0	6,659.7	22.5	20.1	-87.38	-2,284.3	-654.6	2,313.6	2,271.4	42.15	54.889	
7,100.0	6,781.5	6,838.7	6,653.3	22.8	20.1	-87.13	-2,284.3	-663.9	2,314.2	2,271.8	42.40	54.581	
7,150.0	6,787.5	6,809.3	6,636.0	23.9	20.0	-86.43	-2,284.3	-687.6	2,316.8	2,273.4	43.39	53.397	
7,185.0	6,789.6	6,789.0	6,623.5	24.6	20.0	-85.93	-2,284.3	-703.7	2,318.9	2,274.8	44.11	52.566	
7,200.0	6,789.9	6,780.3	6,618.0	24.9	20.0	-85.72	-2,284.3	-710.4	2,319.8	2,275.4	44.43	52.216	
7,213.0	6,790.0	6,772.8	6,613.2	25.2	20.0	-85.53	-2,284.3	-716.2	2,320.6	2,275.9	44.70	51.913	
7,283.4	6,789.7	6,734.0	6,587.4	26.8	20.1	-84.90	-2,284.3	-745.1	2,325.8	2,279.6	46.25	50.291	
7,300.0	6,789.7	6,725.4	6,581.4	27.2	20.1	-84.75	-2,284.3	-751.3	2,327.2	2,280.6	46.61	49.926	
7,381.9	6,789.4	6,685.7	6,553.1	29.1	20.1	-84.06	-2,284.3	-779.1	2,335.3	2,286.8	48.50	48.147	
7,400.0	6,789.3	6,677.5	6,547.1	29.5	20.2	-83.91	-2,284.3	-784.7	2,337.3	2,288.4	48.92	47.775	
7,480.3	6,789.0	6,650.0	6,526.3	31.4	20.2	-83.40	-2,284.3	-802.8	2,347.6	2,296.7	50.84	46.175	
7,500.0	6,788.9	6,635.8	6,515.3	31.9	20.2	-83.14	-2,284.3	-811.8	2,350.4	2,299.1	51.31	45.803	
7,578.7	6,788.6	6,600.0	6,486.9	33.8	20.3	-82.44	-2,284.3	-833.6	2,362.8	2,309.6	53.24	44.381	
7,600.0	6,788.5	6,600.0	6,486.9	34.4	20.3	-82.44	-2,284.3	-833.6	2,366.5	2,312.7	53.76	44.020	
7,677.1	6,788.2	6,574.1	6,465.7	36.3	20.4	-81.93	-2,284.3	-848.4	2,381.2	2,325.5	55.68	42.766	
7,700.0	6,788.2	6,567.1	6,459.9	36.9	20.4	-81.79	-2,284.3	-852.3	2,385.9	2,329.6	56.25	42.419	
7,775.6	6,787.9	6,550.0	6,445.5	38.8	20.4	-81.44	-2,284.3	-861.5	2,402.7	2,344.6	58.15	41.321	
7,800.0	6,787.8	6,550.0	6,445.5	39.4	20.4	-81.44	-2,284.3	-861.5	2,408.6	2,349.8	58.77	40.987	
7,874.0	6,787.5	6,520.1	6,419.8	41.3	20.5	-80.82	-2,284.3	-876.8	2,427.5	2,366.8	60.63	40.035	
7,900.0	6,787.4	6,513.9	6,414.4	42.0	20.5	-80.69	-2,284.3	-879.9	2,434.6	2,373.3	61.29	39.720	
7,972.4	6,787.1	6,500.0	6,402.2	43.9	20.5	-80.39	-2,284.3	-886.5	2,455.5	2,392.3	63.14	38.887	
8,000.0	6,787.0	6,500.0	6,402.2	44.6	20.5	-80.39	-2,284.3	-886.5	2,463.9	2,400.1	63.86	38.586	
8,070.8	6,786.7	6,477.3	6,382.0	46.5	20.6	-79.91	-2,284.3	-896.9	2,486.7	2,421.0	65.66	37.872	
8,100.0	6,786.6	6,471.7	6,377.0	47.3	20.6	-79.79	-2,284.3	-899.3	2,496.5	2,430.1	66.41	37.594	
8,169.3	6,786.4	6,450.0	6,357.3	49.1	20.6	-79.32	-2,284.3	-908.4	2,521.0	2,452.8	68.17	36.981	
8,200.0	6,786.3	6,450.0	6,357.3	49.9	20.6	-79.32	-2,284.3	-908.4	2,532.3	2,463.3	68.97	36.714	
8,267.7	6,786.0	6,450.0	6,357.3	51.7	20.6	-79.32	-2,284.3	-908.4	2,558.3	2,487.6	70.75	36.159	
8,300.0	6,785.9	6,450.0	6,357.3	52.6	20.6	-79.31	-2,284.3	-908.4	2,571.3	2,499.7	71.60	35.911	
8,366.1	6,785.6	6,428.0	6,337.0	54.4	20.7	-78.83	-2,284.3	-917.1	2,598.6	2,525.3	73.28	35.461	
8,400.0	6,785.5	6,423.2	6,332.6	55.3	20.7	-78.73	-2,284.3	-918.9	2,613.1	2,539.0	74.16	35.238	
8,464.5	6,785.2	6,400.0	6,310.9	57.0	20.7	-78.21	-2,284.3	-927.2	2,641.9	2,566.1	75.78	34.861	
8,500.0	6,785.1	6,400.0	6,310.9	58.0	20.7	-78.21	-2,284.3	-927.2	2,658.0	2,581.3	76.72	34.646	
8,563.0	6,784.9	6,400.0	6,310.9	59.7	20.7	-78.21	-2,284.3	-927.2	2,687.7	2,609.3	78.39	34.285	
8,600.0	6,784.7	6,400.0	6,310.9	60.7	20.7	-78.21	-2,284.3	-927.2	2,705.6	2,626.2	79.37	34.087	
8,661.4	6,784.5	6,400.0	6,310.9	62.4	20.7	-78.21	-2,284.3	-927.2	2,736.2	2,655.2	81.01	33.777	
8,700.0	6,784.3	6,400.0	6,310.9	63.4	20.7	-78.21	-2,284.3	-927.2	2,756.0	2,674.0	82.04	33.595	
8,759.8	6,784.1	6,380.6	6,292.7	65.0	20.7	-77.78	-2,284.3	-933.5	2,787.2	2,703.7	83.54	33.364	
8,800.0	6,784.0	6,376.7	6,288.9	66.1	20.8	-77.69	-2,284.3	-934.8	2,808.7	2,724.1	84.59	33.204	
8,858.2	6,783.7	6,371.1	6,283.6	67.7	20.8	-77.56	-2,284.3	-936.5	2,840.6	2,754.5	86.12	32.985	
8,900.0	6,783.6	6,350.0	6,263.4	68.9	20.8	-77.08	-2,284.3	-942.6	2,864.2	2,777.0	87.11	32.878	
8,956.7	6,783.3	6,350.0	6,263.4	70.4	20.8	-77.08	-2,284.3	-942.6	2,896.4	2,807.8	88.63	32.680	
9,000.0	6,783.2	6,350.0	6,263.4	71.6	20.8	-77.08	-2,284.3	-942.6	2,921.5	2,831.8	89.79	32.539	
9,055.1	6,783.0	6,350.0	6,263.4	73.1	20.8	-77.08	-2,284.3	-942.6	2,954.1	2,862.9	91.26	32.370	
9,100.0	6,782.8	6,350.0	6,263.4	74.3	20.8	-77.08	-2,284.3	-942.6	2,981.2	2,888.7	92.46	32.242	
9,153.5	6,782.6	6,350.0	6,263.4	75.8	20.8	-77.08	-2,284.3	-942.6	3,014.0	2,920.1	93.90	32.098	
9,200.0	6,782.4	6,350.0	6,263.4	77.1	20.8	-77.08	-2,284.3	-942.6	3,043.0	2,947.8	95.15	31.982	
9,251.9	6,782.2	6,350.0	6,263.4	78.5	20.8	-77.08	-2,284.3	-942.6	3,075.8	2,979.3	96.54	31.860	
9,300.0	6,782.0	6,350.0	6,263.4	79.8	20.8	-77.08	-2,284.3	-942.6	3,106.7	3,008.9	97.83	31.756	
9,350.4	6,781.8	6,350.0	6,263.4	81.2	20.8	-77.08	-2,284.3	-942.6	3,139.5	3,040.3	99.19	31.653	
9,400.0	6,781.6	6,329.8	6,243.9	82.6	20.8	-76.63	-2,284.3	-947.9	3,172.1	3,071.7	100.37	31.604	
9,448.8	6,781.4	6,326.8	6,241.0	83.9	20.8	-76.56	-2,284.3	-948.7	3,204.7	3,103.0	101.66	31.524	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,500.0	6,781.2	6,323.8	6,238.0	85.4	20.8	-76.49	-2,284.3	-949.4	3,239.3	3,136.3	103.01	31.446	
9,547.2	6,781.0	6,321.1	6,235.4	86.7	20.8	-76.43	-2,284.3	-950.0	3,271.6	3,167.3	104.26	31.379	
9,600.0	6,780.8	6,300.0	6,214.9	88.1	20.8	-75.95	-2,284.3	-954.7	3,308.3	3,202.8	105.50	31.358	
9,645.6	6,780.7	6,300.0	6,214.9	89.4	20.8	-75.95	-2,284.3	-954.7	3,340.2	3,233.4	106.73	31.296	
9,700.0	6,780.5	6,300.0	6,214.9	90.9	20.8	-75.95	-2,284.3	-954.7	3,378.5	3,270.3	108.19	31.228	
9,744.1	6,780.3	6,300.0	6,214.9	92.1	20.8	-75.95	-2,284.3	-954.7	3,409.9	3,300.6	109.37	31.177	
9,800.0	6,780.1	6,300.0	6,214.9	93.7	20.8	-75.94	-2,284.3	-954.7	3,450.2	3,339.3	110.88	31.117	
9,842.5	6,779.9	6,300.0	6,214.9	94.8	20.8	-75.94	-2,284.3	-954.7	3,481.1	3,369.1	112.02	31.075	
9,900.0	6,779.7	6,300.0	6,214.9	96.4	20.8	-75.94	-2,284.3	-954.7	3,523.3	3,409.7	113.57	31.023	
9,940.9	6,779.5	6,300.0	6,214.9	97.6	20.8	-75.94	-2,284.3	-954.7	3,553.6	3,438.9	114.67	30.989	
10,000.0	6,779.3	6,300.0	6,214.9	99.2	20.8	-75.94	-2,284.3	-954.7	3,597.7	3,481.4	116.26	30.944	
10,039.3	6,779.1	6,300.0	6,214.9	100.3	20.8	-75.94	-2,284.3	-954.7	3,627.3	3,509.9	117.33	30.916	
10,100.0	6,778.9	6,300.0	6,214.9	102.0	20.8	-75.94	-2,284.3	-954.7	3,673.3	3,554.3	118.96	30.878	
10,137.8	6,778.7	6,300.0	6,214.9	103.0	20.8	-75.94	-2,284.3	-954.7	3,702.1	3,582.1	119.98	30.856	
10,200.0	6,778.5	6,300.0	6,214.9	104.8	20.8	-75.94	-2,284.3	-954.7	3,750.0	3,628.3	121.66	30.824	
10,236.2	6,778.3	6,300.0	6,214.9	105.8	20.8	-75.94	-2,284.3	-954.7	3,778.0	3,655.4	122.64	30.807	
10,300.0	6,778.1	6,300.0	6,214.9	107.5	20.8	-75.94	-2,284.3	-954.7	3,827.8	3,703.4	124.36	30.780	
10,334.6	6,778.0	6,300.0	6,214.9	108.5	20.8	-75.94	-2,284.3	-954.7	3,855.0	3,729.7	125.29	30.767	
10,400.0	6,777.7	6,300.0	6,214.9	110.3	20.8	-75.94	-2,284.3	-954.7	3,906.6	3,779.6	127.06	30.746	
10,433.0	6,777.6	6,300.0	6,214.9	111.2	20.8	-75.94	-2,284.3	-954.7	3,932.9	3,804.9	127.95	30.737	
10,500.0	6,777.3	6,300.0	6,214.9	113.1	20.8	-75.94	-2,284.3	-954.7	3,986.4	3,856.6	129.76	30.720 SF	
10,531.5	6,777.2	6,278.6	6,193.9	114.0	20.9	-75.45	-2,284.3	-958.9	4,011.4	3,881.0	130.36	30.771	
10,600.0	6,776.9	6,276.4	6,191.7	115.9	20.9	-75.40	-2,284.3	-959.2	4,066.7	3,934.5	132.18	30.765	
10,629.9	6,776.8	6,275.5	6,190.8	116.7	20.9	-75.38	-2,284.3	-959.4	4,090.9	3,957.9	132.98	30.763	
10,700.0	6,776.5	6,273.3	6,188.7	118.7	20.9	-75.33	-2,284.3	-959.8	4,148.0	4,013.2	134.85	30.761	
10,728.3	6,776.4	6,272.5	6,187.8	119.5	20.9	-75.31	-2,284.3	-959.9	4,171.2	4,035.6	135.60	30.762	
10,800.0	6,776.1	6,250.0	6,165.7	121.4	20.9	-74.80	-2,284.3	-963.4	4,230.5	4,093.3	137.24	30.825	
10,826.7	6,776.0	6,250.0	6,165.7	122.2	20.9	-74.80	-2,284.3	-963.4	4,252.6	4,114.6	137.96	30.824	
10,900.0	6,775.7	6,250.0	6,165.7	124.2	20.9	-74.80	-2,284.3	-963.4	4,313.4	4,173.4	139.94	30.824	
10,925.2	6,775.6	6,250.0	6,165.7	124.9	20.9	-74.80	-2,284.3	-963.4	4,334.3	4,193.7	140.61	30.824	
11,000.0	6,775.3	6,250.0	6,165.7	127.0	20.9	-74.80	-2,284.3	-963.4	4,396.9	4,254.3	142.63	30.827	
11,023.6	6,775.2	6,250.0	6,165.7	127.7	20.9	-74.80	-2,284.3	-963.4	4,416.7	4,273.5	143.27	30.829	
11,100.0	6,774.9	6,250.0	6,165.7	129.8	20.9	-74.80	-2,284.3	-963.4	4,481.1	4,335.8	145.33	30.835	
11,122.0	6,774.8	6,250.0	6,165.7	130.4	20.9	-74.80	-2,284.3	-963.4	4,499.8	4,353.9	145.92	30.837	
11,200.0	6,774.5	6,250.0	6,165.7	132.6	20.9	-74.80	-2,284.3	-963.4	4,566.0	4,418.0	148.02	30.846	
11,220.4	6,774.4	6,250.0	6,165.7	133.2	20.9	-74.80	-2,284.3	-963.4	4,583.4	4,434.9	148.58	30.849	
11,300.0	6,774.1	6,250.0	6,165.7	135.4	20.9	-74.79	-2,284.3	-963.4	4,651.5	4,500.8	150.72	30.861	
11,318.9	6,774.0	6,250.0	6,165.7	135.9	20.9	-74.79	-2,284.3	-963.4	4,667.7	4,516.5	151.23	30.864	
11,400.0	6,773.7	6,250.0	6,165.7	138.2	20.9	-74.79	-2,284.3	-963.4	4,737.5	4,584.1	153.42	30.879	
11,417.3	6,773.6	6,250.0	6,165.7	138.7	20.9	-74.79	-2,284.3	-963.4	4,752.5	4,598.6	153.89	30.883	
11,500.0	6,773.3	6,250.0	6,165.7	141.0	20.9	-74.79	-2,284.3	-963.4	4,824.1	4,668.0	156.12	30.900	
11,515.7	6,773.2	6,250.0	6,165.7	141.4	20.9	-74.79	-2,284.3	-963.4	4,837.8	4,681.2	156.55	30.903	
11,600.0	6,772.9	6,250.0	6,165.7	143.8	20.9	-74.79	-2,284.3	-963.4	4,911.2	4,752.4	158.82	30.923	
11,614.1	6,772.8	6,250.0	6,165.7	144.2	20.9	-74.79	-2,284.3	-963.4	4,923.5	4,764.3	159.20	30.926	
11,700.0	6,772.5	6,250.0	6,165.7	146.6	20.9	-74.79	-2,284.3	-963.4	4,998.8	4,837.2	161.52	30.948	
11,712.6	6,772.4	6,250.0	6,165.7	146.9	20.9	-74.79	-2,284.3	-963.4	5,009.8	4,847.9	161.86	30.951	
11,800.0	6,772.1	6,250.0	6,165.7	149.4	20.9	-74.79	-2,284.3	-963.4	5,086.8	4,922.6	164.22	30.975	
11,811.0	6,772.1	6,250.0	6,165.7	149.7	20.9	-74.79	-2,284.3	-963.4	5,096.5	4,932.0	164.52	30.978	
11,900.0	6,771.7	6,250.0	6,165.7	152.2	20.9	-74.79	-2,284.3	-963.4	5,175.2	5,008.3	166.92	31.003	
11,909.4	6,771.7	6,250.0	6,165.7	152.4	20.9	-74.79	-2,284.3	-963.4	5,183.6	5,016.4	167.18	31.006	
12,000.0	6,771.3	6,250.0	6,165.7	154.9	20.9	-74.79	-2,284.3	-963.4	5,264.1	5,094.5	169.63	31.033	
12,007.8	6,771.3	6,250.0	6,165.7	155.2	20.9	-74.79	-2,284.3	-963.4	5,271.1	5,101.3	169.84	31.036	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-302 - ORIGINAL WELLBORE - P												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	6,770.9	6,250.0	6,165.7	157.7	20.9	-74.79	-2,284.3	-963.4	5,353.4	5,181.1	172.33	31.065	
12,106.3	6,770.9	6,250.0	6,165.7	157.9	20.9	-74.79	-2,284.3	-963.4	5,359.0	5,186.5	172.50	31.067	
12,200.0	6,770.5	6,250.0	6,165.7	160.5	20.9	-74.79	-2,284.3	-963.4	5,443.0	5,268.0	175.03	31.097	
12,204.7	6,770.5	6,250.0	6,165.7	160.7	20.9	-74.79	-2,284.3	-963.4	5,447.3	5,272.1	175.16	31.099	
12,300.0	6,770.1	6,250.0	6,165.7	163.3	20.9	-74.79	-2,284.3	-963.4	5,533.0	5,355.3	177.74	31.130	
12,303.1	6,770.1	6,250.0	6,165.7	163.4	20.9	-74.79	-2,284.3	-963.4	5,535.8	5,358.0	177.82	31.131	
12,316.4	6,770.0	6,250.0	6,165.7	163.8	20.9	-74.79	-2,284.3	-963.4	5,547.8	5,369.6	178.18	31.136	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
0.0	0.0	3.0	3.0	0.0	0.0	-175.48	-2,035.0	-161.0	2,041.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.48	-2,035.0	-161.0	2,041.4	2,041.2	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-175.48	-2,035.0	-161.0	2,041.4	2,041.2	0.20	N/A	
196.8	196.8	199.8	199.8	0.3	0.3	-175.48	-2,035.0	-161.0	2,041.4	2,040.8	0.64	3,201.367	
200.0	200.0	203.0	203.0	0.3	0.3	-175.48	-2,035.0	-161.0	2,041.4	2,040.7	0.65	3,131.820	
295.3	295.3	298.3	298.3	0.5	0.5	-175.48	-2,035.0	-161.0	2,041.4	2,040.3	1.08	1,889.976	
300.0	300.0	303.0	303.0	0.5	0.6	-175.48	-2,035.0	-161.0	2,041.4	2,040.3	1.10	1,853.526	
393.7	393.7	396.7	396.7	0.8	0.8	-175.48	-2,035.0	-161.0	2,041.4	2,039.9	1.52	1,340.756	
400.0	400.0	403.0	403.0	0.8	0.8	-175.48	-2,035.0	-161.0	2,041.4	2,039.8	1.55	1,316.272	
492.1	492.1	495.1	495.1	1.0	1.0	-175.48	-2,035.0	-161.0	2,041.4	2,039.4	1.97	1,038.865	
500.0	500.0	503.0	503.0	1.0	1.0	-175.48	-2,035.0	-161.0	2,041.4	2,039.4	2.00	1,020.481	
590.5	590.5	593.5	593.5	1.2	1.2	-175.48	-2,035.0	-161.0	2,041.4	2,039.0	2.41	847.940	
600.0	600.0	603.0	603.0	1.2	1.2	-175.48	-2,035.0	-161.0	2,041.4	2,038.9	2.45	833.237	
689.0	689.0	692.0	692.0	1.4	1.4	-175.48	-2,035.0	-161.0	2,041.4	2,038.5	2.85	716.296	
700.0	700.0	703.0	703.0	1.4	1.5	-175.48	-2,035.0	-161.0	2,041.4	2,038.5	2.90	704.053	
787.4	787.4	790.4	790.4	1.6	1.6	-175.48	-2,035.0	-161.0	2,041.4	2,038.1	3.29	620.036	
800.0	800.0	803.0	803.0	1.7	1.7	-175.48	-2,035.0	-161.0	2,041.4	2,038.0	3.35	609.549	
885.8	885.8	888.8	888.8	1.9	1.9	-175.48	-2,035.0	-161.0	2,041.4	2,037.7	3.73	546.582	
900.0	900.0	903.0	903.0	1.9	1.9	-175.48	-2,035.0	-161.0	2,041.4	2,037.6	3.80	537.413	
984.2	984.2	987.2	987.2	2.1	2.1	-175.48	-2,035.0	-161.0	2,041.4	2,037.2	4.18	488.689	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.48	-2,035.0	-161.0	2,041.4	2,037.1	4.25	480.544	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-175.48	-2,035.0	-161.0	2,041.4	2,036.8	4.62	441.885	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-175.48	-2,035.0	-161.0	2,041.4	2,036.7	4.70	434.559	
1,134.5	1,134.5	1,137.5	1,137.5	2.4	2.4	-175.48	-2,035.0	-161.0	2,041.4	2,036.5	4.85	420.686 CC	
1,181.1	1,181.1	1,180.4	1,180.4	2.5	2.5	-175.48	-2,035.1	-160.8	2,041.4	2,036.4	5.05	404.361	
1,200.0	1,200.0	1,197.3	1,197.3	2.6	2.6	-175.49	-2,035.1	-160.6	2,041.5	2,036.3	5.13	398.266	
1,279.5	1,279.5	1,268.2	1,268.2	2.7	2.7	-175.54	-2,035.6	-158.6	2,041.9	2,036.4	5.44	375.187	
1,300.0	1,300.0	1,286.4	1,286.4	2.8	2.7	-175.57	-2,035.8	-157.8	2,042.0	2,036.5	5.52	369.692	
1,377.9	1,377.9	1,355.7	1,355.5	3.0	2.9	-175.68	-2,036.9	-153.8	2,042.8	2,037.0	5.84	349.967	
1,400.0	1,400.0	1,375.3	1,375.1	3.0	2.9	-175.72	-2,037.2	-152.4	2,043.1	2,037.2	5.93	344.763	
1,476.4	1,476.4	1,442.9	1,442.4	3.2	3.1	-175.89	-2,038.7	-146.5	2,044.3	2,038.1	6.24	327.776	
1,500.0	1,500.0	1,463.7	1,463.1	3.2	3.1	-175.95	-2,039.3	-144.4	2,044.8	2,038.4	6.33	322.847	
1,574.8	1,574.8	1,529.4	1,528.3	3.4	3.3	-95.46	-2,041.2	-136.7	2,046.5	2,039.8	6.66	307.161	
1,600.0	1,600.0	1,551.3	1,550.0	3.5	3.3	-95.55	-2,042.0	-133.8	2,047.2	2,040.4	6.77	302.355	
1,673.2	1,673.1	1,614.6	1,612.5	3.6	3.5	-95.84	-2,044.3	-124.6	2,049.6	2,042.5	7.08	289.313	
1,700.0	1,699.8	1,637.5	1,635.1	3.7	3.5	-95.97	-2,045.2	-120.9	2,050.7	2,043.4	7.20	284.642	
1,771.6	1,771.2	1,700.0	1,696.6	3.8	3.7	-96.35	-2,048.0	-110.0	2,053.9	2,046.3	7.54	272.533	
1,800.0	1,799.5	1,721.7	1,717.9	3.9	3.8	-96.50	-2,049.0	-105.9	2,055.3	2,047.6	7.67	268.124	
1,870.1	1,869.0	1,783.8	1,778.7	4.0	4.0	-96.96	-2,052.2	-93.5	2,059.4	2,051.3	8.03	256.483	
1,900.0	1,898.7	1,812.0	1,806.3	4.1	4.1	-97.18	-2,053.6	-87.8	2,061.2	2,053.1	8.19	251.561	
1,968.5	1,966.4	1,876.1	1,868.9	4.3	4.3	-97.71	-2,056.9	-74.9	2,065.9	2,057.3	8.59	240.462	
2,000.0	1,997.5	1,905.4	1,897.6	4.4	4.4	-97.96	-2,058.4	-69.0	2,068.2	2,059.4	8.77	235.715	
2,066.9	2,063.2	1,967.1	1,958.0	4.6	4.6	-98.50	-2,061.6	-56.6	2,073.5	2,064.3	9.19	225.586	
2,100.1	2,095.7	1,997.5	1,987.7	4.7	4.8	-98.78	-2,063.2	-50.5	2,076.3	2,066.9	9.40	220.952	
2,165.3	2,159.5	2,057.1	2,046.0	4.9	5.0	-99.43	-2,066.2	-38.4	2,082.1	2,072.3	9.83	211.856	
2,200.0	2,193.4	2,088.8	2,077.0	5.0	5.1	-99.78	-2,067.8	-32.1	2,085.3	2,075.3	10.06	207.362	
2,224.2	2,217.1	2,110.9	2,098.6	5.1	5.2	-100.02	-2,069.0	-27.6	2,087.6	2,077.4	10.22	204.270	
2,263.8	2,255.9	2,147.2	2,134.1	5.2	5.3	-100.49	-2,070.8	-20.3	2,091.5	2,081.0	10.48	199.658	
2,300.0	2,291.5	2,180.6	2,166.8	5.3	5.5	-100.90	-2,072.5	-13.6	2,095.0	2,084.3	10.71	195.629	
2,362.2	2,352.7	2,238.3	2,223.2	5.5	5.7	-101.59	-2,075.5	-1.9	2,101.0	2,089.9	11.09	189.458	
2,400.0	2,390.1	2,273.6	2,257.8	5.6	5.9	-102.00	-2,077.3	5.2	2,104.6	2,093.3	11.32	185.888	
2,460.6	2,450.1	2,330.6	2,313.6	5.7	6.1	-102.62	-2,080.2	16.7	2,110.4	2,098.7	11.69	180.492	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBORE - P													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		
2,500.0	2,489.2	2,367.9	2,350.0	5.8	6.2	-103.01	-2,082.1	24.2	2,114.1	2,102.2	11.93	177.140		
2,559.0	2,548.0	2,424.1	2,405.0	6.0	6.5	-103.57	-2,085.0	35.5	2,119.5	2,107.2	12.29	172.451		
2,600.0	2,588.8	2,463.3	2,443.3	6.1	6.6	-103.93	-2,087.0	43.4	2,123.2	2,110.7	12.54	169.327		
2,657.5	2,646.1	2,518.5	2,497.4	6.2	6.9	-104.42	-2,089.9	54.5	2,128.2	2,115.4	12.88	165.254		
2,700.0	2,688.6	2,559.6	2,537.6	6.3	7.1	-104.76	-2,092.0	62.8	2,131.8	2,118.7	13.13	162.347		
2,755.9	2,744.4	2,613.9	2,590.6	6.4	7.3	-105.18	-2,094.8	73.8	2,136.4	2,122.9	13.45	158.795		
2,800.0	2,788.5	2,656.9	2,632.7	6.5	7.5	-105.49	-2,097.0	82.4	2,139.8	2,126.1	13.71	156.080		
2,824.3	2,812.8	2,680.6	2,655.9	6.5	7.6	173.65	-2,098.2	87.2	2,141.7	2,129.5	12.17	175.945		
2,854.3	2,842.9	2,710.0	2,684.6	6.6	7.7	173.50	-2,099.7	93.1	2,143.9	2,131.6	12.32	174.048		
2,900.0	2,888.5	2,754.7	2,728.3	6.7	7.9	173.26	-2,102.0	102.1	2,147.4	2,134.8	12.54	171.236		
2,952.7	2,941.3	2,806.3	2,778.8	6.8	8.1	173.00	-2,104.6	112.5	2,151.4	2,138.6	12.81	167.986		
3,000.0	2,988.5	2,852.5	2,824.0	6.9	8.3	172.76	-2,107.0	121.8	2,155.1	2,142.0	13.05	165.173		
3,051.2	3,039.7	2,902.5	2,873.0	7.0	8.5	172.50	-2,109.6	131.9	2,159.1	2,145.8	13.31	162.232		
3,100.0	3,088.5	2,950.3	2,919.7	7.1	8.8	172.25	-2,112.0	141.5	2,162.9	2,149.4	13.56	159.518		
3,149.6	3,138.1	2,998.8	2,967.2	7.2	9.0	172.01	-2,114.5	151.3	2,166.9	2,153.1	13.81	156.854		
3,200.0	3,188.5	3,048.1	3,015.4	7.3	9.2	171.75	-2,117.0	161.2	2,171.0	2,156.9	14.08	154.234		
3,248.0	3,236.6	3,095.1	3,061.3	7.4	9.4	171.52	-2,119.4	170.7	2,174.9	2,160.5	14.33	151.819		
3,300.0	3,288.5	3,145.9	3,111.0	7.5	9.6	171.26	-2,122.0	181.0	2,179.1	2,164.6	14.60	149.287		
3,346.4	3,335.0	3,191.4	3,155.5	7.6	9.8	171.03	-2,124.4	190.1	2,183.0	2,168.2	14.84	147.097		
3,400.0	3,388.5	3,243.7	3,206.7	7.7	10.1	170.77	-2,127.0	200.7	2,187.5	2,172.4	15.12	144.650		
3,444.9	3,433.4	3,287.6	3,249.7	7.8	10.2	170.55	-2,129.3	209.5	2,191.3	2,176.0	15.36	142.663		
3,500.0	3,488.5	3,341.6	3,302.4	7.9	10.5	170.28	-2,132.1	220.4	2,196.0	2,180.4	15.65	140.296		
3,543.3	3,531.8	3,383.9	3,343.8	8.0	10.7	170.07	-2,134.2	228.9	2,199.8	2,183.9	15.88	138.492		
3,600.0	3,588.5	3,439.4	3,398.1	8.1	10.9	169.79	-2,137.1	240.1	2,204.7	2,188.6	16.19	136.201		
3,641.7	3,630.3	3,480.2	3,438.0	8.2	11.1	169.59	-2,139.2	248.3	2,208.4	2,192.0	16.41	134.564		
3,700.0	3,688.5	3,537.2	3,493.8	8.3	11.4	169.31	-2,142.1	259.8	2,213.6	2,196.9	16.73	132.344		
3,740.1	3,728.7	3,576.5	3,532.2	8.4	11.5	169.12	-2,144.1	267.7	2,217.2	2,200.2	16.94	130.859		
3,800.0	3,788.5	3,635.0	3,589.4	8.5	11.8	168.84	-2,147.1	279.5	2,222.6	2,205.3	17.27	128.707		
3,838.6	3,827.1	3,672.7	3,626.3	8.6	12.0	168.65	-2,149.0	287.1	2,226.1	2,208.6	17.48	127.359		
3,900.0	3,888.5	3,732.8	3,685.1	8.7	12.3	168.36	-2,152.1	299.2	2,231.8	2,214.0	17.82	125.273		
3,937.0	3,925.5	3,769.0	3,720.5	8.8	12.4	168.19	-2,154.0	306.5	2,235.2	2,217.2	18.02	124.051		
4,000.0	3,988.5	3,830.6	3,780.8	9.0	12.7	167.89	-2,157.1	318.9	2,241.1	2,222.7	18.37	122.026		
4,035.4	4,024.0	3,865.3	3,814.7	9.0	12.9	167.73	-2,158.9	325.9	2,244.4	2,225.9	18.56	120.918		
4,100.0	4,088.5	3,928.4	3,876.5	9.2	13.1	167.43	-2,162.1	338.6	2,250.6	2,231.7	18.92	118.953		
4,133.8	4,122.4	3,961.6	3,908.9	9.2	13.3	167.27	-2,163.8	345.3	2,253.8	2,234.7	19.11	117.949		
4,200.0	4,188.5	4,026.3	3,972.1	9.4	13.6	166.96	-2,167.2	358.3	2,260.2	2,240.7	19.48	116.040		
4,232.3	4,220.8	4,057.8	4,003.0	9.4	13.7	166.82	-2,168.8	364.7	2,263.4	2,243.7	19.66	115.132		
4,300.0	4,288.5	4,124.1	4,067.8	9.6	14.0	166.51	-2,172.2	378.0	2,270.0	2,250.0	20.04	113.277		
4,330.7	4,319.2	4,170.9	4,113.7	9.7	14.2	166.30	-2,174.5	387.2	2,272.9	2,252.7	20.25	112.228		
4,400.0	4,388.5	4,280.9	4,222.0	9.8	14.6	165.87	-2,179.2	405.7	2,278.7	2,258.0	20.70	110.062		
4,429.1	4,417.7	4,327.6	4,268.2	9.9	14.7	165.72	-2,180.9	412.3	2,280.7	2,259.9	20.88	109.219		
4,500.0	4,488.5	4,442.0	4,381.8	10.0	15.0	165.42	-2,184.3	425.5	2,284.8	2,263.5	21.30	107.269		
4,527.5	4,516.1	4,486.8	4,426.4	10.1	15.1	165.33	-2,185.3	429.5	2,286.0	2,264.6	21.46	106.545		
4,600.0	4,588.5	4,604.9	4,544.3	10.2	15.3	165.16	-2,187.1	436.7	2,288.3	2,266.4	21.84	104.755		
4,626.0	4,614.5	4,647.4	4,586.7	10.3	15.4	165.13	-2,187.5	438.1	2,288.7	2,266.7	21.97	104.157		
4,700.0	4,688.5	4,752.2	4,691.5	10.5	15.5	165.11	-2,187.7	439.2	2,289.0	2,266.7	22.31	102.601		
4,724.4	4,712.9	4,776.6	4,715.9	10.5	15.5	165.11	-2,187.7	439.2	2,289.0	2,266.6	22.40	102.168		
4,800.0	4,788.5	4,852.2	4,791.5	10.7	15.6	165.11	-2,187.7	439.2	2,289.0	2,266.3	22.70	100.840		
4,822.8	4,811.4	4,875.0	4,814.4	10.7	15.7	165.11	-2,187.7	439.2	2,289.0	2,266.2	22.79	100.444		
4,900.0	4,888.5	4,952.2	4,891.5	10.9	15.8	165.11	-2,187.7	439.2	2,289.0	2,265.9	23.09	99.125		
4,921.2	4,909.8	4,973.5	4,912.8	10.9	15.8	165.11	-2,187.7	439.2	2,289.0	2,265.9	23.18	98.767		
5,000.0	4,988.5	5,052.2	4,991.5	11.1	15.9	165.11	-2,187.7	439.2	2,289.0	2,265.5	23.49	97.460		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBORE - P												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	
5,019.7	5,008.2	5,071.9	5,011.2	11.1	16.0	165.11	-2,187.7	439.2	2,289.0	2,265.5	23.56	97.138	
5,100.0	5,088.5	5,152.2	5,091.5	11.3	16.1	165.11	-2,187.7	439.2	2,289.0	2,265.1	23.88	95.842	
5,118.1	5,106.6	5,170.3	5,109.6	11.4	16.1	165.11	-2,187.7	439.2	2,289.0	2,265.1	23.96	95.555	
5,200.0	5,188.5	5,252.2	5,191.5	11.5	16.2	165.11	-2,187.7	439.2	2,289.0	2,264.7	24.28	94.271	
5,216.5	5,205.1	5,268.7	5,208.1	11.6	16.2	165.11	-2,187.7	439.2	2,289.0	2,264.7	24.35	94.016	
5,300.0	5,288.5	5,352.2	5,291.5	11.8	16.4	165.11	-2,187.7	439.2	2,289.0	2,264.3	24.68	92.745	
5,314.9	5,303.5	5,367.2	5,306.5	11.8	16.4	165.11	-2,187.7	439.2	2,289.0	2,264.3	24.74	92.521	
5,400.0	5,388.5	5,452.2	5,391.5	12.0	16.5	165.11	-2,187.7	439.2	2,289.0	2,263.9	25.08	91.262	
5,413.4	5,401.9	5,465.6	5,404.9	12.0	16.5	165.11	-2,187.7	439.2	2,289.0	2,263.9	25.14	91.067	
5,500.0	5,488.5	5,552.2	5,491.5	12.2	16.7	165.11	-2,187.7	439.2	2,289.0	2,263.5	25.48	89.820	
5,511.8	5,500.3	5,564.0	5,503.3	12.2	16.7	165.11	-2,187.7	439.2	2,289.0	2,263.5	25.53	89.653	
5,600.0	5,588.5	5,652.2	5,591.5	12.4	16.8	165.11	-2,187.7	439.2	2,289.0	2,263.1	25.89	88.419	
5,610.2	5,598.8	5,662.4	5,601.8	12.4	16.8	165.11	-2,187.7	439.2	2,289.0	2,263.1	25.93	88.277	
5,700.0	5,688.5	5,752.2	5,691.5	12.6	17.0	165.11	-2,187.7	439.2	2,289.0	2,262.7	26.29	87.055	
5,708.6	5,697.2	5,760.9	5,700.2	12.6	17.0	165.11	-2,187.7	439.2	2,289.0	2,262.7	26.33	86.939	
5,800.0	5,788.5	5,852.2	5,791.5	12.8	17.1	165.11	-2,187.7	439.2	2,289.0	2,262.3	26.70	85.730	
5,807.1	5,795.6	5,859.3	5,798.6	12.9	17.1	165.11	-2,187.7	439.2	2,289.0	2,262.3	26.73	85.637	
5,900.0	5,888.5	5,952.2	5,891.5	13.1	17.3	165.11	-2,187.7	439.2	2,289.0	2,261.9	27.11	84.440	
5,905.5	5,894.0	5,957.7	5,897.0	13.1	17.3	165.11	-2,187.7	439.2	2,289.0	2,261.9	27.13	84.370	
6,000.0	5,988.5	6,052.2	5,991.5	13.3	17.4	165.11	-2,187.7	439.2	2,289.0	2,261.5	27.52	83.185	
6,003.9	5,992.5	6,056.1	5,995.5	13.3	17.5	165.11	-2,187.7	439.2	2,289.0	2,261.5	27.53	83.136	
6,085.3	6,073.8	6,142.1	6,081.4	13.5	17.6	165.11	-2,187.7	439.2	2,289.0	2,261.2	27.87	82.118	
6,100.0	6,088.5	6,224.2	6,163.3	13.5	17.7	-104.80	-2,187.7	433.8	2,288.8	2,258.6	30.22	75.746	
6,102.3	6,090.9	6,237.2	6,176.2	13.5	17.7	-104.77	-2,187.7	432.1	2,288.8	2,258.5	30.23	75.711	
6,150.0	6,138.4	6,482.8	6,408.8	13.6	17.5	-103.50	-2,187.7	357.1	2,285.7	2,255.4	30.28	75.496	
6,200.0	6,188.0	6,688.2	6,574.6	13.7	17.3	-101.53	-2,187.7	237.0	2,279.7	2,249.3	30.41	74.972	
6,200.8	6,188.8	6,691.0	6,576.5	13.7	17.3	-101.50	-2,187.7	235.1	2,279.6	2,249.1	30.41	74.956	
6,250.0	6,237.1	6,841.8	6,672.5	13.9	17.6	-99.70	-2,187.7	119.1	2,272.2	2,241.2	30.99	73.319	
6,299.2	6,284.6	6,956.1	6,727.9	14.0	18.3	-98.25	-2,187.7	19.3	2,264.4	2,232.5	31.91	70.969	
6,300.0	6,285.3	6,957.7	6,728.5	14.0	18.3	-98.23	-2,187.7	17.8	2,264.3	2,232.3	31.92	70.926	
6,350.0	6,332.5	7,048.6	6,760.6	14.2	19.1	-97.08	-2,187.7	-67.3	2,256.4	2,223.4	33.01	68.345	
6,397.6	6,376.3	7,119.7	6,778.0	14.4	19.9	-96.21	-2,187.7	-136.2	2,249.2	2,215.1	34.11	65.931	
6,400.0	6,378.5	7,123.0	6,778.6	14.4	20.0	-96.18	-2,187.7	-139.3	2,248.9	2,214.7	34.17	65.816	
6,450.0	6,423.0	7,186.0	6,788.0	14.7	20.8	-95.42	-2,187.7	-201.7	2,241.9	2,206.6	35.32	63.474	
6,496.0	6,462.4	7,237.0	6,791.6	14.9	21.6	-94.81	-2,187.7	-252.5	2,236.1	2,199.7	36.38	61.465	
6,500.0	6,465.7	7,241.2	6,791.7	14.9	21.7	-94.77	-2,187.7	-256.7	2,235.6	2,199.1	36.47	61.303	
6,550.0	6,506.6	7,279.9	6,792.0	15.2	22.3	-94.39	-2,187.7	-295.4	2,230.1	2,192.7	37.43	59.580	
6,594.5	6,541.2	7,307.7	6,791.9	15.6	22.8	-94.17	-2,187.7	-323.2	2,226.0	2,187.7	38.24	58.208	
6,600.0	6,545.3	7,311.4	6,791.9	15.6	22.9	-94.13	-2,187.7	-326.9	2,225.5	2,187.2	38.35	58.033	
6,650.0	6,581.8	7,345.5	6,791.8	16.0	23.5	-93.79	-2,187.7	-361.0	2,221.8	2,182.4	39.40	56.386	
6,692.9	6,611.1	7,376.7	6,791.7	16.4	24.0	-93.44	-2,187.7	-392.2	2,219.3	2,178.9	40.40	54.932	
6,700.0	6,615.8	7,382.0	6,791.7	16.5	24.1	-93.38	-2,187.7	-397.5	2,218.9	2,178.3	40.57	54.696	
6,750.0	6,647.1	7,420.9	6,791.6	17.1	24.9	-92.92	-2,187.7	-436.4	2,216.7	2,174.8	41.88	52.932	
6,791.3	6,670.9	7,454.6	6,791.5	17.6	25.6	-92.53	-2,187.7	-470.1	2,215.3	2,172.2	43.08	51.427	
6,800.0	6,675.7	7,461.9	6,791.5	17.7	25.7	-92.45	-2,187.7	-477.4	2,215.0	2,171.7	43.33	51.119	
6,850.0	6,701.3	7,504.7	6,791.4	18.4	26.6	-91.97	-2,187.7	-520.2	2,213.9	2,169.0	44.90	49.308	
6,889.7	6,719.5	7,540.0	6,791.3	19.0	27.3	-91.60	-2,187.7	-555.5	2,213.2	2,166.9	46.27	47.836	
6,900.0	6,723.8	7,549.3	6,791.2	19.1	27.5	-91.51	-2,187.7	-564.8	2,213.1	2,166.5	46.62	47.468	
6,950.0	6,743.2	7,595.3	6,791.1	20.0	28.5	-91.09	-2,187.7	-610.8	2,212.6	2,164.2	48.44	45.674	
6,988.2	6,755.8	7,631.3	6,791.0	20.6	29.3	-90.79	-2,187.7	-646.8	2,212.4	2,162.4	49.93	44.307	
7,000.0	6,759.4	7,642.6	6,791.0	20.9	29.5	-90.71	-2,187.7	-658.1	2,212.3	2,161.9	50.40	43.896	
7,050.0	6,772.1	7,690.9	6,790.9	21.8	30.6	-90.40	-2,187.7	-706.4	2,212.2	2,159.8	52.44	42.188	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
7,086.6	6,779.4	7,726.7	6,790.8	22.5	31.5	-90.21	-2,187.7	-742.2	2,212.2	2,158.2	54.00	40.967	
7,100.0	6,781.5	7,740.0	6,790.7	22.8	31.8	-90.16	-2,187.7	-755.5	2,212.1	2,157.6	54.58	40.534	
7,150.0	6,787.5	7,789.6	6,790.6	23.9	32.9	-90.00	-2,187.7	-805.1	2,212.1	2,155.4	56.77	38.964	
7,154.1	6,787.8	7,793.7	6,790.6	23.9	33.0	-89.99	-2,187.7	-809.2	2,212.1	2,155.2	56.96	38.838	
7,185.0	6,789.6	7,824.5	6,790.5	24.6	33.8	-89.95	-2,187.7	-840.0	2,212.1	2,153.8	58.36	37.907	
7,200.0	6,789.9	7,839.5	6,790.5	24.9	34.1	-89.94	-2,187.7	-855.0	2,212.1	2,153.1	59.04	37.470	
7,213.0	6,790.0	7,852.5	6,790.4	25.2	34.4	-89.93	-2,187.7	-868.0	2,212.1	2,152.5	59.63	37.096	
7,283.4	6,789.7	7,922.9	6,790.3	26.8	36.1	-89.94	-2,187.7	-938.4	2,212.1	2,149.2	62.91	35.163	
7,300.0	6,789.7	7,939.5	6,790.2	27.2	36.5	-89.94	-2,187.7	-955.0	2,212.1	2,148.5	63.69	34.735	
7,381.9	6,789.4	8,021.4	6,790.0	29.1	38.6	-89.94	-2,187.7	-1,036.9	2,212.1	2,144.5	67.61	32.718	
7,400.0	6,789.3	8,039.5	6,789.9	29.5	39.0	-89.94	-2,187.7	-1,055.0	2,212.1	2,143.7	68.49	32.300	
7,480.3	6,789.0	8,119.8	6,789.7	31.4	41.0	-89.94	-2,187.7	-1,135.3	2,212.1	2,139.7	72.43	30.540	
7,500.0	6,788.9	8,139.5	6,789.7	31.9	41.5	-89.94	-2,187.7	-1,155.0	2,212.1	2,138.7	73.41	30.135	
7,578.7	6,788.6	8,218.2	6,789.5	33.8	43.5	-89.94	-2,187.7	-1,233.7	2,212.1	2,134.8	77.35	28.597	
7,600.0	6,788.5	8,239.5	6,789.4	34.4	44.1	-89.95	-2,187.7	-1,255.0	2,212.1	2,133.7	78.43	28.206	
7,677.1	6,788.2	8,316.6	6,789.2	36.3	46.1	-89.95	-2,187.7	-1,332.1	2,212.1	2,129.8	82.36	26.861	
7,700.0	6,788.2	8,339.5	6,789.2	36.9	46.7	-89.95	-2,187.7	-1,355.0	2,212.1	2,128.6	83.52	26.485	
7,775.6	6,787.9	8,415.1	6,789.0	38.8	48.6	-89.95	-2,187.7	-1,430.6	2,212.1	2,124.7	87.42	25.304	
7,800.0	6,787.8	8,439.5	6,788.9	39.4	49.3	-89.95	-2,187.7	-1,455.0	2,212.1	2,123.4	88.69	24.943	
7,874.0	6,787.5	8,513.5	6,788.7	41.3	51.2	-89.95	-2,187.7	-1,529.0	2,212.1	2,119.6	92.54	23.904	
7,900.0	6,787.4	8,539.5	6,788.6	42.0	51.9	-89.95	-2,187.7	-1,555.0	2,212.1	2,118.2	93.90	23.558	
7,972.4	6,787.1	8,611.9	6,788.4	43.9	53.8	-89.96	-2,187.7	-1,627.4	2,212.1	2,114.4	97.71	22.640	
8,000.0	6,787.0	8,639.5	6,788.4	44.6	54.5	-89.96	-2,187.7	-1,655.0	2,212.1	2,113.0	99.16	22.308	
8,070.8	6,786.7	8,710.3	6,788.2	46.5	56.4	-89.96	-2,187.7	-1,725.8	2,212.1	2,109.2	102.92	21.494	
8,100.0	6,786.6	8,739.5	6,788.1	47.3	57.2	-89.96	-2,187.7	-1,755.0	2,212.1	2,107.7	104.46	21.176	
8,169.3	6,786.4	8,808.8	6,787.9	49.1	59.1	-89.96	-2,187.7	-1,824.3	2,212.1	2,104.0	108.16	20.453	
8,200.0	6,786.3	8,839.5	6,787.8	49.9	59.9	-89.96	-2,187.7	-1,855.0	2,212.1	2,102.3	109.80	20.148	
8,267.7	6,786.0	8,907.2	6,787.7	51.7	61.7	-89.97	-2,187.7	-1,922.7	2,212.1	2,098.7	113.42	19.503	
8,300.0	6,785.9	8,939.5	6,787.6	52.6	62.6	-89.97	-2,187.7	-1,955.0	2,212.1	2,097.0	115.16	19.210	
8,366.1	6,785.6	9,005.6	6,787.4	54.4	64.3	-89.97	-2,187.7	-2,021.1	2,212.1	2,093.4	118.71	18.634	
8,400.0	6,785.5	9,039.5	6,787.3	55.3	65.3	-89.97	-2,187.7	-2,055.0	2,212.1	2,091.6	120.54	18.352	
8,464.5	6,785.2	9,104.0	6,787.1	57.0	67.0	-89.97	-2,187.7	-2,119.5	2,212.1	2,088.1	124.03	17.836	
8,500.0	6,785.1	9,139.5	6,787.0	58.0	68.0	-89.97	-2,187.7	-2,155.0	2,212.1	2,086.2	125.94	17.564	
8,563.0	6,784.9	9,202.5	6,786.9	59.7	69.7	-89.97	-2,187.7	-2,218.0	2,212.1	2,082.8	129.36	17.101	
8,600.0	6,784.7	9,239.5	6,786.8	60.7	70.7	-89.98	-2,187.7	-2,255.0	2,212.1	2,080.8	131.37	16.839	
8,661.4	6,784.5	9,300.9	6,786.6	62.4	72.4	-89.98	-2,187.7	-2,316.4	2,212.1	2,077.4	134.71	16.422	
8,700.0	6,784.3	9,339.5	6,786.5	63.4	73.4	-89.98	-2,187.7	-2,355.0	2,212.1	2,075.3	136.81	16.170	
8,759.8	6,784.1	9,399.3	6,786.4	65.0	75.0	-89.98	-2,187.7	-2,414.8	2,212.1	2,072.1	140.07	15.793	
8,800.0	6,784.0	9,439.5	6,786.3	66.1	76.1	-89.98	-2,187.7	-2,455.0	2,212.1	2,069.9	142.26	15.550	
8,858.2	6,783.7	9,497.7	6,786.1	67.7	77.7	-89.98	-2,187.7	-2,513.2	2,212.1	2,066.7	145.44	15.209	
8,900.0	6,783.6	9,539.5	6,786.0	68.9	78.9	-89.99	-2,187.7	-2,555.0	2,212.1	2,064.4	147.73	14.974	
8,956.7	6,783.3	9,596.2	6,785.8	70.4	80.4	-89.99	-2,187.7	-2,611.7	2,212.1	2,061.3	150.83	14.666	
9,000.0	6,783.2	9,639.5	6,785.7	71.6	81.6	-89.99	-2,187.7	-2,655.0	2,212.1	2,058.9	153.20	14.439	
9,055.1	6,783.0	9,694.6	6,785.6	73.1	83.1	-89.99	-2,187.7	-2,710.1	2,212.1	2,055.9	156.23	14.160	
9,100.0	6,782.8	9,739.5	6,785.5	74.3	84.4	-89.99	-2,187.7	-2,755.0	2,212.1	2,053.4	158.69	13.940	
9,153.5	6,782.6	9,793.0	6,785.3	75.8	85.8	-89.99	-2,187.7	-2,808.5	2,212.1	2,050.5	161.63	13.686	
9,200.0	6,782.4	9,839.5	6,785.2	77.1	87.1	-89.99	-2,187.7	-2,855.0	2,212.1	2,047.9	164.19	13.473	
9,251.9	6,782.2	9,891.4	6,785.1	78.5	88.5	-90.00	-2,187.7	-2,906.9	2,212.1	2,045.1	167.05	13.242	
9,300.0	6,782.0	9,939.5	6,784.9	79.8	89.9	-90.00	-2,187.7	-2,955.0	2,212.1	2,042.4	169.69	13.036	
9,350.4	6,781.8	9,989.9	6,784.8	81.2	91.2	-90.00	-2,187.7	-3,005.4	2,212.1	2,039.7	172.47	12.826	
9,400.0	6,781.6	10,039.5	6,784.7	82.6	92.6	-90.00	-2,187.7	-3,055.0	2,212.1	2,036.9	175.21	12.626	
9,448.8	6,781.4	10,088.3	6,784.5	83.9	94.0	-90.00	-2,187.7	-3,103.8	2,212.1	2,034.2	177.90	12.435	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBORE - P													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	6,781.2	10,139.5	6,784.4	85.4	95.4	-90.00	-2,187.7	-3,155.0	2,212.1	2,031.4	180.72	12.240		
9,547.2	6,781.0	10,186.7	6,784.3	86.7	96.7	-90.01	-2,187.7	-3,202.2	2,212.1	2,028.8	183.33	12.066		
9,600.0	6,780.8	10,239.5	6,784.1	88.1	98.1	-90.01	-2,187.7	-3,255.0	2,212.1	2,025.9	186.25	11.877		
9,645.6	6,780.7	10,285.1	6,784.0	89.4	99.4	-90.01	-2,187.7	-3,300.6	2,212.1	2,023.3	188.77	11.718		
9,700.0	6,780.5	10,339.5	6,783.9	90.9	100.9	-90.01	-2,187.7	-3,355.0	2,212.1	2,020.3	191.78	11.535		
9,744.1	6,780.3	10,383.6	6,783.8	92.1	102.1	-90.01	-2,187.7	-3,399.1	2,212.1	2,017.9	194.22	11.390		
9,800.0	6,780.1	10,439.5	6,783.6	93.7	103.7	-90.01	-2,187.7	-3,455.0	2,212.1	2,014.8	197.32	11.211		
9,842.5	6,779.9	10,482.0	6,783.5	94.8	104.8	-90.02	-2,187.7	-3,497.5	2,212.1	2,012.4	199.67	11.079		
9,900.0	6,779.7	10,539.5	6,783.4	96.4	106.4	-90.02	-2,187.7	-3,555.0	2,212.1	2,009.3	202.86	10.905		
9,940.9	6,779.5	10,580.4	6,783.2	97.6	107.6	-90.02	-2,187.7	-3,595.9	2,212.1	2,007.0	205.13	10.784		
10,000.0	6,779.3	10,639.5	6,783.1	99.2	109.2	-90.02	-2,187.7	-3,655.0	2,212.1	2,003.7	208.40	10.615		
10,039.3	6,779.1	10,678.8	6,783.0	100.3	110.3	-90.02	-2,187.7	-3,694.3	2,212.1	2,001.5	210.58	10.505		
10,100.0	6,778.9	10,739.5	6,782.8	102.0	112.0	-90.02	-2,187.7	-3,755.0	2,212.1	1,998.2	213.95	10.339		
10,137.8	6,778.7	10,777.3	6,782.7	103.0	113.0	-90.03	-2,187.7	-3,792.8	2,212.1	1,996.1	216.05	10.239		
10,200.0	6,778.5	10,839.5	6,782.6	104.8	114.8	-90.03	-2,187.7	-3,855.0	2,212.1	1,992.6	219.50	10.078		
10,236.2	6,778.3	10,875.7	6,782.5	105.8	115.8	-90.03	-2,187.7	-3,891.2	2,212.1	1,990.6	221.51	9.986		
10,300.0	6,778.1	10,939.5	6,782.3	107.5	117.5	-90.03	-2,187.7	-3,955.0	2,212.1	1,987.1	225.06	9.829		
10,334.6	6,778.0	10,974.1	6,782.2	108.5	118.5	-90.03	-2,187.7	-3,989.6	2,212.1	1,985.1	226.98	9.746		
10,400.0	6,777.7	11,039.5	6,782.0	110.3	120.3	-90.03	-2,187.7	-4,055.0	2,212.1	1,981.5	230.62	9.592		
10,433.0	6,777.6	11,072.5	6,782.0	111.2	121.2	-90.04	-2,187.7	-4,088.0	2,212.1	1,979.7	232.45	9.516		
10,500.0	6,777.3	11,139.5	6,781.8	113.1	123.1	-90.04	-2,187.7	-4,155.0	2,212.1	1,975.9	236.18	9.366		
10,531.5	6,777.2	11,171.0	6,781.7	114.0	124.0	-90.04	-2,187.7	-4,186.5	2,212.1	1,974.2	237.93	9.297		
10,600.0	6,776.9	11,239.5	6,781.5	115.9	125.9	-90.04	-2,187.7	-4,255.0	2,212.1	1,970.4	241.74	9.151		
10,629.9	6,776.8	11,269.4	6,781.4	116.7	126.7	-90.04	-2,187.7	-4,284.9	2,212.1	1,968.7	243.41	9.088		
10,700.0	6,776.5	11,339.5	6,781.3	118.7	128.7	-90.05	-2,187.7	-4,355.0	2,212.1	1,964.8	247.31	8.945		
10,728.3	6,776.4	11,367.8	6,781.2	119.5	129.4	-90.05	-2,187.7	-4,383.3	2,212.1	1,963.2	248.89	8.888		
10,800.0	6,776.1	11,439.5	6,781.0	121.4	131.4	-90.05	-2,187.7	-4,455.0	2,212.1	1,959.2	252.88	8.748		
10,826.7	6,776.0	11,466.3	6,780.9	122.2	132.2	-90.05	-2,187.7	-4,481.7	2,212.1	1,957.7	254.37	8.696		
10,900.0	6,775.7	11,539.5	6,780.7	124.2	134.2	-90.05	-2,187.7	-4,555.0	2,212.1	1,953.7	258.45	8.559		
10,925.2	6,775.6	11,564.7	6,780.7	124.9	134.9	-90.05	-2,187.7	-4,580.2	2,212.1	1,952.3	259.85	8.513		
11,000.0	6,775.3	11,639.5	6,780.5	127.0	137.0	-90.06	-2,187.7	-4,655.0	2,212.1	1,948.1	264.03	8.378		
11,023.6	6,775.2	11,663.1	6,780.4	127.7	137.7	-90.06	-2,187.7	-4,678.6	2,212.1	1,946.8	265.34	8.337		
11,100.0	6,774.9	11,739.5	6,780.2	129.8	139.8	-90.06	-2,187.7	-4,755.0	2,212.1	1,942.5	269.60	8.205		
11,122.0	6,774.8	11,761.5	6,780.1	130.4	140.4	-90.06	-2,187.7	-4,777.0	2,212.1	1,941.3	270.83	8.168		
11,200.0	6,774.5	11,839.5	6,779.9	132.6	142.6	-90.06	-2,187.7	-4,855.0	2,212.1	1,936.9	275.18	8.039		
11,220.4	6,774.4	11,860.0	6,779.9	133.2	143.1	-90.06	-2,187.7	-4,875.4	2,212.1	1,935.8	276.32	8.006		
11,300.0	6,774.1	11,939.5	6,779.7	135.4	145.4	-90.07	-2,187.7	-4,955.0	2,212.1	1,931.3	280.76	7.879		
11,318.9	6,774.0	11,958.4	6,779.6	135.9	145.9	-90.07	-2,187.7	-4,973.9	2,212.1	1,930.3	281.81	7.850		
11,400.0	6,773.7	12,039.5	6,779.4	138.2	148.2	-90.07	-2,187.7	-5,055.0	2,212.1	1,925.8	286.34	7.725		
11,417.3	6,773.6	12,056.8	6,779.4	138.7	148.6	-90.07	-2,187.7	-5,072.3	2,212.1	1,924.8	287.31	7.699		
11,500.0	6,773.3	12,139.5	6,779.2	141.0	150.9	-90.07	-2,187.7	-5,155.0	2,212.1	1,920.2	291.92	7.578		
11,515.7	6,773.2	12,155.2	6,779.1	141.4	151.4	-90.07	-2,187.7	-5,170.7	2,212.1	1,919.3	292.80	7.555		
11,600.0	6,772.9	12,239.5	6,778.9	143.8	153.7	-90.08	-2,187.7	-5,255.0	2,212.1	1,914.6	297.51	7.435		
11,614.1	6,772.8	12,253.7	6,778.9	144.2	154.1	-90.08	-2,187.7	-5,269.1	2,212.1	1,913.8	298.30	7.416		
11,700.0	6,772.5	12,339.5	6,778.6	146.6	156.5	-90.08	-2,187.7	-5,355.0	2,212.1	1,909.0	303.09	7.298		
11,712.6	6,772.4	12,352.1	6,778.6	146.9	156.9	-90.08	-2,187.7	-5,367.6	2,212.1	1,908.3	303.79	7.282		
11,800.0	6,772.1	12,439.5	6,778.4	149.4	159.3	-90.08	-2,187.7	-5,455.0	2,212.1	1,903.4	308.68	7.166		
11,811.0	6,772.1	12,450.5	6,778.3	149.7	159.6	-90.09	-2,187.7	-5,466.0	2,212.1	1,902.8	309.29	7.152		
11,900.0	6,771.7	12,539.5	6,778.1	152.2	162.1	-90.09	-2,187.7	-5,555.0	2,212.1	1,897.8	314.27	7.039		
11,909.4	6,771.7	12,548.9	6,778.1	152.4	162.4	-90.09	-2,187.7	-5,564.4	2,212.1	1,897.3	314.79	7.027		
12,000.0	6,771.3	12,639.5	6,777.9	154.9	164.9	-90.09	-2,187.7	-5,655.0	2,212.1	1,892.2	319.85	6.916		
12,007.8	6,771.3	12,647.4	6,777.8	155.2	165.1	-90.09	-2,187.7	-5,662.8	2,212.1	1,891.8	320.29	6.906		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17B-304 - ORIGINAL WELLBORE - P												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	6,770.9	12,739.5	6,777.6	157.7	167.7	-90.10	-2,187.7	-5,755.0	2,212.1	1,886.7	325.44	6.797	
12,106.3	6,770.9	12,745.8	6,777.6	157.9	167.9	-90.10	-2,187.7	-5,761.3	2,212.1	1,886.3	325.80	6.790	
12,200.0	6,770.5	12,839.5	6,777.3	160.5	170.5	-90.10	-2,187.7	-5,855.0	2,212.1	1,881.1	331.04	6.682	
12,204.7	6,770.5	12,844.2	6,777.3	160.7	170.6	-90.10	-2,187.7	-5,859.7	2,212.1	1,880.8	331.30	6.677	
12,300.0	6,770.1	12,939.5	6,777.1	163.3	173.3	-90.10	-2,187.7	-5,955.0	2,212.1	1,875.5	336.63	6.571	
12,303.1	6,770.1	12,942.6	6,777.1	163.4	173.4	-90.10	-2,187.7	-5,958.1	2,212.1	1,875.3	336.80	6.568	
12,316.4	6,770.0	12,955.9	6,777.0	163.8	173.7	-90.10	-2,187.7	-5,971.4	2,212.1	1,874.6	337.54	6.554 ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
0.0	0.0	3.0	3.0	0.0	0.0	-175.51	-1,945.4	-152.6	1,951.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.51	-1,945.4	-152.6	1,951.4	1,951.2	0.20	9,906.553	
100.0	100.0	103.0	103.0	0.1	0.1	-175.51	-1,945.4	-152.6	1,951.4	1,951.2	0.20	9,646.506	
196.8	196.8	199.8	199.8	0.3	0.3	-175.51	-1,945.4	-152.6	1,951.4	1,950.8	0.64	3,060.226	
200.0	200.0	203.0	203.0	0.3	0.3	-175.51	-1,945.4	-152.6	1,951.4	1,950.7	0.65	2,993.746	
295.3	295.3	298.3	298.3	0.5	0.5	-175.51	-1,945.4	-152.6	1,951.4	1,950.3	1.08	1,806.651	
300.0	300.0	303.0	303.0	0.5	0.6	-175.51	-1,945.4	-152.6	1,951.4	1,950.3	1.10	1,771.809	
393.7	393.7	396.7	396.7	0.8	0.8	-175.51	-1,945.4	-152.6	1,951.4	1,949.9	1.52	1,281.645	
400.0	400.0	403.0	403.0	0.8	0.8	-175.51	-1,945.4	-152.6	1,951.4	1,949.8	1.55	1,258.241	
492.1	492.1	495.1	495.1	1.0	1.0	-175.51	-1,945.4	-152.6	1,951.4	1,949.4	1.97	993.064	
500.0	500.0	503.0	503.0	1.0	1.0	-175.51	-1,945.4	-152.6	1,951.4	1,949.4	2.00	975.490	
590.5	590.5	593.5	593.5	1.2	1.2	-175.51	-1,945.4	-152.6	1,951.4	1,949.0	2.41	810.556	
600.0	600.0	603.0	603.0	1.2	1.2	-175.51	-1,945.4	-152.6	1,951.4	1,948.9	2.45	796.501	
689.0	689.0	692.0	692.0	1.4	1.4	-175.51	-1,945.4	-152.6	1,951.4	1,948.5	2.85	684.717	
700.0	700.0	703.0	703.0	1.4	1.5	-175.51	-1,945.4	-152.6	1,951.4	1,948.5	2.90	673.013	
787.4	787.4	790.4	790.4	1.6	1.6	-175.51	-1,945.4	-152.6	1,951.4	1,948.1	3.29	592.700	
800.0	800.0	803.0	803.0	1.7	1.7	-175.51	-1,945.4	-152.6	1,951.4	1,948.0	3.35	582.675	
885.8	885.8	888.8	888.8	1.9	1.9	-175.51	-1,945.4	-152.6	1,951.4	1,947.7	3.73	522.485	
900.0	900.0	903.0	903.0	1.9	1.9	-175.51	-1,945.4	-152.6	1,951.4	1,947.6	3.80	513.720	
984.2	984.2	987.2	987.2	2.1	2.1	-175.51	-1,945.4	-152.6	1,951.4	1,947.2	4.18	467.144	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.51	-1,945.4	-152.6	1,951.4	1,947.1	4.25	459.358	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-175.51	-1,945.4	-152.6	1,951.4	1,946.8	4.62	422.403	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-175.51	-1,945.4	-152.6	1,951.4	1,946.7	4.70	415.400	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-175.51	-1,945.4	-152.6	1,951.4	1,946.3	5.06	385.484	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-175.51	-1,945.4	-152.6	1,951.4	1,946.2	5.15	379.121	
1,279.5	1,279.5	1,325.1	1,325.1	2.7	2.8	-175.53	-1,944.6	-152.0	1,951.0	1,945.4	5.60	348.581	
1,300.0	1,300.0	1,372.3	1,372.3	2.8	3.0	-175.56	-1,943.4	-151.0	1,950.4	1,944.7	5.75	339.426	
1,377.9	1,377.9	1,551.3	1,550.7	3.0	3.4	-175.77	-1,933.0	-142.9	1,945.7	1,939.3	6.32	307.875	
1,400.0	1,400.0	1,601.6	1,600.7	3.0	3.5	-175.87	-1,928.5	-139.3	1,943.6	1,937.1	6.48	299.791	
1,476.4	1,476.4	1,773.8	1,770.9	3.2	3.9	-176.31	-1,907.9	-123.1	1,933.9	1,926.8	7.07	273.397	
1,500.0	1,500.0	1,826.4	1,822.5	3.2	4.1	-176.48	-1,900.0	-116.9	1,930.2	1,922.9	7.26	265.699	
1,574.8	1,574.8	1,943.1	1,936.4	3.4	4.5	-96.53	-1,880.0	-101.3	1,916.7	1,908.9	7.75	247.159	
1,600.0	1,600.0	1,967.5	1,960.2	3.5	4.5	-96.74	-1,875.6	-97.8	1,912.0	1,904.2	7.88	242.703	
1,673.2	1,673.1	2,038.4	2,029.2	3.6	4.8	-97.40	-1,863.0	-87.9	1,898.8	1,890.6	8.24	230.557	
1,700.0	1,699.8	2,064.2	2,054.4	3.7	4.9	-97.65	-1,858.4	-84.3	1,894.0	1,885.7	8.37	226.353	
1,771.6	1,771.2	2,133.1	2,121.5	3.8	5.2	-98.36	-1,846.1	-74.7	1,881.5	1,872.8	8.73	215.465	
1,800.0	1,799.5	2,160.3	2,147.9	3.9	5.3	-98.65	-1,841.3	-70.9	1,876.7	1,867.8	8.88	211.373	
1,870.1	1,869.0	2,227.2	2,213.1	4.0	5.5	-99.40	-1,829.3	-61.5	1,865.0	1,855.8	9.25	201.517	
1,900.0	1,898.7	2,255.6	2,240.8	4.1	5.6	-99.74	-1,824.3	-57.5	1,860.2	1,850.8	9.42	197.524	
1,968.5	1,966.4	2,320.4	2,303.9	4.3	5.9	-100.53	-1,812.7	-48.4	1,849.4	1,839.6	9.81	188.550	
2,000.0	1,997.5	2,350.1	2,332.8	4.4	6.0	-100.91	-1,807.4	-44.3	1,844.6	1,834.7	9.99	184.643	
2,066.9	2,063.2	2,412.8	2,393.9	4.6	6.3	-101.74	-1,796.2	-35.5	1,834.9	1,824.5	10.40	176.431	
2,100.1	2,095.7	2,443.7	2,424.0	4.7	6.4	-102.16	-1,790.7	-31.2	1,830.2	1,819.6	10.60	172.590	
2,165.3	2,159.5	2,504.4	2,483.1	4.9	6.7	-102.82	-1,779.9	-22.7	1,821.4	1,810.4	11.03	165.165	
2,200.0	2,193.4	2,536.6	2,514.5	5.0	6.8	-103.18	-1,774.2	-18.2	1,816.8	1,805.6	11.25	161.427	
2,224.2	2,217.1	2,559.1	2,536.4	5.1	6.9	-103.43	-1,770.2	-15.0	1,813.7	1,802.3	11.42	158.862	
2,263.8	2,255.9	2,596.0	2,572.3	5.2	7.1	-103.73	-1,763.6	-9.9	1,808.6	1,796.9	11.67	155.005	
2,300.0	2,291.5	2,629.9	2,605.3	5.3	7.2	-103.99	-1,757.5	-5.1	1,803.8	1,791.9	11.90	151.592	
2,362.2	2,352.7	2,688.4	2,662.3	5.5	7.5	-104.42	-1,747.1	3.1	1,795.6	1,783.4	12.27	146.292	
2,400.0	2,390.1	2,724.1	2,697.1	5.6	7.6	-104.67	-1,740.7	8.1	1,790.6	1,778.1	12.50	143.202	
2,460.6	2,450.1	2,781.7	2,753.2	5.7	7.9	-105.04	-1,730.5	16.2	1,782.4	1,769.5	12.87	138.500	
2,500.0	2,489.2	2,819.3	2,789.8	5.8	8.1	-105.26	-1,723.8	21.4	1,777.0	1,763.8	13.11	135.567	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
2,559.0	2,548.0	2,875.8	2,844.9	6.0	8.3	-105.57	-1,713.7	29.3	1,768.7	1,755.2	13.46	131.422	
2,600.0	2,588.8	2,915.2	2,883.2	6.1	8.5	-105.77	-1,706.7	34.8	1,762.8	1,749.1	13.70	128.657	
2,657.5	2,646.1	2,970.6	2,937.2	6.2	8.7	-106.01	-1,696.8	42.6	1,754.3	1,740.3	14.03	125.009	
2,700.0	2,688.6	3,011.7	2,977.2	6.3	8.9	-106.17	-1,689.5	48.4	1,748.0	1,733.7	14.28	122.407	
2,755.9	2,744.4	3,065.9	3,030.0	6.4	9.2	-106.35	-1,679.8	55.9	1,739.4	1,724.8	14.59	119.191	
2,800.0	2,788.5	3,108.8	3,071.8	6.5	9.4	-106.46	-1,672.2	61.9	1,732.4	1,717.6	14.84	116.740	
2,824.3	2,812.8	3,132.4	3,094.8	6.5	9.5	172.78	-1,667.9	65.3	1,728.5	1,714.2	14.36	120.377	
2,854.3	2,842.9	3,161.7	3,123.3	6.6	9.6	172.62	-1,662.7	69.4	1,723.7	1,709.2	14.52	118.714	
2,900.0	2,888.5	3,206.2	3,166.6	6.7	9.8	172.38	-1,654.8	75.6	1,716.3	1,701.6	14.76	116.262	
2,952.7	2,941.3	3,257.6	3,216.7	6.8	10.0	172.10	-1,645.6	82.8	1,707.9	1,692.9	15.05	113.465	
3,000.0	2,988.5	3,303.6	3,261.5	6.9	10.2	171.84	-1,637.4	89.2	1,700.4	1,685.1	15.31	111.059	
3,051.2	3,039.7	3,353.4	3,310.0	7.0	10.5	171.56	-1,628.5	96.2	1,692.3	1,676.7	15.59	108.545	
3,100.0	3,088.5	3,401.0	3,356.3	7.1	10.7	171.29	-1,620.1	102.9	1,684.6	1,668.7	15.86	106.238	
3,149.6	3,138.1	3,449.3	3,403.4	7.2	10.9	171.01	-1,611.4	109.6	1,676.8	1,660.7	16.13	103.976	
3,200.0	3,188.5	3,498.4	3,451.2	7.3	11.1	170.73	-1,602.7	116.5	1,669.0	1,652.6	16.40	101.763	
3,248.0	3,236.6	3,545.2	3,496.8	7.4	11.4	170.46	-1,594.4	123.0	1,661.5	1,644.8	16.66	99.725	
3,300.0	3,288.5	3,595.8	3,546.1	7.5	11.6	170.16	-1,585.3	130.1	1,653.5	1,636.5	16.94	97.599	
3,346.4	3,335.0	3,641.0	3,590.1	7.6	11.8	169.89	-1,577.3	136.5	1,646.4	1,629.2	17.19	95.762	
3,400.0	3,388.5	3,693.2	3,640.9	7.7	12.0	169.58	-1,568.0	143.8	1,638.2	1,620.7	17.48	93.719	
3,444.9	3,433.4	3,736.9	3,683.5	7.8	12.2	169.32	-1,560.2	149.9	1,631.4	1,613.6	17.72	92.062	
3,500.0	3,488.5	3,790.6	3,735.8	7.9	12.5	168.99	-1,550.6	157.4	1,623.0	1,605.0	18.01	90.096	
3,543.3	3,531.8	3,832.7	3,776.9	8.0	12.7	168.73	-1,543.1	163.3	1,616.5	1,598.3	18.25	88.601	
3,600.0	3,588.5	3,888.0	3,830.6	8.1	13.0	168.39	-1,533.2	171.0	1,608.1	1,589.5	18.55	86.708	
3,641.7	3,630.3	3,928.6	3,870.2	8.2	13.1	168.13	-1,526.0	176.7	1,601.9	1,583.1	18.77	85.358	
3,700.0	3,688.5	3,985.4	3,925.5	8.3	13.4	167.77	-1,515.9	184.7	1,593.3	1,574.2	19.07	83.534	
3,740.1	3,728.7	4,024.5	3,963.6	8.4	13.6	167.53	-1,508.9	190.1	1,587.4	1,568.1	19.28	82.316	
3,800.0	3,788.5	4,082.8	4,020.4	8.5	13.9	167.15	-1,498.5	198.3	1,578.7	1,559.1	19.60	80.558	
3,838.6	3,827.1	4,120.3	4,057.0	8.6	14.0	166.91	-1,491.8	203.6	1,573.1	1,553.3	19.80	79.458	
3,900.0	3,888.5	4,180.2	4,115.2	8.7	14.3	166.52	-1,481.1	211.9	1,564.3	1,544.2	20.12	77.761	
3,937.0	3,925.5	4,216.2	4,150.3	8.8	14.5	166.28	-1,474.7	217.0	1,559.0	1,538.7	20.31	76.770	
4,000.0	3,988.5	4,277.6	4,210.1	9.0	14.8	165.87	-1,463.8	225.6	1,550.1	1,529.5	20.63	75.131	
4,035.4	4,024.0	4,312.1	4,243.7	9.0	14.9	165.64	-1,457.6	230.4	1,545.1	1,524.3	20.81	74.237	
4,100.0	4,088.5	4,374.9	4,305.0	9.2	15.2	165.21	-1,446.4	239.2	1,536.1	1,515.0	21.14	72.655	
4,133.8	4,122.4	4,407.9	4,337.1	9.2	15.4	164.99	-1,440.5	243.8	1,531.4	1,510.1	21.31	71.849	
4,200.0	4,188.5	4,472.3	4,399.8	9.4	15.7	164.54	-1,429.0	252.9	1,522.3	1,500.7	21.65	70.320	
4,232.3	4,220.8	4,503.8	4,430.4	9.4	15.8	164.32	-1,423.4	257.3	1,517.9	1,496.1	21.81	69.595	
4,300.0	4,288.5	4,569.7	4,494.7	9.6	16.2	163.86	-1,411.7	266.5	1,508.7	1,486.6	22.15	68.116	
4,330.7	4,319.2	4,599.6	4,523.8	9.7	16.3	163.65	-1,406.4	270.7	1,504.6	1,482.3	22.30	67.464	
4,400.0	4,388.5	4,667.1	4,589.5	9.8	16.6	163.17	-1,394.3	280.1	1,495.4	1,472.7	22.65	66.034	
4,429.1	4,417.7	4,695.5	4,617.2	9.9	16.8	162.96	-1,389.3	284.1	1,491.5	1,468.8	22.79	65.449	
4,500.0	4,488.5	4,764.5	4,684.4	10.0	17.1	162.46	-1,377.0	293.8	1,482.3	1,459.1	23.14	64.064	
4,527.5	4,516.1	4,791.4	4,710.5	10.1	17.2	162.27	-1,372.2	297.5	1,478.7	1,455.4	23.27	63.541	
4,600.0	4,588.5	4,861.9	4,779.3	10.2	17.5	161.75	-1,359.6	307.4	1,469.4	1,445.7	23.62	62.200	
4,626.0	4,614.5	4,887.2	4,803.9	10.3	17.7	161.56	-1,355.1	310.9	1,466.1	1,442.3	23.75	61.733	
4,700.0	4,688.5	4,959.3	4,874.1	10.5	18.0	161.02	-1,342.2	321.0	1,456.7	1,432.6	24.10	60.435	
4,724.4	4,712.9	4,983.1	4,897.3	10.5	18.1	160.84	-1,338.0	324.4	1,453.7	1,429.4	24.22	60.018	
4,800.0	4,788.5	5,056.7	4,969.0	10.7	18.5	160.28	-1,324.9	334.7	1,444.3	1,419.7	24.58	58.760	
4,822.8	4,811.4	5,079.0	4,990.6	10.7	18.6	160.11	-1,320.9	337.8	1,441.5	1,416.8	24.69	58.390	
4,900.0	4,888.5	5,154.1	5,063.8	10.9	18.9	159.52	-1,307.5	348.3	1,432.1	1,407.1	25.05	57.172	
4,921.2	4,909.8	5,174.8	5,084.0	10.9	19.0	159.36	-1,303.8	351.2	1,429.6	1,404.4	25.15	56.845	
5,000.0	4,988.5	5,251.5	5,158.7	11.1	19.4	158.76	-1,290.1	361.9	1,420.2	1,394.7	25.51	55.663	
5,019.7	5,008.2	5,270.7	5,177.4	11.1	19.5	158.61	-1,286.7	364.6	1,417.9	1,392.3	25.61	55.376	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
5,100.0	5,088.5	5,348.9	5,253.6	11.3	19.8	157.98	-1,272.8	375.6	1,408.6	1,382.6	25.97	54.230	
5,118.1	5,106.6	5,366.5	5,270.7	11.4	19.9	157.84	-1,269.6	378.0	1,406.5	1,380.5	26.06	53.979	
5,200.0	5,188.5	5,439.9	5,342.2	11.5	20.3	157.25	-1,256.6	388.2	1,397.3	1,370.9	26.40	52.919	
5,216.5	5,205.1	5,452.9	5,354.9	11.6	20.3	157.14	-1,254.4	390.0	1,395.6	1,369.1	26.47	52.727	
5,300.0	5,288.5	5,519.0	5,419.6	11.8	20.6	156.66	-1,243.9	398.2	1,387.3	1,360.5	26.78	51.801	
5,314.9	5,303.5	5,530.9	5,431.3	11.8	20.6	156.58	-1,242.2	399.6	1,385.9	1,359.1	26.83	51.648	
5,400.0	5,388.5	5,600.0	5,499.4	12.0	20.8	156.14	-1,232.7	407.1	1,378.8	1,351.7	27.14	50.801	
5,413.4	5,401.9	5,609.7	5,508.9	12.0	20.9	156.08	-1,231.5	408.0	1,377.8	1,350.6	27.19	50.679	
5,500.0	5,488.5	5,679.6	5,578.1	12.2	21.0	155.70	-1,223.3	414.4	1,371.8	1,344.3	27.49	49.897	
5,511.8	5,500.3	5,689.1	5,587.5	12.2	21.1	155.65	-1,222.3	415.2	1,371.1	1,343.5	27.54	49.793	
5,600.0	5,588.5	5,760.9	5,658.7	12.4	21.3	155.33	-1,215.6	420.5	1,366.2	1,338.4	27.84	49.066	
5,610.2	5,598.8	5,769.2	5,667.0	12.4	21.3	155.30	-1,214.9	421.0	1,365.7	1,337.8	27.88	48.985	
5,700.0	5,688.5	5,842.7	5,740.2	12.6	21.4	155.05	-1,209.6	425.2	1,362.0	1,333.8	28.19	48.308	
5,708.6	5,697.2	5,849.8	5,747.3	12.6	21.4	155.03	-1,209.2	425.5	1,361.7	1,333.4	28.22	48.246	
5,800.0	5,788.5	5,924.8	5,822.2	12.8	21.6	154.85	-1,205.4	428.4	1,359.0	1,330.5	28.54	47.619	
5,807.1	5,795.6	5,930.7	5,828.0	12.9	21.6	154.84	-1,205.2	428.6	1,358.9	1,330.3	28.56	47.573	
5,900.0	5,888.5	6,007.2	5,904.5	13.1	21.7	154.74	-1,203.1	430.3	1,357.4	1,328.6	28.89	46.994	
5,905.5	5,894.0	6,011.8	5,909.1	13.1	21.7	154.73	-1,203.1	430.3	1,357.4	1,328.5	28.90	46.962	
6,000.0	5,988.5	6,094.3	5,991.5	13.3	21.8	154.71	-1,202.6	430.7	1,357.1	1,327.8	29.24	46.414	
6,003.9	5,992.5	6,098.2	5,995.5	13.3	21.8	154.71	-1,202.6	430.7	1,357.1	1,327.8	29.25	46.391	
6,085.3	6,073.8	6,482.2	6,361.4	13.5	21.6	158.66	-1,202.6	330.3	1,347.7	1,317.2	30.52	44.152	
6,100.0	6,088.5	6,537.0	6,407.4	13.5	21.5	-110.39	-1,202.6	300.6	1,344.5	1,311.4	33.13	40.582	
6,102.3	6,090.9	6,545.3	6,414.2	13.5	21.5	-110.24	-1,202.6	295.7	1,344.0	1,310.9	33.10	40.601	
6,150.0	6,138.4	6,692.0	6,523.7	13.6	21.2	-107.36	-1,202.6	198.5	1,332.1	1,299.5	32.65	40.802	
6,200.0	6,188.0	6,809.7	6,595.7	13.7	20.9	-104.84	-1,202.6	105.6	1,318.7	1,286.2	32.55	40.519	
6,200.8	6,188.8	6,811.3	6,596.6	13.7	20.9	-104.80	-1,202.6	104.3	1,318.5	1,286.0	32.55	40.510	
6,250.0	6,237.1	6,902.2	6,641.1	13.9	20.7	-102.83	-1,202.6	25.1	1,305.3	1,272.5	32.78	39.819	
6,299.2	6,284.6	6,976.7	6,669.9	14.0	20.6	-101.23	-1,202.6	-43.5	1,292.5	1,259.3	33.26	38.866	
6,300.0	6,285.3	6,977.8	6,670.2	14.0	20.6	-101.21	-1,202.6	-44.6	1,292.3	1,259.0	33.26	38.850	
6,350.0	6,332.5	7,041.8	6,689.1	14.2	20.6	-99.86	-1,202.6	-105.8	1,280.2	1,246.3	33.90	37.770	
6,397.6	6,376.3	7,095.3	6,700.5	14.4	20.6	-98.73	-1,202.6	-158.0	1,269.7	1,235.1	34.60	36.698	
6,400.0	6,378.5	7,097.8	6,701.0	14.4	20.6	-98.67	-1,202.6	-160.4	1,269.2	1,234.6	34.63	36.646	
6,450.0	6,423.0	7,147.9	6,708.0	14.7	20.9	-97.59	-1,202.6	-210.1	1,259.4	1,223.9	35.45	35.523	
6,496.0	6,462.4	7,190.2	6,711.2	14.9	21.3	-96.65	-1,202.6	-252.2	1,251.5	1,215.2	36.27	34.506	
6,500.0	6,465.7	7,193.7	6,711.4	14.9	21.4	-96.57	-1,202.6	-255.7	1,250.8	1,214.5	36.34	34.423	
6,550.0	6,506.6	7,232.8	6,712.0	15.2	21.9	-95.69	-1,202.6	-294.8	1,243.6	1,206.4	37.22	33.409	
6,594.5	6,541.2	7,260.7	6,712.0	15.6	22.4	-95.09	-1,202.6	-322.7	1,238.4	1,200.4	38.00	32.594	
6,600.0	6,545.3	7,264.3	6,712.0	15.6	22.4	-95.01	-1,202.6	-326.3	1,237.9	1,199.8	38.10	32.493	
6,650.0	6,581.8	7,298.5	6,711.9	16.0	23.0	-94.20	-1,202.6	-360.5	1,233.6	1,194.5	39.08	31.567	
6,692.9	6,611.1	7,329.8	6,711.9	16.4	23.6	-93.42	-1,202.6	-391.8	1,230.9	1,190.8	40.06	30.725	
6,700.0	6,615.8	7,335.2	6,711.9	16.5	23.7	-93.28	-1,202.6	-397.2	1,230.5	1,190.3	40.23	30.589	
6,750.0	6,647.1	7,374.1	6,711.9	17.1	24.4	-92.31	-1,202.6	-436.1	1,228.6	1,187.1	41.49	29.611	
6,791.3	6,670.9	7,407.8	6,711.8	17.6	25.1	-91.48	-1,202.6	-469.8	1,227.6	1,185.0	42.63	28.796	
6,800.0	6,675.7	7,415.1	6,711.8	17.7	25.2	-91.30	-1,202.6	-477.1	1,227.5	1,184.6	42.88	28.624	
6,850.0	6,701.3	7,458.0	6,711.8	18.4	26.1	-90.31	-1,202.6	-520.0	1,227.0	1,182.6	44.42	27.621	
6,865.9	6,708.8	7,472.0	6,711.8	18.6	26.4	-90.00	-1,202.6	-534.0	1,227.0	1,182.1	44.94	27.302 CC	
6,889.7	6,719.5	7,493.3	6,711.8	19.0	26.9	-89.55	-1,202.6	-555.3	1,227.1	1,181.3	45.72	26.837	
6,900.0	6,723.8	7,502.6	6,711.8	19.1	27.1	-89.36	-1,202.6	-564.6	1,227.1	1,181.0	46.06	26.639	
6,950.0	6,743.2	7,548.6	6,711.7	20.0	28.1	-88.49	-1,202.6	-610.7	1,227.5	1,179.7	47.85	25.654	
6,988.2	6,755.8	7,584.7	6,711.7	20.6	28.9	-87.91	-1,202.6	-646.7	1,227.9	1,178.6	49.27	24.920	
7,000.0	6,759.4	7,595.9	6,711.7	20.9	29.1	-87.74	-1,202.6	-658.0	1,228.1	1,178.3	49.72	24.701	
7,050.0	6,772.1	7,644.3	6,711.6	21.8	30.2	-87.11	-1,202.6	-706.3	1,228.7	1,177.0	51.71	23.763	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
7,086.6	6,779.4	7,680.1	6,711.6	22.5	31.0	-86.75	-1,202.6	-742.1	1,229.1	1,175.8	53.21	23.097	
7,100.0	6,781.5	7,693.4	6,711.6	22.8	31.3	-86.64	-1,202.6	-755.4	1,229.2	1,175.4	53.77	22.862	
7,150.0	6,787.5	7,743.0	6,711.6	23.9	32.5	-86.33	-1,202.6	-805.0	1,229.6	1,173.6	55.92	21.987	
7,185.0	6,789.6	7,777.9	6,711.5	24.6	33.3	-86.22	-1,202.6	-840.0	1,229.7	1,172.2	57.47	21.398	
7,200.0	6,789.9	7,792.9	6,711.5	24.9	33.7	-86.20	-1,202.6	-854.9	1,229.7	1,171.6	58.13	21.154	
7,213.0	6,790.0	7,805.9	6,711.5	25.2	34.0	-86.20	-1,202.6	-867.9	1,229.7	1,171.0	58.72	20.943	
7,283.4	6,789.7	7,876.4	6,711.5	26.8	35.7	-86.21	-1,202.6	-938.4	1,229.7	1,167.7	61.98	19.839	
7,300.0	6,789.7	7,892.9	6,711.4	27.2	36.1	-86.21	-1,202.6	-954.9	1,229.7	1,167.0	62.75	19.597	
7,381.9	6,789.4	7,974.8	6,711.4	29.1	38.1	-86.22	-1,202.6	-1,036.8	1,229.7	1,163.0	66.66	18.447	
7,400.0	6,789.3	7,992.9	6,711.4	29.5	38.6	-86.23	-1,202.6	-1,054.9	1,229.7	1,162.2	67.53	18.210	
7,480.3	6,789.0	8,073.2	6,711.3	31.4	40.6	-86.24	-1,202.6	-1,135.2	1,229.7	1,158.2	71.46	17.207	
7,500.0	6,788.9	8,092.9	6,711.3	31.9	41.1	-86.24	-1,202.6	-1,154.9	1,229.7	1,157.2	72.43	16.977	
7,578.7	6,788.6	8,171.6	6,711.2	33.8	43.1	-86.25	-1,202.6	-1,233.6	1,229.6	1,153.3	76.36	16.102	
7,600.0	6,788.5	8,192.9	6,711.2	34.4	43.6	-86.25	-1,202.6	-1,254.9	1,229.6	1,152.2	77.43	15.881	
7,677.1	6,788.2	8,270.1	6,711.1	36.3	45.6	-86.26	-1,202.6	-1,332.1	1,229.6	1,148.3	81.35	15.116	
7,700.0	6,788.2	8,292.9	6,711.1	36.9	46.2	-86.27	-1,202.6	-1,354.9	1,229.6	1,147.1	82.51	14.903	
7,775.6	6,787.9	8,368.5	6,711.0	38.8	48.1	-86.28	-1,202.6	-1,430.5	1,229.6	1,143.2	86.40	14.232	
7,800.0	6,787.8	8,392.9	6,711.0	39.4	48.8	-86.28	-1,202.6	-1,454.9	1,229.6	1,141.9	87.66	14.027	
7,874.0	6,787.5	8,466.9	6,710.9	41.3	50.7	-86.29	-1,202.6	-1,528.9	1,229.6	1,138.1	91.51	13.437	
7,900.0	6,787.4	8,492.9	6,710.9	42.0	51.4	-86.29	-1,202.6	-1,554.9	1,229.6	1,136.7	92.86	13.241	
7,972.4	6,787.1	8,565.3	6,710.9	43.9	53.3	-86.30	-1,202.6	-1,627.3	1,229.6	1,132.9	96.66	12.721	
8,000.0	6,787.0	8,592.9	6,710.8	44.6	54.0	-86.31	-1,202.6	-1,654.9	1,229.6	1,131.5	98.11	12.533	
8,070.8	6,786.7	8,663.8	6,710.8	46.5	55.9	-86.32	-1,202.6	-1,725.8	1,229.6	1,127.7	101.85	12.072	
8,100.0	6,786.6	8,692.9	6,710.8	47.3	56.7	-86.32	-1,202.6	-1,754.9	1,229.5	1,126.2	103.39	11.892	
8,169.3	6,786.4	8,762.2	6,710.7	49.1	58.5	-86.33	-1,202.6	-1,824.2	1,229.5	1,122.5	107.08	11.483	
8,200.0	6,786.3	8,792.9	6,710.7	49.9	59.4	-86.34	-1,202.6	-1,854.9	1,229.5	1,120.8	108.71	11.310	
8,267.7	6,786.0	8,860.6	6,710.6	51.7	61.2	-86.34	-1,202.6	-1,922.6	1,229.5	1,117.2	112.33	10.945	
8,300.0	6,785.9	8,892.9	6,710.6	52.6	62.0	-86.35	-1,202.6	-1,954.9	1,229.5	1,115.4	114.06	10.779	
8,366.1	6,785.6	8,959.0	6,710.5	54.4	63.8	-86.36	-1,202.6	-2,021.0	1,229.5	1,111.9	117.61	10.454	
8,400.0	6,785.5	8,992.9	6,710.5	55.3	64.7	-86.36	-1,202.6	-2,054.9	1,229.5	1,110.1	119.43	10.294	
8,464.5	6,785.2	9,057.5	6,710.4	57.0	66.5	-86.37	-1,202.6	-2,119.5	1,229.5	1,106.6	122.91	10.003	
8,500.0	6,785.1	9,092.9	6,710.4	58.0	67.4	-86.38	-1,202.6	-2,154.9	1,229.5	1,104.6	124.83	9.849	
8,563.0	6,784.9	9,155.9	6,710.4	59.7	69.1	-86.39	-1,202.6	-2,217.9	1,229.5	1,101.2	128.24	9.587	
8,600.0	6,784.7	9,192.9	6,710.3	60.7	70.1	-86.39	-1,202.6	-2,254.9	1,229.4	1,099.2	130.24	9.440	
8,661.4	6,784.5	9,254.3	6,710.3	62.4	71.8	-86.40	-1,202.6	-2,316.3	1,229.4	1,095.9	133.57	9.204	
8,700.0	6,784.3	9,292.9	6,710.2	63.4	72.9	-86.40	-1,202.6	-2,354.9	1,229.4	1,093.8	135.67	9.062	
8,759.8	6,784.1	9,352.7	6,710.2	65.0	74.5	-86.41	-1,202.6	-2,414.7	1,229.4	1,090.5	138.93	8.849	
8,800.0	6,784.0	9,392.9	6,710.1	66.1	75.6	-86.42	-1,202.6	-2,454.9	1,229.4	1,088.3	141.11	8.712	
8,858.2	6,783.7	9,451.2	6,710.1	67.7	77.2	-86.43	-1,202.6	-2,513.2	1,229.4	1,085.1	144.29	8.520	
8,900.0	6,783.6	9,492.9	6,710.1	68.9	78.3	-86.43	-1,202.6	-2,554.9	1,229.4	1,082.8	146.57	8.388	
8,956.7	6,783.3	9,549.6	6,710.0	70.4	79.9	-86.44	-1,202.6	-2,611.6	1,229.4	1,079.7	149.67	8.214	
9,000.0	6,783.2	9,592.9	6,710.0	71.6	81.0	-86.45	-1,202.6	-2,654.9	1,229.4	1,077.3	152.04	8.086	
9,055.1	6,783.0	9,648.0	6,709.9	73.1	82.5	-86.45	-1,202.6	-2,710.0	1,229.4	1,074.3	155.06	7.929	
9,100.0	6,782.8	9,692.9	6,709.9	74.3	83.8	-86.46	-1,202.6	-2,754.9	1,229.4	1,071.8	157.52	7.805	
9,153.5	6,782.6	9,746.4	6,709.8	75.8	85.2	-86.47	-1,202.6	-2,808.4	1,229.3	1,068.9	160.45	7.662	
9,200.0	6,782.4	9,792.9	6,709.8	77.1	86.5	-86.47	-1,202.6	-2,854.9	1,229.3	1,066.3	163.00	7.542	
9,251.9	6,782.2	9,844.9	6,709.8	78.5	87.9	-86.48	-1,202.6	-2,906.9	1,229.3	1,063.5	165.86	7.412	
9,300.0	6,782.0	9,892.9	6,709.7	79.8	89.3	-86.49	-1,202.6	-2,954.9	1,229.3	1,060.8	168.50	7.296	
9,350.4	6,781.8	9,943.3	6,709.7	81.2	90.7	-86.50	-1,202.6	-3,005.3	1,229.3	1,058.0	171.27	7.177	
9,400.0	6,781.6	9,992.9	6,709.6	82.6	92.0	-86.50	-1,202.6	-3,054.9	1,229.3	1,055.3	174.00	7.065	
9,448.8	6,781.4	10,041.7	6,709.6	83.9	93.4	-86.51	-1,202.6	-3,103.7	1,229.3	1,052.6	176.69	6.957	
9,500.0	6,781.2	10,092.9	6,709.5	85.4	94.8	-86.52	-1,202.6	-3,154.9	1,229.3	1,049.8	179.51	6.848	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBORE - P												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	6,781.0	10,140.1	6,709.5	86.7	96.1	-86.52	-1,202.6	-3,202.1	1,229.3	1,047.1	182.12	6.750	
9,600.0	6,780.8	10,192.9	6,709.4	88.1	97.5	-86.53	-1,202.6	-3,254.9	1,229.3	1,044.2	185.03	6.644	
9,645.6	6,780.7	10,238.6	6,709.4	89.4	98.8	-86.54	-1,202.6	-3,300.6	1,229.2	1,041.7	187.55	6.554	
9,700.0	6,780.5	10,292.9	6,709.4	90.9	100.3	-86.54	-1,202.6	-3,354.9	1,229.2	1,038.7	190.55	6.451	
9,744.1	6,780.3	10,337.0	6,709.3	92.1	101.5	-86.55	-1,202.6	-3,399.0	1,229.2	1,036.2	192.99	6.369	
9,800.0	6,780.1	10,392.9	6,709.3	93.7	103.1	-86.56	-1,202.6	-3,454.9	1,229.2	1,033.1	196.08	6.269	
9,842.5	6,779.9	10,435.4	6,709.2	94.8	104.2	-86.56	-1,202.6	-3,497.4	1,229.2	1,030.8	198.43	6.195	
9,900.0	6,779.7	10,492.9	6,709.2	96.4	105.8	-86.57	-1,202.6	-3,554.9	1,229.2	1,027.6	201.62	6.097	
9,940.9	6,779.5	10,533.8	6,709.1	97.6	106.9	-86.58	-1,202.6	-3,595.8	1,229.2	1,025.3	203.88	6.029	
10,000.0	6,779.3	10,592.9	6,709.1	99.2	108.6	-86.59	-1,202.6	-3,654.9	1,229.2	1,022.0	207.15	5.934	
10,039.3	6,779.1	10,632.2	6,709.1	100.3	109.7	-86.59	-1,202.6	-3,694.3	1,229.2	1,019.8	209.33	5.872	
10,100.0	6,778.9	10,692.9	6,709.0	102.0	111.4	-86.60	-1,202.6	-3,754.9	1,229.2	1,016.5	212.70	5.779	
10,137.8	6,778.7	10,730.7	6,709.0	103.0	112.4	-86.61	-1,202.6	-3,792.7	1,229.2	1,014.4	214.79	5.723	
10,200.0	6,778.5	10,792.9	6,708.9	104.8	114.1	-86.62	-1,202.6	-3,854.9	1,229.1	1,010.9	218.24	5.632	
10,236.2	6,778.3	10,829.1	6,708.9	105.8	115.1	-86.62	-1,202.6	-3,891.1	1,229.1	1,008.9	220.25	5.581	
10,300.0	6,778.1	10,892.9	6,708.8	107.5	116.9	-86.63	-1,202.6	-3,954.9	1,229.1	1,005.3	223.79	5.492	
10,334.6	6,778.0	10,927.5	6,708.8	108.5	117.9	-86.63	-1,202.6	-3,989.5	1,229.1	1,003.4	225.71	5.446	
10,400.0	6,777.7	10,992.9	6,708.7	110.3	119.7	-86.64	-1,202.6	-4,054.9	1,229.1	999.8	229.34	5.359	
10,433.0	6,777.6	11,025.9	6,708.7	111.2	120.6	-86.65	-1,202.6	-4,088.0	1,229.1	997.9	231.18	5.317	
10,500.0	6,777.3	11,092.9	6,708.7	113.1	122.4	-86.66	-1,202.6	-4,154.9	1,229.1	994.2	234.90	5.232	
10,531.5	6,777.2	11,124.4	6,708.6	114.0	123.3	-86.66	-1,202.6	-4,186.4	1,229.1	992.4	236.65	5.194	
10,600.0	6,776.9	11,192.9	6,708.6	115.9	125.2	-86.67	-1,202.6	-4,254.9	1,229.1	988.6	240.46	5.111	
10,629.9	6,776.8	11,222.8	6,708.5	116.7	126.1	-86.68	-1,202.6	-4,284.8	1,229.1	986.9	242.12	5.076	
10,700.0	6,776.5	11,292.9	6,708.5	118.7	128.0	-86.69	-1,202.6	-4,354.9	1,229.1	983.0	246.02	4.996	
10,728.3	6,776.4	11,321.2	6,708.4	119.5	128.8	-86.69	-1,202.6	-4,383.2	1,229.1	981.5	247.59	4.964	
10,800.0	6,776.1	11,392.9	6,708.4	121.4	130.8	-86.70	-1,202.6	-4,454.9	1,229.0	977.5	251.58	4.885	
10,826.7	6,776.0	11,419.6	6,708.4	122.2	131.5	-86.70	-1,202.6	-4,481.6	1,229.0	976.0	253.07	4.856	
10,900.0	6,775.7	11,492.9	6,708.3	124.2	133.6	-86.72	-1,202.6	-4,554.9	1,229.0	971.9	257.15	4.779	
10,925.2	6,775.6	11,518.1	6,708.3	124.9	134.3	-86.72	-1,202.6	-4,580.1	1,229.0	970.5	258.55	4.753	
11,000.0	6,775.3	11,592.9	6,708.2	127.0	136.4	-86.73	-1,202.6	-4,654.9	1,229.0	966.3	262.72	4.678	
11,023.6	6,775.2	11,616.5	6,708.2	127.7	137.0	-86.73	-1,202.6	-4,678.5	1,229.0	965.0	264.03	4.655	
11,100.0	6,774.9	11,692.9	6,708.1	129.8	139.1	-86.74	-1,202.6	-4,754.9	1,229.0	960.7	268.29	4.581	
11,122.0	6,774.8	11,714.9	6,708.1	130.4	139.7	-86.75	-1,202.6	-4,776.9	1,229.0	959.5	269.51	4.560	
11,200.0	6,774.5	11,792.9	6,708.0	132.6	141.9	-86.76	-1,202.6	-4,854.9	1,229.0	955.1	273.86	4.488	
11,220.4	6,774.4	11,813.3	6,708.0	133.2	142.5	-86.76	-1,202.6	-4,875.3	1,229.0	954.0	275.00	4.469	
11,300.0	6,774.1	11,892.9	6,707.9	135.4	144.7	-86.77	-1,202.6	-4,954.9	1,228.9	949.5	279.43	4.398	
11,318.9	6,774.0	11,911.8	6,707.9	135.9	145.2	-86.78	-1,202.6	-4,973.8	1,228.9	948.5	280.49	4.381	
11,400.0	6,773.7	11,992.9	6,707.8	138.2	147.5	-86.79	-1,202.6	-5,054.9	1,228.9	943.9	285.01	4.312	
11,417.3	6,773.6	12,010.2	6,707.8	138.7	148.0	-86.79	-1,202.6	-5,072.2	1,228.9	943.0	285.98	4.297	
11,500.0	6,773.3	12,092.9	6,707.8	141.0	150.3	-86.80	-1,202.6	-5,154.9	1,228.9	938.3	290.59	4.229	
11,515.7	6,773.2	12,108.6	6,707.7	141.4	150.7	-86.80	-1,202.6	-5,170.6	1,228.9	937.4	291.47	4.216	
11,600.0	6,772.9	12,192.9	6,707.7	143.8	153.1	-86.82	-1,202.6	-5,254.9	1,228.9	932.7	296.17	4.149	
11,614.1	6,772.8	12,207.0	6,707.6	144.2	153.5	-86.82	-1,202.6	-5,269.0	1,228.9	931.9	296.96	4.138	
11,700.0	6,772.5	12,292.9	6,707.6	146.6	155.9	-86.83	-1,202.6	-5,354.9	1,228.9	927.1	301.75	4.073	
11,712.6	6,772.4	12,305.5	6,707.6	146.9	156.2	-86.83	-1,202.6	-5,367.5	1,228.9	926.4	302.45	4.063	
11,800.0	6,772.1	12,392.9	6,707.5	149.4	158.7	-86.85	-1,202.6	-5,454.9	1,228.9	921.5	307.33	3.998	
11,811.0	6,772.1	12,403.9	6,707.5	149.7	159.0	-86.85	-1,202.6	-5,465.9	1,228.9	920.9	307.95	3.991	
11,900.0	6,771.7	12,492.9	6,707.4	152.2	161.4	-86.86	-1,202.6	-5,554.9	1,228.8	915.9	312.91	3.927	
11,909.4	6,771.7	12,502.3	6,707.4	152.4	161.7	-86.86	-1,202.6	-5,564.3	1,228.8	915.4	313.44	3.920	
12,000.0	6,771.3	12,592.9	6,707.3	154.9	164.2	-86.87	-1,202.6	-5,654.9	1,228.8	910.3	318.50	3.858	
12,007.8	6,771.3	12,600.7	6,707.3	155.2	164.5	-86.88	-1,202.6	-5,662.7	1,228.8	909.9	318.94	3.853	
12,100.0	6,770.9	12,692.9	6,707.2	157.7	167.0	-86.89	-1,202.6	-5,754.9	1,228.8	904.7	324.09	3.792	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-204 - ORIGINAL WELLBORE - P										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	6,770.9	12,699.2	6,707.2	157.9	167.2	-86.89	-1,202.6	-5,761.2	1,228.8	904.4	324.44	3.788	
12,200.0	6,770.5	12,792.9	6,707.1	160.5	169.8	-86.90	-1,202.6	-5,854.9	1,228.8	899.1	329.67	3.727	
12,204.7	6,770.5	12,797.6	6,707.1	160.7	169.9	-86.90	-1,202.6	-5,859.6	1,228.8	898.9	329.94	3.724	
12,300.0	6,770.1	12,892.9	6,707.0	163.3	172.6	-86.92	-1,202.6	-5,954.9	1,228.8	893.5	335.26	3.665	
12,303.1	6,770.1	12,896.0	6,707.0	163.4	172.7	-86.92	-1,202.6	-5,958.0	1,228.8	893.3	335.44	3.663	
12,316.4	6,770.0	12,909.3	6,707.0	163.8	173.1	-86.92	-1,202.6	-5,971.3	1,228.8	892.6	336.18	3.655 ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
0.0	0.0	3.0	3.0	0.0	0.0	-175.51	-1,960.3	-154.0	1,966.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.51	-1,960.3	-154.0	1,966.4	1,966.2	0.20	9,982.703	
100.0	100.0	103.0	103.0	0.1	0.1	-175.51	-1,960.3	-154.0	1,966.4	1,966.2	0.20	9,720.657	
196.8	196.8	199.8	199.8	0.3	0.3	-175.51	-1,960.3	-154.0	1,966.4	1,965.8	0.64	3,083.750	
200.0	200.0	203.0	203.0	0.3	0.3	-175.51	-1,960.3	-154.0	1,966.4	1,965.7	0.65	3,016.758	
295.3	295.3	298.3	298.3	0.5	0.5	-175.51	-1,960.3	-154.0	1,966.4	1,965.3	1.08	1,820.539	
300.0	300.0	303.0	303.0	0.5	0.6	-175.51	-1,960.3	-154.0	1,966.4	1,965.3	1.10	1,785.428	
393.7	393.7	396.7	396.7	0.8	0.8	-175.51	-1,960.3	-154.0	1,966.4	1,964.9	1.52	1,291.497	
400.0	400.0	403.0	403.0	0.8	0.8	-175.51	-1,960.3	-154.0	1,966.4	1,964.8	1.55	1,267.913	
492.1	492.1	495.1	495.1	1.0	1.0	-175.51	-1,960.3	-154.0	1,966.4	1,964.4	1.97	1,000.698	
500.0	500.0	503.0	503.0	1.0	1.0	-175.51	-1,960.3	-154.0	1,966.4	1,964.4	2.00	982.989	
590.5	590.5	593.5	593.5	1.2	1.2	-175.51	-1,960.3	-154.0	1,966.4	1,964.0	2.41	816.786	
600.0	600.0	603.0	603.0	1.2	1.2	-175.51	-1,960.3	-154.0	1,966.4	1,963.9	2.45	802.624	
689.0	689.0	692.0	692.0	1.4	1.4	-175.51	-1,960.3	-154.0	1,966.4	1,963.5	2.85	689.980	
700.0	700.0	703.0	703.0	1.4	1.5	-175.51	-1,960.3	-154.0	1,966.4	1,963.5	2.90	678.186	
787.4	787.4	790.4	790.4	1.6	1.6	-175.51	-1,960.3	-154.0	1,966.4	1,963.1	3.29	597.256	
800.0	800.0	803.0	803.0	1.7	1.7	-175.51	-1,960.3	-154.0	1,966.4	1,963.0	3.35	587.154	
885.8	885.8	888.8	888.8	1.9	1.9	-175.51	-1,960.3	-154.0	1,966.4	1,962.7	3.73	526.501	
900.0	900.0	903.0	903.0	1.9	1.9	-175.51	-1,960.3	-154.0	1,966.4	1,962.6	3.80	517.669	
984.2	984.2	987.2	987.2	2.1	2.1	-175.51	-1,960.3	-154.0	1,966.4	1,962.2	4.18	470.734	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.51	-1,960.3	-154.0	1,966.4	1,962.1	4.25	462.889	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-175.51	-1,960.3	-154.0	1,966.4	1,961.8	4.62	425.650	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-175.51	-1,960.3	-154.0	1,966.4	1,961.7	4.70	418.593	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-175.51	-1,960.3	-154.0	1,966.4	1,961.3	5.06	388.447	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-175.51	-1,960.3	-154.0	1,966.4	1,961.2	5.15	382.035	
1,279.5	1,279.5	1,282.5	1,282.5	2.7	2.8	-175.51	-1,960.3	-154.0	1,966.4	1,960.9	5.50	357.224	
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	-175.51	-1,960.3	-154.0	1,966.4	1,960.8	5.60	351.349	
1,377.9	1,377.9	1,400.3	1,400.3	3.0	3.0	-175.50	-1,960.1	-154.4	1,966.2	1,960.2	5.99	328.370	
1,400.0	1,400.0	1,436.2	1,436.2	3.0	3.1	-175.48	-1,959.5	-155.0	1,965.9	1,959.8	6.11	321.522	
1,476.4	1,476.4	1,560.0	1,559.9	3.2	3.4	-175.32	-1,955.5	-160.0	1,963.7	1,957.2	6.55	299.603	
1,500.0	1,500.0	1,598.2	1,597.9	3.2	3.5	-175.25	-1,953.6	-162.4	1,962.7	1,956.0	6.69	293.335	
1,574.8	1,574.8	1,718.6	1,717.6	3.4	3.7	-94.37	-1,945.6	-172.5	1,958.3	1,951.1	7.14	274.232	
1,600.0	1,600.0	1,759.0	1,757.6	3.5	3.8	-94.31	-1,942.1	-176.8	1,956.4	1,949.1	7.29	268.191	
1,673.2	1,673.1	1,875.8	1,872.9	3.6	4.2	-94.13	-1,930.3	-191.6	1,950.1	1,942.3	7.75	251.525	
1,700.0	1,699.8	1,918.3	1,914.6	3.7	4.3	-94.06	-1,925.3	-197.9	1,947.4	1,939.5	7.93	245.621	
1,771.6	1,771.2	2,031.3	2,024.9	3.8	4.7	-93.89	-1,910.0	-217.0	1,939.2	1,930.8	8.43	229.956	
1,800.0	1,799.5	2,075.7	2,068.0	3.9	4.8	-93.82	-1,903.3	-225.5	1,935.6	1,927.0	8.64	223.938	
1,870.1	1,869.0	2,158.6	2,148.0	4.0	5.1	-93.75	-1,889.8	-242.3	1,926.1	1,917.0	9.10	211.550	
1,900.0	1,898.7	2,188.2	2,176.5	4.1	5.3	-93.76	-1,884.9	-248.4	1,922.1	1,912.8	9.28	207.037	
1,968.5	1,966.4	2,255.9	2,241.8	4.3	5.6	-93.79	-1,873.8	-262.3	1,912.9	1,903.1	9.72	196.794	
2,000.0	1,997.5	2,287.0	2,271.9	4.4	5.7	-93.83	-1,868.7	-268.7	1,908.7	1,898.7	9.92	192.365	
2,066.9	2,063.2	2,353.3	2,335.9	4.6	6.0	-93.93	-1,857.8	-282.4	1,899.8	1,889.4	10.38	183.000	
2,100.1	2,095.7	2,386.2	2,367.6	4.7	6.1	-93.99	-1,852.4	-289.1	1,895.5	1,884.9	10.61	178.645	
2,165.3	2,159.5	2,450.9	2,430.0	4.9	6.4	-93.96	-1,841.8	-302.4	1,887.0	1,875.9	11.09	170.165	
2,200.0	2,193.4	2,485.2	2,463.1	5.0	6.6	-93.95	-1,836.1	-309.5	1,882.5	1,871.1	11.34	165.935	
2,224.2	2,217.1	2,509.2	2,486.2	5.1	6.7	-93.94	-1,832.2	-314.4	1,879.3	1,867.8	11.53	163.035	
2,263.8	2,255.9	2,548.5	2,524.1	5.2	6.9	-93.81	-1,825.7	-322.5	1,874.1	1,862.3	11.82	158.615	
2,300.0	2,291.5	2,584.3	2,558.7	5.3	7.1	-93.67	-1,819.8	-329.9	1,869.4	1,857.3	12.08	154.744	
2,362.2	2,352.7	2,645.9	2,618.1	5.5	7.4	-93.40	-1,809.7	-342.6	1,861.1	1,848.6	12.52	148.705	
2,400.0	2,390.1	2,683.3	2,654.2	5.6	7.6	-93.22	-1,803.6	-350.2	1,856.1	1,843.3	12.78	145.213	
2,460.6	2,450.1	2,743.1	2,711.9	5.7	7.9	-92.89	-1,793.7	-362.5	1,847.9	1,834.7	13.21	139.914	
2,500.0	2,489.2	2,781.9	2,749.3	5.8	8.1	-92.66	-1,787.3	-370.5	1,842.6	1,829.1	13.49	136.632	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
2,559.0	2,548.0	2,840.0	2,805.3	6.0	8.4	-92.27	-1,777.8	-382.5	1,834.6	1,820.7	13.90	132.006	
2,600.0	2,588.8	2,880.1	2,844.1	6.1	8.6	-91.98	-1,771.2	-390.7	1,829.1	1,814.9	14.19	128.938	
2,657.5	2,646.1	2,936.4	2,898.3	6.2	8.8	-91.54	-1,762.0	-402.3	1,821.3	1,806.7	14.58	124.905	
2,700.0	2,688.6	2,977.8	2,938.3	6.3	9.1	-91.19	-1,755.1	-410.8	1,815.5	1,800.6	14.88	122.043	
2,755.9	2,744.4	3,032.1	2,990.7	6.4	9.3	-90.70	-1,746.2	-422.0	1,808.0	1,792.7	15.25	118.520	
2,800.0	2,788.5	3,074.8	3,031.9	6.5	9.6	-90.29	-1,739.2	-430.8	1,802.1	1,786.5	15.56	115.850	
2,824.3	2,812.8	3,098.3	3,054.5	6.5	9.7	-170.75	-1,735.3	-435.6	1,798.8	1,785.1	13.70	131.311	
2,854.3	2,842.9	3,127.3	3,082.5	6.6	9.8	-170.54	-1,730.6	-441.6	1,794.9	1,781.0	13.85	129.619	
2,900.0	2,888.5	3,171.3	3,125.0	6.7	10.1	-170.21	-1,723.3	-450.6	1,788.9	1,774.8	14.07	127.128	
2,952.7	2,941.3	3,222.2	3,174.1	6.8	10.3	-169.83	-1,715.0	-461.1	1,782.0	1,767.7	14.34	124.285	
3,000.0	2,988.5	3,267.8	3,218.1	6.9	10.6	-169.49	-1,707.5	-470.5	1,776.0	1,761.4	14.58	121.838	
3,051.2	3,039.7	3,317.2	3,265.7	7.0	10.8	-169.11	-1,699.4	-480.6	1,769.5	1,754.6	14.83	119.287	
3,100.0	3,088.5	3,364.3	3,311.1	7.1	11.1	-168.75	-1,691.6	-490.3	1,763.4	1,748.3	15.08	116.945	
3,149.6	3,138.1	3,412.1	3,357.3	7.2	11.3	-168.39	-1,683.8	-500.2	1,757.2	1,741.9	15.33	114.655	
3,200.0	3,188.5	3,460.8	3,404.2	7.3	11.6	-168.01	-1,675.8	-510.2	1,751.1	1,735.5	15.58	112.412	
3,248.0	3,236.6	3,507.1	3,448.9	7.4	11.8	-167.65	-1,668.1	-519.7	1,745.3	1,729.5	15.82	110.354	
3,300.0	3,288.5	3,557.2	3,497.3	7.5	12.1	-167.26	-1,659.9	-530.0	1,739.1	1,723.0	16.07	108.204	
3,346.4	3,335.0	3,602.0	3,540.5	7.6	12.3	-166.90	-1,652.5	-539.2	1,733.6	1,717.3	16.30	106.353	
3,400.0	3,388.5	3,653.7	3,590.3	7.7	12.6	-166.49	-1,644.1	-549.8	1,727.4	1,710.8	16.56	104.291	
3,444.9	3,433.4	3,697.0	3,632.1	7.8	12.9	-166.15	-1,636.9	-558.7	1,722.3	1,705.5	16.78	102.624	
3,500.0	3,488.5	3,750.2	3,683.4	7.9	13.1	-165.72	-1,628.2	-569.7	1,716.1	1,699.0	17.05	100.646	
3,543.3	3,531.8	3,791.9	3,723.7	8.0	13.4	-165.38	-1,621.3	-578.3	1,711.2	1,694.0	17.26	99.145	
3,600.0	3,588.5	3,846.6	3,776.5	8.1	13.7	-164.94	-1,612.3	-589.5	1,705.0	1,687.5	17.53	97.244	
3,641.7	3,630.3	3,886.9	3,815.3	8.2	13.9	-164.61	-1,605.7	-597.8	1,700.5	1,682.8	17.73	95.892	
3,700.0	3,688.5	3,943.1	3,869.6	8.3	14.2	-164.15	-1,596.5	-609.4	1,694.4	1,676.4	18.01	94.065	
3,740.1	3,728.7	3,981.8	3,906.9	8.4	14.4	-163.83	-1,590.1	-617.3	1,690.2	1,672.0	18.20	92.847	
3,800.0	3,788.5	4,039.6	3,962.6	8.5	14.7	-163.35	-1,580.6	-629.2	1,684.0	1,665.5	18.49	91.089	
3,838.6	3,827.1	4,076.8	3,998.5	8.6	14.9	-163.03	-1,574.5	-636.9	1,680.1	1,661.5	18.67	89.991	
3,900.0	3,888.5	4,136.1	4,055.7	8.7	15.2	-162.54	-1,564.8	-649.1	1,674.0	1,655.1	18.96	88.298	
3,937.0	3,925.5	4,171.8	4,090.1	8.8	15.4	-162.23	-1,558.9	-656.4	1,670.4	1,651.3	19.13	87.310	
4,000.0	3,988.5	4,232.5	4,148.8	9.0	15.8	-161.72	-1,548.9	-668.9	1,664.4	1,645.0	19.43	85.679	
4,035.4	4,024.0	4,266.7	4,181.7	9.0	15.9	-161.42	-1,543.3	-675.9	1,661.1	1,641.5	19.59	84.789	
4,100.0	4,088.5	4,329.0	4,241.8	9.2	16.3	-160.89	-1,533.1	-688.7	1,655.2	1,635.3	19.89	83.215	
4,133.8	4,122.4	4,361.7	4,273.3	9.2	16.5	-160.61	-1,527.7	-695.5	1,652.1	1,632.1	20.05	82.414	
4,200.0	4,188.5	4,425.5	4,334.9	9.4	16.8	-160.05	-1,517.2	-708.6	1,646.3	1,625.9	20.35	80.896	
4,232.3	4,220.8	4,456.6	4,364.9	9.4	17.0	-159.78	-1,512.1	-715.0	1,643.5	1,623.0	20.50	80.176	
4,300.0	4,288.5	4,521.9	4,428.0	9.6	17.3	-159.21	-1,501.3	-728.4	1,637.7	1,616.9	20.81	78.708	
4,330.7	4,319.2	4,551.6	4,456.5	9.7	17.5	-158.95	-1,496.5	-734.5	1,635.2	1,614.3	20.95	78.062	
4,400.0	4,388.5	4,618.4	4,521.0	9.8	17.9	-158.35	-1,485.5	-748.3	1,629.6	1,608.3	21.26	76.643	
4,429.1	4,417.7	4,646.5	4,548.1	9.9	18.0	-158.10	-1,480.9	-754.1	1,627.3	1,605.9	21.39	76.063	
4,500.0	4,488.5	4,714.9	4,614.1	10.0	18.4	-157.49	-1,469.6	-768.1	1,621.9	1,600.1	21.71	74.691	
4,527.5	4,516.1	4,741.5	4,639.7	10.1	18.5	-157.25	-1,465.3	-773.6	1,619.8	1,597.9	21.84	74.171	
4,600.0	4,588.5	4,811.4	4,707.2	10.2	18.9	-156.63	-1,453.8	-788.0	1,614.5	1,592.3	22.16	72.842	
4,626.0	4,614.5	4,836.4	4,731.3	10.3	19.1	-156.40	-1,449.7	-793.1	1,612.6	1,590.4	22.28	72.378	
4,700.0	4,688.5	4,907.8	4,800.2	10.5	19.5	-155.75	-1,437.9	-807.8	1,607.5	1,584.9	22.61	71.089	
4,724.4	4,712.9	4,931.4	4,822.9	10.5	19.6	-155.54	-1,434.0	-812.6	1,605.9	1,583.2	22.72	70.675	
4,800.0	4,788.5	5,004.3	4,893.3	10.7	20.0	-154.87	-1,422.1	-827.6	1,601.0	1,577.9	23.06	69.426	
4,822.8	4,811.4	5,026.3	4,914.5	10.7	20.1	-154.66	-1,418.4	-832.2	1,599.5	1,576.4	23.16	69.057	
4,900.0	4,888.5	5,100.8	4,986.4	10.9	20.5	-153.98	-1,406.2	-847.5	1,594.8	1,571.3	23.51	67.844	
4,921.2	4,909.8	5,121.3	5,006.1	10.9	20.6	-153.79	-1,402.8	-851.7	1,593.6	1,570.0	23.60	67.518	
5,000.0	4,988.5	5,197.2	5,079.4	11.1	21.0	-153.08	-1,390.3	-867.3	1,589.1	1,565.1	23.95	66.339	
5,019.7	5,008.2	5,216.2	5,097.7	11.1	21.2	-152.91	-1,387.2	-871.2	1,588.0	1,564.0	24.04	66.051	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
5,100.0	5,088.5	5,293.7	5,172.5	11.3	21.6	-152.18	-1,374.5	-887.2	1,583.8	1,559.4	24.40	64.904	
5,118.1	5,106.6	5,311.2	5,189.3	11.4	21.7	-152.02	-1,371.6	-890.8	1,582.8	1,558.4	24.48	64.651	
5,200.0	5,188.5	5,384.2	5,260.0	11.5	22.0	-151.35	-1,360.0	-905.3	1,579.0	1,554.2	24.82	63.612	
5,216.5	5,205.1	5,400.0	5,275.3	11.6	22.1	-151.22	-1,357.6	-908.3	1,578.3	1,553.4	24.89	63.403	
5,300.0	5,288.5	5,473.2	5,346.6	11.8	22.4	-150.63	-1,347.3	-921.1	1,575.1	1,549.9	25.22	62.462	
5,314.9	5,303.5	5,486.6	5,359.7	11.8	22.4	-150.53	-1,345.6	-923.3	1,574.6	1,549.3	25.28	62.296	
5,400.0	5,388.5	5,563.4	5,435.0	12.0	22.7	-149.99	-1,336.2	-935.0	1,571.9	1,546.3	25.61	61.386	
5,413.4	5,401.9	5,575.6	5,447.0	12.0	22.7	-149.91	-1,334.9	-936.7	1,571.6	1,545.9	25.66	61.246	
5,500.0	5,488.5	5,654.7	5,525.0	12.2	23.0	-149.44	-1,326.8	-946.9	1,569.5	1,543.5	26.00	60.369	
5,511.8	5,500.3	5,665.5	5,535.7	12.2	23.0	-149.38	-1,325.8	-948.1	1,569.3	1,543.2	26.04	60.253	
5,600.0	5,588.5	5,746.8	5,616.3	12.4	23.2	-148.99	-1,319.0	-956.6	1,567.7	1,541.3	26.39	59.410	
5,610.2	5,598.8	5,756.3	5,625.7	12.4	23.2	-148.95	-1,318.4	-957.4	1,567.5	1,541.1	26.43	59.315	
5,700.0	5,688.5	5,839.7	5,708.7	12.6	23.4	-148.65	-1,313.1	-964.0	1,566.3	1,539.5	26.77	58.505	
5,708.6	5,697.2	5,847.7	5,716.7	12.6	23.4	-148.62	-1,312.7	-964.5	1,566.2	1,539.4	26.81	58.430	
5,800.0	5,788.5	5,933.1	5,801.9	12.8	23.6	-148.41	-1,309.0	-969.1	1,565.4	1,538.3	27.15	57.653	
5,807.1	5,795.6	5,939.7	5,808.5	12.9	23.6	-148.40	-1,308.8	-969.4	1,565.4	1,538.2	27.18	57.595	
5,900.0	5,888.5	7,354.1	6,701.3	13.1	25.7	179.79	-1,306.4	-144.1	1,557.9	1,526.2	31.73	49.096	
5,905.5	5,894.0	7,354.1	6,701.3	13.1	25.7	179.79	-1,306.4	-144.1	1,555.0	1,523.3	31.74	48.987	
6,000.0	5,988.5	7,353.5	6,701.3	13.3	25.7	179.81	-1,306.4	-144.7	1,508.3	1,476.4	31.95	47.204	
6,003.9	5,992.5	7,353.5	6,701.3	13.3	25.7	179.81	-1,306.4	-144.7	1,506.5	1,474.5	31.96	47.134	
6,085.3	6,073.8	7,353.0	6,701.3	13.5	25.7	179.84	-1,306.4	-145.2	1,470.1	1,438.0	32.14	45.739	
6,100.0	6,088.5	7,352.7	6,701.3	13.5	25.7	-90.70	-1,306.4	-145.5	1,463.9	1,425.1	38.84	37.687	
6,102.3	6,090.9	7,352.7	6,701.3	13.5	25.7	-90.78	-1,306.4	-145.5	1,462.9	1,424.1	38.84	37.661	
6,150.0	6,138.4	7,349.7	6,701.4	13.6	25.7	-92.32	-1,306.4	-148.6	1,443.9	1,405.0	38.82	37.190	
6,200.0	6,188.0	7,343.1	6,701.4	13.7	25.6	-93.63	-1,306.4	-155.1	1,425.4	1,386.6	38.78	36.759	
6,200.8	6,188.8	7,343.0	6,701.4	13.7	25.6	-93.65	-1,306.4	-155.2	1,425.1	1,386.3	38.78	36.753	
6,250.0	6,237.1	7,333.1	6,701.5	13.9	25.4	-94.64	-1,306.4	-165.1	1,408.6	1,369.9	38.71	36.392	
6,299.2	6,284.6	7,320.0	6,701.5	14.0	25.2	-95.33	-1,306.4	-178.2	1,393.8	1,355.1	38.62	36.092	
6,300.0	6,285.3	7,319.7	6,701.6	14.0	25.2	-95.34	-1,306.4	-178.5	1,393.5	1,354.9	38.61	36.088	
6,350.0	6,332.5	7,303.0	6,701.7	14.2	25.0	-95.76	-1,306.4	-195.2	1,380.3	1,341.8	38.51	35.846	
6,397.6	6,376.3	7,284.1	6,701.8	14.4	24.8	-95.92	-1,306.4	-214.1	1,369.4	1,330.9	38.42	35.642	
6,400.0	6,378.5	7,283.1	6,701.8	14.4	24.8	-95.92	-1,306.4	-215.2	1,368.9	1,330.4	38.42	35.633	
6,450.0	6,423.0	7,260.0	6,701.9	14.7	24.5	-95.83	-1,306.4	-238.3	1,359.2	1,320.8	38.33	35.462	
6,496.0	6,462.4	7,230.8	6,701.9	14.9	24.2	-95.37	-1,306.4	-267.4	1,351.7	1,313.5	38.20	35.382	
6,500.0	6,465.7	7,227.7	6,701.9	14.9	24.2	-95.31	-1,306.4	-270.5	1,351.1	1,312.9	38.19	35.382	
6,550.0	6,506.6	7,189.5	6,700.1	15.2	23.9	-94.47	-1,306.4	-308.6	1,344.5	1,306.4	38.05	35.332	
6,594.5	6,541.2	7,157.2	6,697.0	15.6	23.6	-93.69	-1,306.4	-340.8	1,339.7	1,301.7	38.03	35.232	
6,600.0	6,545.3	7,153.3	6,696.5	15.6	23.6	-93.60	-1,306.4	-344.7	1,339.2	1,301.2	38.02	35.221	
6,650.0	6,581.8	7,118.6	6,691.4	16.0	23.4	-92.69	-1,306.4	-379.0	1,335.2	1,297.1	38.11	35.038	
6,692.9	6,611.1	7,089.8	6,685.9	16.4	23.2	-91.88	-1,306.4	-407.2	1,332.9	1,294.6	38.26	34.836	
6,700.0	6,615.8	7,085.2	6,684.9	16.5	23.2	-91.74	-1,306.4	-411.8	1,332.6	1,294.3	38.29	34.801	
6,750.0	6,647.1	7,052.7	6,677.1	17.1	23.1	-90.74	-1,306.4	-443.3	1,331.2	1,292.6	38.57	34.512	
6,785.8	6,667.8	7,030.0	6,670.8	17.5	23.0	-90.00	-1,306.4	-465.2	1,330.9	1,292.0	38.85	34.258 CC	
6,791.3	6,670.9	7,026.4	6,669.8	17.6	23.0	-89.88	-1,306.4	-468.5	1,330.9	1,292.0	38.89	34.219	
6,800.0	6,675.7	7,021.0	6,668.2	17.7	23.0	-89.70	-1,306.4	-473.7	1,330.9	1,291.9	38.96	34.161 ES	
6,850.0	6,701.3	6,990.0	6,658.1	18.4	22.9	-88.61	-1,306.4	-503.0	1,331.8	1,292.3	39.43	33.777	
6,889.7	6,719.5	6,965.8	6,649.4	19.0	22.9	-87.72	-1,306.4	-525.6	1,333.2	1,293.3	39.87	33.439	
6,900.0	6,723.8	6,959.6	6,647.0	19.1	22.8	-87.48	-1,306.4	-531.4	1,333.7	1,293.7	39.98	33.358	
6,950.0	6,743.2	6,929.6	6,634.9	20.0	22.8	-86.32	-1,306.4	-558.8	1,336.5	1,295.9	40.61	32.914	
6,988.2	6,755.8	6,907.0	6,625.0	20.6	22.8	-85.41	-1,306.4	-579.1	1,339.3	1,298.1	41.12	32.568	
7,000.0	6,759.4	6,900.0	6,621.9	20.9	22.8	-85.13	-1,306.4	-585.4	1,340.2	1,298.9	41.28	32.468	
7,050.0	6,772.1	6,870.9	6,607.9	21.8	22.8	-83.91	-1,306.4	-611.0	1,344.7	1,302.7	42.01	32.007	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	6,850.0	6,597.3	22.5	22.8	-83.03	-1,306.4	-628.9	1,348.4	1,305.9	42.56	31.682	
7,100.0	6,781.5	6,842.0	6,593.1	22.8	22.8	-82.69	-1,306.4	-635.8	1,349.9	1,307.1	42.76	31.565	
7,150.0	6,787.5	6,813.3	6,577.4	23.9	22.8	-81.45	-1,306.4	-659.7	1,355.6	1,312.1	43.54	31.135	
7,185.0	6,789.6	6,800.0	6,569.8	24.6	22.9	-80.76	-1,306.4	-670.7	1,359.9	1,315.8	44.11	30.829	
7,200.0	6,789.9	6,784.9	6,561.0	24.9	22.9	-80.22	-1,306.4	-682.9	1,361.8	1,317.5	44.32	30.728	
7,213.0	6,790.0	6,777.6	6,556.6	25.2	22.9	-79.90	-1,306.4	-688.8	1,363.5	1,319.0	44.52	30.626	
7,283.4	6,789.7	6,739.4	6,532.7	26.8	23.0	-78.91	-1,306.4	-718.6	1,373.7	1,327.8	45.90	29.931	
7,300.0	6,789.7	6,730.9	6,527.2	27.2	23.0	-78.68	-1,306.4	-725.0	1,376.4	1,330.2	46.22	29.778	
7,381.9	6,789.4	6,700.0	6,506.5	29.1	23.0	-77.83	-1,306.4	-747.9	1,391.5	1,343.6	47.95	29.023	
7,400.0	6,789.3	6,683.0	6,494.6	29.5	23.1	-77.35	-1,306.4	-760.1	1,395.2	1,347.0	48.28	28.896	
7,480.3	6,789.0	6,650.0	6,470.9	31.4	23.1	-76.38	-1,306.4	-783.0	1,413.6	1,363.6	50.00	28.270	
7,500.0	6,788.9	6,650.0	6,470.9	31.9	23.1	-76.38	-1,306.4	-783.0	1,418.7	1,368.2	50.47	28.111	
7,578.7	6,788.6	6,600.0	6,433.0	33.8	23.3	-74.85	-1,306.4	-815.6	1,440.4	1,388.3	52.08	27.657	
7,600.0	6,788.5	6,600.0	6,433.0	34.4	23.3	-74.85	-1,306.4	-815.6	1,446.7	1,394.1	52.59	27.510	
7,677.1	6,788.2	6,577.3	6,415.0	36.3	23.3	-74.14	-1,306.4	-829.5	1,471.5	1,417.2	54.32	27.090	
7,700.0	6,788.2	6,570.1	6,409.2	36.9	23.3	-73.91	-1,306.4	-833.8	1,479.4	1,424.6	54.83	26.984	
7,775.6	6,787.9	6,550.0	6,392.8	38.8	23.4	-73.26	-1,306.4	-845.4	1,507.3	1,450.8	56.54	26.659	
7,800.0	6,787.8	6,550.0	6,392.8	39.4	23.4	-73.26	-1,306.4	-845.4	1,516.9	1,459.8	57.14	26.549	
7,874.0	6,787.5	6,520.8	6,368.5	41.3	23.4	-72.31	-1,306.4	-861.5	1,547.5	1,488.8	58.74	26.344	
7,900.0	6,787.4	6,514.3	6,363.0	42.0	23.5	-72.09	-1,306.4	-865.0	1,558.8	1,499.5	59.33	26.275	
7,972.4	6,787.1	6,500.0	6,350.7	43.9	23.5	-71.62	-1,306.4	-872.4	1,591.9	1,530.9	61.00	26.096	
8,000.0	6,787.0	6,500.0	6,350.7	44.6	23.5	-71.62	-1,306.4	-872.4	1,605.2	1,543.5	61.69	26.020	
8,070.8	6,786.7	6,475.6	6,329.5	46.5	23.5	-70.80	-1,306.4	-884.5	1,640.4	1,577.2	63.22	25.946	
8,100.0	6,786.6	6,469.6	6,324.3	47.3	23.6	-70.60	-1,306.4	-887.3	1,655.5	1,591.6	63.89	25.912	
8,169.3	6,786.4	6,450.0	6,306.9	49.1	23.6	-69.94	-1,306.4	-896.3	1,692.6	1,627.2	65.41	25.878	
8,200.0	6,786.3	6,450.0	6,306.9	49.9	23.6	-69.94	-1,306.4	-896.3	1,709.6	1,643.5	66.18	25.835	
8,267.7	6,786.0	6,450.0	6,306.9	51.7	23.6	-69.94	-1,306.4	-896.3	1,748.4	1,680.5	67.88	25.757 SF	
8,300.0	6,785.9	6,433.3	6,291.9	52.6	23.6	-69.37	-1,306.4	-903.6	1,767.3	1,698.9	68.49	25.806	
8,366.1	6,785.6	6,422.8	6,282.3	54.4	23.6	-69.01	-1,306.4	-908.1	1,807.3	1,737.3	70.02	25.813	
8,400.0	6,785.5	6,417.7	6,277.7	55.3	23.7	-68.84	-1,306.4	-910.2	1,828.3	1,757.5	70.80	25.824	
8,464.5	6,785.2	6,400.0	6,261.4	57.0	23.7	-68.23	-1,306.4	-917.2	1,869.3	1,797.1	72.18	25.900	
8,500.0	6,785.1	6,400.0	6,261.4	58.0	23.7	-68.23	-1,306.4	-917.2	1,892.3	1,819.2	73.07	25.898	
8,563.0	6,784.9	6,400.0	6,261.4	59.7	23.7	-68.23	-1,306.4	-917.2	1,934.0	1,859.3	74.66	25.905	
8,600.0	6,784.7	6,400.0	6,261.4	60.7	23.7	-68.23	-1,306.4	-917.2	1,959.1	1,883.5	75.59	25.916	
8,661.4	6,784.5	6,382.9	6,245.5	62.4	23.7	-67.64	-1,306.4	-923.6	2,001.2	1,924.3	76.87	26.033	
8,700.0	6,784.3	6,378.4	6,241.3	63.4	23.7	-67.49	-1,306.4	-925.2	2,028.2	1,950.4	77.77	26.079	
8,759.8	6,784.1	6,371.6	6,235.0	65.0	23.7	-67.26	-1,306.4	-927.6	2,070.7	1,991.5	79.17	26.156	
8,800.0	6,784.0	6,350.0	6,214.6	66.1	23.8	-66.52	-1,306.4	-934.8	2,099.9	2,020.1	79.80	26.315	
8,858.2	6,783.7	6,350.0	6,214.6	67.7	23.8	-66.52	-1,306.4	-934.8	2,142.4	2,061.1	81.27	26.363	
8,900.0	6,783.6	6,350.0	6,214.6	68.9	23.8	-66.52	-1,306.4	-934.8	2,173.3	2,091.0	82.32	26.402	
8,956.7	6,783.3	6,350.0	6,214.6	70.4	23.8	-66.52	-1,306.4	-934.8	2,215.8	2,132.1	83.75	26.459	
9,000.0	6,783.2	6,350.0	6,214.6	71.6	23.8	-66.52	-1,306.4	-934.8	2,248.7	2,163.9	84.84	26.506	
9,055.1	6,783.0	6,350.0	6,214.6	73.1	23.8	-66.52	-1,306.4	-934.8	2,291.1	2,204.9	86.23	26.569	
9,100.0	6,782.8	6,350.0	6,214.6	74.3	23.8	-66.52	-1,306.4	-934.8	2,326.0	2,238.7	87.37	26.623	
9,153.5	6,782.6	6,350.0	6,214.6	75.8	23.8	-66.52	-1,306.4	-934.8	2,368.1	2,279.4	88.72	26.690	
9,200.0	6,782.4	6,330.9	6,196.4	77.1	23.8	-65.86	-1,306.4	-940.7	2,404.7	2,315.2	89.50	26.869	
9,251.9	6,782.2	6,326.9	6,192.6	78.5	23.8	-65.72	-1,306.4	-941.8	2,446.2	2,355.5	90.72	26.964	
9,300.0	6,782.0	6,323.3	6,189.2	79.8	23.8	-65.60	-1,306.4	-942.8	2,484.9	2,393.1	91.86	27.053	
9,350.4	6,781.8	6,319.7	6,185.7	81.2	23.8	-65.48	-1,306.4	-943.9	2,525.8	2,432.8	93.04	27.146	
9,400.0	6,781.6	6,300.0	6,166.7	82.6	23.8	-64.81	-1,306.4	-949.1	2,566.6	2,472.8	93.84	27.351	
9,448.8	6,781.4	6,300.0	6,166.7	83.9	23.8	-64.81	-1,306.4	-949.1	2,606.8	2,511.7	95.07	27.421	
9,500.0	6,781.2	6,300.0	6,166.7	85.4	23.8	-64.81	-1,306.4	-949.1	2,649.2	2,552.9	96.35	27.495	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	6,781.0	6,300.0	6,166.7	86.7	23.8	-64.81	-1,306.4	-949.1	2,688.6	2,591.1	97.54	27.564	
9,600.0	6,780.8	6,300.0	6,166.7	88.1	23.8	-64.80	-1,306.4	-949.1	2,733.0	2,634.1	98.87	27.643	
9,645.6	6,780.7	6,300.0	6,166.7	89.4	23.8	-64.80	-1,306.4	-949.1	2,771.5	2,671.5	100.02	27.711	
9,700.0	6,780.5	6,300.0	6,166.7	90.9	23.8	-64.80	-1,306.4	-949.1	2,817.8	2,716.4	101.39	27.792	
9,744.1	6,780.3	6,300.0	6,166.7	92.1	23.8	-64.80	-1,306.4	-949.1	2,855.4	2,752.9	102.50	27.859	
9,800.0	6,780.1	6,300.0	6,166.7	93.7	23.8	-64.80	-1,306.4	-949.1	2,903.5	2,799.6	103.91	27.944	
9,842.5	6,779.9	6,300.0	6,166.7	94.8	23.8	-64.80	-1,306.4	-949.1	2,940.2	2,835.3	104.98	28.008	
9,900.0	6,779.7	6,300.0	6,166.7	96.4	23.8	-64.80	-1,306.4	-949.1	2,990.2	2,883.7	106.43	28.095	
9,940.9	6,779.5	6,300.0	6,166.7	97.6	23.8	-64.80	-1,306.4	-949.1	3,025.9	2,918.4	107.46	28.157	
10,000.0	6,779.3	6,300.0	6,166.7	99.2	23.8	-64.80	-1,306.4	-949.1	3,077.6	2,968.7	108.95	28.247	
10,039.3	6,779.1	6,300.0	6,166.7	100.3	23.8	-64.80	-1,306.4	-949.1	3,112.2	3,002.3	109.95	28.307	
10,100.0	6,778.9	6,277.3	6,144.7	102.0	23.8	-64.03	-1,306.4	-954.5	3,165.4	3,054.6	110.82	28.562	
10,137.8	6,778.7	6,275.6	6,143.1	103.0	23.8	-63.97	-1,306.4	-954.8	3,198.9	3,087.1	111.72	28.632	
10,200.0	6,778.5	6,272.9	6,140.4	104.8	23.9	-63.88	-1,306.4	-955.4	3,254.1	3,140.9	113.21	28.745	
10,236.2	6,778.3	6,271.4	6,138.9	105.8	23.9	-63.83	-1,306.4	-955.8	3,286.4	3,172.3	114.07	28.810	
10,300.0	6,778.1	6,250.0	6,118.0	107.5	23.9	-63.11	-1,306.4	-960.0	3,343.7	3,228.7	115.01	29.074	
10,334.6	6,778.0	6,250.0	6,118.0	108.5	23.9	-63.11	-1,306.4	-960.0	3,374.8	3,258.9	115.87	29.125	
10,400.0	6,777.7	6,250.0	6,118.0	110.3	23.9	-63.11	-1,306.4	-960.0	3,433.5	3,316.0	117.51	29.220	
10,433.0	6,777.6	6,250.0	6,118.0	111.2	23.9	-63.11	-1,306.4	-960.0	3,463.3	3,345.0	118.33	29.268	
10,500.0	6,777.3	6,250.0	6,118.0	113.1	23.9	-63.11	-1,306.4	-960.0	3,523.8	3,403.8	120.01	29.364	
10,531.5	6,777.2	6,250.0	6,118.0	114.0	23.9	-63.11	-1,306.4	-960.0	3,552.4	3,431.6	120.79	29.409	
10,600.0	6,776.9	6,250.0	6,118.0	115.9	23.9	-63.11	-1,306.4	-960.0	3,614.7	3,492.2	122.51	29.506	
10,629.9	6,776.8	6,250.0	6,118.0	116.7	23.9	-63.11	-1,306.4	-960.0	3,641.9	3,518.7	123.25	29.548	
10,700.0	6,776.5	6,250.0	6,118.0	118.7	23.9	-63.10	-1,306.4	-960.0	3,706.0	3,581.0	125.01	29.646	
10,728.3	6,776.4	6,250.0	6,118.0	119.5	23.9	-63.10	-1,306.4	-960.0	3,731.9	3,606.2	125.72	29.686	
10,800.0	6,776.1	6,250.0	6,118.0	121.4	23.9	-63.10	-1,306.4	-960.0	3,797.7	3,670.2	127.51	29.784	
10,826.7	6,776.0	6,250.0	6,118.0	122.2	23.9	-63.10	-1,306.4	-960.0	3,822.4	3,694.2	128.18	29.820	
10,900.0	6,775.7	6,250.0	6,118.0	124.2	23.9	-63.10	-1,306.4	-960.0	3,889.9	3,759.9	130.01	29.919	
10,925.2	6,775.6	6,250.0	6,118.0	124.9	23.9	-63.10	-1,306.4	-960.0	3,913.2	3,782.5	130.64	29.953	
11,000.0	6,775.3	6,250.0	6,118.0	127.0	23.9	-63.10	-1,306.4	-960.0	3,982.4	3,849.9	132.52	30.052	
11,023.6	6,775.2	6,250.0	6,118.0	127.7	23.9	-63.10	-1,306.4	-960.0	4,004.3	3,871.2	133.11	30.083	
11,100.0	6,774.9	6,250.0	6,118.0	129.8	23.9	-63.10	-1,306.4	-960.0	4,075.3	3,940.3	135.02	30.183	
11,122.0	6,774.8	6,250.0	6,118.0	130.4	23.9	-63.10	-1,306.4	-960.0	4,095.8	3,960.2	135.57	30.211	
11,200.0	6,774.5	6,250.0	6,118.0	132.6	23.9	-63.10	-1,306.4	-960.0	4,168.5	4,031.0	137.53	30.310	
11,220.4	6,774.4	6,250.0	6,118.0	133.2	23.9	-63.10	-1,306.4	-960.0	4,187.6	4,049.6	138.04	30.336	
11,300.0	6,774.1	6,250.0	6,118.0	135.4	23.9	-63.10	-1,306.4	-960.0	4,262.1	4,122.0	140.03	30.436	
11,318.9	6,774.0	6,250.0	6,118.0	135.9	23.9	-63.10	-1,306.4	-960.0	4,279.7	4,139.2	140.51	30.459	
11,400.0	6,773.7	6,250.0	6,118.0	138.2	23.9	-63.10	-1,306.4	-960.0	4,355.9	4,213.3	142.54	30.558	
11,417.3	6,773.6	6,250.0	6,118.0	138.7	23.9	-63.10	-1,306.4	-960.0	4,372.1	4,229.1	142.98	30.579	
11,500.0	6,773.3	6,250.0	6,118.0	141.0	23.9	-63.10	-1,306.4	-960.0	4,449.9	4,304.9	145.05	30.679	
11,515.7	6,773.2	6,250.0	6,118.0	141.4	23.9	-63.10	-1,306.4	-960.0	4,464.8	4,319.3	145.44	30.697	
11,600.0	6,772.9	6,250.0	6,118.0	143.8	23.9	-63.10	-1,306.4	-960.0	4,544.3	4,396.7	147.56	30.796	
11,614.1	6,772.8	6,250.0	6,118.0	144.2	23.9	-63.10	-1,306.4	-960.0	4,557.6	4,409.7	147.91	30.813	
11,700.0	6,772.5	6,227.1	6,095.4	146.6	23.9	-62.33	-1,306.4	-963.9	4,638.4	4,489.3	149.11	31.107	
11,712.6	6,772.4	6,226.9	6,095.1	146.9	23.9	-62.32	-1,306.4	-963.9	4,650.3	4,500.9	149.41	31.124	
11,800.0	6,772.1	6,225.0	6,093.3	149.4	23.9	-62.26	-1,306.4	-964.2	4,733.2	4,581.6	151.51	31.239	
11,811.0	6,772.1	6,224.8	6,093.1	149.7	23.9	-62.25	-1,306.4	-964.2	4,743.6	4,591.8	151.78	31.254	
11,900.0	6,771.7	6,222.9	6,091.3	152.2	23.9	-62.19	-1,306.4	-964.5	4,828.1	4,674.2	153.92	31.368	
11,909.4	6,771.7	6,222.7	6,091.1	152.4	23.9	-62.18	-1,306.4	-964.5	4,837.0	4,682.9	154.14	31.380	
12,000.0	6,771.3	6,200.0	6,068.5	154.9	23.9	-61.43	-1,306.4	-967.5	4,923.5	4,768.1	155.38	31.687	
12,007.8	6,771.3	6,200.0	6,068.5	155.2	23.9	-61.43	-1,306.4	-967.5	4,931.0	4,775.4	155.58	31.695	
12,100.0	6,770.9	6,200.0	6,068.5	157.7	23.9	-61.43	-1,306.4	-967.5	5,018.8	4,860.9	157.86	31.793	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-232 - ORIGINAL WELLBORE - P												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	6,770.9	6,200.0	6,068.5	157.9	23.9	-61.43	-1,306.4	-967.5	5,024.8	4,866.7	158.01	31.800	
12,200.0	6,770.5	6,200.0	6,068.5	160.5	23.9	-61.43	-1,306.4	-967.5	5,114.2	4,953.9	160.33	31.897	
12,204.7	6,770.5	6,200.0	6,068.5	160.7	23.9	-61.43	-1,306.4	-967.5	5,118.7	4,958.2	160.45	31.902	
12,300.0	6,770.1	6,200.0	6,068.5	163.3	23.9	-61.43	-1,306.4	-967.5	5,209.8	5,047.0	162.81	31.999	
12,303.1	6,770.1	6,200.0	6,068.5	163.4	23.9	-61.43	-1,306.4	-967.5	5,212.8	5,049.9	162.89	32.002	
12,316.4	6,770.0	6,200.0	6,068.5	163.8	23.9	-61.42	-1,306.4	-967.5	5,225.5	5,062.2	163.22	32.016	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
0.0	0.0	3.0	3.0	0.0	0.0	-175.49	-1,990.2	-156.8	1,996.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.49	-1,990.2	-156.8	1,996.4	1,996.2	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-175.49	-1,990.2	-156.8	1,996.4	1,996.2	0.20	9,868.959	
196.8	196.8	199.8	199.8	0.3	0.3	-175.49	-1,990.2	-156.8	1,996.4	1,995.8	0.64	3,130.796	
200.0	200.0	203.0	203.0	0.3	0.3	-175.49	-1,990.2	-156.8	1,996.4	1,995.7	0.65	3,062.783	
295.3	295.3	298.3	298.3	0.5	0.5	-175.49	-1,990.2	-156.8	1,996.4	1,995.3	1.08	1,848.314	
300.0	300.0	303.0	303.0	0.5	0.6	-175.49	-1,990.2	-156.8	1,996.4	1,995.3	1.10	1,812.668	
393.7	393.7	396.7	396.7	0.8	0.8	-175.49	-1,990.2	-156.8	1,996.4	1,994.9	1.52	1,311.200	
400.0	400.0	403.0	403.0	0.8	0.8	-175.49	-1,990.2	-156.8	1,996.4	1,994.8	1.55	1,287.257	
492.1	492.1	495.1	495.1	1.0	1.0	-175.49	-1,990.2	-156.8	1,996.4	1,994.4	1.97	1,015.965	
500.0	500.0	503.0	503.0	1.0	1.0	-175.49	-1,990.2	-156.8	1,996.4	1,994.4	2.00	997.986	
590.5	590.5	593.5	593.5	1.2	1.2	-175.49	-1,990.2	-156.8	1,996.4	1,994.0	2.41	829.248	
600.0	600.0	603.0	603.0	1.2	1.2	-175.49	-1,990.2	-156.8	1,996.4	1,993.9	2.45	814.869	
689.0	689.0	692.0	692.0	1.4	1.4	-175.49	-1,990.2	-156.8	1,996.4	1,993.5	2.85	700.506	
700.0	700.0	703.0	703.0	1.4	1.5	-175.49	-1,990.2	-156.8	1,996.4	1,993.5	2.90	688.533	
787.4	787.4	790.4	790.4	1.6	1.6	-175.49	-1,990.2	-156.8	1,996.4	1,993.1	3.29	606.368	
800.0	800.0	803.0	803.0	1.7	1.7	-175.49	-1,990.2	-156.8	1,996.4	1,993.0	3.35	596.112	
885.8	885.8	888.8	888.8	1.9	1.9	-175.49	-1,990.2	-156.8	1,996.4	1,992.7	3.73	534.533	
900.0	900.0	903.0	903.0	1.9	1.9	-175.49	-1,990.2	-156.8	1,996.4	1,992.6	3.80	525.566	
984.2	984.2	987.2	987.2	2.1	2.1	-175.49	-1,990.2	-156.8	1,996.4	1,992.2	4.18	477.916	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.49	-1,990.2	-156.8	1,996.4	1,992.1	4.25	469.951	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-175.49	-1,990.2	-156.8	1,996.4	1,991.8	4.62	432.144	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-175.49	-1,990.2	-156.8	1,996.4	1,991.7	4.70	424.980	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-175.49	-1,990.2	-156.8	1,996.4	1,991.3	5.06	394.373	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-175.49	-1,990.2	-156.8	1,996.4	1,991.2	5.15	387.863	
1,279.5	1,279.5	1,282.5	1,282.5	2.7	2.8	-175.49	-1,990.2	-156.8	1,996.4	1,990.9	5.50	362.674	
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	-175.49	-1,990.2	-156.8	1,996.4	1,990.8	5.60	356.710	
1,377.9	1,377.9	1,380.9	1,380.9	3.0	3.0	-175.49	-1,990.2	-156.8	1,996.4	1,990.4	5.95	335.692	
1,400.0	1,400.0	1,403.0	1,403.0	3.0	3.0	-175.49	-1,990.2	-156.8	1,996.4	1,990.3	6.05	330.189	
1,476.4	1,476.4	1,479.4	1,479.4	3.2	3.2	-175.49	-1,990.2	-156.8	1,996.4	1,990.0	6.39	312.446	
1,500.0	1,500.0	1,503.0	1,503.0	3.2	3.3	-175.49	-1,990.2	-156.8	1,996.4	1,989.9	6.50	307.338	
1,574.8	1,574.8	1,588.3	1,588.3	3.4	3.4	-94.82	-1,990.1	-157.0	1,996.4	1,989.6	6.84	291.673	
1,600.0	1,600.0	1,622.9	1,622.9	3.5	3.5	-94.84	-1,989.8	-157.6	1,996.3	1,989.3	6.97	286.290	
1,673.2	1,673.1	1,723.7	1,723.6	3.6	3.7	-94.88	-1,987.8	-161.5	1,995.3	1,988.0	7.34	271.800	
1,700.0	1,699.8	1,760.6	1,760.4	3.7	3.8	-94.89	-1,986.6	-163.7	1,994.8	1,987.3	7.48	266.765	
1,771.6	1,771.2	1,859.2	1,858.6	3.8	4.0	-94.93	-1,982.5	-171.6	1,992.7	1,984.9	7.86	253.638	
1,800.0	1,799.5	1,898.1	1,897.3	3.9	4.1	-94.95	-1,980.4	-175.5	1,991.7	1,983.7	8.01	248.707	
1,870.1	1,869.0	1,994.4	1,992.6	4.0	4.4	-94.98	-1,974.3	-187.3	1,988.6	1,980.2	8.41	236.458	
1,900.0	1,898.7	2,035.5	2,033.1	4.1	4.5	-94.99	-1,971.2	-193.2	1,987.0	1,978.4	8.59	231.323	
1,968.5	1,966.4	2,129.3	2,125.4	4.3	4.7	-95.02	-1,963.2	-208.6	1,982.9	1,973.9	9.03	219.580	
2,000.0	1,997.5	2,172.4	2,167.5	4.4	4.9	-95.03	-1,959.0	-216.5	1,980.8	1,971.5	9.24	214.315	
2,066.9	2,063.2	2,255.6	2,248.5	4.6	5.2	-95.06	-1,950.2	-233.4	1,975.8	1,966.1	9.71	203.534	
2,100.1	2,095.7	2,288.7	2,280.7	4.7	5.3	-95.10	-1,946.6	-240.3	1,973.2	1,963.3	9.92	198.972	
2,165.3	2,159.5	2,353.8	2,343.9	4.9	5.5	-95.08	-1,939.5	-253.9	1,968.3	1,958.0	10.36	189.991	
2,200.0	2,193.4	2,388.3	2,377.5	5.0	5.6	-95.07	-1,935.7	-261.2	1,965.7	1,955.1	10.60	185.501	
2,224.2	2,217.1	2,412.4	2,400.9	5.1	5.7	-95.06	-1,933.0	-266.2	1,963.9	1,953.1	10.77	182.395	
2,263.8	2,255.9	2,451.9	2,439.3	5.2	5.9	-94.98	-1,928.7	-274.5	1,960.9	1,949.8	11.04	177.686	
2,300.0	2,291.5	2,488.0	2,474.3	5.3	6.0	-94.89	-1,924.8	-282.1	1,958.1	1,946.8	11.28	173.566	
2,362.2	2,352.7	2,549.9	2,534.5	5.5	6.3	-94.70	-1,918.0	-295.0	1,953.2	1,941.5	11.69	167.133	
2,400.0	2,390.1	2,587.5	2,571.0	5.6	6.4	-94.57	-1,913.9	-302.9	1,950.2	1,938.2	11.93	163.414	
2,460.6	2,450.1	2,647.8	2,629.5	5.7	6.7	-94.32	-1,907.3	-315.5	1,945.3	1,932.9	12.33	157.748	
2,500.0	2,489.2	2,686.8	2,667.5	5.8	6.9	-94.14	-1,903.0	-323.7	1,942.0	1,929.4	12.59	154.241	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
2,559.0	2,548.0	2,745.2	2,724.3	6.0	7.1	-93.84	-1,896.6	-335.9	1,937.1	1,924.1	12.98	149.292	
2,600.0	2,588.8	2,785.7	2,763.5	6.1	7.3	-93.61	-1,892.2	-344.4	1,933.7	1,920.4	13.24	146.012	
2,657.5	2,646.1	2,842.2	2,818.5	6.2	7.5	-93.25	-1,886.0	-356.3	1,928.8	1,915.2	13.61	141.703	
2,700.0	2,688.6	2,884.0	2,859.1	6.3	7.7	-92.97	-1,881.4	-365.0	1,925.2	1,911.3	13.89	138.648	
2,755.9	2,744.4	2,938.7	2,912.3	6.4	8.0	-92.57	-1,875.4	-376.5	1,920.5	1,906.2	14.24	134.894	
2,800.0	2,788.5	2,981.7	2,954.0	6.5	8.2	-92.23	-1,870.7	-385.5	1,916.7	1,902.2	14.52	132.051	
2,824.3	2,812.8	3,005.3	2,977.0	6.5	8.3	-172.73	-1,868.1	-390.4	1,914.7	1,901.8	12.85	149.009	
2,854.3	2,842.9	3,034.5	3,005.4	6.6	8.4	-172.54	-1,864.9	-396.6	1,912.2	1,899.2	12.99	147.243	
2,900.0	2,888.5	3,078.9	3,048.5	6.7	8.6	-172.24	-1,860.1	-405.8	1,908.4	1,895.2	13.19	144.640	
2,952.7	2,941.3	3,130.2	3,098.3	6.8	8.9	-171.90	-1,854.5	-416.6	1,904.1	1,890.6	13.44	141.644	
3,000.0	2,988.5	3,176.1	3,142.9	6.9	9.1	-171.59	-1,849.5	-426.2	1,900.3	1,886.6	13.67	139.059	
3,051.2	3,039.7	3,225.8	3,191.2	7.0	9.3	-171.25	-1,844.0	-436.6	1,896.2	1,882.3	13.91	136.356	
3,100.0	3,088.5	3,273.2	3,237.3	7.1	9.5	-170.93	-1,838.8	-446.6	1,892.5	1,878.3	14.14	133.869	
3,149.6	3,138.1	3,321.4	3,284.1	7.2	9.8	-170.60	-1,833.5	-456.7	1,888.7	1,874.3	14.37	131.429	
3,200.0	3,188.5	3,370.4	3,331.7	7.3	10.0	-170.26	-1,828.2	-466.9	1,884.9	1,870.3	14.61	129.036	
3,248.0	3,236.6	3,417.1	3,377.1	7.4	10.2	-169.94	-1,823.1	-476.7	1,881.3	1,866.5	14.83	126.832	
3,300.0	3,288.5	3,467.6	3,426.1	7.5	10.4	-169.60	-1,817.5	-487.3	1,877.6	1,862.5	15.08	124.526	
3,346.4	3,335.0	3,512.7	3,470.0	7.6	10.7	-169.28	-1,812.6	-496.7	1,874.3	1,859.0	15.30	122.534	
3,400.0	3,388.5	3,564.7	3,520.5	7.7	10.9	-168.92	-1,806.9	-507.6	1,870.5	1,855.0	15.55	120.311	
3,444.9	3,433.4	3,608.3	3,562.9	7.8	11.1	-168.62	-1,802.1	-516.8	1,867.5	1,851.7	15.76	118.510	
3,500.0	3,488.5	3,661.9	3,615.0	7.9	11.4	-168.24	-1,796.3	-528.0	1,863.8	1,847.8	16.02	116.366	
3,543.3	3,531.8	3,704.0	3,655.8	8.0	11.6	-167.95	-1,791.7	-536.8	1,860.9	1,844.7	16.22	114.737	
3,600.0	3,588.5	3,759.1	3,709.4	8.1	11.8	-167.56	-1,785.6	-548.3	1,857.3	1,840.8	16.48	112.667	
3,641.7	3,630.3	3,799.6	3,748.8	8.2	12.0	-167.27	-1,781.2	-556.8	1,854.7	1,838.0	16.68	111.193	
3,700.0	3,688.5	3,856.2	3,803.8	8.3	12.3	-166.87	-1,775.0	-568.7	1,851.1	1,834.1	16.95	109.194	
3,740.1	3,728.7	3,895.2	3,841.7	8.4	12.5	-166.60	-1,770.7	-576.9	1,848.7	1,831.5	17.14	107.860	
3,800.0	3,788.5	3,953.4	3,898.2	8.5	12.8	-166.18	-1,764.4	-589.1	1,845.2	1,827.8	17.42	105.928	
3,838.6	3,827.1	3,990.9	3,934.6	8.6	13.0	-165.91	-1,760.3	-596.9	1,843.0	1,825.4	17.60	104.721	
3,900.0	3,888.5	4,050.6	3,992.6	8.7	13.3	-165.49	-1,753.7	-609.4	1,839.5	1,821.7	17.89	102.852	
3,937.0	3,925.5	4,086.5	4,027.5	8.8	13.4	-165.23	-1,749.8	-616.9	1,837.5	1,819.5	18.06	101.759	
4,000.0	3,988.5	4,147.7	4,087.0	9.0	13.7	-164.79	-1,743.1	-629.8	1,834.2	1,815.8	18.35	99.951	
4,035.4	4,024.0	4,182.1	4,120.5	9.0	13.9	-164.54	-1,739.3	-637.0	1,832.4	1,813.8	18.52	98.962	
4,100.0	4,088.5	4,244.9	4,181.4	9.2	14.2	-164.08	-1,732.5	-650.1	1,829.1	1,810.3	18.82	97.210	
4,133.8	4,122.4	4,277.8	4,213.4	9.2	14.4	-163.84	-1,728.8	-657.0	1,827.5	1,808.5	18.97	96.317	
4,200.0	4,188.5	4,342.1	4,275.8	9.4	14.7	-163.37	-1,721.8	-670.5	1,824.4	1,805.1	19.28	94.619	
4,232.3	4,220.8	4,373.4	4,306.3	9.4	14.9	-163.15	-1,718.4	-677.0	1,822.9	1,803.5	19.43	93.812	
4,300.0	4,288.5	4,439.2	4,370.3	9.6	15.2	-162.66	-1,711.2	-690.8	1,819.9	1,800.1	19.75	92.164	
4,330.7	4,319.2	4,469.1	4,399.2	9.7	15.3	-162.45	-1,707.9	-697.1	1,818.6	1,798.7	19.89	91.436	
4,400.0	4,388.5	4,536.4	4,464.7	9.8	15.7	-161.95	-1,700.5	-711.2	1,815.7	1,795.5	20.21	89.836	
4,429.1	4,417.7	4,564.7	4,492.2	9.9	15.8	-161.74	-1,697.4	-717.1	1,814.5	1,794.2	20.35	89.181	
4,500.0	4,488.5	4,633.6	4,559.1	10.0	16.2	-161.23	-1,689.9	-731.5	1,811.8	1,791.2	20.68	87.626	
4,527.5	4,516.1	4,660.3	4,585.1	10.1	16.3	-161.04	-1,687.0	-737.2	1,810.8	1,790.0	20.81	87.037	
4,600.0	4,588.5	4,730.7	4,653.5	10.2	16.6	-160.51	-1,679.3	-751.9	1,808.3	1,787.1	21.14	85.525	
4,626.0	4,614.5	4,756.0	4,678.0	10.3	16.8	-160.33	-1,676.5	-757.2	1,807.4	1,786.1	21.26	84.996	
4,700.0	4,688.5	4,827.9	4,747.9	10.5	17.1	-159.79	-1,668.6	-772.3	1,805.0	1,783.4	21.61	83.526	
4,724.4	4,712.9	4,851.6	4,770.9	10.5	17.2	-159.62	-1,666.0	-777.2	1,804.2	1,782.5	21.72	83.052	
4,800.0	4,788.5	4,925.1	4,842.3	10.7	17.6	-159.07	-1,658.0	-792.6	1,802.0	1,779.9	22.08	81.620	
4,822.8	4,811.4	4,947.2	4,863.9	10.7	17.7	-158.90	-1,655.6	-797.3	1,801.4	1,779.2	22.19	81.198	
4,900.0	4,888.5	5,022.2	4,936.7	10.9	18.1	-158.34	-1,647.4	-813.0	1,799.3	1,776.8	22.55	79.802	
4,921.2	4,909.8	5,042.9	4,956.8	10.9	18.2	-158.19	-1,645.1	-817.3	1,798.8	1,776.2	22.65	79.427	
5,000.0	4,988.5	5,119.4	5,031.1	11.1	18.6	-157.61	-1,636.7	-833.3	1,797.0	1,774.0	23.02	78.066	
5,019.7	5,008.2	5,138.5	5,049.7	11.1	18.7	-157.47	-1,634.6	-837.3	1,796.6	1,773.4	23.11	77.734	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
5,100.0	5,088.5	5,216.6	5,125.6	11.3	19.1	-156.88	-1,626.1	-853.7	1,794.9	1,771.4	23.49	76.406	
5,118.1	5,106.6	5,234.1	5,142.6	11.4	19.2	-156.75	-1,624.2	-857.4	1,794.6	1,771.0	23.58	76.114	
5,200.0	5,188.5	5,313.7	5,220.0	11.5	19.6	-156.15	-1,615.4	-874.0	1,793.2	1,769.2	23.97	74.818	
5,216.5	5,205.1	5,329.8	5,235.6	11.6	19.6	-156.03	-1,613.7	-877.4	1,792.9	1,768.9	24.05	74.562	
5,300.0	5,288.5	5,410.9	5,314.4	11.8	20.0	-155.42	-1,604.8	-894.4	1,791.8	1,767.3	24.45	73.296	
5,314.9	5,303.5	5,425.4	5,328.5	11.8	20.1	-155.31	-1,603.2	-897.4	1,791.6	1,767.1	24.52	73.074	
5,400.0	5,388.5	5,506.8	5,407.6	12.0	20.5	-154.71	-1,594.5	-914.1	1,790.7	1,765.8	24.91	71.887	
5,413.4	5,401.9	5,519.5	5,420.1	12.0	20.5	-154.62	-1,593.2	-916.6	1,790.5	1,765.6	24.97	71.717	
5,500.0	5,488.5	5,602.6	5,501.5	12.2	20.8	-154.08	-1,585.5	-931.3	1,789.9	1,764.6	25.34	70.636	
5,511.8	5,500.3	5,614.0	5,512.6	12.2	20.9	-154.02	-1,584.5	-933.2	1,789.9	1,764.5	25.39	70.494	
5,600.0	5,588.5	5,700.0	5,597.5	12.4	21.1	-153.55	-1,577.8	-946.0	1,789.5	1,763.8	25.77	69.447	
5,610.2	5,598.8	5,709.6	5,606.9	12.4	21.1	-153.51	-1,577.2	-947.3	1,789.5	1,763.7	25.81	69.332	
5,700.0	5,688.5	5,797.7	5,694.2	12.6	21.4	-153.13	-1,571.7	-957.8	1,789.3	1,763.1	26.19	68.323	
5,708.6	5,697.2	5,806.2	5,702.7	12.6	21.4	-153.10	-1,571.2	-958.7	1,789.3	1,763.1	26.22	68.229	
5,800.0	5,788.5	5,896.6	5,792.6	12.8	21.6	-152.81	-1,567.0	-966.7	1,789.2	1,762.6	26.60	67.257	
5,807.1	5,795.6	5,903.6	5,799.6	12.9	21.6	-152.79	-1,566.7	-967.3	1,789.2	1,762.6	26.63	67.183	
5,900.0	5,888.5	5,996.0	5,891.8	13.1	21.8	-152.59	-1,563.9	-972.7	1,789.2	1,762.2	27.01	66.248	
5,905.5	5,894.0	6,001.5	5,897.3	13.1	21.8	-152.58	-1,563.8	-972.9	1,789.2	1,762.1	27.03	66.193	
6,000.0	5,988.5	7,416.5	6,780.5	13.3	25.5	179.61	-1,562.2	-138.3	1,772.0	1,742.4	29.60	59.867	
6,003.9	5,992.5	7,416.5	6,780.5	13.3	25.5	179.62	-1,562.2	-138.4	1,770.2	1,740.6	29.61	59.791	
6,085.3	6,073.8	7,415.4	6,780.5	13.5	25.5	179.65	-1,562.2	-139.5	1,735.7	1,705.9	29.79	58.271	
6,100.0	6,088.5	7,415.0	6,780.5	13.5	25.5	-90.85	-1,562.2	-139.9	1,729.8	1,690.9	38.88	44.492	
6,102.3	6,090.9	7,414.9	6,780.5	13.5	25.5	-90.93	-1,562.2	-139.9	1,728.9	1,690.0	38.88	44.466	
6,150.0	6,138.4	7,411.6	6,780.5	13.6	25.4	-92.39	-1,562.2	-143.3	1,710.5	1,671.7	38.88	44.001	
6,200.0	6,188.0	7,404.7	6,780.6	13.7	25.3	-93.68	-1,562.2	-150.2	1,692.7	1,653.8	38.83	43.589	
6,200.8	6,188.8	7,404.5	6,780.6	13.7	25.3	-93.69	-1,562.2	-150.4	1,692.4	1,653.6	38.83	43.583	
6,250.0	6,237.1	7,394.3	6,780.8	13.9	25.2	-94.70	-1,562.2	-160.6	1,676.3	1,637.5	38.77	43.240	
6,299.2	6,284.6	7,380.8	6,781.0	14.0	25.0	-95.46	-1,562.2	-174.1	1,661.6	1,622.9	38.69	42.949	
6,300.0	6,285.3	7,380.6	6,781.0	14.0	25.0	-95.47	-1,562.2	-174.3	1,661.4	1,622.7	38.69	42.944	
6,350.0	6,332.5	7,363.5	6,781.2	14.2	24.7	-96.00	-1,562.2	-191.4	1,648.0	1,609.5	38.59	42.709	
6,397.6	6,376.3	7,344.2	6,781.5	14.4	24.5	-96.29	-1,562.2	-210.6	1,636.8	1,598.3	38.48	42.535	
6,400.0	6,378.5	7,343.2	6,781.5	14.4	24.5	-96.30	-1,562.2	-211.7	1,636.3	1,597.8	38.48	42.528	
6,450.0	6,423.0	7,319.8	6,781.8	14.7	24.1	-96.39	-1,562.2	-235.1	1,626.0	1,587.7	38.36	42.394	
6,496.0	6,462.4	7,288.1	6,782.0	14.9	23.7	-96.09	-1,562.2	-266.8	1,617.9	1,579.7	38.17	42.384	
6,500.0	6,465.7	7,284.3	6,782.0	14.9	23.7	-96.02	-1,562.2	-270.6	1,617.3	1,579.1	38.15	42.396	
6,550.0	6,506.6	7,238.9	6,779.9	15.2	23.1	-95.27	-1,562.2	-315.9	1,609.6	1,571.7	37.90	42.467	
6,594.5	6,541.2	7,201.6	6,776.0	15.6	22.8	-94.62	-1,562.2	-353.0	1,603.8	1,566.0	37.80	42.425	
6,600.0	6,545.3	7,197.1	6,775.4	15.6	22.7	-94.54	-1,562.2	-357.5	1,603.1	1,565.3	37.80	42.415	
6,650.0	6,581.8	7,157.9	6,769.0	16.0	22.4	-93.80	-1,562.2	-396.1	1,597.7	1,559.9	37.82	42.241	
6,692.9	6,611.1	7,125.9	6,762.2	16.4	22.1	-93.16	-1,562.2	-427.4	1,593.9	1,556.0	37.95	41.999	
6,700.0	6,615.8	7,120.8	6,760.9	16.5	22.1	-93.05	-1,562.2	-432.4	1,593.4	1,555.4	37.98	41.958	
6,750.0	6,647.1	7,085.2	6,751.5	17.1	21.8	-92.27	-1,562.2	-466.6	1,590.2	1,551.9	38.24	41.581	
6,791.3	6,670.9	7,056.9	6,742.8	17.6	21.7	-91.60	-1,562.2	-493.6	1,588.3	1,549.8	38.55	41.199	
6,800.0	6,675.7	7,051.0	6,740.9	17.7	21.6	-91.46	-1,562.2	-499.1	1,588.0	1,549.4	38.62	41.122	
6,850.0	6,701.3	7,017.9	6,729.1	18.4	21.5	-90.61	-1,562.2	-530.1	1,586.9	1,547.7	39.11	40.570	
6,884.7	6,717.3	6,995.4	6,720.3	18.9	21.4	-90.00	-1,562.2	-550.8	1,586.6	1,547.1	39.51	40.153 CC	
6,889.7	6,719.5	6,992.2	6,718.9	19.0	21.4	-89.91	-1,562.2	-553.7	1,586.6	1,547.1	39.58	40.090	
6,900.0	6,723.8	6,985.6	6,716.2	19.1	21.4	-89.73	-1,562.2	-559.7	1,586.7	1,547.0	39.70	39.965 ES	
6,950.0	6,743.2	6,954.1	6,702.4	20.0	21.3	-88.81	-1,562.2	-588.1	1,587.4	1,547.0	40.37	39.316	
6,988.2	6,755.8	6,930.4	6,691.2	20.6	21.3	-88.09	-1,562.2	-608.9	1,588.5	1,547.6	40.96	38.785	
7,000.0	6,759.4	6,923.1	6,687.6	20.9	21.2	-87.86	-1,562.2	-615.3	1,589.0	1,547.8	41.14	38.627	
7,050.0	6,772.1	6,892.7	6,671.9	21.8	21.2	-86.89	-1,562.2	-641.3	1,591.3	1,549.4	41.95	37.931	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBORE - P												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	
7,086.6	6,779.4	6,870.7	6,659.9	22.5	21.2	-86.16	-1,562.2	-659.8	1,593.5	1,550.9	42.59	37.411	
7,100.0	6,781.5	6,862.7	6,655.4	22.8	21.2	-85.89	-1,562.2	-666.4	1,594.4	1,551.5	42.83	37.229	
7,150.0	6,787.5	6,833.1	6,638.1	23.9	21.2	-84.88	-1,562.2	-690.4	1,598.0	1,554.3	43.73	36.540	
7,185.0	6,789.6	6,812.5	6,625.5	24.6	21.2	-84.16	-1,562.2	-706.6	1,601.0	1,556.6	44.39	36.070	
7,200.0	6,789.9	6,800.0	6,617.6	24.9	21.2	-83.77	-1,562.2	-716.4	1,602.3	1,557.6	44.65	35.887	
7,213.0	6,790.0	6,800.0	6,617.6	25.2	21.2	-83.67	-1,562.2	-716.4	1,603.5	1,558.6	44.91	35.704	
7,283.4	6,789.7	6,757.2	6,589.3	26.8	21.3	-82.67	-1,562.2	-748.5	1,610.8	1,564.5	46.38	34.732	
7,300.0	6,789.7	6,750.0	6,584.4	27.2	21.3	-82.50	-1,562.2	-753.7	1,612.8	1,566.1	46.73	34.516	
7,381.9	6,789.4	6,708.5	6,555.0	29.1	21.3	-81.46	-1,562.2	-782.9	1,624.3	1,575.7	48.53	33.471	
7,400.0	6,789.3	6,700.0	6,548.7	29.5	21.4	-81.24	-1,562.2	-788.7	1,627.2	1,578.2	48.92	33.259	
7,480.3	6,789.0	6,666.0	6,523.1	31.4	21.4	-80.34	-1,562.2	-811.0	1,641.6	1,590.8	50.75	32.344	
7,500.0	6,788.9	6,650.0	6,510.6	31.9	21.5	-79.90	-1,562.2	-821.1	1,645.6	1,594.4	51.18	32.154	
7,578.7	6,788.6	6,628.8	6,493.8	33.8	21.5	-79.32	-1,562.2	-834.0	1,663.1	1,610.0	53.03	31.359	
7,600.0	6,788.5	6,621.4	6,487.8	34.4	21.5	-79.11	-1,562.2	-838.4	1,668.3	1,614.7	53.53	31.167	
7,677.1	6,788.2	6,600.0	6,470.4	36.3	21.6	-78.50	-1,562.2	-850.8	1,688.8	1,633.4	55.36	30.506	
7,700.0	6,788.2	6,600.0	6,470.4	36.9	21.6	-78.50	-1,562.2	-850.8	1,695.4	1,639.5	55.92	30.317	
7,775.6	6,787.9	6,567.2	6,442.9	38.8	21.6	-77.56	-1,562.2	-868.6	1,718.8	1,661.1	57.69	29.794	
7,800.0	6,787.8	6,550.0	6,428.2	39.4	21.7	-77.05	-1,562.2	-877.5	1,726.9	1,668.7	58.22	29.662	
7,874.0	6,787.5	6,550.0	6,428.2	41.3	21.7	-77.05	-1,562.2	-877.5	1,753.0	1,692.9	60.09	29.173	
7,900.0	6,787.4	6,535.4	6,415.5	42.0	21.7	-76.62	-1,562.2	-884.8	1,762.7	1,702.0	60.67	29.053	
7,972.4	6,787.1	6,518.9	6,401.0	43.9	21.7	-76.13	-1,562.2	-892.7	1,791.3	1,728.8	62.43	28.695	
8,000.0	6,787.0	6,500.0	6,384.2	44.6	21.8	-75.56	-1,562.2	-901.3	1,802.8	1,739.8	63.01	28.610	
8,070.8	6,786.7	6,500.0	6,384.2	46.5	21.8	-75.56	-1,562.2	-901.3	1,833.5	1,768.7	64.82	28.284	
8,100.0	6,786.6	6,500.0	6,384.2	47.3	21.8	-75.56	-1,562.2	-901.3	1,846.8	1,781.2	65.57	28.165	
8,169.3	6,786.4	6,480.4	6,366.5	49.1	21.8	-74.96	-1,562.2	-909.8	1,879.5	1,812.3	67.21	27.962	
8,200.0	6,786.3	6,475.1	6,361.7	49.9	21.8	-74.80	-1,562.2	-912.0	1,894.6	1,826.6	67.96	27.876	
8,267.7	6,786.0	6,450.0	6,338.7	51.7	21.9	-74.03	-1,562.2	-921.9	1,929.2	1,859.7	69.51	27.753	
8,300.0	6,785.9	6,450.0	6,338.7	52.6	21.9	-74.03	-1,562.2	-921.9	1,946.1	1,875.7	70.34	27.666	
8,366.1	6,785.6	6,450.0	6,338.7	54.4	21.9	-74.03	-1,562.2	-921.9	1,981.9	1,909.9	72.05	27.506	
8,400.0	6,785.5	6,450.0	6,338.7	55.3	21.9	-74.03	-1,562.2	-921.9	2,000.9	1,927.9	72.93	27.436	
8,464.5	6,785.2	6,450.0	6,338.7	57.0	21.9	-74.03	-1,562.2	-921.9	2,038.1	1,963.5	74.61	27.317	
8,500.0	6,785.1	6,430.9	6,320.9	58.0	21.9	-73.44	-1,562.2	-929.0	2,058.8	1,983.5	75.34	27.326	
8,563.0	6,784.9	6,423.1	6,313.6	59.7	21.9	-73.20	-1,562.2	-931.7	2,096.8	2,019.9	76.90	27.266	
8,600.0	6,784.7	6,418.8	6,309.5	60.7	21.9	-73.06	-1,562.2	-933.2	2,119.7	2,041.9	77.82	27.239	
8,661.4	6,784.5	6,400.0	6,291.8	62.4	22.0	-72.48	-1,562.2	-939.4	2,158.5	2,079.3	79.21	27.251	
8,700.0	6,784.3	6,400.0	6,291.8	63.4	22.0	-72.48	-1,562.2	-939.4	2,183.3	2,103.1	80.21	27.220	
8,759.8	6,784.1	6,400.0	6,291.8	65.0	22.0	-72.48	-1,562.2	-939.4	2,222.5	2,140.8	81.77	27.180	
8,800.0	6,784.0	6,400.0	6,291.8	66.1	22.0	-72.48	-1,562.2	-939.4	2,249.4	2,166.6	82.82	27.161	
8,858.2	6,783.7	6,400.0	6,291.8	67.7	22.0	-72.48	-1,562.2	-939.4	2,289.0	2,204.6	84.34	27.141	
8,900.0	6,783.6	6,400.0	6,291.8	68.9	22.0	-72.48	-1,562.2	-939.4	2,317.8	2,232.4	85.43	27.132	
8,956.7	6,783.3	6,400.0	6,291.8	70.4	22.0	-72.48	-1,562.2	-939.4	2,357.7	2,270.7	86.91	27.127 SF	
9,000.0	6,783.2	6,379.4	6,272.1	71.6	22.0	-71.83	-1,562.2	-945.6	2,388.2	2,300.5	87.77	27.210	
9,055.1	6,783.0	6,374.9	6,267.8	73.1	22.0	-71.69	-1,562.2	-946.9	2,427.9	2,338.8	89.15	27.235	
9,100.0	6,782.8	6,371.3	6,264.4	74.3	22.0	-71.58	-1,562.2	-947.8	2,460.7	2,370.4	90.27	27.259	
9,153.5	6,782.6	6,350.0	6,243.8	75.8	22.0	-70.92	-1,562.2	-953.5	2,500.4	2,409.1	91.35	27.371	
9,200.0	6,782.4	6,350.0	6,243.8	77.1	22.0	-70.92	-1,562.2	-953.5	2,535.0	2,442.5	92.56	27.387	
9,251.9	6,782.2	6,350.0	6,243.8	78.5	22.0	-70.92	-1,562.2	-953.5	2,574.2	2,480.3	93.92	27.409	
9,300.0	6,782.0	6,350.0	6,243.8	79.8	22.0	-70.92	-1,562.2	-953.5	2,610.8	2,515.6	95.17	27.432	
9,350.4	6,781.8	6,350.0	6,243.8	81.2	22.0	-70.92	-1,562.2	-953.5	2,649.6	2,553.1	96.49	27.460	
9,400.0	6,781.6	6,350.0	6,243.8	82.6	22.0	-70.91	-1,562.2	-953.5	2,688.2	2,590.4	97.79	27.490	
9,448.8	6,781.4	6,350.0	6,243.8	83.9	22.0	-70.91	-1,562.2	-953.5	2,726.4	2,627.4	99.06	27.522	
9,500.0	6,781.2	6,350.0	6,243.8	85.4	22.0	-70.91	-1,562.2	-953.5	2,767.0	2,666.6	100.40	27.559	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBORE - P												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	6,781.0	6,350.0	6,243.8	86.7	22.0	-70.91	-1,562.2	-953.5	2,804.6	2,703.0	101.64	27.594	
9,600.0	6,780.8	6,350.0	6,243.8	88.1	22.0	-70.91	-1,562.2	-953.5	2,847.1	2,744.1	103.02	27.636	
9,645.6	6,780.7	6,350.0	6,243.8	89.4	22.0	-70.91	-1,562.2	-953.5	2,884.1	2,779.9	104.22	27.673	
9,700.0	6,780.5	6,350.0	6,243.8	90.9	22.0	-70.91	-1,562.2	-953.5	2,928.4	2,822.8	105.64	27.720	
9,744.1	6,780.3	6,350.0	6,243.8	92.1	22.0	-70.91	-1,562.2	-953.5	2,964.7	2,857.9	106.80	27.759	
9,800.0	6,780.1	6,328.3	6,222.7	93.7	22.0	-70.24	-1,562.2	-958.5	3,010.6	2,902.7	107.86	27.912	
9,842.5	6,779.9	6,326.2	6,220.7	94.8	22.0	-70.17	-1,562.2	-959.0	3,045.9	2,936.9	108.93	27.961	
9,900.0	6,779.7	6,323.6	6,218.1	96.4	22.0	-70.09	-1,562.2	-959.5	3,093.9	2,983.5	110.38	28.029	
9,940.9	6,779.5	6,321.7	6,216.3	97.6	22.0	-70.03	-1,562.2	-959.9	3,128.3	3,016.9	111.42	28.077	
10,000.0	6,779.3	6,300.0	6,195.0	99.2	22.1	-69.35	-1,562.2	-964.2	3,178.5	3,065.9	112.51	28.249	
10,039.3	6,779.1	6,300.0	6,195.0	100.3	22.1	-69.35	-1,562.2	-964.2	3,211.8	3,098.3	113.54	28.288	
10,100.0	6,778.9	6,300.0	6,195.0	102.0	22.1	-69.35	-1,562.2	-964.2	3,263.5	3,148.4	115.12	28.348	
10,137.8	6,778.7	6,300.0	6,195.0	103.0	22.1	-69.35	-1,562.2	-964.2	3,295.8	3,179.7	116.11	28.386	
10,200.0	6,778.5	6,300.0	6,195.0	104.8	22.1	-69.35	-1,562.2	-964.2	3,349.3	3,231.6	117.73	28.449	
10,236.2	6,778.3	6,300.0	6,195.0	105.8	22.1	-69.35	-1,562.2	-964.2	3,380.6	3,261.9	118.67	28.486	
10,300.0	6,778.1	6,300.0	6,195.0	107.5	22.1	-69.35	-1,562.2	-964.2	3,435.9	3,315.6	120.34	28.552	
10,334.6	6,778.0	6,300.0	6,195.0	108.5	22.1	-69.35	-1,562.2	-964.2	3,466.1	3,344.8	121.24	28.588	
10,400.0	6,777.7	6,300.0	6,195.0	110.3	22.1	-69.35	-1,562.2	-964.2	3,523.3	3,400.3	122.95	28.656	
10,433.0	6,777.6	6,300.0	6,195.0	111.2	22.1	-69.35	-1,562.2	-964.2	3,552.3	3,428.4	123.82	28.690	
10,500.0	6,777.3	6,300.0	6,195.0	113.1	22.1	-69.35	-1,562.2	-964.2	3,611.2	3,485.7	125.57	28.760	
10,531.5	6,777.2	6,300.0	6,195.0	114.0	22.1	-69.35	-1,562.2	-964.2	3,639.1	3,512.7	126.39	28.793	
10,600.0	6,776.9	6,300.0	6,195.0	115.9	22.1	-69.35	-1,562.2	-964.2	3,699.8	3,571.6	128.18	28.864	
10,629.9	6,776.8	6,300.0	6,195.0	116.7	22.1	-69.35	-1,562.2	-964.2	3,726.4	3,597.5	128.96	28.896	
10,700.0	6,776.5	6,300.0	6,195.0	118.7	22.1	-69.35	-1,562.2	-964.2	3,789.0	3,658.2	130.80	28.969	
10,728.3	6,776.4	6,300.0	6,195.0	119.5	22.1	-69.35	-1,562.2	-964.2	3,814.3	3,682.8	131.54	28.998	
10,800.0	6,776.1	6,300.0	6,195.0	121.4	22.1	-69.35	-1,562.2	-964.2	3,878.7	3,745.3	133.41	29.073	
10,826.7	6,776.0	6,300.0	6,195.0	122.2	22.1	-69.35	-1,562.2	-964.2	3,902.7	3,768.6	134.11	29.101	
10,900.0	6,775.7	6,300.0	6,195.0	124.2	22.1	-69.35	-1,562.2	-964.2	3,968.9	3,832.8	136.03	29.176	
10,925.2	6,775.6	6,300.0	6,195.0	124.9	22.1	-69.35	-1,562.2	-964.2	3,991.6	3,854.9	136.69	29.202	
11,000.0	6,775.3	6,300.0	6,195.0	127.0	22.1	-69.35	-1,562.2	-964.2	4,059.5	3,920.8	138.65	29.279	
11,023.6	6,775.2	6,300.0	6,195.0	127.7	22.1	-69.35	-1,562.2	-964.2	4,080.9	3,941.7	139.27	29.303	
11,100.0	6,774.9	6,300.0	6,195.0	129.8	22.1	-69.35	-1,562.2	-964.2	4,150.6	4,009.3	141.27	29.381	
11,122.0	6,774.8	6,300.0	6,195.0	130.4	22.1	-69.35	-1,562.2	-964.2	4,170.7	4,028.8	141.85	29.403	
11,200.0	6,774.5	6,300.0	6,195.0	132.6	22.1	-69.35	-1,562.2	-964.2	4,242.0	4,098.1	143.89	29.481	
11,220.4	6,774.4	6,300.0	6,195.0	133.2	22.1	-69.35	-1,562.2	-964.2	4,260.8	4,116.4	144.42	29.502	
11,300.0	6,774.1	6,277.8	6,173.2	135.4	22.1	-68.66	-1,562.2	-967.8	4,333.5	4,187.6	145.88	29.706	
11,318.9	6,774.0	6,277.4	6,172.7	135.9	22.1	-68.64	-1,562.2	-967.9	4,350.9	4,204.5	146.36	29.727	
11,400.0	6,773.7	6,275.6	6,170.9	138.2	22.1	-68.59	-1,562.2	-968.2	4,425.6	4,277.2	148.43	29.817	
11,417.3	6,773.6	6,275.2	6,170.5	138.7	22.1	-68.57	-1,562.2	-968.2	4,441.6	4,292.7	148.87	29.836	
11,500.0	6,773.3	6,273.4	6,168.8	141.0	22.1	-68.52	-1,562.2	-968.5	4,518.1	4,367.1	150.97	29.927	
11,515.7	6,773.2	6,273.0	6,168.4	141.4	22.1	-68.51	-1,562.2	-968.5	4,532.6	4,381.3	151.37	29.944	
11,600.0	6,772.9	6,250.0	6,145.6	143.8	22.1	-67.80	-1,562.2	-971.5	4,611.2	4,458.3	152.86	30.166	
11,614.1	6,772.8	6,250.0	6,145.6	144.2	22.1	-67.80	-1,562.2	-971.5	4,624.3	4,471.1	153.23	30.179	
11,700.0	6,772.5	6,250.0	6,145.6	146.6	22.1	-67.80	-1,562.2	-971.5	4,704.2	4,548.7	155.46	30.260	
11,712.6	6,772.4	6,250.0	6,145.6	146.9	22.1	-67.80	-1,562.2	-971.5	4,715.9	4,560.1	155.79	30.272	
11,800.0	6,772.1	6,250.0	6,145.6	149.4	22.1	-67.79	-1,562.2	-971.5	4,797.4	4,639.4	158.06	30.352	
11,811.0	6,772.1	6,250.0	6,145.6	149.7	22.1	-67.79	-1,562.2	-971.5	4,807.7	4,649.4	158.34	30.363	
11,900.0	6,771.7	6,250.0	6,145.6	152.2	22.1	-67.79	-1,562.2	-971.5	4,891.0	4,730.3	160.66	30.444	
11,909.4	6,771.7	6,250.0	6,145.6	152.4	22.1	-67.79	-1,562.2	-971.5	4,899.8	4,738.9	160.90	30.452	
12,000.0	6,771.3	6,250.0	6,145.6	154.9	22.1	-67.79	-1,562.2	-971.5	4,984.7	4,821.5	163.26	30.533	
12,007.8	6,771.3	6,250.0	6,145.6	155.2	22.1	-67.79	-1,562.2	-971.5	4,992.1	4,828.7	163.46	30.540	
12,100.0	6,770.9	6,250.0	6,145.6	157.7	22.1	-67.79	-1,562.2	-971.5	5,078.8	4,912.9	165.86	30.621	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-332 - ORIGINAL WELLBORE - P												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	6,770.9	6,250.0	6,145.6	157.9	22.1	-67.79	-1,562.2	-971.5	5,084.7	4,918.7	166.02	30.627	
12,200.0	6,770.5	6,250.0	6,145.6	160.5	22.1	-67.79	-1,562.2	-971.5	5,173.0	5,004.6	168.46	30.708	
12,204.7	6,770.5	6,250.0	6,145.6	160.7	22.1	-67.79	-1,562.2	-971.5	5,177.4	5,008.9	168.58	30.712	
12,300.0	6,770.1	6,250.0	6,145.6	163.3	22.1	-67.79	-1,562.2	-971.5	5,267.5	5,096.4	171.06	30.794	
12,303.1	6,770.1	6,250.0	6,145.6	163.4	22.1	-67.79	-1,562.2	-971.5	5,270.4	5,099.3	171.14	30.796	
12,316.4	6,770.0	6,250.0	6,145.6	163.8	22.1	-67.79	-1,562.2	-971.5	5,283.0	5,111.5	171.48	30.807	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
0.0	0.0	3.0	3.0	0.0	0.0	-175.50	-1,975.3	-155.4	1,981.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.50	-1,975.3	-155.4	1,981.4	1,981.2	0.20	N/A	
100.0	100.0	103.0	103.0	0.1	0.1	-175.50	-1,975.3	-155.4	1,981.4	1,981.2	0.20	9,794.808	
196.8	196.8	199.8	199.8	0.3	0.3	-175.50	-1,975.3	-155.4	1,981.4	1,980.8	0.64	3,107.273	
200.0	200.0	203.0	203.0	0.3	0.3	-175.50	-1,975.3	-155.4	1,981.4	1,980.7	0.65	3,039.770	
295.3	295.3	298.3	298.3	0.5	0.5	-175.50	-1,975.3	-155.4	1,981.4	1,980.3	1.08	1,834.426	
300.0	300.0	303.0	303.0	0.5	0.6	-175.50	-1,975.3	-155.4	1,981.4	1,980.3	1.10	1,799.048	
393.7	393.7	396.7	396.7	0.8	0.8	-175.50	-1,975.3	-155.4	1,981.4	1,979.9	1.52	1,301.349	
400.0	400.0	403.0	403.0	0.8	0.8	-175.50	-1,975.3	-155.4	1,981.4	1,979.8	1.55	1,277.585	
492.1	492.1	495.1	495.1	1.0	1.0	-175.50	-1,975.3	-155.4	1,981.4	1,979.4	1.97	1,008.331	
500.0	500.0	503.0	503.0	1.0	1.0	-175.50	-1,975.3	-155.4	1,981.4	1,979.4	2.00	990.487	
590.5	590.5	593.5	593.5	1.2	1.2	-175.50	-1,975.3	-155.4	1,981.4	1,979.0	2.41	823.017	
600.0	600.0	603.0	603.0	1.2	1.2	-175.50	-1,975.3	-155.4	1,981.4	1,978.9	2.45	808.746	
689.0	689.0	692.0	692.0	1.4	1.4	-175.50	-1,975.3	-155.4	1,981.4	1,978.5	2.85	695.243	
700.0	700.0	703.0	703.0	1.4	1.5	-175.50	-1,975.3	-155.4	1,981.4	1,978.5	2.90	683.359	
787.4	787.4	790.4	790.4	1.6	1.6	-175.50	-1,975.3	-155.4	1,981.4	1,978.1	3.29	601.812	
800.0	800.0	803.0	803.0	1.7	1.7	-175.50	-1,975.3	-155.4	1,981.4	1,978.0	3.35	591.633	
885.8	885.8	888.8	888.8	1.9	1.9	-175.50	-1,975.3	-155.4	1,981.4	1,977.7	3.73	530.517	
900.0	900.0	903.0	903.0	1.9	1.9	-175.50	-1,975.3	-155.4	1,981.4	1,977.6	3.80	521.618	
984.2	984.2	987.2	987.2	2.1	2.1	-175.50	-1,975.3	-155.4	1,981.4	1,977.2	4.18	474.325	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.50	-1,975.3	-155.4	1,981.4	1,977.1	4.25	466.420	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-175.50	-1,975.3	-155.4	1,981.4	1,976.8	4.62	428.897	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-175.50	-1,975.3	-155.4	1,981.4	1,976.7	4.70	421.786	
1,181.1	1,181.1	1,184.1	1,184.1	2.5	2.5	-175.50	-1,975.3	-155.4	1,981.4	1,976.3	5.06	391.410	
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-175.50	-1,975.3	-155.4	1,981.4	1,976.2	5.15	384.949	
1,279.5	1,279.5	1,282.5	1,282.5	2.7	2.8	-175.50	-1,975.3	-155.4	1,981.4	1,975.9	5.50	359.949	
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	-175.50	-1,975.3	-155.4	1,981.4	1,975.8	5.60	354.030	
1,377.9	1,377.9	1,380.9	1,380.9	3.0	3.0	-175.50	-1,975.3	-155.4	1,981.4	1,975.4	5.95	333.170	
1,400.0	1,400.0	1,403.0	1,403.0	3.0	3.0	-175.50	-1,975.3	-155.4	1,981.4	1,975.3	6.05	327.708	
1,476.4	1,476.4	1,508.5	1,508.5	3.2	3.3	-175.51	-1,974.9	-155.0	1,981.2	1,974.7	6.45	307.078	
1,500.0	1,500.0	1,555.5	1,555.5	3.2	3.4	-175.54	-1,974.0	-154.0	1,980.7	1,974.1	6.61	299.826	
1,574.8	1,574.8	1,703.8	1,703.4	3.4	3.7	-95.15	-1,967.8	-147.0	1,977.4	1,970.3	7.10	278.682	
1,600.0	1,600.0	1,753.3	1,752.8	3.5	3.8	-95.32	-1,964.6	-143.4	1,975.7	1,968.4	7.26	272.012	
1,673.2	1,673.1	1,895.7	1,893.9	3.6	4.1	-96.03	-1,952.3	-129.5	1,969.2	1,961.5	7.75	254.002	
1,700.0	1,699.8	1,947.0	1,944.5	3.7	4.3	-96.36	-1,946.8	-123.2	1,966.3	1,958.3	7.94	247.659	
1,771.6	1,771.2	2,066.3	2,061.6	3.8	4.6	-97.31	-1,931.5	-106.0	1,957.1	1,948.6	8.42	232.563	
1,800.0	1,799.5	2,093.5	2,088.2	3.9	4.7	-97.58	-1,927.8	-101.8	1,953.2	1,944.7	8.55	228.351	
1,870.1	1,869.0	2,160.5	2,153.7	4.0	4.9	-98.29	-1,918.5	-91.4	1,944.1	1,935.2	8.91	218.118	
1,900.0	1,898.7	2,189.0	2,181.6	4.1	5.0	-98.60	-1,914.6	-87.0	1,940.3	1,931.3	9.07	214.005	
1,968.5	1,966.4	2,253.9	2,245.1	4.3	5.3	-99.35	-1,905.7	-76.9	1,932.0	1,922.6	9.44	204.633	
2,000.0	1,997.5	2,283.6	2,274.1	4.4	5.4	-99.70	-1,901.6	-72.2	1,928.3	1,918.7	9.61	200.567	
2,066.9	2,063.2	2,346.3	2,335.4	4.6	5.6	-100.48	-1,892.9	-62.5	1,920.9	1,910.9	10.01	191.923	
2,100.1	2,095.7	2,377.2	2,365.6	4.7	5.7	-100.87	-1,888.7	-57.7	1,917.5	1,907.3	10.20	187.896	
2,165.3	2,159.5	2,437.8	2,425.0	4.9	5.9	-101.52	-1,880.3	-48.3	1,910.9	1,900.3	10.62	180.019	
2,200.0	2,193.4	2,470.0	2,456.5	5.0	6.0	-101.87	-1,875.9	-43.2	1,907.5	1,896.7	10.83	176.063	
2,224.2	2,217.1	2,492.5	2,478.5	5.1	6.1	-102.11	-1,872.8	-39.7	1,905.3	1,894.3	10.99	173.348	
2,263.8	2,255.9	2,529.4	2,514.6	5.2	6.3	-102.43	-1,867.7	-34.0	1,901.5	1,890.3	11.24	169.237	
2,300.0	2,291.5	2,563.3	2,547.7	5.3	6.4	-102.71	-1,863.0	-28.7	1,898.1	1,886.6	11.46	165.612	
2,362.2	2,352.7	2,621.9	2,605.0	5.5	6.6	-103.17	-1,854.9	-19.6	1,892.1	1,880.3	11.83	159.991	
2,400.0	2,390.1	2,657.6	2,640.0	5.6	6.8	-103.44	-1,850.0	-14.1	1,888.4	1,876.4	12.05	156.709	
2,460.6	2,450.1	2,715.3	2,696.4	5.7	7.0	-103.84	-1,842.1	-5.1	1,882.5	1,870.1	12.41	151.718	
2,500.0	2,489.2	2,752.9	2,733.2	5.8	7.1	-104.09	-1,836.9	0.7	1,878.5	1,865.9	12.64	148.597	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P													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		
2,559.0	2,548.0	2,809.5	2,788.6	6.0	7.4	-104.43	-1,829.1	9.6	1,872.4	1,859.4	12.99	144.196		
2,600.0	2,588.8	2,849.0	2,827.2	6.1	7.5	-104.64	-1,823.6	15.7	1,868.1	1,854.9	13.23	141.250		
2,657.5	2,646.1	2,904.6	2,881.5	6.2	7.7	-104.92	-1,816.0	24.3	1,861.9	1,848.3	13.55	137.377		
2,700.0	2,688.6	2,945.8	2,921.9	6.3	7.9	-105.10	-1,810.3	30.8	1,857.1	1,843.3	13.80	134.603		
2,755.9	2,744.4	3,000.2	2,975.1	6.4	8.1	-105.32	-1,802.8	39.2	1,850.7	1,836.6	14.11	131.189		
2,800.0	2,788.5	3,043.3	3,017.2	6.5	8.3	-105.47	-1,796.8	45.9	1,845.5	1,831.1	14.35	128.576		
2,824.3	2,812.8	3,067.0	3,040.4	6.5	8.4	173.76	-1,793.6	49.6	1,842.5	1,829.1	13.40	137.526		
2,854.3	2,842.9	3,096.4	3,069.2	6.6	8.5	173.61	-1,789.5	54.2	1,838.9	1,825.3	13.54	135.770		
2,900.0	2,888.5	3,141.1	3,112.9	6.7	8.7	173.37	-1,783.4	61.1	1,833.4	1,819.6	13.77	133.169		
2,952.7	2,941.3	3,192.7	3,163.3	6.8	8.9	173.09	-1,776.2	69.1	1,827.0	1,813.0	14.03	130.195		
3,000.0	2,988.5	3,238.9	3,208.6	6.9	9.1	172.84	-1,769.9	76.3	1,821.4	1,807.1	14.27	127.626		
3,051.2	3,039.7	3,288.9	3,257.5	7.0	9.3	172.57	-1,763.0	84.1	1,815.3	1,800.8	14.53	124.946		
3,100.0	3,088.5	3,336.7	3,304.2	7.1	9.5	172.31	-1,756.4	91.6	1,809.5	1,794.8	14.77	122.478		
3,149.6	3,138.1	3,385.2	3,351.7	7.2	9.7	172.04	-1,749.7	99.1	1,803.7	1,788.7	15.02	120.059		
3,200.0	3,188.5	3,434.5	3,399.9	7.3	10.0	171.76	-1,742.9	106.8	1,797.9	1,782.6	15.28	117.687		
3,248.0	3,236.6	3,481.5	3,445.9	7.4	10.2	171.50	-1,736.4	114.1	1,792.3	1,776.8	15.52	115.503		
3,300.0	3,288.5	3,532.3	3,495.6	7.5	10.4	171.21	-1,729.4	122.0	1,786.3	1,770.6	15.78	113.220		
3,346.4	3,335.0	3,577.8	3,540.0	7.6	10.6	170.96	-1,723.2	129.0	1,781.1	1,765.0	16.01	111.247		
3,400.0	3,388.5	3,630.2	3,591.3	7.7	10.8	170.66	-1,715.9	137.2	1,775.0	1,758.7	16.28	109.048		
3,444.9	3,433.4	3,674.1	3,634.2	7.8	11.0	170.41	-1,709.9	144.0	1,770.0	1,753.5	16.50	107.265		
3,500.0	3,488.5	3,728.0	3,687.0	7.9	11.2	170.10	-1,702.5	152.4	1,763.8	1,747.1	16.78	105.146		
3,543.3	3,531.8	3,770.3	3,728.4	8.0	11.4	169.85	-1,696.6	159.0	1,759.1	1,742.1	16.99	103.533		
3,600.0	3,588.5	3,825.8	3,782.6	8.1	11.6	169.53	-1,689.0	167.6	1,752.8	1,735.6	17.27	101.489		
3,641.7	3,630.3	3,866.6	3,822.6	8.2	11.8	169.29	-1,683.3	174.0	1,748.3	1,730.8	17.48	100.031		
3,700.0	3,688.5	3,923.6	3,878.3	8.3	12.1	168.95	-1,675.5	182.8	1,742.0	1,724.3	17.77	98.059		
3,740.1	3,728.7	3,962.9	3,916.7	8.4	12.2	168.72	-1,670.1	188.9	1,737.7	1,719.8	17.96	96.740		
3,800.0	3,788.5	4,021.4	3,974.0	8.5	12.5	168.37	-1,662.0	198.0	1,731.4	1,713.1	18.26	94.835		
3,838.6	3,827.1	4,059.2	4,010.9	8.6	12.7	168.14	-1,656.8	203.9	1,727.4	1,708.9	18.45	93.643		
3,900.0	3,888.5	4,119.2	4,069.7	8.7	12.9	167.78	-1,648.5	213.3	1,721.0	1,702.2	18.75	91.802		
3,937.0	3,925.5	4,155.4	4,105.1	8.8	13.1	167.56	-1,643.5	218.9	1,717.1	1,698.2	18.93	90.724		
4,000.0	3,988.5	4,217.1	4,165.4	9.0	13.3	167.18	-1,635.0	228.5	1,710.7	1,691.5	19.23	88.943		
4,035.4	4,024.0	4,251.7	4,199.3	9.0	13.5	166.97	-1,630.3	233.9	1,707.1	1,687.7	19.41	87.970		
4,100.0	4,088.5	4,314.9	4,261.0	9.2	13.8	166.58	-1,621.5	243.7	1,700.6	1,680.9	19.72	86.247		
4,133.8	4,122.4	4,348.0	4,293.4	9.2	13.9	166.37	-1,617.0	248.8	1,697.3	1,677.4	19.88	85.368		
4,200.0	4,188.5	4,412.7	4,356.7	9.4	14.2	165.97	-1,608.1	258.9	1,690.8	1,670.6	20.20	83.700		
4,232.3	4,220.8	4,444.3	4,387.6	9.4	14.3	165.77	-1,603.7	263.8	1,687.6	1,667.3	20.36	82.908		
4,300.0	4,288.5	4,510.5	4,452.4	9.6	14.6	165.35	-1,594.6	274.1	1,681.1	1,660.4	20.68	81.292		
4,330.7	4,319.2	4,540.5	4,481.8	9.7	14.8	165.16	-1,590.4	278.8	1,678.2	1,657.3	20.83	80.578		
4,400.0	4,388.5	4,608.3	4,548.1	9.8	15.1	164.73	-1,581.1	289.3	1,671.6	1,650.5	21.16	79.012		
4,429.1	4,417.7	4,636.8	4,576.0	9.9	15.2	164.54	-1,577.2	293.8	1,668.9	1,647.6	21.30	78.370		
4,500.0	4,488.5	4,706.1	4,643.8	10.0	15.5	164.10	-1,567.6	304.5	1,662.4	1,640.7	21.63	76.851		
4,527.5	4,516.1	4,733.1	4,670.1	10.1	15.6	163.92	-1,563.9	308.7	1,659.9	1,638.1	21.76	76.275		
4,600.0	4,588.5	4,804.0	4,739.4	10.2	15.9	163.46	-1,554.1	319.8	1,653.3	1,631.2	22.10	74.801		
4,626.0	4,614.5	4,829.4	4,764.3	10.3	16.0	163.29	-1,550.6	323.7	1,651.0	1,628.8	22.23	74.286		
4,700.0	4,688.5	4,901.8	4,835.1	10.5	16.4	162.81	-1,540.6	335.0	1,644.5	1,621.9	22.57	72.855		
4,724.4	4,712.9	4,925.6	4,858.5	10.5	16.5	162.66	-1,537.4	338.7	1,642.4	1,619.7	22.69	72.394		
4,800.0	4,788.5	4,999.6	4,930.8	10.7	16.8	162.16	-1,527.2	350.2	1,635.9	1,612.8	23.04	71.005		
4,822.8	4,811.4	5,021.9	4,952.6	10.7	16.9	162.01	-1,524.1	353.7	1,633.9	1,610.8	23.14	70.595		
4,900.0	4,888.5	5,097.4	5,026.5	10.9	17.2	161.51	-1,513.7	365.4	1,627.4	1,603.9	23.50	69.245		
4,921.2	4,909.8	5,118.2	5,046.8	10.9	17.3	161.37	-1,510.8	368.6	1,625.7	1,602.1	23.60	68.882		
5,000.0	4,988.5	5,195.2	5,122.2	11.1	17.7	160.84	-1,500.2	380.6	1,619.3	1,595.3	23.96	67.569		
5,019.7	5,008.2	5,214.5	5,141.0	11.1	17.7	160.71	-1,497.5	383.6	1,617.7	1,593.6	24.06	67.249		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												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	5,088.5	5,283.3	5,208.4	11.3	18.0	160.25	-1,488.3	394.0	1,611.5	1,587.1	24.39	66.077	
5,118.1	5,106.6	5,300.0	5,224.8	11.4	18.1	160.15	-1,486.2	396.4	1,610.2	1,585.7	24.46	65.817	
5,200.0	5,188.5	5,364.7	5,288.5	11.5	18.3	159.77	-1,478.7	404.9	1,604.8	1,580.1	24.77	64.800	
5,216.5	5,205.1	5,378.2	5,301.8	11.6	18.3	159.70	-1,477.2	406.5	1,603.9	1,579.0	24.83	64.598	
5,300.0	5,288.5	5,446.8	5,369.7	11.8	18.5	159.36	-1,470.5	414.1	1,599.4	1,574.2	25.14	63.623	
5,314.9	5,303.5	5,459.2	5,381.9	11.8	18.5	159.30	-1,469.4	415.3	1,598.7	1,573.5	25.19	63.455	
5,400.0	5,388.5	5,529.6	5,451.9	12.0	18.7	159.02	-1,463.8	421.6	1,595.1	1,569.5	25.51	62.532	
5,413.4	5,401.9	5,540.7	5,462.9	12.0	18.7	158.98	-1,463.0	422.5	1,594.6	1,569.0	25.56	62.393	
5,500.0	5,488.5	5,613.0	5,534.8	12.2	18.9	158.76	-1,458.7	427.4	1,591.8	1,565.9	25.87	61.521	
5,511.8	5,500.3	5,622.8	5,544.7	12.2	18.9	158.73	-1,458.2	428.0	1,591.5	1,565.6	25.92	61.408	
5,600.0	5,588.5	5,700.0	5,621.7	12.4	19.1	158.57	-1,455.1	431.5	1,589.6	1,563.4	26.24	60.574	
5,610.2	5,598.8	5,700.0	5,621.7	12.4	19.1	158.57	-1,455.1	431.5	1,589.4	1,563.2	26.27	60.515	
5,700.0	5,688.5	5,780.6	5,702.3	12.6	19.2	158.48	-1,453.3	433.6	1,588.4	1,561.8	26.59	59.728	
5,708.6	5,697.2	5,787.9	5,709.5	12.6	19.2	158.48	-1,453.2	433.7	1,588.4	1,561.7	26.63	59.656	
5,793.6	5,782.1	5,863.5	5,785.1	12.8	19.3	158.46	-1,452.9	434.0	1,588.2	1,561.3	26.94	58.956	
5,800.0	5,788.5	5,869.9	5,791.5	12.8	19.3	158.46	-1,452.9	434.0	1,588.2	1,561.2	26.96	58.900	
5,807.1	5,795.6	5,876.9	5,798.6	12.9	19.3	158.46	-1,452.9	434.0	1,588.2	1,561.2	26.99	58.839	
5,900.0	5,888.5	5,969.9	5,891.5	13.1	19.5	158.46	-1,452.9	434.0	1,588.2	1,560.8	27.37	58.027	
5,905.5	5,894.0	5,975.4	5,897.0	13.1	19.5	158.46	-1,452.9	434.0	1,588.2	1,560.8	27.39	57.979	
6,000.0	5,988.5	6,069.9	5,991.5	13.3	19.6	158.46	-1,452.9	434.0	1,588.2	1,560.4	27.78	57.169	
6,003.9	5,992.5	6,073.8	5,995.5	13.3	19.6	158.46	-1,452.9	434.0	1,588.2	1,560.4	27.80	57.136	
6,085.3	6,073.8	6,159.5	6,081.2	13.5	19.7	158.46	-1,452.9	434.0	1,588.2	1,560.0	28.14	56.440	
6,100.0	6,088.5	6,238.5	6,159.9	13.5	19.8	-111.42	-1,452.9	429.0	1,587.9	1,555.2	32.73	48.518	
6,102.3	6,090.9	6,250.9	6,172.3	13.5	19.8	-111.38	-1,452.9	427.4	1,587.8	1,555.1	32.74	48.503	
6,150.0	6,138.4	6,488.5	6,398.2	13.6	19.6	-109.75	-1,452.9	357.3	1,583.6	1,551.1	32.51	48.712	
6,200.0	6,188.0	6,690.5	6,563.4	13.7	19.2	-107.11	-1,452.9	242.4	1,575.3	1,543.2	32.11	49.059	
6,200.8	6,188.8	6,693.2	6,565.4	13.7	19.2	-107.07	-1,452.9	240.5	1,575.1	1,543.0	32.11	49.061	
6,250.0	6,237.1	6,843.8	6,663.7	13.9	19.0	-104.55	-1,452.9	126.8	1,564.8	1,532.7	32.11	48.740	
6,299.2	6,284.6	6,959.2	6,721.7	14.0	19.0	-102.46	-1,452.9	27.2	1,553.8	1,521.2	32.55	47.737	
6,300.0	6,285.3	6,960.9	6,722.4	14.0	19.0	-102.43	-1,452.9	25.7	1,553.6	1,521.0	32.56	47.716	
6,350.0	6,332.5	7,053.2	6,756.7	14.2	19.3	-100.74	-1,452.9	-60.0	1,542.3	1,509.0	33.31	46.306	
6,397.6	6,376.3	7,125.6	6,775.6	14.4	19.8	-99.44	-1,452.9	-129.8	1,531.9	1,497.8	34.18	44.816	
6,400.0	6,378.5	7,128.9	6,776.3	14.4	19.9	-99.38	-1,452.9	-133.0	1,531.4	1,497.2	34.23	44.742	
6,450.0	6,423.0	7,193.1	6,786.8	14.7	20.6	-98.24	-1,452.9	-196.4	1,521.4	1,486.1	35.22	43.190	
6,496.0	6,462.4	7,245.1	6,791.2	14.9	21.3	-97.32	-1,452.9	-248.2	1,512.9	1,476.7	36.19	41.804	
6,500.0	6,465.7	7,249.3	6,791.4	14.9	21.3	-97.25	-1,452.9	-252.4	1,512.2	1,475.9	36.27	41.692	
6,550.0	6,506.6	7,292.3	6,792.0	15.2	22.0	-96.57	-1,452.9	-295.4	1,504.0	1,466.8	37.24	40.390	
6,594.5	6,541.2	7,320.2	6,791.9	15.6	22.5	-96.23	-1,452.9	-323.2	1,497.9	1,459.9	38.02	39.400	
6,600.0	6,545.3	7,323.8	6,791.9	15.6	22.5	-96.18	-1,452.9	-326.9	1,497.2	1,459.1	38.12	39.277	
6,650.0	6,581.8	7,357.9	6,791.8	16.0	23.1	-95.66	-1,452.9	-361.0	1,491.7	1,452.6	39.14	38.116	
6,692.9	6,611.1	7,389.1	6,791.7	16.4	23.7	-95.14	-1,452.9	-392.2	1,487.9	1,447.8	40.10	37.107	
6,700.0	6,615.8	7,394.5	6,791.7	16.5	23.8	-95.05	-1,452.9	-397.5	1,487.4	1,447.1	40.26	36.945	
6,750.0	6,647.1	7,433.3	6,791.6	17.1	24.5	-94.37	-1,452.9	-436.4	1,484.1	1,442.5	41.55	35.716	
6,791.3	6,670.9	7,467.0	6,791.5	17.6	25.2	-93.79	-1,452.9	-470.1	1,482.0	1,439.2	42.72	34.692	
6,800.0	6,675.7	7,474.3	6,791.5	17.7	25.3	-93.67	-1,452.9	-477.4	1,481.6	1,438.6	42.97	34.483	
6,850.0	6,701.3	7,517.2	6,791.4	18.4	26.2	-92.95	-1,452.9	-520.2	1,479.9	1,435.3	44.51	33.244	
6,889.7	6,719.5	7,552.4	6,791.3	19.0	26.9	-92.40	-1,452.9	-555.5	1,478.9	1,433.0	45.86	32.249	
6,900.0	6,723.8	7,561.7	6,791.3	19.1	27.1	-92.26	-1,452.9	-564.8	1,478.7	1,432.5	46.21	32.001	
6,950.0	6,743.2	7,607.7	6,791.1	20.0	28.1	-91.63	-1,452.9	-610.8	1,478.0	1,430.0	48.01	30.786	
6,988.2	6,755.8	7,643.7	6,791.0	20.6	28.9	-91.19	-1,452.9	-646.8	1,477.6	1,428.2	49.48	29.861	
7,000.0	6,759.4	7,655.0	6,791.0	20.9	29.1	-91.06	-1,452.9	-658.1	1,477.6	1,427.6	49.94	29.584	
7,050.0	6,772.1	7,703.3	6,790.9	21.8	30.2	-90.59	-1,452.9	-706.4	1,477.4	1,425.4	51.96	28.432	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P												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	
7,086.6	6,779.4	7,739.2	6,790.8	22.5	31.0	-90.32	-1,452.9	-742.2	1,477.3	1,423.8	53.52	27.605	
7,100.0	6,781.5	7,752.4	6,790.8	22.8	31.3	-90.24	-1,452.9	-755.4	1,477.3	1,423.2	54.09	27.314	
7,150.0	6,787.5	7,802.0	6,790.6	23.9	32.5	-90.01	-1,452.9	-805.1	1,477.3	1,421.0	56.27	26.255	
7,153.2	6,787.7	7,805.1	6,790.6	23.9	32.6	-90.00	-1,452.9	-808.2	1,477.3	1,420.9	56.41	26.188	
7,185.0	6,789.6	7,836.9	6,790.5	24.6	33.3	-89.92	-1,452.9	-840.0	1,477.3	1,419.4	57.85	25.537	
7,200.0	6,789.9	7,851.9	6,790.5	24.9	33.7	-89.91	-1,452.9	-855.0	1,477.3	1,418.8	58.52	25.242	
7,213.0	6,790.0	7,864.9	6,790.5	25.2	34.0	-89.90	-1,452.9	-868.0	1,477.3	1,418.2	59.12	24.990	
7,283.4	6,789.7	7,935.4	6,790.3	26.8	35.7	-89.90	-1,452.9	-938.4	1,477.3	1,414.9	62.39	23.679	
7,300.0	6,789.7	7,951.9	6,790.2	27.2	36.1	-89.91	-1,452.9	-955.0	1,477.3	1,414.1	63.16	23.389	
7,381.9	6,789.4	8,033.8	6,790.0	29.1	38.1	-89.91	-1,452.9	-1,036.9	1,477.3	1,410.2	67.08	22.023	
7,400.0	6,789.3	8,051.9	6,790.0	29.5	38.6	-89.91	-1,452.9	-1,055.0	1,477.3	1,409.3	67.95	21.741	
7,480.3	6,789.0	8,132.2	6,789.7	31.4	40.6	-89.91	-1,452.9	-1,135.3	1,477.3	1,405.4	71.89	20.549	
7,500.0	6,788.9	8,151.9	6,789.7	31.9	41.1	-89.91	-1,452.9	-1,155.0	1,477.3	1,404.4	72.86	20.275	
7,578.7	6,788.6	8,230.6	6,789.5	33.8	43.1	-89.92	-1,452.9	-1,233.7	1,477.3	1,400.5	76.81	19.234	
7,600.0	6,788.5	8,251.9	6,789.4	34.4	43.6	-89.92	-1,452.9	-1,255.0	1,477.3	1,399.4	77.88	18.970	
7,677.1	6,788.2	8,329.1	6,789.2	36.3	45.6	-89.92	-1,452.9	-1,332.1	1,477.3	1,395.5	81.80	18.060	
7,700.0	6,788.2	8,351.9	6,789.2	36.9	46.2	-89.92	-1,452.9	-1,355.0	1,477.3	1,394.3	82.97	17.806	
7,775.6	6,787.9	8,427.5	6,789.0	38.8	48.2	-89.93	-1,452.9	-1,430.6	1,477.3	1,390.4	86.86	17.007	
7,800.0	6,787.8	8,451.9	6,788.9	39.4	48.8	-89.93	-1,452.9	-1,455.0	1,477.3	1,389.2	88.13	16.764	
7,874.0	6,787.5	8,525.9	6,788.7	41.3	50.7	-89.93	-1,452.9	-1,529.0	1,477.3	1,385.3	91.98	16.061	
7,900.0	6,787.4	8,551.9	6,788.6	42.0	51.4	-89.93	-1,452.9	-1,555.0	1,477.3	1,383.9	93.34	15.827	
7,972.4	6,787.1	8,624.3	6,788.4	43.9	53.3	-89.93	-1,452.9	-1,627.4	1,477.3	1,380.1	97.14	15.207	
8,000.0	6,787.0	8,651.9	6,788.4	44.6	54.1	-89.94	-1,452.9	-1,655.0	1,477.3	1,378.7	98.60	14.983	
8,070.8	6,786.7	8,722.8	6,788.2	46.5	56.0	-89.94	-1,452.9	-1,725.8	1,477.3	1,374.9	102.35	14.434	
8,100.0	6,786.6	8,751.9	6,788.1	47.3	56.7	-89.94	-1,452.9	-1,755.0	1,477.3	1,373.4	103.89	14.219	
8,169.3	6,786.4	8,821.2	6,787.9	49.1	58.6	-89.94	-1,452.9	-1,824.3	1,477.3	1,369.7	107.58	13.732	
8,200.0	6,786.3	8,851.9	6,787.8	49.9	59.4	-89.95	-1,452.9	-1,855.0	1,477.3	1,368.1	109.22	13.526	
8,267.7	6,786.0	8,919.6	6,787.7	51.7	61.2	-89.95	-1,452.9	-1,922.7	1,477.3	1,364.4	112.85	13.091	
8,300.0	6,785.9	8,951.9	6,787.6	52.6	62.1	-89.95	-1,452.9	-1,955.0	1,477.3	1,362.7	114.58	12.893	
8,366.1	6,785.6	9,018.0	6,787.4	54.4	63.9	-89.95	-1,452.9	-2,021.1	1,477.3	1,359.1	118.14	12.505	
8,400.0	6,785.5	9,051.9	6,787.3	55.3	64.8	-89.95	-1,452.9	-2,055.0	1,477.3	1,357.3	119.96	12.315	
8,464.5	6,785.2	9,116.5	6,787.1	57.0	66.5	-89.96	-1,452.9	-2,119.5	1,477.3	1,353.8	123.45	11.967	
8,500.0	6,785.1	9,151.9	6,787.1	58.0	67.5	-89.96	-1,452.9	-2,155.0	1,477.3	1,351.9	125.36	11.784	
8,563.0	6,784.9	9,214.9	6,786.9	59.7	69.2	-89.96	-1,452.9	-2,218.0	1,477.3	1,348.5	128.78	11.472	
8,600.0	6,784.7	9,251.9	6,786.8	60.7	70.2	-89.96	-1,452.9	-2,255.0	1,477.3	1,346.5	130.79	11.295	
8,661.4	6,784.5	9,313.3	6,786.6	62.4	71.9	-89.97	-1,452.9	-2,316.4	1,477.3	1,343.2	134.12	11.014	
8,700.0	6,784.3	9,351.9	6,786.5	63.4	72.9	-89.97	-1,452.9	-2,355.0	1,477.3	1,341.1	136.22	10.844	
8,759.8	6,784.1	9,411.7	6,786.4	65.0	74.5	-89.97	-1,452.9	-2,414.8	1,477.3	1,337.8	139.49	10.591	
8,800.0	6,784.0	9,451.9	6,786.3	66.1	75.6	-89.97	-1,452.9	-2,455.0	1,477.3	1,335.6	141.68	10.427	
8,858.2	6,783.7	9,510.2	6,786.1	67.7	77.2	-89.98	-1,452.9	-2,513.2	1,477.3	1,332.4	144.86	10.198	
8,900.0	6,783.6	9,551.9	6,786.0	68.9	78.4	-89.98	-1,452.9	-2,555.0	1,477.3	1,330.1	147.14	10.040	
8,956.7	6,783.3	9,608.6	6,785.8	70.4	79.9	-89.98	-1,452.9	-2,611.7	1,477.3	1,327.0	150.24	9.833	
9,000.0	6,783.2	9,651.9	6,785.7	71.6	81.1	-89.98	-1,452.9	-2,655.0	1,477.3	1,324.7	152.62	9.680	
9,055.1	6,783.0	9,707.0	6,785.6	73.1	82.6	-89.99	-1,452.9	-2,710.1	1,477.3	1,321.6	155.64	9.492	
9,100.0	6,782.8	9,751.9	6,785.5	74.3	83.8	-89.99	-1,452.9	-2,755.0	1,477.3	1,319.2	158.11	9.344	
9,153.5	6,782.6	9,805.4	6,785.3	75.8	85.3	-89.99	-1,452.9	-2,808.5	1,477.3	1,316.2	161.05	9.173	
9,200.0	6,782.4	9,851.9	6,785.2	77.1	86.6	-89.99	-1,452.9	-2,855.0	1,477.3	1,313.7	163.60	9.030	
9,251.9	6,782.2	9,903.9	6,785.1	78.5	88.0	-89.99	-1,452.9	-2,906.9	1,477.3	1,310.8	166.46	8.875	
9,300.0	6,782.0	9,951.9	6,784.9	79.8	89.3	-90.00	-1,452.9	-2,955.0	1,477.3	1,308.2	169.11	8.736	
9,350.4	6,781.8	10,002.3	6,784.8	81.2	90.7	-90.00	-1,452.9	-3,005.3	1,477.3	1,305.4	171.88	8.595	
9,400.0	6,781.6	10,051.9	6,784.7	82.6	92.1	-90.00	-1,452.9	-3,055.0	1,477.3	1,302.7	174.62	8.460	
9,448.8	6,781.4	10,100.7	6,784.6	83.9	93.4	-90.00	-1,452.9	-3,103.8	1,477.3	1,300.0	177.31	8.332	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P												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	6,781.2	10,151.9	6,784.4	85.4	94.9	-90.01	-1,452.9	-3,155.0	1,477.3	1,297.1	180.14	8.201	
9,547.2	6,781.0	10,199.1	6,784.3	86.7	96.2	-90.01	-1,452.9	-3,202.2	1,477.3	1,294.5	182.74	8.084	
9,600.0	6,780.8	10,251.9	6,784.2	88.1	97.6	-90.01	-1,452.9	-3,255.0	1,477.3	1,291.6	185.66	7.957	
9,645.6	6,780.7	10,297.6	6,784.0	89.4	98.9	-90.01	-1,452.9	-3,300.6	1,477.3	1,289.1	188.18	7.850	
9,700.0	6,780.5	10,351.9	6,783.9	90.9	100.4	-90.02	-1,452.9	-3,355.0	1,477.3	1,286.1	191.19	7.727	
9,744.1	6,780.3	10,396.0	6,783.8	92.1	101.6	-90.02	-1,452.9	-3,399.0	1,477.3	1,283.7	193.63	7.629	
9,800.0	6,780.1	10,451.9	6,783.6	93.7	103.1	-90.02	-1,452.9	-3,455.0	1,477.3	1,280.6	196.73	7.509	
9,842.5	6,779.9	10,494.4	6,783.5	94.8	104.3	-90.02	-1,452.9	-3,497.5	1,477.3	1,278.2	199.08	7.421	
9,900.0	6,779.7	10,551.9	6,783.4	96.4	105.9	-90.03	-1,452.9	-3,555.0	1,477.3	1,275.0	202.27	7.304	
9,940.9	6,779.5	10,592.8	6,783.3	97.6	107.0	-90.03	-1,452.9	-3,595.9	1,477.3	1,272.7	204.53	7.223	
10,000.0	6,779.3	10,651.9	6,783.1	99.2	108.7	-90.03	-1,452.9	-3,655.0	1,477.3	1,269.5	207.81	7.109	
10,039.3	6,779.1	10,691.3	6,783.0	100.3	109.8	-90.03	-1,452.9	-3,694.3	1,477.3	1,267.3	209.99	7.035	
10,100.0	6,778.9	10,751.9	6,782.8	102.0	111.5	-90.04	-1,452.9	-3,755.0	1,477.3	1,263.9	213.36	6.924	
10,137.8	6,778.7	10,789.7	6,782.7	103.0	112.5	-90.04	-1,452.9	-3,792.7	1,477.3	1,261.8	215.46	6.857	
10,200.0	6,778.5	10,851.9	6,782.6	104.8	114.2	-90.04	-1,452.9	-3,855.0	1,477.3	1,258.4	218.91	6.748	
10,236.2	6,778.3	10,888.1	6,782.5	105.8	115.2	-90.04	-1,452.9	-3,891.2	1,477.3	1,256.4	220.92	6.687	
10,248.6	6,778.3	10,900.5	6,782.4	106.1	115.6	-90.04	-1,452.9	-3,903.5	1,477.3	1,255.7	221.61	6.666 CC	
10,300.0	6,778.1	10,951.9	6,782.3	107.5	117.0	-90.05	-1,452.9	-3,955.0	1,477.3	1,252.8	224.47	6.581	
10,334.6	6,778.0	10,986.5	6,782.2	108.5	118.0	-90.05	-1,452.9	-3,989.6	1,477.3	1,250.9	226.39	6.525	
10,400.0	6,777.7	11,051.9	6,782.0	110.3	119.8	-90.05	-1,452.9	-4,055.0	1,477.3	1,247.3	230.02	6.422	
10,433.0	6,777.6	11,085.0	6,782.0	111.2	120.7	-90.05	-1,452.9	-4,088.0	1,477.3	1,245.4	231.86	6.371	
10,500.0	6,777.3	11,151.9	6,781.8	113.1	122.6	-90.06	-1,452.9	-4,155.0	1,477.3	1,241.7	235.59	6.271	
10,531.5	6,777.2	11,183.4	6,781.7	114.0	123.4	-90.06	-1,452.9	-4,186.4	1,477.3	1,239.9	237.34	6.224	
10,600.0	6,776.9	11,251.9	6,781.5	115.9	125.3	-90.06	-1,452.9	-4,255.0	1,477.3	1,236.1	241.15	6.126	
10,629.9	6,776.8	11,281.8	6,781.4	116.7	126.2	-90.06	-1,452.9	-4,284.9	1,477.3	1,234.5	242.82	6.084	
10,700.0	6,776.5	11,351.9	6,781.3	118.7	128.1	-90.07	-1,452.9	-4,355.0	1,477.3	1,230.6	246.72	5.988	
10,728.3	6,776.4	11,380.2	6,781.2	119.5	128.9	-90.07	-1,452.9	-4,383.3	1,477.3	1,229.0	248.30	5.950	
10,800.0	6,776.1	11,451.9	6,781.0	121.4	130.9	-90.07	-1,452.9	-4,455.0	1,477.3	1,225.0	252.29	5.856	
10,826.7	6,776.0	11,478.7	6,780.9	122.2	131.6	-90.07	-1,452.9	-4,481.7	1,477.3	1,223.5	253.78	5.821	
10,900.0	6,775.7	11,551.9	6,780.7	124.2	133.7	-90.08	-1,452.9	-4,555.0	1,477.3	1,219.4	257.86	5.729	
10,925.2	6,775.6	11,577.1	6,780.7	124.9	134.4	-90.08	-1,452.9	-4,580.1	1,477.3	1,218.0	259.26	5.698	
11,000.0	6,775.3	11,651.9	6,780.5	127.0	136.5	-90.08	-1,452.9	-4,655.0	1,477.3	1,213.8	263.43	5.608	
11,023.6	6,775.2	11,675.5	6,780.4	127.7	137.1	-90.08	-1,452.9	-4,678.6	1,477.3	1,212.5	264.75	5.580	
11,100.0	6,774.9	11,751.9	6,780.2	129.8	139.3	-90.09	-1,452.9	-4,755.0	1,477.3	1,208.3	269.01	5.492	
11,122.0	6,774.8	11,773.9	6,780.1	130.4	139.9	-90.09	-1,452.9	-4,777.0	1,477.3	1,207.0	270.24	5.467	
11,200.0	6,774.5	11,851.9	6,779.9	132.6	142.0	-90.09	-1,452.9	-4,855.0	1,477.3	1,202.7	274.59	5.380	
11,220.4	6,774.4	11,872.4	6,779.9	133.2	142.6	-90.10	-1,452.9	-4,875.4	1,477.3	1,201.6	275.73	5.358	
11,300.0	6,774.1	11,951.9	6,779.7	135.4	144.8	-90.10	-1,452.9	-4,955.0	1,477.3	1,197.1	280.17	5.273	
11,318.9	6,774.0	11,970.8	6,779.6	135.9	145.4	-90.10	-1,452.9	-4,973.8	1,477.3	1,196.1	281.22	5.253	
11,400.0	6,773.7	12,051.9	6,779.4	138.2	147.6	-90.11	-1,452.9	-5,055.0	1,477.3	1,191.5	285.75	5.170	
11,417.3	6,773.6	12,069.2	6,779.4	138.7	148.1	-90.11	-1,452.9	-5,072.3	1,477.3	1,190.6	286.71	5.152	
11,500.0	6,773.3	12,151.9	6,779.2	141.0	150.4	-90.11	-1,452.9	-5,155.0	1,477.3	1,186.0	291.33	5.071	
11,515.7	6,773.2	12,167.6	6,779.1	141.4	150.8	-90.11	-1,452.9	-5,170.7	1,477.3	1,185.1	292.21	5.056	
11,600.0	6,772.9	12,251.9	6,778.9	143.8	153.2	-90.12	-1,452.9	-5,255.0	1,477.3	1,180.4	296.91	4.975	
11,614.1	6,772.8	12,266.1	6,778.9	144.2	153.6	-90.12	-1,452.9	-5,269.1	1,477.3	1,179.6	297.70	4.962	
11,700.0	6,772.5	12,351.9	6,778.6	146.6	156.0	-90.12	-1,452.9	-5,355.0	1,477.3	1,174.8	302.50	4.884	
11,712.6	6,772.4	12,364.5	6,778.6	146.9	156.3	-90.12	-1,452.9	-5,367.5	1,477.3	1,174.1	303.20	4.872	
11,800.0	6,772.1	12,451.9	6,778.4	149.4	158.8	-90.13	-1,452.9	-5,455.0	1,477.3	1,169.2	308.08	4.795	
11,811.0	6,772.1	12,462.9	6,778.3	149.7	159.1	-90.13	-1,452.9	-5,466.0	1,477.3	1,168.6	308.70	4.786	
11,900.0	6,771.7	12,551.9	6,778.1	152.2	161.6	-90.13	-1,452.9	-5,555.0	1,477.3	1,163.6	313.67	4.710	
11,909.4	6,771.7	12,561.3	6,778.1	152.4	161.8	-90.13	-1,452.9	-5,564.4	1,477.3	1,163.1	314.20	4.702	
12,000.0	6,771.3	12,651.9	6,777.8	154.9	164.4	-90.14	-1,452.9	-5,655.0	1,477.3	1,158.0	319.26	4.627	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-334 - ORIGINAL WELLBORE - P												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	
12,007.8	6,771.3	12,659.8	6,777.8	155.2	164.6	-90.14	-1,452.9	-5,662.8	1,477.3	1,157.6	319.70	4.621	
12,100.0	6,770.9	12,751.9	6,777.6	157.7	167.2	-90.14	-1,452.9	-5,755.0	1,477.3	1,152.4	324.85	4.548	
12,106.3	6,770.9	12,758.2	6,777.6	157.9	167.3	-90.14	-1,452.9	-5,761.2	1,477.3	1,152.1	325.20	4.543	
12,200.0	6,770.5	12,851.9	6,777.3	160.5	169.9	-90.15	-1,452.9	-5,855.0	1,477.3	1,146.8	330.44	4.471	
12,204.7	6,770.5	12,856.6	6,777.3	160.7	170.1	-90.15	-1,452.9	-5,859.7	1,477.3	1,146.6	330.71	4.467	
12,300.0	6,770.1	12,951.9	6,777.1	163.3	172.7	-90.15	-1,452.9	-5,955.0	1,477.3	1,141.3	336.03	4.396	
12,303.1	6,770.1	12,955.0	6,777.1	163.4	172.8	-90.16	-1,452.9	-5,958.1	1,477.3	1,141.1	336.21	4.394	
12,316.4	6,770.0	12,968.3	6,777.0	163.8	173.2	-90.16	-1,452.9	-5,971.3	1,477.3	1,140.3	336.95	4.384 ES, SF	

Anticollision Report



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Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
0.0	0.0	3.0	3.0	0.0	0.0	-175.52	-1,930.5	-151.2	1,936.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.52	-1,930.5	-151.2	1,936.4	1,936.2	0.20	9,830.403	
100.0	100.0	103.0	103.0	0.1	0.1	-175.52	-1,930.5	-151.2	1,936.4	1,936.2	0.20	9,572.355	
196.8	196.8	199.8	199.8	0.3	0.3	-175.52	-1,930.5	-151.2	1,936.4	1,935.8	0.64	3,036.703	
200.0	200.0	203.0	203.0	0.3	0.3	-175.52	-1,930.5	-151.2	1,936.4	1,935.7	0.65	2,970.733	
295.3	295.3	298.3	298.3	0.5	0.5	-175.52	-1,930.5	-151.2	1,936.4	1,935.3	1.08	1,792.764	
300.0	300.0	303.0	303.0	0.5	0.6	-175.52	-1,930.5	-151.2	1,936.4	1,935.3	1.10	1,758.189	
393.7	393.7	396.7	396.7	0.8	0.8	-175.52	-1,930.5	-151.2	1,936.4	1,934.9	1.52	1,271.793	
400.0	400.0	403.0	403.0	0.8	0.8	-175.52	-1,930.5	-151.2	1,936.4	1,934.8	1.55	1,248.569	
492.1	492.1	495.1	495.1	1.0	1.0	-175.52	-1,930.5	-151.2	1,936.4	1,934.4	1.97	985.431	
500.0	500.0	503.0	503.0	1.0	1.0	-175.52	-1,930.5	-151.2	1,936.4	1,934.4	2.00	967.992	
590.5	590.5	593.5	593.5	1.2	1.2	-175.52	-1,930.5	-151.2	1,936.4	1,934.0	2.41	804.325	
600.0	600.0	603.0	603.0	1.2	1.2	-175.52	-1,930.5	-151.2	1,936.4	1,933.9	2.45	790.379	
689.0	689.0	692.0	692.0	1.4	1.4	-175.52	-1,930.5	-151.2	1,936.4	1,933.5	2.85	679.453	
700.0	700.0	703.0	703.0	1.4	1.5	-175.52	-1,930.5	-151.2	1,936.4	1,933.5	2.90	667.839	
787.4	787.4	790.4	790.4	1.6	1.6	-175.52	-1,930.5	-151.2	1,936.4	1,933.1	3.29	588.144	
800.0	800.0	803.0	803.0	1.7	1.7	-175.52	-1,930.5	-151.2	1,936.4	1,933.0	3.35	578.197	
885.8	885.8	888.8	888.8	1.9	1.9	-175.52	-1,930.5	-151.2	1,936.4	1,932.7	3.73	518.468	
900.0	900.0	903.0	903.0	1.9	1.9	-175.52	-1,930.5	-151.2	1,936.4	1,932.6	3.80	509.771	
984.2	984.2	987.2	987.2	2.1	2.1	-175.52	-1,930.5	-151.2	1,936.4	1,932.2	4.18	463.553	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.52	-1,930.5	-151.2	1,936.4	1,932.1	4.25	455.827	
1,082.7	1,082.7	1,085.7	1,085.7	2.3	2.3	-175.52	-1,930.5	-151.2	1,936.4	1,931.8	4.62	419.156	
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.4	-175.52	-1,930.5	-151.2	1,936.4	1,931.7	4.70	412.207	
1,181.1	1,181.1	1,211.7	1,211.7	2.5	2.6	-175.51	-1,930.0	-151.7	1,936.1	1,931.0	5.12	378.063	
1,200.0	1,200.0	1,245.9	1,245.8	2.6	2.7	-175.48	-1,929.3	-152.4	1,935.8	1,930.6	5.24	369.569	
1,279.5	1,279.5	1,389.2	1,388.9	2.7	3.0	-175.30	-1,923.3	-158.2	1,932.7	1,927.0	5.73	337.200	
1,300.0	1,300.0	1,426.0	1,425.5	2.8	3.1	-175.22	-1,920.9	-160.5	1,931.5	1,925.7	5.86	329.568	
1,377.9	1,377.9	1,564.9	1,563.5	3.0	3.4	-174.85	-1,908.9	-172.1	1,925.3	1,919.0	6.36	302.674	
1,400.0	1,400.0	1,603.9	1,602.0	3.0	3.5	-174.71	-1,904.7	-176.2	1,923.2	1,916.7	6.51	295.634	
1,476.4	1,476.4	1,737.6	1,733.4	3.2	3.9	-174.16	-1,887.3	-193.0	1,914.1	1,907.1	7.03	272.252	
1,500.0	1,500.0	1,778.4	1,773.4	3.2	4.0	-173.96	-1,881.2	-199.0	1,910.9	1,903.7	7.20	265.446	
1,574.8	1,574.8	1,906.3	1,897.6	3.4	4.5	-92.83	-1,859.2	-220.3	1,899.3	1,891.5	7.82	242.861	
1,600.0	1,600.0	1,947.3	1,937.0	3.5	4.7	-92.69	-1,851.3	-227.9	1,895.0	1,887.0	8.02	236.199	
1,673.2	1,673.1	2,018.4	2,005.4	3.6	5.0	-92.59	-1,837.3	-241.5	1,882.3	1,873.9	8.44	222.988	
1,700.0	1,699.8	2,044.5	2,030.5	3.7	5.1	-92.56	-1,832.2	-246.5	1,877.7	1,869.1	8.60	218.411	
1,771.6	1,771.2	2,114.5	2,097.8	3.8	5.4	-92.52	-1,818.4	-259.8	1,865.4	1,856.4	9.03	206.695	
1,800.0	1,799.5	2,142.2	2,124.5	3.9	5.6	-92.52	-1,812.9	-265.1	1,860.6	1,851.4	9.20	202.287	
1,870.1	1,869.0	2,210.9	2,190.6	4.0	5.9	-92.54	-1,799.4	-278.2	1,848.8	1,839.2	9.64	191.807	
1,900.0	1,898.7	2,240.3	2,218.9	4.1	6.1	-92.57	-1,793.6	-283.8	1,843.8	1,834.0	9.83	187.563	
1,968.5	1,966.4	2,307.7	2,283.7	4.3	6.4	-92.66	-1,780.4	-296.6	1,832.4	1,822.1	10.29	178.148	
2,000.0	1,997.5	2,338.8	2,313.5	4.4	6.5	-92.72	-1,774.3	-302.6	1,827.1	1,816.6	10.50	174.054	
2,066.9	2,063.2	2,404.7	2,377.0	4.6	6.9	-92.88	-1,761.3	-315.1	1,816.1	1,805.1	10.97	165.555	
2,100.1	2,095.7	2,437.4	2,408.4	4.7	7.0	-92.98	-1,754.8	-321.4	1,810.6	1,799.4	11.21	161.583	
2,165.3	2,159.5	2,501.8	2,470.3	4.9	7.4	-92.97	-1,742.2	-333.6	1,799.9	1,788.2	11.69	153.909	
2,200.0	2,193.4	2,536.0	2,503.2	5.0	7.6	-92.96	-1,735.4	-340.2	1,794.2	1,782.3	11.96	150.060	
2,224.2	2,217.1	2,559.9	2,526.2	5.1	7.7	-92.95	-1,730.7	-344.7	1,790.3	1,778.1	12.14	147.433	
2,263.8	2,255.9	2,598.9	2,563.7	5.2	7.9	-92.80	-1,723.1	-352.2	1,783.8	1,771.3	12.44	143.421	
2,300.0	2,291.5	2,634.6	2,598.1	5.3	8.1	-92.65	-1,716.0	-359.0	1,777.8	1,765.1	12.71	139.879	
2,362.2	2,352.7	2,695.9	2,657.0	5.5	8.4	-92.35	-1,704.0	-370.6	1,767.5	1,754.3	13.15	134.364	
2,400.0	2,390.1	2,733.1	2,692.8	5.6	8.6	-92.15	-1,696.6	-377.7	1,761.2	1,747.8	13.43	131.159	
2,460.6	2,450.1	2,792.7	2,750.1	5.7	8.9	-91.79	-1,684.9	-389.1	1,751.1	1,737.2	13.86	126.307	
2,500.0	2,489.2	2,831.3	2,787.2	5.8	9.1	-91.53	-1,677.3	-396.5	1,744.5	1,730.4	14.15	123.290	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBORE - P													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		
2,559.0	2,548.0	2,889.1	2,842.8	6.0	9.4	-91.10	-1,665.9	-407.5	1,734.6	1,720.1	14.57	119.039		
2,600.0	2,588.8	2,929.1	2,881.3	6.1	9.7	-90.78	-1,658.1	-415.1	1,727.8	1,712.9	14.87	116.211		
2,657.5	2,646.1	2,985.2	2,935.2	6.2	10.0	-90.30	-1,647.0	-425.8	1,718.2	1,702.9	15.27	112.487		
2,700.0	2,688.6	3,026.5	2,974.9	6.3	10.2	-89.92	-1,638.9	-433.7	1,711.1	1,695.6	15.58	109.840		
2,755.9	2,744.4	3,080.6	3,027.0	6.4	10.5	-89.38	-1,628.2	-444.0	1,701.9	1,685.9	15.97	106.572		
2,800.0	2,788.5	3,123.2	3,067.9	6.5	10.7	-88.94	-1,619.9	-452.1	1,694.7	1,678.4	16.28	104.092		
2,824.3	2,812.8	3,146.5	3,090.4	6.5	10.9	-169.38	-1,615.3	-456.6	1,690.7	1,676.1	14.59	115.878		
2,854.3	2,842.9	3,175.4	3,118.2	6.6	11.0	-169.16	-1,609.6	-462.1	1,685.8	1,671.1	14.75	114.320		
2,900.0	2,888.5	3,219.4	3,160.4	6.7	11.3	-168.82	-1,600.9	-470.4	1,678.5	1,663.5	14.98	112.024		
2,952.7	2,941.3	3,270.1	3,209.2	6.8	11.5	-168.42	-1,591.0	-480.1	1,670.1	1,654.8	15.26	109.413		
3,000.0	2,988.5	3,315.5	3,252.9	6.9	11.8	-168.06	-1,582.0	-488.8	1,662.6	1,647.1	15.51	107.168		
3,051.2	3,039.7	3,364.8	3,300.3	7.0	12.1	-167.67	-1,572.3	-498.2	1,654.6	1,638.8	15.78	104.830		
3,100.0	3,088.5	3,411.7	3,345.4	7.1	12.3	-167.29	-1,563.1	-507.1	1,647.1	1,631.0	16.04	102.688		
3,149.6	3,138.1	3,459.4	3,391.3	7.2	12.6	-166.90	-1,553.7	-516.2	1,639.5	1,623.2	16.30	100.591		
3,200.0	3,188.5	3,507.9	3,437.9	7.3	12.9	-166.51	-1,544.2	-525.4	1,631.8	1,615.2	16.56	98.544		
3,248.0	3,236.6	3,554.1	3,482.3	7.4	13.1	-166.13	-1,535.1	-534.2	1,624.6	1,607.8	16.81	96.663		
3,300.0	3,288.5	3,604.1	3,530.4	7.5	13.4	-165.71	-1,525.2	-543.8	1,616.9	1,599.8	17.07	94.706		
3,346.4	3,335.0	3,648.7	3,573.4	7.6	13.7	-165.34	-1,516.4	-552.3	1,610.0	1,592.7	17.31	93.017		
3,400.0	3,388.5	3,700.2	3,622.9	7.7	13.9	-164.90	-1,506.3	-562.1	1,602.3	1,584.7	17.58	91.143		
3,444.9	3,433.4	3,743.4	3,664.4	7.8	14.2	-164.53	-1,497.8	-570.3	1,595.8	1,578.0	17.81	89.626		
3,500.0	3,488.5	3,796.4	3,715.4	7.9	14.5	-164.07	-1,487.4	-580.4	1,588.0	1,569.9	18.08	87.830		
3,543.3	3,531.8	3,838.1	3,755.4	8.0	14.7	-163.71	-1,479.2	-588.4	1,581.9	1,563.6	18.30	86.467		
3,600.0	3,588.5	3,892.6	3,807.9	8.1	15.0	-163.24	-1,468.4	-598.8	1,574.1	1,555.5	18.57	84.745		
3,641.7	3,630.3	3,932.7	3,846.5	8.2	15.3	-162.88	-1,460.5	-606.4	1,568.4	1,549.6	18.78	83.520		
3,700.0	3,688.5	3,988.8	3,900.4	8.3	15.6	-162.38	-1,449.5	-617.1	1,560.5	1,541.4	19.06	81.868		
3,740.1	3,728.7	4,027.4	3,937.5	8.4	15.8	-162.04	-1,441.9	-624.5	1,555.2	1,535.9	19.25	80.766		
3,800.0	3,788.5	4,084.9	3,992.9	8.5	16.1	-161.52	-1,430.6	-635.4	1,547.3	1,527.8	19.54	79.180		
3,838.6	3,827.1	4,122.0	4,028.6	8.6	16.3	-161.18	-1,423.3	-642.5	1,542.3	1,522.6	19.73	78.190		
3,900.0	3,888.5	4,181.1	4,085.4	8.7	16.7	-160.64	-1,411.7	-653.8	1,534.5	1,514.5	20.02	76.666		
3,937.0	3,925.5	4,216.7	4,119.6	8.8	16.9	-160.31	-1,404.7	-660.6	1,529.8	1,509.6	20.19	75.777		
4,000.0	3,988.5	4,277.3	4,177.9	9.0	17.2	-159.74	-1,392.7	-672.1	1,522.0	1,501.6	20.48	74.311		
4,035.4	4,024.0	4,311.3	4,216.6	9.0	17.4	-159.42	-1,386.0	-678.6	1,517.7	1,497.1	20.65	73.513		
4,100.0	4,088.5	4,373.5	4,270.4	9.2	17.7	-158.83	-1,373.8	-690.4	1,510.0	1,489.1	20.94	72.103		
4,133.8	4,122.4	4,406.0	4,301.7	9.2	17.9	-158.52	-1,367.4	-696.6	1,506.0	1,484.9	21.10	71.386		
4,200.0	4,188.5	4,469.6	4,362.8	9.4	18.3	-157.91	-1,354.9	-708.8	1,498.4	1,477.0	21.40	70.029		
4,232.3	4,220.8	4,500.7	4,392.7	9.4	18.5	-157.61	-1,348.8	-714.7	1,494.7	1,473.1	21.54	69.387		
4,300.0	4,288.5	4,565.8	4,455.3	9.6	18.8	-156.98	-1,336.0	-727.1	1,487.1	1,465.3	21.84	68.079		
4,330.7	4,319.2	4,595.3	4,483.7	9.7	19.0	-156.69	-1,330.1	-732.7	1,483.8	1,461.8	21.98	67.504		
4,400.0	4,388.5	4,662.0	4,547.8	9.8	19.4	-156.03	-1,317.0	-745.4	1,476.3	1,454.0	22.29	66.244		
4,429.1	4,417.7	4,690.0	4,574.8	9.9	19.5	-155.75	-1,311.5	-750.8	1,473.3	1,450.8	22.41	65.730		
4,500.0	4,488.5	4,758.1	4,640.3	10.0	19.9	-155.07	-1,298.1	-763.8	1,466.0	1,443.2	22.72	64.515		
4,527.5	4,516.1	4,784.6	4,665.8	10.1	20.1	-154.80	-1,292.9	-768.8	1,463.2	1,440.3	22.84	64.056		
4,600.0	4,588.5	4,854.3	4,732.8	10.2	20.5	-154.10	-1,279.2	-782.1	1,456.0	1,432.9	23.15	62.883		
4,626.0	4,614.5	4,879.3	4,756.8	10.3	20.6	-153.84	-1,274.3	-786.9	1,453.5	1,430.3	23.27	62.474		
4,700.0	4,688.5	4,950.5	4,825.3	10.5	21.0	-153.11	-1,260.2	-800.4	1,446.6	1,423.0	23.58	61.341		
4,724.4	4,712.9	4,974.0	4,847.9	10.5	21.2	-152.87	-1,255.6	-804.9	1,444.3	1,420.6	23.69	60.977		
4,800.0	4,788.5	5,046.7	4,917.8	10.7	21.6	-152.12	-1,241.3	-818.8	1,437.5	1,413.5	24.01	59.882		
4,822.8	4,811.4	5,068.6	4,938.9	10.7	21.7	-151.89	-1,237.0	-823.0	1,435.5	1,411.4	24.10	59.560		
4,900.0	4,888.5	5,142.8	5,010.3	10.9	22.1	-151.11	-1,222.4	-837.1	1,429.0	1,404.6	24.43	58.500		
4,921.2	4,909.8	5,163.3	5,029.9	10.9	22.2	-150.89	-1,218.4	-841.0	1,427.2	1,402.7	24.52	58.216		
5,000.0	4,988.5	5,239.0	5,102.8	11.1	22.7	-150.09	-1,203.5	-855.4	1,420.9	1,396.1	24.85	57.190		
5,019.7	5,008.2	5,257.9	5,121.0	11.1	22.8	-149.89	-1,199.7	-859.0	1,419.4	1,394.5	24.93	56.940		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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-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	
5,100.0	5,088.5	5,335.2	5,195.3	11.3	23.2	-149.06	-1,184.5	-873.8	1,413.3	1,388.1	25.26	55.945	
5,118.1	5,106.6	5,352.6	5,212.0	11.4	23.3	-148.87	-1,181.1	-877.1	1,412.0	1,386.7	25.34	55.726	
5,200.0	5,188.5	5,431.4	5,287.8	11.5	23.8	-148.02	-1,165.6	-892.1	1,406.2	1,380.6	25.68	54.761	
5,216.5	5,205.1	5,447.2	5,303.1	11.6	23.9	-147.85	-1,162.5	-895.1	1,405.1	1,379.4	25.75	54.570	
5,300.0	5,288.5	5,521.6	5,374.7	11.8	24.2	-147.05	-1,148.2	-909.0	1,399.8	1,373.7	26.07	53.697	
5,314.9	5,303.5	5,534.6	5,387.2	11.8	24.3	-146.92	-1,145.8	-911.3	1,398.9	1,372.8	26.12	53.553	
5,400.0	5,388.5	5,609.1	5,459.6	12.0	24.6	-146.21	-1,133.0	-923.7	1,394.4	1,367.9	26.43	52.753	
5,413.4	5,401.9	5,620.9	5,471.1	12.0	24.6	-146.10	-1,131.1	-925.5	1,393.7	1,367.3	26.48	52.633	
5,500.0	5,488.5	5,700.0	5,548.4	12.2	24.9	-145.43	-1,119.2	-937.0	1,390.0	1,363.2	26.80	51.860	
5,511.8	5,500.3	5,708.4	5,556.7	12.2	24.9	-145.37	-1,118.0	-938.2	1,389.5	1,362.7	26.84	51.767	
5,600.0	5,588.5	5,787.7	5,634.7	12.4	25.2	-144.79	-1,107.8	-948.1	1,386.5	1,359.3	27.17	51.035	
5,610.2	5,598.8	5,800.0	5,646.8	12.4	25.2	-144.71	-1,106.4	-949.5	1,386.1	1,358.9	27.21	50.942	
5,700.0	5,688.5	5,878.6	5,724.5	12.6	25.4	-144.24	-1,098.1	-957.5	1,383.7	1,356.2	27.54	50.251	
5,708.6	5,697.2	5,886.5	5,732.4	12.6	25.5	-144.19	-1,097.3	-958.3	1,383.5	1,355.9	27.57	50.184	
5,800.0	5,788.5	5,970.2	5,815.5	12.8	25.7	-143.79	-1,090.3	-965.1	1,381.7	1,353.8	27.91	49.512	
5,807.1	5,795.6	5,976.7	5,822.0	12.9	25.7	-143.77	-1,089.8	-965.5	1,381.5	1,353.6	27.93	49.461	
5,900.0	5,888.5	6,062.4	5,907.4	13.1	25.9	-143.47	-1,084.6	-970.6	1,380.2	1,351.9	28.27	48.816	
5,905.5	5,894.0	6,067.5	5,912.5	13.1	25.9	-143.45	-1,084.3	-970.9	1,380.2	1,351.9	28.29	48.778	
6,000.0	5,988.5	6,155.1	5,999.9	13.3	26.0	-143.26	-1,081.0	-974.1	1,379.3	1,350.7	28.64	48.161	
6,003.9	5,992.5	6,158.7	6,003.5	13.3	26.0	-143.26	-1,080.9	-974.2	1,379.3	1,350.7	28.65	48.136	
6,085.3	6,073.8	7,535.7	6,854.1	13.5	26.5	-179.67	-1,079.5	-142.7	1,350.1	1,315.1	35.00	38.571	
6,100.0	6,088.5	7,535.4	6,854.1	13.5	26.5	-91.14	-1,079.5	-143.0	1,341.7	1,302.4	39.24	34.192	
6,102.3	6,090.9	7,535.3	6,854.1	13.5	26.5	-91.26	-1,079.5	-143.0	1,340.3	1,301.1	39.24	34.161	
6,150.0	6,138.4	7,532.2	6,854.1	13.6	26.4	-93.64	-1,079.5	-146.1	1,314.0	1,274.8	39.15	33.566	
6,200.0	6,188.0	7,525.6	6,854.2	13.7	26.3	-95.75	-1,079.5	-152.8	1,287.8	1,248.7	39.04	32.990	
6,200.8	6,188.8	7,525.4	6,854.2	13.7	26.3	-95.78	-1,079.5	-152.9	1,287.4	1,248.3	39.03	32.981	
6,250.0	6,237.1	7,515.5	6,854.3	13.9	26.2	-97.48	-1,079.5	-162.9	1,263.2	1,224.3	38.91	32.467	
6,299.2	6,284.6	7,502.2	6,854.4	14.0	26.1	-98.82	-1,079.5	-176.1	1,240.9	1,202.1	38.77	32.008	
6,300.0	6,285.3	7,502.0	6,854.4	14.0	26.1	-98.84	-1,079.5	-176.4	1,240.6	1,201.8	38.77	32.001	
6,350.0	6,332.5	7,485.2	6,854.5	14.2	25.9	-99.84	-1,079.5	-193.2	1,219.8	1,181.2	38.64	31.568	
6,397.6	6,376.3	7,466.1	6,854.7	14.4	25.8	-100.49	-1,079.5	-212.2	1,201.9	1,163.4	38.52	31.201	
6,400.0	6,378.5	7,465.1	6,854.7	14.4	25.8	-100.51	-1,079.5	-213.2	1,201.0	1,162.5	38.51	31.185	
6,450.0	6,423.0	7,441.9	6,854.9	14.7	25.6	-100.88	-1,079.5	-236.4	1,184.3	1,145.9	38.39	30.850	
6,496.0	6,462.4	7,409.5	6,855.0	14.9	25.4	-100.62	-1,079.5	-268.9	1,170.6	1,132.4	38.20	30.646	
6,500.0	6,465.7	7,404.9	6,854.9	14.9	25.4	-100.52	-1,079.5	-273.4	1,169.5	1,131.3	38.16	30.644	
6,550.0	6,506.6	7,351.0	6,851.8	15.2	25.1	-99.30	-1,079.5	-327.2	1,156.2	1,118.3	37.88	30.526	
6,594.5	6,541.2	7,308.1	6,846.5	15.6	25.0	-98.32	-1,079.5	-369.8	1,145.5	1,107.7	37.78	30.318	
6,600.0	6,545.3	7,303.1	6,845.7	15.6	25.0	-98.21	-1,079.5	-374.8	1,144.3	1,106.5	37.78	30.291	
6,650.0	6,581.8	7,259.4	6,837.3	16.0	24.9	-97.16	-1,079.5	-417.6	1,133.8	1,096.0	37.84	29.963	
6,692.9	6,611.1	7,224.4	6,828.8	16.4	24.9	-96.28	-1,079.5	-451.5	1,126.1	1,088.1	38.02	29.618	
6,700.0	6,615.8	7,218.8	6,827.2	16.5	24.9	-96.13	-1,079.5	-456.9	1,125.0	1,086.9	38.06	29.560	
6,750.0	6,647.1	7,180.7	6,815.7	17.1	24.9	-95.09	-1,079.5	-493.3	1,117.7	1,079.3	38.41	29.103	
6,791.3	6,670.9	7,150.6	6,805.3	17.6	24.9	-94.20	-1,079.5	-521.5	1,112.9	1,074.1	38.78	28.694	
6,800.0	6,675.7	7,144.4	6,803.0	17.7	24.9	-94.01	-1,079.5	-527.2	1,112.0	1,073.1	38.87	28.606	
6,850.0	6,701.3	7,109.7	6,789.2	18.4	24.9	-92.88	-1,079.5	-559.2	1,107.8	1,068.4	39.46	28.076	
6,889.7	6,719.5	7,082.9	6,777.6	19.0	25.0	-91.95	-1,079.5	-583.3	1,105.6	1,065.6	40.00	27.639	
6,900.0	6,723.8	7,076.1	6,774.5	19.1	25.0	-91.70	-1,079.5	-589.3	1,105.2	1,065.0	40.14	27.531	
6,950.0	6,743.2	7,043.4	6,758.8	20.0	25.0	-90.47	-1,079.5	-617.9	1,104.0	1,063.1	40.90	26.993	
6,968.8	6,749.7	7,031.4	6,752.7	20.3	25.0	-90.00	-1,079.5	-628.3	1,103.9	1,062.7	41.21	26.785 CC	
6,988.2	6,755.8	7,019.1	6,746.2	20.6	25.0	-89.50	-1,079.5	-638.8	1,104.0	1,062.4	41.53	26.581	
7,000.0	6,759.4	7,011.6	6,742.2	20.9	25.1	-89.19	-1,079.5	-645.1	1,104.1	1,062.4	41.72	26.463 ES	
7,050.0	6,772.1	6,980.4	6,724.9	21.8	25.1	-87.86	-1,079.5	-671.0	1,105.6	1,063.0	42.59	25.958	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	6,958.0	6,711.7	22.5	25.2	-86.86	-1,079.5	-689.2	1,107.4	1,064.2	43.24	25.610	
7,100.0	6,781.5	6,950.0	6,706.9	22.8	25.2	-86.50	-1,079.5	-695.5	1,108.2	1,064.8	43.47	25.492	
7,150.0	6,787.5	6,919.7	6,687.9	23.9	25.3	-85.08	-1,079.5	-719.2	1,112.0	1,067.6	44.37	25.061	
7,185.0	6,789.6	6,900.0	6,675.0	24.6	25.3	-84.12	-1,079.5	-734.1	1,115.2	1,070.2	44.99	24.788	
7,200.0	6,789.9	6,890.0	6,668.4	24.9	25.3	-83.65	-1,079.5	-741.5	1,116.7	1,071.4	45.24	24.681	
7,213.0	6,790.0	6,882.3	6,663.2	25.2	25.3	-83.27	-1,079.5	-747.2	1,118.0	1,072.6	45.47	24.589	
7,283.4	6,789.7	6,843.0	6,635.6	26.8	25.4	-81.87	-1,079.5	-775.2	1,126.9	1,080.0	46.89	24.033	
7,300.0	6,789.7	6,834.3	6,629.3	27.2	25.5	-81.55	-1,079.5	-781.2	1,129.4	1,082.1	47.22	23.915	
7,381.9	6,789.4	6,800.0	6,603.8	29.1	25.5	-80.26	-1,079.5	-804.1	1,143.8	1,094.8	48.96	23.362	
7,400.0	6,789.3	6,786.5	6,593.4	29.5	25.6	-79.74	-1,079.5	-812.8	1,147.5	1,098.2	49.31	23.269	
7,480.3	6,789.0	6,750.0	6,564.6	31.4	25.7	-78.30	-1,079.5	-835.2	1,166.3	1,115.3	51.02	22.860	
7,500.0	6,788.9	6,750.0	6,564.6	31.9	25.7	-78.30	-1,079.5	-835.2	1,171.5	1,120.0	51.48	22.755	
7,578.7	6,788.6	6,716.8	6,537.5	33.8	25.7	-76.96	-1,079.5	-854.3	1,194.6	1,141.4	53.17	22.467	
7,600.0	6,788.5	6,700.0	6,523.4	34.4	25.8	-76.27	-1,079.5	-863.5	1,201.5	1,148.0	53.56	22.433	
7,677.1	6,788.2	6,685.3	6,511.0	36.3	25.8	-75.67	-1,079.5	-871.3	1,228.6	1,173.3	55.33	22.206	
7,700.0	6,788.2	6,678.6	6,505.2	36.9	25.8	-75.39	-1,079.5	-874.7	1,237.3	1,181.5	55.83	22.162	
7,775.6	6,787.9	6,650.0	6,480.3	38.8	25.9	-74.19	-1,079.5	-888.9	1,268.2	1,210.8	57.43	22.082	
7,800.0	6,787.8	6,650.0	6,480.3	39.4	25.9	-74.19	-1,079.5	-888.9	1,278.8	1,220.8	58.03	22.036	
7,874.0	6,787.5	6,633.6	6,465.9	41.3	25.9	-73.50	-1,079.5	-896.5	1,313.0	1,253.3	59.70	21.991	
7,900.0	6,787.4	6,627.7	6,460.6	42.0	25.9	-73.25	-1,079.5	-899.2	1,325.7	1,265.4	60.28	21.990 SF	
7,972.4	6,787.1	6,600.0	6,435.6	43.9	26.0	-72.07	-1,079.5	-911.2	1,362.8	1,301.0	61.76	22.065	
8,000.0	6,787.0	6,600.0	6,435.6	44.6	26.0	-72.07	-1,079.5	-911.2	1,377.5	1,315.0	62.45	22.057	
8,070.8	6,786.7	6,600.0	6,435.6	46.5	26.0	-72.07	-1,079.5	-911.2	1,416.9	1,352.7	64.23	22.059	
8,100.0	6,786.6	6,600.0	6,435.6	47.3	26.0	-72.07	-1,079.5	-911.2	1,433.9	1,368.9	64.97	22.071	
8,169.3	6,786.4	6,576.2	6,413.7	49.1	26.0	-71.05	-1,079.5	-920.7	1,475.2	1,408.8	66.38	22.224	
8,200.0	6,786.3	6,571.2	6,409.2	49.9	26.0	-70.83	-1,079.5	-922.6	1,494.1	1,427.1	67.08	22.275	
8,267.7	6,786.0	6,550.0	6,389.4	51.7	26.1	-69.93	-1,079.5	-930.3	1,537.2	1,468.8	68.45	22.458	
8,300.0	6,785.9	6,550.0	6,389.4	52.6	26.1	-69.93	-1,079.5	-930.3	1,558.3	1,489.0	69.26	22.498	
8,366.1	6,785.6	6,550.0	6,389.4	54.4	26.1	-69.93	-1,079.5	-930.3	1,602.4	1,531.5	70.94	22.590	
8,400.0	6,785.5	6,550.0	6,389.4	55.3	26.1	-69.93	-1,079.5	-930.3	1,625.7	1,553.9	71.79	22.643	
8,464.5	6,785.2	6,550.0	6,389.4	57.0	26.1	-69.93	-1,079.5	-930.3	1,670.9	1,597.5	73.44	22.754	
8,500.0	6,785.1	6,530.3	6,370.9	58.0	26.1	-69.08	-1,079.5	-936.9	1,696.0	1,622.0	73.97	22.928	
8,563.0	6,784.9	6,523.2	6,364.1	59.7	26.1	-68.78	-1,079.5	-939.2	1,741.7	1,666.2	75.43	23.090	
8,600.0	6,784.7	6,519.2	6,360.3	60.7	26.1	-68.60	-1,079.5	-940.4	1,769.0	1,692.7	76.29	23.189	
8,661.4	6,784.5	6,500.0	6,342.0	62.4	26.1	-67.79	-1,079.5	-946.1	1,815.1	1,737.7	77.45	23.437	
8,700.0	6,784.3	6,500.0	6,342.0	63.4	26.1	-67.79	-1,079.5	-946.1	1,844.4	1,766.0	78.42	23.519	
8,759.8	6,784.1	6,500.0	6,342.0	65.0	26.1	-67.79	-1,079.5	-946.1	1,890.4	1,810.5	79.94	23.649	
8,800.0	6,784.0	6,500.0	6,342.0	66.1	26.1	-67.79	-1,079.5	-946.1	1,921.8	1,840.8	80.95	23.739	
8,858.2	6,783.7	6,500.0	6,342.0	67.7	26.1	-67.79	-1,079.5	-946.1	1,967.8	1,885.3	82.43	23.871	
8,900.0	6,783.6	6,500.0	6,342.0	68.9	26.1	-67.79	-1,079.5	-946.1	2,001.2	1,917.7	83.49	23.968	
8,956.7	6,783.3	6,500.0	6,342.0	70.4	26.1	-67.79	-1,079.5	-946.1	2,046.9	1,962.0	84.94	24.100	
9,000.0	6,783.2	6,500.0	6,342.0	71.6	26.1	-67.79	-1,079.5	-946.1	2,082.3	1,996.3	86.04	24.202	
9,055.1	6,783.0	6,478.9	6,321.7	73.1	26.2	-66.89	-1,079.5	-951.8	2,127.4	2,040.4	86.92	24.475	
9,100.0	6,782.8	6,475.7	6,318.5	74.3	26.2	-66.75	-1,079.5	-952.6	2,164.6	2,076.6	87.97	24.604	
9,153.5	6,782.6	6,472.0	6,314.9	75.8	26.2	-66.59	-1,079.5	-953.5	2,209.3	2,120.0	89.24	24.758	
9,200.0	6,782.4	6,468.8	6,311.9	77.1	26.2	-66.46	-1,079.5	-954.3	2,248.4	2,158.1	90.33	24.891	
9,251.9	6,782.2	6,450.0	6,293.6	78.5	26.2	-65.67	-1,079.5	-958.6	2,292.6	2,201.5	91.13	25.158	
9,300.0	6,782.0	6,450.0	6,293.6	79.8	26.2	-65.67	-1,079.5	-958.6	2,333.6	2,241.2	92.34	25.271	
9,350.4	6,781.8	6,450.0	6,293.6	81.2	26.2	-65.67	-1,079.5	-958.6	2,376.8	2,283.1	93.61	25.389	
9,400.0	6,781.6	6,450.0	6,293.6	82.6	26.2	-65.67	-1,079.5	-958.6	2,419.6	2,324.7	94.87	25.505	
9,448.8	6,781.4	6,450.0	6,293.6	83.9	26.2	-65.67	-1,079.5	-958.6	2,461.9	2,365.8	96.10	25.618	
9,500.0	6,781.2	6,450.0	6,293.6	85.4	26.2	-65.67	-1,079.5	-958.6	2,506.6	2,409.2	97.40	25.737	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,547.2	6,781.0	6,450.0	6,293.6	86.7	26.2	-65.67	-1,079.5	-958.6	2,548.1	2,449.5	98.59	25.845	
9,600.0	6,780.8	6,450.0	6,293.6	88.1	26.2	-65.66	-1,079.5	-958.6	2,594.6	2,494.7	99.93	25.965	
9,645.6	6,780.7	6,450.0	6,293.6	89.4	26.2	-65.66	-1,079.5	-958.6	2,635.1	2,534.0	101.08	26.068	
9,700.0	6,780.5	6,450.0	6,293.6	90.9	26.2	-65.66	-1,079.5	-958.6	2,683.5	2,581.0	102.46	26.190	
9,744.1	6,780.3	6,450.0	6,293.6	92.1	26.2	-65.66	-1,079.5	-958.6	2,722.9	2,619.3	103.58	26.288	
9,800.0	6,780.1	6,450.0	6,293.6	93.7	26.2	-65.66	-1,079.5	-958.6	2,773.1	2,668.1	105.00	26.411	
9,842.5	6,779.9	6,450.0	6,293.6	94.8	26.2	-65.66	-1,079.5	-958.6	2,811.4	2,705.3	106.08	26.503	
9,900.0	6,779.7	6,450.0	6,293.6	96.4	26.2	-65.66	-1,079.5	-958.6	2,863.4	2,755.8	107.54	26.627	
9,940.9	6,779.5	6,450.0	6,293.6	97.6	26.2	-65.66	-1,079.5	-958.6	2,900.5	2,791.9	108.58	26.714	
10,000.0	6,779.3	6,428.1	6,272.2	99.2	26.2	-64.75	-1,079.5	-963.0	2,953.9	2,844.6	109.32	27.020	
10,039.3	6,779.1	6,426.6	6,270.6	100.3	26.2	-64.68	-1,079.5	-963.3	2,989.7	2,879.5	110.26	27.115	
10,100.0	6,778.9	6,424.3	6,268.4	102.0	26.2	-64.59	-1,079.5	-963.7	3,045.2	2,933.5	111.71	27.260	
10,137.8	6,778.7	6,422.9	6,267.0	103.0	26.2	-64.53	-1,079.5	-964.0	3,079.8	2,967.2	112.61	27.349	
10,200.0	6,778.5	6,420.7	6,264.8	104.8	26.2	-64.43	-1,079.5	-964.4	3,137.0	3,022.9	114.10	27.494	
10,236.2	6,778.3	6,400.0	6,244.4	105.8	26.2	-63.58	-1,079.5	-967.7	3,170.7	3,056.5	114.23	27.756	
10,300.0	6,778.1	6,400.0	6,244.4	107.5	26.2	-63.58	-1,079.5	-967.7	3,229.6	3,113.8	115.83	27.882	
10,334.6	6,778.0	6,400.0	6,244.4	108.5	26.2	-63.58	-1,079.5	-967.7	3,261.6	3,144.9	116.70	27.949	
10,400.0	6,777.7	6,400.0	6,244.4	110.3	26.2	-63.58	-1,079.5	-967.7	3,322.2	3,203.9	118.34	28.074	
10,433.0	6,777.6	6,400.0	6,244.4	111.2	26.2	-63.58	-1,079.5	-967.7	3,353.0	3,233.8	119.17	28.136	
10,500.0	6,777.3	6,400.0	6,244.4	113.1	26.2	-63.58	-1,079.5	-967.7	3,415.3	3,294.5	120.85	28.261	
10,531.5	6,777.2	6,400.0	6,244.4	114.0	26.2	-63.58	-1,079.5	-967.7	3,444.7	3,323.0	121.64	28.319	
10,600.0	6,776.9	6,400.0	6,244.4	115.9	26.2	-63.58	-1,079.5	-967.7	3,508.7	3,385.4	123.36	28.444	
10,629.9	6,776.8	6,400.0	6,244.4	116.7	26.2	-63.58	-1,079.5	-967.7	3,536.8	3,412.6	124.11	28.497	
10,700.0	6,776.5	6,400.0	6,244.4	118.7	26.2	-63.58	-1,079.5	-967.7	3,602.5	3,476.7	125.87	28.621	
10,728.3	6,776.4	6,400.0	6,244.4	119.5	26.2	-63.58	-1,079.5	-967.7	3,629.2	3,502.6	126.58	28.671	
10,800.0	6,776.1	6,400.0	6,244.4	121.4	26.2	-63.57	-1,079.5	-967.7	3,696.7	3,568.3	128.38	28.795	
10,826.7	6,776.0	6,400.0	6,244.4	122.2	26.2	-63.57	-1,079.5	-967.7	3,721.9	3,592.8	129.05	28.840	
10,900.0	6,775.7	6,400.0	6,244.4	124.2	26.2	-63.57	-1,079.5	-967.7	3,791.1	3,660.2	130.89	28.963	
10,925.2	6,775.6	6,400.0	6,244.4	124.9	26.2	-63.57	-1,079.5	-967.7	3,814.9	3,683.4	131.53	29.005	
11,000.0	6,775.3	6,400.0	6,244.4	127.0	26.2	-63.57	-1,079.5	-967.7	3,885.8	3,752.4	133.41	29.127	
11,023.6	6,775.2	6,400.0	6,244.4	127.7	26.2	-63.57	-1,079.5	-967.7	3,908.2	3,774.2	134.00	29.165	
11,100.0	6,774.9	6,400.0	6,244.4	129.8	26.2	-63.57	-1,079.5	-967.7	3,980.8	3,844.8	135.92	29.287	
11,122.0	6,774.8	6,400.0	6,244.4	130.4	26.2	-63.57	-1,079.5	-967.7	4,001.7	3,865.2	136.48	29.322	
11,200.0	6,774.5	6,400.0	6,244.4	132.6	26.2	-63.57	-1,079.5	-967.7	4,076.0	3,937.5	138.44	29.443	
11,220.4	6,774.4	6,400.0	6,244.4	133.2	26.2	-63.57	-1,079.5	-967.7	4,095.5	3,956.5	138.95	29.474	
11,300.0	6,774.1	6,400.0	6,244.4	135.4	26.2	-63.57	-1,079.5	-967.7	4,171.4	4,030.4	140.95	29.594	
11,318.9	6,774.0	6,400.0	6,244.4	135.9	26.2	-63.57	-1,079.5	-967.7	4,189.4	4,048.0	141.43	29.622	
11,400.0	6,773.7	6,400.0	6,244.4	138.2	26.2	-63.57	-1,079.5	-967.7	4,267.0	4,123.5	143.47	29.742	
11,417.3	6,773.6	6,400.0	6,244.4	138.7	26.2	-63.57	-1,079.5	-967.7	4,283.6	4,139.7	143.91	29.767	
11,500.0	6,773.3	6,400.0	6,244.4	141.0	26.2	-63.57	-1,079.5	-967.7	4,362.9	4,216.9	145.99	29.885	
11,515.7	6,773.2	6,400.0	6,244.4	141.4	26.2	-63.57	-1,079.5	-967.7	4,377.9	4,231.6	146.38	29.907	
11,600.0	6,772.9	6,400.0	6,244.4	143.8	26.2	-63.57	-1,079.5	-967.7	4,458.9	4,310.4	148.51	30.025	
11,614.1	6,772.8	6,400.0	6,244.4	144.2	26.2	-63.57	-1,079.5	-967.7	4,472.5	4,323.6	148.86	30.044	
11,700.0	6,772.5	6,400.0	6,244.4	146.6	26.2	-63.57	-1,079.5	-967.7	4,555.1	4,404.0	151.02	30.161	
11,712.6	6,772.4	6,400.0	6,244.4	146.9	26.2	-63.57	-1,079.5	-967.7	4,567.2	4,415.8	151.34	30.178	
11,800.0	6,772.1	6,400.0	6,244.4	149.4	26.2	-63.56	-1,079.5	-967.7	4,651.4	4,497.9	153.54	30.294	
11,811.0	6,772.1	6,400.0	6,244.4	149.7	26.2	-63.56	-1,079.5	-967.7	4,662.0	4,508.2	153.82	30.308	
11,900.0	6,771.7	6,400.0	6,244.4	152.2	26.2	-63.56	-1,079.5	-967.7	4,747.9	4,591.8	156.06	30.423	
11,909.4	6,771.7	6,400.0	6,244.4	152.4	26.2	-63.56	-1,079.5	-967.7	4,757.0	4,600.7	156.30	30.435	
12,000.0	6,771.3	6,378.0	6,222.6	154.9	26.2	-62.66	-1,079.5	-970.6	4,844.2	4,686.8	157.40	30.776	
12,007.8	6,771.3	6,377.8	6,222.5	155.2	26.2	-62.66	-1,079.5	-970.6	4,851.7	4,694.2	157.59	30.788	
12,100.0	6,770.9	6,376.4	6,221.0	157.7	26.2	-62.60	-1,079.5	-970.8	4,940.9	4,781.1	159.81	30.916	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-402 - ORIGINAL WELLBORE - P												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	6,770.9	6,376.3	6,220.9	157.9	26.2	-62.59	-1,079.5	-970.8	4,946.9	4,787.0	159.97	30.925	
12,200.0	6,770.5	6,374.9	6,219.5	160.5	26.2	-62.53	-1,079.5	-971.0	5,037.7	4,875.5	162.23	31.053	
12,204.7	6,770.5	6,374.8	6,219.4	160.7	26.2	-62.53	-1,079.5	-971.0	5,042.3	4,879.9	162.34	31.059	
12,300.0	6,770.1	6,373.4	6,218.1	163.3	26.2	-62.47	-1,079.5	-971.1	5,134.7	4,970.0	164.65	31.186	
12,303.1	6,770.1	6,373.4	6,218.0	163.4	26.2	-62.47	-1,079.5	-971.1	5,137.7	4,973.0	164.72	31.190	
12,316.4	6,770.0	6,373.2	6,217.8	163.8	26.2	-62.46	-1,079.5	-971.2	5,150.6	4,985.5	165.04	31.207	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												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	3.0	3.0	0.0	0.0	-175.53	-1,915.5	-149.9	1,921.4				
98.4	98.4	101.4	101.4	0.1	0.1	-175.53	-1,915.5	-149.9	1,921.4	1,921.2	0.20	9,754.213	
100.0	100.0	103.0	103.0	0.1	0.1	-175.53	-1,915.5	-149.9	1,921.4	1,921.2	0.20	9,498.165	
196.8	196.8	199.8	199.8	0.3	0.3	-175.53	-1,915.5	-149.9	1,921.4	1,920.7	0.64	3,013.167	
200.0	200.0	203.0	203.0	0.3	0.3	-175.53	-1,915.5	-149.9	1,921.4	1,920.7	0.65	2,947.709	
295.3	295.3	298.3	298.3	0.5	0.5	-175.53	-1,915.5	-149.9	1,921.4	1,920.3	1.08	1,778.869	
300.0	300.0	303.0	303.0	0.5	0.6	-175.53	-1,915.5	-149.9	1,921.4	1,920.3	1.10	1,744.562	
393.7	393.7	396.7	396.7	0.8	0.8	-175.53	-1,915.5	-149.9	1,921.4	1,919.9	1.52	1,261.936	
400.0	400.0	403.0	403.0	0.8	0.8	-175.53	-1,915.5	-149.9	1,921.4	1,919.8	1.55	1,238.892	
492.1	492.1	495.1	495.1	1.0	1.0	-175.53	-1,915.5	-149.9	1,921.4	1,919.4	1.97	977.793	
500.0	500.0	503.0	503.0	1.0	1.0	-175.53	-1,915.5	-149.9	1,921.4	1,919.4	2.00	960.490	
590.5	590.5	593.5	593.5	1.2	1.2	-175.53	-1,915.5	-149.9	1,921.4	1,919.0	2.41	798.091	
600.0	600.0	603.0	603.0	1.2	1.2	-175.53	-1,915.5	-149.9	1,921.4	1,918.9	2.45	784.253	
689.0	689.0	692.0	692.0	1.4	1.4	-175.53	-1,915.5	-149.9	1,921.4	1,918.5	2.85	674.187	
700.0	700.0	703.0	703.0	1.4	1.5	-175.53	-1,915.5	-149.9	1,921.4	1,918.5	2.90	662.663	
787.4	787.4	790.4	790.4	1.6	1.6	-175.53	-1,915.5	-149.9	1,921.4	1,918.1	3.29	583.585	
800.0	800.0	803.0	803.0	1.7	1.7	-175.53	-1,915.5	-149.9	1,921.4	1,918.0	3.35	573.715	
885.8	885.8	888.8	888.8	1.9	1.9	-175.53	-1,915.5	-149.9	1,921.4	1,917.6	3.73	514.450	
900.0	900.0	903.0	903.0	1.9	1.9	-175.53	-1,915.5	-149.9	1,921.4	1,917.6	3.80	505.820	
984.2	984.2	987.2	987.2	2.1	2.1	-175.53	-1,915.5	-149.9	1,921.4	1,917.2	4.18	459.960	
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-175.53	-1,915.5	-149.9	1,921.4	1,917.1	4.25	452.294	
1,082.7	1,082.7	1,139.1	1,139.1	2.3	2.4	-175.55	-1,914.3	-149.1	1,920.9	1,916.1	4.74	405.519	
1,100.0	1,100.0	1,182.3	1,182.3	2.3	2.5	-175.57	-1,912.9	-148.3	1,920.3	1,915.4	4.87	394.226	
1,181.1	1,181.1	1,383.5	1,382.7	2.5	3.0	-175.79	-1,898.9	-139.8	1,914.4	1,908.9	5.51	347.536	
1,200.0	1,200.0	1,430.0	1,428.9	2.6	3.1	-175.87	-1,894.0	-136.9	1,912.3	1,906.6	5.66	337.728	
1,279.5	1,279.5	1,623.1	1,619.3	2.7	3.6	-176.31	-1,866.6	-120.4	1,900.5	1,894.2	6.34	299.638	
1,300.0	1,300.0	1,672.1	1,667.2	2.8	3.8	-176.45	-1,857.9	-115.1	1,896.8	1,890.2	6.53	290.437	
1,377.9	1,377.9	1,805.0	1,796.3	3.0	4.3	-176.91	-1,831.0	-98.9	1,880.1	1,873.0	7.12	263.879	
1,400.0	1,400.0	1,826.4	1,817.0	3.0	4.4	-176.99	-1,826.4	-96.2	1,875.3	1,868.0	7.25	258.759	
1,476.4	1,476.4	1,900.3	1,888.7	3.2	4.7	-177.26	-1,810.7	-86.7	1,858.4	1,850.7	7.67	242.338	
1,500.0	1,500.0	1,923.2	1,910.9	3.2	4.8	-177.34	-1,805.8	-83.8	1,853.2	1,845.4	7.80	237.507	
1,574.8	1,574.8	1,995.6	1,980.9	3.4	5.1	-97.28	-1,790.4	-74.5	1,836.9	1,828.9	8.03	228.780	
1,600.0	1,600.0	2,019.9	2,004.5	3.5	5.2	-97.51	-1,785.3	-71.4	1,831.5	1,823.3	8.16	224.492	
1,673.2	1,673.1	2,090.4	2,072.8	3.6	5.5	-98.21	-1,770.2	-62.3	1,815.9	1,807.3	8.53	212.829	
1,700.0	1,699.8	2,116.1	2,097.7	3.7	5.6	-98.48	-1,764.8	-59.0	1,810.3	1,801.6	8.67	208.780	
1,771.6	1,771.2	2,184.8	2,164.2	3.8	5.9	-99.23	-1,750.2	-50.2	1,795.5	1,786.5	9.05	198.335	
1,800.0	1,799.5	2,211.8	2,190.4	3.9	6.0	-99.54	-1,744.4	-46.7	1,789.8	1,780.6	9.21	194.420	
1,870.1	1,869.0	2,278.5	2,255.0	4.0	6.3	-100.35	-1,730.2	-38.2	1,775.9	1,766.3	9.60	185.002	
1,900.0	1,898.7	2,306.8	2,282.5	4.1	6.5	-100.71	-1,724.2	-34.6	1,770.1	1,760.4	9.77	181.201	
1,968.5	1,966.4	2,371.5	2,345.1	4.3	6.8	-101.56	-1,710.4	-26.3	1,757.3	1,747.1	10.18	172.656	
2,000.0	1,997.5	2,401.1	2,373.7	4.4	6.9	-101.96	-1,704.1	-22.5	1,751.5	1,741.2	10.37	168.953	
2,066.9	2,063.2	2,463.6	2,434.3	4.6	7.2	-102.85	-1,690.8	-14.4	1,739.7	1,728.9	10.79	161.164	
2,100.1	2,095.7	2,494.5	2,464.2	4.7	7.4	-103.30	-1,684.3	-10.5	1,734.1	1,723.1	11.01	157.538	
2,165.3	2,159.5	2,555.1	2,522.9	4.9	7.6	-103.99	-1,671.4	-2.7	1,723.3	1,711.9	11.45	150.558	
2,200.0	2,193.4	2,587.2	2,554.0	5.0	7.8	-104.36	-1,664.5	1.4	1,717.7	1,706.0	11.68	147.057	
2,224.2	2,217.1	2,609.7	2,575.8	5.1	7.9	-104.62	-1,659.7	4.3	1,713.8	1,702.0	11.85	144.654	
2,263.8	2,255.9	2,646.5	2,611.5	5.2	8.1	-104.91	-1,651.9	9.0	1,707.5	1,695.4	12.11	141.038	
2,300.0	2,291.5	2,680.3	2,644.2	5.3	8.2	-105.17	-1,644.7	13.3	1,701.7	1,689.4	12.34	137.854	
2,362.2	2,352.7	2,738.7	2,700.8	5.5	8.5	-105.59	-1,632.3	20.8	1,691.6	1,678.9	12.73	132.882	
2,400.0	2,390.1	2,774.3	2,735.3	5.6	8.7	-105.83	-1,624.7	25.4	1,685.4	1,672.4	12.97	129.989	
2,460.6	2,450.1	2,831.8	2,790.9	5.7	9.0	-106.18	-1,612.5	32.8	1,675.3	1,662.0	13.34	125.584	
2,500.0	2,489.2	2,869.2	2,827.2	5.8	9.2	-106.40	-1,604.5	37.6	1,668.6	1,655.0	13.58	122.840	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P										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			
2,559.0	2,548.0	2,925.5	2,881.7	6.0	9.4	-106.69	-1,592.5	44.8	1,658.5	1,644.5	13.94	118.959			
2,600.0	2,588.8	2,964.7	2,919.7	6.1	9.6	-106.87	-1,584.2	49.8	1,651.3	1,637.1	14.19	116.371			
2,657.5	2,646.1	3,019.9	2,973.1	6.2	9.9	-107.10	-1,572.4	56.9	1,641.0	1,626.5	14.53	112.956			
2,700.0	2,688.6	3,060.8	3,012.8	6.3	10.1	-107.24	-1,563.7	62.1	1,633.2	1,618.5	14.78	110.520			
2,755.9	2,744.4	3,114.8	3,065.0	6.4	10.4	-107.41	-1,552.2	69.1	1,622.8	1,607.7	15.09	107.509			
2,800.0	2,788.5	3,157.4	3,106.4	6.5	10.6	-107.51	-1,543.2	74.5	1,614.4	1,599.1	15.34	105.214			
2,824.3	2,812.8	3,180.9	3,129.1	6.5	10.7	171.75	-1,538.2	77.5	1,609.7	1,594.2	15.54	103.602			
2,854.3	2,842.9	3,210.0	3,157.3	6.6	10.9	171.58	-1,532.0	81.3	1,603.9	1,588.2	15.71	102.088			
2,900.0	2,888.5	3,254.3	3,200.2	6.7	11.1	171.33	-1,522.6	86.9	1,595.0	1,579.0	15.97	99.856			
2,952.7	2,941.3	3,305.4	3,249.7	6.8	11.3	171.03	-1,511.7	93.5	1,584.8	1,568.5	16.28	97.324			
3,000.0	2,988.5	3,351.1	3,294.0	6.9	11.6	170.76	-1,501.9	99.4	1,575.7	1,559.2	16.56	95.142			
3,051.2	3,039.7	3,400.7	3,342.0	7.0	11.8	170.46	-1,491.4	105.7	1,565.9	1,549.1	16.86	92.869			
3,100.0	3,088.5	3,448.0	3,387.8	7.1	12.1	170.17	-1,481.3	111.8	1,556.6	1,539.5	17.15	90.780			
3,149.6	3,138.1	3,496.0	3,434.4	7.2	12.3	169.88	-1,471.1	117.9	1,547.2	1,529.8	17.44	88.736			
3,200.0	3,188.5	3,544.9	3,481.7	7.3	12.5	169.57	-1,460.7	124.2	1,537.7	1,519.9	17.73	86.734			
3,248.0	3,236.6	3,591.4	3,526.7	7.4	12.8	169.28	-1,450.8	130.2	1,528.6	1,510.6	18.01	84.894			
3,300.0	3,288.5	3,641.7	3,575.5	7.5	13.0	168.96	-1,440.1	136.6	1,518.9	1,500.6	18.31	82.973			
3,346.4	3,335.0	3,686.7	3,619.1	7.6	13.3	168.67	-1,430.5	142.4	1,510.2	1,491.7	18.57	81.316			
3,400.0	3,388.5	3,738.6	3,669.3	7.7	13.5	168.33	-1,419.5	149.1	1,500.3	1,481.4	18.88	79.472			
3,444.9	3,433.4	3,782.1	3,711.4	7.8	13.7	168.05	-1,410.2	154.6	1,492.0	1,472.9	19.13	77.978			
3,500.0	3,488.5	3,835.5	3,763.1	7.9	14.0	167.69	-1,398.9	161.5	1,481.9	1,462.4	19.45	76.205			
3,543.3	3,531.8	3,877.4	3,803.8	8.0	14.2	167.41	-1,389.9	166.9	1,473.9	1,454.3	19.69	74.859			
3,600.0	3,588.5	3,932.3	3,857.0	8.1	14.5	167.03	-1,378.2	173.9	1,463.6	1,443.6	20.01	73.153			
3,641.7	3,630.3	3,972.7	3,896.1	8.2	14.7	166.75	-1,369.6	179.1	1,456.1	1,435.8	20.24	71.939			
3,700.0	3,688.5	4,029.2	3,950.8	8.3	15.0	166.36	-1,357.6	186.3	1,445.6	1,425.0	20.56	70.297			
3,740.1	3,728.7	4,068.1	3,988.5	8.4	15.2	166.08	-1,349.4	191.3	1,438.4	1,417.6	20.79	69.202			
3,800.0	3,788.5	4,126.1	4,044.6	8.5	15.5	165.67	-1,337.0	198.7	1,427.8	1,406.6	21.11	67.621			
3,838.6	3,827.1	4,163.4	4,080.8	8.6	15.7	165.40	-1,329.1	203.5	1,420.9	1,399.6	21.32	66.633			
3,900.0	3,888.5	4,222.9	4,138.4	8.7	16.0	164.96	-1,316.4	211.2	1,410.1	1,388.5	21.66	65.109			
3,937.0	3,925.5	4,258.8	4,173.1	8.8	16.2	164.70	-1,308.8	215.8	1,403.7	1,381.8	21.86	64.219			
4,000.0	3,988.5	4,319.8	4,232.3	9.0	16.5	164.24	-1,295.8	223.6	1,392.7	1,370.6	22.20	62.750			
4,035.4	4,024.0	4,354.1	4,265.5	9.0	16.6	163.98	-1,288.5	228.0	1,386.6	1,364.3	22.38	61.948			
4,100.0	4,088.5	4,416.6	4,326.1	9.2	17.0	163.50	-1,275.2	236.0	1,375.6	1,352.9	22.73	60.531			
4,133.8	4,122.4	4,449.4	4,357.8	9.2	17.1	163.24	-1,268.2	240.2	1,369.8	1,346.9	22.90	59.809			
4,200.0	4,188.5	4,513.5	4,419.9	9.4	17.4	162.74	-1,254.6	248.4	1,358.6	1,335.4	23.25	58.441			
4,232.3	4,220.8	4,544.8	4,450.2	9.4	17.6	162.49	-1,247.9	252.4	1,353.2	1,329.8	23.42	57.793			
4,300.0	4,288.5	4,610.4	4,513.7	9.6	17.9	161.96	-1,233.9	260.9	1,342.0	1,318.2	23.76	56.472			
4,330.7	4,319.2	4,640.1	4,542.5	9.7	18.1	161.71	-1,227.6	264.7	1,336.9	1,313.0	23.92	55.891			
4,400.0	4,388.5	4,707.2	4,607.6	9.8	18.4	161.16	-1,213.3	273.3	1,325.5	1,301.3	24.27	54.615			
4,429.1	4,417.7	4,735.4	4,634.9	9.9	18.6	160.92	-1,207.3	276.9	1,320.8	1,296.4	24.42	54.094			
4,500.0	4,488.5	4,804.1	4,701.4	10.0	18.9	160.34	-1,192.7	285.7	1,309.4	1,284.6	24.77	52.863			
4,527.5	4,516.1	4,830.8	4,727.2	10.1	19.1	160.12	-1,187.0	289.1	1,305.0	1,280.1	24.91	52.397			
4,600.0	4,588.5	4,901.0	4,795.2	10.2	19.4	159.51	-1,172.1	298.1	1,293.5	1,268.2	25.26	51.207			
4,626.0	4,614.5	4,926.1	4,819.6	10.3	19.6	159.29	-1,166.7	301.3	1,289.4	1,264.0	25.39	50.792			
4,700.0	4,688.5	4,997.8	4,889.0	10.5	19.9	158.65	-1,151.5	310.5	1,277.9	1,252.1	25.74	49.642			
4,724.4	4,712.9	5,021.5	4,911.9	10.5	20.0	158.44	-1,146.5	313.6	1,274.1	1,248.3	25.86	49.274			
4,800.0	4,788.5	5,094.7	4,982.9	10.7	20.4	157.78	-1,130.9	323.0	1,262.6	1,236.4	26.21	48.163			
4,822.8	4,811.4	5,116.8	5,004.3	10.7	20.5	157.57	-1,126.2	325.8	1,259.1	1,232.8	26.32	47.836			
4,900.0	4,888.5	5,191.6	5,076.7	10.9	20.9	156.88	-1,110.3	335.4	1,247.6	1,220.9	26.68	46.763			
4,921.2	4,909.8	5,212.1	5,096.6	10.9	21.0	156.69	-1,105.9	338.0	1,244.4	1,217.7	26.78	46.475			
5,000.0	4,988.5	5,288.4	5,170.5	11.1	21.4	155.96	-1,089.6	347.8	1,232.9	1,205.8	27.13	45.438			
5,019.7	5,008.2	5,307.5	5,189.0	11.1	21.5	155.78	-1,085.6	350.2	1,230.0	1,202.8	27.22	45.186			

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P												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	
5,100.0	5,088.5	5,385.3	5,264.3	11.3	21.9	155.03	-1,069.0	360.2	1,218.5	1,191.0	27.58	44.184	
5,118.1	5,106.6	5,402.8	5,281.3	11.4	22.0	154.85	-1,065.3	362.5	1,216.0	1,188.3	27.66	43.964	
5,200.0	5,188.5	5,482.1	5,358.2	11.5	22.4	154.07	-1,048.4	372.6	1,204.5	1,176.5	28.01	42.996	
5,216.5	5,205.1	5,498.2	5,373.7	11.6	22.5	153.91	-1,045.0	374.7	1,202.2	1,174.2	28.09	42.806	
5,300.0	5,288.5	5,568.6	5,442.0	11.8	22.8	153.21	-1,030.3	383.5	1,191.1	1,162.7	28.40	41.936	
5,314.9	5,303.5	5,580.4	5,453.5	11.8	22.9	153.10	-1,028.0	385.0	1,189.3	1,160.8	28.46	41.791	
5,400.0	5,388.5	5,648.4	5,519.9	12.0	23.1	152.48	-1,015.3	392.6	1,179.4	1,150.6	28.75	41.027	
5,413.4	5,401.9	5,659.2	5,530.4	12.0	23.2	152.39	-1,013.5	393.7	1,177.9	1,149.1	28.79	40.913	
5,500.0	5,488.5	5,729.2	5,599.2	12.2	23.4	151.83	-1,002.1	400.6	1,169.3	1,140.3	29.08	40.212	
5,511.8	5,500.3	5,738.8	5,608.6	12.2	23.4	151.76	-1,000.6	401.4	1,168.3	1,139.1	29.12	40.122	
5,600.0	5,588.5	5,810.9	5,679.7	12.4	23.6	151.26	-990.6	407.5	1,160.9	1,131.5	29.41	39.473	
5,610.2	5,598.8	5,819.3	5,688.0	12.4	23.7	151.21	-989.5	408.1	1,160.2	1,130.7	29.44	39.402	
5,700.0	5,688.5	5,900.0	5,768.0	12.6	23.9	150.75	-980.4	413.7	1,154.1	1,124.4	29.75	38.792	
5,708.6	5,697.2	5,900.0	5,768.0	12.6	23.9	150.75	-980.4	413.7	1,153.6	1,123.8	29.77	38.749	
5,800.0	5,788.5	5,976.1	5,843.8	12.8	24.0	150.40	-973.5	417.8	1,148.8	1,118.8	30.07	38.202	
5,807.1	5,795.6	5,982.0	5,849.6	12.9	24.1	150.38	-973.0	418.1	1,148.5	1,118.4	30.10	38.161	
5,900.0	5,888.5	6,059.5	5,926.9	13.1	24.2	150.12	-967.9	421.2	1,145.0	1,114.6	30.40	37.661	
5,905.5	5,894.0	6,064.1	5,931.5	13.1	24.2	150.10	-967.6	421.3	1,144.8	1,114.4	30.42	37.633	
6,000.0	5,988.5	6,143.2	6,010.5	13.3	24.3	149.94	-964.4	423.3	1,142.6	1,111.9	30.74	37.177	
6,003.9	5,992.5	6,146.5	6,013.8	13.3	24.3	149.93	-964.3	423.3	1,142.6	1,111.8	30.75	37.159	
6,085.3	6,073.8	6,214.7	6,082.0	13.5	24.4	149.87	-963.0	424.1	1,141.7	1,110.7	31.02	36.804	
6,090.6	6,079.2	6,219.2	6,086.5	13.5	24.4	-120.14	-963.0	424.1	1,141.7	1,105.6	36.10	31.630	
6,100.0	6,088.5	6,227.1	6,094.3	13.5	24.5	-120.14	-963.0	424.1	1,141.8	1,105.6	36.13	31.601	
6,102.3	6,090.9	6,229.0	6,096.3	13.5	24.5	-120.14	-963.0	424.1	1,141.8	1,105.7	36.14	31.595	
6,150.0	6,138.4	6,285.1	6,152.3	13.6	24.5	-120.20	-962.9	424.0	1,143.1	1,106.8	36.31	31.486	
6,200.0	6,188.0	6,338.1	6,399.2	13.7	24.5	-119.55	-962.9	375.1	1,141.3	1,105.2	36.15	31.571	
6,200.8	6,188.8	6,541.9	6,402.8	13.7	24.5	-119.52	-962.9	373.7	1,141.3	1,105.1	36.14	31.577	
6,250.0	6,237.1	6,761.7	6,591.6	13.9	24.1	-116.84	-962.9	262.9	1,133.1	1,097.8	35.31	32.087	
6,299.2	6,284.6	6,936.6	6,712.3	14.0	23.7	-113.47	-962.9	136.9	1,120.8	1,086.2	34.62	32.374	
6,300.0	6,285.3	6,939.1	6,713.8	14.0	23.7	-113.41	-962.9	134.9	1,120.6	1,086.0	34.61	32.375	
6,350.0	6,332.5	7,075.5	6,784.2	14.2	23.4	-110.20	-962.9	18.4	1,105.8	1,071.3	34.48	32.074	
6,397.6	6,376.3	7,177.5	6,821.8	14.4	23.2	-107.62	-962.9	-76.4	1,090.9	1,056.1	34.84	31.314	
6,400.0	6,378.5	7,182.1	6,823.1	14.4	23.2	-107.50	-962.9	-80.7	1,090.2	1,055.3	34.86	31.269	
6,450.0	6,423.0	7,268.0	6,843.5	14.7	23.0	-105.28	-962.9	-164.2	1,074.7	1,039.1	35.60	30.185	
6,496.0	6,462.4	7,334.5	6,852.3	14.9	22.9	-103.56	-962.9	-230.1	1,061.0	1,024.5	36.47	29.094	
6,500.0	6,465.7	7,339.8	6,852.8	14.9	22.9	-103.43	-962.9	-235.3	1,059.8	1,023.3	36.54	29.001	
6,550.0	6,506.6	7,397.2	6,855.0	15.2	22.8	-102.02	-962.9	-292.7	1,046.0	1,008.5	37.55	27.858	
6,594.5	6,541.2	7,425.4	6,855.2	15.6	22.8	-101.69	-962.9	-320.8	1,035.2	996.9	38.29	27.032	
6,600.0	6,545.3	7,429.0	6,855.2	15.6	22.8	-101.64	-962.9	-324.5	1,033.9	995.5	38.39	26.931	
6,650.0	6,581.8	7,463.4	6,855.4	16.0	23.3	-101.06	-962.9	-358.9	1,023.7	984.4	39.33	26.027	
6,692.9	6,611.1	7,494.9	6,855.6	16.4	24.0	-100.45	-962.9	-390.4	1,016.4	976.2	40.20	25.283	
6,700.0	6,615.8	7,500.3	6,855.6	16.5	24.1	-100.34	-962.9	-395.8	1,015.3	975.0	40.35	25.164	
6,750.0	6,647.1	7,539.4	6,855.8	17.1	24.8	-99.51	-962.9	-434.9	1,008.5	966.9	41.61	24.239	
6,791.3	6,670.9	7,573.3	6,856.0	17.6	25.5	-98.77	-962.9	-468.8	1,004.0	961.2	42.75	23.487	
6,800.0	6,675.7	7,580.6	6,856.1	17.7	25.6	-98.62	-962.9	-476.1	1,003.1	960.2	42.99	23.335	
6,850.0	6,701.3	7,623.7	6,856.3	18.4	26.5	-97.71	-962.9	-519.1	999.0	954.4	44.53	22.433	
6,889.7	6,719.5	7,659.1	6,856.5	19.0	27.3	-97.00	-962.9	-554.6	996.4	950.5	45.87	21.722	
6,900.0	6,723.8	7,668.4	6,856.5	19.1	27.5	-96.82	-962.9	-563.9	995.8	949.6	46.22	21.546	
6,950.0	6,743.2	7,714.6	6,856.8	20.0	28.4	-95.99	-962.9	-610.1	993.5	945.5	48.03	20.687	
6,988.2	6,755.8	7,750.7	6,857.0	20.6	29.2	-95.42	-962.9	-646.2	992.2	942.7	49.51	20.041	
7,000.0	6,759.4	7,762.0	6,857.1	20.9	29.5	-95.26	-962.9	-657.5	991.9	941.9	49.97	19.849	
7,050.0	6,772.1	7,810.4	6,857.3	21.8	30.6	-94.65	-962.9	-705.9	990.8	938.8	52.00	19.054	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P													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		
7,086.6	6,779.4	7,846.3	6,857.5	22.5	31.4	-94.29	-962.9	-741.8	990.2	936.6	53.56	18.489		
7,100.0	6,781.5	7,859.6	6,857.6	22.8	31.7	-94.19	-962.9	-755.0	990.0	935.9	54.13	18.291		
7,150.0	6,787.5	7,909.2	6,857.9	23.9	32.8	-93.89	-962.9	-804.7	989.6	933.3	56.31	17.573		
7,185.0	6,789.6	7,944.2	6,858.1	24.6	33.6	-93.80	-962.9	-839.7	989.5	931.6	57.89	17.092		
7,200.0	6,789.9	7,959.2	6,858.2	24.9	34.0	-93.78	-962.9	-854.6	989.5	930.9	58.57	16.894		
7,206.4	6,790.0	7,965.5	6,858.2	25.1	34.2	-93.78	-962.9	-861.0	989.5	930.6	58.86	16.811 CC		
7,213.0	6,790.0	7,972.1	6,858.2	25.2	34.3	-93.78	-962.9	-867.6	989.5	930.3	59.16	16.726		
7,283.4	6,789.7	8,042.6	6,858.6	26.8	36.0	-93.82	-962.9	-938.1	989.5	927.1	62.40	15.858		
7,300.0	6,789.7	8,059.2	6,858.7	27.2	36.4	-93.83	-962.9	-954.6	989.5	926.4	63.17	15.666		
7,381.9	6,789.4	8,141.0	6,859.2	29.1	38.4	-93.87	-962.9	-1,036.5	989.6	922.5	67.05	14.759		
7,400.0	6,789.3	8,159.2	6,859.3	29.5	38.8	-93.88	-962.9	-1,054.6	989.6	921.7	67.92	14.571		
7,480.3	6,789.0	8,239.5	6,859.7	31.4	40.8	-93.93	-962.9	-1,134.9	989.7	917.8	71.83	13.778		
7,500.0	6,788.9	8,259.2	6,859.9	31.9	41.3	-93.94	-962.9	-1,154.6	989.7	916.9	72.79	13.596		
7,578.7	6,788.6	8,337.9	6,860.3	33.8	43.3	-93.98	-962.9	-1,233.3	989.7	913.0	76.70	12.903		
7,600.0	6,788.5	8,359.1	6,860.4	34.4	43.8	-93.99	-962.9	-1,254.6	989.7	912.0	77.77	12.727		
7,677.1	6,788.2	8,436.3	6,860.9	36.3	45.8	-94.03	-962.9	-1,331.7	989.8	908.1	81.66	12.120		
7,700.0	6,788.2	8,459.1	6,861.0	36.9	46.4	-94.04	-962.9	-1,354.6	989.8	907.0	82.82	11.951		
7,775.6	6,787.9	8,534.7	6,861.4	38.8	48.3	-94.09	-962.9	-1,430.2	989.8	903.2	86.69	11.418		
7,800.0	6,787.8	8,559.1	6,861.5	39.4	49.0	-94.10	-962.9	-1,454.6	989.9	901.9	87.95	11.255		
7,874.0	6,787.5	8,633.1	6,862.0	41.3	50.9	-94.14	-962.9	-1,528.6	989.9	898.1	91.78	10.786		
7,900.0	6,787.4	8,659.1	6,862.1	42.0	51.6	-94.15	-962.9	-1,554.6	989.9	896.8	93.13	10.630		
7,972.4	6,787.1	8,731.6	6,862.5	43.9	53.5	-94.19	-962.9	-1,627.0	990.0	893.1	96.91	10.215		
8,000.0	6,787.0	8,759.1	6,862.7	44.6	54.2	-94.21	-962.9	-1,654.6	990.0	891.6	98.35	10.066		
8,070.8	6,786.7	8,830.0	6,863.1	46.5	56.1	-94.25	-962.9	-1,725.4	990.0	888.0	102.08	9.698		
8,100.0	6,786.6	8,859.1	6,863.2	47.3	56.8	-94.26	-962.9	-1,754.6	990.1	886.4	103.62	9.555		
8,169.3	6,786.4	8,928.4	6,863.6	49.1	58.7	-94.30	-962.9	-1,823.8	990.1	882.8	107.29	9.228		
8,200.0	6,786.3	8,959.1	6,863.8	49.9	59.5	-94.32	-962.9	-1,854.6	990.1	881.2	108.92	9.091		
8,267.7	6,786.0	9,026.8	6,864.2	51.7	61.3	-94.35	-962.9	-1,922.3	990.2	877.7	112.52	8.800		
8,300.0	6,785.9	9,059.1	6,864.3	52.6	62.2	-94.37	-962.9	-1,954.6	990.2	876.0	114.25	8.667		
8,366.1	6,785.6	9,125.2	6,864.7	54.4	63.9	-94.41	-962.9	-2,020.7	990.3	872.5	117.78	8.407		
8,400.0	6,785.5	9,159.1	6,864.9	55.3	64.8	-94.43	-962.9	-2,054.6	990.3	870.7	119.60	8.280		
8,464.5	6,785.2	9,223.7	6,865.3	57.0	66.6	-94.46	-962.9	-2,119.1	990.3	867.3	123.06	8.047		
8,500.0	6,785.1	9,259.1	6,865.5	58.0	67.5	-94.48	-962.9	-2,154.5	990.4	865.4	124.97	7.925		
8,563.0	6,784.9	9,322.1	6,865.8	59.7	69.2	-94.51	-962.9	-2,217.5	990.4	862.0	128.36	7.716		
8,600.0	6,784.7	9,359.1	6,866.0	60.7	70.2	-94.53	-962.9	-2,254.5	990.4	860.1	130.36	7.598		
8,661.4	6,784.5	9,420.5	6,866.4	62.4	71.9	-94.57	-962.9	-2,315.9	990.5	856.8	133.68	7.409		
8,700.0	6,784.3	9,459.1	6,866.6	63.4	72.9	-94.59	-962.9	-2,354.5	990.5	854.7	135.77	7.295		
8,759.8	6,784.1	9,518.9	6,866.9	65.0	74.5	-94.62	-962.9	-2,414.4	990.5	851.5	139.01	7.126		
8,800.0	6,784.0	9,559.1	6,867.2	66.1	75.6	-94.64	-962.9	-2,454.5	990.6	849.4	141.19	7.016		
8,858.2	6,783.7	9,617.3	6,867.5	67.7	77.2	-94.68	-962.9	-2,512.8	990.6	846.3	144.35	6.862		
8,900.0	6,783.6	9,659.1	6,867.7	68.9	78.4	-94.70	-962.9	-2,554.5	990.6	844.0	146.62	6.756		
8,956.7	6,783.3	9,715.8	6,868.0	70.4	79.9	-94.73	-962.9	-2,611.2	990.7	841.0	149.71	6.617		
9,000.0	6,783.2	9,759.1	6,868.3	71.6	81.1	-94.75	-962.9	-2,654.5	990.7	838.7	152.07	6.515		
9,055.1	6,783.0	9,814.2	6,868.6	73.1	82.6	-94.78	-962.9	-2,709.6	990.8	835.7	155.07	6.389		
9,100.0	6,782.8	9,859.1	6,868.8	74.3	83.8	-94.81	-962.9	-2,754.5	990.8	833.3	157.52	6.290		
9,153.5	6,782.6	9,912.6	6,869.1	75.8	85.3	-94.84	-962.9	-2,808.0	990.8	830.4	160.45	6.176		
9,200.0	6,782.4	9,959.1	6,869.4	77.1	86.5	-94.86	-962.9	-2,854.5	990.9	827.9	162.99	6.080		
9,251.9	6,782.2	10,011.0	6,869.7	78.5	88.0	-94.89	-962.9	-2,906.5	990.9	825.1	165.83	5.976		
9,300.0	6,782.0	10,059.1	6,870.0	79.8	89.3	-94.92	-962.9	-2,954.5	991.0	822.5	168.46	5.883		
9,350.4	6,781.8	10,109.4	6,870.2	81.2	90.7	-94.95	-962.9	-3,004.9	991.0	819.8	171.21	5.788		
9,400.0	6,781.6	10,159.1	6,870.5	82.6	92.0	-94.97	-962.9	-3,054.5	991.0	817.1	173.93	5.698		
9,448.8	6,781.4	10,207.9	6,870.8	83.9	93.4	-95.00	-962.9	-3,103.3	991.1	814.5	176.61	5.612		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P												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	
9,500.0	6,781.2	10,259.1	6,871.1	85.4	94.8	-95.03	-962.9	-3,154.5	991.1	811.7	179.42	5.524	
9,547.2	6,781.0	10,306.3	6,871.4	86.7	96.1	-95.05	-962.9	-3,201.7	991.2	809.2	182.01	5.446	
9,600.0	6,780.8	10,359.1	6,871.7	88.1	97.5	-95.08	-962.9	-3,254.5	991.2	806.3	184.90	5.361	
9,645.6	6,780.7	10,404.7	6,871.9	89.4	98.8	-95.11	-962.9	-3,300.1	991.2	803.8	187.41	5.289	
9,700.0	6,780.5	10,459.1	6,872.2	90.9	100.3	-95.14	-962.9	-3,354.5	991.3	800.9	190.40	5.206	
9,744.1	6,780.3	10,503.1	6,872.5	92.1	101.5	-95.16	-962.9	-3,398.5	991.3	798.5	192.82	5.141	
9,800.0	6,780.1	10,559.1	6,872.8	93.7	103.0	-95.19	-962.9	-3,454.5	991.4	795.5	195.90	5.061	
9,842.5	6,779.9	10,601.5	6,873.0	94.8	104.2	-95.22	-962.9	-3,497.0	991.4	793.2	198.23	5.001	
9,900.0	6,779.7	10,659.0	6,873.3	96.4	105.8	-95.25	-962.9	-3,554.5	991.5	790.1	201.40	4.923	
9,940.9	6,779.5	10,700.0	6,873.6	97.6	106.9	-95.27	-962.9	-3,595.4	991.5	787.9	203.65	4.869	
10,000.0	6,779.3	10,759.0	6,873.9	99.2	108.6	-95.30	-962.9	-3,654.5	991.6	784.6	206.90	4.792	
10,039.3	6,779.1	10,798.4	6,874.1	100.3	109.6	-95.32	-962.9	-3,693.8	991.6	782.5	209.07	4.743	
10,100.0	6,778.9	10,859.0	6,874.5	102.0	111.3	-95.36	-962.9	-3,754.5	991.6	779.2	212.41	4.668	
10,137.8	6,778.7	10,896.8	6,874.7	103.0	112.4	-95.38	-962.9	-3,792.2	991.7	777.2	214.49	4.623	
10,200.0	6,778.5	10,959.0	6,875.0	104.8	114.1	-95.41	-962.9	-3,854.4	991.7	773.8	217.92	4.551	
10,236.2	6,778.3	10,995.2	6,875.2	105.8	115.1	-95.43	-962.9	-3,890.6	991.8	771.8	219.92	4.510	
10,300.0	6,778.1	11,059.0	6,875.6	107.5	116.9	-95.47	-962.9	-3,954.4	991.8	768.4	223.44	4.439	
10,334.6	6,778.0	11,093.7	6,875.8	108.5	117.8	-95.49	-962.9	-3,989.1	991.9	766.5	225.35	4.401	
10,400.0	6,777.7	11,159.0	6,876.2	110.3	119.6	-95.52	-962.9	-4,054.4	991.9	763.0	228.95	4.332	
10,433.0	6,777.6	11,192.1	6,876.3	111.2	120.5	-95.54	-962.9	-4,087.5	991.9	761.2	230.77	4.298	
10,500.0	6,777.3	11,259.0	6,876.7	113.1	122.4	-95.58	-962.9	-4,154.4	992.0	757.5	234.47	4.231	
10,531.5	6,777.2	11,290.5	6,876.9	114.0	123.3	-95.60	-962.9	-4,185.9	992.0	755.8	236.21	4.200	
10,600.0	6,776.9	11,359.0	6,877.3	115.9	125.2	-95.63	-962.9	-4,254.4	992.1	752.1	239.99	4.134	
10,629.9	6,776.8	11,388.9	6,877.5	116.7	126.0	-95.65	-962.9	-4,284.3	992.1	750.5	241.64	4.106	
10,700.0	6,776.5	11,459.0	6,877.8	118.7	128.0	-95.69	-962.9	-4,354.4	992.2	746.7	245.51	4.041	
10,728.3	6,776.4	11,487.3	6,878.0	119.5	128.7	-95.70	-962.9	-4,382.7	992.2	745.1	247.07	4.016	
10,800.0	6,776.1	11,559.0	6,878.4	121.4	130.7	-95.74	-962.9	-4,454.4	992.3	741.3	251.03	3.953	
10,826.7	6,776.0	11,585.8	6,878.6	122.2	131.5	-95.76	-962.9	-4,481.2	992.3	739.8	252.51	3.930	
10,900.0	6,775.7	11,659.0	6,879.0	124.2	133.5	-95.80	-962.9	-4,554.4	992.4	735.8	256.55	3.868	
10,925.2	6,775.6	11,684.2	6,879.1	124.9	134.2	-95.81	-962.9	-4,579.6	992.4	734.5	257.94	3.847	
11,000.0	6,775.3	11,759.0	6,879.5	127.0	136.3	-95.85	-962.9	-4,654.4	992.5	730.4	262.08	3.787	
11,023.6	6,775.2	11,782.6	6,879.7	127.7	136.9	-95.87	-962.9	-4,678.0	992.5	729.1	263.38	3.768	
11,100.0	6,774.9	11,859.0	6,880.1	129.8	139.1	-95.91	-962.9	-4,754.4	992.6	725.0	267.60	3.709	
11,122.0	6,774.8	11,881.0	6,880.2	130.4	139.7	-95.92	-962.9	-4,776.4	992.6	723.8	268.82	3.692	
11,200.0	6,774.5	11,959.0	6,880.7	132.6	141.8	-95.96	-962.9	-4,854.4	992.7	719.5	273.13	3.634	
11,220.4	6,774.4	11,979.4	6,880.8	133.2	142.4	-95.98	-962.9	-4,874.8	992.7	718.4	274.26	3.620	
11,300.0	6,774.1	12,059.0	6,881.2	135.4	144.6	-96.02	-962.9	-4,954.4	992.8	714.1	278.65	3.563	
11,318.9	6,774.0	12,077.9	6,881.3	135.9	145.2	-96.03	-962.9	-4,973.3	992.8	713.1	279.70	3.550	
11,400.0	6,773.7	12,159.0	6,881.8	138.2	147.4	-96.08	-962.9	-5,054.4	992.9	708.7	284.18	3.494	
11,417.3	6,773.6	12,176.3	6,881.9	138.7	147.9	-96.09	-962.9	-5,071.7	992.9	707.8	285.14	3.482	
11,500.0	6,773.3	12,259.0	6,882.4	141.0	150.2	-96.13	-962.9	-5,154.4	993.0	703.3	289.71	3.427	
11,515.7	6,773.2	12,274.7	6,882.5	141.4	150.6	-96.14	-962.9	-5,170.1	993.0	702.4	290.58	3.417	
11,600.0	6,772.9	12,359.0	6,882.9	143.8	153.0	-96.19	-962.9	-5,254.4	993.1	697.8	295.24	3.364	
11,614.1	6,772.8	12,373.1	6,883.0	144.2	153.4	-96.19	-962.9	-5,268.5	993.1	697.1	296.02	3.355	
11,700.0	6,772.5	12,459.0	6,883.5	146.6	155.8	-96.24	-962.9	-5,354.4	993.2	692.4	300.76	3.302	
11,712.6	6,772.4	12,471.5	6,883.6	146.9	156.1	-96.25	-962.9	-5,366.9	993.2	691.7	301.46	3.295	
11,800.0	6,772.1	12,559.0	6,884.1	149.4	158.6	-96.30	-962.9	-5,454.3	993.3	687.0	306.29	3.243	
11,811.0	6,772.1	12,570.0	6,884.1	149.7	158.9	-96.30	-962.9	-5,465.3	993.3	686.4	306.90	3.237	
11,900.0	6,771.7	12,659.0	6,884.6	152.2	161.3	-96.35	-962.9	-5,554.3	993.4	681.6	311.82	3.186	
11,909.4	6,771.7	12,668.4	6,884.7	152.4	161.6	-96.36	-962.9	-5,563.8	993.4	681.1	312.34	3.181	
12,000.0	6,771.3	12,759.0	6,885.2	154.9	164.1	-96.41	-962.9	-5,654.3	993.5	676.2	317.34	3.131	
12,007.8	6,771.3	12,766.8	6,885.2	155.2	164.4	-96.41	-962.9	-5,662.2	993.5	675.7	317.78	3.126	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - CECIL'S KERSEY FARM 17K-404 - ORIGINAL WELLBORE - P												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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,770.9	12,858.9	6,885.8	157.7	166.9	-96.46	-962.9	-5,754.3	993.6	670.7	322.87	3.077	
12,106.3	6,770.9	12,865.2	6,885.8	157.9	167.1	-96.47	-962.9	-5,760.6	993.6	670.4	323.22	3.074	
12,200.0	6,770.5	12,958.9	6,886.3	160.5	169.7	-96.52	-962.9	-5,854.3	993.7	665.3	328.40	3.026	
12,204.7	6,770.5	12,963.6	6,886.3	160.7	169.8	-96.52	-962.9	-5,859.0	993.7	665.1	328.66	3.024	
12,300.0	6,770.1	13,058.9	6,886.9	163.3	172.5	-96.58	-962.9	-5,954.3	993.8	659.9	333.92	2.976	
12,303.1	6,770.1	13,062.1	6,886.9	163.4	172.6	-96.58	-962.9	-5,957.4	993.8	659.7	334.09	2.975	
12,316.4	6,770.0	13,075.3	6,887.0	163.8	173.0	-96.58	-962.9	-5,970.7	993.8	659.0	334.83	2.968 ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	4.0	4.0	0.0	0.0	-109.09	-1,942.6	-5,613.0	5,939.7				
98.4	98.4	102.4	102.4	0.1	1.2	-109.09	-1,942.6	-5,613.0	5,939.7	5,938.4	1.30	4,580.317	
100.0	100.0	104.0	104.0	0.1	1.2	-109.09	-1,942.6	-5,613.0	5,939.7	5,938.3	1.33	4,449.853	
196.8	196.8	200.8	200.8	0.3	3.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,935.9	3.78	1,571.476	
200.0	200.0	204.0	204.0	0.3	3.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,935.8	3.85	1,541.870	
295.3	295.3	299.3	299.3	0.5	5.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,933.6	6.05	982.190	
300.0	300.0	304.0	304.0	0.5	5.6	-109.09	-1,942.6	-5,613.0	5,939.7	5,933.5	6.15	965.052	
393.7	393.7	397.7	397.7	0.8	7.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,931.4	8.28	717.429	
400.0	400.0	404.0	404.0	0.8	7.6	-109.09	-1,942.6	-5,613.0	5,939.7	5,931.3	8.42	705.307	
492.1	492.1	496.1	496.1	1.0	9.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,929.2	10.50	565.802	
500.0	500.0	504.0	504.0	1.0	9.7	-109.09	-1,942.6	-5,613.0	5,939.7	5,929.0	10.68	556.407	
590.5	590.5	594.5	594.5	1.2	11.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,927.0	12.71	467.315	
600.0	600.0	604.0	604.0	1.2	11.7	-109.09	-1,942.6	-5,613.0	5,939.7	5,926.8	12.92	459.639	
689.0	689.0	693.0	693.0	1.4	13.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,924.8	14.92	398.125	
700.0	700.0	704.0	704.0	1.4	13.7	-109.09	-1,942.6	-5,613.0	5,939.7	5,924.5	15.17	391.633	
787.4	787.4	791.4	791.4	1.6	15.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,922.6	17.13	346.825	
800.0	800.0	804.0	804.0	1.7	15.7	-109.09	-1,942.6	-5,613.0	5,939.7	5,922.3	17.41	341.198	
885.8	885.8	889.8	889.8	1.9	17.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,920.4	19.33	307.259	
900.0	900.0	904.0	904.0	1.9	17.8	-109.09	-1,942.6	-5,613.0	5,939.7	5,920.0	19.65	302.293	
984.2	984.2	988.2	988.2	2.1	19.5	-109.09	-1,942.6	-5,613.0	5,939.7	5,918.1	21.54	275.808	
1,000.0	1,000.0	1,004.0	1,004.0	2.1	19.8	-109.09	-1,942.6	-5,613.0	5,939.7	5,917.8	21.89	271.364	
1,082.7	1,082.7	1,086.7	1,086.7	2.3	21.4	-109.09	-1,942.6	-5,613.0	5,939.7	5,915.9	23.74	250.206	
1,100.0	1,100.0	1,104.0	1,104.0	2.3	21.8	-109.09	-1,942.6	-5,613.0	5,939.7	5,915.6	24.13	246.184	
1,181.1	1,181.1	1,185.1	1,185.1	2.5	23.4	-109.09	-1,942.6	-5,613.0	5,939.7	5,913.7	25.94	228.958	
1,200.0	1,200.0	1,204.0	1,204.0	2.6	23.8	-109.09	-1,942.6	-5,613.0	5,939.7	5,913.3	26.37	225.284	
1,279.5	1,279.5	1,283.5	1,283.5	2.7	25.4	-109.09	-1,942.6	-5,613.0	5,939.7	5,911.5	28.14	211.039	
1,300.0	1,300.0	1,304.0	1,304.0	2.8	25.8	-109.09	-1,942.6	-5,613.0	5,939.7	5,911.1	28.60	207.658	
1,377.9	1,377.9	1,381.9	1,381.9	3.0	27.4	-109.09	-1,942.6	-5,613.0	5,939.7	5,909.3	30.35	195.723	
1,400.0	1,400.0	1,404.0	1,404.0	3.0	27.8	-109.09	-1,942.6	-5,613.0	5,939.7	5,908.8	30.84	192.592	
1,476.4	1,476.4	1,480.4	1,480.4	3.2	29.4	-109.09	-1,942.6	-5,613.0	5,939.7	5,907.1	32.55	182.482	
1,500.0	1,500.0	1,504.0	1,504.0	3.2	29.8	-109.09	-1,942.6	-5,613.0	5,939.7	5,906.6	33.08	179.566	
1,574.8	1,574.8	1,578.8	1,578.8	3.4	31.3	-28.40	-1,942.6	-5,613.0	5,938.8	5,904.1	34.73	170.982	
1,600.0	1,600.0	1,604.0	1,604.0	3.5	31.8	-28.41	-1,942.6	-5,613.0	5,938.1	5,902.9	35.29	168.283	
1,673.2	1,673.1	1,677.1	1,677.1	3.6	33.3	-28.46	-1,942.6	-5,613.0	5,935.1	5,898.2	36.87	160.959	
1,700.0	1,699.8	1,703.8	1,703.8	3.7	33.9	-28.48	-1,942.6	-5,613.0	5,933.5	5,896.1	37.45	158.451	
1,771.6	1,771.2	1,775.2	1,775.2	3.8	35.3	-28.56	-1,942.6	-5,613.0	5,928.4	5,889.4	38.97	152.127	
1,800.0	1,799.5	1,803.5	1,803.5	3.9	35.9	-28.60	-1,942.6	-5,613.0	5,925.9	5,886.3	39.56	149.776	
1,870.1	1,869.0	1,873.0	1,873.0	4.0	37.3	-28.70	-1,942.6	-5,613.0	5,918.7	5,877.7	41.02	144.284	
1,900.0	1,898.7	1,902.7	1,902.7	4.1	37.9	-28.76	-1,942.6	-5,613.0	5,915.2	5,873.5	41.63	142.075	
1,968.5	1,966.4	1,970.4	1,970.4	4.3	39.2	-28.89	-1,942.6	-5,613.0	5,906.1	5,863.1	43.02	137.280	
2,000.0	1,997.5	2,001.5	2,001.5	4.4	39.8	-28.96	-1,942.6	-5,613.0	5,901.4	5,857.8	43.65	135.198	
2,066.9	2,063.2	2,067.2	2,067.2	4.6	41.2	-29.13	-1,942.6	-5,613.0	5,890.6	5,845.6	44.97	130.988	
2,100.1	2,095.7	2,099.7	2,099.7	4.7	41.8	-29.22	-1,942.6	-5,613.0	5,884.7	5,839.1	45.61	129.014	
2,165.3	2,159.5	2,163.5	2,163.5	4.9	43.1	-29.28	-1,942.6	-5,613.0	5,872.8	5,825.7	47.04	124.855	
2,200.0	2,193.4	2,197.4	2,197.4	5.0	43.8	-29.32	-1,942.6	-5,613.0	5,866.5	5,818.7	47.79	122.747	
2,224.2	2,217.1	2,221.1	2,221.1	5.1	44.3	-29.34	-1,942.6	-5,613.0	5,862.0	5,813.7	48.32	121.312	
2,263.8	2,255.9	2,259.9	2,259.9	5.2	45.0	-29.31	-1,942.6	-5,613.0	5,855.1	5,805.8	49.29	118.796	
2,300.0	2,291.5	2,295.5	2,295.5	5.3	45.8	-29.28	-1,942.6	-5,613.0	5,849.1	5,798.9	50.16	116.599	
2,362.2	2,352.7	2,356.7	2,356.7	5.5	47.0	-29.24	-1,942.6	-5,613.0	5,839.8	5,788.1	51.66	113.044	
2,400.0	2,390.1	2,394.1	2,394.1	5.6	47.7	-29.22	-1,942.6	-5,613.0	5,834.7	5,782.1	52.57	110.996	
2,460.6	2,450.1	2,454.1	2,454.1	5.7	48.9	-29.19	-1,942.6	-5,613.0	5,827.4	5,773.4	54.01	107.892	
2,500.0	2,489.2	2,493.2	2,493.2	5.8	49.7	-29.17	-1,942.6	-5,613.0	5,823.3	5,768.3	54.94	105.984	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - 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		
2,559.0	2,548.0	2,552.0	2,552.0	6.0	50.9	-29.15	-1,942.6	-5,613.0	5,818.0	5,761.6	56.33	103.279		
2,600.0	2,588.8	2,592.8	2,592.8	6.1	51.7	-29.13	-1,942.6	-5,613.0	5,814.9	5,757.6	57.29	101.504		
2,657.5	2,646.1	2,650.1	2,650.1	6.2	52.9	-29.12	-1,942.6	-5,613.0	5,811.5	5,752.9	58.61	99.150		
2,700.0	2,688.6	2,692.6	2,692.6	6.3	53.7	-29.11	-1,942.6	-5,613.0	5,809.6	5,750.0	59.58	97.502		
2,755.9	2,744.4	2,748.4	2,748.4	6.4	54.9	-29.10	-1,942.6	-5,613.0	5,808.0	5,747.1	60.84	95.456		
2,800.0	2,788.5	2,792.5	2,792.5	6.5	55.8	-29.10	-1,942.6	-5,613.0	5,807.3	5,745.5	61.83	93.929		
2,824.3	2,812.8	2,816.8	2,816.8	6.5	56.2	-109.80	-1,942.6	-5,613.0	5,807.2	5,744.6	62.65	92.701		
2,854.3	2,842.9	2,846.9	2,846.9	6.6	56.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,743.9	63.31	91.732		
2,900.0	2,888.5	2,892.5	2,892.5	6.7	57.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,742.9	64.31	90.299		
2,952.7	2,941.3	2,945.3	2,945.3	6.8	58.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,741.8	65.48	88.685		
3,000.0	2,988.5	2,992.5	2,992.5	6.9	59.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,740.7	66.53	87.289		
3,051.2	3,039.7	3,043.7	3,043.7	7.0	60.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,739.6	67.66	85.824		
3,100.0	3,088.5	3,092.5	3,092.5	7.1	61.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,738.5	68.75	84.471		
3,149.6	3,138.1	3,142.1	3,142.1	7.2	62.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,737.4	69.85	83.140		
3,200.0	3,188.5	3,192.5	3,192.5	7.3	63.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,736.3	70.97	81.829		
3,248.0	3,236.6	3,240.6	3,240.6	7.4	64.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,735.2	72.03	80.618		
3,300.0	3,288.5	3,292.5	3,292.5	7.5	65.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,734.1	73.19	79.346		
3,346.4	3,335.0	3,339.0	3,339.0	7.6	66.7	-109.80	-1,942.6	-5,613.0	5,807.2	5,733.0	74.22	78.243		
3,400.0	3,388.5	3,392.5	3,392.5	7.7	67.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,731.8	75.41	77.009		
3,444.9	3,433.4	3,437.4	3,437.4	7.8	68.7	-109.80	-1,942.6	-5,613.0	5,807.2	5,730.8	76.41	76.004		
3,500.0	3,488.5	3,492.5	3,492.5	7.9	69.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,729.6	77.63	74.804		
3,543.3	3,531.8	3,535.8	3,535.8	8.0	70.7	-109.80	-1,942.6	-5,613.0	5,807.2	5,728.7	78.60	73.888		
3,600.0	3,588.5	3,592.5	3,592.5	8.1	71.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,727.4	79.86	72.722		
3,641.7	3,630.3	3,634.3	3,634.3	8.2	72.7	-109.80	-1,942.6	-5,613.0	5,807.2	5,726.5	80.78	71.887		
3,700.0	3,688.5	3,692.5	3,692.5	8.3	73.9	-109.80	-1,942.6	-5,613.0	5,807.2	5,725.2	82.08	70.752		
3,740.1	3,728.7	3,732.7	3,732.7	8.4	74.7	-109.80	-1,942.6	-5,613.0	5,807.2	5,724.3	82.97	69.990		
3,800.0	3,788.5	3,792.5	3,792.5	8.5	75.9	-109.80	-1,942.6	-5,613.0	5,807.2	5,722.9	84.30	68.885		
3,838.6	3,827.1	3,831.1	3,831.1	8.6	76.6	-109.80	-1,942.6	-5,613.0	5,807.2	5,722.1	85.16	68.191		
3,900.0	3,888.5	3,892.5	3,892.5	8.7	77.9	-109.80	-1,942.6	-5,613.0	5,807.2	5,720.7	86.53	67.114		
3,937.0	3,925.5	3,929.5	3,929.5	8.8	78.6	-109.80	-1,942.6	-5,613.0	5,807.2	5,719.9	87.35	66.481		
4,000.0	3,988.5	3,992.5	3,992.5	9.0	79.9	-109.80	-1,942.6	-5,613.0	5,807.2	5,718.5	88.75	65.431		
4,035.4	4,024.0	4,028.0	4,028.0	9.0	80.6	-109.80	-1,942.6	-5,613.0	5,807.2	5,717.7	89.54	64.855		
4,100.0	4,088.5	4,092.5	4,092.5	9.2	81.9	-109.80	-1,942.6	-5,613.0	5,807.2	5,716.3	90.98	63.830		
4,133.8	4,122.4	4,126.4	4,126.4	9.2	82.6	-109.80	-1,942.6	-5,613.0	5,807.2	5,715.5	91.73	63.305		
4,200.0	4,188.5	4,192.5	4,192.5	9.4	83.9	-109.80	-1,942.6	-5,613.0	5,807.2	5,714.0	93.21	62.305		
4,232.3	4,220.8	4,224.8	4,224.8	9.4	84.6	-109.80	-1,942.6	-5,613.0	5,807.2	5,713.3	93.93	61.828		
4,300.0	4,288.5	4,292.5	4,292.5	9.6	85.9	-109.80	-1,942.6	-5,613.0	5,807.2	5,711.8	95.43	60.851		
4,330.7	4,319.2	4,323.2	4,323.2	9.7	86.5	-109.80	-1,942.6	-5,613.0	5,807.2	5,711.1	96.12	60.418		
4,400.0	4,388.5	4,392.5	4,392.5	9.8	87.9	-109.80	-1,942.6	-5,613.0	5,807.2	5,709.6	97.66	59.464		
4,429.1	4,417.7	4,421.7	4,421.7	9.9	88.5	-109.80	-1,942.6	-5,613.0	5,807.2	5,708.9	98.31	59.071		
4,500.0	4,488.5	4,492.5	4,492.5	10.0	89.9	-109.80	-1,942.6	-5,613.0	5,807.2	5,707.4	99.89	58.137		
4,527.5	4,516.1	4,520.1	4,520.1	10.1	90.5	-109.80	-1,942.6	-5,613.0	5,807.2	5,706.7	100.50	57.782		
4,600.0	4,588.5	4,592.5	4,592.5	10.2	92.0	-109.80	-1,942.6	-5,613.0	5,807.2	5,705.1	102.12	56.869		
4,626.0	4,614.5	4,618.5	4,618.5	10.3	92.5	-109.80	-1,942.6	-5,613.0	5,807.2	5,704.6	102.70	56.548		
4,700.0	4,688.5	4,692.5	4,692.5	10.5	94.0	-109.80	-1,942.6	-5,613.0	5,807.2	5,702.9	104.34	55.654		
4,724.4	4,712.9	4,716.9	4,716.9	10.5	94.5	-109.80	-1,942.6	-5,613.0	5,807.2	5,702.4	104.89	55.366		
4,800.0	4,788.5	4,792.5	4,792.5	10.7	96.0	-109.80	-1,942.6	-5,613.0	5,807.2	5,700.7	106.57	54.491		
4,822.8	4,811.4	4,815.4	4,815.4	10.7	96.4	-109.80	-1,942.6	-5,613.0	5,807.2	5,700.2	107.08	54.232		
4,900.0	4,888.5	4,892.5	4,892.5	10.9	98.0	-109.80	-1,942.6	-5,613.0	5,807.2	5,698.4	108.80	53.374		
4,921.2	4,909.8	4,913.8	4,913.8	10.9	98.4	-109.80	-1,942.6	-5,613.0	5,807.2	5,698.0	109.28	53.143		
5,000.0	4,988.5	4,992.5	4,992.5	11.1	100.0	-109.80	-1,942.6	-5,613.0	5,807.2	5,696.2	111.03	52.303		
5,019.7	5,008.2	5,012.2	5,012.2	11.1	100.4	-109.80	-1,942.6	-5,613.0	5,807.2	5,695.8	111.47	52.097		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - 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	
5,100.0	5,088.5	5,092.5	5,092.5	11.3	102.0	-109.80	-1,942.6	-5,613.0	5,807.2	5,694.0	113.26	51.273	
5,118.1	5,106.6	5,110.6	5,110.6	11.4	102.4	-109.80	-1,942.6	-5,613.0	5,807.2	5,693.6	113.66	51.091	
5,200.0	5,188.5	5,192.5	5,192.5	11.5	104.0	-109.80	-1,942.6	-5,613.0	5,807.2	5,691.8	115.49	50.283	
5,216.5	5,205.1	5,209.1	5,209.1	11.6	104.4	-109.80	-1,942.6	-5,613.0	5,807.2	5,691.4	115.86	50.123	
5,300.0	5,288.5	5,292.5	5,292.5	11.8	106.0	-109.80	-1,942.6	-5,613.0	5,807.2	5,689.5	117.72	49.331	
5,314.9	5,303.5	5,307.5	5,307.5	11.8	106.3	-109.80	-1,942.6	-5,613.0	5,807.2	5,689.2	118.05	49.192	
5,400.0	5,388.5	5,392.5	5,392.5	12.0	108.0	-109.80	-1,942.6	-5,613.0	5,807.2	5,687.3	119.95	48.414	
5,413.4	5,401.9	5,405.9	5,405.9	12.0	108.3	-109.80	-1,942.6	-5,613.0	5,807.2	5,687.0	120.25	48.294	
5,500.0	5,488.5	5,492.5	5,492.5	12.2	110.1	-109.80	-1,942.6	-5,613.0	5,807.2	5,685.1	122.18	47.530	
5,511.8	5,500.3	5,504.3	5,504.3	12.2	110.3	-109.80	-1,942.6	-5,613.0	5,807.2	5,684.8	122.44	47.428	
5,600.0	5,588.5	5,592.5	5,592.5	12.4	112.1	-109.80	-1,942.6	-5,613.0	5,807.2	5,682.8	124.41	46.678	
5,610.2	5,598.8	5,602.8	5,602.8	12.4	112.3	-109.80	-1,942.6	-5,613.0	5,807.2	5,682.6	124.64	46.592	
5,700.0	5,688.5	5,692.5	5,692.5	12.6	114.1	-109.80	-1,942.6	-5,613.0	5,807.2	5,680.6	126.64	45.856	
5,708.6	5,697.2	5,701.2	5,701.2	12.6	114.3	-109.80	-1,942.6	-5,613.0	5,807.2	5,680.4	126.84	45.786	
5,800.0	5,788.5	5,792.5	5,792.5	12.8	116.1	-109.80	-1,942.6	-5,613.0	5,807.2	5,678.4	128.87	45.062	
5,807.1	5,795.6	5,799.6	5,799.6	12.9	116.2	-109.80	-1,942.6	-5,613.0	5,807.2	5,678.2	129.03	45.007	
5,900.0	5,888.5	5,892.5	5,892.5	13.1	118.1	-109.80	-1,942.6	-5,613.0	5,807.2	5,676.1	131.10	44.295	
5,905.5	5,894.0	5,898.0	5,898.0	13.1	118.2	-109.80	-1,942.6	-5,613.0	5,807.2	5,676.0	131.23	44.254	
6,000.0	5,988.5	5,992.5	5,992.5	13.3	120.1	-109.80	-1,942.6	-5,613.0	5,807.2	5,673.9	133.34	43.554	
6,003.9	5,992.5	5,996.5	5,996.5	13.3	120.2	-109.80	-1,942.6	-5,613.0	5,807.2	5,673.8	133.42	43.525	
6,085.3	6,073.8	6,077.8	6,077.8	13.5	121.8	-109.80	-1,942.6	-5,613.0	5,807.2	5,672.0	135.24	42.941	
6,100.0	6,088.5	6,092.5	6,092.5	13.5	122.1	-19.80	-1,942.6	-5,613.0	5,807.1	5,671.7	135.40	42.890	
6,102.3	6,090.9	6,094.9	6,094.9	13.5	122.2	-19.80	-1,942.6	-5,613.0	5,807.1	5,671.6	135.44	42.876	
6,150.0	6,138.4	6,142.4	6,142.4	13.6	123.1	-19.88	-1,942.6	-5,613.0	5,804.5	5,668.4	136.06	42.661	
6,200.0	6,188.0	6,192.0	6,192.0	13.7	124.1	-20.07	-1,942.6	-5,613.0	5,798.6	5,662.5	136.14	42.592	
6,200.8	6,188.8	6,192.8	6,192.8	13.7	124.1	-20.07	-1,942.6	-5,613.0	5,798.5	5,662.4	136.14	42.592	
6,250.0	6,237.1	6,241.1	6,241.1	13.9	125.1	-20.36	-1,942.6	-5,613.0	5,789.5	5,653.9	135.64	42.681	
6,299.2	6,284.6	6,288.6	6,288.6	14.0	126.1	-20.75	-1,942.6	-5,613.0	5,777.4	5,642.8	134.59	42.925	
6,300.0	6,285.3	6,289.3	6,289.3	14.0	126.1	-20.76	-1,942.6	-5,613.0	5,777.2	5,642.6	134.57	42.931	
6,350.0	6,332.5	6,336.5	6,336.5	14.2	127.0	-21.28	-1,942.6	-5,613.0	5,761.8	5,628.8	132.95	43.339	
6,397.6	6,376.3	6,380.3	6,380.3	14.4	127.9	-21.91	-1,942.6	-5,613.0	5,744.2	5,613.3	130.92	43.876	
6,400.0	6,378.5	6,382.5	6,382.5	14.4	128.0	-21.94	-1,942.6	-5,613.0	5,743.3	5,612.5	130.81	43.906	
6,450.0	6,423.0	6,427.0	6,427.0	14.7	128.8	-22.75	-1,942.6	-5,613.0	5,721.8	5,593.6	128.22	44.626	
6,496.0	6,462.4	6,466.4	6,466.4	14.9	129.6	-23.64	-1,942.6	-5,613.0	5,699.5	5,574.0	125.51	45.411	
6,500.0	6,465.7	6,469.7	6,469.7	14.9	129.7	-23.73	-1,942.6	-5,613.0	5,697.5	5,572.3	125.27	45.484	
6,550.0	6,506.6	6,510.6	6,510.6	15.2	130.5	-24.90	-1,942.6	-5,613.0	5,670.5	5,548.4	122.07	46.452	
6,594.5	6,541.2	6,545.2	6,545.2	15.6	131.2	-26.14	-1,942.6	-5,613.0	5,644.3	5,525.1	119.17	47.363	
6,600.0	6,545.3	6,549.3	6,549.3	15.6	131.3	-26.30	-1,942.6	-5,613.0	5,640.9	5,522.1	118.81	47.478	
6,650.0	6,581.8	6,585.8	6,585.8	16.0	132.0	-27.98	-1,942.6	-5,613.0	5,608.9	5,493.1	115.71	48.473	
6,692.9	6,611.1	6,615.1	6,615.1	16.4	132.6	-29.67	-1,942.6	-5,613.0	5,579.5	5,466.1	113.41	49.199	
6,700.0	6,615.8	6,619.8	6,619.8	16.5	132.7	-29.98	-1,942.6	-5,613.0	5,574.5	5,461.5	113.07	49.300	
6,750.0	6,647.1	6,651.1	6,651.1	17.1	133.4	-32.37	-1,942.6	-5,613.0	5,538.1	5,426.8	111.29	49.765	
6,791.3	6,670.9	6,674.9	6,674.9	17.6	133.8	-34.71	-1,942.6	-5,613.0	5,506.5	5,395.8	110.77	49.711	
6,800.0	6,675.7	6,679.7	6,679.7	17.7	133.9	-35.24	-1,942.6	-5,613.0	5,499.8	5,389.0	110.80	49.637	
6,850.0	6,701.3	6,705.3	6,705.3	18.4	134.4	-38.70	-1,942.6	-5,613.0	5,459.7	5,347.6	112.10	48.703	
6,889.7	6,719.5	6,723.5	6,723.5	19.0	134.8	-41.95	-1,942.6	-5,613.0	5,426.7	5,312.0	114.70	47.312	
6,900.0	6,723.8	6,727.8	6,727.8	19.1	134.9	-42.86	-1,942.6	-5,613.0	5,418.1	5,302.5	115.61	46.864	
6,950.0	6,743.2	6,747.2	6,747.2	20.0	135.3	-47.89	-1,942.6	-5,613.0	5,375.2	5,253.7	121.54	44.227	
6,988.2	6,755.8	6,759.8	6,759.8	20.6	135.5	-52.39	-1,942.6	-5,613.0	5,341.7	5,214.1	127.59	41.865	
7,000.0	6,759.4	6,763.4	6,763.4	20.9	135.6	-53.91	-1,942.6	-5,613.0	5,331.2	5,201.5	129.69	41.108	
7,050.0	6,772.1	6,776.1	6,776.1	21.8	135.9	-61.03	-1,942.6	-5,613.0	5,286.3	5,147.0	139.31	37.947	
7,086.6	6,779.4	6,783.4	6,783.4	22.5	136.0	-66.95	-1,942.6	-5,613.0	5,253.0	5,106.5	146.49	35.860	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - 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		
7,100.0	6,781.5	6,785.5	6,785.5	22.8	136.1	-69.25	-1,942.6	-5,613.0	5,240.8	5,091.8	148.98	35.178		
7,150.0	6,787.5	6,791.5	6,791.5	23.9	136.2	-78.39	-1,942.6	-5,613.0	5,194.8	5,038.0	156.82	33.127		
7,185.0	6,789.6	6,793.6	6,793.6	24.6	136.2	-85.11	-1,942.6	-5,613.0	5,162.4	5,002.2	160.24	32.217		
7,200.0	6,789.9	6,793.9	6,793.9	24.9	136.2	-88.01	-1,942.6	-5,613.0	5,148.6	4,987.6	161.05	31.969		
7,213.0	6,790.0	6,794.0	6,794.0	25.2	136.2	-90.52	-1,942.6	-5,613.0	5,136.6	4,975.2	161.43	31.819		
7,283.4	6,789.7	6,793.7	6,793.7	26.8	136.2	-90.51	-1,942.6	-5,613.0	5,071.6	4,908.6	163.00	31.114		
7,300.0	6,789.7	6,793.7	6,793.7	27.2	136.2	-90.51	-1,942.6	-5,613.0	5,056.3	4,893.0	163.37	30.950		
7,381.9	6,789.4	6,793.4	6,793.4	29.1	136.2	-90.50	-1,942.6	-5,613.0	4,981.0	4,815.7	165.27	30.139		
7,400.0	6,789.3	6,793.3	6,793.3	29.5	136.2	-90.50	-1,942.6	-5,613.0	4,964.4	4,798.7	165.69	29.962		
7,480.3	6,789.0	6,793.0	6,793.0	31.4	136.2	-90.49	-1,942.6	-5,613.0	4,890.7	4,723.1	167.61	29.179		
7,500.0	6,788.9	6,792.9	6,792.9	31.9	136.2	-90.49	-1,942.6	-5,613.0	4,872.7	4,704.6	168.09	28.989		
7,578.7	6,788.6	6,792.6	6,792.6	33.8	136.2	-90.48	-1,942.6	-5,613.0	4,800.8	4,630.8	170.02	28.236		
7,600.0	6,788.5	6,792.5	6,792.5	34.4	136.2	-90.48	-1,942.6	-5,613.0	4,781.4	4,610.9	170.55	28.036		
7,677.1	6,788.2	6,792.2	6,792.2	36.3	136.2	-90.47	-1,942.6	-5,613.0	4,711.2	4,538.7	172.48	27.314		
7,700.0	6,788.2	6,792.2	6,792.2	36.9	136.2	-90.47	-1,942.6	-5,613.0	4,690.4	4,517.4	173.05	27.104		
7,775.6	6,787.9	6,791.9	6,791.9	38.8	136.2	-90.46	-1,942.6	-5,613.0	4,621.9	4,447.0	174.98	26.414		
7,800.0	6,787.8	6,791.8	6,791.8	39.4	136.2	-90.46	-1,942.6	-5,613.0	4,599.8	4,424.2	175.60	26.195		
7,874.0	6,787.5	6,791.5	6,791.5	41.3	136.2	-90.45	-1,942.6	-5,613.0	4,533.1	4,355.5	177.51	25.537		
7,900.0	6,787.4	6,791.4	6,791.4	42.0	136.2	-90.45	-1,942.6	-5,613.0	4,509.6	4,331.5	178.18	25.309		
7,972.4	6,787.1	6,791.1	6,791.1	43.9	136.2	-90.44	-1,942.6	-5,613.0	4,444.6	4,264.5	180.07	24.682		
8,000.0	6,787.0	6,791.0	6,791.0	44.6	136.2	-90.44	-1,942.6	-5,613.0	4,419.9	4,239.1	180.79	24.447		
8,070.8	6,786.7	6,790.7	6,790.7	46.5	136.2	-90.43	-1,942.6	-5,613.0	4,356.5	4,173.9	182.65	23.851		
8,100.0	6,786.6	6,790.6	6,790.6	47.3	136.2	-90.43	-1,942.6	-5,613.0	4,330.6	4,147.1	183.42	23.610		
8,169.3	6,786.4	6,790.4	6,790.4	49.1	136.2	-90.42	-1,942.6	-5,613.0	4,269.0	4,083.7	185.26	23.044		
8,200.0	6,786.3	6,790.3	6,790.3	49.9	136.2	-90.42	-1,942.6	-5,613.0	4,241.7	4,055.6	186.07	22.796		
8,267.7	6,786.0	6,790.0	6,790.0	51.7	136.1	-90.41	-1,942.6	-5,613.0	4,181.8	3,994.0	187.87	22.259		
8,300.0	6,785.9	6,789.9	6,789.9	52.6	136.1	-90.41	-1,942.6	-5,613.0	4,153.4	3,964.6	188.74	22.006		
8,366.1	6,785.6	6,789.6	6,789.6	54.4	136.1	-90.40	-1,942.6	-5,613.0	4,095.3	3,904.7	190.51	21.497		
8,400.0	6,785.5	6,789.5	6,789.5	55.3	136.1	-90.40	-1,942.6	-5,613.0	4,065.6	3,874.2	191.41	21.240		
8,464.5	6,785.2	6,789.2	6,789.2	57.0	136.1	-90.39	-1,942.6	-5,613.0	4,009.2	3,816.1	193.15	20.757		
8,500.0	6,785.1	6,789.1	6,789.1	58.0	136.1	-90.39	-1,942.6	-5,613.0	3,978.4	3,784.2	194.10	20.496		
8,563.0	6,784.9	6,788.9	6,788.9	59.7	136.1	-90.38	-1,942.6	-5,613.0	3,923.7	3,727.9	195.80	20.039		
8,600.0	6,784.7	6,788.7	6,788.7	60.7	136.1	-90.38	-1,942.6	-5,613.0	3,891.7	3,694.9	196.80	19.775		
8,661.4	6,784.5	6,788.5	6,788.5	62.4	136.1	-90.37	-1,942.6	-5,613.0	3,838.9	3,640.4	198.47	19.343		
8,700.0	6,784.3	6,788.3	6,788.3	63.4	136.1	-90.37	-1,942.6	-5,613.0	3,805.8	3,606.3	199.51	19.075		
8,759.8	6,784.1	6,788.1	6,788.1	65.0	136.1	-90.36	-1,942.6	-5,613.0	3,754.7	3,553.6	201.14	18.667		
8,800.0	6,784.0	6,788.0	6,788.0	66.1	136.1	-90.36	-1,942.6	-5,613.0	3,720.5	3,518.3	202.23	18.397		
8,858.2	6,783.7	6,787.7	6,787.7	67.7	136.1	-90.35	-1,942.6	-5,613.0	3,671.2	3,467.4	203.82	18.012		
8,900.0	6,783.6	6,787.6	6,787.6	68.9	136.1	-90.34	-1,942.6	-5,613.0	3,636.1	3,431.1	204.96	17.741		
8,956.7	6,783.3	6,787.3	6,787.3	70.4	136.1	-90.34	-1,942.6	-5,613.0	3,588.5	3,382.0	206.50	17.378		
9,000.0	6,783.2	6,787.2	6,787.2	71.6	136.1	-90.33	-1,942.6	-5,613.0	3,552.4	3,344.7	207.69	17.104		
9,055.1	6,783.0	6,787.0	6,787.0	73.1	136.1	-90.33	-1,942.6	-5,613.0	3,506.6	3,297.4	209.19	16.762		
9,100.0	6,782.8	6,786.8	6,786.8	74.3	136.1	-90.32	-1,942.6	-5,613.0	3,469.5	3,259.1	210.42	16.488		
9,153.5	6,782.6	6,786.6	6,786.6	75.8	136.1	-90.32	-1,942.6	-5,613.0	3,425.6	3,213.7	211.89	16.167		
9,200.0	6,782.4	6,786.4	6,786.4	77.1	136.1	-90.31	-1,942.6	-5,613.0	3,387.6	3,174.5	213.16	15.892		
9,251.9	6,782.2	6,786.2	6,786.2	78.5	136.1	-90.31	-1,942.6	-5,613.0	3,345.5	3,130.9	214.59	15.590		
9,300.0	6,782.0	6,786.0	6,786.0	79.8	136.1	-90.30	-1,942.6	-5,613.0	3,306.7	3,090.8	215.91	15.315		
9,350.4	6,781.8	6,785.8	6,785.8	81.2	136.1	-90.30	-1,942.6	-5,613.0	3,266.4	3,049.1	217.29	15.032		
9,400.0	6,781.6	6,785.6	6,785.6	82.6	136.1	-90.29	-1,942.6	-5,613.0	3,226.9	3,008.2	218.66	14.758		
9,448.8	6,781.4	6,785.4	6,785.4	83.9	136.1	-90.28	-1,942.6	-5,613.0	3,188.3	2,968.3	220.00	14.492		
9,500.0	6,781.2	6,785.2	6,785.2	85.4	136.1	-90.28	-1,942.6	-5,613.0	3,148.2	2,926.8	221.41	14.219		
9,547.2	6,781.0	6,785.0	6,785.0	86.7	136.0	-90.27	-1,942.6	-5,613.0	3,111.5	2,888.8	222.71	13.971		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - 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	
9,600.0	6,780.8	6,784.8	6,784.8	88.1	136.0	-90.27	-1,942.6	-5,613.0	3,070.8	2,846.6	224.16	13.699	
9,645.6	6,780.7	6,784.7	6,784.7	89.4	136.0	-90.26	-1,942.6	-5,613.0	3,035.9	2,810.4	225.42	13.467	
9,700.0	6,780.5	6,784.5	6,784.5	90.9	136.0	-90.26	-1,942.6	-5,613.0	2,994.7	2,767.7	226.92	13.197	
9,744.1	6,780.3	6,784.3	6,784.3	92.1	136.0	-90.25	-1,942.6	-5,613.0	2,961.6	2,733.4	228.14	12.981	
9,800.0	6,780.1	6,784.1	6,784.1	93.7	136.0	-90.25	-1,942.6	-5,613.0	2,920.0	2,690.3	229.68	12.713	
9,842.5	6,779.9	6,783.9	6,783.9	94.8	136.0	-90.24	-1,942.6	-5,613.0	2,888.7	2,657.9	230.86	12.513	
9,900.0	6,779.7	6,783.7	6,783.7	96.4	136.0	-90.24	-1,942.6	-5,613.0	2,846.9	2,614.4	232.45	12.247	
9,940.9	6,779.5	6,783.5	6,783.5	97.6	136.0	-90.23	-1,942.6	-5,613.0	2,817.4	2,583.9	233.58	12.062	
10,000.0	6,779.3	6,783.3	6,783.3	99.2	136.0	-90.22	-1,942.6	-5,613.0	2,775.5	2,540.2	235.21	11.800	
10,039.3	6,779.1	6,783.1	6,783.1	100.3	136.0	-90.22	-1,942.6	-5,613.0	2,747.8	2,511.5	236.30	11.629	
10,100.0	6,778.9	6,782.9	6,782.9	102.0	136.0	-90.21	-1,942.6	-5,613.0	2,705.8	2,467.9	237.98	11.370	
10,137.8	6,778.7	6,782.7	6,782.7	103.0	136.0	-90.21	-1,942.6	-5,613.0	2,680.0	2,441.0	239.03	11.212	
10,200.0	6,778.5	6,782.5	6,782.5	104.8	136.0	-90.20	-1,942.6	-5,613.0	2,638.2	2,397.4	240.75	10.958	
10,236.2	6,778.3	6,782.3	6,782.3	105.8	136.0	-90.20	-1,942.6	-5,613.0	2,614.2	2,372.4	241.75	10.813	
10,300.0	6,778.1	6,782.1	6,782.1	107.5	136.0	-90.19	-1,942.6	-5,613.0	2,572.6	2,329.1	243.52	10.564	
10,334.6	6,778.0	6,782.0	6,782.0	108.5	136.0	-90.19	-1,942.6	-5,613.0	2,550.4	2,306.0	244.48	10.432	
10,400.0	6,777.7	6,781.7	6,781.7	110.3	136.0	-90.18	-1,942.6	-5,613.0	2,509.3	2,263.0	246.29	10.188	
10,433.0	6,777.6	6,781.6	6,781.6	111.2	136.0	-90.18	-1,942.6	-5,613.0	2,488.9	2,241.7	247.21	10.068	
10,500.0	6,777.3	6,781.3	6,781.3	113.1	136.0	-90.17	-1,942.6	-5,613.0	2,448.5	2,199.4	249.07	9.831	
10,531.5	6,777.2	6,781.2	6,781.2	114.0	136.0	-90.16	-1,942.6	-5,613.0	2,429.9	2,179.9	249.94	9.722	
10,600.0	6,776.9	6,780.9	6,780.9	115.9	136.0	-90.16	-1,942.6	-5,613.0	2,390.3	2,138.4	251.84	9.491	
10,629.9	6,776.8	6,780.8	6,780.8	116.7	136.0	-90.15	-1,942.6	-5,613.0	2,373.4	2,120.8	252.67	9.393	
10,700.0	6,776.5	6,780.5	6,780.5	118.7	136.0	-90.15	-1,942.6	-5,613.0	2,334.9	2,080.3	254.62	9.170	
10,728.3	6,776.4	6,780.4	6,780.4	119.5	136.0	-90.14	-1,942.6	-5,613.0	2,319.8	2,064.4	255.41	9.083	
10,800.0	6,776.1	6,780.1	6,780.1	121.4	135.9	-90.13	-1,942.6	-5,613.0	2,282.6	2,025.2	257.40	8.868	
10,826.7	6,776.0	6,780.0	6,780.0	122.2	135.9	-90.13	-1,942.6	-5,613.0	2,269.1	2,011.0	258.14	8.790	
10,900.0	6,775.7	6,779.7	6,779.7	124.2	135.9	-90.12	-1,942.6	-5,613.0	2,233.5	1,973.3	260.18	8.585	
10,925.2	6,775.6	6,779.6	6,779.6	124.9	135.9	-90.12	-1,942.6	-5,613.0	2,221.7	1,960.8	260.88	8.516	
11,000.0	6,775.3	6,779.3	6,779.3	127.0	135.9	-90.11	-1,942.6	-5,613.0	2,187.9	1,925.0	262.96	8.320	
11,023.6	6,775.2	6,779.2	6,779.2	127.7	135.9	-90.11	-1,942.6	-5,613.0	2,177.7	1,914.1	263.61	8.261	
11,100.0	6,774.9	6,778.9	6,778.9	129.8	135.9	-90.10	-1,942.6	-5,613.0	2,146.0	1,880.3	265.74	8.076	
11,122.0	6,774.8	6,778.8	6,778.8	130.4	135.9	-90.10	-1,942.6	-5,613.0	2,137.3	1,871.0	266.35	8.024	
11,200.0	6,774.5	6,778.5	6,778.5	132.6	135.9	-90.09	-1,942.6	-5,613.0	2,108.0	1,839.5	268.52	7.851	
11,220.4	6,774.4	6,778.4	6,778.4	133.2	135.9	-90.09	-1,942.6	-5,613.0	2,100.8	1,831.7	269.09	7.807	
11,300.0	6,774.1	6,778.1	6,778.1	135.4	135.9	-90.08	-1,942.6	-5,613.0	2,074.2	1,802.9	271.30	7.645	
11,318.9	6,774.0	6,778.0	6,778.0	135.9	135.9	-90.07	-1,942.6	-5,613.0	2,068.3	1,796.4	271.83	7.609	
11,400.0	6,773.7	6,777.7	6,777.7	138.2	135.9	-90.07	-1,942.6	-5,613.0	2,044.6	1,770.6	274.09	7.460	
11,417.3	6,773.6	6,777.6	6,777.6	138.7	135.9	-90.06	-1,942.6	-5,613.0	2,040.0	1,765.4	274.57	7.430	
11,500.0	6,773.3	6,777.3	6,777.3	141.0	135.9	-90.05	-1,942.6	-5,613.0	2,019.6	1,742.8	276.87	7.295	
11,515.7	6,773.2	6,777.2	6,777.2	141.4	135.9	-90.05	-1,942.6	-5,613.0	2,016.1	1,738.8	277.31	7.270	
11,600.0	6,772.9	6,776.9	6,776.9	143.8	135.9	-90.04	-1,942.6	-5,613.0	1,999.3	1,719.7	279.66	7.149	
11,614.1	6,772.8	6,776.8	6,776.8	144.2	135.9	-90.04	-1,942.6	-5,613.0	1,996.8	1,716.8	280.05	7.130	
11,700.0	6,772.5	6,776.5	6,776.5	146.6	135.9	-90.03	-1,942.6	-5,613.0	1,983.9	1,701.4	282.44	7.024	
11,712.6	6,772.4	6,776.4	6,776.4	146.9	135.9	-90.03	-1,942.6	-5,613.0	1,982.3	1,699.5	282.79	7.010	
11,800.0	6,772.1	6,776.1	6,776.1	149.4	135.9	-90.02	-1,942.6	-5,613.0	1,973.3	1,688.1	285.23	6.918	
11,811.0	6,772.1	6,776.1	6,776.1	149.7	135.9	-90.02	-1,942.6	-5,613.0	1,972.5	1,687.0	285.53	6.908	
11,900.0	6,771.7	6,775.7	6,775.7	152.2	135.9	-90.01	-1,942.6	-5,613.0	1,967.9	1,679.8	288.02	6.833	
11,909.4	6,771.7	6,775.7	6,775.7	152.4	135.9	-90.01	-1,942.6	-5,613.0	1,967.6	1,679.3	288.28	6.825	
11,958.1	6,771.5	6,775.5	6,775.5	153.8	135.9	-90.00	-1,942.6	-5,613.0	1,967.0	1,677.4	289.63	6.791 CC	
12,000.0	6,771.3	6,775.3	6,775.3	154.9	135.9	-90.00	-1,942.6	-5,613.0	1,967.5	1,676.7	290.80	6.766	
12,007.8	6,771.3	6,775.3	6,775.3	155.2	135.9	-89.99	-1,942.6	-5,613.0	1,967.6	1,676.6	291.02	6.761 ES	
12,100.0	6,770.9	6,774.9	6,774.9	157.7	135.8	-89.98	-1,942.6	-5,613.0	1,972.1	1,678.5	293.59	6.717	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT B&H #1 - 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	
12,106.3	6,770.9	6,774.9	6,774.9	157.9	135.8	-89.98	-1,942.6	-5,613.0	1,972.6	1,678.8	293.77	6.715	
12,200.0	6,770.5	6,774.5	6,774.5	160.5	135.8	-89.97	-1,942.6	-5,613.0	1,981.8	1,685.4	296.38	6.687	
12,204.7	6,770.5	6,774.5	6,774.5	160.7	135.8	-89.97	-1,942.6	-5,613.0	1,982.4	1,685.9	296.51	6.686	
12,300.0	6,770.1	6,774.1	6,774.1	163.3	135.8	-89.96	-1,942.6	-5,613.0	1,996.5	1,697.3	299.17	6.674	
12,303.1	6,770.1	6,774.1	6,774.1	163.4	135.8	-89.96	-1,942.6	-5,613.0	1,997.0	1,697.8	299.25	6.673	
12,316.4	6,770.0	6,774.0	6,774.0	163.8	135.8	-89.96	-1,942.6	-5,613.0	1,999.4	1,699.7	299.62	6.673 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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	
0.0	0.0	4.0	4.0	0.0	0.0	-94.67	-444.2	-5,442.8	5,460.9				
98.4	98.4	102.4	102.4	0.1	1.2	-94.67	-444.2	-5,442.8	5,460.9	5,459.6	1.30	4,211.108	
100.0	100.0	104.0	104.0	0.1	1.2	-94.67	-444.2	-5,442.8	5,460.9	5,459.6	1.33	4,091.161	
196.8	196.8	200.8	200.8	0.3	3.5	-94.67	-444.2	-5,442.8	5,460.9	5,457.1	3.78	1,444.803	
200.0	200.0	204.0	204.0	0.3	3.5	-94.67	-444.2	-5,442.8	5,460.9	5,457.0	3.85	1,417.583	
295.3	295.3	299.3	299.3	0.5	5.5	-94.67	-444.2	-5,442.8	5,460.9	5,454.9	6.05	903.018	
300.0	300.0	304.0	304.0	0.5	5.6	-94.67	-444.2	-5,442.8	5,460.9	5,454.7	6.15	887.262	
393.7	393.7	397.7	397.7	0.8	7.5	-94.67	-444.2	-5,442.8	5,460.9	5,452.6	8.28	659.599	
400.0	400.0	404.0	404.0	0.8	7.6	-94.67	-444.2	-5,442.8	5,460.9	5,452.5	8.42	648.453	
492.1	492.1	496.1	496.1	1.0	9.5	-94.67	-444.2	-5,442.8	5,460.9	5,450.4	10.50	520.194	
500.0	500.0	504.0	504.0	1.0	9.7	-94.67	-444.2	-5,442.8	5,460.9	5,450.2	10.68	511.557	
590.5	590.5	594.5	594.5	1.2	11.5	-94.67	-444.2	-5,442.8	5,460.9	5,448.2	12.71	429.646	
600.0	600.0	604.0	604.0	1.2	11.7	-94.67	-444.2	-5,442.8	5,460.9	5,448.0	12.92	422.589	
689.0	689.0	693.0	693.0	1.4	13.5	-94.67	-444.2	-5,442.8	5,460.9	5,446.0	14.92	366.033	
700.0	700.0	704.0	704.0	1.4	13.7	-94.67	-444.2	-5,442.8	5,460.9	5,445.7	15.17	360.064	
787.4	787.4	791.4	791.4	1.6	15.5	-94.67	-444.2	-5,442.8	5,460.9	5,443.8	17.13	318.868	
800.0	800.0	804.0	804.0	1.7	15.7	-94.67	-444.2	-5,442.8	5,460.9	5,443.5	17.41	313.695	
885.8	885.8	889.8	889.8	1.9	17.5	-94.67	-444.2	-5,442.8	5,460.9	5,441.6	19.33	282.491	
900.0	900.0	904.0	904.0	1.9	17.8	-94.67	-444.2	-5,442.8	5,460.9	5,441.3	19.65	277.926	
984.2	984.2	988.2	988.2	2.1	19.5	-94.67	-444.2	-5,442.8	5,460.9	5,439.4	21.54	253.576	
1,000.0	1,000.0	1,004.0	1,004.0	2.1	19.8	-94.67	-444.2	-5,442.8	5,460.9	5,439.0	21.89	249.490	
1,082.7	1,082.7	1,086.7	1,086.7	2.3	21.4	-94.67	-444.2	-5,442.8	5,460.9	5,437.2	23.74	230.037	
1,100.0	1,100.0	1,104.0	1,104.0	2.3	21.8	-94.67	-444.2	-5,442.8	5,460.9	5,436.8	24.13	226.339	
1,181.1	1,181.1	1,185.1	1,185.1	2.5	23.4	-94.67	-444.2	-5,442.8	5,460.9	5,435.0	25.94	210.502	
1,200.0	1,200.0	1,204.0	1,204.0	2.6	23.8	-94.67	-444.2	-5,442.8	5,460.9	5,434.5	26.37	207.124	
1,279.5	1,279.5	1,283.5	1,283.5	2.7	25.4	-94.67	-444.2	-5,442.8	5,460.9	5,432.8	28.14	194.027	
1,300.0	1,300.0	1,304.0	1,304.0	2.8	25.8	-94.67	-444.2	-5,442.8	5,460.9	5,432.3	28.60	190.919	
1,377.9	1,377.9	1,381.9	1,381.9	3.0	27.4	-94.67	-444.2	-5,442.8	5,460.9	5,430.6	30.35	179.946	
1,400.0	1,400.0	1,404.0	1,404.0	3.0	27.8	-94.67	-444.2	-5,442.8	5,460.9	5,430.1	30.84	177.068	
1,476.4	1,476.4	1,480.4	1,480.4	3.2	29.4	-94.67	-444.2	-5,442.8	5,460.9	5,428.4	32.55	167.772	
1,500.0	1,500.0	1,504.0	1,504.0	3.2	29.8	-94.67	-444.2	-5,442.8	5,460.9	5,427.8	33.08	165.091	
1,574.8	1,574.8	1,578.8	1,578.8	3.4	31.3	-13.97	-444.2	-5,442.8	5,460.0	5,425.2	34.73	157.204	
1,600.0	1,600.0	1,604.0	1,604.0	3.5	31.8	-13.98	-444.2	-5,442.8	5,459.2	5,423.9	35.28	154.726	
1,673.2	1,673.1	1,677.1	1,677.1	3.6	33.3	-14.00	-444.2	-5,442.8	5,455.8	5,419.0	36.86	148.008	
1,700.0	1,699.8	1,703.8	1,703.8	3.7	33.9	-14.02	-444.2	-5,442.8	5,454.1	5,416.7	37.43	145.709	
1,771.6	1,771.2	1,775.2	1,775.2	3.8	35.3	-14.06	-444.2	-5,442.8	5,448.4	5,409.5	38.94	139.922	
1,800.0	1,799.5	1,803.5	1,803.5	3.9	35.9	-14.08	-444.2	-5,442.8	5,445.7	5,406.1	39.53	137.773	
1,870.1	1,869.0	1,873.0	1,873.0	4.0	37.3	-14.14	-444.2	-5,442.8	5,437.7	5,396.8	40.96	132.762	
1,900.0	1,898.7	1,902.7	1,902.7	4.1	37.9	-14.17	-444.2	-5,442.8	5,433.8	5,392.3	41.56	130.749	
1,968.5	1,966.4	1,970.4	1,970.4	4.3	39.2	-14.25	-444.2	-5,442.8	5,423.8	5,380.9	42.91	126.390	
2,000.0	1,997.5	2,001.5	2,001.5	4.4	39.8	-14.29	-444.2	-5,442.8	5,418.7	5,375.2	43.52	124.501	
2,066.9	2,063.2	2,067.2	2,067.2	4.6	41.2	-14.38	-444.2	-5,442.8	5,406.7	5,361.9	44.80	120.695	
2,100.1	2,095.7	2,099.7	2,099.7	4.7	41.8	-14.43	-444.2	-5,442.8	5,400.2	5,354.7	45.41	118.914	
2,165.3	2,159.5	2,163.5	2,163.5	4.9	43.1	-14.47	-444.2	-5,442.8	5,387.0	5,340.2	46.82	115.058	
2,200.0	2,193.4	2,197.4	2,197.4	5.0	43.8	-14.48	-444.2	-5,442.8	5,380.0	5,332.4	47.57	113.104	
2,224.2	2,217.1	2,221.1	2,221.1	5.1	44.3	-14.50	-444.2	-5,442.8	5,375.1	5,327.0	48.09	111.775	
2,263.8	2,255.9	2,259.9	2,259.9	5.2	45.0	-14.48	-444.2	-5,442.8	5,367.4	5,318.3	49.07	109.384	
2,300.0	2,291.5	2,295.5	2,295.5	5.3	45.8	-14.46	-444.2	-5,442.8	5,360.8	5,310.8	49.96	107.304	
2,362.2	2,352.7	2,356.7	2,356.7	5.5	47.0	-14.44	-444.2	-5,442.8	5,350.5	5,299.0	51.48	103.939	
2,400.0	2,390.1	2,394.1	2,394.1	5.6	47.7	-14.43	-444.2	-5,442.8	5,344.8	5,292.4	52.40	102.007	
2,460.6	2,450.1	2,454.1	2,454.1	5.7	48.9	-14.41	-444.2	-5,442.8	5,336.8	5,282.9	53.86	99.086	
2,500.0	2,489.2	2,493.2	2,493.2	5.8	49.7	-14.40	-444.2	-5,442.8	5,332.2	5,277.4	54.80	97.296	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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		
2,559.0	2,548.0	2,552.0	2,552.0	6.0	50.9	-14.39	-444.2	-5,442.8	5,326.3	5,270.1	56.21	94.764		
2,600.0	2,588.8	2,592.8	2,592.8	6.1	51.7	-14.38	-444.2	-5,442.8	5,322.9	5,265.8	57.17	93.108		
2,657.5	2,646.1	2,650.1	2,650.1	6.2	52.9	-14.37	-444.2	-5,442.8	5,319.1	5,260.6	58.51	90.917		
2,700.0	2,688.6	2,692.6	2,692.6	6.3	53.7	-14.37	-444.2	-5,442.8	5,317.1	5,257.6	59.48	89.389		
2,755.9	2,744.4	2,748.4	2,748.4	6.4	54.9	-14.36	-444.2	-5,442.8	5,315.2	5,254.5	60.75	87.496		
2,800.0	2,788.5	2,792.5	2,792.5	6.5	55.8	-14.36	-444.2	-5,442.8	5,314.5	5,252.8	61.73	86.090		
2,824.3	2,812.8	2,816.8	2,816.8	6.5	56.2	-95.06	-444.2	-5,442.8	5,314.4	5,251.7	62.73	84.714		
2,854.3	2,842.9	2,846.9	2,846.9	6.6	56.8	-95.06	-444.2	-5,442.8	5,314.4	5,251.0	63.39	83.831		
2,900.0	2,888.5	2,892.5	2,892.5	6.7	57.8	-95.06	-444.2	-5,442.8	5,314.4	5,250.0	64.40	82.524		
2,952.7	2,941.3	2,945.3	2,945.3	6.8	58.8	-95.06	-444.2	-5,442.8	5,314.4	5,248.9	65.57	81.054		
3,000.0	2,988.5	2,992.5	2,992.5	6.9	59.8	-95.06	-444.2	-5,442.8	5,314.4	5,247.8	66.61	79.780		
3,051.2	3,039.7	3,043.7	3,043.7	7.0	60.8	-95.06	-444.2	-5,442.8	5,314.4	5,246.7	67.75	78.444		
3,100.0	3,088.5	3,092.5	3,092.5	7.1	61.8	-95.06	-444.2	-5,442.8	5,314.4	5,245.6	68.83	77.211		
3,149.6	3,138.1	3,142.1	3,142.1	7.2	62.8	-95.06	-444.2	-5,442.8	5,314.4	5,244.5	69.93	75.996		
3,200.0	3,188.5	3,192.5	3,192.5	7.3	63.8	-95.06	-444.2	-5,442.8	5,314.4	5,243.4	71.05	74.801		
3,248.0	3,236.6	3,240.6	3,240.6	7.4	64.8	-95.06	-444.2	-5,442.8	5,314.4	5,242.3	72.11	73.696		
3,300.0	3,288.5	3,292.5	3,292.5	7.5	65.8	-95.06	-444.2	-5,442.8	5,314.4	5,241.2	73.27	72.536		
3,346.4	3,335.0	3,339.0	3,339.0	7.6	66.7	-95.06	-444.2	-5,442.8	5,314.4	5,240.1	74.30	71.529		
3,400.0	3,388.5	3,392.5	3,392.5	7.7	67.8	-95.06	-444.2	-5,442.8	5,314.4	5,239.0	75.49	70.403		
3,444.9	3,433.4	3,437.4	3,437.4	7.8	68.7	-95.06	-444.2	-5,442.8	5,314.4	5,238.0	76.48	69.485		
3,500.0	3,488.5	3,492.5	3,492.5	7.9	69.8	-95.06	-444.2	-5,442.8	5,314.4	5,236.7	77.71	68.391		
3,543.3	3,531.8	3,535.8	3,535.8	8.0	70.7	-95.06	-444.2	-5,442.8	5,314.4	5,235.8	78.67	67.555		
3,600.0	3,588.5	3,592.5	3,592.5	8.1	71.8	-95.06	-444.2	-5,442.8	5,314.4	5,234.5	79.93	66.490		
3,641.7	3,630.3	3,634.3	3,634.3	8.2	72.7	-95.06	-444.2	-5,442.8	5,314.4	5,233.6	80.86	65.728		
3,700.0	3,688.5	3,692.5	3,692.5	8.3	73.9	-95.06	-444.2	-5,442.8	5,314.4	5,232.3	82.15	64.692		
3,740.1	3,728.7	3,732.7	3,732.7	8.4	74.7	-95.06	-444.2	-5,442.8	5,314.4	5,231.4	83.04	63.996		
3,800.0	3,788.5	3,792.5	3,792.5	8.5	75.9	-95.06	-444.2	-5,442.8	5,314.4	5,230.1	84.37	62.987		
3,838.6	3,827.1	3,831.1	3,831.1	8.6	76.6	-95.06	-444.2	-5,442.8	5,314.4	5,229.2	85.23	62.354		
3,900.0	3,888.5	3,892.5	3,892.5	8.7	77.9	-95.06	-444.2	-5,442.8	5,314.4	5,227.8	86.60	61.370		
3,937.0	3,925.5	3,929.5	3,929.5	8.8	78.6	-95.06	-444.2	-5,442.8	5,314.4	5,227.0	87.42	60.792		
4,000.0	3,988.5	3,992.5	3,992.5	9.0	79.9	-95.06	-444.2	-5,442.8	5,314.4	5,225.6	88.82	59.833		
4,035.4	4,024.0	4,028.0	4,028.0	9.0	80.6	-95.06	-444.2	-5,442.8	5,314.4	5,224.8	89.61	59.307		
4,100.0	4,088.5	4,092.5	4,092.5	9.2	81.9	-95.06	-444.2	-5,442.8	5,314.4	5,223.4	91.05	58.371		
4,133.8	4,122.4	4,126.4	4,126.4	9.2	82.6	-95.06	-444.2	-5,442.8	5,314.4	5,222.6	91.80	57.892		
4,200.0	4,188.5	4,192.5	4,192.5	9.4	83.9	-95.06	-444.2	-5,442.8	5,314.4	5,221.2	93.27	56.979		
4,232.3	4,220.8	4,224.8	4,224.8	9.4	84.6	-95.06	-444.2	-5,442.8	5,314.4	5,220.5	93.99	56.543		
4,300.0	4,288.5	4,292.5	4,292.5	9.6	85.9	-95.06	-444.2	-5,442.8	5,314.4	5,218.9	95.50	55.651		
4,330.7	4,319.2	4,323.2	4,323.2	9.7	86.5	-95.06	-444.2	-5,442.8	5,314.4	5,218.3	96.18	55.256		
4,400.0	4,388.5	4,392.5	4,392.5	9.8	87.9	-95.06	-444.2	-5,442.8	5,314.4	5,216.7	97.72	54.383		
4,429.1	4,417.7	4,421.7	4,421.7	9.9	88.5	-95.06	-444.2	-5,442.8	5,314.4	5,216.1	98.37	54.025		
4,500.0	4,488.5	4,492.5	4,492.5	10.0	89.9	-95.06	-444.2	-5,442.8	5,314.4	5,214.5	99.95	53.172		
4,527.5	4,516.1	4,520.1	4,520.1	10.1	90.5	-95.06	-444.2	-5,442.8	5,314.4	5,213.9	100.56	52.847		
4,600.0	4,588.5	4,592.5	4,592.5	10.2	92.0	-95.06	-444.2	-5,442.8	5,314.4	5,212.3	102.18	52.013		
4,626.0	4,614.5	4,618.5	4,618.5	10.3	92.5	-95.06	-444.2	-5,442.8	5,314.4	5,211.7	102.75	51.720		
4,700.0	4,688.5	4,692.5	4,692.5	10.5	94.0	-95.06	-444.2	-5,442.8	5,314.4	5,210.0	104.40	50.903		
4,724.4	4,712.9	4,716.9	4,716.9	10.5	94.5	-95.06	-444.2	-5,442.8	5,314.4	5,209.5	104.95	50.640		
4,800.0	4,788.5	4,792.5	4,792.5	10.7	96.0	-95.06	-444.2	-5,442.8	5,314.4	5,207.8	106.63	49.840		
4,822.8	4,811.4	4,815.4	4,815.4	10.7	96.4	-95.06	-444.2	-5,442.8	5,314.4	5,207.3	107.14	49.603		
4,900.0	4,888.5	4,892.5	4,892.5	10.9	98.0	-95.06	-444.2	-5,442.8	5,314.4	5,205.6	108.86	48.820		
4,921.2	4,909.8	4,913.8	4,913.8	10.9	98.4	-95.06	-444.2	-5,442.8	5,314.4	5,205.1	109.33	48.608		
5,000.0	4,988.5	4,992.5	4,992.5	11.1	100.0	-95.06	-444.2	-5,442.8	5,314.4	5,203.4	111.09	47.841		
5,019.7	5,008.2	5,012.2	5,012.2	11.1	100.4	-95.06	-444.2	-5,442.8	5,314.4	5,202.9	111.53	47.652		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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		
5,100.0	5,088.5	5,092.5	5,092.5	11.3	102.0	-95.06	-444.2	-5,442.8	5,314.4	5,201.1	113.32	46.900		
5,118.1	5,106.6	5,110.6	5,110.6	11.4	102.4	-95.06	-444.2	-5,442.8	5,314.4	5,200.7	113.72	46.733		
5,200.0	5,188.5	5,192.5	5,192.5	11.5	104.0	-95.06	-444.2	-5,442.8	5,314.4	5,198.9	115.54	45.995		
5,216.5	5,205.1	5,209.1	5,209.1	11.6	104.4	-95.06	-444.2	-5,442.8	5,314.4	5,198.5	115.91	45.849		
5,300.0	5,288.5	5,292.5	5,292.5	11.8	106.0	-95.06	-444.2	-5,442.8	5,314.4	5,196.7	117.77	45.124		
5,314.9	5,303.5	5,307.5	5,307.5	11.8	106.3	-95.06	-444.2	-5,442.8	5,314.4	5,196.3	118.11	44.997		
5,400.0	5,388.5	5,392.5	5,392.5	12.0	108.0	-95.06	-444.2	-5,442.8	5,314.4	5,194.4	120.00	44.286		
5,413.4	5,401.9	5,405.9	5,405.9	12.0	108.3	-95.06	-444.2	-5,442.8	5,314.4	5,194.1	120.30	44.176		
5,500.0	5,488.5	5,492.5	5,492.5	12.2	110.1	-95.06	-444.2	-5,442.8	5,314.4	5,192.2	122.23	43.478		
5,511.8	5,500.3	5,504.3	5,504.3	12.2	110.3	-95.06	-444.2	-5,442.8	5,314.4	5,191.9	122.49	43.385		
5,600.0	5,588.5	5,592.5	5,592.5	12.4	112.1	-95.06	-444.2	-5,442.8	5,314.4	5,190.0	124.46	42.699		
5,610.2	5,598.8	5,602.8	5,602.8	12.4	112.3	-95.06	-444.2	-5,442.8	5,314.4	5,189.8	124.69	42.621		
5,700.0	5,688.5	5,692.5	5,692.5	12.6	114.1	-95.06	-444.2	-5,442.8	5,314.4	5,187.8	126.69	41.948		
5,708.6	5,697.2	5,701.2	5,701.2	12.6	114.3	-95.06	-444.2	-5,442.8	5,314.4	5,187.6	126.88	41.884		
5,800.0	5,788.5	5,792.5	5,792.5	12.8	116.1	-95.06	-444.2	-5,442.8	5,314.4	5,185.5	128.92	41.222		
5,807.1	5,795.6	5,799.6	5,799.6	12.9	116.2	-95.06	-444.2	-5,442.8	5,314.4	5,185.4	129.08	41.172		
5,900.0	5,888.5	5,892.5	5,892.5	13.1	118.1	-95.06	-444.2	-5,442.8	5,314.4	5,183.3	131.15	40.521		
5,905.5	5,894.0	5,898.0	5,898.0	13.1	118.2	-95.06	-444.2	-5,442.8	5,314.4	5,183.2	131.27	40.483		
6,000.0	5,988.5	5,992.5	5,992.5	13.3	120.1	-95.06	-444.2	-5,442.8	5,314.4	5,181.1	133.38	39.844		
6,003.9	5,992.5	5,996.5	5,996.5	13.3	120.2	-95.06	-444.2	-5,442.8	5,314.4	5,181.0	133.47	39.817		
6,085.3	6,073.8	6,077.8	6,077.8	13.5	121.8	-95.06	-444.2	-5,442.8	5,314.4	5,179.2	135.28	39.283		
6,100.0	6,088.5	6,092.5	6,092.5	13.5	122.1	-5.06	-444.2	-5,442.8	5,314.3	5,178.9	135.35	39.265		
6,102.3	6,090.9	6,094.9	6,094.9	13.5	122.2	-5.06	-444.2	-5,442.8	5,314.2	5,178.9	135.39	39.252		
6,150.0	6,138.4	6,142.4	6,142.4	13.6	123.1	-5.08	-444.2	-5,442.8	5,311.5	5,175.6	135.96	39.068		
6,200.0	6,188.0	6,192.0	6,192.0	13.7	124.1	-5.13	-444.2	-5,442.8	5,305.3	5,169.4	135.91	39.036		
6,200.8	6,188.8	6,192.8	6,192.8	13.7	124.1	-5.13	-444.2	-5,442.8	5,305.2	5,169.3	135.90	39.037		
6,250.0	6,237.1	6,241.1	6,241.1	13.9	125.1	-5.21	-444.2	-5,442.8	5,295.7	5,160.5	135.19	39.172		
6,299.2	6,284.6	6,288.6	6,288.6	14.0	126.1	-5.32	-444.2	-5,442.8	5,282.9	5,149.0	133.82	39.478		
6,300.0	6,285.3	6,289.3	6,289.3	14.0	126.1	-5.33	-444.2	-5,442.8	5,282.6	5,148.8	133.79	39.485		
6,350.0	6,332.5	6,336.5	6,336.5	14.2	127.0	-5.47	-444.2	-5,442.8	5,266.3	5,134.6	131.71	39.984		
6,397.6	6,376.3	6,380.3	6,380.3	14.4	127.9	-5.65	-444.2	-5,442.8	5,247.7	5,118.6	129.09	40.650		
6,400.0	6,378.5	6,382.5	6,382.5	14.4	128.0	-5.66	-444.2	-5,442.8	5,246.7	5,117.7	128.95	40.689		
6,450.0	6,423.0	6,427.0	6,427.0	14.7	128.8	-5.89	-444.2	-5,442.8	5,223.9	5,098.4	125.52	41.619		
6,496.0	6,462.4	6,466.4	6,466.4	14.9	129.6	-6.15	-444.2	-5,442.8	5,200.3	5,078.5	121.78	42.701		
6,500.0	6,465.7	6,469.7	6,469.7	14.9	129.7	-6.17	-444.2	-5,442.8	5,198.1	5,076.7	121.44	42.805		
6,550.0	6,506.6	6,510.6	6,510.6	15.2	130.5	-6.52	-444.2	-5,442.8	5,169.5	5,052.7	116.74	44.284		
6,594.5	6,541.2	6,545.2	6,545.2	15.6	131.2	-6.89	-444.2	-5,442.8	5,141.6	5,029.6	112.06	45.883		
6,600.0	6,545.3	6,549.3	6,549.3	15.6	131.3	-6.94	-444.2	-5,442.8	5,138.0	5,026.6	111.45	46.102		
6,650.0	6,581.8	6,585.8	6,585.8	16.0	132.0	-7.45	-444.2	-5,442.8	5,104.0	4,998.3	105.63	48.318		
6,692.9	6,611.1	6,615.1	6,615.1	16.4	132.6	-7.99	-444.2	-5,442.8	5,072.8	4,972.5	100.28	50.585		
6,700.0	6,615.8	6,619.8	6,619.8	16.5	132.7	-8.09	-444.2	-5,442.8	5,067.4	4,968.1	99.37	50.996		
6,750.0	6,647.1	6,651.1	6,651.1	17.1	133.4	-8.88	-444.2	-5,442.8	5,028.7	4,935.9	92.77	54.206		
6,791.3	6,670.9	6,674.9	6,674.9	17.6	133.8	-9.68	-444.2	-5,442.8	4,995.0	4,907.8	87.19	57.289		
6,800.0	6,675.7	6,679.7	6,679.7	17.7	133.9	-9.88	-444.2	-5,442.8	4,987.8	4,901.8	86.02	57.986		
6,850.0	6,701.3	6,705.3	6,705.3	18.4	134.4	-11.17	-444.2	-5,442.8	4,945.1	4,865.7	79.41	62.273		
6,889.7	6,719.5	6,723.5	6,723.5	19.0	134.8	-12.49	-444.2	-5,442.8	4,909.9	4,835.3	74.60	65.819		
6,900.0	6,723.8	6,727.8	6,727.8	19.1	134.9	-12.89	-444.2	-5,442.8	4,900.7	4,827.2	73.47	66.701		
6,950.0	6,743.2	6,747.2	6,747.2	20.0	135.3	-15.26	-444.2	-5,442.8	4,854.8	4,785.6	69.18	70.180		
6,988.2	6,755.8	6,759.8	6,759.8	20.6	135.5	-17.75	-444.2	-5,442.8	4,818.9	4,750.9	68.07	70.793		
7,000.0	6,759.4	6,763.4	6,763.4	20.9	135.6	-18.70	-444.2	-5,442.8	4,807.7	4,739.4	68.31	70.376		
7,050.0	6,772.1	6,776.1	6,776.1	21.8	135.9	-24.03	-444.2	-5,442.8	4,759.6	4,685.6	73.96	64.351		
7,086.6	6,779.4	6,783.4	6,783.4	22.5	136.0	-30.12	-444.2	-5,442.8	4,723.9	4,639.0	84.87	55.662		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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	
7,100.0	6,781.5	6,785.5	6,785.5	22.8	136.1	-33.10	-444.2	-5,442.8	4,710.8	4,619.9	90.81	51.877	
7,150.0	6,787.5	6,791.5	6,791.5	23.9	136.2	-50.24	-444.2	-5,442.8	4,661.4	4,537.3	124.05	37.576	
7,185.0	6,789.6	6,793.6	6,793.6	24.6	136.2	-70.90	-444.2	-5,442.8	4,626.6	4,474.5	152.11	30.416	
7,200.0	6,789.9	6,793.9	6,793.9	24.9	136.2	-82.00	-444.2	-5,442.8	4,611.7	4,452.1	159.59	28.896	
7,213.0	6,790.0	6,794.0	6,794.0	25.2	136.2	-92.10	-444.2	-5,442.8	4,598.8	4,437.4	161.33	28.505	
7,283.4	6,789.7	6,793.7	6,793.7	26.8	136.2	-92.07	-444.2	-5,442.8	4,528.7	4,365.8	162.91	27.799	
7,300.0	6,789.7	6,793.7	6,793.7	27.2	136.2	-92.07	-444.2	-5,442.8	4,512.2	4,348.9	163.28	27.636	
7,381.9	6,789.4	6,793.4	6,793.4	29.1	136.2	-92.03	-444.2	-5,442.8	4,430.8	4,265.6	165.18	26.825	
7,400.0	6,789.3	6,793.3	6,793.3	29.5	136.2	-92.02	-444.2	-5,442.8	4,412.8	4,247.2	165.60	26.648	
7,480.3	6,789.0	6,793.0	6,793.0	31.4	136.2	-91.99	-444.2	-5,442.8	4,332.9	4,165.4	167.53	25.864	
7,500.0	6,788.9	6,792.9	6,792.9	31.9	136.2	-91.98	-444.2	-5,442.8	4,313.4	4,145.4	168.00	25.675	
7,578.7	6,788.6	6,792.6	6,792.6	33.8	136.2	-91.94	-444.2	-5,442.8	4,235.1	4,065.2	169.94	24.922	
7,600.0	6,788.5	6,792.5	6,792.5	34.4	136.2	-91.94	-444.2	-5,442.8	4,214.0	4,043.5	170.46	24.721	
7,677.1	6,788.2	6,792.2	6,792.2	36.3	136.2	-91.90	-444.2	-5,442.8	4,137.3	3,964.9	172.40	23.999	
7,700.0	6,788.2	6,792.2	6,792.2	36.9	136.2	-91.89	-444.2	-5,442.8	4,114.6	3,941.6	172.97	23.788	
7,775.6	6,787.9	6,791.9	6,791.9	38.8	136.2	-91.86	-444.2	-5,442.8	4,039.5	3,864.6	174.90	23.096	
7,800.0	6,787.8	6,791.8	6,791.8	39.4	136.2	-91.85	-444.2	-5,442.8	4,015.3	3,839.7	175.52	22.876	
7,874.0	6,787.5	6,791.5	6,791.5	41.3	136.2	-91.82	-444.2	-5,442.8	3,941.8	3,764.3	177.43	22.215	
7,900.0	6,787.4	6,791.4	6,791.4	42.0	136.2	-91.81	-444.2	-5,442.8	3,916.0	3,737.9	178.11	21.987	
7,972.4	6,787.1	6,791.1	6,791.1	43.9	136.2	-91.77	-444.2	-5,442.8	3,844.1	3,664.1	180.00	21.356	
8,000.0	6,787.0	6,791.0	6,791.0	44.6	136.2	-91.76	-444.2	-5,442.8	3,816.7	3,636.0	180.72	21.120	
8,070.8	6,786.7	6,790.7	6,790.7	46.5	136.2	-91.73	-444.2	-5,442.8	3,746.4	3,563.8	182.58	20.519	
8,100.0	6,786.6	6,790.6	6,790.6	47.3	136.2	-91.72	-444.2	-5,442.8	3,717.5	3,534.1	183.35	20.275	
8,169.3	6,786.4	6,790.4	6,790.4	49.1	136.2	-91.69	-444.2	-5,442.8	3,648.8	3,463.6	185.19	19.703	
8,200.0	6,786.3	6,790.3	6,790.3	49.9	136.2	-91.68	-444.2	-5,442.8	3,618.3	3,432.3	186.00	19.453	
8,267.7	6,786.0	6,790.0	6,790.0	51.7	136.1	-91.64	-444.2	-5,442.8	3,551.2	3,363.4	187.81	18.909	
8,300.0	6,785.9	6,789.9	6,789.9	52.6	136.1	-91.63	-444.2	-5,442.8	3,519.2	3,330.5	188.67	18.653	
8,366.1	6,785.6	6,789.6	6,789.6	54.4	136.1	-91.60	-444.2	-5,442.8	3,453.6	3,263.2	190.44	18.135	
8,400.0	6,785.5	6,789.5	6,789.5	55.3	136.1	-91.59	-444.2	-5,442.8	3,420.1	3,228.7	191.35	17.873	
8,464.5	6,785.2	6,789.2	6,789.2	57.0	136.1	-91.56	-444.2	-5,442.8	3,356.2	3,163.1	193.09	17.381	
8,500.0	6,785.1	6,789.1	6,789.1	58.0	136.1	-91.54	-444.2	-5,442.8	3,321.1	3,127.0	194.04	17.115	
8,563.0	6,784.9	6,788.9	6,788.9	59.7	136.1	-91.51	-444.2	-5,442.8	3,258.7	3,063.0	195.75	16.648	
8,600.0	6,784.7	6,788.7	6,788.7	60.7	136.1	-91.50	-444.2	-5,442.8	3,222.1	3,025.3	196.75	16.377	
8,661.4	6,784.5	6,788.5	6,788.5	62.4	136.1	-91.47	-444.2	-5,442.8	3,161.4	2,962.9	198.41	15.933	
8,700.0	6,784.3	6,788.3	6,788.3	63.4	136.1	-91.45	-444.2	-5,442.8	3,123.2	2,923.7	199.46	15.658	
8,759.8	6,784.1	6,788.1	6,788.1	65.0	136.1	-91.43	-444.2	-5,442.8	3,064.1	2,863.0	201.09	15.237	
8,800.0	6,784.0	6,788.0	6,788.0	66.1	136.1	-91.41	-444.2	-5,442.8	3,024.4	2,822.2	202.18	14.959	
8,858.2	6,783.7	6,787.7	6,787.7	67.7	136.1	-91.38	-444.2	-5,442.8	2,966.8	2,763.1	203.77	14.560	
8,900.0	6,783.6	6,787.6	6,787.6	68.9	136.1	-91.36	-444.2	-5,442.8	2,925.6	2,720.7	204.91	14.278	
8,956.7	6,783.3	6,787.3	6,787.3	70.4	136.1	-91.34	-444.2	-5,442.8	2,869.7	2,663.2	206.46	13.900	
9,000.0	6,783.2	6,787.2	6,787.2	71.6	136.1	-91.32	-444.2	-5,442.8	2,826.9	2,619.3	207.64	13.615	
9,055.1	6,783.0	6,787.0	6,787.0	73.1	136.1	-91.29	-444.2	-5,442.8	2,772.6	2,563.5	209.15	13.257	
9,100.0	6,782.8	6,786.8	6,786.8	74.3	136.1	-91.27	-444.2	-5,442.8	2,728.4	2,518.0	210.38	12.969	
9,153.5	6,782.6	6,786.6	6,786.6	75.8	136.1	-91.25	-444.2	-5,442.8	2,675.7	2,463.8	211.85	12.630	
9,200.0	6,782.4	6,786.4	6,786.4	77.1	136.1	-91.23	-444.2	-5,442.8	2,629.9	2,416.8	213.12	12.340	
9,251.9	6,782.2	6,786.2	6,786.2	78.5	136.1	-91.20	-444.2	-5,442.8	2,578.8	2,364.3	214.55	12.020	
9,300.0	6,782.0	6,786.0	6,786.0	79.8	136.1	-91.18	-444.2	-5,442.8	2,531.6	2,315.7	215.87	11.727	
9,350.4	6,781.8	6,785.8	6,785.8	81.2	136.1	-91.16	-444.2	-5,442.8	2,482.1	2,264.8	217.26	11.425	
9,400.0	6,781.6	6,785.6	6,785.6	82.6	136.1	-91.14	-444.2	-5,442.8	2,433.4	2,214.8	218.62	11.131	
9,448.8	6,781.4	6,785.4	6,785.4	83.9	136.1	-91.11	-444.2	-5,442.8	2,385.5	2,165.6	219.96	10.845	
9,500.0	6,781.2	6,785.2	6,785.2	85.4	136.1	-91.09	-444.2	-5,442.8	2,335.3	2,114.0	221.38	10.549	
9,547.2	6,781.0	6,785.0	6,785.0	86.7	136.0	-91.07	-444.2	-5,442.8	2,289.1	2,066.4	222.68	10.280	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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	
9,600.0	6,780.8	6,784.8	6,784.8	88.1	136.0	-91.05	-444.2	-5,442.8	2,237.5	2,013.3	224.13	9.983	
9,645.6	6,780.7	6,784.7	6,784.7	89.4	136.0	-91.02	-444.2	-5,442.8	2,192.8	1,967.5	225.39	9.729	
9,700.0	6,780.5	6,784.5	6,784.5	90.9	136.0	-91.00	-444.2	-5,442.8	2,139.8	1,912.9	226.89	9.431	
9,744.1	6,780.3	6,784.3	6,784.3	92.1	136.0	-90.98	-444.2	-5,442.8	2,096.8	1,868.7	228.11	9.192	
9,800.0	6,780.1	6,784.1	6,784.1	93.7	136.0	-90.95	-444.2	-5,442.8	2,042.3	1,812.7	229.66	8.893	
9,842.5	6,779.9	6,783.9	6,783.9	94.8	136.0	-90.93	-444.2	-5,442.8	2,001.0	1,770.2	230.83	8.669	
9,900.0	6,779.7	6,783.7	6,783.7	96.4	136.0	-90.91	-444.2	-5,442.8	1,945.1	1,712.7	232.42	8.369	
9,940.9	6,779.5	6,783.5	6,783.5	97.6	136.0	-90.89	-444.2	-5,442.8	1,905.4	1,671.9	233.56	8.158	
10,000.0	6,779.3	6,783.3	6,783.3	99.2	136.0	-90.86	-444.2	-5,442.8	1,848.2	1,613.0	235.19	7.858	
10,039.3	6,779.1	6,783.1	6,783.1	100.3	136.0	-90.84	-444.2	-5,442.8	1,810.2	1,573.9	236.28	7.661	
10,100.0	6,778.9	6,782.9	6,782.9	102.0	136.0	-90.81	-444.2	-5,442.8	1,751.7	1,513.7	237.96	7.361	
10,137.8	6,778.7	6,782.7	6,782.7	103.0	136.0	-90.79	-444.2	-5,442.8	1,715.3	1,476.3	239.01	7.177	
10,200.0	6,778.5	6,782.5	6,782.5	104.8	136.0	-90.77	-444.2	-5,442.8	1,655.6	1,414.8	240.73	6.877	
10,236.2	6,778.3	6,782.3	6,782.3	105.8	136.0	-90.75	-444.2	-5,442.8	1,620.9	1,379.1	241.74	6.705	
10,300.0	6,778.1	6,782.1	6,782.1	107.5	136.0	-90.72	-444.2	-5,442.8	1,559.9	1,316.4	243.51	6.406	
10,334.6	6,778.0	6,782.0	6,782.0	108.5	136.0	-90.70	-444.2	-5,442.8	1,526.9	1,282.4	244.47	6.246	
10,400.0	6,777.7	6,781.7	6,781.7	110.3	136.0	-90.67	-444.2	-5,442.8	1,464.8	1,218.5	246.28	5.948	
10,433.0	6,777.6	6,781.6	6,781.6	111.2	136.0	-90.66	-444.2	-5,442.8	1,433.6	1,186.4	247.20	5.799	
10,500.0	6,777.3	6,781.3	6,781.3	113.1	136.0	-90.62	-444.2	-5,442.8	1,370.5	1,121.4	249.06	5.503	
10,531.5	6,777.2	6,781.2	6,781.2	114.0	136.0	-90.61	-444.2	-5,442.8	1,340.9	1,091.0	249.93	5.365	
10,600.0	6,776.9	6,780.9	6,780.9	115.9	136.0	-90.58	-444.2	-5,442.8	1,276.9	1,025.1	251.83	5.071	
10,629.9	6,776.8	6,780.8	6,780.8	116.7	136.0	-90.56	-444.2	-5,442.8	1,249.2	996.5	252.67	4.944	
10,700.0	6,776.5	6,780.5	6,780.5	118.7	136.0	-90.53	-444.2	-5,442.8	1,184.5	929.9	254.61	4.652	
10,728.3	6,776.4	6,780.4	6,780.4	119.5	136.0	-90.52	-444.2	-5,442.8	1,158.5	903.1	255.40	4.536	
10,800.0	6,776.1	6,780.1	6,780.1	121.4	135.9	-90.48	-444.2	-5,442.8	1,093.4	836.0	257.39	4.248	
10,826.7	6,776.0	6,780.0	6,780.0	122.2	135.9	-90.47	-444.2	-5,442.8	1,069.3	811.1	258.14	4.142	
10,900.0	6,775.7	6,779.7	6,779.7	124.2	135.9	-90.43	-444.2	-5,442.8	1,003.9	743.8	260.17	3.859	
10,925.2	6,775.6	6,779.6	6,779.6	124.9	135.9	-90.42	-444.2	-5,442.8	981.7	720.9	260.87	3.763	
11,000.0	6,775.3	6,779.3	6,779.3	127.0	135.9	-90.38	-444.2	-5,442.8	916.7	653.7	262.95	3.486	
11,023.6	6,775.2	6,779.2	6,779.2	127.7	135.9	-90.37	-444.2	-5,442.8	896.5	632.9	263.61	3.401	
11,100.0	6,774.9	6,778.9	6,778.9	129.8	135.9	-90.34	-444.2	-5,442.8	832.3	566.6	265.74	3.132	
11,122.0	6,774.8	6,778.8	6,778.8	130.4	135.9	-90.33	-444.2	-5,442.8	814.2	547.9	266.35	3.057	
11,200.0	6,774.5	6,778.5	6,778.5	132.6	135.9	-90.29	-444.2	-5,442.8	751.8	483.3	268.52	2.800	
11,220.4	6,774.4	6,778.4	6,778.4	133.2	135.9	-90.28	-444.2	-5,442.8	735.9	466.8	269.09	2.735	
11,300.0	6,774.1	6,778.1	6,778.1	135.4	135.9	-90.24	-444.2	-5,442.8	676.5	405.2	271.30	2.493	
11,318.9	6,774.0	6,778.0	6,778.0	135.9	135.9	-90.23	-444.2	-5,442.8	663.0	391.2	271.83	2.439	
11,400.0	6,773.7	6,777.7	6,777.7	138.2	135.9	-90.19	-444.2	-5,442.8	608.3	334.2	274.09	2.219	
11,417.3	6,773.6	6,777.6	6,777.6	138.7	135.9	-90.18	-444.2	-5,442.8	597.4	322.9	274.57	2.176	
11,500.0	6,773.3	6,777.3	6,777.3	141.0	135.9	-90.14	-444.2	-5,442.8	550.0	273.1	276.87	1.986	
11,515.7	6,773.2	6,777.2	6,777.2	141.4	135.9	-90.13	-444.2	-5,442.8	541.9	264.6	277.31	1.954	
11,600.0	6,772.9	6,776.9	6,776.9	143.8	135.9	-90.09	-444.2	-5,442.8	504.9	225.2	279.66	1.805	
11,614.1	6,772.8	6,776.8	6,776.8	144.2	135.9	-90.09	-444.2	-5,442.8	499.8	219.7	280.05	1.785	
11,700.0	6,772.5	6,776.5	6,776.5	146.6	135.9	-90.04	-444.2	-5,442.8	476.8	194.4	282.44	1.688	
11,712.6	6,772.4	6,776.4	6,776.4	146.9	135.9	-90.04	-444.2	-5,442.8	474.6	191.8	282.79	1.678	
11,787.9	6,772.1	6,776.1	6,776.1	149.0	135.9	-90.00	-444.2	-5,442.8	468.6	183.7	284.89	1.645 CC	
11,800.0	6,772.1	6,776.1	6,776.1	149.4	135.9	-89.99	-444.2	-5,442.8	468.8	183.6	285.23	1.644 ES	
11,811.0	6,772.1	6,776.1	6,776.1	149.7	135.9	-89.99	-444.2	-5,442.8	469.2	183.7	285.53	1.643 SF	
11,900.0	6,771.7	6,775.7	6,775.7	152.2	135.9	-89.94	-444.2	-5,442.8	481.9	193.8	288.01	1.673	
11,909.4	6,771.7	6,775.7	6,775.7	152.4	135.9	-89.94	-444.2	-5,442.8	484.1	195.9	288.28	1.679	
12,000.0	6,771.3	6,775.3	6,775.3	154.9	135.9	-89.89	-444.2	-5,442.8	514.4	223.6	290.80	1.769	
12,007.8	6,771.3	6,775.3	6,775.3	155.2	135.9	-89.89	-444.2	-5,442.8	517.7	226.7	291.02	1.779	
12,100.0	6,770.9	6,774.9	6,774.9	157.7	135.8	-89.84	-444.2	-5,442.8	563.1	269.5	293.59	1.918	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #2 - 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
12,106.3	6,770.9	6,774.9	6,774.9	157.9	135.8	-89.84	-444.2	-5,442.8	566.6	272.8	293.76	1.929	
12,200.0	6,770.5	6,774.5	6,774.5	160.5	135.8	-89.80	-444.2	-5,442.8	624.1	327.7	296.38	2.106	
12,204.7	6,770.5	6,774.5	6,774.5	160.7	135.8	-89.79	-444.2	-5,442.8	627.2	330.7	296.51	2.115	
12,300.0	6,770.1	6,774.1	6,774.1	163.3	135.8	-89.74	-444.2	-5,442.8	694.2	395.0	299.16	2.320	
12,303.1	6,770.1	6,774.1	6,774.1	163.4	135.8	-89.74	-444.2	-5,442.8	696.5	397.3	299.25	2.327	
12,316.4	6,770.0	6,774.0	6,774.0	163.8	135.8	-89.74	-444.2	-5,442.8	706.4	406.7	299.62	2.358	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	1.0	1.0	0.0	0.0	-93.04	-225.9	-4,259.1	4,265.0				
98.4	98.4	99.4	99.4	0.1	1.2	-93.04	-225.9	-4,259.1	4,265.0	4,263.8	1.27	3,347.501	
100.0	100.0	101.0	101.0	0.1	1.2	-93.04	-225.9	-4,259.1	4,265.0	4,263.7	1.31	3,266.714	
196.8	196.8	197.8	197.8	0.3	3.4	-93.04	-225.9	-4,259.1	4,265.0	4,261.3	3.74	1,139.266	
200.0	200.0	201.0	201.0	0.3	3.5	-93.04	-225.9	-4,259.1	4,265.0	4,261.2	3.82	1,116.260	
295.3	295.3	296.3	296.3	0.5	5.5	-93.04	-225.9	-4,259.1	4,265.0	4,259.0	6.02	709.030	
300.0	300.0	301.0	301.0	0.5	5.6	-93.04	-225.9	-4,259.1	4,265.0	4,258.9	6.12	696.471	
393.7	393.7	394.7	394.7	0.8	7.5	-93.04	-225.9	-4,259.1	4,265.0	4,256.8	8.25	517.101	
400.0	400.0	401.0	401.0	0.8	7.6	-93.04	-225.9	-4,259.1	4,265.0	4,256.7	8.39	508.308	
492.1	492.1	493.1	493.1	1.0	9.5	-93.04	-225.9	-4,259.1	4,265.0	4,254.6	10.47	407.474	
500.0	500.0	501.0	501.0	1.0	9.6	-93.04	-225.9	-4,259.1	4,265.0	4,254.4	10.64	400.682	
590.5	590.5	591.5	591.5	1.2	11.5	-93.04	-225.9	-4,259.1	4,265.0	4,252.4	12.68	336.370	
600.0	600.0	601.0	601.0	1.2	11.7	-93.04	-225.9	-4,259.1	4,265.0	4,252.2	12.89	330.830	
689.0	689.0	690.0	690.0	1.4	13.5	-93.04	-225.9	-4,259.1	4,265.0	4,250.2	14.89	286.463	
700.0	700.0	701.0	701.0	1.4	13.7	-93.04	-225.9	-4,259.1	4,265.0	4,249.9	15.14	281.781	
787.4	787.4	788.4	788.4	1.6	15.5	-93.04	-225.9	-4,259.1	4,265.0	4,248.0	17.10	249.484	
800.0	800.0	801.0	801.0	1.7	15.7	-93.04	-225.9	-4,259.1	4,265.0	4,247.7	17.38	245.429	
885.8	885.8	886.8	886.8	1.9	17.4	-93.04	-225.9	-4,259.1	4,265.0	4,245.7	19.30	220.978	
900.0	900.0	901.0	901.0	1.9	17.7	-93.04	-225.9	-4,259.1	4,265.0	4,245.4	19.62	217.400	
984.2	984.2	985.2	985.2	2.1	19.4	-93.04	-225.9	-4,259.1	4,265.0	4,243.5	21.51	198.326	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	19.7	-93.04	-225.9	-4,259.1	4,265.0	4,243.2	21.86	195.126	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	21.4	-93.04	-225.9	-4,259.1	4,265.0	4,241.3	23.71	179.893	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	21.8	-93.04	-225.9	-4,259.1	4,265.0	4,241.0	24.10	176.997	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	23.4	-93.04	-225.9	-4,259.1	4,265.0	4,239.1	25.91	164.598	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	23.8	-93.04	-225.9	-4,259.1	4,265.0	4,238.7	26.33	161.954	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	25.4	-93.04	-225.9	-4,259.1	4,265.0	4,236.9	28.11	151.702	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	25.8	-93.04	-225.9	-4,259.1	4,265.0	4,236.5	28.57	149.269	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	27.3	-93.04	-225.9	-4,259.1	4,265.0	4,234.7	30.32	140.681	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	27.8	-93.04	-225.9	-4,259.1	4,265.0	4,234.2	30.81	138.429	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	29.3	-93.04	-225.9	-4,259.1	4,265.0	4,232.5	32.52	131.155	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	29.8	-93.04	-225.9	-4,259.1	4,265.0	4,232.0	33.05	129.057	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	31.3	-12.34	-225.9	-4,259.1	4,264.1	4,229.4	34.70	122.880	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	31.8	-12.35	-225.9	-4,259.1	4,263.3	4,228.1	35.25	120.937	
1,673.2	1,673.1	1,674.1	1,674.1	3.6	33.3	-12.37	-225.9	-4,259.1	4,259.9	4,223.1	36.83	115.663	
1,700.0	1,699.8	1,700.8	1,700.8	3.7	33.8	-12.39	-225.9	-4,259.1	4,258.2	4,220.8	37.40	113.856	
1,771.6	1,771.2	1,772.2	1,772.2	3.8	35.3	-12.43	-225.9	-4,259.1	4,252.5	4,213.6	38.91	109.300	
1,800.0	1,799.5	1,800.5	1,800.5	3.9	35.8	-12.45	-225.9	-4,259.1	4,249.7	4,210.2	39.49	107.606	
1,870.1	1,869.0	1,870.0	1,870.0	4.0	37.2	-12.51	-225.9	-4,259.1	4,241.7	4,200.8	40.92	103.649	
1,900.0	1,898.7	1,899.7	1,899.7	4.1	37.8	-12.54	-225.9	-4,259.1	4,237.8	4,196.3	41.52	102.057	
1,968.5	1,966.4	1,967.4	1,967.4	4.3	39.2	-12.61	-225.9	-4,259.1	4,227.7	4,184.8	42.88	98.605	
2,000.0	1,997.5	1,998.5	1,998.5	4.4	39.8	-12.65	-225.9	-4,259.1	4,222.5	4,179.1	43.48	97.106	
2,066.9	2,063.2	2,064.2	2,064.2	4.6	41.1	-12.74	-225.9	-4,259.1	4,210.4	4,165.7	44.75	94.081	
2,100.1	2,095.7	2,096.7	2,096.7	4.7	41.8	-12.79	-225.9	-4,259.1	4,203.9	4,158.5	45.37	92.662	
2,165.3	2,159.5	2,160.5	2,160.5	4.9	43.1	-12.83	-225.9	-4,259.1	4,190.6	4,143.9	46.77	89.593	
2,200.0	2,193.4	2,194.4	2,194.4	5.0	43.8	-12.85	-225.9	-4,259.1	4,183.6	4,136.1	47.52	88.038	
2,224.2	2,217.1	2,218.1	2,218.1	5.1	44.2	-12.87	-225.9	-4,259.1	4,178.7	4,130.7	48.04	86.979	
2,263.8	2,255.9	2,256.9	2,256.9	5.2	45.0	-12.86	-225.9	-4,259.1	4,170.9	4,121.9	49.02	85.079	
2,300.0	2,291.5	2,292.5	2,292.5	5.3	45.7	-12.85	-225.9	-4,259.1	4,164.3	4,114.4	49.91	83.428	
2,362.2	2,352.7	2,353.7	2,353.7	5.5	47.0	-12.83	-225.9	-4,259.1	4,153.9	4,102.5	51.43	80.761	
2,400.0	2,390.1	2,391.1	2,391.1	5.6	47.7	-12.83	-225.9	-4,259.1	4,148.2	4,095.8	52.35	79.233	
2,460.6	2,450.1	2,451.1	2,451.1	5.7	48.9	-12.81	-225.9	-4,259.1	4,140.1	4,086.3	53.82	76.926	
2,500.0	2,489.2	2,490.2	2,490.2	5.8	49.7	-12.81	-225.9	-4,259.1	4,135.5	4,080.7	54.76	75.515	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - 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	
2,559.0	2,548.0	2,549.0	2,549.0	6.0	50.9	-12.80	-225.9	-4,259.1	4,129.6	4,073.4	56.17	73.523	
2,600.0	2,588.8	2,589.8	2,589.8	6.1	51.7	-12.80	-225.9	-4,259.1	4,126.2	4,069.0	57.13	72.223	
2,657.5	2,646.1	2,647.1	2,647.1	6.2	52.9	-12.79	-225.9	-4,259.1	4,122.3	4,063.9	58.47	70.507	
2,700.0	2,688.6	2,689.6	2,689.6	6.3	53.7	-12.79	-225.9	-4,259.1	4,120.2	4,060.8	59.44	69.312	
2,755.9	2,744.4	2,745.4	2,745.4	6.4	54.8	-12.79	-225.9	-4,259.1	4,118.4	4,057.7	60.71	67.836	
2,800.0	2,788.5	2,789.5	2,789.5	6.5	55.7	-12.79	-225.9	-4,259.1	4,117.7	4,056.0	61.70	66.742	
2,824.3	2,812.8	2,813.8	2,813.8	6.5	56.2	-93.48	-225.9	-4,259.1	4,117.6	4,054.9	62.71	65.661	
2,854.3	2,842.9	2,843.9	2,843.9	6.6	56.8	-93.48	-225.9	-4,259.1	4,117.6	4,054.2	63.37	64.977	
2,900.0	2,888.5	2,889.5	2,889.5	6.7	57.7	-93.48	-225.9	-4,259.1	4,117.6	4,053.2	64.37	63.964	
2,952.7	2,941.3	2,942.3	2,942.3	6.8	58.8	-93.48	-225.9	-4,259.1	4,117.6	4,052.1	65.54	62.823	
3,000.0	2,988.5	2,989.5	2,989.5	6.9	59.7	-93.48	-225.9	-4,259.1	4,117.6	4,051.0	66.59	61.836	
3,051.2	3,039.7	3,040.7	3,040.7	7.0	60.8	-93.48	-225.9	-4,259.1	4,117.6	4,049.9	67.72	60.800	
3,100.0	3,088.5	3,089.5	3,089.5	7.1	61.8	-93.48	-225.9	-4,259.1	4,117.6	4,048.8	68.81	59.844	
3,149.6	3,138.1	3,139.1	3,139.1	7.2	62.8	-93.48	-225.9	-4,259.1	4,117.6	4,047.7	69.91	58.902	
3,200.0	3,188.5	3,189.5	3,189.5	7.3	63.8	-93.48	-225.9	-4,259.1	4,117.6	4,046.6	71.02	57.976	
3,248.0	3,236.6	3,237.6	3,237.6	7.4	64.7	-93.48	-225.9	-4,259.1	4,117.6	4,045.5	72.09	57.119	
3,300.0	3,288.5	3,289.5	3,289.5	7.5	65.8	-93.48	-225.9	-4,259.1	4,117.6	4,044.4	73.24	56.219	
3,346.4	3,335.0	3,336.0	3,336.0	7.6	66.7	-93.48	-225.9	-4,259.1	4,117.6	4,043.3	74.27	55.439	
3,400.0	3,388.5	3,389.5	3,389.5	7.7	67.8	-93.48	-225.9	-4,259.1	4,117.6	4,042.2	75.46	54.566	
3,444.9	3,433.4	3,434.4	3,434.4	7.8	68.7	-93.48	-225.9	-4,259.1	4,117.6	4,041.2	76.46	53.855	
3,500.0	3,488.5	3,489.5	3,489.5	7.9	69.8	-93.48	-225.9	-4,259.1	4,117.6	4,039.9	77.68	53.006	
3,543.3	3,531.8	3,532.8	3,532.8	8.0	70.7	-93.48	-225.9	-4,259.1	4,117.6	4,039.0	78.64	52.358	
3,600.0	3,588.5	3,589.5	3,589.5	8.1	71.8	-93.48	-225.9	-4,259.1	4,117.6	4,037.7	79.90	51.533	
3,641.7	3,630.3	3,631.3	3,631.3	8.2	72.7	-93.48	-225.9	-4,259.1	4,117.6	4,036.8	80.83	50.942	
3,700.0	3,688.5	3,689.5	3,689.5	8.3	73.8	-93.48	-225.9	-4,259.1	4,117.6	4,035.5	82.13	50.138	
3,740.1	3,728.7	3,729.7	3,729.7	8.4	74.6	-93.48	-225.9	-4,259.1	4,117.6	4,034.6	83.02	49.599	
3,800.0	3,788.5	3,789.5	3,789.5	8.5	75.8	-93.48	-225.9	-4,259.1	4,117.6	4,033.3	84.35	48.817	
3,838.6	3,827.1	3,828.1	3,828.1	8.6	76.6	-93.48	-225.9	-4,259.1	4,117.6	4,032.4	85.21	48.326	
3,900.0	3,888.5	3,889.5	3,889.5	8.7	77.8	-93.48	-225.9	-4,259.1	4,117.6	4,031.0	86.57	47.563	
3,937.0	3,925.5	3,926.5	3,926.5	8.8	78.6	-93.48	-225.9	-4,259.1	4,117.6	4,030.2	87.39	47.116	
4,000.0	3,988.5	3,989.5	3,989.5	9.0	79.9	-93.48	-225.9	-4,259.1	4,117.6	4,028.8	88.80	46.372	
4,035.4	4,024.0	4,025.0	4,025.0	9.0	80.6	-93.48	-225.9	-4,259.1	4,117.6	4,028.0	89.58	45.964	
4,100.0	4,088.5	4,089.5	4,089.5	9.2	81.9	-93.48	-225.9	-4,259.1	4,117.6	4,026.6	91.02	45.239	
4,133.8	4,122.4	4,123.4	4,123.4	9.2	82.6	-93.48	-225.9	-4,259.1	4,117.6	4,025.8	91.77	44.867	
4,200.0	4,188.5	4,189.5	4,189.5	9.4	83.9	-93.48	-225.9	-4,259.1	4,117.6	4,024.4	93.24	44.159	
4,232.3	4,220.8	4,221.8	4,221.8	9.4	84.5	-93.48	-225.9	-4,259.1	4,117.6	4,023.7	93.96	43.822	
4,300.0	4,288.5	4,289.5	4,289.5	9.6	85.9	-93.48	-225.9	-4,259.1	4,117.6	4,022.1	95.47	43.130	
4,330.7	4,319.2	4,320.2	4,320.2	9.7	86.5	-93.48	-225.9	-4,259.1	4,117.6	4,021.5	96.15	42.823	
4,400.0	4,388.5	4,389.5	4,389.5	9.8	87.9	-93.48	-225.9	-4,259.1	4,117.6	4,019.9	97.70	42.147	
4,429.1	4,417.7	4,418.7	4,418.7	9.9	88.5	-93.48	-225.9	-4,259.1	4,117.6	4,019.3	98.34	41.869	
4,500.0	4,488.5	4,489.5	4,489.5	10.0	89.9	-93.48	-225.9	-4,259.1	4,117.6	4,017.7	99.92	41.208	
4,527.5	4,516.1	4,517.1	4,517.1	10.1	90.5	-93.48	-225.9	-4,259.1	4,117.6	4,017.1	100.54	40.957	
4,600.0	4,588.5	4,589.5	4,589.5	10.2	91.9	-93.48	-225.9	-4,259.1	4,117.6	4,015.5	102.15	40.310	
4,626.0	4,614.5	4,615.5	4,615.5	10.3	92.4	-93.48	-225.9	-4,259.1	4,117.6	4,014.9	102.73	40.083	
4,700.0	4,688.5	4,689.5	4,689.5	10.5	93.9	-93.48	-225.9	-4,259.1	4,117.6	4,013.2	104.38	39.450	
4,724.4	4,712.9	4,713.9	4,713.9	10.5	94.4	-93.48	-225.9	-4,259.1	4,117.6	4,012.7	104.92	39.245	
4,800.0	4,788.5	4,789.5	4,789.5	10.7	95.9	-93.48	-225.9	-4,259.1	4,117.6	4,011.0	106.60	38.625	
4,822.8	4,811.4	4,812.4	4,812.4	10.7	96.4	-93.48	-225.9	-4,259.1	4,117.6	4,010.5	107.11	38.442	
4,900.0	4,888.5	4,889.5	4,889.5	10.9	98.0	-93.48	-225.9	-4,259.1	4,117.6	4,008.8	108.83	37.835	
4,921.2	4,909.8	4,910.8	4,910.8	10.9	98.4	-93.48	-225.9	-4,259.1	4,117.6	4,008.3	109.31	37.671	
5,000.0	4,988.5	4,989.5	4,989.5	11.1	100.0	-93.48	-225.9	-4,259.1	4,117.6	4,006.6	111.06	37.076	
5,019.7	5,008.2	5,009.2	5,009.2	11.1	100.4	-93.48	-225.9	-4,259.1	4,117.6	4,006.1	111.50	36.930	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - 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		
5,100.0	5,088.5	5,089.5	5,089.5	11.3	102.0	-93.48	-225.9	-4,259.1	4,117.6	4,004.3	113.29	36.346		
5,118.1	5,106.6	5,107.6	5,107.6	11.4	102.3	-93.48	-225.9	-4,259.1	4,117.6	4,003.9	113.69	36.217		
5,200.0	5,188.5	5,189.5	5,189.5	11.5	104.0	-93.48	-225.9	-4,259.1	4,117.6	4,002.1	115.52	35.645		
5,216.5	5,205.1	5,206.1	5,206.1	11.6	104.3	-93.48	-225.9	-4,259.1	4,117.6	4,001.7	115.89	35.532		
5,300.0	5,288.5	5,289.5	5,289.5	11.8	106.0	-93.48	-225.9	-4,259.1	4,117.6	3,999.9	117.75	34.970		
5,314.9	5,303.5	5,304.5	5,304.5	11.8	106.3	-93.48	-225.9	-4,259.1	4,117.6	3,999.5	118.08	34.871		
5,400.0	5,388.5	5,389.5	5,389.5	12.0	108.0	-93.48	-225.9	-4,259.1	4,117.6	3,997.6	119.98	34.320		
5,413.4	5,401.9	5,402.9	5,402.9	12.0	108.3	-93.48	-225.9	-4,259.1	4,117.6	3,997.3	120.27	34.235		
5,500.0	5,488.5	5,489.5	5,489.5	12.2	110.0	-93.48	-225.9	-4,259.1	4,117.6	3,995.4	122.21	33.694		
5,511.8	5,500.3	5,501.3	5,501.3	12.2	110.3	-93.48	-225.9	-4,259.1	4,117.6	3,995.1	122.47	33.622		
5,600.0	5,588.5	5,589.5	5,589.5	12.4	112.0	-93.48	-225.9	-4,259.1	4,117.6	3,993.2	124.43	33.090		
5,610.2	5,598.8	5,599.8	5,599.8	12.4	112.2	-93.48	-225.9	-4,259.1	4,117.6	3,993.0	124.66	33.030		
5,700.0	5,688.5	5,689.5	5,689.5	12.6	114.0	-93.48	-225.9	-4,259.1	4,117.6	3,991.0	126.66	32.508		
5,708.6	5,697.2	5,698.2	5,698.2	12.6	114.2	-93.48	-225.9	-4,259.1	4,117.6	3,990.8	126.86	32.459		
5,800.0	5,788.5	5,789.5	5,789.5	12.8	116.1	-93.48	-225.9	-4,259.1	4,117.6	3,988.7	128.90	31.945		
5,807.1	5,795.6	5,796.6	5,796.6	12.9	116.2	-93.48	-225.9	-4,259.1	4,117.6	3,988.6	129.05	31.906		
5,900.0	5,888.5	5,889.5	5,889.5	13.1	118.1	-93.48	-225.9	-4,259.1	4,117.6	3,986.5	131.13	31.402		
5,905.5	5,894.0	5,895.0	5,895.0	13.1	118.2	-93.48	-225.9	-4,259.1	4,117.6	3,986.4	131.25	31.373		
6,000.0	5,988.5	5,989.5	5,989.5	13.3	120.1	-93.48	-225.9	-4,259.1	4,117.6	3,984.3	133.36	30.877		
6,003.9	5,992.5	5,993.5	5,993.5	13.3	120.2	-93.48	-225.9	-4,259.1	4,117.6	3,984.2	133.44	30.857		
6,085.3	6,073.8	6,074.8	6,074.8	13.5	121.8	-93.48	-225.9	-4,259.1	4,117.6	3,982.4	135.26	30.443		
6,100.0	6,088.5	6,089.5	6,089.5	13.5	122.1	-3.49	-225.9	-4,259.1	4,117.5	3,982.2	135.31	30.429		
6,102.3	6,090.9	6,091.9	6,091.9	13.5	122.1	-3.49	-225.9	-4,259.1	4,117.4	3,982.1	135.36	30.419		
6,150.0	6,138.4	6,139.4	6,139.4	13.6	123.1	-3.50	-225.9	-4,259.1	4,114.7	3,978.8	135.92	30.273		
6,200.0	6,188.0	6,189.0	6,189.0	13.7	124.1	-3.54	-225.9	-4,259.1	4,108.5	3,972.6	135.87	30.238		
6,200.8	6,188.8	6,189.8	6,189.8	13.7	124.1	-3.54	-225.9	-4,259.1	4,108.3	3,972.5	135.86	30.239		
6,250.0	6,237.1	6,238.1	6,238.1	13.9	125.1	-3.60	-225.9	-4,259.1	4,098.8	3,963.6	135.14	30.330		
6,299.2	6,284.6	6,285.6	6,285.6	14.0	126.0	-3.67	-225.9	-4,259.1	4,086.0	3,952.2	133.76	30.548		
6,300.0	6,285.3	6,286.3	6,286.3	14.0	126.1	-3.68	-225.9	-4,259.1	4,085.7	3,952.0	133.73	30.552		
6,350.0	6,332.5	6,333.5	6,333.5	14.2	127.0	-3.78	-225.9	-4,259.1	4,069.3	3,937.7	131.63	30.915		
6,397.6	6,376.3	6,377.3	6,377.3	14.4	127.9	-3.91	-225.9	-4,259.1	4,050.7	3,921.7	128.99	31.403		
6,400.0	6,378.5	6,379.5	6,379.5	14.4	127.9	-3.91	-225.9	-4,259.1	4,049.7	3,920.9	128.84	31.431		
6,450.0	6,423.0	6,424.0	6,424.0	14.7	128.8	-4.08	-225.9	-4,259.1	4,026.9	3,901.5	125.38	32.117		
6,496.0	6,462.4	6,463.4	6,463.4	14.9	129.6	-4.26	-225.9	-4,259.1	4,003.2	3,881.6	121.61	32.920		
6,500.0	6,465.7	6,466.7	6,466.7	14.9	129.7	-4.28	-225.9	-4,259.1	4,001.1	3,879.8	121.26	32.997		
6,550.0	6,506.6	6,507.6	6,507.6	15.2	130.5	-4.53	-225.9	-4,259.1	3,972.3	3,855.8	116.49	34.101		
6,594.5	6,541.2	6,542.2	6,542.2	15.6	131.2	-4.80	-225.9	-4,259.1	3,944.4	3,832.7	111.73	35.302		
6,600.0	6,545.3	6,546.3	6,546.3	15.6	131.3	-4.83	-225.9	-4,259.1	3,940.8	3,829.7	111.11	35.468		
6,650.0	6,581.8	6,582.8	6,582.8	16.0	132.0	-5.20	-225.9	-4,259.1	3,906.7	3,801.5	105.16	37.149		
6,692.9	6,611.1	6,612.1	6,612.1	16.4	132.6	-5.59	-225.9	-4,259.1	3,875.4	3,775.8	99.65	38.890		
6,700.0	6,615.8	6,616.8	6,616.8	16.5	132.7	-5.66	-225.9	-4,259.1	3,870.1	3,771.4	98.70	39.209		
6,750.0	6,647.1	6,648.1	6,648.1	17.1	133.3	-6.23	-225.9	-4,259.1	3,831.2	3,739.4	91.81	41.728		
6,791.3	6,670.9	6,671.9	6,671.9	17.6	133.8	-6.82	-225.9	-4,259.1	3,797.5	3,711.6	85.88	44.220		
6,800.0	6,675.7	6,676.7	6,676.7	17.7	133.9	-6.96	-225.9	-4,259.1	3,790.3	3,705.7	84.61	44.796		
6,850.0	6,701.3	6,702.3	6,702.3	18.4	134.4	-7.90	-225.9	-4,259.1	3,747.4	3,670.2	77.29	48.487		
6,889.7	6,719.5	6,720.5	6,720.5	19.0	134.8	-8.87	-225.9	-4,259.1	3,712.2	3,640.6	71.59	51.850		
6,900.0	6,723.8	6,724.8	6,724.8	19.1	134.9	-9.17	-225.9	-4,259.1	3,702.9	3,632.8	70.18	52.764		
6,950.0	6,743.2	6,744.2	6,744.2	20.0	135.3	-10.92	-225.9	-4,259.1	3,657.0	3,593.0	63.94	57.193		
6,988.2	6,755.8	6,756.8	6,756.8	20.6	135.5	-12.79	-225.9	-4,259.1	3,621.0	3,560.4	60.58	59.777		
7,000.0	6,759.4	6,760.4	6,760.4	20.9	135.6	-13.50	-225.9	-4,259.1	3,609.8	3,549.8	59.95	60.210		
7,050.0	6,772.1	6,773.1	6,773.1	21.8	135.8	-17.61	-225.9	-4,259.1	3,561.5	3,500.4	61.10	58.286		
7,086.6	6,779.4	6,780.4	6,780.4	22.5	136.0	-22.50	-225.9	-4,259.1	3,525.8	3,457.5	68.31	51.618		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - 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	
7,100.0	6,781.5	6,782.5	6,782.5	22.8	136.0	-24.97	-225.9	-4,259.1	3,512.6	3,439.5	73.03	48.095	
7,150.0	6,787.5	6,788.5	6,788.5	23.9	136.1	-40.76	-225.9	-4,259.1	3,463.1	3,356.9	106.18	32.616	
7,185.0	6,789.6	6,790.6	6,790.6	24.6	136.2	-64.28	-225.9	-4,259.1	3,428.2	3,283.0	145.15	23.618	
7,200.0	6,789.9	6,790.9	6,790.9	24.9	136.2	-78.95	-225.9	-4,259.1	3,413.3	3,255.1	158.17	21.580	
7,213.0	6,790.0	6,791.0	6,791.0	25.2	136.2	-92.92	-225.9	-4,259.1	3,400.3	3,239.1	161.21	21.093	
7,283.4	6,789.7	6,790.7	6,790.7	26.8	136.2	-92.86	-225.9	-4,259.1	3,330.0	3,167.3	162.78	20.457	
7,300.0	6,789.7	6,790.7	6,790.7	27.2	136.2	-92.85	-225.9	-4,259.1	3,313.5	3,150.4	163.15	20.309	
7,381.9	6,789.4	6,790.4	6,790.4	29.1	136.2	-92.78	-225.9	-4,259.1	3,231.9	3,066.9	165.06	19.580	
7,400.0	6,789.3	6,790.3	6,790.3	29.5	136.2	-92.77	-225.9	-4,259.1	3,213.8	3,048.4	165.48	19.421	
7,480.3	6,789.0	6,790.0	6,790.0	31.4	136.2	-92.70	-225.9	-4,259.1	3,133.8	2,966.4	167.41	18.719	
7,500.0	6,788.9	6,789.9	6,789.9	31.9	136.2	-92.68	-225.9	-4,259.1	3,114.2	2,946.3	167.89	18.549	
7,578.7	6,788.6	6,789.6	6,789.6	33.8	136.2	-92.62	-225.9	-4,259.1	3,035.7	2,865.9	169.83	17.875	
7,600.0	6,788.5	6,789.5	6,789.5	34.4	136.2	-92.60	-225.9	-4,259.1	3,014.5	2,844.1	170.35	17.695	
7,677.1	6,788.2	6,789.2	6,789.2	36.3	136.2	-92.54	-225.9	-4,259.1	2,937.6	2,765.3	172.30	17.050	
7,700.0	6,788.2	6,789.2	6,789.2	36.9	136.2	-92.52	-225.9	-4,259.1	2,914.8	2,742.0	172.87	16.861	
7,775.6	6,787.9	6,788.9	6,788.9	38.8	136.2	-92.45	-225.9	-4,259.1	2,839.6	2,664.8	174.80	16.244	
7,800.0	6,787.8	6,788.8	6,788.8	39.4	136.2	-92.44	-225.9	-4,259.1	2,815.2	2,639.8	175.43	16.048	
7,874.0	6,787.5	6,788.5	6,788.5	41.3	136.1	-92.37	-225.9	-4,259.1	2,741.5	2,564.2	177.34	15.459	
7,900.0	6,787.4	6,788.4	6,788.4	42.0	136.1	-92.35	-225.9	-4,259.1	2,715.6	2,537.6	178.02	15.255	
7,972.4	6,787.1	6,788.1	6,788.1	43.9	136.1	-92.29	-225.9	-4,259.1	2,643.5	2,463.6	179.91	14.694	
8,000.0	6,787.0	6,788.0	6,788.0	44.6	136.1	-92.27	-225.9	-4,259.1	2,616.1	2,435.5	180.63	14.483	
8,070.8	6,786.7	6,787.7	6,787.7	46.5	136.1	-92.21	-225.9	-4,259.1	2,545.6	2,363.1	182.50	13.948	
8,100.0	6,786.6	6,787.6	6,787.6	47.3	136.1	-92.19	-225.9	-4,259.1	2,516.6	2,333.3	183.27	13.731	
8,169.3	6,786.4	6,787.4	6,787.4	49.1	136.1	-92.13	-225.9	-4,259.1	2,447.6	2,262.5	185.11	13.223	
8,200.0	6,786.3	6,787.3	6,787.3	49.9	136.1	-92.10	-225.9	-4,259.1	2,417.1	2,231.2	185.93	13.000	
8,267.7	6,786.0	6,787.0	6,787.0	51.7	136.1	-92.04	-225.9	-4,259.1	2,349.8	2,162.0	187.74	12.516	
8,300.0	6,785.9	6,786.9	6,786.9	52.6	136.1	-92.02	-225.9	-4,259.1	2,317.6	2,129.0	188.60	12.289	
8,366.1	6,785.6	6,786.6	6,786.6	54.4	136.1	-91.96	-225.9	-4,259.1	2,251.9	2,061.5	190.38	11.829	
8,400.0	6,785.5	6,786.5	6,786.5	55.3	136.1	-91.93	-225.9	-4,259.1	2,218.3	2,027.0	191.29	11.597	
8,464.5	6,785.2	6,786.2	6,786.2	57.0	136.1	-91.88	-225.9	-4,259.1	2,154.1	1,961.1	193.03	11.160	
8,500.0	6,785.1	6,786.1	6,786.1	58.0	136.1	-91.85	-225.9	-4,259.1	2,118.9	1,924.9	193.98	10.923	
8,563.0	6,784.9	6,785.9	6,785.9	59.7	136.1	-91.79	-225.9	-4,259.1	2,056.4	1,860.7	195.69	10.508	
8,600.0	6,784.7	6,785.7	6,785.7	60.7	136.1	-91.76	-225.9	-4,259.1	2,019.7	1,823.0	196.69	10.268	
8,661.4	6,784.5	6,785.5	6,785.5	62.4	136.1	-91.71	-225.9	-4,259.1	1,958.7	1,760.4	198.36	9.875	
8,700.0	6,784.3	6,785.3	6,785.3	63.4	136.1	-91.68	-225.9	-4,259.1	1,920.5	1,721.1	199.41	9.631	
8,759.8	6,784.1	6,785.1	6,785.1	65.0	136.1	-91.63	-225.9	-4,259.1	1,861.2	1,660.1	201.04	9.258	
8,800.0	6,784.0	6,785.0	6,785.0	66.1	136.1	-91.59	-225.9	-4,259.1	1,821.4	1,619.2	202.13	9.011	
8,858.2	6,783.7	6,784.7	6,784.7	67.7	136.1	-91.54	-225.9	-4,259.1	1,763.7	1,560.0	203.72	8.657	
8,900.0	6,783.6	6,784.6	6,784.6	68.9	136.1	-91.51	-225.9	-4,259.1	1,722.4	1,517.5	204.86	8.407	
8,956.7	6,783.3	6,784.3	6,784.3	70.4	136.1	-91.46	-225.9	-4,259.1	1,666.3	1,459.9	206.42	8.073	
9,000.0	6,783.2	6,784.2	6,784.2	71.6	136.1	-91.42	-225.9	-4,259.1	1,623.5	1,415.9	207.60	7.820	
9,055.1	6,783.0	6,784.0	6,784.0	73.1	136.1	-91.37	-225.9	-4,259.1	1,569.1	1,360.0	209.11	7.504	
9,100.0	6,782.8	6,783.8	6,783.8	74.3	136.1	-91.34	-225.9	-4,259.1	1,524.8	1,314.4	210.34	7.249	
9,153.5	6,782.6	6,783.6	6,783.6	75.8	136.0	-91.29	-225.9	-4,259.1	1,472.0	1,260.2	211.81	6.950	
9,200.0	6,782.4	6,783.4	6,783.4	77.1	136.0	-91.25	-225.9	-4,259.1	1,426.2	1,213.1	213.09	6.693	
9,251.9	6,782.2	6,783.2	6,783.2	78.5	136.0	-91.20	-225.9	-4,259.1	1,375.1	1,160.6	214.52	6.410	
9,300.0	6,782.0	6,783.0	6,783.0	79.8	136.0	-91.16	-225.9	-4,259.1	1,327.9	1,112.1	215.84	6.152	
9,350.4	6,781.8	6,782.8	6,782.8	81.2	136.0	-91.12	-225.9	-4,259.1	1,278.5	1,061.2	217.23	5.885	
9,400.0	6,781.6	6,782.6	6,782.6	82.6	136.0	-91.07	-225.9	-4,259.1	1,229.8	1,011.2	218.59	5.626	
9,448.8	6,781.4	6,782.4	6,782.4	83.9	136.0	-91.03	-225.9	-4,259.1	1,182.1	962.2	219.94	5.375	
9,500.0	6,781.2	6,782.2	6,782.2	85.4	136.0	-90.99	-225.9	-4,259.1	1,132.1	910.8	221.35	5.115	
9,547.2	6,781.0	6,782.0	6,782.0	86.7	136.0	-90.94	-225.9	-4,259.1	1,086.1	863.4	222.66	4.878	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - 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	
9,600.0	6,780.8	6,781.8	6,781.8	88.1	136.0	-90.90	-225.9	-4,259.1	1,034.8	810.7	224.11	4.617	
9,645.6	6,780.7	6,781.7	6,781.7	89.4	136.0	-90.86	-225.9	-4,259.1	990.6	765.2	225.37	4.395	
9,700.0	6,780.5	6,781.5	6,781.5	90.9	136.0	-90.81	-225.9	-4,259.1	938.1	711.2	226.87	4.135	
9,744.1	6,780.3	6,781.3	6,781.3	92.1	136.0	-90.77	-225.9	-4,259.1	895.7	667.6	228.09	3.927	
9,800.0	6,780.1	6,781.1	6,781.1	93.7	136.0	-90.72	-225.9	-4,259.1	842.1	612.5	229.64	3.667	
9,842.5	6,779.9	6,780.9	6,780.9	94.8	136.0	-90.68	-225.9	-4,259.1	801.7	570.9	230.82	3.473	
9,900.0	6,779.7	6,780.7	6,780.7	96.4	136.0	-90.63	-225.9	-4,259.1	747.3	514.8	232.41	3.215	
9,940.9	6,779.5	6,780.5	6,780.5	97.6	136.0	-90.60	-225.9	-4,259.1	708.8	475.3	233.54	3.035	
10,000.0	6,779.3	6,780.3	6,780.3	99.2	136.0	-90.54	-225.9	-4,259.1	653.9	418.7	235.18	2.780	
10,039.3	6,779.1	6,780.1	6,780.1	100.3	136.0	-90.51	-225.9	-4,259.1	617.7	381.5	236.27	2.615	
10,100.0	6,778.9	6,779.9	6,779.9	102.0	136.0	-90.45	-225.9	-4,259.1	562.8	324.9	237.95	2.365	
10,137.8	6,778.7	6,779.7	6,779.7	103.0	136.0	-90.42	-225.9	-4,259.1	529.2	290.2	238.99	2.214	
10,200.0	6,778.5	6,779.5	6,779.5	104.8	136.0	-90.37	-225.9	-4,259.1	475.3	234.6	240.72	1.975	
10,236.2	6,778.3	6,779.3	6,779.3	105.8	136.0	-90.33	-225.9	-4,259.1	445.0	203.2	241.72	1.841	
10,300.0	6,778.1	6,779.1	6,779.1	107.5	136.0	-90.28	-225.9	-4,259.1	393.8	150.4	243.49	1.618	
10,334.6	6,778.0	6,779.0	6,779.0	108.5	136.0	-90.24	-225.9	-4,259.1	367.8	123.3	244.45	1.504	
10,400.0	6,777.7	6,778.7	6,778.7	110.3	136.0	-90.18	-225.9	-4,259.1	322.9	76.7	246.26	1.311 Level 3	
10,433.0	6,777.6	6,778.6	6,778.6	111.2	135.9	-90.15	-225.9	-4,259.1	303.1	56.0	247.18	1.226 Level 2	
10,500.0	6,777.3	6,778.3	6,778.3	113.1	135.9	-90.09	-225.9	-4,259.1	271.1	22.0	249.04	1.088 Level 2	
10,531.5	6,777.2	6,778.2	6,778.2	114.0	135.9	-90.07	-225.9	-4,259.1	260.6	10.7	249.91	1.043 Level 2	
10,600.0	6,776.9	6,777.9	6,777.9	115.9	135.9	-90.00	-225.9	-4,259.1	250.3	-1.5	251.81	0.994 Level 1	
10,604.1	6,776.9	6,777.9	6,777.9	116.0	135.9	-90.00	-225.9	-4,259.1	250.3	-1.7	251.93	0.993 Level 1, CC, ES, SF	
10,629.9	6,776.8	6,777.8	6,777.8	116.7	135.9	-89.98	-225.9	-4,259.1	251.6	-1.0	252.64	0.996 Level 1	
10,700.0	6,776.5	6,777.5	6,777.5	118.7	135.9	-89.91	-225.9	-4,259.1	268.0	13.4	254.59	1.053 Level 2	
10,728.3	6,776.4	6,777.4	6,777.4	119.5	135.9	-89.89	-225.9	-4,259.1	279.4	24.0	255.38	1.094 Level 2	
10,800.0	6,776.1	6,777.1	6,777.1	121.4	135.9	-89.82	-225.9	-4,259.1	317.8	60.5	257.37	1.235 Level 2	
10,826.7	6,776.0	6,777.0	6,777.0	122.2	135.9	-89.80	-225.9	-4,259.1	335.0	76.9	258.11	1.298 Level 3	
10,900.0	6,775.7	6,776.7	6,776.7	124.2	135.9	-89.73	-225.9	-4,259.1	387.5	127.4	260.14	1.490 Level 3	
10,925.2	6,775.6	6,776.6	6,776.6	124.9	135.9	-89.71	-225.9	-4,259.1	407.1	146.2	260.84	1.561	
11,000.0	6,775.3	6,776.3	6,776.3	127.0	135.9	-89.64	-225.9	-4,259.1	468.4	205.4	262.92	1.781	
11,023.6	6,775.2	6,776.2	6,776.2	127.7	135.9	-89.62	-225.9	-4,259.1	488.5	224.9	263.58	1.853	
11,100.0	6,774.9	6,775.9	6,775.9	129.8	135.9	-89.55	-225.9	-4,259.1	555.5	289.8	265.70	2.091	
11,122.0	6,774.8	6,775.8	6,775.8	130.4	135.9	-89.53	-225.9	-4,259.1	575.2	308.9	266.31	2.160	
11,200.0	6,774.5	6,775.5	6,775.5	132.6	135.9	-89.45	-225.9	-4,259.1	646.3	377.8	268.48	2.407	
11,220.4	6,774.4	6,775.4	6,775.4	133.2	135.9	-89.43	-225.9	-4,259.1	665.2	396.2	269.04	2.473	
11,300.0	6,774.1	6,775.1	6,775.1	135.4	135.9	-89.36	-225.9	-4,259.1	739.5	468.3	271.25	2.726	
11,318.9	6,774.0	6,775.0	6,775.0	135.9	135.9	-89.34	-225.9	-4,259.1	757.3	485.5	271.78	2.787	
11,400.0	6,773.7	6,774.7	6,774.7	138.2	135.9	-89.27	-225.9	-4,259.1	834.3	560.3	274.03	3.045	
11,417.3	6,773.6	6,774.6	6,774.6	138.7	135.9	-89.25	-225.9	-4,259.1	850.8	576.3	274.51	3.099	
11,500.0	6,773.3	6,774.3	6,774.3	141.0	135.9	-89.17	-225.9	-4,259.1	930.2	653.4	276.81	3.360	
11,515.7	6,773.2	6,774.2	6,774.2	141.4	135.9	-89.16	-225.9	-4,259.1	945.3	668.1	277.25	3.410	
11,600.0	6,772.9	6,773.9	6,773.9	143.8	135.9	-89.08	-225.9	-4,259.1	1,026.9	747.3	279.59	3.673	
11,614.1	6,772.8	6,773.8	6,773.8	144.2	135.9	-89.07	-225.9	-4,259.1	1,040.6	760.6	279.98	3.717	
11,700.0	6,772.5	6,773.5	6,773.5	146.6	135.8	-88.99	-225.9	-4,259.1	1,124.1	841.7	282.36	3.981	
11,712.6	6,772.4	6,773.4	6,773.4	146.9	135.8	-88.98	-225.9	-4,259.1	1,136.4	853.7	282.71	4.020	
11,800.0	6,772.1	6,773.1	6,773.1	149.4	135.8	-88.89	-225.9	-4,259.1	1,221.8	936.7	285.14	4.285	
11,811.0	6,772.1	6,773.1	6,773.1	149.7	135.8	-88.88	-225.9	-4,259.1	1,232.6	947.1	285.45	4.318	
11,900.0	6,771.7	6,772.7	6,772.7	152.2	135.8	-88.80	-225.9	-4,259.1	1,319.8	1,031.9	287.92	4.584	
11,909.4	6,771.7	6,772.7	6,772.7	152.4	135.8	-88.79	-225.9	-4,259.1	1,329.1	1,040.9	288.18	4.612	
12,000.0	6,771.3	6,772.3	6,772.3	154.9	135.8	-88.70	-225.9	-4,259.1	1,418.1	1,127.5	290.69	4.878	
12,007.8	6,771.3	6,772.3	6,772.3	155.2	135.8	-88.70	-225.9	-4,259.1	1,425.9	1,135.0	290.91	4.901	
12,100.0	6,770.9	6,771.9	6,771.9	157.7	135.8	-88.61	-225.9	-4,259.1	1,516.7	1,223.2	293.47	5.168	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #22-18 - 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
12,106.3	6,770.9	6,771.9	6,771.9	157.9	135.8	-88.60	-225.9	-4,259.1	1,522.9	1,229.2	293.64	5.186	
12,200.0	6,770.5	6,771.5	6,771.5	160.5	135.8	-88.51	-225.9	-4,259.1	1,615.4	1,319.1	296.24	5.453	
12,204.7	6,770.5	6,771.5	6,771.5	160.7	135.8	-88.51	-225.9	-4,259.1	1,620.0	1,323.7	296.37	5.466	
12,300.0	6,770.1	6,771.1	6,771.1	163.3	135.8	-88.42	-225.9	-4,259.1	1,714.3	1,415.2	299.02	5.733	
12,303.1	6,770.1	6,771.1	6,771.1	163.4	135.8	-88.42	-225.9	-4,259.1	1,717.3	1,418.2	299.10	5.742	
12,316.4	6,770.0	6,771.0	6,771.0	163.8	135.8	-88.40	-225.9	-4,259.1	1,730.4	1,431.0	299.47	5.778	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #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
0.0	0.0	0.0	0.0	0.0	0.0	-168.98	-1,690.8	-329.2	1,722.5				
98.4	98.4	101.1	101.1	0.1	0.1	-168.98	-1,690.7	-329.3	1,722.4	1,722.2	0.19	8,965.649	
100.0	100.0	102.7	102.7	0.1	0.1	-168.98	-1,690.7	-329.3	1,722.4	1,722.2	0.20	8,788.873	
196.8	196.8	198.6	198.6	0.3	0.2	-168.97	-1,690.5	-329.4	1,722.3	1,721.8	0.54	3,175.195	
200.0	200.0	201.7	201.7	0.3	0.2	-168.97	-1,690.5	-329.4	1,722.3	1,721.7	0.55	3,115.358	
295.3	295.3	297.2	297.2	0.5	0.3	-168.96	-1,690.3	-329.8	1,722.2	1,721.4	0.85	2,033.868	
300.0	300.0	301.9	301.9	0.5	0.3	-168.96	-1,690.3	-329.9	1,722.2	1,721.3	0.86	2,000.013	
393.7	393.7	396.4	396.4	0.8	0.4	-168.93	-1,690.0	-330.6	1,722.1	1,720.9	1.14	1,513.227	
400.0	400.0	402.7	402.7	0.8	0.4	-168.93	-1,690.0	-330.6	1,722.1	1,720.9	1.16	1,489.187	
492.1	492.1	495.3	495.3	1.0	0.4	-168.91	-1,689.7	-331.3	1,721.9	1,720.5	1.42	1,212.612	
500.0	500.0	503.3	503.3	1.0	0.5	-168.90	-1,689.7	-331.4	1,721.9	1,720.4	1.44	1,193.792	
590.5	590.5	595.5	595.5	1.2	0.5	-168.88	-1,689.3	-332.2	1,721.7	1,720.0	1.70	1,014.557	
600.0	600.0	605.0	604.9	1.2	0.5	-168.87	-1,689.3	-332.3	1,721.6	1,719.9	1.72	999.065	
689.0	689.0	692.5	692.5	1.4	0.6	-168.84	-1,688.9	-333.2	1,721.4	1,719.5	1.97	874.522	
700.0	700.0	703.4	703.3	1.4	0.6	-168.84	-1,688.8	-333.3	1,721.4	1,719.4	2.00	861.249	
787.4	787.4	790.2	790.2	1.6	0.6	-168.80	-1,688.5	-334.2	1,721.2	1,719.0	2.24	769.180	
800.0	800.0	802.7	802.7	1.7	0.6	-168.80	-1,688.4	-334.3	1,721.2	1,719.0	2.27	757.525	
885.8	885.8	888.0	887.9	1.9	0.7	-168.77	-1,688.2	-335.2	1,721.1	1,718.6	2.51	687.043	
900.0	900.0	902.1	902.1	1.9	0.7	-168.76	-1,688.1	-335.3	1,721.1	1,718.5	2.54	676.648	
984.2	984.2	988.4	988.3	2.1	0.7	-168.73	-1,687.8	-336.2	1,720.9	1,718.2	2.77	620.894	
1,000.0	1,000.0	1,004.5	1,004.5	2.1	0.7	-168.73	-1,687.7	-336.4	1,720.9	1,718.1	2.81	611.487	
1,082.7	1,082.7	1,089.5	1,089.4	2.3	0.7	-168.69	-1,687.2	-337.3	1,720.6	1,717.6	3.04	566.605	
1,100.0	1,100.0	1,107.4	1,107.3	2.3	0.8	-168.69	-1,687.1	-337.5	1,720.6	1,717.5	3.08	558.032	
1,181.1	1,181.1	1,191.9	1,191.8	2.5	0.8	-168.65	-1,686.5	-338.5	1,720.1	1,716.8	3.30	521.182	
1,200.0	1,200.0	1,210.9	1,210.9	2.6	0.8	-168.64	-1,686.3	-338.8	1,720.0	1,716.7	3.35	513.335	
1,279.5	1,279.5	1,289.2	1,289.1	2.7	0.8	-168.60	-1,685.6	-339.8	1,719.5	1,716.0	3.56	482.905	
1,300.0	1,300.0	1,309.6	1,309.5	2.8	0.8	-168.59	-1,685.4	-340.0	1,719.4	1,715.8	3.61	475.648	
1,377.9	1,377.9	1,388.1	1,388.0	3.0	0.9	-168.56	-1,684.8	-341.0	1,719.0	1,715.2	3.82	449.901	
1,400.0	1,400.0	1,410.3	1,410.2	3.0	0.9	-168.55	-1,684.6	-341.3	1,718.9	1,715.0	3.88	443.132	
1,476.4	1,476.4	1,486.9	1,486.9	3.2	0.9	-168.52	-1,684.0	-342.1	1,718.4	1,714.3	4.08	421.245	
1,500.0	1,500.0	1,511.3	1,511.2	3.2	0.9	-168.51	-1,683.8	-342.3	1,718.2	1,714.1	4.14	414.934	
1,574.8	1,574.8	1,590.8	1,590.7	3.4	1.0	-87.83	-1,683.0	-342.9	1,717.6	1,713.4	4.23	405.791	
1,600.0	1,600.0	1,616.3	1,616.3	3.5	1.0	-87.86	-1,682.7	-343.0	1,717.4	1,713.1	4.29	399.878	
1,673.2	1,673.1	1,688.5	1,688.4	3.6	1.0	-87.97	-1,682.0	-343.3	1,716.6	1,712.1	4.47	384.002	
1,700.0	1,699.8	1,715.2	1,715.1	3.7	1.0	-88.03	-1,681.7	-343.4	1,716.3	1,711.7	4.53	378.491	
1,771.6	1,771.2	1,787.3	1,787.2	3.8	1.0	-88.24	-1,681.0	-343.7	1,715.4	1,710.7	4.71	363.875	
1,800.0	1,799.5	1,815.8	1,815.7	3.9	1.0	-88.33	-1,680.7	-343.7	1,715.1	1,710.3	4.79	358.382	
1,870.1	1,869.0	1,886.4	1,886.3	4.0	1.1	-88.61	-1,680.0	-343.9	1,714.1	1,709.2	4.97	344.659	
1,900.0	1,898.7	1,916.5	1,916.4	4.1	1.1	-88.75	-1,679.7	-344.0	1,713.7	1,708.7	5.05	339.096	
1,968.5	1,966.4	1,985.2	1,985.1	4.3	1.1	-89.11	-1,678.9	-344.2	1,712.8	1,707.6	5.25	325.959	
2,000.0	1,997.5	2,015.3	2,015.1	4.4	1.1	-89.28	-1,678.6	-344.2	1,712.4	1,707.0	5.35	320.273	
2,066.9	2,063.2	2,076.0	2,075.9	4.6	1.1	-89.67	-1,678.0	-344.3	1,711.7	1,706.1	5.56	307.672	
2,100.1	2,095.7	2,106.2	2,106.1	4.7	1.1	-89.88	-1,677.8	-344.3	1,711.4	1,705.7	5.67	301.822	
2,165.3	2,159.5	2,166.4	2,166.3	4.9	1.1	-90.30	-1,677.5	-344.1	1,711.1	1,705.2	5.90	290.189	
2,200.0	2,193.4	2,200.0	2,199.9	5.0	1.1	-90.54	-1,677.4	-343.9	1,711.0	1,705.0	6.02	284.356	
2,220.0	2,213.0	2,217.4	2,217.3	5.1	1.1	-90.67	-1,677.4	-343.7	1,711.0	1,704.9	6.09	280.981	
2,224.2	2,217.1	2,221.3	2,221.2	5.1	1.1	-90.69	-1,677.4	-343.7	1,711.0	1,704.9	6.10	280.291	
2,263.8	2,255.9	2,259.1	2,258.9	5.2	1.1	-90.96	-1,677.4	-343.3	1,711.1	1,704.8	6.23	274.482	
2,300.0	2,291.5	2,293.6	2,293.5	5.3	1.1	-91.20	-1,677.4	-342.8	1,711.1	1,704.8	6.35	269.382	
2,362.2	2,352.7	2,355.9	2,355.8	5.5	1.2	-91.59	-1,677.4	-341.9	1,711.3	1,704.8	6.53	262.046	
2,400.0	2,390.1	2,394.1	2,394.0	5.6	1.2	-91.81	-1,677.4	-341.3	1,711.4	1,704.8	6.64	257.783	
2,460.6	2,450.1	2,455.5	2,455.3	5.7	1.2	-92.12	-1,677.4	-340.5	1,711.5	1,704.7	6.81	251.412	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #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	
2,500.0	2,489.2	2,495.5	2,495.3	5.8	1.2	-92.29	-1,677.3	-340.0	1,711.6	1,704.7	6.92	247.440	
2,559.0	2,548.0	2,554.8	2,554.7	6.0	1.2	-92.52	-1,677.2	-339.4	1,711.6	1,704.5	7.07	242.018	
2,600.0	2,588.8	2,596.0	2,595.8	6.1	1.2	-92.65	-1,677.0	-339.0	1,711.6	1,704.4	7.18	238.393	
2,657.5	2,646.1	2,653.5	2,653.4	6.2	1.2	-92.80	-1,676.9	-338.4	1,711.6	1,704.2	7.32	233.846	
2,700.0	2,688.6	2,696.2	2,696.0	6.3	1.2	-92.88	-1,676.7	-338.0	1,711.5	1,704.1	7.42	230.590	
2,755.9	2,744.4	2,752.4	2,752.2	6.4	1.2	-92.96	-1,676.5	-337.4	1,711.3	1,703.8	7.55	226.789	
2,800.0	2,788.5	2,796.7	2,796.5	6.5	1.2	-93.00	-1,676.4	-336.9	1,711.2	1,703.5	7.64	223.873	
2,824.3	2,812.8	2,820.6	2,820.4	6.5	1.2	-173.70	-1,676.3	-336.7	1,711.1	1,703.9	7.12	240.310	
2,854.3	2,842.9	2,850.1	2,849.9	6.6	1.2	-173.71	-1,676.2	-336.4	1,710.9	1,703.7	7.18	238.157	
2,900.0	2,888.5	2,894.9	2,894.8	6.7	1.2	-173.73	-1,676.1	-336.0	1,710.7	1,703.5	7.28	234.960	
2,952.7	2,941.3	2,945.0	2,944.8	6.8	1.2	-173.74	-1,676.0	-335.5	1,710.6	1,703.2	7.40	231.112	
3,000.0	2,988.5	2,989.6	2,989.5	6.9	1.2	-173.76	-1,676.0	-335.0	1,710.5	1,703.0	7.51	227.781	
3,016.2	3,004.8	3,005.0	3,004.8	6.9	1.2	-173.76	-1,676.0	-334.9	1,710.5	1,703.0	7.55	226.657	CC
3,051.2	3,039.7	3,037.8	3,037.6	7.0	1.2	-173.77	-1,676.0	-334.6	1,710.6	1,702.9	7.63	224.283	
3,100.0	3,088.5	3,083.6	3,083.4	7.1	1.2	-173.79	-1,676.2	-334.2	1,710.7	1,702.9	7.74	221.055	
3,149.6	3,138.1	3,130.6	3,130.4	7.2	1.2	-173.80	-1,676.4	-334.0	1,710.8	1,703.0	7.85	217.853	
3,200.0	3,188.5	3,178.6	3,178.5	7.3	1.2	-173.80	-1,676.7	-333.7	1,711.1	1,703.1	7.97	214.691	
3,248.0	3,236.6	3,223.9	3,223.8	7.4	1.3	-173.81	-1,677.0	-333.5	1,711.4	1,703.3	8.08	211.756	
3,300.0	3,288.5	3,272.5	3,272.4	7.5	1.3	-173.82	-1,677.4	-333.3	1,711.9	1,703.7	8.20	208.672	
3,346.4	3,335.0	3,314.7	3,314.5	7.6	1.3	-173.83	-1,677.9	-333.1	1,712.3	1,704.0	8.31	206.003	
3,400.0	3,388.5	3,360.7	3,360.5	7.7	1.3	-173.84	-1,678.6	-332.8	1,713.1	1,704.7	8.44	203.041	
3,444.9	3,433.4	3,400.0	3,399.8	7.8	1.3	-173.86	-1,679.3	-332.5	1,713.9	1,705.4	8.54	200.639	
3,500.0	3,488.5	3,454.0	3,453.8	7.9	1.3	-173.88	-1,680.5	-331.9	1,715.0	1,706.4	8.67	197.761	
3,543.3	3,531.8	3,497.2	3,496.9	8.0	1.3	-173.90	-1,681.4	-331.4	1,715.9	1,707.1	8.77	195.555	
3,600.0	3,588.5	3,554.0	3,553.7	8.1	1.3	-173.92	-1,682.7	-330.8	1,717.1	1,708.2	8.91	192.745	
3,641.7	3,630.3	3,595.7	3,595.5	8.2	1.3	-173.94	-1,683.6	-330.3	1,717.9	1,708.9	9.01	190.727	
3,700.0	3,688.5	3,655.0	3,654.7	8.3	1.3	-173.97	-1,684.8	-329.7	1,719.1	1,709.9	9.15	187.978	
3,740.1	3,728.7	3,695.9	3,695.6	8.4	1.3	-173.99	-1,685.7	-329.2	1,719.9	1,710.6	9.24	186.126	
3,800.0	3,788.5	3,758.7	3,758.4	8.5	1.3	-174.01	-1,686.9	-328.7	1,721.0	1,711.6	9.38	183.423	
3,838.6	3,827.1	3,799.3	3,799.0	8.6	1.3	-174.02	-1,687.6	-328.4	1,721.6	1,712.1	9.47	181.716	
3,900.0	3,888.5	3,856.6	3,856.3	8.7	1.3	-174.04	-1,688.7	-328.0	1,722.7	1,713.1	9.62	179.088	
3,937.0	3,925.5	3,891.1	3,890.7	8.8	1.3	-174.05	-1,689.3	-327.8	1,723.4	1,713.7	9.71	177.549	
4,000.0	3,988.5	3,951.5	3,951.2	9.0	1.3	-174.06	-1,690.7	-327.4	1,724.7	1,714.9	9.86	174.998	
4,035.4	4,024.0	3,985.7	3,985.4	9.0	1.3	-174.07	-1,691.4	-327.4	1,725.5	1,715.6	9.94	173.599	
4,100.0	4,088.5	4,050.3	4,049.9	9.2	1.3	-174.07	-1,692.9	-327.4	1,727.0	1,716.9	10.09	171.103	
4,133.8	4,122.4	4,084.5	4,084.1	9.2	1.3	-174.07	-1,693.6	-327.5	1,727.7	1,717.5	10.17	169.821	
4,200.0	4,188.5	4,154.9	4,154.5	9.4	1.3	-174.06	-1,695.1	-327.8	1,729.1	1,718.8	10.33	167.355	
4,232.3	4,220.8	4,189.7	4,189.3	9.4	1.3	-174.06	-1,695.7	-328.1	1,729.7	1,719.3	10.41	166.170	
4,300.0	4,288.5	4,263.2	4,262.8	9.6	1.4	-174.04	-1,696.9	-328.7	1,730.9	1,720.3	10.57	163.721	
4,330.7	4,319.2	4,296.5	4,296.1	9.7	1.4	-174.03	-1,697.3	-329.0	1,731.3	1,720.6	10.65	162.628	
4,400.0	4,388.5	4,370.8	4,370.4	9.8	1.4	-174.01	-1,698.1	-329.8	1,732.1	1,721.3	10.81	160.199	
4,429.1	4,417.7	4,402.6	4,402.1	9.9	1.4	-174.00	-1,698.4	-330.2	1,732.4	1,721.5	10.88	159.194	
4,500.0	4,488.5	4,501.5	4,501.1	10.0	1.4	-173.95	-1,698.4	-331.5	1,732.5	1,721.4	11.05	156.738	
4,527.5	4,516.1	4,533.7	4,533.3	10.1	1.4	-173.94	-1,698.0	-332.0	1,732.2	1,721.1	11.12	155.769	
4,600.0	4,588.5	4,615.6	4,615.1	10.2	1.4	-173.88	-1,696.8	-333.6	1,731.3	1,720.0	11.30	153.252	
4,626.0	4,614.5	4,641.2	4,640.8	10.3	1.4	-173.86	-1,696.3	-334.0	1,730.9	1,719.5	11.36	152.373	
4,700.0	4,688.5	4,714.7	4,714.2	10.5	1.4	-173.82	-1,695.1	-335.4	1,729.8	1,718.2	11.54	149.922	
4,724.4	4,712.9	4,739.5	4,739.0	10.5	1.4	-173.80	-1,694.7	-335.8	1,729.4	1,717.8	11.60	149.129	
4,800.0	4,788.5	4,815.2	4,814.7	10.7	1.5	-173.75	-1,693.4	-337.1	1,728.2	1,716.5	11.78	146.721	
4,822.8	4,811.4	4,837.1	4,836.6	10.7	1.5	-173.74	-1,693.0	-337.5	1,727.9	1,716.1	11.83	146.011	
4,900.0	4,888.5	4,911.8	4,911.3	10.9	1.5	-173.69	-1,691.8	-338.8	1,726.8	1,714.8	12.02	143.663	
4,921.2	4,909.8	4,933.7	4,933.1	10.9	1.5	-173.68	-1,691.5	-339.2	1,726.6	1,714.5	12.07	143.026	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #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	4,988.5	5,011.8	5,011.2	11.1	1.5	-173.63	-1,690.2	-340.5	1,725.4	1,713.2	12.26	140.714	
5,019.7	5,008.2	5,028.1	5,027.5	11.1	1.5	-173.62	-1,690.0	-340.8	1,725.2	1,712.9	12.31	140.158	
5,100.0	5,088.5	5,100.0	5,099.4	11.3	1.5	-173.58	-1,689.4	-342.0	1,724.6	1,712.1	12.50	137.951	
5,118.1	5,106.6	5,111.2	5,110.6	11.4	1.5	-173.57	-1,689.3	-342.1	1,724.6	1,712.0	12.54	137.477	
5,200.0	5,188.5	5,191.3	5,190.6	11.5	1.5	-173.54	-1,689.1	-343.2	1,724.4	1,711.7	12.74	135.316	
5,216.5	5,205.1	5,207.5	5,206.8	11.6	1.5	-173.53	-1,689.0	-343.4	1,724.4	1,711.6	12.78	134.888	
5,300.0	5,288.5	5,289.5	5,288.9	11.8	1.6	-173.50	-1,688.9	-344.2	1,724.4	1,711.4	12.99	132.769	
5,314.3	5,302.8	5,303.4	5,302.8	11.8	1.6	-173.50	-1,688.9	-344.3	1,724.4	1,711.3	13.02	132.414	
5,314.9	5,303.5	5,304.1	5,303.4	11.8	1.6	-173.50	-1,688.9	-344.3	1,724.4	1,711.3	13.02	132.397	
5,400.0	5,388.5	5,384.8	5,384.1	12.0	1.6	-173.48	-1,688.9	-344.9	1,724.5	1,711.2	13.23	130.346	
5,413.4	5,401.9	5,400.0	5,399.4	12.0	1.6	-173.48	-1,688.9	-344.9	1,724.5	1,711.3	13.26	130.026	
5,500.0	5,488.5	5,489.9	5,489.2	12.2	1.6	-173.47	-1,689.0	-345.3	1,724.6	1,711.2	13.47	128.007	
5,511.8	5,500.3	5,502.3	5,501.6	12.2	1.6	-173.47	-1,689.0	-345.3	1,724.6	1,711.1	13.50	127.734	
5,557.4	5,545.9	5,546.5	5,545.9	12.3	1.6	-173.46	-1,689.0	-345.4	1,724.6	1,711.0	13.61	126.690	
5,600.0	5,588.5	5,587.9	5,587.3	12.4	1.6	-173.46	-1,689.0	-345.6	1,724.6	1,710.9	13.72	125.731	
5,610.2	5,598.8	5,597.8	5,597.2	12.4	1.6	-173.46	-1,689.0	-345.6	1,724.6	1,710.9	13.74	125.503	
5,700.0	5,688.5	5,687.7	5,687.0	12.6	1.6	-173.45	-1,689.0	-345.8	1,724.7	1,710.8	13.96	123.586	
5,708.6	5,697.2	5,696.3	5,695.7	12.6	1.6	-173.45	-1,689.0	-345.8	1,724.7	1,710.7	13.98	123.405	
5,800.0	5,788.5	5,791.5	5,790.9	12.8	1.6	-173.45	-1,689.0	-345.8	1,724.7	1,710.5	14.18	121.633	
5,807.1	5,795.6	5,798.9	5,798.3	12.9	1.6	-173.45	-1,689.0	-345.8	1,724.7	1,710.5	14.20	121.498	
5,900.0	5,888.5	5,893.9	5,893.3	13.1	1.6	-173.45	-1,688.8	-345.7	1,724.5	1,710.1	14.41	119.657	
5,905.5	5,894.0	5,899.5	5,898.9	13.1	1.6	-173.45	-1,688.8	-345.7	1,724.5	1,710.0	14.42	119.549	
6,000.0	5,988.5	5,995.2	5,994.6	13.3	1.7	-173.45	-1,688.5	-345.7	1,724.2	1,709.5	14.65	117.712	
6,003.9	5,992.5	5,999.2	5,998.6	13.3	1.7	-173.45	-1,688.5	-345.7	1,724.2	1,709.5	14.66	117.637	
6,085.3	6,073.8	6,081.8	6,081.2	13.5	1.7	-173.45	-1,688.2	-345.7	1,723.8	1,709.0	14.85	116.071	
6,100.0	6,088.5	6,096.8	6,096.2	13.5	1.7	-83.46	-1,688.1	-345.8	1,723.8	1,708.6	15.11	114.068	
6,102.3	6,090.9	6,099.2	6,098.6	13.5	1.7	-83.46	-1,688.1	-345.8	1,723.7	1,708.6	15.12	114.024	
6,150.0	6,138.4	6,146.2	6,145.5	13.6	1.7	-83.59	-1,687.9	-345.8	1,723.2	1,708.0	15.23	113.141	
6,200.0	6,188.0	6,195.1	6,194.5	13.7	1.7	-83.86	-1,687.7	-346.0	1,722.3	1,707.0	15.37	112.091	
6,200.8	6,188.8	6,195.9	6,195.3	13.7	1.7	-83.86	-1,687.7	-346.0	1,722.3	1,707.0	15.37	112.073	
6,250.0	6,237.1	6,242.8	6,242.1	13.9	1.7	-84.25	-1,687.5	-346.1	1,721.2	1,705.6	15.52	110.924	
6,299.2	6,284.6	6,288.8	6,288.2	14.0	1.7	-84.76	-1,687.3	-346.3	1,719.7	1,704.1	15.68	109.658	
6,300.0	6,285.3	6,289.5	6,288.9	14.0	1.7	-84.76	-1,687.3	-346.3	1,719.7	1,704.0	15.69	109.638	
6,350.0	6,332.5	6,337.3	6,336.6	14.2	1.7	-85.41	-1,687.2	-346.4	1,718.1	1,702.2	15.88	108.224	
6,397.6	6,376.3	6,382.1	6,381.4	14.4	1.7	-86.12	-1,687.1	-346.5	1,716.5	1,700.4	16.08	106.746	
6,400.0	6,378.5	6,384.3	6,383.6	14.4	1.7	-86.16	-1,687.1	-346.5	1,716.4	1,700.3	16.09	106.673	
6,450.0	6,423.0	6,427.9	6,427.3	14.7	1.7	-86.95	-1,687.0	-346.7	1,714.7	1,698.4	16.33	104.983	
6,496.0	6,462.4	6,465.8	6,465.2	14.9	1.8	-87.71	-1,686.9	-346.8	1,713.3	1,696.7	16.59	103.281	
6,500.0	6,465.7	6,469.0	6,468.4	14.9	1.8	-87.78	-1,686.9	-346.8	1,713.2	1,696.6	16.61	103.138	
6,550.0	6,506.6	6,509.5	6,508.8	15.2	1.8	-88.65	-1,686.8	-347.0	1,712.0	1,695.1	16.93	101.121	
6,594.5	6,541.2	6,547.2	6,546.6	15.6	1.8	-89.50	-1,686.7	-347.1	1,711.3	1,694.1	17.26	99.154	
6,600.0	6,545.3	6,551.7	6,551.1	15.6	1.8	-89.60	-1,686.7	-347.1	1,711.3	1,694.0	17.30	98.916	
6,643.7	6,577.4	6,586.6	6,586.0	16.0	1.8	-90.41	-1,686.6	-347.2	1,711.0	1,693.3	17.67	96.816	
6,650.0	6,581.8	6,591.5	6,590.8	16.0	1.8	-90.53	-1,686.5	-347.2	1,711.0	1,693.3	17.73	96.523	
6,692.9	6,611.1	6,622.6	6,621.9	16.4	1.8	-91.25	-1,686.4	-347.3	1,711.4	1,693.2	18.15	94.302 ES	
6,700.0	6,615.8	6,627.5	6,626.8	16.5	1.8	-91.37	-1,686.3	-347.3	1,711.5	1,693.3	18.22	93.947	
6,750.0	6,647.1	6,660.5	6,659.9	17.1	1.8	-92.12	-1,686.1	-347.5	1,712.9	1,694.1	18.78	91.220	
6,791.3	6,670.9	6,685.6	6,685.0	17.6	1.8	-92.65	-1,685.9	-347.6	1,714.7	1,695.4	19.30	88.856	
6,800.0	6,675.7	6,690.6	6,690.0	17.7	1.8	-92.75	-1,685.9	-347.6	1,715.2	1,695.8	19.41	88.381	
6,850.0	6,701.3	6,717.0	6,716.4	18.4	1.8	-93.22	-1,685.7	-347.7	1,718.8	1,698.7	20.11	85.476	
6,889.7	6,719.5	6,735.6	6,735.0	19.0	1.8	-93.47	-1,685.5	-347.8	1,722.5	1,701.8	20.72	83.130	
6,900.0	6,723.8	6,740.1	6,739.4	19.1	1.8	-93.52	-1,685.5	-347.9	1,723.6	1,702.8	20.88	82.555	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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
6,950.0	6,743.2	6,760.1	6,759.4	20.0	1.8	-93.63	-1,685.3	-348.0	1,729.8	1,708.1	21.71	79.662	
6,988.2	6,755.8	6,773.2	6,772.5	20.6	1.8	-93.58	-1,685.2	-348.2	1,735.6	1,713.2	22.40	77.480	
7,000.0	6,759.4	6,776.9	6,776.2	20.9	1.8	-93.54	-1,685.2	-348.2	1,737.5	1,714.9	22.61	76.840	
7,050.0	6,772.1	6,790.4	6,789.8	21.8	1.8	-93.24	-1,685.1	-348.3	1,746.6	1,723.1	23.56	74.126	
7,086.6	6,779.4	6,798.2	6,797.5	22.5	1.8	-92.87	-1,685.0	-348.4	1,754.3	1,730.0	24.29	72.210	
7,100.0	6,781.5	6,800.6	6,799.9	22.8	1.8	-92.70	-1,685.0	-348.5	1,757.3	1,732.7	24.56	71.546	
7,150.0	6,787.5	6,800.0	6,799.4	23.9	1.8	-91.68	-1,685.0	-348.5	1,769.4	1,743.8	25.60	69.127	
7,185.0	6,789.6	6,800.0	6,799.4	24.6	1.8	-90.91	-1,685.0	-348.5	1,778.7	1,752.4	26.34	67.518	
7,200.0	6,789.9	6,800.0	6,799.4	24.9	1.8	-90.56	-1,685.0	-348.5	1,782.9	1,756.2	26.66	66.864	
7,213.0	6,790.0	6,800.0	6,799.4	25.2	1.8	-90.25	-1,685.0	-348.5	1,786.6	1,759.7	26.95	66.303	
7,283.4	6,789.7	6,800.0	6,799.4	26.8	1.8	-90.25	-1,685.0	-348.5	1,808.4	1,779.8	28.52	63.405	
7,300.0	6,789.7	6,800.0	6,799.4	27.2	1.8	-90.25	-1,685.0	-348.5	1,813.8	1,784.9	28.89	62.782	
7,381.9	6,789.4	6,800.0	6,799.4	29.1	1.8	-90.25	-1,685.0	-348.5	1,842.8	1,812.0	30.80	59.840	
7,400.0	6,789.3	6,800.0	6,799.4	29.5	1.8	-90.25	-1,685.0	-348.5	1,849.7	1,818.5	31.22	59.251	
7,480.3	6,789.0	6,800.0	6,799.4	31.4	1.8	-90.25	-1,685.0	-348.5	1,881.8	1,848.7	33.15	56.768	
7,500.0	6,788.9	6,800.0	6,799.4	31.9	1.8	-90.25	-1,685.0	-348.5	1,890.1	1,856.5	33.62	56.216	
7,578.7	6,788.6	6,800.0	6,799.4	33.8	1.8	-90.25	-1,685.0	-348.5	1,925.1	1,889.5	35.56	54.128	
7,600.0	6,788.5	6,800.0	6,799.4	34.4	1.8	-90.25	-1,685.0	-348.5	1,934.9	1,898.8	36.09	53.615	
7,677.1	6,788.2	6,800.0	6,799.4	36.3	1.8	-90.25	-1,685.0	-348.5	1,972.3	1,934.2	38.03	51.860	
7,700.0	6,788.2	6,800.0	6,799.4	36.9	1.8	-90.25	-1,685.0	-348.5	1,983.7	1,945.1	38.61	51.385	
7,775.6	6,787.9	6,800.0	6,799.4	38.8	1.8	-90.25	-1,685.0	-348.5	2,023.1	1,982.6	40.54	49.909	
7,800.0	6,787.8	6,800.0	6,799.4	39.4	1.8	-90.25	-1,685.0	-348.5	2,036.3	1,995.2	41.16	49.472	
7,874.0	6,787.5	6,800.0	6,799.4	41.3	1.8	-90.25	-1,685.0	-348.5	2,077.5	2,034.4	43.08	48.227	
7,900.0	6,787.4	6,800.0	6,799.4	42.0	1.8	-90.25	-1,685.0	-348.5	2,092.3	2,048.6	43.75	47.826	
7,972.4	6,787.1	6,800.0	6,799.4	43.9	1.8	-90.25	-1,685.0	-348.5	2,134.9	2,089.3	45.64	46.774	
8,000.0	6,787.0	6,800.0	6,799.4	44.6	1.8	-90.25	-1,685.0	-348.5	2,151.6	2,105.2	46.36	46.405	
8,070.8	6,786.7	6,800.0	6,799.4	46.5	1.8	-90.25	-1,685.0	-348.5	2,195.3	2,147.1	48.23	45.514	
8,100.0	6,786.6	6,800.0	6,799.4	47.3	1.8	-90.25	-1,685.0	-348.5	2,213.7	2,164.7	49.00	45.176	
8,169.3	6,786.4	6,800.0	6,799.4	49.1	1.8	-90.25	-1,685.0	-348.5	2,258.4	2,207.5	50.84	44.419	
8,200.0	6,786.3	6,800.0	6,799.4	49.9	1.8	-90.25	-1,685.0	-348.5	2,278.6	2,226.9	51.66	44.108	
8,267.7	6,786.0	6,800.0	6,799.4	51.7	1.8	-90.25	-1,685.0	-348.5	2,323.9	2,270.4	53.47	43.463	
8,300.0	6,785.9	6,800.0	6,799.4	52.6	1.8	-90.25	-1,685.0	-348.5	2,345.9	2,291.5	54.33	43.177	
8,366.1	6,785.6	6,800.0	6,799.4	54.4	1.8	-90.25	-1,685.0	-348.5	2,391.6	2,335.5	56.11	42.626	
8,400.0	6,785.5	6,800.0	6,799.4	55.3	1.8	-90.25	-1,685.0	-348.5	2,415.5	2,358.4	57.02	42.363	
8,464.5	6,785.2	6,800.0	6,799.4	57.0	1.8	-90.25	-1,685.0	-348.5	2,461.5	2,402.7	58.76	41.891	
8,500.0	6,785.1	6,800.0	6,799.4	58.0	1.8	-90.25	-1,685.0	-348.5	2,487.1	2,427.4	59.72	41.649	
8,563.0	6,784.9	6,800.0	6,799.4	59.7	1.8	-90.25	-1,685.0	-348.5	2,533.2	2,471.8	61.42	41.244	
8,600.0	6,784.7	6,800.0	6,799.4	60.7	1.8	-90.24	-1,685.0	-348.5	2,560.7	2,498.3	62.42	41.021	
8,661.4	6,784.5	6,800.0	6,799.4	62.4	1.8	-90.24	-1,685.0	-348.5	2,606.7	2,542.6	64.09	40.671	
8,700.0	6,784.3	6,800.0	6,799.4	63.4	1.8	-90.24	-1,685.0	-348.5	2,636.0	2,570.8	65.14	40.466	
8,759.8	6,784.1	6,800.0	6,799.4	65.0	1.8	-90.24	-1,685.0	-348.5	2,681.8	2,615.0	66.77	40.164	
8,800.0	6,784.0	6,800.0	6,799.4	66.1	1.8	-90.24	-1,685.0	-348.5	2,712.9	2,645.0	67.87	39.974	
8,858.2	6,783.7	6,800.0	6,799.4	67.7	1.8	-90.24	-1,685.0	-348.5	2,758.4	2,688.9	69.46	39.713	
8,900.0	6,783.6	6,800.0	6,799.4	68.9	1.8	-90.24	-1,685.0	-348.5	2,791.2	2,720.6	70.60	39.537	
8,956.7	6,783.3	6,800.0	6,799.4	70.4	1.8	-90.24	-1,685.0	-348.5	2,836.3	2,764.1	72.15	39.311	
9,000.0	6,783.2	6,800.0	6,799.4	71.6	1.8	-90.24	-1,685.0	-348.5	2,870.9	2,797.6	73.34	39.148	
9,055.1	6,783.0	6,800.0	6,799.4	73.1	1.8	-90.24	-1,685.0	-348.5	2,915.4	2,840.6	74.85	38.951	
9,100.0	6,782.8	6,800.0	6,799.4	74.3	1.8	-90.24	-1,685.0	-348.5	2,951.9	2,875.8	76.08	38.800	
9,153.5	6,782.6	6,800.0	6,799.4	75.8	1.8	-90.24	-1,685.0	-348.5	2,995.7	2,918.1	77.55	38.629	
9,200.0	6,782.4	6,800.0	6,799.4	77.1	1.8	-90.24	-1,685.0	-348.5	3,034.0	2,955.1	78.83	38.489	
9,251.9	6,782.2	6,800.0	6,799.4	78.5	1.8	-90.24	-1,685.0	-348.5	3,077.0	2,996.8	80.26	38.340	
9,300.0	6,782.0	6,800.0	6,799.4	79.8	1.8	-90.24	-1,685.0	-348.5	3,117.1	3,035.5	81.58	38.209	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #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
9,350.4	6,781.8	6,800.0	6,799.4	81.2	1.8	-90.24	-1,685.0	-348.5	3,159.3	3,076.4	82.97	38.079	
9,400.0	6,781.6	6,800.0	6,799.4	82.6	1.8	-90.24	-1,685.0	-348.5	3,201.2	3,116.8	84.34	37.957	
9,448.8	6,781.4	6,800.0	6,799.4	83.9	1.8	-90.24	-1,685.0	-348.5	3,242.5	3,156.9	85.68	37.843	
9,500.0	6,781.2	6,800.0	6,799.4	85.4	1.8	-90.24	-1,685.0	-348.5	3,286.2	3,199.1	87.10	37.730	
9,547.2	6,781.0	6,800.0	6,799.4	86.7	1.8	-90.24	-1,685.0	-348.5	3,326.6	3,238.2	88.40	37.631	
9,600.0	6,780.8	6,800.0	6,799.4	88.1	1.8	-90.24	-1,685.0	-348.5	3,372.0	3,282.1	89.86	37.525	
9,645.6	6,780.7	6,800.0	6,799.4	89.4	1.8	-90.24	-1,685.0	-348.5	3,411.4	3,320.3	91.12	37.438	
9,700.0	6,780.5	6,800.0	6,799.4	90.9	1.8	-90.24	-1,685.0	-348.5	3,458.5	3,365.9	92.63	37.339	
9,744.1	6,780.3	6,800.0	6,799.4	92.1	1.8	-90.24	-1,685.0	-348.5	3,496.9	3,403.1	93.85	37.262	
9,800.0	6,780.1	6,800.0	6,799.4	93.7	1.8	-90.24	-1,685.0	-348.5	3,545.8	3,450.4	95.39	37.170	
9,842.5	6,779.9	6,800.0	6,799.4	94.8	1.8	-90.24	-1,685.0	-348.5	3,583.1	3,486.5	96.57	37.103	
9,900.0	6,779.7	6,800.0	6,799.4	96.4	1.8	-90.24	-1,685.0	-348.5	3,633.8	3,535.6	98.17	37.017	
9,940.9	6,779.5	6,800.0	6,799.4	97.6	1.8	-90.24	-1,685.0	-348.5	3,669.9	3,570.6	99.30	36.958	
10,000.0	6,779.3	6,800.0	6,799.4	99.2	1.8	-90.24	-1,685.0	-348.5	3,722.3	3,621.4	100.94	36.877	
10,039.3	6,779.1	6,800.0	6,799.4	100.3	1.8	-90.24	-1,685.0	-348.5	3,757.3	3,655.3	102.03	36.825	
10,100.0	6,778.9	6,800.0	6,799.4	102.0	1.8	-90.24	-1,685.0	-348.5	3,811.4	3,707.7	103.71	36.749	
10,137.8	6,778.7	6,800.0	6,799.4	103.0	1.8	-90.24	-1,685.0	-348.5	3,845.2	3,740.4	104.76	36.704	
10,200.0	6,778.5	6,800.0	6,799.4	104.8	1.8	-90.24	-1,685.0	-348.5	3,901.0	3,794.5	106.49	36.632	
10,236.2	6,778.3	6,800.0	6,799.4	105.8	1.8	-90.24	-1,685.0	-348.5	3,933.6	3,826.1	107.50	36.593	
10,300.0	6,778.1	6,800.0	6,799.4	107.5	1.8	-90.24	-1,685.0	-348.5	3,991.2	3,881.9	109.27	36.526	
10,334.6	6,778.0	6,800.0	6,799.4	108.5	1.8	-90.24	-1,685.0	-348.5	4,022.5	3,912.2	110.23	36.491	
10,400.0	6,777.7	6,800.0	6,799.4	110.3	1.8	-90.23	-1,685.0	-348.5	4,081.8	3,969.7	112.05	36.428	
10,433.0	6,777.6	6,800.0	6,799.4	111.2	1.8	-90.23	-1,685.0	-348.5	4,111.8	3,998.8	112.97	36.397	
10,500.0	6,777.3	6,800.0	6,799.4	113.1	1.8	-90.23	-1,685.0	-348.5	4,172.8	4,057.9	114.83	36.338	
10,531.5	6,777.2	6,800.0	6,799.4	114.0	1.8	-90.23	-1,685.0	-348.5	4,201.5	4,085.8	115.71	36.311	
10,600.0	6,776.9	6,800.0	6,799.4	115.9	1.8	-90.23	-1,685.0	-348.5	4,264.2	4,146.6	117.62	36.255	
10,629.9	6,776.8	6,800.0	6,799.4	116.7	1.8	-90.23	-1,685.0	-348.5	4,291.6	4,173.2	118.45	36.231	
10,700.0	6,776.5	6,800.0	6,799.4	118.7	1.8	-90.23	-1,685.0	-348.5	4,356.0	4,235.6	120.40	36.179	
10,728.3	6,776.4	6,800.0	6,799.4	119.5	1.8	-90.23	-1,685.0	-348.5	4,382.1	4,260.9	121.19	36.158	
10,800.0	6,776.1	6,800.0	6,799.4	121.4	1.8	-90.23	-1,685.0	-348.5	4,448.1	4,325.0	123.19	36.109	
10,826.7	6,776.0	6,800.0	6,799.4	122.2	1.8	-90.23	-1,685.0	-348.5	4,472.9	4,348.9	123.93	36.091	
10,900.0	6,775.7	6,800.0	6,799.4	124.2	1.8	-90.23	-1,685.0	-348.5	4,540.6	4,414.7	125.97	36.044	
10,925.2	6,775.6	6,800.0	6,799.4	124.9	1.8	-90.23	-1,685.0	-348.5	4,564.0	4,437.3	126.68	36.028	
11,000.0	6,775.3	6,800.0	6,799.4	127.0	1.8	-90.23	-1,685.0	-348.5	4,633.4	4,504.7	128.76	35.984	
11,023.6	6,775.2	6,800.0	6,799.4	127.7	1.8	-90.23	-1,685.0	-348.5	4,655.4	4,525.9	129.42	35.971	
11,100.0	6,774.9	6,800.0	6,799.4	129.8	1.8	-90.23	-1,685.0	-348.5	4,726.5	4,595.0	131.55	35.929	
11,122.0	6,774.8	6,800.0	6,799.4	130.4	1.8	-90.23	-1,685.0	-348.5	4,747.1	4,614.9	132.17	35.917	
11,200.0	6,774.5	6,800.0	6,799.4	132.6	1.8	-90.23	-1,685.0	-348.5	4,819.9	4,685.5	134.34	35.878	
11,220.4	6,774.4	6,800.0	6,799.4	133.2	1.8	-90.23	-1,685.0	-348.5	4,839.0	4,704.1	134.91	35.868	
11,300.0	6,774.1	6,800.0	6,799.4	135.4	1.8	-90.23	-1,685.0	-348.5	4,913.5	4,776.4	137.13	35.830	
11,318.9	6,774.0	6,800.0	6,799.4	135.9	1.8	-90.23	-1,685.0	-348.5	4,931.2	4,793.5	137.66	35.822	
11,400.0	6,773.7	6,800.0	6,799.4	138.2	1.8	-90.23	-1,685.0	-348.5	5,007.4	4,867.5	139.92	35.786	
11,417.3	6,773.6	6,800.0	6,799.4	138.7	1.8	-90.23	-1,685.0	-348.5	5,023.6	4,883.2	140.41	35.779	
11,500.0	6,773.3	6,800.0	6,799.4	141.0	1.8	-90.22	-1,685.0	-348.5	5,101.5	4,958.8	142.72	35.746	
11,515.7	6,773.2	6,800.0	6,799.4	141.4	1.8	-90.22	-1,685.0	-348.5	5,116.3	4,973.1	143.16	35.739	
11,600.0	6,772.9	6,800.0	6,799.4	143.8	1.8	-90.22	-1,685.0	-348.5	5,195.8	5,050.3	145.51	35.708	
11,614.1	6,772.8	6,800.0	6,799.4	144.2	1.8	-90.22	-1,685.0	-348.5	5,209.2	5,063.3	145.91	35.702	
11,700.0	6,772.5	6,800.0	6,799.4	146.6	1.8	-90.22	-1,685.0	-348.5	5,290.3	5,142.0	148.30	35.672	
11,712.6	6,772.4	6,800.0	6,799.4	146.9	1.8	-90.22	-1,685.0	-348.5	5,302.3	5,153.6	148.65	35.668	
11,800.0	6,772.1	6,800.0	6,799.4	149.4	1.8	-90.22	-1,685.0	-348.5	5,385.1	5,234.0	151.10	35.640	
11,811.0	6,772.1	6,800.0	6,799.4	149.7	1.8	-90.22	-1,685.0	-348.5	5,395.5	5,244.1	151.41	35.636	
11,900.0	6,771.7	6,800.0	6,799.4	152.2	1.8	-90.22	-1,685.0	-348.5	5,480.0	5,326.1	153.89	35.609	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
11,909.4	6,771.7	6,800.0	6,799.4	152.4	1.8	-90.22	-1,685.0	-348.5	5,489.0	5,334.8	154.16	35.606		
12,000.0	6,771.3	6,800.0	6,799.4	154.9	1.8	-90.22	-1,685.0	-348.5	5,575.1	5,418.4	156.69	35.581		
12,007.8	6,771.3	6,800.0	6,799.4	155.2	1.8	-90.22	-1,685.0	-348.5	5,582.6	5,425.7	156.91	35.579		
12,100.0	6,770.9	6,800.0	6,799.4	157.7	1.8	-90.22	-1,685.0	-348.5	5,670.4	5,510.9	159.48	35.554		
12,106.3	6,770.9	6,800.0	6,799.4	157.9	1.8	-90.22	-1,685.0	-348.5	5,676.4	5,516.7	159.66	35.553		
12,200.0	6,770.5	6,800.0	6,799.4	160.5	1.8	-90.22	-1,685.0	-348.5	5,765.8	5,603.5	162.28	35.530		
12,204.7	6,770.5	6,800.0	6,799.4	160.7	1.8	-90.22	-1,685.0	-348.5	5,770.3	5,607.9	162.41	35.529		
12,300.0	6,770.1	6,800.0	6,799.4	163.3	1.8	-90.22	-1,685.0	-348.5	5,861.4	5,696.3	165.08	35.507		
12,303.1	6,770.1	6,800.0	6,799.4	163.4	1.8	-90.22	-1,685.0	-348.5	5,864.4	5,699.2	165.17	35.506		
12,316.4	6,770.0	6,800.0	6,799.4	163.8	1.8	-90.22	-1,685.0	-348.5	5,877.0	5,711.5	165.54	35.503 SF		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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
0.0	0.0	0.0	0.0	0.0	0.0	171.69	-2,208.1	322.5	2,231.5				
98.4	98.4	100.0	100.0	0.1	0.1	171.69	-2,207.8	322.6	2,231.3	2,231.1	0.20	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	171.69	-2,207.8	322.6	2,231.3	2,231.1	0.20	N/A	
177.5	177.5	170.4	170.4	0.3	0.1	171.68	-2,207.6	322.7	2,231.1	2,230.7	0.40	5,523.579	
196.8	196.8	187.2	187.2	0.3	0.1	171.68	-2,207.6	322.7	2,231.1	2,230.7	0.45	4,908.823	
200.0	200.0	189.9	189.9	0.3	0.1	171.68	-2,207.6	322.7	2,231.1	2,230.6	0.46	4,821.453	
295.3	295.3	295.0	295.0	0.5	0.2	171.68	-2,207.6	322.9	2,231.1	2,230.4	0.73	3,068.086	
300.0	300.0	300.0	300.0	0.5	0.2	171.68	-2,207.6	322.9	2,231.1	2,230.3	0.74	3,014.004	
340.1	340.1	333.1	333.1	0.6	0.2	171.68	-2,207.5	323.0	2,231.0	2,230.2	0.84	2,660.281 CC	
393.7	393.7	377.0	377.0	0.8	0.2	171.67	-2,207.6	323.1	2,231.1	2,230.2	0.97	2,299.954 ES	
400.0	400.0	382.2	382.2	0.8	0.2	171.67	-2,207.6	323.1	2,231.2	2,230.2	0.99	2,263.929	
492.1	492.1	465.6	465.6	1.0	0.3	171.67	-2,208.2	323.4	2,231.8	2,230.6	1.25	1,781.117	
500.0	500.0	473.0	473.0	1.0	0.3	171.67	-2,208.2	323.5	2,231.9	2,230.6	1.28	1,747.576	
590.5	590.5	565.3	565.3	1.2	0.3	171.65	-2,209.0	324.1	2,232.7	2,231.2	1.55	1,443.343	
600.0	600.0	575.4	575.4	1.2	0.4	171.65	-2,209.1	324.2	2,232.8	2,231.2	1.57	1,417.897	
689.0	689.0	668.0	668.0	1.4	0.4	171.64	-2,209.6	324.9	2,233.4	2,231.6	1.83	1,221.312	
700.0	700.0	679.4	679.4	1.4	0.4	171.63	-2,209.7	325.0	2,233.5	2,231.6	1.86	1,200.915	
787.4	787.4	767.9	767.9	1.6	0.5	171.63	-2,210.1	325.2	2,234.0	2,231.9	2.10	1,062.953	
800.0	800.0	780.6	780.6	1.7	0.5	171.63	-2,210.2	325.3	2,234.1	2,231.9	2.14	1,045.745	
885.8	885.8	864.4	864.3	1.9	0.5	171.62	-2,210.7	325.6	2,234.6	2,232.2	2.37	943.651	
900.0	900.0	878.1	878.0	1.9	0.5	171.62	-2,210.8	325.6	2,234.7	2,232.2	2.41	928.769	
984.2	984.2	962.8	962.8	2.1	0.6	171.61	-2,211.3	326.1	2,235.2	2,232.6	2.63	849.188	
1,000.0	1,000.0	978.9	978.8	2.1	0.6	171.61	-2,211.4	326.1	2,235.3	2,232.7	2.67	835.803	
1,082.7	1,082.7	1,064.6	1,064.6	2.3	0.6	171.60	-2,211.8	326.4	2,235.8	2,232.9	2.89	772.322	
1,100.0	1,100.0	1,082.7	1,082.7	2.3	0.6	171.60	-2,211.9	326.5	2,235.9	2,232.9	2.94	760.249	
1,181.1	1,181.1	1,164.3	1,164.3	2.5	0.7	171.60	-2,212.2	326.7	2,236.2	2,233.1	3.15	709.191	
1,200.0	1,200.0	1,183.1	1,183.1	2.6	0.7	171.60	-2,212.3	326.7	2,236.3	2,233.1	3.20	698.312	
1,279.5	1,279.5	1,262.7	1,262.7	2.7	0.7	171.60	-2,212.6	326.8	2,236.7	2,233.3	3.41	656.635	
1,300.0	1,300.0	1,283.3	1,283.2	2.8	0.7	171.60	-2,212.7	326.8	2,236.8	2,233.3	3.46	646.744	
1,377.9	1,377.9	1,358.7	1,358.7	3.0	0.7	171.60	-2,213.1	326.7	2,237.1	2,233.5	3.66	611.898	
1,400.0	1,400.0	1,379.9	1,379.9	3.0	0.8	171.60	-2,213.2	326.7	2,237.3	2,233.5	3.71	602.736	
1,476.4	1,476.4	1,455.8	1,455.8	3.2	0.8	171.61	-2,213.7	326.7	2,237.7	2,233.8	3.90	573.094	
1,500.0	1,500.0	1,479.6	1,479.6	3.2	0.8	171.61	-2,213.9	326.7	2,237.9	2,233.9	3.96	564.516	
1,574.8	1,574.8	1,561.0	1,561.0	3.4	0.8	-107.71	-2,214.2	326.9	2,238.5	2,234.3	4.21	532.208	
1,600.0	1,600.0	1,589.1	1,589.1	3.5	0.8	-107.73	-2,214.3	327.0	2,238.8	2,234.6	4.27	524.495	
1,673.2	1,673.1	1,666.7	1,666.6	3.6	0.8	-107.80	-2,214.3	327.2	2,239.9	2,235.5	4.42	506.272	
1,700.0	1,699.8	1,694.7	1,694.7	3.7	0.8	-107.84	-2,214.3	327.2	2,240.5	2,236.0	4.48	500.072	
1,771.6	1,771.2	1,760.2	1,760.1	3.8	0.8	-107.93	-2,214.3	327.1	2,242.3	2,237.7	4.64	482.949	
1,800.0	1,799.5	1,785.8	1,785.7	3.9	0.8	-107.97	-2,214.4	327.0	2,243.2	2,238.5	4.71	476.519	
1,870.1	1,869.0	1,852.0	1,852.0	4.0	0.9	-108.10	-2,214.7	326.7	2,246.1	2,241.2	4.89	459.176	
1,900.0	1,898.7	1,880.6	1,880.6	4.1	0.9	-108.16	-2,214.9	326.6	2,247.5	2,242.5	4.97	452.055	
1,968.5	1,966.4	1,951.7	1,951.6	4.3	0.9	-108.35	-2,215.2	326.5	2,251.1	2,245.9	5.17	435.151	
2,000.0	1,997.5	1,985.4	1,985.3	4.4	0.9	-108.45	-2,215.3	326.4	2,252.8	2,247.6	5.27	427.822	
2,066.9	2,063.2	2,059.7	2,059.7	4.6	0.9	-108.70	-2,215.4	326.3	2,256.9	2,251.4	5.47	412.761	
2,100.1	2,095.7	2,096.8	2,096.7	4.7	0.9	-108.84	-2,215.3	326.2	2,259.0	2,253.4	5.57	405.853	
2,165.3	2,159.5	2,160.4	2,160.4	4.9	0.9	-109.16	-2,215.1	326.1	2,263.3	2,257.5	5.78	391.576	
2,200.0	2,193.4	2,193.9	2,193.9	5.0	0.9	-109.32	-2,215.0	326.0	2,265.6	2,259.7	5.89	384.428	
2,224.2	2,217.1	2,217.6	2,217.6	5.1	0.9	-109.44	-2,214.9	326.0	2,267.2	2,261.2	5.97	379.480	
2,263.8	2,255.9	2,256.5	2,256.4	5.2	0.9	-109.68	-2,214.8	326.0	2,269.8	2,263.7	6.09	372.607	
2,300.0	2,291.5	2,292.1	2,292.1	5.3	0.9	-109.88	-2,214.6	326.0	2,272.0	2,265.8	6.20	366.557	
2,362.2	2,352.7	2,354.7	2,354.7	5.5	0.9	-110.20	-2,214.4	326.2	2,275.5	2,269.1	6.36	357.703	
2,400.0	2,390.1	2,393.0	2,393.0	5.6	0.9	-110.38	-2,214.2	326.2	2,277.3	2,270.9	6.46	352.489	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,460.6	2,450.1	2,449.1	2,449.1	5.7	0.9	-110.62	-2,214.0	326.3	2,280.1	2,273.4	6.61	344.701	
2,500.0	2,489.2	2,485.2	2,485.1	5.8	0.9	-110.75	-2,213.9	326.4	2,281.7	2,274.9	6.71	339.819	
2,559.0	2,548.0	2,545.3	2,545.3	6.0	1.0	-110.94	-2,213.8	326.5	2,283.8	2,276.9	6.86	333.023	
2,600.0	2,588.8	2,588.6	2,588.6	6.1	1.0	-111.05	-2,213.7	326.6	2,284.9	2,278.0	6.96	328.406	
2,657.5	2,646.1	2,643.5	2,643.5	6.2	1.0	-111.16	-2,213.5	326.6	2,286.2	2,279.1	7.09	322.580	
2,700.0	2,688.6	2,683.2	2,683.1	6.3	1.0	-111.22	-2,213.5	326.7	2,286.9	2,279.7	7.18	318.379	
2,755.9	2,744.4	2,733.8	2,733.7	6.4	1.0	-111.28	-2,213.5	326.7	2,287.6	2,280.3	7.30	313.401	
2,800.0	2,788.5	2,773.1	2,773.1	6.5	1.0	-111.30	-2,213.6	326.8	2,288.0	2,280.6	7.39	309.553	
2,824.3	2,812.8	2,800.0	2,800.0	6.5	1.0	167.99	-2,213.7	326.9	2,288.1	2,281.1	7.03	325.475	
2,854.3	2,842.9	2,824.5	2,824.4	6.6	1.0	167.99	-2,213.8	326.9	2,288.3	2,281.2	7.10	322.482	
2,900.0	2,888.5	2,870.7	2,870.7	6.7	1.0	167.99	-2,214.0	327.0	2,288.5	2,281.3	7.20	317.942	
2,952.7	2,941.3	2,923.8	2,923.7	6.8	1.0	167.99	-2,214.2	327.1	2,288.7	2,281.4	7.32	312.582	
3,000.0	2,988.5	2,970.9	2,970.8	6.9	1.0	167.99	-2,214.4	327.1	2,289.0	2,281.5	7.43	308.041	
3,051.2	3,039.7	3,020.9	3,020.8	7.0	1.1	168.00	-2,214.7	327.0	2,289.2	2,281.7	7.55	303.237	
3,100.0	3,088.5	3,067.3	3,067.3	7.1	1.1	168.00	-2,215.0	326.8	2,289.5	2,281.8	7.66	298.768	
3,149.6	3,138.1	3,117.7	3,117.6	7.2	1.1	168.01	-2,215.4	326.5	2,289.8	2,282.0	7.78	294.351	
3,200.0	3,188.5	3,176.1	3,176.0	7.3	1.1	168.02	-2,215.7	326.2	2,290.0	2,282.1	7.90	289.967	
3,248.0	3,236.6	3,237.1	3,237.1	7.4	1.1	168.03	-2,215.8	326.0	2,290.0	2,282.0	8.01	285.902	
3,300.0	3,288.5	3,305.2	3,305.2	7.5	1.1	168.04	-2,215.4	325.4	2,289.6	2,281.5	8.13	281.600	
3,346.4	3,335.0	3,348.3	3,348.2	7.6	1.1	168.05	-2,215.0	325.1	2,289.2	2,281.0	8.24	277.808	
3,400.0	3,388.5	3,400.0	3,399.9	7.7	1.1	168.05	-2,214.7	324.7	2,288.8	2,280.4	8.37	273.559	
3,444.9	3,433.4	3,443.0	3,442.9	7.8	1.1	168.06	-2,214.5	324.4	2,288.4	2,280.0	8.47	270.113	
3,500.0	3,488.5	3,498.7	3,498.6	7.9	1.1	168.07	-2,214.2	323.8	2,288.0	2,279.4	8.60	265.981	
3,543.3	3,531.8	3,536.0	3,535.9	8.0	1.1	168.09	-2,214.0	323.2	2,287.8	2,279.1	8.70	262.856	
3,600.0	3,588.5	3,584.6	3,584.5	8.1	1.1	168.11	-2,214.1	322.5	2,287.6	2,278.8	8.84	258.896	
3,625.7	3,614.3	3,607.3	3,607.3	8.2	1.1	168.12	-2,214.1	322.1	2,287.6	2,278.7	8.90	257.137	
3,641.7	3,630.3	3,622.4	3,622.4	8.2	1.1	168.12	-2,214.2	321.8	2,287.6	2,278.7	8.93	256.046	
3,700.0	3,688.5	3,677.4	3,677.4	8.3	1.2	168.15	-2,214.4	320.9	2,287.7	2,278.6	9.07	252.158	
3,740.1	3,728.7	3,716.2	3,716.1	8.4	1.2	168.16	-2,214.7	320.3	2,287.7	2,278.6	9.17	249.541	
3,800.0	3,788.5	3,775.7	3,775.6	8.5	1.2	168.19	-2,215.0	319.3	2,287.9	2,278.6	9.31	245.728	
3,838.6	3,827.1	3,813.9	3,813.7	8.6	1.2	168.21	-2,215.3	318.6	2,288.0	2,278.6	9.40	243.323	
3,900.0	3,888.5	3,873.8	3,873.7	8.7	1.2	168.23	-2,215.7	317.5	2,288.2	2,278.6	9.55	239.597	
3,937.0	3,925.5	3,910.2	3,910.0	8.8	1.2	168.25	-2,216.0	316.8	2,288.3	2,278.7	9.64	237.412	
4,000.0	3,988.5	3,973.0	3,972.8	9.0	1.2	168.29	-2,216.5	315.5	2,288.6	2,278.8	9.79	233.760	
4,035.4	4,024.0	4,008.2	4,008.0	9.0	1.2	168.31	-2,216.8	314.7	2,288.7	2,278.8	9.88	231.749	
4,100.0	4,088.5	4,072.1	4,071.9	9.2	1.2	168.35	-2,217.4	313.0	2,289.0	2,278.9	10.03	228.172	
4,133.8	4,122.4	4,106.1	4,105.9	9.2	1.2	168.38	-2,217.7	312.1	2,289.1	2,279.0	10.11	226.336	
4,200.0	4,188.5	4,178.4	4,178.2	9.4	1.3	168.43	-2,218.4	310.0	2,289.3	2,279.0	10.28	222.798	
4,232.3	4,220.8	4,212.7	4,212.4	9.4	1.3	168.46	-2,218.6	309.1	2,289.3	2,279.0	10.35	221.107	
4,300.0	4,288.5	4,281.1	4,280.8	9.6	1.3	168.50	-2,219.0	307.2	2,289.3	2,278.8	10.52	217.652	
4,330.7	4,319.2	4,316.3	4,316.0	9.7	1.3	168.53	-2,219.2	306.2	2,289.3	2,278.7	10.59	216.099	
4,400.0	4,388.5	4,408.9	4,408.6	9.8	1.3	168.60	-2,219.1	303.2	2,288.8	2,278.1	10.77	212.567	
4,429.1	4,417.7	4,442.6	4,442.3	9.9	1.3	168.63	-2,219.0	302.0	2,288.5	2,277.6	10.84	211.116	
4,500.0	4,488.5	4,523.7	4,523.3	10.0	1.3	168.71	-2,218.3	298.7	2,287.3	2,276.3	11.02	207.649	
4,527.5	4,516.1	4,554.4	4,554.0	10.1	1.3	168.74	-2,217.9	297.5	2,286.8	2,275.7	11.08	206.327	
4,600.0	4,588.5	4,635.1	4,634.6	10.2	1.4	168.81	-2,216.8	294.2	2,285.3	2,274.0	11.26	202.939	
4,626.0	4,614.5	4,664.1	4,663.5	10.3	1.4	168.83	-2,216.3	293.3	2,284.6	2,273.3	11.32	201.756	
4,700.0	4,688.5	4,743.4	4,742.8	10.5	1.4	168.86	-2,214.5	291.9	2,282.7	2,271.2	11.50	198.491	
4,724.4	4,712.9	4,768.7	4,768.1	10.5	1.4	168.86	-2,213.8	291.8	2,282.0	2,270.5	11.56	197.447	
4,800.0	4,788.5	4,840.3	4,839.7	10.7	1.4	168.84	-2,211.8	292.1	2,280.0	2,268.3	11.73	194.292	
4,822.8	4,811.4	4,860.6	4,860.0	10.7	1.4	168.83	-2,211.2	292.3	2,279.4	2,267.7	11.79	193.364	
4,900.0	4,888.5	4,929.7	4,929.1	10.9	1.4	168.81	-2,209.5	292.9	2,277.7	2,265.7	11.97	190.312	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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		
4,921.2	4,909.8	4,949.0	4,948.3	10.9	1.4	168.80	-2,209.0	293.1	2,277.3	2,265.2	12.02	189.493		
5,000.0	4,988.5	5,019.9	5,019.2	11.1	1.4	168.77	-2,207.6	293.9	2,275.8	2,263.6	12.20	186.532		
5,019.7	5,008.2	5,037.4	5,036.8	11.1	1.4	168.77	-2,207.2	294.1	2,275.5	2,263.3	12.25	185.811		
5,100.0	5,088.5	5,111.2	5,110.5	11.3	1.4	168.74	-2,206.0	295.1	2,274.4	2,262.0	12.43	182.934		
5,118.1	5,106.6	5,131.2	5,130.5	11.4	1.4	168.73	-2,205.7	295.4	2,274.2	2,261.7	12.48	182.292		
5,200.0	5,188.5	5,219.5	5,218.7	11.5	1.4	168.69	-2,204.0	296.7	2,272.9	2,260.2	12.67	179.429		
5,216.5	5,205.1	5,235.9	5,235.2	11.6	1.4	168.68	-2,203.7	296.9	2,272.6	2,259.9	12.71	178.862		
5,300.0	5,288.5	5,317.4	5,316.7	11.8	1.4	168.65	-2,202.2	298.0	2,271.3	2,258.4	12.90	176.051		
5,314.9	5,303.5	5,331.1	5,330.4	11.8	1.4	168.64	-2,201.9	298.2	2,271.1	2,258.1	12.94	175.559		
5,400.0	5,388.5	5,400.0	5,399.2	12.0	1.4	168.61	-2,200.8	299.2	2,269.9	2,256.8	13.13	172.836		
5,413.4	5,401.9	5,417.5	5,416.7	12.0	1.4	168.60	-2,200.5	299.4	2,269.8	2,256.6	13.16	172.411		
5,500.0	5,488.5	5,482.3	5,481.5	12.2	1.4	168.58	-2,200.0	300.5	2,269.4	2,256.0	13.36	169.813		
5,500.0	5,488.5	5,482.3	5,481.5	12.2	1.4	168.58	-2,200.0	300.5	2,269.4	2,256.0	13.36	169.812		
5,511.8	5,500.3	5,500.0	5,499.2	12.2	1.4	168.57	-2,200.0	300.8	2,269.4	2,256.0	13.39	169.460		
5,521.0	5,509.5	5,500.0	5,499.2	12.2	1.4	168.57	-2,200.0	300.8	2,269.4	2,256.0	13.41	169.202		
5,600.0	5,588.5	5,579.6	5,578.8	12.4	1.4	168.54	-2,199.9	302.0	2,269.5	2,255.9	13.60	166.905		
5,610.2	5,598.8	5,590.3	5,589.5	12.4	1.4	168.53	-2,199.9	302.1	2,269.6	2,255.9	13.62	166.611		
5,700.0	5,688.5	5,692.0	5,691.2	12.6	1.5	168.51	-2,199.5	303.0	2,269.4	2,255.6	13.83	164.058		
5,708.6	5,697.2	5,701.9	5,701.1	12.6	1.5	168.51	-2,199.5	303.1	2,269.4	2,255.5	13.85	163.813		
5,800.0	5,788.5	5,806.9	5,806.1	12.8	1.5	168.50	-2,198.5	303.3	2,268.7	2,254.6	14.07	161.246		
5,807.1	5,795.6	5,814.0	5,813.2	12.9	1.5	168.50	-2,198.5	303.3	2,268.6	2,254.5	14.09	161.048		
5,900.0	5,888.5	5,907.2	5,906.4	13.1	1.5	168.50	-2,197.5	303.2	2,267.6	2,253.3	14.31	158.496		
5,905.5	5,894.0	5,912.6	5,911.8	13.1	1.5	168.50	-2,197.4	303.2	2,267.5	2,253.2	14.32	158.347		
6,000.0	5,988.5	6,006.5	6,005.7	13.3	1.5	168.49	-2,196.4	303.1	2,266.5	2,251.9	14.54	155.841		
6,003.9	5,992.5	6,010.5	6,009.7	13.3	1.5	168.49	-2,196.3	303.1	2,266.4	2,251.9	14.55	155.738		
6,085.3	6,073.8	6,093.5	6,092.7	13.5	1.5	168.48	-2,195.4	303.3	2,265.5	2,250.8	14.75	153.641		
6,100.0	6,088.5	6,108.1	6,107.2	13.5	1.5	-101.54	-2,195.2	303.4	2,265.4	2,250.4	14.99	151.130		
6,102.3	6,090.9	6,110.3	6,109.5	13.5	1.5	-101.54	-2,195.1	303.4	2,265.4	2,250.4	15.00	151.074		
6,124.3	6,112.8	6,131.4	6,130.5	13.6	1.5	-101.57	-2,194.9	303.5	2,265.3	2,250.3	15.05	150.551		
6,150.0	6,138.4	6,156.0	6,155.1	13.6	1.5	-101.61	-2,194.6	303.6	2,265.4	2,250.3	15.11	149.947		
6,200.0	6,188.0	6,203.5	6,202.7	13.7	1.5	-101.71	-2,194.1	303.9	2,266.2	2,250.9	15.24	148.665		
6,200.8	6,188.8	6,204.3	6,203.4	13.7	1.5	-101.71	-2,194.0	303.9	2,266.2	2,251.0	15.25	148.643		
6,250.0	6,237.1	6,250.1	6,249.3	13.9	1.5	-101.82	-2,193.6	304.1	2,267.7	2,252.3	15.40	147.279		
6,299.2	6,284.6	6,295.3	6,294.4	14.0	1.5	-101.93	-2,193.1	304.4	2,270.1	2,254.5	15.57	145.802		
6,300.0	6,285.3	6,296.0	6,295.1	14.0	1.5	-101.94	-2,193.1	304.4	2,270.1	2,254.5	15.57	145.779		
6,350.0	6,332.5	6,337.1	6,336.3	14.2	1.6	-102.02	-2,192.8	304.7	2,273.4	2,257.6	15.77	144.163		
6,397.6	6,376.3	6,374.9	6,374.0	14.4	1.6	-102.07	-2,192.6	304.9	2,277.4	2,261.5	15.98	142.488		
6,400.0	6,378.5	6,376.7	6,375.9	14.4	1.6	-102.08	-2,192.6	305.0	2,277.7	2,261.7	15.99	142.407		
6,450.0	6,423.0	6,416.9	6,416.1	14.7	1.6	-102.12	-2,192.5	305.2	2,283.0	2,266.7	16.25	140.484		
6,496.0	6,462.4	6,455.1	6,454.3	14.9	1.6	-102.15	-2,192.5	305.5	2,288.8	2,272.3	16.52	138.526		
6,500.0	6,465.7	6,458.3	6,457.5	14.9	1.6	-102.16	-2,192.5	305.5	2,289.3	2,272.8	16.55	138.363		
6,550.0	6,506.6	6,497.8	6,497.0	15.2	1.6	-102.14	-2,192.4	305.8	2,296.7	2,279.8	16.88	136.038		
6,594.5	6,541.2	6,533.5	6,532.6	15.6	1.6	-102.10	-2,192.4	306.1	2,304.2	2,287.0	17.23	133.762		
6,600.0	6,545.3	6,537.8	6,536.9	15.6	1.6	-102.09	-2,192.4	306.2	2,305.2	2,287.9	17.27	133.489		
6,650.0	6,581.8	6,575.5	6,574.7	16.0	1.6	-101.97	-2,192.3	306.5	2,314.8	2,297.1	17.71	130.717		
6,692.9	6,611.1	6,605.6	6,604.8	16.4	1.6	-101.78	-2,192.2	306.7	2,324.0	2,305.9	18.14	128.142		
6,700.0	6,615.8	6,610.2	6,609.4	16.5	1.6	-101.74	-2,192.2	306.7	2,325.7	2,307.5	18.21	127.733		
6,750.0	6,647.1	6,641.3	6,640.5	17.1	1.6	-101.37	-2,192.1	307.0	2,337.7	2,319.0	18.77	124.563		
6,791.3	6,670.9	6,664.9	6,664.0	17.6	1.6	-100.96	-2,192.0	307.2	2,348.7	2,329.4	19.28	121.790		
6,800.0	6,675.7	6,669.6	6,668.7	17.7	1.6	-100.86	-2,192.0	307.2	2,351.1	2,331.7	19.39	121.235		
6,850.0	6,701.3	6,694.8	6,693.9	18.4	1.6	-100.20	-2,191.9	307.5	2,365.8	2,345.7	20.08	117.794		
6,889.7	6,719.5	6,711.7	6,710.8	19.0	1.6	-99.53	-2,191.9	307.6	2,378.4	2,357.7	20.68	114.982		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #17B - 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		
6,900.0	6,723.8	6,715.6	6,714.8	19.1	1.6	-99.33	-2,191.9	307.7	2,381.8	2,360.9	20.84	114.293		
6,950.0	6,743.2	6,733.2	6,732.3	20.0	1.6	-98.29	-2,191.8	307.8	2,399.0	2,377.4	21.66	110.777		
6,988.2	6,755.8	6,744.6	6,743.7	20.6	1.6	-97.37	-2,191.8	307.9	2,413.1	2,390.8	22.33	108.085		
7,000.0	6,759.4	6,747.8	6,746.9	20.9	1.6	-97.06	-2,191.8	307.9	2,417.6	2,395.0	22.53	107.292		
7,050.0	6,772.1	6,759.3	6,758.5	21.8	1.6	-95.63	-2,191.8	308.0	2,437.3	2,413.9	23.46	103.877		
7,086.6	6,779.4	6,765.8	6,764.9	22.5	1.6	-94.47	-2,191.8	308.1	2,452.5	2,428.3	24.18	101.421		
7,100.0	6,781.5	6,767.8	6,766.9	22.8	1.6	-94.02	-2,191.8	308.1	2,458.2	2,433.7	24.44	100.562		
7,150.0	6,787.5	6,773.0	6,772.1	23.9	1.6	-92.20	-2,191.8	308.1	2,480.1	2,454.6	25.47	97.369		
7,185.0	6,789.6	6,774.7	6,773.9	24.6	1.6	-90.82	-2,191.8	308.1	2,496.0	2,469.8	26.22	95.204		
7,200.0	6,789.9	6,775.0	6,774.1	24.9	1.6	-90.20	-2,191.8	308.1	2,502.9	2,476.4	26.54	94.314		
7,213.0	6,790.0	6,775.0	6,774.1	25.2	1.6	-89.66	-2,191.8	308.1	2,509.0	2,482.1	26.82	93.546		
7,283.4	6,789.7	6,774.3	6,773.4	26.8	1.6	-89.64	-2,191.8	308.1	2,542.8	2,514.4	28.40	89.548		
7,300.0	6,789.7	6,774.2	6,773.3	27.2	1.6	-89.63	-2,191.8	308.1	2,550.9	2,522.1	28.77	88.680		
7,381.9	6,789.4	6,773.4	6,772.5	29.1	1.6	-89.61	-2,191.8	308.1	2,592.4	2,561.8	30.67	84.526		
7,400.0	6,789.3	6,773.2	6,772.3	29.5	1.6	-89.61	-2,191.8	308.1	2,601.9	2,570.8	31.09	83.683		
7,480.3	6,789.0	6,772.4	6,771.5	31.4	1.6	-89.59	-2,191.8	308.1	2,644.8	2,611.8	33.02	80.090		
7,500.0	6,788.9	6,772.2	6,771.4	31.9	1.6	-89.58	-2,191.8	308.1	2,655.6	2,622.1	33.50	79.280		
7,578.7	6,788.6	6,771.4	6,770.6	33.8	1.6	-89.56	-2,191.8	308.1	2,699.8	2,664.4	35.44	76.183		
7,600.0	6,788.5	6,771.2	6,770.4	34.4	1.6	-89.56	-2,191.8	308.1	2,712.0	2,676.0	35.96	75.410		
7,677.1	6,788.2	6,770.5	6,769.6	36.3	1.6	-89.54	-2,191.8	308.1	2,757.2	2,719.3	37.90	72.741		
7,700.0	6,788.2	6,770.3	6,769.4	36.9	1.6	-89.53	-2,191.8	308.1	2,770.8	2,732.4	38.48	72.009		
7,775.6	6,787.9	6,769.5	6,768.6	38.8	1.6	-89.51	-2,191.8	308.1	2,816.9	2,776.4	40.41	69.706		
7,800.0	6,787.8	6,769.3	6,768.4	39.4	1.6	-89.51	-2,191.8	308.1	2,832.0	2,791.0	41.03	69.015		
7,874.0	6,787.5	6,768.5	6,767.6	41.3	1.6	-89.49	-2,191.8	308.1	2,878.6	2,835.7	42.95	67.024		
7,900.0	6,787.4	6,768.2	6,767.4	42.0	1.6	-89.48	-2,191.8	308.1	2,895.3	2,851.7	43.62	66.372		
7,972.4	6,787.1	6,767.5	6,766.6	43.9	1.6	-89.46	-2,191.8	308.1	2,942.4	2,896.9	45.52	64.645		
8,000.0	6,787.0	6,767.2	6,766.4	44.6	1.6	-89.45	-2,191.8	308.1	2,960.6	2,914.4	46.24	64.031		
8,070.8	6,786.7	6,766.5	6,765.6	46.5	1.6	-89.43	-2,191.8	308.1	3,008.1	2,960.0	48.11	62.530		
8,100.0	6,786.6	6,766.2	6,765.3	47.3	1.6	-89.43	-2,191.8	308.1	3,027.9	2,979.0	48.87	61.952		
8,169.3	6,786.4	6,765.5	6,764.6	49.1	1.6	-89.41	-2,191.8	308.1	3,075.5	3,024.8	50.71	60.643		
8,200.0	6,786.3	6,765.2	6,764.3	49.9	1.6	-89.40	-2,191.8	308.1	3,096.9	3,045.3	51.53	60.097		
8,267.7	6,786.0	6,764.5	6,763.6	51.7	1.6	-89.38	-2,191.8	308.1	3,144.5	3,091.2	53.34	58.952		
8,300.0	6,785.9	6,764.1	6,763.3	52.6	1.6	-89.37	-2,191.8	308.1	3,167.5	3,113.3	54.20	58.438		
8,366.1	6,785.6	6,763.4	6,762.6	54.4	1.6	-89.35	-2,191.8	308.0	3,215.1	3,159.1	55.98	57.434		
8,400.0	6,785.5	6,763.1	6,762.2	55.3	1.6	-89.34	-2,191.8	308.0	3,239.7	3,182.8	56.89	56.948		
8,464.5	6,785.2	6,762.4	6,761.5	57.0	1.6	-89.33	-2,191.8	308.0	3,287.1	3,228.5	58.63	56.065		
8,500.0	6,785.1	6,762.0	6,761.1	58.0	1.6	-89.32	-2,191.8	308.0	3,313.4	3,253.8	59.59	55.606		
8,563.0	6,784.9	6,761.3	6,760.4	59.7	1.6	-89.30	-2,191.8	308.0	3,360.4	3,299.1	61.29	54.827		
8,600.0	6,784.7	6,760.9	6,760.0	60.7	1.6	-89.29	-2,191.8	308.0	3,388.4	3,326.1	62.29	54.393		
8,661.4	6,784.5	6,760.2	6,759.4	62.4	1.6	-89.27	-2,191.8	308.0	3,435.0	3,371.1	63.96	53.704		
8,700.0	6,784.3	6,759.8	6,759.0	63.4	1.6	-89.26	-2,191.8	308.0	3,464.6	3,399.6	65.01	53.293		
8,759.8	6,784.1	6,759.2	6,758.3	65.0	1.6	-89.24	-2,191.8	308.0	3,510.8	3,444.2	66.64	52.683		
8,800.0	6,784.0	6,758.7	6,757.9	66.1	1.6	-89.23	-2,191.8	308.0	3,542.0	3,474.3	67.74	52.293		
8,858.2	6,783.7	6,758.1	6,757.2	67.7	1.6	-89.21	-2,191.8	308.0	3,587.7	3,518.3	69.33	51.751		
8,900.0	6,783.6	6,757.6	6,756.7	68.9	1.6	-89.20	-2,191.8	308.0	3,620.6	3,550.1	70.47	51.381		
8,956.7	6,783.3	6,757.0	6,756.1	70.4	1.6	-89.19	-2,191.8	308.0	3,665.6	3,593.5	72.02	50.898		
9,000.0	6,783.2	6,756.5	6,755.6	71.6	1.6	-89.17	-2,191.8	308.0	3,700.2	3,627.0	73.20	50.546		
9,055.1	6,783.0	6,755.9	6,755.0	73.1	1.6	-89.16	-2,191.8	308.0	3,744.4	3,669.7	74.71	50.117		
9,100.0	6,782.8	6,755.4	6,754.5	74.3	1.6	-89.14	-2,191.8	308.0	3,780.7	3,704.8	75.95	49.782		
9,153.5	6,782.6	6,754.7	6,753.9	75.8	1.6	-89.13	-2,191.8	308.0	3,824.2	3,746.8	77.42	49.398		
9,200.0	6,782.4	6,754.2	6,753.3	77.1	1.6	-89.11	-2,191.8	308.0	3,862.2	3,783.5	78.69	49.079		
9,251.9	6,782.2	6,753.6	6,752.7	78.5	1.6	-89.10	-2,191.8	308.0	3,904.8	3,824.7	80.12	48.736		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #17B - 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		
9,300.0	6,782.0	6,753.1	6,752.2	79.8	1.6	-89.08	-2,191.8	308.0	3,944.5	3,863.0	81.44	48.431		
9,350.4	6,781.8	6,752.5	6,751.6	81.2	1.6	-89.07	-2,191.8	308.0	3,986.3	3,903.4	82.83	48.124		
9,400.0	6,781.6	6,751.9	6,751.0	82.6	1.6	-89.05	-2,191.8	308.0	4,027.6	3,943.4	84.20	47.833		
9,448.8	6,781.4	6,751.3	6,750.4	83.9	1.6	-89.04	-2,191.8	308.0	4,068.4	3,982.9	85.55	47.558		
9,500.0	6,781.2	6,750.7	6,749.8	85.4	1.6	-89.02	-2,191.8	308.0	4,111.5	4,024.5	86.96	47.280		
9,547.2	6,781.0	6,750.1	6,749.3	86.7	1.6	-89.01	-2,191.8	308.0	4,151.3	4,063.0	88.26	47.033		
9,600.0	6,780.8	6,749.5	6,748.7	88.1	1.6	-88.99	-2,191.8	307.9	4,196.0	4,106.3	89.72	46.767		
9,645.6	6,780.7	6,749.0	6,748.1	89.4	1.6	-88.97	-2,191.8	307.9	4,234.9	4,143.9	90.98	46.545		
9,700.0	6,780.5	6,748.3	6,747.4	90.9	1.6	-88.96	-2,191.8	307.9	4,281.3	4,188.8	92.49	46.291		
9,744.1	6,780.3	6,747.8	6,746.9	92.1	1.6	-88.94	-2,191.8	307.9	4,319.0	4,225.3	93.71	46.091		
9,800.0	6,780.1	6,747.1	6,746.2	93.7	1.6	-88.93	-2,191.8	307.9	4,367.1	4,271.9	95.25	45.847		
9,842.5	6,779.9	6,746.6	6,745.7	94.8	1.6	-88.91	-2,191.8	307.9	4,403.8	4,307.4	96.43	45.668		
9,900.0	6,779.7	6,745.9	6,745.0	96.4	1.6	-88.89	-2,191.8	307.9	4,453.6	4,355.5	98.02	45.434		
9,940.9	6,779.5	6,745.4	6,744.5	97.6	1.6	-88.88	-2,191.8	307.9	4,489.1	4,390.0	99.16	45.272		
10,000.0	6,779.3	6,744.6	6,743.8	99.2	1.6	-88.86	-2,191.8	307.9	4,540.6	4,439.8	100.80	45.047		
10,039.3	6,779.1	6,744.1	6,743.3	100.3	1.6	-88.85	-2,191.8	307.9	4,575.0	4,473.1	101.89	44.902		
10,100.0	6,778.9	6,743.4	6,742.5	102.0	1.6	-88.83	-2,191.8	307.9	4,628.1	4,524.5	103.57	44.686		
10,137.8	6,778.7	6,742.9	6,742.0	103.0	1.6	-88.81	-2,191.8	307.9	4,661.3	4,556.7	104.62	44.556		
10,200.0	6,778.5	6,742.1	6,741.2	104.8	1.6	-88.79	-2,191.8	307.9	4,716.1	4,609.8	106.34	44.348		
10,236.2	6,778.3	6,741.6	6,740.8	105.8	1.6	-88.78	-2,191.8	307.9	4,748.1	4,640.8	107.35	44.230		
10,300.0	6,778.1	6,740.8	6,740.0	107.5	1.6	-88.76	-2,191.8	307.9	4,804.6	4,695.5	109.12	44.030		
10,334.6	6,778.0	6,740.4	6,739.5	108.5	1.6	-88.75	-2,191.8	307.9	4,835.4	4,725.3	110.08	43.924		
10,400.0	6,777.7	6,739.5	6,738.7	110.3	1.6	-88.73	-2,191.8	307.9	4,893.6	4,781.7	111.90	43.731		
10,433.0	6,777.6	6,739.1	6,738.2	111.2	1.6	-88.71	-2,191.8	307.9	4,923.1	4,810.2	112.82	43.636		
10,500.0	6,777.3	6,738.2	6,737.3	113.1	1.6	-88.69	-2,191.8	307.9	4,982.9	4,868.2	114.68	43.450		
10,531.5	6,777.2	6,737.8	6,736.9	114.0	1.6	-88.68	-2,191.8	307.9	5,011.1	4,895.6	115.56	43.365		
10,600.0	6,776.9	6,736.9	6,736.0	115.9	1.6	-88.66	-2,191.8	307.8	5,072.7	4,955.2	117.46	43.186		
10,629.9	6,776.8	6,736.5	6,735.6	116.7	1.6	-88.65	-2,191.8	307.8	5,099.6	4,981.3	118.29	43.109		
10,700.0	6,776.5	6,735.5	6,734.7	118.7	1.6	-88.62	-2,191.8	307.8	5,162.8	5,042.6	120.24	42.936		
10,728.3	6,776.4	6,735.2	6,734.3	119.5	1.6	-88.61	-2,191.8	307.8	5,188.4	5,067.4	121.03	42.868		
10,800.0	6,776.1	6,734.2	6,733.3	121.4	1.6	-88.59	-2,191.8	307.8	5,253.3	5,130.3	123.03	42.700		
10,826.7	6,776.0	6,733.8	6,733.0	122.2	1.6	-88.58	-2,191.8	307.8	5,277.6	5,153.8	123.77	42.639		
10,900.0	6,775.7	6,732.8	6,732.0	124.2	1.6	-88.55	-2,191.8	307.8	5,344.1	5,218.3	125.81	42.477		
10,925.2	6,775.6	6,732.5	6,731.6	124.9	1.6	-88.54	-2,191.8	307.8	5,367.0	5,240.5	126.51	42.422		
11,000.0	6,775.3	6,731.4	6,730.6	127.0	1.6	-88.51	-2,191.8	307.8	5,435.3	5,306.7	128.60	42.265		
11,023.6	6,775.2	6,731.1	6,730.3	127.7	1.6	-88.50	-2,191.8	307.8	5,456.8	5,327.6	129.26	42.217		
11,100.0	6,774.9	6,730.0	6,729.2	129.8	1.6	-88.48	-2,191.8	307.8	5,526.7	5,395.3	131.38	42.065		
11,122.0	6,774.8	6,729.7	6,728.9	130.4	1.6	-88.47	-2,191.8	307.8	5,546.9	5,414.9	132.00	42.022		
11,200.0	6,774.5	6,728.6	6,727.8	132.6	1.6	-88.44	-2,191.8	307.8	5,618.5	5,484.3	134.17	41.875		
11,220.4	6,774.4	6,728.3	6,727.5	133.2	1.6	-88.43	-2,191.8	307.8	5,637.3	5,502.5	134.74	41.838		
11,300.0	6,774.1	6,727.2	6,726.3	135.4	1.6	-88.40	-2,191.8	307.8	5,710.5	5,573.5	136.96	41.695		
11,318.9	6,774.0	6,726.9	6,726.1	135.9	1.6	-88.39	-2,191.8	307.8	5,727.9	5,590.4	137.49	41.662		
11,400.0	6,773.7	6,725.8	6,724.9	138.2	1.6	-88.36	-2,191.8	307.8	5,802.8	5,663.0	139.75	41.523		
11,417.3	6,773.6	6,725.5	6,724.7	138.7	1.6	-88.36	-2,191.8	307.8	5,818.8	5,678.5	140.23	41.494		
11,500.0	6,773.3	6,724.3	6,723.4	141.0	1.6	-88.32	-2,191.8	307.7	5,895.3	5,752.8	142.54	41.360		
11,515.7	6,773.2	6,724.1	6,723.2	141.4	1.6	-88.32	-2,191.8	307.7	5,909.9	5,766.9	142.98	41.335		
11,600.0	6,772.9	6,722.8	6,722.0	143.8	1.6	-88.28	-2,191.8	307.7	5,988.1	5,842.8	145.33	41.204		
11,614.1	6,772.8	6,722.6	6,721.8	144.2	1.6	-88.28	-2,191.9	307.7	6,001.2	5,855.5	145.72	41.183		
11,700.0	6,772.5	6,721.3	6,720.5	146.6	1.6	-88.25	-2,191.9	307.7	6,081.1	5,933.0	148.12	41.056		
11,712.6	6,772.4	6,721.1	6,720.3	146.9	1.6	-88.24	-2,191.9	307.7	6,092.8	5,944.3	148.47	41.038		
11,800.0	6,772.1	6,719.8	6,719.0	149.4	1.6	-88.21	-2,191.9	307.7	6,174.3	6,023.4	150.91	40.915		
11,811.0	6,772.1	6,719.7	6,718.8	149.7	1.6	-88.20	-2,191.9	307.7	6,184.6	6,033.4	151.21	40.900		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #17B - 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
11,900.0	6,771.7	6,718.3	6,717.4	152.2	1.6	-88.17	-2,191.9	307.7	6,267.7	6,114.0	153.70	40.780	
11,909.4	6,771.7	6,718.2	6,717.3	152.4	1.6	-88.16	-2,191.9	307.7	6,276.6	6,122.6	153.96	40.767	
12,000.0	6,771.3	6,716.7	6,715.9	154.9	1.6	-88.12	-2,191.9	307.7	6,361.4	6,204.9	156.49	40.651	
12,007.8	6,771.3	6,716.6	6,715.8	155.2	1.6	-88.12	-2,191.9	307.7	6,368.7	6,212.0	156.71	40.641	
12,100.0	6,770.9	6,715.2	6,714.3	157.7	1.6	-88.08	-2,191.9	307.7	6,455.2	6,295.9	159.28	40.527	
12,106.3	6,770.9	6,715.1	6,714.2	157.9	1.6	-88.08	-2,191.9	307.7	6,461.1	6,301.6	159.45	40.520	
12,200.0	6,770.5	6,713.6	6,712.7	160.5	1.6	-88.04	-2,191.9	307.6	6,549.2	6,387.1	162.07	40.409	
12,204.7	6,770.5	6,713.5	6,712.7	160.7	1.6	-88.04	-2,191.9	307.6	6,553.6	6,391.4	162.20	40.404	
12,300.0	6,770.1	6,712.0	6,711.1	163.3	1.6	-88.00	-2,191.9	307.6	6,643.4	6,478.5	164.86	40.296	
12,303.1	6,770.1	6,712.0	6,711.1	163.4	1.6	-88.00	-2,191.9	307.6	6,646.3	6,481.4	164.95	40.293	
12,316.4	6,770.0	6,711.7	6,710.9	163.8	1.6	-87.99	-2,191.9	307.6	6,658.8	6,493.5	165.32	40.278 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	147.90	-1,548.7	971.5	1,828.2				
98.4	98.4	89.4	89.4	0.1	1.2	147.90	-1,548.7	971.5	1,828.2	1,826.9	1.27	1,434.230	
100.0	100.0	91.0	91.0	0.1	1.2	147.90	-1,548.7	971.5	1,828.2	1,826.9	1.30	1,409.321	
196.8	196.8	187.8	187.8	0.3	3.3	147.90	-1,548.7	971.5	1,828.2	1,824.5	3.62	504.684	
200.0	200.0	191.0	191.0	0.3	3.4	147.90	-1,548.7	971.5	1,828.2	1,824.5	3.70	493.994	
295.3	295.3	286.3	286.3	0.5	5.4	147.90	-1,548.7	971.5	1,828.2	1,822.3	5.91	309.351	
300.0	300.0	291.0	291.0	0.5	5.5	147.90	-1,548.7	971.5	1,828.2	1,822.1	6.02	303.763	
393.7	393.7	384.7	384.7	0.8	7.4	147.90	-1,548.7	971.5	1,828.2	1,820.0	8.14	224.453	
400.0	400.0	391.0	391.0	0.8	7.5	147.90	-1,548.7	971.5	1,828.2	1,819.9	8.29	220.586	
492.1	492.1	483.1	483.1	1.0	9.4	147.90	-1,548.7	971.5	1,828.2	1,817.8	10.36	176.379	
500.0	500.0	491.0	491.0	1.0	9.5	147.90	-1,548.7	971.5	1,828.2	1,817.6	10.54	173.410	
590.5	590.5	581.5	581.5	1.2	11.4	147.90	-1,548.7	971.5	1,828.2	1,815.6	12.58	145.346	
600.0	600.0	591.0	591.0	1.2	11.6	147.90	-1,548.7	971.5	1,828.2	1,815.4	12.79	142.932	
689.0	689.0	680.0	680.0	1.4	13.4	147.90	-1,548.7	971.5	1,828.2	1,813.4	14.79	123.631	
700.0	700.0	691.0	691.0	1.4	13.6	147.90	-1,548.7	971.5	1,828.2	1,813.1	15.03	121.596	
787.4	787.4	778.4	778.4	1.6	15.4	147.90	-1,548.7	971.5	1,828.2	1,811.2	16.99	107.575	
800.0	800.0	791.0	791.0	1.7	15.6	147.90	-1,548.7	971.5	1,828.2	1,810.9	17.28	105.816	
885.8	885.8	876.8	876.8	1.9	17.3	147.90	-1,548.7	971.5	1,828.2	1,809.0	19.20	95.218	
900.0	900.0	891.0	891.0	1.9	17.6	147.90	-1,548.7	971.5	1,828.2	1,808.6	19.52	93.669	
984.2	984.2	975.2	975.2	2.1	19.3	147.90	-1,548.7	971.5	1,828.2	1,806.8	21.40	85.411	
1,000.0	1,000.0	991.0	991.0	2.1	19.6	147.90	-1,548.7	971.5	1,828.2	1,806.4	21.76	84.027	
1,082.7	1,082.7	1,073.7	1,073.7	2.3	21.3	147.90	-1,548.7	971.5	1,828.2	1,804.6	23.61	77.439	
1,100.0	1,100.0	1,091.0	1,091.0	2.3	21.7	147.90	-1,548.7	971.5	1,828.2	1,804.2	24.00	76.187	
1,181.1	1,181.1	1,172.1	1,172.1	2.5	23.3	147.90	-1,548.7	971.5	1,828.2	1,802.4	25.81	70.829	
1,200.0	1,200.0	1,191.0	1,191.0	2.6	23.7	147.90	-1,548.7	971.5	1,828.2	1,801.9	26.23	69.686	
1,279.5	1,279.5	1,270.5	1,270.5	2.7	25.3	147.90	-1,548.7	971.5	1,828.2	1,800.1	28.01	65.259	
1,300.0	1,300.0	1,291.0	1,291.0	2.8	25.7	147.90	-1,548.7	971.5	1,828.2	1,799.7	28.47	64.209	
1,377.9	1,377.9	1,368.9	1,368.9	3.0	27.2	147.90	-1,548.7	971.5	1,828.2	1,797.9	30.22	60.503	
1,400.0	1,400.0	1,391.0	1,391.0	3.0	27.7	147.90	-1,548.7	971.5	1,828.2	1,797.5	30.71	59.531	
1,476.4	1,476.4	1,467.4	1,467.4	3.2	29.2	147.90	-1,548.7	971.5	1,828.2	1,795.7	32.42	56.393	
1,500.0	1,500.0	1,491.0	1,491.0	3.2	29.7	147.90	-1,548.7	971.5	1,828.2	1,795.2	32.95	55.488 CC	
1,574.8	1,574.8	1,565.8	1,565.8	3.4	31.2	-131.42	-1,548.7	971.5	1,828.8	1,794.2	34.61	52.845	
1,600.0	1,600.0	1,591.0	1,591.0	3.5	31.7	-131.43	-1,548.7	971.5	1,829.3	1,794.2	35.16	52.023 ES	
1,673.2	1,673.1	1,664.1	1,664.1	3.6	33.2	-131.47	-1,548.7	971.5	1,831.6	1,794.9	36.77	49.817	
1,700.0	1,699.8	1,690.8	1,690.8	3.7	33.7	-131.50	-1,548.7	971.5	1,832.8	1,795.4	37.35	49.071	
1,771.6	1,771.2	1,762.2	1,762.2	3.8	35.2	-131.58	-1,548.7	971.5	1,836.7	1,797.8	38.90	47.212	
1,800.0	1,799.5	1,790.5	1,790.5	3.9	35.7	-131.61	-1,548.7	971.5	1,838.6	1,799.1	39.51	46.530	
1,870.1	1,869.0	1,860.0	1,860.0	4.0	37.1	-131.72	-1,548.7	971.5	1,844.0	1,803.0	41.02	44.957	
1,900.0	1,898.7	1,889.7	1,889.7	4.1	37.7	-131.77	-1,548.7	971.5	1,846.7	1,805.1	41.65	44.335	
1,968.5	1,966.4	1,957.4	1,957.4	4.3	39.1	-131.91	-1,548.7	971.5	1,853.7	1,810.6	43.11	43.001	
2,000.0	1,997.5	1,988.5	1,988.5	4.4	39.7	-131.97	-1,548.7	971.5	1,857.2	1,813.5	43.77	42.433	
2,066.9	2,063.2	2,054.2	2,054.2	4.6	41.0	-132.13	-1,548.7	971.5	1,865.6	1,820.4	45.17	41.300	
2,100.1	2,095.7	2,086.7	2,086.7	4.7	41.7	-132.21	-1,548.7	971.5	1,870.2	1,824.3	45.86	40.781	
2,165.3	2,159.5	2,150.5	2,150.5	4.9	43.0	-132.51	-1,548.7	971.5	1,879.4	1,832.1	47.31	39.727	
2,200.0	2,193.4	2,184.4	2,184.4	5.0	43.7	-132.67	-1,548.7	971.5	1,884.4	1,836.3	48.08	39.193	
2,224.2	2,217.1	2,208.1	2,208.1	5.1	44.1	-132.78	-1,548.7	971.5	1,887.8	1,839.2	48.62	38.829	
2,263.8	2,255.9	2,246.9	2,246.9	5.2	44.9	-133.04	-1,548.7	971.5	1,893.3	1,843.7	49.55	38.209	
2,300.0	2,291.5	2,282.5	2,282.5	5.3	45.6	-133.26	-1,548.7	971.5	1,898.0	1,847.6	50.40	37.656	
2,362.2	2,352.7	2,343.7	2,343.7	5.5	46.9	-133.60	-1,548.7	971.5	1,905.4	1,853.5	51.85	36.747	
2,400.0	2,390.1	2,381.1	2,381.1	5.6	47.6	-133.78	-1,548.7	971.5	1,909.4	1,856.7	52.73	36.210	
2,460.6	2,450.1	2,441.1	2,441.1	5.7	48.8	-134.04	-1,548.7	971.5	1,915.2	1,861.1	54.14	35.375	
2,500.0	2,489.2	2,480.2	2,480.2	5.8	49.6	-134.19	-1,548.7	971.5	1,918.5	1,863.5	55.05	34.849	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,539.0	2,539.0	6.0	50.8	-134.38	-1,548.7	971.5	1,922.8	1,866.3	56.41	34.084	
2,600.0	2,588.8	2,579.8	2,579.8	6.1	51.6	-134.49	-1,548.7	971.5	1,925.2	1,867.9	57.35	33.569	
2,657.5	2,646.1	2,637.1	2,637.1	6.2	52.8	-134.61	-1,548.7	971.5	1,928.0	1,869.3	58.66	32.868	
2,700.0	2,688.6	2,679.6	2,679.6	6.3	53.6	-134.68	-1,548.7	971.5	1,929.5	1,869.9	59.62	32.364	
2,755.9	2,744.4	2,735.4	2,735.4	6.4	54.7	-134.74	-1,548.7	971.5	1,930.8	1,869.9	60.87	31.721	
2,800.0	2,788.5	2,779.5	2,779.5	6.5	55.6	-134.76	-1,548.7	971.5	1,931.3	1,869.5	61.85	31.227	
2,824.3	2,812.8	2,803.8	2,803.8	6.5	56.1	144.54	-1,548.7	971.5	1,931.4	1,869.0	62.37	30.967	
2,854.3	2,842.9	2,833.9	2,833.9	6.6	56.7	144.54	-1,548.7	971.5	1,931.4	1,868.4	63.03	30.642	
2,900.0	2,888.5	2,879.5	2,879.5	6.7	57.6	144.54	-1,548.7	971.5	1,931.4	1,867.3	64.04	30.160	
2,952.7	2,941.3	2,932.3	2,932.3	6.8	58.7	144.54	-1,548.7	971.5	1,931.4	1,866.2	65.21	29.618	
3,000.0	2,988.5	2,979.5	2,979.5	6.9	59.6	144.54	-1,548.7	971.5	1,931.4	1,865.1	66.26	29.149	
3,051.2	3,039.7	3,030.7	3,030.7	7.0	60.7	144.54	-1,548.7	971.5	1,931.4	1,864.0	67.40	28.657	
3,100.0	3,088.5	3,079.5	3,079.5	7.1	61.7	144.54	-1,548.7	971.5	1,931.4	1,862.9	68.48	28.203	
3,149.6	3,138.1	3,129.1	3,129.1	7.2	62.7	144.54	-1,548.7	971.5	1,931.4	1,861.8	69.58	27.756	
3,200.0	3,188.5	3,179.5	3,179.5	7.3	63.7	144.54	-1,548.7	971.5	1,931.4	1,860.7	70.70	27.316	
3,248.0	3,236.6	3,227.6	3,227.6	7.4	64.6	144.54	-1,548.7	971.5	1,931.4	1,859.6	71.77	26.910	
3,300.0	3,288.5	3,279.5	3,279.5	7.5	65.7	144.54	-1,548.7	971.5	1,931.4	1,858.5	72.93	26.483	
3,346.4	3,335.0	3,326.0	3,326.0	7.6	66.6	144.54	-1,548.7	971.5	1,931.4	1,857.4	73.96	26.113	
3,400.0	3,388.5	3,379.5	3,379.5	7.7	67.7	144.54	-1,548.7	971.5	1,931.4	1,856.2	75.15	25.699	
3,444.9	3,433.4	3,424.4	3,424.4	7.8	68.6	144.54	-1,548.7	971.5	1,931.4	1,855.2	76.15	25.362	
3,500.0	3,488.5	3,479.5	3,479.5	7.9	69.7	144.54	-1,548.7	971.5	1,931.4	1,854.0	77.38	24.960	
3,543.3	3,531.8	3,522.8	3,522.8	8.0	70.6	144.54	-1,548.7	971.5	1,931.4	1,853.0	78.34	24.653	
3,600.0	3,588.5	3,579.5	3,579.5	8.1	71.7	144.54	-1,548.7	971.5	1,931.4	1,851.8	79.60	24.262	
3,641.7	3,630.3	3,621.3	3,621.3	8.2	72.6	144.54	-1,548.7	971.5	1,931.4	1,850.8	80.53	23.982	
3,700.0	3,688.5	3,679.5	3,679.5	8.3	73.7	144.54	-1,548.7	971.5	1,931.4	1,849.5	81.83	23.602	
3,740.1	3,728.7	3,719.7	3,719.7	8.4	74.5	144.54	-1,548.7	971.5	1,931.4	1,848.7	82.73	23.347	
3,800.0	3,788.5	3,779.5	3,779.5	8.5	75.7	144.54	-1,548.7	971.5	1,931.4	1,847.3	84.06	22.977	
3,838.6	3,827.1	3,818.1	3,818.1	8.6	76.5	144.54	-1,548.7	971.5	1,931.4	1,846.5	84.92	22.744	
3,900.0	3,888.5	3,879.5	3,879.5	8.7	77.7	144.54	-1,548.7	971.5	1,931.4	1,845.1	86.29	22.384	
3,937.0	3,925.5	3,916.5	3,916.5	8.8	78.5	144.54	-1,548.7	971.5	1,931.4	1,844.3	87.11	22.172	
4,000.0	3,988.5	3,979.5	3,979.5	9.0	79.8	144.54	-1,548.7	971.5	1,931.4	1,842.9	88.51	21.820	
4,035.4	4,024.0	4,015.0	4,015.0	9.0	80.5	144.54	-1,548.7	971.5	1,931.4	1,842.1	89.30	21.627	
4,100.0	4,088.5	4,079.5	4,079.5	9.2	81.8	144.54	-1,548.7	971.5	1,931.4	1,840.6	90.74	21.284	
4,133.8	4,122.4	4,113.4	4,113.4	9.2	82.5	144.54	-1,548.7	971.5	1,931.4	1,839.9	91.50	21.109	
4,200.0	4,188.5	4,179.5	4,179.5	9.4	83.8	144.54	-1,548.7	971.5	1,931.4	1,838.4	92.97	20.774	
4,232.3	4,220.8	4,211.8	4,211.8	9.4	84.4	144.54	-1,548.7	971.5	1,931.4	1,837.7	93.69	20.615	
4,300.0	4,288.5	4,279.5	4,279.5	9.6	85.8	144.54	-1,548.7	971.5	1,931.4	1,836.2	95.20	20.288	
4,330.7	4,319.2	4,310.2	4,310.2	9.7	86.4	144.54	-1,548.7	971.5	1,931.4	1,835.5	95.88	20.143	
4,400.0	4,388.5	4,379.5	4,379.5	9.8	87.8	144.54	-1,548.7	971.5	1,931.4	1,834.0	97.43	19.824	
4,429.1	4,417.7	4,408.7	4,408.7	9.9	88.4	144.54	-1,548.7	971.5	1,931.4	1,833.3	98.08	19.692	
4,500.0	4,488.5	4,479.5	4,479.5	10.0	89.8	144.54	-1,548.7	971.5	1,931.4	1,831.7	99.66	19.380	
4,527.5	4,516.1	4,507.1	4,507.1	10.1	90.4	144.54	-1,548.7	971.5	1,931.4	1,831.1	100.27	19.261	
4,600.0	4,588.5	4,579.5	4,579.5	10.2	91.8	144.54	-1,548.7	971.5	1,931.4	1,829.5	101.89	18.956	
4,626.0	4,614.5	4,605.5	4,605.5	10.3	92.3	144.54	-1,548.7	971.5	1,931.4	1,828.9	102.47	18.849	
4,700.0	4,688.5	4,679.5	4,679.5	10.5	93.8	144.54	-1,548.7	971.5	1,931.4	1,827.3	104.12	18.550	
4,724.4	4,712.9	4,703.9	4,703.9	10.5	94.3	144.54	-1,548.7	971.5	1,931.4	1,826.7	104.66	18.454	
4,800.0	4,788.5	4,779.5	4,779.5	10.7	95.8	144.54	-1,548.7	971.5	1,931.4	1,825.0	106.35	18.161	
4,822.8	4,811.4	4,802.4	4,802.4	10.7	96.3	144.54	-1,548.7	971.5	1,931.4	1,824.5	106.86	18.074	
4,900.0	4,888.5	4,879.5	4,879.5	10.9	97.9	144.54	-1,548.7	971.5	1,931.4	1,822.8	108.58	17.788	
4,921.2	4,909.8	4,900.8	4,900.8	10.9	98.3	144.54	-1,548.7	971.5	1,931.4	1,822.3	109.05	17.711	
5,000.0	4,988.5	4,979.5	4,979.5	11.1	99.9	144.54	-1,548.7	971.5	1,931.4	1,820.6	110.81	17.430	
5,019.7	5,008.2	4,999.2	4,999.2	11.1	100.3	144.54	-1,548.7	971.5	1,931.4	1,820.1	111.25	17.361	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,079.5	5,079.5	11.3	101.9	144.54	-1,548.7	971.5	1,931.4	1,818.3	113.04	17.086	
5,118.1	5,106.6	5,097.6	5,097.6	11.4	102.2	144.54	-1,548.7	971.5	1,931.4	1,817.9	113.44	17.025	
5,200.0	5,188.5	5,179.5	5,179.5	11.5	103.9	144.54	-1,548.7	971.5	1,931.4	1,816.1	115.27	16.755	
5,216.5	5,205.1	5,196.1	5,196.1	11.6	104.2	144.54	-1,548.7	971.5	1,931.4	1,815.7	115.64	16.702	
5,300.0	5,288.5	5,279.5	5,279.5	11.8	105.9	144.54	-1,548.7	971.5	1,931.4	1,813.9	117.50	16.437	
5,314.9	5,303.5	5,294.5	5,294.5	11.8	106.2	144.54	-1,548.7	971.5	1,931.4	1,813.5	117.84	16.390	
5,400.0	5,388.5	5,379.5	5,379.5	12.0	107.9	144.54	-1,548.7	971.5	1,931.4	1,811.6	119.73	16.131	
5,413.4	5,401.9	5,392.9	5,392.9	12.0	108.2	144.54	-1,548.7	971.5	1,931.4	1,811.3	120.03	16.091	
5,500.0	5,488.5	5,479.5	5,479.5	12.2	109.9	144.54	-1,548.7	971.5	1,931.4	1,809.4	121.97	15.836	
5,511.8	5,500.3	5,491.3	5,491.3	12.2	110.2	144.54	-1,548.7	971.5	1,931.4	1,809.2	122.23	15.801	
5,600.0	5,588.5	5,579.5	5,579.5	12.4	111.9	144.54	-1,548.7	971.5	1,931.4	1,807.2	124.20	15.551	
5,610.2	5,598.8	5,589.8	5,589.8	12.4	112.1	144.54	-1,548.7	971.5	1,931.4	1,807.0	124.43	15.522	
5,700.0	5,688.5	5,679.5	5,679.5	12.6	113.9	144.54	-1,548.7	971.5	1,931.4	1,805.0	126.43	15.276	
5,708.6	5,697.2	5,688.2	5,688.2	12.6	114.1	144.54	-1,548.7	971.5	1,931.4	1,804.8	126.62	15.253	
5,800.0	5,788.5	5,779.5	5,779.5	12.8	116.0	144.54	-1,548.7	971.5	1,931.4	1,802.7	128.66	15.011	
5,807.1	5,795.6	5,786.6	5,786.6	12.9	116.1	144.54	-1,548.7	971.5	1,931.4	1,802.6	128.82	14.993	
5,900.0	5,888.5	5,879.5	5,879.5	13.1	118.0	144.54	-1,548.7	971.5	1,931.4	1,800.5	130.89	14.755	
5,905.5	5,894.0	5,885.0	5,885.0	13.1	118.1	144.54	-1,548.7	971.5	1,931.4	1,800.4	131.02	14.742	
6,000.0	5,988.5	5,979.5	5,979.5	13.3	120.0	144.54	-1,548.7	971.5	1,931.4	1,798.3	133.13	14.508	
6,003.9	5,992.5	5,983.5	5,983.5	13.3	120.1	144.54	-1,548.7	971.5	1,931.4	1,798.2	133.21	14.498	
6,085.3	6,073.8	6,064.8	6,064.8	13.5	121.7	144.54	-1,548.7	971.5	1,931.4	1,796.4	135.03	14.303	
6,100.0	6,088.5	6,079.5	6,079.5	13.5	122.0	-125.46	-1,548.7	971.5	1,931.5	1,796.1	135.36	14.269	
6,102.3	6,090.9	6,081.9	6,081.9	13.5	122.0	-125.46	-1,548.7	971.5	1,931.5	1,796.1	135.41	14.264	
6,150.0	6,138.4	6,129.4	6,129.4	13.6	123.0	-125.42	-1,548.7	971.5	1,933.1	1,796.8	136.30	14.182	
6,200.0	6,188.0	6,179.0	6,179.0	13.7	124.0	-125.34	-1,548.7	971.5	1,936.7	1,799.7	137.04	14.133	
6,200.8	6,188.8	6,179.8	6,179.8	13.7	124.0	-125.33	-1,548.7	971.5	1,936.8	1,799.7	137.05	14.132	
6,250.0	6,237.1	6,228.1	6,228.1	13.9	125.0	-125.19	-1,548.7	971.5	1,942.4	1,804.8	137.56	14.120 SF	
6,299.2	6,284.6	6,275.6	6,275.6	14.0	125.9	-124.99	-1,548.7	971.5	1,950.0	1,812.1	137.88	14.143	
6,300.0	6,285.3	6,276.3	6,276.3	14.0	125.9	-124.99	-1,548.7	971.5	1,950.1	1,812.2	137.88	14.143	
6,350.0	6,332.5	6,323.5	6,323.5	14.2	126.9	-124.72	-1,548.7	971.5	1,959.8	1,821.8	138.03	14.199	
6,397.6	6,376.3	6,367.3	6,367.3	14.4	127.8	-124.38	-1,548.7	971.5	1,971.0	1,833.0	138.04	14.279	
6,400.0	6,378.5	6,369.5	6,369.5	14.4	127.8	-124.36	-1,548.7	971.5	1,971.6	1,833.6	138.03	14.284	
6,450.0	6,423.0	6,414.0	6,414.0	14.7	128.7	-123.92	-1,548.7	971.5	1,985.5	1,847.6	137.94	14.394	
6,496.0	6,462.4	6,453.4	6,453.4	14.9	129.5	-123.41	-1,548.7	971.5	2,000.1	1,862.2	137.81	14.513	
6,500.0	6,465.7	6,456.7	6,456.7	14.9	129.6	-123.36	-1,548.7	971.5	2,001.4	1,863.6	137.80	14.524	
6,550.0	6,506.6	6,497.6	6,497.6	15.2	130.4	-122.67	-1,548.7	971.5	2,019.3	1,881.6	137.68	14.667	
6,594.5	6,541.2	6,532.2	6,532.2	15.6	131.1	-121.94	-1,548.7	971.5	2,037.0	1,899.3	137.67	14.796	
6,600.0	6,545.3	6,536.3	6,536.3	15.6	131.2	-121.84	-1,548.7	971.5	2,039.3	1,901.6	137.68	14.812	
6,650.0	6,581.8	6,572.8	6,572.8	16.0	131.9	-120.83	-1,548.7	971.5	2,061.2	1,923.3	137.87	14.950	
6,692.9	6,611.1	6,602.1	6,602.1	16.4	132.5	-119.81	-1,548.7	971.5	2,081.6	1,943.3	138.27	15.055	
6,700.0	6,615.8	6,606.8	6,606.8	16.5	132.6	-119.63	-1,548.7	971.5	2,085.1	1,946.7	138.35	15.071	
6,750.0	6,647.1	6,638.1	6,638.1	17.1	133.2	-118.20	-1,548.7	971.5	2,110.9	1,971.6	139.21	15.163	
6,791.3	6,670.9	6,661.9	6,661.9	17.6	133.7	-116.84	-1,548.7	971.5	2,133.5	1,993.3	140.27	15.211	
6,800.0	6,675.7	6,666.7	6,666.7	17.7	133.8	-116.53	-1,548.7	971.5	2,138.4	1,997.9	140.52	15.218	
6,850.0	6,701.3	6,692.3	6,692.3	18.4	134.3	-114.56	-1,548.7	971.5	2,167.7	2,025.4	142.33	15.230	
6,889.7	6,719.5	6,710.5	6,710.5	19.0	134.7	-112.78	-1,548.7	971.5	2,192.2	2,048.1	144.13	15.210	
6,900.0	6,723.8	6,714.8	6,714.8	19.1	134.8	-112.29	-1,548.7	971.5	2,198.7	2,054.0	144.63	15.202	
6,950.0	6,743.2	6,734.2	6,734.2	20.0	135.2	-109.67	-1,548.7	971.5	2,231.1	2,083.7	147.38	15.139	
6,988.2	6,755.8	6,746.8	6,746.8	20.6	135.4	-107.43	-1,548.7	971.5	2,256.8	2,107.1	149.70	15.076	
7,000.0	6,759.4	6,750.4	6,750.4	20.9	135.5	-106.69	-1,548.7	971.5	2,264.9	2,114.5	150.44	15.056	
7,050.0	6,772.1	6,763.1	6,763.1	21.8	135.7	-103.32	-1,548.7	971.5	2,299.9	2,146.3	153.61	14.972	
7,086.6	6,779.4	6,770.4	6,770.4	22.5	135.9	-100.60	-1,548.7	971.5	2,326.2	2,170.4	155.87	14.924	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,100.0	6,781.5	6,772.5	6,772.5	22.8	135.9	-99.56	-1,548.7	971.5	2,336.0	2,179.3	156.64	14.913	
7,150.0	6,787.5	6,778.5	6,778.5	23.9	136.0	-95.42	-1,548.7	971.5	2,372.9	2,213.7	159.21	14.904	
7,185.0	6,789.6	6,780.6	6,780.6	24.6	136.1	-92.33	-1,548.7	971.5	2,399.2	2,238.6	160.57	14.942	
7,200.0	6,789.9	6,780.9	6,780.9	24.9	136.1	-90.95	-1,548.7	971.5	2,410.5	2,249.5	161.00	14.972	
7,213.0	6,790.0	6,781.0	6,781.0	25.2	136.1	-89.75	-1,548.7	971.5	2,420.4	2,259.1	161.30	15.005	
7,283.4	6,789.7	6,780.7	6,780.7	26.8	136.1	-89.74	-1,548.7	971.5	2,474.4	2,311.5	162.87	15.192	
7,300.0	6,789.7	6,780.7	6,780.7	27.2	136.1	-89.74	-1,548.7	971.5	2,487.2	2,323.9	163.24	15.236	
7,381.9	6,789.4	6,780.4	6,780.4	29.1	136.1	-89.72	-1,548.7	971.5	2,551.1	2,386.0	165.14	15.448	
7,400.0	6,789.3	6,780.3	6,780.3	29.5	136.1	-89.72	-1,548.7	971.5	2,565.4	2,399.8	165.56	15.495	
7,480.3	6,789.0	6,780.0	6,780.0	31.4	136.1	-89.71	-1,548.7	971.5	2,629.3	2,461.8	167.49	15.699	
7,500.0	6,788.9	6,779.9	6,779.9	31.9	136.1	-89.71	-1,548.7	971.5	2,645.1	2,477.1	167.96	15.749	
7,578.7	6,788.6	6,779.6	6,779.6	33.8	136.1	-89.70	-1,548.7	971.5	2,708.8	2,538.9	169.89	15.944	
7,600.0	6,788.5	6,779.5	6,779.5	34.4	136.1	-89.69	-1,548.7	971.5	2,726.1	2,555.7	170.42	15.997	
7,677.1	6,788.2	6,779.2	6,779.2	36.3	136.1	-89.68	-1,548.7	971.5	2,789.5	2,617.2	172.35	16.185	
7,700.0	6,788.2	6,779.2	6,779.2	36.9	136.1	-89.68	-1,548.7	971.5	2,808.4	2,635.5	172.92	16.241	
7,775.6	6,787.9	6,778.9	6,778.9	38.8	136.1	-89.67	-1,548.7	971.5	2,871.3	2,696.5	174.85	16.422	
7,800.0	6,787.8	6,778.8	6,778.8	39.4	136.1	-89.66	-1,548.7	971.5	2,891.8	2,716.3	175.47	16.480	
7,874.0	6,787.5	6,778.5	6,778.5	41.3	136.0	-89.65	-1,548.7	971.5	2,954.2	2,776.8	177.38	16.654	
7,900.0	6,787.4	6,778.4	6,778.4	42.0	136.0	-89.65	-1,548.7	971.5	2,976.2	2,798.1	178.05	16.715	
7,972.4	6,787.1	6,778.1	6,778.1	43.9	136.0	-89.64	-1,548.7	971.5	3,037.9	2,858.0	179.94	16.883	
8,000.0	6,787.0	6,778.0	6,778.0	44.6	136.0	-89.64	-1,548.7	971.5	3,061.5	2,880.9	180.66	16.946	
8,070.8	6,786.7	6,777.7	6,777.7	46.5	136.0	-89.63	-1,548.7	971.5	3,122.5	2,940.0	182.52	17.108	
8,100.0	6,786.6	6,777.6	6,777.6	47.3	136.0	-89.62	-1,548.7	971.5	3,147.7	2,964.5	183.29	17.174	
8,169.3	6,786.4	6,777.4	6,777.4	49.1	136.0	-89.61	-1,548.7	971.5	3,207.9	3,022.8	185.12	17.329	
8,200.0	6,786.3	6,777.3	6,777.3	49.9	136.0	-89.61	-1,548.7	971.5	3,234.7	3,048.8	185.94	17.397	
8,267.7	6,786.0	6,777.0	6,777.0	51.7	136.0	-89.60	-1,548.7	971.5	3,294.1	3,106.3	187.74	17.546	
8,300.0	6,785.9	6,776.9	6,776.9	52.6	136.0	-89.59	-1,548.7	971.5	3,322.5	3,133.9	188.60	17.616	
8,366.1	6,785.6	6,776.6	6,776.6	54.4	136.0	-89.58	-1,548.7	971.5	3,380.9	3,190.5	190.37	17.759	
8,400.0	6,785.5	6,776.5	6,776.5	55.3	136.0	-89.58	-1,548.7	971.5	3,410.9	3,219.6	191.28	17.832	
8,464.5	6,785.2	6,776.2	6,776.2	57.0	136.0	-89.57	-1,548.7	971.5	3,468.3	3,275.3	193.02	17.969	
8,500.0	6,785.1	6,776.1	6,776.1	58.0	136.0	-89.56	-1,548.7	971.5	3,499.9	3,306.0	193.97	18.044	
8,563.0	6,784.9	6,775.9	6,775.9	59.7	136.0	-89.55	-1,548.7	971.5	3,556.3	3,360.6	195.67	18.175	
8,600.0	6,784.7	6,775.7	6,775.7	60.7	136.0	-89.55	-1,548.7	971.5	3,589.5	3,392.9	196.67	18.252	
8,661.4	6,784.5	6,775.5	6,775.5	62.4	136.0	-89.54	-1,548.7	971.5	3,644.8	3,446.5	198.33	18.377	
8,700.0	6,784.3	6,775.3	6,775.3	63.4	136.0	-89.53	-1,548.7	971.5	3,679.7	3,480.3	199.38	18.456	
8,759.8	6,784.1	6,775.1	6,775.1	65.0	136.0	-89.52	-1,548.7	971.5	3,733.9	3,532.8	201.00	18.576	
8,800.0	6,784.0	6,775.0	6,775.0	66.1	136.0	-89.52	-1,548.7	971.5	3,770.3	3,568.2	202.10	18.656	
8,858.2	6,783.7	6,774.7	6,774.7	67.7	136.0	-89.51	-1,548.7	971.5	3,823.3	3,619.7	203.68	18.771	
8,900.0	6,783.6	6,774.6	6,774.6	68.9	136.0	-89.50	-1,548.7	971.5	3,861.4	3,656.6	204.82	18.853	
8,956.7	6,783.3	6,774.3	6,774.3	70.4	136.0	-89.50	-1,548.7	971.5	3,913.3	3,706.9	206.37	18.963	
9,000.0	6,783.2	6,774.2	6,774.2	71.6	136.0	-89.49	-1,548.7	971.5	3,953.0	3,745.4	207.55	19.046	
9,055.1	6,783.0	6,774.0	6,774.0	73.1	136.0	-89.48	-1,548.7	971.5	4,003.6	3,794.5	209.06	19.151	
9,100.0	6,782.8	6,773.8	6,773.8	74.3	136.0	-89.47	-1,548.7	971.5	4,044.9	3,834.6	210.28	19.236	
9,153.5	6,782.6	6,773.6	6,773.6	75.8	135.9	-89.47	-1,548.7	971.5	4,094.3	3,882.5	211.75	19.335	
9,200.0	6,782.4	6,773.4	6,773.4	77.1	135.9	-89.46	-1,548.7	971.5	4,137.2	3,924.2	213.02	19.421	
9,251.9	6,782.2	6,773.2	6,773.2	78.5	135.9	-89.45	-1,548.7	971.5	4,185.3	3,970.9	214.45	19.517	
9,300.0	6,782.0	6,773.0	6,773.0	79.8	135.9	-89.44	-1,548.7	971.5	4,229.9	4,014.1	215.77	19.604	
9,350.4	6,781.8	6,772.8	6,772.8	81.2	135.9	-89.44	-1,548.7	971.5	4,276.7	4,059.5	217.15	19.694	
9,400.0	6,781.6	6,772.6	6,772.6	82.6	135.9	-89.43	-1,548.7	971.5	4,322.9	4,104.3	218.51	19.783	
9,448.8	6,781.4	6,772.4	6,772.4	83.9	135.9	-89.42	-1,548.7	971.5	4,368.3	4,148.5	219.86	19.869	
9,500.0	6,781.2	6,772.2	6,772.2	85.4	135.9	-89.41	-1,548.7	971.5	4,416.2	4,194.9	221.27	19.959	
9,547.2	6,781.0	6,772.0	6,772.0	86.7	135.9	-89.41	-1,548.7	971.5	4,460.3	4,237.7	222.57	20.040	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,600.0	6,780.8	6,771.8	6,771.8	88.1	135.9	-89.40	-1,548.7	971.5	4,509.7	4,285.7	224.02	20.131	
9,645.6	6,780.7	6,771.7	6,771.7	89.4	135.9	-89.39	-1,548.7	971.5	4,552.5	4,327.3	225.28	20.208	
9,700.0	6,780.5	6,771.5	6,771.5	90.9	135.9	-89.38	-1,548.7	971.5	4,603.6	4,376.8	226.78	20.300	
9,744.1	6,780.3	6,771.3	6,771.3	92.1	135.9	-89.38	-1,548.7	971.5	4,645.0	4,417.0	227.99	20.373	
9,800.0	6,780.1	6,771.1	6,771.1	93.7	135.9	-89.37	-1,548.7	971.5	4,697.7	4,468.1	229.54	20.466	
9,842.5	6,779.9	6,770.9	6,770.9	94.8	135.9	-89.36	-1,548.7	971.5	4,737.8	4,507.0	230.71	20.535	
9,900.0	6,779.7	6,770.7	6,770.7	96.4	135.9	-89.35	-1,548.7	971.5	4,792.0	4,559.7	232.30	20.629	
9,940.9	6,779.5	6,770.5	6,770.5	97.6	135.9	-89.35	-1,548.7	971.5	4,830.7	4,597.3	233.43	20.694	
10,000.0	6,779.3	6,770.3	6,770.3	99.2	135.9	-89.34	-1,548.7	971.5	4,886.6	4,651.5	235.06	20.788	
10,039.3	6,779.1	6,770.1	6,770.1	100.3	135.9	-89.33	-1,548.7	971.5	4,923.9	4,687.7	236.15	20.850	
10,100.0	6,778.9	6,769.9	6,769.9	102.0	135.9	-89.32	-1,548.7	971.5	4,981.4	4,743.5	237.83	20.945	
10,137.8	6,778.7	6,769.7	6,769.7	103.0	135.9	-89.32	-1,548.7	971.5	5,017.2	4,778.4	238.88	21.003	
10,200.0	6,778.5	6,769.5	6,769.5	104.8	135.9	-89.31	-1,548.7	971.5	5,076.4	4,835.8	240.60	21.099	
10,236.2	6,778.3	6,769.3	6,769.3	105.8	135.9	-89.30	-1,548.7	971.5	5,110.8	4,869.2	241.60	21.154	
10,300.0	6,778.1	6,769.1	6,769.1	107.5	135.9	-89.29	-1,548.7	971.5	5,171.5	4,928.2	243.37	21.250	
10,334.6	6,778.0	6,769.0	6,769.0	108.5	135.9	-89.29	-1,548.7	971.5	5,204.5	4,960.2	244.33	21.301	
10,400.0	6,777.7	6,768.7	6,768.7	110.3	135.9	-89.28	-1,548.7	971.5	5,266.9	5,020.7	246.14	21.398	
10,433.0	6,777.6	6,768.6	6,768.6	111.2	135.8	-89.27	-1,548.7	971.5	5,298.4	5,051.4	247.06	21.446	
10,500.0	6,777.3	6,768.3	6,768.3	113.1	135.8	-89.26	-1,548.7	971.5	5,362.4	5,113.5	248.91	21.543	
10,531.5	6,777.2	6,768.2	6,768.2	114.0	135.8	-89.26	-1,548.7	971.5	5,392.5	5,142.7	249.79	21.588	
10,600.0	6,776.9	6,767.9	6,767.9	115.9	135.8	-89.24	-1,548.7	971.5	5,458.1	5,206.4	251.69	21.686	
10,629.9	6,776.8	6,767.8	6,767.8	116.7	135.8	-89.24	-1,548.7	971.5	5,486.7	5,234.2	252.52	21.728	
10,700.0	6,776.5	6,767.5	6,767.5	118.7	135.8	-89.23	-1,548.7	971.5	5,553.9	5,299.4	254.46	21.826	
10,728.3	6,776.4	6,767.4	6,767.4	119.5	135.8	-89.22	-1,548.7	971.5	5,581.1	5,325.8	255.25	21.865	
10,800.0	6,776.1	6,767.1	6,767.1	121.4	135.8	-89.21	-1,548.7	971.5	5,649.9	5,392.6	257.24	21.963	
10,826.7	6,776.0	6,767.0	6,767.0	122.2	135.8	-89.21	-1,548.7	971.5	5,675.6	5,417.6	257.98	22.000	
10,900.0	6,775.7	6,766.7	6,766.7	124.2	135.8	-89.20	-1,548.7	971.5	5,746.0	5,486.0	260.02	22.098	
10,925.2	6,775.6	6,766.6	6,766.6	124.9	135.8	-89.19	-1,548.7	971.5	5,770.2	5,509.5	260.72	22.132	
11,000.0	6,775.3	6,766.3	6,766.3	127.0	135.8	-89.18	-1,548.7	971.5	5,842.2	5,579.4	262.80	22.231	
11,023.6	6,775.2	6,766.2	6,766.2	127.7	135.8	-89.18	-1,548.7	971.5	5,865.0	5,601.5	263.45	22.262	
11,100.0	6,774.9	6,765.9	6,765.9	129.8	135.8	-89.17	-1,548.7	971.5	5,938.6	5,673.0	265.58	22.361	
11,122.0	6,774.8	6,765.8	6,765.8	130.4	135.8	-89.16	-1,548.7	971.5	5,959.8	5,693.7	266.19	22.390	
11,200.0	6,774.5	6,765.5	6,765.5	132.6	135.8	-89.15	-1,548.7	971.5	6,035.1	5,766.7	268.36	22.489	
11,220.4	6,774.4	6,765.4	6,765.4	133.2	135.8	-89.15	-1,548.7	971.5	6,054.8	5,785.9	268.93	22.515	
11,300.0	6,774.1	6,765.1	6,765.1	135.4	135.8	-89.13	-1,548.7	971.5	6,131.7	5,860.5	271.14	22.615	
11,318.9	6,774.0	6,765.0	6,765.0	135.9	135.8	-89.13	-1,548.7	971.5	6,149.9	5,878.3	271.66	22.638	
11,400.0	6,773.7	6,764.7	6,764.7	138.2	135.8	-89.12	-1,548.7	971.5	6,228.4	5,954.5	273.92	22.738	
11,417.3	6,773.6	6,764.6	6,764.6	138.7	135.8	-89.12	-1,548.7	971.5	6,245.1	5,970.7	274.40	22.759	
11,500.0	6,773.3	6,764.3	6,764.3	141.0	135.8	-89.10	-1,548.7	971.5	6,325.2	6,048.5	276.70	22.859	
11,515.7	6,773.2	6,764.2	6,764.2	141.4	135.8	-89.10	-1,548.7	971.5	6,340.4	6,063.3	277.14	22.878	
11,600.0	6,772.9	6,763.9	6,763.9	143.8	135.8	-89.09	-1,548.7	971.5	6,422.1	6,142.6	279.49	22.978	
11,614.1	6,772.8	6,763.8	6,763.8	144.2	135.8	-89.08	-1,548.7	971.5	6,435.8	6,155.9	279.88	22.995	
11,700.0	6,772.5	6,763.5	6,763.5	146.6	135.7	-89.07	-1,548.7	971.5	6,519.1	6,236.8	282.27	23.095	
11,712.6	6,772.4	6,763.4	6,763.4	146.9	135.7	-89.07	-1,548.7	971.5	6,531.3	6,248.7	282.62	23.110	
11,800.0	6,772.1	6,763.1	6,763.1	149.4	135.7	-89.05	-1,548.7	971.5	6,616.2	6,331.1	285.05	23.210	
11,811.0	6,772.1	6,763.1	6,763.1	149.7	135.7	-89.05	-1,548.7	971.5	6,626.9	6,341.5	285.36	23.223	
11,900.0	6,771.7	6,762.7	6,762.7	152.2	135.7	-89.04	-1,548.7	971.5	6,713.4	6,425.5	287.84	23.323	
11,909.4	6,771.7	6,762.7	6,762.7	152.4	135.7	-89.04	-1,548.7	971.5	6,722.5	6,434.4	288.10	23.334	
12,000.0	6,771.3	6,762.3	6,762.3	154.9	135.7	-89.02	-1,548.7	971.5	6,810.6	6,520.0	290.62	23.434	
12,007.8	6,771.3	6,762.3	6,762.3	155.2	135.7	-89.02	-1,548.7	971.5	6,818.3	6,527.4	290.84	23.443	
12,100.0	6,770.9	6,761.9	6,761.9	157.7	135.7	-89.00	-1,548.7	971.5	6,908.0	6,614.5	293.41	23.544	
12,106.3	6,770.9	6,761.9	6,761.9	157.9	135.7	-89.00	-1,548.7	971.5	6,914.1	6,620.5	293.59	23.550	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN/MILLER #23-17 - 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
12,200.0	6,770.5	6,761.5	6,761.5	160.5	135.7	-88.99	-1,548.7	971.5	7,005.4	6,709.2	296.20	23.651	
12,204.7	6,770.5	6,761.5	6,761.5	160.7	135.7	-88.99	-1,548.7	971.5	7,009.9	6,713.6	296.33	23.656	
12,300.0	6,770.1	6,761.1	6,761.1	163.3	135.7	-88.97	-1,548.7	971.5	7,102.8	6,803.9	298.98	23.757	
12,303.1	6,770.1	6,761.1	6,761.1	163.4	135.7	-88.97	-1,548.7	971.5	7,105.9	6,806.8	299.07	23.760	
12,316.4	6,770.0	6,761.0	6,761.0	163.8	135.7	-88.97	-1,548.7	971.5	7,118.8	6,819.4	299.44	23.774	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-101.25	-332.9	-1,673.1	1,705.9				
98.4	98.4	95.4	95.4	0.1	1.2	-101.25	-332.9	-1,673.1	1,705.9	1,704.6	1.28	1,335.284	
100.0	100.0	97.0	97.0	0.1	1.2	-101.25	-332.9	-1,673.1	1,705.9	1,704.6	1.30	1,313.415	
196.8	196.8	193.8	193.8	0.3	3.4	-101.25	-332.9	-1,673.1	1,705.9	1,702.2	3.69	461.758	
200.0	200.0	197.0	197.0	0.3	3.5	-101.25	-332.9	-1,673.1	1,705.9	1,702.1	3.77	452.098	
295.3	295.3	292.3	292.3	0.5	5.4	-101.25	-332.9	-1,673.1	1,705.9	1,699.9	5.97	285.602	
300.0	300.0	297.0	297.0	0.5	5.5	-101.25	-332.9	-1,673.1	1,705.9	1,699.8	6.08	280.493	
393.7	393.7	390.7	390.7	0.8	7.4	-101.25	-332.9	-1,673.1	1,705.9	1,697.6	8.21	207.862	
400.0	400.0	397.0	397.0	0.8	7.6	-101.25	-332.9	-1,673.1	1,705.9	1,697.5	8.35	204.307	
492.1	492.1	489.1	489.1	1.0	9.4	-101.25	-332.9	-1,673.1	1,705.9	1,695.4	10.43	163.614	
500.0	500.0	497.0	497.0	1.0	9.6	-101.25	-332.9	-1,673.1	1,705.9	1,695.2	10.60	160.875	
590.5	590.5	587.5	587.5	1.2	11.4	-101.25	-332.9	-1,673.1	1,705.9	1,693.2	12.64	134.968	
600.0	600.0	597.0	597.0	1.2	11.6	-101.25	-332.9	-1,673.1	1,705.9	1,693.0	12.85	132.738	
689.0	689.0	686.0	686.0	1.4	13.4	-101.25	-332.9	-1,673.1	1,705.9	1,691.0	14.85	114.888	
700.0	700.0	697.0	697.0	1.4	13.6	-101.25	-332.9	-1,673.1	1,705.9	1,690.8	15.10	113.005	
787.4	787.4	784.4	784.4	1.6	15.4	-101.25	-332.9	-1,673.1	1,705.9	1,688.8	17.05	100.021	
800.0	800.0	797.0	797.0	1.7	15.7	-101.25	-332.9	-1,673.1	1,705.9	1,688.5	17.34	98.392	
885.8	885.8	882.8	882.8	1.9	17.4	-101.25	-332.9	-1,673.1	1,705.9	1,686.6	19.26	88.568	
900.0	900.0	897.0	897.0	1.9	17.7	-101.25	-332.9	-1,673.1	1,705.9	1,686.3	19.58	87.131	
984.2	984.2	981.2	981.2	2.1	19.4	-101.25	-332.9	-1,673.1	1,705.9	1,684.4	21.46	79.472	
1,000.0	1,000.0	997.0	997.0	2.1	19.7	-101.25	-332.9	-1,673.1	1,705.9	1,684.0	21.82	78.187	
1,082.7	1,082.7	1,079.7	1,079.7	2.3	21.4	-101.25	-332.9	-1,673.1	1,705.9	1,682.2	23.67	72.073	
1,100.0	1,100.0	1,097.0	1,097.0	2.3	21.7	-101.25	-332.9	-1,673.1	1,705.9	1,681.8	24.06	70.911	
1,181.1	1,181.1	1,178.1	1,178.1	2.5	23.3	-101.25	-332.9	-1,673.1	1,705.9	1,680.0	25.87	65.935	
1,200.0	1,200.0	1,197.0	1,197.0	2.6	23.7	-101.25	-332.9	-1,673.1	1,705.9	1,679.6	26.29	64.875	
1,279.5	1,279.5	1,276.5	1,276.5	2.7	25.3	-101.25	-332.9	-1,673.1	1,705.9	1,677.8	28.07	60.762	
1,300.0	1,300.0	1,297.0	1,297.0	2.8	25.7	-101.25	-332.9	-1,673.1	1,705.9	1,677.3	28.53	59.786	
1,377.9	1,377.9	1,374.9	1,374.9	3.0	27.3	-101.25	-332.9	-1,673.1	1,705.9	1,675.6	30.28	56.342	
1,400.0	1,400.0	1,397.0	1,397.0	3.0	27.8	-101.25	-332.9	-1,673.1	1,705.9	1,675.1	30.77	55.439	
1,476.4	1,476.4	1,473.4	1,473.4	3.2	29.3	-101.25	-332.9	-1,673.1	1,705.9	1,673.4	32.48	52.522	
1,500.0	1,500.0	1,497.0	1,497.0	3.2	29.8	-101.25	-332.9	-1,673.1	1,705.9	1,672.8	33.01	51.681	
1,574.8	1,574.8	1,571.8	1,571.8	3.4	31.3	-20.57	-332.9	-1,673.1	1,704.9	1,670.3	34.66	49.188	
1,600.0	1,600.0	1,597.0	1,597.0	3.5	31.8	-20.59	-332.9	-1,673.1	1,704.2	1,669.0	35.21	48.396	
1,673.2	1,673.1	1,670.1	1,670.1	3.6	33.2	-20.65	-332.9	-1,673.1	1,701.0	1,664.2	36.80	46.227	
1,700.0	1,699.8	1,696.8	1,696.8	3.7	33.8	-20.68	-332.9	-1,673.1	1,699.3	1,662.0	37.37	45.476	
1,771.6	1,771.2	1,768.2	1,768.2	3.8	35.2	-20.79	-332.9	-1,673.1	1,693.8	1,654.9	38.88	43.564	
1,800.0	1,799.5	1,796.5	1,796.5	3.9	35.8	-20.85	-332.9	-1,673.1	1,691.2	1,651.7	39.47	42.845	
1,870.1	1,869.0	1,866.0	1,866.0	4.0	37.2	-21.00	-332.9	-1,673.1	1,683.5	1,642.6	40.91	41.148	
1,900.0	1,898.7	1,895.7	1,895.7	4.1	37.8	-21.08	-332.9	-1,673.1	1,679.8	1,638.3	41.52	40.457	
1,968.5	1,966.4	1,963.4	1,963.4	4.3	39.1	-21.27	-332.9	-1,673.1	1,670.1	1,627.2	42.89	38.941	
2,000.0	1,997.5	1,994.5	1,994.5	4.4	39.8	-21.38	-332.9	-1,673.1	1,665.2	1,621.7	43.51	38.275	
2,066.9	2,063.2	2,060.2	2,060.2	4.6	41.1	-21.62	-332.9	-1,673.1	1,653.6	1,608.8	44.80	36.911	
2,100.1	2,095.7	2,092.7	2,092.7	4.7	41.7	-21.75	-332.9	-1,673.1	1,647.4	1,601.9	45.43	36.263	
2,165.3	2,159.5	2,156.5	2,156.5	4.9	43.0	-21.93	-332.9	-1,673.1	1,634.7	1,587.9	46.84	34.897	
2,200.0	2,193.4	2,190.4	2,190.4	5.0	43.7	-22.02	-332.9	-1,673.1	1,628.0	1,580.4	47.60	34.205	
2,224.2	2,217.1	2,214.1	2,214.1	5.1	44.2	-22.09	-332.9	-1,673.1	1,623.4	1,575.2	48.12	33.734	
2,263.8	2,255.9	2,252.9	2,252.9	5.2	45.0	-22.14	-332.9	-1,673.1	1,616.0	1,566.9	49.10	32.913	
2,300.0	2,291.5	2,288.5	2,288.5	5.3	45.7	-22.18	-332.9	-1,673.1	1,609.6	1,559.6	49.98	32.204	
2,362.2	2,352.7	2,349.7	2,349.7	5.5	46.9	-22.25	-332.9	-1,673.1	1,599.7	1,548.2	51.49	31.068	
2,400.0	2,390.1	2,387.1	2,387.1	5.6	47.7	-22.29	-332.9	-1,673.1	1,594.3	1,541.9	52.41	30.423	
2,460.6	2,450.1	2,447.1	2,447.1	5.7	48.9	-22.34	-332.9	-1,673.1	1,586.6	1,532.8	53.86	29.458	
2,500.0	2,489.2	2,486.2	2,486.2	5.8	49.7	-22.37	-332.9	-1,673.1	1,582.3	1,527.5	54.80	28.874	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-2 - 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	
2,559.0	2,548.0	2,545.0	2,545.0	6.0	50.8	-22.41	-332.9	-1,673.1	1,576.7	1,520.5	56.20	28.057	
2,600.0	2,588.8	2,585.8	2,585.8	6.1	51.7	-22.44	-332.9	-1,673.1	1,573.4	1,516.3	57.16	27.529	
2,657.5	2,646.1	2,643.1	2,643.1	6.2	52.8	-22.46	-332.9	-1,673.1	1,569.8	1,511.3	58.49	26.840	
2,700.0	2,688.6	2,685.6	2,685.6	6.3	53.7	-22.48	-332.9	-1,673.1	1,567.8	1,508.3	59.46	26.367	
2,755.9	2,744.4	2,741.4	2,741.4	6.4	54.8	-22.49	-332.9	-1,673.1	1,566.1	1,505.4	60.72	25.790	
2,800.0	2,788.5	2,785.5	2,785.5	6.5	55.7	-22.50	-332.9	-1,673.1	1,565.4	1,503.7	61.71	25.368	
2,824.3	2,812.8	2,809.8	2,809.8	6.5	56.2	-103.20	-332.9	-1,673.1	1,565.3	1,502.7	62.62	24.997	
2,854.3	2,842.9	2,839.9	2,839.9	6.6	56.8	-103.20	-332.9	-1,673.1	1,565.3	1,502.0	63.28	24.736	
2,900.0	2,888.5	2,885.5	2,885.5	6.7	57.7	-103.20	-332.9	-1,673.1	1,565.3	1,501.0	64.29	24.349	
2,952.7	2,941.3	2,938.3	2,938.3	6.8	58.8	-103.20	-332.9	-1,673.1	1,565.3	1,499.9	65.46	23.914	
3,000.0	2,988.5	2,985.5	2,985.5	6.9	59.7	-103.20	-332.9	-1,673.1	1,565.3	1,498.8	66.50	23.538	
3,051.2	3,039.7	3,036.7	3,036.7	7.0	60.7	-103.20	-332.9	-1,673.1	1,565.3	1,497.7	67.64	23.143	
3,100.0	3,088.5	3,085.5	3,085.5	7.1	61.7	-103.20	-332.9	-1,673.1	1,565.3	1,496.6	68.72	22.778	
3,149.6	3,138.1	3,135.1	3,135.1	7.2	62.7	-103.20	-332.9	-1,673.1	1,565.3	1,495.5	69.82	22.419	
3,200.0	3,188.5	3,185.5	3,185.5	7.3	63.7	-103.20	-332.9	-1,673.1	1,565.3	1,494.4	70.94	22.066	
3,248.0	3,236.6	3,233.6	3,233.6	7.4	64.7	-103.20	-332.9	-1,673.1	1,565.3	1,493.3	72.00	21.739	
3,300.0	3,288.5	3,285.5	3,285.5	7.5	65.7	-103.20	-332.9	-1,673.1	1,565.3	1,492.2	73.16	21.396	
3,346.4	3,335.0	3,332.0	3,332.0	7.6	66.7	-103.20	-332.9	-1,673.1	1,565.3	1,491.1	74.19	21.099	
3,400.0	3,388.5	3,385.5	3,385.5	7.7	67.8	-103.20	-332.9	-1,673.1	1,565.3	1,489.9	75.38	20.766	
3,444.9	3,433.4	3,430.4	3,430.4	7.8	68.7	-103.20	-332.9	-1,673.1	1,565.3	1,488.9	76.38	20.495	
3,500.0	3,488.5	3,485.5	3,485.5	7.9	69.8	-103.20	-332.9	-1,673.1	1,565.3	1,487.7	77.60	20.172	
3,543.3	3,531.8	3,528.8	3,528.8	8.0	70.6	-103.20	-332.9	-1,673.1	1,565.3	1,486.8	78.56	19.924	
3,600.0	3,588.5	3,585.5	3,585.5	8.1	71.8	-103.20	-332.9	-1,673.1	1,565.3	1,485.5	79.82	19.610	
3,641.7	3,630.3	3,627.3	3,627.3	8.2	72.6	-103.20	-332.9	-1,673.1	1,565.3	1,484.6	80.75	19.385	
3,700.0	3,688.5	3,685.5	3,685.5	8.3	73.8	-103.20	-332.9	-1,673.1	1,565.3	1,483.3	82.05	19.079	
3,740.1	3,728.7	3,725.7	3,725.7	8.4	74.6	-103.20	-332.9	-1,673.1	1,565.3	1,482.4	82.94	18.873	
3,800.0	3,788.5	3,785.5	3,785.5	8.5	75.8	-103.20	-332.9	-1,673.1	1,565.3	1,481.1	84.27	18.575	
3,838.6	3,827.1	3,824.1	3,824.1	8.6	76.6	-103.20	-332.9	-1,673.1	1,565.3	1,480.2	85.13	18.388	
3,900.0	3,888.5	3,885.5	3,885.5	8.7	77.8	-103.20	-332.9	-1,673.1	1,565.3	1,478.8	86.49	18.098	
3,937.0	3,925.5	3,922.5	3,922.5	8.8	78.6	-103.20	-332.9	-1,673.1	1,565.3	1,478.0	87.32	17.927	
4,000.0	3,988.5	3,985.5	3,985.5	9.0	79.8	-103.20	-332.9	-1,673.1	1,565.3	1,476.6	88.72	17.644	
4,035.4	4,024.0	4,021.0	4,021.0	9.0	80.5	-103.20	-332.9	-1,673.1	1,565.3	1,475.8	89.51	17.488	
4,100.0	4,088.5	4,085.5	4,085.5	9.2	81.8	-103.20	-332.9	-1,673.1	1,565.3	1,474.4	90.94	17.212	
4,133.8	4,122.4	4,119.4	4,119.4	9.2	82.5	-103.20	-332.9	-1,673.1	1,565.3	1,473.6	91.70	17.071	
4,200.0	4,188.5	4,185.5	4,185.5	9.4	83.8	-103.20	-332.9	-1,673.1	1,565.3	1,472.2	93.17	16.801	
4,232.3	4,220.8	4,217.8	4,217.8	9.4	84.5	-103.20	-332.9	-1,673.1	1,565.3	1,471.4	93.89	16.672	
4,300.0	4,288.5	4,285.5	4,285.5	9.6	85.9	-103.20	-332.9	-1,673.1	1,565.3	1,469.9	95.40	16.409	
4,330.7	4,319.2	4,316.2	4,316.2	9.7	86.5	-103.20	-332.9	-1,673.1	1,565.3	1,469.2	96.08	16.292	
4,400.0	4,388.5	4,385.5	4,385.5	9.8	87.9	-103.20	-332.9	-1,673.1	1,565.3	1,467.7	97.62	16.034	
4,429.1	4,417.7	4,414.7	4,414.7	9.9	88.4	-103.20	-332.9	-1,673.1	1,565.3	1,467.0	98.27	15.929	
4,500.0	4,488.5	4,485.5	4,485.5	10.0	89.9	-103.20	-332.9	-1,673.1	1,565.3	1,465.5	99.85	15.677	
4,527.5	4,516.1	4,513.1	4,513.1	10.1	90.4	-103.20	-332.9	-1,673.1	1,565.3	1,464.9	100.46	15.581	
4,600.0	4,588.5	4,585.5	4,585.5	10.2	91.9	-103.20	-332.9	-1,673.1	1,565.3	1,463.2	102.08	15.335	
4,626.0	4,614.5	4,611.5	4,611.5	10.3	92.4	-103.20	-332.9	-1,673.1	1,565.3	1,462.7	102.66	15.248	
4,700.0	4,688.5	4,685.5	4,685.5	10.5	93.9	-103.20	-332.9	-1,673.1	1,565.3	1,461.0	104.30	15.007	
4,724.4	4,712.9	4,709.9	4,709.9	10.5	94.4	-103.20	-332.9	-1,673.1	1,565.3	1,460.5	104.85	14.929	
4,800.0	4,788.5	4,785.5	4,785.5	10.7	95.9	-103.20	-332.9	-1,673.1	1,565.3	1,458.8	106.53	14.693	
4,822.8	4,811.4	4,808.4	4,808.4	10.7	96.4	-103.20	-332.9	-1,673.1	1,565.3	1,458.3	107.04	14.624	
4,900.0	4,888.5	4,885.5	4,885.5	10.9	97.9	-103.20	-332.9	-1,673.1	1,565.3	1,456.6	108.76	14.392	
4,921.2	4,909.8	4,906.8	4,906.8	10.9	98.3	-103.20	-332.9	-1,673.1	1,565.3	1,456.1	109.23	14.330	
5,000.0	4,988.5	4,985.5	4,985.5	11.1	99.9	-103.20	-332.9	-1,673.1	1,565.3	1,454.3	110.99	14.103	
5,019.7	5,008.2	5,005.2	5,005.2	11.1	100.3	-103.20	-332.9	-1,673.1	1,565.3	1,453.9	111.43	14.048	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-2 - 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	
5,100.0	5,088.5	5,085.5	5,085.5	11.3	101.9	-103.20	-332.9	-1,673.1	1,565.3	1,452.1	113.22	13.826	
5,118.1	5,106.6	5,103.6	5,103.6	11.4	102.3	-103.20	-332.9	-1,673.1	1,565.3	1,451.7	113.62	13.777	
5,200.0	5,188.5	5,185.5	5,185.5	11.5	104.0	-103.20	-332.9	-1,673.1	1,565.3	1,449.9	115.45	13.559	
5,216.5	5,205.1	5,202.1	5,202.1	11.6	104.3	-103.20	-332.9	-1,673.1	1,565.3	1,449.5	115.82	13.516	
5,300.0	5,288.5	5,285.5	5,285.5	11.8	106.0	-103.20	-332.9	-1,673.1	1,565.3	1,447.6	117.68	13.302	
5,314.9	5,303.5	5,300.5	5,300.5	11.8	106.3	-103.20	-332.9	-1,673.1	1,565.3	1,447.3	118.01	13.264	
5,400.0	5,388.5	5,385.5	5,385.5	12.0	108.0	-103.20	-332.9	-1,673.1	1,565.3	1,445.4	119.91	13.054	
5,413.4	5,401.9	5,398.9	5,398.9	12.0	108.2	-103.20	-332.9	-1,673.1	1,565.3	1,445.1	120.21	13.022	
5,500.0	5,488.5	5,485.5	5,485.5	12.2	110.0	-103.20	-332.9	-1,673.1	1,565.3	1,443.2	122.14	12.816	
5,511.8	5,500.3	5,497.3	5,497.3	12.2	110.2	-103.20	-332.9	-1,673.1	1,565.3	1,442.9	122.40	12.789	
5,600.0	5,588.5	5,585.5	5,585.5	12.4	112.0	-103.20	-332.9	-1,673.1	1,565.3	1,441.0	124.37	12.586	
5,610.2	5,598.8	5,595.8	5,595.8	12.4	112.2	-103.20	-332.9	-1,673.1	1,565.3	1,440.7	124.60	12.563	
5,700.0	5,688.5	5,685.5	5,685.5	12.6	114.0	-103.20	-332.9	-1,673.1	1,565.3	1,438.7	126.60	12.365	
5,708.6	5,697.2	5,694.2	5,694.2	12.6	114.2	-103.20	-332.9	-1,673.1	1,565.3	1,438.5	126.79	12.346	
5,800.0	5,788.5	5,785.5	5,785.5	12.8	116.0	-103.20	-332.9	-1,673.1	1,565.3	1,436.5	128.83	12.150	
5,807.1	5,795.6	5,792.6	5,792.6	12.9	116.2	-103.20	-332.9	-1,673.1	1,565.3	1,436.3	128.99	12.136	
5,900.0	5,888.5	5,885.5	5,885.5	13.1	118.0	-103.20	-332.9	-1,673.1	1,565.3	1,434.3	131.06	11.944	
5,905.5	5,894.0	5,891.0	5,891.0	13.1	118.1	-103.20	-332.9	-1,673.1	1,565.3	1,434.1	131.18	11.933	
6,000.0	5,988.5	5,985.5	5,985.5	13.3	120.0	-103.20	-332.9	-1,673.1	1,565.3	1,432.0	133.29	11.744	
6,003.9	5,992.5	5,989.5	5,989.5	13.3	120.1	-103.20	-332.9	-1,673.1	1,565.3	1,431.9	133.38	11.736	
6,085.3	6,073.8	6,070.8	6,070.8	13.5	121.8	-103.20	-332.9	-1,673.1	1,565.3	1,430.1	135.19	11.579	
6,100.0	6,088.5	6,085.5	6,085.5	13.5	122.1	-13.20	-332.9	-1,673.1	1,565.2	1,429.9	135.30	11.568	
6,102.3	6,090.9	6,087.9	6,087.9	13.5	122.1	-13.20	-332.9	-1,673.1	1,565.1	1,429.8	135.34	11.564	
6,150.0	6,138.4	6,135.4	6,135.4	13.6	123.1	-13.27	-332.9	-1,673.1	1,562.5	1,426.5	135.93	11.494	
6,200.0	6,188.0	6,185.0	6,185.0	13.7	124.1	-13.44	-332.9	-1,673.1	1,556.4	1,420.5	135.94	11.449	
6,200.8	6,188.8	6,185.8	6,185.8	13.7	124.1	-13.44	-332.9	-1,673.1	1,556.3	1,420.3	135.94	11.449	
6,250.0	6,237.1	6,234.1	6,234.1	13.9	125.0	-13.70	-332.9	-1,673.1	1,547.0	1,411.6	135.32	11.432	
6,299.2	6,284.6	6,281.6	6,281.6	14.0	126.0	-14.07	-332.9	-1,673.1	1,534.5	1,400.4	134.09	11.444	
6,300.0	6,285.3	6,282.3	6,282.3	14.0	126.0	-14.07	-332.9	-1,673.1	1,534.2	1,400.2	134.06	11.444	
6,350.0	6,332.5	6,329.5	6,329.5	14.2	127.0	-14.56	-332.9	-1,673.1	1,518.3	1,386.1	132.19	11.485	
6,397.6	6,376.3	6,373.3	6,373.3	14.4	127.8	-15.14	-332.9	-1,673.1	1,500.1	1,370.3	129.86	11.552	
6,400.0	6,378.5	6,375.5	6,375.5	14.4	127.9	-15.17	-332.9	-1,673.1	1,499.2	1,369.4	129.73	11.556	
6,450.0	6,423.0	6,420.0	6,420.0	14.7	128.8	-15.94	-332.9	-1,673.1	1,477.0	1,350.3	126.73	11.655	
6,496.0	6,462.4	6,459.4	6,459.4	14.9	129.6	-16.80	-332.9	-1,673.1	1,454.0	1,330.4	123.54	11.769	
6,500.0	6,465.7	6,462.7	6,462.7	14.9	129.6	-16.88	-332.9	-1,673.1	1,451.9	1,328.6	123.25	11.780	
6,550.0	6,506.6	6,503.6	6,503.6	15.2	130.5	-18.02	-332.9	-1,673.1	1,424.0	1,304.6	119.40	11.926	
6,594.5	6,541.2	6,538.2	6,538.2	15.6	131.2	-19.25	-332.9	-1,673.1	1,396.9	1,281.2	115.79	12.064	
6,600.0	6,545.3	6,542.3	6,542.3	15.6	131.2	-19.42	-332.9	-1,673.1	1,393.4	1,278.1	115.34	12.081	
6,650.0	6,581.8	6,578.8	6,578.8	16.0	132.0	-21.12	-332.9	-1,673.1	1,360.4	1,249.1	111.30	12.223	
6,692.9	6,611.1	6,608.1	6,608.1	16.4	132.6	-22.87	-332.9	-1,673.1	1,330.2	1,222.1	108.09	12.307	
6,700.0	6,615.8	6,612.8	6,612.8	16.5	132.7	-23.19	-332.9	-1,673.1	1,325.1	1,217.5	107.60	12.315	
6,750.0	6,647.1	6,644.1	6,644.1	17.1	133.3	-25.73	-332.9	-1,673.1	1,287.6	1,182.9	104.71	12.297	
6,791.3	6,670.9	6,667.9	6,667.9	17.6	133.8	-28.27	-332.9	-1,673.1	1,255.2	1,151.8	103.37	12.143	
6,800.0	6,675.7	6,672.7	6,672.7	17.7	133.9	-28.86	-332.9	-1,673.1	1,248.2	1,145.0	103.25	12.089	
6,850.0	6,701.3	6,698.3	6,698.3	18.4	134.4	-32.73	-332.9	-1,673.1	1,207.2	1,103.2	103.98	11.609	
6,889.7	6,719.5	6,716.5	6,716.5	19.0	134.7	-36.45	-332.9	-1,673.1	1,173.5	1,066.8	106.62	11.006	
6,900.0	6,723.8	6,720.8	6,720.8	19.1	134.8	-37.52	-332.9	-1,673.1	1,164.6	1,057.0	107.63	10.820	
6,950.0	6,743.2	6,740.2	6,740.2	20.0	135.2	-43.42	-332.9	-1,673.1	1,120.9	1,006.2	114.64	9.777	
6,988.2	6,755.8	6,752.8	6,752.8	20.6	135.5	-48.76	-332.9	-1,673.1	1,086.8	964.6	122.14	8.898	
7,000.0	6,759.4	6,756.4	6,756.4	20.9	135.5	-50.58	-332.9	-1,673.1	1,076.1	951.4	124.75	8.626	
7,050.0	6,772.1	6,769.1	6,769.1	21.8	135.8	-59.02	-332.9	-1,673.1	1,030.7	894.0	136.69	7.540	
7,086.6	6,779.4	6,776.4	6,776.4	22.5	135.9	-65.88	-332.9	-1,673.1	997.1	851.8	145.30	6.862	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,100.0	6,781.5	6,778.5	6,778.5	22.8	136.0	-68.50	-332.9	-1,673.1	984.7	836.6	148.19	6.645	
7,150.0	6,787.5	6,784.5	6,784.5	23.9	136.1	-78.46	-332.9	-1,673.1	938.7	781.9	156.79	5.987	
7,185.0	6,789.6	6,786.6	6,786.6	24.6	136.2	-85.30	-332.9	-1,673.1	906.4	746.2	160.21	5.658	
7,200.0	6,789.9	6,786.9	6,786.9	24.9	136.2	-88.12	-332.9	-1,673.1	892.7	731.7	160.99	5.545	
7,213.0	6,790.0	6,787.0	6,787.0	25.2	136.2	-90.49	-332.9	-1,673.1	880.8	719.5	161.36	5.459	
7,283.4	6,789.7	6,786.7	6,786.7	26.8	136.2	-90.44	-332.9	-1,673.1	816.9	654.0	162.93	5.014	
7,300.0	6,789.7	6,786.7	6,786.7	27.2	136.2	-90.43	-332.9	-1,673.1	802.1	638.8	163.30	4.912	
7,381.9	6,789.4	6,786.4	6,786.4	29.1	136.1	-90.38	-332.9	-1,673.1	729.7	564.5	165.20	4.417	
7,400.0	6,789.3	6,786.3	6,786.3	29.5	136.1	-90.37	-332.9	-1,673.1	713.9	548.3	165.62	4.311	
7,480.3	6,789.0	6,786.0	6,786.0	31.4	136.1	-90.33	-332.9	-1,673.1	645.7	478.1	167.55	3.854	
7,500.0	6,788.9	6,785.9	6,785.9	31.9	136.1	-90.31	-332.9	-1,673.1	629.3	461.3	168.02	3.746	
7,578.7	6,788.6	6,785.6	6,785.6	33.8	136.1	-90.27	-332.9	-1,673.1	566.3	396.4	169.96	3.332	
7,600.0	6,788.5	6,785.5	6,785.5	34.4	136.1	-90.25	-332.9	-1,673.1	550.0	379.5	170.48	3.226	
7,677.1	6,788.2	6,785.2	6,785.2	36.3	136.1	-90.21	-332.9	-1,673.1	493.9	321.5	172.41	2.864	
7,700.0	6,788.2	6,785.2	6,785.2	36.9	136.1	-90.19	-332.9	-1,673.1	478.4	305.4	172.99	2.765	
7,775.6	6,787.9	6,784.9	6,784.9	38.8	136.1	-90.15	-332.9	-1,673.1	431.8	256.9	174.91	2.469	
7,800.0	6,787.8	6,784.8	6,784.8	39.4	136.1	-90.13	-332.9	-1,673.1	418.6	243.1	175.54	2.385	
7,874.0	6,787.5	6,784.5	6,784.5	41.3	136.1	-90.09	-332.9	-1,673.1	385.3	207.8	177.45	2.171	
7,900.0	6,787.4	6,784.4	6,784.4	42.0	136.1	-90.07	-332.9	-1,673.1	376.3	198.2	178.12	2.113	
7,972.4	6,787.1	6,784.1	6,784.1	43.9	136.1	-90.03	-332.9	-1,673.1	360.2	180.2	180.01	2.001	
8,000.0	6,787.0	6,784.0	6,784.0	44.6	136.1	-90.01	-332.9	-1,673.1	357.8	177.1	180.72	1.980	
8,018.1	6,787.0	6,784.0	6,784.0	45.1	136.1	-90.00	-332.9	-1,673.1	357.3	176.1	181.20	1.972 CC, ES, SF	
8,070.8	6,786.7	6,783.7	6,783.7	46.5	136.1	-89.97	-332.9	-1,673.1	361.2	178.6	182.59	1.978	
8,100.0	6,786.6	6,783.6	6,783.6	47.3	136.1	-89.95	-332.9	-1,673.1	366.6	183.2	183.35	1.999	
8,169.3	6,786.4	6,783.4	6,783.4	49.1	136.1	-89.91	-332.9	-1,673.1	388.0	202.8	185.19	2.095	
8,200.0	6,786.3	6,783.3	6,783.3	49.9	136.1	-89.89	-332.9	-1,673.1	401.0	215.0	186.00	2.156	
8,267.7	6,786.0	6,783.0	6,783.0	51.7	136.1	-89.85	-332.9	-1,673.1	435.9	248.1	187.81	2.321	
8,300.0	6,785.9	6,782.9	6,782.9	52.6	136.1	-89.83	-332.9	-1,673.1	455.1	266.5	188.67	2.412	
8,366.1	6,785.6	6,782.6	6,782.6	54.4	136.1	-89.79	-332.9	-1,673.1	498.8	308.4	190.44	2.619	
8,400.0	6,785.5	6,782.5	6,782.5	55.3	136.1	-89.77	-332.9	-1,673.1	523.0	331.7	191.34	2.733	
8,464.5	6,785.2	6,782.2	6,782.2	57.0	136.1	-89.73	-332.9	-1,673.1	571.9	378.8	193.08	2.962	
8,500.0	6,785.1	6,782.1	6,782.1	58.0	136.1	-89.70	-332.9	-1,673.1	599.9	405.9	194.03	3.092	
8,563.0	6,784.9	6,781.9	6,781.9	59.7	136.1	-89.66	-332.9	-1,673.1	651.6	455.9	195.73	3.329	
8,600.0	6,784.7	6,781.7	6,781.7	60.7	136.1	-89.64	-332.9	-1,673.1	682.9	486.1	196.73	3.471	
8,661.4	6,784.5	6,781.5	6,781.5	62.4	136.0	-89.60	-332.9	-1,673.1	735.9	537.5	198.40	3.709	
8,700.0	6,784.3	6,781.3	6,781.3	63.4	136.0	-89.58	-332.9	-1,673.1	769.9	570.4	199.44	3.860	
8,759.8	6,784.1	6,781.1	6,781.1	65.0	136.0	-89.54	-332.9	-1,673.1	823.3	622.3	201.06	4.095	
8,800.0	6,784.0	6,781.0	6,781.0	66.1	136.0	-89.52	-332.9	-1,673.1	859.7	657.5	202.16	4.253	
8,858.2	6,783.7	6,780.7	6,780.7	67.7	136.0	-89.48	-332.9	-1,673.1	913.0	709.3	203.74	4.481	
8,900.0	6,783.6	6,780.6	6,780.6	68.9	136.0	-89.45	-332.9	-1,673.1	951.6	746.7	204.88	4.645	
8,956.7	6,783.3	6,780.3	6,780.3	70.4	136.0	-89.42	-332.9	-1,673.1	1,004.3	797.9	206.42	4.865	
9,000.0	6,783.2	6,780.2	6,780.2	71.6	136.0	-89.39	-332.9	-1,673.1	1,044.9	837.3	207.60	5.033	
9,055.1	6,783.0	6,780.0	6,780.0	73.1	136.0	-89.36	-332.9	-1,673.1	1,096.9	887.7	209.11	5.245	
9,100.0	6,782.8	6,779.8	6,779.8	74.3	136.0	-89.33	-332.9	-1,673.1	1,139.4	929.1	210.34	5.417	
9,153.5	6,782.6	6,779.6	6,779.6	75.8	136.0	-89.29	-332.9	-1,673.1	1,190.3	978.5	211.80	5.620	
9,200.0	6,782.4	6,779.4	6,779.4	77.1	136.0	-89.26	-332.9	-1,673.1	1,234.8	1,021.7	213.07	5.795	
9,251.9	6,782.2	6,779.2	6,779.2	78.5	136.0	-89.23	-332.9	-1,673.1	1,284.6	1,070.1	214.50	5.989	
9,300.0	6,782.0	6,779.0	6,779.0	79.8	136.0	-89.20	-332.9	-1,673.1	1,330.8	1,115.0	215.82	6.166	
9,350.4	6,781.8	6,778.8	6,778.8	81.2	136.0	-89.17	-332.9	-1,673.1	1,379.4	1,162.2	217.20	6.351	
9,400.0	6,781.6	6,778.6	6,778.6	82.6	136.0	-89.14	-332.9	-1,673.1	1,427.4	1,208.8	218.56	6.531	
9,448.8	6,781.4	6,778.4	6,778.4	83.9	136.0	-89.11	-332.9	-1,673.1	1,474.7	1,254.8	219.90	6.706	
9,500.0	6,781.2	6,778.2	6,778.2	85.4	136.0	-89.07	-332.9	-1,673.1	1,524.4	1,303.1	221.31	6.888	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,781.0	6,778.0	6,778.0	86.7	136.0	-89.04	-332.9	-1,673.1	1,570.3	1,347.7	222.61	7.054	
9,600.0	6,780.8	6,777.8	6,777.8	88.1	136.0	-89.01	-332.9	-1,673.1	1,621.8	1,397.7	224.06	7.238	
9,645.6	6,780.7	6,777.7	6,777.7	89.4	136.0	-88.98	-332.9	-1,673.1	1,666.3	1,441.0	225.32	7.396	
9,700.0	6,780.5	6,777.5	6,777.5	90.9	136.0	-88.94	-332.9	-1,673.1	1,719.5	1,492.6	226.81	7.581	
9,744.1	6,780.3	6,777.3	6,777.3	92.1	136.0	-88.92	-332.9	-1,673.1	1,762.6	1,534.6	228.03	7.730	
9,800.0	6,780.1	6,777.1	6,777.1	93.7	136.0	-88.88	-332.9	-1,673.1	1,817.4	1,587.8	229.57	7.917	
9,842.5	6,779.9	6,776.9	6,776.9	94.8	136.0	-88.85	-332.9	-1,673.1	1,859.1	1,628.3	230.74	8.057	
9,900.0	6,779.7	6,776.7	6,776.7	96.4	136.0	-88.82	-332.9	-1,673.1	1,915.5	1,683.2	232.32	8.245	
9,940.9	6,779.5	6,776.5	6,776.5	97.6	135.9	-88.79	-332.9	-1,673.1	1,955.8	1,722.3	233.45	8.377	
10,000.0	6,779.3	6,776.3	6,776.3	99.2	135.9	-88.75	-332.9	-1,673.1	2,013.9	1,778.8	235.08	8.567	
10,039.3	6,779.1	6,776.1	6,776.1	100.3	135.9	-88.73	-332.9	-1,673.1	2,052.6	1,816.4	236.17	8.691	
10,100.0	6,778.9	6,775.9	6,775.9	102.0	135.9	-88.69	-332.9	-1,673.1	2,112.4	1,874.5	237.84	8.881	
10,137.8	6,778.7	6,775.7	6,775.7	103.0	135.9	-88.66	-332.9	-1,673.1	2,149.6	1,910.7	238.89	8.998	
10,200.0	6,778.5	6,775.5	6,775.5	104.8	135.9	-88.62	-332.9	-1,673.1	2,211.0	1,970.4	240.61	9.189	
10,236.2	6,778.3	6,775.3	6,775.3	105.8	135.9	-88.60	-332.9	-1,673.1	2,246.7	2,005.1	241.61	9.299	
10,300.0	6,778.1	6,775.1	6,775.1	107.5	135.9	-88.55	-332.9	-1,673.1	2,309.7	2,066.3	243.37	9.491	
10,334.6	6,778.0	6,775.0	6,775.0	108.5	135.9	-88.53	-332.9	-1,673.1	2,343.9	2,099.6	244.33	9.593	
10,400.0	6,777.7	6,774.7	6,774.7	110.3	135.9	-88.49	-332.9	-1,673.1	2,408.6	2,162.4	246.13	9.786	
10,433.0	6,777.6	6,774.6	6,774.6	111.2	135.9	-88.47	-332.9	-1,673.1	2,441.3	2,194.2	247.05	9.882	
10,500.0	6,777.3	6,774.3	6,774.3	113.1	135.9	-88.42	-332.9	-1,673.1	2,507.5	2,258.6	248.90	10.074	
10,531.5	6,777.2	6,774.2	6,774.2	114.0	135.9	-88.40	-332.9	-1,673.1	2,538.7	2,288.9	249.77	10.164	
10,600.0	6,776.9	6,773.9	6,773.9	115.9	135.9	-88.36	-332.9	-1,673.1	2,606.5	2,354.9	251.67	10.357	
10,629.9	6,776.8	6,773.8	6,773.8	116.7	135.9	-88.34	-332.9	-1,673.1	2,636.1	2,383.6	252.49	10.440	
10,700.0	6,776.5	6,773.5	6,773.5	118.7	135.9	-88.29	-332.9	-1,673.1	2,705.6	2,451.2	254.43	10.634	
10,728.3	6,776.4	6,773.4	6,773.4	119.5	135.9	-88.27	-332.9	-1,673.1	2,733.7	2,478.5	255.22	10.711	
10,800.0	6,776.1	6,773.1	6,773.1	121.4	135.9	-88.22	-332.9	-1,673.1	2,804.8	2,547.6	257.20	10.905	
10,826.7	6,776.0	6,773.0	6,773.0	122.2	135.9	-88.21	-332.9	-1,673.1	2,831.3	2,573.4	257.94	10.977	
10,900.0	6,775.7	6,772.7	6,772.7	124.2	135.9	-88.16	-332.9	-1,673.1	2,904.0	2,644.0	259.97	11.171	
10,925.2	6,775.6	6,772.6	6,772.6	124.9	135.9	-88.14	-332.9	-1,673.1	2,929.0	2,668.3	260.66	11.236	
11,000.0	6,775.3	6,772.3	6,772.3	127.0	135.9	-88.09	-332.9	-1,673.1	3,003.2	2,740.5	262.74	11.431	
11,023.6	6,775.2	6,772.2	6,772.2	127.7	135.9	-88.08	-332.9	-1,673.1	3,026.7	2,763.3	263.39	11.491	
11,100.0	6,774.9	6,771.9	6,771.9	129.8	135.9	-88.02	-332.9	-1,673.1	3,102.5	2,837.0	265.51	11.685	
11,122.0	6,774.8	6,771.8	6,771.8	130.4	135.9	-88.01	-332.9	-1,673.1	3,124.4	2,858.3	266.12	11.741	
11,200.0	6,774.5	6,771.5	6,771.5	132.6	135.8	-87.96	-332.9	-1,673.1	3,201.9	2,933.6	268.27	11.935	
11,220.4	6,774.4	6,771.4	6,771.4	133.2	135.8	-87.94	-332.9	-1,673.1	3,222.2	2,953.4	268.84	11.986	
11,300.0	6,774.1	6,771.1	6,771.1	135.4	135.8	-87.89	-332.9	-1,673.1	3,301.3	3,030.3	271.04	12.180	
11,318.9	6,774.0	6,771.0	6,771.0	135.9	135.8	-87.88	-332.9	-1,673.1	3,320.1	3,048.5	271.57	12.226	
11,400.0	6,773.7	6,770.7	6,770.7	138.2	135.8	-87.82	-332.9	-1,673.1	3,400.7	3,126.9	273.81	12.420	
11,417.3	6,773.6	6,770.6	6,770.6	138.7	135.8	-87.81	-332.9	-1,673.1	3,417.9	3,143.6	274.29	12.461	
11,500.0	6,773.3	6,770.3	6,770.3	141.0	135.8	-87.75	-332.9	-1,673.1	3,500.2	3,223.6	276.58	12.655	
11,515.7	6,773.2	6,770.2	6,770.2	141.4	135.8	-87.74	-332.9	-1,673.1	3,515.8	3,238.8	277.02	12.692	
11,600.0	6,772.9	6,769.9	6,769.9	143.8	135.8	-87.69	-332.9	-1,673.1	3,599.7	3,320.3	279.35	12.886	
11,614.1	6,772.8	6,769.8	6,769.8	144.2	135.8	-87.68	-332.9	-1,673.1	3,613.8	3,334.0	279.74	12.918	
11,700.0	6,772.5	6,769.5	6,769.5	146.6	135.8	-87.62	-332.9	-1,673.1	3,699.2	3,417.1	282.12	13.112	
11,712.6	6,772.4	6,769.4	6,769.4	146.9	135.8	-87.61	-332.9	-1,673.1	3,711.7	3,429.2	282.47	13.140	
11,800.0	6,772.1	6,769.1	6,769.1	149.4	135.8	-87.55	-332.9	-1,673.1	3,798.7	3,513.8	284.89	13.334	
11,811.0	6,772.1	6,769.1	6,769.1	149.7	135.8	-87.54	-332.9	-1,673.1	3,809.7	3,524.5	285.20	13.358	
11,900.0	6,771.7	6,768.7	6,768.7	152.2	135.8	-87.48	-332.9	-1,673.1	3,898.3	3,610.6	287.66	13.552	
11,909.4	6,771.7	6,768.7	6,768.7	152.4	135.8	-87.47	-332.9	-1,673.1	3,907.7	3,619.8	287.92	13.572	
12,000.0	6,771.3	6,768.3	6,768.3	154.9	135.8	-87.41	-332.9	-1,673.1	3,997.9	3,707.5	290.43	13.765	
12,007.8	6,771.3	6,768.3	6,768.3	155.2	135.8	-87.41	-332.9	-1,673.1	4,005.7	3,715.1	290.65	13.782	
12,100.0	6,770.9	6,767.9	6,767.9	157.7	135.8	-87.34	-332.9	-1,673.1	4,097.5	3,804.3	293.20	13.975	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-2 - 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
12,106.3	6,770.9	6,767.9	6,767.9	157.9	135.8	-87.34	-332.9	-1,673.1	4,103.8	3,810.4	293.37	13.988	
12,200.0	6,770.5	6,767.5	6,767.5	160.5	135.8	-87.27	-332.9	-1,673.1	4,197.1	3,901.2	295.97	14.181	
12,204.7	6,770.5	6,767.5	6,767.5	160.7	135.8	-87.27	-332.9	-1,673.1	4,201.8	3,905.7	296.10	14.191	
12,300.0	6,770.1	6,767.1	6,767.1	163.3	135.8	-87.20	-332.9	-1,673.1	4,296.8	3,998.0	298.74	14.383	
12,303.1	6,770.1	6,767.1	6,767.1	163.4	135.8	-87.20	-332.9	-1,673.1	4,299.9	4,001.1	298.82	14.389	
12,316.4	6,770.0	6,767.0	6,767.0	163.8	135.8	-87.19	-332.9	-1,673.1	4,313.1	4,013.9	299.19	14.416	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-94.32	-226.0	-2,994.6	3,003.1					
98.4	98.4	103.6	103.6	0.1	0.1	-94.33	-226.5	-2,994.4	3,003.0	3,002.8	0.20	N/A		
100.0	100.0	105.2	105.2	0.1	0.1	-94.33	-226.5	-2,994.4	3,003.0	3,002.8	0.21	N/A		
196.8	196.8	200.0	200.0	0.3	0.2	-94.34	-227.3	-2,994.1	3,002.8	3,002.2	0.55	5,441.467		
200.0	200.0	202.0	202.0	0.3	0.2	-94.34	-227.3	-2,994.1	3,002.8	3,002.2	0.56	5,355.709		
295.3	295.3	296.3	296.3	0.5	0.3	-94.36	-228.3	-2,993.9	3,002.6	3,001.8	0.86	3,506.963		
300.0	300.0	301.0	301.0	0.5	0.3	-94.36	-228.3	-2,993.9	3,002.6	3,001.7	0.87	3,448.457		
393.7	393.7	397.8	397.8	0.8	0.4	-94.38	-229.3	-2,993.7	3,002.4	3,001.3	1.15	2,612.719		
400.0	400.0	404.3	404.3	0.8	0.4	-94.38	-229.3	-2,993.6	3,002.4	3,001.3	1.17	2,571.659		
492.1	492.1	499.0	499.0	1.0	0.5	-94.40	-230.1	-2,993.3	3,002.2	3,000.7	1.43	2,095.130		
500.0	500.0	507.3	507.3	1.0	0.5	-94.40	-230.2	-2,993.3	3,002.1	3,000.7	1.46	2,062.893		
590.5	590.5	602.5	602.5	1.2	0.5	-94.41	-231.0	-2,992.8	3,001.7	3,000.0	1.71	1,753.350		
600.0	600.0	611.8	611.7	1.2	0.5	-94.41	-231.1	-2,992.8	3,001.7	3,000.0	1.74	1,727.053		
689.0	689.0	698.5	698.4	1.4	0.6	-94.43	-231.7	-2,992.3	3,001.3	2,999.3	1.98	1,513.294		
700.0	700.0	709.0	709.0	1.4	0.6	-94.43	-231.8	-2,992.3	3,001.3	2,999.2	2.01	1,490.714		
787.4	787.4	792.1	792.0	1.6	0.6	-94.44	-232.4	-2,991.9	3,001.0	2,998.7	2.25	1,333.332		
800.0	800.0	804.2	804.2	1.7	0.6	-94.44	-232.5	-2,991.9	3,000.9	2,998.7	2.28	1,313.333		
885.8	885.8	888.9	888.8	1.9	0.7	-94.46	-233.2	-2,991.7	3,000.7	2,998.2	2.52	1,191.490		
900.0	900.0	900.0	900.0	1.9	0.7	-94.46	-233.3	-2,991.6	3,000.7	2,998.2	2.56	1,174.138		
984.2	984.2	982.2	982.2	2.1	0.7	-94.47	-234.1	-2,991.5	3,000.6	2,997.8	2.78	1,078.270		
1,000.0	1,000.0	997.1	997.1	2.1	0.7	-94.48	-234.3	-2,991.5	3,000.6	2,997.8	2.83	1,062.152		
1,002.9	1,002.9	1,000.0	1,000.0	2.1	0.7	-94.48	-234.3	-2,991.5	3,000.6	2,997.8	2.83	1,059.201		
1,082.7	1,082.7	1,061.5	1,061.5	2.3	0.7	-94.49	-234.8	-2,991.6	3,000.9	2,997.8	3.03	989.668		
1,100.0	1,100.0	1,074.9	1,074.9	2.3	0.7	-94.49	-234.9	-2,991.7	3,001.0	2,997.9	3.08	975.773		
1,181.1	1,181.1	1,152.6	1,152.6	2.5	0.8	-94.50	-235.5	-2,992.3	3,001.7	2,998.4	3.28	913.862		
1,200.0	1,200.0	1,173.1	1,173.0	2.6	0.8	-94.50	-235.7	-2,992.5	3,001.9	2,998.5	3.33	900.268		
1,279.5	1,279.5	1,254.4	1,254.3	2.7	0.8	-94.52	-236.7	-2,993.0	3,002.5	2,998.9	3.54	847.138		
1,300.0	1,300.0	1,274.8	1,274.7	2.8	0.8	-94.53	-237.0	-2,993.2	3,002.6	2,999.0	3.60	834.448		
1,377.9	1,377.9	1,349.1	1,349.0	3.0	0.8	-94.54	-238.0	-2,993.7	3,003.2	2,999.4	3.80	789.949		
1,400.0	1,400.0	1,369.7	1,369.6	3.0	0.8	-94.55	-238.2	-2,993.8	3,003.4	2,999.6	3.86	778.280		
1,476.4	1,476.4	1,441.2	1,441.1	3.2	0.9	-94.57	-239.2	-2,994.5	3,004.2	3,000.1	4.06	740.640		
1,500.0	1,500.0	1,463.4	1,463.3	3.2	0.9	-94.57	-239.4	-2,994.7	3,004.4	3,000.3	4.12	729.772		
1,574.8	1,574.8	1,535.5	1,535.4	3.4	0.9	-13.89	-240.3	-2,995.5	3,004.4	3,000.2	4.19	716.300		
1,600.0	1,600.0	1,560.5	1,560.4	3.5	0.9	-13.90	-240.5	-2,995.8	3,003.9	2,999.7	4.26	705.949		
1,673.2	1,673.1	1,633.4	1,633.3	3.6	0.9	-13.94	-241.3	-2,996.6	3,001.4	2,997.0	4.43	678.064		
1,700.0	1,699.8	1,660.1	1,659.9	3.7	0.9	-13.96	-241.6	-2,996.9	3,000.1	2,995.6	4.49	668.270		
1,771.6	1,771.2	1,730.0	1,729.9	3.8	1.0	-14.02	-242.1	-2,997.7	2,995.2	2,990.6	4.66	642.685		
1,800.0	1,799.5	1,757.0	1,756.9	3.9	1.0	-14.05	-242.3	-2,998.1	2,992.9	2,988.1	4.73	633.082		
1,870.1	1,869.0	1,826.8	1,826.7	4.0	1.0	-14.12	-242.2	-2,999.0	2,985.9	2,981.0	4.90	609.509		
1,900.0	1,898.7	1,859.1	1,858.9	4.1	1.0	-14.15	-242.2	-2,999.4	2,982.4	2,977.4	4.97	599.664		
1,968.5	1,966.4	1,928.3	1,928.2	4.3	1.0	-14.24	-241.9	-3,000.3	2,973.1	2,968.0	5.15	577.601		
2,000.0	1,997.5	1,957.6	1,957.5	4.4	1.0	-14.29	-241.8	-3,000.6	2,968.4	2,963.1	5.23	567.932		
2,066.9	2,063.2	2,020.1	2,020.0	4.6	1.0	-14.40	-241.6	-3,001.5	2,957.2	2,951.8	5.40	547.664		
2,100.1	2,095.7	2,051.5	2,051.3	4.7	1.0	-14.45	-241.5	-3,001.9	2,951.2	2,945.7	5.49	538.030		
2,165.3	2,159.5	2,113.5	2,113.3	4.9	1.0	-14.51	-241.3	-3,002.8	2,938.9	2,933.3	5.65	520.042		
2,200.0	2,193.4	2,147.1	2,147.0	5.0	1.1	-14.54	-241.1	-3,003.4	2,932.4	2,926.7	5.74	510.899		
2,224.2	2,217.1	2,170.7	2,170.5	5.1	1.1	-14.56	-241.0	-3,003.7	2,927.9	2,922.1	5.80	504.595		
2,263.8	2,255.9	2,210.4	2,210.2	5.2	1.1	-14.56	-240.7	-3,004.3	2,920.8	2,914.9	5.90	495.012		
2,300.0	2,291.5	2,250.3	2,250.1	5.3	1.1	-14.56	-240.5	-3,004.9	2,914.7	2,908.7	5.99	486.892		
2,362.2	2,352.7	2,317.4	2,317.2	5.5	1.1	-14.56	-240.0	-3,005.8	2,905.1	2,899.0	6.13	473.925		
2,400.0	2,390.1	2,355.7	2,355.5	5.6	1.1	-14.56	-239.7	-3,006.2	2,899.9	2,893.6	6.22	466.342		
2,460.6	2,450.1	2,417.0	2,416.8	5.7	1.1	-14.55	-239.2	-3,006.9	2,892.5	2,886.1	6.36	454.987		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,489.2	2,456.6	2,456.4	5.8	1.1	-14.54	-238.9	-3,007.4	2,888.3	2,881.8	6.45	447.991		
2,559.0	2,548.0	2,514.9	2,514.7	6.0	1.1	-14.54	-238.4	-3,008.0	2,883.0	2,876.4	6.58	438.143		
2,600.0	2,588.8	2,553.0	2,552.8	6.1	1.1	-14.53	-238.0	-3,008.5	2,880.1	2,873.4	6.67	431.713		
2,657.5	2,646.1	2,607.2	2,607.0	6.2	1.1	-14.52	-237.4	-3,009.2	2,877.0	2,870.2	6.80	423.223		
2,700.0	2,688.6	2,651.1	2,650.9	6.3	1.2	-14.51	-236.9	-3,009.8	2,875.4	2,868.5	6.89	417.191		
2,755.9	2,744.4	2,708.5	2,708.3	6.4	1.2	-14.50	-236.2	-3,010.5	2,874.3	2,867.2	7.01	409.750		
2,790.2	2,778.7	2,742.8	2,742.6	6.5	1.2	-14.50	-235.8	-3,010.9	2,874.1	2,867.0	7.09	405.411		
2,800.0	2,788.5	2,752.6	2,752.4	6.5	1.2	-14.49	-235.7	-3,011.1	2,874.1	2,867.0	7.11	404.194		
2,824.3	2,812.8	2,776.9	2,776.7	6.5	1.2	-95.19	-235.4	-3,011.4	2,874.3	2,866.7	7.61	377.776		
2,854.3	2,842.9	2,808.7	2,808.4	6.6	1.2	-95.18	-235.0	-3,011.8	2,874.6	2,866.9	7.67	374.855		
2,900.0	2,888.5	2,865.3	2,865.1	6.7	1.2	-95.16	-234.2	-3,012.3	2,875.0	2,867.3	7.76	370.460		
2,952.7	2,941.3	2,924.0	2,923.8	6.8	1.2	-95.14	-233.4	-3,012.7	2,875.3	2,867.4	7.88	365.098		
3,000.0	2,988.5	2,969.9	2,969.6	6.9	1.2	-95.13	-232.8	-3,013.0	2,875.6	2,867.6	7.98	360.455		
3,051.2	3,039.7	3,023.0	3,022.7	7.0	1.2	-95.12	-232.2	-3,013.4	2,875.8	2,867.7	8.09	355.513		
3,100.0	3,088.5	3,078.6	3,078.3	7.1	1.2	-95.11	-231.6	-3,013.7	2,876.0	2,867.8	8.20	350.882		
3,149.6	3,138.1	3,133.6	3,133.3	7.2	1.2	-95.09	-231.0	-3,013.8	2,876.1	2,867.8	8.31	346.267		
3,200.0	3,188.5	3,188.6	3,188.4	7.3	1.2	-95.09	-230.6	-3,013.8	2,876.1	2,867.7	8.42	341.694		
3,248.0	3,236.6	3,249.3	3,249.0	7.4	1.2	-95.08	-230.2	-3,013.7	2,875.9	2,867.4	8.52	337.374		
3,300.0	3,288.5	3,314.6	3,314.3	7.5	1.2	-95.07	-229.8	-3,013.2	2,875.5	2,866.9	8.64	332.775		
3,346.4	3,335.0	3,365.7	3,365.4	7.6	1.2	-95.07	-229.6	-3,012.6	2,875.0	2,866.3	8.75	328.725		
3,400.0	3,388.5	3,423.4	3,423.1	7.7	1.3	-95.07	-229.5	-3,011.9	2,874.4	2,865.5	8.87	324.156		
3,444.9	3,433.4	3,470.2	3,470.0	7.8	1.3	-95.07	-229.7	-3,011.3	2,873.8	2,864.8	8.97	320.390		
3,500.0	3,488.5	3,524.1	3,523.8	7.9	1.3	-95.08	-230.1	-3,010.5	2,873.0	2,863.9	9.10	315.878		
3,543.3	3,531.8	3,563.2	3,562.9	8.0	1.3	-95.09	-230.6	-3,010.0	2,872.4	2,863.2	9.19	312.414		
3,600.0	3,588.5	3,615.0	3,614.7	8.1	1.3	-95.11	-231.3	-3,009.3	2,871.8	2,862.5	9.32	307.992		
3,641.7	3,630.3	3,654.3	3,653.9	8.2	1.3	-95.12	-231.8	-3,008.9	2,871.4	2,862.0	9.42	304.795		
3,700.0	3,688.5	3,709.3	3,709.0	8.3	1.3	-95.13	-232.5	-3,008.4	2,870.9	2,861.4	9.56	300.442		
3,740.1	3,728.7	3,748.4	3,748.1	8.4	1.3	-95.14	-232.9	-3,008.0	2,870.6	2,860.9	9.65	297.500		
3,800.0	3,788.5	3,806.4	3,806.0	8.5	1.3	-95.16	-233.5	-3,007.5	2,870.1	2,860.4	9.79	293.223		
3,838.6	3,827.1	3,842.7	3,842.3	8.6	1.3	-95.16	-233.9	-3,007.2	2,869.9	2,860.0	9.88	290.529		
3,900.0	3,888.5	3,900.0	3,899.7	8.7	1.3	-95.18	-234.4	-3,006.9	2,869.5	2,859.5	10.02	286.347		
3,937.0	3,925.5	3,935.5	3,935.2	8.8	1.3	-95.18	-234.8	-3,006.7	2,869.4	2,859.2	10.11	283.869		
4,000.0	3,988.5	3,995.2	3,994.9	9.0	1.3	-95.19	-235.3	-3,006.4	2,869.1	2,858.9	10.26	279.757		
4,035.4	4,024.0	4,025.3	4,025.0	9.0	1.4	-95.20	-235.6	-3,006.3	2,869.0	2,858.7	10.34	277.521		
4,059.6	4,048.2	4,045.5	4,045.2	9.1	1.4	-95.20	-235.8	-3,006.2	2,869.0	2,858.6	10.39	276.020		
4,100.0	4,088.5	4,079.2	4,078.8	9.2	1.4	-95.21	-236.3	-3,006.2	2,869.1	2,858.6	10.49	273.561		
4,133.8	4,122.4	4,107.9	4,107.6	9.2	1.4	-95.22	-236.7	-3,006.3	2,869.2	2,858.6	10.57	271.530		
4,200.0	4,188.5	4,167.0	4,166.7	9.4	1.4	-95.24	-237.6	-3,006.5	2,869.5	2,858.8	10.72	267.628		
4,232.3	4,220.8	4,200.0	4,199.6	9.4	1.4	-95.25	-238.1	-3,006.7	2,869.8	2,859.0	10.80	265.743		
4,300.0	4,288.5	4,248.1	4,247.7	9.6	1.4	-95.26	-238.7	-3,007.2	2,870.5	2,859.5	10.95	262.111		
4,330.7	4,319.2	4,271.5	4,271.1	9.7	1.4	-95.26	-238.8	-3,007.5	2,870.9	2,859.9	11.02	260.500		
4,400.0	4,388.5	4,346.6	4,346.3	9.8	1.4	-95.26	-238.9	-3,008.8	2,872.1	2,860.9	11.18	256.912		
4,429.1	4,417.7	4,389.3	4,388.9	9.9	1.4	-95.26	-238.7	-3,009.3	2,872.4	2,861.1	11.25	255.398		
4,500.0	4,488.5	4,483.0	4,482.6	10.0	1.4	-95.24	-237.9	-3,009.8	2,872.7	2,861.3	11.41	251.862		
4,527.5	4,516.1	4,518.4	4,518.0	10.1	1.4	-95.23	-237.5	-3,009.8	2,872.7	2,861.3	11.47	250.497		
4,600.0	4,588.5	4,609.5	4,609.1	10.2	1.4	-95.21	-236.3	-3,009.5	2,872.4	2,860.7	11.63	246.933		
4,626.0	4,614.5	4,640.3	4,639.8	10.3	1.4	-95.20	-235.9	-3,009.2	2,872.1	2,860.4	11.69	245.661		
4,700.0	4,688.5	4,727.4	4,727.0	10.5	1.5	-95.18	-234.7	-3,008.3	2,871.2	2,859.4	11.86	242.077		
4,724.4	4,712.9	4,755.7	4,755.2	10.5	1.5	-95.17	-234.4	-3,007.9	2,870.8	2,858.9	11.92	240.904		
4,800.0	4,788.5	4,841.1	4,840.6	10.7	1.5	-95.16	-233.5	-3,006.4	2,869.5	2,857.4	12.09	237.319		
4,822.8	4,811.4	4,866.2	4,865.7	10.7	1.5	-95.16	-233.3	-3,005.9	2,869.1	2,856.9	12.14	236.250		
4,900.0	4,888.5	4,944.0	4,943.6	10.9	1.5	-95.15	-232.9	-3,004.4	2,867.5	2,855.2	12.32	232.704		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER-PM B #18-7 - Wellbore #1 - Wellbore												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	
4,921.2	4,909.8	4,964.2	4,963.7	10.9	1.5	-95.15	-232.8	-3,004.0	2,867.0	2,854.7	12.37	231.747	
5,000.0	4,988.5	5,042.0	5,041.5	11.1	1.5	-95.15	-232.9	-3,002.5	2,865.5	2,853.0	12.55	228.251	
5,019.7	5,008.2	5,062.2	5,061.7	11.1	1.5	-95.15	-232.9	-3,002.1	2,865.1	2,852.5	12.60	227.388	
5,100.0	5,088.5	5,133.0	5,132.5	11.3	1.5	-95.16	-232.9	-3,000.7	2,863.6	2,850.8	12.79	223.970	
5,118.1	5,106.6	5,146.8	5,146.3	11.4	1.5	-95.16	-232.9	-3,000.5	2,863.3	2,850.5	12.83	223.224	
5,200.0	5,188.5	5,211.2	5,210.7	11.5	1.5	-95.16	-232.8	-2,999.7	2,862.4	2,849.4	13.02	219.929	
5,216.5	5,205.1	5,226.7	5,226.2	11.6	1.5	-95.16	-232.8	-2,999.6	2,862.2	2,849.2	13.05	219.272	
5,300.0	5,288.5	5,305.1	5,304.6	11.8	1.5	-95.16	-232.9	-2,999.0	2,861.6	2,848.4	13.25	216.019	
5,314.9	5,303.5	5,320.0	5,319.5	11.8	1.5	-95.16	-232.9	-2,998.9	2,861.5	2,848.2	13.28	215.441	
5,400.0	5,388.5	5,405.0	5,404.5	12.0	1.5	-95.16	-233.1	-2,998.3	2,860.9	2,847.5	13.48	212.211	
5,413.4	5,401.9	5,417.8	5,417.3	12.0	1.5	-95.16	-233.1	-2,998.2	2,860.9	2,847.3	13.51	211.714	
5,500.0	5,488.5	5,501.0	5,500.5	12.2	1.5	-95.17	-233.2	-2,997.8	2,860.4	2,846.6	13.71	208.558	
5,511.8	5,500.3	5,513.7	5,513.2	12.2	1.5	-95.17	-233.2	-2,997.7	2,860.3	2,846.5	13.74	208.133	
5,600.0	5,588.5	5,607.5	5,607.0	12.4	1.6	-95.17	-233.2	-2,997.1	2,859.7	2,845.8	13.95	205.001	
5,610.2	5,598.8	5,617.3	5,616.7	12.4	1.6	-95.17	-233.3	-2,997.0	2,859.6	2,845.7	13.97	204.645	
5,700.0	5,688.5	5,703.1	5,702.6	12.6	1.6	-95.17	-233.4	-2,996.4	2,859.0	2,844.8	14.18	201.571	
5,708.6	5,697.2	5,711.9	5,711.3	12.6	1.6	-95.17	-233.4	-2,996.3	2,859.0	2,844.8	14.20	201.277	
5,800.0	5,788.5	5,804.6	5,804.0	12.8	1.6	-95.19	-234.0	-2,995.7	2,858.4	2,844.0	14.42	198.227	
5,807.1	5,795.6	5,811.7	5,811.2	12.9	1.6	-95.19	-234.0	-2,995.7	2,858.4	2,843.9	14.44	197.992	
5,900.0	5,888.5	5,905.3	5,904.8	13.1	1.6	-95.21	-235.2	-2,994.9	2,857.7	2,843.1	14.66	194.950	
5,905.5	5,894.0	5,910.5	5,910.0	13.1	1.6	-95.21	-235.2	-2,994.9	2,857.7	2,843.0	14.67	194.773	
6,000.0	5,988.5	6,000.0	5,999.5	13.3	1.6	-95.24	-236.6	-2,994.2	2,857.2	2,842.3	14.90	191.788	
6,003.9	5,992.5	6,003.6	6,003.0	13.3	1.6	-95.24	-236.7	-2,994.2	2,857.1	2,842.2	14.91	191.666	
6,085.3	6,073.8	6,082.8	6,082.3	13.5	1.6	-95.27	-238.1	-2,993.7	2,856.8	2,841.7	15.10	189.164	
6,100.0	6,088.5	6,097.2	6,096.6	13.5	1.6	-5.28	-238.4	-2,993.7	2,856.6	2,841.7	14.86	192.268	
6,102.3	6,090.9	6,100.0	6,099.4	13.5	1.7	-5.28	-238.4	-2,993.6	2,856.5	2,841.7	14.86	192.172	
6,150.0	6,138.4	6,145.8	6,145.2	13.6	1.7	-5.33	-239.3	-2,993.4	2,853.6	2,838.6	15.03	189.835	
6,200.0	6,188.0	6,194.1	6,193.5	13.7	1.7	-5.41	-240.3	-2,993.1	2,847.3	2,832.0	15.25	186.656	
6,200.8	6,188.8	6,194.8	6,194.2	13.7	1.7	-5.41	-240.3	-2,993.1	2,847.1	2,831.9	15.26	186.602	
6,250.0	6,237.1	6,240.3	6,239.7	13.9	1.7	-5.52	-241.2	-2,992.9	2,837.5	2,822.0	15.50	183.070	
6,299.2	6,284.6	6,285.0	6,284.4	14.0	1.7	-5.66	-241.9	-2,992.8	2,824.6	2,808.9	15.74	179.423	
6,300.0	6,285.3	6,285.7	6,285.1	14.0	1.7	-5.66	-241.9	-2,992.8	2,824.4	2,808.6	15.75	179.364	
6,350.0	6,332.5	6,335.3	6,334.7	14.2	1.7	-5.85	-242.6	-2,992.7	2,808.0	2,792.0	15.98	175.687	
6,397.6	6,376.3	6,383.7	6,383.0	14.4	1.7	-6.08	-243.2	-2,992.5	2,789.3	2,773.1	16.19	172.318	
6,400.0	6,378.5	6,386.0	6,385.4	14.4	1.7	-6.09	-243.2	-2,992.5	2,788.3	2,772.1	16.20	172.156	
6,450.0	6,423.0	6,432.0	6,431.4	14.7	1.7	-6.39	-243.9	-2,992.2	2,765.4	2,749.0	16.38	168.861	
6,496.0	6,462.4	6,471.8	6,471.1	14.9	1.7	-6.71	-244.5	-2,992.0	2,741.6	2,725.1	16.51	166.052	
6,500.0	6,465.7	6,475.1	6,474.5	14.9	1.7	-6.74	-244.6	-2,992.0	2,739.4	2,722.9	16.52	165.822	
6,550.0	6,506.6	6,514.1	6,513.4	15.2	1.7	-7.17	-245.3	-2,991.8	2,710.6	2,694.0	16.62	163.050	
6,594.5	6,541.2	6,544.4	6,543.7	15.6	1.7	-7.62	-245.8	-2,991.6	2,682.7	2,666.0	16.68	160.802	
6,600.0	6,545.3	6,548.0	6,547.4	15.6	1.7	-7.69	-245.9	-2,991.6	2,679.1	2,662.4	16.69	160.536	
6,650.0	6,581.8	6,580.1	6,579.4	16.0	1.8	-8.31	-246.3	-2,991.5	2,645.0	2,628.3	16.72	158.203	
6,692.9	6,611.1	6,607.0	6,606.3	16.4	1.8	-8.95	-246.6	-2,991.5	2,613.9	2,597.1	16.73	156.277	
6,700.0	6,615.8	6,611.8	6,611.2	16.5	1.8	-9.07	-246.6	-2,991.5	2,608.6	2,591.8	16.73	155.956	
6,750.0	6,647.1	6,644.4	6,643.7	17.1	1.8	-10.04	-246.9	-2,991.5	2,569.8	2,553.1	16.72	153.661	
6,791.3	6,670.9	6,669.0	6,668.4	17.6	1.8	-11.04	-247.2	-2,991.5	2,536.2	2,519.5	16.73	151.639	
6,800.0	6,675.7	6,673.9	6,673.3	17.7	1.8	-11.28	-247.3	-2,991.5	2,529.0	2,512.3	16.73	151.193	
6,850.0	6,701.3	6,700.0	6,699.4	18.4	1.8	-12.87	-247.6	-2,991.4	2,486.3	2,469.6	16.77	148.297	
6,889.7	6,719.5	6,715.6	6,715.0	19.0	1.8	-14.46	-247.7	-2,991.4	2,451.2	2,434.4	16.85	145.461	
6,900.0	6,723.8	6,719.3	6,718.7	19.1	1.8	-14.93	-247.8	-2,991.4	2,442.0	2,425.1	16.89	144.622	
6,950.0	6,743.2	6,735.7	6,735.1	20.0	1.8	-17.74	-247.9	-2,991.4	2,396.3	2,379.1	17.18	139.476	
6,988.2	6,755.8	6,750.0	6,749.4	20.6	1.8	-20.75	-248.0	-2,991.4	2,360.5	2,342.9	17.64	133.849	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,000.0	6,759.4	6,750.0	6,749.4	20.9	1.8	-21.77	-248.0	-2,991.4	2,349.3	2,331.5	17.81	131.923	
7,050.0	6,772.1	6,750.0	6,749.4	21.8	1.8	-27.36	-248.0	-2,991.4	2,301.4	2,282.5	18.92	121.622	
7,086.6	6,779.4	6,750.0	6,749.4	22.5	1.8	-33.40	-248.0	-2,991.4	2,265.8	2,245.6	20.28	111.754	
7,100.0	6,781.5	6,750.0	6,749.4	22.8	1.8	-36.23	-248.0	-2,991.4	2,252.7	2,231.8	20.91	107.724	
7,150.0	6,787.5	6,750.0	6,749.4	23.9	1.8	-51.23	-248.0	-2,991.4	2,203.6	2,179.6	23.96	91.949	
7,185.0	6,789.6	6,750.0	6,749.4	24.6	1.8	-67.46	-248.0	-2,991.4	2,168.9	2,142.8	26.11	83.070	
7,200.0	6,789.9	6,750.0	6,749.4	24.9	1.8	-75.93	-248.0	-2,991.4	2,154.1	2,127.4	26.68	80.731	
7,213.0	6,790.0	6,750.0	6,749.4	25.2	1.8	-83.79	-248.0	-2,991.4	2,141.2	2,114.2	26.99	79.337	
7,283.4	6,789.7	6,750.0	6,749.4	26.8	1.8	-83.79	-248.0	-2,991.4	2,071.3	2,042.8	28.55	72.539	
7,300.0	6,789.7	6,750.0	6,749.4	27.2	1.8	-83.79	-248.0	-2,991.4	2,054.9	2,026.0	28.92	71.050	
7,381.9	6,789.4	6,750.0	6,749.4	29.1	1.8	-83.79	-248.0	-2,991.4	1,973.8	1,943.0	30.82	64.051	
7,400.0	6,789.3	6,750.0	6,749.4	29.5	1.8	-83.79	-248.0	-2,991.4	1,955.9	1,924.6	31.24	62.616	
7,480.3	6,789.0	6,750.0	6,749.4	31.4	1.8	-83.79	-248.0	-2,991.4	1,876.4	1,843.2	33.16	56.593	
7,500.0	6,788.9	6,750.0	6,749.4	31.9	1.8	-83.79	-248.0	-2,991.4	1,856.9	1,823.3	33.63	55.220	
7,578.7	6,788.6	6,750.0	6,749.4	33.8	1.8	-83.79	-248.0	-2,991.4	1,779.1	1,743.5	35.56	50.033	
7,600.0	6,788.5	6,750.0	6,749.4	34.4	1.8	-83.80	-248.0	-2,991.4	1,758.1	1,722.0	36.08	48.727	
7,677.1	6,788.2	6,750.0	6,749.4	36.3	1.8	-83.80	-248.0	-2,991.4	1,681.9	1,643.9	38.01	44.249	
7,700.0	6,788.2	6,750.0	6,749.4	36.9	1.8	-83.80	-248.0	-2,991.4	1,659.4	1,620.8	38.58	43.009	
7,775.6	6,787.9	6,750.0	6,749.4	38.8	1.8	-83.80	-248.0	-2,991.4	1,584.9	1,544.4	40.50	39.131	
7,800.0	6,787.8	6,750.0	6,749.4	39.4	1.8	-83.80	-248.0	-2,991.4	1,560.8	1,519.7	41.12	37.955	
7,874.0	6,787.5	6,750.0	6,749.4	41.3	1.8	-83.80	-248.0	-2,991.4	1,488.0	1,445.0	43.03	34.583	
7,900.0	6,787.4	6,750.0	6,749.4	42.0	1.8	-83.80	-248.0	-2,991.4	1,462.5	1,418.8	43.70	33.469	
7,972.4	6,787.1	6,750.0	6,749.4	43.9	1.8	-83.80	-248.0	-2,991.4	1,391.4	1,345.8	45.58	30.527	
8,000.0	6,787.0	6,750.0	6,749.4	44.6	1.8	-83.80	-248.0	-2,991.4	1,364.4	1,318.1	46.30	29.470	
8,070.8	6,786.7	6,750.0	6,749.4	46.5	1.8	-83.80	-248.0	-2,991.4	1,295.0	1,246.9	48.15	26.893	
8,100.0	6,786.6	6,750.0	6,749.4	47.3	1.8	-83.81	-248.0	-2,991.4	1,266.6	1,217.6	48.92	25.891	
8,169.3	6,786.4	6,750.0	6,749.4	49.1	1.8	-83.81	-248.0	-2,991.4	1,199.0	1,148.3	50.75	23.626	
8,200.0	6,786.3	6,750.0	6,749.4	49.9	1.8	-83.81	-248.0	-2,991.4	1,169.1	1,117.6	51.56	22.675	
8,267.7	6,786.0	6,750.0	6,749.4	51.7	1.8	-83.81	-248.0	-2,991.4	1,103.4	1,050.1	53.36	20.679	
8,300.0	6,785.9	6,750.0	6,749.4	52.6	1.8	-83.81	-248.0	-2,991.4	1,072.2	1,018.0	54.22	19.775	
8,366.1	6,785.6	6,750.0	6,749.4	54.4	1.8	-83.81	-248.0	-2,991.4	1,008.4	952.4	55.98	18.012	
8,400.0	6,785.5	6,750.0	6,749.4	55.3	1.8	-83.81	-248.0	-2,991.4	975.8	918.9	56.89	17.153	
8,464.5	6,785.2	6,750.0	6,749.4	57.0	1.8	-83.81	-248.0	-2,991.4	914.1	855.4	58.62	15.593	
8,500.0	6,785.1	6,750.0	6,749.4	58.0	1.8	-83.81	-248.0	-2,991.4	880.3	820.7	59.57	14.777	
8,563.0	6,784.9	6,750.0	6,749.4	59.7	1.8	-83.81	-248.0	-2,991.4	820.7	759.4	61.27	13.395	
8,600.0	6,784.7	6,750.0	6,749.4	60.7	1.8	-83.81	-248.0	-2,991.4	785.9	723.6	62.27	12.622	
8,661.4	6,784.5	6,750.0	6,749.4	62.4	1.8	-83.81	-248.0	-2,991.4	728.7	664.7	63.92	11.399	
8,700.0	6,784.3	6,750.0	6,749.4	63.4	1.8	-83.81	-248.0	-2,991.4	693.0	628.1	64.97	10.668	
8,759.8	6,784.1	6,750.0	6,749.4	65.0	1.8	-83.81	-248.0	-2,991.4	638.5	571.9	66.59	9.589	
8,800.0	6,784.0	6,750.0	6,749.4	66.1	1.8	-83.81	-248.0	-2,991.4	602.5	534.8	67.68	8.902	
8,858.2	6,783.7	6,750.0	6,749.4	67.7	1.8	-83.81	-248.0	-2,991.4	551.2	482.0	69.26	7.959	
8,900.0	6,783.6	6,750.0	6,749.4	68.9	1.8	-83.81	-248.0	-2,991.4	515.4	445.0	70.39	7.322	
8,956.7	6,783.3	6,750.0	6,749.4	70.4	1.8	-83.81	-248.0	-2,991.4	468.4	396.5	71.94	6.511	
9,000.0	6,783.2	6,750.0	6,749.4	71.6	1.8	-83.81	-248.0	-2,991.4	434.0	360.9	73.12	5.936	
9,055.1	6,783.0	6,750.0	6,749.4	73.1	1.8	-83.81	-248.0	-2,991.4	392.8	318.2	74.62	5.264	
9,100.0	6,782.8	6,750.0	6,749.4	74.3	1.8	-83.81	-248.0	-2,991.4	362.0	286.2	75.84	4.773	
9,153.5	6,782.6	6,750.0	6,749.4	75.8	1.8	-83.81	-248.0	-2,991.4	329.5	252.2	77.31	4.262	
9,200.0	6,782.4	6,750.0	6,749.4	77.1	1.8	-83.82	-248.0	-2,991.4	306.1	227.6	78.58	3.896	
9,251.9	6,782.2	6,750.0	6,749.4	78.5	1.8	-83.82	-248.0	-2,991.4	286.8	206.8	80.00	3.585	
9,300.0	6,782.0	6,750.0	6,749.4	79.8	1.8	-83.82	-248.0	-2,991.4	276.4	195.1	81.31	3.400	
9,336.6	6,781.9	6,750.0	6,749.4	80.8	1.8	-83.82	-248.0	-2,991.4	274.0	191.7	82.32	3.329 CC	
9,350.4	6,781.8	6,750.0	6,749.4	81.2	1.8	-83.82	-248.0	-2,991.4	274.3	191.7	82.69	3.318 ES, 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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,781.6	6,750.0	6,749.4	82.6	1.8	-83.82	-248.0	-2,991.4	281.2	197.2	84.05	3.346	
9,448.8	6,781.4	6,750.0	6,749.4	83.9	1.8	-83.82	-248.0	-2,991.4	296.1	210.7	85.39	3.467	
9,500.0	6,781.2	6,750.0	6,749.4	85.4	1.8	-83.81	-248.0	-2,991.4	319.0	232.2	86.80	3.676	
9,547.2	6,781.0	6,750.0	6,749.4	86.7	1.8	-83.81	-248.0	-2,991.4	345.6	257.5	88.10	3.923	
9,600.0	6,780.8	6,750.0	6,749.4	88.1	1.8	-83.81	-248.0	-2,991.4	380.1	290.5	89.55	4.245	
9,645.6	6,780.7	6,750.0	6,749.4	89.4	1.8	-83.81	-248.0	-2,991.4	413.0	322.2	90.80	4.549	
9,700.0	6,780.5	6,750.0	6,749.4	90.9	1.8	-83.81	-248.0	-2,991.4	455.1	362.8	92.30	4.931	
9,744.1	6,780.3	6,750.0	6,749.4	92.1	1.8	-83.81	-248.0	-2,991.4	491.1	397.5	93.51	5.251	
9,800.0	6,780.1	6,750.0	6,749.4	93.7	1.8	-83.81	-248.0	-2,991.4	538.4	443.3	95.05	5.664	
9,842.5	6,779.9	6,750.0	6,749.4	94.8	1.8	-83.81	-248.0	-2,991.4	575.4	479.1	96.22	5.980	
9,900.0	6,779.7	6,750.0	6,749.4	96.4	1.8	-83.81	-248.0	-2,991.4	626.5	528.7	97.81	6.406	
9,940.9	6,779.5	6,750.0	6,749.4	97.6	1.8	-83.81	-248.0	-2,991.4	663.6	564.6	98.93	6.707	
10,000.0	6,779.3	6,750.0	6,749.4	99.2	1.8	-83.81	-248.0	-2,991.4	717.8	617.2	100.56	7.138	
10,039.3	6,779.1	6,750.0	6,749.4	100.3	1.8	-83.81	-248.0	-2,991.4	754.3	652.7	101.65	7.421	
10,100.0	6,778.9	6,750.0	6,749.4	102.0	1.8	-83.81	-248.0	-2,991.4	811.1	707.8	103.32	7.850	
10,137.8	6,778.7	6,750.0	6,749.4	103.0	1.8	-83.81	-248.0	-2,991.4	846.8	742.4	104.37	8.113	
10,200.0	6,778.5	6,750.0	6,749.4	104.8	1.8	-83.81	-248.0	-2,991.4	905.9	799.8	106.08	8.539	
10,236.2	6,778.3	6,750.0	6,749.4	105.8	1.8	-83.81	-248.0	-2,991.4	940.4	833.3	107.08	8.782	
10,300.0	6,778.1	6,750.0	6,749.4	107.5	1.8	-83.81	-248.0	-2,991.4	1,001.6	892.8	108.85	9.202	
10,334.6	6,778.0	6,750.0	6,749.4	108.5	1.8	-83.81	-248.0	-2,991.4	1,035.0	925.2	109.80	9.426	
10,400.0	6,777.7	6,750.0	6,749.4	110.3	1.8	-83.81	-248.0	-2,991.4	1,098.2	986.5	111.61	9.839	
10,433.0	6,777.6	6,750.0	6,749.4	111.2	1.8	-83.81	-248.0	-2,991.4	1,130.2	1,017.7	112.53	10.044	
10,500.0	6,777.3	6,750.0	6,749.4	113.1	1.8	-83.81	-248.0	-2,991.4	1,195.3	1,080.9	114.38	10.450	
10,531.5	6,777.2	6,750.0	6,749.4	114.0	1.8	-83.81	-248.0	-2,991.4	1,225.9	1,110.7	115.25	10.637	
10,600.0	6,776.9	6,750.0	6,749.4	115.9	1.8	-83.80	-248.0	-2,991.4	1,292.8	1,175.6	117.15	11.036	
10,629.9	6,776.8	6,750.0	6,749.4	116.7	1.8	-83.80	-248.0	-2,991.4	1,322.0	1,204.1	117.97	11.206	
10,700.0	6,776.5	6,750.0	6,749.4	118.7	1.8	-83.80	-248.0	-2,991.4	1,390.7	1,270.8	119.91	11.597	
10,728.3	6,776.4	6,750.0	6,749.4	119.5	1.8	-83.80	-248.0	-2,991.4	1,418.5	1,297.8	120.70	11.752	
10,800.0	6,776.1	6,750.0	6,749.4	121.4	1.8	-83.80	-248.0	-2,991.4	1,488.9	1,366.2	122.68	12.136	
10,826.7	6,776.0	6,750.0	6,749.4	122.2	1.8	-83.80	-248.0	-2,991.4	1,515.2	1,391.7	123.43	12.276	
10,900.0	6,775.7	6,750.0	6,749.4	124.2	1.8	-83.80	-248.0	-2,991.4	1,587.3	1,461.8	125.46	12.652	
10,925.2	6,775.6	6,750.0	6,749.4	124.9	1.8	-83.80	-248.0	-2,991.4	1,612.1	1,485.9	126.15	12.779	
11,000.0	6,775.3	6,750.0	6,749.4	127.0	1.8	-83.80	-248.0	-2,991.4	1,685.8	1,557.6	128.23	13.147	
11,023.6	6,775.2	6,750.0	6,749.4	127.7	1.8	-83.80	-248.0	-2,991.4	1,709.1	1,580.2	128.88	13.261	
11,100.0	6,774.9	6,750.0	6,749.4	129.8	1.8	-83.80	-248.0	-2,991.4	1,784.6	1,653.6	131.00	13.623	
11,122.0	6,774.8	6,750.0	6,749.4	130.4	1.8	-83.80	-248.0	-2,991.4	1,806.4	1,674.7	131.61	13.725	
11,200.0	6,774.5	6,750.0	6,749.4	132.6	1.8	-83.79	-248.0	-2,991.4	1,883.5	1,749.7	133.77	14.079	
11,220.4	6,774.4	6,750.0	6,749.4	133.2	1.8	-83.79	-248.0	-2,991.4	1,903.7	1,769.4	134.34	14.171	
11,300.0	6,774.1	6,750.0	6,749.4	135.4	1.8	-83.79	-248.0	-2,991.4	1,982.5	1,845.9	136.55	14.518	
11,318.9	6,774.0	6,750.0	6,749.4	135.9	1.8	-83.79	-248.0	-2,991.4	2,001.1	1,864.1	137.07	14.599	
11,400.0	6,773.7	6,750.0	6,749.4	138.2	1.8	-83.79	-248.0	-2,991.4	2,081.5	1,942.2	139.32	14.940	
11,417.3	6,773.6	6,750.0	6,749.4	138.7	1.8	-83.79	-248.0	-2,991.4	2,098.7	1,958.9	139.80	15.012	
11,500.0	6,773.3	6,750.0	6,749.4	141.0	1.8	-83.79	-248.0	-2,991.4	2,180.7	2,038.6	142.10	15.346	
11,515.7	6,773.2	6,750.0	6,749.4	141.4	1.8	-83.79	-248.0	-2,991.4	2,196.3	2,053.8	142.54	15.409	
11,600.0	6,772.9	6,750.0	6,749.4	143.8	1.8	-83.78	-248.0	-2,991.4	2,279.9	2,135.1	144.88	15.737	
11,614.1	6,772.8	6,750.0	6,749.4	144.2	1.8	-83.78	-248.0	-2,991.4	2,294.0	2,148.7	145.27	15.791	
11,700.0	6,772.5	6,750.0	6,749.4	146.6	1.8	-83.78	-248.0	-2,991.4	2,379.3	2,231.6	147.65	16.114	
11,712.6	6,772.4	6,750.0	6,749.4	146.9	1.8	-83.78	-248.0	-2,991.4	2,391.7	2,243.7	148.00	16.160	
11,800.0	6,772.1	6,750.0	6,749.4	149.4	1.8	-83.78	-248.0	-2,991.4	2,478.6	2,328.2	150.43	16.477	
11,811.0	6,772.1	6,750.0	6,749.4	149.7	1.8	-83.78	-248.0	-2,991.4	2,489.5	2,338.8	150.74	16.516	
11,900.0	6,771.7	6,750.0	6,749.4	152.2	1.8	-83.77	-248.0	-2,991.4	2,578.0	2,424.8	153.21	16.827	
11,909.4	6,771.7	6,750.0	6,749.4	152.4	1.8	-83.77	-248.0	-2,991.4	2,587.4	2,433.9	153.47	16.859	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER-PM B #18-7 - Wellbore #1 - Wellbore												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	6,771.3	6,750.0	6,749.4	154.9	1.8	-83.77	-248.0	-2,991.4	2,677.5	2,521.5	155.99	17.165	
12,007.8	6,771.3	6,750.0	6,749.4	155.2	1.8	-83.77	-248.0	-2,991.4	2,685.3	2,529.1	156.21	17.191	
12,100.0	6,770.9	6,750.0	6,749.4	157.7	1.8	-83.77	-248.0	-2,991.4	2,777.0	2,618.2	158.77	17.491	
12,106.3	6,770.9	6,750.0	6,749.4	157.9	1.8	-83.77	-248.0	-2,991.4	2,783.2	2,624.3	158.94	17.511	
12,200.0	6,770.5	6,750.0	6,749.4	160.5	1.8	-83.76	-248.0	-2,991.4	2,876.5	2,715.0	161.55	17.806	
12,204.7	6,770.5	6,750.0	6,749.4	160.7	1.8	-83.76	-248.0	-2,991.4	2,881.2	2,719.5	161.68	17.820	
12,300.0	6,770.1	6,750.0	6,749.4	163.3	1.8	-83.76	-248.0	-2,991.4	2,976.1	2,811.7	164.33	18.111	
12,303.1	6,770.1	6,750.0	6,749.4	163.4	1.8	-83.76	-248.0	-2,991.4	2,979.2	2,814.8	164.41	18.120	
12,316.4	6,770.0	6,750.0	6,749.4	163.8	1.8	-83.76	-248.0	-2,991.4	2,992.4	2,827.6	164.78	18.159	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #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	
0.0	0.0	0.0	0.0	0.0	0.0	126.27	-1,842.2	2,511.0	3,114.3				
98.4	98.4	95.8	95.8	0.1	0.1	126.27	-1,842.3	2,510.9	3,114.2	3,114.0	0.19	N/A	
100.0	100.0	97.4	97.4	0.1	0.1	126.27	-1,842.3	2,510.9	3,114.2	3,114.0	0.20	N/A	
125.0	125.0	120.0	120.0	0.2	0.1	126.27	-1,842.3	2,510.8	3,114.2	3,113.9	0.28	N/A CC	
196.8	196.8	183.8	183.8	0.3	0.2	126.27	-1,842.5	2,510.8	3,114.3	3,113.8	0.51	6,118.280	
200.0	200.0	186.6	186.6	0.3	0.2	126.27	-1,842.5	2,510.8	3,114.3	3,113.8	0.52	5,998.307 ES	
295.3	295.3	276.6	276.6	0.5	0.2	126.27	-1,842.7	2,511.0	3,114.7	3,113.9	0.78	4,005.349	
300.0	300.0	281.1	281.1	0.5	0.2	126.27	-1,842.7	2,511.1	3,114.7	3,113.9	0.79	3,942.652	
393.7	393.7	365.5	365.5	0.8	0.3	126.26	-1,842.6	2,511.7	3,115.2	3,114.2	1.05	2,956.164	
400.0	400.0	371.1	371.1	0.8	0.3	126.26	-1,842.6	2,511.8	3,115.3	3,114.2	1.07	2,906.524	
492.1	492.1	458.9	458.9	1.0	0.4	126.26	-1,842.8	2,512.6	3,116.1	3,114.8	1.34	2,333.757	
500.0	500.0	466.7	466.7	1.0	0.4	126.26	-1,842.8	2,512.7	3,116.2	3,114.8	1.36	2,295.072	
590.5	590.5	560.1	560.1	1.2	0.4	126.25	-1,843.0	2,513.6	3,117.0	3,115.3	1.61	1,933.175	
600.0	600.0	570.1	570.0	1.2	0.4	126.25	-1,843.0	2,513.7	3,117.0	3,115.4	1.64	1,902.203	
689.0	689.0	652.6	652.6	1.4	0.5	126.24	-1,842.9	2,514.6	3,117.8	3,115.9	1.88	1,659.650	
700.0	700.0	662.2	662.2	1.4	0.5	126.24	-1,842.9	2,514.7	3,117.9	3,116.0	1.91	1,634.232	
787.4	787.4	751.3	751.2	1.6	0.5	126.22	-1,843.0	2,515.9	3,118.9	3,116.7	2.14	1,454.481	
800.0	800.0	766.0	766.0	1.7	0.5	126.22	-1,843.0	2,516.1	3,119.0	3,116.8	2.18	1,431.373	
885.8	885.8	852.9	852.9	1.9	0.6	126.21	-1,842.8	2,517.1	3,119.7	3,117.3	2.41	1,295.227	
900.0	900.0	866.2	866.1	1.9	0.6	126.21	-1,842.8	2,517.3	3,119.9	3,117.4	2.45	1,275.503	
984.2	984.2	943.7	943.6	2.1	0.6	126.20	-1,842.8	2,518.3	3,120.7	3,118.1	2.66	1,171.185	
1,000.0	1,000.0	958.0	957.9	2.1	0.6	126.19	-1,842.9	2,518.4	3,120.9	3,118.2	2.70	1,153.768	
1,082.7	1,082.7	1,038.6	1,038.5	2.3	0.7	126.19	-1,843.3	2,519.4	3,122.0	3,119.0	2.92	1,069.532	
1,100.0	1,100.0	1,056.9	1,056.8	2.3	0.7	126.19	-1,843.5	2,519.5	3,122.2	3,119.2	2.96	1,053.234	
1,181.1	1,181.1	1,139.6	1,139.6	2.5	0.7	126.19	-1,844.1	2,520.3	3,123.1	3,119.9	3.17	983.664	
1,200.0	1,200.0	1,158.2	1,158.1	2.6	0.7	126.19	-1,844.2	2,520.5	3,123.3	3,120.1	3.22	968.881	
1,279.5	1,279.5	1,241.8	1,241.7	2.7	0.7	126.19	-1,844.8	2,521.3	3,124.3	3,120.8	3.43	911.029	
1,300.0	1,300.0	1,264.9	1,264.8	2.8	0.8	126.19	-1,844.9	2,521.5	3,124.5	3,121.0	3.48	897.162	
1,377.9	1,377.9	1,344.3	1,344.2	3.0	0.8	126.19	-1,845.4	2,522.0	3,125.2	3,121.5	3.68	848.909	
1,400.0	1,400.0	1,365.1	1,365.1	3.0	0.8	126.19	-1,845.5	2,522.2	3,125.4	3,121.6	3.74	836.358	
1,476.4	1,476.4	1,436.3	1,436.2	3.2	0.8	126.19	-1,845.7	2,522.9	3,126.2	3,122.2	3.93	795.639	
1,500.0	1,500.0	1,458.0	1,458.0	3.2	0.8	126.19	-1,845.9	2,523.1	3,126.4	3,122.4	3.99	783.843	
1,574.8	1,574.8	1,530.0	1,530.0	3.4	0.9	-153.11	-1,846.3	2,523.9	3,128.3	3,124.0	4.26	733.983	
1,600.0	1,600.0	1,556.0	1,555.9	3.5	0.9	-153.10	-1,846.4	2,524.2	3,129.3	3,124.9	4.33	723.146	
1,673.2	1,673.1	1,630.0	1,629.9	3.6	0.9	-153.10	-1,846.8	2,525.0	3,133.3	3,128.7	4.51	694.620	
1,700.0	1,699.8	1,656.4	1,656.3	3.7	0.9	-153.10	-1,847.0	2,525.3	3,135.1	3,130.6	4.58	684.958	
1,771.6	1,771.2	1,730.1	1,730.0	3.8	0.9	-153.09	-1,847.7	2,526.0	3,141.3	3,136.5	4.76	659.842	
1,800.0	1,799.5	1,761.3	1,761.2	3.9	1.0	-153.09	-1,847.9	2,526.2	3,144.1	3,139.3	4.83	650.446	
1,870.1	1,869.0	1,832.8	1,832.7	4.0	1.0	-153.08	-1,848.4	2,526.7	3,152.1	3,147.1	5.02	628.182	
1,900.0	1,898.7	1,860.9	1,860.8	4.1	1.0	-153.08	-1,848.6	2,526.9	3,156.0	3,150.9	5.10	619.424	
1,968.5	1,966.4	1,938.5	1,938.4	4.3	1.0	-153.08	-1,849.3	2,527.4	3,165.9	3,160.6	5.28	599.900	
2,000.0	1,997.5	1,983.8	1,983.7	4.4	1.0	-153.09	-1,849.7	2,527.3	3,170.8	3,165.4	5.36	591.532	
2,066.9	2,063.2	2,052.5	2,052.3	4.6	1.0	-153.08	-1,850.4	2,527.0	3,182.0	3,176.5	5.54	574.315	
2,100.1	2,095.7	2,083.6	2,083.5	4.7	1.0	-153.07	-1,850.7	2,526.9	3,188.1	3,182.4	5.63	566.530	
2,165.3	2,159.5	2,152.3	2,152.2	4.9	1.1	-153.17	-1,851.4	2,526.5	3,200.3	3,194.5	5.80	551.454	
2,200.0	2,193.4	2,190.3	2,190.2	5.0	1.1	-153.23	-1,851.8	2,526.2	3,206.8	3,200.9	5.90	543.768	
2,224.2	2,217.1	2,215.7	2,215.5	5.1	1.1	-153.27	-1,852.1	2,526.0	3,211.3	3,205.3	5.96	538.492	
2,263.8	2,255.9	2,256.1	2,256.0	5.2	1.1	-153.39	-1,852.5	2,525.7	3,218.4	3,212.3	6.06	530.932	
2,300.0	2,291.5	2,293.2	2,293.1	5.3	1.1	-153.49	-1,852.8	2,525.3	3,224.5	3,218.3	6.15	524.521	
2,362.2	2,352.7	2,355.6	2,355.5	5.5	1.1	-153.65	-1,853.3	2,524.8	3,233.9	3,227.6	6.28	514.570	
2,400.0	2,390.1	2,393.5	2,393.4	5.6	1.1	-153.73	-1,853.6	2,524.5	3,239.0	3,232.7	6.37	508.551	
2,460.6	2,450.1	2,449.1	2,449.0	5.7	1.1	-153.85	-1,854.0	2,524.1	3,246.4	3,239.9	6.50	499.212	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #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	
2,500.0	2,489.2	2,484.9	2,484.8	5.8	1.1	-153.91	-1,854.2	2,523.9	3,250.6	3,244.0	6.59	493.276	
2,559.0	2,548.0	2,543.6	2,543.5	6.0	1.1	-154.00	-1,854.5	2,523.7	3,256.0	3,249.3	6.72	484.592	
2,600.0	2,588.8	2,585.7	2,585.6	6.1	1.1	-154.05	-1,854.8	2,523.5	3,259.2	3,252.4	6.81	478.653	
2,657.5	2,646.1	2,649.4	2,649.3	6.2	1.2	-154.11	-1,855.1	2,523.1	3,262.6	3,255.7	6.93	470.987	
2,700.0	2,688.6	2,697.6	2,697.4	6.3	1.2	-154.14	-1,855.2	2,522.9	3,264.4	3,257.4	7.01	465.453	
2,755.9	2,744.4	2,746.8	2,746.6	6.4	1.2	-154.16	-1,855.2	2,522.7	3,265.9	3,258.8	7.12	458.511	
2,800.0	2,788.5	2,785.2	2,785.0	6.5	1.2	-154.17	-1,855.2	2,522.6	3,266.5	3,259.3	7.21	453.103	
2,824.3	2,812.8	2,808.5	2,808.3	6.5	1.2	125.13	-1,855.3	2,522.5	3,266.6	3,259.1	7.49	436.207	
2,854.3	2,842.9	2,843.8	2,843.7	6.6	1.2	125.13	-1,855.4	2,522.4	3,266.6	3,259.0	7.55	432.468	
2,900.0	2,888.5	2,897.5	2,897.3	6.7	1.2	125.14	-1,855.5	2,522.2	3,266.4	3,258.8	7.65	426.895	
2,952.7	2,941.3	2,952.2	2,952.1	6.8	1.2	125.14	-1,855.5	2,521.8	3,266.2	3,258.4	7.77	420.166	
3,000.0	2,988.5	3,000.0	2,999.8	6.9	1.2	125.14	-1,855.6	2,521.5	3,266.0	3,258.1	7.88	414.331	
3,051.2	3,039.7	3,044.5	3,044.4	7.0	1.2	125.15	-1,855.6	2,521.2	3,265.7	3,257.7	8.00	408.309	
3,100.0	3,088.5	3,086.2	3,086.1	7.1	1.2	125.15	-1,855.7	2,521.1	3,265.7	3,257.5	8.11	402.746	
3,149.6	3,138.1	3,140.7	3,140.5	7.2	1.2	125.15	-1,855.9	2,520.9	3,265.6	3,257.4	8.22	397.105	
3,200.0	3,188.5	3,200.0	3,199.8	7.3	1.2	125.16	-1,855.9	2,520.6	3,265.4	3,257.1	8.34	391.478	
3,248.0	3,236.6	3,244.4	3,244.2	7.4	1.2	125.16	-1,855.9	2,520.3	3,265.2	3,256.7	8.45	386.465	
3,300.0	3,288.5	3,290.8	3,290.6	7.5	1.2	125.16	-1,855.9	2,520.2	3,265.0	3,256.5	8.56	381.208	
3,346.4	3,335.0	3,330.9	3,330.8	7.6	1.2	125.16	-1,855.8	2,520.2	3,265.0	3,256.3	8.66	376.802	
3,351.8	3,340.3	3,335.5	3,335.3	7.6	1.2	125.16	-1,855.8	2,520.2	3,265.0	3,256.3	8.68	376.308	
3,400.0	3,388.5	3,376.7	3,376.6	7.7	1.2	125.16	-1,855.7	2,520.3	3,265.0	3,256.2	8.78	371.916	
3,444.9	3,433.4	3,419.8	3,419.6	7.8	1.2	125.15	-1,855.5	2,520.6	3,265.2	3,256.3	8.88	367.845	
3,500.0	3,488.5	3,481.5	3,481.3	7.9	1.2	125.15	-1,855.3	2,520.9	3,265.2	3,256.2	9.00	362.835	
3,543.3	3,531.8	3,524.0	3,523.9	8.0	1.3	125.14	-1,855.1	2,521.0	3,265.3	3,256.2	9.10	358.994	
3,600.0	3,588.5	3,574.9	3,574.8	8.1	1.3	125.14	-1,854.9	2,521.3	3,265.4	3,256.1	9.22	354.108	
3,641.7	3,630.3	3,615.6	3,615.5	8.2	1.3	125.13	-1,854.7	2,521.6	3,265.5	3,256.2	9.31	350.574	
3,700.0	3,688.5	3,681.6	3,681.5	8.3	1.3	125.12	-1,854.4	2,522.0	3,265.6	3,256.2	9.45	345.695	
3,740.1	3,728.7	3,723.1	3,723.0	8.4	1.3	125.12	-1,854.1	2,522.1	3,265.6	3,256.1	9.54	342.416	
3,800.0	3,788.5	3,781.0	3,780.9	8.5	1.3	125.11	-1,853.9	2,522.3	3,265.6	3,256.0	9.67	337.661	
3,838.6	3,827.1	3,814.8	3,814.7	8.6	1.3	125.11	-1,853.9	2,522.4	3,265.7	3,255.9	9.76	334.690	
3,900.0	3,888.5	3,862.8	3,862.6	8.7	1.3	125.11	-1,854.1	2,522.5	3,266.0	3,256.1	9.89	330.131	
3,937.0	3,925.5	3,900.0	3,899.8	8.8	1.3	125.11	-1,854.4	2,522.7	3,266.3	3,256.3	9.98	327.428	
4,000.0	3,988.5	3,949.8	3,949.7	9.0	1.3	125.12	-1,854.8	2,522.9	3,266.9	3,256.7	10.12	322.820	
4,035.4	4,024.0	3,983.6	3,983.4	9.0	1.3	125.12	-1,855.2	2,523.2	3,267.2	3,257.0	10.20	320.251	
4,100.0	4,088.5	4,038.9	4,038.8	9.2	1.3	125.12	-1,855.7	2,523.6	3,268.0	3,257.7	10.35	315.720	
4,133.8	4,122.4	4,066.8	4,066.6	9.2	1.4	125.13	-1,856.0	2,523.9	3,268.5	3,258.1	10.43	313.408	
4,200.0	4,188.5	4,126.9	4,126.7	9.4	1.4	125.13	-1,856.8	2,524.6	3,269.6	3,259.1	10.58	308.971	
4,232.3	4,220.8	4,160.6	4,160.4	9.4	1.4	125.14	-1,857.4	2,524.9	3,270.2	3,259.5	10.66	306.825	
4,300.0	4,288.5	4,235.8	4,235.6	9.6	1.4	125.15	-1,858.6	2,525.5	3,271.3	3,260.5	10.82	302.381	
4,330.7	4,319.2	4,272.4	4,272.2	9.7	1.4	125.15	-1,859.2	2,525.7	3,271.7	3,260.8	10.89	300.380	
4,400.0	4,388.5	4,344.5	4,344.3	9.8	1.4	125.16	-1,860.2	2,526.1	3,272.5	3,261.5	11.06	296.010	
4,429.1	4,417.7	4,372.6	4,372.3	9.9	1.4	125.17	-1,860.5	2,526.2	3,272.9	3,261.8	11.12	294.223	
4,500.0	4,488.5	4,441.6	4,441.4	10.0	1.5	125.18	-1,861.4	2,526.7	3,273.8	3,262.5	11.29	289.963	
4,527.5	4,516.1	4,468.6	4,468.4	10.1	1.5	125.18	-1,861.8	2,526.8	3,274.1	3,262.8	11.36	288.338	
4,600.0	4,588.5	4,532.7	4,532.5	10.2	1.5	125.19	-1,862.7	2,527.3	3,275.1	3,263.6	11.52	284.192	
4,626.0	4,614.5	4,553.8	4,553.5	10.3	1.5	125.19	-1,863.1	2,527.4	3,275.6	3,264.0	11.58	282.747	
4,700.0	4,688.5	4,619.6	4,619.4	10.5	1.5	125.20	-1,864.3	2,528.1	3,277.0	3,265.2	11.76	278.704	
4,724.4	4,712.9	4,648.0	4,647.7	10.5	1.5	125.21	-1,864.9	2,528.4	3,277.4	3,265.6	11.82	277.366	
4,800.0	4,788.5	4,726.5	4,726.2	10.7	1.6	125.22	-1,866.2	2,529.0	3,278.7	3,266.7	12.00	273.334	
4,822.8	4,811.4	4,746.1	4,745.8	10.7	1.6	125.22	-1,866.6	2,529.2	3,279.1	3,267.1	12.05	272.158	
4,900.0	4,888.5	4,812.6	4,812.3	10.9	1.6	125.24	-1,867.9	2,529.9	3,280.7	3,268.5	12.23	268.272	
4,921.2	4,909.8	4,831.2	4,830.9	10.9	1.6	125.24	-1,868.3	2,530.2	3,281.2	3,268.9	12.28	267.225	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #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	
5,000.0	4,988.5	4,900.3	4,899.9	11.1	1.6	125.25	-1,869.8	2,531.1	3,283.0	3,270.6	12.46	263.428	
5,019.7	5,008.2	4,920.8	4,920.4	11.1	1.6	125.25	-1,870.3	2,531.4	3,283.5	3,271.0	12.51	262.486	
5,100.0	5,088.5	5,004.9	5,004.5	11.3	1.6	125.27	-1,872.1	2,532.7	3,285.5	3,272.8	12.70	258.711	
5,118.1	5,106.6	5,025.3	5,024.9	11.4	1.6	125.27	-1,872.5	2,533.0	3,286.0	3,273.2	12.74	257.870	
5,200.0	5,188.5	5,117.9	5,117.5	11.5	1.7	125.28	-1,874.2	2,534.2	3,287.7	3,274.8	12.94	254.124	
5,216.5	5,205.1	5,136.7	5,136.3	11.6	1.7	125.28	-1,874.5	2,534.5	3,288.1	3,275.1	12.98	253.382	
5,300.0	5,288.5	5,233.0	5,232.6	11.8	1.7	125.29	-1,875.7	2,535.7	3,289.5	3,276.4	13.17	249.681	
5,314.9	5,303.5	5,250.7	5,250.2	11.8	1.7	125.29	-1,875.9	2,535.9	3,289.8	3,276.5	13.21	249.025	
5,400.0	5,388.5	5,346.6	5,346.1	12.0	1.7	125.30	-1,877.0	2,536.6	3,290.8	3,277.4	13.41	245.359	
5,413.4	5,401.9	5,360.9	5,360.5	12.0	1.7	125.30	-1,877.2	2,536.7	3,291.0	3,277.5	13.44	244.793	
5,500.0	5,488.5	5,443.8	5,443.3	12.2	1.8	125.30	-1,877.8	2,537.3	3,291.9	3,278.3	13.65	241.217	
5,511.8	5,500.3	5,454.0	5,453.6	12.2	1.8	125.30	-1,877.9	2,537.4	3,292.1	3,278.4	13.67	240.743	
5,600.0	5,588.5	5,534.7	5,534.2	12.4	1.8	125.31	-1,878.9	2,538.1	3,293.3	3,279.5	13.88	237.257	
5,610.2	5,598.8	5,544.7	5,544.3	12.4	1.8	125.31	-1,879.0	2,538.2	3,293.5	3,279.6	13.90	236.859	
5,700.0	5,688.5	5,636.3	5,635.9	12.6	1.8	125.31	-1,879.9	2,539.3	3,294.8	3,280.7	14.12	233.419	
5,708.6	5,697.2	5,645.7	5,645.3	12.6	1.8	125.31	-1,880.0	2,539.4	3,295.0	3,280.8	14.14	233.092	
5,800.0	5,788.5	5,745.4	5,745.0	12.8	1.9	125.31	-1,880.7	2,540.5	3,296.2	3,281.8	14.35	229.684	
5,807.1	5,795.6	5,753.2	5,752.7	12.9	1.9	125.31	-1,880.8	2,540.5	3,296.2	3,281.9	14.37	229.423	
5,900.0	5,888.5	5,846.1	5,845.7	13.1	1.9	125.31	-1,881.5	2,541.3	3,297.2	3,282.7	14.59	226.061	
5,905.5	5,894.0	5,851.2	5,850.7	13.1	1.9	125.31	-1,881.5	2,541.3	3,297.3	3,282.7	14.60	225.866	
6,000.0	5,988.5	5,939.6	5,939.1	13.3	1.9	125.32	-1,882.5	2,542.0	3,298.5	3,283.7	14.82	222.576	
6,003.9	5,992.5	5,943.4	5,942.9	13.3	1.9	125.32	-1,882.5	2,542.1	3,298.6	3,283.7	14.83	222.442	
6,085.3	6,073.8	6,021.1	6,020.6	13.5	1.9	125.32	-1,883.2	2,542.9	3,299.7	3,284.7	15.02	219.703	
6,100.0	6,088.5	6,035.0	6,034.6	13.5	1.9	-144.66	-1,883.3	2,543.1	3,300.0	3,284.8	15.20	217.063	
6,102.3	6,090.9	6,037.3	6,036.8	13.5	1.9	-144.66	-1,883.3	2,543.1	3,300.1	3,284.9	15.21	216.967	
6,150.0	6,138.4	6,082.4	6,081.9	13.6	2.0	-144.55	-1,883.7	2,543.7	3,303.1	3,287.7	15.37	214.963	
6,200.0	6,188.0	6,132.5	6,132.0	13.7	2.0	-144.34	-1,884.2	2,544.3	3,308.9	3,293.4	15.56	212.711	
6,200.8	6,188.8	6,133.3	6,132.8	13.7	2.0	-144.33	-1,884.2	2,544.3	3,309.1	3,293.5	15.56	212.675	
6,250.0	6,237.1	6,183.7	6,183.2	13.9	2.0	-144.03	-1,884.7	2,544.9	3,317.6	3,301.8	15.77	210.415	
6,299.2	6,284.6	6,232.2	6,231.7	14.0	2.0	-143.61	-1,885.3	2,545.3	3,328.8	3,312.8	15.99	208.227	
6,300.0	6,285.3	6,233.0	6,232.5	14.0	2.0	-143.60	-1,885.3	2,545.4	3,329.0	3,313.0	15.99	208.193	
6,350.0	6,332.5	6,280.7	6,280.2	14.2	2.0	-143.06	-1,885.8	2,545.8	3,343.1	3,326.9	16.22	206.115	
6,397.6	6,376.3	6,323.8	6,323.3	14.4	2.0	-142.43	-1,886.3	2,546.2	3,359.1	3,342.7	16.44	204.292	
6,400.0	6,378.5	6,325.8	6,325.3	14.4	2.0	-142.39	-1,886.4	2,546.2	3,360.0	3,343.5	16.45	204.209	
6,450.0	6,423.0	6,368.7	6,368.1	14.7	2.0	-141.57	-1,886.9	2,546.6	3,379.4	3,362.7	16.69	202.454	
6,496.0	6,462.4	6,406.2	6,405.6	14.9	2.1	-140.67	-1,887.3	2,547.0	3,399.6	3,382.7	16.92	200.908	
6,500.0	6,465.7	6,409.2	6,408.6	14.9	2.1	-140.58	-1,887.3	2,547.0	3,401.4	3,384.5	16.94	200.786	
6,550.0	6,506.6	6,445.7	6,445.2	15.2	2.1	-139.39	-1,887.8	2,547.4	3,425.9	3,408.7	17.21	199.105	
6,594.5	6,541.2	6,476.6	6,476.0	15.6	2.1	-138.15	-1,888.2	2,547.8	3,449.7	3,432.3	17.47	197.462	
6,600.0	6,545.3	6,480.3	6,479.7	15.6	2.1	-137.99	-1,888.2	2,547.9	3,452.8	3,435.3	17.50	197.261	
6,650.0	6,581.8	6,513.5	6,513.0	16.0	2.1	-136.35	-1,888.6	2,548.3	3,482.0	3,464.2	17.85	195.080	
6,692.9	6,611.1	6,541.3	6,540.8	16.4	2.1	-134.73	-1,889.0	2,548.7	3,508.8	3,490.6	18.20	192.785	
6,700.0	6,615.8	6,545.8	6,545.2	16.5	2.1	-134.44	-1,889.1	2,548.7	3,513.3	3,495.1	18.26	192.393	
6,750.0	6,647.1	6,575.5	6,574.9	17.1	2.1	-132.20	-1,889.5	2,549.1	3,546.6	3,527.9	18.76	189.077	
6,791.3	6,670.9	6,598.1	6,597.5	17.6	2.1	-130.07	-1,889.9	2,549.4	3,575.6	3,556.3	19.25	185.769	
6,800.0	6,675.7	6,600.0	6,599.4	17.7	2.1	-129.54	-1,889.9	2,549.4	3,581.8	3,562.4	19.35	185.059	
6,850.0	6,701.3	6,619.6	6,619.0	18.4	2.1	-126.41	-1,890.3	2,549.6	3,618.7	3,598.6	20.07	180.331	
6,889.7	6,719.5	6,632.1	6,631.5	19.0	2.1	-123.53	-1,890.6	2,549.8	3,649.1	3,628.4	20.72	176.109	
6,900.0	6,723.8	6,635.1	6,634.5	19.1	2.1	-122.73	-1,890.6	2,549.8	3,657.1	3,636.2	20.89	175.022	
6,950.0	6,743.2	6,648.2	6,647.6	20.0	2.1	-118.48	-1,890.9	2,550.0	3,696.8	3,675.0	21.83	169.375	
6,988.2	6,755.8	6,656.7	6,656.1	20.6	2.1	-114.81	-1,891.1	2,550.2	3,728.0	3,705.4	22.59	165.000	
7,000.0	6,759.4	6,659.0	6,658.4	20.9	2.1	-113.59	-1,891.2	2,550.2	3,737.8	3,715.0	22.83	163.714	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #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	
7,050.0	6,772.1	6,667.4	6,666.8	21.8	2.1	-108.07	-1,891.4	2,550.3	3,779.7	3,755.8	23.86	158.384	
7,086.6	6,779.4	6,672.0	6,671.4	22.5	2.1	-103.62	-1,891.5	2,550.4	3,810.8	3,786.2	24.62	154.813	
7,100.0	6,781.5	6,673.3	6,672.7	22.8	2.1	-101.92	-1,891.5	2,550.4	3,822.3	3,797.4	24.88	153.625	
7,150.0	6,787.5	6,676.9	6,676.3	23.9	2.1	-95.26	-1,891.6	2,550.5	3,865.5	3,839.6	25.87	149.399	
7,185.0	6,789.6	6,677.9	6,677.3	24.6	2.1	-90.37	-1,891.6	2,550.5	3,895.9	3,869.3	26.58	146.552	
7,200.0	6,789.9	6,678.0	6,677.4	24.9	2.1	-88.25	-1,891.6	2,550.5	3,909.0	3,882.1	26.89	145.359	
7,213.0	6,790.0	6,677.8	6,677.3	25.2	2.1	-86.40	-1,891.6	2,550.5	3,920.3	3,893.1	27.16	144.320	
7,283.4	6,789.7	6,676.8	6,676.2	26.8	2.1	-86.37	-1,891.6	2,550.5	3,981.9	3,953.1	28.74	138.572	
7,300.0	6,789.7	6,676.6	6,676.0	27.2	2.1	-86.36	-1,891.6	2,550.5	3,996.4	3,967.3	29.10	137.314	
7,381.9	6,789.4	6,675.4	6,674.8	29.1	2.1	-86.32	-1,891.6	2,550.5	4,068.4	4,037.4	31.00	131.218	
7,400.0	6,789.3	6,675.1	6,674.5	29.5	2.1	-86.32	-1,891.5	2,550.5	4,084.4	4,053.0	31.43	129.970	
7,480.3	6,789.0	6,674.0	6,673.4	31.4	2.1	-86.28	-1,891.5	2,550.4	4,155.4	4,122.1	33.35	124.592	
7,500.0	6,788.9	6,673.7	6,673.1	31.9	2.1	-86.27	-1,891.5	2,550.4	4,172.9	4,139.1	33.82	123.368	
7,578.7	6,788.6	6,672.5	6,672.0	33.8	2.1	-86.24	-1,891.5	2,550.4	4,243.0	4,207.2	35.76	118.645	
7,600.0	6,788.5	6,672.2	6,671.7	34.4	2.1	-86.23	-1,891.5	2,550.4	4,261.9	4,225.7	36.29	117.457	
7,677.1	6,788.2	6,671.2	6,670.6	36.3	2.1	-86.20	-1,891.4	2,550.4	4,331.0	4,292.7	38.22	113.313	
7,700.0	6,788.2	6,670.8	6,670.2	36.9	2.1	-86.19	-1,891.4	2,550.4	4,351.5	4,312.7	38.79	112.166	
7,775.6	6,787.9	6,669.8	6,669.2	38.8	2.1	-86.15	-1,891.4	2,550.4	4,419.4	4,378.7	40.72	108.529	
7,800.0	6,787.8	6,669.4	6,668.8	39.4	2.1	-86.14	-1,891.4	2,550.4	4,441.4	4,400.1	41.34	107.427	
7,874.0	6,787.5	6,668.4	6,667.8	41.3	2.1	-86.11	-1,891.4	2,550.3	4,508.2	4,465.0	43.25	104.228	
7,900.0	6,787.4	6,668.1	6,667.5	42.0	2.1	-86.10	-1,891.4	2,550.3	4,531.8	4,487.9	43.92	103.172	
7,972.4	6,787.1	6,667.1	6,666.5	43.9	2.1	-86.07	-1,891.3	2,550.3	4,597.5	4,551.7	45.81	100.353	
8,000.0	6,787.0	6,666.7	6,666.1	44.6	2.1	-86.06	-1,891.3	2,550.3	4,622.6	4,576.0	46.53	99.341	
8,070.8	6,786.7	6,665.7	6,665.1	46.5	2.1	-86.03	-1,891.3	2,550.3	4,687.1	4,638.7	48.40	96.849	
8,100.0	6,786.6	6,665.3	6,664.8	47.3	2.1	-86.02	-1,891.3	2,550.3	4,713.7	4,664.5	49.16	95.881	
8,169.3	6,786.4	6,664.4	6,663.8	49.1	2.1	-85.99	-1,891.3	2,550.3	4,777.1	4,726.1	51.00	93.673	
8,200.0	6,786.3	6,664.0	6,663.4	49.9	2.1	-85.98	-1,891.3	2,550.3	4,805.2	4,753.4	51.81	92.745	
8,267.7	6,786.0	6,663.1	6,662.5	51.7	2.1	-85.95	-1,891.3	2,550.3	4,867.3	4,813.7	53.61	90.784	
8,300.0	6,785.9	6,662.7	6,662.1	52.6	2.1	-85.94	-1,891.2	2,550.3	4,897.0	4,842.6	54.47	89.895	
8,366.1	6,785.6	6,661.8	6,661.2	54.4	2.1	-85.91	-1,891.2	2,550.2	4,957.9	4,901.7	56.25	88.148	
8,400.0	6,785.5	6,661.4	6,660.8	55.3	2.1	-85.90	-1,891.2	2,550.2	4,989.2	4,932.0	57.15	87.296	
8,464.5	6,785.2	6,660.5	6,660.0	57.0	2.1	-85.87	-1,891.2	2,550.2	5,048.8	4,989.9	58.89	85.735	
8,500.0	6,785.1	6,660.1	6,659.5	58.0	2.1	-85.86	-1,891.2	2,550.2	5,081.6	5,021.8	59.84	84.918	
8,563.0	6,784.9	6,659.3	6,658.7	59.7	2.1	-85.83	-1,891.2	2,550.2	5,140.0	5,078.4	61.54	83.521	
8,600.0	6,784.7	6,658.8	6,658.2	60.7	2.1	-85.82	-1,891.2	2,550.2	5,174.3	5,111.8	62.54	82.736	
8,661.4	6,784.5	6,658.0	6,657.4	62.4	2.1	-85.80	-1,891.1	2,550.2	5,231.4	5,167.2	64.20	81.482	
8,700.0	6,784.3	6,657.5	6,656.9	63.4	2.1	-85.78	-1,891.1	2,550.2	5,267.3	5,202.1	65.25	80.727	
8,759.8	6,784.1	6,656.8	6,656.2	65.0	2.1	-85.76	-1,891.1	2,550.2	5,323.1	5,256.2	66.87	79.600	
8,800.0	6,784.0	6,656.3	6,655.7	66.1	2.1	-85.74	-1,891.1	2,550.1	5,360.6	5,292.6	67.96	78.874	
8,858.2	6,783.7	6,655.5	6,655.0	67.7	2.1	-85.72	-1,891.1	2,550.1	5,415.0	5,345.4	69.55	77.858	
8,900.0	6,783.6	6,655.0	6,654.4	68.9	2.1	-85.71	-1,891.1	2,550.1	5,454.0	5,383.4	70.69	77.159	
8,956.7	6,783.3	6,654.3	6,653.7	70.4	2.1	-85.68	-1,891.1	2,550.1	5,507.1	5,434.9	72.23	76.243	
9,000.0	6,783.2	6,653.8	6,653.2	71.6	2.1	-85.67	-1,891.0	2,550.1	5,547.7	5,474.3	73.41	75.569	
9,055.1	6,783.0	6,653.1	6,652.5	73.1	2.1	-85.65	-1,891.0	2,550.1	5,599.5	5,524.5	74.92	74.740	
9,100.0	6,782.8	6,652.6	6,652.0	74.3	2.1	-85.63	-1,891.0	2,550.1	5,641.7	5,565.5	76.15	74.090	
9,153.5	6,782.6	6,651.9	6,651.4	75.8	2.1	-85.61	-1,891.0	2,550.1	5,692.0	5,614.4	77.61	73.340	
9,200.0	6,782.4	6,651.4	6,650.8	77.1	2.1	-85.59	-1,891.0	2,550.1	5,735.8	5,656.9	78.88	72.712	
9,251.9	6,782.2	6,650.8	6,650.2	78.5	2.1	-85.57	-1,891.0	2,550.1	5,784.8	5,704.5	80.31	72.033	
9,300.0	6,782.0	6,650.2	6,649.6	79.8	2.1	-85.56	-1,891.0	2,550.1	5,830.1	5,748.5	81.62	71.426	
9,350.4	6,781.8	6,649.6	6,649.0	81.2	2.1	-85.54	-1,890.9	2,550.0	5,877.7	5,794.7	83.01	70.809	
9,400.0	6,781.6	6,649.0	6,648.4	82.6	2.1	-85.52	-1,890.9	2,550.0	5,924.6	5,840.2	84.37	70.222	
9,448.8	6,781.4	6,648.4	6,647.8	83.9	2.1	-85.50	-1,890.9	2,550.0	5,970.8	5,885.1	85.71	69.662	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #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
9,500.0	6,781.2	6,647.8	6,647.2	85.4	2.1	-85.48	-1,890.9	2,550.0	6,019.3	5,932.2	87.12	69.094	
9,547.2	6,781.0	6,647.3	6,646.7	86.7	2.1	-85.47	-1,890.9	2,550.0	6,064.1	5,975.7	88.42	68.585	
9,600.0	6,780.8	6,646.7	6,646.1	88.1	2.1	-85.45	-1,890.9	2,550.0	6,114.1	6,024.3	89.87	68.034	
9,645.6	6,780.7	6,646.1	6,645.6	89.4	2.1	-85.43	-1,890.9	2,550.0	6,157.5	6,066.4	91.13	67.571	
9,700.0	6,780.5	6,645.5	6,644.9	90.9	2.1	-85.41	-1,890.9	2,550.0	6,209.2	6,116.5	92.62	67.037	
9,744.1	6,780.3	6,645.0	6,644.4	92.1	2.1	-85.40	-1,890.8	2,550.0	6,251.1	6,157.2	93.84	66.616	
9,800.0	6,780.1	6,644.4	6,643.8	93.7	2.1	-85.38	-1,890.8	2,550.0	6,304.3	6,208.9	95.38	66.097	
9,842.5	6,779.9	6,643.9	6,643.3	94.8	2.1	-85.36	-1,890.8	2,550.0	6,344.8	6,248.3	96.55	65.714	
9,900.0	6,779.7	6,643.3	6,642.7	96.4	2.1	-85.34	-1,890.8	2,549.9	6,399.6	6,301.5	98.14	65.211	
9,940.9	6,779.5	6,642.8	6,642.2	97.6	2.1	-85.33	-1,890.8	2,549.9	6,438.7	6,339.4	99.27	64.862	
10,000.0	6,779.3	6,642.1	6,641.6	99.2	2.1	-85.31	-1,890.8	2,549.9	6,495.1	6,394.2	100.90	64.373	
10,039.3	6,779.1	6,641.7	6,641.1	100.3	2.1	-85.30	-1,890.8	2,549.9	6,532.7	6,430.7	101.99	64.055	
10,100.0	6,778.9	6,641.0	6,640.5	102.0	2.1	-85.28	-1,890.8	2,549.9	6,590.7	6,487.0	103.66	63.579	
10,137.8	6,778.7	6,640.6	6,640.0	103.0	2.1	-85.26	-1,890.7	2,549.9	6,626.8	6,522.1	104.70	63.291	
10,200.0	6,778.5	6,639.9	6,639.4	104.8	2.1	-85.24	-1,890.7	2,549.9	6,686.4	6,580.0	106.42	62.828	
10,236.2	6,778.3	6,639.6	6,639.0	105.8	2.1	-85.23	-1,890.7	2,549.9	6,721.1	6,613.7	107.43	62.565	
10,300.0	6,778.1	6,638.9	6,638.3	107.5	2.1	-85.21	-1,890.7	2,549.9	6,782.2	6,673.1	109.19	62.114	
10,334.6	6,778.0	6,638.5	6,637.9	108.5	2.1	-85.20	-1,890.7	2,549.9	6,815.5	6,705.3	110.15	61.875	
10,400.0	6,777.7	6,637.8	6,637.2	110.3	2.1	-85.18	-1,890.7	2,549.9	6,878.2	6,766.2	111.96	61.436	
10,433.0	6,777.6	6,637.4	6,636.9	111.2	2.1	-85.17	-1,890.7	2,549.9	6,909.9	6,797.1	112.87	61.220	
10,500.0	6,777.3	6,636.7	6,636.1	113.1	2.1	-85.14	-1,890.7	2,549.9	6,974.3	6,859.6	114.72	60.791	
10,531.5	6,777.2	6,636.4	6,635.8	114.0	2.1	-85.13	-1,890.7	2,549.8	7,004.5	6,888.9	115.60	60.595	
10,600.0	6,776.9	6,635.7	6,635.1	115.9	2.1	-85.11	-1,890.6	2,549.8	7,070.5	6,953.0	117.49	60.177	
10,629.9	6,776.8	6,635.4	6,634.8	116.7	2.1	-85.10	-1,890.6	2,549.8	7,099.2	6,980.9	118.32	59.999	
10,700.0	6,776.5	6,634.6	6,634.0	118.7	2.1	-85.08	-1,890.6	2,549.8	7,166.7	7,046.5	120.26	59.592	
10,728.3	6,776.4	6,634.3	6,633.8	119.5	2.1	-85.07	-1,890.6	2,549.8	7,194.0	7,073.0	121.05	59.431	
10,800.0	6,776.1	6,633.6	6,633.0	121.4	2.1	-85.05	-1,890.6	2,549.8	7,263.1	7,140.1	123.03	59.033	
10,826.7	6,776.0	6,633.3	6,632.7	122.2	2.1	-85.04	-1,890.6	2,549.8	7,288.9	7,165.2	123.78	58.888	
10,900.0	6,775.7	6,632.6	6,632.0	124.2	2.1	-85.01	-1,890.6	2,549.8	7,359.6	7,233.8	125.81	58.499	
10,925.2	6,775.6	6,632.3	6,631.7	124.9	2.1	-85.01	-1,890.6	2,549.8	7,383.9	7,257.4	126.50	58.369	
11,000.0	6,775.3	6,631.5	6,631.0	127.0	2.1	-84.98	-1,890.6	2,549.8	7,456.2	7,327.6	128.58	57.989	
11,023.6	6,775.2	6,631.3	6,630.7	127.7	2.1	-84.98	-1,890.6	2,549.8	7,479.0	7,349.8	129.23	57.872	
11,100.0	6,774.9	6,630.5	6,630.0	129.8	2.1	-84.95	-1,890.5	2,549.8	7,552.9	7,421.5	131.35	57.501	
11,122.0	6,774.8	6,630.3	6,629.7	130.4	2.1	-84.94	-1,890.5	2,549.8	7,574.2	7,442.2	131.96	57.396	
11,200.0	6,774.5	6,629.5	6,629.0	132.6	2.1	-84.92	-1,890.5	2,549.8	7,649.6	7,515.5	134.13	57.033	
11,220.4	6,774.4	6,629.3	6,628.8	133.2	2.1	-84.91	-1,890.5	2,549.8	7,669.4	7,534.7	134.69	56.939	
11,300.0	6,774.1	6,628.6	6,628.0	135.4	2.1	-84.89	-1,890.5	2,549.7	7,746.4	7,609.5	136.90	56.584	
11,318.9	6,774.0	6,628.4	6,627.8	135.9	2.1	-84.88	-1,890.5	2,549.7	7,764.7	7,627.3	137.43	56.501	
11,400.0	6,773.7	6,627.6	6,627.0	138.2	2.1	-84.86	-1,890.5	2,549.7	7,843.3	7,703.7	139.68	56.154	
11,417.3	6,773.6	6,627.4	6,626.8	138.7	2.1	-84.85	-1,890.5	2,549.7	7,860.1	7,720.0	140.16	56.081	
11,500.0	6,773.3	6,626.6	6,626.0	141.0	2.1	-84.83	-1,890.5	2,549.7	7,940.3	7,797.9	142.45	55.740	
11,515.7	6,773.2	6,626.5	6,625.9	141.4	2.1	-84.82	-1,890.5	2,549.7	7,955.6	7,812.7	142.89	55.677	
11,600.0	6,772.9	6,625.6	6,625.1	143.8	2.1	-84.80	-1,890.4	2,549.7	8,037.4	7,892.2	145.23	55.343	
11,614.1	6,772.8	6,625.5	6,624.9	144.2	2.1	-84.79	-1,890.4	2,549.7	8,051.1	7,905.5	145.62	55.288	
11,700.0	6,772.5	6,624.7	6,624.1	146.6	2.1	-84.77	-1,890.4	2,549.7	8,134.5	7,986.5	148.01	54.961	
11,712.6	6,772.4	6,624.6	6,624.0	146.9	2.1	-84.77	-1,890.4	2,549.7	8,146.7	7,998.4	148.35	54.914	
11,800.0	6,772.1	6,623.7	6,623.2	149.4	2.1	-84.74	-1,890.4	2,549.7	8,231.7	8,080.9	150.78	54.594	
11,811.0	6,772.1	6,623.6	6,623.1	149.7	2.1	-84.74	-1,890.4	2,549.7	8,242.4	8,091.3	151.09	54.554	
11,900.0	6,771.7	6,622.8	6,622.2	152.2	2.1	-84.71	-1,890.4	2,549.7	8,329.0	8,175.4	153.56	54.240	
11,909.4	6,771.7	6,600.0	6,599.4	152.4	2.1	-84.03	-1,889.9	2,549.4	8,338.2	8,184.5	153.67	54.261	
12,000.0	6,771.3	6,600.0	6,599.4	154.9	2.1	-84.03	-1,889.9	2,549.4	8,426.4	8,270.2	156.19	53.950	
12,007.8	6,771.3	6,600.0	6,599.4	155.2	2.1	-84.03	-1,889.9	2,549.4	8,434.0	8,277.6	156.41	53.924	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT H&S #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
12,100.0	6,770.9	6,600.0	6,599.4	157.7	2.1	-84.03	-1,889.9	2,549.4	8,523.8	8,364.8	158.97	53.619	
12,106.3	6,770.9	6,600.0	6,599.4	157.9	2.1	-84.03	-1,889.9	2,549.4	8,529.9	8,370.7	159.14	53.598	
12,200.0	6,770.5	6,600.0	6,599.4	160.5	2.1	-84.03	-1,889.9	2,549.4	8,621.2	8,459.5	161.75	53.299	
12,204.7	6,770.5	6,600.0	6,599.4	160.7	2.1	-84.03	-1,889.9	2,549.4	8,625.8	8,463.9	161.88	53.284	
12,300.0	6,770.1	6,600.0	6,599.4	163.3	2.1	-84.03	-1,889.9	2,549.4	8,718.7	8,554.2	164.53	52.991	
12,303.1	6,770.1	6,600.0	6,599.4	163.4	2.1	-84.03	-1,889.9	2,549.4	8,721.8	8,557.1	164.62	52.981	
12,316.4	6,770.0	6,600.0	6,599.4	163.8	2.1	-84.03	-1,889.9	2,549.4	8,734.7	8,569.7	164.99	52.941 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	1.0	1.0	0.0	0.0	-135.02	-1,661.6	-1,660.6	2,349.1				
98.4	98.4	99.4	99.4	0.1	1.2	-135.02	-1,661.6	-1,660.6	2,349.1	2,347.9	1.27	1,843.754	
100.0	100.0	101.0	101.0	0.1	1.2	-135.02	-1,661.6	-1,660.6	2,349.1	2,347.8	1.31	1,799.257	
196.8	196.8	197.8	197.8	0.3	3.4	-135.02	-1,661.6	-1,660.6	2,349.1	2,345.4	3.74	627.491	
200.0	200.0	201.0	201.0	0.3	3.5	-135.02	-1,661.6	-1,660.6	2,349.1	2,345.3	3.82	614.819	
295.3	295.3	296.3	296.3	0.5	5.5	-135.02	-1,661.6	-1,660.6	2,349.1	2,343.1	6.02	390.523	
300.0	300.0	301.0	301.0	0.5	5.6	-135.02	-1,661.6	-1,660.6	2,349.1	2,343.0	6.12	383.606	
393.7	393.7	394.7	394.7	0.8	7.5	-135.02	-1,661.6	-1,660.6	2,349.1	2,340.9	8.25	284.812	
400.0	400.0	401.0	401.0	0.8	7.6	-135.02	-1,661.6	-1,660.6	2,349.1	2,340.7	8.39	279.968	
492.1	492.1	493.1	493.1	1.0	9.5	-135.02	-1,661.6	-1,660.6	2,349.1	2,338.7	10.47	224.431	
500.0	500.0	501.0	501.0	1.0	9.6	-135.02	-1,661.6	-1,660.6	2,349.1	2,338.5	10.64	220.690	
590.5	590.5	591.5	591.5	1.2	11.5	-135.02	-1,661.6	-1,660.6	2,349.1	2,336.4	12.68	185.268	
600.0	600.0	601.0	601.0	1.2	11.7	-135.02	-1,661.6	-1,660.6	2,349.1	2,336.2	12.89	182.216	
689.0	689.0	690.0	690.0	1.4	13.5	-135.02	-1,661.6	-1,660.6	2,349.1	2,334.2	14.89	157.780	
700.0	700.0	701.0	701.0	1.4	13.7	-135.02	-1,661.6	-1,660.6	2,349.1	2,334.0	15.14	155.201	
787.4	787.4	788.4	788.4	1.6	15.5	-135.02	-1,661.6	-1,660.6	2,349.1	2,332.0	17.10	137.412	
800.0	800.0	801.0	801.0	1.7	15.7	-135.02	-1,661.6	-1,660.6	2,349.1	2,331.7	17.38	135.179	
885.8	885.8	886.8	886.8	1.9	17.4	-135.02	-1,661.6	-1,660.6	2,349.1	2,329.8	19.30	121.711	
900.0	900.0	901.0	901.0	1.9	17.7	-135.02	-1,661.6	-1,660.6	2,349.1	2,329.5	19.62	119.741	
984.2	984.2	985.2	985.2	2.1	19.4	-135.02	-1,661.6	-1,660.6	2,349.1	2,327.6	21.51	109.235	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	19.7	-135.02	-1,661.6	-1,660.6	2,349.1	2,327.3	21.86	107.473	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	21.4	-135.02	-1,661.6	-1,660.6	2,349.1	2,325.4	23.71	99.082	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	21.8	-135.02	-1,661.6	-1,660.6	2,349.1	2,325.0	24.10	97.487	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	23.4	-135.02	-1,661.6	-1,660.6	2,349.1	2,323.2	25.91	90.658	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	23.8	-135.02	-1,661.6	-1,660.6	2,349.1	2,322.8	26.33	89.202	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	25.4	-135.02	-1,661.6	-1,660.6	2,349.1	2,321.0	28.11	83.555	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	25.8	-135.02	-1,661.6	-1,660.6	2,349.1	2,320.6	28.57	82.215	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	27.3	-135.02	-1,661.6	-1,660.6	2,349.1	2,318.8	30.32	77.485	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	27.8	-135.02	-1,661.6	-1,660.6	2,349.1	2,318.3	30.81	76.244	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	29.3	-135.02	-1,661.6	-1,660.6	2,349.1	2,316.6	32.52	72.238	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	29.8	-135.02	-1,661.6	-1,660.6	2,349.1	2,316.1	33.05	71.083	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	31.3	-54.35	-1,661.6	-1,660.6	2,348.6	2,313.8	34.71	67.665	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	31.8	-54.37	-1,661.6	-1,660.6	2,348.1	2,312.8	35.27	66.583	
1,673.2	1,673.1	1,674.1	1,674.1	3.6	33.3	-54.47	-1,661.6	-1,660.6	2,346.1	2,309.2	36.87	63.625	
1,700.0	1,699.8	1,700.8	1,700.8	3.7	33.8	-54.52	-1,661.6	-1,660.6	2,345.1	2,307.6	37.46	62.604	
1,771.6	1,771.2	1,772.2	1,772.2	3.8	35.3	-54.69	-1,661.6	-1,660.6	2,341.6	2,302.6	39.02	60.010	
1,800.0	1,799.5	1,800.5	1,800.5	3.9	35.8	-54.78	-1,661.6	-1,660.6	2,340.0	2,300.4	39.64	59.038	
1,870.1	1,869.0	1,870.0	1,870.0	4.0	37.2	-55.02	-1,661.6	-1,660.6	2,335.3	2,294.1	41.15	56.745	
1,900.0	1,898.7	1,899.7	1,899.7	4.1	37.8	-55.14	-1,661.6	-1,660.6	2,333.0	2,291.2	41.80	55.815	
1,968.5	1,966.4	1,967.4	1,967.4	4.3	39.2	-55.44	-1,661.6	-1,660.6	2,327.0	2,283.8	43.28	53.772	
2,000.0	1,997.5	1,998.5	1,998.5	4.4	39.8	-55.60	-1,661.6	-1,660.6	2,324.0	2,280.1	43.95	52.877	
2,066.9	2,063.2	2,064.2	2,064.2	4.6	41.1	-55.97	-1,661.6	-1,660.6	2,317.0	2,271.6	45.39	51.044	
2,100.1	2,095.7	2,096.7	2,096.7	4.7	41.8	-56.17	-1,661.6	-1,660.6	2,313.2	2,267.1	46.10	50.176	
2,165.3	2,159.5	2,160.5	2,160.5	4.9	43.1	-56.44	-1,661.6	-1,660.6	2,305.5	2,257.9	47.57	48.464	
2,200.0	2,193.4	2,194.4	2,194.4	5.0	43.8	-56.59	-1,661.6	-1,660.6	2,301.5	2,253.1	48.35	47.598	
2,224.2	2,217.1	2,218.1	2,218.1	5.1	44.2	-56.69	-1,661.6	-1,660.6	2,298.7	2,249.8	48.90	47.007	
2,263.8	2,255.9	2,256.9	2,256.9	5.2	45.0	-56.78	-1,661.6	-1,660.6	2,294.2	2,244.4	49.83	46.043	
2,300.0	2,291.5	2,292.5	2,292.5	5.3	45.7	-56.86	-1,661.6	-1,660.6	2,290.5	2,239.8	50.68	45.198	
2,362.2	2,352.7	2,353.7	2,353.7	5.5	47.0	-56.98	-1,661.6	-1,660.6	2,284.6	2,232.5	52.11	43.838	
2,400.0	2,390.1	2,391.1	2,391.1	5.6	47.7	-57.05	-1,661.6	-1,660.6	2,281.4	2,228.4	52.99	43.054	
2,460.6	2,450.1	2,451.1	2,451.1	5.7	48.9	-57.15	-1,661.6	-1,660.6	2,276.8	2,222.5	54.39	41.865	
2,500.0	2,489.2	2,490.2	2,490.2	5.8	49.7	-57.20	-1,661.6	-1,660.6	2,274.3	2,219.0	55.29	41.132	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,549.0	2,549.0	6.0	50.9	-57.27	-1,661.6	-1,660.6	2,271.0	2,214.3	56.64	40.095	
2,600.0	2,588.8	2,589.8	2,589.8	6.1	51.7	-57.32	-1,661.6	-1,660.6	2,269.1	2,211.5	57.57	39.412	
2,657.5	2,646.1	2,647.1	2,647.1	6.2	52.9	-57.36	-1,661.6	-1,660.6	2,267.0	2,208.1	58.87	38.508	
2,700.0	2,688.6	2,689.6	2,689.6	6.3	53.7	-57.39	-1,661.6	-1,660.6	2,265.8	2,206.0	59.83	37.872	
2,755.9	2,744.4	2,745.4	2,745.4	6.4	54.8	-57.41	-1,661.6	-1,660.6	2,264.8	2,203.7	61.07	37.084	
2,800.0	2,788.5	2,789.5	2,789.5	6.5	55.7	-57.42	-1,661.6	-1,660.6	2,264.4	2,202.4	62.05	36.494	
2,824.3	2,812.8	2,813.8	2,813.8	6.5	56.2	-138.12	-1,661.6	-1,660.6	2,264.3	2,202.0	62.37	36.308	
2,854.3	2,842.9	2,843.9	2,843.9	6.6	56.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,201.3	63.03	35.925	
2,900.0	2,888.5	2,889.5	2,889.5	6.7	57.7	-138.12	-1,661.6	-1,660.6	2,264.3	2,200.3	64.04	35.360	
2,952.7	2,941.3	2,942.3	2,942.3	6.8	58.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,199.1	65.21	34.723	
3,000.0	2,988.5	2,989.5	2,989.5	6.9	59.7	-138.12	-1,661.6	-1,660.6	2,264.3	2,198.1	66.26	34.173	
3,051.2	3,039.7	3,040.7	3,040.7	7.0	60.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,196.9	67.40	33.595	
3,100.0	3,088.5	3,089.5	3,089.5	7.1	61.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,195.9	68.49	33.062	
3,149.6	3,138.1	3,139.1	3,139.1	7.2	62.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,194.8	69.59	32.538	
3,200.0	3,188.5	3,189.5	3,189.5	7.3	63.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,193.6	70.71	32.022	
3,248.0	3,236.6	3,237.6	3,237.6	7.4	64.7	-138.12	-1,661.6	-1,660.6	2,264.3	2,192.6	71.78	31.545	
3,300.0	3,288.5	3,289.5	3,289.5	7.5	65.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,191.4	72.94	31.044	
3,346.4	3,335.0	3,336.0	3,336.0	7.6	66.7	-138.12	-1,661.6	-1,660.6	2,264.3	2,190.4	73.97	30.610	
3,400.0	3,388.5	3,389.5	3,389.5	7.7	67.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,189.2	75.17	30.124	
3,444.9	3,433.4	3,434.4	3,434.4	7.8	68.7	-138.12	-1,661.6	-1,660.6	2,264.3	2,188.2	76.17	29.729	
3,500.0	3,488.5	3,489.5	3,489.5	7.9	69.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,187.0	77.39	29.257	
3,543.3	3,531.8	3,532.8	3,532.8	8.0	70.7	-138.12	-1,661.6	-1,660.6	2,264.3	2,186.0	78.36	28.897	
3,600.0	3,588.5	3,589.5	3,589.5	8.1	71.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,184.7	79.62	28.439	
3,641.7	3,630.3	3,631.3	3,631.3	8.2	72.7	-138.12	-1,661.6	-1,660.6	2,264.3	2,183.8	80.55	28.110	
3,700.0	3,688.5	3,689.5	3,689.5	8.3	73.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,182.5	81.85	27.664	
3,740.1	3,728.7	3,729.7	3,729.7	8.4	74.6	-138.12	-1,661.6	-1,660.6	2,264.3	2,181.6	82.75	27.365	
3,800.0	3,788.5	3,789.5	3,789.5	8.5	75.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,180.3	84.08	26.931	
3,838.6	3,827.1	3,828.1	3,828.1	8.6	76.6	-138.12	-1,661.6	-1,660.6	2,264.3	2,179.4	84.94	26.658	
3,900.0	3,888.5	3,889.5	3,889.5	8.7	77.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,178.0	86.31	26.235	
3,937.0	3,925.5	3,926.5	3,926.5	8.8	78.6	-138.12	-1,661.6	-1,660.6	2,264.3	2,177.2	87.13	25.987	
4,000.0	3,988.5	3,989.5	3,989.5	9.0	79.9	-138.12	-1,661.6	-1,660.6	2,264.3	2,175.8	88.54	25.575	
4,035.4	4,024.0	4,025.0	4,025.0	9.0	80.6	-138.12	-1,661.6	-1,660.6	2,264.3	2,175.0	89.33	25.349	
4,100.0	4,088.5	4,089.5	4,089.5	9.2	81.9	-138.12	-1,661.6	-1,660.6	2,264.3	2,173.6	90.77	24.946	
4,133.8	4,122.4	4,123.4	4,123.4	9.2	82.6	-138.12	-1,661.6	-1,660.6	2,264.3	2,172.8	91.52	24.741	
4,200.0	4,188.5	4,189.5	4,189.5	9.4	83.9	-138.12	-1,661.6	-1,660.6	2,264.3	2,171.3	93.00	24.348	
4,232.3	4,220.8	4,221.8	4,221.8	9.4	84.5	-138.12	-1,661.6	-1,660.6	2,264.3	2,170.6	93.72	24.161	
4,300.0	4,288.5	4,289.5	4,289.5	9.6	85.9	-138.12	-1,661.6	-1,660.6	2,264.3	2,169.1	95.23	23.778	
4,330.7	4,319.2	4,320.2	4,320.2	9.7	86.5	-138.12	-1,661.6	-1,660.6	2,264.3	2,168.4	95.91	23.608	
4,400.0	4,388.5	4,389.5	4,389.5	9.8	87.9	-138.12	-1,661.6	-1,660.6	2,264.3	2,166.9	97.46	23.234	
4,429.1	4,417.7	4,418.7	4,418.7	9.9	88.5	-138.12	-1,661.6	-1,660.6	2,264.3	2,166.2	98.11	23.080	
4,500.0	4,488.5	4,489.5	4,489.5	10.0	89.9	-138.12	-1,661.6	-1,660.6	2,264.3	2,164.7	99.69	22.714	
4,527.5	4,516.1	4,517.1	4,517.1	10.1	90.5	-138.12	-1,661.6	-1,660.6	2,264.3	2,164.0	100.31	22.575	
4,600.0	4,588.5	4,589.5	4,589.5	10.2	91.9	-138.12	-1,661.6	-1,660.6	2,264.3	2,162.4	101.92	22.217	
4,626.0	4,614.5	4,615.5	4,615.5	10.3	92.4	-138.12	-1,661.6	-1,660.6	2,264.3	2,161.8	102.50	22.091	
4,700.0	4,688.5	4,689.5	4,689.5	10.5	93.9	-138.12	-1,661.6	-1,660.6	2,264.3	2,160.2	104.15	21.741	
4,724.4	4,712.9	4,713.9	4,713.9	10.5	94.4	-138.12	-1,661.6	-1,660.6	2,264.3	2,159.6	104.70	21.628	
4,800.0	4,788.5	4,789.5	4,789.5	10.7	95.9	-138.12	-1,661.6	-1,660.6	2,264.3	2,158.0	106.38	21.285	
4,822.8	4,811.4	4,812.4	4,812.4	10.7	96.4	-138.12	-1,661.6	-1,660.6	2,264.3	2,157.5	106.89	21.183	
4,900.0	4,888.5	4,889.5	4,889.5	10.9	98.0	-138.12	-1,661.6	-1,660.6	2,264.3	2,155.7	108.62	20.847	
4,921.2	4,909.8	4,910.8	4,910.8	10.9	98.4	-138.12	-1,661.6	-1,660.6	2,264.3	2,155.3	109.09	20.757	
5,000.0	4,988.5	4,989.5	4,989.5	11.1	100.0	-138.12	-1,661.6	-1,660.6	2,264.3	2,153.5	110.85	20.428	
5,019.7	5,008.2	5,009.2	5,009.2	11.1	100.4	-138.12	-1,661.6	-1,660.6	2,264.3	2,153.1	111.29	20.347	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,089.5	5,089.5	11.3	102.0	-138.12	-1,661.6	-1,660.6	2,264.3	2,151.3	113.08	20.024	
5,118.1	5,106.6	5,107.6	5,107.6	11.4	102.3	-138.12	-1,661.6	-1,660.6	2,264.3	2,150.9	113.48	19.953	
5,200.0	5,188.5	5,189.5	5,189.5	11.5	104.0	-138.12	-1,661.6	-1,660.6	2,264.3	2,149.0	115.31	19.637	
5,216.5	5,205.1	5,206.1	5,206.1	11.6	104.3	-138.12	-1,661.6	-1,660.6	2,264.3	2,148.7	115.68	19.574	
5,300.0	5,288.5	5,289.5	5,289.5	11.8	106.0	-138.12	-1,661.6	-1,660.6	2,264.3	2,146.8	117.54	19.264	
5,314.9	5,303.5	5,304.5	5,304.5	11.8	106.3	-138.12	-1,661.6	-1,660.6	2,264.3	2,146.5	117.88	19.209	
5,400.0	5,388.5	5,389.5	5,389.5	12.0	108.0	-138.12	-1,661.6	-1,660.6	2,264.3	2,144.6	119.78	18.905	
5,413.4	5,401.9	5,402.9	5,402.9	12.0	108.3	-138.12	-1,661.6	-1,660.6	2,264.3	2,144.3	120.08	18.858	
5,500.0	5,488.5	5,489.5	5,489.5	12.2	110.0	-138.12	-1,661.6	-1,660.6	2,264.3	2,142.3	122.01	18.559	
5,511.8	5,500.3	5,501.3	5,501.3	12.2	110.3	-138.12	-1,661.6	-1,660.6	2,264.3	2,142.1	122.27	18.519	
5,600.0	5,588.5	5,589.5	5,589.5	12.4	112.0	-138.12	-1,661.6	-1,660.6	2,264.3	2,140.1	124.24	18.225	
5,610.2	5,598.8	5,599.8	5,599.8	12.4	112.2	-138.12	-1,661.6	-1,660.6	2,264.3	2,139.9	124.47	18.192	
5,700.0	5,688.5	5,689.5	5,689.5	12.6	114.0	-138.12	-1,661.6	-1,660.6	2,264.3	2,137.9	126.47	17.904	
5,708.6	5,697.2	5,698.2	5,698.2	12.6	114.2	-138.12	-1,661.6	-1,660.6	2,264.3	2,137.7	126.67	17.876	
5,800.0	5,788.5	5,789.5	5,789.5	12.8	116.1	-138.12	-1,661.6	-1,660.6	2,264.3	2,135.6	128.71	17.593	
5,807.1	5,795.6	5,796.6	5,796.6	12.9	116.2	-138.12	-1,661.6	-1,660.6	2,264.3	2,135.5	128.87	17.571	
5,900.0	5,888.5	5,889.5	5,889.5	13.1	118.1	-138.12	-1,661.6	-1,660.6	2,264.3	2,133.4	130.94	17.293	
5,905.5	5,894.0	5,895.0	5,895.0	13.1	118.2	-138.12	-1,661.6	-1,660.6	2,264.3	2,133.3	131.06	17.277	
6,000.0	5,988.5	5,989.5	5,989.5	13.3	120.1	-138.12	-1,661.6	-1,660.6	2,264.3	2,131.2	133.17	17.003	
6,003.9	5,992.5	5,993.5	5,993.5	13.3	120.2	-138.12	-1,661.6	-1,660.6	2,264.3	2,131.1	133.26	16.992	
6,085.3	6,073.8	6,074.8	6,074.8	13.5	121.8	-138.12	-1,661.6	-1,660.6	2,264.3	2,129.3	135.08	16.763	
6,100.0	6,088.5	6,089.5	6,089.5	13.5	122.1	-48.13	-1,661.6	-1,660.6	2,264.2	2,128.7	135.51	16.710	
6,102.3	6,090.9	6,091.9	6,091.9	13.5	122.1	-48.13	-1,661.6	-1,660.6	2,264.2	2,128.7	135.55	16.703	
6,150.0	6,138.4	6,139.4	6,139.4	13.6	123.1	-48.29	-1,661.6	-1,660.6	2,262.4	2,126.0	136.39	16.587	
6,200.0	6,188.0	6,189.0	6,189.0	13.7	124.1	-48.66	-1,661.6	-1,660.6	2,258.2	2,121.2	137.01	16.482	
6,200.8	6,188.8	6,189.8	6,189.8	13.7	124.1	-48.67	-1,661.6	-1,660.6	2,258.2	2,121.1	137.02	16.481	
6,250.0	6,237.1	6,238.1	6,238.1	13.9	125.1	-49.24	-1,661.6	-1,660.6	2,251.8	2,114.4	137.37	16.392	
6,299.2	6,284.6	6,285.6	6,285.6	14.0	126.0	-50.01	-1,661.6	-1,660.6	2,243.3	2,105.8	137.52	16.313	
6,300.0	6,285.3	6,286.3	6,286.3	14.0	126.1	-50.02	-1,661.6	-1,660.6	2,243.1	2,105.6	137.52	16.311	
6,350.0	6,332.5	6,333.5	6,333.5	14.2	127.0	-51.02	-1,661.6	-1,660.6	2,232.3	2,094.8	137.52	16.233	
6,397.6	6,376.3	6,377.3	6,377.3	14.4	127.9	-52.17	-1,661.6	-1,660.6	2,220.2	2,082.7	137.45	16.152	
6,400.0	6,378.5	6,379.5	6,379.5	14.4	127.9	-52.23	-1,661.6	-1,660.6	2,219.5	2,082.1	137.45	16.148	
6,450.0	6,423.0	6,424.0	6,424.0	14.7	128.8	-53.66	-1,661.6	-1,660.6	2,204.7	2,067.3	137.39	16.047	
6,496.0	6,462.4	6,463.4	6,463.4	14.9	129.6	-55.16	-1,661.6	-1,660.6	2,189.5	2,052.1	137.45	15.929	
6,500.0	6,465.7	6,466.7	6,466.7	14.9	129.7	-55.30	-1,661.6	-1,660.6	2,188.1	2,050.7	137.47	15.918	
6,550.0	6,506.6	6,507.6	6,507.6	15.2	130.5	-57.16	-1,661.6	-1,660.6	2,169.9	2,032.1	137.76	15.751	
6,594.5	6,541.2	6,542.2	6,542.2	15.6	131.2	-58.98	-1,661.6	-1,660.6	2,152.4	2,014.1	138.29	15.564	
6,600.0	6,545.3	6,546.3	6,546.3	15.6	131.3	-59.22	-1,661.6	-1,660.6	2,150.1	2,011.8	138.38	15.538	
6,650.0	6,581.8	6,582.8	6,582.8	16.0	132.0	-61.47	-1,661.6	-1,660.6	2,129.1	1,989.7	139.37	15.276	
6,692.9	6,611.1	6,612.1	6,612.1	16.4	132.6	-63.54	-1,661.6	-1,660.6	2,110.1	1,969.5	140.56	15.012	
6,700.0	6,615.8	6,616.8	6,616.8	16.5	132.7	-63.90	-1,661.6	-1,660.6	2,106.9	1,966.1	140.78	14.966	
6,750.0	6,647.1	6,648.1	6,648.1	17.1	133.3	-66.48	-1,661.6	-1,660.6	2,083.8	1,941.2	142.59	14.614	
6,791.3	6,670.9	6,671.9	6,671.9	17.6	133.8	-68.69	-1,661.6	-1,660.6	2,064.1	1,919.8	144.34	14.300	
6,800.0	6,675.7	6,676.7	6,676.7	17.7	133.9	-69.17	-1,661.6	-1,660.6	2,059.9	1,915.2	144.73	14.233	
6,850.0	6,701.3	6,702.3	6,702.3	18.4	134.4	-71.94	-1,661.6	-1,660.6	2,035.6	1,888.5	147.11	13.837	
6,889.7	6,719.5	6,720.5	6,720.5	19.0	134.8	-74.16	-1,661.6	-1,660.6	2,016.0	1,866.9	149.09	13.522	
6,900.0	6,723.8	6,724.8	6,724.8	19.1	134.9	-74.74	-1,661.6	-1,660.6	2,010.9	1,861.3	149.59	13.442	
6,950.0	6,743.2	6,744.2	6,744.2	20.0	135.3	-77.52	-1,661.6	-1,660.6	1,986.2	1,834.1	152.06	13.062	
6,988.2	6,755.8	6,756.8	6,756.8	20.6	135.5	-79.60	-1,661.6	-1,660.6	1,967.4	1,813.5	153.86	12.787	
7,000.0	6,759.4	6,760.4	6,760.4	20.9	135.6	-80.23	-1,661.6	-1,660.6	1,961.6	1,807.2	154.39	12.705	
7,050.0	6,772.1	6,773.1	6,773.1	21.8	135.8	-82.84	-1,661.6	-1,660.6	1,937.3	1,780.8	156.49	12.380	
7,086.6	6,779.4	6,780.4	6,780.4	22.5	136.0	-84.65	-1,661.6	-1,660.6	1,919.9	1,762.0	157.86	12.162	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #1 - 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	
7,100.0	6,781.5	6,782.5	6,782.5	22.8	136.0	-85.29	-1,661.6	-1,660.6	1,913.6	1,755.3	158.32	12.087	
7,150.0	6,787.5	6,788.5	6,788.5	23.9	136.1	-87.56	-1,661.6	-1,660.6	1,890.6	1,730.8	159.85	11.827	
7,185.0	6,789.6	6,790.6	6,790.6	24.6	136.2	-89.02	-1,661.6	-1,660.6	1,875.1	1,714.3	160.77	11.663	
7,200.0	6,789.9	6,790.9	6,790.9	24.9	136.2	-89.61	-1,661.6	-1,660.6	1,868.6	1,707.4	161.12	11.598	
7,213.0	6,790.0	6,791.0	6,791.0	25.2	136.2	-90.10	-1,661.6	-1,660.6	1,863.0	1,701.6	161.41	11.542	
7,283.4	6,789.7	6,790.7	6,790.7	26.8	136.2	-90.09	-1,661.6	-1,660.6	1,834.1	1,671.2	162.98	11.254	
7,300.0	6,789.7	6,790.7	6,790.7	27.2	136.2	-90.09	-1,661.6	-1,660.6	1,827.7	1,664.3	163.34	11.189	
7,381.9	6,789.4	6,790.4	6,790.4	29.1	136.2	-90.08	-1,661.6	-1,660.6	1,797.7	1,632.4	165.24	10.879	
7,400.0	6,789.3	6,790.3	6,790.3	29.5	136.2	-90.08	-1,661.6	-1,660.6	1,791.4	1,625.8	165.66	10.814	
7,480.3	6,789.0	6,790.0	6,790.0	31.4	136.2	-90.07	-1,661.6	-1,660.6	1,765.9	1,598.3	167.59	10.537	
7,500.0	6,788.9	6,789.9	6,789.9	31.9	136.2	-90.06	-1,661.6	-1,660.6	1,760.2	1,592.1	168.06	10.473	
7,578.7	6,788.6	6,789.6	6,789.6	33.8	136.2	-90.05	-1,661.6	-1,660.6	1,739.2	1,569.2	170.00	10.231	
7,600.0	6,788.5	6,789.5	6,789.5	34.4	136.2	-90.05	-1,661.6	-1,660.6	1,734.1	1,563.6	170.52	10.169	
7,677.1	6,788.2	6,789.2	6,789.2	36.3	136.2	-90.04	-1,661.6	-1,660.6	1,717.7	1,545.2	172.46	9.960	
7,700.0	6,788.2	6,789.2	6,789.2	36.9	136.2	-90.04	-1,661.6	-1,660.6	1,713.4	1,540.4	173.03	9.903	
7,775.6	6,787.9	6,788.9	6,788.9	38.8	136.2	-90.03	-1,661.6	-1,660.6	1,701.6	1,526.6	174.95	9.726	
7,800.0	6,787.8	6,788.8	6,788.8	39.4	136.2	-90.03	-1,661.6	-1,660.6	1,698.5	1,522.9	175.58	9.674	
7,874.0	6,787.5	6,788.5	6,788.5	41.3	136.1	-90.02	-1,661.6	-1,660.6	1,691.1	1,513.6	177.49	9.528	
7,900.0	6,787.4	6,788.4	6,788.4	42.0	136.1	-90.01	-1,661.6	-1,660.6	1,689.3	1,511.1	178.16	9.482	
7,972.4	6,787.1	6,788.1	6,788.1	43.9	136.1	-90.00	-1,661.6	-1,660.6	1,686.3	1,506.2	180.05	9.366	
8,000.0	6,787.0	6,788.0	6,788.0	44.6	136.1	-90.00	-1,661.6	-1,660.6	1,686.0	1,505.2	180.76	9.327	
8,005.6	6,787.0	6,788.0	6,788.0	44.8	136.1	-90.00	-1,661.6	-1,660.6	1,686.0	1,505.1	180.91	9.319 CC	
8,070.8	6,786.7	6,787.7	6,787.7	46.5	136.1	-89.99	-1,661.6	-1,660.6	1,687.2	1,504.6	182.63	9.239 ES	
8,100.0	6,786.6	6,787.6	6,787.6	47.3	136.1	-89.99	-1,661.6	-1,660.6	1,688.6	1,505.2	183.39	9.208	
8,169.3	6,786.4	6,787.4	6,787.4	49.1	136.1	-89.98	-1,661.6	-1,660.6	1,693.9	1,508.7	185.23	9.145	
8,200.0	6,786.3	6,787.3	6,787.3	49.9	136.1	-89.97	-1,661.6	-1,660.6	1,697.1	1,511.1	186.04	9.122	
8,267.7	6,786.0	6,787.0	6,787.0	51.7	136.1	-89.97	-1,661.6	-1,660.6	1,706.2	1,518.4	187.85	9.083	
8,300.0	6,785.9	6,786.9	6,786.9	52.6	136.1	-89.96	-1,661.6	-1,660.6	1,711.5	1,522.8	188.71	9.069	
8,366.1	6,785.6	6,786.6	6,786.6	54.4	136.1	-89.95	-1,661.6	-1,660.6	1,724.1	1,533.6	190.48	9.051	
8,400.0	6,785.5	6,786.5	6,786.5	55.3	136.1	-89.95	-1,661.6	-1,660.6	1,731.5	1,540.1	191.39	9.047 SF	
8,464.5	6,785.2	6,786.2	6,786.2	57.0	136.1	-89.94	-1,661.6	-1,660.6	1,747.3	1,554.2	193.12	9.048	
8,500.0	6,785.1	6,786.1	6,786.1	58.0	136.1	-89.94	-1,661.6	-1,660.6	1,757.0	1,562.9	194.08	9.053	
8,563.0	6,784.9	6,785.9	6,785.9	59.7	136.1	-89.93	-1,661.6	-1,660.6	1,775.7	1,579.9	195.78	9.070	
8,600.0	6,784.7	6,785.7	6,785.7	60.7	136.1	-89.92	-1,661.6	-1,660.6	1,787.7	1,590.9	196.78	9.085	
8,661.4	6,784.5	6,785.5	6,785.5	62.4	136.1	-89.91	-1,661.6	-1,660.6	1,809.0	1,610.6	198.44	9.116	
8,700.0	6,784.3	6,785.3	6,785.3	63.4	136.1	-89.91	-1,661.6	-1,660.6	1,823.4	1,623.9	199.49	9.140	
8,759.8	6,784.1	6,785.1	6,785.1	65.0	136.1	-89.90	-1,661.6	-1,660.6	1,847.0	1,645.9	201.11	9.184	
8,800.0	6,784.0	6,785.0	6,785.0	66.1	136.1	-89.90	-1,661.6	-1,660.6	1,863.7	1,661.5	202.20	9.217	
8,858.2	6,783.7	6,784.7	6,784.7	67.7	136.1	-89.89	-1,661.6	-1,660.6	1,889.3	1,685.5	203.79	9.271	
8,900.0	6,783.6	6,784.6	6,784.6	68.9	136.1	-89.88	-1,661.6	-1,660.6	1,908.5	1,703.6	204.93	9.313	
8,956.7	6,783.3	6,784.3	6,784.3	70.4	136.1	-89.88	-1,661.6	-1,660.6	1,935.7	1,729.2	206.47	9.375	
9,000.0	6,783.2	6,784.2	6,784.2	71.6	136.1	-89.87	-1,661.6	-1,660.6	1,957.4	1,749.7	207.66	9.426	
9,055.1	6,783.0	6,784.0	6,784.0	73.1	136.1	-89.86	-1,661.6	-1,660.6	1,985.9	1,776.8	209.16	9.495	
9,100.0	6,782.8	6,783.8	6,783.8	74.3	136.1	-89.86	-1,661.6	-1,660.6	2,010.0	1,799.6	210.39	9.554	
9,153.5	6,782.6	6,783.6	6,783.6	75.8	136.0	-89.85	-1,661.6	-1,660.6	2,039.6	1,827.8	211.86	9.627	
9,200.0	6,782.4	6,783.4	6,783.4	77.1	136.0	-89.84	-1,661.6	-1,660.6	2,066.2	1,853.0	213.13	9.694	
9,251.9	6,782.2	6,783.2	6,783.2	78.5	136.0	-89.84	-1,661.6	-1,660.6	2,096.6	1,882.1	214.56	9.772	
9,300.0	6,782.0	6,783.0	6,783.0	79.8	136.0	-89.83	-1,661.6	-1,660.6	2,125.5	1,909.6	215.88	9.846	
9,350.4	6,781.8	6,782.8	6,782.8	81.2	136.0	-89.82	-1,661.6	-1,660.6	2,156.6	1,939.3	217.26	9.926	
9,400.0	6,781.6	6,782.6	6,782.6	82.6	136.0	-89.82	-1,661.6	-1,660.6	2,187.9	1,969.2	218.63	10.007	
9,448.8	6,781.4	6,782.4	6,782.4	83.9	136.0	-89.81	-1,661.6	-1,660.6	2,219.3	1,999.3	219.97	10.089	
9,500.0	6,781.2	6,782.2	6,782.2	85.4	136.0	-89.80	-1,661.6	-1,660.6	2,252.9	2,031.5	221.38	10.177	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #1 - 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	
9,547.2	6,781.0	6,782.0	6,782.0	86.7	136.0	-89.80	-1,661.6	-1,660.6	2,284.5	2,061.8	222.68	10.259	
9,600.0	6,780.8	6,781.8	6,781.8	88.1	136.0	-89.79	-1,661.6	-1,660.6	2,320.4	2,096.3	224.13	10.353	
9,645.6	6,780.7	6,781.7	6,781.7	89.4	136.0	-89.78	-1,661.6	-1,660.6	2,352.0	2,126.7	225.39	10.435	
9,700.0	6,780.5	6,781.5	6,781.5	90.9	136.0	-89.77	-1,661.6	-1,660.6	2,390.3	2,163.4	226.89	10.535	
9,744.1	6,780.3	6,781.3	6,781.3	92.1	136.0	-89.77	-1,661.6	-1,660.6	2,421.7	2,193.6	228.11	10.616	
9,800.0	6,780.1	6,781.1	6,781.1	93.7	136.0	-89.76	-1,661.6	-1,660.6	2,462.2	2,232.5	229.65	10.721	
9,842.5	6,779.9	6,780.9	6,780.9	94.8	136.0	-89.76	-1,661.6	-1,660.6	2,493.3	2,262.5	230.83	10.802	
9,900.0	6,779.7	6,780.7	6,780.7	96.4	136.0	-89.75	-1,661.6	-1,660.6	2,536.0	2,303.5	232.41	10.911	
9,940.9	6,779.5	6,780.5	6,780.5	97.6	136.0	-89.74	-1,661.6	-1,660.6	2,566.7	2,333.1	233.55	10.990	
10,000.0	6,779.3	6,780.3	6,780.3	99.2	136.0	-89.73	-1,661.6	-1,660.6	2,611.5	2,376.3	235.18	11.104	
10,039.3	6,779.1	6,780.1	6,780.1	100.3	136.0	-89.73	-1,661.6	-1,660.6	2,641.7	2,405.4	236.27	11.181	
10,100.0	6,778.9	6,779.9	6,779.9	102.0	136.0	-89.72	-1,661.6	-1,660.6	2,688.6	2,450.7	237.95	11.299	
10,137.8	6,778.7	6,779.7	6,779.7	103.0	136.0	-89.71	-1,661.6	-1,660.6	2,718.2	2,479.2	238.99	11.373	
10,200.0	6,778.5	6,779.5	6,779.5	104.8	136.0	-89.71	-1,661.6	-1,660.6	2,767.3	2,526.5	240.72	11.496	
10,236.2	6,778.3	6,779.3	6,779.3	105.8	136.0	-89.70	-1,661.6	-1,660.6	2,796.0	2,554.3	241.72	11.567	
10,300.0	6,778.1	6,779.1	6,779.1	107.5	136.0	-89.69	-1,661.6	-1,660.6	2,847.2	2,603.7	243.49	11.693	
10,334.6	6,778.0	6,779.0	6,779.0	108.5	136.0	-89.69	-1,661.6	-1,660.6	2,875.2	2,630.7	244.45	11.762	
10,400.0	6,777.7	6,778.7	6,778.7	110.3	136.0	-89.68	-1,661.6	-1,660.6	2,928.4	2,682.1	246.26	11.891	
10,433.0	6,777.6	6,778.6	6,778.6	111.2	135.9	-89.67	-1,661.6	-1,660.6	2,955.5	2,708.3	247.18	11.957	
10,500.0	6,777.3	6,778.3	6,778.3	113.1	135.9	-89.66	-1,661.6	-1,660.6	3,010.7	2,761.7	249.03	12.090	
10,531.5	6,777.2	6,778.2	6,778.2	114.0	135.9	-89.66	-1,661.6	-1,660.6	3,036.8	2,786.9	249.91	12.152	
10,600.0	6,776.9	6,777.9	6,777.9	115.9	135.9	-89.65	-1,661.6	-1,660.6	3,094.1	2,842.2	251.81	12.287	
10,629.9	6,776.8	6,777.8	6,777.8	116.7	135.9	-89.65	-1,661.6	-1,660.6	3,119.2	2,866.5	252.64	12.346	
10,700.0	6,776.5	6,777.5	6,777.5	118.7	135.9	-89.64	-1,661.6	-1,660.6	3,178.4	2,923.8	254.58	12.485	
10,728.3	6,776.4	6,777.4	6,777.4	119.5	135.9	-89.63	-1,661.6	-1,660.6	3,202.4	2,947.0	255.37	12.540	
10,800.0	6,776.1	6,777.1	6,777.1	121.4	135.9	-89.62	-1,661.6	-1,660.6	3,263.6	3,006.2	257.36	12.681	
10,826.7	6,776.0	6,777.0	6,777.0	122.2	135.9	-89.62	-1,661.6	-1,660.6	3,286.5	3,028.4	258.10	12.733	
10,900.0	6,775.7	6,776.7	6,776.7	124.2	135.9	-89.61	-1,661.6	-1,660.6	3,349.6	3,089.5	260.14	12.876	
10,925.2	6,775.6	6,776.6	6,776.6	124.9	135.9	-89.60	-1,661.6	-1,660.6	3,371.4	3,110.5	260.84	12.925	
11,000.0	6,775.3	6,776.3	6,776.3	127.0	135.9	-89.59	-1,661.6	-1,660.6	3,436.4	3,173.4	262.92	13.070	
11,023.6	6,775.2	6,776.2	6,776.2	127.7	135.9	-89.59	-1,661.6	-1,660.6	3,457.0	3,193.4	263.58	13.116	
11,100.0	6,774.9	6,775.9	6,775.9	129.8	135.9	-89.58	-1,661.6	-1,660.6	3,523.8	3,258.1	265.70	13.263	
11,122.0	6,774.8	6,775.8	6,775.8	130.4	135.9	-89.58	-1,661.6	-1,660.6	3,543.2	3,276.9	266.31	13.305	
11,200.0	6,774.5	6,775.5	6,775.5	132.6	135.9	-89.57	-1,661.6	-1,660.6	3,612.0	3,343.5	268.48	13.453	
11,220.4	6,774.4	6,775.4	6,775.4	133.2	135.9	-89.56	-1,661.6	-1,660.6	3,630.1	3,361.0	269.05	13.492	
11,300.0	6,774.1	6,775.1	6,775.1	135.4	135.9	-89.55	-1,661.6	-1,660.6	3,700.7	3,429.4	271.26	13.643	
11,318.9	6,774.0	6,775.0	6,775.0	135.9	135.9	-89.55	-1,661.6	-1,660.6	3,717.5	3,445.7	271.79	13.678	
11,400.0	6,773.7	6,774.7	6,774.7	138.2	135.9	-89.54	-1,661.6	-1,660.6	3,790.0	3,516.0	274.05	13.830	
11,417.3	6,773.6	6,774.6	6,774.6	138.7	135.9	-89.53	-1,661.6	-1,660.6	3,805.5	3,531.0	274.53	13.862	
11,500.0	6,773.3	6,774.3	6,774.3	141.0	135.9	-89.52	-1,661.6	-1,660.6	3,879.8	3,603.0	276.83	14.015	
11,515.7	6,773.2	6,774.2	6,774.2	141.4	135.9	-89.52	-1,661.6	-1,660.6	3,894.0	3,616.7	277.27	14.044	
11,600.0	6,772.9	6,773.9	6,773.9	143.8	135.9	-89.51	-1,661.6	-1,660.6	3,970.1	3,690.5	279.61	14.199	
11,614.1	6,772.8	6,773.8	6,773.8	144.2	135.9	-89.51	-1,661.6	-1,660.6	3,982.9	3,702.9	280.01	14.224	
11,700.0	6,772.5	6,773.5	6,773.5	146.6	135.8	-89.49	-1,661.6	-1,660.6	4,060.9	3,778.5	282.40	14.380	
11,712.6	6,772.4	6,773.4	6,773.4	146.9	135.8	-89.49	-1,661.6	-1,660.6	4,072.3	3,789.6	282.75	14.403	
11,800.0	6,772.1	6,773.1	6,773.1	149.4	135.8	-89.48	-1,661.6	-1,660.6	4,152.1	3,866.9	285.18	14.559	
11,811.0	6,772.1	6,773.1	6,773.1	149.7	135.8	-89.48	-1,661.6	-1,660.6	4,162.1	3,876.6	285.49	14.579	
11,900.0	6,771.7	6,772.7	6,772.7	152.2	135.8	-89.46	-1,661.6	-1,660.6	4,243.6	3,955.7	287.97	14.736	
11,909.4	6,771.7	6,772.7	6,772.7	152.4	135.8	-89.46	-1,661.6	-1,660.6	4,252.3	3,964.0	288.23	14.753	
12,000.0	6,771.3	6,772.3	6,772.3	154.9	135.8	-89.45	-1,661.6	-1,660.6	4,335.6	4,044.8	290.76	14.911	
12,007.8	6,771.3	6,772.3	6,772.3	155.2	135.8	-89.45	-1,661.6	-1,660.6	4,342.8	4,051.8	290.97	14.925	
12,100.0	6,770.9	6,771.9	6,771.9	157.7	135.8	-89.43	-1,661.6	-1,660.6	4,427.9	4,134.3	293.54	15.084	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #1 - 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	
12,106.3	6,770.9	6,771.9	6,771.9	157.9	135.8	-89.43	-1,661.6	-1,660.6	4,433.7	4,140.0	293.72	15.095		
12,200.0	6,770.5	6,771.5	6,771.5	160.5	135.8	-89.42	-1,661.6	-1,660.6	4,520.5	4,224.2	296.33	15.255		
12,204.7	6,770.5	6,771.5	6,771.5	160.7	135.8	-89.42	-1,661.6	-1,660.6	4,524.9	4,228.4	296.46	15.263		
12,300.0	6,770.1	6,771.1	6,771.1	163.3	135.8	-89.41	-1,661.6	-1,660.6	4,613.4	4,314.3	299.12	15.423		
12,303.1	6,770.1	6,771.1	6,771.1	163.4	135.8	-89.41	-1,661.6	-1,660.6	4,616.4	4,317.1	299.21	15.429		
12,316.4	6,770.0	6,771.0	6,771.0	163.8	135.8	-89.40	-1,661.6	-1,660.6	4,628.7	4,329.1	299.57	15.451		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-120.80	-1,779.5	-2,985.0	3,475.2				
98.4	98.4	83.6	83.6	0.1	0.1	-120.80	-1,779.6	-2,985.1	3,475.3	3,475.1	0.18	N/A	
100.0	100.0	85.1	85.1	0.1	0.1	-120.80	-1,779.6	-2,985.1	3,475.3	3,475.1	0.18	N/A	
196.8	196.8	174.7	174.7	0.3	0.2	-120.81	-1,780.1	-2,985.2	3,475.7	3,475.2	0.52	6,745.524	
200.0	200.0	177.7	177.7	0.3	0.2	-120.81	-1,780.1	-2,985.2	3,475.7	3,475.2	0.53	6,604.624	
295.3	295.3	265.5	265.5	0.5	0.3	-120.82	-1,780.8	-2,985.5	3,476.3	3,475.5	0.82	4,221.105	
300.0	300.0	269.8	269.8	0.5	0.3	-120.82	-1,780.8	-2,985.5	3,476.3	3,475.5	0.84	4,149.838	
393.7	393.7	356.1	356.1	0.8	0.4	-120.82	-1,781.4	-2,985.9	3,477.1	3,476.0	1.11	3,145.939	
400.0	400.0	361.9	361.9	0.8	0.4	-120.82	-1,781.5	-2,986.0	3,477.2	3,476.1	1.12	3,096.946	
492.1	492.1	455.2	455.2	1.0	0.4	-120.82	-1,781.9	-2,986.8	3,478.1	3,476.7	1.38	2,517.355	
500.0	500.0	463.8	463.8	1.0	0.4	-120.82	-1,781.9	-2,986.9	3,478.2	3,476.8	1.40	2,477.376	
590.5	590.5	551.6	551.5	1.2	0.5	-120.82	-1,782.3	-2,987.5	3,479.0	3,477.3	1.65	2,106.204	
600.0	600.0	560.1	560.1	1.2	0.5	-120.82	-1,782.3	-2,987.6	3,479.1	3,477.4	1.68	2,074.469	
689.0	689.0	644.6	644.6	1.4	0.5	-120.82	-1,782.9	-2,988.4	3,480.0	3,478.1	1.92	1,816.577	
700.0	700.0	655.6	655.6	1.4	0.5	-120.82	-1,782.9	-2,988.5	3,480.2	3,478.2	1.95	1,788.998	
787.4	787.4	740.4	740.4	1.6	0.6	-120.82	-1,783.4	-2,989.3	3,481.2	3,479.0	2.18	1,598.681	
800.0	800.0	752.3	752.2	1.7	0.6	-120.82	-1,783.5	-2,989.5	3,481.3	3,479.1	2.21	1,574.803	
885.8	885.8	835.8	835.8	1.9	0.6	-120.82	-1,783.9	-2,990.5	3,482.4	3,480.0	2.44	1,429.374	
900.0	900.0	850.3	850.2	1.9	0.6	-120.82	-1,784.0	-2,990.6	3,482.6	3,480.1	2.47	1,407.888	
984.2	984.2	932.5	932.5	2.1	0.7	-120.82	-1,784.5	-2,991.5	3,483.7	3,481.0	2.69	1,293.481	
1,000.0	1,000.0	946.9	946.9	2.1	0.7	-120.82	-1,784.6	-2,991.7	3,483.9	3,481.2	2.73	1,274.389	
1,082.7	1,082.7	1,023.1	1,023.0	2.3	0.7	-120.82	-1,785.1	-2,992.7	3,485.1	3,482.2	2.95	1,182.890	
1,100.0	1,100.0	1,039.3	1,039.2	2.3	0.7	-120.81	-1,785.2	-2,993.0	3,485.4	3,482.4	2.99	1,165.398	
1,181.1	1,181.1	1,115.6	1,115.6	2.5	0.7	-120.81	-1,785.7	-2,994.2	3,486.7	3,483.6	3.20	1,090.038	
1,200.0	1,200.0	1,133.9	1,133.8	2.6	0.8	-120.81	-1,785.8	-2,994.5	3,487.1	3,483.8	3.25	1,073.886	
1,279.5	1,279.5	1,209.4	1,209.3	2.7	0.8	-120.81	-1,786.3	-2,995.8	3,488.5	3,485.1	3.45	1,011.059	
1,300.0	1,300.0	1,226.9	1,226.8	2.8	0.8	-120.81	-1,786.4	-2,996.1	3,488.9	3,485.4	3.50	996.301	
1,377.9	1,377.9	1,300.0	1,299.9	3.0	0.8	-120.80	-1,787.0	-2,997.5	3,490.6	3,486.9	3.70	943.417	
1,400.0	1,400.0	1,314.9	1,314.8	3.0	0.8	-120.80	-1,787.1	-2,997.9	3,491.1	3,487.3	3.75	929.959	
1,476.4	1,476.4	1,393.4	1,393.3	3.2	0.9	-120.79	-1,787.7	-2,999.6	3,492.8	3,488.8	3.95	884.391	
1,500.0	1,500.0	1,416.1	1,416.0	3.2	0.9	-120.79	-1,787.9	-3,000.1	3,493.3	3,489.3	4.01	871.326	
1,574.8	1,574.8	1,486.2	1,486.1	3.4	0.9	-40.08	-1,788.4	-3,001.7	3,494.3	3,490.0	4.31	811.482	
1,600.0	1,600.0	1,510.7	1,510.5	3.5	0.9	-40.09	-1,788.6	-3,002.3	3,494.3	3,490.0	4.37	799.773	
1,673.2	1,673.1	1,584.9	1,584.7	3.6	0.9	-40.13	-1,789.1	-3,004.0	3,493.4	3,488.9	4.55	768.113	
1,700.0	1,699.8	1,611.8	1,611.6	3.7	1.0	-40.15	-1,789.2	-3,004.7	3,492.7	3,488.1	4.61	757.112	
1,771.6	1,771.2	1,682.9	1,682.7	3.8	1.0	-40.24	-1,789.7	-3,006.4	3,489.9	3,485.1	4.79	728.300	
1,800.0	1,799.5	1,710.3	1,710.1	3.9	1.0	-40.29	-1,789.9	-3,007.1	3,488.5	3,483.6	4.86	717.451	
1,870.1	1,869.0	1,775.7	1,775.5	4.0	1.0	-40.42	-1,790.3	-3,008.7	3,483.9	3,478.9	5.04	691.102	
1,900.0	1,898.7	1,804.6	1,804.4	4.1	1.0	-40.49	-1,790.6	-3,009.4	3,481.6	3,476.5	5.12	680.282	
1,968.5	1,966.4	1,885.7	1,885.4	4.3	1.1	-40.69	-1,791.0	-3,011.4	3,475.4	3,470.1	5.31	654.773	
2,000.0	1,997.5	1,919.7	1,919.4	4.4	1.1	-40.80	-1,791.1	-3,012.2	3,472.0	3,466.6	5.39	643.673	
2,066.9	2,063.2	1,987.7	1,987.4	4.6	1.1	-41.03	-1,791.2	-3,013.7	3,464.0	3,458.4	5.59	620.039	
2,100.1	2,095.7	2,023.3	2,023.0	4.7	1.1	-41.16	-1,791.3	-3,014.5	3,459.5	3,453.8	5.68	608.737	
2,165.3	2,159.5	2,095.7	2,095.4	4.9	1.1	-41.31	-1,791.2	-3,016.2	3,450.4	3,444.5	5.88	586.621	
2,200.0	2,193.4	2,137.1	2,136.8	5.0	1.2	-41.40	-1,791.0	-3,017.1	3,445.5	3,439.5	5.99	575.383	
2,224.2	2,217.1	2,166.3	2,165.9	5.1	1.2	-41.46	-1,790.9	-3,017.6	3,442.1	3,436.0	6.06	567.577	
2,263.8	2,255.9	2,211.4	2,211.0	5.2	1.2	-41.47	-1,790.6	-3,018.4	3,436.5	3,430.3	6.18	555.921	
2,300.0	2,291.5	2,247.1	2,246.7	5.3	1.2	-41.48	-1,790.4	-3,019.1	3,431.8	3,425.5	6.28	546.209	
2,362.2	2,352.7	2,310.0	2,309.6	5.5	1.2	-41.48	-1,789.9	-3,020.2	3,424.5	3,418.0	6.45	531.243	
2,400.0	2,390.1	2,354.0	2,353.6	5.6	1.2	-41.49	-1,789.6	-3,020.9	3,420.5	3,413.9	6.55	522.410	
2,460.6	2,450.1	2,420.6	2,420.2	5.7	1.2	-41.50	-1,789.0	-3,021.9	3,414.7	3,408.0	6.70	509.389	
2,500.0	2,489.2	2,458.9	2,458.4	5.8	1.3	-41.50	-1,788.6	-3,022.5	3,411.4	3,404.6	6.80	501.462	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #33-18 - 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	2,548.0	2,516.4	2,515.9	6.0	1.3	-41.49	-1,788.0	-3,023.4	3,407.3	3,400.4	6.95	490.511		
2,600.0	2,588.8	2,556.3	2,555.9	6.1	1.3	-41.49	-1,787.6	-3,024.0	3,405.1	3,398.0	7.05	483.278		
2,657.5	2,646.1	2,613.6	2,613.2	6.2	1.3	-41.48	-1,787.0	-3,025.0	3,402.6	3,395.4	7.18	473.958		
2,700.0	2,688.6	2,659.0	2,658.5	6.3	1.3	-41.48	-1,786.6	-3,025.6	3,401.3	3,394.0	7.28	467.326		
2,755.9	2,744.4	2,718.4	2,717.9	6.4	1.3	-41.47	-1,786.1	-3,026.4	3,400.3	3,392.9	7.40	459.383		
2,800.0	2,788.5	2,765.0	2,764.6	6.5	1.3	-41.47	-1,785.7	-3,027.0	3,400.0	3,392.5	7.50	453.419		
2,803.2	2,791.7	2,768.4	2,767.9	6.5	1.3	-41.47	-1,785.6	-3,027.1	3,400.0	3,392.5	7.51	453.024		
2,824.3	2,812.8	2,790.7	2,790.2	6.5	1.3	-122.16	-1,785.4	-3,027.3	3,400.1	3,392.6	7.42	458.363		
2,854.3	2,842.9	2,822.6	2,822.1	6.6	1.4	-122.15	-1,785.2	-3,027.7	3,400.2	3,392.7	7.48	454.318		
2,900.0	2,888.5	2,871.1	2,870.7	6.7	1.4	-122.14	-1,784.7	-3,028.2	3,400.4	3,392.8	7.59	448.301		
2,952.7	2,941.3	2,926.4	2,926.0	6.8	1.4	-122.13	-1,784.3	-3,028.7	3,400.6	3,392.9	7.71	441.030		
3,000.0	2,988.5	2,975.2	2,974.8	6.9	1.4	-122.12	-1,783.9	-3,029.1	3,400.7	3,392.9	7.82	434.719		
3,051.2	3,039.7	3,026.4	3,025.9	7.0	1.4	-122.11	-1,783.4	-3,029.6	3,400.8	3,392.9	7.94	428.075		
3,100.0	3,088.5	3,073.7	3,073.2	7.1	1.4	-122.10	-1,783.0	-3,030.0	3,401.0	3,392.9	8.06	421.945		
3,149.6	3,138.1	3,120.9	3,120.4	7.2	1.4	-122.09	-1,782.6	-3,030.4	3,401.1	3,393.0	8.18	415.885		
3,200.0	3,188.5	3,167.8	3,167.3	7.3	1.5	-122.08	-1,782.2	-3,030.9	3,401.4	3,393.1	8.30	409.922		
3,248.0	3,236.6	3,214.0	3,213.5	7.4	1.5	-122.07	-1,781.7	-3,031.5	3,401.6	3,393.2	8.41	404.362		
3,300.0	3,288.5	3,267.9	3,267.4	7.5	1.5	-122.05	-1,781.0	-3,032.2	3,401.9	3,393.3	8.54	398.450		
3,346.4	3,335.0	3,314.6	3,314.1	7.6	1.5	-122.04	-1,780.3	-3,032.9	3,402.1	3,393.4	8.65	393.310		
3,400.0	3,388.5	3,365.2	3,364.6	7.7	1.5	-122.02	-1,779.5	-3,033.8	3,402.3	3,393.6	8.78	387.583		
3,444.9	3,433.4	3,408.2	3,407.6	7.8	1.5	-122.00	-1,778.8	-3,034.5	3,402.6	3,393.7	8.89	382.901		
3,500.0	3,488.5	3,464.7	3,464.2	7.9	1.5	-121.98	-1,777.9	-3,035.5	3,402.9	3,393.9	9.02	377.247		
3,543.3	3,531.8	3,508.9	3,508.4	8.0	1.6	-121.96	-1,777.1	-3,036.2	3,403.2	3,394.0	9.13	372.901		
3,600.0	3,588.5	3,565.6	3,565.0	8.1	1.6	-121.94	-1,776.3	-3,037.1	3,403.5	3,394.2	9.26	367.392		
3,641.7	3,630.3	3,607.1	3,606.6	8.2	1.6	-121.93	-1,775.7	-3,037.7	3,403.7	3,394.3	9.36	363.488		
3,700.0	3,688.5	3,663.8	3,663.2	8.3	1.6	-121.91	-1,775.0	-3,038.6	3,404.0	3,394.5	9.50	358.145		
3,740.1	3,728.7	3,703.0	3,702.4	8.4	1.6	-121.90	-1,774.5	-3,039.1	3,404.3	3,394.7	9.60	354.511		
3,800.0	3,788.5	3,765.0	3,764.3	8.5	1.6	-121.88	-1,773.8	-3,040.0	3,404.6	3,394.9	9.75	349.231		
3,838.6	3,827.1	3,805.0	3,804.4	8.6	1.6	-121.87	-1,773.4	-3,040.6	3,404.9	3,395.0	9.84	345.889		
3,900.0	3,888.5	3,870.9	3,870.2	8.7	1.7	-121.85	-1,772.6	-3,041.4	3,405.1	3,395.1	10.00	340.680		
3,937.0	3,925.5	3,909.1	3,908.4	8.8	1.7	-121.84	-1,772.2	-3,041.8	3,405.3	3,395.2	10.09	337.616		
4,000.0	3,988.5	3,967.4	3,966.8	9.0	1.7	-121.83	-1,771.5	-3,042.5	3,405.5	3,395.3	10.24	332.601		
4,035.4	4,024.0	4,000.3	3,999.6	9.0	1.7	-121.82	-1,771.2	-3,042.9	3,405.7	3,395.4	10.33	329.841		
4,100.0	4,088.5	4,065.3	4,064.6	9.2	1.7	-121.80	-1,770.5	-3,043.7	3,406.1	3,395.6	10.48	324.892		
4,133.8	4,122.4	4,099.4	4,098.7	9.2	1.7	-121.79	-1,770.2	-3,044.2	3,406.3	3,395.7	10.57	322.350		
4,200.0	4,188.5	4,151.4	4,150.8	9.4	1.7	-121.78	-1,769.7	-3,045.0	3,406.8	3,396.0	10.73	317.646		
4,232.3	4,220.8	4,176.8	4,176.1	9.4	1.8	-121.77	-1,769.4	-3,045.4	3,407.1	3,396.3	10.80	315.406		
4,300.0	4,288.5	4,227.6	4,226.9	9.6	1.8	-121.75	-1,768.9	-3,046.6	3,408.1	3,397.1	10.96	310.853		
4,330.7	4,319.2	4,249.8	4,249.1	9.7	1.8	-121.74	-1,768.7	-3,047.2	3,408.6	3,397.6	11.04	308.848		
4,400.0	4,388.5	4,300.0	4,299.3	9.8	1.8	-121.72	-1,768.0	-3,048.9	3,410.1	3,398.9	11.20	304.443		
4,429.1	4,417.7	4,320.9	4,320.2	9.9	1.8	-121.71	-1,767.8	-3,049.7	3,410.9	3,399.6	11.27	302.643		
4,500.0	4,488.5	4,372.0	4,371.2	10.0	1.8	-121.68	-1,767.1	-3,051.9	3,413.0	3,401.6	11.44	298.378		
4,527.5	4,516.1	4,400.0	4,399.2	10.1	1.8	-121.67	-1,766.8	-3,053.2	3,414.0	3,402.5	11.51	296.705		
4,600.0	4,588.5	4,440.1	4,439.2	10.2	1.8	-121.64	-1,766.4	-3,055.3	3,416.7	3,405.1	11.67	292.668		
4,626.0	4,614.5	4,457.2	4,456.2	10.3	1.9	-121.63	-1,766.2	-3,056.3	3,417.9	3,406.1	11.74	291.242		
4,700.0	4,688.5	4,500.0	4,499.0	10.5	1.9	-121.60	-1,765.9	-3,058.9	3,421.5	3,409.6	11.91	287.325		
4,724.4	4,712.9	4,524.0	4,523.0	10.5	1.9	-121.59	-1,765.8	-3,060.4	3,422.8	3,410.8	11.97	286.012		
4,800.0	4,788.5	4,578.8	4,577.6	10.7	1.9	-121.55	-1,765.7	-3,064.2	3,427.1	3,414.9	12.15	282.164		
4,822.8	4,811.4	4,600.0	4,598.8	10.7	1.9	-121.54	-1,765.6	-3,065.8	3,428.5	3,416.3	12.20	281.006		
4,900.0	4,888.5	4,687.7	4,686.2	10.9	1.9	-121.48	-1,765.3	-3,072.1	3,433.1	3,420.7	12.39	277.066		
4,921.2	4,909.8	4,722.9	4,721.3	10.9	1.9	-121.45	-1,765.0	-3,074.6	3,434.3	3,421.9	12.45	275.938		
5,000.0	4,988.5	4,851.3	4,849.5	11.1	2.0	-121.38	-1,764.3	-3,081.8	3,437.8	3,425.1	12.65	271.800		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,008.2	4,876.1	4,874.3	11.1	2.0	-121.37	-1,764.2	-3,082.9	3,438.5	3,425.8	12.70	270.816		
5,100.0	5,088.5	4,974.7	4,972.8	11.3	2.0	-121.33	-1,764.0	-3,087.1	3,441.3	3,428.4	12.90	266.869		
5,118.1	5,106.6	4,996.8	4,994.9	11.4	2.0	-121.32	-1,764.0	-3,087.9	3,441.9	3,428.9	12.94	265.992		
5,200.0	5,188.5	5,117.2	5,115.3	11.5	2.1	-121.29	-1,763.9	-3,091.5	3,444.0	3,430.8	13.15	261.988		
5,216.5	5,205.1	5,139.3	5,137.3	11.6	2.1	-121.29	-1,763.9	-3,092.0	3,444.3	3,431.1	13.19	261.202		
5,300.0	5,288.5	5,250.1	5,248.2	11.8	2.1	-121.27	-1,764.2	-3,093.7	3,445.5	3,432.1	13.39	257.352		
5,314.9	5,303.5	5,269.9	5,267.9	11.8	2.1	-121.27	-1,764.2	-3,093.9	3,445.6	3,432.2	13.42	256.685		
5,400.0	5,388.5	5,360.5	5,358.5	12.0	2.1	-121.28	-1,764.7	-3,094.3	3,446.2	3,432.6	13.62	253.079		
5,413.4	5,401.9	5,373.5	5,371.5	12.0	2.1	-121.28	-1,764.8	-3,094.4	3,446.3	3,432.7	13.65	252.528		
5,500.0	5,488.5	5,453.2	5,451.3	12.2	2.2	-121.29	-1,765.6	-3,094.7	3,447.0	3,433.2	13.84	249.066		
5,511.8	5,500.3	5,463.8	5,461.8	12.2	2.2	-121.29	-1,765.8	-3,094.7	3,447.1	3,433.3	13.87	248.604		
5,600.0	5,588.5	5,550.3	5,548.3	12.4	2.2	-121.31	-1,767.2	-3,094.9	3,448.0	3,434.0	14.06	245.235		
5,610.2	5,598.8	5,561.0	5,559.1	12.4	2.2	-121.31	-1,767.4	-3,094.9	3,448.2	3,434.1	14.08	244.850		
5,700.0	5,688.5	5,659.6	5,657.6	12.6	2.2	-121.34	-1,769.3	-3,094.8	3,449.0	3,434.7	14.28	241.535		
5,708.6	5,697.2	5,669.3	5,667.3	12.6	2.2	-121.34	-1,769.4	-3,094.8	3,449.0	3,434.7	14.30	241.218		
5,800.0	5,788.5	5,775.4	5,773.4	12.8	2.2	-121.36	-1,770.7	-3,094.6	3,449.5	3,435.0	14.50	237.931		
5,807.1	5,795.6	5,783.7	5,781.7	12.9	2.2	-121.36	-1,770.8	-3,094.6	3,449.5	3,435.0	14.51	237.670		
5,900.0	5,888.5	5,876.7	5,874.7	13.1	2.2	-121.38	-1,771.9	-3,094.2	3,449.7	3,435.0	14.72	234.379		
5,905.5	5,894.0	5,882.0	5,880.0	13.1	2.2	-121.38	-1,771.9	-3,094.2	3,449.7	3,435.0	14.73	234.191		
6,000.0	5,988.5	5,988.8	5,986.7	13.3	2.2	-121.40	-1,772.9	-3,093.7	3,449.9	3,434.9	14.94	230.962		
6,003.9	5,992.5	5,993.3	5,991.3	13.3	2.2	-121.40	-1,773.0	-3,093.7	3,449.9	3,434.9	14.95	230.830		
6,085.3	6,073.8	6,075.2	6,073.2	13.5	2.2	-121.41	-1,773.3	-3,093.3	3,449.8	3,434.6	15.12	228.085		
6,100.0	6,088.5	6,089.8	6,087.8	13.5	2.2	-31.42	-1,773.4	-3,093.3	3,449.6	3,434.2	15.42	223.687		
6,102.3	6,090.9	6,092.2	6,090.1	13.5	2.2	-31.42	-1,773.4	-3,093.3	3,449.6	3,434.1	15.43	223.606		
6,150.0	6,138.4	6,141.1	6,139.0	13.6	2.2	-31.55	-1,773.7	-3,093.0	3,447.2	3,431.6	15.55	221.752		
6,200.0	6,188.0	6,192.4	6,190.3	13.7	2.2	-31.84	-1,773.9	-3,092.8	3,441.7	3,426.1	15.70	219.277		
6,200.8	6,188.8	6,193.2	6,191.1	13.7	2.2	-31.85	-1,773.9	-3,092.8	3,441.6	3,425.9	15.70	219.234		
6,250.0	6,237.1	6,240.7	6,238.7	13.9	2.2	-32.29	-1,774.1	-3,092.5	3,433.4	3,417.5	15.87	216.384		
6,299.2	6,284.6	6,287.1	6,285.1	14.0	2.2	-32.89	-1,774.2	-3,092.4	3,422.4	3,406.3	16.05	213.205		
6,300.0	6,285.3	6,287.9	6,285.8	14.0	2.2	-32.90	-1,774.2	-3,092.4	3,422.2	3,406.1	16.06	213.152		
6,350.0	6,332.5	6,334.4	6,332.4	14.2	2.2	-33.69	-1,774.2	-3,092.3	3,408.1	3,391.9	16.25	209.680		
6,397.6	6,376.3	6,377.8	6,375.7	14.4	2.2	-34.62	-1,774.3	-3,092.2	3,392.2	3,375.8	16.45	206.198		
6,400.0	6,378.5	6,379.9	6,377.9	14.4	2.2	-34.68	-1,774.3	-3,092.2	3,391.4	3,374.9	16.46	206.024		
6,450.0	6,423.0	6,425.0	6,422.9	14.7	2.2	-35.87	-1,774.3	-3,092.1	3,372.0	3,355.3	16.68	202.184		
6,496.0	6,462.4	6,465.8	6,463.8	14.9	2.2	-37.17	-1,774.4	-3,092.0	3,351.9	3,335.0	16.89	198.444		
6,500.0	6,465.7	6,469.2	6,467.2	14.9	2.2	-37.29	-1,774.4	-3,091.9	3,350.0	3,333.1	16.91	198.121		
6,550.0	6,506.6	6,510.9	6,508.8	15.2	2.2	-38.96	-1,774.5	-3,091.8	3,325.7	3,308.5	17.16	193.773		
6,594.5	6,541.2	6,544.9	6,542.8	15.6	2.2	-40.67	-1,774.6	-3,091.7	3,302.1	3,284.7	17.42	189.569		
6,600.0	6,545.3	6,549.0	6,546.9	15.6	2.2	-40.90	-1,774.6	-3,091.6	3,299.1	3,281.6	17.45	189.037		
6,650.0	6,581.8	6,584.8	6,582.8	16.0	2.2	-43.12	-1,774.7	-3,091.5	3,270.4	3,252.6	17.79	183.784		
6,692.9	6,611.1	6,614.2	6,612.2	16.4	2.1	-45.30	-1,774.7	-3,091.4	3,244.3	3,226.1	18.15	178.755		
6,700.0	6,615.8	6,619.0	6,617.0	16.5	2.1	-45.68	-1,774.7	-3,091.4	3,239.8	3,221.6	18.21	177.901		
6,750.0	6,647.1	6,651.2	6,649.1	17.1	2.1	-48.61	-1,774.8	-3,091.3	3,207.4	3,188.7	18.72	171.345		
6,791.3	6,670.9	6,675.5	6,673.5	17.6	2.1	-51.31	-1,774.8	-3,091.2	3,179.5	3,160.2	19.22	165.425		
6,800.0	6,675.7	6,680.4	6,678.4	17.7	2.1	-51.91	-1,774.8	-3,091.2	3,173.5	3,154.1	19.33	164.173		
6,850.0	6,701.3	6,706.0	6,703.9	18.4	2.1	-55.58	-1,774.9	-3,091.0	3,138.1	3,118.1	20.05	156.540		
6,889.7	6,719.5	6,722.8	6,720.8	19.0	2.1	-58.75	-1,774.9	-3,091.0	3,109.2	3,088.5	20.69	150.272		
6,900.0	6,723.8	6,726.8	6,724.8	19.1	2.1	-59.61	-1,774.9	-3,091.0	3,101.6	3,080.8	20.86	148.691		
6,950.0	6,743.2	6,744.7	6,742.7	20.0	2.1	-64.00	-1,775.0	-3,090.9	3,064.2	3,042.4	21.75	140.876		
6,988.2	6,755.8	6,756.4	6,754.3	20.6	2.1	-67.58	-1,775.0	-3,090.8	3,035.1	3,012.6	22.47	135.063		
7,000.0	6,759.4	6,759.6	6,757.6	20.9	2.1	-68.72	-1,775.0	-3,090.8	3,026.0	3,003.3	22.69	133.351		
7,050.0	6,772.1	6,771.3	6,769.3	21.8	2.1	-73.67	-1,775.1	-3,090.8	2,987.3	2,963.6	23.65	126.291		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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
7,086.6	6,779.4	6,777.9	6,775.9	22.5	2.1	-77.41	-1,775.1	-3,090.8	2,958.7	2,934.3	24.37	121.432	
7,100.0	6,781.5	6,779.9	6,777.9	22.8	2.1	-78.78	-1,775.1	-3,090.7	2,948.2	2,923.6	24.62	119.747	
7,150.0	6,787.5	6,785.2	6,783.2	23.9	2.1	-83.93	-1,775.1	-3,090.7	2,909.1	2,883.5	25.61	113.611	
7,185.0	6,789.6	6,787.1	6,785.0	24.6	2.1	-87.49	-1,775.1	-3,090.7	2,881.7	2,855.3	26.33	109.439	
7,200.0	6,789.9	6,787.4	6,785.3	24.9	2.1	-88.99	-1,775.1	-3,090.7	2,870.0	2,843.3	26.65	107.693	
7,213.0	6,790.0	6,787.4	6,785.3	25.2	2.1	-90.28	-1,775.1	-3,090.7	2,859.9	2,833.0	26.93	106.180	
7,283.4	6,789.7	6,786.8	6,784.8	26.8	2.1	-90.26	-1,775.1	-3,090.7	2,805.5	2,777.0	28.51	98.406	
7,300.0	6,789.7	6,786.7	6,784.7	27.2	2.1	-90.26	-1,775.1	-3,090.7	2,792.8	2,763.9	28.88	96.707	
7,381.9	6,789.4	6,786.1	6,784.1	29.1	2.1	-90.24	-1,775.1	-3,090.7	2,730.7	2,699.9	30.78	88.705	
7,400.0	6,789.3	6,786.0	6,783.9	29.5	2.1	-90.23	-1,775.1	-3,090.7	2,717.1	2,685.9	31.21	87.070	
7,480.3	6,789.0	6,785.4	6,783.4	31.4	2.1	-90.21	-1,775.1	-3,090.7	2,657.5	2,624.3	33.14	80.197	
7,500.0	6,788.9	6,785.3	6,783.2	31.9	2.1	-90.21	-1,775.1	-3,090.7	2,643.0	2,609.4	33.61	78.636	
7,578.7	6,788.6	6,784.7	6,782.6	33.8	2.1	-90.19	-1,775.1	-3,090.7	2,585.9	2,550.3	35.55	72.735	
7,600.0	6,788.5	6,784.5	6,782.5	34.4	2.1	-90.19	-1,775.1	-3,090.7	2,570.7	2,534.6	36.08	71.255	
7,677.1	6,788.2	6,783.9	6,781.9	36.3	2.1	-90.17	-1,775.1	-3,090.7	2,516.1	2,478.1	38.02	66.183	
7,700.0	6,788.2	6,783.8	6,781.7	36.9	2.1	-90.16	-1,775.1	-3,090.7	2,500.2	2,461.6	38.59	64.785	
7,775.6	6,787.9	6,783.2	6,781.2	38.8	2.1	-90.15	-1,775.1	-3,090.7	2,448.4	2,407.8	40.52	60.418	
7,800.0	6,787.8	6,783.0	6,781.0	39.4	2.1	-90.14	-1,775.1	-3,090.7	2,431.9	2,390.7	41.15	59.100	
7,874.0	6,787.5	6,782.5	6,780.5	41.3	2.1	-90.12	-1,775.1	-3,090.7	2,382.7	2,339.7	43.06	55.330	
7,900.0	6,787.4	6,782.3	6,780.3	42.0	2.1	-90.12	-1,775.1	-3,090.7	2,365.8	2,322.0	43.74	54.091	
7,972.4	6,787.1	6,781.8	6,779.7	43.9	2.1	-90.10	-1,775.1	-3,090.7	2,319.4	2,273.8	45.63	50.830	
8,000.0	6,787.0	6,781.6	6,779.5	44.6	2.1	-90.09	-1,775.1	-3,090.7	2,302.1	2,255.8	46.35	49.666	
8,070.8	6,786.7	6,781.0	6,779.0	46.5	2.1	-90.08	-1,775.1	-3,090.7	2,258.6	2,210.4	48.22	46.839	
8,100.0	6,786.6	6,780.8	6,778.8	47.3	2.1	-90.07	-1,775.1	-3,090.7	2,241.1	2,192.1	48.99	45.747	
8,169.3	6,786.4	6,780.3	6,778.3	49.1	2.1	-90.06	-1,775.1	-3,090.7	2,200.5	2,149.7	50.83	43.292	
8,200.0	6,786.3	6,780.1	6,778.0	49.9	2.1	-90.05	-1,775.1	-3,090.7	2,183.0	2,131.3	51.65	42.269	
8,267.7	6,786.0	6,779.6	6,777.5	51.7	2.1	-90.03	-1,775.1	-3,090.7	2,145.4	2,091.9	53.45	40.135	
8,300.0	6,785.9	6,779.3	6,777.3	52.6	2.1	-90.02	-1,775.1	-3,090.7	2,128.0	2,073.6	54.32	39.176	
8,366.1	6,785.6	6,778.8	6,776.8	54.4	2.1	-90.01	-1,775.1	-3,090.7	2,093.4	2,037.3	56.09	37.320	
8,400.0	6,785.5	6,778.6	6,776.6	55.3	2.1	-90.00	-1,775.1	-3,090.7	2,076.3	2,019.3	57.00	36.424	
8,464.5	6,785.2	6,778.1	6,776.1	57.0	2.1	-89.99	-1,775.1	-3,090.8	2,044.9	1,986.1	58.75	34.809	
8,500.0	6,785.1	6,777.9	6,775.8	58.0	2.1	-89.98	-1,775.1	-3,090.8	2,028.3	1,968.6	59.70	33.974	
8,563.0	6,784.9	6,777.4	6,775.3	59.7	2.1	-89.96	-1,775.1	-3,090.8	2,000.0	1,938.6	61.41	32.570	
8,600.0	6,784.7	6,777.1	6,775.1	60.7	2.1	-89.95	-1,775.1	-3,090.8	1,984.1	1,921.7	62.41	31.792	
8,661.4	6,784.5	6,776.7	6,774.6	62.4	2.1	-89.94	-1,775.1	-3,090.8	1,959.1	1,895.0	64.08	30.573	
8,700.0	6,784.3	6,776.4	6,774.3	63.4	2.1	-89.93	-1,775.1	-3,090.8	1,944.1	1,879.0	65.13	29.851	
8,759.8	6,784.1	6,775.9	6,773.9	65.0	2.1	-89.92	-1,775.1	-3,090.8	1,922.3	1,855.5	66.76	28.795	
8,800.0	6,784.0	6,775.6	6,773.6	66.1	2.1	-89.91	-1,775.1	-3,090.8	1,908.5	1,840.7	67.85	28.128	
8,858.2	6,783.7	6,775.2	6,773.1	67.7	2.1	-89.89	-1,775.1	-3,090.8	1,889.9	1,820.5	69.44	27.215	
8,900.0	6,783.6	6,774.9	6,772.8	68.9	2.1	-89.88	-1,775.1	-3,090.8	1,877.6	1,807.0	70.58	26.601	
8,956.7	6,783.3	6,774.5	6,772.4	70.4	2.1	-89.87	-1,775.1	-3,090.8	1,862.2	1,790.1	72.13	25.815	
9,000.0	6,783.2	6,774.1	6,772.1	71.6	2.1	-89.86	-1,775.1	-3,090.8	1,851.5	1,778.2	73.32	25.252	
9,055.1	6,783.0	6,773.7	6,771.7	73.1	2.1	-89.85	-1,775.1	-3,090.8	1,839.3	1,764.5	74.83	24.579	
9,100.0	6,782.8	6,773.4	6,771.3	74.3	2.1	-89.84	-1,775.1	-3,090.8	1,830.6	1,754.5	76.06	24.066	
9,153.5	6,782.6	6,773.0	6,770.9	75.8	2.1	-89.82	-1,775.1	-3,090.8	1,821.5	1,744.0	77.53	23.493	
9,200.0	6,782.4	6,772.6	6,770.6	77.1	2.1	-89.81	-1,775.1	-3,090.8	1,814.9	1,736.1	78.81	23.028	
9,251.9	6,782.2	6,772.3	6,770.2	78.5	2.1	-89.80	-1,775.1	-3,090.8	1,808.9	1,728.6	80.24	22.543	
9,300.0	6,782.0	6,771.9	6,769.9	79.8	2.1	-89.79	-1,775.1	-3,090.8	1,804.6	1,723.0	81.56	22.125	
9,350.4	6,781.8	6,771.5	6,769.5	81.2	2.1	-89.78	-1,775.1	-3,090.8	1,801.5	1,718.6	82.95	21.717	
9,400.0	6,781.6	6,771.1	6,769.1	82.6	2.1	-89.77	-1,775.1	-3,090.8	1,799.9	1,715.5	84.32	21.345	
9,435.8	6,781.5	6,770.9	6,768.8	83.6	2.1	-89.76	-1,775.1	-3,090.8	1,799.5	1,714.2	85.31	21.094 CC	
9,448.8	6,781.4	6,770.8	6,768.7	83.9	2.1	-89.75	-1,775.1	-3,090.8	1,799.5	1,713.9	85.67	21.006	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #33-18 - 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	6,781.2	6,770.4	6,768.4	85.4	2.1	-89.74	-1,775.1	-3,090.8	1,800.6	1,713.6	87.08	20.678	ES	
9,547.2	6,781.0	6,770.0	6,768.0	86.7	2.1	-89.73	-1,775.1	-3,090.8	1,802.9	1,714.6	88.38	20.399		
9,600.0	6,780.8	6,769.6	6,767.6	88.1	2.1	-89.72	-1,775.1	-3,090.8	1,807.0	1,717.1	89.84	20.112		
9,645.6	6,780.7	6,769.3	6,767.3	89.4	2.1	-89.71	-1,775.1	-3,090.8	1,811.7	1,720.6	91.11	19.886		
9,700.0	6,780.5	6,768.9	6,766.9	90.9	2.1	-89.69	-1,775.1	-3,090.8	1,818.8	1,726.2	92.61	19.639		
9,744.1	6,780.3	6,768.6	6,766.5	92.1	2.1	-89.68	-1,775.1	-3,090.8	1,825.7	1,731.9	93.83	19.458		
9,800.0	6,780.1	6,768.1	6,766.1	93.7	2.1	-89.67	-1,775.1	-3,090.8	1,836.0	1,740.6	95.38	19.250		
9,842.5	6,779.9	6,767.8	6,765.8	94.8	2.1	-89.66	-1,775.1	-3,090.8	1,844.9	1,748.3	96.55	19.107		
9,900.0	6,779.7	6,767.4	6,765.4	96.4	2.1	-89.65	-1,775.1	-3,090.8	1,858.4	1,760.2	98.15	18.935		
9,940.9	6,779.5	6,767.1	6,765.0	97.6	2.1	-89.64	-1,775.0	-3,090.8	1,869.0	1,769.7	99.28	18.825		
10,000.0	6,779.3	6,766.6	6,764.6	99.2	2.1	-89.62	-1,775.0	-3,090.8	1,885.9	1,784.9	100.92	18.686		
10,039.3	6,779.1	6,766.3	6,764.3	100.3	2.1	-89.61	-1,775.0	-3,090.8	1,898.0	1,796.0	102.01	18.605		
10,100.0	6,778.9	6,765.9	6,763.9	102.0	2.1	-89.60	-1,775.0	-3,090.8	1,918.1	1,814.4	103.70	18.498		
10,137.8	6,778.7	6,765.6	6,763.6	103.0	2.1	-89.59	-1,775.0	-3,090.8	1,931.5	1,826.8	104.74	18.441		
10,200.0	6,778.5	6,765.1	6,763.1	104.8	2.1	-89.57	-1,775.0	-3,090.8	1,955.0	1,848.5	106.47	18.362		
10,236.2	6,778.3	6,764.9	6,762.8	105.8	2.1	-89.56	-1,775.0	-3,090.8	1,969.4	1,862.0	107.48	18.324		
10,300.0	6,778.1	6,764.4	6,762.3	107.5	2.1	-89.55	-1,775.0	-3,090.8	1,996.2	1,887.0	109.25	18.272		
10,334.6	6,778.0	6,764.1	6,762.1	108.5	2.1	-89.54	-1,775.0	-3,090.8	2,011.5	1,901.2	110.21	18.251		
10,400.0	6,777.7	6,763.6	6,761.6	110.3	2.1	-89.53	-1,775.0	-3,090.8	2,041.5	1,929.5	112.03	18.223		
10,433.0	6,777.6	6,763.4	6,761.3	111.2	2.1	-89.52	-1,775.0	-3,090.8	2,057.3	1,944.4	112.95	18.214		
10,500.0	6,777.3	6,762.9	6,760.8	113.1	2.1	-89.50	-1,775.0	-3,090.8	2,090.6	1,975.8	114.81	18.209	SF	
10,531.5	6,777.2	6,762.6	6,760.6	114.0	2.1	-89.49	-1,775.0	-3,090.8	2,106.8	1,991.1	115.69	18.211		
10,600.0	6,776.9	6,762.1	6,760.1	115.9	2.1	-89.48	-1,775.0	-3,090.8	2,143.2	2,025.6	117.60	18.225		
10,629.9	6,776.8	6,761.9	6,759.9	116.7	2.1	-89.47	-1,775.0	-3,090.8	2,159.6	2,041.2	118.43	18.236		
10,700.0	6,776.5	6,761.4	6,759.3	118.7	2.1	-89.45	-1,775.0	-3,090.8	2,199.1	2,078.8	120.38	18.268		
10,728.3	6,776.4	6,761.2	6,759.1	119.5	2.1	-89.45	-1,775.0	-3,090.8	2,215.5	2,094.4	121.17	18.285		
10,800.0	6,776.1	6,760.6	6,758.6	121.4	2.1	-89.43	-1,775.0	-3,090.8	2,258.1	2,134.9	123.16	18.334		
10,826.7	6,776.0	6,760.4	6,758.4	122.2	2.1	-89.42	-1,775.0	-3,090.8	2,274.4	2,150.4	123.91	18.355		
10,900.0	6,775.7	6,759.9	6,757.8	124.2	2.1	-89.40	-1,775.0	-3,090.8	2,319.9	2,193.9	125.95	18.419		
10,925.2	6,775.6	6,759.7	6,757.6	124.9	2.1	-89.40	-1,775.0	-3,090.8	2,335.8	2,209.2	126.65	18.443		
11,000.0	6,775.3	6,759.1	6,757.1	127.0	2.1	-89.38	-1,775.0	-3,090.8	2,384.2	2,255.5	128.74	18.520		
11,023.6	6,775.2	6,758.9	6,756.9	127.7	2.1	-89.37	-1,775.0	-3,090.8	2,399.8	2,270.4	129.40	18.546		
11,100.0	6,774.9	6,758.3	6,756.3	129.8	2.1	-89.35	-1,775.0	-3,090.8	2,451.0	2,319.5	131.53	18.635		
11,122.0	6,774.8	6,758.2	6,756.1	130.4	2.1	-89.35	-1,775.0	-3,090.8	2,466.0	2,333.9	132.14	18.662		
11,200.0	6,774.5	6,757.6	6,755.5	132.6	2.1	-89.33	-1,775.0	-3,090.8	2,520.0	2,385.7	134.32	18.762		
11,220.4	6,774.4	6,757.4	6,755.4	133.2	2.1	-89.33	-1,775.0	-3,090.8	2,534.3	2,399.4	134.89	18.789		
11,300.0	6,774.1	6,756.8	6,754.8	135.4	2.1	-89.31	-1,775.0	-3,090.8	2,591.0	2,453.9	137.11	18.898		
11,318.9	6,774.0	6,756.7	6,754.6	135.9	2.1	-89.30	-1,775.0	-3,090.8	2,604.6	2,466.9	137.63	18.924		
11,400.0	6,773.7	6,756.1	6,754.0	138.2	2.1	-89.28	-1,775.0	-3,090.8	2,663.8	2,523.9	139.90	19.041		
11,417.3	6,773.6	6,755.9	6,753.9	138.7	2.1	-89.28	-1,775.0	-3,090.8	2,676.6	2,536.2	140.38	19.067		
11,500.0	6,773.3	6,755.3	6,753.3	141.0	2.1	-89.26	-1,775.0	-3,090.8	2,738.4	2,595.7	142.69	19.191		
11,515.7	6,773.2	6,755.2	6,753.1	141.4	2.1	-89.25	-1,775.0	-3,090.8	2,750.2	2,607.1	143.13	19.215		
11,600.0	6,772.9	6,754.5	6,752.5	143.8	2.1	-89.23	-1,775.0	-3,090.8	2,814.5	2,669.0	145.48	19.346		
11,614.1	6,772.8	6,754.4	6,752.4	144.2	2.1	-89.23	-1,775.0	-3,090.8	2,825.4	2,679.5	145.87	19.369		
11,700.0	6,772.5	6,753.8	6,751.7	146.6	2.1	-89.21	-1,775.0	-3,090.9	2,892.1	2,743.8	148.27	19.505		
11,712.6	6,772.4	6,753.7	6,751.6	146.9	2.1	-89.20	-1,775.0	-3,090.9	2,902.0	2,753.3	148.62	19.526		
11,800.0	6,772.1	6,753.0	6,751.0	149.4	2.1	-89.18	-1,775.0	-3,090.9	2,971.0	2,820.0	151.07	19.667		
11,811.0	6,772.1	6,752.9	6,750.9	149.7	2.1	-89.18	-1,775.0	-3,090.9	2,979.8	2,828.4	151.37	19.685		
11,900.0	6,771.7	6,752.3	6,750.2	152.2	2.1	-89.16	-1,775.0	-3,090.9	3,051.2	2,897.4	153.86	19.831		
11,909.4	6,771.7	6,752.2	6,750.1	152.4	2.1	-89.16	-1,775.0	-3,090.9	3,058.8	2,904.7	154.12	19.847		
12,000.0	6,771.3	6,751.5	6,749.5	154.9	2.1	-89.13	-1,775.0	-3,090.9	3,132.5	2,975.9	156.65	19.997		
12,007.8	6,771.3	6,751.4	6,749.4	155.2	2.1	-89.13	-1,775.0	-3,090.9	3,139.0	2,982.1	156.87	20.010		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #33-18 - 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	6,770.9	6,750.7	6,748.7	157.7	2.1	-89.11	-1,775.0	-3,090.9	3,214.9	3,055.4	159.45	20.163	
12,106.3	6,770.9	6,750.7	6,748.6	157.9	2.1	-89.11	-1,775.0	-3,090.9	3,220.1	3,060.5	159.62	20.173	
12,200.0	6,770.5	6,750.0	6,747.9	160.5	2.1	-89.08	-1,775.0	-3,090.9	3,298.2	3,136.0	162.24	20.329	
12,204.7	6,770.5	6,749.9	6,747.9	160.7	2.1	-89.08	-1,775.0	-3,090.9	3,302.2	3,139.8	162.37	20.337	
12,300.0	6,770.1	6,749.2	6,747.2	163.3	2.1	-89.06	-1,775.0	-3,090.9	3,382.5	3,217.4	165.04	20.495	
12,303.1	6,770.1	6,749.2	6,747.1	163.4	2.1	-89.06	-1,775.0	-3,090.9	3,385.1	3,220.0	165.13	20.500	
12,316.4	6,770.0	6,749.1	6,747.0	163.8	2.1	-89.05	-1,775.0	-3,090.9	3,396.3	3,230.8	165.50	20.522	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-135.37	-3,005.7	-2,967.1	4,223.5				
98.4	98.4	98.4	98.4	0.1	1.2	-135.37	-3,005.7	-2,967.1	4,223.5	4,222.2	1.28	3,311.641	
100.0	100.0	100.0	100.0	0.1	1.2	-135.37	-3,005.7	-2,967.1	4,223.5	4,222.2	1.30	3,258.895	
196.8	196.8	196.8	196.8	0.3	3.4	-135.37	-3,005.7	-2,967.1	4,223.5	4,219.8	3.73	1,131.942	
200.0	200.0	200.0	200.0	0.3	3.5	-135.37	-3,005.7	-2,967.1	4,223.5	4,219.7	3.81	1,108.414	
295.3	295.3	295.3	295.3	0.5	5.5	-135.37	-3,005.7	-2,967.1	4,223.5	4,217.5	6.00	703.370	
300.0	300.0	300.0	300.0	0.5	5.6	-135.37	-3,005.7	-2,967.1	4,223.5	4,217.4	6.11	690.850	
393.7	393.7	393.7	393.7	0.8	7.5	-135.37	-3,005.7	-2,967.1	4,223.5	4,215.3	8.24	512.709	
400.0	400.0	400.0	400.0	0.8	7.6	-135.37	-3,005.7	-2,967.1	4,223.5	4,215.1	8.38	503.972	
492.1	492.1	492.1	492.1	1.0	9.5	-135.37	-3,005.7	-2,967.1	4,223.5	4,213.1	10.46	403.902	
500.0	500.0	500.0	500.0	1.0	9.6	-135.37	-3,005.7	-2,967.1	4,223.5	4,212.9	10.63	397.160	
590.5	590.5	590.5	590.5	1.2	11.5	-135.37	-3,005.7	-2,967.1	4,223.5	4,210.8	12.67	333.363	
600.0	600.0	600.0	600.0	1.2	11.7	-135.37	-3,005.7	-2,967.1	4,223.5	4,210.6	12.88	327.866	
689.0	689.0	689.0	689.0	1.4	13.5	-135.37	-3,005.7	-2,967.1	4,223.5	4,208.6	14.88	283.868	
700.0	700.0	700.0	700.0	1.4	13.7	-135.37	-3,005.7	-2,967.1	4,223.5	4,208.4	15.13	279.224	
787.4	787.4	787.4	787.4	1.6	15.4	-135.37	-3,005.7	-2,967.1	4,223.5	4,206.4	17.09	247.202	
800.0	800.0	800.0	800.0	1.7	15.7	-135.37	-3,005.7	-2,967.1	4,223.5	4,206.1	17.37	243.181	
885.8	885.8	885.8	885.8	1.9	17.4	-135.37	-3,005.7	-2,967.1	4,223.5	4,204.2	19.29	218.940	
900.0	900.0	900.0	900.0	1.9	17.7	-135.37	-3,005.7	-2,967.1	4,223.5	4,203.9	19.61	215.394	
984.2	984.2	984.2	984.2	2.1	19.4	-135.37	-3,005.7	-2,967.1	4,223.5	4,202.0	21.50	196.487	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	19.7	-135.37	-3,005.7	-2,967.1	4,223.5	4,201.7	21.85	193.315	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	21.4	-135.37	-3,005.7	-2,967.1	4,223.5	4,199.8	23.70	178.217	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	21.7	-135.37	-3,005.7	-2,967.1	4,223.5	4,199.4	24.09	175.347	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	23.4	-135.37	-3,005.7	-2,967.1	4,223.5	4,197.6	25.90	163.058	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	23.8	-135.37	-3,005.7	-2,967.1	4,223.5	4,197.2	26.32	160.438	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	25.4	-135.37	-3,005.7	-2,967.1	4,223.5	4,195.4	28.10	150.279	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	25.8	-135.37	-3,005.7	-2,967.1	4,223.5	4,195.0	28.56	147.868	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	27.3	-135.37	-3,005.7	-2,967.1	4,223.5	4,193.2	30.31	139.358	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	27.8	-135.37	-3,005.7	-2,967.1	4,223.5	4,192.7	30.80	137.126	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	29.3	-135.37	-3,005.7	-2,967.1	4,223.5	4,191.0	32.51	129.918	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	29.8	-135.37	-3,005.7	-2,967.1	4,223.5	4,190.5	33.04	127.839	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	31.3	-54.69	-3,005.7	-2,967.1	4,222.9	4,188.2	34.70	121.704	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	31.8	-54.71	-3,005.7	-2,967.1	4,222.5	4,187.2	35.26	119.767	
1,673.2	1,673.1	1,673.1	1,673.1	3.6	33.3	-54.78	-3,005.7	-2,967.1	4,220.5	4,183.6	36.86	114.489	
1,700.0	1,699.8	1,699.8	1,699.8	3.7	33.8	-54.81	-3,005.7	-2,967.1	4,219.5	4,182.0	37.45	112.673	
1,771.6	1,771.2	1,771.2	1,771.2	3.8	35.3	-54.94	-3,005.7	-2,967.1	4,216.1	4,177.1	39.01	108.073	
1,800.0	1,799.5	1,799.5	1,799.5	3.9	35.8	-54.99	-3,005.7	-2,967.1	4,214.5	4,174.8	39.63	106.355	
1,870.1	1,869.0	1,869.0	1,869.0	4.0	37.2	-55.16	-3,005.7	-2,967.1	4,209.8	4,168.6	41.14	102.315	
1,900.0	1,898.7	1,898.7	1,898.7	4.1	37.8	-55.24	-3,005.7	-2,967.1	4,207.5	4,165.7	41.79	100.682	
1,968.5	1,966.4	1,966.4	1,966.4	4.3	39.2	-55.46	-3,005.7	-2,967.1	4,201.5	4,158.3	43.27	97.109	
2,000.0	1,997.5	1,997.5	1,997.5	4.4	39.8	-55.57	-3,005.7	-2,967.1	4,198.5	4,154.6	43.94	95.549	
2,066.9	2,063.2	2,063.2	2,063.2	4.6	41.1	-55.82	-3,005.7	-2,967.1	4,191.4	4,146.1	45.38	92.365	
2,100.1	2,095.7	2,095.7	2,095.7	4.7	41.8	-55.96	-3,005.7	-2,967.1	4,187.6	4,141.5	46.09	90.863	
2,165.3	2,159.5	2,159.5	2,159.5	4.9	43.1	-56.11	-3,005.7	-2,967.1	4,179.9	4,132.4	47.55	87.897	
2,200.0	2,193.4	2,193.4	2,193.4	5.0	43.7	-56.19	-3,005.7	-2,967.1	4,175.8	4,127.5	48.33	86.395	
2,224.2	2,217.1	2,217.1	2,217.1	5.1	44.2	-56.25	-3,005.7	-2,967.1	4,173.0	4,124.1	48.88	85.370	
2,263.8	2,255.9	2,255.9	2,255.9	5.2	45.0	-56.26	-3,005.7	-2,967.1	4,168.5	4,118.7	49.81	83.692	
2,300.0	2,291.5	2,291.5	2,291.5	5.3	45.7	-56.28	-3,005.7	-2,967.1	4,164.7	4,114.0	50.65	82.217	
2,362.2	2,352.7	2,352.7	2,352.7	5.5	46.9	-56.30	-3,005.7	-2,967.1	4,158.7	4,106.6	52.09	79.833	
2,400.0	2,390.1	2,390.1	2,390.1	5.6	47.7	-56.31	-3,005.7	-2,967.1	4,155.5	4,102.5	52.97	78.453	
2,460.6	2,450.1	2,450.1	2,450.1	5.7	48.9	-56.33	-3,005.7	-2,967.1	4,150.8	4,096.4	54.36	76.352	
2,500.0	2,489.2	2,489.2	2,489.2	5.8	49.7	-56.34	-3,005.7	-2,967.1	4,148.2	4,092.9	55.27	75.053	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,548.0	2,548.0	6.0	50.9	-56.35	-3,005.7	-2,967.1	4,144.8	4,088.2	56.62	73.205	
2,600.0	2,588.8	2,588.8	2,588.8	6.1	51.7	-56.36	-3,005.7	-2,967.1	4,142.9	4,085.3	57.55	71.984	
2,657.5	2,646.1	2,646.1	2,646.1	6.2	52.9	-56.37	-3,005.7	-2,967.1	4,140.7	4,081.8	58.85	70.359	
2,700.0	2,688.6	2,688.6	2,688.6	6.3	53.7	-56.37	-3,005.7	-2,967.1	4,139.5	4,079.7	59.81	69.213	
2,755.9	2,744.4	2,744.4	2,744.4	6.4	54.8	-56.38	-3,005.7	-2,967.1	4,138.5	4,077.4	61.05	67.785	
2,800.0	2,788.5	2,788.5	2,788.5	6.5	55.7	-56.38	-3,005.7	-2,967.1	4,138.1	4,076.0	62.03	66.710	
2,824.3	2,812.8	2,812.8	2,812.8	6.5	56.2	-137.08	-3,005.7	-2,967.1	4,138.0	4,075.6	62.36	66.352	
2,854.3	2,842.9	2,842.9	2,842.9	6.6	56.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,075.0	63.03	65.654	
2,900.0	2,888.5	2,888.5	2,888.5	6.7	57.7	-137.08	-3,005.7	-2,967.1	4,138.0	4,074.0	64.04	64.620	
2,952.7	2,941.3	2,941.3	2,941.3	6.8	58.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,072.8	65.21	63.457	
3,000.0	2,988.5	2,988.5	2,988.5	6.9	59.7	-137.08	-3,005.7	-2,967.1	4,138.0	4,071.7	66.26	62.451	
3,051.2	3,039.7	3,039.7	3,039.7	7.0	60.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,070.6	67.40	61.396	
3,100.0	3,088.5	3,088.5	3,088.5	7.1	61.7	-137.08	-3,005.7	-2,967.1	4,138.0	4,069.5	68.49	60.422	
3,149.6	3,138.1	3,138.1	3,138.1	7.2	62.7	-137.08	-3,005.7	-2,967.1	4,138.0	4,068.4	69.59	59.463	
3,200.0	3,188.5	3,188.5	3,188.5	7.3	63.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,067.3	70.71	58.520	
3,248.0	3,236.6	3,236.6	3,236.6	7.4	64.7	-137.08	-3,005.7	-2,967.1	4,138.0	4,066.2	71.78	57.648	
3,300.0	3,288.5	3,288.5	3,288.5	7.5	65.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,065.1	72.94	56.734	
3,346.4	3,335.0	3,335.0	3,335.0	7.6	66.7	-137.08	-3,005.7	-2,967.1	4,138.0	4,064.0	73.97	55.940	
3,400.0	3,388.5	3,388.5	3,388.5	7.7	67.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,062.8	75.16	55.053	
3,444.9	3,433.4	3,433.4	3,433.4	7.8	68.7	-137.08	-3,005.7	-2,967.1	4,138.0	4,061.8	76.16	54.330	
3,500.0	3,488.5	3,488.5	3,488.5	7.9	69.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,060.6	77.39	53.468	
3,543.3	3,531.8	3,531.8	3,531.8	8.0	70.7	-137.08	-3,005.7	-2,967.1	4,138.0	4,059.6	78.36	52.810	
3,600.0	3,588.5	3,588.5	3,588.5	8.1	71.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,058.4	79.62	51.972	
3,641.7	3,630.3	3,630.3	3,630.3	8.2	72.6	-137.08	-3,005.7	-2,967.1	4,138.0	4,057.5	80.55	51.372	
3,700.0	3,688.5	3,688.5	3,688.5	8.3	73.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,056.2	81.85	50.557	
3,740.1	3,728.7	3,728.7	3,728.7	8.4	74.6	-137.08	-3,005.7	-2,967.1	4,138.0	4,055.3	82.74	50.010	
3,800.0	3,788.5	3,788.5	3,788.5	8.5	75.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,053.9	84.08	49.217	
3,838.6	3,827.1	3,827.1	3,827.1	8.6	76.6	-137.08	-3,005.7	-2,967.1	4,138.0	4,053.1	84.94	48.719	
3,900.0	3,888.5	3,888.5	3,888.5	8.7	77.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,051.7	86.31	47.946	
3,937.0	3,925.5	3,925.5	3,925.5	8.8	78.6	-137.08	-3,005.7	-2,967.1	4,138.0	4,050.9	87.13	47.492	
4,000.0	3,988.5	3,988.5	3,988.5	9.0	79.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,049.5	88.54	46.739	
4,035.4	4,024.0	4,024.0	4,024.0	9.0	80.6	-137.08	-3,005.7	-2,967.1	4,138.0	4,048.7	89.33	46.325	
4,100.0	4,088.5	4,088.5	4,088.5	9.2	81.9	-137.08	-3,005.7	-2,967.1	4,138.0	4,047.2	90.76	45.590	
4,133.8	4,122.4	4,122.4	4,122.4	9.2	82.5	-137.08	-3,005.7	-2,967.1	4,138.0	4,046.5	91.52	45.214	
4,200.0	4,188.5	4,188.5	4,188.5	9.4	83.9	-137.08	-3,005.7	-2,967.1	4,138.0	4,045.0	92.99	44.497	
4,232.3	4,220.8	4,220.8	4,220.8	9.4	84.5	-137.08	-3,005.7	-2,967.1	4,138.0	4,044.3	93.71	44.155	
4,300.0	4,288.5	4,288.5	4,288.5	9.6	85.9	-137.08	-3,005.7	-2,967.1	4,138.0	4,042.8	95.23	43.455	
4,330.7	4,319.2	4,319.2	4,319.2	9.7	86.5	-137.08	-3,005.7	-2,967.1	4,138.0	4,042.1	95.91	43.145	
4,400.0	4,388.5	4,388.5	4,388.5	9.8	87.9	-137.08	-3,005.7	-2,967.1	4,138.0	4,040.5	97.46	42.460	
4,429.1	4,417.7	4,417.7	4,417.7	9.9	88.5	-137.08	-3,005.7	-2,967.1	4,138.0	4,039.9	98.11	42.179	
4,500.0	4,488.5	4,488.5	4,488.5	10.0	89.9	-137.08	-3,005.7	-2,967.1	4,138.0	4,038.3	99.69	41.510	
4,527.5	4,516.1	4,516.1	4,516.1	10.1	90.5	-137.08	-3,005.7	-2,967.1	4,138.0	4,037.7	100.30	41.256	
4,600.0	4,588.5	4,588.5	4,588.5	10.2	91.9	-137.08	-3,005.7	-2,967.1	4,138.0	4,036.1	101.92	40.602	
4,626.0	4,614.5	4,614.5	4,614.5	10.3	92.4	-137.08	-3,005.7	-2,967.1	4,138.0	4,035.5	102.50	40.372	
4,700.0	4,688.5	4,688.5	4,688.5	10.5	93.9	-137.08	-3,005.7	-2,967.1	4,138.0	4,033.9	104.15	39.732	
4,724.4	4,712.9	4,712.9	4,712.9	10.5	94.4	-137.08	-3,005.7	-2,967.1	4,138.0	4,033.3	104.69	39.525	
4,800.0	4,788.5	4,788.5	4,788.5	10.7	95.9	-137.08	-3,005.7	-2,967.1	4,138.0	4,031.6	106.38	38.898	
4,822.8	4,811.4	4,811.4	4,811.4	10.7	96.4	-137.08	-3,005.7	-2,967.1	4,138.0	4,031.1	106.89	38.713	
4,900.0	4,888.5	4,888.5	4,888.5	10.9	97.9	-137.08	-3,005.7	-2,967.1	4,138.0	4,029.4	108.61	38.099	
4,921.2	4,909.8	4,909.8	4,909.8	10.9	98.4	-137.08	-3,005.7	-2,967.1	4,138.0	4,028.9	109.09	37.933	
5,000.0	4,988.5	4,988.5	4,988.5	11.1	100.0	-137.08	-3,005.7	-2,967.1	4,138.0	4,027.2	110.84	37.332	
5,019.7	5,008.2	5,008.2	5,008.2	11.1	100.4	-137.08	-3,005.7	-2,967.1	4,138.0	4,026.7	111.28	37.185	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #34-18 - 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	
5,100.0	5,088.5	5,088.5	5,088.5	11.3	102.0	-137.08	-3,005.7	-2,967.1	4,138.0	4,024.9	113.08	36.595	
5,118.1	5,106.6	5,106.6	5,106.6	11.4	102.3	-137.08	-3,005.7	-2,967.1	4,138.0	4,024.5	113.48	36.465	
5,200.0	5,188.5	5,188.5	5,188.5	11.5	104.0	-137.08	-3,005.7	-2,967.1	4,138.0	4,022.7	115.31	35.887	
5,216.5	5,205.1	5,205.1	5,205.1	11.6	104.3	-137.08	-3,005.7	-2,967.1	4,138.0	4,022.3	115.68	35.772	
5,300.0	5,288.5	5,288.5	5,288.5	11.8	106.0	-137.08	-3,005.7	-2,967.1	4,138.0	4,020.5	117.54	35.205	
5,314.9	5,303.5	5,303.5	5,303.5	11.8	106.3	-137.08	-3,005.7	-2,967.1	4,138.0	4,020.1	117.87	35.106	
5,400.0	5,388.5	5,388.5	5,388.5	12.0	108.0	-137.08	-3,005.7	-2,967.1	4,138.0	4,018.2	119.77	34.549	
5,413.4	5,401.9	5,401.9	5,401.9	12.0	108.3	-137.08	-3,005.7	-2,967.1	4,138.0	4,017.9	120.07	34.463	
5,500.0	5,488.5	5,488.5	5,488.5	12.2	110.0	-137.08	-3,005.7	-2,967.1	4,138.0	4,016.0	122.00	33.917	
5,511.8	5,500.3	5,500.3	5,500.3	12.2	110.3	-137.08	-3,005.7	-2,967.1	4,138.0	4,015.7	122.27	33.844	
5,600.0	5,588.5	5,588.5	5,588.5	12.4	112.0	-137.08	-3,005.7	-2,967.1	4,138.0	4,013.8	124.24	33.307	
5,610.2	5,598.8	5,598.8	5,598.8	12.4	112.2	-137.08	-3,005.7	-2,967.1	4,138.0	4,013.5	124.47	33.246	
5,700.0	5,688.5	5,688.5	5,688.5	12.6	114.0	-137.08	-3,005.7	-2,967.1	4,138.0	4,011.5	126.47	32.719	
5,708.6	5,697.2	5,697.2	5,697.2	12.6	114.2	-137.08	-3,005.7	-2,967.1	4,138.0	4,011.3	126.66	32.670	
5,800.0	5,788.5	5,788.5	5,788.5	12.8	116.0	-137.08	-3,005.7	-2,967.1	4,138.0	4,009.3	128.70	32.152	
5,807.1	5,795.6	5,795.6	5,795.6	12.9	116.2	-137.08	-3,005.7	-2,967.1	4,138.0	4,009.1	128.86	32.112	
5,900.0	5,888.5	5,888.5	5,888.5	13.1	118.1	-137.08	-3,005.7	-2,967.1	4,138.0	4,007.1	130.94	31.603	
5,905.5	5,894.0	5,894.0	5,894.0	13.1	118.2	-137.08	-3,005.7	-2,967.1	4,138.0	4,006.9	131.06	31.574	
6,000.0	5,988.5	5,988.5	5,988.5	13.3	120.1	-137.08	-3,005.7	-2,967.1	4,138.0	4,004.8	133.17	31.074	
6,003.9	5,992.5	5,992.5	5,992.5	13.3	120.2	-137.08	-3,005.7	-2,967.1	4,138.0	4,004.7	133.26	31.053	
6,085.3	6,073.8	6,073.8	6,073.8	13.5	121.8	-137.08	-3,005.7	-2,967.1	4,138.0	4,002.9	135.07	30.636	
6,100.0	6,088.5	6,088.5	6,088.5	13.5	122.1	-47.08	-3,005.7	-2,967.1	4,137.9	4,002.4	135.49	30.540	
6,102.3	6,090.9	6,090.9	6,090.9	13.5	122.1	-47.09	-3,005.7	-2,967.1	4,137.9	4,002.3	135.54	30.529	
6,150.0	6,138.4	6,138.4	6,138.4	13.6	123.1	-47.22	-3,005.7	-2,967.1	4,136.0	3,999.6	136.37	30.329	
6,200.0	6,188.0	6,188.0	6,188.0	13.7	124.1	-47.54	-3,005.7	-2,967.1	4,131.8	3,994.8	136.96	30.167	
6,200.8	6,188.8	6,188.8	6,188.8	13.7	124.1	-47.54	-3,005.7	-2,967.1	4,131.7	3,994.7	136.97	30.165	
6,250.0	6,237.1	6,237.1	6,237.1	13.9	125.1	-48.03	-3,005.7	-2,967.1	4,125.2	3,987.9	137.28	30.049	
6,299.2	6,284.6	6,284.6	6,284.6	14.0	126.0	-48.69	-3,005.7	-2,967.1	4,116.5	3,979.1	137.37	29.967	
6,300.0	6,285.3	6,285.3	6,285.3	14.0	126.0	-48.70	-3,005.7	-2,967.1	4,116.3	3,978.9	137.37	29.966	
6,350.0	6,332.5	6,332.5	6,332.5	14.2	127.0	-49.56	-3,005.7	-2,967.1	4,105.2	3,967.9	137.27	29.906	
6,397.6	6,376.3	6,376.3	6,376.3	14.4	127.9	-50.55	-3,005.7	-2,967.1	4,092.6	3,955.6	137.08	29.856	
6,400.0	6,378.5	6,378.5	6,378.5	14.4	127.9	-50.60	-3,005.7	-2,967.1	4,092.0	3,954.9	137.07	29.854	
6,450.0	6,423.0	6,423.0	6,423.0	14.7	128.8	-51.84	-3,005.7	-2,967.1	4,076.7	3,939.8	136.84	29.791	
6,496.0	6,462.4	6,462.4	6,462.4	14.9	129.6	-53.15	-3,005.7	-2,967.1	4,060.8	3,924.1	136.70	29.706	
6,500.0	6,465.7	6,465.7	6,465.7	14.9	129.7	-53.27	-3,005.7	-2,967.1	4,059.4	3,922.7	136.69	29.697	
6,550.0	6,506.6	6,506.6	6,506.6	15.2	130.5	-54.90	-3,005.7	-2,967.1	4,040.3	3,903.6	136.73	29.550	
6,594.5	6,541.2	6,541.2	6,541.2	15.6	131.2	-56.52	-3,005.7	-2,967.1	4,021.8	3,884.8	137.00	29.356	
6,600.0	6,545.3	6,545.3	6,545.3	15.6	131.3	-56.74	-3,005.7	-2,967.1	4,019.5	3,882.4	137.05	29.328	
6,650.0	6,581.8	6,581.8	6,581.8	16.0	132.0	-58.77	-3,005.7	-2,967.1	3,997.1	3,859.3	137.75	29.016	
6,692.9	6,611.1	6,611.1	6,611.1	16.4	132.6	-60.67	-3,005.7	-2,967.1	3,976.7	3,838.0	138.71	28.670	
6,700.0	6,615.8	6,615.8	6,615.8	16.5	132.7	-60.99	-3,005.7	-2,967.1	3,973.3	3,834.4	138.89	28.606	
6,750.0	6,647.1	6,647.1	6,647.1	17.1	133.3	-63.41	-3,005.7	-2,967.1	3,948.2	3,807.7	140.50	28.101	
6,791.3	6,670.9	6,670.9	6,670.9	17.6	133.8	-65.53	-3,005.7	-2,967.1	3,926.6	3,784.5	142.16	27.621	
6,800.0	6,675.7	6,675.7	6,675.7	17.7	133.9	-65.99	-3,005.7	-2,967.1	3,922.0	3,779.5	142.54	27.515	
6,850.0	6,701.3	6,701.3	6,701.3	18.4	134.4	-68.73	-3,005.7	-2,967.1	3,894.9	3,749.9	144.95	26.871	
6,889.7	6,719.5	6,719.5	6,719.5	19.0	134.8	-70.99	-3,005.7	-2,967.1	3,872.8	3,725.7	147.06	26.335	
6,900.0	6,723.8	6,723.8	6,723.8	19.1	134.9	-71.59	-3,005.7	-2,967.1	3,867.0	3,719.4	147.61	26.197	
6,950.0	6,743.2	6,743.2	6,743.2	20.0	135.2	-74.55	-3,005.7	-2,967.1	3,838.6	3,688.2	150.38	25.525	
6,988.2	6,755.8	6,755.8	6,755.8	20.6	135.5	-76.85	-3,005.7	-2,967.1	3,816.5	3,664.1	152.48	25.029	
7,000.0	6,759.4	6,759.4	6,759.4	20.9	135.6	-77.56	-3,005.7	-2,967.1	3,809.7	3,656.6	153.11	24.882	
7,050.0	6,772.1	6,772.1	6,772.1	21.8	135.8	-80.60	-3,005.7	-2,967.1	3,780.6	3,624.9	155.65	24.289	
7,086.6	6,779.4	6,779.4	6,779.4	22.5	136.0	-82.81	-3,005.7	-2,967.1	3,759.2	3,601.9	157.32	23.896	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #34-18 - 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	
7,100.0	6,781.5	6,781.5	6,781.5	22.8	136.0	-83.61	-3,005.7	-2,967.1	3,751.4	3,593.6	157.87	23.763	
7,150.0	6,787.5	6,787.5	6,787.5	23.9	136.1	-86.57	-3,005.7	-2,967.1	3,722.4	3,562.7	159.70	23.308	
7,185.0	6,789.6	6,789.6	6,789.6	24.6	136.2	-88.58	-3,005.7	-2,967.1	3,702.2	3,541.5	160.73	23.033	
7,200.0	6,789.9	6,789.9	6,789.9	24.9	136.2	-89.43	-3,005.7	-2,967.1	3,693.6	3,532.5	161.10	22.927	
7,213.0	6,790.0	6,790.0	6,790.0	25.2	136.2	-90.15	-3,005.7	-2,967.1	3,686.2	3,524.8	161.40	22.840	
7,283.4	6,789.7	6,789.7	6,789.7	26.8	136.2	-90.14	-3,005.7	-2,967.1	3,646.5	3,483.6	162.97	22.376	
7,300.0	6,789.7	6,789.7	6,789.7	27.2	136.2	-90.14	-3,005.7	-2,967.1	3,637.4	3,474.0	163.33	22.269	
7,381.9	6,789.4	6,789.4	6,789.4	29.1	136.2	-90.14	-3,005.7	-2,967.1	3,592.7	3,427.5	165.23	21.743	
7,400.0	6,789.3	6,789.3	6,789.3	29.5	136.2	-90.14	-3,005.7	-2,967.1	3,583.0	3,417.4	165.65	21.630	
7,480.3	6,789.0	6,789.0	6,789.0	31.4	136.2	-90.13	-3,005.7	-2,967.1	3,540.8	3,373.2	167.58	21.129	
7,500.0	6,788.9	6,788.9	6,788.9	31.9	136.2	-90.13	-3,005.7	-2,967.1	3,530.7	3,362.6	168.05	21.009	
7,578.7	6,788.6	6,788.6	6,788.6	33.8	136.2	-90.12	-3,005.7	-2,967.1	3,490.9	3,320.9	169.99	20.536	
7,600.0	6,788.5	6,788.5	6,788.5	34.4	136.2	-90.12	-3,005.7	-2,967.1	3,480.4	3,309.9	170.51	20.412	
7,677.1	6,788.2	6,788.2	6,788.2	36.3	136.2	-90.12	-3,005.7	-2,967.1	3,443.1	3,270.6	172.45	19.966	
7,700.0	6,788.2	6,788.2	6,788.2	36.9	136.2	-90.12	-3,005.7	-2,967.1	3,432.3	3,259.3	173.02	19.838	
7,775.6	6,787.9	6,787.9	6,787.9	38.8	136.1	-90.11	-3,005.7	-2,967.1	3,397.5	3,222.5	174.94	19.420	
7,800.0	6,787.8	6,787.8	6,787.8	39.4	136.1	-90.11	-3,005.7	-2,967.1	3,386.5	3,210.9	175.57	19.289	
7,874.0	6,787.5	6,787.5	6,787.5	41.3	136.1	-90.10	-3,005.7	-2,967.1	3,354.1	3,176.6	177.48	18.899	
7,900.0	6,787.4	6,787.4	6,787.4	42.0	136.1	-90.10	-3,005.7	-2,967.1	3,343.0	3,164.9	178.15	18.766	
7,972.4	6,787.1	6,787.1	6,787.1	43.9	136.1	-90.10	-3,005.7	-2,967.1	3,313.1	3,133.1	180.04	18.402	
8,000.0	6,787.0	6,787.0	6,787.0	44.6	136.1	-90.09	-3,005.7	-2,967.1	3,302.0	3,121.3	180.75	18.268	
8,070.8	6,786.7	6,786.7	6,786.7	46.5	136.1	-90.09	-3,005.7	-2,967.1	3,274.5	3,091.9	182.62	17.931	
8,100.0	6,786.6	6,786.6	6,786.6	47.3	136.1	-90.09	-3,005.7	-2,967.1	3,263.6	3,080.2	183.38	17.796	
8,169.3	6,786.4	6,786.4	6,786.4	49.1	136.1	-90.08	-3,005.7	-2,967.1	3,238.5	3,053.3	185.22	17.485	
8,200.0	6,786.3	6,786.3	6,786.3	49.9	136.1	-90.08	-3,005.7	-2,967.1	3,227.8	3,041.8	186.03	17.351	
8,267.7	6,786.0	6,786.0	6,786.0	51.7	136.1	-90.08	-3,005.7	-2,967.1	3,205.1	3,017.3	187.84	17.063	
8,300.0	6,785.9	6,785.9	6,785.9	52.6	136.1	-90.07	-3,005.7	-2,967.1	3,194.7	3,006.0	188.70	16.930	
8,366.1	6,785.6	6,785.6	6,785.6	54.4	136.1	-90.07	-3,005.7	-2,967.1	3,174.4	2,983.9	190.47	16.666	
8,400.0	6,785.5	6,785.5	6,785.5	55.3	136.1	-90.07	-3,005.7	-2,967.1	3,164.5	2,973.1	191.38	16.535	
8,464.5	6,785.2	6,785.2	6,785.2	57.0	136.1	-90.06	-3,005.7	-2,967.1	3,146.5	2,953.3	193.11	16.293	
8,500.0	6,785.1	6,785.1	6,785.1	58.0	136.1	-90.06	-3,005.7	-2,967.1	3,137.1	2,943.0	194.07	16.165	
8,563.0	6,784.9	6,784.9	6,784.9	59.7	136.1	-90.05	-3,005.7	-2,967.1	3,121.4	2,925.6	195.77	15.944	
8,600.0	6,784.7	6,784.7	6,784.7	60.7	136.1	-90.05	-3,005.7	-2,967.1	3,112.7	2,915.9	196.77	15.819	
8,661.4	6,784.5	6,784.5	6,784.5	62.4	136.1	-90.05	-3,005.7	-2,967.1	3,099.2	2,900.8	198.43	15.619	
8,700.0	6,784.3	6,784.3	6,784.3	63.4	136.1	-90.04	-3,005.7	-2,967.1	3,091.4	2,891.9	199.48	15.497	
8,759.8	6,784.1	6,784.1	6,784.1	65.0	136.1	-90.04	-3,005.7	-2,967.1	3,080.1	2,879.0	201.10	15.316	
8,800.0	6,784.0	6,784.0	6,784.0	66.1	136.1	-90.04	-3,005.7	-2,967.1	3,073.1	2,870.9	202.19	15.199	
8,858.2	6,783.7	6,783.7	6,783.7	67.7	136.1	-90.03	-3,005.7	-2,967.1	3,064.0	2,860.2	203.78	15.036	
8,900.0	6,783.6	6,783.6	6,783.6	68.9	136.1	-90.03	-3,005.7	-2,967.1	3,058.0	2,853.1	204.92	14.923	
8,956.7	6,783.3	6,783.3	6,783.3	70.4	136.1	-90.03	-3,005.7	-2,967.1	3,050.9	2,844.5	206.47	14.777	
9,000.0	6,783.2	6,783.2	6,783.2	71.6	136.1	-90.02	-3,005.7	-2,967.1	3,046.2	2,838.5	207.65	14.670	
9,055.1	6,783.0	6,783.0	6,783.0	73.1	136.0	-90.02	-3,005.7	-2,967.1	3,041.0	2,831.9	209.16	14.540	
9,100.0	6,782.8	6,782.8	6,782.8	74.3	136.0	-90.02	-3,005.7	-2,967.1	3,037.6	2,827.2	210.38	14.438	
9,153.5	6,782.6	6,782.6	6,782.6	75.8	136.0	-90.01	-3,005.7	-2,967.1	3,034.3	2,822.4	211.85	14.323	
9,200.0	6,782.4	6,782.4	6,782.4	77.1	136.0	-90.01	-3,005.7	-2,967.1	3,032.2	2,819.1	213.12	14.227	
9,251.9	6,782.2	6,782.2	6,782.2	78.5	136.0	-90.00	-3,005.7	-2,967.1	3,030.8	2,816.2	214.55	14.126	
9,300.0	6,782.0	6,782.0	6,782.0	79.8	136.0	-90.00	-3,005.7	-2,967.1	3,030.2	2,814.3	215.87	14.037	
9,312.1	6,782.0	6,782.0	6,782.0	80.2	136.0	-90.00	-3,005.7	-2,967.1	3,030.2	2,814.0	216.20	14.015 CC	
9,350.4	6,781.8	6,781.8	6,781.8	81.2	136.0	-90.00	-3,005.7	-2,967.1	3,030.4	2,813.1	217.25	13.949	
9,400.0	6,781.6	6,781.6	6,781.6	82.6	136.0	-89.99	-3,005.7	-2,967.1	3,031.4	2,812.8	218.62	13.866 ES	
9,448.8	6,781.4	6,781.4	6,781.4	83.9	136.0	-89.99	-3,005.7	-2,967.1	3,033.2	2,813.3	219.96	13.790	
9,500.0	6,781.2	6,781.2	6,781.2	85.4	136.0	-89.99	-3,005.7	-2,967.1	3,036.0	2,814.6	221.37	13.714	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,781.0	6,781.0	6,781.0	86.7	136.0	-89.98	-3,005.7	-2,967.1	3,039.3	2,816.6	222.67	13.649	
9,600.0	6,780.8	6,780.8	6,780.8	88.1	136.0	-89.98	-3,005.7	-2,967.1	3,043.8	2,819.7	224.13	13.581	
9,645.6	6,780.7	6,780.7	6,780.7	89.4	136.0	-89.98	-3,005.7	-2,967.1	3,048.5	2,823.1	225.38	13.526	
9,700.0	6,780.5	6,780.5	6,780.5	90.9	136.0	-89.97	-3,005.7	-2,967.1	3,054.9	2,828.0	226.88	13.465	
9,744.1	6,780.3	6,780.3	6,780.3	92.1	136.0	-89.97	-3,005.7	-2,967.1	3,060.8	2,832.7	228.10	13.419	
9,800.0	6,780.1	6,780.1	6,780.1	93.7	136.0	-89.96	-3,005.7	-2,967.1	3,069.2	2,839.5	229.64	13.365	
9,842.5	6,779.9	6,779.9	6,779.9	94.8	136.0	-89.96	-3,005.7	-2,967.1	3,076.2	2,845.4	230.82	13.327	
9,900.0	6,779.7	6,779.7	6,779.7	96.4	136.0	-89.96	-3,005.7	-2,967.1	3,086.7	2,854.2	232.41	13.281	
9,940.9	6,779.5	6,779.5	6,779.5	97.6	136.0	-89.95	-3,005.7	-2,967.1	3,094.7	2,861.2	233.54	13.251	
10,000.0	6,779.3	6,779.3	6,779.3	99.2	136.0	-89.95	-3,005.7	-2,967.1	3,107.3	2,872.1	235.17	13.213	
10,039.3	6,779.1	6,779.1	6,779.1	100.3	136.0	-89.95	-3,005.7	-2,967.1	3,116.2	2,879.9	236.26	13.190	
10,100.0	6,778.9	6,778.9	6,778.9	102.0	136.0	-89.94	-3,005.7	-2,967.1	3,130.9	2,893.0	237.94	13.158	
10,137.8	6,778.7	6,778.7	6,778.7	103.0	136.0	-89.94	-3,005.7	-2,967.1	3,140.6	2,901.6	238.99	13.141	
10,200.0	6,778.5	6,778.5	6,778.5	104.8	136.0	-89.93	-3,005.7	-2,967.1	3,157.6	2,916.8	240.71	13.118	
10,236.2	6,778.3	6,778.3	6,778.3	105.8	136.0	-89.93	-3,005.7	-2,967.1	3,167.9	2,926.2	241.71	13.106	
10,300.0	6,778.1	6,778.1	6,778.1	107.5	135.9	-89.93	-3,005.7	-2,967.1	3,187.1	2,943.6	243.48	13.090	
10,334.6	6,778.0	6,778.0	6,778.0	108.5	135.9	-89.92	-3,005.7	-2,967.1	3,198.0	2,953.6	244.44	13.083	
10,400.0	6,777.7	6,777.7	6,777.7	110.3	135.9	-89.92	-3,005.7	-2,967.1	3,219.5	2,973.3	246.25	13.074	
10,433.0	6,777.6	6,777.6	6,777.6	111.2	135.9	-89.92	-3,005.7	-2,967.1	3,230.8	2,983.7	247.17	13.071	
10,500.0	6,777.3	6,777.3	6,777.3	113.1	135.9	-89.91	-3,005.7	-2,967.1	3,254.7	3,005.6	249.03	13.070 SF	
10,531.5	6,777.2	6,777.2	6,777.2	114.0	135.9	-89.91	-3,005.7	-2,967.1	3,266.3	3,016.4	249.90	13.070	
10,600.0	6,776.9	6,776.9	6,776.9	115.9	135.9	-89.90	-3,005.7	-2,967.1	3,292.5	3,040.7	251.80	13.076	
10,629.9	6,776.8	6,776.8	6,776.8	116.7	135.9	-89.90	-3,005.7	-2,967.1	3,304.3	3,051.7	252.63	13.079	
10,700.0	6,776.5	6,776.5	6,776.5	118.7	135.9	-89.90	-3,005.7	-2,967.1	3,332.9	3,078.3	254.58	13.092	
10,728.3	6,776.4	6,776.4	6,776.4	119.5	135.9	-89.89	-3,005.7	-2,967.1	3,344.8	3,089.4	255.37	13.098	
10,800.0	6,776.1	6,776.1	6,776.1	121.4	135.9	-89.89	-3,005.7	-2,967.1	3,375.7	3,118.4	257.36	13.117	
10,826.7	6,776.0	6,776.0	6,776.0	122.2	135.9	-89.89	-3,005.7	-2,967.1	3,387.6	3,129.5	258.10	13.125	
10,900.0	6,775.7	6,775.7	6,775.7	124.2	135.9	-89.88	-3,005.7	-2,967.1	3,421.0	3,160.9	260.14	13.151	
10,925.2	6,775.6	6,775.6	6,775.6	124.9	135.9	-89.88	-3,005.7	-2,967.1	3,432.8	3,171.9	260.84	13.161	
11,000.0	6,775.3	6,775.3	6,775.3	127.0	135.9	-89.87	-3,005.7	-2,967.1	3,468.5	3,205.6	262.92	13.193	
11,023.6	6,775.2	6,775.2	6,775.2	127.7	135.9	-89.87	-3,005.7	-2,967.1	3,480.1	3,216.5	263.57	13.204	
11,100.0	6,774.9	6,774.9	6,774.9	129.8	135.9	-89.86	-3,005.7	-2,967.1	3,518.3	3,252.6	265.70	13.242	
11,122.0	6,774.8	6,774.8	6,774.8	130.4	135.9	-89.86	-3,005.7	-2,967.1	3,529.5	3,263.2	266.31	13.253	
11,200.0	6,774.5	6,774.5	6,774.5	132.6	135.9	-89.86	-3,005.7	-2,967.1	3,570.1	3,301.7	268.48	13.298	
11,220.4	6,774.4	6,774.4	6,774.4	133.2	135.9	-89.86	-3,005.7	-2,967.1	3,581.0	3,311.9	269.05	13.310	
11,300.0	6,774.1	6,774.1	6,774.1	135.4	135.9	-89.85	-3,005.7	-2,967.1	3,624.0	3,352.8	271.26	13.360	
11,318.9	6,774.0	6,774.0	6,774.0	135.9	135.9	-89.85	-3,005.7	-2,967.1	3,634.4	3,362.6	271.79	13.372	
11,400.0	6,773.7	6,773.7	6,773.7	138.2	135.9	-89.84	-3,005.7	-2,967.1	3,679.8	3,405.8	274.04	13.428	
11,417.3	6,773.6	6,773.6	6,773.6	138.7	135.9	-89.84	-3,005.7	-2,967.1	3,689.7	3,415.1	274.53	13.440	
11,500.0	6,773.3	6,773.3	6,773.3	141.0	135.9	-89.83	-3,005.7	-2,967.1	3,737.5	3,460.6	276.83	13.501	
11,515.7	6,773.2	6,773.2	6,773.2	141.4	135.9	-89.83	-3,005.7	-2,967.1	3,746.7	3,469.4	277.27	13.513	
11,600.0	6,772.9	6,772.9	6,772.9	143.8	135.8	-89.83	-3,005.7	-2,967.1	3,796.9	3,517.3	279.61	13.579	
11,614.1	6,772.8	6,772.8	6,772.8	144.2	135.8	-89.82	-3,005.7	-2,967.1	3,805.4	3,525.4	280.01	13.590	
11,700.0	6,772.5	6,772.5	6,772.5	146.6	135.8	-89.82	-3,005.7	-2,967.1	3,857.9	3,575.6	282.40	13.661	
11,712.6	6,772.4	6,772.4	6,772.4	146.9	135.8	-89.82	-3,005.7	-2,967.1	3,865.7	3,583.0	282.75	13.672	
11,800.0	6,772.1	6,772.1	6,772.1	149.4	135.8	-89.81	-3,005.7	-2,967.1	3,920.6	3,635.4	285.19	13.748	
11,811.0	6,772.1	6,772.1	6,772.1	149.7	135.8	-89.81	-3,005.7	-2,967.1	3,927.6	3,642.1	285.49	13.757	
11,900.0	6,771.7	6,771.7	6,771.7	152.2	135.8	-89.80	-3,005.7	-2,967.1	3,984.8	3,696.9	287.97	13.838	
11,909.4	6,771.7	6,771.7	6,771.7	152.4	135.8	-89.80	-3,005.7	-2,967.1	3,991.0	3,702.7	288.23	13.846	
12,000.0	6,771.3	6,771.3	6,771.3	154.9	135.8	-89.79	-3,005.7	-2,967.1	4,050.5	3,759.7	290.76	13.931	
12,007.8	6,771.3	6,771.3	6,771.3	155.2	135.8	-89.79	-3,005.7	-2,967.1	4,055.7	3,764.7	290.98	13.938	
12,100.0	6,770.9	6,770.9	6,770.9	157.7	135.8	-89.79	-3,005.7	-2,967.1	4,117.5	3,824.0	293.55	14.027	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #34-18 - 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
12,106.3	6,770.9	6,770.9	6,770.9	157.9	135.8	-89.79	-3,005.7	-2,967.1	4,121.8	3,828.1	293.72	14.033	
12,200.0	6,770.5	6,770.5	6,770.5	160.5	135.8	-89.78	-3,005.7	-2,967.1	4,185.9	3,889.5	296.34	14.126	
12,204.7	6,770.5	6,770.5	6,770.5	160.7	135.8	-89.78	-3,005.7	-2,967.1	4,189.1	3,892.7	296.47	14.130	
12,300.0	6,770.1	6,770.1	6,770.1	163.3	135.8	-89.77	-3,005.7	-2,967.1	4,255.5	3,956.4	299.12	14.227	
12,303.1	6,770.1	6,770.1	6,770.1	163.4	135.8	-89.77	-3,005.7	-2,967.1	4,257.7	3,958.5	299.21	14.230	
12,316.4	6,770.0	6,770.0	6,770.0	163.8	135.8	-89.77	-3,005.7	-2,967.1	4,267.0	3,967.4	299.58	14.243	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-151.09	-2,976.7	-1,644.0	3,400.5					
98.4	98.4	109.8	109.8	0.1	0.1	-151.09	-2,976.5	-1,643.9	3,400.3	3,400.1	0.21	N/A		
100.0	100.0	111.2	111.2	0.1	0.1	-151.09	-2,976.5	-1,643.9	3,400.3	3,400.1	0.21	N/A		
196.8	196.8	202.3	202.3	0.3	0.2	-151.09	-2,976.2	-1,643.7	3,399.9	3,399.4	0.55	6,196.091		
200.0	200.0	205.4	205.4	0.3	0.2	-151.09	-2,976.2	-1,643.7	3,399.9	3,399.4	0.56	6,089.760		
295.3	295.3	300.0	300.0	0.5	0.3	-151.09	-2,975.9	-1,643.6	3,399.7	3,398.8	0.85	4,007.174		
300.0	300.0	304.5	304.5	0.5	0.3	-151.09	-2,975.9	-1,643.6	3,399.7	3,398.8	0.86	3,946.877		
393.7	393.7	405.3	405.3	0.8	0.4	-151.08	-2,975.4	-1,643.9	3,399.3	3,398.2	1.12	3,022.891		
400.0	400.0	412.1	412.1	0.8	0.4	-151.08	-2,975.3	-1,643.9	3,399.3	3,398.1	1.14	2,975.032		
492.1	492.1	511.1	511.1	1.0	0.4	-151.06	-2,974.3	-1,644.5	3,398.8	3,397.4	1.41	2,417.265		
500.0	500.0	519.7	519.7	1.0	0.5	-151.06	-2,974.2	-1,644.6	3,398.7	3,397.3	1.43	2,379.720		
590.5	590.5	617.1	617.1	1.2	0.5	-151.04	-2,973.1	-1,645.0	3,398.0	3,396.3	1.68	2,022.596		
600.0	600.0	626.5	626.5	1.2	0.5	-151.04	-2,973.0	-1,645.0	3,397.9	3,396.2	1.71	1,992.202		
689.0	689.0	713.1	713.1	1.4	0.6	-151.03	-2,972.0	-1,645.2	3,397.1	3,395.1	1.95	1,746.312		
700.0	700.0	722.7	722.7	1.4	0.6	-151.03	-2,971.9	-1,645.2	3,397.0	3,395.0	1.97	1,720.756		
787.4	787.4	800.0	800.0	1.6	0.6	-151.02	-2,971.2	-1,645.5	3,396.5	3,394.3	2.20	1,541.397		
800.0	800.0	810.3	810.2	1.7	0.6	-151.02	-2,971.1	-1,645.6	3,396.4	3,394.2	2.24	1,518.896		
885.8	885.8	889.7	889.6	1.9	0.6	-151.01	-2,970.6	-1,646.0	3,396.1	3,393.7	2.46	1,379.166		
900.0	900.0	902.8	902.8	1.9	0.6	-151.01	-2,970.5	-1,646.1	3,396.1	3,393.6	2.50	1,358.500		
984.2	984.2	982.7	982.7	2.1	0.7	-151.00	-2,970.1	-1,646.7	3,396.0	3,393.3	2.72	1,247.305		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	0.7	-150.99	-2,970.0	-1,646.8	3,396.0	3,393.2	2.77	1,228.043		
1,029.4	1,029.4	1,025.4	1,025.4	2.2	0.7	-150.99	-2,969.8	-1,647.0	3,396.0	3,393.1	2.84	1,195.002		
1,082.7	1,082.7	1,075.8	1,075.8	2.3	0.7	-150.98	-2,969.6	-1,647.4	3,396.0	3,393.0	2.98	1,138.736		
1,100.0	1,100.0	1,092.2	1,092.2	2.3	0.7	-150.98	-2,969.6	-1,647.6	3,396.0	3,393.0	3.03	1,121.559		
1,181.1	1,181.1	1,169.6	1,169.6	2.5	0.8	-150.97	-2,969.4	-1,648.2	3,396.1	3,392.9	3.24	1,047.676		
1,200.0	1,200.0	1,187.7	1,187.6	2.6	0.8	-150.96	-2,969.3	-1,648.4	3,396.2	3,392.9	3.29	1,031.834		
1,279.5	1,279.5	1,271.6	1,271.6	2.7	0.8	-150.95	-2,969.0	-1,649.3	3,396.4	3,392.8	3.50	969.403		
1,300.0	1,300.0	1,293.7	1,293.6	2.8	0.8	-150.94	-2,968.9	-1,649.5	3,396.4	3,392.8	3.56	954.488		
1,377.9	1,377.9	1,375.7	1,375.6	3.0	0.8	-150.93	-2,968.5	-1,650.2	3,396.4	3,392.6	3.77	901.983		
1,400.0	1,400.0	1,398.9	1,398.8	3.0	0.8	-150.93	-2,968.4	-1,650.4	3,396.4	3,392.5	3.82	888.161		
1,476.4	1,476.4	1,474.2	1,474.1	3.2	0.9	-150.92	-2,968.1	-1,650.9	3,396.3	3,392.3	4.02	843.903		
1,500.0	1,500.0	1,497.5	1,497.4	3.2	0.9	-150.91	-2,968.0	-1,651.0	3,396.3	3,392.2	4.09	831.093		
1,574.8	1,574.8	1,568.7	1,568.6	3.4	0.9	-70.23	-2,967.8	-1,651.4	3,396.0	3,391.7	4.23	803.292		
1,600.0	1,600.0	1,592.6	1,592.6	3.5	0.9	-70.24	-2,967.8	-1,651.5	3,395.7	3,391.4	4.29	791.965		
1,673.2	1,673.1	1,665.5	1,665.5	3.6	0.9	-70.31	-2,967.6	-1,651.9	3,394.6	3,390.2	4.46	761.482		
1,700.0	1,699.8	1,692.3	1,692.3	3.7	0.9	-70.35	-2,967.6	-1,652.0	3,394.1	3,389.6	4.52	750.876		
1,771.6	1,771.2	1,764.1	1,764.0	3.8	1.0	-70.47	-2,967.5	-1,652.4	3,392.2	3,387.5	4.69	722.766		
1,800.0	1,799.5	1,792.4	1,792.3	3.9	1.0	-70.53	-2,967.4	-1,652.6	3,391.2	3,386.5	4.76	712.160		
1,870.1	1,869.0	1,877.0	1,876.9	4.0	1.0	-70.73	-2,967.1	-1,652.9	3,388.4	3,383.5	4.94	685.377		
1,900.0	1,898.7	1,918.0	1,917.9	4.1	1.0	-70.85	-2,966.8	-1,653.0	3,387.0	3,381.9	5.02	674.062		
1,968.5	1,966.4	2,020.8	2,020.7	4.3	1.1	-71.17	-2,965.5	-1,652.7	3,382.7	3,377.5	5.23	646.408		
2,000.0	1,997.5	2,058.6	2,058.6	4.4	1.1	-71.31	-2,964.9	-1,652.5	3,380.4	3,375.1	5.33	634.555		
2,066.9	2,063.2	2,136.6	2,136.5	4.6	1.1	-71.65	-2,963.4	-1,651.7	3,374.9	3,369.4	5.55	608.520		
2,100.1	2,095.7	2,174.0	2,173.9	4.7	1.1	-71.83	-2,962.7	-1,651.2	3,372.0	3,366.3	5.65	596.328		
2,165.3	2,159.5	2,238.5	2,238.4	4.9	1.1	-72.05	-2,961.4	-1,650.1	3,366.1	3,360.2	5.88	572.422		
2,200.0	2,193.4	2,270.1	2,270.0	5.0	1.1	-72.17	-2,960.9	-1,649.5	3,362.9	3,356.9	6.00	560.547		
2,224.2	2,217.1	2,292.2	2,292.1	5.1	1.1	-72.24	-2,960.5	-1,649.1	3,360.8	3,354.7	6.09	552.269		
2,263.8	2,255.9	2,327.8	2,327.6	5.2	1.1	-72.30	-2,960.0	-1,648.3	3,357.4	3,351.2	6.21	540.455		
2,300.0	2,291.5	2,360.2	2,360.1	5.3	1.1	-72.35	-2,959.5	-1,647.7	3,354.5	3,348.1	6.33	530.137		
2,362.2	2,352.7	2,414.9	2,414.7	5.5	1.2	-72.43	-2,958.8	-1,646.6	3,349.9	3,343.4	6.50	515.058		
2,400.0	2,390.1	2,446.4	2,446.2	5.6	1.2	-72.47	-2,958.4	-1,645.9	3,347.4	3,340.8	6.61	506.346		
2,460.6	2,450.1	2,500.0	2,499.8	5.7	1.2	-72.53	-2,957.9	-1,645.0	3,343.9	3,337.1	6.78	493.372		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,489.2	2,531.2	2,531.0	5.8	1.2	-72.56	-2,957.7	-1,644.6	3,341.9	3,335.0	6.89	485.385	
2,559.0	2,548.0	2,582.8	2,582.6	6.0	1.2	-72.60	-2,957.3	-1,643.9	3,339.3	3,332.3	7.04	474.434	
2,600.0	2,588.8	2,624.5	2,624.3	6.1	1.2	-72.63	-2,956.9	-1,643.5	3,337.8	3,330.6	7.15	467.003	
2,657.5	2,646.1	2,690.7	2,690.5	6.2	1.2	-72.68	-2,956.3	-1,642.8	3,335.9	3,328.6	7.29	457.472	
2,700.0	2,688.6	2,733.3	2,733.1	6.3	1.2	-72.69	-2,955.8	-1,642.4	3,334.6	3,327.2	7.40	450.794	
2,755.9	2,744.4	2,787.5	2,787.3	6.4	1.2	-72.70	-2,955.2	-1,641.8	3,333.2	3,325.7	7.52	443.028	
2,800.0	2,788.5	2,830.2	2,830.0	6.5	1.3	-72.70	-2,954.8	-1,641.3	3,332.4	3,324.8	7.62	437.128	
2,824.3	2,812.8	2,853.7	2,853.4	6.5	1.3	-153.40	-2,954.6	-1,641.1	3,332.1	3,324.9	7.20	462.725	
2,854.3	2,842.9	2,882.8	2,882.5	6.6	1.3	-153.40	-2,954.3	-1,640.8	3,331.7	3,324.4	7.27	458.578	
2,900.0	2,888.5	2,926.2	2,925.9	6.7	1.3	-153.40	-2,953.9	-1,640.3	3,331.1	3,323.7	7.36	452.435	
2,952.7	2,941.3	2,975.7	2,975.4	6.8	1.3	-153.41	-2,953.5	-1,639.8	3,330.4	3,323.0	7.48	445.022	
3,000.0	2,988.5	3,021.9	3,021.6	6.9	1.3	-153.41	-2,953.2	-1,639.3	3,329.9	3,322.3	7.59	438.558	
3,051.2	3,039.7	3,074.3	3,074.0	7.0	1.3	-153.41	-2,952.7	-1,638.9	3,329.3	3,321.6	7.71	431.705	
3,100.0	3,088.5	3,124.9	3,124.7	7.1	1.3	-153.41	-2,952.2	-1,638.7	3,328.8	3,320.9	7.83	425.298	
3,149.6	3,138.1	3,177.1	3,176.8	7.2	1.4	-153.41	-2,951.5	-1,638.7	3,328.1	3,320.2	7.94	418.901	
3,200.0	3,188.5	3,237.4	3,237.1	7.3	1.4	-153.40	-2,950.4	-1,638.9	3,327.4	3,319.4	8.07	412.394	
3,248.0	3,236.6	3,300.1	3,299.8	7.4	1.4	-153.38	-2,948.9	-1,639.3	3,326.6	3,318.4	8.19	406.204	
3,300.0	3,288.5	3,364.8	3,364.4	7.5	1.4	-153.36	-2,947.1	-1,639.9	3,325.4	3,317.1	8.32	399.719	
3,346.4	3,335.0	3,417.5	3,417.1	7.6	1.4	-153.34	-2,945.3	-1,640.3	3,324.3	3,315.8	8.43	394.127	
3,400.0	3,388.5	3,469.0	3,468.7	7.7	1.4	-153.31	-2,943.6	-1,640.8	3,322.9	3,314.3	8.56	387.978	
3,444.9	3,433.4	3,512.4	3,512.0	7.8	1.5	-153.30	-2,942.1	-1,641.3	3,321.8	3,313.1	8.67	382.962	
3,500.0	3,488.5	3,565.9	3,565.5	7.9	1.5	-153.27	-2,940.4	-1,641.8	3,320.4	3,311.6	8.81	376.978	
3,543.3	3,531.8	3,607.3	3,606.8	8.0	1.5	-153.26	-2,939.1	-1,642.2	3,319.4	3,310.4	8.91	372.407	
3,600.0	3,588.5	3,657.4	3,656.9	8.1	1.5	-153.24	-2,937.6	-1,642.6	3,318.1	3,309.0	9.05	366.634	
3,641.7	3,630.3	3,700.0	3,699.5	8.2	1.5	-153.22	-2,936.4	-1,643.1	3,317.2	3,308.0	9.15	362.440	
3,700.0	3,688.5	3,748.5	3,748.0	8.3	1.5	-153.21	-2,935.1	-1,643.6	3,316.0	3,306.7	9.29	356.837	
3,740.1	3,728.7	3,786.2	3,785.7	8.4	1.6	-153.19	-2,934.1	-1,644.0	3,315.3	3,305.9	9.39	353.031	
3,800.0	3,788.5	3,841.0	3,840.4	8.5	1.6	-153.17	-2,932.6	-1,644.7	3,314.2	3,304.7	9.54	347.515	
3,838.6	3,827.1	3,876.0	3,875.4	8.6	1.6	-153.16	-2,931.8	-1,645.1	3,313.6	3,304.0	9.63	344.049	
3,900.0	3,888.5	3,930.2	3,929.6	8.7	1.6	-153.14	-2,930.5	-1,645.9	3,312.7	3,302.9	9.78	338.688	
3,937.0	3,925.5	3,962.1	3,961.5	8.8	1.6	-153.12	-2,929.8	-1,646.3	3,312.2	3,302.3	9.87	335.545	
4,000.0	3,988.5	4,015.9	4,015.3	9.0	1.6	-153.10	-2,928.8	-1,647.1	3,311.5	3,301.5	10.02	330.338	
4,035.4	4,024.0	4,045.6	4,045.0	9.0	1.6	-153.09	-2,928.3	-1,647.5	3,311.2	3,301.1	10.11	327.485	
4,100.0	4,088.5	4,100.0	4,099.3	9.2	1.7	-153.08	-2,927.5	-1,648.2	3,310.9	3,300.6	10.27	322.420	
4,133.8	4,122.4	4,132.9	4,132.2	9.2	1.7	-153.07	-2,927.1	-1,648.7	3,310.7	3,300.4	10.35	319.783	
4,200.0	4,188.5	4,198.0	4,197.3	9.4	1.7	-153.04	-2,926.3	-1,649.7	3,310.4	3,299.9	10.52	314.742	
4,232.3	4,220.8	4,232.5	4,231.9	9.4	1.7	-153.03	-2,925.8	-1,650.4	3,310.3	3,299.7	10.60	312.309	
4,300.0	4,288.5	4,300.0	4,299.3	9.6	1.7	-153.00	-2,924.8	-1,651.6	3,309.9	3,299.2	10.77	307.354	
4,330.7	4,319.2	4,331.6	4,330.9	9.7	1.7	-152.99	-2,924.3	-1,652.3	3,309.8	3,298.9	10.85	305.148	
4,400.0	4,388.5	4,392.9	4,392.2	9.8	1.7	-152.96	-2,923.3	-1,653.7	3,309.5	3,298.5	11.02	300.372	
4,429.1	4,417.7	4,421.0	4,420.3	9.9	1.7	-152.94	-2,922.9	-1,654.4	3,309.5	3,298.4	11.09	298.391	
4,500.0	4,488.5	4,491.8	4,491.0	10.0	1.8	-152.91	-2,921.8	-1,656.2	3,309.3	3,298.1	11.27	293.656	
4,527.5	4,516.1	4,527.0	4,526.2	10.1	1.8	-152.89	-2,921.2	-1,657.2	3,309.3	3,297.9	11.34	291.792	
4,600.0	4,588.5	4,622.0	4,621.1	10.2	1.8	-152.83	-2,918.9	-1,659.9	3,308.7	3,297.1	11.53	286.939	
4,626.0	4,614.5	4,650.1	4,649.2	10.3	1.8	-152.81	-2,918.1	-1,660.8	3,308.4	3,296.8	11.60	285.270	
4,700.0	4,688.5	4,724.8	4,723.8	10.5	1.8	-152.75	-2,915.8	-1,663.4	3,307.5	3,295.7	11.78	280.657	
4,724.4	4,712.9	4,746.5	4,745.5	10.5	1.8	-152.73	-2,915.1	-1,664.1	3,307.2	3,295.3	11.85	279.194	
4,800.0	4,788.5	4,816.2	4,815.2	10.7	1.9	-152.69	-2,913.2	-1,666.3	3,306.4	3,294.4	12.03	274.753	
4,822.8	4,811.4	4,840.0	4,838.9	10.7	1.9	-152.67	-2,912.6	-1,666.9	3,306.2	3,294.1	12.09	273.425	
4,900.0	4,888.5	4,919.3	4,918.2	10.9	1.9	-152.62	-2,910.6	-1,669.0	3,305.4	3,293.2	12.29	269.025	
4,921.2	4,909.8	4,940.2	4,939.1	10.9	1.9	-152.61	-2,910.1	-1,669.5	3,305.2	3,292.9	12.34	267.841	
5,000.0	4,988.5	5,014.2	5,013.0	11.1	1.9	-152.56	-2,908.3	-1,671.6	3,304.5	3,291.9	12.54	263.564	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #44-18 - 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	5,008.2	5,029.7	5,028.5	11.1	1.9	-152.55	-2,907.9	-1,672.0	3,304.3	3,291.7	12.59	262.537		
5,100.0	5,088.5	5,100.0	5,098.8	11.3	1.9	-152.51	-2,906.6	-1,673.9	3,303.9	3,291.1	12.79	258.403		
5,118.1	5,106.6	5,109.0	5,107.7	11.4	2.0	-152.51	-2,906.4	-1,674.1	3,303.9	3,291.0	12.83	257.534		
5,200.0	5,188.5	5,186.2	5,184.9	11.5	2.0	-152.47	-2,905.3	-1,676.2	3,303.8	3,290.8	13.03	253.459		
5,207.0	5,195.6	5,192.8	5,191.6	11.6	2.0	-152.46	-2,905.2	-1,676.4	3,303.8	3,290.8	13.05	253.116		
5,216.5	5,205.1	5,200.0	5,198.7	11.6	2.0	-152.46	-2,905.1	-1,676.6	3,303.8	3,290.7	13.08	252.664		
5,300.0	5,288.5	5,277.8	5,276.5	11.8	2.0	-152.42	-2,904.0	-1,678.9	3,303.9	3,290.6	13.29	248.676		
5,314.9	5,303.5	5,291.4	5,290.1	11.8	2.0	-152.41	-2,903.8	-1,679.3	3,304.0	3,290.6	13.32	247.978		
5,400.0	5,388.5	5,366.1	5,364.7	12.0	2.0	-152.36	-2,902.8	-1,681.8	3,304.3	3,290.8	13.54	244.103		
5,413.4	5,401.9	5,377.8	5,376.4	12.0	2.0	-152.35	-2,902.7	-1,682.3	3,304.4	3,290.8	13.57	243.507		
5,500.0	5,488.5	5,452.6	5,451.1	12.2	2.0	-152.30	-2,901.8	-1,685.3	3,305.1	3,291.3	13.79	239.732		
5,511.8	5,500.3	5,462.7	5,461.3	12.2	2.0	-152.29	-2,901.7	-1,685.7	3,305.3	3,291.4	13.82	239.229		
5,600.0	5,588.5	5,546.8	5,545.2	12.4	2.1	-152.24	-2,901.1	-1,689.1	3,306.3	3,292.3	14.04	235.516		
5,610.2	5,598.8	5,557.4	5,555.9	12.4	2.1	-152.23	-2,901.0	-1,689.5	3,306.4	3,292.4	14.06	235.089		
5,700.0	5,688.5	5,659.5	5,658.0	12.6	2.1	-152.18	-2,900.6	-1,692.5	3,307.4	3,293.1	14.29	231.366		
5,708.6	5,697.2	5,670.1	5,668.5	12.6	2.1	-152.18	-2,900.6	-1,692.7	3,307.4	3,293.1	14.32	231.009		
5,800.0	5,788.5	5,780.1	5,778.5	12.8	2.1	-152.14	-2,900.1	-1,694.7	3,307.8	3,293.3	14.55	227.280		
5,807.1	5,795.6	5,788.6	5,787.0	12.9	2.1	-152.14	-2,900.1	-1,694.8	3,307.9	3,293.3	14.57	226.995		
5,900.0	5,888.5	5,877.5	5,875.9	13.1	2.1	-152.13	-2,899.9	-1,695.5	3,308.0	3,293.2	14.80	223.442		
5,905.5	5,894.0	5,882.6	5,881.0	13.1	2.1	-152.13	-2,899.8	-1,695.6	3,308.0	3,293.2	14.82	223.236		
6,000.0	5,988.5	5,992.2	5,990.6	13.3	2.2	-152.12	-2,899.7	-1,696.0	3,308.1	3,293.1	15.06	219.731		
6,003.9	5,992.5	5,996.9	5,995.3	13.3	2.2	-152.12	-2,899.7	-1,696.0	3,308.1	3,293.1	15.07	219.587		
6,085.3	6,073.8	6,085.9	6,084.3	13.5	2.2	-152.12	-2,899.4	-1,696.1	3,307.9	3,292.6	15.27	216.685		
6,100.0	6,088.5	6,100.0	6,098.4	13.5	2.2	-62.13	-2,899.3	-1,696.0	3,307.7	3,292.4	15.29	216.364		
6,102.3	6,090.9	6,100.0	6,098.4	13.5	2.2	-62.13	-2,899.3	-1,696.0	3,307.7	3,292.4	15.29	216.283		
6,150.0	6,138.4	6,143.5	6,141.9	13.6	2.2	-62.27	-2,899.1	-1,696.0	3,306.3	3,290.8	15.41	214.517		
6,200.0	6,188.0	6,185.2	6,183.6	13.7	2.2	-62.56	-2,899.1	-1,696.0	3,303.3	3,287.7	15.56	212.258		
6,200.8	6,188.8	6,185.8	6,184.2	13.7	2.2	-62.56	-2,899.1	-1,696.0	3,303.2	3,287.7	15.57	212.219		
6,250.0	6,237.1	6,231.7	6,230.1	13.9	2.2	-63.02	-2,899.1	-1,696.0	3,298.8	3,283.1	15.74	209.632		
6,299.2	6,284.6	6,279.6	6,278.0	14.0	2.2	-63.64	-2,899.2	-1,696.1	3,292.9	3,277.0	15.93	206.711		
6,300.0	6,285.3	6,280.4	6,278.8	14.0	2.2	-63.65	-2,899.2	-1,696.1	3,292.8	3,276.9	15.93	206.663		
6,350.0	6,332.5	6,336.0	6,334.4	14.2	2.2	-64.49	-2,899.1	-1,696.1	3,285.3	3,269.1	16.16	203.322		
6,397.6	6,376.3	6,392.8	6,391.1	14.4	2.2	-65.48	-2,898.9	-1,696.0	3,276.7	3,260.3	16.40	199.810		
6,400.0	6,378.5	6,395.5	6,393.9	14.4	2.2	-65.53	-2,898.9	-1,696.0	3,276.2	3,259.8	16.41	199.635		
6,450.0	6,423.0	6,440.1	6,438.5	14.7	2.2	-66.65	-2,898.7	-1,695.9	3,265.7	3,249.0	16.70	195.597		
6,496.0	6,462.4	6,478.6	6,477.0	14.9	2.2	-67.80	-2,898.5	-1,695.8	3,254.9	3,237.9	16.99	191.615		
6,500.0	6,465.7	6,481.9	6,480.3	14.9	2.2	-67.90	-2,898.4	-1,695.8	3,254.0	3,237.0	17.01	191.278		
6,550.0	6,506.6	6,521.4	6,519.8	15.2	2.2	-69.27	-2,898.2	-1,695.7	3,241.2	3,223.8	17.36	186.675		
6,594.5	6,541.2	6,554.5	6,552.9	15.6	2.2	-70.58	-2,898.1	-1,695.7	3,229.0	3,211.3	17.71	182.304		
6,600.0	6,545.3	6,558.5	6,556.9	15.6	2.2	-70.75	-2,898.1	-1,695.6	3,227.5	3,209.7	17.76	181.772		
6,650.0	6,581.8	6,593.4	6,591.8	16.0	2.3	-72.33	-2,897.9	-1,695.5	3,212.9	3,194.7	18.20	176.556		
6,692.9	6,611.1	6,623.2	6,621.6	16.4	2.3	-73.76	-2,897.8	-1,695.4	3,199.9	3,181.3	18.63	171.796		
6,700.0	6,615.8	6,628.0	6,626.4	16.5	2.3	-74.00	-2,897.8	-1,695.4	3,197.7	3,179.0	18.70	171.029		
6,750.0	6,647.1	6,660.4	6,658.8	17.1	2.3	-75.75	-2,897.7	-1,695.3	3,182.0	3,162.7	19.26	165.233		
6,791.3	6,670.9	6,685.0	6,683.4	17.6	2.3	-77.22	-2,897.6	-1,695.3	3,168.6	3,148.9	19.77	160.238		
6,800.0	6,675.7	6,690.0	6,688.3	17.7	2.3	-77.53	-2,897.6	-1,695.3	3,165.8	3,145.9	19.88	159.223		
6,850.0	6,701.3	6,715.2	6,713.5	18.4	2.3	-79.30	-2,897.5	-1,695.2	3,149.4	3,128.8	20.58	153.068		
6,889.7	6,719.5	6,732.5	6,730.9	19.0	2.3	-80.68	-2,897.4	-1,695.2	3,136.3	3,115.1	21.18	148.081		
6,900.0	6,723.8	6,736.7	6,735.1	19.1	2.3	-81.04	-2,897.3	-1,695.2	3,132.9	3,111.6	21.34	146.842		
6,950.0	6,743.2	6,755.3	6,753.7	20.0	2.3	-82.74	-2,897.3	-1,695.2	3,116.5	3,094.3	22.16	140.622		
6,988.2	6,755.8	6,767.5	6,765.9	20.6	2.3	-84.01	-2,897.2	-1,695.2	3,104.1	3,081.2	22.84	135.895		
7,000.0	6,759.4	6,770.9	6,769.3	20.9	2.3	-84.39	-2,897.2	-1,695.2	3,100.3	3,077.2	23.05	134.488		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,772.1	6,783.3	6,781.7	21.8	2.3	-85.96	-2,897.1	-1,695.2	3,084.4	3,060.4	24.00	128.513	
7,086.6	6,779.4	6,790.3	6,788.7	22.5	2.3	-87.05	-2,897.1	-1,695.2	3,073.0	3,048.3	24.73	124.254	
7,100.0	6,781.5	6,792.4	6,790.8	22.8	2.3	-87.43	-2,897.1	-1,695.2	3,068.9	3,043.9	25.00	122.760	
7,150.0	6,787.5	6,798.3	6,796.7	23.9	2.3	-88.79	-2,897.0	-1,695.2	3,054.1	3,028.0	26.04	117.282	
7,185.0	6,789.6	6,800.0	6,798.4	24.6	2.3	-89.66	-2,897.0	-1,695.2	3,044.1	3,017.3	26.79	113.620	
7,200.0	6,789.9	6,800.0	6,798.4	24.9	2.3	-90.01	-2,897.0	-1,695.2	3,039.9	3,012.8	27.11	112.121	
7,213.0	6,790.0	6,800.0	6,798.4	25.2	2.3	-90.30	-2,897.0	-1,695.2	3,036.3	3,008.9	27.39	110.835	
7,283.4	6,789.7	6,800.0	6,798.4	26.8	2.3	-90.30	-2,897.0	-1,695.2	3,017.9	2,988.9	28.97	104.174	
7,300.0	6,789.7	6,800.0	6,798.4	27.2	2.3	-90.30	-2,897.0	-1,695.2	3,013.8	2,984.4	29.34	102.721	
7,381.9	6,789.4	6,800.0	6,798.4	29.1	2.3	-90.30	-2,897.0	-1,695.2	2,994.7	2,963.5	31.24	95.847	
7,400.0	6,789.3	6,800.0	6,798.4	29.5	2.3	-90.30	-2,897.0	-1,695.2	2,990.8	2,959.1	31.67	94.447	
7,480.3	6,789.0	6,800.0	6,798.4	31.4	2.3	-90.30	-2,897.0	-1,695.2	2,974.6	2,941.0	33.60	88.537	
7,500.0	6,788.9	6,800.0	6,798.4	31.9	2.3	-90.30	-2,897.0	-1,695.2	2,971.0	2,936.9	34.07	87.199	
7,578.7	6,788.6	6,800.0	6,798.4	33.8	2.3	-90.30	-2,897.0	-1,695.2	2,957.7	2,921.7	36.01	82.128	
7,600.0	6,788.5	6,800.0	6,798.4	34.4	2.3	-90.30	-2,897.0	-1,695.2	2,954.5	2,917.9	36.54	80.860	
7,677.1	6,788.2	6,800.0	6,798.4	36.3	2.3	-90.30	-2,897.0	-1,695.2	2,944.0	2,905.5	38.48	76.508	
7,700.0	6,788.2	6,800.0	6,798.4	36.9	2.3	-90.30	-2,897.0	-1,695.2	2,941.2	2,902.2	39.05	75.312	
7,775.6	6,787.9	6,800.0	6,798.4	38.8	2.3	-90.30	-2,897.0	-1,695.2	2,933.4	2,892.5	40.99	71.573	
7,800.0	6,787.8	6,800.0	6,798.4	39.4	2.3	-90.30	-2,897.0	-1,695.2	2,931.3	2,889.7	41.61	70.448	
7,874.0	6,787.5	6,800.0	6,798.4	41.3	2.3	-90.30	-2,897.0	-1,695.2	2,926.2	2,882.7	43.53	67.230	
7,900.0	6,787.4	6,800.0	6,798.4	42.0	2.3	-90.30	-2,897.0	-1,695.2	2,924.8	2,880.6	44.20	66.176	
7,972.4	6,787.1	6,799.9	6,798.3	43.9	2.3	-90.30	-2,897.0	-1,695.2	2,922.3	2,876.2	46.09	63.401	
8,000.0	6,787.0	6,799.8	6,798.2	44.6	2.3	-90.30	-2,897.0	-1,695.2	2,921.8	2,874.9	46.81	62.413	
8,040.2	6,786.9	6,799.8	6,798.2	45.7	2.3	-90.30	-2,897.0	-1,695.2	2,921.5	2,873.6	47.87	61.025 CC	
8,070.8	6,786.7	6,799.7	6,798.1	46.5	2.3	-90.30	-2,897.0	-1,695.2	2,921.6	2,873.0	48.68	60.015	
8,100.0	6,786.6	6,799.7	6,798.1	47.3	2.3	-90.30	-2,897.0	-1,695.2	2,922.1	2,872.6	49.45	59.091 ES	
8,169.3	6,786.4	6,799.6	6,798.0	49.1	2.3	-90.30	-2,897.0	-1,695.2	2,924.3	2,873.0	51.29	57.014	
8,200.0	6,786.3	6,799.5	6,797.9	49.9	2.3	-90.30	-2,897.0	-1,695.2	2,925.8	2,873.7	52.11	56.151	
8,267.7	6,786.0	6,799.4	6,797.8	51.7	2.3	-90.29	-2,897.0	-1,695.2	2,930.3	2,876.4	53.92	54.349	
8,300.0	6,785.9	6,799.4	6,797.8	52.6	2.3	-90.29	-2,897.0	-1,695.2	2,933.0	2,878.2	54.78	53.542	
8,366.1	6,785.6	6,799.3	6,797.7	54.4	2.3	-90.29	-2,897.0	-1,695.2	2,939.6	2,883.1	56.56	51.977	
8,400.0	6,785.5	6,799.2	6,797.6	55.3	2.3	-90.29	-2,897.0	-1,695.2	2,943.6	2,886.1	57.47	51.223	
8,464.5	6,785.2	6,799.1	6,797.5	57.0	2.3	-90.29	-2,897.0	-1,695.2	2,952.1	2,892.9	59.21	49.861	
8,500.0	6,785.1	6,799.1	6,797.5	58.0	2.3	-90.29	-2,897.0	-1,695.2	2,957.4	2,897.3	60.16	49.156	
8,563.0	6,784.9	6,799.0	6,797.4	59.7	2.3	-90.28	-2,897.0	-1,695.2	2,967.9	2,906.0	61.87	47.970	
8,600.0	6,784.7	6,798.9	6,797.3	60.7	2.3	-90.28	-2,897.0	-1,695.2	2,974.6	2,911.8	62.87	47.312	
8,661.4	6,784.5	6,798.8	6,797.2	62.4	2.3	-90.28	-2,897.0	-1,695.2	2,986.8	2,922.3	64.54	46.278	
8,700.0	6,784.3	6,798.7	6,797.1	63.4	2.3	-90.28	-2,897.0	-1,695.2	2,995.1	2,929.5	65.59	45.664	
8,759.8	6,784.1	6,798.7	6,797.1	65.0	2.3	-90.28	-2,897.0	-1,695.2	3,008.8	2,941.6	67.22	44.761	
8,800.0	6,784.0	6,798.6	6,797.0	66.1	2.3	-90.28	-2,897.0	-1,695.2	3,018.7	2,950.4	68.31	44.188	
8,858.2	6,783.7	6,798.5	6,796.9	67.7	2.3	-90.27	-2,897.0	-1,695.2	3,033.9	2,964.0	69.91	43.399	
8,900.0	6,783.6	6,798.5	6,796.8	68.9	2.3	-90.27	-2,897.0	-1,695.2	3,045.4	2,974.3	71.05	42.865	
8,956.7	6,783.3	6,798.4	6,796.7	70.4	2.3	-90.27	-2,897.0	-1,695.2	3,061.9	2,989.3	72.60	42.176	
9,000.0	6,783.2	6,798.3	6,796.7	71.6	2.3	-90.27	-2,897.0	-1,695.2	3,075.1	3,001.3	73.78	41.677	
9,055.1	6,783.0	6,798.2	6,796.6	73.1	2.3	-90.27	-2,897.0	-1,695.2	3,092.7	3,017.5	75.30	41.075	
9,100.0	6,782.8	6,798.1	6,796.5	74.3	2.3	-90.27	-2,897.0	-1,695.2	3,107.8	3,031.2	76.53	40.610	
9,153.5	6,782.6	6,798.0	6,796.4	75.8	2.3	-90.27	-2,897.0	-1,695.2	3,126.4	3,048.4	78.00	40.083	
9,200.0	6,782.4	6,798.0	6,796.3	77.1	2.3	-90.26	-2,897.0	-1,695.2	3,143.3	3,064.0	79.28	39.650	
9,251.9	6,782.2	6,797.9	6,796.2	78.5	2.3	-90.26	-2,897.0	-1,695.2	3,162.8	3,082.1	80.71	39.190	
9,300.0	6,782.0	6,797.8	6,796.2	79.8	2.3	-90.26	-2,897.0	-1,695.2	3,181.5	3,099.5	82.03	38.786	
9,350.4	6,781.8	6,797.7	6,796.1	81.2	2.3	-90.26	-2,897.0	-1,695.2	3,201.8	3,118.4	83.42	38.384	
9,400.0	6,781.6	6,797.6	6,796.0	82.6	2.3	-90.26	-2,897.0	-1,695.2	3,222.4	3,137.7	84.78	38.008	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,448.8	6,781.4	6,797.5	6,795.9	83.9	2.3	-90.25	-2,897.0	-1,695.2	3,243.3	3,157.2	86.13	37.656	
9,500.0	6,781.2	6,797.4	6,795.8	85.4	2.3	-90.25	-2,897.0	-1,695.2	3,265.9	3,178.4	87.54	37.306	
9,547.2	6,781.0	6,797.3	6,795.7	86.7	2.3	-90.25	-2,897.0	-1,695.2	3,287.3	3,198.4	88.85	36.998	
9,600.0	6,780.8	6,797.3	6,795.6	88.1	2.3	-90.25	-2,897.0	-1,695.2	3,311.8	3,221.5	90.31	36.673	
9,645.6	6,780.7	6,797.2	6,795.5	89.4	2.3	-90.25	-2,897.0	-1,695.2	3,333.6	3,242.0	91.57	36.404	
9,700.0	6,780.5	6,797.1	6,795.4	90.9	2.3	-90.25	-2,897.0	-1,695.2	3,360.1	3,267.0	93.07	36.101	
9,744.1	6,780.3	6,797.0	6,795.4	92.1	2.3	-90.24	-2,897.0	-1,695.2	3,382.1	3,287.8	94.29	35.867	
9,800.0	6,780.1	6,796.9	6,795.3	93.7	2.3	-90.24	-2,897.0	-1,695.2	3,410.6	3,314.7	95.84	35.585	
9,842.5	6,779.9	6,796.8	6,795.2	94.8	2.3	-90.24	-2,897.0	-1,695.2	3,432.7	3,335.7	97.02	35.381	
9,900.0	6,779.7	6,796.7	6,795.1	96.4	2.3	-90.24	-2,897.0	-1,695.2	3,463.2	3,364.6	98.61	35.119	
9,940.9	6,779.5	6,796.6	6,795.0	97.6	2.3	-90.24	-2,897.0	-1,695.2	3,485.4	3,385.6	99.75	34.942	
10,000.0	6,779.3	6,796.5	6,794.9	99.2	2.3	-90.23	-2,897.0	-1,695.2	3,517.9	3,416.6	101.39	34.698	
10,039.3	6,779.1	6,796.4	6,794.8	100.3	2.3	-90.23	-2,897.0	-1,695.2	3,540.0	3,437.5	102.48	34.544	
10,100.0	6,778.9	6,796.3	6,794.7	102.0	2.3	-90.23	-2,897.0	-1,695.2	3,574.6	3,470.5	104.16	34.318	
10,137.8	6,778.7	6,796.2	6,794.6	103.0	2.3	-90.23	-2,897.0	-1,695.2	3,596.5	3,491.3	105.21	34.184	
10,200.0	6,778.5	6,796.1	6,794.5	104.8	2.3	-90.23	-2,897.0	-1,695.2	3,633.2	3,526.2	106.94	33.974	
10,236.2	6,778.3	6,796.0	6,794.4	105.8	2.3	-90.22	-2,897.0	-1,695.2	3,654.8	3,546.9	107.95	33.858	
10,300.0	6,778.1	6,795.9	6,794.3	107.5	2.3	-90.22	-2,897.0	-1,695.2	3,693.5	3,583.8	109.72	33.663	
10,334.6	6,778.0	6,795.8	6,794.2	108.5	2.3	-90.22	-2,897.0	-1,695.2	3,714.8	3,604.1	110.68	33.563	
10,400.0	6,777.7	6,795.7	6,794.1	110.3	2.3	-90.22	-2,897.1	-1,695.2	3,755.5	3,643.0	112.50	33.382	
10,433.0	6,777.6	6,795.6	6,794.0	111.2	2.3	-90.22	-2,897.1	-1,695.2	3,776.4	3,662.9	113.42	33.296	
10,500.0	6,777.3	6,795.5	6,793.9	113.1	2.3	-90.21	-2,897.1	-1,695.2	3,819.1	3,703.8	115.28	33.129	
10,531.5	6,777.2	6,795.4	6,793.8	114.0	2.3	-90.21	-2,897.1	-1,695.2	3,839.5	3,723.3	116.16	33.054	
10,600.0	6,776.9	6,795.3	6,793.7	115.9	2.3	-90.21	-2,897.1	-1,695.2	3,884.3	3,766.2	118.06	32.900	
10,629.9	6,776.8	6,795.2	6,793.6	116.7	2.3	-90.21	-2,897.1	-1,695.2	3,904.1	3,785.2	118.90	32.836	
10,700.0	6,776.5	6,795.1	6,793.5	118.7	2.3	-90.20	-2,897.1	-1,695.2	3,950.9	3,830.1	120.85	32.693	
10,728.3	6,776.4	6,795.0	6,793.4	119.5	2.3	-90.20	-2,897.1	-1,695.2	3,970.0	3,848.4	121.64	32.638	
10,800.0	6,776.1	6,794.9	6,793.2	121.4	2.3	-90.20	-2,897.1	-1,695.2	4,018.9	3,895.3	123.64	32.506	
10,826.7	6,776.0	6,794.8	6,793.2	122.2	2.3	-90.20	-2,897.1	-1,695.2	4,037.3	3,912.9	124.38	32.459	
10,900.0	6,775.7	6,794.7	6,793.0	124.2	2.3	-90.19	-2,897.1	-1,695.2	4,088.2	3,961.8	126.42	32.338	
10,925.2	6,775.6	6,794.6	6,793.0	124.9	2.3	-90.19	-2,897.1	-1,695.2	4,105.9	3,978.8	127.12	32.298	
11,000.0	6,775.3	6,794.4	6,792.8	127.0	2.3	-90.19	-2,897.1	-1,695.2	4,158.8	4,029.6	129.21	32.186	
11,023.6	6,775.2	6,794.4	6,792.8	127.7	2.3	-90.19	-2,897.1	-1,695.2	4,175.6	4,045.8	129.87	32.153	
11,100.0	6,774.9	6,794.2	6,792.6	129.8	2.3	-90.18	-2,897.1	-1,695.2	4,230.5	4,098.5	132.00	32.050	
11,122.0	6,774.8	6,794.2	6,792.5	130.4	2.3	-90.18	-2,897.1	-1,695.2	4,246.5	4,113.9	132.61	32.022	
11,200.0	6,774.5	6,794.0	6,792.4	132.6	2.3	-90.18	-2,897.1	-1,695.2	4,303.4	4,168.6	134.79	31.927	
11,220.4	6,774.4	6,793.9	6,792.3	133.2	2.3	-90.18	-2,897.1	-1,695.2	4,318.5	4,183.1	135.36	31.904	
11,300.0	6,774.1	6,793.7	6,792.1	135.4	2.3	-90.18	-2,897.1	-1,695.2	4,377.4	4,239.8	137.58	31.817	
11,318.9	6,774.0	6,793.7	6,792.1	135.9	2.3	-90.17	-2,897.1	-1,695.2	4,391.5	4,253.3	138.11	31.797	
11,400.0	6,773.7	6,793.5	6,791.9	138.2	2.3	-90.17	-2,897.1	-1,695.2	4,452.3	4,312.0	140.37	31.718	
11,417.3	6,773.6	6,793.5	6,791.8	138.7	2.3	-90.17	-2,897.1	-1,695.2	4,465.4	4,324.6	140.85	31.702	
11,500.0	6,773.3	6,793.3	6,791.6	141.0	2.3	-90.17	-2,897.1	-1,695.2	4,528.3	4,385.1	143.16	31.630	
11,515.7	6,773.2	6,793.2	6,791.6	141.4	2.3	-90.16	-2,897.1	-1,695.2	4,540.3	4,396.7	143.60	31.617	
11,600.0	6,772.9	6,793.0	6,791.4	143.8	2.3	-90.16	-2,897.1	-1,695.2	4,605.1	4,459.2	145.96	31.551	
11,614.1	6,772.8	6,793.0	6,791.4	144.2	2.3	-90.16	-2,897.1	-1,695.2	4,616.1	4,469.7	146.35	31.541	
11,700.0	6,772.5	6,792.8	6,791.2	146.6	2.3	-90.15	-2,897.1	-1,695.2	4,682.9	4,534.1	148.75	31.481	
11,712.6	6,772.4	6,792.7	6,791.1	146.9	2.3	-90.15	-2,897.1	-1,695.2	4,692.7	4,543.6	149.10	31.473	
11,800.0	6,772.1	6,792.5	6,790.9	149.4	2.3	-90.15	-2,897.1	-1,695.2	4,761.4	4,609.9	151.55	31.419	
11,811.0	6,772.1	6,792.5	6,790.9	149.7	2.3	-90.15	-2,897.1	-1,695.2	4,770.1	4,618.3	151.85	31.413	
11,900.0	6,771.7	6,792.3	6,790.7	152.2	2.3	-90.14	-2,897.1	-1,695.2	4,840.8	4,686.4	154.34	31.364	
11,909.4	6,771.7	6,792.2	6,790.6	152.4	2.3	-90.14	-2,897.1	-1,695.2	4,848.3	4,693.7	154.60	31.360	
12,000.0	6,771.3	6,792.0	6,790.4	154.9	2.3	-90.14	-2,897.1	-1,695.2	4,920.9	4,763.8	157.14	31.316	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HETTINGER #44-18 - 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	6,771.3	6,792.0	6,790.4	155.2	2.3	-90.14	-2,897.1	-1,695.2	4,927.2	4,769.9	157.36	31.313	
12,100.0	6,770.9	6,791.8	6,790.1	157.7	2.3	-90.13	-2,897.1	-1,695.2	5,001.7	4,841.8	159.93	31.274	
12,106.3	6,770.9	6,791.7	6,790.1	157.9	2.3	-90.13	-2,897.1	-1,695.2	5,006.8	4,846.7	160.11	31.272	
12,200.0	6,770.5	6,791.5	6,789.9	160.5	2.3	-90.13	-2,897.1	-1,695.2	5,083.2	4,920.5	162.73	31.237	
12,204.7	6,770.5	6,791.5	6,789.8	160.7	2.3	-90.13	-2,897.1	-1,695.2	5,087.1	4,924.2	162.86	31.236	
12,300.0	6,770.1	6,791.2	6,789.6	163.3	2.3	-90.12	-2,897.1	-1,695.2	5,165.4	4,999.8	165.53	31.206	
12,303.1	6,770.1	6,791.2	6,789.6	163.4	2.3	-90.12	-2,897.1	-1,695.2	5,168.0	5,002.3	165.61	31.205	
12,316.4	6,770.0	6,791.2	6,789.5	163.8	2.3	-90.12	-2,897.1	-1,695.2	5,178.9	5,012.9	165.98	31.201 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	98.02	-324.5	2,302.8	2,325.5				
98.4	98.4	91.4	91.4	0.1	1.2	98.02	-324.5	2,302.8	2,325.5	2,324.2	1.28	1,821.540	
100.0	100.0	93.0	93.0	0.1	1.2	98.02	-324.5	2,302.8	2,325.5	2,324.2	1.30	1,790.531	
196.8	196.8	189.8	189.8	0.3	3.3	98.02	-324.5	2,302.8	2,325.5	2,321.9	3.65	637.821	
200.0	200.0	193.0	193.0	0.3	3.4	98.02	-324.5	2,302.8	2,325.5	2,321.8	3.72	624.366	
295.3	295.3	288.3	288.3	0.5	5.4	98.02	-324.5	2,302.8	2,325.5	2,319.6	5.93	392.120	
300.0	300.0	293.0	293.0	0.5	5.5	98.02	-324.5	2,302.8	2,325.5	2,319.5	6.04	385.060	
393.7	393.7	386.7	386.7	0.8	7.4	98.02	-324.5	2,302.8	2,325.5	2,317.4	8.17	284.800	
400.0	400.0	393.0	393.0	0.8	7.5	98.02	-324.5	2,302.8	2,325.5	2,317.2	8.31	279.905	
492.1	492.1	485.1	485.1	1.0	9.4	98.02	-324.5	2,302.8	2,325.5	2,315.1	10.39	223.925	
500.0	500.0	493.0	493.0	1.0	9.6	98.02	-324.5	2,302.8	2,325.5	2,315.0	10.56	220.162	
590.5	590.5	583.5	583.5	1.2	11.4	98.02	-324.5	2,302.8	2,325.5	2,312.9	12.60	184.591	
600.0	600.0	593.0	593.0	1.2	11.6	98.02	-324.5	2,302.8	2,325.5	2,312.7	12.81	181.531	
689.0	689.0	682.0	682.0	1.4	13.4	98.02	-324.5	2,302.8	2,325.5	2,310.7	14.81	157.051	
700.0	700.0	693.0	693.0	1.4	13.6	98.02	-324.5	2,302.8	2,325.5	2,310.5	15.05	154.470	
787.4	787.4	780.4	780.4	1.6	15.4	98.02	-324.5	2,302.8	2,325.5	2,308.5	17.01	136.679	
800.0	800.0	793.0	793.0	1.7	15.6	98.02	-324.5	2,302.8	2,325.5	2,308.2	17.30	134.447	
885.8	885.8	878.8	878.8	1.9	17.4	98.02	-324.5	2,302.8	2,325.5	2,306.3	19.22	120.996	
900.0	900.0	893.0	893.0	1.9	17.6	98.02	-324.5	2,302.8	2,325.5	2,306.0	19.54	119.029	
984.2	984.2	977.2	977.2	2.1	19.3	98.02	-324.5	2,302.8	2,325.5	2,304.1	21.42	108.546	
1,000.0	1,000.0	993.0	993.0	2.1	19.7	98.02	-324.5	2,302.8	2,325.5	2,303.7	21.78	106.788	
1,082.7	1,082.7	1,075.7	1,075.7	2.3	21.3	98.02	-324.5	2,302.8	2,325.5	2,301.9	23.63	98.422	
1,100.0	1,100.0	1,093.0	1,093.0	2.3	21.7	98.02	-324.5	2,302.8	2,325.5	2,301.5	24.02	96.833	
1,181.1	1,181.1	1,174.1	1,174.1	2.5	23.3	98.02	-324.5	2,302.8	2,325.5	2,299.7	25.83	90.028	
1,200.0	1,200.0	1,193.0	1,193.0	2.6	23.7	98.02	-324.5	2,302.8	2,325.5	2,299.3	26.25	88.577	
1,279.5	1,279.5	1,272.5	1,272.5	2.7	25.3	98.02	-324.5	2,302.8	2,325.5	2,297.5	28.03	82.954	
1,300.0	1,300.0	1,293.0	1,293.0	2.8	25.7	98.02	-324.5	2,302.8	2,325.5	2,297.0	28.49	81.620	
1,377.9	1,377.9	1,370.9	1,370.9	3.0	27.3	98.02	-324.5	2,302.8	2,325.5	2,295.3	30.24	76.912	
1,400.0	1,400.0	1,393.0	1,393.0	3.0	27.7	98.02	-324.5	2,302.8	2,325.5	2,294.8	30.73	75.677	
1,476.4	1,476.4	1,469.4	1,469.4	3.2	29.2	98.02	-324.5	2,302.8	2,325.5	2,293.1	32.44	71.690	
1,500.0	1,500.0	1,493.0	1,493.0	3.2	29.7	98.02	-324.5	2,302.8	2,325.5	2,292.6	32.97	70.541 CC	
1,574.8	1,574.8	1,567.8	1,567.8	3.4	31.2	178.72	-324.5	2,302.8	2,326.5	2,291.9	34.62	67.201 ES	
1,600.0	1,600.0	1,593.0	1,593.0	3.5	31.7	178.72	-324.5	2,302.8	2,327.3	2,292.1	35.17	66.170	
1,673.2	1,673.1	1,666.1	1,666.1	3.6	33.2	178.72	-324.5	2,302.8	2,330.8	2,294.0	36.75	63.427	
1,700.0	1,699.8	1,692.8	1,692.8	3.7	33.7	178.72	-324.5	2,302.8	2,332.5	2,295.2	37.32	62.507	
1,771.6	1,771.2	1,764.2	1,764.2	3.8	35.2	178.72	-324.5	2,302.8	2,338.4	2,299.6	38.82	60.239	
1,800.0	1,799.5	1,792.5	1,792.5	3.9	35.7	178.72	-324.5	2,302.8	2,341.2	2,301.8	39.40	59.417	
1,870.1	1,869.0	1,862.0	1,862.0	4.0	37.1	178.72	-324.5	2,302.8	2,349.4	2,308.6	40.83	57.544	
1,900.0	1,898.7	1,891.7	1,891.7	4.1	37.7	178.72	-324.5	2,302.8	2,353.4	2,312.0	41.42	56.811	
1,968.5	1,966.4	1,959.4	1,959.4	4.3	39.1	178.72	-324.5	2,302.8	2,363.7	2,321.0	42.77	55.269	
2,000.0	1,997.5	1,990.5	1,990.5	4.4	39.7	178.72	-324.5	2,302.8	2,369.0	2,325.7	43.37	54.622	
2,066.9	2,063.2	2,056.2	2,056.2	4.6	41.1	178.72	-324.5	2,302.8	2,381.4	2,336.8	44.63	53.360	
2,100.1	2,095.7	2,088.7	2,088.7	4.7	41.7	178.73	-324.5	2,302.8	2,388.1	2,342.9	45.24	52.792	
2,165.3	2,159.5	2,152.5	2,152.5	4.9	43.0	178.73	-324.5	2,302.8	2,401.7	2,355.1	46.64	51.496	
2,200.0	2,193.4	2,186.4	2,186.4	5.0	43.7	178.74	-324.5	2,302.8	2,408.9	2,361.5	47.38	50.839	
2,224.2	2,217.1	2,210.1	2,210.1	5.1	44.2	178.74	-324.5	2,302.8	2,413.9	2,366.0	47.90	50.392	
2,263.8	2,255.9	2,248.9	2,248.9	5.2	44.9	178.75	-324.5	2,302.8	2,421.9	2,373.0	48.89	49.539	
2,300.0	2,291.5	2,284.5	2,284.5	5.3	45.6	178.75	-324.5	2,302.8	2,428.7	2,378.9	49.78	48.786	
2,362.2	2,352.7	2,345.7	2,345.7	5.5	46.9	178.76	-324.5	2,302.8	2,439.4	2,388.1	51.31	47.544	
2,400.0	2,390.1	2,383.1	2,383.1	5.6	47.6	178.77	-324.5	2,302.8	2,445.2	2,393.0	52.23	46.815	
2,460.6	2,450.1	2,443.1	2,443.1	5.7	48.8	178.78	-324.5	2,302.8	2,453.5	2,399.8	53.70	45.689	
2,500.0	2,489.2	2,482.2	2,482.2	5.8	49.6	178.78	-324.5	2,302.8	2,458.2	2,403.6	54.65	44.984	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,541.0	2,541.0	6.0	50.8	178.79	-324.5	2,302.8	2,464.3	2,408.2	56.05	43.963	
2,600.0	2,588.8	2,581.8	2,581.8	6.1	51.6	178.79	-324.5	2,302.8	2,467.8	2,410.7	57.02	43.280	
2,657.5	2,646.1	2,639.1	2,639.1	6.2	52.8	178.79	-324.5	2,302.8	2,471.7	2,413.3	58.36	42.353	
2,700.0	2,688.6	2,681.6	2,681.6	6.3	53.6	178.80	-324.5	2,302.8	2,473.8	2,414.5	59.34	41.691	
2,755.9	2,744.4	2,737.4	2,737.4	6.4	54.8	178.80	-324.5	2,302.8	2,475.7	2,415.1	60.60	40.850	
2,800.0	2,788.5	2,781.5	2,781.5	6.5	55.6	178.80	-324.5	2,302.8	2,476.4	2,414.8	61.59	40.209	
2,824.3	2,812.8	2,805.8	2,805.8	6.5	56.1	98.10	-324.5	2,302.8	2,476.5	2,413.9	62.65	39.528	
2,854.3	2,842.9	2,835.9	2,835.9	6.6	56.7	98.10	-324.5	2,302.8	2,476.5	2,413.2	63.31	39.116	
2,900.0	2,888.5	2,881.5	2,881.5	6.7	57.7	98.10	-324.5	2,302.8	2,476.5	2,412.2	64.32	38.505	
2,952.7	2,941.3	2,934.3	2,934.3	6.8	58.7	98.10	-324.5	2,302.8	2,476.5	2,411.1	65.48	37.818	
3,000.0	2,988.5	2,981.5	2,981.5	6.9	59.7	98.10	-324.5	2,302.8	2,476.5	2,410.0	66.53	37.224	
3,051.2	3,039.7	3,032.7	3,032.7	7.0	60.7	98.10	-324.5	2,302.8	2,476.5	2,408.9	67.67	36.600	
3,100.0	3,088.5	3,081.5	3,081.5	7.1	61.7	98.10	-324.5	2,302.8	2,476.5	2,407.8	68.75	36.024	
3,149.6	3,138.1	3,131.1	3,131.1	7.2	62.7	98.10	-324.5	2,302.8	2,476.5	2,406.7	69.85	35.457	
3,200.0	3,188.5	3,181.5	3,181.5	7.3	63.7	98.10	-324.5	2,302.8	2,476.5	2,405.6	70.96	34.899	
3,248.0	3,236.6	3,229.6	3,229.6	7.4	64.7	98.10	-324.5	2,302.8	2,476.5	2,404.5	72.03	34.382	
3,300.0	3,288.5	3,281.5	3,281.5	7.5	65.7	98.10	-324.5	2,302.8	2,476.5	2,403.4	73.18	33.841	
3,346.4	3,335.0	3,328.0	3,328.0	7.6	66.6	98.10	-324.5	2,302.8	2,476.5	2,402.3	74.21	33.371	
3,400.0	3,388.5	3,381.5	3,381.5	7.7	67.7	98.10	-324.5	2,302.8	2,476.5	2,401.1	75.40	32.845	
3,444.9	3,433.4	3,426.4	3,426.4	7.8	68.6	98.10	-324.5	2,302.8	2,476.5	2,400.1	76.40	32.417	
3,500.0	3,488.5	3,481.5	3,481.5	7.9	69.7	98.10	-324.5	2,302.8	2,476.5	2,398.9	77.62	31.906	
3,543.3	3,531.8	3,524.8	3,524.8	8.0	70.6	98.10	-324.5	2,302.8	2,476.5	2,398.0	78.58	31.515	
3,600.0	3,588.5	3,581.5	3,581.5	8.1	71.7	98.10	-324.5	2,302.8	2,476.5	2,396.7	79.84	31.018	
3,641.7	3,630.3	3,623.3	3,623.3	8.2	72.6	98.10	-324.5	2,302.8	2,476.5	2,395.8	80.77	30.662	
3,700.0	3,688.5	3,681.5	3,681.5	8.3	73.7	98.10	-324.5	2,302.8	2,476.5	2,394.5	82.06	30.178	
3,740.1	3,728.7	3,721.7	3,721.7	8.4	74.6	98.10	-324.5	2,302.8	2,476.5	2,393.6	82.96	29.854	
3,800.0	3,788.5	3,781.5	3,781.5	8.5	75.8	98.10	-324.5	2,302.8	2,476.5	2,392.3	84.29	29.383	
3,838.6	3,827.1	3,820.1	3,820.1	8.6	76.5	98.10	-324.5	2,302.8	2,476.5	2,391.4	85.14	29.087	
3,900.0	3,888.5	3,881.5	3,881.5	8.7	77.8	98.10	-324.5	2,302.8	2,476.5	2,390.0	86.51	28.628	
3,937.0	3,925.5	3,918.5	3,918.5	8.8	78.5	98.10	-324.5	2,302.8	2,476.5	2,389.2	87.33	28.358	
4,000.0	3,988.5	3,981.5	3,981.5	9.0	79.8	98.10	-324.5	2,302.8	2,476.5	2,387.8	88.73	27.910	
4,035.4	4,024.0	4,017.0	4,017.0	9.0	80.5	98.10	-324.5	2,302.8	2,476.5	2,387.0	89.52	27.665	
4,100.0	4,088.5	4,081.5	4,081.5	9.2	81.8	98.10	-324.5	2,302.8	2,476.5	2,385.6	90.96	27.228	
4,133.8	4,122.4	4,115.4	4,115.4	9.2	82.5	98.10	-324.5	2,302.8	2,476.5	2,384.8	91.71	27.004	
4,200.0	4,188.5	4,181.5	4,181.5	9.4	83.8	98.10	-324.5	2,302.8	2,476.5	2,383.4	93.18	26.578	
4,232.3	4,220.8	4,213.8	4,213.8	9.4	84.5	98.10	-324.5	2,302.8	2,476.5	2,382.6	93.90	26.374	
4,300.0	4,288.5	4,281.5	4,281.5	9.6	85.8	98.10	-324.5	2,302.8	2,476.5	2,381.1	95.41	25.958	
4,330.7	4,319.2	4,312.2	4,312.2	9.7	86.4	98.10	-324.5	2,302.8	2,476.5	2,380.4	96.09	25.773	
4,400.0	4,388.5	4,381.5	4,381.5	9.8	87.8	98.10	-324.5	2,302.8	2,476.5	2,378.9	97.63	25.366	
4,429.1	4,417.7	4,410.7	4,410.7	9.9	88.4	98.10	-324.5	2,302.8	2,476.5	2,378.3	98.28	25.199	
4,500.0	4,488.5	4,481.5	4,481.5	10.0	89.8	98.10	-324.5	2,302.8	2,476.5	2,376.7	99.86	24.801	
4,527.5	4,516.1	4,509.1	4,509.1	10.1	90.4	98.10	-324.5	2,302.8	2,476.5	2,376.1	100.47	24.649	
4,600.0	4,588.5	4,581.5	4,581.5	10.2	91.8	98.10	-324.5	2,302.8	2,476.5	2,374.5	102.08	24.260	
4,626.0	4,614.5	4,607.5	4,607.5	10.3	92.4	98.10	-324.5	2,302.8	2,476.5	2,373.9	102.66	24.123	
4,700.0	4,688.5	4,681.5	4,681.5	10.5	93.9	98.10	-324.5	2,302.8	2,476.5	2,372.2	104.31	23.742	
4,724.4	4,712.9	4,705.9	4,705.9	10.5	94.3	98.10	-324.5	2,302.8	2,476.5	2,371.7	104.85	23.619	
4,800.0	4,788.5	4,781.5	4,781.5	10.7	95.9	98.10	-324.5	2,302.8	2,476.5	2,370.0	106.54	23.245	
4,822.8	4,811.4	4,804.4	4,804.4	10.7	96.3	98.10	-324.5	2,302.8	2,476.5	2,369.5	107.05	23.135	
4,900.0	4,888.5	4,881.5	4,881.5	10.9	97.9	98.10	-324.5	2,302.8	2,476.5	2,367.8	108.77	22.769	
4,921.2	4,909.8	4,902.8	4,902.8	10.9	98.3	98.10	-324.5	2,302.8	2,476.5	2,367.3	109.24	22.671	
5,000.0	4,988.5	4,981.5	4,981.5	11.1	99.9	98.10	-324.5	2,302.8	2,476.5	2,365.5	110.99	22.312	
5,019.7	5,008.2	5,001.2	5,001.2	11.1	100.3	98.10	-324.5	2,302.8	2,476.5	2,365.1	111.43	22.225	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,081.5	5,081.5	11.3	101.9	98.10	-324.5	2,302.8	2,476.5	2,363.3	113.22	21.873	
5,118.1	5,106.6	5,099.6	5,099.6	11.4	102.3	98.10	-324.5	2,302.8	2,476.5	2,362.9	113.63	21.796	
5,200.0	5,188.5	5,181.5	5,181.5	11.5	103.9	98.10	-324.5	2,302.8	2,476.5	2,361.1	115.45	21.451	
5,216.5	5,205.1	5,198.1	5,198.1	11.6	104.2	98.10	-324.5	2,302.8	2,476.5	2,360.7	115.82	21.383	
5,300.0	5,288.5	5,281.5	5,281.5	11.8	105.9	98.10	-324.5	2,302.8	2,476.5	2,358.9	117.68	21.045	
5,314.9	5,303.5	5,296.5	5,296.5	11.8	106.2	98.10	-324.5	2,302.8	2,476.5	2,358.5	118.01	20.985	
5,400.0	5,388.5	5,381.5	5,381.5	12.0	107.9	98.10	-324.5	2,302.8	2,476.5	2,356.6	119.91	20.654	
5,413.4	5,401.9	5,394.9	5,394.9	12.0	108.2	98.10	-324.5	2,302.8	2,476.5	2,356.3	120.21	20.602	
5,500.0	5,488.5	5,481.5	5,481.5	12.2	109.9	98.10	-324.5	2,302.8	2,476.5	2,354.4	122.14	20.277	
5,511.8	5,500.3	5,493.3	5,493.3	12.2	110.2	98.10	-324.5	2,302.8	2,476.5	2,354.1	122.40	20.233	
5,600.0	5,588.5	5,581.5	5,581.5	12.4	112.0	98.10	-324.5	2,302.8	2,476.5	2,352.2	124.37	19.913	
5,610.2	5,598.8	5,591.8	5,591.8	12.4	112.2	98.10	-324.5	2,302.8	2,476.5	2,351.9	124.60	19.877	
5,700.0	5,688.5	5,681.5	5,681.5	12.6	114.0	98.10	-324.5	2,302.8	2,476.5	2,349.9	126.60	19.562	
5,708.6	5,697.2	5,690.2	5,690.2	12.6	114.1	98.10	-324.5	2,302.8	2,476.5	2,349.7	126.79	19.533	
5,800.0	5,788.5	5,781.5	5,781.5	12.8	116.0	98.10	-324.5	2,302.8	2,476.5	2,347.7	128.83	19.224	
5,807.1	5,795.6	5,788.6	5,788.6	12.9	116.1	98.10	-324.5	2,302.8	2,476.5	2,347.6	128.99	19.200	
5,900.0	5,888.5	5,881.5	5,881.5	13.1	118.0	98.10	-324.5	2,302.8	2,476.5	2,345.5	131.06	18.897	
5,905.5	5,894.0	5,887.0	5,887.0	13.1	118.1	98.10	-324.5	2,302.8	2,476.5	2,345.4	131.18	18.879	
6,000.0	5,988.5	5,981.5	5,981.5	13.3	120.0	98.10	-324.5	2,302.8	2,476.5	2,343.2	133.29	18.580	
6,003.9	5,992.5	5,985.5	5,985.5	13.3	120.1	98.10	-324.5	2,302.8	2,476.5	2,343.2	133.38	18.568	
6,085.3	6,073.8	6,066.8	6,066.8	13.5	121.7	98.10	-324.5	2,302.8	2,476.5	2,341.3	135.19	18.319	
6,100.0	6,088.5	6,081.5	6,081.5	13.5	122.0	-171.90	-324.5	2,302.8	2,476.7	2,341.5	135.22	18.316	
6,102.3	6,090.9	6,083.9	6,083.9	13.5	122.1	-171.90	-324.5	2,302.8	2,476.7	2,341.5	135.26	18.311	
6,150.0	6,138.4	6,131.4	6,131.4	13.6	123.0	-171.88	-324.5	2,302.8	2,479.4	2,343.6	135.84	18.253 SF	
6,200.0	6,188.0	6,181.0	6,181.0	13.7	124.0	-171.83	-324.5	2,302.8	2,485.6	2,349.8	135.81	18.303	
6,200.8	6,188.8	6,181.8	6,181.8	13.7	124.0	-171.83	-324.5	2,302.8	2,485.7	2,349.9	135.80	18.304	
6,250.0	6,237.1	6,230.1	6,230.1	13.9	125.0	-171.75	-324.5	2,302.8	2,495.2	2,360.1	135.11	18.468	
6,299.2	6,284.6	6,277.6	6,277.6	14.0	126.0	-171.64	-324.5	2,302.8	2,507.9	2,374.2	133.77	18.748	
6,300.0	6,285.3	6,278.3	6,278.3	14.0	126.0	-171.64	-324.5	2,302.8	2,508.2	2,374.4	133.75	18.753	
6,350.0	6,332.5	6,325.5	6,325.5	14.2	126.9	-171.49	-324.5	2,302.8	2,524.4	2,392.7	131.71	19.166	
6,397.6	6,376.3	6,369.3	6,369.3	14.4	127.8	-171.31	-324.5	2,302.8	2,542.9	2,413.8	129.16	19.689	
6,400.0	6,378.5	6,371.5	6,371.5	14.4	127.8	-171.30	-324.5	2,302.8	2,543.9	2,414.9	129.01	19.718	
6,450.0	6,423.0	6,416.0	6,416.0	14.7	128.7	-171.07	-324.5	2,302.8	2,566.5	2,440.9	125.66	20.424	
6,496.0	6,462.4	6,455.4	6,455.4	14.9	129.5	-170.81	-324.5	2,302.8	2,590.1	2,468.0	122.02	21.226	
6,500.0	6,465.7	6,458.7	6,458.7	14.9	129.6	-170.78	-324.5	2,302.8	2,592.2	2,470.5	121.69	21.302	
6,550.0	6,506.6	6,499.6	6,499.6	15.2	130.4	-170.43	-324.5	2,302.8	2,620.7	2,503.6	117.11	22.378	
6,594.5	6,541.2	6,534.2	6,534.2	15.6	131.1	-170.05	-324.5	2,302.8	2,648.4	2,535.9	112.58	23.525	
6,600.0	6,545.3	6,538.3	6,538.3	15.6	131.2	-170.00	-324.5	2,302.8	2,652.0	2,540.0	111.99	23.681	
6,650.0	6,581.8	6,574.8	6,574.8	16.0	131.9	-169.47	-324.5	2,302.8	2,685.9	2,579.6	106.39	25.247	
6,692.9	6,611.1	6,604.1	6,604.1	16.4	132.5	-168.92	-324.5	2,302.8	2,717.0	2,615.7	101.27	26.829	
6,700.0	6,615.8	6,608.8	6,608.8	16.5	132.6	-168.82	-324.5	2,302.8	2,722.3	2,621.9	100.40	27.114	
6,750.0	6,647.1	6,640.1	6,640.1	17.1	133.2	-168.00	-324.5	2,302.8	2,760.9	2,666.8	94.18	29.316	
6,791.3	6,670.9	6,663.9	6,663.9	17.6	133.7	-167.16	-324.5	2,302.8	2,794.4	2,705.4	89.00	31.398	
6,800.0	6,675.7	6,668.7	6,668.7	17.7	133.8	-166.96	-324.5	2,302.8	2,801.6	2,713.7	87.93	31.863	
6,850.0	6,701.3	6,694.3	6,694.3	18.4	134.3	-165.62	-324.5	2,302.8	2,844.2	2,762.2	82.01	34.684	
6,889.7	6,719.5	6,712.5	6,712.5	19.0	134.7	-164.25	-324.5	2,302.8	2,879.3	2,801.4	77.91	36.957	
6,900.0	6,723.8	6,716.8	6,716.8	19.1	134.8	-163.84	-324.5	2,302.8	2,888.5	2,811.5	77.00	37.514	
6,950.0	6,743.2	6,736.2	6,736.2	20.0	135.2	-161.38	-324.5	2,302.8	2,934.3	2,860.4	73.92	39.697	
6,988.2	6,755.8	6,748.8	6,748.8	20.6	135.4	-158.81	-324.5	2,302.8	2,970.0	2,896.2	73.88	40.198	
7,000.0	6,759.4	6,752.4	6,752.4	20.9	135.5	-157.84	-324.5	2,302.8	2,981.3	2,906.8	74.46	40.036	
7,050.0	6,772.1	6,765.1	6,765.1	21.8	135.8	-152.42	-324.5	2,302.8	3,029.3	2,947.9	81.32	37.251	
7,086.6	6,779.4	6,772.4	6,772.4	22.5	135.9	-146.30	-324.5	2,302.8	3,064.9	2,972.4	92.52	33.128	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,100.0	6,781.5	6,774.5	6,774.5	22.8	135.9	-143.36	-324.5	2,302.8	3,078.0	2,979.7	98.32	31.307	
7,150.0	6,787.5	6,780.5	6,780.5	23.9	136.1	-126.83	-324.5	2,302.8	3,127.4	2,998.3	129.01	24.241	
7,185.0	6,789.6	6,782.6	6,782.6	24.6	136.1	-107.62	-324.5	2,302.8	3,162.1	3,008.7	153.37	20.617	
7,200.0	6,789.9	6,782.9	6,782.9	24.9	136.1	-97.40	-324.5	2,302.8	3,177.0	3,017.2	159.74	19.888	
7,213.0	6,790.0	6,783.0	6,783.0	25.2	136.1	-88.04	-324.5	2,302.8	3,189.9	3,028.6	161.23	19.785	
7,283.4	6,789.7	6,782.7	6,782.7	26.8	136.1	-88.00	-324.5	2,302.8	3,259.9	3,097.1	162.79	20.025	
7,300.0	6,789.7	6,782.7	6,782.7	27.2	136.1	-87.98	-324.5	2,302.8	3,276.4	3,113.2	163.16	20.081	
7,381.9	6,789.4	6,782.4	6,782.4	29.1	136.1	-87.93	-324.5	2,302.8	3,357.8	3,192.8	165.05	20.344	
7,400.0	6,789.3	6,782.3	6,782.3	29.5	136.1	-87.92	-324.5	2,302.8	3,375.8	3,210.4	165.47	20.401	
7,480.3	6,789.0	6,782.0	6,782.0	31.4	136.1	-87.87	-324.5	2,302.8	3,455.7	3,288.3	167.39	20.645	
7,500.0	6,788.9	6,781.9	6,781.9	31.9	136.1	-87.85	-324.5	2,302.8	3,475.3	3,307.5	167.86	20.704	
7,578.7	6,788.6	6,781.6	6,781.6	33.8	136.1	-87.81	-324.5	2,302.8	3,553.7	3,383.9	169.79	20.930	
7,600.0	6,788.5	6,781.5	6,781.5	34.4	136.1	-87.79	-324.5	2,302.8	3,574.8	3,404.5	170.31	20.990	
7,677.1	6,788.2	6,781.2	6,781.2	36.3	136.1	-87.74	-324.5	2,302.8	3,651.6	3,479.4	172.24	21.201	
7,700.0	6,788.2	6,781.2	6,781.2	36.9	136.1	-87.72	-324.5	2,302.8	3,674.4	3,501.6	172.81	21.263	
7,775.6	6,787.9	6,780.9	6,780.9	38.8	136.1	-87.68	-324.5	2,302.8	3,749.6	3,574.9	174.73	21.460	
7,800.0	6,787.8	6,780.8	6,780.8	39.4	136.1	-87.66	-324.5	2,302.8	3,773.9	3,598.6	175.35	21.523	
7,874.0	6,787.5	6,780.5	6,780.5	41.3	136.1	-87.61	-324.5	2,302.8	3,847.6	3,670.4	177.25	21.707	
7,900.0	6,787.4	6,780.4	6,780.4	42.0	136.1	-87.59	-324.5	2,302.8	3,873.5	3,695.6	177.92	21.772	
7,972.4	6,787.1	6,780.1	6,780.1	43.9	136.1	-87.55	-324.5	2,302.8	3,945.6	3,765.8	179.80	21.945	
8,000.0	6,787.0	6,780.0	6,780.0	44.6	136.1	-87.52	-324.5	2,302.8	3,973.1	3,792.6	180.51	22.010	
8,070.8	6,786.7	6,779.7	6,779.7	46.5	136.1	-87.48	-324.5	2,302.8	4,043.7	3,861.3	182.37	22.173	
8,100.0	6,786.6	6,779.6	6,779.6	47.3	136.1	-87.46	-324.5	2,302.8	4,072.7	3,889.6	183.13	22.239	
8,169.3	6,786.4	6,779.4	6,779.4	49.1	136.0	-87.41	-324.5	2,302.8	4,141.7	3,956.8	184.96	22.393	
8,200.0	6,786.3	6,779.3	6,779.3	49.9	136.0	-87.39	-324.5	2,302.8	4,172.4	3,986.6	185.77	22.460	
8,267.7	6,786.0	6,779.0	6,779.0	51.7	136.0	-87.35	-324.5	2,302.8	4,239.8	4,052.3	187.56	22.605	
8,300.0	6,785.9	6,778.9	6,778.9	52.6	136.0	-87.32	-324.5	2,302.8	4,272.0	4,083.6	188.42	22.673	
8,366.1	6,785.6	6,778.6	6,778.6	54.4	136.0	-87.28	-324.5	2,302.8	4,337.9	4,147.7	190.18	22.809	
8,400.0	6,785.5	6,778.5	6,778.5	55.3	136.0	-87.26	-324.5	2,302.8	4,371.7	4,180.6	191.08	22.878	
8,464.5	6,785.2	6,778.2	6,778.2	57.0	136.0	-87.22	-324.5	2,302.8	4,436.0	4,243.2	192.81	23.007	
8,500.0	6,785.1	6,778.1	6,778.1	58.0	136.0	-87.19	-324.5	2,302.8	4,471.4	4,277.6	193.76	23.077	
8,563.0	6,784.9	6,777.9	6,777.9	59.7	136.0	-87.15	-324.5	2,302.8	4,534.2	4,338.7	195.45	23.198	
8,600.0	6,784.7	6,777.7	6,777.7	60.7	136.0	-87.12	-324.5	2,302.8	4,571.1	4,374.6	196.45	23.269	
8,661.4	6,784.5	6,777.5	6,777.5	62.4	136.0	-87.08	-324.5	2,302.8	4,632.3	4,434.2	198.10	23.384	
8,700.0	6,784.3	6,777.3	6,777.3	63.4	136.0	-87.05	-324.5	2,302.8	4,670.8	4,471.7	199.14	23.455	
8,759.8	6,784.1	6,777.1	6,777.1	65.0	136.0	-87.02	-324.5	2,302.8	4,730.5	4,529.7	200.76	23.563	
8,800.0	6,784.0	6,777.0	6,777.0	66.1	136.0	-86.99	-324.5	2,302.8	4,770.5	4,568.7	201.84	23.635	
8,858.2	6,783.7	6,776.7	6,776.7	67.7	136.0	-86.95	-324.5	2,302.8	4,828.6	4,625.2	203.42	23.737	
8,900.0	6,783.6	6,776.6	6,776.6	68.9	136.0	-86.92	-324.5	2,302.8	4,870.3	4,665.7	204.55	23.810	
8,956.7	6,783.3	6,776.3	6,776.3	70.4	136.0	-86.88	-324.5	2,302.8	4,926.8	4,720.7	206.09	23.906	
9,000.0	6,783.2	6,776.2	6,776.2	71.6	136.0	-86.85	-324.5	2,302.8	4,970.0	4,762.7	207.26	23.979	
9,055.1	6,783.0	6,776.0	6,776.0	73.1	136.0	-86.82	-324.5	2,302.8	5,025.0	4,816.2	208.76	24.071	
9,100.0	6,782.8	6,775.8	6,775.8	74.3	136.0	-86.78	-324.5	2,302.8	5,069.8	4,859.8	209.98	24.144	
9,153.5	6,782.6	6,775.6	6,775.6	75.8	136.0	-86.75	-324.5	2,302.8	5,123.2	4,911.7	211.44	24.230	
9,200.0	6,782.4	6,775.4	6,775.4	77.1	136.0	-86.71	-324.5	2,302.8	5,169.5	4,956.8	212.70	24.304	
9,251.9	6,782.2	6,775.2	6,775.2	78.5	136.0	-86.68	-324.5	2,302.8	5,221.4	5,007.2	214.12	24.386	
9,300.0	6,782.0	6,775.0	6,775.0	79.8	136.0	-86.64	-324.5	2,302.8	5,269.3	5,053.9	215.43	24.460	
9,350.4	6,781.8	6,774.8	6,774.8	81.2	136.0	-86.61	-324.5	2,302.8	5,319.6	5,102.8	216.80	24.537	
9,400.0	6,781.6	6,774.6	6,774.6	82.6	136.0	-86.58	-324.5	2,302.8	5,369.1	5,150.9	218.15	24.611	
9,448.8	6,781.4	6,774.4	6,774.4	83.9	135.9	-86.54	-324.5	2,302.8	5,417.8	5,198.3	219.49	24.684	
9,500.0	6,781.2	6,774.2	6,774.2	85.4	135.9	-86.51	-324.5	2,302.8	5,468.9	5,248.0	220.89	24.759	
9,547.2	6,781.0	6,774.0	6,774.0	86.7	135.9	-86.48	-324.5	2,302.8	5,516.0	5,293.8	222.18	24.827	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #32-17 - 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	
9,600.0	6,780.8	6,773.8	6,773.8	88.1	135.9	-86.44	-324.5	2,302.8	5,568.7	5,345.1	223.62	24.902	
9,645.6	6,780.7	6,773.7	6,773.7	89.4	135.9	-86.41	-324.5	2,302.8	5,614.2	5,389.4	224.87	24.967	
9,700.0	6,780.5	6,773.5	6,773.5	90.9	135.9	-86.37	-324.5	2,302.8	5,668.5	5,442.1	226.36	25.042	
9,744.1	6,780.3	6,773.3	6,773.3	92.1	135.9	-86.34	-324.5	2,302.8	5,712.5	5,484.9	227.56	25.103	
9,800.0	6,780.1	6,773.1	6,773.1	93.7	135.9	-86.30	-324.5	2,302.8	5,768.3	5,539.2	229.09	25.179	
9,842.5	6,779.9	6,772.9	6,772.9	94.8	135.9	-86.27	-324.5	2,302.8	5,810.7	5,580.5	230.26	25.236	
9,900.0	6,779.7	6,772.7	6,772.7	96.4	135.9	-86.23	-324.5	2,302.8	5,868.1	5,636.3	231.83	25.312	
9,940.9	6,779.5	6,772.5	6,772.5	97.6	135.9	-86.20	-324.5	2,302.8	5,909.0	5,676.0	232.96	25.365	
10,000.0	6,779.3	6,772.3	6,772.3	99.2	135.9	-86.16	-324.5	2,302.8	5,967.9	5,733.4	234.57	25.442	
10,039.3	6,779.1	6,772.1	6,772.1	100.3	135.9	-86.13	-324.5	2,302.8	6,007.2	5,771.6	235.65	25.492	
10,100.0	6,778.9	6,771.9	6,771.9	102.0	135.9	-86.09	-324.5	2,302.8	6,067.8	5,830.5	237.32	25.568	
10,137.8	6,778.7	6,771.7	6,771.7	103.0	135.9	-86.06	-324.5	2,302.8	6,105.5	5,867.1	238.35	25.615	
10,200.0	6,778.5	6,771.5	6,771.5	104.8	135.9	-86.02	-324.5	2,302.8	6,167.6	5,927.6	240.06	25.692	
10,236.2	6,778.3	6,771.3	6,771.3	105.8	135.9	-85.99	-324.5	2,302.8	6,203.8	5,962.7	241.05	25.736	
10,300.0	6,778.1	6,771.1	6,771.1	107.5	135.9	-85.95	-324.5	2,302.8	6,267.5	6,024.7	242.80	25.813	
10,334.6	6,778.0	6,771.0	6,771.0	108.5	135.9	-85.92	-324.5	2,302.8	6,302.0	6,058.3	243.75	25.854	
10,400.0	6,777.7	6,770.7	6,770.7	110.3	135.9	-85.87	-324.5	2,302.8	6,367.3	6,121.8	245.55	25.931	
10,433.0	6,777.6	6,770.6	6,770.6	111.2	135.9	-85.85	-324.5	2,302.8	6,400.3	6,153.8	246.45	25.969	
10,500.0	6,777.3	6,770.3	6,770.3	113.1	135.9	-85.80	-324.5	2,302.8	6,467.2	6,218.9	248.29	26.047	
10,531.5	6,777.2	6,770.2	6,770.2	114.0	135.9	-85.78	-324.5	2,302.8	6,498.6	6,249.4	249.16	26.082	
10,600.0	6,776.9	6,769.9	6,769.9	115.9	135.9	-85.73	-324.5	2,302.8	6,567.0	6,316.0	251.04	26.160	
10,629.9	6,776.8	6,769.8	6,769.8	116.7	135.9	-85.71	-324.5	2,302.8	6,596.9	6,345.0	251.86	26.193	
10,700.0	6,776.5	6,769.5	6,769.5	118.7	135.8	-85.66	-324.5	2,302.8	6,666.9	6,413.1	253.78	26.270	
10,728.3	6,776.4	6,769.4	6,769.4	119.5	135.8	-85.64	-324.5	2,302.8	6,695.2	6,440.6	254.56	26.301	
10,800.0	6,776.1	6,769.1	6,769.1	121.4	135.8	-85.59	-324.5	2,302.8	6,766.7	6,510.2	256.53	26.378	
10,826.7	6,776.0	6,769.0	6,769.0	122.2	135.8	-85.57	-324.5	2,302.8	6,793.4	6,536.2	257.26	26.406	
10,900.0	6,775.7	6,768.7	6,768.7	124.2	135.8	-85.52	-324.5	2,302.8	6,866.6	6,607.3	259.28	26.484	
10,925.2	6,775.6	6,768.6	6,768.6	124.9	135.8	-85.50	-324.5	2,302.8	6,891.7	6,631.8	259.97	26.510	
11,000.0	6,775.3	6,768.3	6,768.3	127.0	135.8	-85.45	-324.5	2,302.8	6,966.5	6,704.5	262.02	26.587	
11,023.6	6,775.2	6,768.2	6,768.2	127.7	135.8	-85.43	-324.5	2,302.8	6,990.0	6,727.4	262.67	26.611	
11,100.0	6,774.9	6,767.9	6,767.9	129.8	135.8	-85.37	-324.5	2,302.8	7,066.3	6,801.6	264.77	26.689	
11,122.0	6,774.8	6,767.8	6,767.8	130.4	135.8	-85.36	-324.5	2,302.8	7,088.3	6,823.0	265.37	26.711	
11,200.0	6,774.5	6,767.5	6,767.5	132.6	135.8	-85.30	-324.5	2,302.8	7,166.2	6,898.7	267.51	26.788	
11,220.4	6,774.4	6,767.4	6,767.4	133.2	135.8	-85.29	-324.5	2,302.8	7,186.7	6,918.6	268.08	26.808	
11,300.0	6,774.1	6,767.1	6,767.1	135.4	135.8	-85.23	-324.5	2,302.8	7,266.1	6,995.9	270.26	26.886	
11,318.9	6,774.0	6,767.0	6,767.0	135.9	135.8	-85.22	-324.5	2,302.8	7,285.0	7,014.2	270.78	26.904	
11,400.0	6,773.7	6,766.7	6,766.7	138.2	135.8	-85.16	-324.5	2,302.8	7,366.0	7,093.0	273.00	26.981	
11,417.3	6,773.6	6,766.6	6,766.6	138.7	135.8	-85.14	-324.5	2,302.8	7,383.3	7,109.8	273.48	26.997	
11,500.0	6,773.3	6,766.3	6,766.3	141.0	135.8	-85.08	-324.5	2,302.8	7,465.9	7,190.1	275.75	27.075	
11,515.7	6,773.2	6,766.2	6,766.2	141.4	135.8	-85.07	-324.5	2,302.8	7,481.6	7,205.4	276.18	27.089	
11,600.0	6,772.9	6,765.9	6,765.9	143.8	135.8	-85.01	-324.5	2,302.8	7,565.8	7,287.3	278.50	27.167	
11,614.1	6,772.8	6,765.8	6,765.8	144.2	135.8	-85.00	-324.5	2,302.8	7,579.9	7,301.0	278.88	27.179	
11,700.0	6,772.5	6,765.5	6,765.5	146.6	135.8	-84.94	-324.5	2,302.8	7,665.7	7,384.4	281.24	27.257	
11,712.6	6,772.4	6,765.4	6,765.4	146.9	135.8	-84.93	-324.5	2,302.8	7,678.2	7,396.6	281.58	27.268	
11,800.0	6,772.1	6,765.1	6,765.1	149.4	135.8	-84.86	-324.5	2,302.8	7,765.6	7,481.6	283.98	27.345	
11,811.0	6,772.1	6,765.1	6,765.1	149.7	135.8	-84.85	-324.5	2,302.8	7,776.6	7,492.3	284.29	27.355	
11,900.0	6,771.7	6,764.7	6,764.7	152.2	135.8	-84.79	-324.5	2,302.8	7,865.5	7,578.7	286.73	27.432	
11,909.4	6,771.7	6,764.7	6,764.7	152.4	135.7	-84.78	-324.5	2,302.8	7,874.9	7,587.9	286.99	27.440	
12,000.0	6,771.3	6,764.3	6,764.3	154.9	135.7	-84.71	-324.5	2,302.8	7,965.4	7,675.9	289.47	27.517	
12,007.8	6,771.3	6,764.3	6,764.3	155.2	135.7	-84.71	-324.5	2,302.8	7,973.2	7,683.5	289.68	27.524	
12,100.0	6,770.9	6,763.9	6,763.9	157.7	135.7	-84.64	-324.5	2,302.8	8,065.3	7,773.1	292.21	27.601	
12,106.3	6,770.9	6,763.9	6,763.9	157.9	135.7	-84.64	-324.5	2,302.8	8,071.5	7,779.2	292.38	27.606	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #32-17 - 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
12,200.0	6,770.5	6,763.5	6,763.5	160.5	135.7	-84.57	-324.5	2,302.8	8,165.2	7,870.2	294.95	27.683	
12,204.7	6,770.5	6,763.5	6,763.5	160.7	135.7	-84.56	-324.5	2,302.8	8,169.9	7,874.8	295.08	27.687	
12,300.0	6,770.1	6,763.1	6,763.1	163.3	135.7	-84.49	-324.5	2,302.8	8,265.1	7,967.4	297.69	27.764	
12,303.1	6,770.1	6,763.1	6,763.1	163.4	135.7	-84.49	-324.5	2,302.8	8,268.2	7,970.4	297.78	27.766	
12,316.4	6,770.0	6,763.0	6,763.0	163.8	135.7	-84.48	-324.5	2,302.8	8,281.4	7,983.3	298.14	27.777	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	94.93	-313.4	3,631.3	3,644.8				
98.4	98.4	91.4	91.4	0.1	1.2	94.93	-313.4	3,631.3	3,644.8	3,643.5	1.28	2,854.901	
100.0	100.0	93.0	93.0	0.1	1.2	94.93	-313.4	3,631.3	3,644.8	3,643.5	1.30	2,806.301	
196.8	196.8	189.8	189.8	0.3	3.3	94.93	-313.4	3,631.3	3,644.8	3,641.2	3.65	999.657	
200.0	200.0	193.0	193.0	0.3	3.4	94.93	-313.4	3,631.3	3,644.8	3,641.1	3.72	978.569	
295.3	295.3	288.3	288.3	0.5	5.4	94.93	-313.4	3,631.3	3,644.8	3,638.9	5.93	614.570	
300.0	300.0	293.0	293.0	0.5	5.5	94.93	-313.4	3,631.3	3,644.8	3,638.8	6.04	603.505	
393.7	393.7	386.7	386.7	0.8	7.4	94.93	-313.4	3,631.3	3,644.8	3,636.6	8.17	446.367	
400.0	400.0	393.0	393.0	0.8	7.5	94.93	-313.4	3,631.3	3,644.8	3,636.5	8.31	438.696	
492.1	492.1	485.1	485.1	1.0	9.4	94.93	-313.4	3,631.3	3,644.8	3,634.4	10.39	350.957	
500.0	500.0	493.0	493.0	1.0	9.6	94.93	-313.4	3,631.3	3,644.8	3,634.2	10.56	345.061	
590.5	590.5	583.5	583.5	1.2	11.4	94.93	-313.4	3,631.3	3,644.8	3,632.2	12.60	289.309	
600.0	600.0	593.0	593.0	1.2	11.6	94.93	-313.4	3,631.3	3,644.8	3,632.0	12.81	284.513	
689.0	689.0	682.0	682.0	1.4	13.4	94.93	-313.4	3,631.3	3,644.8	3,630.0	14.81	246.145	
700.0	700.0	693.0	693.0	1.4	13.6	94.93	-313.4	3,631.3	3,644.8	3,629.7	15.05	242.100	
787.4	787.4	780.4	780.4	1.6	15.4	94.93	-313.4	3,631.3	3,644.8	3,627.8	17.01	214.218	
800.0	800.0	793.0	793.0	1.7	15.6	94.93	-313.4	3,631.3	3,644.8	3,627.5	17.30	210.719	
885.8	885.8	878.8	878.8	1.9	17.4	94.93	-313.4	3,631.3	3,644.8	3,625.6	19.22	189.636	
900.0	900.0	893.0	893.0	1.9	17.6	94.93	-313.4	3,631.3	3,644.8	3,625.3	19.54	186.554	
984.2	984.2	977.2	977.2	2.1	19.3	94.93	-313.4	3,631.3	3,644.8	3,623.4	21.42	170.124	
1,000.0	1,000.0	993.0	993.0	2.1	19.7	94.93	-313.4	3,631.3	3,644.8	3,623.0	21.78	167.368	
1,082.7	1,082.7	1,075.7	1,075.7	2.3	21.3	94.93	-313.4	3,631.3	3,644.8	3,621.2	23.63	154.257	
1,100.0	1,100.0	1,093.0	1,093.0	2.3	21.7	94.93	-313.4	3,631.3	3,644.8	3,620.8	24.02	151.766	
1,181.1	1,181.1	1,174.1	1,174.1	2.5	23.3	94.93	-313.4	3,631.3	3,644.8	3,619.0	25.83	141.100	
1,200.0	1,200.0	1,193.0	1,193.0	2.6	23.7	94.93	-313.4	3,631.3	3,644.8	3,618.5	26.25	138.827	
1,279.5	1,279.5	1,272.5	1,272.5	2.7	25.3	94.93	-313.4	3,631.3	3,644.8	3,616.8	28.03	130.014	
1,300.0	1,300.0	1,293.0	1,293.0	2.8	25.7	94.93	-313.4	3,631.3	3,644.8	3,616.3	28.49	127.923	
1,377.9	1,377.9	1,370.9	1,370.9	3.0	27.3	94.93	-313.4	3,631.3	3,644.8	3,614.6	30.24	120.543	
1,400.0	1,400.0	1,393.0	1,393.0	3.0	27.7	94.93	-313.4	3,631.3	3,644.8	3,614.1	30.73	118.608	
1,476.4	1,476.4	1,469.4	1,469.4	3.2	29.2	94.93	-313.4	3,631.3	3,644.8	3,612.4	32.44	112.360	
1,500.0	1,500.0	1,493.0	1,493.0	3.2	29.7	94.93	-313.4	3,631.3	3,644.8	3,611.8	32.97	110.559 CC	
1,574.8	1,574.8	1,567.8	1,567.8	3.4	31.2	175.63	-313.4	3,631.3	3,645.8	3,611.2	34.62	105.308 ES	
1,600.0	1,600.0	1,593.0	1,593.0	3.5	31.7	175.63	-313.4	3,631.3	3,646.5	3,611.4	35.17	103.680	
1,673.2	1,673.1	1,666.1	1,666.1	3.6	33.2	175.63	-313.4	3,631.3	3,650.0	3,613.3	36.75	99.327	
1,700.0	1,699.8	1,692.8	1,692.8	3.7	33.7	175.63	-313.4	3,631.3	3,651.8	3,614.4	37.32	97.860	
1,771.6	1,771.2	1,764.2	1,764.2	3.8	35.2	175.63	-313.4	3,631.3	3,657.6	3,618.8	38.82	94.222	
1,800.0	1,799.5	1,792.5	1,792.5	3.9	35.7	175.63	-313.4	3,631.3	3,660.4	3,621.0	39.40	92.894	
1,870.1	1,869.0	1,862.0	1,862.0	4.0	37.1	175.62	-313.4	3,631.3	3,668.6	3,627.8	40.83	89.851	
1,900.0	1,898.7	1,891.7	1,891.7	4.1	37.7	175.62	-313.4	3,631.3	3,672.6	3,631.2	41.43	88.653	
1,968.5	1,966.4	1,959.4	1,959.4	4.3	39.1	175.62	-313.4	3,631.3	3,682.9	3,640.1	42.77	86.109	
2,000.0	1,997.5	1,990.5	1,990.5	4.4	39.7	175.62	-313.4	3,631.3	3,688.2	3,644.8	43.37	85.031	
2,066.9	2,063.2	2,056.2	2,056.2	4.6	41.1	175.61	-313.4	3,631.3	3,700.6	3,655.9	44.63	82.909	
2,100.1	2,095.7	2,088.7	2,088.7	4.7	41.7	175.61	-313.4	3,631.3	3,707.2	3,662.0	45.24	81.943	
2,165.3	2,159.5	2,152.5	2,152.5	4.9	43.0	175.63	-313.4	3,631.3	3,720.8	3,674.1	46.64	79.769	
2,200.0	2,193.4	2,186.4	2,186.4	5.0	43.7	175.63	-313.4	3,631.3	3,728.0	3,680.6	47.39	78.668	
2,224.2	2,217.1	2,210.1	2,210.1	5.1	44.2	175.64	-313.4	3,631.3	3,733.0	3,685.1	47.91	77.918	
2,263.8	2,255.9	2,248.9	2,248.9	5.2	44.9	175.66	-313.4	3,631.3	3,740.9	3,692.0	48.89	76.511	
2,300.0	2,291.5	2,284.5	2,284.5	5.3	45.6	175.68	-313.4	3,631.3	3,747.7	3,697.9	49.79	75.274	
2,362.2	2,352.7	2,345.7	2,345.7	5.5	46.9	175.71	-313.4	3,631.3	3,758.3	3,707.0	51.31	73.245	
2,400.0	2,390.1	2,383.1	2,383.1	5.6	47.6	175.72	-313.4	3,631.3	3,764.1	3,711.9	52.23	72.062	
2,460.6	2,450.1	2,443.1	2,443.1	5.7	48.8	175.75	-313.4	3,631.3	3,772.4	3,718.7	53.70	70.246	
2,500.0	2,489.2	2,482.2	2,482.2	5.8	49.6	175.76	-313.4	3,631.3	3,777.1	3,722.5	54.65	69.115	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,541.0	2,541.0	6.0	50.8	175.77	-313.4	3,631.3	3,783.2	3,727.1	56.06	67.489	
2,600.0	2,588.8	2,581.8	2,581.8	6.1	51.6	175.78	-313.4	3,631.3	3,786.7	3,729.7	57.02	66.407	
2,657.5	2,646.1	2,639.1	2,639.1	6.2	52.8	175.79	-313.4	3,631.3	3,790.6	3,732.2	58.36	64.950	
2,700.0	2,688.6	2,681.6	2,681.6	6.3	53.6	175.80	-313.4	3,631.3	3,792.7	3,733.4	59.34	63.916	
2,755.9	2,744.4	2,737.4	2,737.4	6.4	54.8	175.80	-313.4	3,631.3	3,794.6	3,734.0	60.61	62.610	
2,800.0	2,788.5	2,781.5	2,781.5	6.5	55.6	175.81	-313.4	3,631.3	3,795.3	3,733.7	61.59	61.620	
2,824.3	2,812.8	2,805.8	2,805.8	6.5	56.1	95.11	-313.4	3,631.3	3,795.4	3,732.8	62.65	60.581	
2,854.3	2,842.9	2,835.9	2,835.9	6.6	56.7	95.11	-313.4	3,631.3	3,795.4	3,732.1	63.31	59.949	
2,900.0	2,888.5	2,881.5	2,881.5	6.7	57.7	95.11	-313.4	3,631.3	3,795.4	3,731.1	64.31	59.013	
2,952.7	2,941.3	2,934.3	2,934.3	6.8	58.7	95.11	-313.4	3,631.3	3,795.4	3,729.9	65.48	57.961	
3,000.0	2,988.5	2,981.5	2,981.5	6.9	59.7	95.11	-313.4	3,631.3	3,795.4	3,728.9	66.53	57.049	
3,051.2	3,039.7	3,032.7	3,032.7	7.0	60.7	95.11	-313.4	3,631.3	3,795.4	3,727.8	67.66	56.093	
3,100.0	3,088.5	3,081.5	3,081.5	7.1	61.7	95.11	-313.4	3,631.3	3,795.4	3,726.7	68.74	55.210	
3,149.6	3,138.1	3,131.1	3,131.1	7.2	62.7	95.11	-313.4	3,631.3	3,795.4	3,725.6	69.84	54.341	
3,200.0	3,188.5	3,181.5	3,181.5	7.3	63.7	95.11	-313.4	3,631.3	3,795.4	3,724.5	70.96	53.485	
3,248.0	3,236.6	3,229.6	3,229.6	7.4	64.7	95.11	-313.4	3,631.3	3,795.4	3,723.4	72.03	52.694	
3,300.0	3,288.5	3,281.5	3,281.5	7.5	65.7	95.11	-313.4	3,631.3	3,795.4	3,722.2	73.18	51.864	
3,346.4	3,335.0	3,328.0	3,328.0	7.6	66.6	95.11	-313.4	3,631.3	3,795.4	3,721.2	74.21	51.144	
3,400.0	3,388.5	3,381.5	3,381.5	7.7	67.7	95.11	-313.4	3,631.3	3,795.4	3,720.0	75.40	50.338	
3,444.9	3,433.4	3,426.4	3,426.4	7.8	68.6	95.11	-313.4	3,631.3	3,795.4	3,719.0	76.40	49.681	
3,500.0	3,488.5	3,481.5	3,481.5	7.9	69.7	95.11	-313.4	3,631.3	3,795.4	3,717.8	77.62	48.898	
3,543.3	3,531.8	3,524.8	3,524.8	8.0	70.6	95.11	-313.4	3,631.3	3,795.4	3,716.8	78.58	48.300	
3,600.0	3,588.5	3,581.5	3,581.5	8.1	71.7	95.11	-313.4	3,631.3	3,795.4	3,715.6	79.84	47.538	
3,641.7	3,630.3	3,623.3	3,623.3	8.2	72.6	95.11	-313.4	3,631.3	3,795.4	3,714.7	80.77	46.992	
3,700.0	3,688.5	3,681.5	3,681.5	8.3	73.7	95.11	-313.4	3,631.3	3,795.4	3,713.4	82.06	46.251	
3,740.1	3,728.7	3,721.7	3,721.7	8.4	74.6	95.11	-313.4	3,631.3	3,795.4	3,712.5	82.95	45.753	
3,800.0	3,788.5	3,781.5	3,781.5	8.5	75.8	95.11	-313.4	3,631.3	3,795.4	3,711.1	84.28	45.031	
3,838.6	3,827.1	3,820.1	3,820.1	8.6	76.5	95.11	-313.4	3,631.3	3,795.4	3,710.3	85.14	44.578	
3,900.0	3,888.5	3,881.5	3,881.5	8.7	77.8	95.11	-313.4	3,631.3	3,795.4	3,708.9	86.51	43.874	
3,937.0	3,925.5	3,918.5	3,918.5	8.8	78.5	95.11	-313.4	3,631.3	3,795.4	3,708.1	87.33	43.461	
4,000.0	3,988.5	3,981.5	3,981.5	9.0	79.8	95.11	-313.4	3,631.3	3,795.4	3,706.7	88.73	42.775	
4,035.4	4,024.0	4,017.0	4,017.0	9.0	80.5	95.11	-313.4	3,631.3	3,795.4	3,705.9	89.52	42.398	
4,100.0	4,088.5	4,081.5	4,081.5	9.2	81.8	95.11	-313.4	3,631.3	3,795.4	3,704.5	90.95	41.729	
4,133.8	4,122.4	4,115.4	4,115.4	9.2	82.5	95.11	-313.4	3,631.3	3,795.4	3,703.7	91.71	41.386	
4,200.0	4,188.5	4,181.5	4,181.5	9.4	83.8	95.11	-313.4	3,631.3	3,795.4	3,702.2	93.18	40.732	
4,232.3	4,220.8	4,213.8	4,213.8	9.4	84.5	95.11	-313.4	3,631.3	3,795.4	3,701.5	93.90	40.421	
4,300.0	4,288.5	4,281.5	4,281.5	9.6	85.8	95.11	-313.4	3,631.3	3,795.4	3,700.0	95.40	39.782	
4,330.7	4,319.2	4,312.2	4,312.2	9.7	86.4	95.11	-313.4	3,631.3	3,795.4	3,699.3	96.09	39.499	
4,400.0	4,388.5	4,381.5	4,381.5	9.8	87.8	95.11	-313.4	3,631.3	3,795.4	3,697.8	97.63	38.875	
4,429.1	4,417.7	4,410.7	4,410.7	9.9	88.4	95.11	-313.4	3,631.3	3,795.4	3,697.1	98.28	38.619	
4,500.0	4,488.5	4,481.5	4,481.5	10.0	89.8	95.11	-313.4	3,631.3	3,795.4	3,695.6	99.86	38.009	
4,527.5	4,516.1	4,509.1	4,509.1	10.1	90.4	95.11	-313.4	3,631.3	3,795.4	3,695.0	100.47	37.777	
4,600.0	4,588.5	4,581.5	4,581.5	10.2	91.8	95.11	-313.4	3,631.3	3,795.4	3,693.3	102.08	37.180	
4,626.0	4,614.5	4,607.5	4,607.5	10.3	92.4	95.11	-313.4	3,631.3	3,795.4	3,692.8	102.66	36.970	
4,700.0	4,688.5	4,681.5	4,681.5	10.5	93.9	95.11	-313.4	3,631.3	3,795.4	3,691.1	104.31	36.386	
4,724.4	4,712.9	4,705.9	4,705.9	10.5	94.3	95.11	-313.4	3,631.3	3,795.4	3,690.6	104.85	36.197	
4,800.0	4,788.5	4,781.5	4,781.5	10.7	95.9	95.11	-313.4	3,631.3	3,795.4	3,688.9	106.54	35.625	
4,822.8	4,811.4	4,804.4	4,804.4	10.7	96.3	95.11	-313.4	3,631.3	3,795.4	3,688.4	107.05	35.456	
4,900.0	4,888.5	4,881.5	4,881.5	10.9	97.9	95.11	-313.4	3,631.3	3,795.4	3,686.7	108.76	34.896	
4,921.2	4,909.8	4,902.8	4,902.8	10.9	98.3	95.11	-313.4	3,631.3	3,795.4	3,686.2	109.24	34.744	
5,000.0	4,988.5	4,981.5	4,981.5	11.1	99.9	95.11	-313.4	3,631.3	3,795.4	3,684.4	110.99	34.195	
5,019.7	5,008.2	5,001.2	5,001.2	11.1	100.3	95.11	-313.4	3,631.3	3,795.4	3,684.0	111.43	34.061	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,081.5	5,081.5	11.3	101.9	95.11	-313.4	3,631.3	3,795.4	3,682.2	113.22	33.522	
5,118.1	5,106.6	5,099.6	5,099.6	11.4	102.3	95.11	-313.4	3,631.3	3,795.4	3,681.8	113.62	33.403	
5,200.0	5,188.5	5,181.5	5,181.5	11.5	103.9	95.11	-313.4	3,631.3	3,795.4	3,680.0	115.45	32.875	
5,216.5	5,205.1	5,198.1	5,198.1	11.6	104.2	95.11	-313.4	3,631.3	3,795.4	3,679.6	115.82	32.771	
5,300.0	5,288.5	5,281.5	5,281.5	11.8	105.9	95.11	-313.4	3,631.3	3,795.4	3,677.7	117.68	32.252	
5,314.9	5,303.5	5,296.5	5,296.5	11.8	106.2	95.11	-313.4	3,631.3	3,795.4	3,677.4	118.01	32.161	
5,400.0	5,388.5	5,381.5	5,381.5	12.0	107.9	95.11	-313.4	3,631.3	3,795.4	3,675.5	119.91	31.653	
5,413.4	5,401.9	5,394.9	5,394.9	12.0	108.2	95.11	-313.4	3,631.3	3,795.4	3,675.2	120.21	31.574	
5,500.0	5,488.5	5,481.5	5,481.5	12.2	109.9	95.11	-313.4	3,631.3	3,795.4	3,673.3	122.14	31.075	
5,511.8	5,500.3	5,493.3	5,493.3	12.2	110.2	95.11	-313.4	3,631.3	3,795.4	3,673.0	122.40	31.008	
5,600.0	5,588.5	5,581.5	5,581.5	12.4	112.0	95.11	-313.4	3,631.3	3,795.4	3,671.1	124.37	30.518	
5,610.2	5,598.8	5,591.8	5,591.8	12.4	112.2	95.11	-313.4	3,631.3	3,795.4	3,670.8	124.59	30.462	
5,700.0	5,688.5	5,681.5	5,681.5	12.6	114.0	95.11	-313.4	3,631.3	3,795.4	3,668.8	126.60	29.981	
5,708.6	5,697.2	5,690.2	5,690.2	12.6	114.1	95.11	-313.4	3,631.3	3,795.4	3,668.6	126.79	29.935	
5,800.0	5,788.5	5,781.5	5,781.5	12.8	116.0	95.11	-313.4	3,631.3	3,795.4	3,666.6	128.83	29.462	
5,807.1	5,795.6	5,788.6	5,788.6	12.9	116.1	95.11	-313.4	3,631.3	3,795.4	3,666.4	128.98	29.426	
5,900.0	5,888.5	5,881.5	5,881.5	13.1	118.0	95.11	-313.4	3,631.3	3,795.4	3,664.4	131.06	28.960	
5,905.5	5,894.0	5,887.0	5,887.0	13.1	118.1	95.11	-313.4	3,631.3	3,795.4	3,664.2	131.18	28.933	
6,000.0	5,988.5	5,981.5	5,981.5	13.3	120.0	95.11	-313.4	3,631.3	3,795.4	3,662.1	133.29	28.476	
6,003.9	5,992.5	5,985.5	5,985.5	13.3	120.1	95.11	-313.4	3,631.3	3,795.4	3,662.0	133.37	28.457	
6,085.3	6,073.8	6,066.8	6,066.8	13.5	121.7	95.11	-313.4	3,631.3	3,795.4	3,660.2	135.19	28.075	
6,100.0	6,088.5	6,081.5	6,081.5	13.5	122.0	-174.89	-313.4	3,631.3	3,795.6	3,660.4	135.22	28.070	
6,102.3	6,090.9	6,083.9	6,083.9	13.5	122.1	-174.89	-313.4	3,631.3	3,795.6	3,660.4	135.26	28.061	
6,150.0	6,138.4	6,131.4	6,131.4	13.6	123.0	-174.88	-313.4	3,631.3	3,798.3	3,662.5	135.83	27.963 SF	
6,200.0	6,188.0	6,181.0	6,181.0	13.7	124.0	-174.84	-313.4	3,631.3	3,804.6	3,668.8	135.79	28.019	
6,200.8	6,188.8	6,181.8	6,181.8	13.7	124.0	-174.84	-313.4	3,631.3	3,804.7	3,668.9	135.78	28.021	
6,250.0	6,237.1	6,230.1	6,230.1	13.9	125.0	-174.78	-313.4	3,631.3	3,814.2	3,679.1	135.07	28.239	
6,299.2	6,284.6	6,277.6	6,277.6	14.0	126.0	-174.70	-313.4	3,631.3	3,827.0	3,693.3	133.70	28.625	
6,300.0	6,285.3	6,278.3	6,278.3	14.0	126.0	-174.70	-313.4	3,631.3	3,827.2	3,693.6	133.67	28.632	
6,350.0	6,332.5	6,325.5	6,325.5	14.2	126.9	-174.59	-313.4	3,631.3	3,843.6	3,712.0	131.59	29.210	
6,397.6	6,376.3	6,369.3	6,369.3	14.4	127.8	-174.47	-313.4	3,631.3	3,862.2	3,733.2	128.97	29.946	
6,400.0	6,378.5	6,371.5	6,371.5	14.4	127.8	-174.46	-313.4	3,631.3	3,863.2	3,734.4	128.83	29.988	
6,450.0	6,423.0	6,416.0	6,416.0	14.7	128.7	-174.29	-313.4	3,631.3	3,886.0	3,760.6	125.39	30.990	
6,496.0	6,462.4	6,455.4	6,455.4	14.9	129.5	-174.11	-313.4	3,631.3	3,909.6	3,787.9	121.65	32.138	
6,500.0	6,465.7	6,458.7	6,458.7	14.9	129.6	-174.09	-313.4	3,631.3	3,911.7	3,790.4	121.30	32.247	
6,550.0	6,506.6	6,499.6	6,499.6	15.2	130.4	-173.84	-313.4	3,631.3	3,940.4	3,823.8	116.58	33.799	
6,594.5	6,541.2	6,534.2	6,534.2	15.6	131.1	-173.57	-313.4	3,631.3	3,968.3	3,856.4	111.88	35.468	
6,600.0	6,545.3	6,538.3	6,538.3	15.6	131.2	-173.53	-313.4	3,631.3	3,971.9	3,860.6	111.27	35.697	
6,650.0	6,581.8	6,574.8	6,574.8	16.0	131.9	-173.15	-313.4	3,631.3	4,006.0	3,900.6	105.40	38.007	
6,692.9	6,611.1	6,604.1	6,604.1	16.4	132.5	-172.76	-313.4	3,631.3	4,037.2	3,937.2	99.98	40.380	
6,700.0	6,615.8	6,608.8	6,608.8	16.5	132.6	-172.69	-313.4	3,631.3	4,042.5	3,943.5	99.05	40.813	
6,750.0	6,647.1	6,640.1	6,640.1	17.1	133.2	-172.11	-313.4	3,631.3	4,081.3	3,989.0	92.30	44.216	
6,791.3	6,670.9	6,663.9	6,663.9	17.6	133.7	-171.52	-313.4	3,631.3	4,115.0	4,028.5	86.53	47.558	
6,800.0	6,675.7	6,668.7	6,668.7	17.7	133.8	-171.37	-313.4	3,631.3	4,122.2	4,036.9	85.30	48.327	
6,850.0	6,701.3	6,694.3	6,694.3	18.4	134.3	-170.42	-313.4	3,631.3	4,165.0	4,086.8	78.25	53.227	
6,889.7	6,719.5	6,712.5	6,712.5	19.0	134.7	-169.44	-313.4	3,631.3	4,200.2	4,127.4	72.86	57.651	
6,900.0	6,723.8	6,716.8	6,716.8	19.1	134.8	-169.14	-313.4	3,631.3	4,209.5	4,137.9	71.53	58.847	
6,950.0	6,743.2	6,736.2	6,736.2	20.0	135.2	-167.37	-313.4	3,631.3	4,255.4	4,189.6	65.85	64.622	
6,988.2	6,755.8	6,748.8	6,748.8	20.6	135.4	-165.49	-313.4	3,631.3	4,291.3	4,228.3	63.03	68.079	
7,000.0	6,759.4	6,752.4	6,752.4	20.9	135.5	-164.78	-313.4	3,631.3	4,302.6	4,240.0	62.60	68.731	
7,050.0	6,772.1	6,765.1	6,765.1	21.8	135.8	-160.66	-313.4	3,631.3	4,350.8	4,286.2	64.55	67.402	
7,086.6	6,779.4	6,772.4	6,772.4	22.5	135.9	-155.80	-313.4	3,631.3	4,386.5	4,314.4	72.13	60.817	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #42-17 - 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	
7,100.0	6,781.5	6,774.5	6,774.5	22.8	135.9	-153.34	-313.4	3,631.3	4,399.7	4,322.8	76.89	57.224	
7,150.0	6,787.5	6,780.5	6,780.5	23.9	136.1	-137.83	-313.4	3,631.3	4,449.2	4,340.1	109.13	40.771	
7,185.0	6,789.6	6,782.6	6,782.6	24.6	136.1	-115.02	-313.4	3,631.3	4,484.1	4,338.0	146.02	30.709	
7,200.0	6,789.9	6,782.9	6,782.9	24.9	136.1	-100.79	-313.4	3,631.3	4,499.0	4,340.7	158.27	28.425	
7,213.0	6,790.0	6,783.0	6,783.0	25.2	136.1	-87.13	-313.4	3,631.3	4,511.9	4,350.8	161.12	28.004	
7,283.4	6,789.7	6,782.7	6,782.7	26.8	136.1	-87.09	-313.4	3,631.3	4,582.2	4,419.5	162.68	28.167	
7,300.0	6,789.7	6,782.7	6,782.7	27.2	136.1	-87.07	-313.4	3,631.3	4,598.7	4,435.7	163.05	28.205	
7,381.9	6,789.4	6,782.4	6,782.4	29.1	136.1	-87.02	-313.4	3,631.3	4,680.4	4,515.4	164.94	28.377	
7,400.0	6,789.3	6,782.3	6,782.3	29.5	136.1	-87.00	-313.4	3,631.3	4,698.4	4,533.1	165.35	28.415	
7,480.3	6,789.0	6,782.0	6,782.0	31.4	136.1	-86.95	-313.4	3,631.3	4,778.5	4,611.3	167.27	28.568	
7,500.0	6,788.9	6,781.9	6,781.9	31.9	136.1	-86.93	-313.4	3,631.3	4,798.2	4,630.5	167.74	28.605	
7,578.7	6,788.6	6,781.6	6,781.6	33.8	136.1	-86.88	-313.4	3,631.3	4,876.7	4,707.1	169.66	28.744	
7,600.0	6,788.5	6,781.5	6,781.5	34.4	136.1	-86.87	-313.4	3,631.3	4,897.9	4,727.8	170.18	28.781	
7,677.1	6,788.2	6,781.2	6,781.2	36.3	136.1	-86.82	-313.4	3,631.3	4,974.9	4,802.8	172.11	28.906	
7,700.0	6,788.2	6,781.2	6,781.2	36.9	136.1	-86.80	-313.4	3,631.3	4,997.7	4,825.0	172.67	28.943	
7,775.6	6,787.9	6,780.9	6,780.9	38.8	136.1	-86.75	-313.4	3,631.3	5,073.1	4,898.5	174.59	29.058	
7,800.0	6,787.8	6,780.8	6,780.8	39.4	136.1	-86.73	-313.4	3,631.3	5,097.5	4,922.3	175.21	29.094	
7,874.0	6,787.5	6,780.5	6,780.5	41.3	136.1	-86.68	-313.4	3,631.3	5,171.3	4,994.2	177.10	29.199	
7,900.0	6,787.4	6,780.4	6,780.4	42.0	136.1	-86.66	-313.4	3,631.3	5,197.3	5,019.5	177.77	29.236	
7,972.4	6,787.1	6,780.1	6,780.1	43.9	136.1	-86.61	-313.4	3,631.3	5,269.5	5,089.9	179.65	29.333	
8,000.0	6,787.0	6,780.0	6,780.0	44.6	136.1	-86.59	-313.4	3,631.3	5,297.1	5,116.7	180.36	29.369	
8,070.8	6,786.7	6,779.7	6,779.7	46.5	136.1	-86.54	-313.4	3,631.3	5,367.8	5,185.6	182.21	29.459	
8,100.0	6,786.6	6,779.6	6,779.6	47.3	136.1	-86.52	-313.4	3,631.3	5,396.9	5,213.9	182.97	29.495	
8,169.3	6,786.4	6,779.4	6,779.4	49.1	136.0	-86.47	-313.4	3,631.3	5,466.0	5,281.2	184.80	29.579	
8,200.0	6,786.3	6,779.3	6,779.3	49.9	136.0	-86.45	-313.4	3,631.3	5,496.7	5,311.1	185.60	29.615	
8,267.7	6,786.0	6,779.0	6,779.0	51.7	136.0	-86.40	-313.4	3,631.3	5,564.2	5,376.8	187.39	29.693	
8,300.0	6,785.9	6,778.9	6,778.9	52.6	136.0	-86.38	-313.4	3,631.3	5,596.5	5,408.2	188.25	29.729	
8,366.1	6,785.6	6,778.6	6,778.6	54.4	136.0	-86.33	-313.4	3,631.3	5,662.5	5,472.5	190.01	29.801	
8,400.0	6,785.5	6,778.5	6,778.5	55.3	136.0	-86.31	-313.4	3,631.3	5,696.3	5,505.4	190.91	29.838	
8,464.5	6,785.2	6,778.2	6,778.2	57.0	136.0	-86.26	-313.4	3,631.3	5,760.7	5,568.1	192.63	29.906	
8,500.0	6,785.1	6,778.1	6,778.1	58.0	136.0	-86.24	-313.4	3,631.3	5,796.1	5,602.6	193.58	29.942	
8,563.0	6,784.9	6,777.9	6,777.9	59.7	136.0	-86.19	-313.4	3,631.3	5,859.0	5,663.7	195.26	30.006	
8,600.0	6,784.7	6,777.7	6,777.7	60.7	136.0	-86.16	-313.4	3,631.3	5,896.0	5,699.7	196.25	30.042	
8,661.4	6,784.5	6,777.5	6,777.5	62.4	136.0	-86.12	-313.4	3,631.3	5,957.3	5,759.4	197.91	30.102	
8,700.0	6,784.3	6,777.3	6,777.3	63.4	136.0	-86.09	-313.4	3,631.3	5,995.8	5,796.9	198.94	30.138	
8,759.8	6,784.1	6,777.1	6,777.1	65.0	136.0	-86.05	-313.4	3,631.3	6,055.5	5,855.0	200.55	30.194	
8,800.0	6,784.0	6,777.0	6,777.0	66.1	136.0	-86.02	-313.4	3,631.3	6,095.6	5,894.0	201.64	30.231	
8,858.2	6,783.7	6,776.7	6,776.7	67.7	136.0	-85.98	-313.4	3,631.3	6,153.8	5,950.6	203.21	30.283	
8,900.0	6,783.6	6,776.6	6,776.6	68.9	136.0	-85.95	-313.4	3,631.3	6,195.5	5,991.2	204.34	30.320	
8,956.7	6,783.3	6,776.3	6,776.3	70.4	136.0	-85.91	-313.4	3,631.3	6,252.1	6,046.2	205.87	30.369	
9,000.0	6,783.2	6,776.2	6,776.2	71.6	136.0	-85.88	-313.4	3,631.3	6,295.3	6,088.3	207.04	30.406	
9,055.1	6,783.0	6,776.0	6,776.0	73.1	136.0	-85.84	-313.4	3,631.3	6,350.4	6,141.8	208.53	30.452	
9,100.0	6,782.8	6,775.8	6,775.8	74.3	136.0	-85.81	-313.4	3,631.3	6,395.2	6,185.4	209.75	30.490	
9,153.5	6,782.6	6,775.6	6,775.6	75.8	136.0	-85.77	-313.4	3,631.3	6,448.6	6,237.4	211.20	30.533	
9,200.0	6,782.4	6,775.4	6,775.4	77.1	136.0	-85.73	-313.4	3,631.3	6,495.1	6,282.6	212.46	30.570	
9,251.9	6,782.2	6,775.2	6,775.2	78.5	136.0	-85.70	-313.4	3,631.3	6,546.9	6,333.1	213.88	30.611	
9,300.0	6,782.0	6,775.0	6,775.0	79.8	136.0	-85.66	-313.4	3,631.3	6,594.9	6,379.7	215.18	30.648	
9,350.4	6,781.8	6,774.8	6,774.8	81.2	136.0	-85.63	-313.4	3,631.3	6,645.2	6,428.7	216.55	30.686	
9,400.0	6,781.6	6,774.6	6,774.6	82.6	136.0	-85.59	-313.4	3,631.3	6,694.8	6,476.9	217.90	30.724	
9,448.8	6,781.4	6,774.4	6,774.4	83.9	135.9	-85.56	-313.4	3,631.3	6,743.5	6,524.3	219.23	30.760	
9,500.0	6,781.2	6,774.2	6,774.2	85.4	135.9	-85.52	-313.4	3,631.3	6,794.7	6,574.0	220.62	30.798	
9,547.2	6,781.0	6,774.0	6,774.0	86.7	135.9	-85.49	-313.4	3,631.3	6,841.8	6,619.9	221.91	30.831	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #42-17 - 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	
9,600.0	6,780.8	6,773.8	6,773.8	88.1	135.9	-85.44	-313.4	3,631.3	6,894.5	6,671.2	223.35	30.869	
9,645.6	6,780.7	6,773.7	6,773.7	89.4	135.9	-85.41	-313.4	3,631.3	6,940.1	6,715.5	224.59	30.901	
9,700.0	6,780.5	6,773.5	6,773.5	90.9	135.9	-85.37	-313.4	3,631.3	6,994.4	6,768.4	226.08	30.938	
9,744.1	6,780.3	6,773.3	6,773.3	92.1	135.9	-85.34	-313.4	3,631.3	7,038.5	6,811.2	227.28	30.968	
9,800.0	6,780.1	6,773.1	6,773.1	93.7	135.9	-85.30	-313.4	3,631.3	7,094.3	6,865.5	228.80	31.006	
9,842.5	6,779.9	6,772.9	6,772.9	94.8	135.9	-85.27	-313.4	3,631.3	7,136.8	6,906.8	229.97	31.034	
9,900.0	6,779.7	6,772.7	6,772.7	96.4	135.9	-85.22	-313.4	3,631.3	7,194.2	6,962.7	231.53	31.072	
9,940.9	6,779.5	6,772.5	6,772.5	97.6	135.9	-85.20	-313.4	3,631.3	7,235.1	7,002.4	232.65	31.098	
10,000.0	6,779.3	6,772.3	6,772.3	99.2	135.9	-85.15	-313.4	3,631.3	7,294.1	7,059.8	234.27	31.136	
10,039.3	6,779.1	6,772.1	6,772.1	100.3	135.9	-85.12	-313.4	3,631.3	7,333.4	7,098.1	235.34	31.161	
10,100.0	6,778.9	6,771.9	6,771.9	102.0	135.9	-85.08	-313.4	3,631.3	7,394.0	7,157.0	237.00	31.199	
10,137.8	6,778.7	6,771.7	6,771.7	103.0	135.9	-85.05	-313.4	3,631.3	7,431.7	7,193.7	238.03	31.222	
10,200.0	6,778.5	6,771.5	6,771.5	104.8	135.9	-85.00	-313.4	3,631.3	7,493.9	7,254.1	239.73	31.260	
10,236.2	6,778.3	6,771.3	6,771.3	105.8	135.9	-84.98	-313.4	3,631.3	7,530.0	7,289.3	240.72	31.281	
10,300.0	6,778.1	6,771.1	6,771.1	107.5	135.9	-84.93	-313.4	3,631.3	7,593.8	7,351.3	242.46	31.319	
10,334.6	6,778.0	6,771.0	6,771.0	108.5	135.9	-84.91	-313.4	3,631.3	7,628.4	7,385.0	243.41	31.339	
10,400.0	6,777.7	6,770.7	6,770.7	110.3	135.9	-84.85	-313.4	3,631.3	7,693.7	7,448.5	245.20	31.377	
10,433.0	6,777.6	6,770.6	6,770.6	111.2	135.9	-84.83	-313.4	3,631.3	7,726.7	7,480.6	246.10	31.396	
10,500.0	6,777.3	6,770.3	6,770.3	113.1	135.9	-84.78	-313.4	3,631.3	7,793.6	7,545.7	247.93	31.434	
10,531.5	6,777.2	6,770.2	6,770.2	114.0	135.9	-84.76	-313.4	3,631.3	7,825.0	7,576.2	248.80	31.452	
10,600.0	6,776.9	6,769.9	6,769.9	115.9	135.9	-84.70	-313.4	3,631.3	7,893.5	7,642.8	250.67	31.490	
10,629.9	6,776.8	6,769.8	6,769.8	116.7	135.9	-84.68	-313.4	3,631.3	7,923.4	7,671.9	251.49	31.506	
10,700.0	6,776.5	6,769.5	6,769.5	118.7	135.8	-84.63	-313.4	3,631.3	7,993.4	7,740.0	253.40	31.544	
10,728.3	6,776.4	6,769.4	6,769.4	119.5	135.8	-84.61	-313.4	3,631.3	8,021.7	7,767.5	254.18	31.559	
10,800.0	6,776.1	6,769.1	6,769.1	121.4	135.8	-84.55	-313.4	3,631.3	8,093.3	7,837.2	256.14	31.597	
10,826.7	6,776.0	6,769.0	6,769.0	122.2	135.8	-84.54	-313.4	3,631.3	8,120.0	7,863.2	256.87	31.611	
10,900.0	6,775.7	6,768.7	6,768.7	124.2	135.8	-84.48	-313.4	3,631.3	8,193.2	7,934.4	258.87	31.650	
10,925.2	6,775.6	6,768.6	6,768.6	124.9	135.8	-84.46	-313.4	3,631.3	8,218.4	7,958.8	259.56	31.662	
11,000.0	6,775.3	6,768.3	6,768.3	127.0	135.8	-84.40	-313.4	3,631.3	8,293.1	8,031.5	261.61	31.701	
11,023.6	6,775.2	6,768.2	6,768.2	127.7	135.8	-84.39	-313.4	3,631.3	8,316.7	8,054.5	262.25	31.712	
11,100.0	6,774.9	6,767.9	6,767.9	129.8	135.8	-84.33	-313.4	3,631.3	8,393.1	8,128.7	264.34	31.751	
11,122.0	6,774.8	6,767.8	6,767.8	130.4	135.8	-84.31	-313.4	3,631.3	8,415.1	8,150.1	264.95	31.762	
11,200.0	6,774.5	6,767.5	6,767.5	132.6	135.8	-84.25	-313.4	3,631.3	8,493.0	8,225.9	267.08	31.800	
11,220.4	6,774.4	6,767.4	6,767.4	133.2	135.8	-84.24	-313.4	3,631.3	8,513.4	8,245.8	267.64	31.810	
11,300.0	6,774.1	6,767.1	6,767.1	135.4	135.8	-84.18	-313.4	3,631.3	8,592.9	8,323.1	269.81	31.848	
11,318.9	6,774.0	6,767.0	6,767.0	135.9	135.8	-84.16	-313.4	3,631.3	8,611.8	8,341.4	270.33	31.857	
11,400.0	6,773.7	6,766.7	6,766.7	138.2	135.8	-84.10	-313.4	3,631.3	8,692.8	8,420.3	272.54	31.895	
11,417.3	6,773.6	6,766.6	6,766.6	138.7	135.8	-84.09	-313.4	3,631.3	8,710.1	8,437.1	273.02	31.903	
11,500.0	6,773.3	6,766.3	6,766.3	141.0	135.8	-84.02	-313.4	3,631.3	8,792.7	8,517.5	275.28	31.942	
11,515.7	6,773.2	6,766.2	6,766.2	141.4	135.8	-84.01	-313.4	3,631.3	8,808.5	8,532.8	275.71	31.949	
11,600.0	6,772.9	6,765.9	6,765.9	143.8	135.8	-83.95	-313.4	3,631.3	8,892.7	8,614.7	278.01	31.987	
11,614.1	6,772.8	6,765.8	6,765.8	144.2	135.8	-83.94	-313.4	3,631.3	8,906.8	8,628.4	278.40	31.993	
11,700.0	6,772.5	6,765.5	6,765.5	146.6	135.8	-83.87	-313.4	3,631.3	8,992.6	8,711.9	280.74	32.032	
11,712.6	6,772.4	6,765.4	6,765.4	146.9	135.8	-83.86	-313.4	3,631.3	9,005.2	8,724.1	281.08	32.037	
11,800.0	6,772.1	6,765.1	6,765.1	149.4	135.8	-83.79	-313.4	3,631.3	9,092.5	8,809.1	283.47	32.076	
11,811.0	6,772.1	6,765.1	6,765.1	149.7	135.8	-83.78	-313.4	3,631.3	9,103.5	8,819.7	283.77	32.081	
11,900.0	6,771.7	6,764.7	6,764.7	152.2	135.8	-83.71	-313.4	3,631.3	9,192.5	8,906.3	286.20	32.119	
11,909.4	6,771.7	6,764.7	6,764.7	152.4	135.7	-83.71	-313.4	3,631.3	9,201.9	8,915.4	286.46	32.123	
12,000.0	6,771.3	6,764.3	6,764.3	154.9	135.7	-83.64	-313.4	3,631.3	9,292.4	9,003.5	288.93	32.161	
12,007.8	6,771.3	6,764.3	6,764.3	155.2	135.7	-83.63	-313.4	3,631.3	9,300.2	9,011.1	289.14	32.165	
12,100.0	6,770.9	6,763.9	6,763.9	157.7	135.7	-83.56	-313.4	3,631.3	9,392.3	9,100.7	291.66	32.203	
12,106.3	6,770.9	6,763.9	6,763.9	157.9	135.7	-83.56	-313.4	3,631.3	9,398.6	9,106.8	291.83	32.206	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #42-17 - 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
12,200.0	6,770.5	6,763.5	6,763.5	160.5	135.7	-83.48	-313.4	3,631.3	9,492.3	9,197.9	294.38	32.244	
12,204.7	6,770.5	6,763.5	6,763.5	160.7	135.7	-83.48	-313.4	3,631.3	9,497.0	9,202.4	294.51	32.246	
12,300.0	6,770.1	6,763.1	6,763.1	163.3	135.7	-83.40	-313.4	3,631.3	9,592.2	9,295.1	297.11	32.285	
12,303.1	6,770.1	6,763.1	6,763.1	163.4	135.7	-83.40	-313.4	3,631.3	9,595.3	9,298.1	297.20	32.286	
12,316.4	6,770.0	6,763.0	6,763.0	163.8	135.7	-83.39	-313.4	3,631.3	9,608.6	9,311.0	297.56	32.291	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	144.18	-3,157.7	2,278.8	3,894.1					
98.4	98.4	89.4	89.4	0.1	0.1	144.18	-3,157.8	2,278.8	3,894.2	3,894.0	0.19	N/A		
100.0	100.0	90.9	90.9	0.1	0.1	144.18	-3,157.8	2,278.8	3,894.2	3,894.0	0.19	N/A		
196.8	196.8	181.8	181.8	0.3	0.2	144.19	-3,158.0	2,278.8	3,894.4	3,893.8	0.52	7,466.114		
200.0	200.0	184.7	184.7	0.3	0.2	144.19	-3,158.0	2,278.8	3,894.4	3,893.8	0.53	7,313.424 ES		
295.3	295.3	273.9	273.9	0.5	0.3	144.18	-3,158.2	2,279.1	3,894.7	3,893.9	0.81	4,834.167		
300.0	300.0	278.3	278.3	0.5	0.3	144.18	-3,158.2	2,279.1	3,894.7	3,893.9	0.82	4,758.105		
393.7	393.7	365.4	365.4	0.8	0.3	144.18	-3,158.2	2,279.8	3,895.2	3,894.1	1.08	3,590.835		
400.0	400.0	371.3	371.3	0.8	0.3	144.18	-3,158.2	2,279.9	3,895.2	3,894.1	1.10	3,531.810		
492.1	492.1	458.4	458.4	1.0	0.4	144.17	-3,158.3	2,280.8	3,895.9	3,894.5	1.36	2,857.833		
500.0	500.0	465.9	465.9	1.0	0.4	144.16	-3,158.3	2,280.8	3,895.9	3,894.5	1.39	2,812.411		
590.5	590.5	555.6	555.5	1.2	0.5	144.15	-3,158.5	2,281.8	3,896.6	3,895.0	1.64	2,380.312		
600.0	600.0	565.1	565.1	1.2	0.5	144.15	-3,158.5	2,282.0	3,896.7	3,895.0	1.66	2,342.911		
689.0	689.0	655.3	655.3	1.4	0.5	144.14	-3,158.5	2,283.0	3,897.4	3,895.4	1.91	2,043.498		
700.0	700.0	666.5	666.5	1.4	0.5	144.14	-3,158.5	2,283.2	3,897.4	3,895.5	1.94	2,011.836		
787.4	787.4	753.8	753.8	1.6	0.6	144.13	-3,158.6	2,284.1	3,898.1	3,895.9	2.17	1,793.689		
800.0	800.0	766.3	766.3	1.7	0.6	144.13	-3,158.6	2,284.3	3,898.2	3,896.0	2.21	1,766.248		
885.8	885.8	852.9	852.8	1.9	0.6	144.11	-3,158.7	2,285.3	3,898.8	3,896.4	2.44	1,600.041		
900.0	900.0	867.3	867.3	1.9	0.6	144.11	-3,158.7	2,285.5	3,898.9	3,896.4	2.47	1,575.603		
984.2	984.2	946.3	946.3	2.1	0.6	144.10	-3,158.8	2,286.3	3,899.5	3,896.8	2.69	1,447.111		
1,000.0	1,000.0	960.3	960.2	2.1	0.7	144.10	-3,158.9	2,286.4	3,899.7	3,896.9	2.74	1,425.684		
1,082.7	1,082.7	1,037.3	1,037.3	2.3	0.7	144.10	-3,159.3	2,287.2	3,900.5	3,897.5	2.95	1,322.595		
1,100.0	1,100.0	1,054.4	1,054.3	2.3	0.7	144.10	-3,159.3	2,287.4	3,900.7	3,897.7	2.99	1,302.786		
1,181.1	1,181.1	1,138.3	1,138.2	2.5	0.7	144.09	-3,159.8	2,288.2	3,901.5	3,898.3	3.21	1,217.128		
1,200.0	1,200.0	1,159.1	1,159.0	2.6	0.7	144.09	-3,159.9	2,288.4	3,901.7	3,898.4	3.26	1,198.660		
1,279.5	1,279.5	1,243.3	1,243.2	2.7	0.8	144.08	-3,160.3	2,289.1	3,902.3	3,898.9	3.46	1,127.352		
1,300.0	1,300.0	1,264.2	1,264.1	2.8	0.8	144.08	-3,160.4	2,289.3	3,902.5	3,899.0	3.51	1,110.486		
1,377.9	1,377.9	1,340.8	1,340.7	3.0	0.8	144.08	-3,160.7	2,289.8	3,903.1	3,899.4	3.71	1,051.143		
1,400.0	1,400.0	1,361.8	1,361.7	3.0	0.8	144.08	-3,160.8	2,289.9	3,903.3	3,899.5	3.77	1,035.609		
1,476.4	1,476.4	1,434.3	1,434.2	3.2	0.9	144.08	-3,161.3	2,290.5	3,904.0	3,900.0	3.96	985.304		
1,500.0	1,500.0	1,456.7	1,456.6	3.2	0.9	144.07	-3,161.4	2,290.6	3,904.2	3,900.2	4.02	970.759		
1,574.8	1,574.8	1,530.8	1,530.7	3.4	0.9	-135.22	-3,161.8	2,291.3	3,905.7	3,901.4	4.28	913.112		
1,600.0	1,600.0	1,557.5	1,557.4	3.5	0.9	-135.22	-3,162.0	2,291.6	3,906.5	3,902.1	4.34	899.687		
1,673.2	1,673.1	1,631.1	1,631.0	3.6	0.9	-135.22	-3,162.4	2,292.2	3,909.6	3,905.1	4.52	864.244		
1,700.0	1,699.8	1,656.2	1,656.1	3.7	0.9	-135.21	-3,162.5	2,292.4	3,911.1	3,906.5	4.59	852.204		
1,771.6	1,771.2	1,723.0	1,722.9	3.8	1.0	-135.20	-3,163.0	2,292.9	3,916.1	3,911.3	4.77	820.774		
1,800.0	1,799.5	1,749.2	1,749.1	3.9	1.0	-135.20	-3,163.2	2,293.1	3,918.4	3,913.6	4.84	809.084		
1,870.1	1,869.0	1,816.0	1,815.9	4.0	1.0	-135.18	-3,163.8	2,293.7	3,925.1	3,920.0	5.03	780.420		
1,900.0	1,898.7	1,847.8	1,847.7	4.1	1.0	-135.18	-3,164.1	2,293.9	3,928.3	3,923.2	5.11	768.795		
1,968.5	1,966.4	1,922.9	1,922.8	4.3	1.0	-135.18	-3,164.9	2,294.3	3,936.4	3,931.1	5.30	742.249		
2,000.0	1,997.5	1,960.3	1,960.2	4.4	1.1	-135.19	-3,165.3	2,294.3	3,940.5	3,935.1	5.39	730.953		
2,066.9	2,063.2	2,036.6	2,036.5	4.6	1.1	-135.19	-3,166.1	2,294.1	3,949.8	3,944.2	5.59	706.531		
2,100.1	2,095.7	2,072.8	2,072.7	4.7	1.1	-135.19	-3,166.4	2,293.9	3,954.8	3,949.1	5.69	695.378		
2,165.3	2,159.5	2,143.3	2,143.2	4.9	1.1	-135.33	-3,167.1	2,293.5	3,964.8	3,958.9	5.89	673.640		
2,200.0	2,193.4	2,180.5	2,180.4	5.0	1.1	-135.40	-3,167.4	2,293.2	3,970.0	3,964.0	5.99	662.716		
2,224.2	2,217.1	2,206.5	2,206.4	5.1	1.1	-135.46	-3,167.6	2,293.1	3,973.7	3,967.6	6.07	655.116		
2,263.8	2,255.9	2,249.3	2,249.2	5.2	1.1	-135.62	-3,167.8	2,292.7	3,979.5	3,973.3	6.18	644.425		
2,300.0	2,291.5	2,288.6	2,288.5	5.3	1.1	-135.76	-3,168.1	2,292.4	3,984.4	3,978.1	6.27	635.173		
2,362.2	2,352.7	2,347.7	2,347.6	5.5	1.1	-135.96	-3,168.4	2,292.0	3,992.1	3,985.6	6.42	621.504		
2,400.0	2,390.1	2,382.7	2,382.5	5.6	1.1	-136.07	-3,168.6	2,291.8	3,996.3	3,989.8	6.51	613.406		
2,460.6	2,450.1	2,446.0	2,445.8	5.7	1.1	-136.23	-3,168.9	2,291.3	4,002.3	3,995.7	6.66	600.951		
2,500.0	2,489.2	2,489.2	2,489.1	5.8	1.2	-136.33	-3,169.1	2,291.0	4,005.7	3,999.0	6.75	593.056		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,546.0	2,545.8	6.0	1.2	-136.44	-3,169.3	2,290.6	4,010.1	4,003.2	6.89	582.049	
2,600.0	2,588.8	2,584.2	2,584.1	6.1	1.2	-136.50	-3,169.5	2,290.4	4,012.6	4,005.6	6.98	574.621	
2,657.5	2,646.1	2,643.5	2,643.4	6.2	1.2	-136.57	-3,169.8	2,290.1	4,015.4	4,008.3	7.11	564.876	
2,700.0	2,688.6	2,689.2	2,689.0	6.3	1.2	-136.61	-3,169.9	2,289.8	4,017.0	4,009.8	7.20	557.803	
2,755.9	2,744.4	2,745.3	2,745.1	6.4	1.2	-136.65	-3,169.9	2,289.6	4,018.2	4,010.9	7.32	549.236	
2,800.0	2,788.5	2,788.9	2,788.7	6.5	1.2	-136.66	-3,170.0	2,289.4	4,018.7	4,011.3	7.41	542.598	
2,824.3	2,812.8	2,812.9	2,812.8	6.5	1.2	142.65	-3,170.1	2,289.3	4,018.7	4,011.4	7.35	546.448	
2,854.3	2,842.9	2,842.8	2,842.6	6.6	1.2	142.65	-3,170.1	2,289.1	4,018.7	4,011.3	7.42	541.689	
2,900.0	2,888.5	2,888.1	2,888.0	6.7	1.2	142.65	-3,170.2	2,288.9	4,018.6	4,011.1	7.52	534.615	
2,952.7	2,941.3	2,942.5	2,942.3	6.8	1.2	142.66	-3,170.3	2,288.7	4,018.6	4,010.9	7.64	526.025	
3,000.0	2,988.5	2,991.7	2,991.5	6.9	1.2	142.66	-3,170.4	2,288.4	4,018.5	4,010.8	7.75	518.554	
3,051.2	3,039.7	3,043.6	3,043.5	7.0	1.2	142.66	-3,170.5	2,288.2	4,018.4	4,010.5	7.87	510.660	
3,100.0	3,088.5	3,092.9	3,092.8	7.1	1.2	142.66	-3,170.5	2,288.0	4,018.3	4,010.3	7.98	503.354	
3,149.6	3,138.1	3,140.8	3,140.6	7.2	1.3	142.67	-3,170.5	2,287.7	4,018.2	4,010.1	8.10	496.133	
3,200.0	3,188.5	3,189.1	3,188.9	7.3	1.3	142.67	-3,170.6	2,287.5	4,018.1	4,009.9	8.22	489.015	
3,248.0	3,236.6	3,239.5	3,239.4	7.4	1.3	142.67	-3,170.7	2,287.3	4,018.0	4,009.7	8.33	482.381	
3,300.0	3,288.5	3,295.6	3,295.5	7.5	1.3	142.68	-3,170.7	2,287.1	4,017.9	4,009.4	8.45	475.400	
3,346.4	3,335.0	3,337.8	3,337.7	7.6	1.3	142.68	-3,170.6	2,287.0	4,017.8	4,009.2	8.55	469.779	
3,400.0	3,388.5	3,385.7	3,385.5	7.7	1.3	142.67	-3,170.5	2,287.0	4,017.7	4,009.0	8.67	463.516	
3,425.4	3,413.9	3,409.0	3,408.9	7.7	1.3	142.67	-3,170.4	2,287.1	4,017.7	4,009.0	8.72	460.551	
3,444.9	3,433.4	3,428.0	3,427.8	7.8	1.3	142.67	-3,170.4	2,287.2	4,017.7	4,008.9	8.77	458.225	
3,500.0	3,488.5	3,481.4	3,481.3	7.9	1.3	142.67	-3,170.2	2,287.5	4,017.7	4,008.8	8.89	451.783	
3,543.3	3,531.8	3,525.8	3,525.6	8.0	1.3	142.66	-3,170.0	2,287.7	4,017.8	4,008.8	8.99	446.817	
3,600.0	3,588.5	3,586.3	3,586.1	8.1	1.3	142.66	-3,169.8	2,288.0	4,017.7	4,008.6	9.12	440.449	
3,641.7	3,630.3	3,626.4	3,626.3	8.2	1.3	142.65	-3,169.6	2,288.2	4,017.7	4,008.5	9.22	435.891	
3,653.5	3,642.0	3,637.2	3,637.0	8.2	1.3	142.65	-3,169.6	2,288.2	4,017.7	4,008.5	9.24	434.623	
3,700.0	3,688.5	3,679.7	3,679.6	8.3	1.3	142.65	-3,169.5	2,288.4	4,017.7	4,008.4	9.35	429.701	
3,740.1	3,728.7	3,718.1	3,717.9	8.4	1.3	142.65	-3,169.4	2,288.6	4,017.8	4,008.4	9.44	425.511	
3,800.0	3,788.5	3,778.1	3,778.0	8.5	1.3	142.64	-3,169.2	2,288.9	4,017.9	4,008.3	9.58	419.376	
3,838.6	3,827.1	3,813.0	3,812.8	8.6	1.3	142.64	-3,169.2	2,289.1	4,017.9	4,008.3	9.67	415.569	
3,900.0	3,888.5	3,860.5	3,860.4	8.7	1.3	142.64	-3,169.3	2,289.3	4,018.2	4,008.4	9.81	409.785	
3,937.0	3,925.5	3,900.0	3,899.9	8.8	1.3	142.64	-3,169.5	2,289.5	4,018.5	4,008.6	9.89	406.344	
4,000.0	3,988.5	3,939.1	3,939.0	9.0	1.4	142.64	-3,169.9	2,289.7	4,019.0	4,009.0	10.03	400.602	
4,035.4	4,024.0	3,967.4	3,967.2	9.0	1.4	142.64	-3,170.1	2,289.8	4,019.5	4,009.3	10.11	397.407	
4,100.0	4,088.5	4,023.7	4,023.5	9.2	1.4	142.64	-3,170.8	2,290.2	4,020.4	4,010.1	10.26	391.697	
4,133.8	4,122.4	4,057.6	4,057.4	9.2	1.4	142.64	-3,171.3	2,290.5	4,020.9	4,010.5	10.34	388.740	
4,200.0	4,188.5	4,122.1	4,121.9	9.4	1.4	142.65	-3,172.2	2,290.9	4,021.9	4,011.4	10.50	383.104	
4,232.3	4,220.8	4,152.0	4,151.9	9.4	1.4	142.65	-3,172.6	2,291.1	4,022.4	4,011.8	10.57	380.422	
4,300.0	4,288.5	4,216.7	4,216.6	9.6	1.4	142.65	-3,173.6	2,291.6	4,023.5	4,012.8	10.73	374.913	
4,330.7	4,319.2	4,248.8	4,248.6	9.7	1.5	142.65	-3,174.0	2,291.9	4,024.0	4,013.2	10.80	372.451	
4,400.0	4,388.5	4,318.9	4,318.8	9.8	1.5	142.65	-3,175.1	2,292.3	4,025.1	4,014.1	10.97	367.022	
4,429.1	4,417.7	4,346.1	4,345.9	9.9	1.5	142.66	-3,175.5	2,292.5	4,025.6	4,014.5	11.04	364.798	
4,500.0	4,488.5	4,413.1	4,412.9	10.0	1.5	142.66	-3,176.6	2,292.9	4,026.8	4,015.6	11.20	359.500	
4,527.5	4,516.1	4,440.9	4,440.7	10.1	1.5	142.66	-3,177.1	2,293.1	4,027.3	4,016.0	11.27	357.474	
4,600.0	4,588.5	4,513.1	4,512.9	10.2	1.5	142.67	-3,178.3	2,293.7	4,028.5	4,017.1	11.44	352.261	
4,626.0	4,614.5	4,537.4	4,537.1	10.3	1.5	142.67	-3,178.7	2,293.9	4,029.0	4,017.5	11.50	350.437	
4,700.0	4,688.5	4,606.4	4,606.2	10.5	1.6	142.67	-3,179.9	2,294.3	4,030.4	4,018.7	11.67	345.350	
4,724.4	4,712.9	4,628.8	4,628.6	10.5	1.6	142.68	-3,180.4	2,294.5	4,030.9	4,019.1	11.73	343.707	
4,800.0	4,788.5	4,700.0	4,699.7	10.7	1.6	142.68	-3,181.8	2,295.0	4,032.4	4,020.5	11.90	338.716	
4,822.8	4,811.4	4,719.8	4,719.5	10.7	1.6	142.68	-3,182.2	2,295.2	4,032.9	4,020.9	11.96	337.250	
4,900.0	4,888.5	4,792.4	4,792.1	10.9	1.6	142.69	-3,183.6	2,296.0	4,034.6	4,022.5	12.14	332.366	
4,921.2	4,909.8	4,811.8	4,811.6	10.9	1.6	142.69	-3,184.0	2,296.2	4,035.1	4,022.9	12.19	331.050	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO/SOLIS #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		
5,000.0	4,988.5	4,882.5	4,882.2	11.1	1.6	142.69	-3,185.4	2,297.1	4,037.0	4,024.6	12.37	326.281		
5,019.7	5,008.2	4,900.2	4,899.9	11.1	1.6	142.69	-3,185.8	2,297.4	4,037.5	4,025.1	12.42	325.113		
5,100.0	5,088.5	4,980.5	4,980.1	11.3	1.7	142.69	-3,187.5	2,298.5	4,039.5	4,026.9	12.61	320.402		
5,118.1	5,106.6	4,998.6	4,998.2	11.4	1.7	142.69	-3,187.9	2,298.8	4,040.0	4,027.3	12.65	319.360		
5,200.0	5,188.5	5,107.3	5,106.9	11.5	1.7	142.69	-3,189.9	2,300.2	4,041.8	4,029.0	12.85	314.611		
5,216.5	5,205.1	5,126.4	5,126.1	11.6	1.7	142.69	-3,190.2	2,300.4	4,042.1	4,029.2	12.89	313.677		
5,300.0	5,288.5	5,222.2	5,221.8	11.8	1.7	142.69	-3,191.5	2,301.3	4,043.5	4,030.4	13.08	309.033		
5,314.9	5,303.5	5,238.9	5,238.5	11.8	1.7	142.69	-3,191.7	2,301.4	4,043.7	4,030.6	13.12	308.216		
5,400.0	5,388.5	5,331.6	5,331.2	12.0	1.8	142.70	-3,192.7	2,302.2	4,044.9	4,031.6	13.32	303.651		
5,413.4	5,401.9	5,345.6	5,345.2	12.0	1.8	142.70	-3,192.9	2,302.3	4,045.1	4,031.7	13.35	302.947		
5,500.0	5,488.5	5,433.9	5,433.4	12.2	1.8	142.69	-3,193.7	2,303.0	4,046.2	4,032.6	13.56	298.471		
5,511.8	5,500.3	5,445.4	5,445.0	12.2	1.8	142.70	-3,193.8	2,303.0	4,046.3	4,032.7	13.58	297.873		
5,600.0	5,588.5	5,531.9	5,531.5	12.4	1.8	142.70	-3,194.8	2,303.6	4,047.4	4,033.6	13.79	293.478		
5,610.2	5,598.8	5,541.9	5,541.5	12.4	1.8	142.70	-3,194.9	2,303.7	4,047.5	4,033.7	13.82	292.977		
5,700.0	5,688.5	5,629.0	5,628.6	12.6	1.9	142.70	-3,195.9	2,304.2	4,048.7	4,034.7	14.03	288.656		
5,708.6	5,697.2	5,637.2	5,636.8	12.6	1.9	142.70	-3,196.0	2,304.3	4,048.8	4,034.8	14.05	288.248		
5,800.0	5,788.5	5,727.7	5,727.2	12.8	1.9	142.70	-3,197.0	2,305.1	4,050.1	4,035.9	14.26	283.999		
5,807.1	5,795.6	5,735.4	5,735.0	12.9	1.9	142.70	-3,197.1	2,305.1	4,050.2	4,036.0	14.28	283.673		
5,900.0	5,888.5	5,834.3	5,833.8	13.1	1.9	142.70	-3,198.1	2,305.9	4,051.4	4,036.9	14.50	279.465		
5,905.5	5,894.0	5,839.9	5,839.4	13.1	1.9	142.70	-3,198.2	2,306.0	4,051.5	4,037.0	14.51	279.221		
6,000.0	5,988.5	5,932.9	5,932.5	13.3	2.0	142.70	-3,199.1	2,306.6	4,052.6	4,037.9	14.73	275.093		
6,003.9	5,992.5	5,936.6	5,936.2	13.3	2.0	142.70	-3,199.1	2,306.7	4,052.7	4,037.9	14.74	274.925		
6,085.3	6,073.8	6,014.4	6,014.0	13.5	2.0	142.70	-3,199.9	2,307.4	4,053.8	4,038.8	14.93	271.487		
6,100.0	6,088.5	6,030.0	6,029.6	13.5	2.0	-127.29	-3,200.0	2,307.5	4,054.1	4,038.7	15.35	264.095		
6,102.3	6,090.9	6,032.5	6,032.1	13.5	2.0	-127.28	-3,200.1	2,307.5	4,054.1	4,038.8	15.36	263.983		
6,150.0	6,138.4	6,082.8	6,082.4	13.6	2.0	-127.17	-3,200.5	2,308.0	4,056.4	4,040.9	15.50	261.706		
6,200.0	6,188.0	6,131.1	6,130.6	13.7	2.0	-126.96	-3,201.0	2,308.4	4,060.8	4,045.1	15.67	259.167		
6,200.8	6,188.8	6,131.8	6,131.3	13.7	2.0	-126.95	-3,201.0	2,308.4	4,060.9	4,045.2	15.67	259.125		
6,250.0	6,237.1	6,176.7	6,176.2	13.9	2.0	-126.63	-3,201.4	2,308.8	4,067.3	4,051.5	15.86	256.508		
6,299.2	6,284.6	6,225.8	6,225.3	14.0	2.0	-126.23	-3,201.9	2,309.3	4,075.8	4,059.8	16.06	253.768		
6,300.0	6,285.3	6,226.6	6,226.2	14.0	2.0	-126.22	-3,201.9	2,309.3	4,076.0	4,059.9	16.06	253.724		
6,350.0	6,332.5	6,280.9	6,280.4	14.2	2.1	-125.72	-3,202.5	2,309.7	4,086.6	4,070.3	16.29	250.821		
6,397.6	6,376.3	6,324.5	6,324.0	14.4	2.1	-125.12	-3,202.9	2,310.0	4,098.6	4,082.1	16.53	248.012		
6,400.0	6,378.5	6,326.4	6,325.9	14.4	2.1	-125.08	-3,202.9	2,310.0	4,099.3	4,082.7	16.54	247.878		
6,450.0	6,423.0	6,366.3	6,365.8	14.7	2.1	-124.29	-3,203.3	2,310.2	4,113.9	4,097.1	16.80	244.853		
6,496.0	6,462.4	6,400.0	6,399.5	14.9	2.1	-123.43	-3,203.7	2,310.5	4,129.2	4,112.1	17.07	241.921		
6,500.0	6,465.7	6,404.7	6,404.3	14.9	2.1	-123.36	-3,203.7	2,310.5	4,130.6	4,113.5	17.09	241.662		
6,550.0	6,506.6	6,442.3	6,441.8	15.2	2.1	-122.28	-3,204.2	2,310.8	4,149.2	4,131.7	17.42	238.211		
6,594.5	6,541.2	6,474.1	6,473.6	15.6	2.1	-121.19	-3,204.5	2,311.1	4,167.3	4,149.5	17.74	234.846		
6,600.0	6,545.3	6,477.9	6,477.4	15.6	2.1	-121.04	-3,204.6	2,311.1	4,169.6	4,151.9	17.79	234.438		
6,650.0	6,581.8	6,510.5	6,510.0	16.0	2.1	-119.62	-3,205.0	2,311.5	4,191.9	4,173.7	18.20	230.270		
6,692.9	6,611.1	6,535.3	6,534.8	16.4	2.1	-118.23	-3,205.3	2,311.7	4,212.4	4,193.8	18.61	226.301		
6,700.0	6,615.8	6,539.2	6,538.7	16.5	2.1	-117.99	-3,205.4	2,311.7	4,215.9	4,197.3	18.68	225.658		
6,750.0	6,647.1	6,565.7	6,565.2	17.1	2.2	-116.14	-3,205.7	2,312.0	4,241.6	4,222.4	19.23	220.582		
6,791.3	6,670.9	6,585.8	6,585.3	17.6	2.2	-114.45	-3,206.1	2,312.2	4,264.0	4,244.3	19.74	216.009		
6,800.0	6,675.7	6,589.8	6,589.3	17.7	2.2	-114.08	-3,206.1	2,312.2	4,268.9	4,249.0	19.85	215.075		
6,850.0	6,701.3	6,600.0	6,599.5	18.4	2.2	-111.62	-3,206.3	2,312.4	4,297.5	4,277.0	20.54	209.274		
6,889.7	6,719.5	6,619.6	6,619.1	19.0	2.2	-109.67	-3,206.6	2,312.6	4,321.3	4,300.2	21.15	204.359		
6,900.0	6,723.8	6,622.3	6,621.7	19.1	2.2	-109.11	-3,206.7	2,312.6	4,327.6	4,306.3	21.30	203.152		
6,950.0	6,743.2	6,634.1	6,633.6	20.0	2.2	-106.24	-3,206.9	2,312.8	4,358.8	4,336.6	22.13	196.974		
6,988.2	6,755.8	6,641.7	6,641.2	20.6	2.2	-103.88	-3,207.1	2,312.9	4,383.3	4,360.5	22.80	192.227		
7,000.0	6,759.4	6,643.8	6,643.3	20.9	2.2	-103.12	-3,207.1	2,312.9	4,391.0	4,368.0	23.01	190.826		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO/SOLIS #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	
7,050.0	6,772.1	6,651.4	6,650.8	21.8	2.2	-99.77	-3,207.3	2,313.0	4,424.2	4,400.3	23.94	184.807	
7,086.6	6,779.4	6,655.6	6,655.0	22.5	2.2	-97.19	-3,207.4	2,313.1	4,449.0	4,424.3	24.65	180.483	
7,100.0	6,781.5	6,656.8	6,656.3	22.8	2.2	-96.21	-3,207.4	2,313.1	4,458.1	4,433.2	24.91	178.970	
7,150.0	6,787.5	6,660.0	6,659.5	23.9	2.2	-92.47	-3,207.5	2,313.1	4,492.6	4,466.7	25.92	173.323	
7,185.0	6,789.6	6,661.0	6,660.5	24.6	2.2	-89.77	-3,207.5	2,313.1	4,517.0	4,490.3	26.65	169.472	
7,200.0	6,789.9	6,661.1	6,660.5	24.9	2.2	-88.60	-3,207.5	2,313.1	4,527.5	4,500.5	26.97	167.887	
7,213.0	6,790.0	6,661.0	6,660.5	25.2	2.2	-87.58	-3,207.5	2,313.1	4,536.5	4,509.3	27.24	166.519	
7,283.4	6,789.7	6,660.2	6,659.6	26.8	2.2	-87.57	-3,207.5	2,313.1	4,586.2	4,557.4	28.82	159.153	
7,300.0	6,789.7	6,660.0	6,659.4	27.2	2.2	-87.56	-3,207.5	2,313.1	4,598.0	4,568.8	29.19	157.541	
7,381.9	6,789.4	6,659.0	6,658.5	29.1	2.2	-87.55	-3,207.5	2,313.1	4,656.5	4,625.4	31.09	149.780	
7,400.0	6,789.3	6,658.8	6,658.3	29.5	2.2	-87.54	-3,207.5	2,313.1	4,669.6	4,638.1	31.51	148.192	
7,480.3	6,789.0	6,657.9	6,657.4	31.4	2.2	-87.53	-3,207.4	2,313.1	4,727.8	4,694.4	33.44	141.385	
7,500.0	6,788.9	6,657.7	6,657.1	31.9	2.2	-87.52	-3,207.4	2,313.1	4,742.2	4,708.3	33.91	139.836	
7,578.7	6,788.6	6,656.8	6,656.2	33.8	2.2	-87.51	-3,207.4	2,313.1	4,800.1	4,764.2	35.85	133.885	
7,600.0	6,788.5	6,656.5	6,656.0	34.4	2.2	-87.50	-3,207.4	2,313.1	4,815.8	4,779.4	36.38	132.388	
7,677.1	6,788.2	6,655.6	6,655.1	36.3	2.2	-87.49	-3,207.4	2,313.1	4,873.2	4,834.9	38.32	127.188	
7,700.0	6,788.2	6,655.4	6,654.9	36.9	2.2	-87.48	-3,207.4	2,313.0	4,890.3	4,851.4	38.89	125.751	
7,775.6	6,787.9	6,654.5	6,654.0	38.8	2.2	-87.47	-3,207.4	2,313.0	4,947.3	4,906.5	40.82	121.202	
7,800.0	6,787.8	6,654.3	6,653.7	39.4	2.2	-87.46	-3,207.4	2,313.0	4,965.8	4,924.3	41.44	119.825	
7,874.0	6,787.5	6,653.4	6,652.9	41.3	2.2	-87.45	-3,207.3	2,313.0	5,022.1	4,978.8	43.35	115.838	
7,900.0	6,787.4	6,653.2	6,652.6	42.0	2.2	-87.44	-3,207.3	2,313.0	5,042.1	4,998.0	44.03	114.522	
7,972.4	6,787.1	6,652.4	6,651.8	43.9	2.2	-87.43	-3,207.3	2,313.0	5,097.8	5,051.9	45.92	111.019	
8,000.0	6,787.0	6,652.1	6,651.5	44.6	2.2	-87.42	-3,207.3	2,313.0	5,119.2	5,072.5	46.64	109.762	
8,070.8	6,786.7	6,651.3	6,650.8	46.5	2.2	-87.41	-3,207.3	2,313.0	5,174.3	5,125.8	48.51	106.675	
8,100.0	6,786.6	6,651.0	6,650.4	47.3	2.2	-87.40	-3,207.3	2,313.0	5,197.1	5,147.8	49.27	105.475	
8,169.3	6,786.4	6,650.2	6,649.7	49.1	2.2	-87.39	-3,207.3	2,313.0	5,251.5	5,200.3	51.11	102.746	
8,200.0	6,786.3	6,649.9	6,649.4	49.9	2.2	-87.38	-3,207.3	2,313.0	5,275.7	5,223.8	51.93	101.600	
8,267.7	6,786.0	6,649.2	6,648.6	51.7	2.2	-87.37	-3,207.2	2,313.0	5,329.3	5,275.6	53.73	99.182	
8,300.0	6,785.9	6,648.8	6,648.3	52.6	2.2	-87.36	-3,207.2	2,313.0	5,355.0	5,300.4	54.59	98.087	
8,366.1	6,785.6	6,648.1	6,647.6	54.4	2.2	-87.35	-3,207.2	2,312.9	5,407.9	5,351.5	56.37	95.937	
8,400.0	6,785.5	6,647.8	6,647.2	55.3	2.2	-87.34	-3,207.2	2,312.9	5,435.1	5,377.8	57.28	94.890	
8,464.5	6,785.2	6,647.1	6,646.6	57.0	2.2	-87.33	-3,207.2	2,312.9	5,487.1	5,428.0	59.02	92.975	
8,500.0	6,785.1	6,646.7	6,646.2	58.0	2.2	-87.32	-3,207.2	2,312.9	5,515.7	5,455.8	59.97	91.972	
8,563.0	6,784.9	6,646.1	6,645.5	59.7	2.2	-87.31	-3,207.2	2,312.9	5,566.9	5,505.2	61.67	90.262	
8,600.0	6,784.7	6,645.7	6,645.1	60.7	2.2	-87.30	-3,207.2	2,312.9	5,597.0	5,534.4	62.68	89.301	
8,661.4	6,784.5	6,645.0	6,644.5	62.4	2.2	-87.29	-3,207.2	2,312.9	5,647.2	5,582.9	64.34	87.769	
8,700.0	6,784.3	6,644.6	6,644.1	63.4	2.2	-87.29	-3,207.1	2,312.9	5,678.9	5,613.5	65.39	86.848	
8,759.8	6,784.1	6,644.0	6,643.5	65.0	2.2	-87.27	-3,207.1	2,312.9	5,728.2	5,661.2	67.02	85.474	
8,800.0	6,784.0	6,643.6	6,643.1	66.1	2.2	-87.27	-3,207.1	2,312.9	5,761.4	5,693.3	68.11	84.590	
8,858.2	6,783.7	6,643.0	6,642.5	67.7	2.2	-87.26	-3,207.1	2,312.9	5,809.7	5,740.0	69.70	83.354	
8,900.0	6,783.6	6,642.6	6,642.1	68.9	2.2	-87.25	-3,207.1	2,312.9	5,844.4	5,773.6	70.84	82.504	
8,956.7	6,783.3	6,642.0	6,641.5	70.4	2.2	-87.24	-3,207.1	2,312.9	5,891.7	5,819.3	72.39	81.392	
9,000.0	6,783.2	6,641.6	6,641.1	71.6	2.2	-87.23	-3,207.1	2,312.9	5,928.0	5,854.4	73.57	80.574	
9,055.1	6,783.0	6,641.1	6,640.5	73.1	2.2	-87.22	-3,207.1	2,312.8	5,974.2	5,899.1	75.08	79.570	
9,100.0	6,782.8	6,640.6	6,640.1	74.3	2.2	-87.21	-3,207.1	2,312.8	6,012.0	5,935.7	76.31	78.783	
9,153.5	6,782.6	6,640.1	6,639.6	75.8	2.2	-87.20	-3,207.0	2,312.8	6,057.2	5,979.4	77.78	77.877	
9,200.0	6,782.4	6,639.6	6,639.1	77.1	2.2	-87.19	-3,207.0	2,312.8	6,096.5	6,017.5	79.05	77.118	
9,251.9	6,782.2	6,639.1	6,638.6	78.5	2.2	-87.19	-3,207.0	2,312.8	6,140.6	6,060.1	80.48	76.298	
9,300.0	6,782.0	6,638.6	6,638.1	79.8	2.2	-87.18	-3,207.0	2,312.8	6,181.5	6,099.7	81.80	75.566	
9,350.4	6,781.8	6,638.2	6,637.6	81.2	2.2	-87.17	-3,207.0	2,312.8	6,224.5	6,141.3	83.19	74.824	
9,400.0	6,781.6	6,637.7	6,637.1	82.6	2.2	-87.16	-3,207.0	2,312.8	6,266.9	6,182.4	84.55	74.117	
9,448.8	6,781.4	6,637.2	6,636.7	83.9	2.2	-87.15	-3,207.0	2,312.8	6,308.8	6,222.9	85.90	73.444	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,781.2	6,636.7	6,636.2	85.4	2.2	-87.14	-3,207.0	2,312.8	6,352.8	6,265.5	87.31	72.762	
9,547.2	6,781.0	6,636.3	6,635.7	86.7	2.2	-87.13	-3,207.0	2,312.8	6,393.5	6,304.9	88.61	72.151	
9,600.0	6,780.8	6,635.8	6,635.2	88.1	2.2	-87.12	-3,207.0	2,312.8	6,439.0	6,349.0	90.07	71.491	
9,645.6	6,780.7	6,635.3	6,634.8	89.4	2.2	-87.12	-3,206.9	2,312.8	6,478.6	6,387.2	91.33	70.937	
9,700.0	6,780.5	6,634.8	6,634.3	90.9	2.2	-87.11	-3,206.9	2,312.8	6,525.7	6,432.9	92.83	70.298	
9,744.1	6,780.3	6,634.4	6,633.9	92.1	2.2	-87.10	-3,206.9	2,312.8	6,564.0	6,470.0	94.05	69.795	
9,800.0	6,780.1	6,633.9	6,633.4	93.7	2.2	-87.09	-3,206.9	2,312.8	6,612.7	6,517.1	95.59	69.176	
9,842.5	6,779.9	6,633.5	6,633.0	94.8	2.2	-87.08	-3,206.9	2,312.7	6,649.8	6,553.1	96.77	68.719	
9,900.0	6,779.7	6,633.0	6,632.4	96.4	2.2	-87.07	-3,206.9	2,312.7	6,700.1	6,601.8	98.36	68.119	
9,940.9	6,779.5	6,632.6	6,632.1	97.6	2.2	-87.07	-3,206.9	2,312.7	6,736.0	6,636.5	99.49	67.704	
10,000.0	6,779.3	6,632.0	6,631.5	99.2	2.2	-87.05	-3,206.9	2,312.7	6,787.9	6,686.7	101.13	67.122	
10,039.3	6,779.1	6,631.7	6,631.1	100.3	2.2	-87.05	-3,206.9	2,312.7	6,822.5	6,720.3	102.22	66.745	
10,100.0	6,778.9	6,631.1	6,630.6	102.0	2.2	-87.04	-3,206.9	2,312.7	6,875.9	6,772.0	103.90	66.180	
10,137.8	6,778.7	6,630.8	6,630.3	103.0	2.2	-87.03	-3,206.9	2,312.7	6,909.3	6,804.3	104.94	65.837	
10,200.0	6,778.5	6,630.2	6,629.7	104.8	2.2	-87.02	-3,206.8	2,312.7	6,964.3	6,857.7	106.67	65.289	
10,236.2	6,778.3	6,629.9	6,629.4	105.8	2.2	-87.02	-3,206.8	2,312.7	6,996.4	6,888.7	107.67	64.978	
10,300.0	6,778.1	6,629.3	6,628.8	107.5	2.2	-87.00	-3,206.8	2,312.7	7,053.0	6,943.6	109.44	64.444	
10,334.6	6,778.0	6,629.0	6,628.5	108.5	2.2	-87.00	-3,206.8	2,312.7	7,083.8	6,973.4	110.40	64.162	
10,400.0	6,777.7	6,628.4	6,627.9	110.3	2.2	-86.99	-3,206.8	2,312.7	7,142.0	7,029.8	112.22	63.644	
10,433.0	6,777.6	6,628.1	6,627.6	111.2	2.2	-86.98	-3,206.8	2,312.7	7,171.5	7,058.4	113.14	63.388	
10,500.0	6,777.3	6,627.5	6,627.0	113.1	2.2	-86.97	-3,206.8	2,312.7	7,231.3	7,116.3	115.00	62.884	
10,531.5	6,777.2	6,627.3	6,626.7	114.0	2.2	-86.97	-3,206.8	2,312.7	7,259.5	7,143.6	115.87	62.652	
10,600.0	6,776.9	6,626.7	6,626.1	115.9	2.2	-86.96	-3,206.8	2,312.7	7,320.9	7,203.1	117.77	62.161	
10,629.9	6,776.8	6,626.4	6,625.9	116.7	2.2	-86.95	-3,206.8	2,312.7	7,347.7	7,229.1	118.60	61.952	
10,700.0	6,776.5	6,625.8	6,625.3	118.7	2.2	-86.94	-3,206.8	2,312.6	7,410.7	7,290.2	120.55	61.473	
10,728.3	6,776.4	6,625.6	6,625.0	119.5	2.2	-86.94	-3,206.8	2,312.6	7,436.2	7,314.9	121.34	61.284	
10,800.0	6,776.1	6,624.9	6,624.4	121.4	2.2	-86.92	-3,206.7	2,312.6	7,500.8	7,377.5	123.33	60.818	
10,826.7	6,776.0	6,624.7	6,624.2	122.2	2.2	-86.92	-3,206.7	2,312.6	7,525.0	7,400.9	124.08	60.648	
10,900.0	6,775.7	6,624.1	6,623.6	124.2	2.2	-86.91	-3,206.7	2,312.6	7,591.2	7,465.0	126.11	60.193	
10,925.2	6,775.6	6,623.9	6,623.4	124.9	2.2	-86.90	-3,206.7	2,312.6	7,613.9	7,487.1	126.81	60.040	
11,000.0	6,775.3	6,600.0	6,599.5	127.0	2.2	-86.48	-3,206.3	2,312.4	7,681.8	7,553.0	128.85	59.620	
11,023.6	6,775.2	6,600.0	6,599.5	127.7	2.2	-86.48	-3,206.3	2,312.4	7,703.2	7,573.7	129.50	59.483	
11,100.0	6,774.9	6,600.0	6,599.5	129.8	2.2	-86.48	-3,206.3	2,312.4	7,772.6	7,641.0	131.63	59.049	
11,122.0	6,774.8	6,600.0	6,599.5	130.4	2.2	-86.48	-3,206.3	2,312.4	7,792.6	7,660.4	132.24	58.926	
11,200.0	6,774.5	6,600.0	6,599.5	132.6	2.2	-86.48	-3,206.3	2,312.4	7,863.6	7,729.2	134.41	58.503	
11,220.4	6,774.4	6,600.0	6,599.5	133.2	2.2	-86.48	-3,206.3	2,312.4	7,882.3	7,747.3	134.98	58.394	
11,300.0	6,774.1	6,600.0	6,599.5	135.4	2.2	-86.48	-3,206.3	2,312.4	7,954.9	7,817.7	137.20	57.980	
11,318.9	6,774.0	6,600.0	6,599.5	135.9	2.2	-86.48	-3,206.3	2,312.4	7,972.1	7,834.4	137.73	57.884	
11,400.0	6,773.7	6,600.0	6,599.5	138.2	2.2	-86.48	-3,206.3	2,312.4	8,046.3	7,906.3	139.99	57.479	
11,417.3	6,773.6	6,600.0	6,599.5	138.7	2.2	-86.48	-3,206.3	2,312.4	8,062.2	7,921.7	140.47	57.395	
11,500.0	6,773.3	6,600.0	6,599.5	141.0	2.2	-86.48	-3,206.3	2,312.4	8,138.0	7,995.2	142.77	56.999	
11,515.7	6,773.2	6,600.0	6,599.5	141.4	2.2	-86.48	-3,206.3	2,312.4	8,152.4	8,009.2	143.21	56.925	
11,600.0	6,772.9	6,600.0	6,599.5	143.8	2.2	-86.48	-3,206.3	2,312.4	8,229.8	8,084.3	145.56	56.539	
11,614.1	6,772.8	6,600.0	6,599.5	144.2	2.2	-86.48	-3,206.3	2,312.4	8,242.8	8,096.9	145.96	56.475	
11,700.0	6,772.5	6,600.0	6,599.5	146.6	2.2	-86.48	-3,206.3	2,312.4	8,321.9	8,173.5	148.35	56.096	
11,712.6	6,772.4	6,600.0	6,599.5	146.9	2.2	-86.48	-3,206.3	2,312.4	8,333.4	8,184.7	148.70	56.042	
11,800.0	6,772.1	6,600.0	6,599.5	149.4	2.2	-86.47	-3,206.3	2,312.4	8,414.1	8,262.9	151.14	55.671	
11,811.0	6,772.1	6,600.0	6,599.5	149.7	2.2	-86.47	-3,206.3	2,312.4	8,424.2	8,272.8	151.45	55.625	
11,900.0	6,771.7	6,600.0	6,599.5	152.2	2.2	-86.47	-3,206.3	2,312.4	8,506.5	8,352.5	153.93	55.262	
11,909.4	6,771.7	6,600.0	6,599.5	152.4	2.2	-86.47	-3,206.3	2,312.4	8,515.2	8,361.0	154.19	55.225	
12,000.0	6,771.3	6,600.0	6,599.5	154.9	2.2	-86.47	-3,206.3	2,312.4	8,599.0	8,442.3	156.72	54.869	
12,007.8	6,771.3	6,600.0	6,599.5	155.2	2.2	-86.47	-3,206.3	2,312.4	8,606.3	8,449.4	156.94	54.839	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO/SOLIS #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		
12,100.0	6,770.9	6,600.0	6,599.5	157.7	2.2	-86.47	-3,206.3	2,312.4	8,691.7	8,532.2	159.51	54.491		
12,106.3	6,770.9	6,600.0	6,599.5	157.9	2.2	-86.47	-3,206.3	2,312.4	8,697.6	8,537.9	159.68	54.467		
12,200.0	6,770.5	6,600.0	6,599.5	160.5	2.2	-86.47	-3,206.3	2,312.4	8,784.6	8,622.3	162.30	54.126		
12,204.7	6,770.5	6,600.0	6,599.5	160.7	2.2	-86.47	-3,206.3	2,312.4	8,789.0	8,626.6	162.43	54.109		
12,300.0	6,770.1	6,600.0	6,599.5	163.3	2.2	-86.47	-3,206.3	2,312.4	8,877.7	8,712.6	165.09	53.774		
12,303.1	6,770.1	6,600.0	6,599.5	163.4	2.2	-86.47	-3,206.3	2,312.4	8,880.6	8,715.4	165.18	53.763		
12,316.4	6,770.0	6,600.0	6,599.5	163.8	2.2	-86.47	-3,206.3	2,312.4	8,892.9	8,727.4	165.55	53.718 SF		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOWARD #14-18 - 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	2.2	2.2	0.0	0.0	-118.75	-3,096.4	-5,643.9	6,437.5				
98.4	98.4	109.6	109.6	0.1	0.1	-118.75	-3,096.3	-5,643.9	6,437.4	6,437.2	0.20	N/A	
100.0	100.0	111.0	111.0	0.1	0.1	-118.75	-3,096.3	-5,643.9	6,437.4	6,437.2	0.20	N/A	
196.8	196.8	200.0	200.0	0.3	0.2	-118.75	-3,096.3	-5,643.8	6,437.3	6,436.8	0.52	N/A	
200.0	200.0	200.0	200.0	0.3	0.2	-118.75	-3,096.3	-5,643.8	6,437.3	6,436.8	0.53	N/A	
203.0	203.0	205.4	205.4	0.3	0.2	-118.75	-3,096.3	-5,643.8	6,437.3	6,436.8	0.54	N/A	
295.3	295.3	292.0	292.0	0.5	0.2	-118.75	-3,096.3	-5,643.8	6,437.4	6,436.6	0.75	8,612.096	
300.0	300.0	296.5	296.5	0.5	0.2	-118.75	-3,096.3	-5,643.8	6,437.4	6,436.6	0.76	8,490.396	
393.7	393.7	383.6	383.6	0.8	0.3	-118.75	-3,096.6	-5,643.8	6,437.5	6,436.5	1.03	6,220.697	
400.0	400.0	389.5	389.5	0.8	0.3	-118.75	-3,096.6	-5,643.8	6,437.5	6,436.5	1.05	6,110.601	
492.1	492.1	487.0	487.0	1.0	0.4	-118.76	-3,097.2	-5,643.6	6,437.7	6,436.3	1.33	4,842.593	
500.0	500.0	495.5	495.5	1.0	0.4	-118.76	-3,097.3	-5,643.6	6,437.7	6,436.3	1.35	4,757.818	
590.5	590.5	591.2	591.2	1.2	0.4	-118.76	-3,097.9	-5,643.3	6,437.7	6,436.1	1.62	3,984.786	
600.0	600.0	601.2	601.2	1.2	0.4	-118.77	-3,098.0	-5,643.3	6,437.7	6,436.1	1.64	3,918.600	
689.0	689.0	693.7	693.7	1.4	0.5	-118.77	-3,098.6	-5,642.9	6,437.7	6,435.8	1.89	3,398.135	
700.0	700.0	706.5	706.5	1.4	0.5	-118.77	-3,098.8	-5,642.9	6,437.7	6,435.8	1.93	3,342.342	
787.4	787.4	819.2	819.1	1.6	0.5	-118.78	-3,099.8	-5,642.0	6,437.5	6,435.3	2.18	2,952.831	
800.0	800.0	834.8	834.8	1.7	0.5	-118.79	-3,099.9	-5,641.8	6,437.4	6,435.2	2.22	2,904.896	
885.8	885.8	942.6	942.6	1.9	0.6	-118.80	-3,100.8	-5,640.5	6,436.8	6,434.4	2.46	2,616.286	
900.0	900.0	960.8	960.7	1.9	0.6	-118.80	-3,100.9	-5,640.2	6,436.7	6,434.2	2.50	2,574.235	
984.2	984.2	1,049.7	1,049.6	2.1	0.6	-118.81	-3,101.4	-5,638.9	6,435.9	6,433.1	2.73	2,357.883	
1,000.0	1,000.0	1,064.3	1,064.2	2.1	0.7	-118.81	-3,101.5	-5,638.7	6,435.7	6,432.9	2.77	2,322.256	
1,082.7	1,082.7	1,152.2	1,152.2	2.3	0.7	-118.82	-3,102.1	-5,637.4	6,434.9	6,431.9	2.99	2,148.724	
1,100.0	1,100.0	1,172.8	1,172.7	2.3	0.7	-118.82	-3,102.2	-5,637.1	6,434.7	6,431.7	3.04	2,115.074	
1,181.1	1,181.1	1,264.8	1,264.7	2.5	0.7	-118.83	-3,102.5	-5,635.7	6,433.8	6,430.5	3.26	1,972.987	
1,200.0	1,200.0	1,285.8	1,285.7	2.6	0.7	-118.84	-3,102.6	-5,635.4	6,433.5	6,430.2	3.31	1,942.778	
1,279.5	1,279.5	1,365.5	1,365.4	2.7	0.8	-118.84	-3,102.6	-5,634.2	6,432.5	6,429.0	3.52	1,827.702	
1,300.0	1,300.0	1,385.6	1,385.5	2.8	0.8	-118.84	-3,102.5	-5,633.9	6,432.2	6,428.6	3.57	1,800.362	
1,377.9	1,377.9	1,468.4	1,468.3	3.0	0.8	-118.85	-3,102.5	-5,632.7	6,431.2	6,427.4	3.78	1,702.731	
1,400.0	1,400.0	1,492.2	1,492.1	3.0	0.8	-118.85	-3,102.4	-5,632.3	6,430.9	6,427.0	3.83	1,676.958	
1,476.4	1,476.4	1,566.4	1,566.3	3.2	0.9	-118.85	-3,102.4	-5,631.2	6,429.8	6,425.8	4.03	1,594.860	
1,500.0	1,500.0	1,589.1	1,589.0	3.2	0.9	-118.85	-3,102.3	-5,630.8	6,429.5	6,425.4	4.09	1,571.110	
1,574.8	1,574.8	1,642.2	1,642.0	3.4	0.9	-38.18	-3,102.3	-5,630.1	6,427.8	6,423.6	4.23	1,520.826	
1,600.0	1,600.0	1,658.9	1,658.8	3.5	0.9	-38.19	-3,102.3	-5,629.9	6,427.0	6,422.7	4.29	1,499.323	
1,673.2	1,673.1	1,700.0	1,699.9	3.6	0.9	-38.25	-3,102.3	-5,629.6	6,423.7	6,419.3	4.45	1,442.473	
1,700.0	1,699.8	1,730.8	1,730.7	3.7	0.9	-38.28	-3,102.4	-5,629.4	6,422.2	6,417.7	4.52	1,421.423	
1,771.6	1,771.2	1,788.9	1,788.8	3.8	0.9	-38.37	-3,102.5	-5,629.1	6,417.3	6,412.7	4.69	1,368.557	
1,800.0	1,799.5	1,811.3	1,811.2	3.9	0.9	-38.41	-3,102.6	-5,629.0	6,415.1	6,410.3	4.75	1,349.161	
1,870.1	1,869.0	1,865.7	1,865.6	4.0	1.0	-38.53	-3,102.7	-5,628.9	6,408.6	6,403.7	4.92	1,302.805	
1,900.0	1,898.7	1,888.9	1,888.8	4.1	1.0	-38.58	-3,102.8	-5,628.9	6,405.5	6,400.5	4.99	1,283.817	
1,968.5	1,966.4	1,942.0	1,941.9	4.3	1.0	-38.73	-3,103.0	-5,629.0	6,397.6	6,392.5	5.16	1,240.148	
2,000.0	1,997.5	1,966.4	1,966.2	4.4	1.0	-38.80	-3,103.1	-5,629.0	6,393.6	6,388.4	5.24	1,220.844	
2,066.9	2,063.2	2,016.4	2,016.2	4.6	1.0	-38.97	-3,103.3	-5,629.3	6,384.3	6,378.9	5.41	1,179.570	
2,100.1	2,095.7	2,039.5	2,039.4	4.7	1.0	-39.06	-3,103.4	-5,629.4	6,379.3	6,373.8	5.50	1,159.881	
2,165.3	2,159.5	2,085.1	2,085.0	4.9	1.0	-39.12	-3,103.6	-5,629.9	6,369.4	6,363.7	5.68	1,122.097	
2,200.0	2,193.4	2,100.0	2,099.9	5.0	1.0	-39.14	-3,103.7	-5,630.0	6,364.2	6,358.5	5.77	1,103.236	
2,224.2	2,217.1	2,125.4	2,125.3	5.1	1.0	-39.17	-3,103.8	-5,630.4	6,360.6	6,354.8	5.84	1,089.643	
2,263.8	2,255.9	2,152.2	2,152.1	5.2	1.0	-39.12	-3,103.9	-5,630.8	6,355.0	6,349.1	5.94	1,070.016	
2,300.0	2,291.5	2,176.8	2,176.7	5.3	1.0	-39.09	-3,104.1	-5,631.2	6,350.3	6,344.3	6.03	1,053.285	
2,362.2	2,352.7	2,223.4	2,223.2	5.5	1.0	-39.04	-3,104.3	-5,632.2	6,343.2	6,337.0	6.18	1,027.227	
2,400.0	2,390.1	2,254.8	2,254.6	5.6	1.0	-39.02	-3,104.4	-5,632.9	6,339.5	6,333.2	6.27	1,011.645	
2,460.6	2,450.1	2,306.3	2,306.1	5.7	1.0	-38.99	-3,104.5	-5,634.1	6,334.4	6,327.9	6.41	988.301	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,489.2	2,345.7	2,345.5	5.8	1.0	-38.98	-3,104.4	-5,635.2	6,331.6	6,325.1	6.50	973.390	
2,559.0	2,548.0	2,405.4	2,405.2	6.0	1.0	-38.96	-3,104.3	-5,636.9	6,328.2	6,321.6	6.64	952.668	
2,600.0	2,588.8	2,450.0	2,449.8	6.1	1.0	-38.96	-3,104.1	-5,638.1	6,326.4	6,319.7	6.74	938.673	
2,657.5	2,646.1	2,513.1	2,512.8	6.2	1.1	-38.95	-3,103.8	-5,639.9	6,324.6	6,317.8	6.87	920.530	
2,700.0	2,688.6	2,560.5	2,560.3	6.3	1.1	-38.94	-3,103.4	-5,641.3	6,323.8	6,316.9	6.97	907.576	
2,750.4	2,738.9	2,614.3	2,614.0	6.4	1.1	-38.94	-3,102.9	-5,642.8	6,323.5	6,316.4	7.08	893.495	
2,755.9	2,744.4	2,619.6	2,619.3	6.4	1.1	-38.94	-3,102.9	-5,642.9	6,323.5	6,316.4	7.09	891.993	
2,800.0	2,788.5	2,661.6	2,661.2	6.5	1.1	-38.94	-3,102.4	-5,644.2	6,323.8	6,316.7	7.18	880.255	
2,824.3	2,812.8	2,684.6	2,684.3	6.5	1.1	-119.64	-3,102.2	-5,644.8	6,324.3	6,316.9	7.39	855.297	
2,854.3	2,842.9	2,718.7	2,718.3	6.6	1.1	-119.63	-3,101.8	-5,645.9	6,324.9	6,317.4	7.46	848.244	
2,900.0	2,888.5	2,780.0	2,779.6	6.7	1.1	-119.61	-3,100.9	-5,647.7	6,325.7	6,318.2	7.55	837.592	
2,952.7	2,941.3	2,839.7	2,839.3	6.8	1.1	-119.60	-3,099.9	-5,649.4	6,326.6	6,318.9	7.67	824.788	
3,000.0	2,988.5	2,889.2	2,888.8	6.9	1.1	-119.58	-3,099.0	-5,650.9	6,327.4	6,319.6	7.78	813.695	
3,051.2	3,039.7	2,940.0	2,939.6	7.0	1.1	-119.57	-3,097.9	-5,652.4	6,328.2	6,320.3	7.89	801.993	
3,100.0	3,088.5	2,987.8	2,987.3	7.1	1.1	-119.55	-3,097.0	-5,653.8	6,329.0	6,321.0	8.00	791.142	
3,149.6	3,138.1	3,038.8	3,038.3	7.2	1.1	-119.54	-3,095.9	-5,655.4	6,329.8	6,321.7	8.11	780.364	
3,200.0	3,188.5	3,091.6	3,091.0	7.3	1.1	-119.53	-3,095.2	-5,656.7	6,330.6	6,322.4	8.22	769.692	
3,248.0	3,236.6	3,143.5	3,142.9	7.4	1.1	-119.52	-3,094.8	-5,657.9	6,331.4	6,323.0	8.33	759.719	
3,300.0	3,288.5	3,200.0	3,199.4	7.5	1.1	-119.51	-3,094.5	-5,659.0	6,332.1	6,323.7	8.45	749.161	
3,346.4	3,335.0	3,247.5	3,246.9	7.6	1.2	-119.51	-3,094.4	-5,659.9	6,332.8	6,324.2	8.56	739.916	
3,400.0	3,388.5	3,302.4	3,301.8	7.7	1.2	-119.50	-3,094.3	-5,660.8	6,333.5	6,324.9	8.68	729.577	
3,444.9	3,433.4	3,351.9	3,351.3	7.8	1.2	-119.50	-3,094.1	-5,661.7	6,334.2	6,325.4	8.78	721.026	
3,500.0	3,488.5	3,420.0	3,419.4	7.9	1.2	-119.49	-3,093.9	-5,662.8	6,334.9	6,325.9	8.91	710.717	
3,543.3	3,531.8	3,495.2	3,494.6	8.0	1.2	-119.48	-3,093.6	-5,663.7	6,335.2	6,326.2	9.02	702.523	
3,600.0	3,588.5	3,556.3	3,555.7	8.1	1.2	-119.48	-3,093.3	-5,664.3	6,335.6	6,326.4	9.15	692.495	
3,641.7	3,630.3	3,599.9	3,599.2	8.2	1.2	-119.48	-3,093.1	-5,664.7	6,335.8	6,326.5	9.25	685.293	
3,700.0	3,688.5	3,655.0	3,654.3	8.3	1.2	-119.47	-3,092.9	-5,665.2	6,336.1	6,326.7	9.38	675.532	
3,740.1	3,728.7	3,693.0	3,692.3	8.4	1.2	-119.47	-3,092.7	-5,665.5	6,336.3	6,326.9	9.47	668.954	
3,800.0	3,788.5	3,750.4	3,749.7	8.5	1.3	-119.46	-3,092.4	-5,666.1	6,336.7	6,327.1	9.61	659.362	
3,838.6	3,827.1	3,787.5	3,786.8	8.6	1.3	-119.46	-3,092.2	-5,666.5	6,337.0	6,327.3	9.70	653.310	
3,900.0	3,888.5	3,846.6	3,846.0	8.7	1.3	-119.46	-3,091.9	-5,667.1	6,337.4	6,327.5	9.84	643.889	
3,937.0	3,925.5	3,882.3	3,881.7	8.8	1.3	-119.45	-3,091.7	-5,667.5	6,337.6	6,327.7	9.93	638.332	
4,000.0	3,988.5	3,950.3	3,949.7	9.0	1.3	-119.45	-3,091.3	-5,668.3	6,338.1	6,328.0	10.08	628.999	
4,035.4	4,024.0	3,990.2	3,989.6	9.0	1.3	-119.44	-3,091.0	-5,668.7	6,338.3	6,328.1	10.16	623.837	
4,100.0	4,088.5	4,053.0	4,052.3	9.2	1.3	-119.43	-3,090.5	-5,669.5	6,338.7	6,328.4	10.31	614.727	
4,133.8	4,122.4	4,085.1	4,084.4	9.2	1.3	-119.43	-3,090.2	-5,669.8	6,338.9	6,328.5	10.39	610.059	
4,200.0	4,188.5	4,160.2	4,159.5	9.4	1.3	-119.42	-3,089.4	-5,670.8	6,339.3	6,328.7	10.55	600.987	
4,232.3	4,220.8	4,198.7	4,198.0	9.4	1.3	-119.41	-3,088.9	-5,671.3	6,339.4	6,328.8	10.63	596.627	
4,300.0	4,288.5	4,302.9	4,302.1	9.6	1.4	-119.39	-3,086.2	-5,672.9	6,339.5	6,328.7	10.79	587.295	
4,330.7	4,319.2	4,357.4	4,356.6	9.7	1.4	-119.36	-3,084.0	-5,673.9	6,339.4	6,328.5	10.87	583.030	
4,400.0	4,388.5	4,502.8	4,501.8	9.8	1.4	-119.28	-3,075.6	-5,676.8	6,338.6	6,327.6	11.06	573.095	
4,429.1	4,417.7	4,580.8	4,579.5	9.9	1.4	-119.24	-3,070.2	-5,677.9	6,338.0	6,326.8	11.14	568.861	
4,500.0	4,488.5	4,666.5	4,665.0	10.0	1.4	-119.18	-3,064.0	-5,678.7	6,336.1	6,324.7	11.32	559.953	
4,527.5	4,516.1	4,695.2	4,693.6	10.1	1.4	-119.17	-3,061.8	-5,679.0	6,335.3	6,323.9	11.38	556.608	
4,600.0	4,588.5	4,745.8	4,744.1	10.2	1.5	-119.13	-3,058.2	-5,679.5	6,333.4	6,321.9	11.55	548.315	
4,626.0	4,614.5	4,763.4	4,761.6	10.3	1.5	-119.12	-3,057.0	-5,679.7	6,332.8	6,321.2	11.61	545.409	
4,700.0	4,688.5	4,818.5	4,816.6	10.5	1.5	-119.10	-3,053.7	-5,680.2	6,331.2	6,319.4	11.78	537.259	
4,724.4	4,712.9	4,841.2	4,839.3	10.5	1.5	-119.08	-3,052.4	-5,680.5	6,330.8	6,318.9	11.84	534.584	
4,800.0	4,788.5	4,910.2	4,908.2	10.7	1.5	-119.05	-3,048.5	-5,681.1	6,329.3	6,317.3	12.02	526.468	
4,822.8	4,811.4	4,929.1	4,927.1	10.7	1.5	-119.04	-3,047.5	-5,681.2	6,328.9	6,316.8	12.08	524.075	
4,900.0	4,888.5	5,000.0	4,997.9	10.9	1.5	-119.01	-3,044.1	-5,681.8	6,327.6	6,315.3	12.26	516.083	
4,921.2	4,909.8	5,000.0	4,997.9	10.9	1.5	-119.01	-3,044.1	-5,681.8	6,327.3	6,314.9	12.31	514.106	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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		
5,000.0	4,988.5	5,046.8	5,044.6	11.1	1.5	-119.00	-3,042.1	-5,682.2	6,326.3	6,313.8	12.49	506.518		
5,019.7	5,008.2	5,056.9	5,054.7	11.1	1.5	-118.99	-3,041.8	-5,682.3	6,326.2	6,313.6	12.54	504.675		
5,100.0	5,088.5	5,100.0	5,097.8	11.3	1.5	-118.98	-3,040.4	-5,682.9	6,325.9	6,313.1	12.72	497.294		
5,107.3	5,095.8	5,100.0	5,097.8	11.3	1.5	-118.98	-3,040.4	-5,682.9	6,325.9	6,313.1	12.74	496.670		
5,118.1	5,106.6	5,100.0	5,097.8	11.4	1.5	-118.98	-3,040.4	-5,682.9	6,325.9	6,313.1	12.76	495.747		
5,200.0	5,188.5	5,164.0	5,161.8	11.5	1.5	-118.96	-3,039.0	-5,683.8	6,326.1	6,313.1	12.95	488.352		
5,216.5	5,205.1	5,175.0	5,172.8	11.6	1.5	-118.96	-3,038.9	-5,684.0	6,326.1	6,313.1	12.99	486.904		
5,300.0	5,288.5	5,236.4	5,234.2	11.8	1.6	-118.95	-3,038.1	-5,684.9	6,326.8	6,313.6	13.19	479.689		
5,314.9	5,303.5	5,248.3	5,246.0	11.8	1.6	-118.95	-3,038.0	-5,685.1	6,326.9	6,313.7	13.22	478.414		
5,400.0	5,388.5	5,300.0	5,297.8	12.0	1.6	-118.94	-3,037.5	-5,686.0	6,327.8	6,314.4	13.42	471.418		
5,413.4	5,401.9	5,323.5	5,321.2	12.0	1.6	-118.94	-3,037.4	-5,686.4	6,328.0	6,314.5	13.46	470.244		
5,500.0	5,488.5	5,385.0	5,382.7	12.2	1.6	-118.93	-3,037.3	-5,687.5	6,329.3	6,315.6	13.66	463.383		
5,511.8	5,500.3	5,400.0	5,397.7	12.2	1.6	-118.93	-3,037.3	-5,687.8	6,329.5	6,315.8	13.69	462.423		
5,600.0	5,588.5	5,459.1	5,456.8	12.4	1.6	-118.93	-3,037.7	-5,688.9	6,331.2	6,317.3	13.89	455.819		
5,610.2	5,598.8	5,466.7	5,464.5	12.4	1.6	-118.93	-3,037.8	-5,689.0	6,331.4	6,317.5	13.91	455.064		
5,700.0	5,688.5	5,541.9	5,539.6	12.6	1.6	-118.93	-3,038.9	-5,690.4	6,333.5	6,319.4	14.12	448.549		
5,708.6	5,697.2	5,549.9	5,547.6	12.6	1.6	-118.94	-3,039.1	-5,690.5	6,333.7	6,319.5	14.14	447.931		
5,800.0	5,788.5	5,668.8	5,666.4	12.8	1.6	-118.95	-3,041.4	-5,692.4	6,335.8	6,321.5	14.35	441.419		
5,807.1	5,795.6	5,681.9	5,679.6	12.9	1.6	-118.95	-3,041.6	-5,692.5	6,336.0	6,321.6	14.37	440.909		
5,900.0	5,888.5	5,828.1	5,825.7	13.1	1.7	-118.95	-3,043.4	-5,693.9	6,337.3	6,322.7	14.59	434.378		
5,905.5	5,894.0	5,836.1	5,833.7	13.1	1.7	-118.95	-3,043.4	-5,694.0	6,337.3	6,322.7	14.60	434.001		
6,000.0	5,988.5	5,997.1	5,994.7	13.3	1.7	-118.97	-3,044.8	-5,694.1	6,337.8	6,323.0	14.82	427.660		
6,003.9	5,992.5	6,004.0	6,001.6	13.3	1.7	-118.97	-3,044.9	-5,694.1	6,337.8	6,323.0	14.83	427.401		
6,085.3	6,073.8	6,123.7	6,121.3	13.5	1.7	-118.98	-3,045.8	-5,693.0	6,337.4	6,322.4	15.02	422.064		
6,100.0	6,088.5	6,139.0	6,136.6	13.5	1.7	-28.99	-3,045.9	-5,692.8	6,337.2	6,322.2	14.99	422.797		
6,102.3	6,090.9	6,141.4	6,139.1	13.5	1.7	-28.99	-3,045.9	-5,692.8	6,337.1	6,322.1	14.99	422.617		
6,150.0	6,138.4	6,190.8	6,188.4	13.6	1.7	-29.12	-3,046.2	-5,692.1	6,334.4	6,319.3	15.14	418.310		
6,200.0	6,188.0	6,244.6	6,242.2	13.7	1.7	-29.38	-3,046.7	-5,691.4	6,328.5	6,313.2	15.34	412.490		
6,200.8	6,188.8	6,245.4	6,243.0	13.7	1.7	-29.39	-3,046.7	-5,691.4	6,328.4	6,313.1	15.35	412.390		
6,250.0	6,237.1	6,298.1	6,295.7	13.9	1.7	-29.79	-3,047.1	-5,690.7	6,319.7	6,304.1	15.57	405.798		
6,299.2	6,284.6	6,341.6	6,339.2	14.0	1.7	-30.33	-3,047.4	-5,690.0	6,308.0	6,292.2	15.81	398.877		
6,300.0	6,285.3	6,342.2	6,339.9	14.0	1.7	-30.34	-3,047.4	-5,690.0	6,307.8	6,292.0	15.82	398.765		
6,350.0	6,332.5	6,385.1	6,382.7	14.2	1.7	-31.05	-3,047.8	-5,689.5	6,293.1	6,277.0	16.07	391.667		
6,397.6	6,376.3	6,430.5	6,428.1	14.4	1.7	-31.88	-3,048.1	-5,688.9	6,276.5	6,260.2	16.31	384.898		
6,400.0	6,378.5	6,432.9	6,430.5	14.4	1.7	-31.93	-3,048.1	-5,688.8	6,275.6	6,259.3	16.32	384.566		
6,450.0	6,423.0	6,482.5	6,480.1	14.7	1.7	-33.01	-3,048.5	-5,688.2	6,255.3	6,238.7	16.57	377.492		
6,496.0	6,462.4	6,523.2	6,520.8	14.9	1.7	-34.18	-3,048.8	-5,687.6	6,234.3	6,217.5	16.80	370.995		
6,500.0	6,465.7	6,526.4	6,524.0	14.9	1.7	-34.29	-3,048.8	-5,687.5	6,232.4	6,215.6	16.82	370.450		
6,550.0	6,506.6	6,566.3	6,563.8	15.2	1.7	-35.79	-3,049.0	-5,687.0	6,207.0	6,189.9	17.09	363.246		
6,594.5	6,541.2	6,600.0	6,597.6	15.6	1.7	-37.34	-3,049.1	-5,686.6	6,182.4	6,165.1	17.34	356.449		
6,600.0	6,545.3	6,604.5	6,602.1	15.6	1.7	-37.55	-3,049.2	-5,686.5	6,179.2	6,161.8	17.38	355.587		
6,650.0	6,581.8	6,644.2	6,641.8	16.0	1.7	-39.62	-3,049.3	-5,686.0	6,149.2	6,131.5	17.72	347.099		
6,692.9	6,611.1	6,676.1	6,673.6	16.4	1.7	-41.66	-3,049.5	-5,685.6	6,121.9	6,103.8	18.06	338.963		
6,700.0	6,615.8	6,681.1	6,678.7	16.5	1.7	-42.02	-3,049.5	-5,685.5	6,117.2	6,099.1	18.12	337.580		
6,750.0	6,647.1	6,712.9	6,710.5	17.1	1.7	-44.79	-3,049.7	-5,685.0	6,083.2	6,064.6	18.61	326.861		
6,791.3	6,670.9	6,735.0	6,732.5	17.6	1.7	-47.37	-3,049.8	-5,684.7	6,053.9	6,034.8	19.10	316.997		
6,800.0	6,675.7	6,739.4	6,736.9	17.7	1.7	-47.95	-3,049.8	-5,684.6	6,047.6	6,028.4	19.21	314.885		
6,850.0	6,701.3	6,763.1	6,760.6	18.4	1.7	-51.57	-3,049.9	-5,684.3	6,010.4	5,990.5	19.92	301.743		
6,889.7	6,719.5	6,779.9	6,777.4	19.0	1.7	-54.80	-3,050.0	-5,684.1	5,979.9	5,959.3	20.57	290.646		
6,900.0	6,723.8	6,783.9	6,781.4	19.1	1.7	-55.68	-3,050.0	-5,684.0	5,971.9	5,951.2	20.75	287.815		
6,950.0	6,743.2	6,800.0	6,797.6	20.0	1.7	-60.29	-3,050.0	-5,683.8	5,932.3	5,910.6	21.68	273.690		
6,988.2	6,755.8	6,800.0	6,797.6	20.6	1.7	-64.00	-3,050.0	-5,683.8	5,901.4	5,879.0	22.42	263.221		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOWARD #14-18 - 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	
7,000.0	6,759.4	6,800.0	6,797.6	20.9	1.7	-65.21	-3,050.0	-5,683.8	5,891.7	5,869.1	22.65	260.124		
7,050.0	6,772.1	6,800.0	6,797.6	21.8	1.7	-70.61	-3,050.0	-5,683.8	5,850.5	5,826.8	23.65	247.351		
7,086.6	6,779.4	6,800.0	6,797.6	22.5	1.7	-74.84	-3,050.0	-5,683.8	5,820.0	5,795.6	24.38	238.677		
7,100.0	6,781.5	6,800.0	6,797.6	22.8	1.7	-76.43	-3,050.0	-5,683.8	5,808.8	5,784.1	24.64	235.719		
7,150.0	6,787.5	6,800.0	6,797.6	23.9	1.7	-82.55	-3,050.0	-5,683.8	5,766.7	5,741.1	25.61	225.154		
7,185.0	6,789.6	6,800.0	6,797.6	24.6	1.7	-86.93	-3,050.0	-5,683.8	5,737.1	5,710.8	26.31	218.046		
7,200.0	6,789.9	6,800.0	6,797.6	24.9	1.7	-88.81	-3,050.0	-5,683.8	5,724.5	5,697.9	26.62	215.038		
7,213.0	6,790.0	6,800.0	6,797.6	25.2	1.7	-90.44	-3,050.0	-5,683.8	5,713.6	5,686.7	26.90	212.399		
7,283.4	6,789.7	6,800.0	6,797.6	26.8	1.7	-90.44	-3,050.0	-5,683.8	5,654.3	5,625.8	28.47	198.571		
7,300.0	6,789.7	6,800.0	6,797.6	27.2	1.7	-90.44	-3,050.0	-5,683.8	5,640.4	5,611.6	28.84	195.544		
7,381.9	6,789.4	6,800.0	6,797.6	29.1	1.7	-90.44	-3,050.0	-5,683.8	5,571.9	5,541.2	30.75	181.202		
7,400.0	6,789.3	6,800.0	6,797.6	29.5	1.7	-90.44	-3,050.0	-5,683.8	5,556.8	5,525.7	31.17	178.266		
7,480.3	6,789.0	6,800.0	6,797.6	31.4	1.7	-90.44	-3,050.0	-5,683.8	5,490.1	5,457.0	33.10	165.851		
7,500.0	6,788.9	6,800.0	6,797.6	31.9	1.7	-90.44	-3,050.0	-5,683.8	5,473.8	5,440.2	33.58	163.025		
7,578.7	6,788.6	6,800.0	6,797.6	33.8	1.7	-90.44	-3,050.0	-5,683.8	5,408.9	5,373.4	35.52	152.284		
7,600.0	6,788.5	6,800.0	6,797.6	34.4	1.7	-90.44	-3,050.0	-5,683.8	5,391.4	5,355.3	36.04	149.581		
7,677.1	6,788.2	6,800.0	6,797.6	36.3	1.7	-90.44	-3,050.0	-5,683.8	5,328.2	5,290.2	37.98	140.274		
7,700.0	6,788.2	6,800.0	6,797.6	36.9	1.7	-90.44	-3,050.0	-5,683.8	5,309.5	5,271.0	38.56	137.699		
7,775.6	6,787.9	6,800.0	6,797.6	38.8	1.7	-90.44	-3,050.0	-5,683.8	5,248.1	5,207.6	40.49	129.614		
7,800.0	6,787.8	6,800.0	6,797.6	39.4	1.7	-90.44	-3,050.0	-5,683.8	5,228.3	5,187.2	41.11	127.165		
7,874.0	6,787.5	6,800.0	6,797.6	41.3	1.7	-90.44	-3,050.0	-5,683.8	5,168.7	5,125.6	43.03	120.118		
7,900.0	6,787.4	6,800.0	6,797.6	42.0	1.7	-90.44	-3,050.0	-5,683.8	5,147.8	5,104.1	43.70	117.790		
7,972.4	6,787.1	6,800.0	6,797.6	43.9	1.7	-90.44	-3,050.0	-5,683.8	5,089.9	5,044.3	45.60	111.628		
8,000.0	6,787.0	6,800.0	6,797.6	44.6	1.7	-90.45	-3,050.0	-5,683.8	5,067.9	5,021.6	46.32	109.416		
8,070.8	6,786.7	6,800.0	6,797.6	46.5	1.7	-90.45	-3,050.0	-5,683.8	5,011.8	4,963.6	48.19	104.008		
8,100.0	6,786.6	6,800.0	6,797.6	47.3	1.7	-90.45	-3,050.0	-5,683.8	4,988.8	4,939.9	48.96	101.905		
8,169.3	6,786.4	6,800.0	6,797.6	49.1	1.7	-90.45	-3,050.0	-5,683.8	4,934.4	4,883.6	50.80	97.142		
8,200.0	6,786.3	6,800.0	6,797.6	49.9	1.7	-90.45	-3,050.0	-5,683.8	4,910.4	4,858.8	51.61	95.141		
8,267.7	6,786.0	6,800.0	6,797.6	51.7	1.7	-90.45	-3,050.0	-5,683.8	4,857.8	4,804.4	53.42	90.934		
8,300.0	6,785.9	6,800.0	6,797.6	52.6	1.7	-90.45	-3,050.0	-5,683.8	4,832.9	4,778.6	54.28	89.028		
8,366.1	6,785.6	6,800.0	6,797.6	54.4	1.7	-90.45	-3,050.0	-5,683.8	4,782.0	4,726.0	56.06	85.301		
8,400.0	6,785.5	6,800.0	6,797.6	55.3	1.7	-90.45	-3,050.0	-5,683.8	4,756.1	4,699.2	56.97	83.484		
8,464.5	6,785.2	6,800.0	6,797.6	57.0	1.7	-90.45	-3,050.0	-5,683.8	4,707.1	4,648.4	58.71	80.172		
8,500.0	6,785.1	6,800.0	6,797.6	58.0	1.7	-90.45	-3,050.0	-5,683.8	4,680.3	4,620.6	59.67	78.438		
8,563.0	6,784.9	6,800.0	6,797.6	59.7	1.7	-90.45	-3,050.0	-5,683.8	4,633.0	4,571.6	61.37	75.488		
8,600.0	6,784.7	6,800.0	6,797.6	60.7	1.7	-90.45	-3,050.0	-5,683.8	4,605.4	4,543.0	62.38	73.831		
8,661.4	6,784.5	6,800.0	6,797.6	62.4	1.7	-90.45	-3,050.0	-5,683.8	4,559.8	4,495.8	64.05	71.197		
8,700.0	6,784.3	6,800.0	6,797.6	63.4	1.7	-90.45	-3,050.0	-5,683.8	4,531.4	4,466.3	65.09	69.613		
8,759.8	6,784.1	6,800.0	6,797.6	65.0	1.7	-90.45	-3,050.0	-5,683.8	4,487.6	4,420.9	66.72	67.257		
8,800.0	6,784.0	6,800.0	6,797.6	66.1	1.7	-90.45	-3,050.0	-5,683.8	4,458.5	4,390.6	67.82	65.741		
8,858.2	6,783.7	6,800.0	6,797.6	67.7	1.7	-90.45	-3,050.0	-5,683.8	4,416.5	4,347.1	69.41	63.628		
8,900.0	6,783.6	6,800.0	6,797.6	68.9	1.7	-90.45	-3,050.0	-5,683.8	4,386.6	4,316.0	70.55	62.176		
8,956.7	6,783.3	6,800.0	6,797.6	70.4	1.7	-90.45	-3,050.0	-5,683.8	4,346.3	4,274.2	72.10	60.280		
9,000.0	6,783.2	6,800.0	6,797.6	71.6	1.7	-90.45	-3,050.0	-5,683.8	4,315.8	4,242.5	73.29	58.888		
9,055.1	6,783.0	6,800.0	6,797.6	73.1	1.7	-90.45	-3,050.0	-5,683.8	4,277.3	4,202.5	74.80	57.183		
9,100.0	6,782.8	6,800.0	6,797.6	74.3	1.7	-90.45	-3,050.0	-5,683.8	4,246.2	4,170.2	76.03	55.848		
9,153.5	6,782.6	6,800.0	6,797.6	75.8	1.7	-90.45	-3,050.0	-5,683.8	4,209.5	4,132.0	77.50	54.314		
9,200.0	6,782.4	6,800.0	6,797.6	77.1	1.7	-90.45	-3,050.0	-5,683.8	4,177.9	4,099.1	78.78	53.032		
9,251.9	6,782.2	6,800.0	6,797.6	78.5	1.7	-90.45	-3,050.0	-5,683.8	4,142.9	4,062.7	80.21	51.651		
9,300.0	6,782.0	6,800.0	6,797.6	79.8	1.7	-90.45	-3,050.0	-5,683.8	4,110.9	4,029.3	81.53	50.420		
9,350.4	6,781.8	6,800.0	6,797.6	81.2	1.7	-90.45	-3,050.0	-5,683.8	4,077.6	3,994.7	82.92	49.174		
9,400.0	6,781.6	6,800.0	6,797.6	82.6	1.7	-90.45	-3,050.0	-5,683.8	4,045.2	3,960.9	84.29	47.992		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOWARD #14-18 - 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		
9,448.8	6,781.4	6,800.0	6,797.6	83.9	1.7	-90.45	-3,050.0	-5,683.8	4,013.6	3,928.0	85.64	46.868		
9,500.0	6,781.2	6,800.0	6,797.6	85.4	1.7	-90.45	-3,050.0	-5,683.8	3,980.9	3,893.9	87.05	45.732		
9,547.2	6,781.0	6,800.0	6,797.6	86.7	1.7	-90.45	-3,050.0	-5,683.8	3,951.1	3,862.7	88.35	44.719		
9,600.0	6,780.8	6,800.0	6,797.6	88.1	1.7	-90.45	-3,050.0	-5,683.8	3,918.1	3,828.3	89.81	43.626		
9,645.6	6,780.7	6,800.0	6,797.6	89.4	1.7	-90.45	-3,050.0	-5,683.8	3,890.0	3,798.9	91.07	42.712		
9,700.0	6,780.5	6,800.0	6,797.6	90.9	1.7	-90.45	-3,050.0	-5,683.8	3,857.0	3,764.4	92.58	41.662		
9,744.1	6,780.3	6,800.0	6,797.6	92.1	1.7	-90.45	-3,050.0	-5,683.8	3,830.5	3,736.7	93.80	40.838		
9,800.0	6,780.1	6,800.0	6,797.6	93.7	1.7	-90.45	-3,050.0	-5,683.8	3,797.4	3,702.1	95.35	39.827		
9,842.5	6,779.9	6,800.0	6,797.6	94.8	1.7	-90.45	-3,050.0	-5,683.8	3,772.6	3,676.1	96.52	39.085		
9,900.0	6,779.7	6,799.8	6,797.4	96.4	1.7	-90.45	-3,050.0	-5,683.8	3,739.6	3,641.5	98.12	38.113		
9,940.9	6,779.5	6,799.2	6,796.7	97.6	1.7	-90.44	-3,050.0	-5,683.8	3,716.5	3,617.2	99.25	37.444		
10,000.0	6,779.3	6,798.1	6,795.7	99.2	1.7	-90.42	-3,050.0	-5,683.8	3,683.6	3,582.7	100.89	36.510		
10,039.3	6,779.1	6,797.5	6,795.0	100.3	1.7	-90.41	-3,050.0	-5,683.9	3,662.1	3,560.1	101.98	35.908		
10,100.0	6,778.9	6,796.4	6,794.0	102.0	1.7	-90.39	-3,050.0	-5,683.9	3,629.5	3,525.8	103.67	35.011		
10,137.8	6,778.7	6,795.8	6,793.4	103.0	1.7	-90.37	-3,050.0	-5,683.9	3,609.5	3,504.8	104.72	34.470		
10,200.0	6,778.5	6,794.7	6,792.3	104.8	1.7	-90.35	-3,050.0	-5,683.9	3,577.3	3,470.9	106.44	33.608		
10,236.2	6,778.3	6,794.1	6,791.7	105.8	1.7	-90.34	-3,050.0	-5,683.9	3,559.0	3,451.5	107.45	33.122		
10,300.0	6,778.1	6,793.0	6,790.6	107.5	1.7	-90.32	-3,050.0	-5,683.9	3,527.3	3,418.0	109.22	32.294		
10,334.6	6,778.0	6,792.4	6,790.0	108.5	1.7	-90.31	-3,050.0	-5,683.9	3,510.4	3,400.2	110.19	31.859		
10,400.0	6,777.7	6,791.3	6,788.8	110.3	1.7	-90.29	-3,050.0	-5,683.9	3,479.3	3,367.3	112.00	31.064		
10,433.0	6,777.6	6,790.7	6,788.3	111.2	1.7	-90.28	-3,050.0	-5,683.9	3,464.0	3,351.1	112.92	30.676		
10,500.0	6,777.3	6,789.5	6,787.1	113.1	1.7	-90.26	-3,050.0	-5,684.0	3,433.7	3,318.9	114.79	29.914		
10,531.5	6,777.2	6,789.0	6,786.6	114.0	1.7	-90.25	-3,050.0	-5,684.0	3,419.8	3,304.1	115.66	29.567		
10,600.0	6,776.9	6,787.8	6,785.4	115.9	1.7	-90.23	-3,050.0	-5,684.0	3,390.3	3,272.7	117.57	28.837		
10,629.9	6,776.8	6,787.3	6,784.8	116.7	1.7	-90.22	-3,050.0	-5,684.0	3,377.8	3,259.4	118.40	28.528		
10,700.0	6,776.5	6,786.1	6,783.6	118.7	1.7	-90.19	-3,050.0	-5,684.0	3,349.4	3,229.0	120.35	27.829		
10,728.3	6,776.4	6,785.6	6,783.1	119.5	1.7	-90.18	-3,050.0	-5,684.0	3,338.2	3,217.1	121.14	27.556		
10,800.0	6,776.1	6,784.3	6,781.9	121.4	1.7	-90.16	-3,050.0	-5,684.0	3,311.0	3,187.8	123.14	26.888		
10,826.7	6,776.0	6,783.8	6,781.4	122.2	1.7	-90.15	-3,050.0	-5,684.0	3,301.1	3,177.3	123.89	26.647		
10,900.0	6,775.7	6,782.5	6,780.1	124.2	1.7	-90.13	-3,050.0	-5,684.0	3,275.2	3,149.2	125.93	26.009		
10,925.2	6,775.6	6,782.1	6,779.7	124.9	1.7	-90.12	-3,050.0	-5,684.1	3,266.6	3,140.0	126.63	25.797		
11,000.0	6,775.3	6,780.8	6,778.3	127.0	1.7	-90.10	-3,050.0	-5,684.1	3,242.1	3,113.3	128.71	25.188		
11,023.6	6,775.2	6,780.4	6,777.9	127.7	1.7	-90.09	-3,050.0	-5,684.1	3,234.6	3,105.3	129.37	25.002		
11,100.0	6,774.9	6,779.0	6,776.6	129.8	1.7	-90.06	-3,050.0	-5,684.1	3,211.7	3,080.2	131.50	24.423		
11,122.0	6,774.8	6,778.6	6,776.2	130.4	1.7	-90.06	-3,050.0	-5,684.1	3,205.4	3,073.3	132.12	24.262		
11,200.0	6,774.5	6,777.2	6,774.8	132.6	1.7	-90.03	-3,050.0	-5,684.1	3,184.2	3,049.9	134.29	23.711		
11,220.4	6,774.4	6,776.8	6,774.4	133.2	1.7	-90.02	-3,050.0	-5,684.1	3,179.0	3,044.1	134.86	23.572		
11,300.0	6,774.1	6,775.4	6,773.0	135.4	1.7	-90.00	-3,049.9	-5,684.1	3,159.7	3,022.6	137.08	23.049		
11,318.9	6,774.0	6,775.1	6,772.6	135.9	1.7	-89.99	-3,049.9	-5,684.2	3,155.4	3,017.7	137.61	22.930		
11,400.0	6,773.7	6,773.6	6,771.2	138.2	1.7	-89.96	-3,049.9	-5,684.2	3,138.1	2,998.2	139.88	22.435		
11,417.3	6,773.6	6,773.3	6,770.9	138.7	1.7	-89.96	-3,049.9	-5,684.2	3,134.7	2,994.3	140.36	22.333		
11,500.0	6,773.3	6,771.8	6,769.4	141.0	1.7	-89.93	-3,049.9	-5,684.2	3,119.6	2,976.9	142.67	21.866		
11,515.7	6,773.2	6,771.5	6,769.1	141.4	1.7	-89.92	-3,049.9	-5,684.2	3,116.9	2,973.8	143.11	21.781		
11,600.0	6,772.9	6,770.0	6,767.6	143.8	1.7	-89.90	-3,049.9	-5,684.2	3,104.2	2,958.7	145.46	21.340		
11,614.1	6,772.8	6,769.8	6,767.3	144.2	1.7	-89.89	-3,049.9	-5,684.2	3,102.3	2,956.4	145.86	21.269		
11,700.0	6,772.5	6,768.2	6,765.7	146.6	1.7	-89.86	-3,049.9	-5,684.2	3,091.9	2,943.7	148.25	20.856		
11,712.6	6,772.4	6,768.0	6,765.5	146.9	1.7	-89.86	-3,049.9	-5,684.2	3,090.6	2,942.0	148.60	20.798		
11,800.0	6,772.1	6,766.4	6,763.9	149.4	1.7	-89.83	-3,049.9	-5,684.3	3,082.9	2,931.8	151.05	20.410		
11,811.0	6,772.1	6,766.2	6,763.7	149.7	1.7	-89.82	-3,049.9	-5,684.3	3,082.1	2,930.7	151.35	20.363		
11,900.0	6,771.7	6,764.5	6,762.1	152.2	1.7	-89.79	-3,049.9	-5,684.3	3,077.1	2,923.2	153.84	20.001		
11,909.4	6,771.7	6,764.4	6,761.9	152.4	1.7	-89.79	-3,049.9	-5,684.3	3,076.7	2,922.6	154.11	19.965		
12,000.0	6,771.3	6,762.7	6,760.2	154.9	1.7	-89.76	-3,049.9	-5,684.3	3,074.5	2,917.8	156.64	19.628		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOWARD #14-18 - 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	6,771.3	6,762.5	6,760.1	155.2	1.7	-89.76	-3,049.9	-5,684.3	3,074.4	2,917.6	156.86	19.600		
12,029.4	6,771.2	6,762.1	6,759.7	155.8	1.7	-89.75	-3,049.9	-5,684.3	3,074.3	2,916.9	157.46	19.525 CC		
12,100.0	6,770.9	6,760.8	6,758.4	157.7	1.7	-89.72	-3,049.9	-5,684.3	3,075.2	2,915.7	159.43	19.288		
12,106.3	6,770.9	6,760.7	6,758.3	157.9	1.7	-89.72	-3,049.9	-5,684.3	3,075.3	2,915.7	159.61	19.268 ES		
12,200.0	6,770.5	6,759.0	6,756.5	160.5	1.7	-89.69	-3,049.9	-5,684.4	3,079.1	2,916.8	162.23	18.980		
12,204.7	6,770.5	6,758.9	6,756.5	160.7	1.7	-89.69	-3,049.9	-5,684.4	3,079.3	2,917.0	162.36	18.966		
12,300.0	6,770.1	6,757.1	6,754.7	163.3	1.7	-89.66	-3,049.9	-5,684.4	3,086.2	2,921.2	165.02	18.702		
12,303.1	6,770.1	6,757.1	6,754.6	163.4	1.7	-89.65	-3,049.9	-5,684.4	3,086.5	2,921.4	165.11	18.693		
12,316.4	6,770.0	6,756.8	6,754.4	163.8	1.7	-89.65	-3,049.9	-5,684.4	3,087.7	2,922.2	165.48	18.659 SF		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - 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	
0.0	0.0	1.0	1.0	0.0	0.0	-113.78	-1,890.8	-4,290.0	4,688.2				
98.4	98.4	99.4	99.4	0.1	1.2	-113.78	-1,890.8	-4,290.0	4,688.2	4,686.9	1.27	3,679.599	
100.0	100.0	101.0	101.0	0.1	1.2	-113.78	-1,890.8	-4,290.0	4,688.2	4,686.9	1.31	3,590.796	
196.8	196.8	197.8	197.8	0.3	3.4	-113.78	-1,890.8	-4,290.0	4,688.2	4,684.4	3.74	1,252.290	
200.0	200.0	201.0	201.0	0.3	3.5	-113.78	-1,890.8	-4,290.0	4,688.2	4,684.4	3.82	1,227.001	
295.3	295.3	296.3	296.3	0.5	5.5	-113.78	-1,890.8	-4,290.0	4,688.2	4,682.2	6.02	779.371	
300.0	300.0	301.0	301.0	0.5	5.6	-113.78	-1,890.8	-4,290.0	4,688.2	4,682.0	6.12	765.566	
393.7	393.7	394.7	394.7	0.8	7.5	-113.78	-1,890.8	-4,290.0	4,688.2	4,679.9	8.25	568.402	
400.0	400.0	401.0	401.0	0.8	7.6	-113.78	-1,890.8	-4,290.0	4,688.2	4,679.8	8.39	558.736	
492.1	492.1	493.1	493.1	1.0	9.5	-113.78	-1,890.8	-4,290.0	4,688.2	4,677.7	10.47	447.899	
500.0	500.0	501.0	501.0	1.0	9.6	-113.78	-1,890.8	-4,290.0	4,688.2	4,677.5	10.64	440.433	
590.5	590.5	591.5	591.5	1.2	11.5	-113.78	-1,890.8	-4,290.0	4,688.2	4,675.5	12.68	369.741	
600.0	600.0	601.0	601.0	1.2	11.7	-113.78	-1,890.8	-4,290.0	4,688.2	4,675.3	12.89	363.650	
689.0	689.0	690.0	690.0	1.4	13.5	-113.78	-1,890.8	-4,290.0	4,688.2	4,673.3	14.89	314.883	
700.0	700.0	701.0	701.0	1.4	13.7	-113.78	-1,890.8	-4,290.0	4,688.2	4,673.0	15.14	309.736	
787.4	787.4	788.4	788.4	1.6	15.5	-113.78	-1,890.8	-4,290.0	4,688.2	4,671.1	17.10	274.235	
800.0	800.0	801.0	801.0	1.7	15.7	-113.78	-1,890.8	-4,290.0	4,688.2	4,670.8	17.38	269.778	
885.8	885.8	886.8	886.8	1.9	17.4	-113.78	-1,890.8	-4,290.0	4,688.2	4,668.9	19.30	242.900	
900.0	900.0	901.0	901.0	1.9	17.7	-113.78	-1,890.8	-4,290.0	4,688.2	4,668.6	19.62	238.968	
984.2	984.2	985.2	985.2	2.1	19.4	-113.78	-1,890.8	-4,290.0	4,688.2	4,666.7	21.51	218.002	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	19.7	-113.78	-1,890.8	-4,290.0	4,688.2	4,666.3	21.86	214.484	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	21.4	-113.78	-1,890.8	-4,290.0	4,688.2	4,664.5	23.71	197.739	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	21.8	-113.78	-1,890.8	-4,290.0	4,688.2	4,664.1	24.10	194.556	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	23.4	-113.78	-1,890.8	-4,290.0	4,688.2	4,662.3	25.91	180.927	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	23.8	-113.78	-1,890.8	-4,290.0	4,688.2	4,661.8	26.33	178.021	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	25.4	-113.78	-1,890.8	-4,290.0	4,688.2	4,660.1	28.11	166.752	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	25.8	-113.78	-1,890.8	-4,290.0	4,688.2	4,659.6	28.57	164.078	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	27.3	-113.78	-1,890.8	-4,290.0	4,688.2	4,657.9	30.32	154.638	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	27.8	-113.78	-1,890.8	-4,290.0	4,688.2	4,657.4	30.81	152.162	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	29.3	-113.78	-1,890.8	-4,290.0	4,688.2	4,655.7	32.52	144.166	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	29.8	-113.78	-1,890.8	-4,290.0	4,688.2	4,655.1	33.05	141.861	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	31.3	-33.10	-1,890.8	-4,290.0	4,687.4	4,652.6	34.70	135.066	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	31.8	-33.11	-1,890.8	-4,290.0	4,686.7	4,651.5	35.26	132.926	
1,673.2	1,673.1	1,674.1	1,674.1	3.6	33.3	-33.17	-1,890.8	-4,290.0	4,683.8	4,646.9	36.85	127.111	
1,700.0	1,699.8	1,700.8	1,700.8	3.7	33.8	-33.20	-1,890.8	-4,290.0	4,682.3	4,644.9	37.42	125.116	
1,771.6	1,771.2	1,772.2	1,772.2	3.8	35.3	-33.29	-1,890.8	-4,290.0	4,677.4	4,638.4	38.95	120.077	
1,800.0	1,799.5	1,800.5	1,800.5	3.9	35.8	-33.34	-1,890.8	-4,290.0	4,675.0	4,635.5	39.55	118.201	
1,870.1	1,869.0	1,870.0	1,870.0	4.0	37.2	-33.47	-1,890.8	-4,290.0	4,668.2	4,627.2	41.02	113.808	
1,900.0	1,898.7	1,899.7	1,899.7	4.1	37.8	-33.53	-1,890.8	-4,290.0	4,664.8	4,623.2	41.64	112.038	
1,968.5	1,966.4	1,967.4	1,967.4	4.3	39.2	-33.70	-1,890.8	-4,290.0	4,656.2	4,613.2	43.04	108.184	
2,000.0	1,997.5	1,998.5	1,998.5	4.4	39.8	-33.78	-1,890.8	-4,290.0	4,651.8	4,608.1	43.68	106.507	
2,066.9	2,063.2	2,064.2	2,064.2	4.6	41.1	-33.98	-1,890.8	-4,290.0	4,641.4	4,596.4	45.02	103.107	
2,100.1	2,095.7	2,096.7	2,096.7	4.7	41.8	-34.09	-1,890.8	-4,290.0	4,635.8	4,590.2	45.67	101.508	
2,165.3	2,159.5	2,160.5	2,160.5	4.9	43.1	-34.19	-1,890.8	-4,290.0	4,624.5	4,577.4	47.10	98.182	
2,200.0	2,193.4	2,194.4	2,194.4	5.0	43.8	-34.24	-1,890.8	-4,290.0	4,618.5	4,570.7	47.86	96.496	
2,224.2	2,217.1	2,218.1	2,218.1	5.1	44.2	-34.27	-1,890.8	-4,290.0	4,614.3	4,565.9	48.39	95.349	
2,263.8	2,255.9	2,256.9	2,256.9	5.2	45.0	-34.25	-1,890.8	-4,290.0	4,607.7	4,558.4	49.35	93.363	
2,300.0	2,291.5	2,292.5	2,292.5	5.3	45.7	-34.23	-1,890.8	-4,290.0	4,602.0	4,551.8	50.22	91.630	
2,362.2	2,352.7	2,353.7	2,353.7	5.5	47.0	-34.21	-1,890.8	-4,290.0	4,593.2	4,541.5	51.71	88.826	
2,400.0	2,390.1	2,391.1	2,391.1	5.6	47.7	-34.19	-1,890.8	-4,290.0	4,588.4	4,535.7	52.61	87.211	
2,460.6	2,450.1	2,451.1	2,451.1	5.7	48.9	-34.17	-1,890.8	-4,290.0	4,581.5	4,527.4	54.05	84.766	
2,500.0	2,489.2	2,490.2	2,490.2	5.8	49.7	-34.16	-1,890.8	-4,290.0	4,577.6	4,522.6	54.98	83.262	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - 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	
2,559.0	2,548.0	2,549.0	2,549.0	6.0	50.9	-34.15	-1,890.8	-4,290.0	4,572.5	4,516.2	56.36	81.133	
2,600.0	2,588.8	2,589.8	2,589.8	6.1	51.7	-34.14	-1,890.8	-4,290.0	4,569.6	4,512.3	57.31	79.735	
2,657.5	2,646.1	2,647.1	2,647.1	6.2	52.9	-34.13	-1,890.8	-4,290.0	4,566.4	4,507.8	58.63	77.884	
2,700.0	2,688.6	2,689.6	2,689.6	6.3	53.7	-34.13	-1,890.8	-4,290.0	4,564.6	4,505.0	59.60	76.587	
2,755.9	2,744.4	2,745.4	2,745.4	6.4	54.8	-34.12	-1,890.8	-4,290.0	4,563.0	4,502.2	60.86	74.979	
2,800.0	2,788.5	2,789.5	2,789.5	6.5	55.7	-34.12	-1,890.8	-4,290.0	4,562.4	4,500.6	61.84	73.779	
2,824.3	2,812.8	2,813.8	2,813.8	6.5	56.2	-114.82	-1,890.8	-4,290.0	4,562.4	4,499.8	62.57	72.911	
2,854.3	2,842.9	2,843.9	2,843.9	6.6	56.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,499.1	63.24	72.148	
2,900.0	2,888.5	2,889.5	2,889.5	6.7	57.7	-114.82	-1,890.8	-4,290.0	4,562.4	4,498.1	64.24	71.018	
2,952.7	2,941.3	2,942.3	2,942.3	6.8	58.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,497.0	65.41	69.748	
3,000.0	2,988.5	2,989.5	2,989.5	6.9	59.7	-114.82	-1,890.8	-4,290.0	4,562.4	4,495.9	66.46	68.647	
3,051.2	3,039.7	3,040.7	3,040.7	7.0	60.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,494.8	67.60	67.494	
3,100.0	3,088.5	3,089.5	3,089.5	7.1	61.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,493.7	68.68	66.429	
3,149.6	3,138.1	3,139.1	3,139.1	7.2	62.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,492.6	69.78	65.380	
3,200.0	3,188.5	3,189.5	3,189.5	7.3	63.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,491.5	70.90	64.348	
3,248.0	3,236.6	3,237.6	3,237.6	7.4	64.7	-114.82	-1,890.8	-4,290.0	4,562.4	4,490.4	71.97	63.394	
3,300.0	3,288.5	3,289.5	3,289.5	7.5	65.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,489.2	73.12	62.393	
3,346.4	3,335.0	3,336.0	3,336.0	7.6	66.7	-114.82	-1,890.8	-4,290.0	4,562.4	4,488.2	74.16	61.524	
3,400.0	3,388.5	3,389.5	3,389.5	7.7	67.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,487.0	75.35	60.553	
3,444.9	3,433.4	3,434.4	3,434.4	7.8	68.7	-114.82	-1,890.8	-4,290.0	4,562.4	4,486.0	76.34	59.761	
3,500.0	3,488.5	3,489.5	3,489.5	7.9	69.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,484.8	77.57	58.817	
3,543.3	3,531.8	3,532.8	3,532.8	8.0	70.7	-114.82	-1,890.8	-4,290.0	4,562.4	4,483.8	78.53	58.096	
3,600.0	3,588.5	3,589.5	3,589.5	8.1	71.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,482.6	79.79	57.178	
3,641.7	3,630.3	3,631.3	3,631.3	8.2	72.7	-114.82	-1,890.8	-4,290.0	4,562.4	4,481.6	80.72	56.520	
3,700.0	3,688.5	3,689.5	3,689.5	8.3	73.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,480.3	82.02	55.627	
3,740.1	3,728.7	3,729.7	3,729.7	8.4	74.6	-114.82	-1,890.8	-4,290.0	4,562.4	4,479.5	82.91	55.028	
3,800.0	3,788.5	3,789.5	3,789.5	8.5	75.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,478.1	84.24	54.158	
3,838.6	3,827.1	3,828.1	3,828.1	8.6	76.6	-114.82	-1,890.8	-4,290.0	4,562.4	4,477.3	85.10	53.611	
3,900.0	3,888.5	3,889.5	3,889.5	8.7	77.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,475.9	86.47	52.764	
3,937.0	3,925.5	3,926.5	3,926.5	8.8	78.6	-114.82	-1,890.8	-4,290.0	4,562.4	4,475.1	87.29	52.266	
4,000.0	3,988.5	3,989.5	3,989.5	9.0	79.9	-114.82	-1,890.8	-4,290.0	4,562.4	4,473.7	88.69	51.439	
4,035.4	4,024.0	4,025.0	4,025.0	9.0	80.6	-114.82	-1,890.8	-4,290.0	4,562.4	4,472.9	89.48	50.986	
4,100.0	4,088.5	4,089.5	4,089.5	9.2	81.9	-114.82	-1,890.8	-4,290.0	4,562.4	4,471.4	90.92	50.180	
4,133.8	4,122.4	4,123.4	4,123.4	9.2	82.6	-114.82	-1,890.8	-4,290.0	4,562.4	4,470.7	91.67	49.767	
4,200.0	4,188.5	4,189.5	4,189.5	9.4	83.9	-114.82	-1,890.8	-4,290.0	4,562.4	4,469.2	93.15	48.980	
4,232.3	4,220.8	4,221.8	4,221.8	9.4	84.5	-114.82	-1,890.8	-4,290.0	4,562.4	4,468.5	93.87	48.605	
4,300.0	4,288.5	4,289.5	4,289.5	9.6	85.9	-114.82	-1,890.8	-4,290.0	4,562.4	4,467.0	95.37	47.836	
4,330.7	4,319.2	4,320.2	4,320.2	9.7	86.5	-114.82	-1,890.8	-4,290.0	4,562.4	4,466.3	96.06	47.495	
4,400.0	4,388.5	4,389.5	4,389.5	9.8	87.9	-114.82	-1,890.8	-4,290.0	4,562.4	4,464.8	97.60	46.744	
4,429.1	4,417.7	4,418.7	4,418.7	9.9	88.5	-114.82	-1,890.8	-4,290.0	4,562.4	4,464.1	98.25	46.435	
4,500.0	4,488.5	4,489.5	4,489.5	10.0	89.9	-114.82	-1,890.8	-4,290.0	4,562.4	4,462.5	99.83	45.701	
4,527.5	4,516.1	4,517.1	4,517.1	10.1	90.5	-114.82	-1,890.8	-4,290.0	4,562.4	4,461.9	100.44	45.422	
4,600.0	4,588.5	4,589.5	4,589.5	10.2	91.9	-114.82	-1,890.8	-4,290.0	4,562.4	4,460.3	102.06	44.703	
4,626.0	4,614.5	4,615.5	4,615.5	10.3	92.4	-114.82	-1,890.8	-4,290.0	4,562.4	4,459.7	102.64	44.451	
4,700.0	4,688.5	4,689.5	4,689.5	10.5	93.9	-114.82	-1,890.8	-4,290.0	4,562.4	4,458.1	104.29	43.748	
4,724.4	4,712.9	4,713.9	4,713.9	10.5	94.4	-114.82	-1,890.8	-4,290.0	4,562.4	4,457.5	104.83	43.521	
4,800.0	4,788.5	4,789.5	4,789.5	10.7	95.9	-114.82	-1,890.8	-4,290.0	4,562.4	4,455.8	106.52	42.832	
4,822.8	4,811.4	4,812.4	4,812.4	10.7	96.4	-114.82	-1,890.8	-4,290.0	4,562.4	4,455.3	107.03	42.628	
4,900.0	4,888.5	4,889.5	4,889.5	10.9	98.0	-114.82	-1,890.8	-4,290.0	4,562.4	4,453.6	108.75	41.954	
4,921.2	4,909.8	4,910.8	4,910.8	10.9	98.4	-114.82	-1,890.8	-4,290.0	4,562.4	4,453.1	109.22	41.772	
5,000.0	4,988.5	4,989.5	4,989.5	11.1	100.0	-114.82	-1,890.8	-4,290.0	4,562.4	4,451.4	110.98	41.111	
5,019.7	5,008.2	5,009.2	5,009.2	11.1	100.4	-114.82	-1,890.8	-4,290.0	4,562.4	4,450.9	111.41	40.949	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - 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	
5,100.0	5,088.5	5,089.5	5,089.5	11.3	102.0	-114.82	-1,890.8	-4,290.0	4,562.4	4,449.2	113.21	40.301	
5,118.1	5,106.6	5,107.6	5,107.6	11.4	102.3	-114.82	-1,890.8	-4,290.0	4,562.4	4,448.8	113.61	40.158	
5,200.0	5,188.5	5,189.5	5,189.5	11.5	104.0	-114.82	-1,890.8	-4,290.0	4,562.4	4,446.9	115.44	39.523	
5,216.5	5,205.1	5,206.1	5,206.1	11.6	104.3	-114.82	-1,890.8	-4,290.0	4,562.4	4,446.6	115.80	39.397	
5,300.0	5,288.5	5,289.5	5,289.5	11.8	106.0	-114.82	-1,890.8	-4,290.0	4,562.4	4,444.7	117.67	38.774	
5,314.9	5,303.5	5,304.5	5,304.5	11.8	106.3	-114.82	-1,890.8	-4,290.0	4,562.4	4,444.4	118.00	38.664	
5,400.0	5,388.5	5,389.5	5,389.5	12.0	108.0	-114.82	-1,890.8	-4,290.0	4,562.4	4,442.5	119.90	38.052	
5,413.4	5,401.9	5,402.9	5,402.9	12.0	108.3	-114.82	-1,890.8	-4,290.0	4,562.4	4,442.2	120.20	37.958	
5,500.0	5,488.5	5,489.5	5,489.5	12.2	110.0	-114.82	-1,890.8	-4,290.0	4,562.4	4,440.2	122.13	37.357	
5,511.8	5,500.3	5,501.3	5,501.3	12.2	110.3	-114.82	-1,890.8	-4,290.0	4,562.4	4,440.0	122.39	37.277	
5,600.0	5,588.5	5,589.5	5,589.5	12.4	112.0	-114.82	-1,890.8	-4,290.0	4,562.4	4,438.0	124.36	36.687	
5,610.2	5,598.8	5,599.8	5,599.8	12.4	112.2	-114.82	-1,890.8	-4,290.0	4,562.4	4,437.8	124.59	36.620	
5,700.0	5,688.5	5,689.5	5,689.5	12.6	114.0	-114.82	-1,890.8	-4,290.0	4,562.4	4,435.8	126.59	36.041	
5,708.6	5,697.2	5,698.2	5,698.2	12.6	114.2	-114.82	-1,890.8	-4,290.0	4,562.4	4,435.6	126.78	35.986	
5,800.0	5,788.5	5,789.5	5,789.5	12.8	116.1	-114.82	-1,890.8	-4,290.0	4,562.4	4,433.5	128.82	35.416	
5,807.1	5,795.6	5,796.6	5,796.6	12.9	116.2	-114.82	-1,890.8	-4,290.0	4,562.4	4,433.4	128.98	35.373	
5,900.0	5,888.5	5,889.5	5,889.5	13.1	118.1	-114.82	-1,890.8	-4,290.0	4,562.4	4,431.3	131.05	34.813	
5,905.5	5,894.0	5,895.0	5,895.0	13.1	118.2	-114.82	-1,890.8	-4,290.0	4,562.4	4,431.2	131.17	34.781	
6,000.0	5,988.5	5,989.5	5,989.5	13.3	120.1	-114.82	-1,890.8	-4,290.0	4,562.4	4,429.1	133.28	34.230	
6,003.9	5,992.5	5,993.5	5,993.5	13.3	120.2	-114.82	-1,890.8	-4,290.0	4,562.4	4,429.0	133.37	34.208	
6,085.3	6,073.8	6,074.8	6,074.8	13.5	121.8	-114.82	-1,890.8	-4,290.0	4,562.4	4,427.2	135.19	33.749	
6,100.0	6,088.5	6,089.5	6,089.5	13.5	122.1	-24.83	-1,890.8	-4,290.0	4,562.2	4,426.8	135.39	33.697	
6,102.3	6,090.9	6,091.9	6,091.9	13.5	122.1	-24.83	-1,890.8	-4,290.0	4,562.2	4,426.7	135.43	33.686	
6,150.0	6,138.4	6,139.4	6,139.4	13.6	123.1	-24.93	-1,890.8	-4,290.0	4,559.7	4,423.6	136.08	33.506	
6,200.0	6,188.0	6,189.0	6,189.0	13.7	124.1	-25.15	-1,890.8	-4,290.0	4,554.0	4,417.8	136.24	33.426	
6,200.8	6,188.8	6,189.8	6,189.8	13.7	124.1	-25.16	-1,890.8	-4,290.0	4,553.9	4,417.7	136.24	33.425	
6,250.0	6,237.1	6,238.1	6,238.1	13.9	125.1	-25.51	-1,890.8	-4,290.0	4,545.3	4,409.4	135.87	33.453	
6,299.2	6,284.6	6,285.6	6,285.6	14.0	126.0	-26.00	-1,890.8	-4,290.0	4,533.6	4,398.6	135.00	33.583	
6,300.0	6,285.3	6,286.3	6,286.3	14.0	126.1	-26.01	-1,890.8	-4,290.0	4,533.4	4,398.4	134.98	33.586	
6,350.0	6,332.5	6,333.5	6,333.5	14.2	127.0	-26.65	-1,890.8	-4,290.0	4,518.5	4,384.9	133.61	33.820	
6,397.6	6,376.3	6,377.3	6,377.3	14.4	127.9	-27.41	-1,890.8	-4,290.0	4,501.6	4,369.7	131.90	34.129	
6,400.0	6,378.5	6,379.5	6,379.5	14.4	127.9	-27.46	-1,890.8	-4,290.0	4,500.7	4,368.9	131.81	34.146	
6,450.0	6,423.0	6,424.0	6,424.0	14.7	128.8	-28.44	-1,890.8	-4,290.0	4,480.0	4,350.4	129.66	34.552	
6,496.0	6,462.4	6,463.4	6,463.4	14.9	129.6	-29.52	-1,890.8	-4,290.0	4,458.6	4,331.1	127.48	34.976	
6,500.0	6,465.7	6,466.7	6,466.7	14.9	129.7	-29.62	-1,890.8	-4,290.0	4,456.7	4,329.4	127.28	35.014	
6,550.0	6,506.6	6,507.6	6,507.6	15.2	130.5	-31.03	-1,890.8	-4,290.0	4,430.7	4,305.8	124.82	35.496	
6,594.5	6,541.2	6,542.2	6,542.2	15.6	131.2	-32.50	-1,890.8	-4,290.0	4,405.5	4,282.8	122.72	35.899	
6,600.0	6,545.3	6,546.3	6,546.3	15.6	131.3	-32.70	-1,890.8	-4,290.0	4,402.2	4,279.7	122.47	35.945	
6,650.0	6,581.8	6,582.8	6,582.8	16.0	132.0	-34.66	-1,890.8	-4,290.0	4,371.4	4,251.0	120.48	36.283	
6,692.9	6,611.1	6,612.1	6,612.1	16.4	132.6	-36.61	-1,890.8	-4,290.0	4,343.3	4,224.0	119.29	36.411	
6,700.0	6,615.8	6,616.8	6,616.8	16.5	132.7	-36.96	-1,890.8	-4,290.0	4,338.5	4,219.4	119.15	36.413	
6,750.0	6,647.1	6,648.1	6,648.1	17.1	133.3	-39.66	-1,890.8	-4,290.0	4,303.6	4,184.8	118.80	36.226	
6,791.3	6,670.9	6,671.9	6,671.9	17.6	133.8	-42.24	-1,890.8	-4,290.0	4,273.4	4,153.9	119.49	35.764	
6,800.0	6,675.7	6,676.7	6,676.7	17.7	133.9	-42.82	-1,890.8	-4,290.0	4,266.9	4,147.1	119.76	35.629	
6,850.0	6,701.3	6,702.3	6,702.3	18.4	134.4	-46.50	-1,890.8	-4,290.0	4,228.6	4,106.3	122.29	34.577	
6,889.7	6,719.5	6,720.5	6,720.5	19.0	134.8	-49.84	-1,890.8	-4,290.0	4,197.1	4,071.6	125.51	33.439	
6,900.0	6,723.8	6,724.8	6,724.8	19.1	134.9	-50.76	-1,890.8	-4,290.0	4,188.8	4,062.3	126.51	33.111	
6,950.0	6,743.2	6,744.2	6,744.2	20.0	135.3	-55.67	-1,890.8	-4,290.0	4,147.9	4,015.6	132.27	31.359	
6,988.2	6,755.8	6,756.8	6,756.8	20.6	135.5	-59.86	-1,890.8	-4,290.0	4,116.0	3,978.5	137.46	29.944	
7,000.0	6,759.4	6,760.4	6,760.4	20.9	135.6	-61.24	-1,890.8	-4,290.0	4,106.0	3,966.9	139.14	29.509	
7,050.0	6,772.1	6,773.1	6,773.1	21.8	135.8	-67.45	-1,890.8	-4,290.0	4,063.3	3,916.9	146.39	27.756	
7,086.6	6,779.4	6,780.4	6,780.4	22.5	136.0	-72.34	-1,890.8	-4,290.0	4,031.7	3,880.3	151.39	26.631	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - 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	
7,100.0	6,781.5	6,782.5	6,782.5	22.8	136.0	-74.20	-1,890.8	-4,290.0	4,020.1	3,867.0	153.06	26.264	
7,150.0	6,787.5	6,788.5	6,788.5	23.9	136.1	-81.30	-1,890.8	-4,290.0	3,976.5	3,818.3	158.19	25.138	
7,185.0	6,789.6	6,790.6	6,790.6	24.6	136.2	-86.37	-1,890.8	-4,290.0	3,945.9	3,785.4	160.47	24.590	
7,200.0	6,789.9	6,790.9	6,790.9	24.9	136.2	-88.52	-1,890.8	-4,290.0	3,932.8	3,771.8	161.07	24.417	
7,213.0	6,790.0	6,791.0	6,791.0	25.2	136.2	-90.39	-1,890.8	-4,290.0	3,921.5	3,760.1	161.40	24.296	
7,283.4	6,789.7	6,790.7	6,790.7	26.8	136.2	-90.38	-1,890.8	-4,290.0	3,860.2	3,697.2	162.97	23.686	
7,300.0	6,789.7	6,790.7	6,790.7	27.2	136.2	-90.38	-1,890.8	-4,290.0	3,845.8	3,682.5	163.34	23.544	
7,381.9	6,789.4	6,790.4	6,790.4	29.1	136.2	-90.37	-1,890.8	-4,290.0	3,775.0	3,609.8	165.24	22.846	
7,400.0	6,789.3	6,790.3	6,790.3	29.5	136.2	-90.37	-1,890.8	-4,290.0	3,759.4	3,593.7	165.66	22.693	
7,480.3	6,789.0	6,790.0	6,790.0	31.4	136.2	-90.36	-1,890.8	-4,290.0	3,690.5	3,522.9	167.59	22.022	
7,500.0	6,788.9	6,789.9	6,789.9	31.9	136.2	-90.35	-1,890.8	-4,290.0	3,673.7	3,505.7	168.06	21.860	
7,578.7	6,788.6	6,789.6	6,789.6	33.8	136.2	-90.35	-1,890.8	-4,290.0	3,606.8	3,436.8	169.99	21.217	
7,600.0	6,788.5	6,789.5	6,789.5	34.4	136.2	-90.34	-1,890.8	-4,290.0	3,588.8	3,418.2	170.52	21.046	
7,677.1	6,788.2	6,789.2	6,789.2	36.3	136.2	-90.34	-1,890.8	-4,290.0	3,523.7	3,351.3	172.45	20.433	
7,700.0	6,788.2	6,789.2	6,789.2	36.9	136.2	-90.33	-1,890.8	-4,290.0	3,504.6	3,331.6	173.03	20.255	
7,775.6	6,787.9	6,788.9	6,788.9	38.8	136.2	-90.32	-1,890.8	-4,290.0	3,441.5	3,266.6	174.95	19.671	
7,800.0	6,787.8	6,788.8	6,788.8	39.4	136.2	-90.32	-1,890.8	-4,290.0	3,421.3	3,245.7	175.57	19.486	
7,874.0	6,787.5	6,788.5	6,788.5	41.3	136.1	-90.31	-1,890.8	-4,290.0	3,360.2	3,182.7	177.48	18.932	
7,900.0	6,787.4	6,788.4	6,788.4	42.0	136.1	-90.31	-1,890.8	-4,290.0	3,338.9	3,160.7	178.16	18.741	
7,972.4	6,787.1	6,788.1	6,788.1	43.9	136.1	-90.30	-1,890.8	-4,290.0	3,279.8	3,099.8	180.04	18.217	
8,000.0	6,787.0	6,788.0	6,788.0	44.6	136.1	-90.30	-1,890.8	-4,290.0	3,257.5	3,076.7	180.76	18.021	
8,070.8	6,786.7	6,787.7	6,787.7	46.5	136.1	-90.29	-1,890.8	-4,290.0	3,200.4	3,017.8	182.63	17.524	
8,100.0	6,786.6	6,787.6	6,787.6	47.3	136.1	-90.29	-1,890.8	-4,290.0	3,177.1	2,993.7	183.39	17.324	
8,169.3	6,786.4	6,787.4	6,787.4	49.1	136.1	-90.28	-1,890.8	-4,290.0	3,122.1	2,936.9	185.23	16.856	
8,200.0	6,786.3	6,787.3	6,787.3	49.9	136.1	-90.28	-1,890.8	-4,290.0	3,097.9	2,911.9	186.04	16.652	
8,267.7	6,786.0	6,787.0	6,787.0	51.7	136.1	-90.27	-1,890.8	-4,290.0	3,045.0	2,857.2	187.85	16.210	
8,300.0	6,785.9	6,786.9	6,786.9	52.6	136.1	-90.27	-1,890.8	-4,290.0	3,020.0	2,831.3	188.71	16.003	
8,366.1	6,785.6	6,786.6	6,786.6	54.4	136.1	-90.26	-1,890.8	-4,290.0	2,969.1	2,778.6	190.48	15.588	
8,400.0	6,785.5	6,786.5	6,786.5	55.3	136.1	-90.26	-1,890.8	-4,290.0	2,943.3	2,751.9	191.39	15.379	
8,464.5	6,785.2	6,786.2	6,786.2	57.0	136.1	-90.25	-1,890.8	-4,290.0	2,894.6	2,701.5	193.12	14.988	
8,500.0	6,785.1	6,786.1	6,786.1	58.0	136.1	-90.25	-1,890.8	-4,290.0	2,868.1	2,674.1	194.08	14.778	
8,563.0	6,784.9	6,785.9	6,785.9	59.7	136.1	-90.24	-1,890.8	-4,290.0	2,821.6	2,625.8	195.78	14.412	
8,600.0	6,784.7	6,785.7	6,785.7	60.7	136.1	-90.23	-1,890.8	-4,290.0	2,794.5	2,597.7	196.78	14.201	
8,661.4	6,784.5	6,785.5	6,785.5	62.4	136.1	-90.23	-1,890.8	-4,290.0	2,750.1	2,551.7	198.44	13.859	
8,700.0	6,784.3	6,785.3	6,785.3	63.4	136.1	-90.22	-1,890.8	-4,290.0	2,722.5	2,523.0	199.49	13.648	
8,759.8	6,784.1	6,785.1	6,785.1	65.0	136.1	-90.22	-1,890.8	-4,290.0	2,680.3	2,479.2	201.11	13.328	
8,800.0	6,784.0	6,785.0	6,785.0	66.1	136.1	-90.21	-1,890.8	-4,290.0	2,652.4	2,450.2	202.20	13.117	
8,858.2	6,783.7	6,784.7	6,784.7	67.7	136.1	-90.21	-1,890.8	-4,290.0	2,612.4	2,408.6	203.79	12.819	
8,900.0	6,783.6	6,784.6	6,784.6	68.9	136.1	-90.20	-1,890.8	-4,290.0	2,584.2	2,379.3	204.93	12.610	
8,956.7	6,783.3	6,784.3	6,784.3	70.4	136.1	-90.19	-1,890.8	-4,290.0	2,546.5	2,340.0	206.48	12.333	
9,000.0	6,783.2	6,784.2	6,784.2	71.6	136.1	-90.19	-1,890.8	-4,290.0	2,518.2	2,310.5	207.66	12.126	
9,055.1	6,783.0	6,784.0	6,784.0	73.1	136.1	-90.18	-1,890.8	-4,290.0	2,482.7	2,273.6	209.17	11.870	
9,100.0	6,782.8	6,783.8	6,783.8	74.3	136.1	-90.18	-1,890.8	-4,290.0	2,454.4	2,244.0	210.39	11.666	
9,153.5	6,782.6	6,783.6	6,783.6	75.8	136.0	-90.17	-1,890.8	-4,290.0	2,421.3	2,209.4	211.86	11.429	
9,200.0	6,782.4	6,783.4	6,783.4	77.1	136.0	-90.17	-1,890.8	-4,290.0	2,393.1	2,180.0	213.13	11.228	
9,251.9	6,782.2	6,783.2	6,783.2	78.5	136.0	-90.16	-1,890.8	-4,290.0	2,362.4	2,147.8	214.56	11.010	
9,300.0	6,782.0	6,783.0	6,783.0	79.8	136.0	-90.16	-1,890.8	-4,290.0	2,334.6	2,118.7	215.88	10.814	
9,350.4	6,781.8	6,782.8	6,782.8	81.2	136.0	-90.15	-1,890.8	-4,290.0	2,306.1	2,088.9	217.26	10.614	
9,400.0	6,781.6	6,782.6	6,782.6	82.6	136.0	-90.14	-1,890.8	-4,290.0	2,278.8	2,060.2	218.63	10.423	
9,448.8	6,781.4	6,782.4	6,782.4	83.9	136.0	-90.14	-1,890.8	-4,290.0	2,252.8	2,032.8	219.97	10.241	
9,500.0	6,781.2	6,782.2	6,782.2	85.4	136.0	-90.13	-1,890.8	-4,290.0	2,226.2	2,004.9	221.38	10.056	
9,547.2	6,781.0	6,782.0	6,782.0	86.7	136.0	-90.13	-1,890.8	-4,290.0	2,202.5	1,979.9	222.68	9.891	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - 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	
9,600.0	6,780.8	6,781.8	6,781.8	88.1	136.0	-90.12	-1,890.8	-4,290.0	2,177.0	1,952.8	224.14	9.713	
9,645.6	6,780.7	6,781.7	6,781.7	89.4	136.0	-90.12	-1,890.8	-4,290.0	2,155.6	1,930.2	225.39	9.564	
9,700.0	6,780.5	6,781.5	6,781.5	90.9	136.0	-90.11	-1,890.8	-4,290.0	2,131.2	1,904.3	226.89	9.393	
9,744.1	6,780.3	6,781.3	6,781.3	92.1	136.0	-90.10	-1,890.8	-4,290.0	2,112.3	1,884.2	228.11	9.260	
9,800.0	6,780.1	6,781.1	6,781.1	93.7	136.0	-90.10	-1,890.8	-4,290.0	2,089.3	1,859.6	229.65	9.098	
9,842.5	6,779.9	6,780.9	6,780.9	94.8	136.0	-90.09	-1,890.8	-4,290.0	2,072.7	1,841.8	230.83	8.979	
9,900.0	6,779.7	6,780.7	6,780.7	96.4	136.0	-90.09	-1,890.8	-4,290.0	2,051.4	1,819.0	232.42	8.826	
9,940.9	6,779.5	6,780.5	6,780.5	97.6	136.0	-90.08	-1,890.8	-4,290.0	2,037.1	1,803.5	233.55	8.722	
10,000.0	6,779.3	6,780.3	6,780.3	99.2	136.0	-90.07	-1,890.8	-4,290.0	2,017.7	1,782.5	235.18	8.579	
10,039.3	6,779.1	6,780.1	6,780.1	100.3	136.0	-90.07	-1,890.8	-4,290.0	2,005.7	1,769.4	236.27	8.489	
10,100.0	6,778.9	6,779.9	6,779.9	102.0	136.0	-90.06	-1,890.8	-4,290.0	1,988.5	1,750.5	237.95	8.357	
10,137.8	6,778.7	6,779.7	6,779.7	103.0	136.0	-90.06	-1,890.8	-4,290.0	1,978.7	1,739.7	239.00	8.279	
10,200.0	6,778.5	6,779.5	6,779.5	104.8	136.0	-90.05	-1,890.8	-4,290.0	1,964.0	1,723.2	240.72	8.159	
10,236.2	6,778.3	6,779.3	6,779.3	105.8	136.0	-90.05	-1,890.8	-4,290.0	1,956.3	1,714.5	241.72	8.093	
10,300.0	6,778.1	6,779.1	6,779.1	107.5	136.0	-90.04	-1,890.8	-4,290.0	1,944.3	1,700.8	243.49	7.985	
10,334.6	6,778.0	6,779.0	6,779.0	108.5	136.0	-90.04	-1,890.8	-4,290.0	1,938.6	1,694.1	244.45	7.930	
10,400.0	6,777.7	6,778.7	6,778.7	110.3	136.0	-90.03	-1,890.8	-4,290.0	1,929.5	1,683.3	246.26	7.835	
10,433.0	6,777.6	6,778.6	6,778.6	111.2	135.9	-90.02	-1,890.8	-4,290.0	1,925.8	1,678.6	247.18	7.791	
10,500.0	6,777.3	6,778.3	6,778.3	113.1	135.9	-90.02	-1,890.8	-4,290.0	1,919.9	1,670.9	249.04	7.709	
10,531.5	6,777.2	6,778.2	6,778.2	114.0	135.9	-90.01	-1,890.8	-4,290.0	1,918.0	1,668.1	249.91	7.675	
10,600.0	6,776.9	6,777.9	6,777.9	115.9	135.9	-90.00	-1,890.8	-4,290.0	1,915.5	1,663.7	251.81	7.607	
10,629.9	6,776.8	6,777.8	6,777.8	116.7	135.9	-90.00	-1,890.8	-4,290.0	1,915.2	1,662.5	252.64	7.581	
10,635.0	6,776.8	6,777.8	6,777.8	116.9	135.9	-90.00	-1,890.8	-4,290.0	1,915.2	1,662.4	252.79	7.576 CC	
10,700.0	6,776.5	6,777.5	6,777.5	118.7	135.9	-89.99	-1,890.8	-4,290.0	1,916.3	1,661.7	254.59	7.527 ES	
10,728.3	6,776.4	6,777.4	6,777.4	119.5	135.9	-89.99	-1,890.8	-4,290.0	1,917.4	1,662.1	255.38	7.508	
10,800.0	6,776.1	6,777.1	6,777.1	121.4	135.9	-89.98	-1,890.8	-4,290.0	1,922.3	1,664.9	257.37	7.469	
10,826.7	6,776.0	6,777.0	6,777.0	122.2	135.9	-89.98	-1,890.8	-4,290.0	1,924.7	1,666.6	258.11	7.457	
10,900.0	6,775.7	6,776.7	6,776.7	124.2	135.9	-89.97	-1,890.8	-4,290.0	1,933.4	1,673.3	260.15	7.432	
10,925.2	6,775.6	6,776.6	6,776.6	124.9	135.9	-89.97	-1,890.8	-4,290.0	1,937.0	1,676.2	260.85	7.426	
11,000.0	6,775.3	6,776.3	6,776.3	127.0	135.9	-89.96	-1,890.8	-4,290.0	1,949.6	1,686.7	262.93	7.415	
11,023.6	6,775.2	6,776.2	6,776.2	127.7	135.9	-89.95	-1,890.8	-4,290.0	1,954.2	1,690.6	263.58	7.414 SF	
11,100.0	6,774.9	6,775.9	6,775.9	129.8	135.9	-89.94	-1,890.8	-4,290.0	1,970.8	1,705.1	265.71	7.417	
11,122.0	6,774.8	6,775.8	6,775.8	130.4	135.9	-89.94	-1,890.8	-4,290.0	1,976.1	1,709.8	266.32	7.420	
11,200.0	6,774.5	6,775.5	6,775.5	132.6	135.9	-89.93	-1,890.8	-4,290.0	1,996.8	1,728.3	268.49	7.437	
11,220.4	6,774.4	6,775.4	6,775.4	133.2	135.9	-89.93	-1,890.8	-4,290.0	2,002.6	1,733.6	269.06	7.443	
11,300.0	6,774.1	6,775.1	6,775.1	135.4	135.9	-89.92	-1,890.8	-4,290.0	2,027.3	1,756.1	271.27	7.473	
11,318.9	6,774.0	6,775.0	6,775.0	135.9	135.9	-89.92	-1,890.8	-4,290.0	2,033.6	1,761.8	271.80	7.482	
11,400.0	6,773.7	6,774.7	6,774.7	138.2	135.9	-89.91	-1,890.8	-4,290.0	2,062.3	1,788.2	274.06	7.525	
11,417.3	6,773.6	6,774.6	6,774.6	138.7	135.9	-89.91	-1,890.8	-4,290.0	2,068.8	1,794.2	274.54	7.535	
11,500.0	6,773.3	6,774.3	6,774.3	141.0	135.9	-89.90	-1,890.8	-4,290.0	2,101.4	1,824.6	276.84	7.591	
11,515.7	6,773.2	6,774.2	6,774.2	141.4	135.9	-89.89	-1,890.8	-4,290.0	2,108.0	1,830.7	277.28	7.602	
11,600.0	6,772.9	6,773.9	6,773.9	143.8	135.9	-89.88	-1,890.8	-4,290.0	2,144.5	1,864.9	279.62	7.669	
11,614.1	6,772.8	6,773.8	6,773.8	144.2	135.9	-89.88	-1,890.8	-4,290.0	2,150.9	1,870.9	280.02	7.681	
11,700.0	6,772.5	6,773.5	6,773.5	146.6	135.8	-89.87	-1,890.8	-4,290.0	2,191.4	1,908.9	282.41	7.759	
11,712.6	6,772.4	6,773.4	6,773.4	146.9	135.8	-89.87	-1,890.8	-4,290.0	2,197.5	1,914.7	282.76	7.772	
11,800.0	6,772.1	6,773.1	6,773.1	149.4	135.8	-89.86	-1,890.8	-4,290.0	2,241.7	1,956.5	285.20	7.860	
11,811.0	6,772.1	6,773.1	6,773.1	149.7	135.8	-89.86	-1,890.8	-4,290.0	2,247.4	1,961.9	285.50	7.872	
11,900.0	6,771.7	6,772.7	6,772.7	152.2	135.8	-89.85	-1,890.8	-4,290.0	2,295.2	2,007.2	287.98	7.970	
11,909.4	6,771.7	6,772.7	6,772.7	152.4	135.8	-89.85	-1,890.8	-4,290.0	2,300.4	2,012.2	288.25	7.981	
12,000.0	6,771.3	6,772.3	6,772.3	154.9	135.8	-89.83	-1,890.8	-4,290.0	2,351.8	2,061.0	290.77	8.088	
12,007.8	6,771.3	6,772.3	6,772.3	155.2	135.8	-89.83	-1,890.8	-4,290.0	2,356.4	2,065.4	290.99	8.098	
12,100.0	6,770.9	6,771.9	6,771.9	157.7	135.8	-89.82	-1,890.8	-4,290.0	2,411.2	2,117.7	293.56	8.214	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MASON #1 - 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
12,106.3	6,770.9	6,771.9	6,771.9	157.9	135.8	-89.82	-1,890.8	-4,290.0	2,415.0	2,121.3	293.73	8.222	
12,200.0	6,770.5	6,771.5	6,771.5	160.5	135.8	-89.81	-1,890.8	-4,290.0	2,473.3	2,176.9	296.35	8.346	
12,204.7	6,770.5	6,771.5	6,771.5	160.7	135.8	-89.81	-1,890.8	-4,290.0	2,476.2	2,179.8	296.48	8.352	
12,300.0	6,770.1	6,771.1	6,771.1	163.3	135.8	-89.80	-1,890.8	-4,290.0	2,537.7	2,238.6	299.13	8.484	
12,303.1	6,770.1	6,771.1	6,771.1	163.4	135.8	-89.80	-1,890.8	-4,290.0	2,539.8	2,240.5	299.22	8.488	
12,316.4	6,770.0	6,771.0	6,771.0	163.8	135.8	-89.80	-1,890.8	-4,290.0	2,548.5	2,248.9	299.59	8.507	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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	-173.96	-3,035.1	-320.9	3,052.0				
98.4	98.4	83.7	83.7	0.1	0.1	-173.96	-3,035.2	-321.1	3,052.2	3,052.0	0.18	N/A	
100.0	100.0	85.0	85.0	0.1	0.1	-173.96	-3,035.2	-321.2	3,052.2	3,052.0	0.18	N/A	
196.8	196.8	182.3	182.3	0.3	0.2	-173.95	-3,035.7	-321.9	3,052.7	3,052.2	0.52	5,817.117	
200.0	200.0	185.6	185.6	0.3	0.2	-173.95	-3,035.7	-321.9	3,052.7	3,052.2	0.54	5,691.804	
295.3	295.3	285.3	285.3	0.5	0.3	-173.93	-3,036.0	-322.9	3,053.1	3,052.3	0.84	3,621.544	
300.0	300.0	290.3	290.2	0.5	0.3	-173.93	-3,036.0	-322.9	3,053.1	3,052.3	0.86	3,558.878	
393.7	393.7	377.2	377.2	0.8	0.4	-173.91	-3,036.3	-323.9	3,053.5	3,052.4	1.13	2,701.180	
400.0	400.0	382.9	382.9	0.8	0.4	-173.91	-3,036.3	-324.0	3,053.6	3,052.4	1.15	2,658.497	
492.1	492.1	485.3	485.3	1.0	0.4	-173.89	-3,036.6	-324.9	3,054.0	3,052.6	1.42	2,151.946	
500.0	500.0	494.4	494.4	1.0	0.4	-173.89	-3,036.7	-325.0	3,054.0	3,052.6	1.44	2,117.289	
590.5	590.5	583.9	583.8	1.2	0.5	-173.88	-3,036.8	-325.5	3,054.2	3,052.5	1.70	1,800.876	
600.0	600.0	593.1	593.1	1.2	0.5	-173.88	-3,036.8	-325.5	3,054.2	3,052.5	1.72	1,773.306	
689.0	689.0	681.3	681.3	1.4	0.5	-173.88	-3,037.0	-325.9	3,054.4	3,052.4	1.97	1,552.480	
700.0	700.0	692.3	692.3	1.4	0.6	-173.87	-3,037.0	-325.9	3,054.4	3,052.4	2.00	1,528.916	
787.4	787.4	784.8	784.7	1.6	0.6	-173.87	-3,037.1	-326.3	3,054.6	3,052.4	2.24	1,365.824	
800.0	800.0	798.2	798.1	1.7	0.6	-173.87	-3,037.1	-326.3	3,054.6	3,052.3	2.27	1,345.149	
885.8	885.8	881.2	881.1	1.9	0.6	-173.86	-3,037.2	-326.7	3,054.7	3,052.2	2.50	1,220.513	
900.0	900.0	894.8	894.8	1.9	0.6	-173.86	-3,037.2	-326.8	3,054.7	3,052.2	2.54	1,202.123	
984.2	984.2	977.3	977.2	2.1	0.7	-173.85	-3,037.3	-327.1	3,054.9	3,052.1	2.77	1,103.971	
1,000.0	1,000.0	992.7	992.6	2.1	0.7	-173.85	-3,037.3	-327.1	3,054.9	3,052.1	2.81	1,087.383	
1,082.7	1,082.7	1,083.3	1,083.3	2.3	0.7	-173.85	-3,037.4	-327.4	3,055.0	3,052.0	3.03	1,008.942	
1,100.0	1,100.0	1,102.2	1,102.1	2.3	0.7	-173.85	-3,037.4	-327.4	3,055.0	3,051.9	3.07	993.916	
1,175.5	1,175.5	1,175.6	1,175.5	2.5	0.8	-173.84	-3,037.4	-327.6	3,055.0	3,051.7	3.27	932.969	
1,181.1	1,181.1	1,181.0	1,180.9	2.5	0.8	-173.84	-3,037.4	-327.6	3,055.0	3,051.7	3.29	928.767	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	0.8	-173.84	-3,037.4	-327.7	3,055.0	3,051.6	3.34	914.718	
1,279.5	1,279.5	1,277.9	1,277.9	2.7	0.8	-173.84	-3,037.4	-327.9	3,055.0	3,051.5	3.55	860.989	
1,300.0	1,300.0	1,298.1	1,298.1	2.8	0.8	-173.84	-3,037.4	-327.9	3,055.0	3,051.4	3.60	848.148	
1,377.9	1,377.9	1,383.3	1,383.3	3.0	0.8	-173.84	-3,037.3	-327.8	3,055.0	3,051.2	3.78	808.687	
1,400.0	1,400.0	1,406.7	1,406.6	3.0	0.8	-173.84	-3,037.3	-327.8	3,054.9	3,051.1	3.83	798.002	
1,476.4	1,476.4	1,481.7	1,481.6	3.2	0.8	-173.84	-3,037.2	-327.6	3,054.8	3,050.8	4.01	761.566	
1,500.0	1,500.0	1,504.8	1,504.8	3.2	0.8	-173.84	-3,037.1	-327.6	3,054.8	3,050.7	4.07	750.999	
1,552.3	1,552.3	1,555.4	1,555.3	3.4	0.8	-93.16	-3,037.1	-327.5	3,054.7	3,050.6	4.12	741.319	
1,574.8	1,574.8	1,577.2	1,577.1	3.4	0.8	-93.17	-3,037.1	-327.5	3,054.7	3,050.6	4.17	731.920	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	0.8	-93.18	-3,037.1	-327.4	3,054.8	3,050.5	4.23	721.748	
1,673.2	1,673.1	1,669.8	1,669.8	3.6	0.8	-93.24	-3,037.1	-327.2	3,055.0	3,050.6	4.40	693.856	
1,700.0	1,699.8	1,694.8	1,694.7	3.7	0.8	-93.27	-3,037.1	-327.1	3,055.1	3,050.6	4.47	684.223	
1,771.6	1,771.2	1,767.5	1,767.5	3.8	0.9	-93.38	-3,037.3	-326.9	3,055.6	3,050.9	4.64	658.150	
1,800.0	1,799.5	1,796.5	1,796.4	3.9	0.9	-93.43	-3,037.3	-326.8	3,055.8	3,051.0	4.71	648.362	
1,870.1	1,869.0	1,863.4	1,863.3	4.0	0.9	-93.56	-3,037.4	-326.7	3,056.4	3,051.5	4.89	624.737	
1,900.0	1,898.7	1,891.8	1,891.8	4.1	0.9	-93.63	-3,037.5	-326.8	3,056.7	3,051.7	4.97	615.194	
1,968.5	1,966.4	1,957.0	1,956.9	4.3	0.9	-93.80	-3,037.6	-326.8	3,057.5	3,052.4	5.17	591.832	
2,000.0	1,997.5	1,986.9	1,986.8	4.4	0.9	-93.88	-3,037.7	-326.8	3,058.0	3,052.7	5.26	581.642	
2,066.9	2,063.2	2,054.8	2,054.7	4.6	0.9	-94.09	-3,038.0	-326.9	3,059.1	3,053.6	5.47	559.127	
2,100.1	2,095.7	2,088.9	2,088.9	4.7	0.9	-94.21	-3,038.0	-327.0	3,059.7	3,054.1	5.58	548.644	
2,165.3	2,159.5	2,153.9	2,153.9	4.9	1.0	-94.45	-3,038.1	-327.3	3,060.9	3,055.1	5.81	527.270	
2,200.0	2,193.4	2,188.2	2,188.2	5.0	1.0	-94.58	-3,038.2	-327.5	3,061.5	3,055.6	5.93	516.579	
2,224.2	2,217.1	2,211.8	2,211.8	5.1	1.0	-94.67	-3,038.2	-327.7	3,062.0	3,056.0	6.01	509.127	
2,263.8	2,255.9	2,250.0	2,249.9	5.2	1.0	-94.83	-3,038.3	-328.0	3,062.7	3,056.6	6.14	498.586	
2,300.0	2,291.5	2,285.0	2,285.0	5.3	1.0	-94.96	-3,038.3	-328.2	3,063.4	3,057.1	6.26	489.312	
2,362.2	2,352.7	2,343.8	2,343.7	5.5	1.0	-95.16	-3,038.4	-328.7	3,064.5	3,058.1	6.44	476.015	
2,400.0	2,390.1	2,379.3	2,379.3	5.6	1.0	-95.27	-3,038.5	-329.0	3,065.1	3,058.6	6.55	468.288	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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		
2,460.6	2,450.1	2,438.6	2,438.6	5.7	1.1	-95.43	-3,038.7	-329.6	3,066.2	3,059.4	6.71	456.735		
2,500.0	2,489.2	2,478.0	2,478.0	5.8	1.1	-95.52	-3,038.8	-329.9	3,066.8	3,059.9	6.82	449.511		
2,559.0	2,548.0	2,535.6	2,535.5	6.0	1.1	-95.64	-3,039.0	-330.5	3,067.6	3,060.6	6.98	439.705		
2,600.0	2,588.8	2,574.8	2,574.7	6.1	1.1	-95.71	-3,039.2	-330.8	3,068.1	3,061.0	7.08	433.159		
2,657.5	2,646.1	2,631.8	2,631.8	6.2	1.1	-95.78	-3,039.4	-331.2	3,068.8	3,061.5	7.22	424.913		
2,700.0	2,688.6	2,675.3	2,675.3	6.3	1.1	-95.83	-3,039.6	-331.6	3,069.2	3,061.9	7.33	418.981		
2,755.9	2,744.4	2,730.2	2,730.1	6.4	1.2	-95.86	-3,039.8	-332.0	3,069.6	3,062.2	7.45	412.101		
2,800.0	2,788.5	2,772.1	2,772.1	6.5	1.2	-95.87	-3,040.0	-332.5	3,069.9	3,062.4	7.55	406.847		
2,824.3	2,812.8	2,795.2	2,795.1	6.5	1.2	-176.57	-3,040.1	-332.7	3,070.1	3,062.9	7.14	429.784		
2,854.3	2,842.9	2,822.9	2,822.9	6.6	1.2	-176.56	-3,040.2	-333.1	3,070.2	3,063.0	7.21	425.697		
2,900.0	2,888.5	2,864.9	2,864.8	6.7	1.2	-176.56	-3,040.5	-333.6	3,070.6	3,063.2	7.32	419.648		
2,952.7	2,941.3	2,913.9	2,913.8	6.8	1.2	-176.54	-3,040.9	-334.1	3,071.0	3,063.6	7.45	412.394		
3,000.0	2,988.5	2,959.1	2,959.0	6.9	1.2	-176.54	-3,041.3	-334.7	3,071.4	3,063.9	7.56	406.118		
3,051.2	3,039.7	3,007.9	3,007.8	7.0	1.3	-176.53	-3,041.7	-335.2	3,072.0	3,064.3	7.69	399.536		
3,100.0	3,088.5	3,053.1	3,053.1	7.1	1.3	-176.52	-3,042.2	-335.7	3,072.5	3,064.7	7.81	393.504		
3,149.6	3,138.1	3,100.0	3,099.9	7.2	1.3	-176.51	-3,042.7	-336.2	3,073.1	3,065.2	7.93	387.548		
3,200.0	3,188.5	3,145.6	3,145.5	7.3	1.3	-176.50	-3,043.3	-336.8	3,073.8	3,065.7	8.05	381.740		
3,248.0	3,236.6	3,189.9	3,189.8	7.4	1.3	-176.49	-3,043.9	-337.3	3,074.5	3,066.3	8.17	376.356		
3,300.0	3,288.5	3,240.4	3,240.2	7.5	1.3	-176.48	-3,044.7	-337.9	3,075.3	3,067.0	8.30	370.688		
3,346.4	3,335.0	3,286.0	3,285.9	7.6	1.3	-176.47	-3,045.4	-338.4	3,076.0	3,067.6	8.41	365.757		
3,400.0	3,388.5	3,334.1	3,334.0	7.7	1.4	-176.46	-3,046.1	-339.1	3,076.9	3,068.4	8.54	360.293		
3,444.9	3,433.4	3,373.0	3,372.9	7.8	1.4	-176.45	-3,046.8	-339.6	3,077.7	3,069.1	8.65	355.862		
3,500.0	3,488.5	3,420.2	3,420.1	7.9	1.4	-176.44	-3,047.8	-340.4	3,078.9	3,070.1	8.78	350.598		
3,543.3	3,531.8	3,456.7	3,456.6	8.0	1.4	-176.43	-3,048.6	-340.9	3,079.9	3,071.0	8.89	346.596		
3,600.0	3,588.5	3,500.0	3,499.8	8.1	1.4	-176.42	-3,049.7	-341.6	3,081.4	3,072.3	9.02	341.554		
3,641.7	3,630.3	3,542.3	3,542.1	8.2	1.4	-176.40	-3,050.8	-342.3	3,082.5	3,073.4	9.12	337.872		
3,700.0	3,688.5	3,594.7	3,594.5	8.3	1.4	-176.39	-3,052.3	-343.1	3,084.3	3,075.0	9.26	332.932		
3,740.1	3,728.7	3,632.9	3,632.6	8.4	1.5	-176.38	-3,053.4	-343.7	3,085.5	3,076.1	9.36	329.617		
3,800.0	3,788.5	3,690.3	3,690.0	8.5	1.5	-176.37	-3,055.2	-344.5	3,087.4	3,077.9	9.51	324.805		
3,838.6	3,827.1	3,732.1	3,731.8	8.6	1.5	-176.36	-3,056.5	-345.0	3,088.6	3,079.0	9.60	321.747		
3,900.0	3,888.5	3,801.5	3,801.2	8.7	1.5	-176.35	-3,058.5	-346.0	3,090.4	3,080.7	9.75	316.969		
3,937.0	3,925.5	3,844.6	3,844.2	8.8	1.5	-176.34	-3,059.6	-346.5	3,091.4	3,081.6	9.84	314.131		
4,000.0	3,988.5	3,919.7	3,919.3	9.0	1.6	-176.32	-3,061.4	-347.6	3,093.0	3,083.0	10.00	309.373		
4,035.4	4,024.0	3,965.1	3,964.7	9.0	1.6	-176.31	-3,062.3	-348.3	3,093.7	3,083.6	10.09	306.699		
4,100.0	4,088.5	4,050.8	4,050.4	9.2	1.6	-176.28	-3,063.6	-350.1	3,094.7	3,084.5	10.25	301.834		
4,133.8	4,122.4	4,096.9	4,096.4	9.2	1.6	-176.26	-3,064.0	-351.1	3,095.1	3,084.7	10.34	299.295		
4,200.0	4,188.5	4,181.7	4,181.2	9.4	1.6	-176.22	-3,064.3	-353.1	3,095.4	3,084.9	10.51	294.426		
4,232.3	4,220.8	4,219.9	4,219.4	9.4	1.6	-176.20	-3,064.3	-354.1	3,095.5	3,084.9	10.60	292.114		
4,300.0	4,288.5	4,294.9	4,294.4	9.6	1.7	-176.16	-3,064.1	-356.1	3,095.4	3,084.7	10.77	287.401		
4,330.7	4,319.2	4,330.0	4,329.5	9.7	1.7	-176.15	-3,063.9	-357.1	3,095.4	3,084.5	10.85	285.302		
4,400.0	4,388.5	4,409.4	4,408.8	9.8	1.7	-176.11	-3,063.4	-359.3	3,095.0	3,084.0	11.03	280.659		
4,429.1	4,417.7	4,442.1	4,441.5	9.9	1.7	-176.09	-3,063.1	-360.1	3,094.8	3,083.7	11.10	278.755		
4,500.0	4,488.5	4,526.0	4,525.4	10.0	1.7	-176.05	-3,062.1	-362.4	3,094.1	3,082.9	11.28	274.194		
4,527.5	4,516.1	4,563.1	4,562.5	10.1	1.7	-176.03	-3,061.6	-363.3	3,093.8	3,082.4	11.36	272.431		
4,600.0	4,588.5	4,645.1	4,644.4	10.2	1.8	-175.99	-3,060.0	-365.1	3,092.5	3,081.0	11.54	267.991		
4,626.0	4,614.5	4,671.1	4,670.4	10.3	1.8	-175.98	-3,059.5	-365.6	3,092.0	3,080.4	11.60	266.457		
4,700.0	4,688.5	4,739.4	4,738.7	10.5	1.8	-175.96	-3,058.2	-366.9	3,090.7	3,078.9	11.79	262.223		
4,724.4	4,712.9	4,760.7	4,760.0	10.5	1.8	-175.95	-3,057.9	-367.2	3,090.4	3,078.5	11.85	260.867		
4,800.0	4,788.5	4,828.5	4,827.8	10.7	1.8	-175.94	-3,056.9	-368.0	3,089.3	3,077.3	12.03	256.762		
4,822.8	4,811.4	4,849.8	4,849.1	10.7	1.8	-175.93	-3,056.6	-368.2	3,089.0	3,076.9	12.09	255.548		
4,900.0	4,888.5	4,921.4	4,920.6	10.9	1.8	-175.92	-3,055.7	-368.9	3,088.1	3,075.9	12.28	251.531		
4,921.2	4,909.8	4,940.8	4,940.1	10.9	1.8	-175.91	-3,055.5	-369.0	3,087.9	3,075.6	12.33	250.448		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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	
5,000.0	4,988.5	5,012.8	5,012.1	11.1	1.8	-175.90	-3,054.9	-369.6	3,087.2	3,074.7	12.52	246.520	
5,019.7	5,008.2	5,030.7	5,029.9	11.1	1.8	-175.90	-3,054.7	-369.8	3,087.1	3,074.5	12.57	245.557	
5,100.0	5,088.5	5,104.2	5,103.5	11.3	1.8	-175.89	-3,054.2	-370.2	3,086.6	3,073.9	12.77	241.708	
5,118.1	5,106.6	5,123.1	5,122.4	11.4	1.8	-175.89	-3,054.1	-370.3	3,086.5	3,073.7	12.82	240.848	
5,200.0	5,188.5	5,208.5	5,207.8	11.5	1.9	-175.88	-3,053.6	-370.8	3,086.1	3,073.1	13.02	237.030	
5,216.5	5,205.1	5,225.4	5,224.6	11.6	1.9	-175.88	-3,053.5	-370.9	3,086.0	3,072.9	13.06	236.277	
5,300.0	5,288.5	5,309.9	5,309.1	11.8	1.9	-175.87	-3,052.9	-371.3	3,085.4	3,072.2	13.27	232.545	
5,314.9	5,303.5	5,324.4	5,323.7	11.8	1.9	-175.87	-3,052.8	-371.4	3,085.3	3,072.0	13.31	231.888	
5,400.0	5,388.5	5,410.1	5,409.4	12.0	1.9	-175.85	-3,052.2	-372.1	3,084.8	3,071.3	13.52	228.212	
5,413.4	5,401.9	5,428.8	5,428.1	12.0	1.9	-175.85	-3,052.1	-372.2	3,084.7	3,071.1	13.55	227.622	
5,500.0	5,488.5	5,540.4	5,539.7	12.2	1.9	-175.83	-3,050.5	-373.3	3,083.5	3,069.8	13.77	223.895	
5,511.8	5,500.3	5,553.8	5,553.0	12.2	1.9	-175.83	-3,050.3	-373.5	3,083.3	3,069.5	13.80	223.405	
5,600.0	5,588.5	5,647.8	5,647.0	12.4	1.9	-175.81	-3,048.5	-374.3	3,081.7	3,067.7	14.02	219.836	
5,610.2	5,598.8	5,658.2	5,657.4	12.4	1.9	-175.81	-3,048.3	-374.4	3,081.5	3,067.5	14.04	219.433	
5,700.0	5,688.5	5,746.5	5,745.7	12.6	1.9	-175.79	-3,046.6	-375.0	3,079.8	3,065.5	14.26	215.970	
5,708.6	5,697.2	5,754.9	5,754.0	12.6	1.9	-175.79	-3,046.4	-375.0	3,079.6	3,065.4	14.28	215.643	
5,800.0	5,788.5	5,845.1	5,844.2	12.8	2.0	-175.78	-3,044.7	-375.5	3,078.0	3,063.5	14.50	212.269	
5,807.1	5,795.6	5,852.3	5,851.4	12.9	2.0	-175.78	-3,044.6	-375.5	3,077.9	3,063.3	14.52	212.013	
5,900.0	5,888.5	5,943.5	5,942.7	13.1	2.0	-175.78	-3,042.9	-375.6	3,076.2	3,061.4	14.74	208.715	
5,905.5	5,894.0	5,948.8	5,947.9	13.1	2.0	-175.78	-3,042.8	-375.6	3,076.1	3,061.3	14.75	208.524	
6,000.0	5,988.5	6,047.7	6,046.8	13.3	2.0	-175.77	-3,041.1	-375.9	3,074.4	3,059.5	14.98	205.274	
6,003.9	5,992.5	6,052.3	6,051.5	13.3	2.0	-175.77	-3,041.0	-375.9	3,074.4	3,059.4	14.99	205.139	
6,085.3	6,073.8	6,143.0	6,142.1	13.5	2.0	-175.76	-3,039.1	-376.0	3,072.6	3,057.5	15.18	202.403	
6,100.0	6,088.5	6,158.5	6,157.6	13.5	2.0	-85.79	-3,038.7	-376.0	3,072.3	3,057.2	15.11	203.268	
6,102.3	6,090.9	6,160.9	6,160.0	13.5	2.0	-85.80	-3,038.7	-376.0	3,072.2	3,057.1	15.12	203.192	
6,150.0	6,138.4	6,210.9	6,210.0	13.6	2.0	-85.95	-3,037.5	-376.0	3,071.0	3,055.7	15.23	201.643	
6,200.0	6,188.0	6,263.1	6,262.2	13.7	2.0	-86.20	-3,036.3	-376.0	3,069.3	3,054.0	15.36	199.826	
6,200.8	6,188.8	6,263.9	6,263.0	13.7	2.0	-86.21	-3,036.3	-376.0	3,069.3	3,053.9	15.36	199.795	
6,250.0	6,237.1	6,316.0	6,315.1	13.9	2.0	-86.55	-3,035.0	-375.8	3,067.5	3,051.9	15.51	197.814	
6,299.2	6,284.6	6,370.5	6,369.5	14.0	2.0	-86.98	-3,033.5	-375.7	3,065.3	3,049.7	15.67	195.626	
6,300.0	6,285.3	6,371.4	6,370.4	14.0	2.0	-86.99	-3,033.5	-375.7	3,065.3	3,049.6	15.67	195.590	
6,350.0	6,332.5	6,419.0	6,418.0	14.2	2.0	-87.47	-3,032.2	-375.6	3,063.0	3,047.1	15.86	193.157	
6,397.6	6,376.3	6,456.4	6,455.4	14.4	2.0	-87.92	-3,031.2	-375.7	3,060.8	3,044.7	16.06	190.620	
6,400.0	6,378.5	6,458.3	6,457.3	14.4	2.0	-87.94	-3,031.1	-375.7	3,060.7	3,044.6	16.07	190.496	
6,450.0	6,423.0	6,500.0	6,499.0	14.7	2.0	-88.47	-3,030.1	-375.9	3,058.5	3,042.2	16.31	187.561	
6,496.0	6,462.4	6,521.8	6,520.8	14.9	2.0	-88.82	-3,029.6	-376.0	3,056.6	3,040.1	16.56	184.596	
6,500.0	6,465.7	6,523.9	6,522.9	14.9	2.0	-88.86	-3,029.6	-376.0	3,056.5	3,039.9	16.58	184.347	
6,550.0	6,506.6	6,549.2	6,548.2	15.2	2.0	-89.25	-3,029.2	-376.1	3,054.9	3,038.0	16.90	180.804	
6,594.5	6,541.2	6,570.6	6,569.5	15.6	2.0	-89.59	-3,028.9	-376.1	3,053.9	3,036.7	17.22	177.331	
6,600.0	6,545.3	6,573.1	6,572.1	15.6	2.0	-89.63	-3,028.9	-376.1	3,053.8	3,036.6	17.26	176.910	
6,650.0	6,581.8	6,600.0	6,599.0	16.0	2.0	-90.02	-3,028.7	-376.2	3,053.2	3,035.5	17.68	172.653	
6,681.9	6,603.8	6,611.4	6,610.4	16.3	2.0	-90.19	-3,028.7	-376.2	3,053.1	3,035.1	17.99	169.694	
6,692.9	6,611.1	6,617.1	6,616.1	16.4	2.0	-90.26	-3,028.7	-376.1	3,053.1	3,035.0	18.10	168.706	
6,700.0	6,615.8	6,620.7	6,619.7	16.5	2.0	-90.31	-3,028.7	-376.1	3,053.2	3,035.0	18.17	168.072	
6,750.0	6,647.1	6,644.8	6,643.8	17.1	2.0	-90.62	-3,028.7	-376.1	3,053.7	3,035.0	18.71	163.169 ES	
6,791.3	6,670.9	6,663.1	6,662.1	17.6	2.0	-90.83	-3,028.7	-376.1	3,054.6	3,035.4	19.23	158.869	
6,800.0	6,675.7	6,666.7	6,665.7	17.7	2.0	-90.87	-3,028.7	-376.1	3,054.8	3,035.5	19.33	157.998	
6,850.0	6,701.3	6,686.4	6,685.3	18.4	2.0	-91.04	-3,028.8	-376.0	3,056.7	3,036.6	20.03	152.632	
6,889.7	6,719.5	6,700.0	6,699.0	19.0	2.0	-91.11	-3,028.9	-376.0	3,058.6	3,038.0	20.63	148.242	
6,900.0	6,723.8	6,704.5	6,703.5	19.1	2.0	-91.14	-3,028.9	-376.0	3,059.2	3,038.4	20.79	147.151	
6,950.0	6,743.2	6,722.8	6,721.8	20.0	2.0	-91.19	-3,029.0	-375.9	3,062.5	3,040.9	21.62	141.633	
6,988.2	6,755.8	6,734.7	6,733.7	20.6	2.0	-91.15	-3,029.1	-375.9	3,065.6	3,043.3	22.31	137.424	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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	
7,000.0	6,759.4	6,738.0	6,737.0	20.9	2.0	-91.13	-3,029.1	-375.9	3,066.6	3,044.1	22.52	136.177		
7,050.0	6,772.1	6,750.0	6,749.0	21.8	2.0	-90.95	-3,029.2	-375.8	3,071.6	3,048.1	23.47	130.857		
7,086.6	6,779.4	6,756.7	6,755.7	22.5	2.0	-90.74	-3,029.3	-375.8	3,075.7	3,051.5	24.21	127.062		
7,100.0	6,781.5	6,758.8	6,757.8	22.8	2.0	-90.65	-3,029.3	-375.8	3,077.3	3,052.8	24.47	125.734		
7,150.0	6,787.5	6,764.2	6,763.2	23.9	2.0	-90.22	-3,029.3	-375.8	3,083.9	3,058.3	25.52	120.854		
7,185.0	6,789.6	6,766.1	6,765.1	24.6	2.0	-89.85	-3,029.3	-375.8	3,088.9	3,062.7	26.27	117.587		
7,200.0	6,789.9	6,766.4	6,765.4	24.9	2.0	-89.67	-3,029.3	-375.8	3,091.2	3,064.6	26.59	116.251		
7,213.0	6,790.0	6,766.4	6,765.4	25.2	2.0	-89.50	-3,029.3	-375.8	3,093.3	3,066.4	26.87	115.104		
7,283.4	6,789.7	6,765.9	6,764.9	26.8	2.0	-89.49	-3,029.3	-375.8	3,105.3	3,076.8	28.45	109.154		
7,300.0	6,789.7	6,765.8	6,764.8	27.2	2.0	-89.49	-3,029.3	-375.8	3,108.3	3,079.5	28.82	107.859		
7,381.9	6,789.4	6,765.2	6,764.2	29.1	2.0	-89.48	-3,029.3	-375.8	3,124.6	3,093.9	30.72	101.701		
7,400.0	6,789.3	6,765.1	6,764.0	29.5	2.0	-89.48	-3,029.3	-375.8	3,128.5	3,097.3	31.14	100.449		
7,480.3	6,789.0	6,764.5	6,763.5	31.4	2.0	-89.47	-3,029.3	-375.8	3,146.9	3,113.8	33.08	95.141		
7,500.0	6,788.9	6,764.4	6,763.3	31.9	2.0	-89.46	-3,029.3	-375.8	3,151.7	3,118.1	33.55	93.941		
7,578.7	6,788.6	6,763.8	6,762.8	33.8	2.0	-89.45	-3,029.3	-375.8	3,172.1	3,136.6	35.49	89.376		
7,600.0	6,788.5	6,763.6	6,762.6	34.4	2.0	-89.45	-3,029.3	-375.8	3,177.9	3,141.9	36.02	88.235		
7,677.1	6,788.2	6,763.1	6,762.1	36.3	2.0	-89.44	-3,029.3	-375.8	3,200.1	3,162.1	37.96	84.308		
7,700.0	6,788.2	6,762.9	6,761.9	36.9	2.0	-89.44	-3,029.3	-375.8	3,207.0	3,168.5	38.53	83.230		
7,775.6	6,787.9	6,762.4	6,761.4	38.8	2.0	-89.43	-3,029.3	-375.8	3,230.9	3,190.4	40.46	79.847		
7,800.0	6,787.8	6,762.2	6,761.2	39.4	2.0	-89.42	-3,029.3	-375.8	3,238.9	3,197.8	41.09	78.830		
7,874.0	6,787.5	6,761.7	6,760.7	41.3	2.0	-89.41	-3,029.3	-375.8	3,264.3	3,221.3	43.00	75.910		
7,900.0	6,787.4	6,761.5	6,760.5	42.0	2.0	-89.41	-3,029.3	-375.8	3,273.6	3,229.9	43.68	74.953		
7,972.4	6,787.1	6,761.0	6,760.0	43.9	2.0	-89.40	-3,029.3	-375.8	3,300.4	3,254.8	45.57	72.426		
8,000.0	6,787.0	6,760.8	6,759.8	44.6	2.0	-89.40	-3,029.3	-375.8	3,310.9	3,264.6	46.29	71.525		
8,070.8	6,786.7	6,760.3	6,759.3	46.5	2.0	-89.39	-3,029.3	-375.8	3,338.9	3,290.8	48.16	69.332		
8,100.0	6,786.6	6,760.1	6,759.1	47.3	2.0	-89.38	-3,029.3	-375.8	3,350.8	3,301.9	48.93	68.486		
8,169.3	6,786.4	6,759.6	6,758.6	49.1	2.0	-89.38	-3,029.3	-375.8	3,379.9	3,329.2	50.77	66.576		
8,200.0	6,786.3	6,759.4	6,758.4	49.9	2.0	-89.37	-3,029.3	-375.8	3,393.2	3,341.6	51.58	65.781		
8,267.7	6,786.0	6,758.9	6,757.9	51.7	2.0	-89.36	-3,029.3	-375.8	3,423.3	3,369.9	53.39	64.115		
8,300.0	6,785.9	6,758.7	6,757.7	52.6	2.0	-89.36	-3,029.3	-375.8	3,438.0	3,383.7	54.26	63.366		
8,366.1	6,785.6	6,758.2	6,757.2	54.4	2.0	-89.35	-3,029.3	-375.8	3,468.8	3,412.8	56.03	61.908		
8,400.0	6,785.5	6,758.0	6,757.0	55.3	2.0	-89.34	-3,029.3	-375.8	3,485.0	3,428.1	56.94	61.203		
8,464.5	6,785.2	6,757.5	6,756.5	57.0	2.0	-89.34	-3,029.3	-375.8	3,516.6	3,457.9	58.68	59.925		
8,500.0	6,785.1	6,757.3	6,756.3	58.0	2.0	-89.33	-3,029.3	-375.8	3,534.3	3,474.7	59.64	59.261		
8,563.0	6,784.9	6,756.9	6,755.8	59.7	2.0	-89.32	-3,029.3	-375.8	3,566.4	3,505.1	61.34	58.137		
8,600.0	6,784.7	6,756.6	6,755.6	60.7	2.0	-89.32	-3,029.3	-375.8	3,585.7	3,523.3	62.35	57.511		
8,661.4	6,784.5	6,756.2	6,755.2	62.4	2.0	-89.31	-3,029.3	-375.8	3,618.2	3,554.2	64.02	56.521		
8,700.0	6,784.3	6,755.9	6,754.9	63.4	2.0	-89.30	-3,029.3	-375.8	3,639.1	3,574.0	65.06	55.931		
8,759.8	6,784.1	6,755.5	6,754.5	65.0	2.0	-89.30	-3,029.3	-375.8	3,672.0	3,605.3	66.69	55.057		
8,800.0	6,784.0	6,755.2	6,754.2	66.1	2.0	-89.29	-3,029.3	-375.8	3,694.4	3,626.6	67.79	54.499		
8,858.2	6,783.7	6,754.8	6,753.8	67.7	2.0	-89.28	-3,029.3	-375.8	3,727.5	3,658.1	69.38	53.726		
8,900.0	6,783.6	6,754.5	6,753.5	68.9	2.0	-89.28	-3,029.3	-375.8	3,751.6	3,681.1	70.52	53.199		
8,956.7	6,783.3	6,754.1	6,753.1	70.4	2.0	-89.27	-3,029.3	-375.8	3,784.8	3,712.7	72.07	52.515		
9,000.0	6,783.2	6,753.8	6,752.8	71.6	2.0	-89.26	-3,029.3	-375.8	3,810.5	3,737.3	73.26	52.016		
9,055.1	6,783.0	6,753.5	6,752.4	73.1	2.0	-89.26	-3,029.3	-375.8	3,843.8	3,769.0	74.77	51.409		
9,100.0	6,782.8	6,753.1	6,752.1	74.3	2.0	-89.25	-3,029.2	-375.8	3,871.2	3,795.2	76.00	50.936		
9,153.5	6,782.6	6,752.8	6,751.8	75.8	2.0	-89.24	-3,029.2	-375.8	3,904.3	3,826.8	77.47	50.397		
9,200.0	6,782.4	6,752.5	6,751.4	77.1	2.0	-89.24	-3,029.2	-375.8	3,933.4	3,854.7	78.75	49.950		
9,251.9	6,782.2	6,752.1	6,751.1	78.5	2.0	-89.23	-3,029.2	-375.8	3,966.4	3,886.2	80.18	49.470		
9,300.0	6,782.0	6,751.8	6,750.8	79.8	2.0	-89.23	-3,029.2	-375.8	3,997.2	3,915.7	81.50	49.046		
9,350.4	6,781.8	6,751.4	6,750.4	81.2	2.0	-89.22	-3,029.2	-375.8	4,029.9	3,947.0	82.89	48.618		
9,400.0	6,781.6	6,751.1	6,750.1	82.6	2.0	-89.21	-3,029.2	-375.8	4,062.4	3,978.2	84.26	48.216		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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	
9,448.8	6,781.4	6,750.8	6,749.7	83.9	2.0	-89.21	-3,029.2	-375.8	4,094.8	4,009.2	85.60	47.835	
9,500.0	6,781.2	6,750.4	6,749.4	85.4	2.0	-89.20	-3,029.2	-375.8	4,129.1	4,042.1	87.02	47.452	
9,547.2	6,781.0	6,750.1	6,749.1	86.7	2.0	-89.19	-3,029.2	-375.8	4,161.0	4,072.7	88.32	47.113	
9,600.0	6,780.8	6,749.7	6,748.7	88.1	2.0	-89.19	-3,029.2	-375.8	4,197.0	4,107.3	89.78	46.749	
9,645.6	6,780.7	6,749.4	6,748.4	89.4	2.0	-89.18	-3,029.2	-375.8	4,228.5	4,137.4	91.04	46.446	
9,700.0	6,780.5	6,749.0	6,748.0	90.9	2.0	-89.17	-3,029.2	-375.8	4,266.2	4,173.7	92.54	46.100	
9,744.1	6,780.3	6,748.7	6,747.7	92.1	2.0	-89.17	-3,029.2	-375.8	4,297.1	4,203.4	93.76	45.830	
9,800.0	6,780.1	6,748.4	6,747.4	93.7	2.0	-89.16	-3,029.2	-375.8	4,336.7	4,241.4	95.31	45.500	
9,842.5	6,779.9	6,748.1	6,747.1	94.8	2.0	-89.15	-3,029.2	-375.8	4,366.9	4,270.5	96.49	45.258	
9,900.0	6,779.7	6,747.7	6,746.7	96.4	2.0	-89.15	-3,029.2	-375.9	4,408.2	4,310.1	98.08	44.944	
9,940.9	6,779.5	6,747.4	6,746.4	97.6	2.0	-89.14	-3,029.2	-375.9	4,437.8	4,338.6	99.22	44.729	
10,000.0	6,779.3	6,747.0	6,746.0	99.2	2.0	-89.13	-3,029.2	-375.9	4,480.9	4,380.0	100.85	44.429	
10,039.3	6,779.1	6,746.7	6,745.7	100.3	2.0	-89.13	-3,029.2	-375.9	4,509.8	4,407.8	101.95	44.236	
10,100.0	6,778.9	6,746.3	6,745.3	102.0	2.0	-89.12	-3,029.2	-375.9	4,554.6	4,450.9	103.63	43.951	
10,137.8	6,778.7	6,746.1	6,745.1	103.0	2.0	-89.12	-3,029.2	-375.9	4,582.7	4,478.0	104.68	43.779	
10,200.0	6,778.5	6,745.7	6,744.7	104.8	2.0	-89.11	-3,029.2	-375.9	4,629.2	4,522.8	106.41	43.505	
10,236.2	6,778.3	6,745.4	6,744.4	105.8	2.0	-89.10	-3,029.2	-375.9	4,656.5	4,549.1	107.41	43.352	
10,300.0	6,778.1	6,745.0	6,744.0	107.5	2.0	-89.09	-3,029.2	-375.9	4,704.9	4,595.7	109.18	43.091	
10,334.6	6,778.0	6,744.8	6,743.8	108.5	2.0	-89.09	-3,029.2	-375.9	4,731.2	4,621.1	110.15	42.954	
10,400.0	6,777.7	6,744.3	6,743.3	110.3	2.0	-89.08	-3,029.2	-375.9	4,781.4	4,669.4	111.96	42.704	
10,433.0	6,777.6	6,744.1	6,743.1	111.2	2.0	-89.08	-3,029.2	-375.9	4,806.8	4,694.0	112.88	42.582	
10,500.0	6,777.3	6,743.7	6,742.6	113.1	2.0	-89.07	-3,029.2	-375.9	4,858.7	4,744.0	114.75	42.344	
10,531.5	6,777.2	6,743.5	6,742.4	114.0	2.0	-89.06	-3,029.2	-375.9	4,883.2	4,767.6	115.62	42.235	
10,600.0	6,776.9	6,743.0	6,742.0	115.9	2.0	-89.06	-3,029.2	-375.9	4,936.9	4,819.4	117.53	42.006	
10,629.9	6,776.8	6,742.8	6,741.8	116.7	2.0	-89.05	-3,029.2	-375.9	4,960.4	4,842.1	118.36	41.910	
10,700.0	6,776.5	6,742.3	6,741.3	118.7	2.0	-89.04	-3,029.2	-375.9	5,015.9	4,895.5	120.31	41.690	
10,728.3	6,776.4	6,742.1	6,741.1	119.5	2.0	-89.04	-3,029.2	-375.9	5,038.4	4,917.3	121.10	41.605	
10,800.0	6,776.1	6,741.7	6,740.7	121.4	2.0	-89.03	-3,029.2	-375.9	5,095.5	4,972.4	123.10	41.395	
10,826.7	6,776.0	6,741.5	6,740.5	122.2	2.0	-89.03	-3,029.2	-375.9	5,117.0	4,993.1	123.84	41.319	
10,900.0	6,775.7	6,741.0	6,740.0	124.2	2.0	-89.02	-3,029.2	-375.9	5,175.9	5,050.1	125.88	41.117	
10,925.2	6,775.6	6,740.8	6,739.8	124.9	2.0	-89.01	-3,029.2	-375.9	5,196.3	5,069.7	126.58	41.050	
11,000.0	6,775.3	6,740.3	6,739.3	127.0	2.0	-89.00	-3,029.2	-375.9	5,257.0	5,128.3	128.67	40.856	
11,023.6	6,775.2	6,740.2	6,739.2	127.7	2.0	-89.00	-3,029.2	-375.9	5,276.2	5,146.9	129.33	40.797	
11,100.0	6,774.9	6,739.7	6,738.7	129.8	2.0	-88.99	-3,029.2	-375.9	5,338.7	5,207.3	131.46	40.611	
11,122.0	6,774.8	6,739.5	6,738.5	130.4	2.0	-88.99	-3,029.2	-375.9	5,356.8	5,224.7	132.07	40.559	
11,200.0	6,774.5	6,739.0	6,738.0	132.6	2.0	-88.98	-3,029.1	-375.9	5,421.0	5,286.8	134.25	40.381	
11,220.4	6,774.4	6,738.9	6,737.9	133.2	2.0	-88.98	-3,029.1	-375.9	5,437.9	5,303.1	134.82	40.336	
11,300.0	6,774.1	6,738.4	6,737.4	135.4	2.0	-88.97	-3,029.1	-375.9	5,504.0	5,366.9	137.04	40.164	
11,318.9	6,774.0	6,738.2	6,737.2	135.9	2.0	-88.96	-3,029.1	-375.9	5,519.7	5,382.1	137.56	40.124	
11,400.0	6,773.7	6,737.7	6,736.7	138.2	2.0	-88.95	-3,029.1	-375.9	5,587.4	5,447.6	139.83	39.959	
11,417.3	6,773.6	6,737.6	6,736.6	138.7	2.0	-88.95	-3,029.1	-375.9	5,601.9	5,461.6	140.31	39.925	
11,500.0	6,773.3	6,737.1	6,736.0	141.0	2.0	-88.94	-3,029.1	-375.9	5,671.4	5,528.8	142.62	39.766	
11,515.7	6,773.2	6,737.0	6,735.9	141.4	2.0	-88.94	-3,029.1	-375.9	5,684.7	5,541.6	143.06	39.737	
11,600.0	6,772.9	6,736.4	6,735.4	143.8	2.0	-88.93	-3,029.1	-375.9	5,755.9	5,610.5	145.41	39.584	
11,614.1	6,772.8	6,736.3	6,735.3	144.2	2.0	-88.93	-3,029.1	-375.9	5,767.9	5,622.1	145.81	39.559	
11,700.0	6,772.5	6,735.8	6,734.7	146.6	2.0	-88.91	-3,029.1	-375.9	5,840.9	5,692.7	148.20	39.412	
11,712.6	6,772.4	6,735.7	6,734.7	146.9	2.0	-88.91	-3,029.1	-375.9	5,851.7	5,703.1	148.55	39.391	
11,800.0	6,772.1	6,735.1	6,734.1	149.4	2.0	-88.90	-3,029.1	-375.9	5,926.4	5,775.4	151.00	39.249	
11,811.0	6,772.1	6,735.0	6,734.0	149.7	2.0	-88.90	-3,029.1	-375.9	5,935.8	5,784.5	151.30	39.231	
11,900.0	6,771.7	6,734.5	6,733.4	152.2	2.0	-88.89	-3,029.1	-375.9	6,012.3	5,858.5	153.79	39.094	
11,909.4	6,771.7	6,734.4	6,733.4	152.4	2.0	-88.89	-3,029.1	-375.9	6,020.5	5,866.4	154.05	39.080	
12,000.0	6,771.3	6,733.8	6,732.8	154.9	2.0	-88.88	-3,029.1	-375.9	6,098.7	5,942.1	156.59	38.948	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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
12,007.8	6,771.3	6,733.8	6,732.7	155.2	2.0	-88.88	-3,029.1	-375.9	6,105.5	5,948.7	156.80	38.937	
12,100.0	6,770.9	6,733.2	6,732.2	157.7	2.0	-88.86	-3,029.1	-375.9	6,185.4	6,026.1	159.38	38.809	
12,106.3	6,770.9	6,733.1	6,732.1	157.9	2.0	-88.86	-3,029.1	-375.9	6,190.9	6,031.3	159.56	38.801	
12,200.0	6,770.5	6,732.5	6,731.5	160.5	2.0	-88.85	-3,029.1	-375.9	6,272.6	6,110.4	162.18	38.678	
12,204.7	6,770.5	6,732.5	6,731.5	160.7	2.0	-88.85	-3,029.1	-375.9	6,276.7	6,114.4	162.31	38.672	
12,300.0	6,770.1	6,731.9	6,730.9	163.3	2.0	-88.84	-3,029.1	-375.9	6,360.1	6,195.2	164.97	38.553	
12,303.1	6,770.1	6,731.9	6,730.8	163.4	2.0	-88.84	-3,029.1	-375.9	6,362.9	6,197.8	165.06	38.549	
12,316.4	6,770.0	6,731.8	6,730.8	163.8	2.0	-88.84	-3,029.1	-375.9	6,374.5	6,209.1	165.43	38.533 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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	161.44	-2,984.0	1,002.2	3,147.8				
98.4	98.4	85.3	85.3	0.1	0.1	161.43	-2,984.2	1,002.3	3,148.0	3,147.8	0.18	N/A	
100.0	100.0	86.7	86.7	0.1	0.1	161.43	-2,984.2	1,002.3	3,148.0	3,147.8	0.18	N/A	
196.8	196.8	194.1	194.1	0.3	0.1	161.43	-2,984.3	1,002.4	3,148.2	3,147.8	0.44	7,187.522	
200.0	200.0	197.7	197.7	0.3	0.1	161.43	-2,984.3	1,002.4	3,148.2	3,147.8	0.45	7,057.953	
295.3	295.3	307.9	307.9	0.5	0.2	161.44	-2,984.2	1,002.0	3,147.9	3,147.2	0.79	4,000.192	
300.0	300.0	312.7	312.7	0.5	0.3	161.44	-2,984.2	1,002.0	3,147.9	3,147.1	0.80	3,927.784	
393.7	393.7	409.6	409.5	0.8	0.3	161.45	-2,983.9	1,001.2	3,147.4	3,146.3	1.09	2,890.892	
400.0	400.0	416.3	416.3	0.8	0.3	161.45	-2,983.8	1,001.2	3,147.4	3,146.3	1.11	2,842.304	
492.1	492.1	513.5	513.5	1.0	0.4	161.47	-2,983.4	1,000.2	3,146.7	3,145.3	1.38	2,286.396	
500.0	500.0	520.9	520.8	1.0	0.4	161.47	-2,983.4	1,000.2	3,146.6	3,145.2	1.40	2,250.659	
590.5	590.5	605.7	605.7	1.2	0.5	161.48	-2,983.1	999.4	3,146.1	3,144.4	1.65	1,907.784	
600.0	600.0	615.9	615.9	1.2	0.5	161.48	-2,983.0	999.3	3,146.0	3,144.3	1.68	1,877.699	
689.0	689.0	710.4	710.4	1.4	0.5	161.49	-2,982.6	998.4	3,145.4	3,143.4	1.92	1,635.969	
700.0	700.0	720.8	720.7	1.4	0.5	161.49	-2,982.5	998.3	3,145.3	3,143.3	1.95	1,611.118	
787.4	787.4	803.2	803.2	1.6	0.6	161.50	-2,982.2	997.7	3,144.7	3,142.5	2.19	1,438.111	
800.0	800.0	816.3	816.3	1.7	0.6	161.50	-2,982.1	997.6	3,144.6	3,142.4	2.22	1,416.463	
885.8	885.8	905.2	905.2	1.9	0.6	161.51	-2,981.7	997.1	3,144.0	3,141.6	2.45	1,284.966	
900.0	900.0	918.7	918.7	1.9	0.6	161.51	-2,981.6	997.1	3,143.9	3,141.5	2.48	1,265.983	
984.2	984.2	1,000.0	1,000.0	2.1	0.6	161.51	-2,981.1	996.9	3,143.4	3,140.7	2.70	1,163.692	
1,000.0	1,000.0	1,014.7	1,014.7	2.1	0.7	161.51	-2,981.0	996.9	3,143.3	3,140.6	2.74	1,146.674	
1,082.7	1,082.7	1,098.4	1,098.4	2.3	0.7	161.51	-2,980.5	996.9	3,142.9	3,139.9	2.95	1,064.196	
1,100.0	1,100.0	1,115.5	1,115.5	2.3	0.7	161.51	-2,980.4	996.9	3,142.8	3,139.8	3.00	1,048.508	
1,181.1	1,181.1	1,195.2	1,195.2	2.5	0.7	161.50	-2,979.9	996.8	3,142.3	3,139.1	3.20	980.887	
1,200.0	1,200.0	1,214.1	1,214.1	2.6	0.7	161.50	-2,979.8	996.8	3,142.2	3,138.9	3.25	966.407	
1,279.5	1,279.5	1,294.3	1,294.2	2.7	0.8	161.50	-2,979.4	996.8	3,141.7	3,138.3	3.45	909.947	
1,300.0	1,300.0	1,314.7	1,314.6	2.8	0.8	161.50	-2,979.2	996.8	3,141.6	3,138.1	3.50	896.499	
1,377.9	1,377.9	1,391.9	1,391.9	3.0	0.8	161.50	-2,978.8	996.8	3,141.2	3,137.5	3.70	848.797	
1,400.0	1,400.0	1,413.7	1,413.6	3.0	0.8	161.50	-2,978.7	996.8	3,141.1	3,137.3	3.76	836.214	
1,476.4	1,476.4	1,488.5	1,488.5	3.2	0.8	161.50	-2,978.3	996.8	3,140.7	3,136.8	3.95	795.383	
1,500.0	1,500.0	1,510.6	1,510.6	3.2	0.8	161.50	-2,978.2	996.8	3,140.6	3,136.6	4.01	783.715	
1,522.0	1,522.0	1,530.2	1,530.2	3.3	0.8	-117.81	-2,978.1	996.8	3,140.5	3,136.4	4.13	761.223 CC, ES	
1,574.8	1,574.8	1,577.3	1,577.3	3.4	0.9	-117.82	-2,978.0	996.8	3,140.8	3,136.6	4.25	738.403	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	0.9	-117.82	-2,977.9	996.8	3,141.1	3,136.8	4.31	728.017	
1,673.2	1,673.1	1,674.9	1,674.9	3.6	0.9	-117.86	-2,977.8	997.0	3,142.7	3,138.2	4.49	699.851	
1,700.0	1,699.8	1,700.0	1,700.0	3.7	0.9	-117.87	-2,977.7	997.1	3,143.5	3,138.9	4.55	690.241	
1,771.6	1,771.2	1,768.5	1,768.5	3.8	0.9	-117.92	-2,977.6	997.2	3,146.2	3,141.4	4.72	666.166	
1,800.0	1,799.5	1,794.7	1,794.7	3.9	0.9	-117.94	-2,977.6	997.3	3,147.5	3,142.7	4.79	657.184	
1,870.1	1,869.0	1,864.2	1,864.1	4.0	0.9	-118.00	-2,977.6	997.4	3,151.4	3,146.4	4.97	634.618	
1,900.0	1,898.7	1,894.0	1,893.9	4.1	0.9	-118.03	-2,977.6	997.4	3,153.3	3,148.3	5.04	625.522	
1,968.5	1,966.4	1,954.9	1,954.8	4.3	0.9	-118.09	-2,977.6	997.6	3,158.3	3,153.1	5.22	605.016	
2,000.0	1,997.5	1,982.5	1,982.5	4.4	0.9	-118.12	-2,977.7	997.6	3,161.0	3,155.7	5.30	596.146	
2,066.9	2,063.2	2,044.1	2,044.1	4.6	0.9	-118.19	-2,978.0	997.7	3,167.2	3,161.7	5.50	575.907	
2,100.1	2,095.7	2,075.2	2,075.2	4.7	0.9	-118.23	-2,978.2	997.7	3,170.6	3,165.0	5.60	566.420	
2,165.3	2,159.5	2,136.9	2,136.9	4.9	0.9	-118.44	-2,978.5	997.9	3,177.5	3,171.7	5.81	547.335	
2,200.0	2,193.4	2,170.0	2,169.9	5.0	0.9	-118.55	-2,978.7	997.9	3,181.3	3,175.3	5.92	537.757	
2,224.2	2,217.1	2,193.0	2,193.0	5.1	1.0	-118.62	-2,978.8	998.0	3,183.9	3,177.9	6.00	531.048	
2,263.8	2,255.9	2,231.0	2,231.0	5.2	1.0	-118.82	-2,979.1	998.0	3,188.0	3,181.9	6.11	521.682	
2,300.0	2,291.5	2,266.0	2,265.9	5.3	1.0	-118.98	-2,979.3	998.1	3,191.6	3,185.4	6.22	513.468	
2,362.2	2,352.7	2,326.3	2,326.3	5.5	1.0	-119.25	-2,979.8	998.1	3,197.3	3,190.9	6.37	501.613	
2,400.0	2,390.1	2,363.3	2,363.2	5.6	1.0	-119.39	-2,980.1	998.1	3,200.5	3,194.0	6.47	494.628	
2,460.6	2,450.1	2,423.8	2,423.7	5.7	1.0	-119.59	-2,980.6	998.0	3,205.0	3,198.4	6.62	484.006	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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	2,489.2	2,464.3	2,464.3	5.8	1.0	-119.71	-2,981.0	997.8	3,207.7	3,201.0	6.72	477.258	
2,559.0	2,548.0	2,524.5	2,524.4	6.0	1.0	-119.86	-2,981.5	997.6	3,211.1	3,204.2	6.86	467.896	
2,600.0	2,588.8	2,565.5	2,565.4	6.1	1.0	-119.94	-2,981.8	997.5	3,213.1	3,206.1	6.96	461.569	
2,657.5	2,646.1	2,622.1	2,622.0	6.2	1.0	-120.04	-2,982.3	997.3	3,215.4	3,208.3	7.09	453.455	
2,700.0	2,688.6	2,662.8	2,662.8	6.3	1.0	-120.09	-2,982.6	997.1	3,216.8	3,209.6	7.19	447.588	
2,755.9	2,744.4	2,717.9	2,717.8	6.4	1.0	-120.13	-2,983.1	996.9	3,218.1	3,210.8	7.30	440.564	
2,800.0	2,788.5	2,763.7	2,763.6	6.5	1.1	-120.15	-2,983.6	996.6	3,218.8	3,211.4	7.40	435.086	
2,824.3	2,812.8	2,789.0	2,788.9	6.5	1.1	159.15	-2,983.8	996.5	3,219.0	3,211.9	7.18	448.510	
2,854.3	2,842.9	2,818.5	2,818.4	6.6	1.1	159.16	-2,984.1	996.3	3,219.2	3,212.0	7.24	444.445	
2,900.0	2,888.5	2,861.9	2,861.8	6.7	1.1	159.16	-2,984.5	996.1	3,219.5	3,212.2	7.34	438.431	
2,952.7	2,941.3	2,913.2	2,913.1	6.8	1.1	159.17	-2,985.0	995.9	3,220.0	3,212.5	7.47	431.162	
3,000.0	2,988.5	2,962.3	2,962.2	6.9	1.1	159.18	-2,985.5	995.6	3,220.3	3,212.7	7.58	424.805	
3,051.2	3,039.7	3,014.2	3,014.2	7.0	1.1	159.19	-2,986.0	995.3	3,220.7	3,213.0	7.70	418.141	
3,100.0	3,088.5	3,061.0	3,060.9	7.1	1.1	159.19	-2,986.5	995.1	3,221.0	3,213.2	7.82	412.022	
3,149.6	3,138.1	3,108.7	3,108.6	7.2	1.1	159.20	-2,987.0	994.8	3,221.4	3,213.5	7.94	405.932	
3,200.0	3,188.5	3,158.1	3,158.0	7.3	1.1	159.21	-2,987.5	994.6	3,221.8	3,213.8	8.06	399.943	
3,248.0	3,236.6	3,205.0	3,204.9	7.4	1.1	159.21	-2,988.0	994.4	3,222.3	3,214.1	8.17	394.387	
3,300.0	3,288.5	3,255.1	3,255.0	7.5	1.2	159.22	-2,988.6	994.1	3,222.7	3,214.4	8.29	388.573	
3,346.4	3,335.0	3,300.0	3,299.9	7.6	1.2	159.23	-2,989.1	994.0	3,223.2	3,214.8	8.40	383.509	
3,400.0	3,388.5	3,351.8	3,351.7	7.7	1.2	159.23	-2,989.7	993.8	3,223.7	3,215.2	8.53	377.847	
3,444.9	3,433.4	3,395.2	3,395.1	7.8	1.2	159.24	-2,990.3	993.7	3,224.2	3,215.6	8.64	373.222	
3,500.0	3,488.5	3,442.9	3,442.8	7.9	1.2	159.25	-2,991.0	993.6	3,224.9	3,216.1	8.77	367.786	
3,543.3	3,531.8	3,479.9	3,479.8	8.0	1.2	159.25	-2,991.5	993.5	3,225.5	3,216.6	8.87	363.636	
3,600.0	3,588.5	3,530.9	3,530.8	8.1	1.2	159.26	-2,992.4	993.6	3,226.4	3,217.4	9.00	358.341	
3,641.7	3,630.3	3,569.8	3,569.6	8.2	1.2	159.26	-2,993.1	993.6	3,227.1	3,218.0	9.10	354.535	
3,700.0	3,688.5	3,623.6	3,623.5	8.3	1.2	159.27	-2,994.2	993.6	3,228.2	3,219.0	9.24	349.365	
3,740.1	3,728.7	3,660.4	3,660.3	8.4	1.3	159.27	-2,994.9	993.6	3,229.0	3,219.7	9.34	345.895	
3,800.0	3,788.5	3,717.0	3,716.8	8.5	1.3	159.28	-2,996.2	993.7	3,230.3	3,220.8	9.48	340.847	
3,838.6	3,827.1	3,756.3	3,756.1	8.6	1.3	159.28	-2,997.1	993.7	3,231.1	3,221.5	9.57	337.652	
3,900.0	3,888.5	3,817.0	3,816.8	8.7	1.3	159.29	-2,998.4	993.7	3,232.4	3,222.7	9.72	332.699	
3,937.0	3,925.5	3,851.0	3,850.8	8.8	1.3	159.30	-2,999.2	993.7	3,233.2	3,223.4	9.80	329.803	
4,000.0	3,988.5	3,909.9	3,909.7	9.0	1.3	159.31	-3,000.7	993.6	3,234.6	3,224.7	9.95	324.988	
4,035.4	4,024.0	3,946.3	3,946.1	9.0	1.3	159.31	-3,001.6	993.6	3,235.4	3,225.4	10.04	322.321	
4,100.0	4,088.5	4,011.4	4,011.1	9.2	1.3	159.33	-3,003.2	993.5	3,236.9	3,226.7	10.19	317.575	
4,133.8	4,122.4	4,042.7	4,042.4	9.2	1.3	159.33	-3,004.1	993.4	3,237.7	3,227.4	10.27	315.155	
4,200.0	4,188.5	4,104.3	4,104.0	9.4	1.4	159.35	-3,005.8	993.0	3,239.3	3,228.9	10.43	310.538	
4,232.3	4,220.8	4,136.7	4,136.4	9.4	1.4	159.36	-3,006.8	992.7	3,240.1	3,229.6	10.51	308.308	
4,300.0	4,288.5	4,204.4	4,204.1	9.6	1.4	159.39	-3,009.0	991.8	3,241.8	3,231.2	10.67	303.735	
4,330.7	4,319.2	4,233.0	4,232.7	9.7	1.4	159.40	-3,009.9	991.4	3,242.6	3,231.9	10.75	301.718	
4,400.0	4,388.5	4,300.0	4,299.6	9.8	1.4	159.43	-3,012.1	990.5	3,244.5	3,233.6	10.91	297.258	
4,429.1	4,417.7	4,328.4	4,328.0	9.9	1.4	159.44	-3,013.1	990.1	3,245.3	3,234.3	10.98	295.426	
4,500.0	4,488.5	4,403.9	4,403.4	10.0	1.4	159.47	-3,015.6	989.1	3,247.1	3,235.9	11.16	291.022	
4,527.5	4,516.1	4,430.4	4,430.0	10.1	1.4	159.48	-3,016.4	988.8	3,247.8	3,236.6	11.22	289.361	
4,600.0	4,588.5	4,500.4	4,499.9	10.2	1.5	159.51	-3,018.7	987.9	3,249.7	3,238.3	11.40	285.086	
4,626.0	4,614.5	4,526.3	4,525.8	10.3	1.5	159.52	-3,019.5	987.6	3,250.4	3,238.9	11.46	283.581	
4,700.0	4,688.5	4,600.3	4,599.7	10.5	1.5	159.55	-3,021.9	986.8	3,252.3	3,240.7	11.64	279.380	
4,724.4	4,712.9	4,630.5	4,629.9	10.5	1.5	159.56	-3,022.9	986.4	3,252.9	3,241.2	11.70	277.989	
4,800.0	4,788.5	4,722.3	4,721.6	10.7	1.5	159.60	-3,025.4	985.3	3,254.6	3,242.7	11.89	273.752	
4,822.8	4,811.4	4,748.5	4,747.9	10.7	1.5	159.61	-3,026.1	984.9	3,255.0	3,243.1	11.95	272.499	
4,900.0	4,888.5	4,835.7	4,835.0	10.9	1.6	159.64	-3,028.0	984.0	3,256.3	3,244.2	12.14	268.336	
4,921.2	4,909.8	4,859.1	4,858.5	10.9	1.6	159.64	-3,028.5	983.7	3,256.7	3,244.5	12.19	267.211	
5,000.0	4,988.5	4,939.8	4,939.1	11.1	1.6	159.67	-3,030.0	982.8	3,257.8	3,245.4	12.38	263.147	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,008.2	4,958.6	4,957.9	11.1	1.6	159.67	-3,030.4	982.6	3,258.0	3,245.6	12.43	262.158	
5,100.0	5,088.5	5,041.2	5,040.4	11.3	1.6	159.69	-3,032.0	981.9	3,259.2	3,246.6	12.62	258.175	
5,118.1	5,106.6	5,061.3	5,060.6	11.4	1.6	159.70	-3,032.3	981.7	3,259.5	3,246.8	12.67	257.285	
5,200.0	5,188.5	5,155.4	5,154.7	11.5	1.7	159.72	-3,033.7	981.0	3,260.4	3,247.5	12.87	253.310	
5,216.5	5,205.1	5,174.8	5,174.1	11.6	1.7	159.72	-3,034.0	980.9	3,260.6	3,247.6	12.91	252.517	
5,300.0	5,288.5	5,276.4	5,275.6	11.8	1.7	159.73	-3,034.8	980.5	3,261.1	3,247.9	13.12	248.548	
5,314.9	5,303.5	5,294.8	5,294.0	11.8	1.7	159.74	-3,034.8	980.5	3,261.1	3,247.9	13.16	247.845	
5,400.0	5,388.5	5,381.6	5,380.8	12.0	1.7	159.74	-3,035.0	980.3	3,261.2	3,247.9	13.37	243.975	
5,413.4	5,401.9	5,395.1	5,394.3	12.0	1.7	159.74	-3,035.1	980.3	3,261.2	3,247.8	13.40	243.377	
5,500.0	5,488.5	5,479.9	5,479.1	12.2	1.7	159.74	-3,035.2	980.2	3,261.4	3,247.8	13.60	239.808	
5,511.8	5,500.3	5,491.4	5,490.6	12.2	1.7	159.74	-3,035.3	980.2	3,261.4	3,247.8	13.63	239.332	
5,600.0	5,588.5	5,584.5	5,583.8	12.4	1.7	159.74	-3,035.3	980.4	3,261.5	3,247.7	13.82	235.926	
5,610.2	5,598.8	5,595.4	5,594.7	12.4	1.7	159.74	-3,035.3	980.4	3,261.5	3,247.7	13.85	235.538	
5,700.0	5,688.5	5,685.4	5,684.7	12.6	1.7	159.73	-3,035.2	980.7	3,261.6	3,247.5	14.05	232.180	
5,708.6	5,697.2	5,694.1	5,693.3	12.6	1.7	159.73	-3,035.2	980.8	3,261.6	3,247.5	14.07	231.862	
5,800.0	5,788.5	5,788.3	5,787.5	12.8	1.7	159.72	-3,035.0	981.2	3,261.6	3,247.3	14.27	228.538	
5,807.1	5,795.6	5,795.6	5,794.8	12.9	1.7	159.72	-3,035.0	981.3	3,261.6	3,247.3	14.29	228.284	
5,900.0	5,888.5	5,888.9	5,888.1	13.1	1.7	159.71	-3,034.8	981.8	3,261.5	3,247.0	14.50	224.991	
5,905.5	5,894.0	5,894.4	5,893.6	13.1	1.7	159.71	-3,034.7	981.8	3,261.5	3,247.0	14.51	224.799	
5,948.2	5,936.7	5,934.5	5,933.7	13.2	1.7	159.71	-3,034.6	982.1	3,261.5	3,246.9	14.60	223.319	
6,000.0	5,988.5	5,982.7	5,981.9	13.3	1.7	159.70	-3,034.5	982.5	3,261.5	3,246.8	14.72	221.551	
6,003.9	5,992.5	5,986.3	5,985.6	13.3	1.7	159.70	-3,034.5	982.5	3,261.5	3,246.8	14.73	221.419	
6,085.3	6,073.8	6,067.8	6,067.1	13.5	1.8	159.69	-3,034.3	983.3	3,261.6	3,246.7	14.91	218.696	
6,100.0	6,088.5	6,082.8	6,082.1	13.5	1.8	-110.31	-3,034.3	983.4	3,261.7	3,246.5	15.13	215.534	
6,102.3	6,090.9	6,085.2	6,084.5	13.5	1.8	-110.31	-3,034.3	983.4	3,261.7	3,246.5	15.14	215.452	
6,150.0	6,138.4	6,131.0	6,130.2	13.6	1.8	-110.29	-3,034.1	984.0	3,262.7	3,247.4	15.26	213.783	
6,200.0	6,188.0	6,177.5	6,176.7	13.7	1.8	-110.22	-3,034.0	984.5	3,265.0	3,249.6	15.41	211.870	
6,200.8	6,188.8	6,178.2	6,177.5	13.7	1.8	-110.22	-3,034.0	984.5	3,265.0	3,249.6	15.41	211.837	
6,250.0	6,237.1	6,221.8	6,221.1	13.9	1.8	-110.11	-3,034.0	985.0	3,268.5	3,253.0	15.58	209.792	
6,299.2	6,284.6	6,263.2	6,262.4	14.0	1.8	-109.93	-3,034.0	985.6	3,273.3	3,257.6	15.77	207.591	
6,300.0	6,285.3	6,263.8	6,263.0	14.0	1.8	-109.93	-3,034.0	985.6	3,273.4	3,257.6	15.77	207.556	
6,350.0	6,332.5	6,300.0	6,299.2	14.2	1.8	-109.66	-3,034.0	986.2	3,279.6	3,263.6	15.98	205.176	
6,397.6	6,376.3	6,344.0	6,343.2	14.4	1.8	-109.41	-3,034.1	987.0	3,286.8	3,270.6	16.22	202.693	
6,400.0	6,378.5	6,346.0	6,345.2	14.4	1.8	-109.40	-3,034.1	987.0	3,287.2	3,270.9	16.23	202.573	
6,450.0	6,423.0	6,385.5	6,384.7	14.7	1.8	-109.03	-3,034.3	987.7	3,296.0	3,279.5	16.50	199.793	
6,496.0	6,462.4	6,420.7	6,419.9	14.9	1.8	-108.61	-3,034.4	988.4	3,305.4	3,288.6	16.78	197.016	
6,500.0	6,465.7	6,423.7	6,422.9	14.9	1.8	-108.58	-3,034.4	988.5	3,306.3	3,289.5	16.80	196.785	
6,550.0	6,506.6	6,460.2	6,459.4	15.2	1.8	-108.04	-3,034.6	989.2	3,317.8	3,300.7	17.14	193.521	
6,594.5	6,541.2	6,491.2	6,490.3	15.6	1.8	-107.47	-3,034.9	989.7	3,329.2	3,311.7	17.49	190.356	
6,600.0	6,545.3	6,494.9	6,494.1	15.6	1.8	-107.40	-3,034.9	989.8	3,330.7	3,313.2	17.53	189.976	
6,650.0	6,581.8	6,530.5	6,529.6	16.0	1.8	-106.69	-3,035.3	990.3	3,344.9	3,326.9	17.97	186.113	
6,692.9	6,611.1	6,559.8	6,558.9	16.4	1.8	-105.99	-3,035.6	990.5	3,358.1	3,339.7	18.40	182.513	
6,700.0	6,615.8	6,564.5	6,563.6	16.5	1.8	-105.87	-3,035.7	990.5	3,360.4	3,341.9	18.47	181.939	
6,750.0	6,647.1	6,596.2	6,595.4	17.1	1.8	-104.93	-3,036.2	990.6	3,377.1	3,358.1	19.03	177.473	
6,791.3	6,670.9	6,620.5	6,619.7	17.6	1.8	-104.05	-3,036.6	990.6	3,391.8	3,372.3	19.54	173.542	
6,800.0	6,675.7	6,625.4	6,624.5	17.7	1.8	-103.86	-3,036.6	990.6	3,395.0	3,375.4	19.65	172.751	
6,850.0	6,701.3	6,651.3	6,650.5	18.4	1.8	-102.64	-3,037.0	990.7	3,414.2	3,393.8	20.34	167.835	
6,889.7	6,719.5	6,669.7	6,668.8	19.0	1.8	-101.56	-3,037.3	990.7	3,430.2	3,409.3	20.94	163.791	
6,900.0	6,723.8	6,674.1	6,673.2	19.1	1.8	-101.26	-3,037.3	990.7	3,434.5	3,413.4	21.10	162.794	
6,950.0	6,743.2	6,693.4	6,692.6	20.0	1.8	-99.72	-3,037.6	990.8	3,455.8	3,433.9	21.91	157.704	
6,988.2	6,755.8	6,700.0	6,699.2	20.6	1.8	-98.33	-3,037.7	990.9	3,472.9	3,450.3	22.58	153.816	
7,000.0	6,759.4	6,707.9	6,707.1	20.9	1.8	-97.99	-3,037.8	990.9	3,478.3	3,455.5	22.79	152.643	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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		
7,050.0	6,772.1	6,718.4	6,717.5	21.8	1.8	-96.08	-3,037.9	991.0	3,501.6	3,477.9	23.71	147.665		
7,086.6	6,779.4	6,724.1	6,723.3	22.5	1.8	-94.58	-3,038.0	991.0	3,519.2	3,494.8	24.43	144.073		
7,100.0	6,781.5	6,725.8	6,725.0	22.8	1.8	-94.02	-3,038.0	991.1	3,525.8	3,501.1	24.69	142.812		
7,150.0	6,787.5	6,730.4	6,729.5	23.9	1.8	-91.80	-3,038.0	991.1	3,550.7	3,525.0	25.71	138.122		
7,185.0	6,789.6	6,731.8	6,730.9	24.6	1.8	-90.17	-3,038.1	991.1	3,568.6	3,542.1	26.45	134.939		
7,200.0	6,789.9	6,732.0	6,731.1	24.9	1.8	-89.45	-3,038.1	991.1	3,576.3	3,549.5	26.76	133.630		
7,213.0	6,790.0	6,731.9	6,731.1	25.2	1.8	-88.82	-3,038.1	991.1	3,583.0	3,556.0	27.04	132.501		
7,283.4	6,789.7	6,731.1	6,730.2	26.8	1.8	-88.81	-3,038.0	991.1	3,620.1	3,591.5	28.62	126.507		
7,300.0	6,789.7	6,730.9	6,730.0	27.2	1.8	-88.80	-3,038.0	991.1	3,628.9	3,599.9	28.99	125.199		
7,381.9	6,789.4	6,729.9	6,729.1	29.1	1.8	-88.79	-3,038.0	991.1	3,673.5	3,642.6	30.89	104.922		
7,400.0	6,789.3	6,729.7	6,728.9	29.5	1.8	-88.78	-3,038.0	991.1	3,683.5	3,652.2	31.31	117.641		
7,480.3	6,789.0	6,728.8	6,728.0	31.4	1.8	-88.76	-3,038.0	991.1	3,728.7	3,695.5	33.24	112.169		
7,500.0	6,788.9	6,728.6	6,727.8	31.9	1.8	-88.76	-3,038.0	991.1	3,740.0	3,706.3	33.72	110.928		
7,578.7	6,788.6	6,727.7	6,726.9	33.8	1.8	-88.74	-3,038.0	991.1	3,785.7	3,750.0	35.66	106.171		
7,600.0	6,788.5	6,727.5	6,726.7	34.4	1.8	-88.74	-3,038.0	991.1	3,798.2	3,762.1	36.18	104.979		
7,677.1	6,788.2	6,726.7	6,725.8	36.3	1.8	-88.72	-3,038.0	991.1	3,844.4	3,806.2	38.12	100.845		
7,700.0	6,788.2	6,726.4	6,725.6	36.9	1.8	-88.72	-3,038.0	991.1	3,858.2	3,819.5	38.70	99.706		
7,775.6	6,787.9	6,725.7	6,724.8	38.8	1.8	-88.70	-3,038.0	991.1	3,904.6	3,864.0	40.63	96.110		
7,800.0	6,787.8	6,725.4	6,724.6	39.4	1.8	-88.70	-3,038.0	991.1	3,919.8	3,878.6	41.25	95.024		
7,874.0	6,787.5	6,724.6	6,723.8	41.3	1.8	-88.69	-3,038.0	991.0	3,966.4	3,923.2	43.17	91.889		
7,900.0	6,787.4	6,724.4	6,723.5	42.0	1.8	-88.68	-3,038.0	991.0	3,983.0	3,939.1	43.84	90.857		
7,972.4	6,787.1	6,723.7	6,722.8	43.9	1.8	-88.67	-3,038.0	991.0	4,029.7	3,983.9	45.73	88.116		
8,000.0	6,787.0	6,723.4	6,722.5	44.6	1.8	-88.66	-3,038.0	991.0	4,047.6	4,001.2	46.45	87.136		
8,070.8	6,786.7	6,722.7	6,721.8	46.5	1.8	-88.65	-3,037.9	991.0	4,094.3	4,046.0	48.32	84.733		
8,100.0	6,786.6	6,722.4	6,721.6	47.3	1.8	-88.64	-3,037.9	991.0	4,113.7	4,064.6	49.09	83.802		
8,169.3	6,786.4	6,721.7	6,720.9	49.1	1.8	-88.63	-3,037.9	991.0	4,160.2	4,109.3	50.93	81.689		
8,200.0	6,786.3	6,721.5	6,720.6	49.9	1.8	-88.62	-3,037.9	991.0	4,181.1	4,129.3	51.74	80.804		
8,267.7	6,786.0	6,720.8	6,720.0	51.7	1.8	-88.61	-3,037.9	991.0	4,227.5	4,173.9	53.55	78.941		
8,300.0	6,785.9	6,720.5	6,719.7	52.6	1.8	-88.61	-3,037.9	991.0	4,249.8	4,195.4	54.41	78.100		
8,366.1	6,785.6	6,719.9	6,719.1	54.4	1.8	-88.60	-3,037.9	991.0	4,295.9	4,239.7	56.19	76.453		
8,400.0	6,785.5	6,719.6	6,718.8	55.3	1.8	-88.59	-3,037.9	991.0	4,319.7	4,262.6	57.10	75.652		
8,464.5	6,785.2	6,719.0	6,718.2	57.0	1.8	-88.58	-3,037.9	991.0	4,365.5	4,306.6	58.84	74.192		
8,500.0	6,785.1	6,718.7	6,717.9	58.0	1.8	-88.57	-3,037.9	991.0	4,390.8	4,331.0	59.80	73.429		
8,563.0	6,784.9	6,718.2	6,717.3	59.7	1.8	-88.56	-3,037.9	991.0	4,436.1	4,374.6	61.50	72.131		
8,600.0	6,784.7	6,717.8	6,717.0	60.7	1.8	-88.56	-3,037.9	991.0	4,463.0	4,400.5	62.50	71.404		
8,661.4	6,784.5	6,717.3	6,716.5	62.4	1.8	-88.55	-3,037.9	991.0	4,507.8	4,443.6	64.17	70.248		
8,700.0	6,784.3	6,717.0	6,716.1	63.4	1.8	-88.54	-3,037.9	991.0	4,536.2	4,471.0	65.22	69.554		
8,759.8	6,784.1	6,716.5	6,715.6	65.0	1.8	-88.53	-3,037.9	991.0	4,580.5	4,513.7	66.85	68.521		
8,800.0	6,784.0	6,716.1	6,715.3	66.1	1.8	-88.52	-3,037.9	991.0	4,610.5	4,542.5	67.94	67.859		
8,858.2	6,783.7	6,700.0	6,699.2	67.7	1.8	-88.22	-3,037.7	990.9	4,654.2	4,584.7	69.52	66.946		
8,900.0	6,783.6	6,700.0	6,699.2	68.9	1.8	-88.22	-3,037.7	990.9	4,685.7	4,615.0	70.66	66.312		
8,956.7	6,783.3	6,700.0	6,699.2	70.4	1.8	-88.22	-3,037.7	990.9	4,728.7	4,656.5	72.21	65.483		
9,000.0	6,783.2	6,700.0	6,699.2	71.6	1.8	-88.22	-3,037.7	990.9	4,761.8	4,688.4	73.40	64.876		
9,055.1	6,783.0	6,700.0	6,699.2	73.1	1.8	-88.22	-3,037.7	990.9	4,804.1	4,729.2	74.91	64.133		
9,100.0	6,782.8	6,700.0	6,699.2	74.3	1.8	-88.22	-3,037.7	990.9	4,838.8	4,762.7	76.14	63.551		
9,153.5	6,782.6	6,700.0	6,699.2	75.8	1.8	-88.22	-3,037.7	990.9	4,880.4	4,802.7	77.61	62.883		
9,200.0	6,782.4	6,700.0	6,699.2	77.1	1.8	-88.22	-3,037.7	990.9	4,916.6	4,837.7	78.89	62.325		
9,251.9	6,782.2	6,700.0	6,699.2	78.5	1.8	-88.22	-3,037.7	990.9	4,957.4	4,877.0	80.32	61.723		
9,300.0	6,782.0	6,700.0	6,699.2	79.8	1.8	-88.22	-3,037.7	990.9	4,995.2	4,913.6	81.64	61.187		
9,350.4	6,781.8	6,700.0	6,699.2	81.2	1.8	-88.22	-3,037.7	990.9	5,035.1	4,952.1	83.03	60.645		
9,400.0	6,781.6	6,700.0	6,699.2	82.6	1.8	-88.22	-3,037.7	990.9	5,074.6	4,990.2	84.39	60.130		
9,448.8	6,781.4	6,700.0	6,699.2	83.9	1.8	-88.22	-3,037.7	990.9	5,113.6	5,027.8	85.74	59.641		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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
9,500.0	6,781.2	6,700.0	6,699.2	85.4	1.8	-88.22	-3,037.7	990.9	5,154.7	5,067.5	87.15	59.146	
9,547.2	6,781.0	6,700.0	6,699.2	86.7	1.8	-88.22	-3,037.7	990.9	5,192.7	5,104.3	88.46	58.704	
9,600.0	6,780.8	6,700.0	6,699.2	88.1	1.8	-88.22	-3,037.7	990.9	5,235.4	5,145.5	89.91	58.227	
9,645.6	6,780.7	6,700.0	6,699.2	89.4	1.8	-88.22	-3,037.7	990.9	5,272.5	5,181.3	91.18	57.828	
9,700.0	6,780.5	6,700.0	6,699.2	90.9	1.8	-88.22	-3,037.7	990.9	5,316.8	5,224.1	92.68	57.369	
9,744.1	6,780.3	6,700.0	6,699.2	92.1	1.8	-88.22	-3,037.7	990.9	5,352.9	5,259.0	93.90	57.008	
9,800.0	6,780.1	6,700.0	6,699.2	93.7	1.8	-88.22	-3,037.7	990.9	5,398.9	5,303.4	95.45	56.565	
9,842.5	6,779.9	6,700.0	6,699.2	94.8	1.8	-88.22	-3,037.7	990.9	5,433.9	5,337.3	96.62	56.238	
9,900.0	6,779.7	6,700.0	6,699.2	96.4	1.8	-88.22	-3,037.7	990.9	5,481.5	5,383.3	98.22	55.811	
9,940.9	6,779.5	6,700.0	6,699.2	97.6	1.8	-88.22	-3,037.7	990.9	5,515.5	5,416.1	99.35	55.516	
10,000.0	6,779.3	6,700.0	6,699.2	99.2	1.8	-88.22	-3,037.7	990.9	5,564.7	5,463.7	100.99	55.103	
10,039.3	6,779.1	6,700.0	6,699.2	100.3	1.8	-88.22	-3,037.7	990.9	5,597.6	5,495.5	102.08	54.836	
10,100.0	6,778.9	6,700.0	6,699.2	102.0	1.8	-88.22	-3,037.7	990.9	5,648.5	5,544.7	103.76	54.437	
10,137.8	6,778.7	6,700.0	6,699.2	103.0	1.8	-88.22	-3,037.7	990.9	5,680.2	5,575.4	104.81	54.195	
10,200.0	6,778.5	6,700.0	6,699.2	104.8	1.8	-88.21	-3,037.7	990.9	5,732.7	5,626.2	106.54	53.810	
10,236.2	6,778.3	6,700.0	6,699.2	105.8	1.8	-88.21	-3,037.7	990.9	5,763.4	5,655.8	107.54	53.591	
10,300.0	6,778.1	6,700.0	6,699.2	107.5	1.8	-88.21	-3,037.7	990.9	5,817.5	5,708.2	109.31	53.218	
10,334.6	6,778.0	6,700.0	6,699.2	108.5	1.8	-88.21	-3,037.7	990.9	5,847.0	5,736.7	110.28	53.021	
10,400.0	6,777.7	6,700.0	6,699.2	110.3	1.8	-88.21	-3,037.7	990.9	5,902.7	5,790.6	112.09	52.659	
10,433.0	6,777.6	6,700.0	6,699.2	111.2	1.8	-88.21	-3,037.7	990.9	5,931.0	5,818.0	113.01	52.481	
10,500.0	6,777.3	6,700.0	6,699.2	113.1	1.8	-88.21	-3,037.7	990.9	5,988.4	5,873.6	114.87	52.130	
10,531.5	6,777.2	6,700.0	6,699.2	114.0	1.8	-88.21	-3,037.7	990.9	6,015.5	5,899.8	115.75	51.970	
10,600.0	6,776.9	6,700.0	6,699.2	115.9	1.8	-88.21	-3,037.7	990.9	6,074.6	5,956.9	117.66	51.630	
10,629.9	6,776.8	6,700.0	6,699.2	116.7	1.8	-88.21	-3,037.7	990.9	6,100.4	5,981.9	118.49	51.485	
10,700.0	6,776.5	6,700.0	6,699.2	118.7	1.8	-88.21	-3,037.7	990.9	6,161.1	6,040.7	120.44	51.155	
10,728.3	6,776.4	6,700.0	6,699.2	119.5	1.8	-88.21	-3,037.7	990.9	6,185.7	6,064.5	121.23	51.025	
10,800.0	6,776.1	6,700.0	6,699.2	121.4	1.8	-88.21	-3,037.7	990.9	6,248.1	6,124.9	123.22	50.705	
10,826.7	6,776.0	6,700.0	6,699.2	122.2	1.8	-88.21	-3,037.7	990.9	6,271.4	6,147.5	123.97	50.588	
10,900.0	6,775.7	6,700.0	6,699.2	124.2	1.8	-88.21	-3,037.7	990.9	6,335.4	6,209.4	126.01	50.277	
10,925.2	6,775.6	6,700.0	6,699.2	124.9	1.8	-88.21	-3,037.7	990.9	6,357.5	6,230.8	126.71	50.173	
11,000.0	6,775.3	6,700.0	6,699.2	127.0	1.8	-88.21	-3,037.7	990.9	6,423.2	6,294.4	128.80	49.870	
11,023.6	6,775.2	6,700.0	6,699.2	127.7	1.8	-88.21	-3,037.7	990.9	6,443.9	6,314.5	129.45	49.777	
11,100.0	6,774.9	6,700.0	6,699.2	129.8	1.8	-88.21	-3,037.7	990.9	6,511.2	6,379.6	131.58	49.483	
11,122.0	6,774.8	6,700.0	6,699.2	130.4	1.8	-88.21	-3,037.7	990.9	6,530.7	6,398.5	132.20	49.400	
11,200.0	6,774.5	6,700.0	6,699.2	132.6	1.8	-88.21	-3,037.7	990.9	6,599.6	6,465.3	134.37	49.114	
11,220.4	6,774.4	6,700.0	6,699.2	133.2	1.8	-88.21	-3,037.7	990.9	6,617.7	6,482.8	134.94	49.041	
11,300.0	6,774.1	6,700.0	6,699.2	135.4	1.8	-88.21	-3,037.7	990.9	6,688.4	6,551.2	137.16	48.762	
11,318.9	6,774.0	6,700.0	6,699.2	135.9	1.8	-88.21	-3,037.7	990.9	6,705.1	6,567.5	137.69	48.698	
11,400.0	6,773.7	6,700.0	6,699.2	138.2	1.8	-88.21	-3,037.7	990.9	6,777.4	6,637.5	139.95	48.427	
11,417.3	6,773.6	6,700.0	6,699.2	138.7	1.8	-88.21	-3,037.7	990.9	6,792.8	6,652.4	140.44	48.370	
11,500.0	6,773.3	6,700.0	6,699.2	141.0	1.8	-88.21	-3,037.7	990.9	6,866.8	6,724.0	142.74	48.106	
11,515.7	6,773.2	6,700.0	6,699.2	141.4	1.8	-88.21	-3,037.7	990.9	6,880.8	6,737.7	143.18	48.056	
11,600.0	6,772.9	6,700.0	6,699.2	143.8	1.8	-88.21	-3,037.7	990.9	6,956.4	6,810.9	145.53	47.799	
11,614.1	6,772.8	6,700.0	6,699.2	144.2	1.8	-88.21	-3,037.7	990.9	6,969.1	6,823.2	145.93	47.756	
11,700.0	6,772.5	6,700.0	6,699.2	146.6	1.8	-88.20	-3,037.7	990.9	7,046.3	6,898.0	148.33	47.505	
11,712.6	6,772.4	6,700.0	6,699.2	146.9	1.8	-88.20	-3,037.7	990.9	7,057.6	6,909.0	148.68	47.469	
11,800.0	6,772.1	6,700.0	6,699.2	149.4	1.8	-88.20	-3,037.7	990.9	7,136.5	6,985.4	151.12	47.224	
11,811.0	6,772.1	6,700.0	6,699.2	149.7	1.8	-88.20	-3,037.7	990.9	7,146.4	6,995.0	151.43	47.194	
11,900.0	6,771.7	6,700.0	6,699.2	152.2	1.8	-88.20	-3,037.7	990.9	7,226.9	7,073.0	153.91	46.955	
11,909.4	6,771.7	6,700.0	6,699.2	152.4	1.8	-88.20	-3,037.7	990.9	7,235.5	7,081.3	154.18	46.930	
12,000.0	6,771.3	6,700.0	6,699.2	154.9	1.8	-88.20	-3,037.7	990.9	7,317.6	7,160.9	156.71	46.696	
12,007.8	6,771.3	6,700.0	6,699.2	155.2	1.8	-88.20	-3,037.7	990.9	7,324.8	7,167.8	156.93	46.676	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT MILLER #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
12,100.0	6,770.9	6,700.0	6,699.2	157.7	1.8	-88.20	-3,037.7	990.9	7,408.6	7,249.1	159.50	46.448	
12,106.3	6,770.9	6,700.0	6,699.2	157.9	1.8	-88.20	-3,037.7	990.9	7,414.3	7,254.6	159.68	46.433	
12,200.0	6,770.5	6,700.0	6,699.2	160.5	1.8	-88.20	-3,037.7	990.9	7,499.7	7,337.4	162.30	46.210	
12,204.7	6,770.5	6,700.0	6,699.2	160.7	1.8	-88.20	-3,037.7	990.9	7,504.0	7,341.6	162.43	46.199	
12,300.0	6,770.1	6,700.0	6,699.2	163.3	1.8	-88.20	-3,037.7	990.9	7,591.1	7,426.0	165.09	45.981	
12,303.1	6,770.1	6,700.0	6,699.2	163.4	1.8	-88.20	-3,037.7	990.9	7,594.0	7,428.8	165.18	45.974	
12,316.4	6,770.0	6,700.0	6,699.2	163.8	1.8	-88.20	-3,037.7	990.9	7,606.1	7,440.6	165.55	45.944 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SCHAUMBERG #12-17 - 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
0.0	0.0	0.0	0.0	0.0	0.0	-152.49	-364.7	-189.9	411.2				
98.4	98.4	93.4	93.4	0.1	1.2	-152.49	-364.7	-189.9	411.2	409.9	1.28	321.820	
100.0	100.0	95.0	95.0	0.1	1.2	-152.49	-364.7	-189.9	411.2	409.9	1.30	316.448	
196.8	196.8	191.8	191.8	0.3	3.4	-152.49	-364.7	-189.9	411.2	407.5	3.67	112.035	
200.0	200.0	195.0	195.0	0.3	3.4	-152.49	-364.7	-189.9	411.2	407.4	3.75	109.681	
295.3	295.3	290.3	290.3	0.5	5.4	-152.49	-364.7	-189.9	411.2	405.2	5.95	69.084	
300.0	300.0	295.0	295.0	0.5	5.5	-152.49	-364.7	-189.9	411.2	405.1	6.06	67.844	
393.7	393.7	388.7	388.7	0.8	7.4	-152.49	-364.7	-189.9	411.2	403.0	8.19	50.228	
400.0	400.0	395.0	395.0	0.8	7.6	-152.49	-364.7	-189.9	411.2	402.8	8.33	49.367	
492.1	492.1	487.1	487.1	1.0	9.4	-152.49	-364.7	-189.9	411.2	400.8	10.41	39.514	
500.0	500.0	495.0	495.0	1.0	9.6	-152.49	-364.7	-189.9	411.2	400.6	10.58	38.851	
590.5	590.5	585.5	585.5	1.2	11.4	-152.49	-364.7	-189.9	411.2	398.5	12.62	32.584	
600.0	600.0	595.0	595.0	1.2	11.6	-152.49	-364.7	-189.9	411.2	398.3	12.83	32.045	
689.0	689.0	684.0	684.0	1.4	13.4	-152.49	-364.7	-189.9	411.2	396.3	14.83	27.730	
700.0	700.0	695.0	695.0	1.4	13.6	-152.49	-364.7	-189.9	411.2	396.1	15.08	27.275	
787.4	787.4	782.4	782.4	1.6	15.4	-152.49	-364.7	-189.9	411.2	394.1	17.03	24.137	
800.0	800.0	795.0	795.0	1.7	15.6	-152.49	-364.7	-189.9	411.2	393.9	17.32	23.743	
885.8	885.8	880.8	880.8	1.9	17.4	-152.49	-364.7	-189.9	411.2	391.9	19.24	21.370	
900.0	900.0	895.0	895.0	1.9	17.7	-152.49	-364.7	-189.9	411.2	391.6	19.56	21.023	
984.2	984.2	979.2	979.2	2.1	19.4	-152.49	-364.7	-189.9	411.2	389.7	21.44	19.174	
1,000.0	1,000.0	995.0	995.0	2.1	19.7	-152.49	-364.7	-189.9	411.2	389.4	21.80	18.863	
1,082.7	1,082.7	1,077.7	1,077.7	2.3	21.3	-152.49	-364.7	-189.9	411.2	387.5	23.65	17.387	
1,100.0	1,100.0	1,095.0	1,095.0	2.3	21.7	-152.49	-364.7	-189.9	411.2	387.1	24.04	17.106	
1,181.1	1,181.1	1,176.1	1,176.1	2.5	23.3	-152.49	-364.7	-189.9	411.2	385.3	25.85	15.905	
1,200.0	1,200.0	1,195.0	1,195.0	2.6	23.7	-152.49	-364.7	-189.9	411.2	384.9	26.27	15.649	
1,279.5	1,279.5	1,274.5	1,274.5	2.7	25.3	-152.49	-364.7	-189.9	411.2	383.1	28.05	14.656	
1,300.0	1,300.0	1,295.0	1,295.0	2.8	25.7	-152.49	-364.7	-189.9	411.2	382.7	28.51	14.421	
1,377.9	1,377.9	1,372.9	1,372.9	3.0	27.3	-152.49	-364.7	-189.9	411.2	380.9	30.26	13.589	
1,400.0	1,400.0	1,395.0	1,395.0	3.0	27.7	-152.49	-364.7	-189.9	411.2	380.4	30.75	13.371	
1,476.4	1,476.4	1,471.4	1,471.4	3.2	29.3	-152.49	-364.7	-189.9	411.2	378.7	32.46	12.667	
1,500.0	1,500.0	1,495.0	1,495.0	3.2	29.7	-152.49	-364.7	-189.9	411.2	378.2	32.99	12.464	
1,574.8	1,574.8	1,569.8	1,569.8	3.4	31.2	-71.92	-364.7	-189.9	410.9	376.2	34.65	11.857	
1,600.0	1,600.0	1,595.0	1,595.0	3.5	31.8	-72.03	-364.7	-189.9	410.6	375.4	35.21	11.662	
1,673.2	1,673.1	1,668.1	1,668.1	3.6	33.2	-72.51	-364.7	-189.9	409.6	372.7	36.83	11.120	
1,700.0	1,699.8	1,694.8	1,694.8	3.7	33.8	-72.75	-364.7	-189.9	409.0	371.6	37.42	10.931	
1,771.6	1,771.2	1,766.2	1,766.2	3.8	35.2	-73.58	-364.7	-189.9	407.3	368.3	39.01	10.442	
1,800.0	1,799.5	1,794.5	1,794.5	3.9	35.8	-73.97	-364.7	-189.9	406.5	366.9	39.63	10.257	
1,870.1	1,869.0	1,864.0	1,864.0	4.0	37.2	-75.12	-364.7	-189.9	404.3	363.2	41.19	9.816	
1,900.0	1,898.7	1,893.7	1,893.7	4.1	37.8	-75.69	-364.7	-189.9	403.3	361.5	41.86	9.636	
1,968.5	1,966.4	1,961.4	1,961.4	4.3	39.1	-77.15	-364.7	-189.9	400.9	357.5	43.39	9.238	
2,000.0	1,997.5	1,992.5	1,992.5	4.4	39.8	-77.90	-364.7	-189.9	399.7	355.6	44.10	9.064	
2,066.9	2,063.2	2,058.2	2,058.2	4.6	41.1	-79.67	-364.7	-189.9	397.3	351.6	45.62	8.709	
2,100.1	2,095.7	2,090.7	2,090.7	4.7	41.7	-80.63	-364.7	-189.9	396.1	349.7	46.37	8.542	
2,165.3	2,159.5	2,154.5	2,154.5	4.9	43.0	-82.53	-364.7	-189.9	394.1	346.2	47.87	8.231	
2,200.0	2,193.4	2,188.4	2,188.4	5.0	43.7	-83.55	-364.7	-189.9	393.2	344.5	48.67	8.078	
2,224.2	2,217.1	2,212.1	2,212.1	5.1	44.2	-84.27	-364.7	-189.9	392.6	343.4	49.23	7.975	
2,263.8	2,255.9	2,250.9	2,250.9	5.2	45.0	-85.39	-364.7	-189.9	391.9	341.7	50.14	7.816	
2,300.0	2,291.5	2,286.5	2,286.5	5.3	45.7	-86.35	-364.7	-189.9	391.4	340.4	50.97	7.679	
2,362.2	2,352.7	2,347.7	2,347.7	5.5	46.9	-87.88	-364.7	-189.9	390.8	338.5	52.37	7.463	
2,400.0	2,390.1	2,385.1	2,385.1	5.6	47.7	-88.72	-364.7	-189.9	390.7	337.4	53.22	7.341	
2,460.6	2,450.1	2,445.1	2,445.1	5.7	48.9	-89.92	-364.7	-189.9	390.6	336.0	54.58	7.156	
2,464.7	2,454.2	2,449.2	2,449.2	5.7	48.9	-90.00	-364.7	-189.9	390.6	335.9	54.67	7.143	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,500.0	2,489.2	2,484.2	2,484.2	5.8	49.6	-90.61	-364.7	-189.9	390.6	335.1	55.47	7.042	
2,559.0	2,548.0	2,543.0	2,543.0	6.0	50.8	-91.50	-364.7	-189.9	390.7	333.9	56.79	6.880	
2,600.0	2,588.8	2,583.8	2,583.8	6.1	51.6	-92.01	-364.7	-189.9	390.8	333.1	57.71	6.772	
2,657.5	2,646.1	2,641.1	2,641.1	6.2	52.8	-92.59	-364.7	-189.9	391.0	332.0	58.99	6.628	
2,700.0	2,688.6	2,683.6	2,683.6	6.3	53.7	-92.90	-364.7	-189.9	391.1	331.1	59.93	6.525	
2,755.9	2,744.4	2,739.4	2,739.4	6.4	54.8	-93.18	-364.7	-189.9	391.2	330.0	61.17	6.395	
2,800.0	2,788.5	2,783.5	2,783.5	6.5	55.7	-93.29	-364.7	-189.9	391.2	329.1	62.14	6.296	
2,824.3	2,812.8	2,807.8	2,807.8	6.5	56.2	-174.00	-364.7	-189.9	391.2	329.1	62.15	6.295	
2,854.3	2,842.9	2,837.9	2,837.9	6.6	56.8	-174.00	-364.7	-189.9	391.2	328.4	62.81	6.229	
2,900.0	2,888.5	2,883.5	2,883.5	6.7	57.7	-174.00	-364.7	-189.9	391.2	327.4	63.82	6.130	
2,952.7	2,941.3	2,936.3	2,936.3	6.8	58.7	-174.00	-364.7	-189.9	391.2	326.2	65.00	6.019	
3,000.0	2,988.5	2,983.5	2,983.5	6.9	59.7	-174.00	-364.7	-189.9	391.2	325.2	66.05	5.923	
3,051.2	3,039.7	3,034.7	3,034.7	7.0	60.7	-174.00	-364.7	-189.9	391.2	324.0	67.19	5.822	
3,100.0	3,088.5	3,083.5	3,083.5	7.1	61.7	-174.00	-364.7	-189.9	391.2	322.9	68.28	5.730	
3,149.6	3,138.1	3,133.1	3,133.1	7.2	62.7	-174.00	-364.7	-189.9	391.2	321.8	69.39	5.638	
3,200.0	3,188.5	3,183.5	3,183.5	7.3	63.7	-174.00	-364.7	-189.9	391.2	320.7	70.51	5.548	
3,248.0	3,236.6	3,231.6	3,231.6	7.4	64.7	-174.00	-364.7	-189.9	391.2	319.6	71.58	5.465	
3,300.0	3,288.5	3,283.5	3,283.5	7.5	65.7	-174.00	-364.7	-189.9	391.2	318.5	72.74	5.378	
3,346.4	3,335.0	3,330.0	3,330.0	7.6	66.7	-174.00	-364.7	-189.9	391.2	317.4	73.78	5.303	
3,400.0	3,388.5	3,383.5	3,383.5	7.7	67.7	-174.00	-364.7	-189.9	391.2	316.2	74.97	5.218	
3,444.9	3,433.4	3,428.4	3,428.4	7.8	68.6	-174.00	-364.7	-189.9	391.2	315.2	75.97	5.149	
3,500.0	3,488.5	3,483.5	3,483.5	7.9	69.7	-174.00	-364.7	-189.9	391.2	314.0	77.20	5.067	
3,543.3	3,531.8	3,526.8	3,526.8	8.0	70.6	-174.00	-364.7	-189.9	391.2	313.0	78.17	5.005	
3,600.0	3,588.5	3,583.5	3,583.5	8.1	71.8	-174.00	-364.7	-189.9	391.2	311.8	79.43	4.925	
3,641.7	3,630.3	3,625.3	3,625.3	8.2	72.6	-174.00	-364.7	-189.9	391.2	310.9	80.36	4.868	
3,700.0	3,688.5	3,683.5	3,683.5	8.3	73.8	-174.00	-364.7	-189.9	391.2	309.6	81.66	4.791	
3,740.1	3,728.7	3,723.7	3,723.7	8.4	74.6	-174.00	-364.7	-189.9	391.2	308.7	82.56	4.739	
3,800.0	3,788.5	3,783.5	3,783.5	8.5	75.8	-174.00	-364.7	-189.9	391.2	307.3	83.90	4.663	
3,838.6	3,827.1	3,822.1	3,822.1	8.6	76.6	-174.00	-364.7	-189.9	391.2	306.5	84.76	4.616	
3,900.0	3,888.5	3,883.5	3,883.5	8.7	77.8	-174.00	-364.7	-189.9	391.2	305.1	86.13	4.542	
3,937.0	3,925.5	3,920.5	3,920.5	8.8	78.5	-174.00	-364.7	-189.9	391.2	304.3	86.95	4.499	
4,000.0	3,988.5	3,983.5	3,983.5	9.0	79.8	-174.00	-364.7	-189.9	391.2	302.9	88.36	4.428	
4,035.4	4,024.0	4,019.0	4,019.0	9.0	80.5	-174.00	-364.7	-189.9	391.2	302.1	89.15	4.388	
4,100.0	4,088.5	4,083.5	4,083.5	9.2	81.8	-174.00	-364.7	-189.9	391.2	300.6	90.59	4.318	
4,133.8	4,122.4	4,117.4	4,117.4	9.2	82.5	-174.00	-364.7	-189.9	391.2	299.9	91.35	4.283	
4,200.0	4,188.5	4,183.5	4,183.5	9.4	83.8	-174.00	-364.7	-189.9	391.2	298.4	92.83	4.215	
4,232.3	4,220.8	4,215.8	4,215.8	9.4	84.5	-174.00	-364.7	-189.9	391.2	297.7	93.55	4.182	
4,300.0	4,288.5	4,283.5	4,283.5	9.6	85.8	-174.00	-364.7	-189.9	391.2	296.2	95.06	4.116	
4,330.7	4,319.2	4,314.2	4,314.2	9.7	86.5	-174.00	-364.7	-189.9	391.2	295.5	95.74	4.086	
4,400.0	4,388.5	4,383.5	4,383.5	9.8	87.8	-174.00	-364.7	-189.9	391.2	293.9	97.29	4.021	
4,429.1	4,417.7	4,412.7	4,412.7	9.9	88.4	-174.00	-364.7	-189.9	391.2	293.3	97.94	3.994	
4,500.0	4,488.5	4,483.5	4,483.5	10.0	89.9	-174.00	-364.7	-189.9	391.2	291.7	99.52	3.931	
4,527.5	4,516.1	4,511.1	4,511.1	10.1	90.4	-174.00	-364.7	-189.9	391.2	291.1	100.14	3.907	
4,600.0	4,588.5	4,583.5	4,583.5	10.2	91.9	-174.00	-364.7	-189.9	391.2	289.5	101.76	3.845	
4,626.0	4,614.5	4,609.5	4,609.5	10.3	92.4	-174.00	-364.7	-189.9	391.2	288.9	102.34	3.823	
4,700.0	4,688.5	4,683.5	4,683.5	10.5	93.9	-174.00	-364.7	-189.9	391.2	287.2	103.99	3.762	
4,724.4	4,712.9	4,707.9	4,707.9	10.5	94.4	-174.00	-364.7	-189.9	391.2	286.7	104.54	3.742	
4,800.0	4,788.5	4,783.5	4,783.5	10.7	95.9	-174.00	-364.7	-189.9	391.2	285.0	106.22	3.683	
4,822.8	4,811.4	4,806.4	4,806.4	10.7	96.3	-174.00	-364.7	-189.9	391.2	284.5	106.73	3.665	
4,900.0	4,888.5	4,883.5	4,883.5	10.9	97.9	-174.00	-364.7	-189.9	391.2	282.8	108.46	3.607	
4,921.2	4,909.8	4,904.8	4,904.8	10.9	98.3	-174.00	-364.7	-189.9	391.2	282.3	108.93	3.591	
5,000.0	4,988.5	4,983.5	4,983.5	11.1	99.9	-174.00	-364.7	-189.9	391.2	280.5	110.69	3.534	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
5,019.7	5,008.2	5,003.2	5,003.2	11.1	100.3	-174.00	-364.7	-189.9	391.2	280.1	111.13	3.520	
5,100.0	5,088.5	5,083.5	5,083.5	11.3	101.9	-174.00	-364.7	-189.9	391.2	278.3	112.92	3.464	
5,118.1	5,106.6	5,101.6	5,101.6	11.4	102.3	-174.00	-364.7	-189.9	391.2	277.9	113.33	3.452	
5,200.0	5,188.5	5,183.5	5,183.5	11.5	103.9	-174.00	-364.7	-189.9	391.2	276.1	115.16	3.397	
5,216.5	5,205.1	5,200.1	5,200.1	11.6	104.3	-174.00	-364.7	-189.9	391.2	275.7	115.53	3.386	
5,300.0	5,288.5	5,283.5	5,283.5	11.8	105.9	-174.00	-364.7	-189.9	391.2	273.8	117.39	3.333	
5,314.9	5,303.5	5,298.5	5,298.5	11.8	106.2	-174.00	-364.7	-189.9	391.2	273.5	117.73	3.323	
5,400.0	5,388.5	5,383.5	5,383.5	12.0	108.0	-174.00	-364.7	-189.9	391.2	271.6	119.63	3.270	
5,413.4	5,401.9	5,396.9	5,396.9	12.0	108.2	-174.00	-364.7	-189.9	391.2	271.3	119.92	3.262	
5,500.0	5,488.5	5,483.5	5,483.5	12.2	110.0	-174.00	-364.7	-189.9	391.2	269.4	121.86	3.210	
5,511.8	5,500.3	5,495.3	5,495.3	12.2	110.2	-174.00	-364.7	-189.9	391.2	269.1	122.12	3.203	
5,600.0	5,588.5	5,583.5	5,583.5	12.4	112.0	-174.00	-364.7	-189.9	391.2	267.1	124.09	3.153	
5,610.2	5,598.8	5,593.8	5,593.8	12.4	112.2	-174.00	-364.7	-189.9	391.2	266.9	124.32	3.147	
5,700.0	5,688.5	5,683.5	5,683.5	12.6	114.0	-174.00	-364.7	-189.9	391.2	264.9	126.33	3.097	
5,708.6	5,697.2	5,692.2	5,692.2	12.6	114.2	-174.00	-364.7	-189.9	391.2	264.7	126.52	3.092	
5,800.0	5,788.5	5,783.5	5,783.5	12.8	116.0	-174.00	-364.7	-189.9	391.2	262.7	128.56	3.043	
5,807.1	5,795.6	5,790.6	5,790.6	12.9	116.1	-174.00	-364.7	-189.9	391.2	262.5	128.72	3.039	
5,900.0	5,888.5	5,883.5	5,883.5	13.1	118.0	-174.00	-364.7	-189.9	391.2	260.4	130.80	2.991	
5,905.5	5,894.0	5,889.0	5,889.0	13.1	118.1	-174.00	-364.7	-189.9	391.2	260.3	130.92	2.988	
6,000.0	5,988.5	5,983.5	5,983.5	13.3	120.0	-174.00	-364.7	-189.9	391.2	258.2	133.03	2.941	
6,003.9	5,992.5	5,987.5	5,987.5	13.3	120.1	-174.00	-364.7	-189.9	391.2	258.1	133.12	2.939	
6,085.3	6,073.8	6,068.8	6,068.8	13.5	121.7	-174.00	-364.7	-189.9	391.2	256.3	134.93	2.899	
6,100.0	6,088.5	6,083.5	6,083.5	13.5	122.0	-84.02	-364.7	-189.9	391.2	255.7	135.54	2.886	
6,102.3	6,090.9	6,085.9	6,085.9	13.5	122.1	-84.03	-364.7	-189.9	391.2	255.6	135.59	2.885	
6,150.0	6,138.4	6,133.4	6,133.4	13.6	123.0	-84.45	-364.7	-189.9	390.9	254.3	136.64	2.861	
6,200.0	6,188.0	6,183.0	6,183.0	13.7	124.0	-85.40	-364.7	-189.9	390.4	252.6	137.76	2.834	
6,200.8	6,188.8	6,183.8	6,183.8	13.7	124.0	-85.42	-364.7	-189.9	390.4	252.6	137.78	2.833	
6,250.0	6,237.1	6,232.1	6,232.1	13.9	125.0	-86.84	-364.7	-189.9	389.7	250.8	138.89	2.806	
6,299.2	6,284.6	6,279.6	6,279.6	14.0	126.0	-88.71	-364.7	-189.9	389.2	249.2	140.00	2.780	
6,300.0	6,285.3	6,280.3	6,280.3	14.0	126.0	-88.74	-364.7	-189.9	389.2	249.2	140.02	2.779	
6,328.4	6,312.3	6,307.3	6,307.3	14.1	126.5	-90.00	-364.7	-189.9	389.1	248.4	140.67	2.766 CC	
6,350.0	6,332.5	6,327.5	6,327.5	14.2	126.9	-91.03	-364.7	-189.9	389.1	248.0	141.15	2.757	
6,397.6	6,376.3	6,371.3	6,371.3	14.4	127.8	-93.49	-364.7	-189.9	390.0	247.8	142.18	2.743 ES	
6,400.0	6,378.5	6,373.5	6,373.5	14.4	127.9	-93.61	-364.7	-189.9	390.0	247.8	142.23	2.742	
6,450.0	6,423.0	6,418.0	6,418.0	14.7	128.8	-96.40	-364.7	-189.9	392.3	249.1	143.19	2.739 SF	
6,496.0	6,462.4	6,457.4	6,457.4	14.9	129.6	-99.04	-364.7	-189.9	396.0	252.1	143.92	2.751	
6,500.0	6,465.7	6,460.7	6,460.7	14.9	129.6	-99.27	-364.7	-189.9	396.4	252.4	143.97	2.753	
6,550.0	6,506.6	6,501.6	6,501.6	15.2	130.4	-102.10	-364.7	-189.9	402.9	258.4	144.50	2.788	
6,594.5	6,541.2	6,536.2	6,536.2	15.6	131.1	-104.48	-364.7	-189.9	411.1	266.3	144.73	2.840	
6,600.0	6,545.3	6,540.3	6,540.3	15.6	131.2	-104.77	-364.7	-189.9	412.2	267.5	144.74	2.848	
6,650.0	6,581.8	6,576.8	6,576.8	16.0	132.0	-107.16	-364.7	-189.9	424.8	280.1	144.71	2.935	
6,692.9	6,611.1	6,606.1	6,606.1	16.4	132.5	-108.93	-364.7	-189.9	438.3	293.8	144.53	3.033	
6,700.0	6,615.8	6,610.8	6,610.8	16.5	132.6	-109.19	-364.7	-189.9	440.8	296.3	144.48	3.051	
6,750.0	6,647.1	6,642.1	6,642.1	17.1	133.3	-110.76	-364.7	-189.9	460.4	316.2	144.20	3.193	
6,791.3	6,670.9	6,665.9	6,665.9	17.6	133.7	-111.66	-364.7	-189.9	479.3	335.2	144.05	3.327	
6,800.0	6,675.7	6,670.7	6,670.7	17.7	133.8	-111.80	-364.7	-189.9	483.5	339.5	144.03	3.357	
6,850.0	6,701.3	6,696.3	6,696.3	18.4	134.4	-112.24	-364.7	-189.9	510.2	366.0	144.19	3.538	
6,889.7	6,719.5	6,714.5	6,714.5	19.0	134.7	-112.12	-364.7	-189.9	533.7	389.0	144.70	3.688	
6,900.0	6,723.8	6,718.8	6,718.8	19.1	134.8	-112.01	-364.7	-189.9	540.1	395.2	144.90	3.728	
6,950.0	6,743.2	6,738.2	6,738.2	20.0	135.2	-111.03	-364.7	-189.9	573.1	426.7	146.33	3.916	
6,988.2	6,755.8	6,750.8	6,750.8	20.6	135.5	-109.71	-364.7	-189.9	600.0	452.0	147.98	4.054	
7,000.0	6,759.4	6,754.4	6,754.4	20.9	135.5	-109.20	-364.7	-189.9	608.6	460.1	148.59	4.096	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,050.0	6,772.1	6,767.1	6,767.1	21.8	135.8	-106.41	-364.7	-189.9	646.5	494.9	151.62	4.264	
7,086.6	6,779.4	6,774.4	6,774.4	22.5	135.9	-103.71	-364.7	-189.9	675.5	521.3	154.19	4.381	
7,100.0	6,781.5	6,776.5	6,776.5	22.8	136.0	-102.57	-364.7	-189.9	686.4	531.2	155.16	4.424	
7,150.0	6,787.5	6,782.5	6,782.5	23.9	136.1	-97.57	-364.7	-189.9	727.8	569.2	158.60	4.589	
7,185.0	6,789.6	6,784.6	6,784.6	24.6	136.1	-93.37	-364.7	-189.9	757.6	597.1	160.47	4.721	
7,200.0	6,789.9	6,784.9	6,784.9	24.9	136.1	-91.41	-364.7	-189.9	770.5	609.5	161.02	4.785	
7,213.0	6,790.0	6,785.0	6,785.0	25.2	136.1	-89.62	-364.7	-189.9	781.7	620.4	161.34	4.845	
7,283.4	6,789.7	6,784.7	6,784.7	26.8	136.1	-89.59	-364.7	-189.9	843.6	680.7	162.91	5.178	
7,300.0	6,789.7	6,784.7	6,784.7	27.2	136.1	-89.58	-364.7	-189.9	858.3	695.0	163.28	5.257	
7,381.9	6,789.4	6,784.4	6,784.4	29.1	136.1	-89.53	-364.7	-189.9	932.0	766.8	165.18	5.642	
7,400.0	6,789.3	6,784.3	6,784.3	29.5	136.1	-89.52	-364.7	-189.9	948.5	782.9	165.60	5.728	
7,480.3	6,789.0	6,784.0	6,784.0	31.4	136.1	-89.47	-364.7	-189.9	1,022.3	854.7	167.52	6.102	
7,500.0	6,788.9	6,783.9	6,783.9	31.9	136.1	-89.46	-364.7	-189.9	1,040.5	872.5	167.99	6.194	
7,578.7	6,788.6	6,783.6	6,783.6	33.8	136.1	-89.42	-364.7	-189.9	1,113.9	944.0	169.93	6.555	
7,600.0	6,788.5	6,783.5	6,783.5	34.4	136.1	-89.41	-364.7	-189.9	1,133.9	963.4	170.45	6.652	
7,677.1	6,788.2	6,783.2	6,783.2	36.3	136.1	-89.36	-364.7	-189.9	1,206.6	1,034.2	172.38	7.000	
7,700.0	6,788.2	6,783.2	6,783.2	36.9	136.1	-89.35	-364.7	-189.9	1,228.3	1,055.3	172.96	7.102	
7,775.6	6,787.9	6,782.9	6,782.9	38.8	136.1	-89.31	-364.7	-189.9	1,300.2	1,125.3	174.88	7.435	
7,800.0	6,787.8	6,782.8	6,782.8	39.4	136.1	-89.29	-364.7	-189.9	1,323.5	1,148.0	175.50	7.541	
7,874.0	6,787.5	6,782.5	6,782.5	41.3	136.1	-89.25	-364.7	-189.9	1,394.4	1,217.0	177.41	7.860	
7,900.0	6,787.4	6,782.4	6,782.4	42.0	136.1	-89.24	-364.7	-189.9	1,419.4	1,241.3	178.08	7.971	
7,972.4	6,787.1	6,782.1	6,782.1	43.9	136.1	-89.19	-364.7	-189.9	1,489.2	1,309.2	179.97	8.275	
8,000.0	6,787.0	6,782.0	6,782.0	44.6	136.1	-89.18	-364.7	-189.9	1,515.8	1,335.1	180.68	8.389	
8,070.8	6,786.7	6,781.7	6,781.7	46.5	136.1	-89.14	-364.7	-189.9	1,584.4	1,401.8	182.54	8.679	
8,100.0	6,786.6	6,781.6	6,781.6	47.3	136.1	-89.12	-364.7	-189.9	1,612.7	1,429.4	183.31	8.797	
8,169.3	6,786.4	6,781.4	6,781.4	49.1	136.1	-89.08	-364.7	-189.9	1,680.0	1,494.8	185.14	9.074	
8,200.0	6,786.3	6,781.3	6,781.3	49.9	136.1	-89.06	-364.7	-189.9	1,709.9	1,523.9	185.96	9.195	
8,267.7	6,786.0	6,781.0	6,781.0	51.7	136.1	-89.02	-364.7	-189.9	1,775.9	1,588.1	187.76	9.458	
8,300.0	6,785.9	6,780.9	6,780.9	52.6	136.1	-89.00	-364.7	-189.9	1,807.4	1,618.8	188.62	9.582	
8,366.1	6,785.6	6,780.6	6,780.6	54.4	136.1	-88.97	-364.7	-189.9	1,872.0	1,681.6	190.39	9.833	
8,400.0	6,785.5	6,780.5	6,780.5	55.3	136.0	-88.95	-364.7	-189.9	1,905.2	1,713.9	191.29	9.960	
8,464.5	6,785.2	6,780.2	6,780.2	57.0	136.0	-88.91	-364.7	-189.9	1,968.4	1,775.4	193.03	10.198	
8,500.0	6,785.1	6,780.1	6,780.1	58.0	136.0	-88.89	-364.7	-189.9	2,003.2	1,809.2	193.98	10.327	
8,563.0	6,784.9	6,779.9	6,779.9	59.7	136.0	-88.85	-364.7	-189.9	2,065.0	1,869.3	195.68	10.553	
8,600.0	6,784.7	6,779.7	6,779.7	60.7	136.0	-88.83	-364.7	-189.9	2,101.4	1,904.7	196.67	10.684	
8,661.4	6,784.5	6,779.5	6,779.5	62.4	136.0	-88.80	-364.7	-189.9	2,161.7	1,963.4	198.33	10.899	
8,700.0	6,784.3	6,779.3	6,779.3	63.4	136.0	-88.77	-364.7	-189.9	2,199.7	2,000.3	199.38	11.033	
8,759.8	6,784.1	6,779.1	6,779.1	65.0	136.0	-88.74	-364.7	-189.9	2,258.6	2,057.6	201.00	11.237	
8,800.0	6,784.0	6,779.0	6,779.0	66.1	136.0	-88.71	-364.7	-189.9	2,298.2	2,096.1	202.09	11.372	
8,858.2	6,783.7	6,778.7	6,778.7	67.7	136.0	-88.68	-364.7	-189.9	2,355.6	2,152.0	203.67	11.566	
8,900.0	6,783.6	6,778.6	6,778.6	68.9	136.0	-88.65	-364.7	-189.9	2,396.8	2,192.0	204.81	11.703	
8,956.7	6,783.3	6,778.3	6,778.3	70.4	136.0	-88.62	-364.7	-189.9	2,452.8	2,246.4	206.35	11.886	
9,000.0	6,783.2	6,778.2	6,778.2	71.6	136.0	-88.59	-364.7	-189.9	2,495.5	2,288.0	207.53	12.025	
9,055.1	6,783.0	6,778.0	6,778.0	73.1	136.0	-88.56	-364.7	-189.9	2,550.0	2,340.9	209.04	12.199	
9,100.0	6,782.8	6,777.8	6,777.8	74.3	136.0	-88.54	-364.7	-189.9	2,594.4	2,384.1	210.26	12.339	
9,153.5	6,782.6	6,777.6	6,777.6	75.8	136.0	-88.50	-364.7	-189.9	2,647.3	2,435.6	211.72	12.503	
9,200.0	6,782.4	6,777.4	6,777.4	77.1	136.0	-88.48	-364.7	-189.9	2,693.3	2,480.3	213.00	12.645	
9,251.9	6,782.2	6,777.2	6,777.2	78.5	136.0	-88.45	-364.7	-189.9	2,744.7	2,530.3	214.42	12.801	
9,300.0	6,782.0	6,777.0	6,777.0	79.8	136.0	-88.42	-364.7	-189.9	2,792.3	2,576.5	215.73	12.943	
9,350.4	6,781.8	6,776.8	6,776.8	81.2	136.0	-88.39	-364.7	-189.9	2,842.2	2,625.0	217.11	13.091	
9,400.0	6,781.6	6,776.6	6,776.6	82.6	136.0	-88.36	-364.7	-189.9	2,891.3	2,672.8	218.47	13.234	
9,448.8	6,781.4	6,776.4	6,776.4	83.9	136.0	-88.33	-364.7	-189.9	2,939.7	2,719.9	219.81	13.374	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,500.0	6,781.2	6,776.2	6,776.2	85.4	136.0	-88.30	-364.7	-189.9	2,990.4	2,769.2	221.22	13.518	
9,547.2	6,781.0	6,776.0	6,776.0	86.7	136.0	-88.27	-364.7	-189.9	3,037.3	2,814.7	222.52	13.650	
9,600.0	6,780.8	6,775.8	6,775.8	88.1	136.0	-88.24	-364.7	-189.9	3,089.6	2,865.6	223.96	13.795	
9,645.6	6,780.7	6,775.7	6,775.7	89.4	136.0	-88.21	-364.7	-189.9	3,134.9	2,909.7	225.22	13.919	
9,700.0	6,780.5	6,775.5	6,775.5	90.9	135.9	-88.18	-364.7	-189.9	3,188.8	2,962.1	226.71	14.065	
9,744.1	6,780.3	6,775.3	6,775.3	92.1	135.9	-88.15	-364.7	-189.9	3,232.6	3,004.7	227.93	14.183	
9,800.0	6,780.1	6,775.1	6,775.1	93.7	135.9	-88.12	-364.7	-189.9	3,288.1	3,058.6	229.47	14.329	
9,842.5	6,779.9	6,774.9	6,774.9	94.8	135.9	-88.09	-364.7	-189.9	3,330.3	3,099.7	230.64	14.440	
9,900.0	6,779.7	6,774.7	6,774.7	96.4	135.9	-88.05	-364.7	-189.9	3,387.4	3,155.2	232.22	14.587	
9,940.9	6,779.5	6,774.5	6,774.5	97.6	135.9	-88.03	-364.7	-189.9	3,428.1	3,194.7	233.35	14.691	
10,000.0	6,779.3	6,774.3	6,774.3	99.2	135.9	-87.99	-364.7	-189.9	3,486.8	3,251.8	234.97	14.839	
10,039.3	6,779.1	6,774.1	6,774.1	100.3	135.9	-87.97	-364.7	-189.9	3,525.9	3,289.8	236.06	14.936	
10,100.0	6,778.9	6,773.9	6,773.9	102.0	135.9	-87.93	-364.7	-189.9	3,586.2	3,348.5	237.73	15.085	
10,137.8	6,778.7	6,773.7	6,773.7	103.0	135.9	-87.91	-364.7	-189.9	3,623.7	3,385.0	238.77	15.176	
10,200.0	6,778.5	6,773.5	6,773.5	104.8	135.9	-87.87	-364.7	-189.9	3,685.6	3,445.1	240.49	15.325	
10,236.2	6,778.3	6,773.3	6,773.3	105.8	135.9	-87.85	-364.7	-189.9	3,721.6	3,480.1	241.49	15.411	
10,300.0	6,778.1	6,773.1	6,773.1	107.5	135.9	-87.81	-364.7	-189.9	3,785.1	3,541.8	243.25	15.560	
10,334.6	6,778.0	6,773.0	6,773.0	108.5	135.9	-87.79	-364.7	-189.9	3,819.5	3,575.3	244.20	15.641	
10,400.0	6,777.7	6,772.7	6,772.7	110.3	135.9	-87.75	-364.7	-189.9	3,884.5	3,638.5	246.01	15.790	
10,433.0	6,777.6	6,772.6	6,772.6	111.2	135.9	-87.73	-364.7	-189.9	3,917.4	3,670.5	246.92	15.865	
10,500.0	6,777.3	6,772.3	6,772.3	113.1	135.9	-87.69	-364.7	-189.9	3,984.1	3,735.3	248.77	16.015	
10,531.5	6,777.2	6,772.2	6,772.2	114.0	135.9	-87.67	-364.7	-189.9	4,015.4	3,765.7	249.64	16.085	
10,600.0	6,776.9	6,771.9	6,771.9	115.9	135.9	-87.62	-364.7	-189.9	4,083.6	3,832.1	251.53	16.235	
10,629.9	6,776.8	6,771.8	6,771.8	116.7	135.9	-87.61	-364.7	-189.9	4,113.4	3,861.0	252.36	16.300	
10,700.0	6,776.5	6,771.5	6,771.5	118.7	135.9	-87.56	-364.7	-189.9	4,183.1	3,928.8	254.30	16.450	
10,728.3	6,776.4	6,771.4	6,771.4	119.5	135.9	-87.55	-364.7	-189.9	4,211.3	3,956.3	255.08	16.510	
10,800.0	6,776.1	6,771.1	6,771.1	121.4	135.9	-87.50	-364.7	-189.9	4,282.7	4,025.7	257.06	16.660	
10,826.7	6,776.0	6,771.0	6,771.0	122.2	135.9	-87.48	-364.7	-189.9	4,309.4	4,051.6	257.80	16.716	
10,900.0	6,775.7	6,770.7	6,770.7	124.2	135.9	-87.44	-364.7	-189.9	4,382.3	4,122.5	259.82	16.867	
10,925.2	6,775.6	6,770.6	6,770.6	124.9	135.8	-87.42	-364.7	-189.9	4,407.4	4,146.9	260.52	16.918	
11,000.0	6,775.3	6,770.3	6,770.3	127.0	135.8	-87.38	-364.7	-189.9	4,481.9	4,219.3	262.59	17.068	
11,023.6	6,775.2	6,770.2	6,770.2	127.7	135.8	-87.36	-364.7	-189.9	4,505.4	4,242.2	263.24	17.115	
11,100.0	6,774.9	6,769.9	6,769.9	129.8	135.8	-87.31	-364.7	-189.9	4,581.6	4,316.2	265.35	17.266	
11,122.0	6,774.8	6,769.8	6,769.8	130.4	135.8	-87.30	-364.7	-189.9	4,603.5	4,337.5	265.96	17.309	
11,200.0	6,774.5	6,769.5	6,769.5	132.6	135.8	-87.25	-364.7	-189.9	4,681.2	4,413.1	268.12	17.460	
11,220.4	6,774.4	6,769.4	6,769.4	133.2	135.8	-87.24	-364.7	-189.9	4,701.6	4,432.9	268.68	17.499	
11,300.0	6,774.1	6,769.1	6,769.1	135.4	135.8	-87.19	-364.7	-189.9	4,780.9	4,510.0	270.88	17.649	
11,318.9	6,774.0	6,769.0	6,769.0	135.9	135.8	-87.18	-364.7	-189.9	4,799.7	4,528.3	271.40	17.685	
11,400.0	6,773.7	6,768.7	6,768.7	138.2	135.8	-87.12	-364.7	-189.9	4,880.5	4,606.9	273.65	17.835	
11,417.3	6,773.6	6,768.6	6,768.6	138.7	135.8	-87.11	-364.7	-189.9	4,897.8	4,623.7	274.13	17.867	
11,500.0	6,773.3	6,768.3	6,768.3	141.0	135.8	-87.06	-364.7	-189.9	4,980.2	4,703.8	276.41	18.017	
11,515.7	6,773.2	6,768.2	6,768.2	141.4	135.8	-87.05	-364.7	-189.9	4,995.9	4,719.1	276.85	18.046	
11,600.0	6,772.9	6,767.9	6,767.9	143.8	135.8	-87.00	-364.7	-189.9	5,079.9	4,800.7	279.18	18.196	
11,614.1	6,772.8	6,767.8	6,767.8	144.2	135.8	-86.99	-364.7	-189.9	5,094.0	4,814.5	279.57	18.221	
11,700.0	6,772.5	6,767.5	6,767.5	146.6	135.8	-86.93	-364.7	-189.9	5,179.6	4,897.7	281.94	18.371	
11,712.6	6,772.4	6,767.4	6,767.4	146.9	135.8	-86.92	-364.7	-189.9	5,192.2	4,909.9	282.29	18.393	
11,800.0	6,772.1	6,767.1	6,767.1	149.4	135.8	-86.87	-364.7	-189.9	5,279.4	4,994.6	284.71	18.543	
11,811.0	6,772.1	6,767.1	6,767.1	149.7	135.8	-86.86	-364.7	-189.9	5,290.3	5,005.3	285.01	18.562	
11,900.0	6,771.7	6,766.7	6,766.7	152.2	135.8	-86.80	-364.7	-189.9	5,379.1	5,091.6	287.47	18.712	
11,909.4	6,771.7	6,766.7	6,766.7	152.4	135.8	-86.80	-364.7	-189.9	5,388.5	5,100.8	287.73	18.727	
12,000.0	6,771.3	6,766.3	6,766.3	154.9	135.8	-86.74	-364.7	-189.9	5,478.8	5,188.6	290.24	18.877	
12,007.8	6,771.3	6,766.3	6,766.3	155.2	135.8	-86.73	-364.7	-189.9	5,486.7	5,196.2	290.46	18.890	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SCHAUMBERG #12-17 - 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
12,100.0	6,770.9	6,765.9	6,765.9	157.7	135.8	-86.67	-364.7	-189.9	5,578.6	5,285.6	293.00	19.039	
12,106.3	6,770.9	6,765.9	6,765.9	157.9	135.8	-86.67	-364.7	-189.9	5,584.8	5,291.7	293.18	19.049	
12,200.0	6,770.5	6,765.5	6,765.5	160.5	135.7	-86.61	-364.7	-189.9	5,678.3	5,382.6	295.77	19.199	
12,204.7	6,770.5	6,765.5	6,765.5	160.7	135.7	-86.61	-364.7	-189.9	5,683.0	5,387.1	295.90	19.206	
12,300.0	6,770.1	6,765.1	6,765.1	163.3	135.7	-86.55	-364.7	-189.9	5,778.1	5,479.6	298.53	19.355	
12,303.1	6,770.1	6,765.1	6,765.1	163.4	135.7	-86.54	-364.7	-189.9	5,781.2	5,482.6	298.62	19.360	
12,316.4	6,770.0	6,765.0	6,765.0	163.8	135.7	-86.53	-364.7	-189.9	5,794.4	5,495.5	298.98	19.380	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5.0	5.0	0.0	0.1	116.54	-1,810.7	3,626.0	4,052.9				
98.4	98.4	103.4	103.4	0.1	1.2	116.54	-1,810.7	3,626.0	4,052.9	4,051.6	1.31	3,101.908	
100.0	100.0	105.0	105.0	0.1	1.2	116.54	-1,810.7	3,626.0	4,052.9	4,051.6	1.34	3,014.092	
196.8	196.8	201.8	201.8	0.3	3.5	116.54	-1,810.7	3,626.0	4,052.9	4,049.1	3.79	1,069.316	
200.0	200.0	205.0	205.0	0.3	3.5	116.54	-1,810.7	3,626.0	4,052.9	4,049.1	3.86	1,049.224	
295.3	295.3	300.3	300.3	0.5	5.5	116.54	-1,810.7	3,626.0	4,052.9	4,046.9	6.06	669.019	
300.0	300.0	305.0	305.0	0.5	5.6	116.54	-1,810.7	3,626.0	4,052.9	4,046.8	6.17	657.394	
393.7	393.7	398.7	398.7	0.8	7.5	116.54	-1,810.7	3,626.0	4,052.9	4,044.6	8.29	488.921	
400.0	400.0	405.0	405.0	0.8	7.7	116.54	-1,810.7	3,626.0	4,052.9	4,044.5	8.43	480.678	
492.1	492.1	497.1	497.1	1.0	9.5	116.54	-1,810.7	3,626.0	4,052.9	4,042.4	10.51	385.695	
500.0	500.0	505.0	505.0	1.0	9.7	116.54	-1,810.7	3,626.0	4,052.9	4,042.2	10.69	379.300	
590.5	590.5	595.5	595.5	1.2	11.5	116.54	-1,810.7	3,626.0	4,052.9	4,040.2	12.72	318.615	
600.0	600.0	605.0	605.0	1.2	11.7	116.54	-1,810.7	3,626.0	4,052.9	4,040.0	12.93	313.386	
689.0	689.0	694.0	694.0	1.4	13.5	116.54	-1,810.7	3,626.0	4,052.9	4,038.0	14.93	271.474	
700.0	700.0	705.0	705.0	1.4	13.7	116.54	-1,810.7	3,626.0	4,052.9	4,037.7	15.18	267.050	
787.4	787.4	792.4	792.4	1.6	15.5	116.54	-1,810.7	3,626.0	4,052.9	4,035.8	17.14	236.514	
800.0	800.0	805.0	805.0	1.7	15.7	116.54	-1,810.7	3,626.0	4,052.9	4,035.5	17.42	232.680	
885.8	885.8	890.8	890.8	1.9	17.5	116.54	-1,810.7	3,626.0	4,052.9	4,033.6	19.34	209.547	
900.0	900.0	905.0	905.0	1.9	17.8	116.54	-1,810.7	3,626.0	4,052.9	4,033.3	19.66	206.162	
984.2	984.2	989.2	989.2	2.1	19.5	116.54	-1,810.7	3,626.0	4,052.9	4,031.4	21.55	188.108	
1,000.0	1,000.0	1,005.0	1,005.0	2.1	19.8	116.54	-1,810.7	3,626.0	4,052.9	4,031.0	21.90	185.079	
1,082.7	1,082.7	1,087.7	1,087.7	2.3	21.4	116.54	-1,810.7	3,626.0	4,052.9	4,029.2	23.75	170.654	
1,100.0	1,100.0	1,105.0	1,105.0	2.3	21.8	116.54	-1,810.7	3,626.0	4,052.9	4,028.8	24.14	167.912	
1,181.1	1,181.1	1,186.1	1,186.1	2.5	23.4	116.54	-1,810.7	3,626.0	4,052.9	4,027.0	25.95	156.168	
1,200.0	1,200.0	1,205.0	1,205.0	2.6	23.8	116.54	-1,810.7	3,626.0	4,052.9	4,026.5	26.38	153.663	
1,279.5	1,279.5	1,284.5	1,284.5	2.7	25.4	116.54	-1,810.7	3,626.0	4,052.9	4,024.8	28.16	143.950	
1,300.0	1,300.0	1,305.0	1,305.0	2.8	25.8	116.54	-1,810.7	3,626.0	4,052.9	4,024.3	28.61	141.645	
1,377.9	1,377.9	1,382.9	1,382.9	3.0	27.4	116.54	-1,810.7	3,626.0	4,052.9	4,022.6	30.36	133.507	
1,400.0	1,400.0	1,405.0	1,405.0	3.0	27.8	116.54	-1,810.7	3,626.0	4,052.9	4,022.1	30.85	131.372	
1,476.4	1,476.4	1,481.4	1,481.4	3.2	29.4	116.54	-1,810.7	3,626.0	4,052.9	4,020.4	32.56	124.477	
1,500.0	1,500.0	1,505.0	1,505.0	3.2	29.8	116.54	-1,810.7	3,626.0	4,052.9	4,019.8	33.09	122.489 CC	
1,574.8	1,574.8	1,579.8	1,579.8	3.4	31.3	-162.76	-1,810.7	3,626.0	4,053.9	4,019.1	34.74	116.684 ES	
1,600.0	1,600.0	1,605.0	1,605.0	3.5	31.9	-162.76	-1,810.7	3,626.0	4,054.6	4,019.3	35.29	114.880	
1,673.2	1,673.1	1,678.1	1,678.1	3.6	33.3	-162.76	-1,810.7	3,626.0	4,057.9	4,021.1	36.87	110.047	
1,700.0	1,699.8	1,704.8	1,704.8	3.7	33.9	-162.75	-1,810.7	3,626.0	4,059.6	4,022.1	37.45	108.415	
1,771.6	1,771.2	1,776.2	1,776.2	3.8	35.3	-162.75	-1,810.7	3,626.0	4,065.2	4,026.3	38.96	104.354	
1,800.0	1,799.5	1,804.5	1,804.5	3.9	35.9	-162.74	-1,810.7	3,626.0	4,067.9	4,028.4	39.54	102.868	
1,870.1	1,869.0	1,874.0	1,874.0	4.0	37.3	-162.73	-1,810.7	3,626.0	4,075.7	4,034.7	40.98	99.450	
1,900.0	1,898.7	1,903.7	1,903.7	4.1	37.9	-162.72	-1,810.7	3,626.0	4,079.6	4,038.0	41.59	98.100	
1,968.5	1,966.4	1,971.4	1,971.4	4.3	39.2	-162.71	-1,810.7	3,626.0	4,089.4	4,046.5	42.95	95.221	
2,000.0	1,997.5	2,002.5	2,002.5	4.4	39.9	-162.70	-1,810.7	3,626.0	4,094.5	4,051.0	43.56	93.996	
2,066.9	2,063.2	2,068.2	2,068.2	4.6	41.2	-162.68	-1,810.7	3,626.0	4,106.4	4,061.5	44.84	91.572	
2,100.1	2,095.7	2,100.7	2,100.7	4.7	41.8	-162.67	-1,810.7	3,626.0	4,112.8	4,067.3	45.46	90.463	
2,165.3	2,159.5	2,164.5	2,164.5	4.9	43.1	-162.72	-1,810.7	3,626.0	4,125.8	4,078.9	46.88	88.015	
2,200.0	2,193.4	2,198.4	2,198.4	5.0	43.8	-162.75	-1,810.7	3,626.0	4,132.7	4,085.0	47.62	86.775	
2,224.2	2,217.1	2,222.1	2,222.1	5.1	44.3	-162.77	-1,810.7	3,626.0	4,137.5	4,089.3	48.15	85.931	
2,263.8	2,255.9	2,260.9	2,260.9	5.2	45.1	-162.85	-1,810.7	3,626.0	4,145.1	4,096.0	49.13	84.377	
2,300.0	2,291.5	2,296.5	2,296.5	5.3	45.8	-162.92	-1,810.7	3,626.0	4,151.6	4,101.6	50.01	83.010	
2,362.2	2,352.7	2,357.7	2,357.7	5.5	47.0	-163.02	-1,810.7	3,626.0	4,161.8	4,110.3	51.52	80.773	
2,400.0	2,390.1	2,395.1	2,395.1	5.6	47.8	-163.08	-1,810.7	3,626.0	4,167.4	4,114.9	52.44	79.469	
2,460.6	2,450.1	2,455.1	2,455.1	5.7	49.0	-163.16	-1,810.7	3,626.0	4,175.3	4,121.4	53.90	77.466	
2,500.0	2,489.2	2,494.2	2,494.2	5.8	49.7	-163.20	-1,810.7	3,626.0	4,179.9	4,125.0	54.84	76.219	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #43-17 - 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
2,559.0	2,548.0	2,553.0	2,553.0	6.0	50.9	-163.26	-1,810.7	3,626.0	4,185.7	4,129.4	56.24	74.427	
2,600.0	2,588.8	2,593.8	2,593.8	6.1	51.7	-163.29	-1,810.7	3,626.0	4,189.0	4,131.8	57.20	73.234	
2,657.5	2,646.1	2,651.1	2,651.1	6.2	52.9	-163.33	-1,810.7	3,626.0	4,192.8	4,134.2	58.53	71.630	
2,700.0	2,688.6	2,693.6	2,693.6	6.3	53.8	-163.35	-1,810.7	3,626.0	4,194.8	4,135.3	59.51	70.490	
2,755.9	2,744.4	2,749.4	2,749.4	6.4	54.9	-163.37	-1,810.7	3,626.0	4,196.6	4,135.9	60.77	69.053	
2,800.0	2,788.5	2,793.5	2,793.5	6.5	55.8	-163.37	-1,810.7	3,626.0	4,197.3	4,135.6	61.76	67.964	
2,824.3	2,812.8	2,817.8	2,817.8	6.5	56.3	115.93	-1,810.7	3,626.0	4,197.4	4,134.7	62.73	66.913	
2,854.3	2,842.9	2,847.9	2,847.9	6.6	56.9	115.93	-1,810.7	3,626.0	4,197.4	4,134.0	63.39	66.215	
2,900.0	2,888.5	2,893.5	2,893.5	6.7	57.8	115.93	-1,810.7	3,626.0	4,197.4	4,133.0	64.39	65.183	
2,952.7	2,941.3	2,946.3	2,946.3	6.8	58.8	115.93	-1,810.7	3,626.0	4,197.4	4,131.9	65.56	64.021	
3,000.0	2,988.5	2,993.5	2,993.5	6.9	59.8	115.93	-1,810.7	3,626.0	4,197.4	4,130.8	66.61	63.014	
3,051.2	3,039.7	3,044.7	3,044.7	7.0	60.8	115.93	-1,810.7	3,626.0	4,197.4	4,129.7	67.74	61.959	
3,100.0	3,088.5	3,093.5	3,093.5	7.1	61.8	115.93	-1,810.7	3,626.0	4,197.4	4,128.6	68.83	60.985	
3,149.6	3,138.1	3,143.1	3,143.1	7.2	62.8	115.93	-1,810.7	3,626.0	4,197.4	4,127.5	69.93	60.025	
3,200.0	3,188.5	3,193.5	3,193.5	7.3	63.8	115.93	-1,810.7	3,626.0	4,197.4	4,126.4	71.05	59.081	
3,248.0	3,236.6	3,241.6	3,241.6	7.4	64.8	115.93	-1,810.7	3,626.0	4,197.4	4,125.3	72.11	58.208	
3,300.0	3,288.5	3,293.5	3,293.5	7.5	65.8	115.93	-1,810.7	3,626.0	4,197.4	4,124.2	73.26	57.292	
3,346.4	3,335.0	3,340.0	3,340.0	7.6	66.8	115.93	-1,810.7	3,626.0	4,197.4	4,123.1	74.30	56.496	
3,400.0	3,388.5	3,393.5	3,393.5	7.7	67.8	115.93	-1,810.7	3,626.0	4,197.4	4,121.9	75.48	55.607	
3,444.9	3,433.4	3,438.4	3,438.4	7.8	68.7	115.93	-1,810.7	3,626.0	4,197.4	4,120.9	76.48	54.882	
3,500.0	3,488.5	3,493.5	3,493.5	7.9	69.8	115.93	-1,810.7	3,626.0	4,197.4	4,119.7	77.71	54.017	
3,543.3	3,531.8	3,536.8	3,536.8	8.0	70.7	115.93	-1,810.7	3,626.0	4,197.4	4,118.8	78.67	53.357	
3,600.0	3,588.5	3,593.5	3,593.5	8.1	71.9	115.93	-1,810.7	3,626.0	4,197.4	4,117.5	79.93	52.516	
3,641.7	3,630.3	3,635.3	3,635.3	8.2	72.7	115.93	-1,810.7	3,626.0	4,197.4	4,116.6	80.85	51.914	
3,700.0	3,688.5	3,693.5	3,693.5	8.3	73.9	115.93	-1,810.7	3,626.0	4,197.4	4,115.3	82.15	51.095	
3,740.1	3,728.7	3,733.7	3,733.7	8.4	74.7	115.93	-1,810.7	3,626.0	4,197.4	4,114.4	83.04	50.546	
3,800.0	3,788.5	3,793.5	3,793.5	8.5	75.9	115.93	-1,810.7	3,626.0	4,197.4	4,113.1	84.37	49.749	
3,838.6	3,827.1	3,832.1	3,832.1	8.6	76.7	115.93	-1,810.7	3,626.0	4,197.4	4,112.2	85.23	49.248	
3,900.0	3,888.5	3,893.5	3,893.5	8.7	77.9	115.93	-1,810.7	3,626.0	4,197.4	4,110.8	86.60	48.472	
3,937.0	3,925.5	3,930.5	3,930.5	8.8	78.6	115.93	-1,810.7	3,626.0	4,197.4	4,110.0	87.42	48.015	
4,000.0	3,988.5	3,993.5	3,993.5	9.0	79.9	115.93	-1,810.7	3,626.0	4,197.4	4,108.6	88.82	47.258	
4,035.4	4,024.0	4,029.0	4,029.0	9.0	80.6	115.93	-1,810.7	3,626.0	4,197.4	4,107.8	89.61	46.842	
4,100.0	4,088.5	4,093.5	4,093.5	9.2	81.9	115.93	-1,810.7	3,626.0	4,197.4	4,106.4	91.04	46.103	
4,133.8	4,122.4	4,127.4	4,127.4	9.2	82.6	115.93	-1,810.7	3,626.0	4,197.4	4,105.6	91.80	45.725	
4,200.0	4,188.5	4,193.5	4,193.5	9.4	83.9	115.93	-1,810.7	3,626.0	4,197.4	4,104.2	93.27	45.003	
4,232.3	4,220.8	4,225.8	4,225.8	9.4	84.6	115.93	-1,810.7	3,626.0	4,197.4	4,103.4	93.99	44.659	
4,300.0	4,288.5	4,293.5	4,293.5	9.6	85.9	115.93	-1,810.7	3,626.0	4,197.4	4,101.9	95.50	43.954	
4,330.7	4,319.2	4,324.2	4,324.2	9.7	86.6	115.93	-1,810.7	3,626.0	4,197.4	4,101.2	96.18	43.642	
4,400.0	4,388.5	4,393.5	4,393.5	9.8	87.9	115.93	-1,810.7	3,626.0	4,197.4	4,099.7	97.72	42.953	
4,429.1	4,417.7	4,422.7	4,422.7	9.9	88.5	115.93	-1,810.7	3,626.0	4,197.4	4,099.1	98.37	42.670	
4,500.0	4,488.5	4,493.5	4,493.5	10.0	90.0	115.93	-1,810.7	3,626.0	4,197.4	4,097.5	99.95	41.996	
4,527.5	4,516.1	4,521.1	4,521.1	10.1	90.5	115.93	-1,810.7	3,626.0	4,197.4	4,096.9	100.56	41.740	
4,600.0	4,588.5	4,593.5	4,593.5	10.2	92.0	115.93	-1,810.7	3,626.0	4,197.4	4,095.3	102.18	41.080	
4,626.0	4,614.5	4,619.5	4,619.5	10.3	92.5	115.93	-1,810.7	3,626.0	4,197.4	4,094.7	102.75	40.849	
4,700.0	4,688.5	4,693.5	4,693.5	10.5	94.0	115.93	-1,810.7	3,626.0	4,197.4	4,093.0	104.40	40.204	
4,724.4	4,712.9	4,717.9	4,717.9	10.5	94.5	115.93	-1,810.7	3,626.0	4,197.4	4,092.5	104.95	39.996	
4,800.0	4,788.5	4,793.5	4,793.5	10.7	96.0	115.93	-1,810.7	3,626.0	4,197.4	4,090.8	106.63	39.364	
4,822.8	4,811.4	4,816.4	4,816.4	10.7	96.4	115.93	-1,810.7	3,626.0	4,197.4	4,090.3	107.14	39.177	
4,900.0	4,888.5	4,893.5	4,893.5	10.9	98.0	115.93	-1,810.7	3,626.0	4,197.4	4,088.6	108.86	38.558	
4,921.2	4,909.8	4,914.8	4,914.8	10.9	98.4	115.93	-1,810.7	3,626.0	4,197.4	4,088.1	109.33	38.391	
5,000.0	4,988.5	4,993.5	4,993.5	11.1	100.0	115.93	-1,810.7	3,626.0	4,197.4	4,086.3	111.09	37.785	
5,019.7	5,008.2	5,013.2	5,013.2	11.1	100.4	115.93	-1,810.7	3,626.0	4,197.4	4,085.9	111.53	37.636	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,093.5	5,093.5	11.3	102.0	115.93	-1,810.7	3,626.0	4,197.4	4,084.1	113.32	37.042	
5,118.1	5,106.6	5,111.6	5,111.6	11.4	102.4	115.93	-1,810.7	3,626.0	4,197.4	4,083.7	113.72	36.910	
5,200.0	5,188.5	5,193.5	5,193.5	11.5	104.0	115.93	-1,810.7	3,626.0	4,197.4	4,081.9	115.54	36.327	
5,216.5	5,205.1	5,210.1	5,210.1	11.6	104.4	115.93	-1,810.7	3,626.0	4,197.4	4,081.5	115.91	36.212	
5,300.0	5,288.5	5,293.5	5,293.5	11.8	106.0	115.93	-1,810.7	3,626.0	4,197.4	4,079.7	117.77	35.640	
5,314.9	5,303.5	5,308.5	5,308.5	11.8	106.3	115.93	-1,810.7	3,626.0	4,197.4	4,079.3	118.11	35.539	
5,400.0	5,388.5	5,393.5	5,393.5	12.0	108.1	115.93	-1,810.7	3,626.0	4,197.4	4,077.4	120.00	34.978	
5,413.4	5,401.9	5,406.9	5,406.9	12.0	108.3	115.93	-1,810.7	3,626.0	4,197.4	4,077.1	120.30	34.891	
5,500.0	5,488.5	5,493.5	5,493.5	12.2	110.1	115.93	-1,810.7	3,626.0	4,197.4	4,075.2	122.23	34.340	
5,511.8	5,500.3	5,505.3	5,505.3	12.2	110.3	115.93	-1,810.7	3,626.0	4,197.4	4,074.9	122.50	34.266	
5,600.0	5,588.5	5,593.5	5,593.5	12.4	112.1	115.93	-1,810.7	3,626.0	4,197.4	4,073.0	124.46	33.724	
5,610.2	5,598.8	5,603.8	5,603.8	12.4	112.3	115.93	-1,810.7	3,626.0	4,197.4	4,072.7	124.69	33.663	
5,700.0	5,688.5	5,693.5	5,693.5	12.6	114.1	115.93	-1,810.7	3,626.0	4,197.4	4,070.7	126.69	33.131	
5,708.6	5,697.2	5,702.2	5,702.2	12.6	114.3	115.93	-1,810.7	3,626.0	4,197.4	4,070.5	126.89	33.080	
5,800.0	5,788.5	5,793.5	5,793.5	12.8	116.1	115.93	-1,810.7	3,626.0	4,197.4	4,068.5	128.92	32.558	
5,807.1	5,795.6	5,800.6	5,800.6	12.9	116.2	115.93	-1,810.7	3,626.0	4,197.4	4,068.3	129.08	32.518	
5,900.0	5,888.5	5,893.5	5,893.5	13.1	118.1	115.93	-1,810.7	3,626.0	4,197.4	4,066.3	131.15	32.004	
5,905.5	5,894.0	5,899.0	5,899.0	13.1	118.2	115.93	-1,810.7	3,626.0	4,197.4	4,066.2	131.28	31.974	
6,000.0	5,988.5	5,993.5	5,993.5	13.3	120.1	115.93	-1,810.7	3,626.0	4,197.4	4,064.0	133.38	31.469	
6,003.9	5,992.5	5,997.5	5,997.5	13.3	120.2	115.93	-1,810.7	3,626.0	4,197.4	4,064.0	133.47	31.448	
6,085.3	6,073.8	6,078.8	6,078.8	13.5	121.8	115.93	-1,810.7	3,626.0	4,197.4	4,062.1	135.29	31.026	
6,100.0	6,088.5	6,093.5	6,093.5	13.5	122.1	-154.07	-1,810.7	3,626.0	4,197.6	4,062.2	135.37	31.008	
6,102.3	6,090.9	6,095.9	6,095.9	13.5	122.2	-154.07	-1,810.7	3,626.0	4,197.6	4,062.2	135.41	30.998	
6,150.0	6,138.4	6,143.4	6,143.4	13.6	123.1	-154.00	-1,810.7	3,626.0	4,200.1	4,064.0	136.08	30.866	
6,200.0	6,188.0	6,193.0	6,193.0	13.7	124.1	-153.84	-1,810.7	3,626.0	4,205.7	4,069.4	136.25	30.867	
6,200.8	6,188.8	6,193.8	6,193.8	13.7	124.1	-153.83	-1,810.7	3,626.0	4,205.8	4,069.5	136.25	30.868	
6,250.0	6,237.1	6,242.1	6,242.1	13.9	125.1	-153.58	-1,810.7	3,626.0	4,214.4	4,078.5	135.90	31.012	
6,299.2	6,284.6	6,289.6	6,289.6	14.0	126.1	-153.23	-1,810.7	3,626.0	4,226.0	4,090.9	135.04	31.293	
6,300.0	6,285.3	6,290.3	6,290.3	14.0	126.1	-153.23	-1,810.7	3,626.0	4,226.2	4,091.2	135.03	31.299	
6,350.0	6,332.5	6,337.5	6,337.5	14.2	127.0	-152.76	-1,810.7	3,626.0	4,241.0	4,107.3	133.66	31.729	
6,397.6	6,376.3	6,381.3	6,381.3	14.4	127.9	-152.21	-1,810.7	3,626.0	4,257.8	4,125.9	131.95	32.269	
6,400.0	6,378.5	6,383.5	6,383.5	14.4	128.0	-152.18	-1,810.7	3,626.0	4,258.7	4,126.9	131.85	32.299	
6,450.0	6,423.0	6,428.0	6,428.0	14.7	128.9	-151.47	-1,810.7	3,626.0	4,279.3	4,149.7	129.66	33.005	
6,496.0	6,462.4	6,467.4	6,467.4	14.9	129.7	-150.68	-1,810.7	3,626.0	4,300.8	4,173.4	127.37	33.765	
6,500.0	6,465.7	6,470.7	6,470.7	14.9	129.7	-150.60	-1,810.7	3,626.0	4,302.7	4,175.6	127.17	33.835	
6,550.0	6,506.6	6,511.6	6,511.6	15.2	130.5	-149.57	-1,810.7	3,626.0	4,328.8	4,204.3	124.50	34.768	
6,594.5	6,541.2	6,546.2	6,546.2	15.6	131.2	-148.48	-1,810.7	3,626.0	4,354.1	4,232.0	122.12	35.655	
6,600.0	6,545.3	6,550.3	6,550.3	15.6	131.3	-148.33	-1,810.7	3,626.0	4,357.4	4,235.6	121.83	35.767	
6,650.0	6,581.8	6,586.8	6,586.8	16.0	132.1	-146.85	-1,810.7	3,626.0	4,388.5	4,269.1	119.34	36.773	
6,692.9	6,611.1	6,616.1	6,616.1	16.4	132.6	-145.36	-1,810.7	3,626.0	4,416.9	4,299.4	117.56	37.572	
6,700.0	6,615.8	6,620.8	6,620.8	16.5	132.7	-145.09	-1,810.7	3,626.0	4,421.8	4,304.5	117.31	37.694	
6,750.0	6,647.1	6,652.1	6,652.1	17.1	133.4	-142.99	-1,810.7	3,626.0	4,457.3	4,341.2	116.04	38.411	
6,791.3	6,670.9	6,675.9	6,675.9	17.6	133.8	-140.94	-1,810.7	3,626.0	4,488.1	4,372.2	115.83	38.747	
6,800.0	6,675.7	6,680.7	6,680.7	17.7	133.9	-140.47	-1,810.7	3,626.0	4,494.7	4,378.8	115.90	38.781	
6,850.0	6,701.3	6,706.3	6,706.3	18.4	134.5	-137.44	-1,810.7	3,626.0	4,533.9	4,416.7	117.25	38.669	
6,889.7	6,719.5	6,724.5	6,724.5	19.0	134.8	-134.60	-1,810.7	3,626.0	4,566.3	4,446.7	119.61	38.176	
6,900.0	6,723.8	6,728.8	6,728.8	19.1	134.9	-133.79	-1,810.7	3,626.0	4,574.8	4,454.3	120.41	37.992	
6,950.0	6,743.2	6,748.2	6,748.2	20.0	135.3	-129.37	-1,810.7	3,626.0	4,617.0	4,491.4	125.56	36.770	
6,988.2	6,755.8	6,760.8	6,760.8	20.6	135.6	-125.39	-1,810.7	3,626.0	4,650.1	4,519.3	130.79	35.555	
7,000.0	6,759.4	6,764.4	6,764.4	20.9	135.6	-124.04	-1,810.7	3,626.0	4,660.5	4,527.9	132.59	35.148	
7,050.0	6,772.1	6,777.1	6,777.1	21.8	135.9	-117.65	-1,810.7	3,626.0	4,704.9	4,563.9	140.98	33.372	
7,086.6	6,779.4	6,784.4	6,784.4	22.5	136.0	-112.25	-1,810.7	3,626.0	4,738.0	4,590.6	147.38	32.147	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #43-17 - 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	
7,100.0	6,781.5	6,786.5	6,786.5	22.8	136.1	-110.11	-1,810.7	3,626.0	4,750.2	4,600.5	149.64	31.743	
7,150.0	6,787.5	6,792.5	6,792.5	23.9	136.2	-101.47	-1,810.7	3,626.0	4,796.0	4,639.0	156.95	30.557	
7,185.0	6,789.6	6,794.6	6,794.6	24.6	136.2	-94.90	-1,810.7	3,626.0	4,828.3	4,668.0	160.27	30.126	
7,200.0	6,789.9	6,794.9	6,794.9	24.9	136.2	-92.01	-1,810.7	3,626.0	4,842.2	4,681.1	161.07	30.062 SF	
7,213.0	6,790.0	6,795.0	6,795.0	25.2	136.2	-89.47	-1,810.7	3,626.0	4,854.2	4,692.7	161.44	30.068	
7,283.4	6,789.7	6,794.7	6,794.7	26.8	136.2	-89.46	-1,810.7	3,626.0	4,919.5	4,756.5	163.01	30.179	
7,300.0	6,789.7	6,794.7	6,794.7	27.2	136.2	-89.46	-1,810.7	3,626.0	4,934.8	4,771.5	163.38	30.205	
7,381.9	6,789.4	6,794.4	6,794.4	29.1	136.2	-89.45	-1,810.7	3,626.0	5,010.9	4,845.7	165.27	30.319	
7,400.0	6,789.3	6,794.3	6,794.3	29.5	136.2	-89.45	-1,810.7	3,626.0	5,027.8	4,862.1	165.69	30.344	
7,480.3	6,789.0	6,794.0	6,794.0	31.4	136.2	-89.44	-1,810.7	3,626.0	5,102.6	4,935.0	167.62	30.442	
7,500.0	6,788.9	6,793.9	6,793.9	31.9	136.2	-89.44	-1,810.7	3,626.0	5,121.0	4,952.9	168.09	30.466	
7,578.7	6,788.6	6,793.6	6,793.6	33.8	136.2	-89.43	-1,810.7	3,626.0	5,194.6	5,024.6	170.03	30.552	
7,600.0	6,788.5	6,793.5	6,793.5	34.4	136.2	-89.42	-1,810.7	3,626.0	5,214.5	5,044.0	170.55	30.575	
7,677.1	6,788.2	6,793.2	6,793.2	36.3	136.2	-89.41	-1,810.7	3,626.0	5,286.8	5,114.3	172.48	30.651	
7,700.0	6,788.2	6,793.2	6,793.2	36.9	136.2	-89.41	-1,810.7	3,626.0	5,308.2	5,135.2	173.06	30.673	
7,775.6	6,787.9	6,792.9	6,792.9	38.8	136.2	-89.40	-1,810.7	3,626.0	5,379.2	5,204.2	174.98	30.741	
7,800.0	6,787.8	6,792.8	6,792.8	39.4	136.2	-89.40	-1,810.7	3,626.0	5,402.2	5,226.6	175.61	30.763	
7,874.0	6,787.5	6,792.5	6,792.5	41.3	136.2	-89.39	-1,810.7	3,626.0	5,471.8	5,294.3	177.51	30.825	
7,900.0	6,787.4	6,792.4	6,792.4	42.0	136.2	-89.38	-1,810.7	3,626.0	5,496.3	5,318.1	178.19	30.846	
7,972.4	6,787.1	6,792.1	6,792.1	43.9	136.2	-89.38	-1,810.7	3,626.0	5,564.7	5,384.6	180.07	30.902	
8,000.0	6,787.0	6,792.0	6,792.0	44.6	136.2	-89.37	-1,810.7	3,626.0	5,590.7	5,409.9	180.79	30.923	
8,070.8	6,786.7	6,791.7	6,791.7	46.5	136.2	-89.36	-1,810.7	3,626.0	5,657.7	5,475.0	182.66	30.975	
8,100.0	6,786.6	6,791.6	6,791.6	47.3	136.2	-89.36	-1,810.7	3,626.0	5,685.2	5,501.8	183.42	30.995	
8,169.3	6,786.4	6,791.4	6,791.4	49.1	136.2	-89.35	-1,810.7	3,626.0	5,750.9	5,565.6	185.26	31.043	
8,200.0	6,786.3	6,791.3	6,791.3	49.9	136.2	-89.35	-1,810.7	3,626.0	5,780.0	5,593.9	186.07	31.064	
8,267.7	6,786.0	6,791.0	6,791.0	51.7	136.2	-89.34	-1,810.7	3,626.0	5,844.2	5,656.3	187.87	31.107	
8,300.0	6,785.9	6,790.9	6,790.9	52.6	136.2	-89.33	-1,810.7	3,626.0	5,874.9	5,686.2	188.73	31.128	
8,366.1	6,785.6	6,790.6	6,790.6	54.4	136.2	-89.32	-1,810.7	3,626.0	5,937.7	5,747.2	190.50	31.169	
8,400.0	6,785.5	6,790.5	6,790.5	55.3	136.1	-89.32	-1,810.7	3,626.0	5,970.0	5,778.6	191.41	31.189	
8,464.5	6,785.2	6,790.2	6,790.2	57.0	136.1	-89.31	-1,810.7	3,626.0	6,031.4	5,838.3	193.15	31.227	
8,500.0	6,785.1	6,790.1	6,790.1	58.0	136.1	-89.31	-1,810.7	3,626.0	6,065.2	5,871.1	194.10	31.248	
8,563.0	6,784.9	6,789.9	6,789.9	59.7	136.1	-89.30	-1,810.7	3,626.0	6,125.3	5,929.5	195.80	31.283	
8,600.0	6,784.7	6,789.7	6,789.7	60.7	136.1	-89.29	-1,810.7	3,626.0	6,160.6	5,963.8	196.80	31.304	
8,661.4	6,784.5	6,789.5	6,789.5	62.4	136.1	-89.29	-1,810.7	3,626.0	6,219.2	6,020.8	198.46	31.337	
8,700.0	6,784.3	6,789.3	6,789.3	63.4	136.1	-89.28	-1,810.7	3,626.0	6,256.1	6,056.6	199.51	31.358	
8,759.8	6,784.1	6,789.1	6,789.1	65.0	136.1	-89.27	-1,810.7	3,626.0	6,313.3	6,112.2	201.13	31.389	
8,800.0	6,784.0	6,789.0	6,789.0	66.1	136.1	-89.27	-1,810.7	3,626.0	6,351.8	6,149.6	202.23	31.409	
8,858.2	6,783.7	6,788.7	6,788.7	67.7	136.1	-89.26	-1,810.7	3,626.0	6,407.6	6,203.8	203.81	31.439	
8,900.0	6,783.6	6,788.6	6,788.6	68.9	136.1	-89.25	-1,810.7	3,626.0	6,447.6	6,242.6	204.95	31.459	
8,956.7	6,783.3	6,788.3	6,788.3	70.4	136.1	-89.25	-1,810.7	3,626.0	6,501.9	6,295.4	206.50	31.487	
9,000.0	6,783.2	6,788.2	6,788.2	71.6	136.1	-89.24	-1,810.7	3,626.0	6,543.5	6,335.8	207.68	31.508	
9,055.1	6,783.0	6,788.0	6,788.0	73.1	136.1	-89.23	-1,810.7	3,626.0	6,596.4	6,387.2	209.19	31.534	
9,100.0	6,782.8	6,787.8	6,787.8	74.3	136.1	-89.23	-1,810.7	3,626.0	6,639.6	6,429.2	210.41	31.555	
9,153.5	6,782.6	6,787.6	6,787.6	75.8	136.1	-89.22	-1,810.7	3,626.0	6,691.0	6,479.1	211.88	31.579	
9,200.0	6,782.4	6,787.4	6,787.4	77.1	136.1	-89.21	-1,810.7	3,626.0	6,735.7	6,522.6	213.15	31.601	
9,251.9	6,782.2	6,787.2	6,787.2	78.5	136.1	-89.21	-1,810.7	3,626.0	6,785.7	6,571.1	214.58	31.624	
9,300.0	6,782.0	6,787.0	6,787.0	79.8	136.1	-89.20	-1,810.7	3,626.0	6,832.0	6,616.1	215.90	31.645	
9,350.4	6,781.8	6,786.8	6,786.8	81.2	136.1	-89.19	-1,810.7	3,626.0	6,880.5	6,663.3	217.28	31.667	
9,400.0	6,781.6	6,786.6	6,786.6	82.6	136.1	-89.19	-1,810.7	3,626.0	6,928.4	6,709.7	218.64	31.688	
9,448.8	6,781.4	6,786.4	6,786.4	83.9	136.1	-89.18	-1,810.7	3,626.0	6,975.4	6,755.5	219.99	31.709	
9,500.0	6,781.2	6,786.2	6,786.2	85.4	136.1	-89.17	-1,810.7	3,626.0	7,024.8	6,803.5	221.39	31.730	
9,547.2	6,781.0	6,786.0	6,786.0	86.7	136.1	-89.17	-1,810.7	3,626.0	7,070.4	6,847.8	222.70	31.749	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #43-17 - 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	
9,600.0	6,780.8	6,785.8	6,785.8	88.1	136.1	-89.16	-1,810.7	3,626.0	7,121.4	6,897.3	224.15	31.771	
9,645.6	6,780.7	6,785.7	6,785.7	89.4	136.1	-89.15	-1,810.7	3,626.0	7,165.5	6,940.1	225.41	31.789	
9,700.0	6,780.5	6,785.5	6,785.5	90.9	136.0	-89.15	-1,810.7	3,626.0	7,218.1	6,991.2	226.91	31.811	
9,744.1	6,780.3	6,785.3	6,785.3	92.1	136.0	-89.14	-1,810.7	3,626.0	7,260.7	7,032.6	228.12	31.828	
9,800.0	6,780.1	6,785.1	6,785.1	93.7	136.0	-89.13	-1,810.7	3,626.0	7,314.9	7,085.2	229.67	31.850	
9,842.5	6,779.9	6,784.9	6,784.9	94.8	136.0	-89.13	-1,810.7	3,626.0	7,356.0	7,125.2	230.84	31.866	
9,900.0	6,779.7	6,784.7	6,784.7	96.4	136.0	-89.12	-1,810.7	3,626.0	7,411.7	7,179.3	232.43	31.888	
9,940.9	6,779.5	6,784.5	6,784.5	97.6	136.0	-89.11	-1,810.7	3,626.0	7,451.4	7,217.8	233.56	31.904	
10,000.0	6,779.3	6,784.3	6,784.3	99.2	136.0	-89.11	-1,810.7	3,626.0	7,508.6	7,273.4	235.19	31.926	
10,039.3	6,779.1	6,784.1	6,784.1	100.3	136.0	-89.10	-1,810.7	3,626.0	7,546.8	7,310.5	236.28	31.940	
10,100.0	6,778.9	6,783.9	6,783.9	102.0	136.0	-89.09	-1,810.7	3,626.0	7,605.6	7,367.7	237.96	31.962	
10,137.8	6,778.7	6,783.7	6,783.7	103.0	136.0	-89.09	-1,810.7	3,626.0	7,642.3	7,403.3	239.00	31.976	
10,200.0	6,778.5	6,783.5	6,783.5	104.8	136.0	-89.08	-1,810.7	3,626.0	7,702.7	7,462.0	240.73	31.998	
10,236.2	6,778.3	6,783.3	6,783.3	105.8	136.0	-89.07	-1,810.7	3,626.0	7,737.9	7,496.1	241.73	32.011	
10,300.0	6,778.1	6,783.1	6,783.1	107.5	136.0	-89.06	-1,810.7	3,626.0	7,799.9	7,556.4	243.50	32.033	
10,334.6	6,778.0	6,783.0	6,783.0	108.5	136.0	-89.06	-1,810.7	3,626.0	7,833.5	7,589.1	244.46	32.045	
10,400.0	6,777.7	6,782.7	6,782.7	110.3	136.0	-89.05	-1,810.7	3,626.0	7,897.1	7,650.8	246.27	32.067	
10,433.0	6,777.6	6,782.6	6,782.6	111.2	136.0	-89.05	-1,810.7	3,626.0	7,929.2	7,682.1	247.18	32.078	
10,500.0	6,777.3	6,782.3	6,782.3	113.1	136.0	-89.04	-1,810.7	3,626.0	7,994.4	7,745.3	249.04	32.101	
10,531.5	6,777.2	6,782.2	6,782.2	114.0	136.0	-89.03	-1,810.7	3,626.0	8,025.0	7,775.1	249.91	32.111	
10,600.0	6,776.9	6,781.9	6,781.9	115.9	136.0	-89.02	-1,810.7	3,626.0	8,091.7	7,839.9	251.81	32.134	
10,629.9	6,776.8	6,781.8	6,781.8	116.7	136.0	-89.02	-1,810.7	3,626.0	8,120.9	7,868.2	252.64	32.144	
10,700.0	6,776.5	6,781.5	6,781.5	118.7	136.0	-89.01	-1,810.7	3,626.0	8,189.2	7,934.6	254.59	32.166	
10,728.3	6,776.4	6,781.4	6,781.4	119.5	136.0	-89.01	-1,810.7	3,626.0	8,216.8	7,961.4	255.38	32.175	
10,800.0	6,776.1	6,781.1	6,781.1	121.4	136.0	-89.00	-1,810.7	3,626.0	8,286.7	8,029.3	257.37	32.198	
10,826.7	6,776.0	6,781.0	6,781.0	122.2	136.0	-88.99	-1,810.7	3,626.0	8,312.7	8,054.6	258.11	32.206	
10,900.0	6,775.7	6,780.7	6,780.7	124.2	136.0	-88.98	-1,810.7	3,626.0	8,384.2	8,124.1	260.14	32.229	
10,925.2	6,775.6	6,780.6	6,780.6	124.9	136.0	-88.98	-1,810.7	3,626.0	8,408.8	8,147.9	260.84	32.237	
11,000.0	6,775.3	6,780.3	6,780.3	127.0	135.9	-88.97	-1,810.7	3,626.0	8,481.8	8,218.9	262.92	32.260	
11,023.6	6,775.2	6,780.2	6,780.2	127.7	135.9	-88.96	-1,810.7	3,626.0	8,504.9	8,241.3	263.58	32.267	
11,100.0	6,774.9	6,779.9	6,779.9	129.8	135.9	-88.95	-1,810.7	3,626.0	8,579.5	8,313.8	265.70	32.290	
11,122.0	6,774.8	6,779.8	6,779.8	130.4	135.9	-88.95	-1,810.7	3,626.0	8,601.0	8,334.7	266.31	32.297	
11,200.0	6,774.5	6,779.5	6,779.5	132.6	135.9	-88.94	-1,810.7	3,626.0	8,677.2	8,408.7	268.48	32.320	
11,220.4	6,774.4	6,779.4	6,779.4	133.2	135.9	-88.94	-1,810.7	3,626.0	8,697.2	8,428.1	269.05	32.326	
11,300.0	6,774.1	6,779.1	6,779.1	135.4	135.9	-88.93	-1,810.7	3,626.0	8,774.9	8,503.7	271.26	32.349	
11,318.9	6,774.0	6,779.0	6,779.0	135.9	135.9	-88.92	-1,810.7	3,626.0	8,793.4	8,521.6	271.79	32.354	
11,400.0	6,773.7	6,778.7	6,778.7	138.2	135.9	-88.91	-1,810.7	3,626.0	8,872.8	8,598.7	274.04	32.377	
11,417.3	6,773.6	6,778.6	6,778.6	138.7	135.9	-88.91	-1,810.7	3,626.0	8,889.7	8,615.2	274.52	32.382	
11,500.0	6,773.3	6,778.3	6,778.3	141.0	135.9	-88.90	-1,810.7	3,626.0	8,970.6	8,693.8	276.83	32.405	
11,515.7	6,773.2	6,778.2	6,778.2	141.4	135.9	-88.89	-1,810.7	3,626.0	8,986.0	8,708.7	277.26	32.410	
11,600.0	6,772.9	6,777.9	6,777.9	143.8	135.9	-88.88	-1,810.7	3,626.0	9,068.5	8,788.9	279.61	32.433	
11,614.1	6,772.8	6,777.8	6,777.8	144.2	135.9	-88.88	-1,810.7	3,626.0	9,082.4	8,802.4	280.00	32.437	
11,700.0	6,772.5	6,777.5	6,777.5	146.6	135.9	-88.87	-1,810.7	3,626.0	9,166.5	8,884.1	282.39	32.460	
11,712.6	6,772.4	6,777.4	6,777.4	146.9	135.9	-88.87	-1,810.7	3,626.0	9,178.8	8,896.1	282.74	32.463	
11,800.0	6,772.1	6,777.1	6,777.1	149.4	135.9	-88.85	-1,810.7	3,626.0	9,264.5	8,979.3	285.18	32.487	
11,811.0	6,772.1	6,777.1	6,777.1	149.7	135.9	-88.85	-1,810.7	3,626.0	9,275.3	8,989.8	285.48	32.490	
11,900.0	6,771.7	6,776.7	6,776.7	152.2	135.9	-88.84	-1,810.7	3,626.0	9,362.5	9,074.5	287.96	32.513	
11,909.4	6,771.7	6,776.7	6,776.7	152.4	135.9	-88.84	-1,810.7	3,626.0	9,371.8	9,083.5	288.22	32.516	
12,000.0	6,771.3	6,776.3	6,776.3	154.9	135.9	-88.82	-1,810.7	3,626.0	9,460.6	9,169.8	290.75	32.539	
12,007.8	6,771.3	6,776.3	6,776.3	155.2	135.9	-88.82	-1,810.7	3,626.0	9,468.3	9,177.3	290.97	32.541	
12,100.0	6,770.9	6,775.9	6,775.9	157.7	135.9	-88.81	-1,810.7	3,626.0	9,558.7	9,265.2	293.53	32.564	
12,106.3	6,770.9	6,775.9	6,775.9	157.9	135.9	-88.81	-1,810.7	3,626.0	9,564.9	9,271.2	293.71	32.566	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #43-17 - 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
12,200.0	6,770.5	6,775.5	6,775.5	160.5	135.8	-88.80	-1,810.7	3,626.0	9,656.9	9,360.5	296.32	32.589	
12,204.7	6,770.5	6,775.5	6,775.5	160.7	135.8	-88.80	-1,810.7	3,626.0	9,661.5	9,365.0	296.45	32.591	
12,300.0	6,770.1	6,775.1	6,775.1	163.3	135.8	-88.78	-1,810.7	3,626.0	9,755.1	9,456.0	299.10	32.614	
12,303.1	6,770.1	6,775.1	6,775.1	163.4	135.8	-88.78	-1,810.7	3,626.0	9,758.1	9,458.9	299.19	32.615	
12,316.4	6,770.0	6,775.0	6,775.0	163.8	135.8	-88.78	-1,810.7	3,626.0	9,771.1	9,471.6	299.56	32.618	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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	6.7	6.7	0.0	0.0	125.21	-2,710.5	3,840.6	4,700.7				
98.4	98.4	156.3	156.3	0.1	0.2	125.22	-2,710.4	3,839.2	4,699.8	4,699.5	0.27	N/A	
100.0	100.0	157.9	157.8	0.1	0.2	125.22	-2,710.4	3,839.1	4,699.8	4,699.5	0.27	N/A	
196.8	196.8	249.7	249.7	0.3	0.3	125.23	-2,710.2	3,838.0	4,698.7	4,698.1	0.59	8,024.033	
200.0	200.0	252.6	252.6	0.3	0.3	125.23	-2,710.2	3,837.9	4,698.7	4,698.1	0.60	7,896.818	
295.3	295.3	344.2	344.2	0.5	0.4	125.23	-2,710.0	3,837.0	4,697.7	4,696.8	0.88	5,360.469	
300.0	300.0	349.1	349.1	0.5	0.4	125.23	-2,710.0	3,836.9	4,697.7	4,696.8	0.89	5,277.776	
393.7	393.7	445.9	445.9	0.8	0.4	125.24	-2,709.6	3,836.0	4,696.7	4,695.6	1.16	4,057.051	
400.0	400.0	452.5	452.5	0.8	0.4	125.24	-2,709.6	3,835.9	4,696.7	4,695.5	1.18	3,996.102	
492.1	492.1	546.5	546.5	1.0	0.5	125.24	-2,709.0	3,835.1	4,695.7	4,694.2	1.43	3,283.933	
500.0	500.0	554.4	554.4	1.0	0.5	125.24	-2,708.9	3,835.0	4,695.6	4,694.1	1.45	3,235.274	
590.5	590.5	644.2	644.2	1.2	0.5	125.23	-2,708.3	3,834.3	4,694.6	4,692.9	1.70	2,767.735	
600.0	600.0	653.6	653.5	1.2	0.5	125.23	-2,708.2	3,834.2	4,694.5	4,692.8	1.72	2,726.966	
689.0	689.0	745.1	745.1	1.4	0.6	125.23	-2,707.5	3,833.5	4,693.5	4,691.6	1.96	2,394.541	
700.0	700.0	757.0	757.0	1.4	0.6	125.23	-2,707.4	3,833.4	4,693.4	4,691.4	1.99	2,358.869	
787.4	787.4	847.6	847.5	1.6	0.6	125.23	-2,706.5	3,832.7	4,692.3	4,690.1	2.22	2,112.061	
800.0	800.0	860.2	860.2	1.7	0.6	125.23	-2,706.4	3,832.6	4,692.2	4,689.9	2.25	2,080.955	
885.8	885.8	947.8	947.7	1.9	0.7	125.22	-2,705.6	3,831.9	4,691.1	4,688.7	2.48	1,891.533	
900.0	900.0	962.4	962.4	1.9	0.7	125.22	-2,705.4	3,831.7	4,691.0	4,688.4	2.52	1,863.558	
984.2	984.2	1,051.2	1,051.2	2.1	0.7	125.22	-2,704.6	3,830.9	4,689.9	4,687.1	2.74	1,713.184	
1,000.0	1,000.0	1,068.1	1,068.0	2.1	0.7	125.22	-2,704.5	3,830.7	4,689.6	4,686.9	2.78	1,687.751	
1,082.7	1,082.7	1,152.8	1,152.7	2.3	0.8	125.22	-2,703.7	3,829.8	4,688.5	4,685.5	2.99	1,566.755	
1,100.0	1,100.0	1,170.1	1,170.1	2.3	0.8	125.22	-2,703.6	3,829.6	4,688.2	4,685.2	3.04	1,543.683	
1,181.1	1,181.1	1,251.7	1,251.6	2.5	0.8	125.22	-2,702.9	3,828.6	4,687.1	4,683.8	3.25	1,444.364	
1,200.0	1,200.0	1,270.7	1,270.6	2.6	0.8	125.22	-2,702.7	3,828.4	4,686.8	4,683.5	3.29	1,423.056	
1,279.5	1,279.5	1,345.1	1,345.0	2.7	0.9	125.22	-2,702.1	3,827.5	4,685.7	4,682.2	3.49	1,340.821	
1,300.0	1,300.0	1,363.4	1,363.3	2.8	0.9	125.22	-2,702.0	3,827.3	4,685.4	4,681.8	3.55	1,321.302	
1,377.9	1,377.9	1,434.7	1,434.6	3.0	0.9	125.22	-2,701.6	3,826.6	4,684.5	4,680.7	3.74	1,251.915	
1,400.0	1,400.0	1,455.4	1,455.3	3.0	0.9	125.22	-2,701.5	3,826.4	4,684.2	4,680.4	3.80	1,233.587	
1,476.4	1,476.4	1,526.5	1,526.4	3.2	0.9	125.22	-2,701.2	3,825.6	4,683.4	4,679.4	3.99	1,174.191	
1,500.0	1,500.0	1,548.2	1,548.1	3.2	0.9	125.23	-2,701.1	3,825.4	4,683.2	4,679.1	4.05	1,157.027	
1,529.1	1,529.1	1,575.0	1,574.9	3.3	0.9	-154.08	-2,701.0	3,825.2	4,683.0	4,678.8	4.25	1,101.828 CC, ES	
1,574.8	1,574.8	1,616.8	1,616.7	3.4	1.0	-154.08	-2,700.9	3,824.8	4,683.4	4,679.0	4.36	1,073.163	
1,600.0	1,600.0	1,639.7	1,639.6	3.5	1.0	-154.07	-2,700.9	3,824.6	4,683.9	4,679.4	4.43	1,058.075	
1,673.2	1,673.1	1,706.7	1,706.6	3.6	1.0	-154.07	-2,700.8	3,824.1	4,686.5	4,681.9	4.60	1,017.875	
1,700.0	1,699.8	1,733.1	1,733.0	3.7	1.0	-154.06	-2,700.7	3,823.9	4,687.9	4,683.2	4.67	1,003.912	
1,771.6	1,771.2	1,800.0	1,799.9	3.8	1.0	-154.05	-2,700.6	3,823.5	4,692.7	4,687.9	4.85	967.982	
1,800.0	1,799.5	1,828.0	1,827.9	3.9	1.0	-154.04	-2,700.5	3,823.4	4,695.1	4,690.2	4.92	954.485	
1,870.1	1,869.0	1,889.1	1,889.0	4.0	1.1	-154.02	-2,700.4	3,823.1	4,702.1	4,697.0	5.10	922.525	
1,900.0	1,898.7	1,914.6	1,914.5	4.1	1.1	-154.00	-2,700.4	3,823.0	4,705.7	4,700.5	5.17	910.311	
1,968.5	1,966.4	1,972.1	1,972.0	4.3	1.1	-153.97	-2,700.3	3,823.0	4,714.9	4,709.5	5.34	883.580	
2,000.0	1,997.5	2,000.0	1,999.9	4.4	1.1	-153.95	-2,700.2	3,823.0	4,719.6	4,714.2	5.41	871.981	
2,066.9	2,063.2	2,062.2	2,062.1	4.6	1.1	-153.92	-2,700.1	3,823.2	4,730.8	4,725.3	5.59	846.926	
2,100.1	2,095.7	2,093.8	2,093.7	4.7	1.1	-153.90	-2,700.0	3,823.3	4,736.9	4,731.3	5.67	835.132	
2,165.3	2,159.5	2,158.1	2,158.0	4.9	1.1	-153.98	-2,699.8	3,823.5	4,749.2	4,743.4	5.85	812.499	
2,200.0	2,193.4	2,192.4	2,192.3	5.0	1.1	-154.02	-2,699.6	3,823.7	4,755.8	4,749.8	5.94	801.074	
2,224.2	2,217.1	2,216.1	2,216.0	5.1	1.1	-154.05	-2,699.5	3,823.8	4,760.3	4,754.3	6.00	793.132	
2,263.8	2,255.9	2,254.7	2,254.6	5.2	1.1	-154.15	-2,699.3	3,823.9	4,767.6	4,761.5	6.10	781.540	
2,300.0	2,291.5	2,290.1	2,290.0	5.3	1.1	-154.25	-2,699.2	3,824.1	4,773.7	4,767.6	6.19	771.742	
2,362.2	2,352.7	2,351.4	2,351.3	5.5	1.1	-154.39	-2,699.0	3,824.3	4,783.4	4,777.1	6.32	756.519	
2,400.0	2,390.1	2,388.8	2,388.7	5.6	1.1	-154.47	-2,698.8	3,824.4	4,788.7	4,782.3	6.41	747.374	
2,460.6	2,450.1	2,454.6	2,454.5	5.7	1.2	-154.58	-2,698.6	3,824.6	4,796.3	4,789.7	6.54	733.056	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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	2,489.2	2,498.2	2,498.1	5.8	1.2	-154.65	-2,698.4	3,824.7	4,800.5	4,793.9	6.63	723.944	
2,559.0	2,548.0	2,558.4	2,558.3	6.0	1.2	-154.73	-2,698.1	3,824.8	4,805.9	4,799.2	6.76	710.612	
2,600.0	2,588.8	2,600.1	2,600.0	6.1	1.2	-154.78	-2,697.9	3,824.8	4,809.0	4,802.2	6.85	701.573	
2,657.5	2,646.1	2,658.9	2,658.8	6.2	1.2	-154.83	-2,697.6	3,824.9	4,812.5	4,805.5	6.98	689.335	
2,700.0	2,688.6	2,702.7	2,702.6	6.3	1.2	-154.86	-2,697.4	3,824.9	4,814.3	4,807.2	7.08	680.464	
2,755.9	2,744.4	2,764.5	2,764.4	6.4	1.2	-154.89	-2,697.1	3,824.9	4,815.9	4,808.7	7.20	669.103	
2,800.0	2,788.5	2,812.4	2,812.3	6.5	1.3	-154.90	-2,697.0	3,824.8	4,816.3	4,809.0	7.29	660.254	
2,824.3	2,812.8	2,837.4	2,837.2	6.5	1.3	124.40	-2,696.9	3,824.7	4,816.3	4,808.8	7.53	640.022	
2,854.3	2,842.9	2,868.3	2,868.1	6.6	1.3	124.40	-2,696.8	3,824.6	4,816.2	4,808.6	7.59	634.674	
2,900.0	2,888.5	2,916.0	2,915.9	6.7	1.3	124.40	-2,696.6	3,824.5	4,816.0	4,808.3	7.68	626.709	
2,952.7	2,941.3	2,973.3	2,973.2	6.8	1.3	124.40	-2,696.4	3,824.2	4,815.7	4,807.9	7.80	617.028	
3,000.0	2,988.5	3,024.9	3,024.8	6.9	1.3	124.40	-2,696.2	3,824.0	4,815.4	4,807.5	7.91	608.604	
3,051.2	3,039.7	3,081.3	3,081.2	7.0	1.4	124.40	-2,695.9	3,823.6	4,815.0	4,807.0	8.03	599.694	
3,100.0	3,088.5	3,141.5	3,141.4	7.1	1.4	124.40	-2,695.6	3,823.2	4,814.5	4,806.4	8.14	591.398	
3,149.6	3,138.1	3,205.1	3,204.9	7.2	1.4	124.40	-2,695.4	3,822.4	4,814.0	4,805.7	8.25	583.163	
3,200.0	3,188.5	3,259.2	3,259.1	7.3	1.4	124.41	-2,695.3	3,821.6	4,813.3	4,804.9	8.37	575.225	
3,248.0	3,236.6	3,309.3	3,309.1	7.4	1.4	124.42	-2,695.6	3,820.6	4,812.6	4,804.1	8.48	567.840	
3,300.0	3,288.5	3,357.4	3,357.3	7.5	1.4	124.43	-2,695.9	3,819.5	4,811.8	4,803.3	8.59	560.108	
3,346.4	3,335.0	3,400.5	3,400.3	7.6	1.4	124.44	-2,696.3	3,818.5	4,811.2	4,802.5	8.69	553.350	
3,400.0	3,388.5	3,454.0	3,453.7	7.7	1.5	124.45	-2,696.8	3,817.3	4,810.5	4,801.7	8.81	545.731	
3,444.9	3,433.4	3,498.7	3,498.5	7.8	1.5	124.46	-2,697.2	3,816.4	4,810.0	4,801.0	8.92	539.482	
3,500.0	3,488.5	3,542.1	3,541.8	7.9	1.5	124.47	-2,697.4	3,815.6	4,809.3	4,800.3	9.04	532.101	
3,543.3	3,531.8	3,575.9	3,575.7	8.0	1.5	124.48	-2,697.6	3,815.1	4,808.9	4,799.8	9.13	526.435	
3,600.0	3,588.5	3,621.4	3,621.2	8.1	1.5	124.48	-2,697.6	3,814.7	4,808.5	4,799.2	9.26	519.209	
3,641.7	3,630.3	3,656.1	3,655.8	8.2	1.5	124.48	-2,697.8	3,814.3	4,808.3	4,798.9	9.35	514.013	
3,700.0	3,688.5	3,705.3	3,705.0	8.3	1.5	124.49	-2,698.2	3,813.8	4,808.0	4,798.6	9.48	506.923	
3,740.1	3,728.7	3,745.0	3,744.8	8.4	1.5	124.50	-2,698.6	3,813.4	4,807.9	4,798.4	9.58	502.057	
3,800.0	3,788.5	3,804.2	3,804.0	8.5	1.5	124.51	-2,699.2	3,812.8	4,807.8	4,798.1	9.71	494.973	
3,838.6	3,827.1	3,841.9	3,841.7	8.6	1.5	124.51	-2,699.6	3,812.4	4,807.7	4,797.9	9.80	490.497	
3,900.0	3,888.5	3,900.0	3,899.7	8.7	1.5	124.52	-2,700.3	3,811.8	4,807.5	4,797.6	9.94	483.550	
3,922.6	3,911.1	3,900.0	3,899.7	8.8	1.5	124.52	-2,700.3	3,811.8	4,807.6	4,797.6	9.99	481.213	
3,937.0	3,925.5	3,922.2	3,921.9	8.8	1.5	124.53	-2,700.5	3,811.6	4,807.5	4,797.5	10.02	479.593	
4,000.0	3,988.5	3,958.0	3,957.7	9.0	1.5	124.53	-2,701.0	3,811.5	4,807.8	4,797.6	10.16	473.040	
4,035.4	4,024.0	3,978.1	3,977.8	9.0	1.5	124.54	-2,701.3	3,811.5	4,808.1	4,797.9	10.24	469.442	
4,100.0	4,088.5	4,000.0	3,999.7	9.2	1.5	124.54	-2,701.7	3,811.5	4,809.0	4,798.6	10.38	463.139	
4,133.8	4,122.4	4,000.0	3,999.7	9.2	1.5	124.54	-2,701.7	3,811.5	4,809.8	4,799.3	10.46	459.990	
4,200.0	4,188.5	4,052.3	4,052.0	9.4	1.5	124.55	-2,702.9	3,812.1	4,811.3	4,800.6	10.61	453.587	
4,232.3	4,220.8	4,065.7	4,065.4	9.4	1.5	124.55	-2,703.2	3,812.3	4,812.3	4,801.6	10.68	450.635	
4,300.0	4,288.5	4,100.0	4,099.7	9.6	1.5	124.56	-2,704.3	3,813.1	4,814.8	4,803.9	10.83	444.564	
4,330.7	4,319.2	4,100.0	4,099.7	9.7	1.5	124.56	-2,704.3	3,813.1	4,816.1	4,805.2	10.90	441.982	
4,400.0	4,388.5	4,146.2	4,145.8	9.8	1.6	124.56	-2,706.2	3,814.5	4,819.4	4,808.3	11.05	435.964	
4,429.1	4,417.7	4,162.0	4,161.6	9.9	1.6	124.57	-2,706.9	3,815.0	4,820.9	4,809.8	11.12	433.520	
4,500.0	4,488.5	4,331.6	4,331.0	10.0	1.6	124.62	-2,714.7	3,819.2	4,824.5	4,813.2	11.30	426.802	
4,527.5	4,516.1	4,357.9	4,357.2	10.1	1.6	124.62	-2,715.8	3,819.5	4,825.4	4,814.0	11.37	424.470	
4,600.0	4,588.5	4,400.0	4,399.3	10.2	1.6	124.64	-2,717.5	3,820.1	4,827.9	4,816.4	11.53	418.647	
4,626.0	4,614.5	4,426.8	4,426.1	10.3	1.6	124.64	-2,718.6	3,820.5	4,828.9	4,817.3	11.59	416.519	
4,700.0	4,688.5	4,463.4	4,462.6	10.5	1.6	124.66	-2,720.4	3,821.2	4,832.1	4,820.4	11.76	410.872	
4,724.4	4,712.9	4,500.0	4,499.2	10.5	1.6	124.67	-2,722.3	3,822.2	4,833.4	4,821.6	11.82	408.915	
4,800.0	4,788.5	4,522.0	4,521.1	10.7	1.6	124.68	-2,723.6	3,822.8	4,837.4	4,825.4	11.99	403.501	
4,822.8	4,811.4	4,541.4	4,540.5	10.7	1.6	124.69	-2,724.7	3,823.3	4,838.6	4,826.6	12.04	401.824	
4,900.0	4,888.5	4,610.1	4,609.0	10.9	1.6	124.71	-2,728.8	3,825.3	4,843.1	4,830.9	12.22	396.259	
4,921.2	4,909.8	4,636.1	4,634.9	10.9	1.6	124.72	-2,730.3	3,826.1	4,844.3	4,832.1	12.27	394.713	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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
5,000.0	4,988.5	4,737.5	4,736.2	11.1	1.6	124.76	-2,736.0	3,828.9	4,848.7	4,836.2	12.46	389.060	
5,019.7	5,008.2	4,765.4	4,764.0	11.1	1.6	124.77	-2,737.5	3,829.7	4,849.7	4,837.2	12.51	387.656	
5,100.0	5,088.5	4,859.6	4,858.1	11.3	1.6	124.80	-2,742.3	3,832.0	4,853.6	4,840.9	12.70	382.117	
5,118.1	5,106.6	4,878.9	4,877.4	11.4	1.6	124.80	-2,743.2	3,832.5	4,854.5	4,841.8	12.74	380.900	
5,200.0	5,188.5	5,001.8	5,000.1	11.5	1.6	124.84	-2,748.8	3,835.2	4,858.1	4,845.2	12.94	375.292	
5,216.5	5,205.1	5,035.1	5,033.4	11.6	1.6	124.85	-2,750.2	3,835.8	4,858.8	4,845.8	12.99	374.128	
5,300.0	5,288.5	5,180.5	5,178.7	11.8	1.6	124.88	-2,754.8	3,837.7	4,861.2	4,848.0	13.19	368.426	
5,314.9	5,303.5	5,205.6	5,203.7	11.8	1.6	124.89	-2,755.5	3,837.9	4,861.5	4,848.3	13.23	367.421	
5,400.0	5,388.5	5,384.7	5,382.9	12.0	1.6	124.91	-2,758.1	3,838.5	4,862.4	4,849.0	13.45	361.575	
5,413.4	5,401.9	5,400.0	5,398.1	12.0	1.6	124.91	-2,758.2	3,838.4	4,862.4	4,849.0	13.48	360.725	
5,500.0	5,488.5	5,482.4	5,480.5	12.2	1.6	124.92	-2,758.8	3,838.2	4,862.6	4,848.9	13.69	355.306	
5,511.8	5,500.3	5,492.9	5,491.0	12.2	1.6	124.92	-2,758.9	3,838.2	4,862.6	4,848.9	13.71	354.587	
5,600.0	5,588.5	5,562.8	5,560.9	12.4	1.6	124.92	-2,759.4	3,838.2	4,863.0	4,849.0	13.92	349.353	
5,610.2	5,598.8	5,570.8	5,568.9	12.4	1.6	124.92	-2,759.5	3,838.2	4,863.0	4,849.1	13.94	348.771	
5,700.0	5,688.5	5,640.4	5,638.5	12.6	1.6	124.93	-2,760.1	3,838.5	4,863.8	4,849.7	14.15	343.706	
5,708.6	5,697.2	5,647.0	5,645.1	12.6	1.6	124.93	-2,760.2	3,838.5	4,863.9	4,849.7	14.17	343.225	
5,800.0	5,788.5	5,719.6	5,717.7	12.8	1.6	124.93	-2,761.0	3,839.1	4,865.1	4,850.8	14.38	338.228	
5,807.1	5,795.6	5,725.8	5,723.9	12.9	1.6	124.93	-2,761.1	3,839.2	4,865.3	4,850.9	14.40	337.847	
5,900.0	5,888.5	5,807.3	5,805.4	13.1	1.6	124.94	-2,762.2	3,840.0	4,866.8	4,852.2	14.62	332.928	
5,905.5	5,894.0	5,812.3	5,810.4	13.1	1.7	124.94	-2,762.3	3,840.1	4,866.9	4,852.3	14.63	332.642	
6,000.0	5,988.5	5,900.0	5,898.1	13.3	1.7	124.94	-2,763.6	3,841.2	4,868.7	4,853.8	14.85	327.799	
6,003.9	5,992.5	5,901.4	5,899.5	13.3	1.7	124.94	-2,763.6	3,841.2	4,868.7	4,853.9	14.86	327.609	
6,085.3	6,073.8	5,984.7	5,982.8	13.5	1.7	124.95	-2,764.9	3,842.3	4,870.3	4,855.3	15.05	323.534	
6,100.0	6,088.5	5,999.8	5,997.9	13.5	1.7	-145.03	-2,765.2	3,842.4	4,870.7	4,855.8	14.92	326.414	
6,102.3	6,090.9	6,002.2	6,000.3	13.5	1.7	-145.03	-2,765.2	3,842.5	4,870.8	4,855.9	14.93	326.266	
6,150.0	6,138.4	6,050.1	6,048.2	13.6	1.7	-144.90	-2,766.0	3,843.0	4,874.0	4,858.9	15.09	323.043	
6,200.0	6,188.0	6,100.0	6,098.1	13.7	1.7	-144.66	-2,766.9	3,843.6	4,880.0	4,864.7	15.29	319.207	
6,200.8	6,188.8	6,100.9	6,098.9	13.7	1.7	-144.65	-2,766.9	3,843.6	4,880.1	4,864.9	15.29	319.144	
6,250.0	6,237.1	6,156.1	6,154.1	13.9	1.7	-144.31	-2,767.8	3,844.2	4,888.9	4,873.4	15.51	315.117	
6,299.2	6,284.6	6,209.6	6,207.6	14.0	1.7	-143.85	-2,768.7	3,844.7	4,900.2	4,884.5	15.75	311.089	
6,300.0	6,285.3	6,210.4	6,208.4	14.0	1.7	-143.84	-2,768.7	3,844.7	4,900.4	4,884.7	15.76	311.026	
6,350.0	6,332.5	6,260.3	6,258.3	14.2	1.7	-143.25	-2,769.6	3,845.1	4,914.7	4,898.7	16.00	307.107	
6,397.6	6,376.3	6,305.9	6,303.9	14.4	1.7	-142.55	-2,770.4	3,845.4	4,930.7	4,914.5	16.24	303.579	
6,400.0	6,378.5	6,307.9	6,305.9	14.4	1.7	-142.52	-2,770.4	3,845.4	4,931.6	4,915.3	16.25	303.415	
6,450.0	6,423.0	6,350.0	6,348.0	14.7	1.7	-141.62	-2,771.2	3,845.6	4,951.1	4,934.6	16.51	299.945	
6,496.0	6,462.4	6,387.3	6,385.2	14.9	1.7	-140.63	-2,772.0	3,845.8	4,971.3	4,954.6	16.75	296.831	
6,500.0	6,465.7	6,390.4	6,388.4	14.9	1.7	-140.54	-2,772.0	3,845.9	4,973.2	4,956.4	16.77	296.577	
6,550.0	6,506.6	6,421.7	6,419.7	15.2	1.7	-139.24	-2,772.6	3,846.1	4,997.7	4,980.7	17.04	293.228	
6,594.5	6,541.2	6,446.0	6,444.0	15.6	1.7	-137.88	-2,773.0	3,846.4	5,021.5	5,004.2	17.31	290.026	
6,600.0	6,545.3	6,448.9	6,446.9	15.6	1.7	-137.69	-2,773.1	3,846.4	5,024.6	5,007.3	17.35	289.631	
6,650.0	6,581.8	6,474.2	6,472.2	16.0	1.7	-135.89	-2,773.4	3,846.9	5,053.8	5,036.1	17.70	285.513	
6,692.9	6,611.1	6,500.0	6,498.0	16.4	1.7	-134.15	-2,773.6	3,847.5	5,080.6	5,062.6	18.06	281.289	
6,700.0	6,615.8	6,500.0	6,498.0	16.5	1.7	-133.80	-2,773.6	3,847.5	5,085.2	5,067.1	18.12	280.609	
6,750.0	6,647.1	6,522.2	6,520.2	17.1	1.7	-131.36	-2,773.7	3,848.0	5,118.5	5,099.9	18.63	274.758	
6,791.3	6,670.9	6,541.3	6,539.2	17.6	1.7	-129.08	-2,773.9	3,848.5	5,147.5	5,128.3	19.13	269.081	
6,800.0	6,675.7	6,545.1	6,543.0	17.7	1.7	-128.56	-2,773.9	3,848.6	5,153.7	5,134.4	19.24	267.865	
6,850.0	6,701.3	6,565.5	6,563.4	18.4	1.7	-125.32	-2,774.2	3,849.1	5,190.4	5,170.5	19.96	260.032	
6,889.7	6,719.5	6,580.0	6,577.9	19.0	1.7	-122.39	-2,774.4	3,849.4	5,220.7	5,200.1	20.62	253.228	
6,900.0	6,723.8	6,583.4	6,581.3	19.1	1.7	-121.59	-2,774.5	3,849.5	5,228.7	5,207.9	20.79	251.494	
6,950.0	6,743.2	6,600.0	6,597.9	20.0	1.7	-117.34	-2,774.7	3,849.9	5,268.2	5,246.5	21.71	242.634	
6,988.2	6,755.8	6,600.0	6,597.9	20.6	1.7	-113.53	-2,774.7	3,849.9	5,299.1	5,276.6	22.46	235.919	
7,000.0	6,759.4	6,600.0	6,597.9	20.9	1.7	-112.29	-2,774.7	3,849.9	5,308.8	5,286.1	22.69	233.960	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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	
7,050.0	6,772.1	6,617.9	6,615.8	21.8	1.7	-107.00	-2,775.1	3,850.3	5,350.2	5,326.5	23.69	225.834	
7,086.6	6,779.4	6,622.4	6,620.3	22.5	1.7	-102.67	-2,775.2	3,850.4	5,381.0	5,356.6	24.41	220.447	
7,100.0	6,781.5	6,623.8	6,621.7	22.8	1.7	-101.03	-2,775.2	3,850.4	5,392.4	5,367.7	24.66	218.652	
7,150.0	6,787.5	6,627.2	6,625.1	23.9	1.7	-94.63	-2,775.3	3,850.5	5,435.0	5,409.4	25.61	212.223	
7,185.0	6,789.6	6,628.2	6,626.1	24.6	1.7	-89.98	-2,775.3	3,850.5	5,465.1	5,438.8	26.30	207.786	
7,200.0	6,789.9	6,628.2	6,626.1	24.9	1.7	-87.97	-2,775.3	3,850.5	5,477.9	5,451.3	26.61	205.886	
7,213.0	6,790.0	6,628.0	6,625.9	25.2	1.7	-86.22	-2,775.3	3,850.5	5,489.1	5,462.2	26.88	204.213	
7,283.4	6,789.7	6,626.8	6,624.7	26.8	1.7	-86.20	-2,775.3	3,850.4	5,549.8	5,521.3	28.45	195.069	
7,300.0	6,789.7	6,626.5	6,624.4	27.2	1.7	-86.19	-2,775.3	3,850.4	5,564.0	5,535.2	28.82	193.067	
7,381.9	6,789.4	6,625.0	6,622.9	29.1	1.7	-86.16	-2,775.2	3,850.4	5,634.9	5,604.2	30.72	183.429	
7,400.0	6,789.3	6,624.6	6,622.5	29.5	1.7	-86.15	-2,775.2	3,850.4	5,650.6	5,619.5	31.14	181.456	
7,480.3	6,789.0	6,623.2	6,621.1	31.4	1.7	-86.12	-2,775.2	3,850.4	5,720.5	5,687.4	33.07	172.997	
7,500.0	6,788.9	6,622.8	6,620.7	31.9	1.7	-86.11	-2,775.2	3,850.4	5,737.6	5,704.1	33.54	171.072	
7,578.7	6,788.6	6,621.4	6,619.3	33.8	1.7	-86.09	-2,775.2	3,850.3	5,806.4	5,771.0	35.48	163.671	
7,600.0	6,788.5	6,621.0	6,618.9	34.4	1.7	-86.08	-2,775.2	3,850.3	5,825.1	5,789.1	36.00	161.809	
7,677.1	6,788.2	6,619.5	6,617.4	36.3	1.7	-86.05	-2,775.1	3,850.3	5,892.8	5,854.9	37.94	155.337	
7,700.0	6,788.2	6,619.1	6,617.0	36.9	1.7	-86.04	-2,775.1	3,850.3	5,912.9	5,874.4	38.51	153.547	
7,775.6	6,787.9	6,617.7	6,615.6	38.8	1.7	-86.01	-2,775.1	3,850.2	5,979.5	5,939.1	40.43	147.880	
7,800.0	6,787.8	6,617.3	6,615.2	39.4	1.7	-86.00	-2,775.1	3,850.2	6,001.1	5,960.0	41.06	146.164	
7,874.0	6,787.5	6,615.9	6,613.8	41.3	1.7	-85.97	-2,775.0	3,850.2	6,066.6	6,023.6	42.97	141.192	
7,900.0	6,787.4	6,615.4	6,613.3	42.0	1.7	-85.96	-2,775.0	3,850.2	6,089.7	6,046.0	43.64	139.549	
7,972.4	6,787.1	6,614.1	6,612.0	43.9	1.7	-85.93	-2,775.0	3,850.2	6,154.0	6,108.5	45.53	135.174	
8,000.0	6,787.0	6,600.0	6,597.9	44.6	1.7	-85.65	-2,774.7	3,849.9	6,178.6	6,132.4	46.24	133.633	
8,070.8	6,786.7	6,600.0	6,597.9	46.5	1.7	-85.65	-2,774.7	3,849.9	6,241.8	6,193.7	48.10	129.770	
8,100.0	6,786.6	6,600.0	6,597.9	47.3	1.7	-85.65	-2,774.7	3,849.9	6,267.9	6,219.0	48.87	128.267	
8,169.3	6,786.4	6,600.0	6,597.9	49.1	1.7	-85.65	-2,774.7	3,849.9	6,329.9	6,279.2	50.70	124.847	
8,200.0	6,786.3	6,600.0	6,597.9	49.9	1.7	-85.65	-2,774.7	3,849.9	6,357.4	6,305.9	51.51	123.410	
8,267.7	6,786.0	6,600.0	6,597.9	51.7	1.7	-85.65	-2,774.7	3,849.9	6,418.2	6,364.9	53.32	120.374	
8,300.0	6,785.9	6,600.0	6,597.9	52.6	1.7	-85.64	-2,774.7	3,849.9	6,447.3	6,393.1	54.18	118.998	
8,366.1	6,785.6	6,600.0	6,597.9	54.4	1.7	-85.64	-2,774.7	3,849.9	6,506.9	6,450.9	55.95	116.296	
8,400.0	6,785.5	6,600.0	6,597.9	55.3	1.7	-85.64	-2,774.7	3,849.9	6,537.5	6,480.6	56.86	114.978	
8,464.5	6,785.2	6,600.0	6,597.9	57.0	1.7	-85.64	-2,774.7	3,849.9	6,595.8	6,537.2	58.60	112.566	
8,500.0	6,785.1	6,600.0	6,597.9	58.0	1.7	-85.64	-2,774.7	3,849.9	6,627.9	6,568.4	59.55	111.302	
8,563.0	6,784.9	6,600.0	6,597.9	59.7	1.7	-85.64	-2,774.7	3,849.9	6,685.0	6,623.8	61.25	109.144	
8,600.0	6,784.7	6,600.0	6,597.9	60.7	1.7	-85.64	-2,774.7	3,849.9	6,718.6	6,656.4	62.25	107.931	
8,661.4	6,784.5	6,600.0	6,597.9	62.4	1.7	-85.64	-2,774.7	3,849.9	6,774.5	6,710.6	63.91	105.995	
8,700.0	6,784.3	6,600.0	6,597.9	63.4	1.7	-85.64	-2,774.7	3,849.9	6,809.6	6,744.7	64.96	104.830	
8,759.8	6,784.1	6,600.0	6,597.9	65.0	1.7	-85.64	-2,774.7	3,849.9	6,864.2	6,797.6	66.58	103.090	
8,800.0	6,784.0	6,600.0	6,597.9	66.1	1.7	-85.64	-2,774.7	3,849.9	6,900.9	6,833.2	67.68	101.969	
8,858.2	6,783.7	6,600.0	6,597.9	67.7	1.7	-85.64	-2,774.7	3,849.9	6,954.1	6,884.8	69.26	100.402	
8,900.0	6,783.6	6,600.0	6,597.9	68.9	1.7	-85.64	-2,774.7	3,849.9	6,992.3	6,921.9	70.40	99.323	
8,956.7	6,783.3	6,600.0	6,597.9	70.4	1.7	-85.64	-2,774.7	3,849.9	7,044.3	6,972.3	71.95	97.909	
9,000.0	6,783.2	6,593.4	6,591.3	71.6	1.7	-85.51	-2,774.6	3,849.7	7,084.0	7,010.9	73.12	96.882	
9,055.1	6,783.0	6,592.1	6,590.0	73.1	1.7	-85.48	-2,774.6	3,849.7	7,134.6	7,060.0	74.63	95.606	
9,100.0	6,782.8	6,591.1	6,589.0	74.3	1.7	-85.46	-2,774.6	3,849.7	7,175.9	7,100.1	75.85	94.605	
9,153.5	6,782.6	6,589.8	6,587.7	75.8	1.7	-85.43	-2,774.6	3,849.6	7,225.2	7,147.9	77.32	93.450	
9,200.0	6,782.4	6,588.7	6,586.6	77.1	1.7	-85.41	-2,774.5	3,849.6	7,268.1	7,189.5	78.59	92.484	
9,251.9	6,782.2	6,587.5	6,585.4	78.5	1.7	-85.38	-2,774.5	3,849.6	7,316.0	7,236.0	80.01	91.438	
9,300.0	6,782.0	6,586.3	6,584.3	79.8	1.7	-85.36	-2,774.5	3,849.5	7,360.4	7,279.1	81.33	90.504	
9,350.4	6,781.8	6,585.1	6,583.1	81.2	1.7	-85.33	-2,774.5	3,849.5	7,407.0	7,324.3	82.71	89.555	
9,400.0	6,781.6	6,584.0	6,581.9	82.6	1.7	-85.31	-2,774.5	3,849.5	7,452.9	7,368.9	84.07	88.651	
9,448.8	6,781.4	6,582.8	6,580.7	83.9	1.7	-85.29	-2,774.5	3,849.5	7,498.2	7,412.8	85.41	87.790	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SOLIS #44-17 - 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	6,781.2	6,581.6	6,579.5	85.4	1.7	-85.26	-2,774.4	3,849.4	7,545.7	7,458.9	86.82	86.915	
9,547.2	6,781.0	6,580.4	6,578.4	86.7	1.7	-85.24	-2,774.4	3,849.4	7,589.5	7,501.4	88.11	86.132	
9,600.0	6,780.8	6,579.2	6,577.1	88.1	1.7	-85.21	-2,774.4	3,849.4	7,638.6	7,549.0	89.57	85.285	
9,645.6	6,780.7	6,578.0	6,576.0	89.4	1.7	-85.19	-2,774.4	3,849.4	7,681.0	7,590.2	90.82	84.573	
9,700.0	6,780.5	6,576.7	6,574.7	90.9	1.7	-85.16	-2,774.4	3,849.3	7,731.7	7,639.3	92.32	83.751	
9,744.1	6,780.3	6,575.7	6,573.6	92.1	1.7	-85.14	-2,774.3	3,849.3	7,772.7	7,679.2	93.53	83.104	
9,800.0	6,780.1	6,574.3	6,572.2	93.7	1.7	-85.11	-2,774.3	3,849.3	7,824.9	7,729.8	95.07	82.306	
9,842.5	6,779.9	6,573.3	6,571.2	94.8	1.7	-85.09	-2,774.3	3,849.2	7,864.6	7,768.3	96.24	81.717	
9,900.0	6,779.7	6,571.8	6,569.8	96.4	1.7	-85.06	-2,774.3	3,849.2	7,918.3	7,820.5	97.83	80.943	
9,940.9	6,779.5	6,570.8	6,568.8	97.6	1.7	-85.04	-2,774.3	3,849.2	7,956.6	7,857.6	98.95	80.407	
10,000.0	6,779.3	6,569.4	6,567.3	99.2	1.7	-85.01	-2,774.3	3,849.2	8,011.9	7,911.3	100.58	79.655	
10,039.3	6,779.1	6,568.4	6,566.3	100.3	1.7	-84.99	-2,774.2	3,849.1	8,048.8	7,947.1	101.67	79.167	
10,100.0	6,778.9	6,566.9	6,564.8	102.0	1.7	-84.96	-2,774.2	3,849.1	8,105.6	8,002.3	103.34	78.435	
10,137.8	6,778.7	6,566.0	6,563.9	103.0	1.7	-84.94	-2,774.2	3,849.1	8,141.1	8,036.7	104.38	77.991	
10,200.0	6,778.5	6,564.4	6,562.3	104.8	1.7	-84.90	-2,774.2	3,849.0	8,199.5	8,093.4	106.10	77.279	
10,236.2	6,778.3	6,563.5	6,561.4	105.8	1.7	-84.89	-2,774.2	3,849.0	8,233.5	8,126.4	107.10	76.876	
10,300.0	6,778.1	6,561.9	6,559.8	107.5	1.7	-84.85	-2,774.2	3,849.0	8,293.5	8,184.6	108.86	76.183	
10,334.6	6,778.0	6,561.0	6,558.9	108.5	1.7	-84.83	-2,774.1	3,849.0	8,326.1	8,216.3	109.82	75.816	
10,400.0	6,777.7	6,559.4	6,557.3	110.3	1.7	-84.80	-2,774.1	3,848.9	8,387.7	8,276.0	111.63	75.141	
10,433.0	6,777.6	6,558.5	6,556.5	111.2	1.7	-84.78	-2,774.1	3,848.9	8,418.8	8,306.3	112.54	74.808	
10,500.0	6,777.3	6,556.8	6,554.8	113.1	1.7	-84.75	-2,774.1	3,848.9	8,482.0	8,367.6	114.39	74.150	
10,531.5	6,777.2	6,556.0	6,554.0	114.0	1.7	-84.73	-2,774.1	3,848.8	8,511.7	8,396.4	115.26	73.848	
10,600.0	6,776.9	6,554.3	6,552.2	115.9	1.7	-84.69	-2,774.1	3,848.8	8,576.4	8,459.2	117.15	73.207	
10,629.9	6,776.8	6,553.5	6,551.4	116.7	1.7	-84.68	-2,774.0	3,848.8	8,604.6	8,486.6	117.98	72.933	
10,700.0	6,776.5	6,551.7	6,549.6	118.7	1.7	-84.64	-2,774.0	3,848.7	8,670.9	8,551.0	119.92	72.307	
10,728.3	6,776.4	6,551.0	6,548.9	119.5	1.7	-84.63	-2,774.0	3,848.7	8,697.7	8,577.0	120.70	72.060	
10,800.0	6,776.1	6,549.1	6,547.0	121.4	1.7	-84.59	-2,774.0	3,848.7	8,765.6	8,642.9	122.68	71.449	
10,826.7	6,776.0	6,548.4	6,546.4	122.2	1.7	-84.57	-2,774.0	3,848.7	8,790.9	8,667.5	123.42	71.226	
10,900.0	6,775.7	6,546.5	6,544.4	124.2	1.7	-84.53	-2,774.0	3,848.6	8,860.3	8,734.9	125.45	70.629	
10,925.2	6,775.6	6,545.9	6,543.8	124.9	1.7	-84.52	-2,774.0	3,848.6	8,884.2	8,758.1	126.15	70.429	
11,000.0	6,775.3	6,543.9	6,541.8	127.0	1.7	-84.48	-2,773.9	3,848.5	8,955.2	8,827.0	128.21	69.846	
11,023.6	6,775.2	6,543.3	6,541.2	127.7	1.7	-84.47	-2,773.9	3,848.5	8,977.6	8,848.8	128.87	69.666	
11,100.0	6,774.9	6,541.3	6,539.2	129.8	1.7	-84.43	-2,773.9	3,848.5	9,050.2	8,919.3	130.98	69.096	
11,122.0	6,774.8	6,540.7	6,538.6	130.4	1.7	-84.41	-2,773.9	3,848.5	9,071.2	8,939.6	131.59	68.935	
11,200.0	6,774.5	6,538.6	6,536.5	132.6	1.7	-84.37	-2,773.9	3,848.4	9,145.3	9,011.6	133.75	68.377	
11,220.4	6,774.4	6,538.1	6,536.0	133.2	1.7	-84.36	-2,773.9	3,848.4	9,164.8	9,030.5	134.31	68.234	
11,300.0	6,774.1	6,535.9	6,533.9	135.4	1.7	-84.32	-2,773.9	3,848.4	9,240.5	9,104.0	136.52	67.689	
11,318.9	6,774.0	6,535.4	6,533.4	135.9	1.7	-84.30	-2,773.8	3,848.3	9,258.5	9,121.5	137.04	67.562	
11,400.0	6,773.7	6,533.3	6,531.2	138.2	1.7	-84.26	-2,773.8	3,848.3	9,335.8	9,196.6	139.28	67.028	
11,417.3	6,773.6	6,532.8	6,530.7	138.7	1.7	-84.25	-2,773.8	3,848.3	9,352.3	9,212.6	139.76	66.917	
11,500.0	6,773.3	6,530.6	6,528.5	141.0	1.7	-84.20	-2,773.8	3,848.2	9,431.3	9,289.2	142.05	66.394	
11,515.7	6,773.2	6,530.1	6,528.1	141.4	1.7	-84.20	-2,773.8	3,848.2	9,446.3	9,303.8	142.48	66.297	
11,600.0	6,772.9	6,527.8	6,525.8	143.8	1.7	-84.15	-2,773.8	3,848.2	9,526.7	9,381.9	144.82	65.785	
11,614.1	6,772.8	6,527.5	6,525.4	144.2	1.7	-84.14	-2,773.8	3,848.1	9,540.3	9,395.1	145.21	65.701	
11,700.0	6,772.5	6,525.1	6,523.1	146.6	1.7	-84.09	-2,773.7	3,848.1	9,622.3	9,474.8	147.58	65.199	
11,712.6	6,772.4	6,524.8	6,522.7	146.9	1.7	-84.08	-2,773.7	3,848.1	9,634.4	9,486.4	147.93	65.127	
11,800.0	6,772.1	6,522.4	6,520.3	149.4	1.7	-84.03	-2,773.7	3,848.0	9,718.0	9,567.7	150.35	64.636	
11,811.0	6,772.1	6,522.1	6,520.0	149.7	1.7	-84.03	-2,773.7	3,848.0	9,728.5	9,577.9	150.66	64.575	
11,900.0	6,771.7	6,519.6	6,517.6	152.2	1.7	-83.98	-2,773.7	3,847.9	9,813.8	9,660.7	153.12	64.093	
11,909.4	6,771.7	6,519.3	6,517.3	152.4	1.7	-83.97	-2,773.7	3,847.9	9,822.8	9,669.4	153.38	64.043	
12,000.0	6,771.3	6,516.8	6,514.8	154.9	1.7	-83.92	-2,773.7	3,847.9	9,909.6	9,753.7	155.88	63.570	
12,007.8	6,771.3	6,516.6	6,514.6	155.2	1.7	-83.92	-2,773.7	3,847.9	9,917.1	9,761.0	156.10	63.530 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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - 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	
0.0	0.0	0.0	0.0	0.0	0.0	109.60	-346.1	971.7	1,031.5				
98.4	98.4	94.4	94.4	0.1	1.2	109.60	-346.1	971.7	1,031.5	1,030.3	1.28	807.326	
100.0	100.0	96.0	96.0	0.1	1.2	109.60	-346.1	971.7	1,031.5	1,030.2	1.30	793.978	
196.8	196.8	192.8	192.8	0.3	3.4	109.60	-346.1	971.7	1,031.5	1,027.8	3.68	280.147	
200.0	200.0	196.0	196.0	0.3	3.4	109.60	-346.1	971.7	1,031.5	1,027.8	3.76	274.275	
295.3	295.3	291.3	291.3	0.5	5.4	109.60	-346.1	971.7	1,031.5	1,025.6	5.96	173.010	
300.0	300.0	296.0	296.0	0.5	5.5	109.60	-346.1	971.7	1,031.5	1,025.5	6.07	169.910	
393.7	393.7	389.7	389.7	0.8	7.4	109.60	-346.1	971.7	1,031.5	1,023.3	8.20	125.852	
400.0	400.0	396.0	396.0	0.8	7.6	109.60	-346.1	971.7	1,031.5	1,023.2	8.34	123.697	
492.1	492.1	488.1	488.1	1.0	9.4	109.60	-346.1	971.7	1,031.5	1,021.1	10.42	99.034	
500.0	500.0	496.0	496.0	1.0	9.6	109.60	-346.1	971.7	1,031.5	1,020.9	10.59	97.375	
590.5	590.5	586.5	586.5	1.2	11.4	109.60	-346.1	971.7	1,031.5	1,018.9	12.63	81.681	
600.0	600.0	596.0	596.0	1.2	11.6	109.60	-346.1	971.7	1,031.5	1,018.7	12.84	80.330	
689.0	689.0	685.0	685.0	1.4	13.4	109.60	-346.1	971.7	1,031.5	1,016.7	14.84	69.520	
700.0	700.0	696.0	696.0	1.4	13.6	109.60	-346.1	971.7	1,031.5	1,016.4	15.09	68.380	
787.4	787.4	783.4	783.4	1.6	15.4	109.60	-346.1	971.7	1,031.5	1,014.5	17.04	60.519	
800.0	800.0	796.0	796.0	1.7	15.7	109.60	-346.1	971.7	1,031.5	1,014.2	17.33	59.532	
885.8	885.8	881.8	881.8	1.9	17.4	109.60	-346.1	971.7	1,031.5	1,012.3	19.25	53.585	
900.0	900.0	896.0	896.0	1.9	17.7	109.60	-346.1	971.7	1,031.5	1,012.0	19.57	52.716	
984.2	984.2	980.2	980.2	2.1	19.4	109.60	-346.1	971.7	1,031.5	1,010.1	21.45	48.079	
1,000.0	1,000.0	996.0	996.0	2.1	19.7	109.60	-346.1	971.7	1,031.5	1,009.7	21.81	47.302	
1,082.7	1,082.7	1,078.7	1,078.7	2.3	21.4	109.60	-346.1	971.7	1,031.5	1,007.9	23.66	43.601	
1,100.0	1,100.0	1,096.0	1,096.0	2.3	21.7	109.60	-346.1	971.7	1,031.5	1,007.5	24.05	42.898	
1,181.1	1,181.1	1,177.1	1,177.1	2.5	23.3	109.60	-346.1	971.7	1,031.5	1,005.7	25.86	39.887	
1,200.0	1,200.0	1,196.0	1,196.0	2.6	23.7	109.60	-346.1	971.7	1,031.5	1,005.2	26.28	39.245	
1,279.5	1,279.5	1,275.5	1,275.5	2.7	25.3	109.60	-346.1	971.7	1,031.5	1,003.5	28.06	36.756	
1,300.0	1,300.0	1,296.0	1,296.0	2.8	25.7	109.60	-346.1	971.7	1,031.5	1,003.0	28.52	36.166	
1,377.9	1,377.9	1,373.9	1,373.9	3.0	27.3	109.60	-346.1	971.7	1,031.5	1,001.3	30.27	34.081	
1,400.0	1,400.0	1,396.0	1,396.0	3.0	27.7	109.60	-346.1	971.7	1,031.5	1,000.8	30.76	33.535	
1,476.4	1,476.4	1,472.4	1,472.4	3.2	29.3	109.60	-346.1	971.7	1,031.5	999.1	32.47	31.770	
1,500.0	1,500.0	1,496.0	1,496.0	3.2	29.8	109.60	-346.1	971.7	1,031.5	998.5	33.00	31.261 CC	
1,574.8	1,574.8	1,570.8	1,570.8	3.4	31.3	-169.71	-346.1	971.7	1,032.5	997.8	34.65	29.797 ES	
1,600.0	1,600.0	1,596.0	1,596.0	3.5	31.8	-169.71	-346.1	971.7	1,033.2	998.0	35.20	29.352	
1,673.2	1,673.1	1,669.1	1,669.1	3.6	33.2	-169.73	-346.1	971.7	1,036.7	999.9	36.78	28.186	
1,700.0	1,699.8	1,695.8	1,695.8	3.7	33.8	-169.74	-346.1	971.7	1,038.4	1,001.0	37.35	27.802	
1,771.6	1,771.2	1,767.2	1,767.2	3.8	35.2	-169.78	-346.1	971.7	1,044.2	1,005.3	38.85	26.874	
1,800.0	1,799.5	1,795.5	1,795.5	3.9	35.8	-169.80	-346.1	971.7	1,047.0	1,007.5	39.44	26.545	
1,870.1	1,869.0	1,865.0	1,865.0	4.0	37.2	-169.85	-346.1	971.7	1,055.0	1,014.2	40.87	25.814	
1,900.0	1,898.7	1,894.7	1,894.7	4.1	37.8	-169.87	-346.1	971.7	1,059.0	1,017.5	41.47	25.536	
1,968.5	1,966.4	1,962.4	1,962.4	4.3	39.1	-169.93	-346.1	971.7	1,069.2	1,026.3	42.82	24.969	
2,000.0	1,997.5	1,993.5	1,993.5	4.4	39.8	-169.96	-346.1	971.7	1,074.4	1,031.0	43.43	24.740	
2,066.9	2,063.2	2,059.2	2,059.2	4.6	41.1	-170.04	-346.1	971.7	1,086.6	1,041.9	44.69	24.313	
2,100.1	2,095.7	2,091.7	2,091.7	4.7	41.7	-170.07	-346.1	971.7	1,093.2	1,047.9	45.30	24.130	
2,165.3	2,159.5	2,155.5	2,155.5	4.9	43.0	-170.19	-346.1	971.7	1,106.6	1,059.9	46.71	23.691	
2,200.0	2,193.4	2,189.4	2,189.4	5.0	43.7	-170.26	-346.1	971.7	1,113.7	1,066.2	47.45	23.468	
2,224.2	2,217.1	2,213.1	2,213.1	5.1	44.2	-170.30	-346.1	971.7	1,118.6	1,070.7	47.98	23.317	
2,263.8	2,255.9	2,251.9	2,251.9	5.2	45.0	-170.40	-346.1	971.7	1,126.5	1,077.5	48.96	23.009	
2,300.0	2,291.5	2,287.5	2,287.5	5.3	45.7	-170.48	-346.1	971.7	1,133.2	1,083.4	49.85	22.733	
2,362.2	2,352.7	2,348.7	2,348.7	5.5	46.9	-170.60	-346.1	971.7	1,143.7	1,092.4	51.37	22.265	
2,400.0	2,390.1	2,386.1	2,386.1	5.6	47.7	-170.67	-346.1	971.7	1,149.5	1,097.2	52.29	21.983	
2,460.6	2,450.1	2,446.1	2,446.1	5.7	48.9	-170.76	-346.1	971.7	1,157.7	1,103.9	53.76	21.536	
2,500.0	2,489.2	2,485.2	2,485.2	5.8	49.7	-170.81	-346.1	971.7	1,162.3	1,107.6	54.70	21.249	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - 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	
2,559.0	2,548.0	2,544.0	2,544.0	6.0	50.8	-170.88	-346.1	971.7	1,168.3	1,112.2	56.10	20.824	
2,600.0	2,588.8	2,584.8	2,584.8	6.1	51.7	-170.92	-346.1	971.7	1,171.8	1,114.7	57.07	20.533	
2,657.5	2,646.1	2,642.1	2,642.1	6.2	52.8	-170.96	-346.1	971.7	1,175.7	1,117.2	58.41	20.129	
2,700.0	2,688.6	2,684.6	2,684.6	6.3	53.7	-170.98	-346.1	971.7	1,177.8	1,118.4	59.38	19.834	
2,755.9	2,744.4	2,740.4	2,740.4	6.4	54.8	-171.00	-346.1	971.7	1,179.6	1,119.0	60.65	19.450	
2,800.0	2,788.5	2,784.5	2,784.5	6.5	55.7	-171.01	-346.1	971.7	1,180.3	1,118.7	61.63	19.151	
2,824.3	2,812.8	2,808.8	2,808.8	6.5	56.2	108.29	-346.1	971.7	1,180.4	1,117.8	62.67	18.836	
2,854.3	2,842.9	2,838.9	2,838.9	6.6	56.8	108.29	-346.1	971.7	1,180.4	1,117.1	63.33	18.640	
2,900.0	2,888.5	2,884.5	2,884.5	6.7	57.7	108.29	-346.1	971.7	1,180.4	1,116.1	64.33	18.349	
2,952.7	2,941.3	2,937.3	2,937.3	6.8	58.7	108.29	-346.1	971.7	1,180.4	1,114.9	65.50	18.022	
3,000.0	2,988.5	2,984.5	2,984.5	6.9	59.7	108.29	-346.1	971.7	1,180.4	1,113.9	66.55	17.738	
3,051.2	3,039.7	3,035.7	3,035.7	7.0	60.7	108.29	-346.1	971.7	1,180.4	1,112.8	67.68	17.441	
3,100.0	3,088.5	3,084.5	3,084.5	7.1	61.7	108.29	-346.1	971.7	1,180.4	1,111.7	68.76	17.166	
3,149.6	3,138.1	3,134.1	3,134.1	7.2	62.7	108.29	-346.1	971.7	1,180.4	1,110.6	69.86	16.896	
3,200.0	3,188.5	3,184.5	3,184.5	7.3	63.7	108.29	-346.1	971.7	1,180.4	1,109.5	70.98	16.630	
3,248.0	3,236.6	3,232.6	3,232.6	7.4	64.7	108.29	-346.1	971.7	1,180.4	1,108.4	72.05	16.384	
3,300.0	3,288.5	3,284.5	3,284.5	7.5	65.7	108.29	-346.1	971.7	1,180.4	1,107.2	73.20	16.126	
3,346.4	3,335.0	3,331.0	3,331.0	7.6	66.7	108.29	-346.1	971.7	1,180.4	1,106.2	74.23	15.902	
3,400.0	3,388.5	3,384.5	3,384.5	7.7	67.7	108.29	-346.1	971.7	1,180.4	1,105.0	75.42	15.652	
3,444.9	3,433.4	3,429.4	3,429.4	7.8	68.6	108.29	-346.1	971.7	1,180.4	1,104.0	76.42	15.448	
3,500.0	3,488.5	3,484.5	3,484.5	7.9	69.8	108.29	-346.1	971.7	1,180.4	1,102.8	77.64	15.204	
3,543.3	3,531.8	3,527.8	3,527.8	8.0	70.6	108.29	-346.1	971.7	1,180.4	1,101.8	78.60	15.018	
3,600.0	3,588.5	3,584.5	3,584.5	8.1	71.8	108.29	-346.1	971.7	1,180.4	1,100.6	79.86	14.781	
3,641.7	3,630.3	3,626.3	3,626.3	8.2	72.6	108.29	-346.1	971.7	1,180.4	1,099.7	80.79	14.612	
3,700.0	3,688.5	3,684.5	3,684.5	8.3	73.8	108.29	-346.1	971.7	1,180.4	1,098.4	82.08	14.381	
3,740.1	3,728.7	3,724.7	3,724.7	8.4	74.6	108.29	-346.1	971.7	1,180.4	1,097.5	82.97	14.227	
3,800.0	3,788.5	3,784.5	3,784.5	8.5	75.8	108.29	-346.1	971.7	1,180.4	1,096.1	84.31	14.002	
3,838.6	3,827.1	3,823.1	3,823.1	8.6	76.6	108.29	-346.1	971.7	1,180.4	1,095.3	85.16	13.861	
3,900.0	3,888.5	3,884.5	3,884.5	8.7	77.8	108.29	-346.1	971.7	1,180.4	1,093.9	86.53	13.642	
3,937.0	3,925.5	3,921.5	3,921.5	8.8	78.5	108.29	-346.1	971.7	1,180.4	1,093.1	87.35	13.514	
4,000.0	3,988.5	3,984.5	3,984.5	9.0	79.8	108.29	-346.1	971.7	1,180.4	1,091.7	88.75	13.301	
4,035.4	4,024.0	4,020.0	4,020.0	9.0	80.5	108.29	-346.1	971.7	1,180.4	1,090.9	89.54	13.183	
4,100.0	4,088.5	4,084.5	4,084.5	9.2	81.8	108.29	-346.1	971.7	1,180.4	1,089.5	90.98	12.975	
4,133.8	4,122.4	4,118.4	4,118.4	9.2	82.5	108.29	-346.1	971.7	1,180.4	1,088.7	91.73	12.869	
4,200.0	4,188.5	4,184.5	4,184.5	9.4	83.8	108.29	-346.1	971.7	1,180.4	1,087.2	93.20	12.666	
4,232.3	4,220.8	4,216.8	4,216.8	9.4	84.5	108.29	-346.1	971.7	1,180.4	1,086.5	93.92	12.569	
4,300.0	4,288.5	4,284.5	4,284.5	9.6	85.8	108.29	-346.1	971.7	1,180.4	1,085.0	95.43	12.370	
4,330.7	4,319.2	4,315.2	4,315.2	9.7	86.5	108.29	-346.1	971.7	1,180.4	1,084.3	96.11	12.282	
4,400.0	4,388.5	4,384.5	4,384.5	9.8	87.9	108.29	-346.1	971.7	1,180.4	1,082.8	97.65	12.088	
4,429.1	4,417.7	4,413.7	4,413.7	9.9	88.4	108.29	-346.1	971.7	1,180.4	1,082.1	98.30	12.009	
4,500.0	4,488.5	4,484.5	4,484.5	10.0	89.9	108.29	-346.1	971.7	1,180.4	1,080.6	99.88	11.819	
4,527.5	4,516.1	4,512.1	4,512.1	10.1	90.4	108.29	-346.1	971.7	1,180.4	1,080.0	100.49	11.747	
4,600.0	4,588.5	4,584.5	4,584.5	10.2	91.9	108.29	-346.1	971.7	1,180.4	1,078.3	102.11	11.561	
4,626.0	4,614.5	4,610.5	4,610.5	10.3	92.4	108.29	-346.1	971.7	1,180.4	1,077.8	102.68	11.496	
4,700.0	4,688.5	4,684.5	4,684.5	10.5	93.9	108.29	-346.1	971.7	1,180.4	1,076.1	104.33	11.314	
4,724.4	4,712.9	4,708.9	4,708.9	10.5	94.4	108.29	-346.1	971.7	1,180.4	1,075.6	104.88	11.256	
4,800.0	4,788.5	4,784.5	4,784.5	10.7	95.9	108.29	-346.1	971.7	1,180.4	1,073.9	106.56	11.078	
4,822.8	4,811.4	4,807.4	4,807.4	10.7	96.4	108.29	-346.1	971.7	1,180.4	1,073.4	107.07	11.025	
4,900.0	4,888.5	4,884.5	4,884.5	10.9	97.9	108.29	-346.1	971.7	1,180.4	1,071.7	108.79	10.851	
4,921.2	4,909.8	4,905.8	4,905.8	10.9	98.3	108.29	-346.1	971.7	1,180.4	1,071.2	109.26	10.804	
5,000.0	4,988.5	4,984.5	4,984.5	11.1	99.9	108.29	-346.1	971.7	1,180.4	1,069.4	111.02	10.633	
5,019.7	5,008.2	5,004.2	5,004.2	11.1	100.3	108.29	-346.1	971.7	1,180.4	1,069.0	111.45	10.591	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - 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	
5,100.0	5,088.5	5,084.5	5,084.5	11.3	101.9	108.29	-346.1	971.7	1,180.4	1,067.2	113.24	10.424	
5,118.1	5,106.6	5,102.6	5,102.6	11.4	102.3	108.29	-346.1	971.7	1,180.4	1,066.8	113.65	10.387	
5,200.0	5,188.5	5,184.5	5,184.5	11.5	103.9	108.29	-346.1	971.7	1,180.4	1,065.0	115.47	10.223	
5,216.5	5,205.1	5,201.1	5,201.1	11.6	104.3	108.29	-346.1	971.7	1,180.4	1,064.6	115.84	10.190	
5,300.0	5,288.5	5,284.5	5,284.5	11.8	106.0	108.29	-346.1	971.7	1,180.4	1,062.7	117.70	10.029	
5,314.9	5,303.5	5,299.5	5,299.5	11.8	106.3	108.29	-346.1	971.7	1,180.4	1,062.4	118.03	10.001	
5,400.0	5,388.5	5,384.5	5,384.5	12.0	108.0	108.29	-346.1	971.7	1,180.4	1,060.5	119.93	9.843	
5,413.4	5,401.9	5,397.9	5,397.9	12.0	108.2	108.29	-346.1	971.7	1,180.4	1,060.2	120.23	9.818	
5,500.0	5,488.5	5,484.5	5,484.5	12.2	110.0	108.29	-346.1	971.7	1,180.4	1,058.3	122.16	9.663	
5,511.8	5,500.3	5,496.3	5,496.3	12.2	110.2	108.29	-346.1	971.7	1,180.4	1,058.0	122.42	9.642	
5,600.0	5,588.5	5,584.5	5,584.5	12.4	112.0	108.29	-346.1	971.7	1,180.4	1,056.1	124.39	9.490	
5,610.2	5,598.8	5,594.8	5,594.8	12.4	112.2	108.29	-346.1	971.7	1,180.4	1,055.8	124.62	9.473	
5,700.0	5,688.5	5,684.5	5,684.5	12.6	114.0	108.29	-346.1	971.7	1,180.4	1,053.8	126.62	9.323	
5,708.6	5,697.2	5,693.2	5,693.2	12.6	114.2	108.29	-346.1	971.7	1,180.4	1,053.6	126.81	9.309	
5,800.0	5,788.5	5,784.5	5,784.5	12.8	116.0	108.29	-346.1	971.7	1,180.4	1,051.6	128.85	9.161	
5,807.1	5,795.6	5,791.6	5,791.6	12.9	116.2	108.29	-346.1	971.7	1,180.4	1,051.4	129.01	9.150	
5,900.0	5,888.5	5,884.5	5,884.5	13.1	118.0	108.29	-346.1	971.7	1,180.4	1,049.4	131.08	9.006	
5,905.5	5,894.0	5,890.0	5,890.0	13.1	118.1	108.29	-346.1	971.7	1,180.4	1,049.2	131.20	8.997	
6,000.0	5,988.5	5,984.5	5,984.5	13.3	120.0	108.29	-346.1	971.7	1,180.4	1,047.1	133.31	8.855	
6,003.9	5,992.5	5,988.5	5,988.5	13.3	120.1	108.29	-346.1	971.7	1,180.4	1,047.1	133.40	8.849	
6,085.3	6,073.8	6,069.8	6,069.8	13.5	121.7	108.29	-346.1	971.7	1,180.4	1,045.2	135.21	8.730	
6,100.0	6,088.5	6,084.5	6,084.5	13.5	122.0	-161.71	-346.1	971.7	1,180.6	1,045.3	135.26	8.728	
6,102.3	6,090.9	6,086.9	6,086.9	13.5	122.1	-161.71	-346.1	971.7	1,180.6	1,045.3	135.30	8.726	
6,150.0	6,138.4	6,134.4	6,134.4	13.6	123.0	-161.68	-346.1	971.7	1,183.2	1,047.3	135.92	8.705 SF	
6,200.0	6,188.0	6,184.0	6,184.0	13.7	124.0	-161.63	-346.1	971.7	1,189.2	1,053.2	135.98	8.745	
6,200.8	6,188.8	6,184.8	6,184.8	13.7	124.1	-161.63	-346.1	971.7	1,189.3	1,053.3	135.98	8.746	
6,250.0	6,237.1	6,233.1	6,233.1	13.9	125.0	-161.54	-346.1	971.7	1,198.4	1,062.9	135.44	8.848	
6,299.2	6,284.6	6,280.6	6,280.6	14.0	126.0	-161.41	-346.1	971.7	1,210.6	1,076.3	134.31	9.013	
6,300.0	6,285.3	6,281.3	6,281.3	14.0	126.0	-161.41	-346.1	971.7	1,210.8	1,076.5	134.29	9.017	
6,350.0	6,332.5	6,328.5	6,328.5	14.2	126.9	-161.23	-346.1	971.7	1,226.5	1,093.9	132.54	9.254	
6,397.6	6,376.3	6,372.3	6,372.3	14.4	127.8	-161.01	-346.1	971.7	1,244.3	1,113.9	130.33	9.547	
6,400.0	6,378.5	6,374.5	6,374.5	14.4	127.9	-161.00	-346.1	971.7	1,245.2	1,115.0	130.21	9.563	
6,450.0	6,423.0	6,419.0	6,419.0	14.7	128.8	-160.70	-346.1	971.7	1,267.1	1,139.7	127.32	9.952	
6,496.0	6,462.4	6,458.4	6,458.4	14.9	129.6	-160.35	-346.1	971.7	1,289.8	1,165.6	124.21	10.384	
6,500.0	6,465.7	6,461.7	6,461.7	14.9	129.6	-160.32	-346.1	971.7	1,291.8	1,167.9	123.93	10.424	
6,550.0	6,506.6	6,502.6	6,502.6	15.2	130.4	-159.84	-346.1	971.7	1,319.4	1,199.4	120.09	10.987	
6,594.5	6,541.2	6,537.2	6,537.2	15.6	131.1	-159.31	-346.1	971.7	1,346.3	1,229.9	116.37	11.569	
6,600.0	6,545.3	6,541.3	6,541.3	15.6	131.2	-159.23	-346.1	971.7	1,349.8	1,233.9	115.90	11.646	
6,650.0	6,581.8	6,577.8	6,577.8	16.0	132.0	-158.47	-346.1	971.7	1,382.7	1,271.2	111.49	12.403	
6,692.9	6,611.1	6,607.1	6,607.1	16.4	132.6	-157.66	-346.1	971.7	1,412.9	1,305.2	107.66	13.123	
6,700.0	6,615.8	6,611.8	6,611.8	16.5	132.6	-157.51	-346.1	971.7	1,418.1	1,311.0	107.04	13.248	
6,750.0	6,647.1	6,643.1	6,643.1	17.1	133.3	-156.29	-346.1	971.7	1,455.7	1,352.9	102.81	14.159	
6,791.3	6,670.9	6,666.9	6,666.9	17.6	133.8	-155.04	-346.1	971.7	1,488.4	1,388.6	99.76	14.920	
6,800.0	6,675.7	6,671.7	6,671.7	17.7	133.8	-154.74	-346.1	971.7	1,495.4	1,396.2	99.19	15.076	
6,850.0	6,701.3	6,697.3	6,697.3	18.4	134.4	-152.74	-346.1	971.7	1,537.0	1,440.4	96.69	15.897	
6,889.7	6,719.5	6,715.5	6,715.5	19.0	134.7	-150.72	-346.1	971.7	1,571.4	1,475.4	95.98	16.372	
6,900.0	6,723.8	6,719.8	6,719.8	19.1	134.8	-150.13	-346.1	971.7	1,580.4	1,484.3	96.03	16.457	
6,950.0	6,743.2	6,739.2	6,739.2	20.0	135.2	-146.63	-346.1	971.7	1,625.2	1,527.1	98.15	16.559	
6,988.2	6,755.8	6,751.8	6,751.8	20.6	135.5	-143.13	-346.1	971.7	1,660.3	1,558.0	102.29	16.231	
7,000.0	6,759.4	6,755.4	6,755.4	20.9	135.5	-141.85	-346.1	971.7	1,671.3	1,567.2	104.10	16.055	
7,050.0	6,772.1	6,768.1	6,768.1	21.8	135.8	-135.15	-346.1	971.7	1,718.5	1,603.6	114.86	14.962	
7,086.6	6,779.4	6,775.4	6,775.4	22.5	135.9	-128.48	-346.1	971.7	1,753.5	1,627.6	125.96	13.921	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - 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
7,100.0	6,781.5	6,777.5	6,777.5	22.8	136.0	-125.57	-346.1	971.7	1,766.5	1,635.9	130.60	13.526	
7,150.0	6,787.5	6,783.5	6,783.5	23.9	136.1	-111.96	-346.1	971.7	1,815.0	1,666.3	148.71	12.205	
7,185.0	6,789.6	6,785.6	6,785.6	24.6	136.1	-99.78	-346.1	971.7	1,849.2	1,690.8	158.48	11.669	
7,200.0	6,789.9	6,785.9	6,785.9	24.9	136.1	-94.05	-346.1	971.7	1,863.9	1,703.2	160.69	11.600	
7,213.0	6,790.0	6,786.0	6,786.0	25.2	136.1	-88.93	-346.1	971.7	1,876.6	1,715.3	161.33	11.633	
7,283.4	6,789.7	6,785.7	6,785.7	26.8	136.1	-88.89	-346.1	971.7	1,945.8	1,782.9	162.89	11.945	
7,300.0	6,789.7	6,785.7	6,785.7	27.2	136.1	-88.88	-346.1	971.7	1,962.0	1,798.8	163.26	12.018	
7,381.9	6,789.4	6,785.4	6,785.4	29.1	136.1	-88.83	-346.1	971.7	2,042.5	1,877.3	165.16	12.367	
7,400.0	6,789.3	6,785.3	6,785.3	29.5	136.1	-88.82	-346.1	971.7	2,060.3	1,894.7	165.58	12.443	
7,480.3	6,789.0	6,785.0	6,785.0	31.4	136.1	-88.77	-346.1	971.7	2,139.3	1,971.9	167.50	12.772	
7,500.0	6,788.9	6,784.9	6,784.9	31.9	136.1	-88.76	-346.1	971.7	2,158.8	1,990.8	167.97	12.852	
7,578.7	6,788.6	6,784.6	6,784.6	33.8	136.1	-88.71	-346.1	971.7	2,236.4	2,066.5	169.90	13.163	
7,600.0	6,788.5	6,784.5	6,784.5	34.4	136.1	-88.70	-346.1	971.7	2,257.3	2,086.9	170.42	13.245	
7,677.1	6,788.2	6,784.2	6,784.2	36.3	136.1	-88.65	-346.1	971.7	2,333.5	2,161.1	172.35	13.539	
7,700.0	6,788.2	6,784.2	6,784.2	36.9	136.1	-88.64	-346.1	971.7	2,356.0	2,183.1	172.93	13.625	
7,775.6	6,787.9	6,783.9	6,783.9	38.8	136.1	-88.59	-346.1	971.7	2,430.7	2,255.9	174.85	13.902	
7,800.0	6,787.8	6,783.8	6,783.8	39.4	136.1	-88.57	-346.1	971.7	2,454.8	2,279.4	175.47	13.990	
7,874.0	6,787.5	6,783.5	6,783.5	41.3	136.1	-88.53	-346.1	971.7	2,528.0	2,350.6	177.37	14.252	
7,900.0	6,787.4	6,783.4	6,783.4	42.0	136.1	-88.51	-346.1	971.7	2,553.7	2,375.7	178.04	14.343	
7,972.4	6,787.1	6,783.1	6,783.1	43.9	136.1	-88.47	-346.1	971.7	2,625.4	2,445.5	179.93	14.591	
8,000.0	6,787.0	6,783.0	6,783.0	44.6	136.1	-88.45	-346.1	971.7	2,652.7	2,472.1	180.65	14.685	
8,070.8	6,786.7	6,782.7	6,782.7	46.5	136.1	-88.41	-346.1	971.7	2,722.9	2,540.4	182.50	14.920	
8,100.0	6,786.6	6,782.6	6,782.6	47.3	136.1	-88.39	-346.1	971.7	2,751.8	2,568.5	183.27	15.015	
8,169.3	6,786.4	6,782.4	6,782.4	49.1	136.1	-88.35	-346.1	971.7	2,820.4	2,635.3	185.10	15.237	
8,200.0	6,786.3	6,782.3	6,782.3	49.9	136.1	-88.33	-346.1	971.7	2,850.9	2,665.0	185.91	15.335	
8,267.7	6,786.0	6,782.0	6,782.0	51.7	136.1	-88.29	-346.1	971.7	2,918.0	2,730.3	187.71	15.545	
8,300.0	6,785.9	6,781.9	6,781.9	52.6	136.1	-88.27	-346.1	971.7	2,950.1	2,761.5	188.57	15.645	
8,366.1	6,785.6	6,781.6	6,781.6	54.4	136.1	-88.23	-346.1	971.7	3,015.7	2,825.4	190.33	15.844	
8,400.0	6,785.5	6,781.5	6,781.5	55.3	136.1	-88.21	-346.1	971.7	3,049.3	2,858.1	191.24	15.945	
8,464.5	6,785.2	6,781.2	6,781.2	57.0	136.1	-88.17	-346.1	971.7	3,113.4	2,920.4	192.97	16.134	
8,500.0	6,785.1	6,781.1	6,781.1	58.0	136.1	-88.14	-346.1	971.7	3,148.6	2,954.7	193.92	16.236	
8,563.0	6,784.9	6,780.9	6,780.9	59.7	136.0	-88.11	-346.1	971.7	3,211.1	3,015.5	195.62	16.415	
8,600.0	6,784.7	6,780.7	6,780.7	60.7	136.0	-88.08	-346.1	971.7	3,247.9	3,051.3	196.61	16.519	
8,661.4	6,784.5	6,780.5	6,780.5	62.4	136.0	-88.04	-346.1	971.7	3,308.9	3,110.7	198.27	16.689	
8,700.0	6,784.3	6,780.3	6,780.3	63.4	136.0	-88.02	-346.1	971.7	3,347.3	3,148.0	199.31	16.794	
8,759.8	6,784.1	6,780.1	6,780.1	65.0	136.0	-87.98	-346.1	971.7	3,406.7	3,205.8	200.93	16.955	
8,800.0	6,784.0	6,780.0	6,780.0	66.1	136.0	-87.96	-346.1	971.7	3,446.7	3,244.7	202.02	17.061	
8,858.2	6,783.7	6,779.7	6,779.7	67.7	136.0	-87.92	-346.1	971.7	3,504.6	3,301.0	203.60	17.213	
8,900.0	6,783.6	6,779.6	6,779.6	68.9	136.0	-87.89	-346.1	971.7	3,546.1	3,341.4	204.74	17.320	
8,956.7	6,783.3	6,779.3	6,779.3	70.4	136.0	-87.86	-346.1	971.7	3,602.5	3,396.2	206.28	17.464	
9,000.0	6,783.2	6,779.2	6,779.2	71.6	136.0	-87.83	-346.1	971.7	3,645.6	3,438.1	207.46	17.573	
9,055.1	6,783.0	6,779.0	6,779.0	73.1	136.0	-87.80	-346.1	971.7	3,700.4	3,491.5	208.96	17.709	
9,100.0	6,782.8	6,778.8	6,778.8	74.3	136.0	-87.77	-346.1	971.7	3,745.1	3,534.9	210.18	17.818	
9,153.5	6,782.6	6,778.6	6,778.6	75.8	136.0	-87.73	-346.1	971.7	3,798.4	3,586.7	211.64	17.947	
9,200.0	6,782.4	6,778.4	6,778.4	77.1	136.0	-87.70	-346.1	971.7	3,844.6	3,631.7	212.91	18.057	
9,251.9	6,782.2	6,778.2	6,778.2	78.5	136.0	-87.67	-346.1	971.7	3,896.3	3,682.0	214.33	18.179	
9,300.0	6,782.0	6,778.0	6,778.0	79.8	136.0	-87.64	-346.1	971.7	3,944.2	3,728.5	215.64	18.290	
9,350.4	6,781.8	6,777.8	6,777.8	81.2	136.0	-87.61	-346.1	971.7	3,994.3	3,777.3	217.02	18.405	
9,400.0	6,781.6	6,777.6	6,777.6	82.6	136.0	-87.57	-346.1	971.7	4,043.7	3,825.3	218.38	18.517	
9,448.8	6,781.4	6,777.4	6,777.4	83.9	136.0	-87.55	-346.1	971.7	4,092.3	3,872.6	219.72	18.626	
9,500.0	6,781.2	6,777.2	6,777.2	85.4	136.0	-87.51	-346.1	971.7	4,143.3	3,922.2	221.12	18.738	
9,547.2	6,781.0	6,777.0	6,777.0	86.7	136.0	-87.48	-346.1	971.7	4,190.3	3,967.9	222.41	18.840	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - 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	
9,600.0	6,780.8	6,776.8	6,776.8	88.1	136.0	-87.45	-346.1	971.7	4,242.9	4,019.1	223.86	18.954	
9,645.6	6,780.7	6,776.7	6,776.7	89.4	136.0	-87.42	-346.1	971.7	4,288.4	4,063.3	225.11	19.050	
9,700.0	6,780.5	6,776.5	6,776.5	90.9	136.0	-87.38	-346.1	971.7	4,342.5	4,115.9	226.60	19.164	
9,744.1	6,780.3	6,776.3	6,776.3	92.1	136.0	-87.36	-346.1	971.7	4,386.5	4,158.6	227.81	19.255	
9,800.0	6,780.1	6,776.1	6,776.1	93.7	135.9	-87.32	-346.1	971.7	4,442.2	4,212.8	229.35	19.369	
9,842.5	6,779.9	6,775.9	6,775.9	94.8	135.9	-87.29	-346.1	971.7	4,484.5	4,254.0	230.52	19.454	
9,900.0	6,779.7	6,775.7	6,775.7	96.4	135.9	-87.25	-346.1	971.7	4,541.8	4,309.7	232.10	19.569	
9,940.9	6,779.5	6,775.5	6,775.5	97.6	135.9	-87.23	-346.1	971.7	4,582.6	4,349.4	233.22	19.649	
10,000.0	6,779.3	6,775.3	6,775.3	99.2	135.9	-87.19	-346.1	971.7	4,641.5	4,406.7	234.85	19.764	
10,039.3	6,779.1	6,775.1	6,775.1	100.3	135.9	-87.16	-346.1	971.7	4,680.7	4,444.8	235.93	19.840	
10,100.0	6,778.9	6,774.9	6,774.9	102.0	135.9	-87.12	-346.1	971.7	4,741.2	4,503.6	237.60	19.955	
10,137.8	6,778.7	6,774.7	6,774.7	103.0	135.9	-87.10	-346.1	971.7	4,778.9	4,540.2	238.64	20.026	
10,200.0	6,778.5	6,774.5	6,774.5	104.8	135.9	-87.06	-346.1	971.7	4,840.9	4,600.6	240.35	20.141	
10,236.2	6,778.3	6,774.3	6,774.3	105.8	135.9	-87.04	-346.1	971.7	4,877.0	4,635.7	241.35	20.207	
10,300.0	6,778.1	6,774.1	6,774.1	107.5	135.9	-86.99	-346.1	971.7	4,940.6	4,697.5	243.10	20.323	
10,334.6	6,778.0	6,774.0	6,774.0	108.5	135.9	-86.97	-346.1	971.7	4,975.1	4,731.1	244.06	20.385	
10,400.0	6,777.7	6,773.7	6,773.7	110.3	135.9	-86.93	-346.1	971.7	5,040.3	4,794.5	245.86	20.501	
10,433.0	6,777.6	6,773.6	6,773.6	111.2	135.9	-86.91	-346.1	971.7	5,073.3	4,826.5	246.77	20.559	
10,500.0	6,777.3	6,773.3	6,773.3	113.1	135.9	-86.86	-346.1	971.7	5,140.1	4,891.5	248.61	20.675	
10,531.5	6,777.2	6,773.2	6,773.2	114.0	135.9	-86.84	-346.1	971.7	5,171.5	4,922.0	249.48	20.729	
10,600.0	6,776.9	6,772.9	6,772.9	115.9	135.9	-86.79	-346.1	971.7	5,239.8	4,988.5	251.37	20.845	
10,629.9	6,776.8	6,772.8	6,772.8	116.7	135.9	-86.78	-346.1	971.7	5,269.6	5,017.5	252.19	20.895	
10,700.0	6,776.5	6,772.5	6,772.5	118.7	135.9	-86.73	-346.1	971.7	5,339.6	5,085.4	254.12	21.012	
10,728.3	6,776.4	6,772.4	6,772.4	119.5	135.9	-86.71	-346.1	971.7	5,367.8	5,112.9	254.90	21.058	
10,800.0	6,776.1	6,772.1	6,772.1	121.4	135.9	-86.66	-346.1	971.7	5,439.3	5,182.5	256.88	21.175	
10,826.7	6,776.0	6,772.0	6,772.0	122.2	135.9	-86.65	-346.1	971.7	5,466.0	5,208.4	257.62	21.218	
10,900.0	6,775.7	6,771.7	6,771.7	124.2	135.9	-86.59	-346.1	971.7	5,539.1	5,279.5	259.64	21.334	
10,925.2	6,775.6	6,771.6	6,771.6	124.9	135.9	-86.58	-346.1	971.7	5,564.2	5,303.9	260.33	21.374	
11,000.0	6,775.3	6,771.3	6,771.3	127.0	135.9	-86.53	-346.1	971.7	5,638.9	5,376.5	262.39	21.490	
11,023.6	6,775.2	6,771.2	6,771.2	127.7	135.9	-86.51	-346.1	971.7	5,662.4	5,399.4	263.04	21.527	
11,100.0	6,774.9	6,770.9	6,770.9	129.8	135.8	-86.46	-346.1	971.7	5,738.7	5,473.5	265.15	21.643	
11,122.0	6,774.8	6,770.8	6,770.8	130.4	135.8	-86.45	-346.1	971.7	5,760.7	5,494.9	265.76	21.676	
11,200.0	6,774.5	6,770.5	6,770.5	132.6	135.8	-86.39	-346.1	971.7	5,838.5	5,570.6	267.91	21.793	
11,220.4	6,774.4	6,770.4	6,770.4	133.2	135.8	-86.38	-346.1	971.7	5,858.9	5,590.4	268.47	21.823	
11,300.0	6,774.1	6,770.1	6,770.1	135.4	135.8	-86.33	-346.1	971.7	5,938.3	5,667.6	270.67	21.940	
11,318.9	6,774.0	6,770.0	6,770.0	135.9	135.8	-86.32	-346.1	971.7	5,957.1	5,685.9	271.19	21.967	
11,400.0	6,773.7	6,769.7	6,769.7	138.2	135.8	-86.26	-346.1	971.7	6,038.1	5,764.7	273.42	22.083	
11,417.3	6,773.6	6,769.6	6,769.6	138.7	135.8	-86.25	-346.1	971.7	6,055.3	5,781.4	273.90	22.108	
11,500.0	6,773.3	6,769.3	6,769.3	141.0	135.8	-86.19	-346.1	971.7	6,137.9	5,861.7	276.18	22.224	
11,515.7	6,773.2	6,769.2	6,769.2	141.4	135.8	-86.18	-346.1	971.7	6,153.6	5,877.0	276.61	22.246	
11,600.0	6,772.9	6,768.9	6,768.9	143.8	135.8	-86.12	-346.1	971.7	6,237.7	5,958.8	278.94	22.362	
11,614.1	6,772.8	6,768.8	6,768.8	144.2	135.8	-86.11	-346.1	971.7	6,251.8	5,972.5	279.33	22.382	
11,700.0	6,772.5	6,768.5	6,768.5	146.6	135.8	-86.06	-346.1	971.7	6,337.5	6,055.8	281.69	22.498	
11,712.6	6,772.4	6,768.4	6,768.4	146.9	135.8	-86.05	-346.1	971.7	6,350.1	6,068.0	282.04	22.515	
11,800.0	6,772.1	6,768.1	6,768.1	149.4	135.8	-85.99	-346.1	971.7	6,437.4	6,152.9	284.45	22.631	
11,811.0	6,772.1	6,768.1	6,768.1	149.7	135.8	-85.98	-346.1	971.7	6,448.3	6,163.6	284.75	22.645	
11,900.0	6,771.7	6,767.7	6,767.7	152.2	135.8	-85.92	-346.1	971.7	6,537.2	6,250.0	287.21	22.761	
11,909.4	6,771.7	6,767.7	6,767.7	152.4	135.8	-85.91	-346.1	971.7	6,546.6	6,259.1	287.47	22.773	
12,000.0	6,771.3	6,767.3	6,767.3	154.9	135.8	-85.85	-346.1	971.7	6,637.0	6,347.1	289.96	22.889	
12,007.8	6,771.3	6,767.3	6,767.3	155.2	135.8	-85.85	-346.1	971.7	6,644.9	6,354.7	290.18	22.899	
12,100.0	6,770.9	6,766.9	6,766.9	157.7	135.8	-85.78	-346.1	971.7	6,736.9	6,444.2	292.72	23.015	
12,106.3	6,770.9	6,766.9	6,766.9	157.9	135.8	-85.78	-346.1	971.7	6,743.2	6,450.3	292.89	23.023	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #1 - 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
12,200.0	6,770.5	6,766.5	6,766.5	160.5	135.8	-85.71	-346.1	971.7	6,836.7	6,541.3	295.47	23.138	
12,204.7	6,770.5	6,766.5	6,766.5	160.7	135.8	-85.71	-346.1	971.7	6,841.4	6,545.8	295.60	23.144	
12,300.0	6,770.1	6,766.1	6,766.1	163.3	135.7	-85.64	-346.1	971.7	6,936.6	6,638.4	298.23	23.259	
12,303.1	6,770.1	6,766.1	6,766.1	163.4	135.7	-85.64	-346.1	971.7	6,939.7	6,641.4	298.31	23.263	
12,316.4	6,770.0	6,766.0	6,766.0	163.8	135.7	-85.63	-346.1	971.7	6,952.9	6,654.3	298.68	23.279	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-80.00	980.3	-5,559.5	5,645.2				
98.4	98.4	90.4	90.4	0.1	1.1	-80.00	980.3	-5,559.5	5,645.2	5,644.0	1.24	4,553.738	
100.0	100.0	92.0	92.0	0.1	1.2	-80.00	980.3	-5,559.5	5,645.2	5,644.0	1.26	4,475.432	
196.8	196.8	188.8	188.8	0.3	3.3	-80.00	980.3	-5,559.5	5,645.2	5,641.6	3.60	1,567.355	
200.0	200.0	192.0	192.0	0.3	3.4	-80.00	980.3	-5,559.5	5,645.2	5,641.5	3.68	1,533.820	
295.3	295.3	287.3	287.3	0.5	5.4	-80.00	980.3	-5,559.5	5,645.2	5,639.3	5.89	958.540	
300.0	300.0	292.0	292.0	0.5	5.5	-80.00	980.3	-5,559.5	5,645.2	5,639.2	6.00	941.159	
393.7	393.7	385.7	385.7	0.8	7.4	-80.00	980.3	-5,559.5	5,645.2	5,637.1	8.12	694.815	
400.0	400.0	392.0	392.0	0.8	7.5	-80.00	980.3	-5,559.5	5,645.2	5,637.0	8.27	682.814	
492.1	492.1	484.1	484.1	1.0	9.4	-80.00	980.3	-5,559.5	5,645.2	5,634.9	10.34	545.705	
500.0	500.0	492.0	492.0	1.0	9.5	-80.00	980.3	-5,559.5	5,645.2	5,634.7	10.52	536.501	
590.5	590.5	582.5	582.5	1.2	11.4	-80.00	980.3	-5,559.5	5,645.2	5,632.7	12.56	449.536	
600.0	600.0	592.0	592.0	1.2	11.5	-80.00	980.3	-5,559.5	5,645.2	5,632.5	12.77	442.059	
689.0	689.0	681.0	681.0	1.4	13.3	-80.00	980.3	-5,559.5	5,645.2	5,630.5	14.77	382.282	
700.0	700.0	692.0	692.0	1.4	13.6	-80.00	980.3	-5,559.5	5,645.2	5,630.2	15.01	375.983	
787.4	787.4	779.4	779.4	1.6	15.3	-80.00	980.3	-5,559.5	5,645.2	5,628.2	16.97	332.577	
800.0	800.0	792.0	792.0	1.7	15.6	-80.00	980.3	-5,559.5	5,645.2	5,628.0	17.26	327.133	
885.8	885.8	877.8	877.8	1.9	17.3	-80.00	980.3	-5,559.5	5,645.2	5,626.0	19.18	294.334	
900.0	900.0	892.0	892.0	1.9	17.6	-80.00	980.3	-5,559.5	5,645.2	5,625.7	19.50	289.539	
984.2	984.2	976.2	976.2	2.1	19.3	-80.00	980.3	-5,559.5	5,645.2	5,623.8	21.38	263.991	
1,000.0	1,000.0	992.0	992.0	2.1	19.6	-80.00	980.3	-5,559.5	5,645.2	5,623.5	21.74	259.708	
1,082.7	1,082.7	1,074.7	1,074.7	2.3	21.3	-80.00	980.3	-5,559.5	5,645.2	5,621.6	23.59	239.328	
1,100.0	1,100.0	1,092.0	1,092.0	2.3	21.6	-80.00	980.3	-5,559.5	5,645.2	5,621.2	23.98	235.456	
1,181.1	1,181.1	1,173.1	1,173.1	2.5	23.3	-80.00	980.3	-5,559.5	5,645.2	5,619.4	25.79	218.883	
1,200.0	1,200.0	1,192.0	1,192.0	2.6	23.6	-80.00	980.3	-5,559.5	5,645.2	5,619.0	26.21	215.351	
1,279.5	1,279.5	1,271.5	1,271.5	2.7	25.2	-80.00	980.3	-5,559.5	5,645.2	5,617.2	27.99	201.660	
1,300.0	1,300.0	1,292.0	1,292.0	2.8	25.7	-80.00	980.3	-5,559.5	5,645.2	5,616.8	28.45	198.413	
1,377.9	1,377.9	1,369.9	1,369.9	3.0	27.2	-80.00	980.3	-5,559.5	5,645.2	5,615.0	30.20	186.952	
1,400.0	1,400.0	1,392.0	1,392.0	3.0	27.7	-80.00	980.3	-5,559.5	5,645.2	5,614.5	30.69	183.946	
1,476.4	1,476.4	1,468.4	1,468.4	3.2	29.2	-80.00	980.3	-5,559.5	5,645.2	5,612.8	32.40	174.244	
1,500.0	1,500.0	1,492.0	1,492.0	3.2	29.7	-80.00	980.3	-5,559.5	5,645.2	5,612.3	32.93	171.447	
1,574.8	1,574.8	1,566.8	1,566.8	3.4	31.2	0.70	980.3	-5,559.5	5,644.2	5,609.7	34.58	163.223	
1,600.0	1,600.0	1,592.0	1,592.0	3.5	31.7	0.70	980.3	-5,559.5	5,643.5	5,608.3	35.13	160.642	
1,673.2	1,673.1	1,665.1	1,665.1	3.6	33.2	0.70	980.3	-5,559.5	5,640.0	5,603.3	36.71	153.649	
1,700.0	1,699.8	1,691.8	1,691.8	3.7	33.7	0.70	980.3	-5,559.5	5,638.2	5,601.0	37.28	151.258	
1,771.6	1,771.2	1,763.2	1,763.2	3.8	35.1	0.70	980.3	-5,559.5	5,632.4	5,593.6	38.78	145.245	
1,800.0	1,799.5	1,791.5	1,791.5	3.9	35.7	0.70	980.3	-5,559.5	5,629.5	5,590.2	39.36	143.014	
1,870.1	1,869.0	1,861.0	1,861.0	4.0	37.1	0.71	980.3	-5,559.5	5,621.4	5,580.6	40.79	137.818	
1,900.0	1,898.7	1,890.7	1,890.7	4.1	37.7	0.71	980.3	-5,559.5	5,617.3	5,576.0	41.39	135.733	
1,968.5	1,966.4	1,958.4	1,958.4	4.3	39.1	0.71	980.3	-5,559.5	5,607.0	5,564.3	42.73	131.225	
2,000.0	1,997.5	1,989.5	1,989.5	4.4	39.7	0.72	980.3	-5,559.5	5,601.7	5,558.4	43.33	129.274	
2,066.9	2,063.2	2,055.2	2,055.2	4.6	41.0	0.72	980.3	-5,559.5	5,589.3	5,544.7	44.59	125.349	
2,100.1	2,095.7	2,087.7	2,087.7	4.7	41.7	0.72	980.3	-5,559.5	5,582.6	5,537.4	45.20	123.515	
2,165.3	2,159.5	2,151.5	2,151.5	4.9	43.0	0.72	980.3	-5,559.5	5,569.0	5,522.4	46.60	119.507	
2,200.0	2,193.4	2,185.4	2,185.4	5.0	43.6	0.73	980.3	-5,559.5	5,561.8	5,514.5	47.34	117.476	
2,224.2	2,217.1	2,209.1	2,209.1	5.1	44.1	0.73	980.3	-5,559.5	5,556.8	5,508.9	47.86	116.094	
2,263.8	2,255.9	2,247.9	2,247.9	5.2	44.9	0.72	980.3	-5,559.5	5,548.8	5,500.0	48.85	113.589	
2,300.0	2,291.5	2,283.5	2,283.5	5.3	45.6	0.72	980.3	-5,559.5	5,542.0	5,492.3	49.74	111.411	
2,362.2	2,352.7	2,344.7	2,344.7	5.5	46.8	0.72	980.3	-5,559.5	5,531.4	5,480.1	51.27	107.890	
2,400.0	2,390.1	2,382.1	2,382.1	5.6	47.6	0.72	980.3	-5,559.5	5,525.5	5,473.4	52.19	105.871	
2,460.6	2,450.1	2,442.1	2,442.1	5.7	48.8	0.72	980.3	-5,559.5	5,517.2	5,463.6	53.66	102.818	
2,500.0	2,489.2	2,481.2	2,481.2	5.8	49.6	0.72	980.3	-5,559.5	5,512.5	5,457.9	54.61	100.949	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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		SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #1 - 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		
2,559.0	2,548.0	2,540.0	2,540.0	6.0	50.8	0.72	980.3	-5,559.5	5,506.5	5,450.4	56.01	98.305		
2,600.0	2,588.8	2,580.8	2,580.8	6.1	51.6	0.72	980.3	-5,559.5	5,503.0	5,446.0	56.98	96.578		
2,657.5	2,646.1	2,638.1	2,638.1	6.2	52.7	0.72	980.3	-5,559.5	5,499.0	5,440.7	58.32	94.293		
2,700.0	2,688.6	2,680.6	2,680.6	6.3	53.6	0.72	980.3	-5,559.5	5,496.9	5,437.6	59.30	92.701		
2,755.9	2,744.4	2,736.4	2,736.4	6.4	54.7	0.72	980.3	-5,559.5	5,495.0	5,434.4	60.56	90.730		
2,800.0	2,788.5	2,780.5	2,780.5	6.5	55.6	0.72	980.3	-5,559.5	5,494.3	5,432.7	61.55	89.266		
2,824.3	2,812.8	2,804.8	2,804.8	6.5	56.1	-79.98	980.3	-5,559.5	5,494.2	5,431.6	62.61	87.749		
2,854.3	2,842.9	2,834.9	2,834.9	6.6	56.7	-79.98	980.3	-5,559.5	5,494.2	5,430.9	63.27	86.833		
2,900.0	2,888.5	2,880.5	2,880.5	6.7	57.6	-79.98	980.3	-5,559.5	5,494.2	5,429.9	64.28	85.478		
2,952.7	2,941.3	2,933.3	2,933.3	6.8	58.7	-79.98	980.3	-5,559.5	5,494.2	5,428.7	65.44	83.952		
3,000.0	2,988.5	2,980.5	2,980.5	6.9	59.6	-79.98	980.3	-5,559.5	5,494.2	5,427.7	66.49	82.631		
3,051.2	3,039.7	3,031.7	3,031.7	7.0	60.7	-79.98	980.3	-5,559.5	5,494.2	5,426.6	67.62	81.245		
3,100.0	3,088.5	3,080.5	3,080.5	7.1	61.6	-79.98	980.3	-5,559.5	5,494.2	5,425.5	68.71	79.966		
3,149.6	3,138.1	3,130.1	3,130.1	7.2	62.6	-79.98	980.3	-5,559.5	5,494.2	5,424.4	69.81	78.706		
3,200.0	3,188.5	3,180.5	3,180.5	7.3	63.6	-79.98	980.3	-5,559.5	5,494.2	5,423.3	70.92	77.466		
3,248.0	3,236.6	3,228.6	3,228.6	7.4	64.6	-79.98	980.3	-5,559.5	5,494.2	5,422.2	71.99	76.320		
3,300.0	3,288.5	3,280.5	3,280.5	7.5	65.7	-79.98	980.3	-5,559.5	5,494.2	5,421.0	73.14	75.117		
3,346.4	3,335.0	3,327.0	3,327.0	7.6	66.6	-79.98	980.3	-5,559.5	5,494.2	5,420.0	74.17	74.073		
3,400.0	3,388.5	3,380.5	3,380.5	7.7	67.7	-79.98	980.3	-5,559.5	5,494.2	5,418.8	75.36	72.905		
3,444.9	3,433.4	3,425.4	3,425.4	7.8	68.6	-79.98	980.3	-5,559.5	5,494.2	5,417.8	76.36	71.954		
3,500.0	3,488.5	3,480.5	3,480.5	7.9	69.7	-79.98	980.3	-5,559.5	5,494.2	5,416.6	77.58	70.819		
3,543.3	3,531.8	3,523.8	3,523.8	8.0	70.6	-79.98	980.3	-5,559.5	5,494.2	5,415.6	78.54	69.952		
3,600.0	3,588.5	3,580.5	3,580.5	8.1	71.7	-79.98	980.3	-5,559.5	5,494.2	5,414.4	79.80	68.848		
3,641.7	3,630.3	3,622.3	3,622.3	8.2	72.5	-79.98	980.3	-5,559.5	5,494.2	5,413.5	80.73	68.058		
3,700.0	3,688.5	3,680.5	3,680.5	8.3	73.7	-79.98	980.3	-5,559.5	5,494.2	5,412.2	82.02	66.983		
3,740.1	3,728.7	3,720.7	3,720.7	8.4	74.5	-79.98	980.3	-5,559.5	5,494.2	5,411.3	82.92	66.263		
3,800.0	3,788.5	3,780.5	3,780.5	8.5	75.7	-79.98	980.3	-5,559.5	5,494.2	5,409.9	84.25	65.217		
3,838.6	3,827.1	3,819.1	3,819.1	8.6	76.5	-79.98	980.3	-5,559.5	5,494.2	5,409.1	85.10	64.559		
3,900.0	3,888.5	3,880.5	3,880.5	8.7	77.7	-79.98	980.3	-5,559.5	5,494.2	5,407.7	86.47	63.540		
3,937.0	3,925.5	3,917.5	3,917.5	8.8	78.5	-79.98	980.3	-5,559.5	5,494.2	5,406.9	87.29	62.941		
4,000.0	3,988.5	3,980.5	3,980.5	9.0	79.7	-79.98	980.3	-5,559.5	5,494.2	5,405.5	88.69	61.947		
4,035.4	4,024.0	4,016.0	4,016.0	9.0	80.5	-79.98	980.3	-5,559.5	5,494.2	5,404.7	89.48	61.401		
4,100.0	4,088.5	4,080.5	4,080.5	9.2	81.8	-79.98	980.3	-5,559.5	5,494.2	5,403.3	90.92	60.431		
4,133.8	4,122.4	4,114.4	4,114.4	9.2	82.4	-79.98	980.3	-5,559.5	5,494.2	5,402.5	91.67	59.935		
4,200.0	4,188.5	4,180.5	4,180.5	9.4	83.8	-79.98	980.3	-5,559.5	5,494.2	5,401.0	93.14	58.988		
4,232.3	4,220.8	4,212.8	4,212.8	9.4	84.4	-79.98	980.3	-5,559.5	5,494.2	5,400.3	93.86	58.537		
4,300.0	4,288.5	4,280.5	4,280.5	9.6	85.8	-79.98	980.3	-5,559.5	5,494.2	5,398.8	95.37	57.612		
4,330.7	4,319.2	4,311.2	4,311.2	9.7	86.4	-79.98	980.3	-5,559.5	5,494.2	5,398.1	96.05	57.202		
4,400.0	4,388.5	4,380.5	4,380.5	9.8	87.8	-79.98	980.3	-5,559.5	5,494.2	5,396.6	97.59	56.298		
4,429.1	4,417.7	4,409.7	4,409.7	9.9	88.4	-79.98	980.3	-5,559.5	5,494.2	5,395.9	98.24	55.926		
4,500.0	4,488.5	4,480.5	4,480.5	10.0	89.8	-79.98	980.3	-5,559.5	5,494.2	5,394.4	99.82	55.042		
4,527.5	4,516.1	4,508.1	4,508.1	10.1	90.3	-79.98	980.3	-5,559.5	5,494.2	5,393.8	100.43	54.706		
4,600.0	4,588.5	4,580.5	4,580.5	10.2	91.8	-79.98	980.3	-5,559.5	5,494.2	5,392.1	102.04	53.841		
4,626.0	4,614.5	4,606.5	4,606.5	10.3	92.3	-79.98	980.3	-5,559.5	5,494.2	5,391.6	102.62	53.538		
4,700.0	4,688.5	4,680.5	4,680.5	10.5	93.8	-79.98	980.3	-5,559.5	5,494.2	5,389.9	104.27	52.691		
4,724.4	4,712.9	4,704.9	4,704.9	10.5	94.3	-79.98	980.3	-5,559.5	5,494.2	5,389.4	104.81	52.418		
4,800.0	4,788.5	4,780.5	4,780.5	10.7	95.8	-79.98	980.3	-5,559.5	5,494.2	5,387.7	106.50	51.589		
4,822.8	4,811.4	4,803.4	4,803.4	10.7	96.3	-79.98	980.3	-5,559.5	5,494.2	5,387.2	107.01	51.344		
4,900.0	4,888.5	4,880.5	4,880.5	10.9	97.8	-79.98	980.3	-5,559.5	5,494.2	5,385.5	108.73	50.532		
4,921.2	4,909.8	4,901.8	4,901.8	10.9	98.3	-79.98	980.3	-5,559.5	5,494.2	5,385.0	109.20	50.313		
5,000.0	4,988.5	4,980.5	4,980.5	11.1	99.9	-79.98	980.3	-5,559.5	5,494.2	5,383.2	110.95	49.518		
5,019.7	5,008.2	5,000.2	5,000.2	11.1	100.2	-79.98	980.3	-5,559.5	5,494.2	5,382.8	111.39	49.323		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,080.5	5,080.5	11.3	101.9	-79.98	980.3	-5,559.5	5,494.2	5,381.0	113.18	48.543		
5,118.1	5,106.6	5,098.6	5,098.6	11.4	102.2	-79.98	980.3	-5,559.5	5,494.2	5,380.6	113.59	48.370		
5,200.0	5,188.5	5,180.5	5,180.5	11.5	103.9	-79.98	980.3	-5,559.5	5,494.2	5,378.8	115.41	47.606		
5,216.5	5,205.1	5,197.1	5,197.1	11.6	104.2	-79.98	980.3	-5,559.5	5,494.2	5,378.4	115.78	47.454		
5,300.0	5,288.5	5,280.5	5,280.5	11.8	105.9	-79.98	980.3	-5,559.5	5,494.2	5,376.5	117.64	46.704		
5,314.9	5,303.5	5,295.5	5,295.5	11.8	106.2	-79.98	980.3	-5,559.5	5,494.2	5,376.2	117.97	46.572		
5,400.0	5,388.5	5,380.5	5,380.5	12.0	107.9	-79.98	980.3	-5,559.5	5,494.2	5,374.3	119.87	45.835		
5,413.4	5,401.9	5,393.9	5,393.9	12.0	108.2	-79.98	980.3	-5,559.5	5,494.2	5,374.0	120.17	45.721		
5,500.0	5,488.5	5,480.5	5,480.5	12.2	109.9	-79.98	980.3	-5,559.5	5,494.2	5,372.1	122.10	44.998		
5,511.8	5,500.3	5,492.3	5,492.3	12.2	110.1	-79.98	980.3	-5,559.5	5,494.2	5,371.8	122.36	44.902		
5,600.0	5,588.5	5,580.5	5,580.5	12.4	111.9	-79.98	980.3	-5,559.5	5,494.2	5,369.9	124.33	44.191		
5,610.2	5,598.8	5,590.8	5,590.8	12.4	112.1	-79.98	980.3	-5,559.5	5,494.2	5,369.6	124.56	44.110		
5,700.0	5,688.5	5,680.5	5,680.5	12.6	113.9	-79.98	980.3	-5,559.5	5,494.2	5,367.6	126.56	43.413		
5,708.6	5,697.2	5,689.2	5,689.2	12.6	114.1	-79.98	980.3	-5,559.5	5,494.2	5,367.4	126.75	43.347		
5,800.0	5,788.5	5,780.5	5,780.5	12.8	115.9	-79.98	980.3	-5,559.5	5,494.2	5,365.4	128.79	42.661		
5,807.1	5,795.6	5,787.6	5,787.6	12.9	116.1	-79.98	980.3	-5,559.5	5,494.2	5,365.2	128.94	42.609		
5,900.0	5,888.5	5,880.5	5,880.5	13.1	117.9	-79.98	980.3	-5,559.5	5,494.2	5,363.2	131.02	41.935		
5,905.5	5,894.0	5,886.0	5,886.0	13.1	118.1	-79.98	980.3	-5,559.5	5,494.2	5,363.0	131.14	41.896		
6,000.0	5,988.5	5,980.5	5,980.5	13.3	120.0	-79.98	980.3	-5,559.5	5,494.2	5,360.9	133.25	41.233		
6,003.9	5,992.5	5,984.5	5,984.5	13.3	120.0	-79.98	980.3	-5,559.5	5,494.2	5,360.9	133.33	41.206		
6,085.3	6,073.8	6,065.8	6,065.8	13.5	121.7	-79.98	980.3	-5,559.5	5,494.2	5,359.0	135.15	40.653		
6,100.0	6,088.5	6,080.5	6,080.5	13.5	122.0	10.02	980.3	-5,559.5	5,494.0	5,358.9	135.18	40.642		
6,102.3	6,090.9	6,082.9	6,082.9	13.5	122.0	10.02	980.3	-5,559.5	5,494.0	5,358.8	135.22	40.629		
6,150.0	6,138.4	6,130.4	6,130.4	13.6	123.0	10.06	980.3	-5,559.5	5,491.3	5,355.5	135.80	40.436		
6,200.0	6,188.0	6,180.0	6,180.0	13.7	124.0	10.16	980.3	-5,559.5	5,485.2	5,349.4	135.79	40.396		
6,200.8	6,188.8	6,180.8	6,180.8	13.7	124.0	10.17	980.3	-5,559.5	5,485.0	5,349.3	135.78	40.396		
6,250.0	6,237.1	6,229.1	6,229.1	13.9	125.0	10.32	980.3	-5,559.5	5,475.6	5,340.5	135.11	40.526		
6,299.2	6,284.6	6,276.6	6,276.6	14.0	125.9	10.53	980.3	-5,559.5	5,463.0	5,329.1	133.81	40.825		
6,300.0	6,285.3	6,277.3	6,277.3	14.0	125.9	10.54	980.3	-5,559.5	5,462.7	5,328.9	133.79	40.832		
6,350.0	6,332.5	6,324.5	6,324.5	14.2	126.9	10.82	980.3	-5,559.5	5,446.6	5,314.8	131.81	41.323		
6,397.6	6,376.3	6,368.3	6,368.3	14.4	127.8	11.16	980.3	-5,559.5	5,428.2	5,298.9	129.32	41.974		
6,400.0	6,378.5	6,370.5	6,370.5	14.4	127.8	11.18	980.3	-5,559.5	5,427.2	5,298.0	129.18	42.011		
6,450.0	6,423.0	6,415.0	6,415.0	14.7	128.7	11.63	980.3	-5,559.5	5,404.7	5,278.8	125.95	42.913		
6,496.0	6,462.4	6,454.4	6,454.4	14.9	129.5	12.13	980.3	-5,559.5	5,381.4	5,258.9	122.45	43.947		
6,500.0	6,465.7	6,457.7	6,457.7	14.9	129.6	12.17	980.3	-5,559.5	5,379.2	5,257.1	122.13	44.046		
6,550.0	6,506.6	6,498.6	6,498.6	15.2	130.4	12.84	980.3	-5,559.5	5,350.9	5,233.1	117.79	45.428		
6,594.5	6,541.2	6,533.2	6,533.2	15.6	131.1	13.54	980.3	-5,559.5	5,323.4	5,209.8	113.55	46.881		
6,600.0	6,545.3	6,537.3	6,537.3	15.6	131.2	13.64	980.3	-5,559.5	5,319.8	5,206.8	113.01	47.076		
6,650.0	6,581.8	6,573.8	6,573.8	16.0	131.9	14.62	980.3	-5,559.5	5,286.2	5,178.3	107.90	48.991		
6,692.9	6,611.1	6,603.1	6,603.1	16.4	132.5	15.63	980.3	-5,559.5	5,255.4	5,152.0	103.40	50.827		
6,700.0	6,615.8	6,607.8	6,607.8	16.5	132.6	15.81	980.3	-5,559.5	5,250.1	5,147.5	102.65	51.145		
6,750.0	6,647.1	6,639.1	6,639.1	17.1	133.2	17.29	980.3	-5,559.5	5,211.8	5,114.3	97.52	53.442		
6,791.3	6,670.9	6,662.9	6,662.9	17.6	133.7	18.78	980.3	-5,559.5	5,178.6	5,085.0	93.66	55.293		
6,800.0	6,675.7	6,667.7	6,667.7	17.7	133.8	19.14	980.3	-5,559.5	5,171.5	5,078.6	92.92	55.656		
6,850.0	6,701.3	6,693.3	6,693.3	18.4	134.3	21.48	980.3	-5,559.5	5,129.3	5,039.9	89.45	57.341		
6,889.7	6,719.5	6,711.5	6,711.5	19.0	134.7	23.82	980.3	-5,559.5	5,094.6	5,006.5	88.10	57.827		
6,900.0	6,723.8	6,715.8	6,715.8	19.1	134.7	24.51	980.3	-5,559.5	5,085.5	4,997.5	88.03	57.771		
6,950.0	6,743.2	6,735.2	6,735.2	20.0	135.1	28.52	980.3	-5,559.5	5,040.3	4,950.4	89.88	56.081		
6,988.2	6,755.8	6,747.8	6,747.8	20.6	135.4	32.52	980.3	-5,559.5	5,004.9	4,910.5	94.38	53.028		
7,000.0	6,759.4	6,751.4	6,751.4	20.9	135.5	33.97	980.3	-5,559.5	4,993.8	4,897.4	96.43	51.787		
7,050.0	6,772.1	6,764.1	6,764.1	21.8	135.7	41.59	980.3	-5,559.5	4,946.4	4,837.5	108.92	45.413		
7,086.6	6,779.4	6,771.4	6,771.4	22.5	135.9	49.11	980.3	-5,559.5	4,911.2	4,789.3	121.92	40.281		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #1 - 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	
7,100.0	6,781.5	6,773.5	6,773.5	22.8	135.9	52.37	980.3	-5,559.5	4,898.2	4,770.9	127.32	38.471	
7,150.0	6,787.5	6,779.5	6,779.5	23.9	136.0	67.31	980.3	-5,559.5	4,849.5	4,701.7	147.89	32.792	
7,185.0	6,789.6	6,781.6	6,781.6	24.6	136.1	80.12	980.3	-5,559.5	4,815.3	4,656.9	158.36	30.406	
7,200.0	6,789.9	6,781.9	6,781.9	24.9	136.1	85.96	980.3	-5,559.5	4,800.6	4,640.0	160.62	29.888	
7,213.0	6,790.0	6,782.0	6,782.0	25.2	136.1	91.06	980.3	-5,559.5	4,787.9	4,626.6	161.26	29.691	
7,283.4	6,789.7	6,781.7	6,781.7	26.8	136.1	91.04	980.3	-5,559.5	4,718.9	4,556.0	162.83	28.981	
7,300.0	6,789.7	6,781.7	6,781.7	27.2	136.1	91.04	980.3	-5,559.5	4,702.6	4,539.5	163.19	28.816	
7,381.9	6,789.4	6,781.4	6,781.4	29.1	136.1	91.02	980.3	-5,559.5	4,622.5	4,457.4	165.09	27.999	
7,400.0	6,789.3	6,781.3	6,781.3	29.5	136.1	91.02	980.3	-5,559.5	4,604.8	4,439.3	165.51	27.821	
7,480.3	6,789.0	6,781.0	6,781.0	31.4	136.1	91.00	980.3	-5,559.5	4,526.3	4,358.8	167.44	27.032	
7,500.0	6,788.9	6,780.9	6,780.9	31.9	136.1	91.00	980.3	-5,559.5	4,507.0	4,339.1	167.91	26.841	
7,578.7	6,788.6	6,780.6	6,780.6	33.8	136.1	90.98	980.3	-5,559.5	4,430.1	4,260.3	169.85	26.083	
7,600.0	6,788.5	6,780.5	6,780.5	34.4	136.0	90.98	980.3	-5,559.5	4,409.3	4,239.0	170.37	25.881	
7,677.1	6,788.2	6,780.2	6,780.2	36.3	136.0	90.96	980.3	-5,559.5	4,334.0	4,161.7	172.31	25.153	
7,700.0	6,788.2	6,780.2	6,780.2	36.9	136.0	90.96	980.3	-5,559.5	4,311.8	4,138.9	172.88	24.941	
7,775.6	6,787.9	6,779.9	6,779.9	38.8	136.0	90.94	980.3	-5,559.5	4,238.1	4,063.3	174.81	24.244	
7,800.0	6,787.8	6,779.8	6,779.8	39.4	136.0	90.93	980.3	-5,559.5	4,214.3	4,038.9	175.43	24.023	
7,874.0	6,787.5	6,779.5	6,779.5	41.3	136.0	90.92	980.3	-5,559.5	4,142.3	3,964.9	177.34	23.358	
7,900.0	6,787.4	6,779.4	6,779.4	42.0	136.0	90.91	980.3	-5,559.5	4,117.0	3,939.0	178.01	23.128	
7,972.4	6,787.1	6,779.1	6,779.1	43.9	136.0	90.90	980.3	-5,559.5	4,046.6	3,866.7	179.90	22.493	
8,000.0	6,787.0	6,779.0	6,779.0	44.6	136.0	90.89	980.3	-5,559.5	4,019.8	3,839.2	180.62	22.255	
8,070.8	6,786.7	6,778.7	6,778.7	46.5	136.0	90.88	980.3	-5,559.5	3,951.0	3,768.5	182.48	21.651	
8,100.0	6,786.6	6,778.6	6,778.6	47.3	136.0	90.87	980.3	-5,559.5	3,922.7	3,739.5	183.25	21.406	
8,169.3	6,786.4	6,778.4	6,778.4	49.1	136.0	90.85	980.3	-5,559.5	3,855.6	3,670.5	185.09	20.831	
8,200.0	6,786.3	6,778.3	6,778.3	49.9	136.0	90.85	980.3	-5,559.5	3,825.8	3,639.9	185.90	20.580	
8,267.7	6,786.0	6,778.0	6,778.0	51.7	136.0	90.83	980.3	-5,559.5	3,760.3	3,572.6	187.70	20.033	
8,300.0	6,785.9	6,777.9	6,777.9	52.6	136.0	90.83	980.3	-5,559.5	3,729.1	3,540.5	188.57	19.776	
8,366.1	6,785.6	6,777.6	6,777.6	54.4	136.0	90.81	980.3	-5,559.5	3,665.2	3,474.9	190.34	19.256	
8,400.0	6,785.5	6,777.5	6,777.5	55.3	136.0	90.81	980.3	-5,559.5	3,632.5	3,441.3	191.25	18.994	
8,464.5	6,785.2	6,777.2	6,777.2	57.0	136.0	90.79	980.3	-5,559.5	3,570.3	3,377.3	192.98	18.500	
8,500.0	6,785.1	6,777.1	6,777.1	58.0	136.0	90.78	980.3	-5,559.5	3,536.1	3,342.2	193.94	18.233	
8,563.0	6,784.9	6,776.9	6,776.9	59.7	136.0	90.77	980.3	-5,559.5	3,475.5	3,279.9	195.64	17.765	
8,600.0	6,784.7	6,776.7	6,776.7	60.7	136.0	90.76	980.3	-5,559.5	3,440.0	3,243.3	196.64	17.494	
8,661.4	6,784.5	6,776.5	6,776.5	62.4	136.0	90.75	980.3	-5,559.5	3,381.0	3,182.7	198.30	17.050	
8,700.0	6,784.3	6,776.3	6,776.3	63.4	136.0	90.74	980.3	-5,559.5	3,344.0	3,144.7	199.35	16.775	
8,759.8	6,784.1	6,776.1	6,776.1	65.0	136.0	90.73	980.3	-5,559.5	3,286.7	3,085.8	200.97	16.354	
8,800.0	6,784.0	6,776.0	6,776.0	66.1	136.0	90.72	980.3	-5,559.5	3,248.3	3,046.2	202.07	16.076	
8,858.2	6,783.7	6,775.7	6,775.7	67.7	136.0	90.70	980.3	-5,559.5	3,192.7	2,989.0	203.65	15.677	
8,900.0	6,783.6	6,775.6	6,775.6	68.9	135.9	90.70	980.3	-5,559.5	3,152.9	2,948.1	204.79	15.396	
8,956.7	6,783.3	6,775.3	6,775.3	70.4	135.9	90.68	980.3	-5,559.5	3,098.9	2,892.6	206.34	15.019	
9,000.0	6,783.2	6,775.2	6,775.2	71.6	135.9	90.67	980.3	-5,559.5	3,057.7	2,850.2	207.52	14.735	
9,055.1	6,783.0	6,775.0	6,775.0	73.1	135.9	90.66	980.3	-5,559.5	3,005.4	2,796.4	209.03	14.378	
9,100.0	6,782.8	6,774.8	6,774.8	74.3	135.9	90.65	980.3	-5,559.5	2,962.9	2,752.7	210.26	14.092	
9,153.5	6,782.6	6,774.6	6,774.6	75.8	135.9	90.64	980.3	-5,559.5	2,912.3	2,700.6	211.73	13.755	
9,200.0	6,782.4	6,774.4	6,774.4	77.1	135.9	90.63	980.3	-5,559.5	2,868.4	2,655.4	213.00	13.467	
9,251.9	6,782.2	6,774.2	6,774.2	78.5	135.9	90.62	980.3	-5,559.5	2,819.5	2,605.1	214.43	13.149	
9,300.0	6,782.0	6,774.0	6,774.0	79.8	135.9	90.61	980.3	-5,559.5	2,774.4	2,558.6	215.74	12.859	
9,350.4	6,781.8	6,773.8	6,773.8	81.2	135.9	90.60	980.3	-5,559.5	2,727.1	2,510.0	217.13	12.560	
9,400.0	6,781.6	6,773.6	6,773.6	82.6	135.9	90.58	980.3	-5,559.5	2,680.7	2,462.2	218.49	12.269	
9,448.8	6,781.4	6,773.4	6,773.4	83.9	135.9	90.57	980.3	-5,559.5	2,635.2	2,415.3	219.84	11.987	
9,500.0	6,781.2	6,773.2	6,773.2	85.4	135.9	90.56	980.3	-5,559.5	2,587.5	2,366.3	221.25	11.695	
9,547.2	6,781.0	6,773.0	6,773.0	86.7	135.9	90.55	980.3	-5,559.5	2,543.7	2,321.1	222.55	11.430	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,600.0	6,780.8	6,772.8	6,772.8	88.1	135.9	90.54	980.3	-5,559.5	2,494.9	2,270.9	224.00	11.138	
9,645.6	6,780.7	6,772.7	6,772.7	89.4	135.9	90.53	980.3	-5,559.5	2,452.8	2,227.5	225.26	10.888	
9,700.0	6,780.5	6,772.5	6,772.5	90.9	135.9	90.52	980.3	-5,559.5	2,402.8	2,176.0	226.76	10.596	
9,744.1	6,780.3	6,772.3	6,772.3	92.1	135.9	90.51	980.3	-5,559.5	2,362.4	2,134.5	227.98	10.362	
9,800.0	6,780.1	6,772.1	6,772.1	93.7	135.9	90.49	980.3	-5,559.5	2,311.4	2,081.9	229.52	10.070	
9,842.5	6,779.9	6,771.9	6,771.9	94.8	135.9	90.48	980.3	-5,559.5	2,272.8	2,042.1	230.70	9.852	
9,900.0	6,779.7	6,771.7	6,771.7	96.4	135.9	90.47	980.3	-5,559.5	2,220.7	1,988.4	232.29	9.560	
9,940.9	6,779.5	6,771.5	6,771.5	97.6	135.9	90.46	980.3	-5,559.5	2,183.9	1,950.4	233.42	9.356	
10,000.0	6,779.3	6,771.3	6,771.3	99.2	135.9	90.45	980.3	-5,559.5	2,130.9	1,895.9	235.05	9.066	
10,039.3	6,779.1	6,771.1	6,771.1	100.3	135.9	90.44	980.3	-5,559.5	2,095.8	1,859.7	236.14	8.875	
10,100.0	6,778.9	6,770.9	6,770.9	102.0	135.9	90.43	980.3	-5,559.5	2,042.0	1,804.2	237.82	8.586	
10,137.8	6,778.7	6,770.7	6,770.7	103.0	135.9	90.42	980.3	-5,559.5	2,008.7	1,769.9	238.87	8.409	
10,200.0	6,778.5	6,770.5	6,770.5	104.8	135.8	90.40	980.3	-5,559.5	1,954.2	1,713.6	240.59	8.123	
10,236.2	6,778.3	6,770.3	6,770.3	105.8	135.8	90.39	980.3	-5,559.5	1,922.7	1,681.1	241.60	7.958	
10,300.0	6,778.1	6,770.1	6,770.1	107.5	135.8	90.38	980.3	-5,559.5	1,867.6	1,624.3	243.36	7.674	
10,334.6	6,778.0	6,770.0	6,770.0	108.5	135.8	90.37	980.3	-5,559.5	1,838.0	1,593.7	244.32	7.523	
10,400.0	6,777.7	6,769.7	6,769.7	110.3	135.8	90.36	980.3	-5,559.5	1,782.5	1,536.3	246.14	7.242	
10,433.0	6,777.6	6,769.6	6,769.6	111.2	135.8	90.35	980.3	-5,559.5	1,754.7	1,507.6	247.05	7.102	
10,500.0	6,777.3	6,769.3	6,769.3	113.1	135.8	90.33	980.3	-5,559.5	1,698.9	1,450.0	248.91	6.825	
10,531.5	6,777.2	6,769.2	6,769.2	114.0	135.8	90.33	980.3	-5,559.5	1,673.0	1,423.2	249.79	6.698	
10,600.0	6,776.9	6,768.9	6,768.9	115.9	135.8	90.31	980.3	-5,559.5	1,617.2	1,365.5	251.69	6.425	
10,629.9	6,776.8	6,768.8	6,768.8	116.7	135.8	90.30	980.3	-5,559.5	1,593.2	1,340.7	252.52	6.309	
10,700.0	6,776.5	6,768.5	6,768.5	118.7	135.8	90.29	980.3	-5,559.5	1,537.7	1,283.2	254.47	6.043	
10,728.3	6,776.4	6,768.4	6,768.4	119.5	135.8	90.28	980.3	-5,559.5	1,515.6	1,260.4	255.25	5.938	
10,800.0	6,776.1	6,768.1	6,768.1	121.4	135.8	90.26	980.3	-5,559.5	1,460.7	1,203.4	257.24	5.678	
10,826.7	6,776.0	6,768.0	6,768.0	122.2	135.8	90.26	980.3	-5,559.5	1,440.6	1,182.6	257.99	5.584	
10,900.0	6,775.7	6,767.7	6,767.7	124.2	135.8	90.24	980.3	-5,559.5	1,386.6	1,126.6	260.02	5.333	
10,925.2	6,775.6	6,767.6	6,767.6	124.9	135.8	90.23	980.3	-5,559.5	1,368.5	1,107.8	260.72	5.249	
11,000.0	6,775.3	6,767.3	6,767.3	127.0	135.8	90.22	980.3	-5,559.5	1,316.0	1,053.2	262.80	5.007	
11,023.6	6,775.2	6,767.2	6,767.2	127.7	135.8	90.21	980.3	-5,559.5	1,299.9	1,036.4	263.46	4.934	
11,100.0	6,774.9	6,766.9	6,766.9	129.8	135.8	90.19	980.3	-5,559.5	1,249.4	983.8	265.59	4.704	
11,122.0	6,774.8	6,766.8	6,766.8	130.4	135.8	90.19	980.3	-5,559.5	1,235.3	969.1	266.20	4.640	
11,200.0	6,774.5	6,766.5	6,766.5	132.6	135.8	90.17	980.3	-5,559.5	1,187.4	919.1	268.37	4.425	
11,220.4	6,774.4	6,766.4	6,766.4	133.2	135.8	90.16	980.3	-5,559.5	1,175.4	906.5	268.94	4.371	
11,300.0	6,774.1	6,766.1	6,766.1	135.4	135.8	90.15	980.3	-5,559.5	1,131.0	859.8	271.15	4.171	
11,318.9	6,774.0	6,766.0	6,766.0	135.9	135.8	90.14	980.3	-5,559.5	1,121.0	849.3	271.68	4.126	
11,400.0	6,773.7	6,765.7	6,765.7	138.2	135.8	90.12	980.3	-5,559.5	1,080.8	806.9	273.93	3.946	
11,417.3	6,773.6	6,765.6	6,765.6	138.7	135.7	90.12	980.3	-5,559.5	1,072.9	798.4	274.42	3.910	
11,500.0	6,773.3	6,765.3	6,765.3	141.0	135.7	90.10	980.3	-5,559.5	1,037.9	761.2	276.72	3.751	
11,515.7	6,773.2	6,765.2	6,765.2	141.4	135.7	90.09	980.3	-5,559.5	1,031.9	754.7	277.16	3.723	
11,600.0	6,772.9	6,764.9	6,764.9	143.8	135.7	90.07	980.3	-5,559.5	1,003.2	723.7	279.50	3.589	
11,614.1	6,772.8	6,764.8	6,764.8	144.2	135.7	90.07	980.3	-5,559.5	999.0	719.1	279.90	3.569	
11,700.0	6,772.5	6,764.5	6,764.5	146.6	135.7	90.05	980.3	-5,559.5	977.5	695.2	282.29	3.463	
11,712.6	6,772.4	6,764.4	6,764.4	146.9	135.7	90.05	980.3	-5,559.5	974.9	692.3	282.64	3.449	
11,800.0	6,772.1	6,764.1	6,764.1	149.4	135.7	90.03	980.3	-5,559.5	961.5	676.5	285.08	3.373	
11,811.0	6,772.1	6,764.1	6,764.1	149.7	135.7	90.02	980.3	-5,559.5	960.4	675.0	285.38	3.365	
11,900.0	6,771.7	6,763.7	6,763.7	152.2	135.7	90.00	980.3	-5,559.5	955.9	668.0	287.86	3.321	
11,904.5	6,771.7	6,763.7	6,763.7	152.3	135.7	90.00	980.3	-5,559.5	955.9	667.9	287.99	3.319 CC	
11,909.4	6,771.7	6,763.7	6,763.7	152.4	135.7	90.00	980.3	-5,559.5	955.9	667.7	288.13	3.318 ES	
12,000.0	6,771.3	6,763.3	6,763.3	154.9	135.7	89.98	980.3	-5,559.5	960.6	670.0	290.65	3.305 SF	
12,007.8	6,771.3	6,763.3	6,763.3	155.2	135.7	89.97	980.3	-5,559.5	961.4	670.5	290.87	3.305	
12,100.0	6,770.9	6,762.9	6,762.9	157.7	135.7	89.95	980.3	-5,559.5	975.6	682.2	293.44	3.325	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT #1 - 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	
12,106.3	6,770.9	6,762.9	6,762.9	157.9	135.7	89.95	980.3	-5,559.5	976.9	683.3	293.61	3.327	
12,200.0	6,770.5	6,762.5	6,762.5	160.5	135.7	89.93	980.3	-5,559.5	1,000.5	704.3	296.23	3.377	
12,204.7	6,770.5	6,762.5	6,762.5	160.7	135.7	89.93	980.3	-5,559.5	1,001.9	705.5	296.36	3.381	
12,300.0	6,770.1	6,762.1	6,762.1	163.3	135.7	89.90	980.3	-5,559.5	1,034.4	735.4	299.02	3.459	
12,303.1	6,770.1	6,762.1	6,762.1	163.4	135.7	89.90	980.3	-5,559.5	1,035.6	736.5	299.10	3.462	
12,316.4	6,770.0	6,762.0	6,762.0	163.8	135.7	89.90	980.3	-5,559.5	1,040.8	741.3	299.47	3.475	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-85.78	353.5	-4,793.7	4,806.7				
98.4	98.4	98.4	98.4	0.1	0.9	-85.78	353.5	-4,793.7	4,806.7	4,805.7	0.97	4,935.208	
100.0	100.0	100.0	100.0	0.1	0.9	-85.78	353.5	-4,793.7	4,806.7	4,805.7	0.99	4,856.331	
196.8	196.8	196.8	196.8	0.3	3.2	-85.78	353.5	-4,793.7	4,806.7	4,803.2	3.50	1,374.904	
200.0	200.0	200.0	200.0	0.3	3.3	-85.78	353.5	-4,793.7	4,806.7	4,803.1	3.58	1,343.576	
295.3	295.3	295.3	295.3	0.5	5.2	-85.78	353.5	-4,793.7	4,806.7	4,800.9	5.78	832.304	
300.0	300.0	300.0	300.0	0.5	5.3	-85.78	353.5	-4,793.7	4,806.7	4,800.8	5.88	816.887	
393.7	393.7	393.7	393.7	0.8	7.3	-85.78	353.5	-4,793.7	4,806.7	4,798.7	8.01	600.184	
400.0	400.0	400.0	400.0	0.8	7.4	-85.78	353.5	-4,793.7	4,806.7	4,798.6	8.15	589.667	
492.1	492.1	492.1	492.1	1.0	9.2	-85.78	353.5	-4,793.7	4,806.7	4,796.5	10.23	469.963	
500.0	500.0	500.0	500.0	1.0	9.4	-85.78	353.5	-4,793.7	4,806.7	4,796.3	10.41	461.947	
590.5	590.5	590.5	590.5	1.2	11.2	-85.78	353.5	-4,793.7	4,806.7	4,794.3	12.44	386.382	
600.0	600.0	600.0	600.0	1.2	11.4	-85.78	353.5	-4,793.7	4,806.7	4,794.1	12.65	379.896	
689.0	689.0	689.0	689.0	1.4	13.2	-85.78	353.5	-4,793.7	4,806.7	4,792.1	14.65	328.122	
700.0	700.0	700.0	700.0	1.4	13.5	-85.78	353.5	-4,793.7	4,806.7	4,791.8	14.90	322.672	
787.4	787.4	787.4	787.4	1.6	15.2	-85.78	353.5	-4,793.7	4,806.7	4,789.9	16.86	285.166	
800.0	800.0	800.0	800.0	1.7	15.5	-85.78	353.5	-4,793.7	4,806.7	4,789.6	17.14	280.466	
885.8	885.8	885.8	885.8	1.9	17.2	-85.78	353.5	-4,793.7	4,806.7	4,787.7	19.06	252.174	
900.0	900.0	900.0	900.0	1.9	17.5	-85.78	353.5	-4,793.7	4,806.7	4,787.3	19.38	248.041	
984.2	984.2	984.2	984.2	2.1	19.2	-85.78	353.5	-4,793.7	4,806.7	4,785.5	21.27	226.035	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	19.5	-85.78	353.5	-4,793.7	4,806.7	4,785.1	21.62	222.347	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	21.2	-85.78	353.5	-4,793.7	4,806.7	4,783.2	23.47	204.812	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	21.5	-85.78	353.5	-4,793.7	4,806.7	4,782.9	23.86	201.482	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	23.1	-85.78	353.5	-4,793.7	4,806.7	4,781.0	25.67	187.236	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	23.5	-85.78	353.5	-4,793.7	4,806.7	4,780.6	26.09	184.201	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	25.1	-85.78	353.5	-4,793.7	4,806.7	4,778.8	27.87	172.441	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	25.5	-85.78	353.5	-4,793.7	4,806.7	4,778.4	28.33	169.652	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	27.1	-85.78	353.5	-4,793.7	4,806.7	4,776.6	30.08	159.814	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	27.6	-85.78	353.5	-4,793.7	4,806.7	4,776.1	30.57	157.235	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	29.1	-85.78	353.5	-4,793.7	4,806.7	4,774.4	32.28	148.912	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	29.6	-85.78	353.5	-4,793.7	4,806.7	4,773.9	32.81	146.513	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	31.1	-5.09	353.5	-4,793.7	4,805.7	4,771.3	34.46	139.456	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	31.6	-5.09	353.5	-4,793.7	4,805.0	4,770.0	35.01	137.239	
1,673.2	1,673.1	1,673.1	1,673.1	3.6	33.0	-5.10	353.5	-4,793.7	4,801.5	4,764.9	36.59	131.231	
1,700.0	1,699.8	1,699.8	1,699.8	3.7	33.6	-5.10	353.5	-4,793.7	4,799.8	4,762.6	37.16	129.175	
1,771.6	1,771.2	1,771.2	1,771.2	3.8	35.0	-5.12	353.5	-4,793.7	4,793.9	4,755.2	38.66	124.000	
1,800.0	1,799.5	1,799.5	1,799.5	3.9	35.6	-5.13	353.5	-4,793.7	4,791.1	4,751.8	39.25	122.078	
1,870.1	1,869.0	1,869.0	1,869.0	4.0	37.0	-5.15	353.5	-4,793.7	4,782.9	4,742.3	40.67	117.598	
1,900.0	1,898.7	1,898.7	1,898.7	4.1	37.6	-5.16	353.5	-4,793.7	4,778.9	4,737.7	41.27	115.799	
1,968.5	1,966.4	1,966.4	1,966.4	4.3	38.9	-5.19	353.5	-4,793.7	4,768.6	4,726.0	42.61	111.903	
2,000.0	1,997.5	1,997.5	1,997.5	4.4	39.6	-5.21	353.5	-4,793.7	4,763.4	4,720.1	43.22	110.215	
2,066.9	2,063.2	2,063.2	2,063.2	4.6	40.9	-5.25	353.5	-4,793.7	4,751.0	4,706.5	44.48	106.815	
2,100.1	2,095.7	2,095.7	2,095.7	4.7	41.5	-5.26	353.5	-4,793.7	4,744.3	4,699.3	45.09	105.224	
2,165.3	2,159.5	2,159.5	2,159.5	4.9	42.8	-5.28	353.5	-4,793.7	4,730.8	4,684.3	46.49	101.759	
2,200.0	2,193.4	2,193.4	2,193.4	5.0	43.5	-5.29	353.5	-4,793.7	4,723.7	4,676.4	47.24	100.003	
2,224.2	2,217.1	2,217.1	2,217.1	5.1	44.0	-5.29	353.5	-4,793.7	4,718.6	4,670.9	47.76	98.808	
2,263.8	2,255.9	2,255.9	2,255.9	5.2	44.8	-5.29	353.5	-4,793.7	4,710.7	4,662.0	48.74	96.650	
2,300.0	2,291.5	2,291.5	2,291.5	5.3	45.5	-5.28	353.5	-4,793.7	4,703.9	4,654.3	49.63	94.774	
2,362.2	2,352.7	2,352.7	2,352.7	5.5	46.7	-5.27	353.5	-4,793.7	4,693.3	4,642.2	51.16	91.745	
2,400.0	2,390.1	2,390.1	2,390.1	5.6	47.5	-5.27	353.5	-4,793.7	4,687.5	4,635.4	52.08	90.008	
2,460.6	2,450.1	2,450.1	2,450.1	5.7	48.7	-5.26	353.5	-4,793.7	4,679.2	4,625.7	53.55	87.386	
2,500.0	2,489.2	2,489.2	2,489.2	5.8	49.5	-5.26	353.5	-4,793.7	4,674.5	4,620.0	54.49	85.782	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,548.0	2,548.0	6.0	50.6	-5.26	353.5	-4,793.7	4,668.5	4,612.6	55.90	83.517	
2,600.0	2,588.8	2,588.8	2,588.8	6.1	51.5	-5.25	353.5	-4,793.7	4,665.0	4,608.2	56.86	82.038	
2,657.5	2,646.1	2,646.1	2,646.1	6.2	52.6	-5.25	353.5	-4,793.7	4,661.1	4,602.9	58.20	80.084	
2,700.0	2,688.6	2,688.6	2,688.6	6.3	53.5	-5.25	353.5	-4,793.7	4,659.0	4,599.8	59.18	78.724	
2,755.9	2,744.4	2,744.4	2,744.4	6.4	54.6	-5.25	353.5	-4,793.7	4,657.1	4,596.6	60.45	77.042	
2,800.0	2,788.5	2,788.5	2,788.5	6.5	55.5	-5.25	353.5	-4,793.7	4,656.4	4,595.0	61.43	75.796	
2,824.3	2,812.8	2,812.8	2,812.8	6.5	56.0	-85.95	353.5	-4,793.7	4,656.3	4,593.8	62.49	74.514	
2,854.3	2,842.9	2,842.9	2,842.9	6.6	56.6	-85.95	353.5	-4,793.7	4,656.3	4,593.1	63.15	73.734	
2,900.0	2,888.5	2,888.5	2,888.5	6.7	57.5	-85.95	353.5	-4,793.7	4,656.3	4,592.1	64.15	72.581	
2,952.7	2,941.3	2,941.3	2,941.3	6.8	58.6	-85.95	353.5	-4,793.7	4,656.3	4,591.0	65.32	71.283	
3,000.0	2,988.5	2,988.5	2,988.5	6.9	59.5	-85.95	353.5	-4,793.7	4,656.3	4,589.9	66.37	70.159	
3,051.2	3,039.7	3,039.7	3,039.7	7.0	60.5	-85.95	353.5	-4,793.7	4,656.3	4,588.8	67.50	68.980	
3,100.0	3,088.5	3,088.5	3,088.5	7.1	61.5	-85.95	353.5	-4,793.7	4,656.3	4,587.7	68.58	67.892	
3,149.6	3,138.1	3,138.1	3,138.1	7.2	62.5	-85.95	353.5	-4,793.7	4,656.3	4,586.6	69.68	66.821	
3,200.0	3,188.5	3,188.5	3,188.5	7.3	63.5	-85.95	353.5	-4,793.7	4,656.3	4,585.5	70.80	65.766	
3,248.0	3,236.6	3,236.6	3,236.6	7.4	64.5	-85.95	353.5	-4,793.7	4,656.3	4,584.4	71.87	64.791	
3,300.0	3,288.5	3,288.5	3,288.5	7.5	65.5	-85.95	353.5	-4,793.7	4,656.3	4,583.3	73.02	63.768	
3,346.4	3,335.0	3,335.0	3,335.0	7.6	66.5	-85.95	353.5	-4,793.7	4,656.3	4,582.2	74.05	62.881	
3,400.0	3,388.5	3,388.5	3,388.5	7.7	67.6	-85.95	353.5	-4,793.7	4,656.3	4,581.0	75.24	61.888	
3,444.9	3,433.4	3,433.4	3,433.4	7.8	68.5	-85.95	353.5	-4,793.7	4,656.3	4,580.0	76.23	61.079	
3,500.0	3,488.5	3,488.5	3,488.5	7.9	69.6	-85.95	353.5	-4,793.7	4,656.3	4,578.8	77.46	60.114	
3,543.3	3,531.8	3,531.8	3,531.8	8.0	70.4	-85.95	353.5	-4,793.7	4,656.3	4,577.9	78.42	59.377	
3,600.0	3,588.5	3,588.5	3,588.5	8.1	71.6	-85.95	353.5	-4,793.7	4,656.3	4,576.6	79.68	58.438	
3,641.7	3,630.3	3,630.3	3,630.3	8.2	72.4	-85.95	353.5	-4,793.7	4,656.3	4,575.7	80.61	57.766	
3,700.0	3,688.5	3,688.5	3,688.5	8.3	73.6	-85.95	353.5	-4,793.7	4,656.3	4,574.4	81.90	56.853	
3,740.1	3,728.7	3,728.7	3,728.7	8.4	74.4	-85.95	353.5	-4,793.7	4,656.3	4,573.5	82.79	56.240	
3,800.0	3,788.5	3,788.5	3,788.5	8.5	75.6	-85.95	353.5	-4,793.7	4,656.3	4,572.2	84.12	55.351	
3,838.6	3,827.1	3,827.1	3,827.1	8.6	76.4	-85.95	353.5	-4,793.7	4,656.3	4,571.3	84.98	54.793	
3,900.0	3,888.5	3,888.5	3,888.5	8.7	77.6	-85.95	353.5	-4,793.7	4,656.3	4,569.9	86.35	53.926	
3,937.0	3,925.5	3,925.5	3,925.5	8.8	78.4	-85.95	353.5	-4,793.7	4,656.3	4,569.1	87.17	53.417	
4,000.0	3,988.5	3,988.5	3,988.5	9.0	79.6	-85.95	353.5	-4,793.7	4,656.3	4,567.7	88.57	52.572	
4,035.4	4,024.0	4,024.0	4,024.0	9.0	80.3	-85.95	353.5	-4,793.7	4,656.3	4,566.9	89.36	52.109	
4,100.0	4,088.5	4,088.5	4,088.5	9.2	81.6	-85.95	353.5	-4,793.7	4,656.3	4,565.5	90.79	51.284	
4,133.8	4,122.4	4,122.4	4,122.4	9.2	82.3	-85.95	353.5	-4,793.7	4,656.3	4,564.7	91.55	50.863	
4,200.0	4,188.5	4,188.5	4,188.5	9.4	83.6	-85.95	353.5	-4,793.7	4,656.3	4,563.3	93.02	50.058	
4,232.3	4,220.8	4,220.8	4,220.8	9.4	84.3	-85.95	353.5	-4,793.7	4,656.3	4,562.5	93.74	49.674	
4,300.0	4,288.5	4,288.5	4,288.5	9.6	85.7	-85.95	353.5	-4,793.7	4,656.3	4,561.0	95.24	48.888	
4,330.7	4,319.2	4,319.2	4,319.2	9.7	86.3	-85.95	353.5	-4,793.7	4,656.3	4,560.4	95.93	48.540	
4,400.0	4,388.5	4,388.5	4,388.5	9.8	87.7	-85.95	353.5	-4,793.7	4,656.3	4,558.8	97.47	47.772	
4,429.1	4,417.7	4,417.7	4,417.7	9.9	88.2	-85.95	353.5	-4,793.7	4,656.3	4,558.2	98.12	47.456	
4,500.0	4,488.5	4,488.5	4,488.5	10.0	89.7	-85.95	353.5	-4,793.7	4,656.3	4,556.6	99.70	46.705	
4,527.5	4,516.1	4,516.1	4,516.1	10.1	90.2	-85.95	353.5	-4,793.7	4,656.3	4,556.0	100.31	46.420	
4,600.0	4,588.5	4,588.5	4,588.5	10.2	91.7	-85.95	353.5	-4,793.7	4,656.3	4,554.4	101.92	45.685	
4,626.0	4,614.5	4,614.5	4,614.5	10.3	92.2	-85.95	353.5	-4,793.7	4,656.3	4,553.8	102.50	45.427	
4,700.0	4,688.5	4,688.5	4,688.5	10.5	93.7	-85.95	353.5	-4,793.7	4,656.3	4,552.1	104.15	44.708	
4,724.4	4,712.9	4,712.9	4,712.9	10.5	94.2	-85.95	353.5	-4,793.7	4,656.3	4,551.6	104.69	44.476	
4,800.0	4,788.5	4,788.5	4,788.5	10.7	95.7	-85.95	353.5	-4,793.7	4,656.3	4,549.9	106.38	43.772	
4,822.8	4,811.4	4,811.4	4,811.4	10.7	96.2	-85.95	353.5	-4,793.7	4,656.3	4,549.4	106.88	43.564	
4,900.0	4,888.5	4,888.5	4,888.5	10.9	97.7	-85.95	353.5	-4,793.7	4,656.3	4,547.7	108.60	42.874	
4,921.2	4,909.8	4,909.8	4,909.8	10.9	98.1	-85.95	353.5	-4,793.7	4,656.3	4,547.2	109.08	42.688	
5,000.0	4,988.5	4,988.5	4,988.5	11.1	99.7	-85.95	353.5	-4,793.7	4,656.3	4,545.5	110.83	42.012	
5,019.7	5,008.2	5,008.2	5,008.2	11.1	100.1	-85.95	353.5	-4,793.7	4,656.3	4,545.0	111.27	41.847	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT DUNN #18D - 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	
5,100.0	5,088.5	5,088.5	5,088.5	11.3	101.7	-85.95	353.5	-4,793.7	4,656.3	4,543.2	113.06	41.184	
5,118.1	5,106.6	5,106.6	5,106.6	11.4	102.1	-85.95	353.5	-4,793.7	4,656.3	4,542.8	113.46	41.038	
5,200.0	5,188.5	5,188.5	5,188.5	11.5	103.8	-85.95	353.5	-4,793.7	4,656.3	4,541.0	115.29	40.388	
5,216.5	5,205.1	5,205.1	5,205.1	11.6	104.1	-85.95	353.5	-4,793.7	4,656.3	4,540.6	115.66	40.260	
5,300.0	5,288.5	5,288.5	5,288.5	11.8	105.8	-85.95	353.5	-4,793.7	4,656.3	4,538.8	117.52	39.622	
5,314.9	5,303.5	5,303.5	5,303.5	11.8	106.1	-85.95	353.5	-4,793.7	4,656.3	4,538.4	117.85	39.510	
5,400.0	5,388.5	5,388.5	5,388.5	12.0	107.8	-85.95	353.5	-4,793.7	4,656.3	4,536.5	119.75	38.885	
5,413.4	5,401.9	5,401.9	5,401.9	12.0	108.0	-85.95	353.5	-4,793.7	4,656.3	4,536.2	120.04	38.788	
5,500.0	5,488.5	5,488.5	5,488.5	12.2	109.8	-85.95	353.5	-4,793.7	4,656.3	4,534.3	121.98	38.174	
5,511.8	5,500.3	5,500.3	5,500.3	12.2	110.0	-85.95	353.5	-4,793.7	4,656.3	4,534.0	122.24	38.092	
5,600.0	5,588.5	5,588.5	5,588.5	12.4	111.8	-85.95	353.5	-4,793.7	4,656.3	4,532.1	124.21	37.489	
5,610.2	5,598.8	5,598.8	5,598.8	12.4	112.0	-85.95	353.5	-4,793.7	4,656.3	4,531.9	124.43	37.420	
5,700.0	5,688.5	5,688.5	5,688.5	12.6	113.8	-85.95	353.5	-4,793.7	4,656.3	4,529.8	126.43	36.828	
5,708.6	5,697.2	5,697.2	5,697.2	12.6	114.0	-85.95	353.5	-4,793.7	4,656.3	4,529.7	126.63	36.771	
5,800.0	5,788.5	5,788.5	5,788.5	12.8	115.8	-85.95	353.5	-4,793.7	4,656.3	4,527.6	128.66	36.189	
5,807.1	5,795.6	5,795.6	5,795.6	12.9	116.0	-85.95	353.5	-4,793.7	4,656.3	4,527.5	128.82	36.145	
5,900.0	5,888.5	5,888.5	5,888.5	13.1	117.8	-85.95	353.5	-4,793.7	4,656.3	4,525.4	130.90	35.573	
5,905.5	5,894.0	5,894.0	5,894.0	13.1	117.9	-85.95	353.5	-4,793.7	4,656.3	4,525.3	131.02	35.539	
6,000.0	5,988.5	5,988.5	5,988.5	13.3	119.8	-85.95	353.5	-4,793.7	4,656.3	4,523.2	133.13	34.977	
6,003.9	5,992.5	5,992.5	5,992.5	13.3	119.9	-85.95	353.5	-4,793.7	4,656.3	4,523.1	133.21	34.954	
6,085.3	6,073.8	6,073.8	6,073.8	13.5	121.6	-85.95	353.5	-4,793.7	4,656.3	4,521.3	135.03	34.484	
6,100.0	6,088.5	6,088.5	6,088.5	13.5	121.9	4.05	353.5	-4,793.7	4,656.1	4,521.1	135.06	34.474	
6,102.3	6,090.9	6,090.9	6,090.9	13.5	121.9	4.05	353.5	-4,793.7	4,656.1	4,521.0	135.10	34.463	
6,150.0	6,138.4	6,138.4	6,138.4	13.6	122.9	4.07	353.5	-4,793.7	4,653.4	4,517.7	135.67	34.299	
6,200.0	6,188.0	6,188.0	6,188.0	13.7	123.9	4.11	353.5	-4,793.7	4,647.1	4,511.5	135.62	34.265	
6,200.8	6,188.8	6,188.8	6,188.8	13.7	123.9	4.11	353.5	-4,793.7	4,647.0	4,511.4	135.62	34.266	
6,250.0	6,237.1	6,237.1	6,237.1	13.9	124.8	4.18	353.5	-4,793.7	4,637.5	4,502.6	134.90	34.377	
6,299.2	6,284.6	6,284.6	6,284.6	14.0	125.8	4.27	353.5	-4,793.7	4,624.6	4,491.1	133.53	34.635	
6,300.0	6,285.3	6,285.3	6,285.3	14.0	125.8	4.27	353.5	-4,793.7	4,624.4	4,490.9	133.50	34.640	
6,350.0	6,332.5	6,332.5	6,332.5	14.2	126.8	4.39	353.5	-4,793.7	4,608.0	4,476.6	131.41	35.066	
6,397.6	6,376.3	6,376.3	6,376.3	14.4	127.6	4.53	353.5	-4,793.7	4,589.4	4,460.6	128.79	35.636	
6,400.0	6,378.5	6,378.5	6,378.5	14.4	127.7	4.54	353.5	-4,793.7	4,588.4	4,459.8	128.64	35.669	
6,450.0	6,423.0	6,423.0	6,423.0	14.7	128.6	4.73	353.5	-4,793.7	4,565.6	4,440.4	125.19	36.469	
6,496.0	6,462.4	6,462.4	6,462.4	14.9	129.4	4.94	353.5	-4,793.7	4,542.0	4,420.5	121.44	37.402	
6,500.0	6,465.7	6,465.7	6,465.7	14.9	129.4	4.96	353.5	-4,793.7	4,539.8	4,418.7	121.09	37.491	
6,550.0	6,506.6	6,506.6	6,506.6	15.2	130.3	5.25	353.5	-4,793.7	4,511.1	4,394.7	116.35	38.771	
6,594.5	6,541.2	6,541.2	6,541.2	15.6	131.0	5.55	353.5	-4,793.7	4,483.2	4,371.6	111.63	40.161	
6,600.0	6,545.3	6,545.3	6,545.3	15.6	131.0	5.59	353.5	-4,793.7	4,479.6	4,368.6	111.01	40.352	
6,650.0	6,581.8	6,581.8	6,581.8	16.0	131.8	6.01	353.5	-4,793.7	4,445.5	4,340.4	105.12	42.289	
6,692.9	6,611.1	6,611.1	6,611.1	16.4	132.4	6.45	353.5	-4,793.7	4,414.3	4,314.6	99.67	44.288	
6,700.0	6,615.8	6,615.8	6,615.8	16.5	132.5	6.53	353.5	-4,793.7	4,408.9	4,310.2	98.74	44.653	
6,750.0	6,647.1	6,647.1	6,647.1	17.1	133.1	7.18	353.5	-4,793.7	4,370.1	4,278.1	91.96	47.523	
6,791.3	6,670.9	6,670.9	6,670.9	17.6	133.6	7.85	353.5	-4,793.7	4,336.4	4,250.3	86.15	50.335	
6,800.0	6,675.7	6,675.7	6,675.7	17.7	133.7	8.01	353.5	-4,793.7	4,329.2	4,244.2	84.92	50.980	
6,850.0	6,701.3	6,701.3	6,701.3	18.4	134.2	9.07	353.5	-4,793.7	4,286.4	4,208.5	77.85	55.059	
6,889.7	6,719.5	6,719.5	6,719.5	19.0	134.5	10.17	353.5	-4,793.7	4,251.1	4,178.7	72.47	58.661	
6,900.0	6,723.8	6,723.8	6,723.8	19.1	134.6	10.50	353.5	-4,793.7	4,241.9	4,170.7	71.16	59.614	
6,950.0	6,743.2	6,743.2	6,743.2	20.0	135.0	12.48	353.5	-4,793.7	4,196.0	4,130.3	65.61	63.950	
6,988.2	6,755.8	6,755.8	6,755.8	20.6	135.3	14.58	353.5	-4,793.7	4,160.0	4,097.0	63.08	65.953	
7,000.0	6,759.4	6,759.4	6,759.4	20.9	135.3	15.37	353.5	-4,793.7	4,148.8	4,086.0	62.78	66.087	
7,050.0	6,772.1	6,772.1	6,772.1	21.8	135.6	19.94	353.5	-4,793.7	4,100.6	4,034.9	65.69	62.428	
7,086.6	6,779.4	6,779.4	6,779.4	22.5	135.7	25.30	353.5	-4,793.7	4,064.8	3,990.4	74.44	54.603	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,100.0	6,781.5	6,781.5	6,781.5	22.8	135.8	27.98	353.5	-4,793.7	4,051.7	3,971.9	79.73	50.819	
7,150.0	6,787.5	6,787.5	6,787.5	23.9	135.9	44.46	353.5	-4,793.7	4,002.2	3,888.7	113.49	35.266	
7,185.0	6,789.6	6,789.6	6,789.6	24.6	135.9	67.04	353.5	-4,793.7	3,967.4	3,819.2	148.16	26.777	
7,200.0	6,789.9	6,789.9	6,789.9	24.9	136.0	80.25	353.5	-4,793.7	3,952.4	3,793.8	158.63	24.917	
7,213.0	6,790.0	6,790.0	6,790.0	25.2	136.0	92.57	353.5	-4,793.7	3,939.5	3,778.5	161.00	24.469	
7,283.4	6,789.7	6,789.7	6,789.7	26.8	136.0	92.52	353.5	-4,793.7	3,869.3	3,706.7	162.57	23.800	
7,300.0	6,789.7	6,789.7	6,789.7	27.2	136.0	92.52	353.5	-4,793.7	3,852.8	3,689.9	162.94	23.645	
7,381.9	6,789.4	6,789.4	6,789.4	29.1	135.9	92.46	353.5	-4,793.7	3,771.2	3,606.4	164.85	22.877	
7,400.0	6,789.3	6,789.3	6,789.3	29.5	135.9	92.46	353.5	-4,793.7	3,753.2	3,587.9	165.27	22.710	
7,480.3	6,789.0	6,789.0	6,789.0	31.4	135.9	92.40	353.5	-4,793.7	3,673.2	3,506.0	167.20	21.969	
7,500.0	6,788.9	6,788.9	6,788.9	31.9	135.9	92.39	353.5	-4,793.7	3,653.6	3,485.9	167.67	21.790	
7,578.7	6,788.6	6,788.6	6,788.6	33.8	135.9	92.34	353.5	-4,793.7	3,575.2	3,405.6	169.61	21.079	
7,600.0	6,788.5	6,788.5	6,788.5	34.4	135.9	92.33	353.5	-4,793.7	3,554.0	3,383.9	170.13	20.889	
7,677.1	6,788.2	6,788.2	6,788.2	36.3	135.9	92.28	353.5	-4,793.7	3,477.2	3,305.1	172.07	20.207	
7,700.0	6,788.2	6,788.2	6,788.2	36.9	135.9	92.27	353.5	-4,793.7	3,454.4	3,281.8	172.65	20.008	
7,775.6	6,787.9	6,787.9	6,787.9	38.8	135.9	92.22	353.5	-4,793.7	3,379.2	3,204.6	174.58	19.356	
7,800.0	6,787.8	6,787.8	6,787.8	39.4	135.9	92.21	353.5	-4,793.7	3,354.9	3,179.7	175.20	19.149	
7,874.0	6,787.5	6,787.5	6,787.5	41.3	135.9	92.16	353.5	-4,793.7	3,281.3	3,104.2	177.12	18.526	
7,900.0	6,787.4	6,787.4	6,787.4	42.0	135.9	92.14	353.5	-4,793.7	3,255.4	3,077.6	177.79	18.311	
7,972.4	6,787.1	6,787.1	6,787.1	43.9	135.9	92.10	353.5	-4,793.7	3,183.4	3,003.7	179.68	17.717	
8,000.0	6,787.0	6,787.0	6,787.0	44.6	135.9	92.08	353.5	-4,793.7	3,155.9	2,975.5	180.40	17.494	
8,070.8	6,786.7	6,786.7	6,786.7	46.5	135.9	92.03	353.5	-4,793.7	3,085.5	2,903.2	182.27	16.928	
8,100.0	6,786.6	6,786.6	6,786.6	47.3	135.9	92.02	353.5	-4,793.7	3,056.5	2,873.5	183.04	16.699	
8,169.3	6,786.4	6,786.4	6,786.4	49.1	135.9	91.97	353.5	-4,793.7	2,987.6	2,802.8	184.88	16.160	
8,200.0	6,786.3	6,786.3	6,786.3	49.9	135.9	91.96	353.5	-4,793.7	2,957.1	2,771.4	185.69	15.925	
8,267.7	6,786.0	6,786.0	6,786.0	51.7	135.9	91.91	353.5	-4,793.7	2,889.8	2,702.3	187.50	15.412	
8,300.0	6,785.9	6,785.9	6,785.9	52.6	135.9	91.89	353.5	-4,793.7	2,857.7	2,669.4	188.36	15.172	
8,366.1	6,785.6	6,785.6	6,785.6	54.4	135.9	91.85	353.5	-4,793.7	2,792.1	2,601.9	190.14	14.685	
8,400.0	6,785.5	6,785.5	6,785.5	55.3	135.9	91.83	353.5	-4,793.7	2,758.4	2,567.4	191.05	14.439	
8,464.5	6,785.2	6,785.2	6,785.2	57.0	135.9	91.79	353.5	-4,793.7	2,694.3	2,501.6	192.79	13.976	
8,500.0	6,785.1	6,785.1	6,785.1	58.0	135.9	91.76	353.5	-4,793.7	2,659.2	2,465.4	193.74	13.725	
8,563.0	6,784.9	6,784.9	6,784.9	59.7	135.9	91.72	353.5	-4,793.7	2,596.7	2,401.2	195.45	13.286	
8,600.0	6,784.7	6,784.7	6,784.7	60.7	135.9	91.70	353.5	-4,793.7	2,560.0	2,363.5	196.45	13.031	
8,661.4	6,784.5	6,784.5	6,784.5	62.4	135.8	91.66	353.5	-4,793.7	2,499.1	2,301.0	198.11	12.614	
8,700.0	6,784.3	6,784.3	6,784.3	63.4	135.8	91.64	353.5	-4,793.7	2,460.8	2,261.7	199.16	12.356	
8,759.8	6,784.1	6,784.1	6,784.1	65.0	135.8	91.60	353.5	-4,793.7	2,401.6	2,200.8	200.79	11.961	
8,800.0	6,784.0	6,784.0	6,784.0	66.1	135.8	91.57	353.5	-4,793.7	2,361.8	2,159.9	201.88	11.699	
8,858.2	6,783.7	6,783.7	6,783.7	67.7	135.8	91.53	353.5	-4,793.7	2,304.1	2,100.6	203.47	11.324	
8,900.0	6,783.6	6,783.6	6,783.6	68.9	135.8	91.51	353.5	-4,793.7	2,262.8	2,058.2	204.61	11.059	
8,956.7	6,783.3	6,783.3	6,783.3	70.4	135.8	91.47	353.5	-4,793.7	2,206.7	2,000.6	206.16	10.704	
9,000.0	6,783.2	6,783.2	6,783.2	71.6	135.8	91.44	353.5	-4,793.7	2,163.9	1,956.6	207.35	10.436	
9,055.1	6,783.0	6,783.0	6,783.0	73.1	135.8	91.40	353.5	-4,793.7	2,109.5	1,900.6	208.86	10.100	
9,100.0	6,782.8	6,782.8	6,782.8	74.3	135.8	91.38	353.5	-4,793.7	2,065.1	1,855.0	210.09	9.830	
9,153.5	6,782.6	6,782.6	6,782.6	75.8	135.8	91.34	353.5	-4,793.7	2,012.3	1,800.7	211.56	9.512	
9,200.0	6,782.4	6,782.4	6,782.4	77.1	135.8	91.31	353.5	-4,793.7	1,966.5	1,753.6	212.83	9.239	
9,251.9	6,782.2	6,782.2	6,782.2	78.5	135.8	91.28	353.5	-4,793.7	1,915.3	1,701.0	214.26	8.939	
9,300.0	6,782.0	6,782.0	6,782.0	79.8	135.8	91.25	353.5	-4,793.7	1,867.9	1,652.4	215.58	8.665	
9,350.4	6,781.8	6,781.8	6,781.8	81.2	135.8	91.21	353.5	-4,793.7	1,818.4	1,601.4	216.97	8.381	
9,400.0	6,781.6	6,781.6	6,781.6	82.6	135.8	91.18	353.5	-4,793.7	1,769.6	1,551.3	218.34	8.105	
9,448.8	6,781.4	6,781.4	6,781.4	83.9	135.8	91.15	353.5	-4,793.7	1,721.7	1,502.0	219.68	7.837	
9,500.0	6,781.2	6,781.2	6,781.2	85.4	135.8	91.11	353.5	-4,793.7	1,671.5	1,450.4	221.09	7.560	
9,547.2	6,781.0	6,781.0	6,781.0	86.7	135.8	91.08	353.5	-4,793.7	1,625.2	1,402.8	222.40	7.308	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,600.0	6,780.8	6,780.8	6,780.8	88.1	135.8	91.05	353.5	-4,793.7	1,573.5	1,349.7	223.85	7.029	
9,645.6	6,780.7	6,780.7	6,780.7	89.4	135.8	91.02	353.5	-4,793.7	1,528.9	1,303.8	225.12	6.792	
9,700.0	6,780.5	6,780.5	6,780.5	90.9	135.8	90.98	353.5	-4,793.7	1,475.9	1,249.3	226.62	6.513	
9,744.1	6,780.3	6,780.3	6,780.3	92.1	135.8	90.95	353.5	-4,793.7	1,433.0	1,205.1	227.84	6.289	
9,800.0	6,780.1	6,780.1	6,780.1	93.7	135.8	90.91	353.5	-4,793.7	1,378.6	1,149.2	229.38	6.010	
9,842.5	6,779.9	6,779.9	6,779.9	94.8	135.8	90.88	353.5	-4,793.7	1,337.4	1,106.8	230.56	5.801	
9,900.0	6,779.7	6,779.7	6,779.7	96.4	135.8	90.85	353.5	-4,793.7	1,281.7	1,049.6	232.15	5.521	
9,940.9	6,779.5	6,779.5	6,779.5	97.6	135.7	90.82	353.5	-4,793.7	1,242.2	1,008.9	233.28	5.325	
10,000.0	6,779.3	6,779.3	6,779.3	99.2	135.7	90.78	353.5	-4,793.7	1,185.3	950.4	234.92	5.046	
10,039.3	6,779.1	6,779.1	6,779.1	100.3	135.7	90.75	353.5	-4,793.7	1,147.6	911.6	236.01	4.862	
10,100.0	6,778.9	6,778.9	6,778.9	102.0	135.7	90.71	353.5	-4,793.7	1,089.6	851.9	237.69	4.584	
10,137.8	6,778.7	6,778.7	6,778.7	103.0	135.7	90.69	353.5	-4,793.7	1,053.7	814.9	238.74	4.414	
10,200.0	6,778.5	6,778.5	6,778.5	104.8	135.7	90.64	353.5	-4,793.7	994.7	754.3	240.46	4.137	
10,236.2	6,778.3	6,778.3	6,778.3	105.8	135.7	90.62	353.5	-4,793.7	960.7	719.2	241.47	3.978	
10,300.0	6,778.1	6,778.1	6,778.1	107.5	135.7	90.58	353.5	-4,793.7	901.0	657.8	243.24	3.704	
10,334.6	6,778.0	6,778.0	6,778.0	108.5	135.7	90.55	353.5	-4,793.7	868.8	624.7	244.20	3.558	
10,400.0	6,777.7	6,777.7	6,777.7	110.3	135.7	90.51	353.5	-4,793.7	808.7	562.7	246.01	3.287	
10,433.0	6,777.6	6,777.6	6,777.6	111.2	135.7	90.49	353.5	-4,793.7	778.6	531.7	246.93	3.153	
10,500.0	6,777.3	6,777.3	6,777.3	113.1	135.7	90.44	353.5	-4,793.7	718.5	469.7	248.79	2.888	
10,531.5	6,777.2	6,777.2	6,777.2	114.0	135.7	90.42	353.5	-4,793.7	690.7	441.0	249.66	2.767	
10,600.0	6,776.9	6,776.9	6,776.9	115.9	135.7	90.37	353.5	-4,793.7	631.3	379.7	251.57	2.509	
10,629.9	6,776.8	6,776.8	6,776.8	116.7	135.7	90.35	353.5	-4,793.7	606.0	353.6	252.40	2.401	
10,700.0	6,776.5	6,776.5	6,776.5	118.7	135.7	90.30	353.5	-4,793.7	548.4	294.1	254.34	2.156	
10,728.3	6,776.4	6,776.4	6,776.4	119.5	135.7	90.28	353.5	-4,793.7	526.1	270.9	255.13	2.062	
10,800.0	6,776.1	6,776.1	6,776.1	121.4	135.7	90.23	353.5	-4,793.7	472.3	215.1	257.12	1.837	
10,826.7	6,776.0	6,776.0	6,776.0	122.2	135.7	90.22	353.5	-4,793.7	453.5	195.6	257.87	1.759	
10,900.0	6,775.7	6,775.7	6,775.7	124.2	135.7	90.17	353.5	-4,793.7	406.6	146.7	259.90	1.564	
10,925.2	6,775.6	6,775.6	6,775.6	124.9	135.7	90.15	353.5	-4,793.7	392.3	131.7	260.60	1.505	
11,000.0	6,775.3	6,775.3	6,775.3	127.0	135.7	90.10	353.5	-4,793.7	357.1	94.4	262.69	1.360 Level 3	
11,023.6	6,775.2	6,775.2	6,775.2	127.7	135.7	90.08	353.5	-4,793.7	348.6	85.3	263.34	1.324 Level 3	
11,100.0	6,774.9	6,774.9	6,774.9	129.8	135.7	90.03	353.5	-4,793.7	331.4	65.9	265.47	1.248 Level 2	
11,122.0	6,774.8	6,774.8	6,774.8	130.4	135.7	90.01	353.5	-4,793.7	329.5	63.4	266.08	1.238 Level 2	
11,138.7	6,774.8	6,774.8	6,774.8	130.9	135.7	90.00	353.5	-4,793.7	329.1	62.5	266.55	1.235 Level 2, CC, ES, SF	
11,200.0	6,774.5	6,774.5	6,774.5	132.6	135.6	89.96	353.5	-4,793.7	334.7	66.5	268.25	1.248 Level 2	
11,220.4	6,774.4	6,774.4	6,774.4	133.2	135.6	89.94	353.5	-4,793.7	339.1	70.2	268.82	1.261 Level 3	
11,300.0	6,774.1	6,774.1	6,774.1	135.4	135.6	89.89	353.5	-4,793.7	366.5	95.4	271.03	1.352 Level 3	
11,318.9	6,774.0	6,774.0	6,774.0	135.9	135.6	89.87	353.5	-4,793.7	375.1	103.6	271.56	1.381 Level 3	
11,400.0	6,773.7	6,773.7	6,773.7	138.2	135.6	89.82	353.5	-4,793.7	420.2	146.4	273.82	1.535	
11,417.3	6,773.6	6,773.6	6,773.6	138.7	135.6	89.81	353.5	-4,793.7	431.1	156.8	274.30	1.572	
11,500.0	6,773.3	6,773.3	6,773.3	141.0	135.6	89.75	353.5	-4,793.7	488.7	212.1	276.60	1.767	
11,515.7	6,773.2	6,773.2	6,773.2	141.4	135.6	89.74	353.5	-4,793.7	500.4	223.4	277.04	1.806	
11,600.0	6,772.9	6,772.9	6,772.9	143.8	135.6	89.68	353.5	-4,793.7	566.6	287.2	279.38	2.028	
11,614.1	6,772.8	6,772.8	6,772.8	144.2	135.6	89.67	353.5	-4,793.7	578.2	298.4	279.78	2.067	
11,700.0	6,772.5	6,772.5	6,772.5	146.6	135.6	89.61	353.5	-4,793.7	650.6	368.4	282.17	2.306	
11,712.6	6,772.4	6,772.4	6,772.4	146.9	135.6	89.60	353.5	-4,793.7	661.5	379.0	282.52	2.341	
11,800.0	6,772.1	6,772.1	6,772.1	149.4	135.6	89.53	353.5	-4,793.7	738.6	453.7	284.95	2.592	
11,811.0	6,772.1	6,772.1	6,772.1	149.7	135.6	89.53	353.5	-4,793.7	748.5	463.2	285.26	2.624	
11,900.0	6,771.7	6,771.7	6,771.7	152.2	135.6	89.46	353.5	-4,793.7	829.3	541.6	287.73	2.882	
11,909.4	6,771.7	6,771.7	6,771.7	152.4	135.6	89.46	353.5	-4,793.7	838.0	550.0	288.00	2.910	
12,000.0	6,771.3	6,771.3	6,771.3	154.9	135.6	89.39	353.5	-4,793.7	922.0	631.5	290.52	3.174	
12,007.8	6,771.3	6,771.3	6,771.3	155.2	135.6	89.39	353.5	-4,793.7	929.3	638.6	290.74	3.196	
12,100.0	6,770.9	6,770.9	6,770.9	157.7	135.6	89.32	353.5	-4,793.7	1,016.0	722.7	293.30	3.464	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT BRIGHT DUNN #18D - 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	
12,106.3	6,770.9	6,770.9	6,770.9	157.9	135.6	89.32	353.5	-4,793.7	1,022.0	728.5	293.48	3.482	
12,200.0	6,770.5	6,770.5	6,770.5	160.5	135.6	89.25	353.5	-4,793.7	1,111.1	815.0	296.09	3.753	
12,204.7	6,770.5	6,770.5	6,770.5	160.7	135.6	89.25	353.5	-4,793.7	1,115.6	819.4	296.22	3.766	
12,300.0	6,770.1	6,770.1	6,770.1	163.3	135.6	89.18	353.5	-4,793.7	1,207.0	908.1	298.87	4.038	
12,303.1	6,770.1	6,770.1	6,770.1	163.4	135.6	89.17	353.5	-4,793.7	1,210.0	911.0	298.96	4.047	
12,316.4	6,770.0	6,770.0	6,770.0	163.8	135.6	89.16	353.5	-4,793.7	1,222.7	923.4	299.33	4.085	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-76.78	1,012.8	-4,311.8	4,429.1				
98.4	98.4	79.8	79.8	0.1	0.1	-76.78	1,012.8	-4,311.9	4,429.2	4,429.1	0.16	N/A	
100.0	100.0	81.2	81.2	0.1	0.1	-76.78	1,012.8	-4,311.9	4,429.2	4,429.1	0.16	N/A	
196.8	196.8	171.9	171.9	0.3	0.2	-76.78	1,012.7	-4,312.2	4,429.5	4,429.0	0.50	8,900.554	
200.0	200.0	174.9	174.9	0.3	0.2	-76.78	1,012.7	-4,312.2	4,429.5	4,429.0	0.51	8,702.435	
295.3	295.3	266.5	266.5	0.5	0.3	-76.79	1,012.6	-4,312.6	4,429.9	4,429.1	0.81	5,439.019	
300.0	300.0	271.1	271.1	0.5	0.3	-76.79	1,012.6	-4,312.6	4,429.9	4,429.1	0.83	5,344.297	
393.7	393.7	368.9	368.9	0.8	0.4	-76.79	1,012.5	-4,313.1	4,430.3	4,429.2	1.11	4,003.970	
400.0	400.0	375.7	375.7	0.8	0.4	-76.79	1,012.5	-4,313.1	4,430.4	4,429.2	1.12	3,938.536	
492.1	492.1	475.2	475.2	1.0	0.4	-76.80	1,012.1	-4,313.4	4,430.6	4,429.2	1.39	3,188.769	
500.0	500.0	483.7	483.7	1.0	0.4	-76.80	1,012.1	-4,313.5	4,430.6	4,429.2	1.41	3,137.966	
590.5	590.5	578.5	578.5	1.2	0.5	-76.80	1,011.6	-4,313.7	4,430.7	4,429.0	1.67	2,657.855	
600.0	600.0	588.4	588.3	1.2	0.5	-76.80	1,011.5	-4,313.7	4,430.7	4,429.0	1.69	2,616.194	
689.0	689.0	683.6	683.6	1.4	0.5	-76.81	1,011.0	-4,313.8	4,430.7	4,428.8	1.94	2,282.065	
700.0	700.0	695.5	695.5	1.4	0.5	-76.81	1,011.0	-4,313.8	4,430.7	4,428.7	1.97	2,246.548	
787.4	787.4	790.0	790.0	1.6	0.6	-76.82	1,010.5	-4,313.8	4,430.5	4,428.3	2.21	2,001.556	
800.0	800.0	803.4	803.3	1.7	0.6	-76.82	1,010.4	-4,313.7	4,430.5	4,428.3	2.25	1,970.738	
885.8	885.8	889.3	889.2	1.9	0.6	-76.82	1,009.9	-4,313.6	4,430.3	4,427.8	2.48	1,786.071	
900.0	900.0	903.5	903.5	1.9	0.6	-76.82	1,009.9	-4,313.6	4,430.2	4,427.7	2.52	1,758.913	
984.2	984.2	989.3	989.2	2.1	0.7	-76.83	1,009.5	-4,313.4	4,430.0	4,427.2	2.74	1,614.118	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	0.7	-76.83	1,009.4	-4,313.4	4,429.9	4,427.1	2.78	1,590.933	
1,082.7	1,082.7	1,077.7	1,077.7	2.3	0.7	-76.83	1,009.2	-4,313.3	4,429.8	4,426.8	3.00	1,476.594	
1,100.0	1,100.0	1,093.1	1,093.1	2.3	0.7	-76.83	1,009.1	-4,313.3	4,429.8	4,426.7	3.04	1,454.867	
1,116.8	1,116.8	1,107.8	1,107.8	2.4	0.7	-76.83	1,009.1	-4,313.3	4,429.7	4,426.7	3.09	1,434.554	
1,181.1	1,181.1	1,163.7	1,163.7	2.5	0.7	-76.84	1,008.9	-4,313.4	4,429.8	4,426.6	3.25	1,361.893	
1,200.0	1,200.0	1,180.1	1,180.1	2.6	0.7	-76.84	1,008.9	-4,313.4	4,429.8	4,426.5	3.30	1,341.934	
1,279.5	1,279.5	1,252.3	1,252.2	2.7	0.8	-76.84	1,008.6	-4,313.7	4,430.1	4,426.6	3.51	1,263.498	
1,300.0	1,300.0	1,271.1	1,271.1	2.8	0.8	-76.84	1,008.6	-4,313.8	4,430.2	4,426.6	3.56	1,244.718	
1,377.9	1,377.9	1,342.3	1,342.3	3.0	0.8	-76.85	1,008.3	-4,314.3	4,430.6	4,426.9	3.76	1,178.360	
1,400.0	1,400.0	1,362.3	1,362.3	3.0	0.8	-76.85	1,008.2	-4,314.4	4,430.8	4,426.9	3.82	1,160.912	
1,476.4	1,476.4	1,436.0	1,436.0	3.2	0.8	-76.85	1,007.8	-4,315.1	4,431.3	4,427.3	4.01	1,103.898	
1,500.0	1,500.0	1,460.4	1,460.4	3.2	0.8	-76.86	1,007.6	-4,315.3	4,431.5	4,427.4	4.08	1,087.238	
1,574.8	1,574.8	1,537.5	1,537.5	3.4	0.9	3.83	1,007.0	-4,315.9	4,431.0	4,426.8	4.20	1,054.981	
1,600.0	1,600.0	1,563.4	1,563.4	3.5	0.9	3.83	1,006.8	-4,316.2	4,430.4	4,426.1	4.26	1,039.481	
1,673.2	1,673.1	1,639.8	1,639.8	3.6	0.9	3.83	1,006.1	-4,316.8	4,427.3	4,422.9	4.44	997.735	
1,700.0	1,699.8	1,668.2	1,668.2	3.7	0.9	3.83	1,005.9	-4,317.0	4,425.7	4,421.2	4.50	983.169	
1,771.6	1,771.2	1,745.3	1,745.2	3.8	1.0	3.83	1,005.2	-4,317.5	4,420.2	4,415.5	4.68	945.069	
1,800.0	1,799.5	1,776.1	1,776.0	3.9	1.0	3.83	1,004.9	-4,317.7	4,417.5	4,412.7	4.75	930.668	
1,870.1	1,869.0	1,848.7	1,848.6	4.0	1.0	3.84	1,004.3	-4,318.0	4,409.5	4,404.6	4.92	896.107	
1,900.0	1,898.7	1,878.9	1,878.9	4.1	1.0	3.85	1,004.1	-4,318.2	4,405.6	4,400.6	4.99	882.051	
1,968.5	1,966.4	1,948.6	1,948.6	4.3	1.0	3.87	1,003.6	-4,318.4	4,395.4	4,390.2	5.17	850.547	
2,000.0	1,997.5	1,980.7	1,980.7	4.4	1.1	3.87	1,003.4	-4,318.5	4,390.2	4,384.9	5.25	836.714	
2,066.9	2,063.2	2,050.1	2,050.0	4.6	1.1	3.90	1,003.0	-4,318.7	4,377.9	4,372.5	5.42	807.783	
2,100.1	2,095.7	2,084.6	2,084.6	4.7	1.1	3.91	1,002.8	-4,318.8	4,371.2	4,365.7	5.50	794.096	
2,165.3	2,159.5	2,145.4	2,145.3	4.9	1.1	3.92	1,002.4	-4,318.9	4,357.7	4,352.1	5.67	769.100	
2,200.0	2,193.4	2,176.5	2,176.5	5.0	1.1	3.92	1,002.2	-4,319.0	4,350.6	4,344.8	5.75	756.502	
2,224.2	2,217.1	2,200.0	2,199.9	5.1	1.1	3.92	1,002.1	-4,319.1	4,345.6	4,339.8	5.81	747.764	
2,263.8	2,255.9	2,241.9	2,241.8	5.2	1.1	3.92	1,001.9	-4,319.2	4,337.7	4,331.8	5.90	734.620	
2,300.0	2,291.5	2,282.3	2,282.2	5.3	1.2	3.91	1,001.6	-4,319.3	4,331.0	4,325.0	5.98	723.640	
2,362.2	2,352.7	2,349.2	2,349.1	5.5	1.2	3.90	1,001.2	-4,319.4	4,320.3	4,314.2	6.12	706.088	
2,400.0	2,390.1	2,389.4	2,389.4	5.6	1.2	3.89	1,000.9	-4,319.4	4,314.4	4,308.2	6.20	695.742	
2,460.6	2,450.1	2,451.2	2,451.2	5.7	1.2	3.88	1,000.5	-4,319.3	4,306.0	4,299.7	6.33	680.225	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,489.2	2,491.1	2,491.0	5.8	1.2	3.88	1,000.3	-4,319.3	4,301.2	4,294.8	6.41	670.598	
2,559.0	2,548.0	2,551.7	2,551.6	6.0	1.3	3.87	999.9	-4,319.2	4,295.0	4,288.4	6.54	656.890	
2,600.0	2,588.8	2,593.9	2,593.8	6.1	1.3	3.87	999.7	-4,319.1	4,291.4	4,284.7	6.62	647.811	
2,657.5	2,646.1	2,650.3	2,650.2	6.2	1.3	3.86	999.4	-4,319.0	4,287.3	4,280.5	6.74	635.787	
2,700.0	2,688.6	2,691.8	2,691.7	6.3	1.3	3.86	999.2	-4,318.9	4,285.0	4,278.2	6.83	627.285	
2,755.9	2,744.4	2,744.1	2,744.0	6.4	1.3	3.86	999.0	-4,318.8	4,283.0	4,276.0	6.94	616.943	
2,800.0	2,788.5	2,785.1	2,785.0	6.5	1.3	3.85	999.0	-4,318.8	4,282.2	4,275.2	7.03	609.164	
2,824.3	2,812.8	2,808.0	2,807.9	6.5	1.3	-76.84	999.0	-4,318.8	4,282.1	4,274.3	7.82	547.408	
2,854.3	2,842.9	2,837.0	2,837.0	6.6	1.3	-76.84	999.0	-4,318.7	4,282.0	4,274.2	7.88	543.407	
2,900.0	2,888.5	2,881.2	2,881.1	6.7	1.3	-76.84	999.0	-4,318.7	4,282.0	4,274.1	7.97	537.435	
2,952.7	2,941.3	2,934.1	2,934.0	6.8	1.3	-76.84	999.0	-4,318.7	4,282.0	4,273.9	8.08	530.194	
3,000.0	2,988.5	2,982.5	2,982.5	6.9	1.3	-76.84	999.0	-4,318.6	4,282.0	4,273.8	8.17	523.912	
3,051.2	3,039.7	3,031.1	3,031.0	7.0	1.3	-76.84	999.1	-4,318.6	4,282.0	4,273.7	8.28	517.321	
3,054.9	3,043.5	3,034.5	3,034.5	7.0	1.3	-76.84	999.1	-4,318.6	4,282.0	4,273.7	8.28	516.845	
3,100.0	3,088.5	3,075.6	3,075.6	7.1	1.3	-76.84	999.2	-4,318.6	4,282.0	4,273.6	8.38	511.233	
3,149.6	3,138.1	3,120.1	3,120.0	7.2	1.3	-76.84	999.2	-4,318.7	4,282.0	4,273.6	8.48	505.030	
3,200.0	3,188.5	3,164.4	3,164.3	7.3	1.3	-76.84	999.3	-4,318.8	4,282.2	4,273.6	8.59	498.731	
3,248.0	3,236.6	3,200.0	3,199.9	7.4	1.3	-76.84	999.3	-4,318.9	4,282.4	4,273.7	8.69	492.883	
3,300.0	3,288.5	3,248.4	3,248.3	7.5	1.3	-76.84	999.4	-4,319.2	4,282.7	4,273.9	8.81	486.373	
3,346.4	3,335.0	3,286.2	3,286.2	7.6	1.3	-76.84	999.3	-4,319.6	4,283.1	4,274.2	8.91	480.742	
3,400.0	3,388.5	3,328.9	3,328.8	7.7	1.4	-76.85	999.1	-4,320.0	4,283.7	4,274.6	9.03	474.360	
3,444.9	3,433.4	3,364.3	3,364.2	7.8	1.4	-76.85	999.0	-4,320.5	4,284.2	4,275.1	9.13	469.108	
3,500.0	3,488.5	3,400.0	3,399.9	7.9	1.4	-76.85	998.8	-4,321.1	4,285.1	4,275.8	9.26	462.925	
3,543.3	3,531.8	3,439.0	3,438.9	8.0	1.4	-76.86	998.6	-4,321.9	4,285.9	4,276.5	9.36	458.053	
3,600.0	3,588.5	3,480.7	3,480.6	8.1	1.4	-76.87	998.4	-4,322.9	4,287.1	4,277.6	9.49	451.956	
3,641.7	3,630.3	3,514.2	3,514.0	8.2	1.4	-76.87	998.1	-4,323.8	4,288.1	4,278.5	9.58	447.537	
3,700.0	3,688.5	3,567.7	3,567.6	8.3	1.4	-76.88	997.7	-4,325.3	4,289.6	4,279.9	9.72	441.436	
3,740.1	3,728.7	3,604.8	3,604.7	8.4	1.4	-76.89	997.3	-4,326.4	4,290.7	4,280.8	9.81	437.319	
3,800.0	3,788.5	3,662.4	3,662.2	8.5	1.4	-76.90	996.7	-4,328.1	4,292.3	4,282.3	9.95	431.305	
3,838.6	3,827.1	3,700.0	3,699.8	8.6	1.5	-76.91	996.3	-4,329.3	4,293.3	4,283.3	10.04	427.504	
3,900.0	3,888.5	3,762.3	3,762.0	8.7	1.5	-76.92	995.7	-4,331.2	4,295.0	4,284.8	10.19	421.585	
3,937.0	3,925.5	3,800.1	3,799.9	8.8	1.5	-76.93	995.4	-4,332.3	4,296.0	4,285.8	10.28	418.086	
4,000.0	3,988.5	3,880.6	3,880.3	9.0	1.5	-76.95	994.7	-4,334.5	4,297.6	4,287.2	10.43	412.112	
4,035.4	4,024.0	3,935.7	3,935.4	9.0	1.5	-76.96	994.3	-4,335.8	4,298.4	4,287.9	10.52	408.724	
4,100.0	4,088.5	4,031.5	4,031.2	9.2	1.6	-76.97	993.9	-4,337.3	4,299.3	4,288.6	10.68	402.687	
4,133.8	4,122.4	4,069.3	4,069.0	9.2	1.6	-76.97	993.7	-4,337.8	4,299.6	4,288.9	10.76	399.681	
4,200.0	4,188.5	4,152.9	4,152.5	9.4	1.6	-76.98	993.4	-4,338.6	4,300.2	4,289.3	10.92	393.842	
4,232.3	4,220.8	4,197.0	4,196.7	9.4	1.6	-76.98	993.3	-4,338.8	4,300.4	4,289.4	11.00	391.010	
4,300.0	4,288.5	4,270.6	4,270.2	9.6	1.6	-76.98	993.3	-4,339.0	4,300.6	4,289.4	11.15	385.696	
4,330.7	4,319.2	4,303.5	4,303.2	9.7	1.6	-76.98	993.3	-4,339.1	4,300.6	4,289.4	11.22	383.348	
4,400.0	4,388.5	4,376.1	4,375.8	9.8	1.6	-76.98	993.5	-4,339.1	4,300.7	4,289.3	11.37	378.375	
4,429.1	4,417.7	4,406.5	4,406.2	9.9	1.6	-76.98	993.6	-4,339.1	4,300.7	4,289.3	11.43	376.320	
4,500.0	4,488.5	4,479.6	4,479.3	10.0	1.6	-76.97	994.0	-4,339.1	4,300.7	4,289.2	11.58	371.425	
4,527.5	4,516.1	4,508.3	4,508.0	10.1	1.6	-76.97	994.1	-4,339.1	4,300.7	4,289.1	11.64	369.550	
4,600.0	4,588.5	4,585.7	4,585.4	10.2	1.6	-76.96	994.5	-4,338.9	4,300.7	4,288.9	11.79	364.692	
4,626.0	4,614.5	4,622.6	4,622.2	10.3	1.6	-76.96	994.8	-4,338.7	4,300.6	4,288.8	11.85	362.968	
4,700.0	4,688.5	4,741.3	4,741.0	10.5	1.6	-76.94	996.0	-4,337.3	4,299.9	4,287.9	12.01	358.023	
4,724.4	4,712.9	4,774.1	4,773.7	10.5	1.6	-76.93	996.3	-4,336.7	4,299.5	4,287.4	12.06	356.388	
4,800.0	4,788.5	4,851.9	4,851.6	10.7	1.6	-76.92	997.2	-4,335.1	4,298.2	4,286.0	12.23	351.416	
4,822.8	4,811.4	4,873.0	4,872.6	10.7	1.6	-76.91	997.4	-4,334.7	4,297.8	4,285.6	12.28	349.942	
4,900.0	4,888.5	4,952.8	4,952.4	10.9	1.6	-76.90	998.1	-4,333.2	4,296.6	4,284.1	12.45	345.016	
4,921.2	4,909.8	4,976.2	4,975.8	10.9	1.6	-76.90	998.3	-4,332.8	4,296.2	4,283.7	12.50	343.675	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #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		
5,000.0	4,988.5	5,060.6	5,060.1	11.1	1.6	-76.89	998.6	-4,331.1	4,294.8	4,282.1	12.68	338.742		
5,019.7	5,008.2	5,081.4	5,081.0	11.1	1.6	-76.89	998.6	-4,330.7	4,294.4	4,281.7	12.72	337.524		
5,100.0	5,088.5	5,159.2	5,158.7	11.3	1.6	-76.88	998.8	-4,329.2	4,292.9	4,280.0	12.91	332.651		
5,118.1	5,106.6	5,176.2	5,175.8	11.4	1.6	-76.88	998.8	-4,328.8	4,292.6	4,279.6	12.95	331.572		
5,200.0	5,188.5	5,255.8	5,255.3	11.5	1.6	-76.87	999.1	-4,327.3	4,291.1	4,278.0	13.13	326.781		
5,216.5	5,205.1	5,272.0	5,271.6	11.6	1.6	-76.87	999.1	-4,327.0	4,290.8	4,277.6	13.17	325.830		
5,300.0	5,288.5	5,348.4	5,347.9	11.8	1.6	-76.86	999.3	-4,325.6	4,289.4	4,276.0	13.36	321.113		
5,314.9	5,303.5	5,361.5	5,361.0	11.8	1.6	-76.86	999.4	-4,325.4	4,289.1	4,275.8	13.39	320.283		
5,400.0	5,388.5	5,433.2	5,432.7	12.0	1.6	-76.86	999.3	-4,324.4	4,287.9	4,274.4	13.59	315.623		
5,413.4	5,401.9	5,444.0	5,443.5	12.0	1.6	-76.86	999.2	-4,324.3	4,287.8	4,274.2	13.62	314.899		
5,500.0	5,488.5	5,516.5	5,516.0	12.2	1.6	-76.86	998.6	-4,323.7	4,286.9	4,273.1	13.82	310.263		
5,511.8	5,500.3	5,527.8	5,527.3	12.2	1.6	-76.87	998.5	-4,323.6	4,286.8	4,273.0	13.85	309.620		
5,600.0	5,588.5	5,612.2	5,611.7	12.4	1.7	-76.88	997.6	-4,323.1	4,286.1	4,272.1	14.06	304.903		
5,610.2	5,598.8	5,621.9	5,621.4	12.4	1.7	-76.88	997.5	-4,323.1	4,286.0	4,272.0	14.08	304.367		
5,700.0	5,688.5	5,707.1	5,706.6	12.6	1.7	-76.89	996.8	-4,322.6	4,285.4	4,271.1	14.30	299.746		
5,708.6	5,697.2	5,715.6	5,715.1	12.6	1.7	-76.89	996.7	-4,322.6	4,285.4	4,271.1	14.32	299.310		
5,800.0	5,788.5	5,805.6	5,805.1	12.8	1.7	-76.89	996.3	-4,322.1	4,284.8	4,270.3	14.53	294.796		
5,807.1	5,795.6	5,812.4	5,811.9	12.9	1.7	-76.89	996.2	-4,322.1	4,284.8	4,270.2	14.55	294.462		
5,900.0	5,888.5	5,900.0	5,899.5	13.1	1.7	-76.89	996.1	-4,321.6	4,284.3	4,269.5	14.77	290.138		
5,905.5	5,894.0	5,900.0	5,899.5	13.1	1.7	-76.89	996.1	-4,321.6	4,284.2	4,269.5	14.78	289.900		
6,000.0	5,988.5	5,983.1	5,982.6	13.3	1.7	-76.89	996.1	-4,321.4	4,284.0	4,269.0	14.98	285.888		
6,003.9	5,992.5	5,986.3	5,985.8	13.3	1.7	-76.89	996.1	-4,321.4	4,284.0	4,269.0	14.99	285.724		
6,020.0	6,008.5	6,000.0	5,999.5	13.3	1.7	-76.89	996.1	-4,321.4	4,284.0	4,269.0	15.03	285.057		
6,085.3	6,073.8	6,057.0	6,056.5	13.5	1.7	-76.89	996.2	-4,321.4	4,284.1	4,268.9	15.17	282.354		
6,100.0	6,088.5	6,069.9	6,069.4	13.5	1.7	13.11	996.2	-4,321.5	4,283.9	4,269.1	14.82	289.031		
6,102.3	6,090.9	6,072.0	6,071.5	13.5	1.7	13.11	996.2	-4,321.5	4,283.9	4,269.1	14.83	288.896		
6,150.0	6,138.4	6,114.2	6,113.7	13.6	1.7	13.17	996.3	-4,321.6	4,281.4	4,266.4	14.99	285.599		
6,200.0	6,188.0	6,158.7	6,158.2	13.7	1.7	13.30	996.5	-4,321.7	4,275.5	4,260.3	15.21	281.168		
6,200.8	6,188.8	6,159.4	6,158.9	13.7	1.7	13.30	996.5	-4,321.7	4,275.4	4,260.2	15.21	281.094		
6,250.0	6,237.1	6,200.0	6,199.5	13.9	1.7	13.50	996.7	-4,321.9	4,266.4	4,250.9	15.44	276.241		
6,299.2	6,284.6	6,247.2	6,246.7	14.0	1.7	13.78	996.9	-4,322.2	4,254.1	4,238.5	15.69	271.223		
6,300.0	6,285.3	6,247.9	6,247.4	14.0	1.7	13.78	996.9	-4,322.2	4,253.9	4,238.2	15.69	271.143		
6,350.0	6,332.5	6,292.1	6,291.5	14.2	1.7	14.15	997.2	-4,322.4	4,238.3	4,222.4	15.92	266.207		
6,397.6	6,376.3	6,341.9	6,341.4	14.4	1.7	14.61	997.6	-4,322.7	4,220.4	4,204.3	16.13	261.657		
6,400.0	6,378.5	6,344.5	6,343.9	14.4	1.7	14.64	997.6	-4,322.7	4,219.4	4,203.3	16.14	261.438		
6,450.0	6,423.0	6,397.2	6,396.7	14.7	1.7	15.24	997.9	-4,322.9	4,197.5	4,181.1	16.34	256.952		
6,496.0	6,462.4	6,444.1	6,443.6	14.9	1.7	15.91	998.0	-4,323.0	4,174.5	4,158.0	16.49	253.081		
6,500.0	6,465.7	6,448.0	6,447.5	14.9	1.7	15.98	998.0	-4,323.1	4,172.4	4,155.9	16.51	252.762		
6,550.0	6,506.6	6,496.5	6,496.0	15.2	1.7	16.87	998.0	-4,323.1	4,144.5	4,127.8	16.66	248.794		
6,594.5	6,541.2	6,531.9	6,531.4	15.6	1.7	17.80	997.9	-4,323.2	4,117.3	4,100.5	16.78	245.429		
6,600.0	6,545.3	6,536.1	6,535.6	15.6	1.7	17.93	997.9	-4,323.2	4,113.8	4,097.0	16.79	245.019		
6,650.0	6,581.8	6,572.8	6,572.3	16.0	1.8	19.21	997.7	-4,323.2	4,080.6	4,063.7	16.92	241.182		
6,692.9	6,611.1	6,600.0	6,599.5	16.4	1.8	20.51	997.6	-4,323.2	4,050.2	4,033.1	17.04	237.665		
6,700.0	6,615.8	6,600.0	6,599.5	16.5	1.8	20.73	997.6	-4,323.2	4,045.0	4,027.9	17.06	237.143		
6,750.0	6,647.1	6,628.3	6,627.8	17.1	1.8	22.60	997.5	-4,323.3	4,007.2	3,990.0	17.25	232.347		
6,791.3	6,670.9	6,646.0	6,645.5	17.6	1.8	24.44	997.4	-4,323.4	3,974.6	3,957.1	17.46	227.593		
6,800.0	6,675.7	6,649.5	6,649.0	17.7	1.8	24.86	997.4	-4,323.4	3,967.5	3,950.0	17.52	226.490		
6,850.0	6,701.3	6,668.6	6,668.1	18.4	1.8	27.68	997.4	-4,323.5	3,926.1	3,908.1	17.93	218.946		
6,889.7	6,719.5	6,682.3	6,681.8	19.0	1.8	30.43	997.4	-4,323.6	3,892.0	3,873.6	18.41	211.403		
6,900.0	6,723.8	6,685.6	6,685.1	19.1	1.8	31.22	997.4	-4,323.6	3,883.0	3,864.5	18.56	209.252		
6,950.0	6,743.2	6,700.6	6,700.0	20.0	1.8	35.74	997.4	-4,323.8	3,838.6	3,819.1	19.47	197.203		
6,988.2	6,755.8	6,717.6	6,717.1	20.6	1.8	40.22	997.4	-4,323.9	3,803.9	3,783.4	20.42	186.287		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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
7,000.0	6,759.4	6,722.4	6,721.9	20.9	1.8	41.80	997.4	-4,323.9	3,793.0	3,772.2	20.75	182.771	
7,050.0	6,772.1	6,739.7	6,739.1	21.8	1.8	49.66	997.4	-4,324.1	3,746.4	3,724.0	22.37	167.484	
7,086.6	6,779.4	6,749.4	6,748.9	22.5	1.8	56.80	997.4	-4,324.1	3,711.8	3,688.1	23.67	156.812	
7,100.0	6,781.5	6,752.3	6,751.8	22.8	1.8	59.73	997.4	-4,324.1	3,699.0	3,674.9	24.14	153.256	
7,150.0	6,787.5	6,760.4	6,759.9	23.9	1.8	72.10	997.5	-4,324.2	3,651.2	3,625.6	25.67	142.263	
7,185.0	6,789.6	6,763.4	6,762.8	24.6	1.8	81.78	997.5	-4,324.2	3,617.5	3,591.1	26.42	136.926	
7,200.0	6,789.9	6,763.9	6,763.4	24.9	1.8	86.04	997.5	-4,324.2	3,603.1	3,576.4	26.70	134.968	
7,213.0	6,790.0	6,764.1	6,763.6	25.2	1.8	89.74	997.5	-4,324.2	3,590.6	3,563.7	26.95	133.214	
7,283.4	6,789.7	6,764.2	6,763.7	26.8	1.8	89.75	997.5	-4,324.2	3,522.9	3,494.3	28.53	123.484	
7,300.0	6,789.7	6,764.2	6,763.7	27.2	1.8	89.75	997.5	-4,324.2	3,506.9	3,478.1	28.90	121.354	
7,381.9	6,789.4	6,764.3	6,763.8	29.1	1.8	89.75	997.5	-4,324.2	3,428.4	3,397.6	30.80	111.297	
7,400.0	6,789.3	6,764.3	6,763.8	29.5	1.8	89.76	997.5	-4,324.2	3,411.0	3,379.8	31.23	109.237	
7,480.3	6,789.0	6,764.4	6,763.9	31.4	1.8	89.76	997.5	-4,324.2	3,334.1	3,300.9	33.16	100.556	
7,500.0	6,788.9	6,764.5	6,763.9	31.9	1.8	89.77	997.5	-4,324.2	3,315.3	3,281.6	33.63	98.579	
7,578.7	6,788.6	6,764.6	6,764.0	33.8	1.8	89.77	997.5	-4,324.2	3,240.1	3,204.5	35.57	91.085	
7,600.0	6,788.5	6,764.6	6,764.1	34.4	1.8	89.77	997.5	-4,324.2	3,219.8	3,183.7	36.10	89.198	
7,677.1	6,788.2	6,764.7	6,764.2	36.3	1.8	89.78	997.5	-4,324.2	3,146.3	3,108.3	38.04	82.716	
7,700.0	6,788.2	6,764.7	6,764.2	36.9	1.8	89.78	997.5	-4,324.2	3,124.6	3,086.0	38.61	80.922	
7,775.6	6,787.9	6,764.8	6,764.3	38.8	1.8	89.79	997.5	-4,324.2	3,052.9	3,012.4	40.54	75.298	
7,800.0	6,787.8	6,764.8	6,764.3	39.4	1.8	89.79	997.5	-4,324.2	3,029.8	2,988.6	41.17	73.594	
7,874.0	6,787.5	6,764.9	6,764.4	41.3	1.8	89.79	997.5	-4,324.2	2,959.8	2,916.7	43.08	68.698	
7,900.0	6,787.4	6,764.9	6,764.4	42.0	1.8	89.80	997.5	-4,324.2	2,935.2	2,891.5	43.76	67.080	
7,972.4	6,787.1	6,765.0	6,764.5	43.9	1.8	89.80	997.5	-4,324.2	2,867.0	2,821.4	45.65	62.803	
8,000.0	6,787.0	6,765.0	6,764.5	44.6	1.8	89.80	997.5	-4,324.2	2,841.1	2,794.7	46.37	61.267	
8,070.8	6,786.7	6,765.1	6,764.6	46.5	1.8	89.81	997.5	-4,324.2	2,774.6	2,726.4	48.24	57.516	
8,100.0	6,786.6	6,765.1	6,764.6	47.3	1.8	89.81	997.5	-4,324.2	2,747.3	2,698.3	49.01	56.057	
8,169.3	6,786.4	6,765.2	6,764.7	49.1	1.8	89.81	997.5	-4,324.2	2,682.7	2,631.8	50.85	52.756	
8,200.0	6,786.3	6,765.2	6,764.7	49.9	1.8	89.82	997.5	-4,324.2	2,654.1	2,602.4	51.67	51.369	
8,267.7	6,786.0	6,765.3	6,764.8	51.7	1.8	89.82	997.5	-4,324.2	2,591.2	2,537.7	53.48	48.456	
8,300.0	6,785.9	6,765.3	6,764.8	52.6	1.8	89.82	997.5	-4,324.2	2,561.3	2,506.9	54.34	47.135	
8,366.1	6,785.6	6,765.4	6,764.9	54.4	1.8	89.83	997.5	-4,324.2	2,500.2	2,444.1	56.12	44.556	
8,400.0	6,785.5	6,765.4	6,764.9	55.3	1.8	89.83	997.5	-4,324.2	2,469.1	2,412.1	57.03	43.298	
8,464.5	6,785.2	6,765.5	6,765.0	57.0	1.8	89.83	997.5	-4,324.2	2,409.9	2,351.1	58.77	41.008	
8,500.0	6,785.1	6,765.5	6,765.0	58.0	1.8	89.84	997.5	-4,324.2	2,377.5	2,317.8	59.72	39.809	
8,563.0	6,784.9	6,765.6	6,765.1	59.7	1.8	89.84	997.5	-4,324.2	2,320.2	2,258.8	61.43	37.770	
8,600.0	6,784.7	6,765.6	6,765.1	60.7	1.8	89.84	997.5	-4,324.2	2,286.6	2,224.2	62.43	36.626	
8,661.4	6,784.5	6,765.7	6,765.2	62.4	1.8	89.85	997.5	-4,324.2	2,231.2	2,167.1	64.10	34.808	
8,700.0	6,784.3	6,765.7	6,765.2	63.4	1.8	89.85	997.5	-4,324.2	2,196.5	2,131.4	65.15	33.716	
8,759.8	6,784.1	6,765.8	6,765.2	65.0	1.8	89.85	997.5	-4,324.2	2,143.1	2,076.3	66.78	32.092	
8,800.0	6,784.0	6,765.8	6,765.3	66.1	1.8	89.86	997.5	-4,324.2	2,107.4	2,039.5	67.87	31.048	
8,858.2	6,783.7	6,765.9	6,765.3	67.7	1.8	89.86	997.5	-4,324.2	2,055.9	1,986.4	69.46	29.596	
8,900.0	6,783.6	6,765.9	6,765.4	68.9	1.8	89.86	997.5	-4,324.2	2,019.2	1,948.6	70.61	28.598	
8,956.7	6,783.3	6,765.9	6,765.4	70.4	1.8	89.86	997.5	-4,324.2	1,969.7	1,897.6	72.16	27.298	
9,000.0	6,783.2	6,766.0	6,765.5	71.6	1.8	89.87	997.5	-4,324.2	1,932.2	1,858.8	73.34	26.344	
9,055.1	6,783.0	6,766.0	6,765.5	73.1	1.8	89.87	997.5	-4,324.2	1,884.8	1,809.9	74.85	25.179	
9,100.0	6,782.8	6,766.1	6,765.5	74.3	1.8	89.87	997.5	-4,324.2	1,846.5	1,770.4	76.09	24.268	
9,153.5	6,782.6	6,766.1	6,765.6	75.8	1.8	89.88	997.5	-4,324.2	1,801.2	1,723.6	77.56	23.224	
9,200.0	6,782.4	6,766.1	6,765.6	77.1	1.8	89.88	997.5	-4,324.2	1,762.3	1,683.4	78.83	22.354	
9,251.9	6,782.2	6,766.2	6,765.7	78.5	1.8	89.88	997.5	-4,324.2	1,719.2	1,638.9	80.26	21.419	
9,300.0	6,782.0	6,766.2	6,765.7	79.8	1.8	89.88	997.5	-4,324.2	1,679.8	1,598.2	81.59	20.589	
9,350.4	6,781.8	6,766.3	6,765.7	81.2	1.8	89.89	997.5	-4,324.2	1,639.0	1,556.0	82.98	19.752	
9,400.0	6,781.6	6,766.3	6,765.8	82.6	1.8	89.89	997.5	-4,324.2	1,599.3	1,515.0	84.34	18.962	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,448.8	6,781.4	6,766.3	6,765.8	83.9	1.8	89.89	997.5	-4,324.2	1,560.9	1,475.2	85.69	18.215	
9,500.0	6,781.2	6,766.4	6,765.9	85.4	1.8	89.89	997.5	-4,324.2	1,521.2	1,434.1	87.10	17.464	
9,547.2	6,781.0	6,766.4	6,765.9	86.7	1.8	89.90	997.5	-4,324.2	1,485.2	1,396.8	88.41	16.799	
9,600.0	6,780.8	6,766.4	6,765.9	88.1	1.8	89.90	997.5	-4,324.2	1,445.7	1,355.9	89.87	16.087	
9,645.6	6,780.7	6,766.5	6,766.0	89.4	1.8	89.90	997.5	-4,324.2	1,412.3	1,321.2	91.13	15.498	
9,700.0	6,780.5	6,766.5	6,766.0	90.9	1.8	89.90	997.5	-4,324.2	1,373.4	1,280.8	92.63	14.826	
9,744.1	6,780.3	6,766.6	6,766.0	92.1	1.8	89.90	997.5	-4,324.2	1,342.7	1,248.8	93.85	14.306	
9,800.0	6,780.1	6,766.6	6,766.1	93.7	1.8	89.91	997.5	-4,324.2	1,304.8	1,209.4	95.40	13.677	
9,842.5	6,779.9	6,766.6	6,766.1	94.8	1.8	89.91	997.5	-4,324.2	1,276.9	1,180.3	96.58	13.221	
9,900.0	6,779.7	6,766.7	6,766.1	96.4	1.8	89.91	997.5	-4,324.2	1,240.4	1,142.2	98.17	12.635	
9,940.9	6,779.5	6,766.7	6,766.2	97.6	1.8	89.91	997.5	-4,324.2	1,215.4	1,116.1	99.31	12.239	
10,000.0	6,779.3	6,766.7	6,766.2	99.2	1.8	89.92	997.5	-4,324.2	1,181.0	1,080.0	100.95	11.699	
10,039.3	6,779.1	6,766.8	6,766.2	100.3	1.8	89.92	997.5	-4,324.2	1,159.1	1,057.1	102.04	11.360	
10,100.0	6,778.9	6,766.8	6,766.3	102.0	1.8	89.92	997.5	-4,324.2	1,127.3	1,023.6	103.72	10.869	
10,137.8	6,778.7	6,766.8	6,766.3	103.0	1.8	89.92	997.5	-4,324.2	1,108.7	1,004.0	104.77	10.582	
10,200.0	6,778.5	6,766.9	6,766.3	104.8	1.8	89.92	997.5	-4,324.2	1,080.3	973.8	106.50	10.144	
10,236.2	6,778.3	6,766.9	6,766.4	105.8	1.8	89.93	997.5	-4,324.2	1,065.1	957.6	107.51	9.907	
10,300.0	6,778.1	6,766.9	6,766.4	107.5	1.8	89.93	997.5	-4,324.2	1,040.8	931.5	109.28	9.524	
10,334.6	6,778.0	6,766.9	6,766.4	108.5	1.8	89.93	997.5	-4,324.2	1,029.0	918.7	110.24	9.334	
10,400.0	6,777.7	6,767.0	6,766.5	110.3	1.8	89.93	997.5	-4,324.2	1,009.6	897.6	112.06	9.010	
10,433.0	6,777.6	6,767.0	6,766.5	111.2	1.8	89.93	997.5	-4,324.2	1,001.3	888.3	112.98	8.863	
10,500.0	6,777.3	6,767.0	6,766.5	113.1	1.8	89.93	997.5	-4,324.2	987.7	872.8	114.84	8.600	
10,531.5	6,777.2	6,767.1	6,766.5	114.0	1.8	89.94	997.5	-4,324.2	982.8	867.0	115.72	8.493	
10,600.0	6,776.9	6,767.1	6,766.6	115.9	1.8	89.94	997.5	-4,324.2	975.5	857.9	117.62	8.293	
10,629.9	6,776.8	6,767.1	6,766.6	116.7	1.8	89.94	997.5	-4,324.2	973.8	855.4	118.46	8.221	
10,669.3	6,776.6	6,767.1	6,766.6	117.8	1.8	89.94	997.5	-4,324.2	973.0	853.5	119.55	8.139 CC	
10,700.0	6,776.5	6,767.2	6,766.6	118.7	1.8	89.94	997.5	-4,324.2	973.5	853.1	120.41	8.085 ES	
10,728.3	6,776.4	6,767.2	6,766.7	119.5	1.8	89.94	997.5	-4,324.2	974.8	853.6	121.20	8.043	
10,800.0	6,776.1	6,767.2	6,766.7	121.4	1.8	89.94	997.5	-4,324.2	981.8	858.6	123.20	7.969	
10,826.7	6,776.0	6,767.2	6,766.7	122.2	1.8	89.95	997.5	-4,324.2	985.7	861.8	123.94	7.953	
10,900.0	6,775.7	6,767.3	6,766.7	124.2	1.8	89.95	997.5	-4,324.2	1,000.0	874.0	125.98	7.938 SF	
10,925.2	6,775.6	6,767.3	6,766.8	124.9	1.8	89.95	997.5	-4,324.2	1,006.1	879.5	126.68	7.942	
11,000.0	6,775.3	6,767.3	6,766.8	127.0	1.8	89.95	997.5	-4,324.2	1,027.7	899.0	128.77	7.981	
11,023.6	6,775.2	6,767.3	6,766.8	127.7	1.8	89.95	997.5	-4,324.2	1,035.6	906.1	129.43	8.001	
11,100.0	6,774.9	6,767.4	6,766.9	129.8	1.8	89.95	997.5	-4,324.2	1,064.1	932.6	131.56	8.089	
11,122.0	6,774.8	6,767.4	6,766.9	130.4	1.8	89.95	997.5	-4,324.2	1,073.2	941.1	132.17	8.120	
11,200.0	6,774.5	6,767.4	6,766.9	132.6	1.8	89.96	997.5	-4,324.2	1,108.4	974.0	134.35	8.250	
11,220.4	6,774.4	6,767.4	6,766.9	133.2	1.8	89.96	997.5	-4,324.2	1,118.3	983.4	134.92	8.289	
11,300.0	6,774.1	6,767.5	6,767.0	135.4	1.8	89.96	997.5	-4,324.2	1,159.6	1,022.5	137.14	8.456	
11,318.9	6,774.0	6,767.5	6,767.0	135.9	1.8	89.96	997.5	-4,324.2	1,170.0	1,032.3	137.67	8.499	
11,400.0	6,773.7	6,767.5	6,767.0	138.2	1.8	89.96	997.5	-4,324.2	1,216.9	1,077.0	139.93	8.696	
11,417.3	6,773.6	6,767.5	6,767.0	138.7	1.8	89.96	997.5	-4,324.2	1,227.3	1,086.9	140.42	8.741	
11,500.0	6,773.3	6,767.6	6,767.0	141.0	1.8	89.96	997.5	-4,324.2	1,279.4	1,136.7	142.72	8.964	
11,515.7	6,773.2	6,767.6	6,767.1	141.4	1.8	89.97	997.5	-4,324.2	1,289.7	1,146.5	143.16	9.009	
11,600.0	6,772.9	6,767.6	6,767.1	143.8	1.8	89.97	997.5	-4,324.2	1,346.5	1,201.0	145.52	9.253	
11,614.1	6,772.8	6,767.6	6,767.1	144.2	1.8	89.97	997.5	-4,324.2	1,356.3	1,210.4	145.91	9.296	
11,700.0	6,772.5	6,767.7	6,767.1	146.6	1.8	89.97	997.5	-4,324.2	1,417.5	1,269.2	148.31	9.557	
11,712.6	6,772.4	6,767.7	6,767.1	146.9	1.8	89.97	997.5	-4,324.2	1,426.6	1,278.0	148.66	9.597	
11,800.0	6,772.1	6,767.7	6,767.2	149.4	1.8	89.97	997.5	-4,324.2	1,491.8	1,340.7	151.11	9.872	
11,811.0	6,772.1	6,767.7	6,767.2	149.7	1.8	89.97	997.5	-4,324.2	1,500.1	1,348.7	151.41	9.908	
11,900.0	6,771.7	6,767.7	6,767.2	152.2	1.8	89.97	997.5	-4,324.2	1,568.9	1,415.0	153.90	10.194	
11,909.4	6,771.7	6,767.7	6,767.2	152.4	1.8	89.97	997.5	-4,324.2	1,576.3	1,422.2	154.16	10.225	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT DUNN #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	6,771.3	6,767.8	6,767.3	154.9	1.8	89.98	997.5	-4,324.2	1,648.5	1,491.8	156.70	10.521	
12,007.8	6,771.3	6,767.8	6,767.3	155.2	1.8	89.98	997.5	-4,324.2	1,654.9	1,498.0	156.92	10.546	
12,100.0	6,770.9	6,767.8	6,767.3	157.7	1.8	89.98	997.5	-4,324.2	1,730.3	1,570.8	159.49	10.849	
12,106.3	6,770.9	6,767.8	6,767.3	157.9	1.8	89.98	997.5	-4,324.2	1,735.5	1,575.8	159.67	10.869	
12,200.0	6,770.5	6,767.9	6,767.3	160.5	1.8	89.98	997.5	-4,324.2	1,813.8	1,651.5	162.29	11.177	
12,204.7	6,770.5	6,767.9	6,767.3	160.7	1.8	89.98	997.5	-4,324.2	1,817.8	1,655.4	162.42	11.192	
12,300.0	6,770.1	6,767.9	6,767.4	163.3	1.8	89.98	997.5	-4,324.2	1,899.0	1,733.9	165.09	11.503	
12,303.1	6,770.1	6,767.9	6,767.4	163.4	1.8	89.98	997.5	-4,324.2	1,901.7	1,736.5	165.17	11.513	
12,316.4	6,770.0	6,767.9	6,767.4	163.8	1.8	89.98	997.5	-4,324.2	1,913.1	1,747.5	165.54	11.556	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-72.97	917.9	-2,997.2	3,134.7				
98.4	98.4	86.4	86.4	0.1	1.1	-72.97	917.9	-2,997.2	3,134.6	3,133.4	1.24	2,537.924	
100.0	100.0	88.0	88.0	0.1	1.2	-72.97	917.9	-2,997.2	3,134.6	3,133.4	1.26	2,492.461	
196.8	196.8	184.8	184.8	0.3	3.2	-72.97	917.9	-2,997.2	3,134.6	3,131.1	3.55	881.890	
200.0	200.0	188.0	188.0	0.3	3.3	-72.97	917.9	-2,997.2	3,134.6	3,131.0	3.63	862.859	
295.3	295.3	283.3	283.3	0.5	5.3	-72.97	917.9	-2,997.2	3,134.6	3,128.8	5.85	536.076	
300.0	300.0	288.0	288.0	0.5	5.4	-72.97	917.9	-2,997.2	3,134.6	3,128.7	5.96	526.292	
393.7	393.7	381.7	381.7	0.8	7.3	-72.97	917.9	-2,997.2	3,134.6	3,126.6	8.08	387.773	
400.0	400.0	388.0	388.0	0.8	7.5	-72.97	917.9	-2,997.2	3,134.6	3,126.4	8.23	381.043	
492.1	492.1	480.1	480.1	1.0	9.3	-72.97	917.9	-2,997.2	3,134.6	3,124.3	10.30	304.214	
500.0	500.0	488.0	488.0	1.0	9.5	-72.97	917.9	-2,997.2	3,134.6	3,124.2	10.48	299.063	
590.5	590.5	578.5	578.5	1.2	11.3	-72.97	917.9	-2,997.2	3,134.6	3,122.1	12.52	250.425	
600.0	600.0	588.0	588.0	1.2	11.5	-72.97	917.9	-2,997.2	3,134.6	3,121.9	12.73	246.247	
689.0	689.0	677.0	677.0	1.4	13.3	-72.97	917.9	-2,997.2	3,134.6	3,119.9	14.73	212.855	
700.0	700.0	688.0	688.0	1.4	13.5	-72.97	917.9	-2,997.2	3,134.6	3,119.7	14.97	209.338	
787.4	787.4	775.4	775.4	1.6	15.3	-72.97	917.9	-2,997.2	3,134.6	3,117.7	16.93	185.113	
800.0	800.0	788.0	788.0	1.7	15.5	-72.97	917.9	-2,997.2	3,134.6	3,117.4	17.22	182.075	
885.8	885.8	873.8	873.8	1.9	17.3	-72.97	917.9	-2,997.2	3,134.6	3,115.5	19.14	163.781	
900.0	900.0	888.0	888.0	1.9	17.6	-72.97	917.9	-2,997.2	3,134.6	3,115.2	19.46	161.108	
984.2	984.2	972.2	972.2	2.1	19.3	-72.97	917.9	-2,997.2	3,134.6	3,113.3	21.34	146.865	
1,000.0	1,000.0	988.0	988.0	2.1	19.6	-72.97	917.9	-2,997.2	3,134.6	3,113.0	21.70	144.477	
1,082.7	1,082.7	1,070.7	1,070.7	2.3	21.2	-72.97	917.9	-2,997.2	3,134.6	3,111.1	23.55	133.120	
1,100.0	1,100.0	1,088.0	1,088.0	2.3	21.6	-72.97	917.9	-2,997.2	3,134.6	3,110.7	23.94	130.963	
1,181.1	1,181.1	1,169.1	1,169.1	2.5	23.2	-72.97	917.9	-2,997.2	3,134.6	3,108.9	25.75	121.731	
1,200.0	1,200.0	1,188.0	1,188.0	2.6	23.6	-72.97	917.9	-2,997.2	3,134.6	3,108.5	26.17	119.763	
1,279.5	1,279.5	1,267.5	1,267.5	2.7	25.2	-72.97	917.9	-2,997.2	3,134.6	3,106.7	27.95	112.138	
1,300.0	1,300.0	1,288.0	1,288.0	2.8	25.6	-72.97	917.9	-2,997.2	3,134.6	3,106.2	28.41	110.330	
1,377.9	1,377.9	1,365.9	1,365.9	3.0	27.2	-72.97	917.9	-2,997.2	3,134.6	3,104.5	30.16	103.948	
1,400.0	1,400.0	1,388.0	1,388.0	3.0	27.6	-72.97	917.9	-2,997.2	3,134.6	3,104.0	30.65	102.275	
1,476.4	1,476.4	1,464.4	1,464.4	3.2	29.2	-72.97	917.9	-2,997.2	3,134.6	3,102.3	32.36	96.874	
1,500.0	1,500.0	1,488.0	1,488.0	3.2	29.6	-72.97	917.9	-2,997.2	3,134.6	3,101.8	32.89	95.317	
1,574.8	1,574.8	1,562.8	1,562.8	3.4	31.1	7.73	917.9	-2,997.2	3,133.7	3,099.1	34.54	90.727	
1,600.0	1,600.0	1,588.0	1,588.0	3.5	31.7	7.73	917.9	-2,997.2	3,132.9	3,097.8	35.09	89.280	
1,673.2	1,673.1	1,661.1	1,661.1	3.6	33.1	7.75	917.9	-2,997.2	3,129.5	3,092.8	36.67	85.345	
1,700.0	1,699.8	1,687.8	1,687.8	3.7	33.7	7.76	917.9	-2,997.2	3,127.7	3,090.5	37.24	83.995	
1,771.6	1,771.2	1,759.2	1,759.2	3.8	35.1	7.79	917.9	-2,997.2	3,121.9	3,083.2	38.74	80.582	
1,800.0	1,799.5	1,787.5	1,787.5	3.9	35.7	7.81	917.9	-2,997.2	3,119.1	3,079.8	39.33	79.310	
1,870.1	1,869.0	1,857.0	1,857.0	4.0	37.1	7.85	917.9	-2,997.2	3,111.0	3,070.2	40.76	76.332	
1,900.0	1,898.7	1,886.7	1,886.7	4.1	37.7	7.87	917.9	-2,997.2	3,107.0	3,065.7	41.35	75.132	
1,968.5	1,966.4	1,954.4	1,954.4	4.3	39.0	7.93	917.9	-2,997.2	3,096.8	3,054.1	42.70	72.521	
2,000.0	1,997.5	1,985.5	1,985.5	4.4	39.7	7.95	917.9	-2,997.2	3,091.5	3,048.2	43.31	71.384	
2,066.9	2,063.2	2,051.2	2,051.2	4.6	41.0	8.02	917.9	-2,997.2	3,079.3	3,034.7	44.57	69.084	
2,100.1	2,095.7	2,083.7	2,083.7	4.7	41.6	8.06	917.9	-2,997.2	3,072.6	3,027.4	45.18	68.003	
2,165.3	2,159.5	2,147.5	2,147.5	4.9	42.9	8.09	917.9	-2,997.2	3,059.2	3,012.6	46.59	65.663	
2,200.0	2,193.4	2,181.4	2,181.4	5.0	43.6	8.11	917.9	-2,997.2	3,052.0	3,004.7	47.33	64.478	
2,224.2	2,217.1	2,205.1	2,205.1	5.1	44.1	8.12	917.9	-2,997.2	3,047.1	2,999.2	47.86	63.671	
2,263.8	2,255.9	2,243.9	2,243.9	5.2	44.8	8.12	917.9	-2,997.2	3,039.2	2,990.3	48.84	62.227	
2,300.0	2,291.5	2,279.5	2,279.5	5.3	45.6	8.12	917.9	-2,997.2	3,032.4	2,982.7	49.73	60.975	
2,362.2	2,352.7	2,340.7	2,340.7	5.5	46.8	8.12	917.9	-2,997.2	3,021.9	2,970.6	51.25	58.960	
2,400.0	2,390.1	2,378.1	2,378.1	5.6	47.5	8.12	917.9	-2,997.2	3,016.1	2,963.9	52.17	57.808	
2,460.6	2,450.1	2,438.1	2,438.1	5.7	48.8	8.12	917.9	-2,997.2	3,007.9	2,954.2	53.64	56.075	
2,500.0	2,489.2	2,477.2	2,477.2	5.8	49.5	8.12	917.9	-2,997.2	3,003.2	2,948.6	54.59	55.018	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,536.0	2,536.0	6.0	50.7	8.12	917.9	-2,997.2	2,997.2	2,941.2	55.99	53.531	
2,600.0	2,588.8	2,576.8	2,576.8	6.1	51.5	8.12	917.9	-2,997.2	2,993.7	2,936.8	56.95	52.564	
2,657.5	2,646.1	2,634.1	2,634.1	6.2	52.7	8.12	917.9	-2,997.2	2,989.8	2,931.6	58.29	51.291	
2,700.0	2,688.6	2,676.6	2,676.6	6.3	53.6	8.12	917.9	-2,997.2	2,987.7	2,928.4	59.27	50.409	
2,755.9	2,744.4	2,732.4	2,732.4	6.4	54.7	8.12	917.9	-2,997.2	2,985.9	2,925.3	60.54	49.323	
2,800.0	2,788.5	2,776.5	2,776.5	6.5	55.6	8.12	917.9	-2,997.2	2,985.1	2,923.6	61.52	48.522	
2,824.3	2,812.8	2,800.8	2,800.8	6.5	56.1	-72.58	917.9	-2,997.2	2,985.0	2,922.5	62.56	47.714	
2,854.3	2,842.9	2,830.9	2,830.9	6.6	56.7	-72.58	917.9	-2,997.2	2,985.0	2,921.8	63.22	47.215	
2,900.0	2,888.5	2,876.5	2,876.5	6.7	57.6	-72.58	917.9	-2,997.2	2,985.0	2,920.8	64.23	46.478	
2,952.7	2,941.3	2,929.3	2,929.3	6.8	58.6	-72.58	917.9	-2,997.2	2,985.0	2,919.6	65.39	45.647	
3,000.0	2,988.5	2,976.5	2,976.5	6.9	59.6	-72.58	917.9	-2,997.2	2,985.0	2,918.6	66.44	44.928	
3,051.2	3,039.7	3,027.7	3,027.7	7.0	60.6	-72.58	917.9	-2,997.2	2,985.0	2,917.5	67.57	44.174	
3,100.0	3,088.5	3,076.5	3,076.5	7.1	61.6	-72.58	917.9	-2,997.2	2,985.0	2,916.4	68.66	43.478	
3,149.6	3,138.1	3,126.1	3,126.1	7.2	62.6	-72.58	917.9	-2,997.2	2,985.0	2,915.3	69.76	42.793	
3,200.0	3,188.5	3,176.5	3,176.5	7.3	63.6	-72.58	917.9	-2,997.2	2,985.0	2,914.2	70.87	42.118	
3,248.0	3,236.6	3,224.6	3,224.6	7.4	64.6	-72.58	917.9	-2,997.2	2,985.0	2,913.1	71.94	41.494	
3,300.0	3,288.5	3,276.5	3,276.5	7.5	65.6	-72.58	917.9	-2,997.2	2,985.0	2,912.0	73.09	40.840	
3,346.4	3,335.0	3,323.0	3,323.0	7.6	66.6	-72.58	917.9	-2,997.2	2,985.0	2,910.9	74.12	40.272	
3,400.0	3,388.5	3,376.5	3,376.5	7.7	67.6	-72.58	917.9	-2,997.2	2,985.0	2,909.7	75.31	39.636	
3,444.9	3,433.4	3,421.4	3,421.4	7.8	68.5	-72.58	917.9	-2,997.2	2,985.0	2,908.7	76.31	39.119	
3,500.0	3,488.5	3,476.5	3,476.5	7.9	69.6	-72.58	917.9	-2,997.2	2,985.0	2,907.5	77.53	38.501	
3,543.3	3,531.8	3,519.8	3,519.8	8.0	70.5	-72.58	917.9	-2,997.2	2,985.0	2,906.6	78.49	38.029	
3,600.0	3,588.5	3,576.5	3,576.5	8.1	71.7	-72.58	917.9	-2,997.2	2,985.0	2,905.3	79.75	37.429	
3,641.7	3,630.3	3,618.3	3,618.3	8.2	72.5	-72.58	917.9	-2,997.2	2,985.0	2,904.4	80.68	36.999	
3,700.0	3,688.5	3,676.5	3,676.5	8.3	73.7	-72.58	917.9	-2,997.2	2,985.0	2,903.1	81.97	36.415	
3,740.1	3,728.7	3,716.7	3,716.7	8.4	74.5	-72.58	917.9	-2,997.2	2,985.0	2,902.2	82.87	36.022	
3,800.0	3,788.5	3,776.5	3,776.5	8.5	75.7	-72.58	917.9	-2,997.2	2,985.0	2,900.8	84.20	35.453	
3,838.6	3,827.1	3,815.1	3,815.1	8.6	76.5	-72.58	917.9	-2,997.2	2,985.0	2,900.0	85.05	35.096	
3,900.0	3,888.5	3,876.5	3,876.5	8.7	77.7	-72.58	917.9	-2,997.2	2,985.0	2,898.6	86.42	34.541	
3,937.0	3,925.5	3,913.5	3,913.5	8.8	78.4	-72.58	917.9	-2,997.2	2,985.0	2,897.8	87.24	34.216	
4,000.0	3,988.5	3,976.5	3,976.5	9.0	79.7	-72.58	917.9	-2,997.2	2,985.0	2,896.4	88.64	33.675	
4,035.4	4,024.0	4,012.0	4,012.0	9.0	80.4	-72.58	917.9	-2,997.2	2,985.0	2,895.6	89.43	33.378	
4,100.0	4,088.5	4,076.5	4,076.5	9.2	81.7	-72.58	917.9	-2,997.2	2,985.0	2,894.2	90.87	32.850	
4,133.8	4,122.4	4,110.4	4,110.4	9.2	82.4	-72.58	917.9	-2,997.2	2,985.0	2,893.4	91.62	32.580	
4,200.0	4,188.5	4,176.5	4,176.5	9.4	83.7	-72.58	917.9	-2,997.2	2,985.0	2,892.0	93.09	32.065	
4,232.3	4,220.8	4,208.8	4,208.8	9.4	84.4	-72.58	917.9	-2,997.2	2,985.0	2,891.2	93.81	31.820	
4,300.0	4,288.5	4,276.5	4,276.5	9.6	85.7	-72.58	917.9	-2,997.2	2,985.0	2,889.7	95.32	31.317	
4,330.7	4,319.2	4,307.2	4,307.2	9.7	86.3	-72.58	917.9	-2,997.2	2,985.0	2,889.0	96.00	31.094	
4,400.0	4,388.5	4,376.5	4,376.5	9.8	87.7	-72.58	917.9	-2,997.2	2,985.0	2,887.5	97.54	30.602	
4,429.1	4,417.7	4,405.7	4,405.7	9.9	88.3	-72.58	917.9	-2,997.2	2,985.0	2,886.9	98.19	30.400	
4,500.0	4,488.5	4,476.5	4,476.5	10.0	89.8	-72.58	917.9	-2,997.2	2,985.0	2,885.3	99.77	29.919	
4,527.5	4,516.1	4,504.1	4,504.1	10.1	90.3	-72.58	917.9	-2,997.2	2,985.0	2,884.7	100.38	29.736	
4,600.0	4,588.5	4,576.5	4,576.5	10.2	91.8	-72.58	917.9	-2,997.2	2,985.0	2,883.0	102.00	29.266	
4,626.0	4,614.5	4,602.5	4,602.5	10.3	92.3	-72.58	917.9	-2,997.2	2,985.0	2,882.5	102.57	29.101	
4,700.0	4,688.5	4,676.5	4,676.5	10.5	93.8	-72.58	917.9	-2,997.2	2,985.0	2,880.8	104.22	28.641	
4,724.4	4,712.9	4,700.9	4,700.9	10.5	94.3	-72.58	917.9	-2,997.2	2,985.0	2,880.3	104.77	28.492	
4,800.0	4,788.5	4,776.5	4,776.5	10.7	95.8	-72.58	917.9	-2,997.2	2,985.0	2,878.6	106.45	28.042	
4,822.8	4,811.4	4,799.4	4,799.4	10.7	96.2	-72.58	917.9	-2,997.2	2,985.0	2,878.1	106.96	27.908	
4,900.0	4,888.5	4,876.5	4,876.5	10.9	97.8	-72.58	917.9	-2,997.2	2,985.0	2,876.4	108.68	27.467	
4,921.2	4,909.8	4,897.8	4,897.8	10.9	98.2	-72.58	917.9	-2,997.2	2,985.0	2,875.9	109.15	27.348	
5,000.0	4,988.5	4,976.5	4,976.5	11.1	99.8	-72.58	917.9	-2,997.2	2,985.0	2,874.1	110.91	26.915	
5,019.7	5,008.2	4,996.2	4,996.2	11.1	100.2	-72.58	917.9	-2,997.2	2,985.0	2,873.7	111.35	26.809	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-1 - 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
5,100.0	5,088.5	5,076.5	5,076.5	11.3	101.8	-72.58	917.9	-2,997.2	2,985.0	2,871.9	113.13	26.385	
5,118.1	5,106.6	5,094.6	5,094.6	11.4	102.2	-72.58	917.9	-2,997.2	2,985.0	2,871.5	113.54	26.291	
5,200.0	5,188.5	5,176.5	5,176.5	11.5	103.8	-72.58	917.9	-2,997.2	2,985.0	2,869.7	115.36	25.875	
5,216.5	5,205.1	5,193.1	5,193.1	11.6	104.2	-72.58	917.9	-2,997.2	2,985.0	2,869.3	115.73	25.793	
5,300.0	5,288.5	5,276.5	5,276.5	11.8	105.8	-72.58	917.9	-2,997.2	2,985.0	2,867.5	117.59	25.385	
5,314.9	5,303.5	5,291.5	5,291.5	11.8	106.1	-72.58	917.9	-2,997.2	2,985.0	2,867.1	117.93	25.313	
5,400.0	5,388.5	5,376.5	5,376.5	12.0	107.9	-72.58	917.9	-2,997.2	2,985.0	2,865.2	119.82	24.912	
5,413.4	5,401.9	5,389.9	5,389.9	12.0	108.1	-72.58	917.9	-2,997.2	2,985.0	2,864.9	120.12	24.851	
5,500.0	5,488.5	5,476.5	5,476.5	12.2	109.9	-72.58	917.9	-2,997.2	2,985.0	2,863.0	122.05	24.457	
5,511.8	5,500.3	5,488.3	5,488.3	12.2	110.1	-72.58	917.9	-2,997.2	2,985.0	2,862.7	122.31	24.405	
5,600.0	5,588.5	5,576.5	5,576.5	12.4	111.9	-72.58	917.9	-2,997.2	2,985.0	2,860.8	124.28	24.019	
5,610.2	5,598.8	5,586.8	5,586.8	12.4	112.1	-72.58	917.9	-2,997.2	2,985.0	2,860.5	124.51	23.975	
5,700.0	5,688.5	5,676.5	5,676.5	12.6	113.9	-72.58	917.9	-2,997.2	2,985.0	2,858.5	126.51	23.595	
5,708.6	5,697.2	5,685.2	5,685.2	12.6	114.1	-72.58	917.9	-2,997.2	2,985.0	2,858.3	126.70	23.559	
5,800.0	5,788.5	5,776.5	5,776.5	12.8	115.9	-72.58	917.9	-2,997.2	2,985.0	2,856.3	128.74	23.187	
5,807.1	5,795.6	5,783.6	5,783.6	12.9	116.0	-72.58	917.9	-2,997.2	2,985.0	2,856.1	128.90	23.158	
5,900.0	5,888.5	5,876.5	5,876.5	13.1	117.9	-72.58	917.9	-2,997.2	2,985.0	2,854.1	130.97	22.792	
5,905.5	5,894.0	5,882.0	5,882.0	13.1	118.0	-72.58	917.9	-2,997.2	2,985.0	2,853.9	131.09	22.770	
6,000.0	5,988.5	5,976.5	5,976.5	13.3	119.9	-72.58	917.9	-2,997.2	2,985.0	2,851.8	133.20	22.410	
6,003.9	5,992.5	5,980.5	5,980.5	13.3	120.0	-72.58	917.9	-2,997.2	2,985.0	2,851.8	133.29	22.395	
6,085.3	6,073.8	6,061.8	6,061.8	13.5	121.6	-72.58	917.9	-2,997.2	2,985.0	2,849.9	135.10	22.095	
6,100.0	6,088.5	6,076.5	6,076.5	13.5	121.9	17.42	917.9	-2,997.2	2,984.9	2,849.8	135.15	22.086	
6,102.3	6,090.9	6,078.9	6,078.9	13.5	122.0	17.42	917.9	-2,997.2	2,984.8	2,849.7	135.19	22.079	
6,150.0	6,138.4	6,126.4	6,126.4	13.6	122.9	17.50	917.9	-2,997.2	2,982.3	2,846.5	135.80	21.960	
6,200.0	6,188.0	6,176.0	6,176.0	13.7	123.9	17.68	917.9	-2,997.2	2,976.3	2,840.4	135.86	21.907	
6,200.8	6,188.8	6,176.8	6,176.8	13.7	123.9	17.69	917.9	-2,997.2	2,976.2	2,840.3	135.85	21.907	
6,250.0	6,237.1	6,225.1	6,225.1	13.9	124.9	17.97	917.9	-2,997.2	2,967.1	2,831.7	135.31	21.928	
6,299.2	6,284.6	6,272.6	6,272.6	14.0	125.9	18.36	917.9	-2,997.2	2,954.8	2,820.6	134.19	22.019	
6,300.0	6,285.3	6,273.3	6,273.3	14.0	125.9	18.37	917.9	-2,997.2	2,954.6	2,820.4	134.17	22.022	
6,350.0	6,332.5	6,320.5	6,320.5	14.2	126.8	18.89	917.9	-2,997.2	2,938.9	2,806.5	132.45	22.189	
6,397.6	6,376.3	6,364.3	6,364.3	14.4	127.7	19.52	917.9	-2,997.2	2,921.1	2,790.8	130.31	22.417	
6,400.0	6,378.5	6,366.5	6,366.5	14.4	127.8	19.55	917.9	-2,997.2	2,920.2	2,790.0	130.19	22.430	
6,450.0	6,423.0	6,411.0	6,411.0	14.7	128.7	20.36	917.9	-2,997.2	2,898.5	2,771.0	127.45	22.742	
6,496.0	6,462.4	6,450.4	6,450.4	14.9	129.5	21.26	917.9	-2,997.2	2,875.9	2,751.3	124.57	23.087	
6,500.0	6,465.7	6,453.7	6,453.7	14.9	129.5	21.35	917.9	-2,997.2	2,873.8	2,749.5	124.31	23.118	
6,550.0	6,506.6	6,494.6	6,494.6	15.2	130.3	22.53	917.9	-2,997.2	2,846.5	2,725.6	120.89	23.546	
6,594.5	6,541.2	6,529.2	6,529.2	15.6	131.0	23.79	917.9	-2,997.2	2,820.0	2,702.2	117.76	23.948	
6,600.0	6,545.3	6,533.3	6,533.3	15.6	131.1	23.96	917.9	-2,997.2	2,816.5	2,699.2	117.37	23.998	
6,650.0	6,581.8	6,569.8	6,569.8	16.0	131.9	25.67	917.9	-2,997.2	2,784.1	2,670.1	113.97	24.429	
6,692.9	6,611.1	6,599.1	6,599.1	16.4	132.4	27.41	917.9	-2,997.2	2,754.5	2,643.1	111.39	24.727	
6,700.0	6,615.8	6,603.8	6,603.8	16.5	132.5	27.73	917.9	-2,997.2	2,749.4	2,638.4	111.02	24.766	
6,750.0	6,647.1	6,635.1	6,635.1	17.1	133.2	30.20	917.9	-2,997.2	2,712.6	2,603.7	108.92	24.904	
6,791.3	6,670.9	6,658.9	6,658.9	17.6	133.6	32.63	917.9	-2,997.2	2,680.7	2,572.5	108.21	24.774	
6,800.0	6,675.7	6,663.7	6,663.7	17.7	133.7	33.19	917.9	-2,997.2	2,673.9	2,565.7	108.20	24.712	
6,850.0	6,701.3	6,689.3	6,689.3	18.4	134.3	36.80	917.9	-2,997.2	2,633.5	2,524.1	109.41	24.070	
6,889.7	6,719.5	6,707.5	6,707.5	19.0	134.6	40.21	917.9	-2,997.2	2,600.2	2,488.2	112.08	23.199	
6,900.0	6,723.8	6,711.8	6,711.8	19.1	134.7	41.18	917.9	-2,997.2	2,591.5	2,478.5	113.04	22.926	
6,950.0	6,743.2	6,731.2	6,731.2	20.0	135.1	46.48	917.9	-2,997.2	2,548.3	2,429.0	119.34	21.353	
6,988.2	6,755.8	6,743.8	6,743.8	20.6	135.4	51.24	917.9	-2,997.2	2,514.6	2,388.8	125.84	19.983	
7,000.0	6,759.4	6,747.4	6,747.4	20.9	135.4	52.85	917.9	-2,997.2	2,504.1	2,376.0	128.09	19.550	
7,050.0	6,772.1	6,760.1	6,760.1	21.8	135.7	60.36	917.9	-2,997.2	2,459.0	2,320.6	138.38	17.770	
7,086.6	6,779.4	6,767.4	6,767.4	22.5	135.8	66.55	917.9	-2,997.2	2,425.6	2,279.6	145.98	16.616	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,100.0	6,781.5	6,769.5	6,769.5	22.8	135.9	68.95	917.9	-2,997.2	2,413.3	2,264.7	148.59	16.242	
7,150.0	6,787.5	6,775.5	6,775.5	23.9	136.0	78.35	917.9	-2,997.2	2,367.3	2,210.6	156.65	15.111	
7,185.0	6,789.6	6,777.6	6,777.6	24.6	136.0	85.13	917.9	-2,997.2	2,334.9	2,174.9	160.08	14.586	
7,200.0	6,789.9	6,777.9	6,777.9	24.9	136.0	88.03	917.9	-2,997.2	2,321.1	2,160.2	160.87	14.428	
7,213.0	6,790.0	6,778.0	6,778.0	25.2	136.0	90.51	917.9	-2,997.2	2,309.2	2,147.9	161.24	14.321	
7,283.4	6,789.7	6,777.7	6,777.7	26.8	136.0	90.50	917.9	-2,997.2	2,244.3	2,081.5	162.81	13.785	
7,300.0	6,789.7	6,777.7	6,777.7	27.2	136.0	90.49	917.9	-2,997.2	2,229.2	2,066.0	163.18	13.661	
7,381.9	6,789.4	6,777.4	6,777.4	29.1	136.0	90.47	917.9	-2,997.2	2,154.4	1,989.3	165.08	13.051	
7,400.0	6,789.3	6,777.3	6,777.3	29.5	136.0	90.47	917.9	-2,997.2	2,137.9	1,972.4	165.50	12.918	
7,480.3	6,789.0	6,777.0	6,777.0	31.4	136.0	90.45	917.9	-2,997.2	2,065.2	1,897.8	167.42	12.336	
7,500.0	6,788.9	6,776.9	6,776.9	31.9	136.0	90.45	917.9	-2,997.2	2,047.5	1,879.6	167.89	12.195	
7,578.7	6,788.6	6,776.6	6,776.6	33.8	136.0	90.43	917.9	-2,997.2	1,977.0	1,807.1	169.83	11.641	
7,600.0	6,788.5	6,776.5	6,776.5	34.4	136.0	90.42	917.9	-2,997.2	1,958.0	1,787.7	170.35	11.494	
7,677.1	6,788.2	6,776.2	6,776.2	36.3	136.0	90.40	917.9	-2,997.2	1,889.7	1,717.4	172.29	10.968	
7,700.0	6,788.2	6,776.2	6,776.2	36.9	136.0	90.40	917.9	-2,997.2	1,869.6	1,696.7	172.86	10.815	
7,775.6	6,787.9	6,775.9	6,775.9	38.8	136.0	90.38	917.9	-2,997.2	1,803.6	1,628.8	174.79	10.319	
7,800.0	6,787.8	6,775.8	6,775.8	39.4	136.0	90.38	917.9	-2,997.2	1,782.4	1,607.0	175.41	10.161	
7,874.0	6,787.5	6,775.5	6,775.5	41.3	136.0	90.36	917.9	-2,997.2	1,718.8	1,541.4	177.32	9.693	
7,900.0	6,787.4	6,775.4	6,775.4	42.0	136.0	90.35	917.9	-2,997.2	1,696.6	1,518.6	177.99	9.532	
7,972.4	6,787.1	6,775.1	6,775.1	43.9	136.0	90.33	917.9	-2,997.2	1,635.5	1,455.6	179.88	9.092	
8,000.0	6,787.0	6,775.0	6,775.0	44.6	136.0	90.33	917.9	-2,997.2	1,612.5	1,431.9	180.60	8.928	
8,070.8	6,786.7	6,774.7	6,774.7	46.5	136.0	90.31	917.9	-2,997.2	1,554.0	1,371.5	182.46	8.517	
8,100.0	6,786.6	6,774.6	6,774.6	47.3	136.0	90.30	917.9	-2,997.2	1,530.2	1,347.0	183.23	8.351	
8,169.3	6,786.4	6,774.4	6,774.4	49.1	136.0	90.29	917.9	-2,997.2	1,474.5	1,289.5	185.07	7.968	
8,200.0	6,786.3	6,774.3	6,774.3	49.9	136.0	90.28	917.9	-2,997.2	1,450.2	1,264.3	185.88	7.802	
8,267.7	6,786.0	6,774.0	6,774.0	51.7	136.0	90.26	917.9	-2,997.2	1,397.5	1,209.8	187.68	7.446	
8,300.0	6,785.9	6,773.9	6,773.9	52.6	136.0	90.26	917.9	-2,997.2	1,372.8	1,184.3	188.54	7.281	
8,366.1	6,785.6	6,773.6	6,773.6	54.4	136.0	90.24	917.9	-2,997.2	1,323.3	1,133.0	190.32	6.953	
8,400.0	6,785.5	6,773.5	6,773.5	55.3	135.9	90.23	917.9	-2,997.2	1,298.5	1,107.3	191.22	6.791	
8,464.5	6,785.2	6,773.2	6,773.2	57.0	135.9	90.22	917.9	-2,997.2	1,252.5	1,059.5	192.96	6.491	
8,500.0	6,785.1	6,773.1	6,773.1	58.0	135.9	90.21	917.9	-2,997.2	1,227.9	1,034.0	193.91	6.332	
8,563.0	6,784.9	6,772.9	6,772.9	59.7	135.9	90.19	917.9	-2,997.2	1,185.6	990.0	195.62	6.061	
8,600.0	6,784.7	6,772.7	6,772.7	60.7	135.9	90.18	917.9	-2,997.2	1,161.6	965.0	196.62	5.908	
8,661.4	6,784.5	6,772.5	6,772.5	62.4	135.9	90.17	917.9	-2,997.2	1,123.3	925.1	198.28	5.665	
8,700.0	6,784.3	6,772.3	6,772.3	63.4	135.9	90.16	917.9	-2,997.2	1,100.4	901.1	199.32	5.521	
8,759.8	6,784.1	6,772.1	6,772.1	65.0	135.9	90.14	917.9	-2,997.2	1,066.6	865.6	200.95	5.308	
8,800.0	6,784.0	6,772.0	6,772.0	66.1	135.9	90.13	917.9	-2,997.2	1,045.2	843.1	202.04	5.173	
8,858.2	6,783.7	6,771.7	6,771.7	67.7	135.9	90.12	917.9	-2,997.2	1,016.2	812.5	203.63	4.990	
8,900.0	6,783.6	6,771.6	6,771.6	68.9	135.9	90.11	917.9	-2,997.2	997.0	792.2	204.77	4.869	
8,956.7	6,783.3	6,771.3	6,771.3	70.4	135.9	90.10	917.9	-2,997.2	973.1	766.8	206.31	4.717	
9,000.0	6,783.2	6,771.2	6,771.2	71.6	135.9	90.08	917.9	-2,997.2	956.8	749.3	207.50	4.611	
9,055.1	6,783.0	6,771.0	6,771.0	73.1	135.9	90.07	917.9	-2,997.2	938.5	729.5	209.00	4.490	
9,100.0	6,782.8	6,770.8	6,770.8	74.3	135.9	90.06	917.9	-2,997.2	925.7	715.5	210.23	4.403	
9,153.5	6,782.6	6,770.6	6,770.6	75.8	135.9	90.05	917.9	-2,997.2	913.2	701.5	211.70	4.314	
9,200.0	6,782.4	6,770.4	6,770.4	77.1	135.9	90.04	917.9	-2,997.2	904.7	691.8	212.97	4.248	
9,251.9	6,782.2	6,770.2	6,770.2	78.5	135.9	90.02	917.9	-2,997.2	898.0	683.6	214.40	4.189	
9,300.0	6,782.0	6,770.0	6,770.0	79.8	135.9	90.01	917.9	-2,997.2	894.5	678.8	215.72	4.147	
9,342.3	6,781.8	6,769.8	6,769.8	81.0	135.9	90.00	917.9	-2,997.2	893.5	676.6	216.88	4.120 CC	
9,350.4	6,781.8	6,769.8	6,769.8	81.2	135.9	90.00	917.9	-2,997.2	893.5	676.4	217.10	4.116 ES	
9,400.0	6,781.6	6,769.6	6,769.6	82.6	135.9	89.99	917.9	-2,997.2	895.3	676.9	218.47	4.098	
9,448.8	6,781.4	6,769.4	6,769.4	83.9	135.9	89.97	917.9	-2,997.2	899.8	680.0	219.81	4.094 SF	
9,500.0	6,781.2	6,769.2	6,769.2	85.4	135.9	89.96	917.9	-2,997.2	907.3	686.1	221.22	4.101	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,781.0	6,769.0	6,769.0	86.7	135.9	89.95	917.9	-2,997.2	916.7	694.2	222.52	4.120	
9,600.0	6,780.8	6,768.8	6,768.8	88.1	135.9	89.94	917.9	-2,997.2	929.9	705.9	223.97	4.152	
9,645.6	6,780.7	6,768.7	6,768.7	89.4	135.9	89.92	917.9	-2,997.2	943.6	718.3	225.23	4.189	
9,700.0	6,780.5	6,768.5	6,768.5	90.9	135.8	89.91	917.9	-2,997.2	962.4	735.7	226.73	4.245	
9,744.1	6,780.3	6,768.3	6,768.3	92.1	135.8	89.90	917.9	-2,997.2	979.7	751.7	227.95	4.298	
9,800.0	6,780.1	6,768.1	6,768.1	93.7	135.8	89.88	917.9	-2,997.2	1,003.9	774.4	229.49	4.374	
9,842.5	6,779.9	6,767.9	6,767.9	94.8	135.8	89.87	917.9	-2,997.2	1,024.0	793.3	230.67	4.439	
9,900.0	6,779.7	6,767.7	6,767.7	96.4	135.8	89.86	917.9	-2,997.2	1,053.3	821.0	232.26	4.535	
9,940.9	6,779.5	6,767.5	6,767.5	97.6	135.8	89.85	917.9	-2,997.2	1,075.5	842.1	233.39	4.608	
10,000.0	6,779.3	6,767.3	6,767.3	99.2	135.8	89.83	917.9	-2,997.2	1,109.5	874.4	235.02	4.721	
10,039.3	6,779.1	6,767.1	6,767.1	100.3	135.8	89.82	917.9	-2,997.2	1,133.2	897.1	236.11	4.800	
10,100.0	6,778.9	6,766.9	6,766.9	102.0	135.8	89.81	917.9	-2,997.2	1,171.5	933.7	237.79	4.927	
10,137.8	6,778.7	6,766.7	6,766.7	103.0	135.8	89.80	917.9	-2,997.2	1,196.3	957.5	238.84	5.009	
10,200.0	6,778.5	6,766.5	6,766.5	104.8	135.8	89.78	917.9	-2,997.2	1,238.5	998.0	240.56	5.149	
10,236.2	6,778.3	6,766.3	6,766.3	105.8	135.8	89.77	917.9	-2,997.2	1,263.9	1,022.3	241.56	5.232	
10,300.0	6,778.1	6,766.1	6,766.1	107.5	135.8	89.76	917.9	-2,997.2	1,309.8	1,066.4	243.33	5.383	
10,334.6	6,778.0	6,766.0	6,766.0	108.5	135.8	89.75	917.9	-2,997.2	1,335.3	1,091.0	244.29	5.466	
10,400.0	6,777.7	6,765.7	6,765.7	110.3	135.8	89.73	917.9	-2,997.2	1,384.6	1,138.5	246.10	5.626	
10,433.0	6,777.6	6,765.6	6,765.6	111.2	135.8	89.72	917.9	-2,997.2	1,410.0	1,163.0	247.02	5.708	
10,500.0	6,777.3	6,765.3	6,765.3	113.1	135.8	89.71	917.9	-2,997.2	1,462.4	1,213.5	248.88	5.876	
10,531.5	6,777.2	6,765.2	6,765.2	114.0	135.8	89.70	917.9	-2,997.2	1,487.4	1,237.7	249.75	5.956	
10,600.0	6,776.9	6,764.9	6,764.9	115.9	135.8	89.68	917.9	-2,997.2	1,542.8	1,291.1	251.65	6.131	
10,629.9	6,776.8	6,764.8	6,764.8	116.7	135.8	89.67	917.9	-2,997.2	1,567.2	1,314.8	252.48	6.207	
10,700.0	6,776.5	6,764.5	6,764.5	118.7	135.8	89.65	917.9	-2,997.2	1,625.3	1,370.9	254.43	6.388	
10,728.3	6,776.4	6,764.4	6,764.4	119.5	135.8	89.65	917.9	-2,997.2	1,649.1	1,393.8	255.21	6.461	
10,800.0	6,776.1	6,764.1	6,764.1	121.4	135.8	89.63	917.9	-2,997.2	1,709.7	1,452.5	257.20	6.647	
10,826.7	6,776.0	6,764.0	6,764.0	122.2	135.8	89.62	917.9	-2,997.2	1,732.6	1,474.7	257.95	6.717	
10,900.0	6,775.7	6,763.7	6,763.7	124.2	135.8	89.60	917.9	-2,997.2	1,795.8	1,535.8	259.98	6.907	
10,925.2	6,775.6	6,763.6	6,763.6	124.9	135.7	89.60	917.9	-2,997.2	1,817.6	1,557.0	260.68	6.973	
11,000.0	6,775.3	6,763.3	6,763.3	127.0	135.7	89.58	917.9	-2,997.2	1,883.2	1,620.4	262.76	7.167	
11,023.6	6,775.2	6,763.2	6,763.2	127.7	135.7	89.57	917.9	-2,997.2	1,904.0	1,640.6	263.42	7.228	
11,100.0	6,774.9	6,762.9	6,762.9	129.8	135.7	89.55	917.9	-2,997.2	1,971.8	1,706.2	265.54	7.425	
11,122.0	6,774.8	6,762.8	6,762.8	130.4	135.7	89.54	917.9	-2,997.2	1,991.4	1,725.3	266.15	7.482	
11,200.0	6,774.5	6,762.5	6,762.5	132.6	135.7	89.52	917.9	-2,997.2	2,061.4	1,793.1	268.32	7.683	
11,220.4	6,774.4	6,762.4	6,762.4	133.2	135.7	89.52	917.9	-2,997.2	2,079.8	1,811.0	268.89	7.735	
11,300.0	6,774.1	6,762.1	6,762.1	135.4	135.7	89.50	917.9	-2,997.2	2,152.0	1,880.8	271.10	7.938	
11,318.9	6,774.0	6,762.0	6,762.0	135.9	135.7	89.49	917.9	-2,997.2	2,169.1	1,897.5	271.63	7.986	
11,400.0	6,773.7	6,761.7	6,761.7	138.2	135.7	89.47	917.9	-2,997.2	2,243.3	1,969.4	273.89	8.191	
11,417.3	6,773.6	6,761.6	6,761.6	138.7	135.7	89.47	917.9	-2,997.2	2,259.2	1,984.8	274.37	8.234	
11,500.0	6,773.3	6,761.3	6,761.3	141.0	135.7	89.44	917.9	-2,997.2	2,335.4	2,058.7	276.67	8.441	
11,515.7	6,773.2	6,761.2	6,761.2	141.4	135.7	89.44	917.9	-2,997.2	2,349.9	2,072.8	277.11	8.480	
11,600.0	6,772.9	6,760.9	6,760.9	143.8	135.7	89.42	917.9	-2,997.2	2,428.1	2,148.6	279.45	8.689	
11,614.1	6,772.8	6,760.8	6,760.8	144.2	135.7	89.41	917.9	-2,997.2	2,441.2	2,161.4	279.85	8.723	
11,700.0	6,772.5	6,760.5	6,760.5	146.6	135.7	89.39	917.9	-2,997.2	2,521.3	2,239.1	282.24	8.933	
11,712.6	6,772.4	6,760.4	6,760.4	146.9	135.7	89.39	917.9	-2,997.2	2,533.1	2,250.5	282.59	8.964	
11,800.0	6,772.1	6,760.1	6,760.1	149.4	135.7	89.36	917.9	-2,997.2	2,615.1	2,330.0	285.02	9.175	
11,811.0	6,772.1	6,760.1	6,760.1	149.7	135.7	89.36	917.9	-2,997.2	2,625.4	2,340.1	285.33	9.201	
11,900.0	6,771.7	6,759.7	6,759.7	152.2	135.7	89.34	917.9	-2,997.2	2,709.3	2,421.5	287.81	9.413	
11,909.4	6,771.7	6,759.7	6,759.7	152.4	135.7	89.33	917.9	-2,997.2	2,718.2	2,430.1	288.07	9.436	
12,000.0	6,771.3	6,759.3	6,759.3	154.9	135.7	89.31	917.9	-2,997.2	2,803.9	2,513.3	290.60	9.649	
12,007.8	6,771.3	6,759.3	6,759.3	155.2	135.7	89.31	917.9	-2,997.2	2,811.3	2,520.5	290.81	9.667	
12,100.0	6,770.9	6,758.9	6,758.9	157.7	135.7	89.28	917.9	-2,997.2	2,898.8	2,605.4	293.38	9.881	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER #18-1 - 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
12,106.3	6,770.9	6,758.9	6,758.9	157.9	135.7	89.28	917.9	-2,997.2	2,904.8	2,611.2	293.56	9.895	
12,200.0	6,770.5	6,758.5	6,758.5	160.5	135.6	89.25	917.9	-2,997.2	2,994.1	2,697.9	296.17	10.110	
12,204.7	6,770.5	6,758.5	6,758.5	160.7	135.6	89.25	917.9	-2,997.2	2,998.6	2,702.3	296.30	10.120	
12,300.0	6,770.1	6,758.1	6,758.1	163.3	135.6	89.23	917.9	-2,997.2	3,089.7	2,790.7	298.96	10.335	
12,303.1	6,770.1	6,758.1	6,758.1	163.4	135.6	89.23	917.9	-2,997.2	3,092.7	2,793.7	299.04	10.342	
12,316.4	6,770.0	6,758.0	6,758.0	163.8	135.6	89.22	917.9	-2,997.2	3,105.4	2,806.0	299.41	10.372	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-60.55	949.5	-1,681.6	1,931.2				
98.4	98.4	84.4	84.4	0.1	0.9	-60.55	949.5	-1,681.6	1,931.1	1,930.1	1.01	1,918.767	
100.0	100.0	86.0	86.0	0.1	0.9	-60.55	949.5	-1,681.6	1,931.1	1,930.1	1.03	1,883.665	
196.8	196.8	182.8	182.8	0.3	3.0	-60.55	949.5	-1,681.6	1,931.1	1,927.8	3.31	582.812	
200.0	200.0	186.0	186.0	0.3	3.1	-60.55	949.5	-1,681.6	1,931.1	1,927.7	3.39	569.062	
295.3	295.3	281.3	281.3	0.5	5.1	-60.55	949.5	-1,681.6	1,931.1	1,925.5	5.62	343.450	
300.0	300.0	286.0	286.0	0.5	5.2	-60.55	949.5	-1,681.6	1,931.1	1,925.4	5.73	336.924	
393.7	393.7	379.7	379.7	0.8	7.1	-60.55	949.5	-1,681.6	1,931.1	1,923.3	7.86	245.646	
400.0	400.0	386.0	386.0	0.8	7.2	-60.55	949.5	-1,681.6	1,931.1	1,923.1	8.00	241.262	
492.1	492.1	478.1	478.1	1.0	9.1	-60.55	949.5	-1,681.6	1,931.1	1,921.0	10.08	191.531	
500.0	500.0	486.0	486.0	1.0	9.3	-60.55	949.5	-1,681.6	1,931.1	1,920.9	10.26	188.217	
590.5	590.5	576.5	576.5	1.2	11.1	-60.55	949.5	-1,681.6	1,931.1	1,918.8	12.30	157.051	
600.0	600.0	586.0	586.0	1.2	11.3	-60.55	949.5	-1,681.6	1,931.1	1,918.6	12.51	154.385	
689.0	689.0	675.0	675.0	1.4	13.1	-60.55	949.5	-1,681.6	1,931.1	1,916.6	14.51	133.129	
700.0	700.0	686.0	686.0	1.4	13.3	-60.55	949.5	-1,681.6	1,931.1	1,916.4	14.75	130.897	
787.4	787.4	773.4	773.4	1.6	15.1	-60.55	949.5	-1,681.6	1,931.1	1,914.4	16.71	115.548	
800.0	800.0	786.0	786.0	1.7	15.3	-60.55	949.5	-1,681.6	1,931.1	1,914.1	17.00	113.627	
885.8	885.8	871.8	871.8	1.9	17.1	-60.55	949.5	-1,681.6	1,931.1	1,912.2	18.92	102.077	
900.0	900.0	886.0	886.0	1.9	17.3	-60.55	949.5	-1,681.6	1,931.1	1,911.9	19.24	100.392	
984.2	984.2	970.2	970.2	2.1	19.0	-60.55	949.5	-1,681.6	1,931.1	1,910.0	21.12	91.424	
1,000.0	1,000.0	986.0	986.0	2.1	19.4	-60.55	949.5	-1,681.6	1,931.1	1,909.7	21.48	89.922	
1,082.7	1,082.7	1,068.7	1,068.7	2.3	21.0	-60.55	949.5	-1,681.6	1,931.1	1,907.8	23.33	82.786	
1,100.0	1,100.0	1,086.0	1,086.0	2.3	21.4	-60.55	949.5	-1,681.6	1,931.1	1,907.4	23.71	81.432	
1,181.1	1,181.1	1,167.1	1,167.1	2.5	23.0	-60.55	949.5	-1,681.6	1,931.1	1,905.6	25.53	75.642	
1,200.0	1,200.0	1,186.0	1,186.0	2.6	23.4	-60.55	949.5	-1,681.6	1,931.1	1,905.2	25.95	74.409	
1,279.5	1,279.5	1,265.5	1,265.5	2.7	25.0	-60.55	949.5	-1,681.6	1,931.1	1,903.4	27.73	69.634	
1,300.0	1,300.0	1,286.0	1,286.0	2.8	25.4	-60.55	949.5	-1,681.6	1,931.1	1,902.9	28.19	68.502	
1,377.9	1,377.9	1,363.9	1,363.9	3.0	27.0	-60.55	949.5	-1,681.6	1,931.1	1,901.2	29.93	64.511	
1,400.0	1,400.0	1,386.0	1,386.0	3.0	27.4	-60.55	949.5	-1,681.6	1,931.1	1,900.7	30.43	63.465	
1,476.4	1,476.4	1,462.4	1,462.4	3.2	28.9	-60.55	949.5	-1,681.6	1,931.1	1,899.0	32.14	60.090	
1,500.0	1,500.0	1,486.0	1,486.0	3.2	29.4	-60.55	949.5	-1,681.6	1,931.1	1,898.5	32.67	59.118	
1,574.8	1,574.8	1,560.8	1,560.8	3.4	30.9	20.17	949.5	-1,681.6	1,930.2	1,895.9	34.32	56.241	
1,600.0	1,600.0	1,586.0	1,586.0	3.5	31.4	20.18	949.5	-1,681.6	1,929.5	1,894.6	34.87	55.330	
1,673.2	1,673.1	1,659.1	1,659.1	3.6	32.9	20.24	949.5	-1,681.6	1,926.2	1,889.8	36.45	52.838	
1,700.0	1,699.8	1,685.8	1,685.8	3.7	33.4	20.27	949.5	-1,681.6	1,924.6	1,887.6	37.03	51.978	
1,771.6	1,771.2	1,757.2	1,757.2	3.8	34.9	20.37	949.5	-1,681.6	1,919.1	1,880.5	38.54	49.792	
1,800.0	1,799.5	1,785.5	1,785.5	3.9	35.4	20.41	949.5	-1,681.6	1,916.4	1,877.3	39.13	48.972	
1,870.1	1,869.0	1,855.0	1,855.0	4.0	36.8	20.55	949.5	-1,681.6	1,908.7	1,868.2	40.58	47.040	
1,900.0	1,898.7	1,884.7	1,884.7	4.1	37.4	20.62	949.5	-1,681.6	1,905.0	1,863.8	41.18	46.256	
1,968.5	1,966.4	1,952.4	1,952.4	4.3	38.8	20.80	949.5	-1,681.6	1,895.3	1,852.7	42.55	44.538	
2,000.0	1,997.5	1,983.5	1,983.5	4.4	39.4	20.89	949.5	-1,681.6	1,890.3	1,847.2	43.17	43.785	
2,066.9	2,063.2	2,049.2	2,049.2	4.6	40.8	21.11	949.5	-1,681.6	1,878.7	1,834.3	44.47	42.247	
2,100.1	2,095.7	2,081.7	2,081.7	4.7	41.4	21.23	949.5	-1,681.6	1,872.5	1,827.4	45.10	41.518	
2,165.3	2,159.5	2,145.5	2,145.5	4.9	42.7	21.38	949.5	-1,681.6	1,859.8	1,813.3	46.52	39.979	
2,200.0	2,193.4	2,179.4	2,179.4	5.0	43.4	21.47	949.5	-1,681.6	1,853.1	1,805.8	47.27	39.200	
2,224.2	2,217.1	2,203.1	2,203.1	5.1	43.8	21.52	949.5	-1,681.6	1,848.4	1,800.6	47.80	38.669	
2,263.8	2,255.9	2,241.9	2,241.9	5.2	44.6	21.56	949.5	-1,681.6	1,840.9	1,792.2	48.77	37.745	
2,300.0	2,291.5	2,277.5	2,277.5	5.3	45.3	21.59	949.5	-1,681.6	1,834.6	1,784.9	49.66	36.945	
2,362.2	2,352.7	2,338.7	2,338.7	5.5	46.6	21.64	949.5	-1,681.6	1,824.7	1,773.5	51.16	35.664	
2,400.0	2,390.1	2,376.1	2,376.1	5.6	47.3	21.66	949.5	-1,681.6	1,819.2	1,767.2	52.07	34.935	
2,460.6	2,450.1	2,436.1	2,436.1	5.7	48.5	21.70	949.5	-1,681.6	1,811.5	1,758.0	53.53	33.842	
2,500.0	2,489.2	2,475.2	2,475.2	5.8	49.3	21.72	949.5	-1,681.6	1,807.1	1,752.7	54.47	33.179	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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		
2,559.0	2,548.0	2,534.0	2,534.0	6.0	50.5	21.75	949.5	-1,681.6	1,801.5	1,745.6	55.86	32.250		
2,600.0	2,588.8	2,574.8	2,574.8	6.1	51.3	21.77	949.5	-1,681.6	1,798.2	1,741.4	56.82	31.649		
2,657.5	2,646.1	2,632.1	2,632.1	6.2	52.5	21.79	949.5	-1,681.6	1,794.6	1,736.4	58.15	30.863		
2,700.0	2,688.6	2,674.6	2,674.6	6.3	53.3	21.80	949.5	-1,681.6	1,792.6	1,733.5	59.12	30.320		
2,755.9	2,744.4	2,730.4	2,730.4	6.4	54.5	21.81	949.5	-1,681.6	1,790.8	1,730.5	60.38	29.658		
2,800.0	2,788.5	2,774.5	2,774.5	6.5	55.3	21.81	949.5	-1,681.6	1,790.2	1,728.8	61.37	29.172		
2,824.3	2,812.8	2,798.8	2,798.8	6.5	55.8	-58.88	949.5	-1,681.6	1,790.1	1,727.8	62.28	28.743		
2,854.3	2,842.9	2,828.9	2,828.9	6.6	56.4	-58.88	949.5	-1,681.6	1,790.1	1,727.1	62.94	28.441		
2,900.0	2,888.5	2,874.5	2,874.5	6.7	57.4	-58.88	949.5	-1,681.6	1,790.1	1,726.1	63.94	27.995		
2,952.7	2,941.3	2,927.3	2,927.3	6.8	58.4	-58.88	949.5	-1,681.6	1,790.1	1,725.0	65.11	27.492		
3,000.0	2,988.5	2,974.5	2,974.5	6.9	59.4	-58.88	949.5	-1,681.6	1,790.1	1,723.9	66.16	27.057		
3,051.2	3,039.7	3,025.7	3,025.7	7.0	60.4	-58.88	949.5	-1,681.6	1,790.1	1,722.8	67.30	26.600		
3,100.0	3,088.5	3,074.5	3,074.5	7.1	61.4	-58.88	949.5	-1,681.6	1,790.1	1,721.7	68.38	26.179		
3,149.6	3,138.1	3,124.1	3,124.1	7.2	62.4	-58.88	949.5	-1,681.6	1,790.1	1,720.6	69.48	25.765		
3,200.0	3,188.5	3,174.5	3,174.5	7.3	63.4	-58.88	949.5	-1,681.6	1,790.1	1,719.5	70.60	25.357		
3,248.0	3,236.6	3,222.6	3,222.6	7.4	64.4	-58.88	949.5	-1,681.6	1,790.1	1,718.4	71.66	24.979		
3,300.0	3,288.5	3,274.5	3,274.5	7.5	65.4	-58.88	949.5	-1,681.6	1,790.1	1,717.3	72.82	24.584		
3,346.4	3,335.0	3,321.0	3,321.0	7.6	66.3	-58.88	949.5	-1,681.6	1,790.1	1,716.2	73.85	24.240		
3,400.0	3,388.5	3,374.5	3,374.5	7.7	67.4	-58.88	949.5	-1,681.6	1,790.1	1,715.0	75.04	23.856		
3,444.9	3,433.4	3,419.4	3,419.4	7.8	68.3	-58.88	949.5	-1,681.6	1,790.1	1,714.0	76.03	23.543		
3,500.0	3,488.5	3,474.5	3,474.5	7.9	69.4	-58.88	949.5	-1,681.6	1,790.1	1,712.8	77.26	23.170		
3,543.3	3,531.8	3,517.8	3,517.8	8.0	70.3	-58.88	949.5	-1,681.6	1,790.1	1,711.9	78.22	22.885		
3,600.0	3,588.5	3,574.5	3,574.5	8.1	71.4	-58.88	949.5	-1,681.6	1,790.1	1,710.6	79.48	22.522		
3,641.7	3,630.3	3,616.3	3,616.3	8.2	72.3	-58.88	949.5	-1,681.6	1,790.1	1,709.7	80.41	22.263		
3,700.0	3,688.5	3,674.5	3,674.5	8.3	73.4	-58.88	949.5	-1,681.6	1,790.1	1,708.4	81.70	21.910		
3,740.1	3,728.7	3,714.7	3,714.7	8.4	74.3	-58.88	949.5	-1,681.6	1,790.1	1,707.5	82.60	21.673		
3,800.0	3,788.5	3,774.5	3,774.5	8.5	75.5	-58.88	949.5	-1,681.6	1,790.1	1,706.2	83.93	21.329		
3,838.6	3,827.1	3,813.1	3,813.1	8.6	76.2	-58.88	949.5	-1,681.6	1,790.1	1,705.3	84.78	21.113		
3,900.0	3,888.5	3,874.5	3,874.5	8.7	77.5	-58.88	949.5	-1,681.6	1,790.1	1,703.9	86.15	20.778		
3,937.0	3,925.5	3,911.5	3,911.5	8.8	78.2	-58.88	949.5	-1,681.6	1,790.1	1,703.1	86.97	20.582		
4,000.0	3,988.5	3,974.5	3,974.5	9.0	79.5	-58.88	949.5	-1,681.6	1,790.1	1,701.7	88.38	20.255		
4,035.4	4,024.0	4,010.0	4,010.0	9.0	80.2	-58.88	949.5	-1,681.6	1,790.1	1,700.9	89.16	20.076		
4,100.0	4,088.5	4,074.5	4,074.5	9.2	81.5	-58.88	949.5	-1,681.6	1,790.1	1,699.5	90.60	19.758		
4,133.8	4,122.4	4,108.4	4,108.4	9.2	82.2	-58.88	949.5	-1,681.6	1,790.1	1,698.7	91.35	19.595		
4,200.0	4,188.5	4,174.5	4,174.5	9.4	83.5	-58.88	949.5	-1,681.6	1,790.1	1,697.3	92.83	19.284		
4,232.3	4,220.8	4,206.8	4,206.8	9.4	84.1	-58.88	949.5	-1,681.6	1,790.1	1,696.5	93.54	19.136		
4,300.0	4,288.5	4,274.5	4,274.5	9.6	85.5	-58.88	949.5	-1,681.6	1,790.1	1,695.0	95.05	18.833		
4,330.7	4,319.2	4,305.2	4,305.2	9.7	86.1	-58.88	949.5	-1,681.6	1,790.1	1,694.3	95.74	18.698		
4,400.0	4,388.5	4,374.5	4,374.5	9.8	87.5	-58.88	949.5	-1,681.6	1,790.1	1,692.8	97.28	18.401		
4,429.1	4,417.7	4,403.7	4,403.7	9.9	88.1	-58.88	949.5	-1,681.6	1,790.1	1,692.2	97.93	18.280		
4,500.0	4,488.5	4,474.5	4,474.5	10.0	89.5	-58.88	949.5	-1,681.6	1,790.1	1,690.6	99.51	17.990		
4,527.5	4,516.1	4,502.1	4,502.1	10.1	90.1	-58.88	949.5	-1,681.6	1,790.1	1,690.0	100.12	17.879		
4,600.0	4,588.5	4,574.5	4,574.5	10.2	91.5	-58.88	949.5	-1,681.6	1,790.1	1,688.3	101.73	17.596		
4,626.0	4,614.5	4,600.5	4,600.5	10.3	92.1	-58.88	949.5	-1,681.6	1,790.1	1,687.8	102.31	17.496		
4,700.0	4,688.5	4,674.5	4,674.5	10.5	93.6	-58.88	949.5	-1,681.6	1,790.1	1,686.1	103.96	17.219		
4,724.4	4,712.9	4,698.9	4,698.9	10.5	94.0	-58.88	949.5	-1,681.6	1,790.1	1,685.6	104.51	17.129		
4,800.0	4,788.5	4,774.5	4,774.5	10.7	95.6	-58.88	949.5	-1,681.6	1,790.1	1,683.9	106.19	16.857		
4,822.8	4,811.4	4,797.4	4,797.4	10.7	96.0	-58.88	949.5	-1,681.6	1,790.1	1,683.4	106.70	16.777		
4,900.0	4,888.5	4,874.5	4,874.5	10.9	97.6	-58.88	949.5	-1,681.6	1,790.1	1,681.7	108.42	16.511		
4,921.2	4,909.8	4,895.8	4,895.8	10.9	98.0	-58.88	949.5	-1,681.6	1,790.1	1,681.2	108.89	16.439		
5,000.0	4,988.5	4,974.5	4,974.5	11.1	99.6	-58.88	949.5	-1,681.6	1,790.1	1,679.4	110.65	16.178		
5,019.7	5,008.2	4,994.2	4,994.2	11.1	100.0	-58.88	949.5	-1,681.6	1,790.1	1,679.0	111.09	16.115		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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		SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER B18-1 - 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														
5,100.0	5,088.5	5,074.5	5,074.5	11.3	101.6	-58.88	949.5	-1,681.6	1,790.1	1,677.2	112.88	15.859														
5,118.1	5,106.6	5,092.6	5,092.6	11.4	102.0	-58.88	949.5	-1,681.6	1,790.1	1,676.8	113.28	15.802														
5,200.0	5,188.5	5,174.5	5,174.5	11.5	103.6	-58.88	949.5	-1,681.6	1,790.1	1,675.0	115.10	15.552														
5,216.5	5,205.1	5,191.1	5,191.1	11.6	103.9	-58.88	949.5	-1,681.6	1,790.1	1,674.6	115.47	15.502														
5,300.0	5,288.5	5,274.5	5,274.5	11.8	105.6	-58.88	949.5	-1,681.6	1,790.1	1,672.7	117.33	15.256														
5,314.9	5,303.5	5,289.5	5,289.5	11.8	105.9	-58.88	949.5	-1,681.6	1,790.1	1,672.4	117.67	15.213														
														5,400.0	5,388.5	5,374.5	5,374.5	12.0	107.6	-58.88	949.5	-1,681.6	1,790.1	1,670.5	119.56	14.972
														5,413.4	5,401.9	5,387.9	5,387.9	12.0	107.9	-58.88	949.5	-1,681.6	1,790.1	1,670.2	119.86	14.935
														5,500.0	5,488.5	5,474.5	5,474.5	12.2	109.6	-58.88	949.5	-1,681.6	1,790.1	1,668.3	121.79	14.698
														5,511.8	5,500.3	5,486.3	5,486.3	12.2	109.9	-58.88	949.5	-1,681.6	1,790.1	1,668.0	122.06	14.666
5,600.0	5,588.5	5,574.5	5,574.5	12.4	111.7	-58.88	949.5	-1,681.6	1,790.1	1,666.1	124.02	14.433														
														5,610.2	5,598.8	5,584.8	5,584.8	12.4	111.9	-58.88	949.5	-1,681.6	1,790.1	1,665.8	124.25	14.407
														5,700.0	5,688.5	5,674.5	5,674.5	12.6	113.7	-58.88	949.5	-1,681.6	1,790.1	1,663.8	126.25	14.178
														5,708.6	5,697.2	5,683.2	5,683.2	12.6	113.8	-58.88	949.5	-1,681.6	1,790.1	1,663.6	126.45	14.157
														5,800.0	5,788.5	5,774.5	5,774.5	12.8	115.7	-58.88	949.5	-1,681.6	1,790.1	1,661.6	128.48	13.932
5,807.1	5,795.6	5,781.6	5,781.6	12.9	115.8	-58.88	949.5	-1,681.6	1,790.1	1,661.4	128.64	13.915														
														5,900.0	5,888.5	5,874.5	5,874.5	13.1	117.7	-58.88	949.5	-1,681.6	1,790.1	1,659.4	130.72	13.695
														5,905.5	5,894.0	5,880.0	5,880.0	13.1	117.8	-58.88	949.5	-1,681.6	1,790.1	1,659.2	130.84	13.682
														6,000.0	5,988.5	5,974.5	5,974.5	13.3	119.7	-58.88	949.5	-1,681.6	1,790.1	1,657.1	132.95	13.465
														6,003.9	5,992.5	5,978.5	5,978.5	13.3	119.8	-58.88	949.5	-1,681.6	1,790.1	1,657.0	133.03	13.456
6,085.3	6,073.8	6,059.8	6,059.8	13.5	121.4	-58.88	949.5	-1,681.6	1,790.1	1,655.2	134.85	13.275														
														6,100.0	6,088.5	6,074.5	6,074.5	13.5	121.7	31.12	949.5	-1,681.6	1,790.0	1,655.0	134.96	13.262
														6,102.3	6,090.9	6,076.9	6,076.9	13.5	121.8	31.13	949.5	-1,681.6	1,789.9	1,654.9	135.01	13.258
														6,150.0	6,138.4	6,124.4	6,124.4	13.6	122.7	31.27	949.5	-1,681.6	1,787.6	1,651.9	135.71	13.172
														6,200.0	6,188.0	6,174.0	6,174.0	13.7	123.7	31.60	949.5	-1,681.6	1,782.2	1,646.3	135.99	13.106
6,200.8	6,188.8	6,174.8	6,174.8	13.7	123.7	31.60	949.5	-1,681.6	1,782.1	1,646.1	135.99	13.105														
														6,250.0	6,237.1	6,223.1	6,223.1	13.9	124.7	32.11	949.5	-1,681.6	1,774.0	1,638.2	135.81	13.062
														6,299.2	6,284.6	6,270.6	6,270.6	14.0	125.7	32.82	949.5	-1,681.6	1,763.0	1,627.8	135.21	13.039
														6,300.0	6,285.3	6,271.3	6,271.3	14.0	125.7	32.83	949.5	-1,681.6	1,762.8	1,627.6	135.20	13.038
														6,350.0	6,332.5	6,318.5	6,318.5	14.2	126.6	33.76	949.5	-1,681.6	1,748.8	1,614.6	134.23	13.029
6,397.6	6,376.3	6,362.3	6,362.3	14.4	127.5	34.85	949.5	-1,681.6	1,733.0	1,600.0	133.04	13.026														
														6,400.0	6,378.5	6,364.5	6,364.5	14.4	127.5	34.91	949.5	-1,681.6	1,732.2	1,599.2	132.98	13.026
														6,450.0	6,423.0	6,409.0	6,409.0	14.7	128.4	36.31	949.5	-1,681.6	1,712.9	1,581.4	131.56	13.020
														6,496.0	6,462.4	6,448.4	6,448.4	14.9	129.2	37.84	949.5	-1,681.6	1,693.0	1,562.8	130.23	13.000
														6,500.0	6,465.7	6,451.7	6,451.7	14.9	129.3	37.98	949.5	-1,681.6	1,691.2	1,561.1	130.12	12.997
6,550.0	6,506.6	6,492.6	6,492.6	15.2	130.1	39.93	949.5	-1,681.6	1,667.2	1,538.3	128.86	12.938														
														6,594.5	6,541.2	6,527.2	6,527.2	15.6	130.8	41.93	949.5	-1,681.6	1,644.0	1,515.9	128.05	12.838
														6,600.0	6,545.3	6,531.3	6,531.3	15.6	130.9	42.20	949.5	-1,681.6	1,641.0	1,513.0	127.98	12.822
														6,650.0	6,581.8	6,567.8	6,567.8	16.0	131.6	44.81	949.5	-1,681.6	1,612.8	1,485.1	127.72	12.628
														6,692.9	6,611.1	6,597.1	6,597.1	16.4	132.2	47.33	949.5	-1,681.6	1,587.3	1,459.1	128.16	12.385
6,700.0	6,615.8	6,601.8	6,601.8	16.5	132.3	47.77	949.5	-1,681.6	1,582.9	1,454.7	128.30	12.338														
														6,750.0	6,647.1	6,633.1	6,633.1	17.1	132.9	51.10	949.5	-1,681.6	1,551.5	1,421.6	129.86	11.947
														6,791.3	6,670.9	6,656.9	6,656.9	17.6	133.4	54.12	949.5	-1,681.6	1,524.5	1,392.6	131.95	11.554
														6,800.0	6,675.7	6,661.7	6,661.7	17.7	133.5	54.79	949.5	-1,681.6	1,518.8	1,386.3	132.47	11.465
														6,850.0	6,701.3	6,687.3	6,687.3	18.4	134.0	58.81	949.5	-1,681.6	1,484.9	1,348.9	136.03	10.916
6,889.7	6,719.5	6,705.5	6,705.5	19.0	134.4	62.22	949.5	-1,681.6	1,457.5	1,318.1	139.38	10.457														
														6,900.0	6,723.8	6,709.8	6,709.8	19.1	134.5	63.12	949.5	-1,681.6	1,450.3	1,310.0	140.29	10.338
														6,950.0	6,743.2	6,729.2	6,729.2	20.0	134.9	67.63	949.5	-1,681.6	1,415.1	1,270.2	144.89	9.767
														6,988.2	6,755.8	6,741.8	6,741.8	20.6	135.1	71.15	949.5	-1,681.6	1,388.1	1,239.7	148.36	9.356
														7,000.0	6,759.4	6,745.4	6,745.4	20.9	135.2	72.24	949.5	-1,681.6	1,379.7	1,230.3	149.39	9.235
7,050.0	6,772.1	6,758.1	6,758.1	21.8	135.5	76.83	949.5	-1,681.6	1,344.2	1,190.8	153.43	8.761														
														7,086.6	6,779.4	6,765.4	6,765.4	22.5	135.6	80.10	949.5	-1,681.6	1,318.4	1,162.5	155.92	8.456

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER B18-1 - 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	
7,100.0	6,781.5	6,767.5	6,767.5	22.8	135.6	81.27	949.5	-1,681.6	1,309.0	1,152.3	156.71	8.353	
7,150.0	6,787.5	6,773.5	6,773.5	23.9	135.8	85.45	949.5	-1,681.6	1,274.4	1,115.2	159.14	8.008	
7,185.0	6,789.6	6,775.6	6,775.6	24.6	135.8	88.16	949.5	-1,681.6	1,250.6	1,090.3	160.33	7.800	
7,200.0	6,789.9	6,775.9	6,775.9	24.9	135.8	89.27	949.5	-1,681.6	1,240.6	1,079.8	160.73	7.718	
7,213.0	6,790.0	6,776.0	6,776.0	25.2	135.8	90.19	949.5	-1,681.6	1,232.0	1,070.9	161.02	7.651	
7,283.4	6,789.7	6,775.7	6,775.7	26.8	135.8	90.17	949.5	-1,681.6	1,186.6	1,024.0	162.59	7.298	
7,300.0	6,789.7	6,775.7	6,775.7	27.2	135.8	90.17	949.5	-1,681.6	1,176.3	1,013.3	162.96	7.218	
7,381.9	6,789.4	6,775.4	6,775.4	29.1	135.8	90.15	949.5	-1,681.6	1,127.6	962.7	164.86	6.840	
7,400.0	6,789.3	6,775.3	6,775.3	29.5	135.8	90.15	949.5	-1,681.6	1,117.3	952.0	165.28	6.760	
7,480.3	6,789.0	6,775.0	6,775.0	31.4	135.8	90.13	949.5	-1,681.6	1,074.3	907.1	167.21	6.425	
7,500.0	6,788.9	6,774.9	6,774.9	31.9	135.8	90.12	949.5	-1,681.6	1,064.4	896.8	167.68	6.348	
7,578.7	6,788.6	6,774.6	6,774.6	33.8	135.8	90.10	949.5	-1,681.6	1,027.8	858.2	169.61	6.060	
7,600.0	6,788.5	6,774.5	6,774.5	34.4	135.8	90.10	949.5	-1,681.6	1,018.7	848.6	170.14	5.987	
7,677.1	6,788.2	6,774.2	6,774.2	36.3	135.8	90.08	949.5	-1,681.6	988.9	816.8	172.07	5.747	
7,700.0	6,788.2	6,774.2	6,774.2	36.9	135.8	90.08	949.5	-1,681.6	981.0	808.4	172.65	5.682	
7,775.6	6,787.9	6,773.9	6,773.9	38.8	135.8	90.06	949.5	-1,681.6	958.5	783.9	174.57	5.491	
7,800.0	6,787.8	6,773.8	6,773.8	39.4	135.8	90.05	949.5	-1,681.6	952.4	777.2	175.19	5.436	
7,874.0	6,787.5	6,773.5	6,773.5	41.3	135.8	90.04	949.5	-1,681.6	937.6	760.5	177.10	5.294	
7,900.0	6,787.4	6,773.4	6,773.4	42.0	135.8	90.03	949.5	-1,681.6	933.7	755.9	177.77	5.252	
7,972.4	6,787.1	6,773.1	6,773.1	43.9	135.8	90.01	949.5	-1,681.6	926.6	747.0	179.66	5.158	
8,000.0	6,787.0	6,773.0	6,773.0	44.6	135.8	90.01	949.5	-1,681.6	925.4	745.1	180.38	5.130	
8,026.6	6,786.9	6,772.9	6,772.9	45.3	135.8	90.00	949.5	-1,681.6	925.1	744.0	181.08	5.108 CC	
8,070.8	6,786.7	6,772.7	6,772.7	46.5	135.8	89.99	949.5	-1,681.6	926.1	743.9	182.25	5.082 ES	
8,100.0	6,786.6	6,772.6	6,772.6	47.3	135.7	89.98	949.5	-1,681.6	928.0	744.9	183.01	5.070	
8,169.3	6,786.4	6,772.4	6,772.4	49.1	135.7	89.97	949.5	-1,681.6	936.0	751.1	184.85	5.064 SF	
8,200.0	6,786.3	6,772.3	6,772.3	49.9	135.7	89.96	949.5	-1,681.6	941.2	755.5	185.66	5.069	
8,267.7	6,786.0	6,772.0	6,772.0	51.7	135.7	89.94	949.5	-1,681.6	956.0	768.5	187.47	5.099	
8,300.0	6,785.9	6,771.9	6,771.9	52.6	135.7	89.94	949.5	-1,681.6	964.6	776.3	188.33	5.122	
8,366.1	6,785.6	6,771.6	6,771.6	54.4	135.7	89.92	949.5	-1,681.6	985.4	795.3	190.10	5.184	
8,400.0	6,785.5	6,771.5	6,771.5	55.3	135.7	89.91	949.5	-1,681.6	997.6	806.6	191.00	5.223	
8,464.5	6,785.2	6,771.2	6,771.2	57.0	135.7	89.90	949.5	-1,681.6	1,023.5	830.7	192.74	5.310	
8,500.0	6,785.1	6,771.1	6,771.1	58.0	135.7	89.89	949.5	-1,681.6	1,039.1	845.4	193.70	5.365	
8,563.0	6,784.9	6,770.9	6,770.9	59.7	135.7	89.87	949.5	-1,681.6	1,069.3	873.9	195.40	5.472	
8,600.0	6,784.7	6,770.7	6,770.7	60.7	135.7	89.86	949.5	-1,681.6	1,088.3	891.9	196.40	5.542	
8,661.4	6,784.5	6,770.5	6,770.5	62.4	135.7	89.85	949.5	-1,681.6	1,121.9	923.8	198.06	5.664	
8,700.0	6,784.3	6,770.3	6,770.3	63.4	135.7	89.84	949.5	-1,681.6	1,144.2	945.1	199.10	5.747	
8,759.8	6,784.1	6,770.1	6,770.1	65.0	135.7	89.82	949.5	-1,681.6	1,180.4	979.7	200.73	5.880	
8,800.0	6,784.0	6,770.0	6,770.0	66.1	135.7	89.82	949.5	-1,681.6	1,205.7	1,003.9	201.82	5.974	
8,858.2	6,783.7	6,769.7	6,769.7	67.7	135.7	89.80	949.5	-1,681.6	1,243.9	1,040.5	203.41	6.115	
8,900.0	6,783.6	6,769.6	6,769.6	68.9	135.7	89.79	949.5	-1,681.6	1,272.2	1,067.7	204.55	6.220	
8,956.7	6,783.3	6,769.3	6,769.3	70.4	135.7	89.78	949.5	-1,681.6	1,311.8	1,105.7	206.09	6.365	
9,000.0	6,783.2	6,769.2	6,769.2	71.6	135.7	89.77	949.5	-1,681.6	1,342.8	1,135.5	207.28	6.478	
9,055.1	6,783.0	6,769.0	6,769.0	73.1	135.7	89.75	949.5	-1,681.6	1,383.3	1,174.5	208.78	6.625	
9,100.0	6,782.8	6,768.8	6,768.8	74.3	135.7	89.74	949.5	-1,681.6	1,417.0	1,207.0	210.01	6.747	
9,153.5	6,782.6	6,768.6	6,768.6	75.8	135.7	89.73	949.5	-1,681.6	1,457.9	1,246.5	211.48	6.894	
9,200.0	6,782.4	6,768.4	6,768.4	77.1	135.7	89.72	949.5	-1,681.6	1,494.2	1,281.4	212.75	7.023	
9,251.9	6,782.2	6,768.2	6,768.2	78.5	135.7	89.71	949.5	-1,681.6	1,535.3	1,321.1	214.18	7.168	
9,300.0	6,782.0	6,768.0	6,768.0	79.8	135.7	89.69	949.5	-1,681.6	1,573.9	1,358.4	215.50	7.304	
9,350.4	6,781.8	6,767.8	6,767.8	81.2	135.7	89.68	949.5	-1,681.6	1,614.9	1,398.1	216.88	7.446	
9,400.0	6,781.6	6,767.6	6,767.6	82.6	135.6	89.67	949.5	-1,681.6	1,655.9	1,437.6	218.24	7.587	
9,448.8	6,781.4	6,767.4	6,767.4	83.9	135.6	89.66	949.5	-1,681.6	1,696.6	1,477.0	219.59	7.726	
9,500.0	6,781.2	6,767.2	6,767.2	85.4	135.6	89.64	949.5	-1,681.6	1,739.7	1,518.7	221.00	7.872	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,781.0	6,767.0	6,767.0	86.7	135.6	89.63	949.5	-1,681.6	1,779.9	1,557.6	222.30	8.007	
9,600.0	6,780.8	6,766.8	6,766.8	88.1	135.6	89.62	949.5	-1,681.6	1,825.2	1,601.4	223.75	8.157	
9,645.6	6,780.7	6,766.7	6,766.7	89.4	135.6	89.61	949.5	-1,681.6	1,864.7	1,639.6	225.01	8.287	
9,700.0	6,780.5	6,766.5	6,766.5	90.9	135.6	89.59	949.5	-1,681.6	1,912.0	1,685.5	226.51	8.441	
9,744.1	6,780.3	6,766.3	6,766.3	92.1	135.6	89.58	949.5	-1,681.6	1,950.7	1,723.0	227.72	8.566	
9,800.0	6,780.1	6,766.1	6,766.1	93.7	135.6	89.57	949.5	-1,681.6	2,000.1	1,770.9	229.27	8.724	
9,842.5	6,779.9	6,765.9	6,765.9	94.8	135.6	89.56	949.5	-1,681.6	2,037.9	1,807.5	230.44	8.843	
9,900.0	6,779.7	6,765.7	6,765.7	96.4	135.6	89.54	949.5	-1,681.6	2,089.3	1,857.3	232.03	9.004	
9,940.9	6,779.5	6,765.5	6,765.5	97.6	135.6	89.53	949.5	-1,681.6	2,126.1	1,892.9	233.16	9.118	
10,000.0	6,779.3	6,765.3	6,765.3	99.2	135.6	89.52	949.5	-1,681.6	2,179.4	1,944.6	234.80	9.282	
10,039.3	6,779.1	6,765.1	6,765.1	100.3	135.6	89.51	949.5	-1,681.6	2,215.1	1,979.2	235.88	9.391	
10,100.0	6,778.9	6,764.9	6,764.9	102.0	135.6	89.49	949.5	-1,681.6	2,270.4	2,032.8	237.56	9.557	
10,137.8	6,778.7	6,764.7	6,764.7	103.0	135.6	89.48	949.5	-1,681.6	2,304.9	2,066.3	238.61	9.660	
10,200.0	6,778.5	6,764.5	6,764.5	104.8	135.6	89.47	949.5	-1,681.6	2,362.0	2,121.7	240.33	9.828	
10,236.2	6,778.3	6,764.3	6,764.3	105.8	135.6	89.46	949.5	-1,681.6	2,395.4	2,154.1	241.33	9.926	
10,300.0	6,778.1	6,764.1	6,764.1	107.5	135.6	89.44	949.5	-1,681.6	2,454.4	2,211.3	243.10	10.096	
10,334.6	6,778.0	6,764.0	6,764.0	108.5	135.6	89.44	949.5	-1,681.6	2,486.5	2,242.4	244.06	10.188	
10,400.0	6,777.7	6,763.7	6,763.7	110.3	135.6	89.42	949.5	-1,681.6	2,547.3	2,301.4	245.87	10.360	
10,433.0	6,777.6	6,763.6	6,763.6	111.2	135.6	89.41	949.5	-1,681.6	2,578.1	2,331.3	246.79	10.447	
10,500.0	6,777.3	6,763.3	6,763.3	113.1	135.6	89.39	949.5	-1,681.6	2,640.7	2,392.0	248.65	10.620	
10,531.5	6,777.2	6,763.2	6,763.2	114.0	135.6	89.39	949.5	-1,681.6	2,670.2	2,420.7	249.52	10.701	
10,600.0	6,776.9	6,762.9	6,762.9	115.9	135.6	89.37	949.5	-1,681.6	2,734.6	2,483.2	251.42	10.877	
10,629.9	6,776.8	6,762.8	6,762.8	116.7	135.6	89.36	949.5	-1,681.6	2,762.7	2,510.5	252.25	10.952	
10,700.0	6,776.5	6,762.5	6,762.5	118.7	135.5	89.34	949.5	-1,681.6	2,828.9	2,574.7	254.20	11.129	
10,728.3	6,776.4	6,762.4	6,762.4	119.5	135.5	89.33	949.5	-1,681.6	2,855.7	2,600.7	254.98	11.199	
10,800.0	6,776.1	6,762.1	6,762.1	121.4	135.5	89.32	949.5	-1,681.6	2,923.6	2,666.6	256.97	11.377	
10,826.7	6,776.0	6,762.0	6,762.0	122.2	135.5	89.31	949.5	-1,681.6	2,949.0	2,691.2	257.72	11.443	
10,900.0	6,775.7	6,761.7	6,761.7	124.2	135.5	89.29	949.5	-1,681.6	3,018.6	2,758.8	259.75	11.621	
10,925.2	6,775.6	6,761.6	6,761.6	124.9	135.5	89.28	949.5	-1,681.6	3,042.6	2,782.1	260.45	11.682	
11,000.0	6,775.3	6,761.3	6,761.3	127.0	135.5	89.26	949.5	-1,681.6	3,113.9	2,851.4	262.53	11.861	
11,023.6	6,775.2	6,761.2	6,761.2	127.7	135.5	89.26	949.5	-1,681.6	3,136.5	2,873.3	263.18	11.917	
11,100.0	6,774.9	6,760.9	6,760.9	129.8	135.5	89.24	949.5	-1,681.6	3,209.6	2,944.2	265.31	12.097	
11,122.0	6,774.8	6,760.8	6,760.8	130.4	135.5	89.23	949.5	-1,681.6	3,230.6	2,964.7	265.92	12.149	
11,200.0	6,774.5	6,760.5	6,760.5	132.6	135.5	89.21	949.5	-1,681.6	3,305.4	3,037.3	268.09	12.330	
11,220.4	6,774.4	6,760.4	6,760.4	133.2	135.5	89.21	949.5	-1,681.6	3,325.1	3,056.4	268.66	12.377	
11,300.0	6,774.1	6,760.1	6,760.1	135.4	135.5	89.19	949.5	-1,681.6	3,401.6	3,130.7	270.87	12.558	
11,318.9	6,774.0	6,760.0	6,760.0	135.9	135.5	89.18	949.5	-1,681.6	3,419.7	3,148.3	271.39	12.601	
11,400.0	6,773.7	6,759.7	6,759.7	138.2	135.5	89.16	949.5	-1,681.6	3,497.9	3,224.2	273.65	12.782	
11,417.3	6,773.6	6,759.6	6,759.6	138.7	135.5	89.16	949.5	-1,681.6	3,514.6	3,240.4	274.13	12.821	
11,500.0	6,773.3	6,759.3	6,759.3	141.0	135.5	89.13	949.5	-1,681.6	3,594.4	3,318.0	276.43	13.003	
11,515.7	6,773.2	6,759.2	6,759.2	141.4	135.5	89.13	949.5	-1,681.6	3,609.6	3,332.8	276.87	13.037	
11,600.0	6,772.9	6,758.9	6,758.9	143.8	135.5	89.11	949.5	-1,681.6	3,691.1	3,411.9	279.22	13.220	
11,614.1	6,772.8	6,758.8	6,758.8	144.2	135.5	89.10	949.5	-1,681.6	3,704.8	3,425.2	279.61	13.250	
11,700.0	6,772.5	6,758.5	6,758.5	146.6	135.5	89.08	949.5	-1,681.6	3,788.0	3,506.0	282.00	13.433	
11,712.6	6,772.4	6,758.4	6,758.4	146.9	135.5	89.08	949.5	-1,681.6	3,800.2	3,517.9	282.35	13.459	
11,800.0	6,772.1	6,758.1	6,758.1	149.4	135.5	89.06	949.5	-1,681.6	3,885.1	3,600.3	284.78	13.642	
11,811.0	6,772.1	6,758.1	6,758.1	149.7	135.5	89.05	949.5	-1,681.6	3,895.8	3,610.7	285.09	13.665	
11,900.0	6,771.7	6,757.7	6,757.7	152.2	135.4	89.03	949.5	-1,681.6	3,982.3	3,694.7	287.57	13.848	
11,909.4	6,771.7	6,757.7	6,757.7	152.4	135.4	89.03	949.5	-1,681.6	3,991.4	3,703.6	287.83	13.867	
12,000.0	6,771.3	6,757.3	6,757.3	154.9	135.4	89.00	949.5	-1,681.6	4,079.6	3,789.3	290.35	14.050	
12,007.8	6,771.3	6,757.3	6,757.3	155.2	135.4	89.00	949.5	-1,681.6	4,087.3	3,796.7	290.57	14.066	
12,100.0	6,770.9	6,756.9	6,756.9	157.7	135.4	88.98	949.5	-1,681.6	4,177.1	3,883.9	293.14	14.249	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT GUNTHER B18-1 - 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
12,106.3	6,770.9	6,756.9	6,756.9	157.9	135.4	88.97	949.5	-1,681.6	4,183.2	3,889.9	293.31	14.262	
12,200.0	6,770.5	6,756.5	6,756.5	160.5	135.4	88.95	949.5	-1,681.6	4,274.6	3,978.7	295.93	14.445	
12,204.7	6,770.5	6,756.5	6,756.5	160.7	135.4	88.95	949.5	-1,681.6	4,279.2	3,983.2	296.06	14.454	
12,300.0	6,770.1	6,756.1	6,756.1	163.3	135.4	88.92	949.5	-1,681.6	4,372.3	4,073.6	298.71	14.637	
12,303.1	6,770.1	6,756.1	6,756.1	163.4	135.4	88.92	949.5	-1,681.6	4,375.4	4,076.6	298.80	14.643	
12,316.4	6,770.0	6,756.0	6,756.0	163.8	135.4	88.92	949.5	-1,681.6	4,388.3	4,089.2	299.17	14.668	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	69.70	888.7	2,402.9	2,562.0				
98.4	98.4	88.4	88.4	0.1	0.9	69.70	888.7	2,402.9	2,562.0	2,561.0	1.00	2,555.634	
100.0	100.0	90.0	90.0	0.1	0.9	69.70	888.7	2,402.9	2,562.0	2,561.0	1.02	2,510.763	
196.8	196.8	186.8	186.8	0.3	3.0	69.70	888.7	2,402.9	2,562.0	2,558.6	3.36	761.610	
200.0	200.0	190.0	190.0	0.3	3.1	69.70	888.7	2,402.9	2,562.0	2,558.5	3.44	743.818	
295.3	295.3	285.3	285.3	0.5	5.1	69.70	888.7	2,402.9	2,562.0	2,556.3	5.67	452.175	
300.0	300.0	290.0	290.0	0.5	5.2	69.70	888.7	2,402.9	2,562.0	2,556.2	5.77	443.645	
393.7	393.7	383.7	383.7	0.8	7.1	69.70	888.7	2,402.9	2,562.0	2,554.1	7.90	324.168	
400.0	400.0	390.0	390.0	0.8	7.3	69.70	888.7	2,402.9	2,562.0	2,553.9	8.05	318.413	
492.1	492.1	482.1	482.1	1.0	9.1	69.70	888.7	2,402.9	2,562.0	2,551.9	10.12	253.063	
500.0	500.0	490.0	490.0	1.0	9.3	69.70	888.7	2,402.9	2,562.0	2,551.7	10.30	248.703	
590.5	590.5	580.5	580.5	1.2	11.1	69.70	888.7	2,402.9	2,562.0	2,549.7	12.34	207.664	
600.0	600.0	590.0	590.0	1.2	11.3	69.70	888.7	2,402.9	2,562.0	2,549.4	12.55	204.149	
689.0	689.0	679.0	679.0	1.4	13.1	69.70	888.7	2,402.9	2,562.0	2,547.4	14.55	176.124	
700.0	700.0	690.0	690.0	1.4	13.3	69.70	888.7	2,402.9	2,562.0	2,547.2	14.79	173.178	
787.4	787.4	777.4	777.4	1.6	15.1	69.70	888.7	2,402.9	2,562.0	2,545.2	16.75	152.922	
800.0	800.0	790.0	790.0	1.7	15.4	69.70	888.7	2,402.9	2,562.0	2,545.0	17.04	150.387	
885.8	885.8	875.8	875.8	1.9	17.1	69.70	888.7	2,402.9	2,562.0	2,543.0	18.96	135.133	
900.0	900.0	890.0	890.0	1.9	17.4	69.70	888.7	2,402.9	2,562.0	2,542.7	19.28	132.907	
984.2	984.2	974.2	974.2	2.1	19.1	69.70	888.7	2,402.9	2,562.0	2,540.8	21.16	121.057	
1,000.0	1,000.0	990.0	990.0	2.1	19.4	69.70	888.7	2,402.9	2,562.0	2,540.5	21.52	119.073	
1,082.7	1,082.7	1,072.7	1,072.7	2.3	21.1	69.70	888.7	2,402.9	2,562.0	2,538.6	23.37	109.641	
1,100.0	1,100.0	1,090.0	1,090.0	2.3	21.4	69.70	888.7	2,402.9	2,562.0	2,538.2	23.76	107.850	
1,181.1	1,181.1	1,171.1	1,171.1	2.5	23.0	69.70	888.7	2,402.9	2,562.0	2,536.4	25.57	100.194	
1,200.0	1,200.0	1,190.0	1,190.0	2.6	23.4	69.70	888.7	2,402.9	2,562.0	2,536.0	25.99	98.563	
1,279.5	1,279.5	1,269.5	1,269.5	2.7	25.0	69.70	888.7	2,402.9	2,562.0	2,534.2	27.77	92.247	
1,300.0	1,300.0	1,290.0	1,290.0	2.8	25.4	69.70	888.7	2,402.9	2,562.0	2,533.8	28.23	90.750	
1,377.9	1,377.9	1,367.9	1,367.9	3.0	27.0	69.70	888.7	2,402.9	2,562.0	2,532.0	29.98	85.470	
1,400.0	1,400.0	1,390.0	1,390.0	3.0	27.4	69.70	888.7	2,402.9	2,562.0	2,531.5	30.47	84.086	
1,476.4	1,476.4	1,466.4	1,466.4	3.2	29.0	69.70	888.7	2,402.9	2,562.0	2,529.8	32.18	79.620	
1,500.0	1,500.0	1,490.0	1,490.0	3.2	29.5	69.70	888.7	2,402.9	2,562.0	2,529.3	32.71	78.334 CC	
1,574.8	1,574.8	1,564.8	1,564.8	3.4	31.0	150.41	888.7	2,402.9	2,562.8	2,528.5	34.36	74.583 ES	
1,600.0	1,600.0	1,590.0	1,590.0	3.5	31.5	150.41	888.7	2,402.9	2,563.5	2,528.6	34.92	73.420	
1,673.2	1,673.1	1,663.1	1,663.1	3.6	32.9	150.42	888.7	2,402.9	2,566.5	2,530.0	36.50	70.310	
1,700.0	1,699.8	1,689.8	1,689.8	3.7	33.5	150.42	888.7	2,402.9	2,568.1	2,531.0	37.08	69.262	
1,771.6	1,771.2	1,761.2	1,761.2	3.8	34.9	150.43	888.7	2,402.9	2,573.2	2,534.6	38.60	66.659	
1,800.0	1,799.5	1,789.5	1,789.5	3.9	35.5	150.44	888.7	2,402.9	2,575.7	2,536.5	39.20	65.709	
1,870.1	1,869.0	1,859.0	1,859.0	4.0	36.9	150.46	888.7	2,402.9	2,582.8	2,542.1	40.66	63.527	
1,900.0	1,898.7	1,888.7	1,888.7	4.1	37.5	150.47	888.7	2,402.9	2,586.3	2,545.0	41.27	62.667	
1,968.5	1,966.4	1,956.4	1,956.4	4.3	38.8	150.49	888.7	2,402.9	2,595.3	2,552.6	42.66	60.837	
2,000.0	1,997.5	1,987.5	1,987.5	4.4	39.5	150.50	888.7	2,402.9	2,599.9	2,556.6	43.29	60.060	
2,066.9	2,063.2	2,053.2	2,053.2	4.6	40.8	150.53	888.7	2,402.9	2,610.8	2,566.1	44.61	58.526	
2,100.1	2,095.7	2,085.7	2,085.7	4.7	41.4	150.54	888.7	2,402.9	2,616.6	2,571.4	45.25	57.825	
2,165.3	2,159.5	2,149.5	2,149.5	4.9	42.7	150.69	888.7	2,402.9	2,628.5	2,581.8	46.67	56.319	
2,200.0	2,193.4	2,183.4	2,183.4	5.0	43.4	150.76	888.7	2,402.9	2,634.8	2,587.4	47.43	55.557	
2,224.2	2,217.1	2,207.1	2,207.1	5.1	43.9	150.82	888.7	2,402.9	2,639.2	2,591.3	47.95	55.038	
2,263.8	2,255.9	2,245.9	2,245.9	5.2	44.7	150.97	888.7	2,402.9	2,646.2	2,597.3	48.92	54.098	
2,300.0	2,291.5	2,281.5	2,281.5	5.3	45.4	151.10	888.7	2,402.9	2,652.2	2,602.4	49.79	53.268	
2,362.2	2,352.7	2,342.7	2,342.7	5.5	46.6	151.30	888.7	2,402.9	2,661.6	2,610.3	51.28	51.900	
2,400.0	2,390.1	2,380.1	2,380.1	5.6	47.4	151.41	888.7	2,402.9	2,666.7	2,614.5	52.19	51.097	
2,460.6	2,450.1	2,440.1	2,440.1	5.7	48.6	151.56	888.7	2,402.9	2,674.0	2,620.4	53.63	49.859	
2,500.0	2,489.2	2,479.2	2,479.2	5.8	49.4	151.65	888.7	2,402.9	2,678.2	2,623.6	54.57	49.083	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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		
2,559.0	2,548.0	2,538.0	2,538.0	6.0	50.5	151.76	888.7	2,402.9	2,683.5	2,627.6	55.95	47.961		
2,600.0	2,588.8	2,578.8	2,578.8	6.1	51.4	151.83	888.7	2,402.9	2,686.6	2,629.7	56.91	47.211		
2,657.5	2,646.1	2,636.1	2,636.1	6.2	52.5	151.90	888.7	2,402.9	2,690.1	2,631.8	58.23	46.196		
2,700.0	2,688.6	2,678.6	2,678.6	6.3	53.4	151.94	888.7	2,402.9	2,692.0	2,632.8	59.20	45.470		
2,755.9	2,744.4	2,734.4	2,734.4	6.4	54.5	151.97	888.7	2,402.9	2,693.6	2,633.2	60.46	44.549		
2,800.0	2,788.5	2,778.5	2,778.5	6.5	55.4	151.99	888.7	2,402.9	2,694.3	2,632.8	61.45	43.847		
2,824.3	2,812.8	2,802.8	2,802.8	6.5	55.9	71.29	888.7	2,402.9	2,694.4	2,632.1	62.28	43.261		
2,854.3	2,842.9	2,832.9	2,832.9	6.6	56.5	71.29	888.7	2,402.9	2,694.4	2,631.4	62.94	42.807		
2,900.0	2,888.5	2,878.5	2,878.5	6.7	57.4	71.29	888.7	2,402.9	2,694.4	2,630.4	63.95	42.134		
2,952.7	2,941.3	2,931.3	2,931.3	6.8	58.5	71.29	888.7	2,402.9	2,694.4	2,629.2	65.12	41.377		
3,000.0	2,988.5	2,978.5	2,978.5	6.9	59.4	71.29	888.7	2,402.9	2,694.4	2,628.2	66.17	40.722		
3,051.2	3,039.7	3,029.7	3,029.7	7.0	60.4	71.29	888.7	2,402.9	2,694.4	2,627.1	67.30	40.035		
3,100.0	3,088.5	3,078.5	3,078.5	7.1	61.4	71.29	888.7	2,402.9	2,694.4	2,626.0	68.38	39.401		
3,149.6	3,138.1	3,128.1	3,128.1	7.2	62.4	71.29	888.7	2,402.9	2,694.4	2,624.9	69.48	38.776		
3,200.0	3,188.5	3,178.5	3,178.5	7.3	63.4	71.29	888.7	2,402.9	2,694.4	2,623.8	70.60	38.162		
3,248.0	3,236.6	3,226.6	3,226.6	7.4	64.4	71.29	888.7	2,402.9	2,694.4	2,622.7	71.67	37.594		
3,300.0	3,288.5	3,278.5	3,278.5	7.5	65.4	71.29	888.7	2,402.9	2,694.4	2,621.5	72.82	36.998		
3,346.4	3,335.0	3,325.0	3,325.0	7.6	66.4	71.29	888.7	2,402.9	2,694.4	2,620.5	73.86	36.481		
3,400.0	3,388.5	3,378.5	3,378.5	7.7	67.5	71.29	888.7	2,402.9	2,694.4	2,619.3	75.05	35.903		
3,444.9	3,433.4	3,423.4	3,423.4	7.8	68.4	71.29	888.7	2,402.9	2,694.4	2,618.3	76.04	35.432		
3,500.0	3,488.5	3,478.5	3,478.5	7.9	69.5	71.29	888.7	2,402.9	2,694.4	2,617.1	77.27	34.871		
3,543.3	3,531.8	3,521.8	3,521.8	8.0	70.3	71.29	888.7	2,402.9	2,694.4	2,616.1	78.23	34.442		
3,600.0	3,588.5	3,578.5	3,578.5	8.1	71.5	71.29	888.7	2,402.9	2,694.4	2,614.9	79.49	33.895		
3,641.7	3,630.3	3,620.3	3,620.3	8.2	72.3	71.29	888.7	2,402.9	2,694.4	2,613.9	80.42	33.504		
3,700.0	3,688.5	3,678.5	3,678.5	8.3	73.5	71.29	888.7	2,402.9	2,694.4	2,612.7	81.71	32.973		
3,740.1	3,728.7	3,718.7	3,718.7	8.4	74.3	71.29	888.7	2,402.9	2,694.4	2,611.8	82.61	32.617		
3,800.0	3,788.5	3,778.5	3,778.5	8.5	75.5	71.29	888.7	2,402.9	2,694.4	2,610.4	83.94	32.099		
3,838.6	3,827.1	3,817.1	3,817.1	8.6	76.3	71.29	888.7	2,402.9	2,694.4	2,609.6	84.80	31.774		
3,900.0	3,888.5	3,878.5	3,878.5	8.7	77.5	71.29	888.7	2,402.9	2,694.4	2,608.2	86.16	31.271		
3,937.0	3,925.5	3,915.5	3,915.5	8.8	78.3	71.29	888.7	2,402.9	2,694.4	2,607.4	86.99	30.975		
4,000.0	3,988.5	3,978.5	3,978.5	9.0	79.5	71.29	888.7	2,402.9	2,694.4	2,606.0	88.39	30.483		
4,035.4	4,024.0	4,014.0	4,014.0	9.0	80.2	71.29	888.7	2,402.9	2,694.4	2,605.2	89.18	30.214		
4,100.0	4,088.5	4,078.5	4,078.5	9.2	81.5	71.29	888.7	2,402.9	2,694.4	2,603.7	90.61	29.734		
4,133.8	4,122.4	4,112.4	4,112.4	9.2	82.2	71.29	888.7	2,402.9	2,694.4	2,603.0	91.37	29.489		
4,200.0	4,188.5	4,178.5	4,178.5	9.4	83.5	71.29	888.7	2,402.9	2,694.4	2,601.5	92.84	29.021		
4,232.3	4,220.8	4,210.8	4,210.8	9.4	84.2	71.29	888.7	2,402.9	2,694.4	2,600.8	93.56	28.798		
4,300.0	4,288.5	4,278.5	4,278.5	9.6	85.6	71.29	888.7	2,402.9	2,694.4	2,599.3	95.07	28.342		
4,330.7	4,319.2	4,309.2	4,309.2	9.7	86.2	71.29	888.7	2,402.9	2,694.4	2,598.6	95.75	28.139		
4,400.0	4,388.5	4,378.5	4,378.5	9.8	87.6	71.29	888.7	2,402.9	2,694.4	2,597.1	97.29	27.693		
4,429.1	4,417.7	4,407.7	4,407.7	9.9	88.1	71.29	888.7	2,402.9	2,694.4	2,596.4	97.94	27.509		
4,500.0	4,488.5	4,478.5	4,478.5	10.0	89.6	71.29	888.7	2,402.9	2,694.4	2,594.8	99.52	27.073		
4,527.5	4,516.1	4,506.1	4,506.1	10.1	90.1	71.29	888.7	2,402.9	2,694.4	2,594.2	100.14	26.907		
4,600.0	4,588.5	4,578.5	4,578.5	10.2	91.6	71.29	888.7	2,402.9	2,694.4	2,592.6	101.75	26.480		
4,626.0	4,614.5	4,604.5	4,604.5	10.3	92.1	71.29	888.7	2,402.9	2,694.4	2,592.0	102.33	26.330		
4,700.0	4,688.5	4,678.5	4,678.5	10.5	93.6	71.29	888.7	2,402.9	2,694.4	2,590.4	103.98	25.913		
4,724.4	4,712.9	4,702.9	4,702.9	10.5	94.1	71.29	888.7	2,402.9	2,694.4	2,589.8	104.52	25.778		
4,800.0	4,788.5	4,778.5	4,778.5	10.7	95.6	71.29	888.7	2,402.9	2,694.4	2,588.2	106.21	25.369		
4,822.8	4,811.4	4,801.4	4,801.4	10.7	96.1	71.29	888.7	2,402.9	2,694.4	2,587.6	106.72	25.248		
4,900.0	4,888.5	4,878.5	4,878.5	10.9	97.6	71.29	888.7	2,402.9	2,694.4	2,585.9	108.44	24.848		
4,921.2	4,909.8	4,899.8	4,899.8	10.9	98.0	71.29	888.7	2,402.9	2,694.4	2,585.5	108.91	24.740		
5,000.0	4,988.5	4,978.5	4,978.5	11.1	99.6	71.29	888.7	2,402.9	2,694.4	2,583.7	110.66	24.347		
5,019.7	5,008.2	4,998.2	4,998.2	11.1	100.0	71.29	888.7	2,402.9	2,694.4	2,583.3	111.10	24.251		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,078.5	5,078.5	11.3	101.6	71.29	888.7	2,402.9	2,694.4	2,581.5	112.89	23.866	
5,118.1	5,106.6	5,096.6	5,096.6	11.4	102.0	71.29	888.7	2,402.9	2,694.4	2,581.1	113.30	23.781	
5,200.0	5,188.5	5,178.5	5,178.5	11.5	103.7	71.29	888.7	2,402.9	2,694.4	2,579.2	115.12	23.404	
5,216.5	5,205.1	5,195.1	5,195.1	11.6	104.0	71.29	888.7	2,402.9	2,694.4	2,578.9	115.49	23.329	
5,300.0	5,288.5	5,278.5	5,278.5	11.8	105.7	71.29	888.7	2,402.9	2,694.4	2,577.0	117.35	22.959	
5,314.9	5,303.5	5,293.5	5,293.5	11.8	106.0	71.29	888.7	2,402.9	2,694.4	2,576.7	117.69	22.894	
5,400.0	5,388.5	5,378.5	5,378.5	12.0	107.7	71.29	888.7	2,402.9	2,694.4	2,574.8	119.58	22.531	
5,413.4	5,401.9	5,391.9	5,391.9	12.0	107.9	71.29	888.7	2,402.9	2,694.4	2,574.5	119.88	22.475	
5,500.0	5,488.5	5,478.5	5,478.5	12.2	109.7	71.29	888.7	2,402.9	2,694.4	2,572.6	121.81	22.119	
5,511.8	5,500.3	5,490.3	5,490.3	12.2	109.9	71.29	888.7	2,402.9	2,694.4	2,572.3	122.08	22.071	
5,600.0	5,588.5	5,578.5	5,578.5	12.4	111.7	71.29	888.7	2,402.9	2,694.4	2,570.3	124.04	21.721	
5,610.2	5,598.8	5,588.8	5,588.8	12.4	111.9	71.29	888.7	2,402.9	2,694.4	2,570.1	124.27	21.681	
5,700.0	5,688.5	5,678.5	5,678.5	12.6	113.7	71.29	888.7	2,402.9	2,694.4	2,568.1	126.27	21.337	
5,708.6	5,697.2	5,687.2	5,687.2	12.6	113.9	71.29	888.7	2,402.9	2,694.4	2,567.9	126.47	21.305	
5,800.0	5,788.5	5,778.5	5,778.5	12.8	115.7	71.29	888.7	2,402.9	2,694.4	2,565.9	128.51	20.967	
5,807.1	5,795.6	5,785.6	5,785.6	12.9	115.9	71.29	888.7	2,402.9	2,694.4	2,565.7	128.66	20.941	
5,900.0	5,888.5	5,878.5	5,878.5	13.1	117.7	71.29	888.7	2,402.9	2,694.4	2,563.6	130.74	20.609	
5,905.5	5,894.0	5,884.0	5,884.0	13.1	117.8	71.29	888.7	2,402.9	2,694.4	2,563.5	130.86	20.590	
6,000.0	5,988.5	5,978.5	5,978.5	13.3	119.7	71.29	888.7	2,402.9	2,694.4	2,561.4	132.97	20.263	
6,003.9	5,992.5	5,982.5	5,982.5	13.3	119.8	71.29	888.7	2,402.9	2,694.4	2,561.3	133.06	20.250	
6,085.3	6,073.8	6,063.8	6,063.8	13.5	121.5	71.29	888.7	2,402.9	2,694.4	2,559.5	134.87	19.977	
6,100.0	6,088.5	6,078.5	6,078.5	13.5	121.8	161.29	888.7	2,402.9	2,694.5	2,559.5	135.02	19.957	
6,102.3	6,090.9	6,080.9	6,080.9	13.5	121.8	161.29	888.7	2,402.9	2,694.6	2,559.5	135.06	19.950	
6,150.0	6,138.4	6,128.4	6,128.4	13.6	122.8	161.24	888.7	2,402.9	2,697.1	2,561.5	135.68	19.879 SF	
6,200.0	6,188.0	6,178.0	6,178.0	13.7	123.8	161.13	888.7	2,402.9	2,703.1	2,567.3	135.75	19.912	
6,200.8	6,188.8	6,178.8	6,178.8	13.7	123.8	161.13	888.7	2,402.9	2,703.2	2,567.4	135.75	19.913	
6,250.0	6,237.1	6,227.1	6,227.1	13.9	124.7	160.95	888.7	2,402.9	2,712.2	2,577.0	135.22	20.057	
6,299.2	6,284.6	6,274.6	6,274.6	14.0	125.7	160.71	888.7	2,402.9	2,724.4	2,590.3	134.13	20.312	
6,300.0	6,285.3	6,275.3	6,275.3	14.0	125.7	160.71	888.7	2,402.9	2,724.6	2,590.5	134.11	20.317	
6,350.0	6,332.5	6,322.5	6,322.5	14.2	126.7	160.38	888.7	2,402.9	2,740.2	2,607.8	132.41	20.696	
6,397.6	6,376.3	6,366.3	6,366.3	14.4	127.5	159.99	888.7	2,402.9	2,757.9	2,627.7	130.27	21.171	
6,400.0	6,378.5	6,368.5	6,368.5	14.4	127.6	159.97	888.7	2,402.9	2,758.9	2,628.8	130.15	21.198	
6,450.0	6,423.0	6,413.0	6,413.0	14.7	128.5	159.47	888.7	2,402.9	2,780.6	2,653.2	127.38	21.829	
6,496.0	6,462.4	6,452.4	6,452.4	14.9	129.3	158.90	888.7	2,402.9	2,803.2	2,678.7	124.42	22.530	
6,500.0	6,465.7	6,455.7	6,455.7	14.9	129.3	158.85	888.7	2,402.9	2,805.2	2,681.1	124.15	22.595	
6,550.0	6,506.6	6,496.6	6,496.6	15.2	130.2	158.09	888.7	2,402.9	2,832.6	2,712.1	120.55	23.497	
6,594.5	6,541.2	6,531.2	6,531.2	15.6	130.9	157.29	888.7	2,402.9	2,859.3	2,742.1	117.13	24.410	
6,600.0	6,545.3	6,535.3	6,535.3	15.6	130.9	157.18	888.7	2,402.9	2,862.7	2,746.0	116.70	24.530	
6,650.0	6,581.8	6,571.8	6,571.8	16.0	131.7	156.07	888.7	2,402.9	2,895.3	2,782.6	112.76	25.676	
6,692.9	6,611.1	6,601.1	6,601.1	16.4	132.3	154.93	888.7	2,402.9	2,925.2	2,815.8	109.49	26.718	
6,700.0	6,615.8	6,605.8	6,605.8	16.5	132.4	154.72	888.7	2,402.9	2,930.4	2,821.4	108.97	26.892	
6,750.0	6,647.1	6,637.1	6,637.1	17.1	133.0	153.07	888.7	2,402.9	2,967.6	2,862.0	105.63	28.095	
6,791.3	6,670.9	6,660.9	6,660.9	17.6	133.5	151.42	888.7	2,402.9	2,999.9	2,896.4	103.51	28.981	
6,800.0	6,675.7	6,665.7	6,665.7	17.7	133.6	151.03	888.7	2,402.9	3,006.9	2,903.7	103.17	29.144	
6,850.0	6,701.3	6,691.3	6,691.3	18.4	134.1	148.48	888.7	2,402.9	3,048.0	2,945.9	102.15	29.839	
6,889.7	6,719.5	6,709.5	6,709.5	19.0	134.4	145.98	888.7	2,402.9	3,081.9	2,979.1	102.81	29.978	
6,900.0	6,723.8	6,713.8	6,713.8	19.1	134.5	145.25	888.7	2,402.9	3,090.8	2,987.6	103.23	29.940	
6,950.0	6,743.2	6,733.2	6,733.2	20.0	134.9	141.10	888.7	2,402.9	3,135.1	3,027.9	107.15	29.260	
6,988.2	6,755.8	6,745.8	6,745.8	20.6	135.2	137.12	888.7	2,402.9	3,169.7	3,057.3	112.43	28.193	
7,000.0	6,759.4	6,749.4	6,749.4	20.9	135.2	135.71	888.7	2,402.9	3,180.6	3,066.1	114.50	27.779	
7,050.0	6,772.1	6,762.1	6,762.1	21.8	135.5	128.60	888.7	2,402.9	3,227.1	3,101.7	125.45	25.724	
7,086.6	6,779.4	6,769.4	6,769.4	22.5	135.6	122.02	888.7	2,402.9	3,261.7	3,126.4	135.32	24.104	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #31-17 - 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
7,100.0	6,781.5	6,771.5	6,771.5	22.8	135.7	119.27	888.7	2,402.9	3,274.5	3,135.3	139.12	23.537	
7,150.0	6,787.5	6,777.5	6,777.5	23.9	135.8	107.33	888.7	2,402.9	3,322.4	3,169.8	152.57	21.776	
7,185.0	6,789.6	6,779.6	6,779.6	24.6	135.8	97.54	888.7	2,402.9	3,356.1	3,197.1	159.08	21.098	
7,200.0	6,789.9	6,779.9	6,779.9	24.9	135.9	93.10	888.7	2,402.9	3,370.6	3,210.1	160.54	20.995	
7,213.0	6,790.0	6,780.0	6,780.0	25.2	135.9	89.18	888.7	2,402.9	3,383.1	3,222.1	161.05	21.007	
7,283.4	6,789.7	6,779.7	6,779.7	26.8	135.9	89.17	888.7	2,402.9	3,451.3	3,288.7	162.62	21.223	
7,300.0	6,789.7	6,779.7	6,779.7	27.2	135.9	89.16	888.7	2,402.9	3,467.3	3,304.4	162.99	21.274	
7,381.9	6,789.4	6,779.4	6,779.4	29.1	135.8	89.14	888.7	2,402.9	3,546.7	3,381.8	164.89	21.510	
7,400.0	6,789.3	6,779.3	6,779.3	29.5	135.8	89.13	888.7	2,402.9	3,564.3	3,399.0	165.31	21.562	
7,480.3	6,789.0	6,779.0	6,779.0	31.4	135.8	89.11	888.7	2,402.9	3,642.2	3,475.0	167.23	21.780	
7,500.0	6,788.9	6,778.9	6,778.9	31.9	135.8	89.11	888.7	2,402.9	3,661.4	3,493.7	167.70	21.833	
7,578.7	6,788.6	6,778.6	6,778.6	33.8	135.8	89.09	888.7	2,402.9	3,737.9	3,568.3	169.64	22.035	
7,600.0	6,788.5	6,778.5	6,778.5	34.4	135.8	89.08	888.7	2,402.9	3,758.6	3,588.5	170.16	22.089	
7,677.1	6,788.2	6,778.2	6,778.2	36.3	135.8	89.06	888.7	2,402.9	3,833.7	3,661.7	172.09	22.277	
7,700.0	6,788.2	6,778.2	6,778.2	36.9	135.8	89.06	888.7	2,402.9	3,856.0	3,683.3	172.67	22.332	
7,775.6	6,787.9	6,777.9	6,777.9	38.8	135.8	89.04	888.7	2,402.9	3,929.7	3,755.1	174.59	22.508	
7,800.0	6,787.8	6,777.8	6,777.8	39.4	135.8	89.03	888.7	2,402.9	3,953.5	3,778.3	175.21	22.564	
7,874.0	6,787.5	6,777.5	6,777.5	41.3	135.8	89.01	888.7	2,402.9	4,025.8	3,848.7	177.12	22.729	
7,900.0	6,787.4	6,777.4	6,777.4	42.0	135.8	89.00	888.7	2,402.9	4,051.2	3,873.4	177.79	22.786	
7,972.4	6,787.1	6,777.1	6,777.1	43.9	135.8	88.98	888.7	2,402.9	4,122.0	3,942.3	179.68	22.941	
8,000.0	6,787.0	6,777.0	6,777.0	44.6	135.8	88.97	888.7	2,402.9	4,148.9	3,968.5	180.40	22.999	
8,070.8	6,786.7	6,776.7	6,776.7	46.5	135.8	88.96	888.7	2,402.9	4,218.2	4,036.0	182.26	23.144	
8,100.0	6,786.6	6,776.6	6,776.6	47.3	135.8	88.95	888.7	2,402.9	4,246.8	4,063.8	183.03	23.203	
8,169.3	6,786.4	6,776.4	6,776.4	49.1	135.8	88.93	888.7	2,402.9	4,314.6	4,129.8	184.86	23.340	
8,200.0	6,786.3	6,776.3	6,776.3	49.9	135.8	88.92	888.7	2,402.9	4,344.7	4,159.1	185.67	23.400	
8,267.7	6,786.0	6,776.0	6,776.0	51.7	135.8	88.90	888.7	2,402.9	4,411.1	4,223.6	187.48	23.529	
8,300.0	6,785.9	6,775.9	6,775.9	52.6	135.8	88.89	888.7	2,402.9	4,442.8	4,254.4	188.34	23.590	
8,366.1	6,785.6	6,775.6	6,775.6	54.4	135.8	88.88	888.7	2,402.9	4,507.7	4,317.6	190.11	23.711	
8,400.0	6,785.5	6,775.5	6,775.5	55.3	135.8	88.87	888.7	2,402.9	4,540.9	4,349.9	191.01	23.773	
8,464.5	6,785.2	6,775.2	6,775.2	57.0	135.8	88.85	888.7	2,402.9	4,604.3	4,411.5	192.75	23.888	
8,500.0	6,785.1	6,775.1	6,775.1	58.0	135.8	88.84	888.7	2,402.9	4,639.1	4,445.4	193.70	23.950	
8,563.0	6,784.9	6,774.9	6,774.9	59.7	135.8	88.82	888.7	2,402.9	4,701.0	4,505.6	195.40	24.058	
8,600.0	6,784.7	6,774.7	6,774.7	60.7	135.8	88.81	888.7	2,402.9	4,737.4	4,541.0	196.40	24.121	
8,661.4	6,784.5	6,774.5	6,774.5	62.4	135.7	88.80	888.7	2,402.9	4,797.8	4,599.7	198.06	24.224	
8,700.0	6,784.3	6,774.3	6,774.3	63.4	135.7	88.78	888.7	2,402.9	4,835.8	4,636.7	199.11	24.287	
8,759.8	6,784.1	6,774.1	6,774.1	65.0	135.7	88.77	888.7	2,402.9	4,894.6	4,693.9	200.73	24.384	
8,800.0	6,784.0	6,774.0	6,774.0	66.1	135.7	88.76	888.7	2,402.9	4,934.2	4,732.4	201.82	24.448	
8,858.2	6,783.7	6,773.7	6,773.7	67.7	135.7	88.74	888.7	2,402.9	4,991.5	4,788.1	203.41	24.540	
8,900.0	6,783.6	6,773.6	6,773.6	68.9	135.7	88.73	888.7	2,402.9	5,032.7	4,828.1	204.54	24.605	
8,956.7	6,783.3	6,773.3	6,773.3	70.4	135.7	88.72	888.7	2,402.9	5,088.5	4,882.4	206.09	24.691	
9,000.0	6,783.2	6,773.2	6,773.2	71.6	135.7	88.70	888.7	2,402.9	5,131.2	4,923.9	207.27	24.756	
9,055.1	6,783.0	6,773.0	6,773.0	73.1	135.7	88.69	888.7	2,402.9	5,185.5	4,976.8	208.78	24.838	
9,100.0	6,782.8	6,772.8	6,772.8	74.3	135.7	88.67	888.7	2,402.9	5,229.8	5,019.8	210.00	24.904	
9,153.5	6,782.6	6,772.6	6,772.6	75.8	135.7	88.66	888.7	2,402.9	5,282.6	5,071.1	211.47	24.981	
9,200.0	6,782.4	6,772.4	6,772.4	77.1	135.7	88.65	888.7	2,402.9	5,328.5	5,115.7	212.74	25.047	
9,251.9	6,782.2	6,772.2	6,772.2	78.5	135.7	88.63	888.7	2,402.9	5,379.7	5,165.6	214.16	25.120	
9,300.0	6,782.0	6,772.0	6,772.0	79.8	135.7	88.62	888.7	2,402.9	5,427.2	5,211.7	215.48	25.186	
9,350.4	6,781.8	6,771.8	6,771.8	81.2	135.7	88.61	888.7	2,402.9	5,476.9	5,260.0	216.86	25.255	
9,400.0	6,781.6	6,771.6	6,771.6	82.6	135.7	88.59	888.7	2,402.9	5,525.9	5,307.7	218.23	25.322	
9,448.8	6,781.4	6,771.4	6,771.4	83.9	135.7	88.58	888.7	2,402.9	5,574.1	5,354.5	219.57	25.387	
9,500.0	6,781.2	6,771.2	6,771.2	85.4	135.7	88.56	888.7	2,402.9	5,624.7	5,403.7	220.98	25.454	
9,547.2	6,781.0	6,771.0	6,771.0	86.7	135.7	88.55	888.7	2,402.9	5,671.4	5,449.1	222.28	25.515	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,600.0	6,780.8	6,770.8	6,770.8	88.1	135.7	88.53	888.7	2,402.9	5,723.5	5,499.8	223.73	25.582	
9,645.6	6,780.7	6,770.7	6,770.7	89.4	135.7	88.52	888.7	2,402.9	5,768.7	5,543.7	224.99	25.640	
9,700.0	6,780.5	6,770.5	6,770.5	90.9	135.7	88.51	888.7	2,402.9	5,822.4	5,595.9	226.48	25.708	
9,744.1	6,780.3	6,770.3	6,770.3	92.1	135.7	88.49	888.7	2,402.9	5,866.0	5,638.3	227.70	25.762	
9,800.0	6,780.1	6,770.1	6,770.1	93.7	135.7	88.48	888.7	2,402.9	5,921.3	5,692.1	229.24	25.830	
9,842.5	6,779.9	6,769.9	6,769.9	94.8	135.7	88.47	888.7	2,402.9	5,963.4	5,732.9	230.41	25.881	
9,900.0	6,779.7	6,769.7	6,769.7	96.4	135.6	88.45	888.7	2,402.9	6,020.2	5,788.2	232.00	25.949	
9,940.9	6,779.5	6,769.5	6,769.5	97.6	135.6	88.44	888.7	2,402.9	6,060.8	5,827.6	233.13	25.997	
10,000.0	6,779.3	6,769.3	6,769.3	99.2	135.6	88.42	888.7	2,402.9	6,119.2	5,884.5	234.76	26.066	
10,039.3	6,779.1	6,769.1	6,769.1	100.3	135.6	88.41	888.7	2,402.9	6,158.2	5,922.3	235.85	26.111	
10,100.0	6,778.9	6,768.9	6,768.9	102.0	135.6	88.39	888.7	2,402.9	6,218.2	5,980.7	237.53	26.179	
10,137.8	6,778.7	6,768.7	6,768.7	103.0	135.6	88.38	888.7	2,402.9	6,255.7	6,017.1	238.57	26.221	
10,200.0	6,778.5	6,768.5	6,768.5	104.8	135.6	88.36	888.7	2,402.9	6,317.3	6,077.0	240.29	26.290	
10,236.2	6,778.3	6,768.3	6,768.3	105.8	135.6	88.35	888.7	2,402.9	6,353.1	6,111.9	241.29	26.330	
10,300.0	6,778.1	6,768.1	6,768.1	107.5	135.6	88.33	888.7	2,402.9	6,416.4	6,173.3	243.06	26.399	
10,334.6	6,778.0	6,768.0	6,768.0	108.5	135.6	88.33	888.7	2,402.9	6,450.7	6,206.7	244.02	26.435	
10,400.0	6,777.7	6,767.7	6,767.7	110.3	135.6	88.31	888.7	2,402.9	6,515.5	6,269.6	245.83	26.504	
10,433.0	6,777.6	6,767.6	6,767.6	111.2	135.6	88.30	888.7	2,402.9	6,548.2	6,301.5	246.74	26.539	
10,500.0	6,777.3	6,767.3	6,767.3	113.1	135.6	88.28	888.7	2,402.9	6,614.6	6,366.0	248.60	26.608	
10,531.5	6,777.2	6,767.2	6,767.2	114.0	135.6	88.27	888.7	2,402.9	6,645.8	6,396.3	249.47	26.640	
10,600.0	6,776.9	6,766.9	6,766.9	115.9	135.6	88.25	888.7	2,402.9	6,713.7	6,462.4	251.37	26.709	
10,629.9	6,776.8	6,766.8	6,766.8	116.7	135.6	88.24	888.7	2,402.9	6,743.4	6,491.2	252.20	26.739	
10,700.0	6,776.5	6,766.5	6,766.5	118.7	135.6	88.22	888.7	2,402.9	6,812.9	6,558.8	254.14	26.808	
10,728.3	6,776.4	6,766.4	6,766.4	119.5	135.6	88.21	888.7	2,402.9	6,841.0	6,586.1	254.92	26.836	
10,800.0	6,776.1	6,766.1	6,766.1	121.4	135.6	88.19	888.7	2,402.9	6,912.1	6,655.2	256.91	26.905	
10,826.7	6,776.0	6,766.0	6,766.0	122.2	135.6	88.18	888.7	2,402.9	6,938.7	6,681.0	257.65	26.930	
10,900.0	6,775.7	6,765.7	6,765.7	124.2	135.6	88.16	888.7	2,402.9	7,011.4	6,751.7	259.69	26.999	
10,925.2	6,775.6	6,765.6	6,765.6	124.9	135.6	88.15	888.7	2,402.9	7,036.3	6,776.0	260.38	27.023	
11,000.0	6,775.3	6,765.3	6,765.3	127.0	135.6	88.13	888.7	2,402.9	7,110.6	6,848.1	262.46	27.092	
11,023.6	6,775.2	6,765.2	6,765.2	127.7	135.6	88.13	888.7	2,402.9	7,134.0	6,870.9	263.12	27.114	
11,100.0	6,774.9	6,764.9	6,764.9	129.8	135.6	88.10	888.7	2,402.9	7,209.9	6,944.6	265.24	27.183	
11,122.0	6,774.8	6,764.8	6,764.8	130.4	135.6	88.10	888.7	2,402.9	7,231.7	6,965.9	265.85	27.203	
11,200.0	6,774.5	6,764.5	6,764.5	132.6	135.5	88.07	888.7	2,402.9	7,309.2	7,041.1	268.01	27.272	
11,220.4	6,774.4	6,764.4	6,764.4	133.2	135.5	88.07	888.7	2,402.9	7,329.5	7,060.9	268.58	27.290	
11,300.0	6,774.1	6,764.1	6,764.1	135.4	135.5	88.04	888.7	2,402.9	7,408.5	7,137.7	270.79	27.359	
11,318.9	6,774.0	6,764.0	6,764.0	135.9	135.5	88.04	888.7	2,402.9	7,427.2	7,155.9	271.31	27.375	
11,400.0	6,773.7	6,763.7	6,763.7	138.2	135.5	88.01	888.7	2,402.9	7,507.8	7,234.2	273.57	27.444	
11,417.3	6,773.6	6,763.6	6,763.6	138.7	135.5	88.01	888.7	2,402.9	7,525.0	7,250.9	274.05	27.459	
11,500.0	6,773.3	6,763.3	6,763.3	141.0	135.5	87.98	888.7	2,402.9	7,607.1	7,330.8	276.35	27.528	
11,515.7	6,773.2	6,763.2	6,763.2	141.4	135.5	87.98	888.7	2,402.9	7,622.8	7,346.0	276.78	27.541	
11,600.0	6,772.9	6,762.9	6,762.9	143.8	135.5	87.95	888.7	2,402.9	7,706.5	7,427.4	279.12	27.610	
11,614.1	6,772.8	6,762.8	6,762.8	144.2	135.5	87.95	888.7	2,402.9	7,720.6	7,441.0	279.52	27.621	
11,700.0	6,772.5	6,762.5	6,762.5	146.6	135.5	87.92	888.7	2,402.9	7,805.9	7,524.0	281.90	27.690	
11,712.6	6,772.4	6,762.4	6,762.4	146.9	135.5	87.92	888.7	2,402.9	7,818.4	7,536.1	282.25	27.700	
11,800.0	6,772.1	6,762.1	6,762.1	149.4	135.5	87.89	888.7	2,402.9	7,905.3	7,620.6	284.68	27.769	
11,811.0	6,772.1	6,762.1	6,762.1	149.7	135.5	87.89	888.7	2,402.9	7,916.2	7,631.2	284.99	27.777	
11,900.0	6,771.7	6,761.7	6,761.7	152.2	135.5	87.86	888.7	2,402.9	8,004.7	7,717.2	287.46	27.846	
11,909.4	6,771.7	6,761.7	6,761.7	152.4	135.5	87.86	888.7	2,402.9	8,014.0	7,726.3	287.73	27.853	
12,000.0	6,771.3	6,761.3	6,761.3	154.9	135.5	87.83	888.7	2,402.9	8,104.1	7,813.8	290.24	27.922	
12,007.8	6,771.3	6,761.3	6,761.3	155.2	135.5	87.83	888.7	2,402.9	8,111.9	7,821.4	290.46	27.928	
12,100.0	6,770.9	6,760.9	6,760.9	157.7	135.5	87.80	888.7	2,402.9	8,203.5	7,910.5	293.02	27.996	
12,106.3	6,770.9	6,760.9	6,760.9	157.9	135.5	87.80	888.7	2,402.9	8,209.8	7,916.6	293.20	28.001	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #31-17 - 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
12,200.0	6,770.5	6,760.5	6,760.5	160.5	135.5	87.77	888.7	2,402.9	8,303.0	8,007.2	295.81	28.069	
12,204.7	6,770.5	6,760.5	6,760.5	160.7	135.5	87.77	888.7	2,402.9	8,307.6	8,011.7	295.94	28.072	
12,300.0	6,770.1	6,760.1	6,760.1	163.3	135.5	87.74	888.7	2,402.9	8,402.4	8,103.8	298.59	28.141	
12,303.1	6,770.1	6,760.1	6,760.1	163.4	135.5	87.74	888.7	2,402.9	8,405.5	8,106.9	298.67	28.143	
12,316.4	6,770.0	6,760.0	6,760.0	163.8	135.5	87.74	888.7	2,402.9	8,418.7	8,119.7	299.04	28.152	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #41-17 - 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	
0.0	0.0	0.0	0.0	0.0	0.0	75.87	888.8	3,530.9	3,641.0				
98.4	98.4	85.4	85.4	0.1	0.9	75.87	888.8	3,530.9	3,641.0	3,640.0	1.01	3,619.828	
100.0	100.0	87.0	87.0	0.1	0.9	75.87	888.8	3,530.9	3,641.0	3,640.0	1.02	3,554.296	
196.8	196.8	183.8	183.8	0.3	3.0	75.87	888.8	3,530.9	3,641.0	3,637.7	3.33	1,094.727	
200.0	200.0	187.0	187.0	0.3	3.1	75.87	888.8	3,530.9	3,641.0	3,637.6	3.41	1,068.963	
295.3	295.3	282.3	282.3	0.5	5.1	75.87	888.8	3,530.9	3,641.0	3,635.4	5.63	646.314	
300.0	300.0	287.0	287.0	0.5	5.2	75.87	888.8	3,530.9	3,641.0	3,635.3	5.74	634.056	
393.7	393.7	380.7	380.7	0.8	7.1	75.87	888.8	3,530.9	3,641.0	3,633.1	7.87	462.534	
400.0	400.0	387.0	387.0	0.8	7.2	75.87	888.8	3,530.9	3,641.0	3,633.0	8.01	454.291	
492.1	492.1	479.1	479.1	1.0	9.1	75.87	888.8	3,530.9	3,641.0	3,630.9	10.09	360.750	
500.0	500.0	487.0	487.0	1.0	9.3	75.87	888.8	3,530.9	3,641.0	3,630.7	10.27	354.515	
590.5	590.5	577.5	577.5	1.2	11.1	75.87	888.8	3,530.9	3,641.0	3,628.7	12.31	295.863	
600.0	600.0	587.0	587.0	1.2	11.3	75.87	888.8	3,530.9	3,641.0	3,628.5	12.52	290.844	
689.0	689.0	676.0	676.0	1.4	13.1	75.87	888.8	3,530.9	3,641.0	3,626.5	14.52	250.830	
700.0	700.0	687.0	687.0	1.4	13.3	75.87	888.8	3,530.9	3,641.0	3,626.3	14.76	246.626	
787.4	787.4	774.4	774.4	1.6	15.1	75.87	888.8	3,530.9	3,641.0	3,624.3	16.72	217.725	
800.0	800.0	787.0	787.0	1.7	15.3	75.87	888.8	3,530.9	3,641.0	3,624.0	17.01	214.109	
885.8	885.8	872.8	872.8	1.9	17.1	75.87	888.8	3,530.9	3,641.0	3,622.1	18.93	192.356	
900.0	900.0	887.0	887.0	1.9	17.4	75.87	888.8	3,530.9	3,641.0	3,621.8	19.25	189.182	
984.2	984.2	971.2	971.2	2.1	19.0	75.87	888.8	3,530.9	3,641.0	3,619.9	21.13	172.290	
1,000.0	1,000.0	987.0	987.0	2.1	19.4	75.87	888.8	3,530.9	3,641.0	3,619.5	21.49	169.462	
1,082.7	1,082.7	1,069.7	1,069.7	2.3	21.0	75.87	888.8	3,530.9	3,641.0	3,617.7	23.34	156.021	
1,100.0	1,100.0	1,087.0	1,087.0	2.3	21.4	75.87	888.8	3,530.9	3,641.0	3,617.3	23.72	153.470	
1,181.1	1,181.1	1,168.1	1,168.1	2.5	23.0	75.87	888.8	3,530.9	3,641.0	3,615.5	25.54	142.562	
1,200.0	1,200.0	1,187.0	1,187.0	2.6	23.4	75.87	888.8	3,530.9	3,641.0	3,615.1	25.96	140.239	
1,279.5	1,279.5	1,266.5	1,266.5	2.7	25.0	75.87	888.8	3,530.9	3,641.0	3,613.3	27.74	131.242	
1,300.0	1,300.0	1,287.0	1,287.0	2.8	25.4	75.87	888.8	3,530.9	3,641.0	3,612.8	28.20	129.110	
1,377.9	1,377.9	1,364.9	1,364.9	3.0	27.0	75.87	888.8	3,530.9	3,641.0	3,611.1	29.95	121.590	
1,400.0	1,400.0	1,387.0	1,387.0	3.0	27.4	75.87	888.8	3,530.9	3,641.0	3,610.6	30.44	119.619	
1,476.4	1,476.4	1,463.4	1,463.4	3.2	29.0	75.87	888.8	3,530.9	3,641.0	3,608.9	32.15	113.261	
1,500.0	1,500.0	1,487.0	1,487.0	3.2	29.4	75.87	888.8	3,530.9	3,641.0	3,608.3	32.68	111.429 CC	
1,574.8	1,574.8	1,561.8	1,561.8	3.4	30.9	156.57	888.8	3,530.9	3,641.9	3,607.6	34.33	106.083 ES	
1,600.0	1,600.0	1,587.0	1,587.0	3.5	31.4	156.57	888.8	3,530.9	3,642.6	3,607.7	34.88	104.423	
1,673.2	1,673.1	1,660.1	1,660.1	3.6	32.9	156.56	888.8	3,530.9	3,645.8	3,609.4	36.47	99.976	
1,700.0	1,699.8	1,686.8	1,686.8	3.7	33.5	156.56	888.8	3,530.9	3,647.4	3,610.4	37.04	98.474	
1,771.6	1,771.2	1,758.2	1,758.2	3.8	34.9	156.56	888.8	3,530.9	3,652.8	3,614.3	38.56	94.740	
1,800.0	1,799.5	1,786.5	1,786.5	3.9	35.5	156.55	888.8	3,530.9	3,655.4	3,616.3	39.15	93.373	
1,870.1	1,869.0	1,856.0	1,856.0	4.0	36.9	156.54	888.8	3,530.9	3,662.9	3,622.3	40.60	90.231	
1,900.0	1,898.7	1,885.7	1,885.7	4.1	37.5	156.54	888.8	3,530.9	3,666.6	3,625.4	41.20	88.988	
1,968.5	1,966.4	1,953.4	1,953.4	4.3	38.8	156.53	888.8	3,530.9	3,676.1	3,633.5	42.58	86.340	
2,000.0	1,997.5	1,984.5	1,984.5	4.4	39.4	156.52	888.8	3,530.9	3,681.0	3,637.8	43.20	85.213	
2,066.9	2,063.2	2,050.2	2,050.2	4.6	40.8	156.50	888.8	3,530.9	3,692.4	3,647.9	44.50	82.981	
2,100.1	2,095.7	2,082.7	2,082.7	4.7	41.4	156.50	888.8	3,530.9	3,698.6	3,653.4	45.13	81.958	
2,165.3	2,159.5	2,146.5	2,146.5	4.9	42.7	156.58	888.8	3,530.9	3,711.0	3,664.5	46.54	79.736	
2,200.0	2,193.4	2,180.4	2,180.4	5.0	43.4	156.62	888.8	3,530.9	3,717.7	3,670.4	47.29	78.610	
2,224.2	2,217.1	2,204.1	2,204.1	5.1	43.9	156.65	888.8	3,530.9	3,722.3	3,674.5	47.82	77.844	
2,263.8	2,255.9	2,242.9	2,242.9	5.2	44.6	156.76	888.8	3,530.9	3,729.7	3,680.9	48.79	76.447	
2,300.0	2,291.5	2,278.5	2,278.5	5.3	45.4	156.85	888.8	3,530.9	3,735.9	3,686.3	49.67	75.217	
2,362.2	2,352.7	2,339.7	2,339.7	5.5	46.6	156.99	888.8	3,530.9	3,745.8	3,694.6	51.17	73.199	
2,400.0	2,390.1	2,377.1	2,377.1	5.6	47.3	157.07	888.8	3,530.9	3,751.1	3,699.1	52.08	72.020	
2,460.6	2,450.1	2,437.1	2,437.1	5.7	48.5	157.18	888.8	3,530.9	3,758.8	3,705.3	53.54	70.210	
2,500.0	2,489.2	2,476.2	2,476.2	5.8	49.3	157.24	888.8	3,530.9	3,763.2	3,708.7	54.47	69.081	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,535.0	2,535.0	6.0	50.5	157.32	888.8	3,530.9	3,768.8	3,712.9	55.87	67.458	
2,600.0	2,588.8	2,575.8	2,575.8	6.1	51.3	157.37	888.8	3,530.9	3,772.0	3,715.2	56.83	66.377	
2,657.5	2,646.1	2,633.1	2,633.1	6.2	52.5	157.42	888.8	3,530.9	3,775.6	3,717.4	58.16	64.921	
2,700.0	2,688.6	2,675.6	2,675.6	6.3	53.3	157.45	888.8	3,530.9	3,777.6	3,718.5	59.13	63.886	
2,755.9	2,744.4	2,731.4	2,731.4	6.4	54.5	157.47	888.8	3,530.9	3,779.3	3,718.9	60.39	62.579	
2,800.0	2,788.5	2,775.5	2,775.5	6.5	55.4	157.48	888.8	3,530.9	3,780.0	3,718.6	61.38	61.587	
2,824.3	2,812.8	2,799.8	2,799.8	6.5	55.8	76.78	888.8	3,530.9	3,780.1	3,717.8	62.29	60.686	
2,854.3	2,842.9	2,829.9	2,829.9	6.6	56.4	76.78	888.8	3,530.9	3,780.1	3,717.1	62.95	60.049	
2,900.0	2,888.5	2,875.5	2,875.5	6.7	57.4	76.78	888.8	3,530.9	3,780.1	3,716.1	63.95	59.106	
2,952.7	2,941.3	2,928.3	2,928.3	6.8	58.4	76.78	888.8	3,530.9	3,780.1	3,715.0	65.12	58.045	
3,000.0	2,988.5	2,975.5	2,975.5	6.9	59.4	76.78	888.8	3,530.9	3,780.1	3,713.9	66.17	57.126	
3,051.2	3,039.7	3,026.7	3,026.7	7.0	60.4	76.78	888.8	3,530.9	3,780.1	3,712.8	67.31	56.163	
3,100.0	3,088.5	3,075.5	3,075.5	7.1	61.4	76.78	888.8	3,530.9	3,780.1	3,711.7	68.39	55.274	
3,149.6	3,138.1	3,125.1	3,125.1	7.2	62.4	76.78	888.8	3,530.9	3,780.1	3,710.6	69.49	54.398	
3,200.0	3,188.5	3,175.5	3,175.5	7.3	63.4	76.78	888.8	3,530.9	3,780.1	3,709.5	70.61	53.537	
3,248.0	3,236.6	3,223.6	3,223.6	7.4	64.4	76.78	888.8	3,530.9	3,780.1	3,708.4	71.67	52.741	
3,300.0	3,288.5	3,275.5	3,275.5	7.5	65.4	76.78	888.8	3,530.9	3,780.1	3,707.3	72.83	51.905	
3,346.4	3,335.0	3,322.0	3,322.0	7.6	66.3	76.78	888.8	3,530.9	3,780.1	3,706.2	73.86	51.180	
3,400.0	3,388.5	3,375.5	3,375.5	7.7	67.4	76.78	888.8	3,530.9	3,780.1	3,705.0	75.05	50.369	
3,444.9	3,433.4	3,420.4	3,420.4	7.8	68.3	76.78	888.8	3,530.9	3,780.1	3,704.0	76.04	49.709	
3,500.0	3,488.5	3,475.5	3,475.5	7.9	69.4	76.78	888.8	3,530.9	3,780.1	3,702.8	77.27	48.921	
3,543.3	3,531.8	3,518.8	3,518.8	8.0	70.3	76.78	888.8	3,530.9	3,780.1	3,701.9	78.23	48.320	
3,600.0	3,588.5	3,575.5	3,575.5	8.1	71.4	76.78	888.8	3,530.9	3,780.1	3,700.6	79.49	47.554	
3,641.7	3,630.3	3,617.3	3,617.3	8.2	72.3	76.78	888.8	3,530.9	3,780.1	3,699.7	80.42	47.005	
3,700.0	3,688.5	3,675.5	3,675.5	8.3	73.5	76.78	888.8	3,530.9	3,780.1	3,698.4	81.71	46.260	
3,740.1	3,728.7	3,715.7	3,715.7	8.4	74.3	76.78	888.8	3,530.9	3,780.1	3,697.5	82.61	45.760	
3,800.0	3,788.5	3,775.5	3,775.5	8.5	75.5	76.78	888.8	3,530.9	3,780.1	3,696.1	83.94	45.035	
3,838.6	3,827.1	3,814.1	3,814.1	8.6	76.2	76.78	888.8	3,530.9	3,780.1	3,695.3	84.80	44.579	
3,900.0	3,888.5	3,875.5	3,875.5	8.7	77.5	76.78	888.8	3,530.9	3,780.1	3,693.9	86.16	43.872	
3,937.0	3,925.5	3,912.5	3,912.5	8.8	78.2	76.78	888.8	3,530.9	3,780.1	3,693.1	86.98	43.457	
4,000.0	3,988.5	3,975.5	3,975.5	9.0	79.5	76.78	888.8	3,530.9	3,780.1	3,691.7	88.39	42.768	
4,035.4	4,024.0	4,011.0	4,011.0	9.0	80.2	76.78	888.8	3,530.9	3,780.1	3,690.9	89.17	42.390	
4,100.0	4,088.5	4,075.5	4,075.5	9.2	81.5	76.78	888.8	3,530.9	3,780.1	3,689.5	90.61	41.717	
4,133.8	4,122.4	4,109.4	4,109.4	9.2	82.2	76.78	888.8	3,530.9	3,780.1	3,688.7	91.37	41.373	
4,200.0	4,188.5	4,175.5	4,175.5	9.4	83.5	76.78	888.8	3,530.9	3,780.1	3,687.2	92.84	40.717	
4,232.3	4,220.8	4,207.8	4,207.8	9.4	84.2	76.78	888.8	3,530.9	3,780.1	3,686.5	93.56	40.405	
4,300.0	4,288.5	4,275.5	4,275.5	9.6	85.5	76.78	888.8	3,530.9	3,780.1	3,685.0	95.06	39.764	
4,330.7	4,319.2	4,306.2	4,306.2	9.7	86.1	76.78	888.8	3,530.9	3,780.1	3,684.3	95.75	39.480	
4,400.0	4,388.5	4,375.5	4,375.5	9.8	87.5	76.78	888.8	3,530.9	3,780.1	3,682.8	97.29	38.854	
4,429.1	4,417.7	4,404.7	4,404.7	9.9	88.1	76.78	888.8	3,530.9	3,780.1	3,682.1	97.94	38.596	
4,500.0	4,488.5	4,475.5	4,475.5	10.0	89.5	76.78	888.8	3,530.9	3,780.1	3,680.6	99.52	37.984	
4,527.5	4,516.1	4,503.1	4,503.1	10.1	90.1	76.78	888.8	3,530.9	3,780.1	3,680.0	100.13	37.751	
4,600.0	4,588.5	4,575.5	4,575.5	10.2	91.6	76.78	888.8	3,530.9	3,780.1	3,678.3	101.74	37.153	
4,626.0	4,614.5	4,601.5	4,601.5	10.3	92.1	76.78	888.8	3,530.9	3,780.1	3,677.8	102.32	36.943	
4,700.0	4,688.5	4,675.5	4,675.5	10.5	93.6	76.78	888.8	3,530.9	3,780.1	3,676.1	103.97	36.357	
4,724.4	4,712.9	4,699.9	4,699.9	10.5	94.1	76.78	888.8	3,530.9	3,780.1	3,675.6	104.52	36.167	
4,800.0	4,788.5	4,775.5	4,775.5	10.7	95.6	76.78	888.8	3,530.9	3,780.1	3,673.9	106.20	35.594	
4,822.8	4,811.4	4,798.4	4,798.4	10.7	96.0	76.78	888.8	3,530.9	3,780.1	3,673.4	106.71	35.424	
4,900.0	4,888.5	4,875.5	4,875.5	10.9	97.6	76.78	888.8	3,530.9	3,780.1	3,671.7	108.43	34.862	
4,921.2	4,909.8	4,896.8	4,896.8	10.9	98.0	76.78	888.8	3,530.9	3,780.1	3,671.2	108.90	34.711	
5,000.0	4,988.5	4,975.5	4,975.5	11.1	99.6	76.78	888.8	3,530.9	3,780.1	3,669.4	110.66	34.160	
5,019.7	5,008.2	4,995.2	4,995.2	11.1	100.0	76.78	888.8	3,530.9	3,780.1	3,669.0	111.10	34.025	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,075.5	5,075.5	11.3	101.6	76.78	888.8	3,530.9	3,780.1	3,667.2	112.89	33.486	
5,118.1	5,106.6	5,093.6	5,093.6	11.4	102.0	76.78	888.8	3,530.9	3,780.1	3,666.8	113.29	33.366	
5,200.0	5,188.5	5,175.5	5,175.5	11.5	103.6	76.78	888.8	3,530.9	3,780.1	3,665.0	115.12	32.837	
5,216.5	5,205.1	5,192.1	5,192.1	11.6	104.0	76.78	888.8	3,530.9	3,780.1	3,664.6	115.48	32.732	
5,300.0	5,288.5	5,275.5	5,275.5	11.8	105.6	76.78	888.8	3,530.9	3,780.1	3,662.7	117.35	32.213	
5,314.9	5,303.5	5,290.5	5,290.5	11.8	105.9	76.78	888.8	3,530.9	3,780.1	3,662.4	117.68	32.122	
5,400.0	5,388.5	5,375.5	5,375.5	12.0	107.6	76.78	888.8	3,530.9	3,780.1	3,660.5	119.58	31.613	
5,413.4	5,401.9	5,388.9	5,388.9	12.0	107.9	76.78	888.8	3,530.9	3,780.1	3,660.2	119.87	31.534	
5,500.0	5,488.5	5,475.5	5,475.5	12.2	109.7	76.78	888.8	3,530.9	3,780.1	3,658.3	121.81	31.034	
5,511.8	5,500.3	5,487.3	5,487.3	12.2	109.9	76.78	888.8	3,530.9	3,780.1	3,658.0	122.07	30.967	
5,600.0	5,588.5	5,575.5	5,575.5	12.4	111.7	76.78	888.8	3,530.9	3,780.1	3,656.0	124.04	30.476	
5,610.2	5,598.8	5,585.8	5,585.8	12.4	111.9	76.78	888.8	3,530.9	3,780.1	3,655.8	124.26	30.420	
5,700.0	5,688.5	5,675.5	5,675.5	12.6	113.7	76.78	888.8	3,530.9	3,780.1	3,653.8	126.27	29.938	
5,708.6	5,697.2	5,684.2	5,684.2	12.6	113.9	76.78	888.8	3,530.9	3,780.1	3,653.6	126.46	29.892	
5,800.0	5,788.5	5,775.5	5,775.5	12.8	115.7	76.78	888.8	3,530.9	3,780.1	3,651.6	128.50	29.418	
5,807.1	5,795.6	5,782.6	5,782.6	12.9	115.8	76.78	888.8	3,530.9	3,780.1	3,651.4	128.65	29.382	
5,900.0	5,888.5	5,875.5	5,875.5	13.1	117.7	76.78	888.8	3,530.9	3,780.1	3,649.4	130.73	28.916	
5,905.5	5,894.0	5,881.0	5,881.0	13.1	117.8	76.78	888.8	3,530.9	3,780.1	3,649.2	130.85	28.889	
6,000.0	5,988.5	5,975.5	5,975.5	13.3	119.7	76.78	888.8	3,530.9	3,780.1	3,647.1	132.96	28.431	
6,003.9	5,992.5	5,979.5	5,979.5	13.3	119.8	76.78	888.8	3,530.9	3,780.1	3,647.0	133.05	28.412	
6,085.3	6,073.8	6,060.8	6,060.8	13.5	121.4	76.78	888.8	3,530.9	3,780.1	3,645.2	134.86	28.030	
6,100.0	6,088.5	6,075.5	6,075.5	13.5	121.7	166.78	888.8	3,530.9	3,780.2	3,645.3	134.97	28.008	
6,102.3	6,090.9	6,077.9	6,077.9	13.5	121.8	166.78	888.8	3,530.9	3,780.3	3,645.3	135.01	28.000	
6,150.0	6,138.4	6,125.4	6,125.4	13.6	122.7	166.74	888.8	3,530.9	3,782.9	3,647.3	135.60	27.897	
6,200.0	6,188.0	6,175.0	6,175.0	13.7	123.7	166.65	888.8	3,530.9	3,789.0	3,653.4	135.61	27.940	
6,200.8	6,188.8	6,175.8	6,175.8	13.7	123.7	166.65	888.8	3,530.9	3,789.1	3,653.5	135.61	27.942	
6,250.0	6,237.1	6,224.1	6,224.1	13.9	124.7	166.50	888.8	3,530.9	3,798.4	3,663.5	134.99	28.139	
6,299.2	6,284.6	6,271.6	6,271.6	14.0	125.7	166.31	888.8	3,530.9	3,811.0	3,677.2	133.75	28.493	
6,300.0	6,285.3	6,272.3	6,272.3	14.0	125.7	166.30	888.8	3,530.9	3,811.2	3,677.5	133.72	28.500	
6,350.0	6,332.5	6,319.5	6,319.5	14.2	126.6	166.04	888.8	3,530.9	3,827.2	3,695.4	131.83	29.031	
6,397.6	6,376.3	6,363.3	6,363.3	14.4	127.5	165.72	888.8	3,530.9	3,845.4	3,715.9	129.45	29.705	
6,400.0	6,378.5	6,365.5	6,365.5	14.4	127.6	165.70	888.8	3,530.9	3,846.4	3,717.0	129.32	29.743	
6,450.0	6,423.0	6,410.0	6,410.0	14.7	128.4	165.29	888.8	3,530.9	3,868.6	3,742.4	126.22	30.649	
6,496.0	6,462.4	6,449.4	6,449.4	14.9	129.2	164.83	888.8	3,530.9	3,891.7	3,768.9	122.88	31.671	
6,500.0	6,465.7	6,452.7	6,452.7	14.9	129.3	164.78	888.8	3,530.9	3,893.8	3,771.3	122.57	31.767	
6,550.0	6,506.6	6,493.6	6,493.6	15.2	130.1	164.17	888.8	3,530.9	3,921.9	3,803.5	118.44	33.114	
6,594.5	6,541.2	6,528.2	6,528.2	15.6	130.8	163.51	888.8	3,530.9	3,949.2	3,834.8	114.42	34.515	
6,600.0	6,545.3	6,532.3	6,532.3	15.6	130.9	163.42	888.8	3,530.9	3,952.7	3,838.8	113.90	34.703	
6,650.0	6,581.8	6,568.8	6,568.8	16.0	131.6	162.51	888.8	3,530.9	3,986.1	3,877.0	109.09	36.539	
6,692.9	6,611.1	6,598.1	6,598.1	16.4	132.2	161.57	888.8	3,530.9	4,016.7	3,911.8	104.88	38.298	
6,700.0	6,615.8	6,602.8	6,602.8	16.5	132.3	161.39	888.8	3,530.9	4,021.9	3,917.7	104.19	38.603	
6,750.0	6,647.1	6,634.1	6,634.1	17.1	133.0	160.02	888.8	3,530.9	4,060.0	3,960.5	99.45	40.825	
6,791.3	6,670.9	6,657.9	6,657.9	17.6	133.4	158.63	888.8	3,530.9	4,093.0	3,997.1	95.93	42.667	
6,800.0	6,675.7	6,662.7	6,662.7	17.7	133.5	158.30	888.8	3,530.9	4,100.1	4,004.8	95.26	43.040	
6,850.0	6,701.3	6,688.3	6,688.3	18.4	134.0	156.12	888.8	3,530.9	4,142.1	4,049.9	92.20	44.927	
6,889.7	6,719.5	6,706.5	6,706.5	19.0	134.4	153.95	888.8	3,530.9	4,176.6	4,085.5	91.08	45.856	
6,900.0	6,723.8	6,710.8	6,710.8	19.1	134.5	153.31	888.8	3,530.9	4,185.7	4,094.6	91.05	45.972	
6,950.0	6,743.2	6,730.2	6,730.2	20.0	134.9	149.58	888.8	3,530.9	4,230.8	4,137.9	92.89	45.546	
6,988.2	6,755.8	6,742.8	6,742.8	20.6	135.1	145.86	888.8	3,530.9	4,266.1	4,169.0	97.09	43.938	
7,000.0	6,759.4	6,746.4	6,746.4	20.9	135.2	144.51	888.8	3,530.9	4,277.1	4,178.1	98.98	43.212	
7,050.0	6,772.1	6,759.1	6,759.1	21.8	135.5	137.41	888.8	3,530.9	4,324.5	4,214.0	110.47	39.146	
7,086.6	6,779.4	6,766.4	6,766.4	22.5	135.6	130.35	888.8	3,530.9	4,359.6	4,237.1	122.53	35.580	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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		
7,100.0	6,781.5	6,768.5	6,768.5	22.8	135.7	127.25	888.8	3,530.9	4,372.6	4,245.0	127.59	34.269		
7,150.0	6,787.5	6,774.5	6,774.5	23.9	135.8	112.87	888.8	3,530.9	4,421.2	4,273.9	147.38	29.999		
7,185.0	6,789.6	6,776.6	6,776.6	24.6	135.8	100.11	888.8	3,530.9	4,455.5	4,297.6	157.96	28.207		
7,200.0	6,789.9	6,776.9	6,776.9	24.9	135.8	94.17	888.8	3,530.9	4,470.2	4,309.9	160.32	27.883		
7,213.0	6,790.0	6,777.0	6,777.0	25.2	135.8	88.90	888.8	3,530.9	4,483.0	4,321.9	161.01	27.843 SF		
7,283.4	6,789.7	6,776.7	6,776.7	26.8	135.8	88.89	888.8	3,530.9	4,552.1	4,389.5	162.58	28.000		
7,300.0	6,789.7	6,776.7	6,776.7	27.2	135.8	88.88	888.8	3,530.9	4,568.4	4,405.4	162.94	28.036		
7,381.9	6,789.4	6,776.4	6,776.4	29.1	135.8	88.86	888.8	3,530.9	4,648.8	4,483.9	164.84	28.201		
7,400.0	6,789.3	6,776.3	6,776.3	29.5	135.8	88.85	888.8	3,530.9	4,666.6	4,501.3	165.26	28.238		
7,480.3	6,789.0	6,776.0	6,776.0	31.4	135.8	88.83	888.8	3,530.9	4,745.5	4,578.3	167.19	28.385		
7,500.0	6,788.9	6,775.9	6,775.9	31.9	135.8	88.83	888.8	3,530.9	4,764.9	4,597.2	167.66	28.420		
7,578.7	6,788.6	6,775.6	6,775.6	33.8	135.8	88.81	888.8	3,530.9	4,842.3	4,672.8	169.59	28.553		
7,600.0	6,788.5	6,775.5	6,775.5	34.4	135.8	88.80	888.8	3,530.9	4,863.3	4,693.2	170.11	28.588		
7,677.1	6,788.2	6,775.2	6,775.2	36.3	135.8	88.78	888.8	3,530.9	4,939.2	4,767.2	172.05	28.708		
7,700.0	6,788.2	6,775.2	6,775.2	36.9	135.8	88.77	888.8	3,530.9	4,961.7	4,789.1	172.62	28.743		
7,775.6	6,787.9	6,774.9	6,774.9	38.8	135.8	88.75	888.8	3,530.9	5,036.2	4,861.6	174.54	28.853		
7,800.0	6,787.8	6,774.8	6,774.8	39.4	135.8	88.74	888.8	3,530.9	5,060.2	4,885.1	175.17	28.888		
7,874.0	6,787.5	6,774.5	6,774.5	41.3	135.8	88.73	888.8	3,530.9	5,133.1	4,956.1	177.07	28.989		
7,900.0	6,787.4	6,774.4	6,774.4	42.0	135.8	88.72	888.8	3,530.9	5,158.8	4,981.0	177.75	29.023		
7,972.4	6,787.1	6,774.1	6,774.1	43.9	135.8	88.70	888.8	3,530.9	5,230.2	5,050.6	179.63	29.116		
8,000.0	6,787.0	6,774.0	6,774.0	44.6	135.8	88.69	888.8	3,530.9	5,257.4	5,077.0	180.35	29.151		
8,070.8	6,786.7	6,773.7	6,773.7	46.5	135.8	88.67	888.8	3,530.9	5,327.3	5,145.1	182.21	29.237		
8,100.0	6,786.6	6,773.6	6,773.6	47.3	135.8	88.66	888.8	3,530.9	5,356.1	5,173.1	182.98	29.272		
8,169.3	6,786.4	6,773.4	6,773.4	49.1	135.8	88.65	888.8	3,530.9	5,424.4	5,239.6	184.81	29.351		
8,200.0	6,786.3	6,773.3	6,773.3	49.9	135.8	88.64	888.8	3,530.9	5,454.8	5,269.1	185.62	29.386		
8,267.7	6,786.0	6,773.0	6,773.0	51.7	135.7	88.62	888.8	3,530.9	5,521.6	5,334.2	187.43	29.460		
8,300.0	6,785.9	6,772.9	6,772.9	52.6	135.7	88.61	888.8	3,530.9	5,553.5	5,365.2	188.29	29.495		
8,366.1	6,785.6	6,772.6	6,772.6	54.4	135.7	88.59	888.8	3,530.9	5,618.9	5,428.8	190.06	29.564		
8,400.0	6,785.5	6,772.5	6,772.5	55.3	135.7	88.58	888.8	3,530.9	5,652.3	5,461.4	190.96	29.599		
8,464.5	6,785.2	6,772.2	6,772.2	57.0	135.7	88.56	888.8	3,530.9	5,716.1	5,523.4	192.70	29.664		
8,500.0	6,785.1	6,772.1	6,772.1	58.0	135.7	88.55	888.8	3,530.9	5,751.2	5,557.5	193.65	29.699		
8,563.0	6,784.9	6,771.9	6,771.9	59.7	135.7	88.54	888.8	3,530.9	5,813.4	5,618.1	195.35	29.759		
8,600.0	6,784.7	6,771.7	6,771.7	60.7	135.7	88.52	888.8	3,530.9	5,850.1	5,653.7	196.35	29.794		
8,661.4	6,784.5	6,771.5	6,771.5	62.4	135.7	88.51	888.8	3,530.9	5,910.8	5,712.8	198.01	29.851		
8,700.0	6,784.3	6,771.3	6,771.3	63.4	135.7	88.50	888.8	3,530.9	5,949.0	5,749.9	199.05	29.886		
8,759.8	6,784.1	6,771.1	6,771.1	65.0	135.7	88.48	888.8	3,530.9	6,008.2	5,807.5	200.68	29.940		
8,800.0	6,784.0	6,771.0	6,771.0	66.1	135.7	88.47	888.8	3,530.9	6,047.9	5,846.2	201.77	29.975		
8,858.2	6,783.7	6,770.7	6,770.7	67.7	135.7	88.45	888.8	3,530.9	6,105.6	5,902.2	203.35	30.025		
8,900.0	6,783.6	6,770.6	6,770.6	68.9	135.7	88.44	888.8	3,530.9	6,146.9	5,942.4	204.49	30.060		
8,956.7	6,783.3	6,770.3	6,770.3	70.4	135.7	88.43	888.8	3,530.9	6,203.0	5,997.0	206.03	30.107		
9,000.0	6,783.2	6,770.2	6,770.2	71.6	135.7	88.41	888.8	3,530.9	6,245.9	6,038.7	207.21	30.142		
9,055.1	6,783.0	6,770.0	6,770.0	73.1	135.7	88.40	888.8	3,530.9	6,300.5	6,091.8	208.72	30.186		
9,100.0	6,782.8	6,769.8	6,769.8	74.3	135.7	88.38	888.8	3,530.9	6,345.0	6,135.0	209.95	30.222		
9,153.5	6,782.6	6,769.6	6,769.6	75.8	135.7	88.37	888.8	3,530.9	6,398.0	6,186.6	211.41	30.263		
9,200.0	6,782.4	6,769.4	6,769.4	77.1	135.7	88.36	888.8	3,530.9	6,444.1	6,231.4	212.68	30.299		
9,251.9	6,782.2	6,769.2	6,769.2	78.5	135.7	88.34	888.8	3,530.9	6,495.6	6,281.4	214.11	30.338		
9,300.0	6,782.0	6,769.0	6,769.0	79.8	135.7	88.33	888.8	3,530.9	6,543.2	6,327.8	215.42	30.373		
9,350.4	6,781.8	6,768.8	6,768.8	81.2	135.7	88.31	888.8	3,530.9	6,593.1	6,376.3	216.81	30.410		
9,400.0	6,781.6	6,768.6	6,768.6	82.6	135.7	88.30	888.8	3,530.9	6,642.3	6,424.1	218.17	30.446		
9,448.8	6,781.4	6,768.4	6,768.4	83.9	135.7	88.29	888.8	3,530.9	6,690.7	6,471.2	219.51	30.480		
9,500.0	6,781.2	6,768.2	6,768.2	85.4	135.7	88.27	888.8	3,530.9	6,741.5	6,520.6	220.92	30.516		
9,547.2	6,781.0	6,768.0	6,768.0	86.7	135.6	88.26	888.8	3,530.9	6,788.3	6,566.1	222.22	30.548		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #41-17 - 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	
9,600.0	6,780.8	6,767.8	6,767.8	88.1	135.6	88.24	888.8	3,530.9	6,840.7	6,617.0	223.67	30.584	
9,645.6	6,780.7	6,767.7	6,767.7	89.4	135.6	88.23	888.8	3,530.9	6,885.9	6,661.0	224.93	30.614	
9,700.0	6,780.5	6,767.5	6,767.5	90.9	135.6	88.21	888.8	3,530.9	6,939.9	6,713.4	226.42	30.650	
9,744.1	6,780.3	6,767.3	6,767.3	92.1	135.6	88.20	888.8	3,530.9	6,983.6	6,756.0	227.64	30.679	
9,800.0	6,780.1	6,767.1	6,767.1	93.7	135.6	88.18	888.8	3,530.9	7,039.1	6,809.9	229.18	30.715	
9,842.5	6,779.9	6,766.9	6,766.9	94.8	135.6	88.17	888.8	3,530.9	7,081.3	6,850.9	230.35	30.741	
9,900.0	6,779.7	6,766.7	6,766.7	96.4	135.6	88.16	888.8	3,530.9	7,138.4	6,906.4	231.94	30.777	
9,940.9	6,779.5	6,766.5	6,766.5	97.6	135.6	88.15	888.8	3,530.9	7,179.0	6,945.9	233.07	30.802	
10,000.0	6,779.3	6,766.3	6,766.3	99.2	135.6	88.13	888.8	3,530.9	7,237.6	7,002.9	234.70	30.838	
10,039.3	6,779.1	6,766.1	6,766.1	100.3	135.6	88.12	888.8	3,530.9	7,276.7	7,040.9	235.78	30.862	
10,100.0	6,778.9	6,765.9	6,765.9	102.0	135.6	88.10	888.8	3,530.9	7,336.9	7,099.5	237.46	30.897	
10,137.8	6,778.7	6,765.7	6,765.7	103.0	135.6	88.09	888.8	3,530.9	7,374.4	7,135.9	238.50	30.919	
10,200.0	6,778.5	6,765.5	6,765.5	104.8	135.6	88.07	888.8	3,530.9	7,436.2	7,196.0	240.22	30.955	
10,236.2	6,778.3	6,765.3	6,765.3	105.8	135.6	88.06	888.8	3,530.9	7,472.2	7,231.0	241.23	30.976	
10,300.0	6,778.1	6,765.1	6,765.1	107.5	135.6	88.04	888.8	3,530.9	7,535.6	7,292.6	242.99	31.012	
10,334.6	6,778.0	6,765.0	6,765.0	108.5	135.6	88.03	888.8	3,530.9	7,570.0	7,326.0	243.95	31.031	
10,400.0	6,777.7	6,764.7	6,764.7	110.3	135.6	88.01	888.8	3,530.9	7,634.9	7,389.2	245.76	31.067	
10,433.0	6,777.6	6,764.6	6,764.6	111.2	135.6	88.00	888.8	3,530.9	7,667.8	7,421.1	246.67	31.085	
10,500.0	6,777.3	6,764.3	6,764.3	113.1	135.6	87.98	888.8	3,530.9	7,734.3	7,485.8	248.53	31.121	
10,531.5	6,777.2	6,764.2	6,764.2	114.0	135.6	87.97	888.8	3,530.9	7,765.6	7,516.2	249.40	31.137	
10,600.0	6,776.9	6,763.9	6,763.9	115.9	135.6	87.95	888.8	3,530.9	7,833.7	7,582.4	251.30	31.173	
10,629.9	6,776.8	6,763.8	6,763.8	116.7	135.6	87.94	888.8	3,530.9	7,863.4	7,611.3	252.12	31.188	
10,700.0	6,776.5	6,763.5	6,763.5	118.7	135.6	87.92	888.8	3,530.9	7,933.1	7,679.0	254.07	31.224	
10,728.3	6,776.4	6,763.4	6,763.4	119.5	135.6	87.92	888.8	3,530.9	7,961.2	7,706.4	254.85	31.239	
10,800.0	6,776.1	6,763.1	6,763.1	121.4	135.5	87.89	888.8	3,530.9	8,032.5	7,775.6	256.84	31.274	
10,826.7	6,776.0	6,763.0	6,763.0	122.2	135.5	87.89	888.8	3,530.9	8,059.1	7,801.5	257.58	31.287	
10,900.0	6,775.7	6,762.7	6,762.7	124.2	135.5	87.86	888.8	3,530.9	8,131.9	7,872.3	259.61	31.323	
10,925.2	6,775.6	6,762.6	6,762.6	124.9	135.5	87.86	888.8	3,530.9	8,156.9	7,896.6	260.31	31.335	
11,000.0	6,775.3	6,762.3	6,762.3	127.0	135.5	87.83	888.8	3,530.9	8,231.3	7,968.9	262.39	31.371	
11,023.6	6,775.2	6,762.2	6,762.2	127.7	135.5	87.83	888.8	3,530.9	8,254.8	7,991.8	263.04	31.382	
11,100.0	6,774.9	6,761.9	6,761.9	129.8	135.5	87.80	888.8	3,530.9	8,330.8	8,065.6	265.16	31.418	
11,122.0	6,774.8	6,761.8	6,761.8	130.4	135.5	87.80	888.8	3,530.9	8,352.7	8,086.9	265.77	31.428	
11,200.0	6,774.5	6,761.5	6,761.5	132.6	135.5	87.77	888.8	3,530.9	8,430.2	8,162.3	267.94	31.464	
11,220.4	6,774.4	6,761.4	6,761.4	133.2	135.5	87.77	888.8	3,530.9	8,450.6	8,182.1	268.50	31.473	
11,300.0	6,774.1	6,761.1	6,761.1	135.4	135.5	87.74	888.8	3,530.9	8,529.7	8,259.0	270.71	31.509	
11,318.9	6,774.0	6,761.0	6,761.0	135.9	135.5	87.74	888.8	3,530.9	8,548.5	8,277.3	271.24	31.517	
11,400.0	6,773.7	6,760.7	6,760.7	138.2	135.5	87.71	888.8	3,530.9	8,629.2	8,355.7	273.49	31.553	
11,417.3	6,773.6	6,760.6	6,760.6	138.7	135.5	87.71	888.8	3,530.9	8,646.4	8,372.5	273.97	31.560	
11,500.0	6,773.3	6,760.3	6,760.3	141.0	135.5	87.68	888.8	3,530.9	8,728.7	8,452.5	276.26	31.596	
11,515.7	6,773.2	6,760.2	6,760.2	141.4	135.5	87.68	888.8	3,530.9	8,744.4	8,467.7	276.70	31.602	
11,600.0	6,772.9	6,759.9	6,759.9	143.8	135.5	87.65	888.8	3,530.9	8,828.2	8,549.2	279.04	31.638	
11,614.1	6,772.8	6,759.8	6,759.8	144.2	135.5	87.65	888.8	3,530.9	8,842.3	8,562.9	279.44	31.644	
11,700.0	6,772.5	6,759.5	6,759.5	146.6	135.5	87.62	888.8	3,530.9	8,927.8	8,645.9	281.82	31.679	
11,712.6	6,772.4	6,759.4	6,759.4	146.9	135.5	87.62	888.8	3,530.9	8,940.3	8,658.1	282.17	31.684	
11,800.0	6,772.1	6,759.1	6,759.1	149.4	135.5	87.59	888.8	3,530.9	9,027.3	8,742.7	284.60	31.719	
11,811.0	6,772.1	6,759.1	6,759.1	149.7	135.5	87.59	888.8	3,530.9	9,038.2	8,753.3	284.90	31.724	
11,900.0	6,771.7	6,758.7	6,758.7	152.2	135.5	87.56	888.8	3,530.9	9,126.8	8,839.5	287.38	31.759	
11,909.4	6,771.7	6,758.7	6,758.7	152.4	135.5	87.56	888.8	3,530.9	9,136.2	8,848.6	287.64	31.763	
12,000.0	6,771.3	6,758.3	6,758.3	154.9	135.5	87.53	888.8	3,530.9	9,226.4	8,936.2	290.16	31.798	
12,007.8	6,771.3	6,758.3	6,758.3	155.2	135.5	87.53	888.8	3,530.9	9,234.2	8,943.8	290.37	31.801	
12,100.0	6,770.9	6,757.9	6,757.9	157.7	135.4	87.50	888.8	3,530.9	9,326.0	9,033.0	292.94	31.836	
12,106.3	6,770.9	6,757.9	6,757.9	157.9	135.4	87.50	888.8	3,530.9	9,332.2	9,039.1	293.11	31.839	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT HOSHIKO #41-17 - 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
12,200.0	6,770.5	6,757.5	6,757.5	160.5	135.4	87.47	888.8	3,530.9	9,425.5	9,129.8	295.72	31.874	
12,204.7	6,770.5	6,757.5	6,757.5	160.7	135.4	87.47	888.8	3,530.9	9,430.2	9,134.4	295.85	31.875	
12,300.0	6,770.1	6,757.1	6,757.1	163.3	135.4	87.44	888.8	3,530.9	9,525.1	9,226.6	298.50	31.910	
12,303.1	6,770.1	6,757.1	6,757.1	163.4	135.4	87.44	888.8	3,530.9	9,528.2	9,229.6	298.58	31.912	
12,316.4	6,770.0	6,757.0	6,757.0	163.8	135.4	87.44	888.8	3,530.9	9,541.4	9,242.5	298.95	31.916	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	1.0	1.0	0.0	0.0	-82.46	306.1	-2,311.6	2,331.8				
98.4	98.4	99.4	99.4	0.1	0.9	-82.46	306.1	-2,311.6	2,331.8	2,330.8	0.97	2,404.807	
100.0	100.0	101.0	101.0	0.1	0.9	-82.46	306.1	-2,311.6	2,331.8	2,330.8	1.00	2,331.501	
196.8	196.8	197.8	197.8	0.3	3.2	-82.46	306.1	-2,311.6	2,331.8	2,328.3	3.51	664.383	
200.0	200.0	201.0	201.0	0.3	3.3	-82.46	306.1	-2,311.6	2,331.8	2,328.2	3.59	649.798	
295.3	295.3	296.3	296.3	0.5	5.2	-82.46	306.1	-2,311.6	2,331.8	2,326.0	5.79	402.995	
300.0	300.0	301.0	301.0	0.5	5.3	-82.46	306.1	-2,311.6	2,331.8	2,325.9	5.89	395.570	
393.7	393.7	394.7	394.7	0.8	7.3	-82.46	306.1	-2,311.6	2,331.8	2,323.8	8.02	290.774	
400.0	400.0	401.0	401.0	0.8	7.4	-82.46	306.1	-2,311.6	2,331.8	2,323.7	8.16	285.690	
492.1	492.1	493.1	493.1	1.0	9.3	-82.46	306.1	-2,311.6	2,331.8	2,321.6	10.24	227.754	
500.0	500.0	501.0	501.0	1.0	9.4	-82.46	306.1	-2,311.6	2,331.8	2,321.4	10.42	223.875	
590.5	590.5	591.5	591.5	1.2	11.3	-82.46	306.1	-2,311.6	2,331.8	2,319.4	12.45	187.284	
600.0	600.0	601.0	601.0	1.2	11.4	-82.46	306.1	-2,311.6	2,331.8	2,319.2	12.66	184.144	
689.0	689.0	690.0	690.0	1.4	13.2	-82.46	306.1	-2,311.6	2,331.8	2,317.2	14.66	159.065	
700.0	700.0	701.0	701.0	1.4	13.5	-82.46	306.1	-2,311.6	2,331.8	2,316.9	14.91	156.426	
787.4	787.4	788.4	788.4	1.6	15.2	-82.46	306.1	-2,311.6	2,331.8	2,314.9	16.87	138.254	
800.0	800.0	801.0	801.0	1.7	15.5	-82.46	306.1	-2,311.6	2,331.8	2,314.7	17.15	135.977	
885.8	885.8	886.8	886.8	1.9	17.2	-82.46	306.1	-2,311.6	2,331.8	2,312.7	19.07	122.268	
900.0	900.0	901.0	901.0	1.9	17.5	-82.46	306.1	-2,311.6	2,331.8	2,312.4	19.39	120.265	
984.2	984.2	985.2	985.2	2.1	19.2	-82.46	306.1	-2,311.6	2,331.8	2,310.5	21.28	109.601	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	19.5	-82.46	306.1	-2,311.6	2,331.8	2,310.2	21.63	107.813	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	21.2	-82.46	306.1	-2,311.6	2,331.8	2,308.3	23.48	99.314	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	21.5	-82.46	306.1	-2,311.6	2,331.8	2,307.9	23.87	97.701	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	23.2	-82.46	306.1	-2,311.6	2,331.8	2,306.1	25.68	90.795	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	23.5	-82.46	306.1	-2,311.6	2,331.8	2,305.7	26.11	89.324	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	25.1	-82.46	306.1	-2,311.6	2,331.8	2,303.9	27.88	83.623	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	25.5	-82.46	306.1	-2,311.6	2,331.8	2,303.5	28.34	82.271	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	27.1	-82.46	306.1	-2,311.6	2,331.8	2,301.7	30.09	77.502	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	27.6	-82.46	306.1	-2,311.6	2,331.8	2,301.2	30.58	76.252	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	29.1	-82.46	306.1	-2,311.6	2,331.8	2,299.5	32.29	72.217	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	29.6	-82.46	306.1	-2,311.6	2,331.8	2,299.0	32.82	71.054	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	31.1	-1.76	306.1	-2,311.6	2,330.8	2,296.4	34.47	67.618	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	31.6	-1.76	306.1	-2,311.6	2,330.1	2,295.0	35.02	66.532	
1,673.2	1,673.1	1,674.1	1,674.1	3.6	33.1	-1.76	306.1	-2,311.6	2,326.6	2,290.0	36.60	63.571	
1,700.0	1,699.8	1,700.8	1,700.8	3.7	33.6	-1.77	306.1	-2,311.6	2,324.8	2,287.7	37.17	62.552	
1,771.6	1,771.2	1,772.2	1,772.2	3.8	35.0	-1.77	306.1	-2,311.6	2,319.0	2,280.3	38.67	59.969	
1,800.0	1,799.5	1,800.5	1,800.5	3.9	35.6	-1.78	306.1	-2,311.6	2,316.1	2,276.9	39.25	59.003	
1,870.1	1,869.0	1,870.0	1,870.0	4.0	37.0	-1.79	306.1	-2,311.6	2,308.0	2,267.3	40.68	56.735	
1,900.0	1,898.7	1,899.7	1,899.7	4.1	37.6	-1.80	306.1	-2,311.6	2,303.9	2,262.7	41.28	55.817	
1,968.5	1,966.4	1,967.4	1,967.4	4.3	39.0	-1.81	306.1	-2,311.6	2,293.6	2,251.0	42.62	53.815	
2,000.0	1,997.5	1,998.5	1,998.5	4.4	39.6	-1.82	306.1	-2,311.6	2,288.3	2,245.1	43.22	52.940	
2,066.9	2,063.2	2,064.2	2,064.2	4.6	40.9	-1.84	306.1	-2,311.6	2,275.9	2,231.4	44.48	51.164	
2,100.1	2,095.7	2,096.7	2,096.7	4.7	41.6	-1.85	306.1	-2,311.6	2,269.2	2,224.1	45.09	50.326	
2,165.3	2,159.5	2,160.5	2,160.5	4.9	42.8	-1.86	306.1	-2,311.6	2,255.7	2,209.2	46.49	48.516	
2,200.0	2,193.4	2,194.4	2,194.4	5.0	43.5	-1.86	306.1	-2,311.6	2,248.5	2,201.2	47.24	47.600	
2,224.2	2,217.1	2,218.1	2,218.1	5.1	44.0	-1.87	306.1	-2,311.6	2,243.4	2,195.7	47.76	46.976	
2,263.8	2,255.9	2,256.9	2,256.9	5.2	44.8	-1.87	306.1	-2,311.6	2,235.5	2,186.7	48.74	45.863	
2,300.0	2,291.5	2,292.5	2,292.5	5.3	45.5	-1.87	306.1	-2,311.6	2,228.7	2,179.0	49.64	44.900	
2,362.2	2,352.7	2,353.7	2,353.7	5.5	46.7	-1.87	306.1	-2,311.6	2,218.0	2,166.8	51.16	43.354	
2,400.0	2,390.1	2,391.1	2,391.1	5.6	47.5	-1.87	306.1	-2,311.6	2,212.2	2,160.1	52.08	42.474	
2,460.6	2,450.1	2,451.1	2,451.1	5.7	48.7	-1.87	306.1	-2,311.6	2,203.9	2,150.3	53.55	41.154	
2,500.0	2,489.2	2,490.2	2,490.2	5.8	49.5	-1.87	306.1	-2,311.6	2,199.2	2,144.7	54.50	40.353	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
2,559.0	2,548.0	2,549.0	2,549.0	6.0	50.7	-1.88	306.1	-2,311.6	2,193.1	2,137.2	55.90	39.229	
2,600.0	2,588.8	2,589.8	2,589.8	6.1	51.5	-1.88	306.1	-2,311.6	2,189.6	2,132.7	56.87	38.502	
2,657.5	2,646.1	2,647.1	2,647.1	6.2	52.6	-1.88	306.1	-2,311.6	2,185.7	2,127.5	58.21	37.549	
2,700.0	2,688.6	2,689.6	2,689.6	6.3	53.5	-1.88	306.1	-2,311.6	2,183.5	2,124.4	59.19	36.892	
2,755.9	2,744.4	2,745.4	2,745.4	6.4	54.6	-1.88	306.1	-2,311.6	2,181.7	2,121.2	60.45	36.087	
2,800.0	2,788.5	2,789.5	2,789.5	6.5	55.5	-1.88	306.1	-2,311.6	2,180.9	2,119.5	61.44	35.497	
2,824.3	2,812.8	2,813.8	2,813.8	6.5	56.0	-82.58	306.1	-2,311.6	2,180.8	2,118.3	62.50	34.892	
2,854.3	2,842.9	2,843.9	2,843.9	6.6	56.6	-82.58	306.1	-2,311.6	2,180.8	2,117.7	63.16	34.527	
2,900.0	2,888.5	2,889.5	2,889.5	6.7	57.5	-82.58	306.1	-2,311.6	2,180.8	2,116.7	64.17	33.987	
2,952.7	2,941.3	2,942.3	2,942.3	6.8	58.6	-82.58	306.1	-2,311.6	2,180.8	2,115.5	65.33	33.380	
3,000.0	2,988.5	2,989.5	2,989.5	6.9	59.5	-82.58	306.1	-2,311.6	2,180.8	2,114.5	66.38	32.854	
3,051.2	3,039.7	3,040.7	3,040.7	7.0	60.5	-82.58	306.1	-2,311.6	2,180.8	2,113.3	67.51	32.302	
3,100.0	3,088.5	3,089.5	3,089.5	7.1	61.5	-82.58	306.1	-2,311.6	2,180.8	2,112.2	68.60	31.792	
3,149.6	3,138.1	3,139.1	3,139.1	7.2	62.5	-82.58	306.1	-2,311.6	2,180.8	2,111.1	69.70	31.291	
3,200.0	3,188.5	3,189.5	3,189.5	7.3	63.5	-82.58	306.1	-2,311.6	2,180.8	2,110.0	70.81	30.797	
3,248.0	3,236.6	3,237.6	3,237.6	7.4	64.5	-82.58	306.1	-2,311.6	2,180.8	2,109.0	71.88	30.341	
3,300.0	3,288.5	3,289.5	3,289.5	7.5	65.6	-82.58	306.1	-2,311.6	2,180.8	2,107.8	73.03	29.862	
3,346.4	3,335.0	3,336.0	3,336.0	7.6	66.5	-82.58	306.1	-2,311.6	2,180.8	2,106.8	74.06	29.446	
3,400.0	3,388.5	3,389.5	3,389.5	7.7	67.6	-82.58	306.1	-2,311.6	2,180.8	2,105.6	75.25	28.981	
3,444.9	3,433.4	3,434.4	3,434.4	7.8	68.5	-82.58	306.1	-2,311.6	2,180.8	2,104.6	76.25	28.602	
3,500.0	3,488.5	3,489.5	3,489.5	7.9	69.6	-82.58	306.1	-2,311.6	2,180.8	2,103.4	77.47	28.151	
3,543.3	3,531.8	3,532.8	3,532.8	8.0	70.4	-82.58	306.1	-2,311.6	2,180.8	2,102.4	78.43	27.805	
3,600.0	3,588.5	3,589.5	3,589.5	8.1	71.6	-82.58	306.1	-2,311.6	2,180.8	2,101.2	79.69	27.366	
3,641.7	3,630.3	3,631.3	3,631.3	8.2	72.4	-82.58	306.1	-2,311.6	2,180.8	2,100.2	80.62	27.051	
3,700.0	3,688.5	3,689.5	3,689.5	8.3	73.6	-82.58	306.1	-2,311.6	2,180.8	2,098.9	81.91	26.624	
3,740.1	3,728.7	3,729.7	3,729.7	8.4	74.4	-82.58	306.1	-2,311.6	2,180.8	2,098.0	82.81	26.337	
3,800.0	3,788.5	3,789.5	3,789.5	8.5	75.6	-82.58	306.1	-2,311.6	2,180.8	2,096.7	84.14	25.921	
3,838.6	3,827.1	3,828.1	3,828.1	8.6	76.4	-82.58	306.1	-2,311.6	2,180.8	2,095.9	84.99	25.659	
3,900.0	3,888.5	3,889.5	3,889.5	8.7	77.6	-82.58	306.1	-2,311.6	2,180.8	2,094.5	86.36	25.253	
3,937.0	3,925.5	3,926.5	3,926.5	8.8	78.4	-82.58	306.1	-2,311.6	2,180.8	2,093.7	87.18	25.015	
4,000.0	3,988.5	3,989.5	3,989.5	9.0	79.6	-82.58	306.1	-2,311.6	2,180.8	2,092.3	88.58	24.620	
4,035.4	4,024.0	4,025.0	4,025.0	9.0	80.3	-82.58	306.1	-2,311.6	2,180.8	2,091.5	89.37	24.403	
4,100.0	4,088.5	4,089.5	4,089.5	9.2	81.6	-82.58	306.1	-2,311.6	2,180.8	2,090.0	90.81	24.017	
4,133.8	4,122.4	4,123.4	4,123.4	9.2	82.3	-82.58	306.1	-2,311.6	2,180.8	2,089.3	91.56	23.819	
4,200.0	4,188.5	4,189.5	4,189.5	9.4	83.7	-82.58	306.1	-2,311.6	2,180.8	2,087.8	93.03	23.442	
4,232.3	4,220.8	4,221.8	4,221.8	9.4	84.3	-82.58	306.1	-2,311.6	2,180.8	2,087.1	93.75	23.263	
4,300.0	4,288.5	4,289.5	4,289.5	9.6	85.7	-82.58	306.1	-2,311.6	2,180.8	2,085.6	95.26	22.895	
4,330.7	4,319.2	4,320.2	4,320.2	9.7	86.3	-82.58	306.1	-2,311.6	2,180.8	2,084.9	95.94	22.732	
4,400.0	4,388.5	4,389.5	4,389.5	9.8	87.7	-82.58	306.1	-2,311.6	2,180.8	2,083.4	97.48	22.372	
4,429.1	4,417.7	4,418.7	4,418.7	9.9	88.3	-82.58	306.1	-2,311.6	2,180.8	2,082.7	98.13	22.224	
4,500.0	4,488.5	4,489.5	4,489.5	10.0	89.7	-82.58	306.1	-2,311.6	2,180.8	2,081.1	99.71	21.872	
4,527.5	4,516.1	4,517.1	4,517.1	10.1	90.2	-82.58	306.1	-2,311.6	2,180.8	2,080.5	100.32	21.739	
4,600.0	4,588.5	4,589.5	4,589.5	10.2	91.7	-82.58	306.1	-2,311.6	2,180.8	2,078.9	101.93	21.395	
4,626.0	4,614.5	4,615.5	4,615.5	10.3	92.2	-82.58	306.1	-2,311.6	2,180.8	2,078.3	102.51	21.274	
4,700.0	4,688.5	4,689.5	4,689.5	10.5	93.7	-82.58	306.1	-2,311.6	2,180.8	2,076.7	104.16	20.937	
4,724.4	4,712.9	4,713.9	4,713.9	10.5	94.2	-82.58	306.1	-2,311.6	2,180.8	2,076.1	104.70	20.829	
4,800.0	4,788.5	4,789.5	4,789.5	10.7	95.7	-82.58	306.1	-2,311.6	2,180.8	2,074.5	106.39	20.499	
4,822.8	4,811.4	4,812.4	4,812.4	10.7	96.2	-82.58	306.1	-2,311.6	2,180.8	2,073.9	106.90	20.401	
4,900.0	4,888.5	4,889.5	4,889.5	10.9	97.7	-82.58	306.1	-2,311.6	2,180.8	2,072.2	108.62	20.079	
4,921.2	4,909.8	4,910.8	4,910.8	10.9	98.2	-82.58	306.1	-2,311.6	2,180.8	2,071.8	109.09	19.991	
5,000.0	4,988.5	4,989.5	4,989.5	11.1	99.7	-82.58	306.1	-2,311.6	2,180.8	2,070.0	110.84	19.675	
5,019.7	5,008.2	5,009.2	5,009.2	11.1	100.1	-82.58	306.1	-2,311.6	2,180.8	2,069.6	111.28	19.597	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,089.5	5,089.5	11.3	101.8	-82.58	306.1	-2,311.6	2,180.8	2,067.8	113.07	19.287	
5,118.1	5,106.6	5,107.6	5,107.6	11.4	102.1	-82.58	306.1	-2,311.6	2,180.8	2,067.4	113.48	19.219	
5,200.0	5,188.5	5,189.5	5,189.5	11.5	103.8	-82.58	306.1	-2,311.6	2,180.8	2,065.5	115.30	18.914	
5,216.5	5,205.1	5,206.1	5,206.1	11.6	104.1	-82.58	306.1	-2,311.6	2,180.8	2,065.2	115.67	18.854	
5,300.0	5,288.5	5,289.5	5,289.5	11.8	105.8	-82.58	306.1	-2,311.6	2,180.8	2,063.3	117.53	18.556	
5,314.9	5,303.5	5,304.5	5,304.5	11.8	106.1	-82.58	306.1	-2,311.6	2,180.8	2,063.0	117.86	18.503	
5,400.0	5,388.5	5,389.5	5,389.5	12.0	107.8	-82.58	306.1	-2,311.6	2,180.8	2,061.1	119.76	18.210	
5,413.4	5,401.9	5,402.9	5,402.9	12.0	108.1	-82.58	306.1	-2,311.6	2,180.8	2,060.8	120.06	18.165	
5,500.0	5,488.5	5,489.5	5,489.5	12.2	109.8	-82.58	306.1	-2,311.6	2,180.8	2,058.9	121.99	17.878	
5,511.8	5,500.3	5,501.3	5,501.3	12.2	110.0	-82.58	306.1	-2,311.6	2,180.8	2,058.6	122.25	17.839	
5,600.0	5,588.5	5,589.5	5,589.5	12.4	111.8	-82.58	306.1	-2,311.6	2,180.8	2,056.6	124.22	17.557	
5,610.2	5,598.8	5,599.8	5,599.8	12.4	112.0	-82.58	306.1	-2,311.6	2,180.8	2,056.4	124.45	17.525	
5,700.0	5,688.5	5,689.5	5,689.5	12.6	113.8	-82.58	306.1	-2,311.6	2,180.8	2,054.4	126.45	17.247	
5,708.6	5,697.2	5,698.2	5,698.2	12.6	114.0	-82.58	306.1	-2,311.6	2,180.8	2,054.2	126.64	17.221	
5,800.0	5,788.5	5,789.5	5,789.5	12.8	115.8	-82.58	306.1	-2,311.6	2,180.8	2,052.2	128.68	16.948	
5,807.1	5,795.6	5,796.6	5,796.6	12.9	116.0	-82.58	306.1	-2,311.6	2,180.8	2,052.0	128.83	16.927	
5,900.0	5,888.5	5,889.5	5,889.5	13.1	117.8	-82.58	306.1	-2,311.6	2,180.8	2,049.9	130.91	16.660	
5,905.5	5,894.0	5,895.0	5,895.0	13.1	118.0	-82.58	306.1	-2,311.6	2,180.8	2,049.8	131.03	16.644	
6,000.0	5,988.5	5,989.5	5,989.5	13.3	119.9	-82.58	306.1	-2,311.6	2,180.8	2,047.7	133.14	16.380	
6,003.9	5,992.5	5,993.5	5,993.5	13.3	119.9	-82.58	306.1	-2,311.6	2,180.8	2,047.6	133.22	16.370	
6,085.3	6,073.8	6,074.8	6,074.8	13.5	121.6	-82.58	306.1	-2,311.6	2,180.8	2,045.8	135.04	16.150	
6,100.0	6,088.5	6,089.5	6,089.5	13.5	121.9	7.42	306.1	-2,311.6	2,180.7	2,045.6	135.07	16.145	
6,102.3	6,090.9	6,091.9	6,091.9	13.5	121.9	7.43	306.1	-2,311.6	2,180.6	2,045.5	135.11	16.139	
6,150.0	6,138.4	6,139.4	6,139.4	13.6	122.9	7.46	306.1	-2,311.6	2,177.9	2,042.3	135.69	16.051	
6,200.0	6,188.0	6,189.0	6,189.0	13.7	123.9	7.55	306.1	-2,311.6	2,171.8	2,036.1	135.65	16.010	
6,200.8	6,188.8	6,189.8	6,189.8	13.7	123.9	7.55	306.1	-2,311.6	2,171.6	2,036.0	135.65	16.009	
6,250.0	6,237.1	6,238.1	6,238.1	13.9	124.8	7.69	306.1	-2,311.6	2,162.1	2,027.2	134.96	16.021	
6,299.2	6,284.6	6,285.6	6,285.6	14.0	125.8	7.88	306.1	-2,311.6	2,149.4	2,015.8	133.62	16.086	
6,300.0	6,285.3	6,286.3	6,286.3	14.0	125.8	7.88	306.1	-2,311.6	2,149.2	2,015.6	133.59	16.088	
6,350.0	6,332.5	6,333.5	6,333.5	14.2	126.8	8.13	306.1	-2,311.6	2,132.9	2,001.3	131.55	16.213	
6,397.6	6,376.3	6,377.3	6,377.3	14.4	127.6	8.44	306.1	-2,311.6	2,114.4	1,985.4	129.00	16.390	
6,400.0	6,378.5	6,379.5	6,379.5	14.4	127.7	8.45	306.1	-2,311.6	2,113.4	1,984.5	128.86	16.401	
6,450.0	6,423.0	6,424.0	6,424.0	14.7	128.6	8.85	306.1	-2,311.6	2,090.8	1,965.2	125.52	16.656	
6,496.0	6,462.4	6,463.4	6,463.4	14.9	129.4	9.30	306.1	-2,311.6	2,067.3	1,945.3	121.91	16.957	
6,500.0	6,465.7	6,466.7	6,466.7	14.9	129.4	9.34	306.1	-2,311.6	2,065.1	1,943.5	121.58	16.986	
6,550.0	6,506.6	6,507.6	6,507.6	15.2	130.3	9.94	306.1	-2,311.6	2,036.6	1,919.5	117.06	17.398	
6,594.5	6,541.2	6,542.2	6,542.2	15.6	131.0	10.59	306.1	-2,311.6	2,008.9	1,896.3	112.62	17.837	
6,600.0	6,545.3	6,546.3	6,546.3	15.6	131.0	10.68	306.1	-2,311.6	2,005.3	1,893.3	112.05	17.897	
6,650.0	6,581.8	6,582.8	6,582.8	16.0	131.8	11.58	306.1	-2,311.6	1,971.5	1,864.8	106.63	18.488	
6,692.9	6,611.1	6,612.1	6,612.1	16.4	132.4	12.51	306.1	-2,311.6	1,940.5	1,838.7	101.78	19.065	
6,700.0	6,615.8	6,616.8	6,616.8	16.5	132.5	12.69	306.1	-2,311.6	1,935.2	1,834.2	100.97	19.166	
6,750.0	6,647.1	6,648.1	6,648.1	17.1	133.1	14.07	306.1	-2,311.6	1,896.7	1,801.4	95.28	19.905	
6,791.3	6,670.9	6,671.9	6,671.9	17.6	133.6	15.48	306.1	-2,311.6	1,863.3	1,772.4	90.83	20.514	
6,800.0	6,675.7	6,676.7	6,676.7	17.7	133.7	15.82	306.1	-2,311.6	1,856.1	1,766.1	89.95	20.634	
6,850.0	6,701.3	6,702.3	6,702.3	18.4	134.2	18.07	306.1	-2,311.6	1,813.7	1,728.1	85.57	21.196	
6,889.7	6,719.5	6,720.5	6,720.5	19.0	134.5	20.34	306.1	-2,311.6	1,778.8	1,695.4	83.37	21.335	
6,900.0	6,723.8	6,724.8	6,724.8	19.1	134.6	21.01	306.1	-2,311.6	1,769.6	1,686.5	83.08	21.301	
6,950.0	6,743.2	6,744.2	6,744.2	20.0	135.0	24.98	306.1	-2,311.6	1,724.1	1,640.2	83.90	20.549	
6,988.2	6,755.8	6,756.8	6,756.8	20.6	135.3	29.01	306.1	-2,311.6	1,688.6	1,600.7	87.89	19.212	
7,000.0	6,759.4	6,760.4	6,760.4	20.9	135.4	30.48	306.1	-2,311.6	1,677.5	1,587.6	89.87	18.666	
7,050.0	6,772.1	6,773.1	6,773.1	21.8	135.6	38.34	306.1	-2,311.6	1,629.8	1,527.1	102.73	15.866	
7,086.6	6,779.4	6,780.4	6,780.4	22.5	135.8	46.25	306.1	-2,311.6	1,594.5	1,477.6	116.88	13.643	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT PUYPE B #18-17 - 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	
7,100.0	6,781.5	6,782.5	6,782.5	22.8	135.8	49.73	306.1	-2,311.6	1,581.5	1,458.6	122.89	12.870	
7,150.0	6,787.5	6,788.5	6,788.5	23.9	135.9	65.79	306.1	-2,311.6	1,532.7	1,386.5	146.16	10.487	
7,185.0	6,789.6	6,790.6	6,790.6	24.6	136.0	79.56	306.1	-2,311.6	1,498.3	1,340.4	157.99	9.484	
7,200.0	6,789.9	6,790.9	6,790.9	24.9	136.0	85.75	306.1	-2,311.6	1,483.6	1,323.2	160.47	9.246	
7,213.0	6,790.0	6,791.0	6,791.0	25.2	136.0	91.10	306.1	-2,311.6	1,470.9	1,309.8	161.14	9.128	
7,283.4	6,789.7	6,790.7	6,790.7	26.8	136.0	91.05	306.1	-2,311.6	1,401.8	1,239.1	162.72	8.615	
7,300.0	6,789.7	6,790.7	6,790.7	27.2	136.0	91.04	306.1	-2,311.6	1,385.6	1,222.5	163.08	8.496	
7,381.9	6,789.4	6,790.4	6,790.4	29.1	136.0	90.98	306.1	-2,311.6	1,305.5	1,140.5	164.99	7.913	
7,400.0	6,789.3	6,790.3	6,790.3	29.5	136.0	90.96	306.1	-2,311.6	1,287.8	1,122.4	165.41	7.786	
7,480.3	6,789.0	6,790.0	6,790.0	31.4	135.9	90.90	306.1	-2,311.6	1,209.6	1,042.3	167.33	7.229	
7,500.0	6,788.9	6,789.9	6,789.9	31.9	135.9	90.89	306.1	-2,311.6	1,190.5	1,022.7	167.81	7.094	
7,578.7	6,788.6	6,789.6	6,789.6	33.8	135.9	90.83	306.1	-2,311.6	1,114.1	944.4	169.75	6.564	
7,600.0	6,788.5	6,789.5	6,789.5	34.4	135.9	90.81	306.1	-2,311.6	1,093.6	923.3	170.27	6.423	
7,677.1	6,788.2	6,789.2	6,789.2	36.3	135.9	90.75	306.1	-2,311.6	1,019.2	847.0	172.21	5.919	
7,700.0	6,788.2	6,789.2	6,789.2	36.9	135.9	90.74	306.1	-2,311.6	997.3	824.5	172.78	5.772	
7,775.6	6,787.9	6,788.9	6,788.9	38.8	135.9	90.68	306.1	-2,311.6	925.0	750.3	174.71	5.295	
7,800.0	6,787.8	6,788.8	6,788.8	39.4	135.9	90.66	306.1	-2,311.6	901.8	726.5	175.33	5.143	
7,874.0	6,787.5	6,788.5	6,788.5	41.3	135.9	90.60	306.1	-2,311.6	831.8	654.6	177.24	4.693	
7,900.0	6,787.4	6,788.4	6,788.4	42.0	135.9	90.59	306.1	-2,311.6	807.4	629.5	177.92	4.538	
7,972.4	6,787.1	6,788.1	6,788.1	43.9	135.9	90.53	306.1	-2,311.6	740.0	560.2	179.81	4.115	
8,000.0	6,787.0	6,788.0	6,788.0	44.6	135.9	90.51	306.1	-2,311.6	714.5	534.0	180.53	3.958	
8,070.8	6,786.7	6,787.7	6,787.7	46.5	135.9	90.45	306.1	-2,311.6	650.0	467.6	182.39	3.564	
8,100.0	6,786.6	6,787.6	6,787.6	47.3	135.9	90.43	306.1	-2,311.6	623.9	440.7	183.16	3.406	
8,169.3	6,786.4	6,787.4	6,787.4	49.1	135.9	90.38	306.1	-2,311.6	562.9	378.0	184.99	3.043	
8,200.0	6,786.3	6,787.3	6,787.3	49.9	135.9	90.36	306.1	-2,311.6	536.6	350.8	185.81	2.888	
8,267.7	6,786.0	6,787.0	6,787.0	51.7	135.9	90.30	306.1	-2,311.6	480.3	292.7	187.61	2.560	
8,300.0	6,785.9	6,786.9	6,786.9	52.6	135.9	90.28	306.1	-2,311.6	454.5	266.0	188.47	2.411	
8,366.1	6,785.6	6,786.6	6,786.6	54.4	135.9	90.23	306.1	-2,311.6	404.7	214.5	190.25	2.127	
8,400.0	6,785.5	6,786.5	6,786.5	55.3	135.9	90.20	306.1	-2,311.6	381.1	190.0	191.15	1.994	
8,464.5	6,785.2	6,786.2	6,786.2	57.0	135.9	90.15	306.1	-2,311.6	341.0	148.1	192.89	1.768	
8,500.0	6,785.1	6,786.1	6,786.1	58.0	135.9	90.12	306.1	-2,311.6	322.4	128.5	193.85	1.663	
8,563.0	6,784.9	6,785.9	6,785.9	59.7	135.9	90.07	306.1	-2,311.6	296.9	101.4	195.55	1.518	
8,600.0	6,784.7	6,785.7	6,785.7	60.7	135.9	90.04	306.1	-2,311.6	287.4	90.8	196.55	1.462 Level 3	
8,656.7	6,784.5	6,785.5	6,785.5	62.2	135.9	90.00	306.1	-2,311.6	281.7	83.6	198.08	1.422 Level 3, CC	
8,661.4	6,784.5	6,785.5	6,785.5	62.4	135.9	90.00	306.1	-2,311.6	281.8	83.6	198.21	1.422 Level 3, ES, SF	
8,700.0	6,784.3	6,785.3	6,785.3	63.4	135.9	89.97	306.1	-2,311.6	285.0	85.8	199.26	1.431 Level 3	
8,759.8	6,784.1	6,785.1	6,785.1	65.0	135.8	89.92	306.1	-2,311.6	300.0	99.1	200.88	1.494 Level 3	
8,800.0	6,784.0	6,785.0	6,785.0	66.1	135.8	89.89	306.1	-2,311.6	316.1	114.1	201.97	1.565	
8,858.2	6,783.7	6,784.7	6,784.7	67.7	135.8	89.84	306.1	-2,311.6	346.4	142.9	203.56	1.702	
8,900.0	6,783.6	6,784.6	6,784.6	68.9	135.8	89.81	306.1	-2,311.6	372.3	167.6	204.70	1.819	
8,956.7	6,783.3	6,784.3	6,784.3	70.4	135.8	89.76	306.1	-2,311.6	411.6	205.3	206.24	1.995	
9,000.0	6,783.2	6,784.2	6,784.2	71.6	135.8	89.73	306.1	-2,311.6	444.1	236.7	207.43	2.141	
9,055.1	6,783.0	6,784.0	6,784.0	73.1	135.8	89.69	306.1	-2,311.6	488.0	279.0	208.93	2.336	
9,100.0	6,782.8	6,783.8	6,783.8	74.3	135.8	89.65	306.1	-2,311.6	525.3	315.1	210.16	2.499	
9,153.5	6,782.6	6,783.6	6,783.6	75.8	135.8	89.61	306.1	-2,311.6	571.2	359.6	211.63	2.699	
9,200.0	6,782.4	6,783.4	6,783.4	77.1	135.8	89.57	306.1	-2,311.6	612.0	399.1	212.90	2.875	
9,251.9	6,782.2	6,783.2	6,783.2	78.5	135.8	89.53	306.1	-2,311.6	658.6	444.3	214.32	3.073	
9,300.0	6,782.0	6,783.0	6,783.0	79.8	135.8	89.49	306.1	-2,311.6	702.3	486.7	215.64	3.257	
9,350.4	6,781.8	6,782.8	6,782.8	81.2	135.8	89.45	306.1	-2,311.6	748.7	531.7	217.03	3.450	
9,400.0	6,781.6	6,782.6	6,782.6	82.6	135.8	89.41	306.1	-2,311.6	794.9	576.5	218.39	3.640	
9,448.8	6,781.4	6,782.4	6,782.4	83.9	135.8	89.37	306.1	-2,311.6	840.7	621.0	219.73	3.826	
9,500.0	6,781.2	6,782.2	6,782.2	85.4	135.8	89.33	306.1	-2,311.6	889.1	668.0	221.14	4.021	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,781.0	6,782.0	6,782.0	86.7	135.8	89.29	306.1	-2,311.6	934.1	711.6	222.44	4.199	
9,600.0	6,780.8	6,781.8	6,781.8	88.1	135.8	89.25	306.1	-2,311.6	984.5	760.6	223.89	4.397	
9,645.6	6,780.7	6,781.7	6,781.7	89.4	135.8	89.21	306.1	-2,311.6	1,028.3	803.2	225.15	4.567	
9,700.0	6,780.5	6,781.5	6,781.5	90.9	135.8	89.17	306.1	-2,311.6	1,080.7	854.1	226.64	4.768	
9,744.1	6,780.3	6,781.3	6,781.3	92.1	135.8	89.13	306.1	-2,311.6	1,123.3	895.5	227.86	4.930	
9,800.0	6,780.1	6,781.1	6,781.1	93.7	135.8	89.09	306.1	-2,311.6	1,177.5	948.1	229.40	5.133	
9,842.5	6,779.9	6,780.9	6,780.9	94.8	135.8	89.05	306.1	-2,311.6	1,218.8	988.3	230.57	5.286	
9,900.0	6,779.7	6,780.7	6,780.7	96.4	135.8	89.01	306.1	-2,311.6	1,274.9	1,042.7	232.16	5.491	
9,940.9	6,779.5	6,780.5	6,780.5	97.6	135.8	88.97	306.1	-2,311.6	1,314.8	1,081.5	233.29	5.636	
10,000.0	6,779.3	6,780.3	6,780.3	99.2	135.8	88.93	306.1	-2,311.6	1,372.6	1,137.6	234.92	5.843	
10,039.3	6,779.1	6,780.1	6,780.1	100.3	135.7	88.89	306.1	-2,311.6	1,411.1	1,175.1	236.00	5.979	
10,100.0	6,778.9	6,779.9	6,779.9	102.0	135.7	88.84	306.1	-2,311.6	1,470.6	1,232.9	237.68	6.187	
10,137.8	6,778.7	6,779.7	6,779.7	103.0	135.7	88.81	306.1	-2,311.6	1,507.7	1,268.9	238.72	6.316	
10,200.0	6,778.5	6,779.5	6,779.5	104.8	135.7	88.76	306.1	-2,311.6	1,568.8	1,328.4	240.44	6.525	
10,236.2	6,778.3	6,779.3	6,779.3	105.8	135.7	88.73	306.1	-2,311.6	1,604.5	1,363.0	241.44	6.645	
10,300.0	6,778.1	6,779.1	6,779.1	107.5	135.7	88.68	306.1	-2,311.6	1,667.3	1,424.1	243.20	6.856	
10,334.6	6,778.0	6,779.0	6,779.0	108.5	135.7	88.65	306.1	-2,311.6	1,701.4	1,457.3	244.16	6.969	
10,400.0	6,777.7	6,778.7	6,778.7	110.3	135.7	88.60	306.1	-2,311.6	1,765.9	1,520.0	245.97	7.180	
10,433.0	6,777.6	6,778.6	6,778.6	111.2	135.7	88.57	306.1	-2,311.6	1,798.6	1,551.7	246.88	7.285	
10,500.0	6,777.3	6,778.3	6,778.3	113.1	135.7	88.51	306.1	-2,311.6	1,864.7	1,616.0	248.73	7.497	
10,531.5	6,777.2	6,778.2	6,778.2	114.0	135.7	88.49	306.1	-2,311.6	1,895.9	1,646.2	249.60	7.595	
10,600.0	6,776.9	6,777.9	6,777.9	115.9	135.7	88.43	306.1	-2,311.6	1,963.6	1,712.1	251.50	7.808	
10,629.9	6,776.8	6,777.8	6,777.8	116.7	135.7	88.41	306.1	-2,311.6	1,993.2	1,740.9	252.33	7.899	
10,700.0	6,776.5	6,777.5	6,777.5	118.7	135.7	88.35	306.1	-2,311.6	2,062.7	1,808.4	254.27	8.112	
10,728.3	6,776.4	6,777.4	6,777.4	119.5	135.7	88.33	306.1	-2,311.6	2,090.7	1,835.7	255.05	8.197	
10,800.0	6,776.1	6,777.1	6,777.1	121.4	135.7	88.26	306.1	-2,311.6	2,161.8	1,904.7	257.03	8.410	
10,826.7	6,776.0	6,777.0	6,777.0	122.2	135.7	88.24	306.1	-2,311.6	2,188.3	1,930.5	257.77	8.489	
10,900.0	6,775.7	6,776.7	6,776.7	124.2	135.7	88.18	306.1	-2,311.6	2,260.9	2,001.1	259.80	8.703	
10,925.2	6,775.6	6,776.6	6,776.6	124.9	135.7	88.16	306.1	-2,311.6	2,285.9	2,025.4	260.50	8.775	
11,000.0	6,775.3	6,776.3	6,776.3	127.0	135.7	88.10	306.1	-2,311.6	2,360.2	2,097.6	262.57	8.989	
11,023.6	6,775.2	6,776.2	6,776.2	127.7	135.7	88.08	306.1	-2,311.6	2,383.6	2,120.4	263.22	9.056	
11,100.0	6,774.9	6,775.9	6,775.9	129.8	135.7	88.01	306.1	-2,311.6	2,459.5	2,194.2	265.33	9.269	
11,122.0	6,774.8	6,775.8	6,775.8	130.4	135.7	87.99	306.1	-2,311.6	2,481.4	2,215.4	265.94	9.331	
11,200.0	6,774.5	6,775.5	6,775.5	132.6	135.7	87.93	306.1	-2,311.6	2,558.9	2,290.8	268.10	9.544	
11,220.4	6,774.4	6,775.4	6,775.4	133.2	135.7	87.91	306.1	-2,311.6	2,579.2	2,310.5	268.67	9.600	
11,300.0	6,774.1	6,775.1	6,775.1	135.4	135.6	87.84	306.1	-2,311.6	2,658.3	2,387.4	270.87	9.814	
11,318.9	6,774.0	6,775.0	6,775.0	135.9	135.6	87.83	306.1	-2,311.6	2,677.1	2,405.7	271.39	9.864	
11,400.0	6,773.7	6,774.7	6,774.7	138.2	135.6	87.76	306.1	-2,311.6	2,757.7	2,484.1	273.64	10.078	
11,417.3	6,773.6	6,774.6	6,774.6	138.7	135.6	87.74	306.1	-2,311.6	2,775.0	2,500.8	274.12	10.123	
11,500.0	6,773.3	6,774.3	6,774.3	141.0	135.6	87.67	306.1	-2,311.6	2,857.2	2,580.8	276.40	10.337	
11,515.7	6,773.2	6,774.2	6,774.2	141.4	135.6	87.66	306.1	-2,311.6	2,872.9	2,596.1	276.84	10.377	
11,600.0	6,772.9	6,773.9	6,773.9	143.8	135.6	87.59	306.1	-2,311.6	2,956.8	2,677.6	279.17	10.591	
11,614.1	6,772.8	6,773.8	6,773.8	144.2	135.6	87.58	306.1	-2,311.6	2,970.9	2,691.3	279.56	10.627	
11,700.0	6,772.5	6,773.5	6,773.5	146.6	135.6	87.50	306.1	-2,311.6	3,056.3	2,774.4	281.94	10.840	
11,712.6	6,772.4	6,773.4	6,773.4	146.9	135.6	87.49	306.1	-2,311.6	3,068.9	2,786.6	282.29	10.871	
11,800.0	6,772.1	6,773.1	6,773.1	149.4	135.6	87.42	306.1	-2,311.6	3,155.9	2,871.2	284.70	11.085	
11,811.0	6,772.1	6,773.1	6,773.1	149.7	135.6	87.41	306.1	-2,311.6	3,166.9	2,881.9	285.01	11.112	
11,900.0	6,771.7	6,772.7	6,772.7	152.2	135.6	87.33	306.1	-2,311.6	3,255.5	2,968.1	287.47	11.325	
11,909.4	6,771.7	6,772.7	6,772.7	152.4	135.6	87.32	306.1	-2,311.6	3,264.9	2,977.2	287.73	11.347	
12,000.0	6,771.3	6,772.3	6,772.3	154.9	135.6	87.24	306.1	-2,311.6	3,355.2	3,064.9	290.23	11.560	
12,007.8	6,771.3	6,772.3	6,772.3	155.2	135.6	87.24	306.1	-2,311.6	3,363.0	3,072.5	290.45	11.578	
12,100.0	6,770.9	6,771.9	6,771.9	157.7	135.6	87.16	306.1	-2,311.6	3,454.8	3,161.8	293.00	11.791	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT PUYPE B #18-17 - 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
12,106.3	6,770.9	6,771.9	6,771.9	157.9	135.6	87.15	306.1	-2,311.6	3,461.1	3,167.9	293.17	11.806	
12,200.0	6,770.5	6,771.5	6,771.5	160.5	135.6	87.07	306.1	-2,311.6	3,554.5	3,258.7	295.76	12.018	
12,204.7	6,770.5	6,771.5	6,771.5	160.7	135.6	87.07	306.1	-2,311.6	3,559.2	3,263.3	295.89	12.029	
12,300.0	6,770.1	6,771.1	6,771.1	163.3	135.6	86.98	306.1	-2,311.6	3,654.2	3,355.7	298.53	12.241	
12,303.1	6,770.1	6,771.1	6,771.1	163.4	135.6	86.98	306.1	-2,311.6	3,657.3	3,358.7	298.61	12.248	
12,316.4	6,770.0	6,771.0	6,771.0	163.8	135.6	86.97	306.1	-2,311.6	3,670.5	3,371.5	298.98	12.277	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-19.26	870.4	-304.1	922.1				
98.4	98.4	85.7	85.7	0.1	0.1	-19.27	870.2	-304.2	921.9	921.7	0.17	5,416.634	
100.0	100.0	87.3	87.3	0.1	0.1	-19.27	870.2	-304.2	921.9	921.7	0.17	5,317.546	
196.8	196.8	184.0	184.0	0.3	0.2	-19.27	869.9	-304.2	921.6	921.1	0.52	1,778.843	
200.0	200.0	187.1	187.1	0.3	0.2	-19.27	869.9	-304.2	921.6	921.1	0.53	1,740.508	
295.3	295.3	282.8	282.8	0.5	0.3	-19.28	869.7	-304.2	921.4	920.5	0.83	1,110.012	
300.0	300.0	287.5	287.5	0.5	0.3	-19.28	869.7	-304.2	921.3	920.5	0.84	1,090.833	
393.7	393.7	381.3	381.3	0.8	0.4	-19.28	869.5	-304.1	921.1	920.0	1.12	825.016	
400.0	400.0	387.6	387.6	0.8	0.4	-19.27	869.4	-304.0	921.1	919.9	1.13	811.885	
492.1	492.1	479.0	479.0	1.0	0.4	-19.27	869.2	-303.9	920.8	919.5	1.39	661.308	
500.0	500.0	486.8	486.8	1.0	0.4	-19.27	869.2	-303.9	920.8	919.4	1.41	651.036	
590.5	590.5	577.0	577.0	1.2	0.5	-19.27	869.1	-303.8	920.7	919.0	1.65	556.743	
600.0	600.0	586.4	586.4	1.2	0.5	-19.27	869.1	-303.8	920.7	919.0	1.68	548.529	
654.7	654.7	639.7	639.7	1.3	0.5	-19.28	869.0	-303.9	920.6	918.8	1.81	507.489	
689.0	689.0	672.8	672.8	1.4	0.5	-19.28	869.0	-303.9	920.6	918.7	1.90	485.260	
700.0	700.0	683.5	683.5	1.4	0.5	-19.28	869.0	-304.0	920.6	918.7	1.92	478.523	
787.4	787.4	770.6	770.6	1.6	0.5	-19.29	869.1	-304.2	920.8	918.7	2.15	427.309	
800.0	800.0	783.3	783.3	1.7	0.5	-19.29	869.2	-304.2	920.8	918.7	2.19	420.735	
885.8	885.8	869.9	869.9	1.9	0.6	-19.30	869.2	-304.4	921.0	918.6	2.42	380.711	
900.0	900.0	884.2	884.2	1.9	0.6	-19.30	869.2	-304.4	921.0	918.5	2.46	374.807	
984.2	984.2	968.6	968.6	2.1	0.6	-19.31	869.2	-304.6	921.0	918.4	2.68	343.299	
1,000.0	1,000.0	984.4	984.4	2.1	0.6	-19.31	869.2	-304.6	921.1	918.3	2.73	337.990	
1,082.7	1,082.7	1,066.5	1,066.5	2.3	0.6	-19.32	869.2	-304.8	921.1	918.2	2.94	312.905	
1,100.0	1,100.0	1,083.6	1,083.6	2.3	0.6	-19.32	869.3	-304.8	921.2	918.2	2.99	308.129	
1,181.1	1,181.1	1,163.7	1,163.7	2.5	0.7	-19.33	869.4	-305.0	921.3	918.1	3.20	287.832	
1,200.0	1,200.0	1,182.4	1,182.4	2.6	0.7	-19.33	869.4	-305.0	921.4	918.1	3.25	283.499	
1,279.5	1,279.5	1,260.8	1,260.8	2.7	0.7	-19.34	869.6	-305.2	921.6	918.2	3.46	266.746	
1,300.0	1,300.0	1,281.0	1,281.0	2.8	0.7	-19.34	869.7	-305.3	921.7	918.2	3.51	262.762	
1,377.9	1,377.9	1,357.8	1,357.8	3.0	0.7	-19.35	870.0	-305.5	922.1	918.4	3.71	248.733	
1,400.0	1,400.0	1,379.6	1,379.6	3.0	0.7	-19.35	870.1	-305.6	922.2	918.5	3.76	245.045	
1,476.4	1,476.4	1,454.6	1,454.6	3.2	0.8	-19.36	870.5	-305.9	922.7	918.8	3.96	233.236	
1,500.0	1,500.0	1,477.8	1,477.7	3.2	0.8	-19.36	870.7	-305.9	922.9	918.9	4.02	229.830	
1,574.8	1,574.8	1,552.0	1,552.0	3.4	0.8	61.40	871.3	-306.0	923.1	918.9	4.18	221.026	
1,600.0	1,600.0	1,577.1	1,577.1	3.5	0.8	61.44	871.5	-306.1	922.9	918.7	4.24	217.796	
1,673.2	1,673.1	1,650.4	1,650.4	3.6	0.8	61.67	872.2	-306.0	921.9	917.5	4.41	209.007	
1,700.0	1,699.8	1,677.3	1,677.2	3.7	0.8	61.78	872.5	-306.0	921.3	916.8	4.47	205.886	
1,771.6	1,771.2	1,748.4	1,748.4	3.8	0.8	62.16	873.1	-305.9	919.1	914.4	4.65	197.541	
1,800.0	1,799.5	1,776.5	1,776.4	3.9	0.9	62.34	873.4	-305.9	918.0	913.3	4.72	194.378	
1,870.1	1,869.0	1,847.6	1,847.6	4.0	0.9	62.87	874.0	-305.9	914.8	909.9	4.91	186.430	
1,900.0	1,898.7	1,878.4	1,878.3	4.1	0.9	63.13	874.2	-305.9	913.2	908.2	4.99	183.159	
1,968.5	1,966.4	1,947.8	1,947.8	4.3	0.9	63.80	874.5	-306.1	908.8	903.7	5.18	175.456	
2,000.0	1,997.5	1,979.5	1,979.5	4.4	0.9	64.14	874.6	-306.2	906.6	901.3	5.27	172.068	
2,066.9	2,063.2	2,045.6	2,045.6	4.6	0.9	64.92	874.7	-306.5	901.4	895.9	5.48	164.539	
2,100.1	2,095.7	2,078.0	2,078.0	4.7	0.9	65.34	874.7	-306.7	898.6	893.0	5.58	160.986	
2,165.3	2,159.5	2,141.1	2,141.1	4.9	1.0	66.08	874.9	-307.0	893.2	887.4	5.80	153.926	
2,200.0	2,193.4	2,174.5	2,174.4	5.0	1.0	66.48	874.9	-307.2	890.4	884.4	5.92	150.400	
2,224.2	2,217.1	2,197.8	2,197.7	5.1	1.0	66.76	875.0	-307.4	888.4	882.4	6.00	147.952	
2,263.8	2,255.9	2,236.2	2,236.2	5.2	1.0	67.15	875.2	-307.7	885.5	879.3	6.13	144.458	
2,300.0	2,291.5	2,271.5	2,271.5	5.3	1.0	67.49	875.3	-308.0	883.0	876.8	6.24	141.429	
2,362.2	2,352.7	2,332.6	2,332.6	5.5	1.0	68.01	875.5	-308.6	879.3	872.9	6.42	137.033	
2,400.0	2,390.1	2,370.0	2,369.9	5.6	1.0	68.30	875.6	-309.0	877.3	870.8	6.52	134.516	
2,460.6	2,450.1	2,430.1	2,430.0	5.7	1.1	68.72	875.9	-309.7	874.6	867.9	6.69	130.792	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,489.2	2,469.2	2,469.1	5.8	1.1	68.95	876.0	-310.1	873.1	866.3	6.79	128.511	
2,559.0	2,548.0	2,527.4	2,527.4	6.0	1.1	69.25	876.2	-310.6	871.3	864.4	6.95	125.426	
2,600.0	2,588.8	2,567.5	2,567.5	6.1	1.1	69.42	876.4	-311.0	870.4	863.3	7.05	123.410	
2,657.5	2,646.1	2,623.7	2,623.6	6.2	1.1	69.61	876.8	-311.5	869.4	862.2	7.19	120.903	
2,700.0	2,688.6	2,665.1	2,665.1	6.3	1.1	69.72	877.1	-311.9	869.1	861.8	7.29	119.151	
2,734.5	2,723.0	2,698.7	2,698.7	6.3	1.1	69.77	877.4	-312.2	869.0	861.6	7.37	117.898	
2,755.9	2,744.4	2,718.9	2,718.8	6.4	1.2	69.80	877.6	-312.4	869.0	861.6	7.42	117.145	
2,800.0	2,788.5	2,760.3	2,760.2	6.5	1.2	69.83	878.1	-312.8	869.4	861.9	7.52	115.664	
2,824.3	2,812.8	2,783.1	2,783.0	6.5	1.2	-10.87	878.4	-313.0	869.7	862.6	7.18	121.084	
2,854.3	2,842.9	2,811.3	2,811.3	6.6	1.2	-10.88	878.9	-313.3	870.3	863.0	7.25	120.048	
2,900.0	2,888.5	2,854.3	2,854.3	6.7	1.2	-10.90	879.7	-313.7	871.2	863.9	7.35	118.538	
2,952.7	2,941.3	2,904.1	2,904.0	6.8	1.2	-10.91	880.9	-314.1	872.5	865.0	7.47	116.731	
3,000.0	2,988.5	2,949.5	2,949.3	6.9	1.2	-10.91	882.0	-314.4	873.7	866.2	7.58	115.194	
3,051.2	3,039.7	3,000.0	2,999.9	7.0	1.2	-10.90	883.5	-314.5	875.2	867.5	7.71	113.587	
3,100.0	3,088.5	3,046.9	3,046.7	7.1	1.2	-10.89	884.9	-314.7	876.7	868.9	7.82	112.120	
3,149.6	3,138.1	3,096.0	3,095.8	7.2	1.3	-10.88	886.4	-314.8	878.2	870.3	7.94	110.669	
3,200.0	3,188.5	3,151.5	3,151.3	7.3	1.3	-10.87	888.0	-314.9	879.7	871.6	8.05	109.208	
3,248.0	3,236.6	3,204.4	3,204.2	7.4	1.3	-10.87	889.2	-315.1	880.7	872.6	8.17	107.815	
3,300.0	3,288.5	3,256.5	3,256.3	7.5	1.3	-10.87	890.2	-315.4	881.7	873.5	8.29	106.343	
3,346.4	3,335.0	3,303.2	3,302.9	7.6	1.3	-10.87	891.1	-315.5	882.6	874.2	8.40	105.060	
3,400.0	3,388.5	3,357.6	3,357.3	7.7	1.3	-10.88	892.0	-315.8	883.7	875.1	8.53	103.611	
3,444.9	3,433.4	3,403.3	3,403.0	7.8	1.3	-10.89	892.8	-316.2	884.5	875.8	8.64	102.421	
3,500.0	3,488.5	3,460.7	3,460.4	7.9	1.4	-10.92	893.6	-316.8	885.3	876.6	8.77	100.966	
3,543.3	3,531.8	3,506.1	3,505.8	8.0	1.4	-10.96	894.1	-317.4	885.9	877.1	8.87	99.837	
3,600.0	3,588.5	3,568.6	3,568.3	8.1	1.4	-11.00	894.6	-318.2	886.5	877.5	9.01	98.345	
3,641.7	3,630.3	3,615.0	3,614.7	8.2	1.4	-11.03	894.7	-318.6	886.6	877.5	9.11	97.280	
3,700.0	3,688.5	3,681.4	3,681.1	8.3	1.4	-11.03	894.4	-318.7	886.4	877.1	9.25	95.873	
3,740.1	3,728.7	3,724.9	3,724.6	8.4	1.4	-11.02	893.9	-318.4	885.9	876.6	9.34	94.877	
3,800.0	3,788.5	3,787.5	3,787.2	8.5	1.4	-11.01	893.1	-318.0	885.1	875.6	9.48	93.393	
3,838.6	3,827.1	3,825.8	3,825.5	8.6	1.4	-11.00	892.6	-317.8	884.5	874.9	9.57	92.452	
3,900.0	3,888.5	3,885.3	3,885.0	8.7	1.4	-10.99	891.8	-317.4	883.6	873.9	9.71	91.000	
3,937.0	3,925.5	3,921.3	3,920.9	8.8	1.4	-10.97	891.4	-317.2	883.2	873.4	9.80	90.155	
4,000.0	3,988.5	3,982.6	3,982.3	9.0	1.4	-10.95	890.8	-316.8	882.5	872.6	9.94	88.764	
4,035.4	4,024.0	4,017.3	4,017.0	9.0	1.4	-10.94	890.5	-316.5	882.2	872.1	10.02	88.006	
4,100.0	4,088.5	4,081.0	4,080.7	9.2	1.4	-10.91	890.1	-316.0	881.6	871.4	10.17	86.667	
4,133.8	4,122.4	4,114.3	4,114.0	9.2	1.4	-10.90	889.8	-315.7	881.3	871.1	10.25	85.985	
4,200.0	4,188.5	4,178.9	4,178.6	9.4	1.4	-10.86	889.5	-315.0	880.9	870.5	10.40	84.692	
4,232.3	4,220.8	4,210.9	4,210.6	9.4	1.4	-10.84	889.4	-314.7	880.7	870.3	10.48	84.077	
4,300.0	4,288.5	4,279.7	4,279.3	9.6	1.4	-10.81	889.1	-314.2	880.3	869.7	10.63	82.809	
4,330.7	4,319.2	4,310.3	4,310.0	9.7	1.4	-10.80	888.9	-314.0	880.1	869.4	10.70	82.244	
4,400.0	4,388.5	4,377.1	4,376.8	9.8	1.4	-10.78	888.6	-313.6	879.8	868.9	10.86	81.006	
4,429.1	4,417.7	4,405.4	4,405.1	9.9	1.4	-10.77	888.6	-313.5	879.7	868.7	10.93	80.502	
4,500.0	4,488.5	4,476.5	4,476.2	10.0	1.4	-10.75	888.4	-313.1	879.5	868.4	11.09	79.298	
4,527.5	4,516.1	4,503.9	4,503.6	10.1	1.4	-10.74	888.4	-313.0	879.4	868.2	11.15	78.840	
4,588.3	4,576.9	4,562.2	4,561.9	10.2	1.4	-10.72	888.4	-312.7	879.3	868.0	11.29	77.866	
4,600.0	4,588.5	4,573.4	4,573.0	10.2	1.4	-10.72	888.4	-312.6	879.3	868.0	11.32	77.684	
4,626.0	4,614.5	4,600.0	4,599.7	10.3	1.4	-10.71	888.4	-312.5	879.3	868.0	11.38	77.282	
4,626.1	4,614.7	4,600.0	4,599.7	10.3	1.4	-10.71	888.4	-312.5	879.3	868.0	11.38	77.279	
4,700.0	4,688.5	4,670.1	4,669.8	10.5	1.4	-10.67	888.8	-311.9	879.6	868.0	11.55	76.158	
4,724.4	4,712.9	4,693.8	4,693.5	10.5	1.4	-10.66	888.9	-311.7	879.7	868.1	11.61	75.798	
4,800.0	4,788.5	4,769.1	4,768.8	10.7	1.5	-10.61	889.4	-311.0	880.1	868.3	11.78	74.703	
4,822.8	4,811.4	4,791.9	4,791.6	10.7	1.5	-10.59	889.6	-310.8	880.2	868.4	11.83	74.379	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
4,900.0	4,888.5	4,868.1	4,867.8	10.9	1.5	-10.54	890.2	-310.2	880.7	868.6	12.01	73.304	
4,921.2	4,909.8	4,889.1	4,888.7	10.9	1.5	-10.53	890.4	-310.0	880.8	868.7	12.06	73.015	
5,000.0	4,988.5	4,970.1	4,969.8	11.1	1.5	-10.47	891.0	-309.2	881.3	869.0	12.25	71.956	
5,019.7	5,008.2	4,990.5	4,990.2	11.1	1.5	-10.46	891.1	-309.0	881.3	869.0	12.29	71.693	
5,100.0	5,088.5	5,073.8	5,073.4	11.3	1.5	-10.41	891.4	-308.3	881.5	869.0	12.48	70.627	
5,118.1	5,106.6	5,092.5	5,092.2	11.4	1.5	-10.40	891.4	-308.1	881.5	868.9	12.52	70.388	
5,139.6	5,128.1	5,113.5	5,113.1	11.4	1.5	-10.38	891.4	-307.9	881.5	868.9	12.57	70.107	
5,200.0	5,188.5	5,170.6	5,170.2	11.5	1.5	-10.34	891.7	-307.4	881.6	868.9	12.71	69.340	
5,216.5	5,205.1	5,186.2	5,185.8	11.6	1.5	-10.33	891.7	-307.2	881.6	868.9	12.75	69.136	
5,300.0	5,288.5	5,267.6	5,267.3	11.8	1.5	-10.27	892.4	-306.4	882.2	869.2	12.95	68.130	
5,314.9	5,303.5	5,282.3	5,281.9	11.8	1.5	-10.26	892.6	-306.2	882.3	869.3	12.98	67.953	
5,400.0	5,388.5	5,375.3	5,374.9	12.0	1.5	-10.18	893.1	-305.0	882.6	869.4	13.18	66.950	
5,413.4	5,401.9	5,390.3	5,390.0	12.0	1.5	-10.17	893.1	-304.8	882.6	869.4	13.21	66.789	
5,500.0	5,488.5	5,480.0	5,479.6	12.2	1.5	-10.11	892.8	-303.9	882.1	868.7	13.42	65.742	
5,511.8	5,500.3	5,492.1	5,491.7	12.2	1.5	-10.11	892.7	-303.8	882.0	868.6	13.45	65.600	
5,600.0	5,588.5	5,578.0	5,577.6	12.4	1.6	-10.09	892.2	-303.5	881.5	867.8	13.65	64.561	
5,610.2	5,598.8	5,587.9	5,587.5	12.4	1.6	-10.09	892.2	-303.4	881.4	867.8	13.68	64.443	
5,700.0	5,688.5	5,679.2	5,678.8	12.6	1.6	-10.06	891.8	-303.0	881.0	867.1	13.89	63.424	
5,708.6	5,697.2	5,688.1	5,687.7	12.6	1.6	-10.06	891.8	-302.9	880.9	867.0	13.91	63.326	
5,800.0	5,788.5	5,782.1	5,781.7	12.8	1.6	-10.03	891.2	-302.4	880.2	866.1	14.13	62.304	
5,807.1	5,795.6	5,789.4	5,789.0	12.9	1.6	-10.03	891.1	-302.3	880.2	866.0	14.14	62.226	
5,900.0	5,888.5	5,881.1	5,880.7	13.1	1.6	-9.99	890.4	-301.7	879.3	865.0	14.36	61.214	
5,905.5	5,894.0	5,886.5	5,886.1	13.1	1.6	-9.99	890.3	-301.6	879.3	864.9	14.38	61.155	
6,000.0	5,988.5	5,978.0	5,977.6	13.3	1.6	-9.95	889.9	-300.9	878.7	864.1	14.60	60.175	
6,003.9	5,992.5	5,981.8	5,981.4	13.3	1.6	-9.95	889.8	-300.9	878.6	864.0	14.61	60.135	
6,085.3	6,073.8	6,062.3	6,061.9	13.5	1.6	-9.92	889.6	-300.4	878.3	863.5	14.80	59.330	
6,100.0	6,088.5	6,077.0	6,076.6	13.5	1.6	80.10	889.6	-300.3	878.3	863.2	15.07	58.260	
6,102.3	6,090.9	6,079.3	6,078.9	13.5	1.6	80.10	889.6	-300.3	878.3	863.2	15.08	58.238	
6,150.0	6,138.4	6,126.4	6,126.0	13.6	1.6	80.33	889.4	-300.2	877.6	862.4	15.19	57.768	
6,200.0	6,188.0	6,175.1	6,174.7	13.7	1.6	80.83	889.3	-300.0	876.5	861.2	15.33	57.189	
6,200.8	6,188.8	6,175.9	6,175.5	13.7	1.6	80.83	889.3	-300.0	876.5	861.1	15.33	57.178	
6,250.0	6,237.1	6,224.0	6,223.5	13.9	1.6	81.57	889.3	-299.9	874.9	859.4	15.48	56.527	
6,299.2	6,284.6	6,271.8	6,271.4	14.0	1.6	82.55	889.2	-299.6	873.0	857.3	15.64	55.799	
6,300.0	6,285.3	6,272.5	6,272.1	14.0	1.6	82.57	889.2	-299.6	872.9	857.3	15.65	55.787	
6,350.0	6,332.5	6,319.9	6,319.5	14.2	1.6	83.78	889.2	-299.3	870.7	854.9	15.84	54.981	
6,397.6	6,376.3	6,363.6	6,363.2	14.4	1.6	85.09	889.1	-298.9	868.7	852.6	16.04	54.154	
6,400.0	6,378.5	6,365.8	6,365.4	14.4	1.6	85.16	889.1	-298.9	868.6	852.5	16.05	54.113	
6,450.0	6,423.0	6,410.3	6,409.9	14.7	1.6	86.68	889.1	-298.5	866.6	850.3	16.29	53.190	
6,496.0	6,462.4	6,450.3	6,449.9	14.9	1.7	88.17	889.0	-298.1	865.2	848.7	16.55	52.285	
6,500.0	6,465.7	6,453.7	6,453.3	14.9	1.7	88.30	889.0	-298.1	865.2	848.6	16.57	52.211	
6,550.0	6,506.6	6,495.1	6,494.6	15.2	1.7	89.96	888.8	-297.8	864.4	847.5	16.89	51.175	
6,561.4	6,515.6	6,504.1	6,503.6	15.3	1.7	90.33	888.8	-297.7	864.4	847.4	16.98	50.918 CC, ES	
6,594.5	6,541.2	6,529.3	6,528.9	15.6	1.7	91.38	888.7	-297.5	864.7	847.4	17.22	50.203	
6,600.0	6,545.3	6,533.4	6,533.0	15.6	1.7	91.55	888.7	-297.4	864.8	847.5	17.27	50.088	
6,650.0	6,581.8	6,569.4	6,569.0	16.0	1.7	93.06	888.6	-297.1	866.5	848.8	17.70	48.959	
6,692.9	6,611.1	6,598.4	6,598.0	16.4	1.7	94.24	888.5	-296.9	869.3	851.1	18.13	47.956	
6,700.0	6,615.8	6,603.0	6,602.6	16.5	1.7	94.42	888.5	-296.9	869.9	851.7	18.20	47.801	
6,750.0	6,647.1	6,633.5	6,633.0	17.1	1.7	95.57	888.4	-296.7	875.2	856.4	18.77	46.636	
6,791.3	6,670.9	6,656.5	6,656.1	17.6	1.7	96.33	888.4	-296.5	881.2	861.9	19.29	45.673	
6,800.0	6,675.7	6,661.1	6,660.7	17.7	1.7	96.46	888.4	-296.5	882.6	863.2	19.40	45.488	
6,850.0	6,701.3	6,685.8	6,685.3	18.4	1.7	97.06	888.3	-296.3	892.4	872.3	20.11	44.381	
6,889.7	6,719.5	6,700.0	6,699.6	19.0	1.7	97.11	888.3	-296.1	901.9	881.2	20.72	43.539	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
6,900.0	6,723.8	6,700.0	6,699.6	19.1	1.7	96.88	888.3	-296.1	904.7	883.8	20.87	43.353	
6,950.0	6,743.2	6,700.0	6,699.6	20.0	1.7	95.62	888.3	-296.1	919.8	898.1	21.68	42.433	
6,988.2	6,755.8	6,700.0	6,699.6	20.6	1.7	94.48	888.3	-296.1	933.2	910.9	22.34	41.767	
7,000.0	6,759.4	6,700.0	6,699.6	20.9	1.7	94.10	888.3	-296.1	937.7	915.1	22.55	41.582	
7,050.0	6,772.1	6,700.0	6,699.6	21.8	1.7	92.31	888.3	-296.1	958.1	934.6	23.49	40.794	
7,086.6	6,779.4	6,700.0	6,699.6	22.5	1.7	90.85	888.3	-296.1	974.4	950.2	24.21	40.244	
7,100.0	6,781.5	6,700.0	6,699.6	22.8	1.7	90.28	888.3	-296.1	980.7	956.2	24.48	40.060	
7,150.0	6,787.5	6,700.0	6,699.6	23.9	1.7	88.02	888.3	-296.1	1,005.3	979.8	25.53	39.376	
7,185.0	6,789.6	6,700.0	6,699.6	24.6	1.7	86.31	888.3	-296.1	1,023.6	997.3	26.30	38.926	
7,200.0	6,789.9	6,700.0	6,699.6	24.9	1.7	85.54	888.3	-296.1	1,031.6	1,005.0	26.62	38.749	
7,213.0	6,790.0	6,700.0	6,699.6	25.2	1.7	84.87	888.3	-296.1	1,038.7	1,011.8	26.91	38.597	
7,283.4	6,789.7	6,700.0	6,699.6	26.8	1.7	84.87	888.3	-296.1	1,079.1	1,050.6	28.48	37.889	
7,300.0	6,789.7	6,700.0	6,699.6	27.2	1.7	84.87	888.3	-296.1	1,089.1	1,060.2	28.85	37.749	
7,381.9	6,789.4	6,700.0	6,699.6	29.1	1.7	84.87	888.3	-296.1	1,140.4	1,109.7	30.75	37.090	
7,400.0	6,789.3	6,700.0	6,699.6	29.5	1.7	84.87	888.3	-296.1	1,152.3	1,121.1	31.17	36.971	
7,480.3	6,789.0	6,700.0	6,699.6	31.4	1.7	84.87	888.3	-296.1	1,206.7	1,173.6	33.09	36.465	
7,500.0	6,788.9	6,700.0	6,699.6	31.9	1.7	84.87	888.3	-296.1	1,220.4	1,186.9	33.56	36.362	
7,578.7	6,788.6	6,700.0	6,699.6	33.8	1.7	84.87	888.3	-296.1	1,277.0	1,241.5	35.50	35.976	
7,600.0	6,788.5	6,700.0	6,699.6	34.4	1.7	84.87	888.3	-296.1	1,292.7	1,256.7	36.02	35.889	
7,677.1	6,788.2	6,700.0	6,699.6	36.3	1.7	84.87	888.3	-296.1	1,350.9	1,313.0	37.95	35.594	
7,700.0	6,788.2	6,700.0	6,699.6	36.9	1.7	84.87	888.3	-296.1	1,368.5	1,330.0	38.53	35.522	
7,775.6	6,787.9	6,700.0	6,699.6	38.8	1.7	84.87	888.3	-296.1	1,427.8	1,387.3	40.45	35.297	
7,800.0	6,787.8	6,700.0	6,699.6	39.4	1.7	84.87	888.3	-296.1	1,447.3	1,406.2	41.07	35.237	
7,874.0	6,787.5	6,700.0	6,699.6	41.3	1.7	84.87	888.3	-296.1	1,507.2	1,464.2	42.98	35.066	
7,900.0	6,787.4	6,700.0	6,699.6	42.0	1.7	84.87	888.3	-296.1	1,528.5	1,484.9	43.65	35.016	
7,972.4	6,787.1	6,700.0	6,699.6	43.9	1.7	84.87	888.3	-296.1	1,588.7	1,543.1	45.54	34.886	
8,000.0	6,787.0	6,700.0	6,699.6	44.6	1.7	84.87	888.3	-296.1	1,611.8	1,565.6	46.26	34.845	
8,070.8	6,786.7	6,700.0	6,699.6	46.5	1.7	84.87	888.3	-296.1	1,672.0	1,623.9	48.12	34.747	
8,100.0	6,786.6	6,700.0	6,699.6	47.3	1.7	84.86	888.3	-296.1	1,697.0	1,648.1	48.88	34.714	
8,169.3	6,786.4	6,700.0	6,699.6	49.1	1.7	84.86	888.3	-296.1	1,756.9	1,706.2	50.72	34.640	
8,200.0	6,786.3	6,700.0	6,699.6	49.9	1.7	84.86	888.3	-296.1	1,783.7	1,732.1	51.53	34.613	
8,267.7	6,786.0	6,700.0	6,699.6	51.7	1.7	84.86	888.3	-296.1	1,843.1	1,789.8	53.33	34.558	
8,300.0	6,785.9	6,700.0	6,699.6	52.6	1.7	84.86	888.3	-296.1	1,871.7	1,817.5	54.19	34.536	
8,366.1	6,785.6	6,700.0	6,699.6	54.4	1.7	84.86	888.3	-296.1	1,930.5	1,874.6	55.96	34.496	
8,400.0	6,785.5	6,700.0	6,699.6	55.3	1.7	84.86	888.3	-296.1	1,960.8	1,904.0	56.87	34.479	
8,464.5	6,785.2	6,700.0	6,699.6	57.0	1.7	84.86	888.3	-296.1	2,018.9	1,960.3	58.61	34.449	
8,500.0	6,785.1	6,700.0	6,699.6	58.0	1.7	84.86	888.3	-296.1	2,051.0	1,991.4	59.56	34.437	
8,563.0	6,784.9	6,700.0	6,699.6	59.7	1.7	84.86	888.3	-296.1	2,108.2	2,047.0	61.26	34.416	
8,600.0	6,784.7	6,700.0	6,699.6	60.7	1.7	84.86	888.3	-296.1	2,142.0	2,079.8	62.26	34.406	
8,661.4	6,784.5	6,700.0	6,699.6	62.4	1.7	84.86	888.3	-296.1	2,198.3	2,134.4	63.92	34.392	
8,700.0	6,784.3	6,700.0	6,699.6	63.4	1.7	84.86	888.3	-296.1	2,233.8	2,168.9	64.96	34.386	
8,759.8	6,784.1	6,700.0	6,699.6	65.0	1.7	84.86	888.3	-296.1	2,289.1	2,222.5	66.59	34.377	
8,800.0	6,784.0	6,700.0	6,699.6	66.1	1.7	84.86	888.3	-296.1	2,326.3	2,258.6	67.68	34.373	
8,858.2	6,783.7	6,700.0	6,699.6	67.7	1.7	84.86	888.3	-296.1	2,380.5	2,311.2	69.26	34.368	
8,900.0	6,783.6	6,700.0	6,699.6	68.9	1.7	84.86	888.3	-296.1	2,419.4	2,349.0	70.40	34.366	
8,956.7	6,783.3	6,700.0	6,699.6	70.4	1.7	84.86	888.3	-296.1	2,472.4	2,400.4	71.95	34.364 SF	
9,000.0	6,783.2	6,700.0	6,699.6	71.6	1.7	84.86	888.3	-296.1	2,513.0	2,439.9	73.13	34.364	
9,055.1	6,783.0	6,700.0	6,699.6	73.1	1.7	84.86	888.3	-296.1	2,564.8	2,490.1	74.64	34.364	
9,100.0	6,782.8	6,700.0	6,699.6	74.3	1.7	84.86	888.3	-296.1	2,607.1	2,531.2	75.86	34.366	
9,153.5	6,782.6	6,700.0	6,699.6	75.8	1.7	84.86	888.3	-296.1	2,657.6	2,580.3	77.33	34.368	
9,200.0	6,782.4	6,700.0	6,699.6	77.1	1.7	84.86	888.3	-296.1	2,701.6	2,623.0	78.60	34.371	
9,251.9	6,782.2	6,700.0	6,699.6	78.5	1.7	84.86	888.3	-296.1	2,750.8	2,670.8	80.03	34.375	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,300.0	6,782.0	6,700.0	6,699.6	79.8	1.7	84.85	888.3	-296.1	2,796.5	2,715.1	81.34	34.379	
9,350.4	6,781.8	6,700.0	6,699.6	81.2	1.7	84.85	888.3	-296.1	2,844.4	2,761.7	82.73	34.383	
9,400.0	6,781.6	6,700.0	6,699.6	82.6	1.7	84.85	888.3	-296.1	2,891.7	2,807.6	84.09	34.388	
9,448.8	6,781.4	6,700.0	6,699.6	83.9	1.7	84.85	888.3	-296.1	2,938.3	2,852.9	85.43	34.394	
9,500.0	6,781.2	6,700.0	6,699.6	85.4	1.7	84.85	888.3	-296.1	2,987.3	2,900.4	86.84	34.400	
9,547.2	6,781.0	6,700.0	6,699.6	86.7	1.7	84.85	888.3	-296.1	3,032.5	2,944.3	88.14	34.405	
9,600.0	6,780.8	6,700.0	6,699.6	88.1	1.7	84.85	888.3	-296.1	3,083.1	2,993.5	89.59	34.412	
9,645.6	6,780.7	6,700.0	6,699.6	89.4	1.7	84.85	888.3	-296.1	3,126.9	3,036.1	90.85	34.418	
9,700.0	6,780.5	6,700.0	6,699.6	90.9	1.7	84.85	888.3	-296.1	3,179.2	3,086.8	92.35	34.426	
9,744.1	6,780.3	6,700.0	6,699.6	92.1	1.7	84.85	888.3	-296.1	3,221.6	3,128.0	93.56	34.432	
9,800.0	6,780.1	6,700.0	6,699.6	93.7	1.7	84.85	888.3	-296.1	3,275.5	3,180.4	95.11	34.440	
9,842.5	6,779.9	6,700.0	6,699.6	94.8	1.7	84.85	888.3	-296.1	3,316.5	3,220.2	96.28	34.446	
9,900.0	6,779.7	6,700.0	6,699.6	96.4	1.7	84.85	888.3	-296.1	3,372.0	3,274.2	97.87	34.455	
9,940.9	6,779.5	6,700.0	6,699.6	97.6	1.7	84.85	888.3	-296.1	3,411.6	3,312.6	99.00	34.461	
10,000.0	6,779.3	6,700.0	6,699.6	99.2	1.7	84.85	888.3	-296.1	3,468.8	3,368.1	100.63	34.470	
10,039.3	6,779.1	6,700.0	6,699.6	100.3	1.7	84.85	888.3	-296.1	3,506.9	3,405.2	101.72	34.476	
10,100.0	6,778.9	6,700.0	6,699.6	102.0	1.7	84.85	888.3	-296.1	3,565.7	3,462.3	103.40	34.485	
10,137.8	6,778.7	6,700.0	6,699.6	103.0	1.7	84.85	888.3	-296.1	3,602.3	3,497.9	104.44	34.491	
10,200.0	6,778.5	6,700.0	6,699.6	104.8	1.7	84.84	888.3	-296.1	3,662.7	3,556.6	106.16	34.501	
10,236.2	6,778.3	6,700.0	6,699.6	105.8	1.7	84.84	888.3	-296.1	3,697.9	3,590.8	107.17	34.506	
10,300.0	6,778.1	6,700.0	6,699.6	107.5	1.7	84.84	888.3	-296.1	3,760.0	3,651.0	108.93	34.517	
10,334.6	6,778.0	6,700.0	6,699.6	108.5	1.7	84.84	888.3	-296.1	3,793.7	3,683.8	109.89	34.522	
10,400.0	6,777.7	6,700.0	6,699.6	110.3	1.7	84.84	888.3	-296.1	3,857.3	3,745.6	111.70	34.532	
10,433.0	6,777.6	6,700.0	6,699.6	111.2	1.7	84.84	888.3	-296.1	3,889.6	3,776.9	112.62	34.537	
10,500.0	6,777.3	6,700.0	6,699.6	113.1	1.7	84.84	888.3	-296.1	3,954.9	3,840.4	114.47	34.548	
10,531.5	6,777.2	6,700.0	6,699.6	114.0	1.7	84.84	888.3	-296.1	3,985.6	3,870.2	115.35	34.553	
10,600.0	6,776.9	6,700.0	6,699.6	115.9	1.7	84.84	888.3	-296.1	4,052.5	3,935.2	117.25	34.563	
10,629.9	6,776.8	6,700.0	6,699.6	116.7	1.7	84.84	888.3	-296.1	4,081.7	3,963.6	118.08	34.568	
10,700.0	6,776.5	6,700.0	6,699.6	118.7	1.7	84.84	888.3	-296.1	4,150.2	4,030.2	120.02	34.579	
10,728.3	6,776.4	6,700.0	6,699.6	119.5	1.7	84.84	888.3	-296.1	4,177.9	4,057.1	120.81	34.583	
10,800.0	6,776.1	6,700.0	6,699.6	121.4	1.7	84.83	888.3	-296.1	4,248.1	4,125.3	122.80	34.594	
10,826.7	6,776.0	6,700.0	6,699.6	122.2	1.7	84.83	888.3	-296.1	4,274.2	4,150.7	123.54	34.598	
10,900.0	6,775.7	6,700.0	6,699.6	124.2	1.7	84.83	888.3	-296.1	4,346.0	4,220.4	125.57	34.609	
10,925.2	6,775.6	6,700.0	6,699.6	124.9	1.7	84.83	888.3	-296.1	4,370.7	4,244.4	126.27	34.612	
11,000.0	6,775.3	6,700.0	6,699.6	127.0	1.7	84.83	888.3	-296.1	4,444.0	4,315.7	128.35	34.624	
11,023.6	6,775.2	6,700.0	6,699.6	127.7	1.7	84.83	888.3	-296.1	4,467.2	4,338.2	129.01	34.627	
11,100.0	6,774.9	6,700.0	6,699.6	129.8	1.7	84.83	888.3	-296.1	4,542.1	4,411.0	131.13	34.638	
11,122.0	6,774.8	6,700.0	6,699.6	130.4	1.7	84.83	888.3	-296.1	4,563.8	4,432.0	131.74	34.641	
11,200.0	6,774.5	6,700.0	6,699.6	132.6	1.7	84.83	888.3	-296.1	4,640.3	4,506.4	133.91	34.652	
11,220.4	6,774.4	6,700.0	6,699.6	133.2	1.7	84.83	888.3	-296.1	4,660.4	4,526.0	134.48	34.655	
11,300.0	6,774.1	6,700.0	6,699.6	135.4	1.7	84.83	888.3	-296.1	4,738.6	4,601.9	136.69	34.667	
11,318.9	6,774.0	6,700.0	6,699.6	135.9	1.7	84.83	888.3	-296.1	4,757.2	4,620.0	137.22	34.669	
11,400.0	6,773.7	6,700.0	6,699.6	138.2	1.7	84.82	888.3	-296.1	4,837.0	4,697.5	139.47	34.680	
11,417.3	6,773.6	6,700.0	6,699.6	138.7	1.7	84.82	888.3	-296.1	4,854.0	4,714.0	139.95	34.683	
11,500.0	6,773.3	6,700.0	6,699.6	141.0	1.7	84.82	888.3	-296.1	4,935.4	4,793.1	142.25	34.694	
11,515.7	6,773.2	6,700.0	6,699.6	141.4	1.7	84.82	888.3	-296.1	4,950.9	4,808.2	142.69	34.696	
11,600.0	6,772.9	6,700.0	6,699.6	143.8	1.7	84.82	888.3	-296.1	5,033.9	4,888.8	145.04	34.707	
11,614.1	6,772.8	6,700.0	6,699.6	144.2	1.7	84.82	888.3	-296.1	5,047.8	4,902.4	145.43	34.709	
11,700.0	6,772.5	6,700.0	6,699.6	146.6	1.7	84.82	888.3	-296.1	5,132.4	4,984.6	147.82	34.720	
11,712.6	6,772.4	6,700.0	6,699.6	146.9	1.7	84.82	888.3	-296.1	5,144.8	4,996.6	148.17	34.722	
11,800.0	6,772.1	6,700.0	6,699.6	149.4	1.7	84.82	888.3	-296.1	5,231.0	5,080.4	150.60	34.733	
11,811.0	6,772.1	6,700.0	6,699.6	149.7	1.7	84.82	888.3	-296.1	5,241.8	5,090.9	150.91	34.735	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT SCHAUMBERG #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
11,900.0	6,771.7	6,700.0	6,699.6	152.2	1.7	84.81	888.3	-296.1	5,329.6	5,176.2	153.39	34.746	
11,909.4	6,771.7	6,700.0	6,699.6	152.4	1.7	84.81	888.3	-296.1	5,338.9	5,185.3	153.65	34.747	
12,000.0	6,771.3	6,700.0	6,699.6	154.9	1.7	84.81	888.3	-296.1	5,428.3	5,272.1	156.17	34.758	
12,007.8	6,771.3	6,700.0	6,699.6	155.2	1.7	84.81	888.3	-296.1	5,436.1	5,279.7	156.39	34.759	
12,100.0	6,770.9	6,700.0	6,699.6	157.7	1.7	84.81	888.3	-296.1	5,527.0	5,368.1	158.96	34.770	
12,106.3	6,770.9	6,700.0	6,699.6	157.9	1.7	84.81	888.3	-296.1	5,533.2	5,374.1	159.13	34.771	
12,200.0	6,770.5	6,700.0	6,699.6	160.5	1.7	84.81	888.3	-296.1	5,625.8	5,464.1	161.75	34.782	
12,204.7	6,770.5	6,700.0	6,699.6	160.7	1.7	84.81	888.3	-296.1	5,630.5	5,468.6	161.88	34.783	
12,300.0	6,770.1	6,700.0	6,699.6	163.3	1.7	84.80	888.3	-296.1	5,724.7	5,560.1	164.53	34.794	
12,303.1	6,770.1	6,700.0	6,699.6	163.4	1.7	84.80	888.3	-296.1	5,727.7	5,563.1	164.62	34.794	
12,316.4	6,770.0	6,700.0	6,699.6	163.8	1.7	84.80	888.3	-296.1	5,740.8	5,575.8	164.99	34.796	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	49.51	888.6	1,040.8	1,368.6				
98.4	98.4	86.1	86.1	0.1	0.1	49.51	888.5	1,040.8	1,368.4	1,368.3	0.17	8,064.730	
100.0	100.0	87.7	87.7	0.1	0.1	49.51	888.5	1,040.8	1,368.4	1,368.3	0.17	7,917.982	
196.8	196.8	183.3	183.3	0.3	0.2	49.52	888.3	1,040.9	1,368.4	1,367.8	0.52	2,647.471	
200.0	200.0	186.4	186.4	0.3	0.2	49.52	888.3	1,040.9	1,368.4	1,367.8	0.53	2,590.405	
295.3	295.3	281.6	281.6	0.5	0.3	49.53	888.1	1,041.0	1,368.3	1,367.5	0.83	1,642.344	
300.0	300.0	286.3	286.3	0.5	0.3	49.53	888.1	1,041.0	1,368.3	1,367.5	0.85	1,613.679	
393.7	393.7	384.0	384.0	0.8	0.4	49.54	887.8	1,041.0	1,368.2	1,367.1	1.12	1,220.143	
400.0	400.0	390.6	390.6	0.8	0.4	49.54	887.8	1,041.0	1,368.2	1,367.0	1.14	1,200.689	
492.1	492.1	486.0	486.0	1.0	0.4	49.55	887.3	1,040.9	1,367.8	1,366.4	1.40	975.674	
500.0	500.0	494.2	494.2	1.0	0.4	49.55	887.3	1,040.8	1,367.7	1,366.3	1.42	960.292	
590.5	590.5	586.8	586.8	1.2	0.5	49.57	886.6	1,040.6	1,367.1	1,365.4	1.67	816.395	
600.0	600.0	596.5	596.5	1.2	0.5	49.57	886.6	1,040.5	1,367.0	1,365.3	1.70	803.822	
689.0	689.0	688.2	688.2	1.4	0.5	49.58	885.9	1,040.1	1,366.3	1,364.3	1.94	703.756	
700.0	700.0	699.6	699.5	1.4	0.5	49.58	885.8	1,040.0	1,366.1	1,364.2	1.97	693.020	
787.4	787.4	788.8	788.8	1.6	0.6	49.59	885.0	1,039.4	1,365.2	1,363.0	2.20	619.380	
800.0	800.0	801.6	801.6	1.7	0.6	49.59	884.9	1,039.3	1,365.1	1,362.8	2.24	610.094	
885.8	885.8	887.9	887.8	1.9	0.6	49.60	884.1	1,038.7	1,364.1	1,361.6	2.46	553.799	
900.0	900.0	902.1	902.1	1.9	0.6	49.60	884.0	1,038.6	1,363.9	1,361.4	2.50	545.499	
984.2	984.2	987.7	987.7	2.1	0.7	49.61	883.1	1,037.9	1,362.9	1,360.2	2.72	501.002	
1,000.0	1,000.0	1,003.8	1,003.8	2.1	0.7	49.61	882.9	1,037.8	1,362.7	1,359.9	2.76	493.476	
1,082.7	1,082.7	1,090.4	1,090.4	2.3	0.7	49.62	881.9	1,037.1	1,361.5	1,358.5	2.98	457.363	
1,100.0	1,100.0	1,108.4	1,108.3	2.3	0.7	49.63	881.6	1,036.9	1,361.2	1,358.2	3.02	450.468	
1,181.1	1,181.1	1,190.9	1,190.8	2.5	0.8	49.65	880.4	1,036.1	1,359.8	1,356.6	3.23	420.844	
1,200.0	1,200.0	1,210.3	1,210.2	2.6	0.8	49.65	880.0	1,035.9	1,359.5	1,356.2	3.28	414.487	
1,279.5	1,279.5	1,292.4	1,292.3	2.7	0.8	49.68	878.6	1,035.2	1,358.0	1,354.5	3.48	389.681	
1,300.0	1,300.0	1,313.4	1,313.3	2.8	0.8	49.68	878.2	1,035.0	1,357.6	1,354.1	3.54	383.768	
1,377.9	1,377.9	1,393.2	1,393.1	3.0	0.9	49.72	876.5	1,034.2	1,356.0	1,352.2	3.74	362.792	
1,400.0	1,400.0	1,415.4	1,415.3	3.0	0.9	49.73	876.0	1,034.0	1,355.5	1,351.7	3.79	357.273	
1,476.4	1,476.4	1,491.7	1,491.6	3.2	0.9	49.77	874.2	1,033.4	1,353.8	1,349.9	3.99	339.386	
1,500.0	1,500.0	1,515.4	1,515.3	3.2	0.9	49.79	873.6	1,033.2	1,353.3	1,349.3	4.05	334.198	
1,574.8	1,574.8	1,590.7	1,590.5	3.4	0.9	130.58	871.6	1,032.8	1,352.3	1,348.0	4.30	314.210	
1,597.3	1,597.3	1,613.4	1,613.2	3.5	0.9	130.62	870.9	1,032.6	1,352.3	1,347.9	4.36	310.176 CC	
1,600.0	1,600.0	1,616.1	1,615.9	3.5	0.9	130.63	870.9	1,032.6	1,352.3	1,347.9	4.37	309.707 ES	
1,673.2	1,673.1	1,689.9	1,689.7	3.6	1.0	130.79	868.8	1,032.2	1,352.9	1,348.4	4.54	297.855	
1,700.0	1,699.8	1,717.4	1,717.1	3.7	1.0	130.86	868.0	1,032.0	1,353.5	1,348.8	4.61	293.808	
1,771.6	1,771.2	1,791.7	1,791.5	3.8	1.0	131.07	865.9	1,031.4	1,355.6	1,350.8	4.78	283.340	
1,800.0	1,799.5	1,821.2	1,820.9	3.9	1.0	131.17	865.1	1,031.1	1,356.7	1,351.9	4.85	279.464	
1,870.1	1,869.0	1,893.9	1,893.6	4.0	1.1	131.43	863.1	1,030.2	1,360.2	1,355.2	5.04	270.111	
1,900.0	1,898.7	1,924.3	1,924.0	4.1	1.1	131.54	862.3	1,029.8	1,362.0	1,356.9	5.11	266.386	
1,968.5	1,966.4	1,993.4	1,993.1	4.3	1.1	131.83	860.4	1,028.7	1,366.9	1,361.6	5.30	257.946	
2,000.0	1,997.5	2,024.6	2,024.2	4.4	1.1	131.97	859.5	1,028.2	1,369.6	1,364.2	5.39	254.328	
2,066.9	2,063.2	2,090.4	2,090.0	4.6	1.1	132.28	857.8	1,027.1	1,376.0	1,370.4	5.58	246.598	
2,100.1	2,095.7	2,122.5	2,122.0	4.7	1.1	132.44	857.0	1,026.5	1,379.6	1,373.9	5.68	243.026	
2,165.3	2,159.5	2,185.2	2,184.8	4.9	1.2	132.86	855.5	1,025.3	1,387.0	1,381.1	5.88	236.003	
2,200.0	2,193.4	2,218.6	2,218.1	5.0	1.2	133.08	854.8	1,024.7	1,391.0	1,385.0	5.98	232.489	
2,224.2	2,217.1	2,241.9	2,241.4	5.1	1.2	133.23	854.2	1,024.3	1,393.8	1,387.7	6.06	230.038	
2,263.8	2,255.9	2,280.0	2,279.6	5.2	1.2	133.54	853.4	1,023.7	1,398.2	1,392.1	6.18	226.428	
2,300.0	2,291.5	2,315.1	2,314.7	5.3	1.2	133.80	852.6	1,023.1	1,402.0	1,395.7	6.28	223.296	
2,362.2	2,352.7	2,375.8	2,375.3	5.5	1.2	134.21	851.4	1,022.0	1,407.8	1,401.4	6.44	218.478	
2,400.0	2,390.1	2,413.0	2,412.5	5.6	1.2	134.43	850.6	1,021.4	1,411.0	1,404.4	6.55	215.561	
2,460.6	2,450.1	2,473.9	2,473.3	5.7	1.3	134.75	849.3	1,020.4	1,415.2	1,408.5	6.70	211.108	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,489.2	2,513.5	2,512.9	5.8	1.3	134.93	848.5	1,019.7	1,417.5	1,410.7	6.81	208.246	
2,559.0	2,548.0	2,573.3	2,572.7	6.0	1.3	135.16	847.2	1,018.6	1,420.2	1,413.3	6.96	204.174	
2,600.0	2,588.8	2,615.3	2,614.7	6.1	1.3	135.29	846.4	1,017.8	1,421.6	1,414.5	7.06	201.364	
2,657.5	2,646.1	2,676.0	2,675.4	6.2	1.3	135.44	845.0	1,016.6	1,422.7	1,415.5	7.20	197.605	
2,700.0	2,688.6	2,720.0	2,719.4	6.3	1.4	135.52	844.0	1,015.6	1,422.9	1,415.6	7.30	194.832	
2,755.9	2,744.4	2,776.4	2,775.7	6.4	1.4	135.58	842.7	1,014.4	1,422.5	1,415.1	7.43	191.384	
2,800.0	2,788.5	2,821.1	2,820.3	6.5	1.4	135.60	841.6	1,013.4	1,421.6	1,414.1	7.54	188.664	
2,824.3	2,812.8	2,845.7	2,845.0	6.5	1.4	54.90	841.0	1,012.8	1,420.9	1,413.4	7.45	190.659	
2,854.3	2,842.9	2,876.2	2,875.5	6.6	1.4	54.91	840.2	1,012.2	1,419.9	1,412.4	7.52	188.885	
2,900.0	2,888.5	2,922.7	2,921.9	6.7	1.4	54.93	838.9	1,011.2	1,418.4	1,410.8	7.62	186.244	
2,952.7	2,941.3	2,976.6	2,975.8	6.8	1.5	54.95	837.5	1,010.0	1,416.6	1,408.9	7.74	183.058	
3,000.0	2,988.5	3,024.7	3,023.8	6.9	1.5	54.97	836.2	1,008.8	1,415.0	1,407.1	7.85	180.289	
3,051.2	3,039.7	3,076.5	3,075.6	7.0	1.5	54.99	834.8	1,007.6	1,413.2	1,405.2	7.97	177.366	
3,100.0	3,088.5	3,125.3	3,124.4	7.1	1.5	55.00	833.4	1,006.5	1,411.4	1,403.4	8.08	174.662	
3,149.6	3,138.1	3,174.3	3,173.4	7.2	1.5	55.02	832.1	1,005.3	1,409.7	1,401.5	8.20	171.990	
3,200.0	3,188.5	3,219.8	3,218.8	7.3	1.5	55.03	830.9	1,004.2	1,408.0	1,399.7	8.31	169.384	
3,248.0	3,236.6	3,258.7	3,257.7	7.4	1.6	55.04	830.1	1,003.4	1,406.6	1,398.2	8.42	167.019	
3,300.0	3,288.5	3,300.0	3,299.0	7.5	1.6	55.05	829.5	1,002.7	1,405.5	1,397.0	8.54	164.574	
3,346.4	3,335.0	3,338.5	3,337.6	7.6	1.6	55.05	829.2	1,002.3	1,404.8	1,396.2	8.64	162.565	
3,400.0	3,388.5	3,382.1	3,381.1	7.7	1.6	55.04	829.1	1,001.9	1,404.4	1,395.6	8.76	160.350	
3,436.8	3,425.3	3,412.3	3,411.3	7.8	1.6	55.04	829.1	1,001.8	1,404.3	1,395.5	8.84	158.890	
3,444.9	3,433.4	3,419.1	3,418.1	7.8	1.6	55.04	829.2	1,001.8	1,404.3	1,395.4	8.86	158.578	
3,500.0	3,488.5	3,465.1	3,464.1	7.9	1.6	55.02	829.5	1,001.8	1,404.5	1,395.6	8.97	156.506	
3,543.3	3,531.8	3,500.0	3,499.0	8.0	1.6	55.01	829.9	1,001.9	1,405.0	1,395.9	9.07	154.940	
3,600.0	3,588.5	3,555.3	3,554.3	8.1	1.6	54.99	830.8	1,002.2	1,405.7	1,396.5	9.20	152.873	
3,641.7	3,630.3	3,595.1	3,594.0	8.2	1.6	54.98	831.4	1,002.5	1,406.4	1,397.1	9.29	151.394	
3,700.0	3,688.5	3,651.2	3,650.2	8.3	1.6	54.96	832.4	1,002.9	1,407.3	1,397.9	9.42	149.379	
3,740.1	3,728.7	3,689.9	3,688.9	8.4	1.6	54.94	833.1	1,003.3	1,408.0	1,398.5	9.51	148.025	
3,800.0	3,788.5	3,747.6	3,746.5	8.5	1.6	54.92	834.1	1,003.9	1,409.2	1,399.5	9.65	146.054	
3,838.6	3,827.1	3,784.7	3,783.7	8.6	1.6	54.91	834.8	1,004.4	1,410.0	1,400.2	9.74	144.815	
3,900.0	3,888.5	3,846.4	3,845.4	8.7	1.6	54.89	835.9	1,005.2	1,411.3	1,401.4	9.88	142.883	
3,937.0	3,925.5	3,884.2	3,883.1	8.8	1.6	54.88	836.6	1,005.6	1,412.0	1,402.0	9.96	141.740	
4,000.0	3,988.5	3,944.8	3,943.7	9.0	1.6	54.87	837.6	1,006.5	1,413.3	1,403.2	10.11	139.834	
4,035.4	4,024.0	3,978.2	3,977.1	9.0	1.6	54.87	838.0	1,007.1	1,414.1	1,403.9	10.19	138.790	
4,100.0	4,088.5	4,039.1	4,038.0	9.2	1.6	54.88	838.6	1,008.5	1,415.7	1,405.3	10.34	136.919	
4,133.8	4,122.4	4,071.1	4,070.0	9.2	1.6	54.89	838.9	1,009.3	1,416.6	1,406.2	10.42	135.957	
4,200.0	4,188.5	4,134.6	4,133.5	9.4	1.6	54.92	839.3	1,011.2	1,418.4	1,407.9	10.58	134.120	
4,232.3	4,220.8	4,166.1	4,164.9	9.4	1.6	54.94	839.4	1,012.3	1,419.4	1,408.7	10.65	133.239	
4,300.0	4,288.5	4,231.9	4,230.7	9.6	1.6	54.99	839.6	1,014.5	1,421.4	1,410.6	10.81	131.438	
4,330.7	4,319.2	4,261.7	4,260.4	9.7	1.6	55.01	839.7	1,015.6	1,422.4	1,411.5	10.89	130.641	
4,400.0	4,388.5	4,328.9	4,327.7	9.8	1.6	55.05	840.0	1,018.1	1,424.6	1,413.6	11.05	128.889	
4,429.1	4,417.7	4,357.3	4,356.0	9.9	1.6	55.07	840.1	1,019.1	1,425.6	1,414.5	11.12	128.171	
4,500.0	4,488.5	4,425.2	4,423.8	10.0	1.6	55.12	840.6	1,021.6	1,428.0	1,416.7	11.29	126.473	
4,527.5	4,516.1	4,450.9	4,449.5	10.1	1.6	55.13	840.8	1,022.6	1,429.0	1,417.7	11.36	125.834	
4,600.0	4,588.5	4,518.3	4,516.9	10.2	1.6	55.17	841.5	1,025.3	1,431.8	1,420.3	11.53	124.205	
4,626.0	4,614.5	4,542.2	4,540.8	10.3	1.6	55.18	841.8	1,026.2	1,432.9	1,421.3	11.59	123.639	
4,700.0	4,688.5	4,612.1	4,610.6	10.5	1.6	55.21	842.9	1,029.2	1,436.1	1,424.3	11.76	122.073	
4,724.4	4,712.9	4,638.5	4,637.0	10.5	1.6	55.23	843.2	1,030.4	1,437.2	1,425.3	11.82	121.555	
4,800.0	4,788.5	4,720.1	4,718.5	10.7	1.6	55.32	843.3	1,034.4	1,440.3	1,428.3	12.01	119.953	
4,822.8	4,811.4	4,744.6	4,742.9	10.7	1.6	55.36	843.1	1,035.7	1,441.1	1,429.1	12.06	119.463	
4,900.0	4,888.5	4,825.0	4,823.1	10.9	1.6	55.50	841.7	1,040.2	1,443.9	1,431.7	12.25	117.830	
4,921.2	4,909.8	4,845.8	4,843.9	10.9	1.6	55.55	841.2	1,041.4	1,444.7	1,432.4	12.31	117.389	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
5,000.0	4,988.5	4,923.9	4,921.9	11.1	1.6	55.71	839.4	1,046.1	1,447.5	1,435.0	12.50	115.792	
5,019.7	5,008.2	4,943.9	4,941.8	11.1	1.6	55.76	838.9	1,047.3	1,448.3	1,435.7	12.55	115.399	
5,100.0	5,088.5	5,028.2	5,026.0	11.3	1.6	55.95	836.5	1,052.5	1,451.1	1,438.4	12.75	113.816	
5,118.1	5,106.6	5,048.6	5,046.3	11.4	1.6	55.99	835.9	1,053.7	1,451.7	1,438.9	12.79	113.458	
5,200.0	5,188.5	5,139.7	5,137.2	11.5	1.7	56.20	833.0	1,058.8	1,454.0	1,441.0	13.00	111.848	
5,216.5	5,205.1	5,157.9	5,155.4	11.6	1.7	56.24	832.4	1,059.8	1,454.5	1,441.4	13.04	111.525	
5,300.0	5,288.5	5,246.9	5,244.3	11.8	1.7	56.43	829.5	1,064.1	1,456.3	1,443.1	13.25	109.913	
5,314.9	5,303.5	5,262.5	5,259.8	11.8	1.7	56.46	829.0	1,064.8	1,456.6	1,443.3	13.29	109.634	
5,400.0	5,388.5	5,346.8	5,343.9	12.0	1.7	56.64	826.2	1,068.7	1,458.3	1,444.8	13.50	108.052	
5,413.4	5,401.9	5,359.5	5,356.7	12.0	1.7	56.66	825.8	1,069.3	1,458.6	1,445.1	13.53	107.810	
5,500.0	5,488.5	5,450.1	5,447.1	12.2	1.7	56.83	823.3	1,073.2	1,460.5	1,446.7	13.75	106.254	
5,511.8	5,500.3	5,463.4	5,460.4	12.2	1.7	56.85	823.0	1,073.7	1,460.7	1,446.9	13.77	106.041	
5,600.0	5,588.5	5,558.7	5,555.6	12.4	1.8	57.00	820.6	1,076.9	1,462.0	1,448.0	14.00	104.465	
5,610.2	5,598.8	5,569.4	5,566.4	12.4	1.8	57.01	820.4	1,077.3	1,462.1	1,448.1	14.02	104.284	
5,700.0	5,688.5	5,660.6	5,657.4	12.6	1.8	57.13	818.4	1,079.8	1,463.2	1,448.9	14.24	102.727	
5,708.6	5,697.2	5,669.2	5,666.1	12.6	1.8	57.14	818.2	1,080.0	1,463.3	1,449.0	14.26	102.580	
5,800.0	5,788.5	5,758.6	5,755.4	12.8	1.8	57.24	816.8	1,082.2	1,464.4	1,449.9	14.49	101.061	
5,807.1	5,795.6	5,765.4	5,762.2	12.9	1.8	57.24	816.8	1,082.4	1,464.5	1,450.0	14.51	100.946	
5,900.0	5,888.5	5,857.7	5,854.5	13.1	1.8	57.32	815.7	1,084.6	1,465.8	1,451.0	14.74	99.464	
5,905.5	5,894.0	5,863.3	5,860.1	13.1	1.8	57.33	815.6	1,084.7	1,465.8	1,451.1	14.75	99.378	
6,000.0	5,988.5	5,960.0	5,956.7	13.3	1.8	57.38	815.1	1,086.6	1,467.1	1,452.1	14.98	97.922	
6,003.9	5,992.5	5,964.0	5,960.8	13.3	1.8	57.39	815.1	1,086.6	1,467.1	1,452.1	14.99	97.863	
6,085.3	6,073.8	6,046.0	6,042.7	13.5	1.9	57.42	815.0	1,087.8	1,468.1	1,452.9	15.19	96.651	
6,100.0	6,088.5	6,060.5	6,057.3	13.5	1.9	147.41	815.0	1,088.0	1,468.4	1,453.4	15.00	97.899	
6,102.3	6,090.9	6,062.8	6,059.6	13.5	1.9	147.41	815.0	1,088.1	1,468.4	1,453.4	15.01	97.860	
6,150.0	6,138.4	6,109.9	6,106.6	13.6	1.9	147.36	815.0	1,088.7	1,471.3	1,456.1	15.16	97.055	
6,200.0	6,188.0	6,159.0	6,155.8	13.7	1.9	147.24	815.0	1,089.4	1,477.2	1,461.8	15.36	96.173	
6,200.8	6,188.8	6,159.8	6,156.5	13.7	1.9	147.24	815.0	1,089.4	1,477.3	1,461.9	15.36	96.159	
6,250.0	6,237.1	6,207.5	6,204.2	13.9	1.9	147.06	815.1	1,090.1	1,486.0	1,470.4	15.59	95.337	
6,299.2	6,284.6	6,254.0	6,250.7	14.0	1.9	146.82	815.2	1,090.7	1,497.5	1,481.7	15.82	94.631	
6,300.0	6,285.3	6,254.7	6,251.5	14.0	1.9	146.81	815.2	1,090.7	1,497.7	1,481.9	15.83	94.621	
6,350.0	6,332.5	6,300.9	6,297.6	14.2	1.9	146.48	815.4	1,091.4	1,512.3	1,496.2	16.07	94.081	
6,397.6	6,376.3	6,343.6	6,340.4	14.4	1.9	146.08	815.5	1,092.0	1,528.9	1,512.6	16.31	93.747	
6,400.0	6,378.5	6,345.7	6,342.5	14.4	1.9	146.06	815.5	1,092.0	1,529.8	1,513.4	16.32	93.737	
6,450.0	6,423.0	6,389.1	6,385.8	14.7	1.9	145.52	815.6	1,092.7	1,550.0	1,533.4	16.56	93.589	
6,496.0	6,462.4	6,426.5	6,423.2	14.9	1.9	144.90	815.7	1,093.3	1,571.1	1,554.3	16.78	93.603	
6,500.0	6,465.7	6,429.6	6,426.3	14.9	1.9	144.85	815.7	1,093.4	1,573.0	1,556.2	16.80	93.613	
6,550.0	6,506.6	6,467.8	6,464.5	15.2	1.9	144.00	815.8	1,094.0	1,598.6	1,581.6	17.05	93.764	
6,594.5	6,541.2	6,500.0	6,496.7	15.6	1.9	143.09	815.9	1,094.7	1,623.6	1,606.3	17.28	93.942	
6,600.0	6,545.3	6,504.1	6,500.8	15.6	1.9	142.97	816.0	1,094.7	1,626.8	1,609.5	17.31	93.971	
6,650.0	6,581.8	6,520.0	6,516.7	16.0	1.9	141.35	816.0	1,095.1	1,657.6	1,640.0	17.60	94.177	
6,692.9	6,611.1	6,520.0	6,516.7	16.4	1.9	139.37	816.0	1,095.1	1,686.3	1,668.4	17.90	94.219	
6,700.0	6,615.8	6,520.0	6,516.7	16.5	1.9	139.01	816.0	1,095.1	1,691.2	1,673.3	17.95	94.217	
6,750.0	6,647.1	6,520.0	6,516.7	17.1	1.9	136.16	816.0	1,095.1	1,727.5	1,709.1	18.40	93.893	
6,791.3	6,670.9	6,520.0	6,516.7	17.6	1.9	133.35	816.0	1,095.1	1,759.3	1,740.4	18.87	93.234	
6,800.0	6,675.7	6,520.0	6,516.7	17.7	1.9	132.69	816.0	1,095.1	1,766.1	1,747.1	18.98	93.067	
6,850.0	6,701.3	6,520.0	6,516.7	18.4	1.9	128.48	816.0	1,095.1	1,806.7	1,787.0	19.71	91.682	
6,889.7	6,719.5	6,520.0	6,516.7	19.0	1.9	124.50	816.0	1,095.1	1,840.1	1,819.7	20.40	90.200	
6,900.0	6,723.8	6,520.0	6,516.7	19.1	1.9	123.37	816.0	1,095.1	1,848.9	1,828.3	20.59	89.803	
6,950.0	6,743.2	6,520.0	6,516.7	20.0	1.9	117.25	816.0	1,095.1	1,892.4	1,870.8	21.59	87.640	
6,988.2	6,755.8	6,520.0	6,516.7	20.6	1.9	111.83	816.0	1,095.1	1,926.4	1,904.0	22.41	85.981	
7,000.0	6,759.4	6,520.0	6,516.7	20.9	1.9	110.02	816.0	1,095.1	1,937.0	1,914.4	22.65	85.521	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,772.1	6,520.0	6,516.7	21.8	1.9	101.73	816.0	1,095.1	1,982.4	1,958.7	23.68	83.727	
7,086.6	6,779.4	6,520.0	6,516.7	22.5	1.9	95.11	816.0	1,095.1	2,015.9	1,991.5	24.42	82.568	
7,100.0	6,781.5	6,520.0	6,516.7	22.8	1.9	92.60	816.0	1,095.1	2,028.3	2,003.6	24.69	82.156	
7,150.0	6,787.5	6,520.0	6,516.7	23.9	1.9	83.08	816.0	1,095.1	2,074.4	2,048.6	25.78	80.450	
7,185.0	6,789.6	6,520.0	6,516.7	24.6	1.9	76.47	816.0	1,095.1	2,106.7	2,080.2	26.51	79.482	
7,200.0	6,789.9	6,520.0	6,516.7	24.9	1.9	73.72	816.0	1,095.1	2,120.5	2,093.7	26.76	79.243	
7,213.0	6,790.0	6,520.0	6,516.7	25.2	1.9	71.38	816.0	1,095.1	2,132.4	2,105.5	26.95	79.126	
7,283.4	6,789.7	6,520.0	6,516.7	26.8	1.9	71.38	816.0	1,095.1	2,197.5	2,169.0	28.44	77.257	
7,300.0	6,789.7	6,520.0	6,516.7	27.2	1.9	71.38	816.0	1,095.1	2,212.8	2,184.0	28.79	76.848	
7,381.9	6,789.4	6,520.0	6,516.7	29.1	1.9	71.38	816.0	1,095.1	2,288.8	2,258.2	30.60	74.793	
7,400.0	6,789.3	6,520.0	6,516.7	29.5	1.9	71.38	816.0	1,095.1	2,305.7	2,274.7	31.00	74.372	
7,480.3	6,789.0	6,520.0	6,516.7	31.4	1.9	71.38	816.0	1,095.1	2,380.7	2,347.9	32.84	72.504	
7,500.0	6,788.9	6,520.0	6,516.7	31.9	1.9	71.38	816.0	1,095.1	2,399.2	2,365.9	33.29	72.079	
7,578.7	6,788.6	6,520.0	6,516.7	33.8	1.9	71.38	816.0	1,095.1	2,473.1	2,438.0	35.13	70.400	
7,600.0	6,788.5	6,520.0	6,516.7	34.4	1.9	71.38	816.0	1,095.1	2,493.1	2,457.5	35.63	69.977	
7,677.1	6,788.2	6,520.0	6,516.7	36.3	1.9	71.38	816.0	1,095.1	2,566.0	2,528.5	37.47	68.477	
7,700.0	6,788.2	6,520.0	6,516.7	36.9	1.9	71.38	816.0	1,095.1	2,587.6	2,549.6	38.02	68.062	
7,775.6	6,787.9	6,520.0	6,516.7	38.8	1.9	71.38	816.0	1,095.1	2,659.2	2,619.4	39.85	66.725	
7,800.0	6,787.8	6,520.0	6,516.7	39.4	1.9	71.38	816.0	1,095.1	2,682.4	2,642.0	40.45	66.320	
7,874.0	6,787.5	6,520.0	6,516.7	41.3	1.9	71.38	816.0	1,095.1	2,752.8	2,710.6	42.27	65.130	
7,900.0	6,787.4	6,520.0	6,516.7	42.0	1.9	71.37	816.0	1,095.1	2,777.6	2,734.7	42.91	64.737	
7,972.4	6,787.1	6,520.0	6,516.7	43.9	1.9	71.37	816.0	1,095.1	2,846.8	2,802.1	44.71	63.676	
8,000.0	6,787.0	6,520.0	6,516.7	44.6	1.9	71.37	816.0	1,095.1	2,873.2	2,827.8	45.39	63.296	
8,070.8	6,786.7	6,520.0	6,516.7	46.5	1.9	71.37	816.0	1,095.1	2,941.0	2,893.8	47.17	62.350	
8,100.0	6,786.6	6,520.0	6,516.7	47.3	1.9	71.37	816.0	1,095.1	2,969.0	2,921.1	47.90	61.983	
8,169.3	6,786.4	6,520.0	6,516.7	49.1	1.9	71.37	816.0	1,095.1	3,035.5	2,985.9	49.65	61.138	
8,200.0	6,786.3	6,520.0	6,516.7	49.9	1.9	71.37	816.0	1,095.1	3,065.1	3,014.6	50.43	60.784	
8,267.7	6,786.0	6,520.0	6,516.7	51.7	1.9	71.37	816.0	1,095.1	3,130.3	3,078.1	52.15	60.028	
8,300.0	6,785.9	6,520.0	6,516.7	52.6	1.9	71.37	816.0	1,095.1	3,161.4	3,108.4	52.97	59.686	
8,366.1	6,785.6	6,520.0	6,516.7	54.4	1.9	71.37	816.0	1,095.1	3,225.2	3,170.6	54.66	59.009	
8,400.0	6,785.5	6,520.0	6,516.7	55.3	1.9	71.37	816.0	1,095.1	3,258.0	3,202.4	55.52	58.679	
8,464.5	6,785.2	6,520.0	6,516.7	57.0	1.9	71.37	816.0	1,095.1	3,320.4	3,263.2	57.18	58.071	
8,500.0	6,785.1	6,520.0	6,516.7	58.0	1.9	71.37	816.0	1,095.1	3,354.7	3,296.6	58.09	57.752	
8,563.0	6,784.9	6,520.0	6,516.7	59.7	1.9	71.37	816.0	1,095.1	3,415.7	3,356.0	59.71	57.205	
8,600.0	6,784.7	6,520.0	6,516.7	60.7	1.9	71.37	816.0	1,095.1	3,451.6	3,391.0	60.66	56.898	
8,661.4	6,784.5	6,520.0	6,516.7	62.4	1.9	71.37	816.0	1,095.1	3,511.3	3,449.0	62.25	56.405	
8,700.0	6,784.3	6,520.0	6,516.7	63.4	1.9	71.37	816.0	1,095.1	3,548.8	3,485.5	63.25	56.109	
8,759.8	6,784.1	6,520.0	6,516.7	65.0	1.9	71.37	816.0	1,095.1	3,606.9	3,542.1	64.80	55.663	
8,800.0	6,784.0	6,520.0	6,516.7	66.1	1.9	71.36	816.0	1,095.1	3,646.0	3,580.2	65.84	55.377	
8,858.2	6,783.7	6,520.0	6,516.7	67.7	1.9	71.36	816.0	1,095.1	3,702.7	3,635.4	67.35	54.975	
8,900.0	6,783.6	6,520.0	6,516.7	68.9	1.9	71.36	816.0	1,095.1	3,743.4	3,675.0	68.44	54.698	
8,956.7	6,783.3	6,520.0	6,516.7	70.4	1.9	71.36	816.0	1,095.1	3,798.7	3,728.8	69.91	54.333	
9,000.0	6,783.2	6,520.0	6,516.7	71.6	1.9	71.36	816.0	1,095.1	3,841.0	3,769.9	71.04	54.066	
9,055.1	6,783.0	6,520.0	6,516.7	73.1	1.9	71.36	816.0	1,095.1	3,894.8	3,822.3	72.48	53.735	
9,100.0	6,782.8	6,520.0	6,516.7	74.3	1.9	71.36	816.0	1,095.1	3,938.6	3,865.0	73.65	53.476	
9,153.5	6,782.6	6,520.0	6,516.7	75.8	1.9	71.36	816.0	1,095.1	3,991.0	3,915.9	75.05	53.176	
9,200.0	6,782.4	6,520.0	6,516.7	77.1	1.9	71.36	816.0	1,095.1	4,036.4	3,960.2	76.27	52.925	
9,251.9	6,782.2	6,520.0	6,516.7	78.5	1.9	71.36	816.0	1,095.1	4,087.3	4,009.6	77.63	52.652	
9,300.0	6,782.0	6,520.0	6,516.7	79.8	1.9	71.36	816.0	1,095.1	4,134.3	4,055.4	78.88	52.409	
9,350.4	6,781.8	6,520.0	6,516.7	81.2	1.9	71.36	816.0	1,095.1	4,183.7	4,103.5	80.21	52.161	
9,400.0	6,781.6	6,520.0	6,516.7	82.6	1.9	71.35	816.0	1,095.1	4,232.3	4,150.8	81.51	51.925	
9,448.8	6,781.4	6,520.0	6,516.7	83.9	1.9	71.35	816.0	1,095.1	4,280.1	4,197.4	82.79	51.700	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	6,781.2	6,520.0	6,516.7	85.4	1.9	71.35	816.0	1,095.1	4,330.4	4,246.2	84.13	51.471	
9,547.2	6,781.0	6,520.0	6,516.7	86.7	1.9	71.35	816.0	1,095.1	4,376.7	4,291.3	85.37	51.265	
9,600.0	6,780.8	6,520.0	6,516.7	88.1	1.9	71.35	816.0	1,095.1	4,428.5	4,341.8	86.76	51.043	
9,645.6	6,780.7	6,520.0	6,516.7	89.4	1.9	71.35	816.0	1,095.1	4,473.4	4,385.4	87.96	50.855	
9,700.0	6,780.5	6,520.0	6,516.7	90.9	1.9	71.35	816.0	1,095.1	4,526.8	4,437.4	89.39	50.639	
9,744.1	6,780.3	6,520.0	6,516.7	92.1	1.9	71.35	816.0	1,095.1	4,570.1	4,479.5	90.55	50.469	
9,800.0	6,780.1	6,520.0	6,516.7	93.7	1.9	71.35	816.0	1,095.1	4,625.1	4,533.1	92.03	50.259	
9,842.5	6,779.9	6,520.0	6,516.7	94.8	1.9	71.35	816.0	1,095.1	4,666.9	4,573.8	93.15	50.103	
9,900.0	6,779.7	6,520.0	6,516.7	96.4	1.9	71.35	816.0	1,095.1	4,723.5	4,628.8	94.66	49.898	
9,940.9	6,779.5	6,520.0	6,516.7	97.6	1.9	71.35	816.0	1,095.1	4,763.8	4,668.0	95.74	49.756	
10,000.0	6,779.3	6,520.0	6,516.7	99.2	1.9	71.34	816.0	1,095.1	4,821.9	4,724.6	97.30	49.557	
10,039.3	6,779.1	6,520.0	6,516.7	100.3	1.9	71.34	816.0	1,095.1	4,860.7	4,762.4	98.34	49.428	
10,100.0	6,778.9	6,520.0	6,516.7	102.0	1.9	71.34	816.0	1,095.1	4,920.5	4,820.5	99.94	49.234	
10,137.8	6,778.7	6,520.0	6,516.7	103.0	1.9	71.34	816.0	1,095.1	4,957.7	4,856.8	100.94	49.116	
10,200.0	6,778.5	6,520.0	6,516.7	104.8	1.9	71.34	816.0	1,095.1	5,019.0	4,916.5	102.58	48.927	
10,236.2	6,778.3	6,520.0	6,516.7	105.8	1.9	71.34	816.0	1,095.1	5,054.7	4,951.2	103.54	48.819	
10,300.0	6,778.1	6,520.0	6,516.7	107.5	1.9	71.34	816.0	1,095.1	5,117.7	5,012.4	105.23	48.635	
10,334.6	6,778.0	6,520.0	6,516.7	108.5	1.9	71.34	816.0	1,095.1	5,151.8	5,045.7	106.14	48.537	
10,400.0	6,777.7	6,520.0	6,516.7	110.3	1.9	71.34	816.0	1,095.1	5,216.4	5,108.5	107.87	48.358	
10,433.0	6,777.6	6,520.0	6,516.7	111.2	1.9	71.34	816.0	1,095.1	5,249.0	5,140.2	108.75	48.269	
10,500.0	6,777.3	6,520.0	6,516.7	113.1	1.9	71.33	816.0	1,095.1	5,315.1	5,204.6	110.52	48.093	
10,531.5	6,777.2	6,520.0	6,516.7	114.0	1.9	71.33	816.0	1,095.1	5,346.2	5,234.8	111.35	48.012	
10,600.0	6,776.9	6,520.0	6,516.7	115.9	1.9	71.33	816.0	1,095.1	5,413.9	5,300.7	113.16	47.841	
10,629.9	6,776.8	6,520.0	6,516.7	116.7	1.9	71.33	816.0	1,095.1	5,443.4	5,329.5	113.96	47.768	
10,700.0	6,776.5	6,520.0	6,516.7	118.7	1.9	71.33	816.0	1,095.1	5,512.7	5,396.9	115.81	47.600	
10,728.3	6,776.4	6,520.0	6,516.7	119.5	1.9	71.33	816.0	1,095.1	5,540.7	5,424.1	116.56	47.534	
10,800.0	6,776.1	6,520.0	6,516.7	121.4	1.9	71.33	816.0	1,095.1	5,611.6	5,493.1	118.46	47.370	
10,826.7	6,776.0	6,520.0	6,516.7	122.2	1.9	71.33	816.0	1,095.1	5,638.0	5,518.8	119.17	47.310	
10,900.0	6,775.7	6,520.0	6,516.7	124.2	1.9	71.33	816.0	1,095.1	5,710.5	5,589.3	121.11	47.150	
10,925.2	6,775.6	6,520.0	6,516.7	124.9	1.9	71.33	816.0	1,095.1	5,735.4	5,613.6	121.78	47.096	
11,000.0	6,775.3	6,520.0	6,516.7	127.0	1.9	71.32	816.0	1,095.1	5,809.4	5,685.6	123.76	46.939	
11,023.6	6,775.2	6,520.0	6,516.7	127.7	1.9	71.32	816.0	1,095.1	5,832.8	5,708.4	124.39	46.891	
11,100.0	6,774.9	6,520.0	6,516.7	129.8	1.9	71.32	816.0	1,095.1	5,908.4	5,782.0	126.42	46.737	
11,122.0	6,774.8	6,520.0	6,516.7	130.4	1.9	71.32	816.0	1,095.1	5,930.2	5,803.2	127.00	46.694	
11,200.0	6,774.5	6,520.0	6,516.7	132.6	1.9	71.32	816.0	1,095.1	6,007.4	5,878.3	129.07	46.544	
11,220.4	6,774.4	6,520.0	6,516.7	133.2	1.9	71.32	816.0	1,095.1	6,027.6	5,898.0	129.61	46.505	
11,300.0	6,774.1	6,520.0	6,516.7	135.4	1.9	71.32	816.0	1,095.1	6,106.4	5,974.7	131.72	46.358	
11,318.9	6,774.0	6,520.0	6,516.7	135.9	1.9	71.32	816.0	1,095.1	6,125.1	5,992.9	132.23	46.323	
11,400.0	6,773.7	6,520.0	6,516.7	138.2	1.9	71.31	816.0	1,095.1	6,205.5	6,071.1	134.38	46.179	
11,417.3	6,773.6	6,520.0	6,516.7	138.7	1.9	71.31	816.0	1,095.1	6,222.6	6,087.8	134.84	46.149	
11,500.0	6,773.3	6,520.0	6,516.7	141.0	1.9	71.31	816.0	1,095.1	6,304.6	6,167.6	137.03	46.008	
11,515.7	6,773.2	6,520.0	6,516.7	141.4	1.9	71.31	816.0	1,095.1	6,320.2	6,182.7	137.45	45.981	
11,600.0	6,772.9	6,520.0	6,516.7	143.8	1.9	71.31	816.0	1,095.1	6,403.7	6,264.1	139.69	45.842	
11,614.1	6,772.8	6,520.0	6,516.7	144.2	1.9	71.31	816.0	1,095.1	6,417.8	6,277.7	140.07	45.820	
11,700.0	6,772.5	6,520.0	6,516.7	146.6	1.9	71.31	816.0	1,095.1	6,502.9	6,360.6	142.35	45.684	
11,712.6	6,772.4	6,520.0	6,516.7	146.9	1.9	71.31	816.0	1,095.1	6,515.4	6,372.7	142.68	45.664	
11,800.0	6,772.1	6,520.0	6,516.7	149.4	1.9	71.30	816.0	1,095.1	6,602.1	6,457.1	145.00	45.530	
11,811.0	6,772.1	6,520.0	6,516.7	149.7	1.9	71.30	816.0	1,095.1	6,613.0	6,467.7	145.30	45.514	
11,900.0	6,771.7	6,520.0	6,516.7	152.2	1.9	71.30	816.0	1,095.1	6,701.3	6,553.6	147.66	45.383	
11,909.4	6,771.7	6,520.0	6,516.7	152.4	1.9	71.30	816.0	1,095.1	6,710.6	6,562.7	147.91	45.369	
12,000.0	6,771.3	6,520.0	6,516.7	154.9	1.9	71.30	816.0	1,095.1	6,800.5	6,650.2	150.32	45.241	
12,007.8	6,771.3	6,520.0	6,516.7	155.2	1.9	71.30	816.0	1,095.1	6,808.3	6,657.8	150.53	45.230	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - EXIST VERT STEINMETZ #21-17 - 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	6,770.9	6,520.0	6,516.7	157.7	1.9	71.30	816.0	1,095.1	6,899.8	6,746.8	152.98	45.103	
12,106.3	6,770.9	6,520.0	6,516.7	157.9	1.9	71.30	816.0	1,095.1	6,906.0	6,752.9	153.14	45.095	
12,200.0	6,770.5	6,520.0	6,516.7	160.5	1.9	71.29	816.0	1,095.1	6,999.0	6,843.4	155.64	44.971	
12,204.7	6,770.5	6,520.0	6,516.7	160.7	1.9	71.29	816.0	1,095.1	7,003.7	6,848.0	155.76	44.964	
12,300.0	6,770.1	6,520.0	6,516.7	163.3	1.9	71.29	816.0	1,095.1	7,098.3	6,940.0	158.29	44.843	
12,303.1	6,770.1	6,520.0	6,516.7	163.4	1.9	71.29	816.0	1,095.1	7,101.4	6,943.1	158.38	44.839	
12,316.4	6,770.0	6,520.0	6,516.7	163.8	1.9	71.29	816.0	1,095.1	7,114.6	6,955.9	158.73	44.822 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-90.27	-0.4	-75.2	75.2				
98.4	98.4	98.4	98.4	0.1	0.1	-90.27	-0.4	-75.2	75.2	75.0	0.19	391.181	
100.0	100.0	100.0	100.0	0.1	0.1	-90.27	-0.4	-75.2	75.2	75.0	0.20	384.560	
196.8	196.8	196.8	196.8	0.3	0.3	-90.27	-0.4	-75.2	75.2	74.6	0.63	119.190	
200.0	200.0	200.0	200.0	0.3	0.3	-90.27	-0.4	-75.2	75.2	74.6	0.65	116.574	
295.3	295.3	295.3	295.3	0.5	0.5	-90.27	-0.4	-75.2	75.2	74.1	1.07	70.059	
300.0	300.0	300.0	300.0	0.5	0.5	-90.27	-0.4	-75.2	75.2	74.1	1.09	68.700	
393.7	393.7	393.7	393.7	0.8	0.8	-90.27	-0.4	-75.2	75.2	73.7	1.52	49.610	
400.0	400.0	400.0	400.0	0.8	0.8	-90.27	-0.4	-75.2	75.2	73.7	1.54	48.700	
492.1	492.1	492.1	492.1	1.0	1.0	-90.27	-0.4	-75.2	75.2	73.2	1.96	38.401	
500.0	500.0	500.0	500.0	1.0	1.0	-90.27	-0.4	-75.2	75.2	73.2	1.99	37.719	
590.5	590.5	590.5	590.5	1.2	1.2	-90.27	-0.4	-75.2	75.2	72.8	2.40	31.324	
600.0	600.0	600.0	600.0	1.2	1.2	-90.27	-0.4	-75.2	75.2	72.8	2.44	30.779	
689.0	689.0	689.0	689.0	1.4	1.4	-90.27	-0.4	-75.2	75.2	72.4	2.84	26.449	
700.0	700.0	700.0	700.0	1.4	1.4	-90.27	-0.4	-75.2	75.2	72.3	2.89	25.996	
787.4	787.4	787.4	787.4	1.6	1.6	-90.27	-0.4	-75.2	75.2	71.9	3.29	22.887	
800.0	800.0	800.0	800.0	1.7	1.7	-90.27	-0.4	-75.2	75.2	71.9	3.34	22.499	
885.8	885.8	885.8	885.8	1.9	1.9	-90.27	-0.4	-75.2	75.2	71.5	3.73	20.171	
900.0	900.0	900.0	900.0	1.9	1.9	-90.27	-0.4	-75.2	75.2	71.4	3.79	19.832	
984.2	984.2	984.2	984.2	2.1	2.1	-90.27	-0.4	-75.2	75.2	71.0	4.17	18.031	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.27	-0.4	-75.2	75.2	71.0	4.24	17.730 CC	
1,082.7	1,082.7	1,080.5	1,080.5	2.3	2.3	-90.18	-0.2	-76.3	76.4	71.8	4.60	16.603	
1,100.0	1,100.0	1,097.4	1,097.4	2.3	2.3	-90.14	-0.2	-76.8	76.9	72.2	4.67	16.451	
1,181.1	1,181.1	1,176.3	1,176.2	2.5	2.5	-89.88	0.2	-80.6	80.7	75.7	5.02	16.083	
1,200.0	1,200.0	1,194.6	1,194.5	2.6	2.5	-89.80	0.3	-81.8	82.0	76.9	5.10	16.067	
1,279.5	1,279.5	1,271.6	1,271.2	2.7	2.7	-89.42	0.9	-88.0	88.4	83.0	5.45	16.219	
1,300.0	1,300.0	1,291.4	1,290.9	2.8	2.7	-89.31	1.1	-89.9	90.4	84.9	5.54	16.317	
1,377.9	1,377.9	1,366.3	1,365.3	3.0	2.9	-88.89	1.9	-98.5	99.3	93.4	5.90	16.841	
1,400.0	1,400.0	1,387.4	1,386.3	3.0	3.0	-88.76	2.2	-101.2	102.2	96.2	6.00	17.038	
1,476.4	1,476.4	1,460.3	1,458.3	3.2	3.2	-88.35	3.2	-111.9	113.4	107.1	6.36	17.820	
1,500.0	1,500.0	1,482.7	1,480.4	3.2	3.2	-88.23	3.6	-115.6	117.3	110.8	6.48	18.101	
1,574.8	1,574.8	1,553.4	1,549.9	3.4	3.5	-7.17	4.8	-128.2	129.8	123.0	6.71	19.335	
1,600.0	1,600.0	1,577.1	1,573.2	3.5	3.5	-7.08	5.3	-132.9	133.9	127.1	6.82	19.650	
1,673.2	1,673.1	1,646.0	1,640.5	3.6	3.8	-6.87	6.7	-147.4	146.0	138.9	7.12	20.519	
1,700.0	1,699.8	1,671.1	1,665.0	3.7	3.9	-6.81	7.2	-153.1	150.4	143.2	7.23	20.817	
1,771.6	1,771.2	1,738.1	1,730.0	3.8	4.1	-6.70	8.8	-169.3	162.1	154.6	7.52	21.553	
1,800.0	1,799.5	1,764.6	1,755.5	3.9	4.2	-6.67	9.5	-176.1	166.7	159.1	7.64	21.826	
1,870.1	1,869.0	1,829.8	1,818.3	4.0	4.5	-6.63	11.2	-194.0	178.0	170.1	7.93	22.447	
1,900.0	1,898.7	1,857.6	1,844.9	4.1	4.7	-6.62	12.0	-202.0	182.8	174.7	8.05	22.694	
1,968.5	1,966.4	1,921.1	1,905.3	4.3	5.0	-6.63	13.9	-221.3	193.6	185.3	8.34	23.210	
2,000.0	1,997.5	1,950.2	1,932.9	4.4	5.2	-6.64	14.8	-230.6	198.6	190.1	8.48	23.434	
2,066.9	2,063.2	2,011.9	1,991.0	4.6	5.5	-6.68	16.8	-251.2	209.1	200.3	8.76	23.867	
2,100.1	2,095.7	2,042.4	2,019.6	4.7	5.7	-6.71	17.8	-261.9	214.2	205.3	8.90	24.061	
2,165.3	2,159.5	2,106.7	2,079.6	4.9	6.1	-6.80	20.0	-284.7	224.4	215.1	9.23	24.313	
2,200.0	2,193.4	2,140.9	2,111.6	5.0	6.4	-6.84	21.2	-296.9	229.8	220.4	9.40	24.439	
2,224.2	2,217.1	2,164.8	2,133.9	5.1	6.5	-6.87	22.1	-305.3	233.5	224.0	9.52	24.521	
2,263.8	2,255.9	2,203.9	2,170.4	5.2	6.8	-6.92	23.4	-319.2	240.0	230.2	9.74	24.637	
2,300.0	2,291.5	2,239.6	2,203.7	5.3	7.0	-6.95	24.6	-331.9	246.3	236.4	9.93	24.803	
2,362.2	2,352.7	2,300.6	2,260.8	5.5	7.4	-6.98	26.7	-353.5	258.3	248.0	10.25	25.192	
2,400.0	2,390.1	2,337.6	2,295.3	5.6	7.7	-6.98	28.0	-366.7	266.2	255.7	10.45	25.478	
2,460.6	2,450.1	2,396.6	2,350.5	5.7	8.1	-6.97	30.1	-387.6	279.8	269.1	10.75	26.025	
2,500.0	2,489.2	2,434.8	2,386.2	5.8	8.4	-6.94	31.4	-401.2	289.4	278.4	10.95	26.431	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,548.0	2,491.9	2,439.4	6.0	8.8	-6.89	33.4	-421.5	304.7	293.5	11.24	27.114	
2,600.0	2,588.8	2,531.2	2,476.2	6.1	9.1	-6.84	34.7	-435.4	316.0	304.5	11.43	27.636	
2,657.5	2,646.1	2,586.2	2,527.6	6.2	9.5	-6.77	36.6	-454.9	332.8	321.1	11.70	28.435	
2,700.0	2,688.6	2,626.6	2,565.3	6.3	9.8	-6.71	38.0	-469.3	345.9	334.0	11.90	29.073	
2,755.9	2,744.4	2,679.5	2,614.7	6.4	10.2	-6.62	39.8	-488.1	364.1	351.9	12.15	29.971	
2,800.0	2,788.5	2,720.9	2,653.4	6.5	10.5	-6.55	41.3	-502.8	379.1	366.8	12.34	30.725	
2,824.3	2,812.8	2,743.6	2,674.7	6.5	10.6	-87.21	42.1	-510.8	387.7	370.5	17.14	22.617	
2,854.3	2,842.9	2,771.7	2,700.9	6.6	10.8	-87.13	43.0	-520.8	398.4	381.0	17.40	22.891	
2,900.0	2,888.5	2,814.4	2,740.7	6.7	11.1	-87.03	44.5	-536.0	414.7	396.9	17.80	23.292	
2,952.7	2,941.3	2,863.7	2,786.8	6.8	11.5	-86.91	46.2	-553.5	433.5	415.2	18.27	23.720	
3,000.0	2,988.5	2,907.8	2,828.0	6.9	11.8	-86.82	47.7	-569.1	450.3	431.6	18.70	24.084	
3,051.2	3,039.7	2,955.6	2,872.7	7.0	12.2	-86.73	49.4	-586.1	468.5	449.4	19.16	24.458	
3,100.0	3,088.5	3,001.2	2,915.3	7.1	12.5	-86.65	51.0	-602.3	485.9	466.3	19.60	24.799	
3,149.6	3,138.1	3,047.6	2,958.6	7.2	12.9	-86.57	52.6	-618.7	503.6	483.6	20.04	25.127	
3,200.0	3,188.5	3,094.6	3,002.6	7.3	13.2	-86.50	54.2	-635.5	521.6	501.1	20.50	25.446	
3,248.0	3,236.6	3,139.5	3,044.5	7.4	13.6	-86.43	55.7	-651.4	538.7	517.8	20.93	25.735	
3,300.0	3,288.5	3,188.1	3,089.8	7.5	13.9	-86.36	57.4	-668.6	557.2	535.8	21.40	26.035	
3,346.4	3,335.0	3,231.5	3,130.4	7.6	14.3	-86.31	58.9	-684.0	573.8	552.0	21.83	26.290	
3,400.0	3,388.5	3,281.5	3,177.1	7.7	14.6	-86.25	60.7	-701.8	592.9	570.6	22.31	26.572	
3,444.9	3,433.4	3,323.4	3,216.3	7.8	14.9	-86.20	62.1	-716.7	608.9	586.2	22.72	26.799	
3,500.0	3,488.5	3,374.9	3,264.4	7.9	15.3	-86.15	63.9	-735.0	628.6	605.3	23.22	27.065	
3,543.3	3,531.8	3,415.4	3,302.2	8.0	15.6	-86.10	65.3	-749.3	644.0	620.4	23.62	27.266	
3,600.0	3,588.5	3,468.3	3,351.7	8.1	16.0	-86.05	67.1	-768.1	664.2	640.1	24.14	27.518	
3,641.7	3,630.3	3,507.3	3,388.1	8.2	16.3	-86.02	68.5	-782.0	679.1	654.6	24.52	27.696	
3,700.0	3,688.5	3,561.8	3,439.0	8.3	16.7	-85.97	70.3	-801.3	699.9	674.8	25.05	27.936	
3,740.1	3,728.7	3,599.3	3,474.0	8.4	17.0	-85.94	71.6	-814.6	714.2	688.8	25.42	28.095	
3,800.0	3,788.5	3,655.2	3,526.2	8.5	17.4	-85.90	73.6	-834.5	735.5	709.6	25.97	28.322	
3,838.6	3,827.1	3,691.2	3,559.9	8.6	17.7	-85.87	74.8	-847.3	749.3	723.0	26.32	28.463	
3,900.0	3,888.5	3,748.6	3,613.5	8.7	18.2	-85.83	76.8	-867.6	771.2	744.3	26.89	28.680	
3,937.0	3,925.5	3,783.2	3,645.8	8.8	18.4	-85.81	78.0	-879.9	784.4	757.2	27.23	28.806	
4,000.0	3,988.5	3,842.0	3,700.8	9.0	18.9	-85.77	80.0	-900.8	806.9	779.1	27.81	29.013	
4,035.4	4,024.0	3,875.1	3,731.7	9.0	19.1	-85.75	81.2	-912.6	819.5	791.4	28.14	29.126	
4,100.0	4,088.5	3,935.4	3,788.1	9.2	19.6	-85.71	83.3	-934.0	842.5	813.8	28.73	29.324	
4,133.8	4,122.4	3,967.1	3,817.6	9.2	19.8	-85.69	84.4	-945.2	854.6	825.6	29.04	29.424	
4,200.0	4,188.5	4,028.9	3,875.3	9.4	20.3	-85.66	86.5	-967.1	878.2	848.5	29.65	29.614	
4,232.3	4,220.8	4,059.0	3,903.5	9.4	20.5	-85.64	87.5	-977.9	889.7	859.7	29.95	29.703	
4,300.0	4,288.5	4,122.3	3,962.6	9.6	21.0	-85.61	89.7	-1,000.3	913.9	883.3	30.58	29.885	
4,330.7	4,319.2	4,151.0	3,989.4	9.7	21.2	-85.60	90.7	-1,010.5	924.8	893.9	30.86	29.965	
4,400.0	4,388.5	4,215.7	4,049.9	9.8	21.7	-85.57	92.9	-1,033.5	949.5	918.0	31.50	30.139	
4,429.1	4,417.7	4,242.9	4,075.3	9.9	21.9	-85.56	93.9	-1,043.1	959.9	928.1	31.77	30.210	
4,500.0	4,488.5	4,309.1	4,137.2	10.0	22.4	-85.53	96.2	-1,066.7	985.2	952.8	32.43	30.378	
4,527.5	4,516.1	4,334.9	4,161.2	10.1	22.6	-85.52	97.1	-1,075.8	995.0	962.3	32.69	30.441	
4,600.0	4,588.5	4,402.5	4,224.4	10.2	23.1	-85.49	99.4	-1,099.8	1,020.9	987.5	33.36	30.603	
4,626.0	4,614.5	4,426.8	4,247.1	10.3	23.3	-85.48	100.2	-1,108.4	1,030.1	996.5	33.60	30.659	
4,700.0	4,688.5	4,496.0	4,311.7	10.5	23.8	-85.45	102.6	-1,133.0	1,056.5	1,022.2	34.29	30.815	
4,724.4	4,712.9	4,518.8	4,333.0	10.5	24.0	-85.45	103.4	-1,141.1	1,065.2	1,030.7	34.51	30.865	
4,800.0	4,788.5	4,589.4	4,399.0	10.7	24.5	-85.42	105.9	-1,166.2	1,092.2	1,057.0	35.21	31.015	
4,822.8	4,811.4	4,610.7	4,418.9	10.7	24.7	-85.41	106.6	-1,173.7	1,100.3	1,064.9	35.43	31.060	
4,900.0	4,888.5	4,682.8	4,486.3	10.9	25.3	-85.39	109.1	-1,199.3	1,127.9	1,091.7	36.14	31.205	
4,921.2	4,909.8	4,702.7	4,504.8	10.9	25.4	-85.38	109.8	-1,206.4	1,135.4	1,099.1	36.34	31.244	
5,000.0	4,988.5	4,776.2	4,573.5	11.1	26.0	-85.36	112.3	-1,232.5	1,163.5	1,126.4	37.07	31.384	
5,019.7	5,008.2	4,794.6	4,590.7	11.1	26.1	-85.36	113.0	-1,239.0	1,170.5	1,133.3	37.26	31.418	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	4,869.7	4,660.8	11.3	26.7	-85.33	115.6	-1,265.7	1,199.2	1,161.2	38.00	31.554	
5,118.1	5,106.6	4,886.6	4,676.6	11.4	26.8	-85.33	116.1	-1,271.7	1,205.6	1,167.5	38.17	31.584	
5,200.0	5,188.5	4,963.1	4,748.1	11.5	27.4	-85.31	118.8	-1,298.8	1,234.9	1,195.9	38.94	31.715	
5,216.5	5,205.1	4,978.5	4,762.5	11.6	27.5	-85.30	119.3	-1,304.3	1,240.7	1,201.7	39.09	31.741	
5,300.0	5,288.5	5,056.5	4,835.4	11.8	28.1	-85.28	122.0	-1,332.0	1,270.5	1,230.7	39.87	31.869	
5,314.9	5,303.5	5,070.5	4,848.4	11.8	28.2	-85.28	122.5	-1,337.0	1,275.9	1,235.8	40.01	31.891	
5,400.0	5,388.5	5,149.9	4,922.6	12.0	28.8	-85.26	125.2	-1,365.2	1,306.2	1,265.4	40.80	32.015	
5,413.4	5,401.9	8,059.3	6,695.5	12.0	42.9	4.02	143.8	-140.7	1,299.1	1,271.5	27.58	47.105	
5,500.0	5,488.5	8,058.7	6,695.5	12.2	42.9	3.75	143.8	-141.2	1,212.9	1,185.1	27.75	43.705	
5,511.8	5,500.3	8,058.6	6,695.5	12.2	42.9	3.72	143.8	-141.3	1,201.1	1,173.4	27.78	43.245	
5,600.0	5,588.5	8,058.1	6,695.5	12.4	42.9	3.44	143.8	-141.9	1,113.4	1,085.5	27.95	39.832	
5,610.2	5,598.8	8,058.0	6,695.5	12.4	42.9	3.41	143.8	-141.9	1,103.3	1,075.3	27.97	39.439	
5,700.0	5,688.5	8,057.4	6,695.5	12.6	42.9	3.13	143.8	-142.5	1,014.1	985.9	28.16	36.014	
5,708.6	5,697.2	8,057.3	6,695.5	12.6	42.9	3.11	143.8	-142.6	1,005.5	977.3	28.18	35.686	
5,800.0	5,788.5	8,056.8	6,695.5	12.8	42.9	2.82	143.8	-143.2	914.8	886.5	28.37	32.252	
5,807.1	5,795.6	8,056.7	6,695.5	12.9	42.9	2.80	143.8	-143.2	907.8	879.4	28.38	31.988	
5,900.0	5,888.5	8,056.1	6,695.5	13.1	42.9	2.51	143.8	-143.8	815.8	787.2	28.58	28.548	
5,905.5	5,894.0	8,056.1	6,695.5	13.1	42.9	2.49	143.8	-143.9	810.3	781.8	28.59	28.346	
6,000.0	5,988.5	8,055.5	6,695.5	13.3	42.9	2.20	143.8	-144.5	717.0	688.2	28.79	24.906	
6,003.9	5,992.5	8,055.4	6,695.5	13.3	42.9	2.19	143.8	-144.5	713.1	684.4	28.80	24.764	
6,085.3	6,073.8	8,054.9	6,695.5	13.5	42.8	1.93	143.8	-145.0	633.1	604.1	28.97	21.851	
6,100.0	6,088.5	8,054.7	6,695.5	13.5	42.8	97.83	143.8	-145.3	618.6	562.5	56.11	11.026	
6,102.3	6,090.9	8,054.6	6,695.5	13.5	42.8	98.73	143.8	-145.3	616.3	560.3	56.04	10.998	
6,150.0	6,138.4	8,051.6	6,695.5	13.6	42.8	114.28	143.8	-148.4	569.8	516.3	53.49	10.651	
6,200.0	6,188.0	8,045.0	6,695.6	13.7	42.7	125.19	143.8	-154.9	521.4	471.1	50.27	10.372	
6,200.8	6,188.8	8,044.9	6,695.6	13.7	42.7	125.32	143.8	-155.1	520.7	470.4	50.23	10.366	
6,250.0	6,237.1	8,035.0	6,695.6	13.9	42.5	131.97	143.8	-164.9	473.9	426.1	47.77	9.919	
6,299.2	6,284.6	8,021.8	6,695.7	14.0	42.2	135.97	143.8	-178.1	428.2	382.0	46.13	9.282	
6,300.0	6,285.3	8,021.6	6,695.7	14.0	42.2	136.02	143.8	-178.3	427.4	381.3	46.11	9.270	
6,350.0	6,332.5	8,004.9	6,695.8	14.2	41.9	138.17	143.8	-195.1	382.4	337.3	45.12	8.477	
6,397.6	6,376.3	7,985.9	6,696.0	14.4	41.5	138.90	143.8	-214.0	341.2	296.6	44.66	7.641	
6,400.0	6,378.5	7,984.9	6,696.0	14.4	41.5	138.90	143.8	-215.0	339.2	294.6	44.65	7.598	
6,450.0	6,423.0	7,961.8	6,696.1	14.7	41.1	138.44	143.8	-238.2	298.1	253.5	44.60	6.684	
6,496.0	6,462.4	7,937.8	6,696.3	14.9	40.7	137.02	143.8	-262.1	262.6	217.7	44.92	5.846	
6,500.0	6,465.7	7,935.6	6,696.3	14.9	40.6	136.85	143.8	-264.3	259.7	214.7	44.96	5.775	
6,550.0	6,506.6	7,906.5	6,696.5	15.2	40.1	134.10	143.8	-293.4	224.3	178.6	45.73	4.906	
6,594.5	6,541.2	7,878.4	6,696.7	15.6	39.6	130.56	143.8	-321.6	196.1	149.3	46.81	4.189	
6,600.0	6,545.3	7,874.7	6,696.7	15.6	39.6	130.05	143.8	-325.2	192.8	145.8	46.97	4.105	
6,650.0	6,581.8	7,840.3	6,696.9	16.0	39.0	124.53	143.8	-359.7	165.9	117.2	48.67	3.409	
6,692.9	6,611.1	7,808.8	6,697.1	16.4	38.5	118.52	143.8	-391.2	147.2	96.8	50.41	2.920	
6,700.0	6,615.8	7,803.4	6,697.2	16.5	38.4	117.40	143.8	-396.5	144.5	93.8	50.71	2.850	
6,750.0	6,647.1	7,764.2	6,697.4	17.1	37.8	108.71	143.8	-435.7	129.6	76.8	52.80	2.455	
6,791.3	6,670.9	7,730.3	6,697.6	17.6	37.3	100.60	143.8	-469.6	122.4	68.2	54.15	2.260	
6,800.0	6,675.7	7,723.0	6,697.7	17.7	37.2	98.84	143.8	-476.9	121.4	67.1	54.34	2.235	
6,843.1	6,697.9	7,686.0	6,697.9	18.3	36.6	90.00	143.8	-513.9	119.4	64.6	54.86	2.177 ES, SF	
6,850.0	6,701.3	7,679.9	6,698.0	18.4	36.5	88.60	143.8	-520.0	119.5	64.6	54.85	2.178	
6,889.7	6,719.5	7,644.5	6,698.2	19.0	36.0	80.84	143.8	-555.5	121.3	66.9	54.44	2.229	
6,900.0	6,723.8	7,635.2	6,698.2	19.1	35.9	78.96	143.8	-564.8	122.1	67.9	54.21	2.253	
6,950.0	6,743.2	7,589.0	6,698.5	20.0	35.3	70.68	143.8	-611.0	127.5	74.8	52.76	2.417	
6,988.2	6,755.8	7,552.8	6,698.8	20.6	34.9	65.49	143.8	-647.1	132.4	80.9	51.47	2.572	
7,000.0	6,759.4	7,541.5	6,698.9	20.9	34.7	64.09	143.8	-658.4	133.9	82.8	51.06	2.622	
7,050.0	6,772.1	7,493.1	6,699.2	21.8	34.2	59.18	143.8	-706.8	140.0	90.5	49.48	2.829	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	7,457.2	6,699.4	22.5	33.8	56.57	143.9	-742.7	143.7	95.1	48.61	2.957	
7,100.0	6,781.5	7,444.0	6,699.5	22.8	33.7	55.80	143.9	-756.0	144.9	96.5	48.36	2.997	
7,150.0	6,787.5	7,394.3	6,699.8	23.9	33.2	53.80	143.9	-805.6	148.2	100.4	47.76	3.102	
7,185.0	6,789.6	7,359.9	6,700.0	24.6	32.9	53.16	143.9	-840.0	149.3	101.5	47.75	3.127	
7,200.0	6,789.9	7,346.6	6,699.9	24.9	32.8	53.00	143.9	-853.3	149.6	101.8	47.82	3.128	
7,213.0	6,790.0	7,335.1	6,699.6	25.2	32.7	52.87	143.9	-864.8	149.8	101.9	47.89	3.129	
7,283.4	6,789.7	7,272.8	6,694.8	26.8	32.2	51.49	143.9	-926.9	153.0	105.0	47.99	3.189	
7,300.0	6,789.7	7,258.4	6,692.9	27.2	32.1	50.96	143.9	-941.2	154.4	106.5	47.90	3.223	
7,381.9	6,789.4	7,188.2	6,679.6	29.1	31.7	47.39	143.9	-1,010.0	164.4	117.6	46.88	3.508	
7,400.0	6,789.3	7,173.1	6,675.8	29.5	31.7	46.44	143.9	-1,024.7	167.5	121.0	46.53	3.600	
7,480.3	6,789.0	7,108.1	6,656.3	31.4	31.4	41.95	143.9	-1,086.6	185.1	140.4	44.65	4.144	
7,500.0	6,788.9	7,092.8	6,650.8	31.9	31.4	40.82	143.9	-1,101.0	190.4	146.3	44.13	4.315	
7,578.7	6,788.6	7,034.0	6,627.2	33.8	31.2	36.45	143.9	-1,154.8	215.7	173.8	41.97	5.141	
7,600.0	6,788.5	7,018.9	6,620.4	34.4	31.2	35.34	143.9	-1,168.3	223.7	182.3	41.39	5.405	
7,677.1	6,788.2	6,966.6	6,594.8	36.3	31.1	31.64	143.9	-1,213.8	256.3	216.9	39.41	6.503	
7,700.0	6,788.2	6,950.0	6,586.0	36.9	31.1	30.51	143.9	-1,227.9	267.0	228.3	38.75	6.890	
7,775.6	6,787.9	6,900.0	6,557.4	38.8	31.2	27.34	143.9	-1,269.0	305.7	268.8	36.95	8.273	
7,800.0	6,787.8	6,892.2	6,552.7	39.4	31.2	26.87	143.9	-1,275.2	319.1	282.3	36.84	8.661	
7,874.0	6,787.5	6,850.0	6,526.1	41.3	31.2	24.49	143.9	-1,307.9	362.5	327.0	35.57	10.191	
7,900.0	6,787.4	6,839.1	6,518.9	42.0	31.2	23.91	143.9	-1,316.2	378.6	343.3	35.35	10.712	
7,972.4	6,787.1	6,800.0	6,492.2	43.9	31.3	21.97	143.9	-1,344.6	425.7	391.3	34.35	12.391	
8,000.0	6,787.0	6,800.0	6,492.2	44.6	31.3	21.97	143.9	-1,344.6	444.4	409.8	34.66	12.821	
8,070.8	6,786.7	6,762.2	6,464.9	46.5	31.4	20.28	143.9	-1,370.7	493.9	460.1	33.81	14.608	
8,100.0	6,786.6	6,750.0	6,455.7	47.3	31.4	19.77	143.9	-1,378.9	515.0	481.4	33.62	15.316	
8,169.3	6,786.4	6,724.8	6,436.5	49.1	31.5	18.77	143.9	-1,395.2	566.4	533.0	33.37	16.973	
8,200.0	6,786.3	6,714.0	6,428.0	49.9	31.5	18.36	143.9	-1,401.9	589.8	556.5	33.28	17.721	
8,267.7	6,786.0	6,700.0	6,417.0	51.7	31.5	17.85	143.9	-1,410.5	642.5	609.0	33.46	19.199	
8,300.0	6,785.9	6,681.4	6,402.1	52.6	31.6	17.20	143.9	-1,421.5	667.9	634.8	33.14	20.158	
8,366.1	6,785.6	6,650.0	6,376.2	54.4	31.7	16.18	143.9	-1,439.3	721.4	688.6	32.75	22.026	
8,400.0	6,785.5	6,650.0	6,376.2	55.3	31.7	16.18	143.9	-1,439.3	748.9	715.8	33.08	22.639	
8,464.5	6,785.2	6,635.6	6,364.0	57.0	31.7	15.74	143.9	-1,447.1	802.4	769.2	33.25	24.130	
8,500.0	6,785.1	6,626.8	6,356.5	58.0	31.7	15.48	143.9	-1,451.7	832.2	798.9	33.32	24.972	
8,563.0	6,784.9	6,600.0	6,333.4	59.7	31.8	14.73	143.9	-1,465.2	885.8	852.7	33.14	26.733	
8,600.0	6,784.7	6,600.0	6,333.4	60.7	31.8	14.73	143.9	-1,465.2	917.4	883.9	33.48	27.399	
8,661.4	6,784.5	6,600.0	6,333.4	62.4	31.8	14.73	143.9	-1,465.2	970.7	936.6	34.06	28.496	
8,700.0	6,784.3	6,583.0	6,318.5	63.4	31.9	14.28	143.9	-1,473.3	1,004.3	970.3	33.94	29.588	
8,759.8	6,784.1	6,571.6	6,308.3	65.0	31.9	13.99	143.9	-1,478.6	1,056.9	1,022.7	34.19	30.918	
8,800.0	6,784.0	6,550.0	6,289.0	66.1	32.0	13.47	143.9	-1,488.1	1,092.8	1,058.8	33.99	32.154	
8,858.2	6,783.7	6,550.0	6,289.0	67.7	32.0	13.47	143.9	-1,488.1	1,144.5	1,110.0	34.52	33.157	
8,900.0	6,783.6	6,550.0	6,289.0	68.9	32.0	13.47	143.9	-1,488.1	1,182.0	1,147.1	34.90	33.867	
8,956.7	6,783.3	6,550.0	6,289.0	70.4	32.0	13.47	143.9	-1,488.1	1,233.3	1,197.9	35.42	34.817	
9,000.0	6,783.2	6,532.0	6,272.5	71.6	32.0	13.05	143.9	-1,495.6	1,272.5	1,237.2	35.35	35.998	
9,055.1	6,783.0	6,524.1	6,265.3	73.1	32.0	12.88	143.9	-1,498.7	1,322.8	1,287.1	35.65	37.102	
9,100.0	6,782.8	6,517.9	6,259.6	74.3	32.0	12.75	143.9	-1,501.1	1,363.9	1,328.0	35.90	37.986	
9,153.5	6,782.6	6,500.0	6,243.0	75.8	32.1	12.37	143.9	-1,507.8	1,413.2	1,377.3	35.95	39.309	
9,200.0	6,782.4	6,500.0	6,243.0	77.1	32.1	12.37	143.9	-1,507.8	1,456.1	1,419.7	36.37	40.037	
9,251.9	6,782.2	6,500.0	6,243.0	78.5	32.1	12.37	143.9	-1,507.8	1,504.2	1,467.4	36.83	40.837	
9,300.0	6,782.0	6,500.0	6,243.0	79.8	32.1	12.37	143.9	-1,507.8	1,548.9	1,511.7	37.27	41.565	
9,350.4	6,781.8	6,500.0	6,243.0	81.2	32.1	12.37	143.9	-1,507.8	1,596.0	1,558.3	37.72	42.313	
9,400.0	6,781.6	6,482.4	6,226.6	82.6	32.1	12.02	143.9	-1,513.9	1,642.3	1,604.6	37.74	43.519	
9,448.8	6,781.4	6,477.4	6,221.9	83.9	32.1	11.92	143.9	-1,515.6	1,688.1	1,650.0	38.05	44.360	
9,500.0	6,781.2	6,472.4	6,217.1	85.4	32.2	11.82	143.9	-1,517.3	1,736.3	1,697.9	38.39	45.225	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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		
9,547.2	6,781.0	6,467.9	6,212.9	86.7	32.2	11.74	143.9	-1,518.7	1,780.8	1,742.1	38.71	46.008		
9,600.0	6,780.8	6,450.0	6,195.8	88.1	32.2	11.41	143.9	-1,524.2	1,830.8	1,792.1	38.76	47.232		
9,645.6	6,780.7	6,450.0	6,195.8	89.4	32.2	11.41	143.9	-1,524.2	1,874.0	1,834.8	39.16	47.849		
9,700.0	6,780.5	6,450.0	6,195.8	90.9	32.2	11.41	143.9	-1,524.2	1,925.5	1,885.9	39.64	48.572		
9,744.1	6,780.3	6,450.0	6,195.8	92.1	32.2	11.41	143.9	-1,524.2	1,967.4	1,927.4	40.03	49.147		
9,800.0	6,780.1	6,450.0	6,195.8	93.7	32.2	11.41	143.9	-1,524.2	2,020.7	1,980.2	40.52	49.864		
9,842.5	6,779.9	6,450.0	6,195.8	94.8	32.2	11.41	143.9	-1,524.2	2,061.3	2,020.4	40.90	50.399		
9,900.0	6,779.7	6,450.0	6,195.8	96.4	32.2	11.41	143.9	-1,524.2	2,116.4	2,075.0	41.41	51.110		
9,940.9	6,779.5	6,450.0	6,195.8	97.6	32.2	11.41	143.9	-1,524.2	2,155.6	2,113.9	41.77	51.606		
10,000.0	6,779.3	6,450.0	6,195.8	99.2	32.2	11.41	143.9	-1,524.2	2,212.4	2,170.1	42.29	52.311		
10,039.3	6,779.1	6,429.4	6,176.1	100.3	32.2	11.05	143.9	-1,530.0	2,249.9	2,207.7	42.16	53.369		
10,100.0	6,778.9	6,425.5	6,172.3	102.0	32.3	10.99	143.9	-1,531.1	2,308.2	2,265.6	42.60	54.185		
10,137.8	6,778.7	6,423.2	6,170.1	103.0	32.3	10.95	143.9	-1,531.7	2,344.6	2,301.7	42.88	54.683		
10,200.0	6,778.5	6,419.4	6,166.4	104.8	32.3	10.88	143.9	-1,532.7	2,404.6	2,361.3	43.33	55.489		
10,236.2	6,778.3	6,400.0	6,147.6	105.8	32.3	10.57	143.9	-1,537.3	2,439.8	2,396.6	43.22	56.450		
10,300.0	6,778.1	6,400.0	6,147.6	107.5	32.3	10.57	143.9	-1,537.3	2,501.3	2,457.6	43.77	57.144		
10,334.6	6,778.0	6,400.0	6,147.6	108.5	32.3	10.57	143.9	-1,537.3	2,534.8	2,490.7	44.07	57.513		
10,400.0	6,777.7	6,400.0	6,147.6	110.3	32.3	10.57	143.9	-1,537.3	2,598.0	2,553.4	44.64	58.199		
10,433.0	6,777.6	6,400.0	6,147.6	111.2	32.3	10.57	143.9	-1,537.3	2,630.0	2,585.1	44.93	58.540		
10,500.0	6,777.3	6,400.0	6,147.6	113.1	32.3	10.57	143.9	-1,537.3	2,694.9	2,649.4	45.51	59.218		
10,531.5	6,777.2	6,400.0	6,147.6	114.0	32.3	10.57	143.9	-1,537.3	2,725.5	2,679.7	45.78	59.531		
10,600.0	6,776.9	6,400.0	6,147.6	115.9	32.3	10.57	143.9	-1,537.3	2,792.1	2,745.7	46.38	60.203		
10,629.9	6,776.8	6,400.0	6,147.6	116.7	32.3	10.57	143.9	-1,537.3	2,821.2	2,774.5	46.64	60.490		
10,700.0	6,776.5	6,400.0	6,147.6	118.7	32.3	10.57	143.9	-1,537.3	2,889.4	2,842.2	47.25	61.154		
10,728.3	6,776.4	6,400.0	6,147.6	119.5	32.3	10.57	143.9	-1,537.3	2,917.0	2,869.5	47.50	61.417		
10,800.0	6,776.1	6,400.0	6,147.6	121.4	32.3	10.57	143.9	-1,537.3	2,986.9	2,938.8	48.12	62.073		
10,826.7	6,776.0	6,400.0	6,147.6	122.2	32.3	10.57	143.9	-1,537.3	3,013.0	2,964.7	48.35	62.313		
10,900.0	6,775.7	6,400.0	6,147.6	124.2	32.3	10.57	143.9	-1,537.3	3,084.6	3,035.6	48.99	62.962		
10,925.2	6,775.6	6,400.0	6,147.6	124.9	32.3	10.57	143.9	-1,537.3	3,109.2	3,060.0	49.21	63.181		
11,000.0	6,775.3	6,400.0	6,147.6	127.0	32.3	10.57	143.9	-1,537.3	3,182.4	3,132.6	49.86	63.821		
11,023.6	6,775.2	6,400.0	6,147.6	127.7	32.3	10.57	143.9	-1,537.3	3,205.5	3,155.5	50.07	64.020		
11,100.0	6,774.9	6,377.6	6,125.7	129.8	32.3	10.23	143.9	-1,542.1	3,279.9	3,229.7	50.20	65.342		
11,122.0	6,774.8	6,376.8	6,125.0	130.4	32.3	10.22	143.9	-1,542.3	3,301.5	3,251.1	50.37	65.547		
11,200.0	6,774.5	6,374.1	6,122.3	132.6	32.3	10.18	143.9	-1,542.8	3,377.9	3,326.9	50.98	66.261		
11,220.4	6,774.4	6,373.4	6,121.6	133.2	32.3	10.16	143.9	-1,542.9	3,397.9	3,346.8	51.14	66.445		
11,300.0	6,774.1	6,370.7	6,119.0	135.4	32.3	10.13	143.9	-1,543.4	3,475.9	3,424.1	51.76	67.150		
11,318.9	6,774.0	6,350.0	6,098.5	135.9	32.4	9.83	143.9	-1,547.1	3,494.7	3,443.3	51.45	67.921		
11,400.0	6,773.7	6,350.0	6,098.5	138.2	32.4	9.83	143.9	-1,547.1	3,574.3	3,522.1	52.15	68.541		
11,417.3	6,773.6	6,350.0	6,098.5	138.7	32.4	9.83	143.9	-1,547.1	3,591.2	3,538.9	52.30	68.672		
11,500.0	6,773.3	6,350.0	6,098.5	141.0	32.4	9.83	143.9	-1,547.1	3,672.4	3,619.4	53.00	69.285		
11,515.7	6,773.2	6,350.0	6,098.5	141.4	32.4	9.83	143.9	-1,547.1	3,687.8	3,634.7	53.14	69.399		
11,600.0	6,772.9	6,350.0	6,098.5	143.8	32.4	9.83	143.9	-1,547.1	3,770.6	3,716.7	53.86	70.006		
11,614.1	6,772.8	6,350.0	6,098.5	144.2	32.4	9.83	143.9	-1,547.1	3,784.5	3,730.5	53.98	70.106		
11,700.0	6,772.5	6,350.0	6,098.5	146.6	32.4	9.83	143.9	-1,547.1	3,868.9	3,814.2	54.72	70.705		
11,712.6	6,772.4	6,350.0	6,098.5	146.9	32.4	9.83	143.9	-1,547.1	3,881.3	3,826.5	54.83	70.791		
11,800.0	6,772.1	6,350.0	6,098.5	149.4	32.4	9.83	143.9	-1,547.1	3,967.3	3,911.7	55.58	71.383		
11,811.0	6,772.1	6,350.0	6,098.5	149.7	32.4	9.83	143.9	-1,547.1	3,978.1	3,922.5	55.67	71.457		
11,900.0	6,771.7	6,350.0	6,098.5	152.2	32.4	9.83	143.9	-1,547.1	4,065.8	4,009.3	56.44	72.042		
11,909.4	6,771.7	6,350.0	6,098.5	152.4	32.4	9.83	143.9	-1,547.1	4,075.1	4,018.5	56.52	72.103		
12,000.0	6,771.3	6,350.0	6,098.5	154.9	32.4	9.83	143.9	-1,547.1	4,164.3	4,107.0	57.29	72.682		
12,007.8	6,771.3	6,350.0	6,098.5	155.2	32.4	9.83	143.9	-1,547.1	4,172.1	4,114.7	57.36	72.732		
12,100.0	6,770.9	6,350.0	6,098.5	157.7	32.4	9.83	143.9	-1,547.1	4,262.9	4,204.8	58.15	73.304		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-202 - ORIGINAL WELLBORE - PROPOS												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	6,770.9	6,350.0	6,098.5	157.9	32.4	9.83	143.9	-1,547.1	4,269.1	4,210.9	58.21	73.342	
12,200.0	6,770.5	6,350.0	6,098.5	160.5	32.4	9.83	143.9	-1,547.1	4,361.6	4,302.6	59.01	73.908	
12,204.7	6,770.5	6,350.0	6,098.5	160.7	32.4	9.83	143.9	-1,547.1	4,366.2	4,307.2	59.05	73.936	
12,300.0	6,770.1	6,350.0	6,098.5	163.3	32.4	9.83	143.9	-1,547.1	4,460.3	4,400.5	59.87	74.496	
12,303.1	6,770.1	6,350.0	6,098.5	163.4	32.4	9.83	143.9	-1,547.1	4,463.4	4,403.5	59.90	74.514	
12,316.4	6,770.0	6,350.0	6,098.5	163.8	32.4	9.83	143.9	-1,547.1	4,476.5	4,416.5	60.01	74.590	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	89.95	0.0	15.0	15.0				
98.4	98.4	98.4	98.4	0.1	0.1	89.95	0.0	15.0	15.0	14.8	0.19	78.235	
100.0	100.0	100.0	100.0	0.1	0.1	89.95	0.0	15.0	15.0	14.8	0.20	76.911	
196.8	196.8	196.8	196.8	0.3	0.3	89.95	0.0	15.0	15.0	14.4	0.63	23.838	
200.0	200.0	200.0	200.0	0.3	0.3	89.95	0.0	15.0	15.0	14.4	0.65	23.315	
295.3	295.3	295.3	295.3	0.5	0.5	89.95	0.0	15.0	15.0	14.0	1.07	14.012	
300.0	300.0	300.0	300.0	0.5	0.5	89.95	0.0	15.0	15.0	13.9	1.09	13.740	
393.7	393.7	393.7	393.7	0.8	0.8	89.95	0.0	15.0	15.0	13.5	1.52	9.922	
400.0	400.0	400.0	400.0	0.8	0.8	89.95	0.0	15.0	15.0	13.5	1.54	9.740	
492.1	492.1	492.1	492.1	1.0	1.0	89.95	0.0	15.0	15.0	13.1	1.96	7.680	
500.0	500.0	500.0	500.0	1.0	1.0	89.95	0.0	15.0	15.0	13.0	1.99	7.544	
590.5	590.5	590.5	590.5	1.2	1.2	89.95	0.0	15.0	15.0	12.6	2.40	6.265	
600.0	600.0	600.0	600.0	1.2	1.2	89.95	0.0	15.0	15.0	12.6	2.44	6.156	
689.0	689.0	689.0	689.0	1.4	1.4	89.95	0.0	15.0	15.0	12.2	2.84	5.290	
700.0	700.0	700.0	700.0	1.4	1.4	89.95	0.0	15.0	15.0	12.1	2.89	5.199	
787.4	787.4	787.4	787.4	1.6	1.6	89.95	0.0	15.0	15.0	11.8	3.29	4.577	
800.0	800.0	800.0	800.0	1.7	1.7	89.95	0.0	15.0	15.0	11.7	3.34	4.500	
885.8	885.8	885.8	885.8	1.9	1.9	89.95	0.0	15.0	15.0	11.3	3.73	4.034	
900.0	900.0	900.0	900.0	1.9	1.9	89.95	0.0	15.0	15.0	11.2	3.79	3.966	
984.2	984.2	984.2	984.2	2.1	2.1	89.95	0.0	15.0	15.0	10.9	4.17	3.606	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.95	0.0	15.0	15.0	10.8	4.24	3.546	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	89.95	0.0	15.0	15.0	10.4	4.61	3.260	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	89.95	0.0	15.0	15.0	10.3	4.69	3.206	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	89.95	0.0	15.0	15.0	10.0	5.06	2.975	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.95	0.0	15.0	15.0	9.9	5.14	2.926	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	89.95	0.0	15.0	15.0	9.5	5.50	2.736	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	89.95	0.0	15.0	15.0	9.4	5.59	2.691	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	89.95	0.0	15.0	15.0	9.1	5.94	2.532	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	89.95	0.0	15.0	15.0	9.0	6.04	2.490	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	89.95	0.0	15.0	15.0	8.7	6.38	2.356	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	89.95	0.0	15.0	15.0	8.6	6.49	2.318 CC	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	171.22	0.0	15.0	16.0	9.2	6.82	2.348	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	171.62	0.0	15.0	16.8	9.8	6.92	2.421	
1,673.2	1,673.1	1,673.4	1,673.4	3.6	3.6	170.85	0.8	14.5	19.7	12.5	7.23	2.723	
1,700.0	1,699.8	1,700.3	1,700.2	3.7	3.7	169.76	1.5	14.1	21.0	13.6	7.34	2.855	
1,771.6	1,771.2	1,772.1	1,772.0	3.8	3.9	165.58	4.3	12.2	25.0	17.3	7.63	3.270	
1,800.0	1,799.5	1,800.5	1,800.3	3.9	3.9	163.61	5.8	11.1	26.8	19.1	7.75	3.462	
1,870.1	1,869.0	1,870.6	1,870.2	4.0	4.1	158.53	10.6	7.9	32.2	24.2	8.04	4.005	
1,900.0	1,898.7	1,900.5	1,899.9	4.1	4.1	156.37	13.1	6.3	34.9	26.7	8.17	4.268	
1,968.5	1,966.4	1,968.8	1,967.8	4.3	4.3	151.66	19.7	1.8	41.8	33.3	8.47	4.936	
2,000.0	1,997.5	2,000.2	1,998.9	4.4	4.4	149.65	23.2	-0.5	45.4	36.8	8.61	5.274	
2,066.9	2,063.2	2,066.7	2,064.7	4.6	4.6	145.75	31.5	-6.1	54.0	45.0	8.93	6.043	
2,100.1	2,095.7	2,099.6	2,097.1	4.7	4.6	144.00	36.1	-9.2	58.7	49.6	9.09	6.452	
2,165.3	2,159.5	2,164.2	2,160.6	4.9	4.8	140.63	46.0	-15.9	68.2	58.7	9.46	7.209	
2,200.0	2,193.4	2,198.5	2,194.1	5.0	4.9	138.74	51.7	-19.7	73.3	63.7	9.66	7.587	
2,224.2	2,217.1	2,222.3	2,217.4	5.1	5.0	137.45	55.8	-22.5	76.9	67.1	9.81	7.839	
2,263.8	2,255.9	2,261.4	2,255.7	5.2	5.1	135.53	62.5	-27.0	82.7	72.7	10.07	8.219	
2,300.0	2,291.5	2,297.2	2,290.7	5.3	5.2	133.78	68.7	-31.2	87.8	77.5	10.29	8.526	
2,362.2	2,352.7	2,358.6	2,350.8	5.5	5.4	130.74	79.3	-38.3	95.9	85.2	10.68	8.977	
2,400.0	2,390.1	2,396.0	2,387.3	5.6	5.6	128.85	85.8	-42.6	100.6	89.7	10.92	9.208	
2,460.6	2,450.1	2,455.9	2,445.9	5.7	5.8	125.74	96.1	-49.6	107.7	96.4	11.30	9.524	
2,500.0	2,489.2	2,494.8	2,484.0	5.8	5.9	123.64	102.8	-54.1	112.1	100.5	11.55	9.700	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,548.0	2,553.1	2,541.0	6.0	6.1	120.39	112.9	-60.9	118.4	106.5	11.92	9.935	
2,600.0	2,588.8	2,593.5	2,580.6	6.1	6.3	118.05	119.9	-65.6	122.7	110.5	12.17	10.083	
2,657.5	2,646.1	2,650.2	2,636.0	6.2	6.5	114.65	129.6	-72.1	128.6	116.1	12.50	10.286	
2,700.0	2,688.6	2,692.0	2,676.9	6.3	6.6	112.06	136.9	-77.0	133.0	120.3	12.75	10.436	
2,755.9	2,744.4	2,746.9	2,730.6	6.4	6.8	108.56	146.3	-83.4	138.9	125.9	13.05	10.647	
2,800.0	2,788.5	2,790.2	2,772.9	6.5	7.0	105.73	153.8	-88.4	143.7	130.4	13.27	10.828	
2,824.3	2,812.8	2,813.9	2,796.1	6.5	7.1	23.46	157.9	-91.1	146.4	134.0	12.49	11.724	
2,854.3	2,842.9	2,843.3	2,824.9	6.6	7.2	21.47	163.0	-94.6	150.0	137.3	12.65	11.851	
2,900.0	2,888.5	2,888.0	2,868.6	6.7	7.4	18.63	170.7	-99.7	155.6	142.7	12.91	12.058	
2,952.7	2,941.3	2,939.6	2,919.1	6.8	7.6	15.60	179.6	-105.7	162.6	149.4	13.22	12.301	
3,000.0	2,988.5	2,985.8	2,964.3	6.9	7.8	13.10	187.5	-111.1	169.2	155.7	13.51	12.529	
3,051.2	3,039.7	3,036.1	3,013.4	7.0	8.0	10.60	196.2	-116.9	176.7	162.9	13.83	12.784	
3,100.0	3,088.5	3,086.2	3,062.6	7.1	8.1	8.40	204.4	-122.5	183.8	169.7	14.12	13.015	
3,149.6	3,138.1	3,137.6	3,113.1	7.2	8.3	6.51	212.1	-127.6	190.6	176.2	14.41	13.224	
3,200.0	3,188.5	3,190.0	3,164.9	7.3	8.4	4.89	219.2	-132.4	196.9	182.2	14.70	13.400	
3,248.0	3,236.6	3,240.3	3,214.6	7.4	8.6	3.59	225.3	-136.5	202.4	187.5	14.96	13.534	
3,300.0	3,288.5	3,295.0	3,268.9	7.5	8.7	2.42	231.0	-140.3	207.7	192.5	15.23	13.634	
3,346.4	3,335.0	3,344.1	3,317.7	7.6	8.8	1.56	235.4	-143.3	211.8	196.3	15.47	13.692	
3,400.0	3,388.5	3,400.9	3,374.2	7.7	9.0	0.77	239.7	-146.2	215.8	200.0	15.74	13.713	
3,444.9	3,433.4	3,448.7	3,421.9	7.8	9.1	0.25	242.6	-148.1	218.5	202.5	15.94	13.701	
3,500.0	3,488.5	3,507.5	3,480.6	7.9	9.2	-0.21	245.2	-149.9	220.9	204.7	16.20	13.641	
3,543.3	3,531.8	3,553.7	3,526.8	8.0	9.3	-0.44	246.5	-150.8	222.2	205.8	16.38	13.565	
3,600.0	3,588.5	3,614.3	3,587.4	8.1	9.4	-0.58	247.4	-151.3	223.0	206.4	16.61	13.421	
3,641.7	3,630.3	3,657.2	3,630.3	8.2	9.5	-0.59	247.4	-151.4	223.0	206.2	16.78	13.291	
3,700.0	3,688.5	3,715.5	3,688.5	8.3	9.6	-0.59	247.4	-151.4	223.0	206.0	17.01	13.110	
3,740.1	3,728.7	3,755.6	3,728.7	8.4	9.6	-0.59	247.4	-151.4	223.0	205.8	17.18	12.984	
3,800.0	3,788.5	3,815.5	3,788.5	8.5	9.7	-0.59	247.4	-151.4	223.0	205.6	17.42	12.801	
3,838.6	3,827.1	3,854.0	3,827.1	8.6	9.8	-0.59	247.4	-151.4	223.0	205.4	17.58	12.685	
3,900.0	3,888.5	3,915.5	3,888.5	8.7	9.9	-0.59	247.4	-151.4	223.0	205.2	17.83	12.505	
3,937.0	3,925.5	3,952.5	3,925.5	8.8	10.0	-0.59	247.4	-151.4	223.0	205.0	17.99	12.399	
4,000.0	3,988.5	4,015.5	3,988.5	9.0	10.1	-0.59	247.4	-151.4	223.0	204.8	18.25	12.221	
4,035.4	4,024.0	4,050.9	4,024.0	9.0	10.2	-0.59	247.4	-151.4	223.0	204.6	18.39	12.124	
4,100.0	4,088.5	4,115.5	4,088.5	9.2	10.3	-0.59	247.4	-151.4	223.0	204.3	18.66	11.949	
4,133.8	4,122.4	4,149.3	4,122.4	9.2	10.4	-0.59	247.4	-151.4	223.0	204.2	18.80	11.860	
4,200.0	4,188.5	4,215.5	4,188.5	9.4	10.5	-0.59	247.4	-151.4	223.0	203.9	19.08	11.688	
4,232.3	4,220.8	4,247.7	4,220.8	9.4	10.5	-0.59	247.4	-151.4	223.0	203.8	19.22	11.606	
4,300.0	4,288.5	4,315.5	4,288.5	9.6	10.7	-0.59	247.4	-151.4	223.0	203.5	19.50	11.437	
4,330.7	4,319.2	4,346.2	4,319.2	9.7	10.7	-0.59	247.4	-151.4	223.0	203.4	19.63	11.362	
4,400.0	4,388.5	4,415.5	4,388.5	9.8	10.9	-0.59	247.4	-151.4	223.0	203.1	19.92	11.196	
4,429.1	4,417.7	4,444.6	4,417.7	9.9	10.9	-0.59	247.4	-151.4	223.0	203.0	20.04	11.128	
4,500.0	4,488.5	4,515.5	4,488.5	10.0	11.1	-0.59	247.4	-151.4	223.0	202.7	20.34	10.965	
4,527.5	4,516.1	4,543.0	4,516.1	10.1	11.1	-0.59	247.4	-151.4	223.0	202.6	20.46	10.902	
4,600.0	4,588.5	4,615.5	4,588.5	10.2	11.3	-0.59	247.4	-151.4	223.0	202.3	20.76	10.742	
4,626.0	4,614.5	4,641.4	4,614.5	10.3	11.3	-0.59	247.4	-151.4	223.0	202.1	20.87	10.685	
4,700.0	4,688.5	4,715.5	4,688.5	10.5	11.4	-0.59	247.4	-151.4	223.0	201.8	21.18	10.527	
4,724.4	4,712.9	4,739.9	4,712.9	10.5	11.5	-0.59	247.4	-151.4	223.0	201.7	21.29	10.476	
4,800.0	4,788.5	4,815.5	4,788.5	10.7	11.6	-0.59	247.4	-151.4	223.0	201.4	21.61	10.321	
4,822.8	4,811.4	4,838.3	4,811.4	10.7	11.7	-0.59	247.4	-151.4	223.0	201.3	21.70	10.275	
4,900.0	4,888.5	4,915.5	4,888.5	10.9	11.8	-0.59	247.4	-151.4	223.0	201.0	22.03	10.122	
4,921.2	4,909.8	4,936.7	4,909.8	10.9	11.9	-0.59	247.4	-151.4	223.0	200.9	22.12	10.080	
5,000.0	4,988.5	5,015.5	4,988.5	11.1	12.0	-0.59	247.4	-151.4	223.0	200.6	22.46	9.930	
5,019.7	5,008.2	5,035.1	5,008.2	11.1	12.1	-0.59	247.4	-151.4	223.0	200.5	22.54	9.893	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,115.5	5,088.5	11.3	12.2	-0.59	247.4	-151.4	223.0	200.1	22.89	9.745	
5,118.1	5,106.6	5,133.6	5,106.6	11.4	12.3	-0.59	247.4	-151.4	223.0	200.0	22.96	9.712	
5,200.0	5,188.5	5,215.5	5,188.5	11.5	12.4	-0.59	247.4	-151.4	223.0	199.7	23.31	9.566	
5,216.5	5,205.1	5,232.0	5,205.1	11.6	12.5	-0.59	247.4	-151.4	223.0	199.6	23.38	9.537	
5,300.0	5,288.5	5,315.5	5,288.5	11.8	12.6	-0.59	247.4	-151.4	223.0	199.3	23.74	9.393	
5,314.9	5,303.5	5,330.4	5,303.5	11.8	12.7	-0.59	247.4	-151.4	223.0	199.2	23.81	9.368	
5,400.0	5,388.5	5,415.5	5,388.5	12.0	12.8	-0.59	247.4	-151.4	223.0	198.8	24.17	9.227	
5,413.4	5,401.9	5,428.8	5,401.9	12.0	12.9	-0.59	247.4	-151.4	223.0	198.8	24.23	9.205	
5,500.0	5,488.5	5,515.5	5,488.5	12.2	13.0	-0.59	247.4	-151.4	223.0	198.4	24.60	9.065	
5,511.8	5,500.3	5,527.3	5,500.3	12.2	13.1	-0.59	247.4	-151.4	223.0	198.4	24.65	9.047	
5,600.0	5,588.5	5,615.5	5,588.5	12.4	13.2	-0.59	247.4	-151.4	223.0	198.0	25.03	8.909	
5,610.2	5,598.8	5,625.7	5,598.8	12.4	13.3	-0.59	247.4	-151.4	223.0	197.9	25.08	8.894	
5,700.0	5,688.5	5,715.5	5,688.5	12.6	13.5	-0.59	247.4	-151.4	223.0	197.5	25.46	8.759	
5,708.6	5,697.2	5,724.1	5,697.2	12.6	13.5	-0.59	247.4	-151.4	223.0	197.5	25.50	8.746	
5,800.0	5,788.5	5,815.5	5,788.5	12.8	13.7	-0.59	247.4	-151.4	223.0	197.1	25.89	8.613	
5,807.1	5,795.6	5,822.5	5,795.6	12.9	13.7	-0.59	247.4	-151.4	223.0	197.1	25.92	8.602	
5,900.0	5,888.5	5,915.5	5,888.5	13.1	13.9	-0.59	247.4	-151.4	223.0	196.7	26.33	8.471	
5,905.5	5,894.0	5,921.0	5,894.0	13.1	13.9	-0.59	247.4	-151.4	223.0	196.7	26.35	8.463	
6,000.0	5,988.5	6,015.5	5,988.5	13.3	14.1	-0.59	247.4	-151.4	223.0	196.3	26.76	8.334	
6,003.9	5,992.5	6,019.4	5,992.5	13.3	14.1	-0.59	247.4	-151.4	223.0	196.2	26.78	8.329	
6,006.2	5,994.8	6,021.7	5,994.8	13.3	14.1	-0.59	247.4	-151.4	223.0	196.2	26.79	8.326	
6,085.3	6,073.8	6,100.2	6,073.2	13.5	14.2	-1.58	247.4	-155.2	223.1	196.0	27.14	8.221	
6,100.0	6,088.5	6,114.7	6,087.6	13.5	14.3	88.03	247.4	-156.9	223.1	196.0	27.15	8.218	
6,102.3	6,090.9	6,117.0	6,089.9	13.5	14.3	87.96	247.4	-157.2	223.1	196.0	27.16	8.215	
6,150.0	6,138.4	6,163.8	6,136.0	13.6	14.4	86.71	247.4	-164.6	223.4	196.0	27.37	8.161	
6,200.0	6,188.0	6,212.5	6,183.4	13.7	14.6	85.42	247.4	-175.6	223.7	196.1	27.62	8.100	
6,200.8	6,188.8	6,213.2	6,184.1	13.7	14.6	85.40	247.4	-175.8	223.7	196.1	27.62	8.099	
6,250.0	6,237.1	6,260.8	6,229.7	13.9	14.7	84.16	247.4	-189.6	224.2	196.3	27.90	8.035	
6,299.2	6,284.6	6,308.1	6,273.9	14.0	14.9	82.96	247.4	-206.3	224.7	196.5	28.21	7.966	
6,300.0	6,285.3	6,308.9	6,274.6	14.0	14.9	82.94	247.4	-206.6	224.7	196.5	28.21	7.965	
6,350.0	6,332.5	6,356.7	6,318.1	14.2	15.1	81.76	247.4	-226.5	225.3	196.8	28.56	7.890	
6,397.6	6,376.3	6,401.9	6,357.9	14.4	15.3	80.68	247.4	-247.9	226.0	197.1	28.94	7.811	
6,400.0	6,378.5	6,404.2	6,359.9	14.4	15.3	80.62	247.4	-249.0	226.0	197.1	28.96	7.807	
6,450.0	6,423.0	6,451.4	6,399.8	14.7	15.6	79.54	247.4	-274.2	226.8	197.4	29.40	7.715	
6,496.0	6,462.4	6,494.7	6,434.9	14.9	15.8	78.59	247.4	-299.5	227.5	197.7	29.86	7.619	
6,500.0	6,465.7	6,498.4	6,437.9	14.9	15.9	78.52	247.4	-301.7	227.6	197.7	29.90	7.611	
6,550.0	6,506.6	6,545.1	6,473.8	15.2	16.2	77.55	247.4	-331.6	228.4	197.9	30.48	7.495	
6,594.5	6,541.2	6,586.5	6,504.0	15.6	16.5	76.74	247.4	-359.9	229.1	198.1	31.06	7.377	
6,600.0	6,545.3	6,591.7	6,507.6	15.6	16.6	76.65	247.4	-363.6	229.2	198.1	31.13	7.363	
6,650.0	6,581.8	6,638.0	6,539.2	16.0	17.0	75.81	247.4	-397.5	230.1	198.2	31.89	7.215	
6,692.9	6,611.1	6,677.6	6,564.3	16.4	17.4	75.14	247.4	-428.1	230.7	198.1	32.62	7.074	
6,700.0	6,615.8	6,684.1	6,568.3	16.5	17.5	75.04	247.4	-433.3	230.9	198.1	32.74	7.050	
6,750.0	6,647.1	6,730.1	6,595.0	17.1	18.0	74.34	247.4	-470.7	231.6	197.9	33.71	6.870	
6,791.3	6,670.9	6,768.0	6,615.2	17.6	18.5	73.82	247.4	-502.8	232.2	197.6	34.61	6.709	
6,800.0	6,675.7	6,776.0	6,619.2	17.7	18.6	73.71	247.4	-509.7	232.3	197.5	34.81	6.675	
6,850.0	6,701.3	6,821.7	6,640.7	18.4	19.3	73.16	247.4	-549.9	233.0	197.0	36.03	6.467	
6,889.7	6,719.5	6,857.9	6,656.0	19.0	19.9	72.77	247.4	-582.8	233.5	196.4	37.09	6.295	
6,900.0	6,723.8	6,867.3	6,659.6	19.1	20.0	72.68	247.4	-591.4	233.6	196.2	37.38	6.250	
6,950.0	6,743.2	6,912.8	6,675.8	20.0	20.8	72.28	247.4	-633.9	234.1	195.3	38.85	6.026	
6,988.2	6,755.8	6,947.4	6,686.3	20.6	21.4	72.02	247.4	-667.0	234.5	194.4	40.06	5.852	
7,000.0	6,759.4	6,958.2	6,689.3	20.9	21.6	71.95	247.4	-677.3	234.6	194.1	40.45	5.799	
7,050.0	6,772.1	7,003.5	6,699.9	21.8	22.5	71.70	247.4	-721.4	234.9	192.7	42.16	5.571	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	7,036.7	6,705.9	22.5	23.1	71.56	247.4	-754.0	235.1	191.6	43.49	5.406	
7,100.0	6,781.5	7,050.0	6,707.9	22.8	23.4	71.52	247.4	-767.2	235.1	191.1	44.00	5.344	
7,100.4	6,781.6	7,050.0	6,707.9	22.8	23.4	71.52	247.4	-767.2	235.1	191.1	44.01	5.343	
7,150.0	6,787.5	7,094.1	6,712.8	23.9	24.3	71.43	247.4	-811.0	235.3	189.4	45.88	5.127	
7,185.0	6,789.6	7,125.8	6,714.6	24.6	25.0	71.40	247.4	-842.6	235.3	188.0	47.27	4.977	
7,200.0	6,789.9	7,139.4	6,714.9	24.9	25.3	71.40	247.4	-856.2	235.3	187.4	47.87	4.915	
7,213.0	6,790.0	7,152.8	6,715.0	25.2	25.6	71.41	247.4	-869.7	235.3	186.8	48.43	4.858	
7,238.4	6,789.9	7,176.3	6,714.9	25.8	26.1	71.42	247.4	-893.1	235.3	185.8	49.47	4.756	
7,283.4	6,789.7	7,221.4	6,714.8	26.8	27.1	71.43	247.4	-938.2	235.3	183.9	51.39	4.578	
7,300.0	6,789.7	7,237.9	6,714.8	27.2	27.5	71.43	247.4	-954.8	235.2	183.1	52.10	4.515	
7,381.9	6,789.4	7,319.8	6,714.5	29.1	29.3	71.44	247.4	-1,036.6	235.2	179.5	55.71	4.222	
7,400.0	6,789.3	7,337.9	6,714.5	29.5	29.8	71.45	247.4	-1,054.8	235.2	178.7	56.52	4.162	
7,480.3	6,789.0	7,418.2	6,714.2	31.4	31.7	71.46	247.4	-1,135.1	235.2	175.0	60.19	3.908	
7,500.0	6,788.9	7,437.9	6,714.2	31.9	32.1	71.47	247.4	-1,154.8	235.2	174.1	61.09	3.850	
7,578.7	6,788.6	7,516.7	6,713.9	33.8	34.1	71.48	247.4	-1,233.5	235.2	170.4	64.78	3.630	
7,600.0	6,788.5	7,537.9	6,713.9	34.4	34.6	71.49	247.4	-1,254.8	235.2	169.4	65.79	3.575	
7,677.1	6,788.2	7,615.1	6,713.6	36.3	36.5	71.50	247.4	-1,331.9	235.1	165.7	69.48	3.385	
7,700.0	6,788.2	7,637.9	6,713.6	36.9	37.1	71.51	247.4	-1,354.8	235.1	164.6	70.58	3.332	
7,775.6	6,787.9	7,713.5	6,713.4	38.8	39.0	71.52	247.4	-1,430.3	235.1	160.9	74.25	3.167	
7,800.0	6,787.8	7,737.9	6,713.3	39.4	39.6	71.53	247.4	-1,454.8	235.1	159.7	75.44	3.116	
7,874.0	6,787.5	7,811.9	6,713.1	41.3	41.5	71.54	247.4	-1,528.8	235.1	156.0	79.09	2.972	
7,900.0	6,787.4	7,837.9	6,713.0	42.0	42.2	71.55	247.4	-1,554.8	235.1	154.7	80.38	2.925	
7,972.4	6,787.1	7,910.4	6,712.8	43.9	44.1	71.56	247.4	-1,627.2	235.1	151.1	83.98	2.799	
8,000.0	6,787.0	7,937.9	6,712.7	44.6	44.8	71.57	247.4	-1,654.8	235.1	149.7	85.36	2.754	
8,070.8	6,786.7	8,008.8	6,712.5	46.5	46.7	71.58	247.4	-1,725.6	235.0	146.1	88.92	2.643	
8,100.0	6,786.6	8,037.9	6,712.4	47.3	47.5	71.59	247.4	-1,754.8	235.0	144.6	90.39	2.600	
8,169.3	6,786.4	8,107.2	6,712.2	49.1	49.3	71.60	247.4	-1,824.0	235.0	141.1	93.90	2.503	
8,200.0	6,786.3	8,137.9	6,712.1	49.9	50.1	71.61	247.4	-1,854.8	235.0	139.5	95.46	2.462	
8,267.7	6,786.0	8,205.6	6,711.9	51.7	51.9	71.62	247.4	-1,922.5	235.0	136.1	98.91	2.376	
8,300.0	6,785.9	8,237.9	6,711.8	52.6	52.8	71.63	247.4	-1,954.8	235.0	134.4	100.56	2.337	
8,366.1	6,785.6	8,304.1	6,711.6	54.4	54.5	71.64	247.4	-2,020.9	235.0	131.0	103.95	2.260	
8,400.0	6,785.5	8,337.9	6,711.5	55.3	55.5	71.65	247.4	-2,054.8	234.9	129.3	105.68	2.223	
8,464.5	6,785.2	8,402.5	6,711.3	57.0	57.2	71.66	247.4	-2,119.3	234.9	125.9	109.01	2.155	
8,500.0	6,785.1	8,437.9	6,711.2	58.0	58.1	71.67	247.4	-2,154.8	234.9	124.1	110.84	2.119	
8,563.0	6,784.9	8,500.9	6,711.1	59.7	59.8	71.69	247.4	-2,217.7	234.9	120.8	114.09	2.059	
8,600.0	6,784.7	8,537.9	6,710.9	60.7	60.8	71.69	247.4	-2,254.8	234.9	118.9	116.01	2.025	
8,661.4	6,784.5	8,599.3	6,710.8	62.4	62.5	71.71	247.4	-2,316.2	234.9	115.7	119.19	1.970	
8,700.0	6,784.3	8,637.9	6,710.7	63.4	63.6	71.71	247.4	-2,354.8	234.9	113.7	121.20	1.938	
8,759.8	6,784.1	8,697.8	6,710.5	65.0	65.2	71.73	247.4	-2,414.6	234.8	110.5	124.31	1.889	
8,800.0	6,784.0	8,737.9	6,710.4	66.1	66.3	71.74	247.4	-2,454.8	234.8	108.4	126.41	1.858	
8,858.2	6,783.7	8,796.2	6,710.2	67.7	67.9	71.75	247.4	-2,513.0	234.8	105.4	129.45	1.814	
8,900.0	6,783.6	8,837.9	6,710.1	68.9	69.0	71.76	247.4	-2,554.8	234.8	103.2	131.63	1.784	
8,956.7	6,783.3	8,894.6	6,709.9	70.4	70.6	71.77	247.4	-2,611.4	234.8	100.2	134.60	1.744	
9,000.0	6,783.2	8,937.9	6,709.8	71.6	71.7	71.78	247.4	-2,654.8	234.8	97.9	136.87	1.715	
9,055.1	6,783.0	8,993.0	6,709.6	73.1	73.3	71.79	247.4	-2,709.9	234.8	95.0	139.76	1.680	
9,100.0	6,782.8	9,037.9	6,709.5	74.3	74.5	71.80	247.4	-2,754.8	234.7	92.6	142.11	1.652	
9,153.5	6,782.6	9,091.5	6,709.3	75.8	76.0	71.81	247.4	-2,808.3	234.7	89.8	144.93	1.620	
9,200.0	6,782.4	9,137.9	6,709.2	77.1	77.2	71.82	247.4	-2,854.8	234.7	87.3	147.37	1.593	
9,251.9	6,782.2	9,189.9	6,709.0	78.5	78.7	71.84	247.4	-2,906.7	234.7	84.6	150.11	1.564	
9,300.0	6,782.0	9,237.9	6,708.9	79.8	80.0	71.85	247.4	-2,954.8	234.7	82.0	152.64	1.537	
9,350.4	6,781.8	9,288.3	6,708.7	81.2	81.4	71.86	247.4	-3,005.1	234.7	79.4	155.30	1.511	
9,400.0	6,781.6	9,337.9	6,708.6	82.6	82.7	71.87	247.4	-3,054.8	234.6	76.7	157.92	1.486 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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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		
9,448.8	6,781.4	9,386.7	6,708.5	83.9	84.1	71.88	247.4	-3,103.6	234.6	74.1	160.50	1.462	Level 3	
9,500.0	6,781.2	9,437.9	6,708.3	85.4	85.5	71.89	247.4	-3,154.8	234.6	71.4	163.20	1.438	Level 3	
9,547.2	6,781.0	9,485.2	6,708.2	86.7	86.8	71.90	247.4	-3,202.0	234.6	68.9	165.70	1.416	Level 3	
9,600.0	6,780.8	9,537.9	6,708.0	88.1	88.3	71.91	247.4	-3,254.8	234.6	66.1	168.49	1.392	Level 3	
9,645.6	6,780.7	9,583.6	6,707.9	89.4	89.5	71.92	247.4	-3,300.4	234.6	63.7	170.91	1.372	Level 3	
9,700.0	6,780.5	9,637.9	6,707.7	90.9	91.0	71.94	247.4	-3,354.8	234.6	60.8	173.79	1.350	Level 3	
9,744.1	6,780.3	9,682.0	6,707.6	92.1	92.2	71.95	247.4	-3,398.8	234.5	58.4	176.13	1.332	Level 3	
9,800.0	6,780.1	9,737.9	6,707.4	93.7	93.8	71.96	247.4	-3,454.8	234.5	55.4	179.10	1.309	Level 3	
9,842.5	6,779.9	9,780.4	6,707.3	94.8	95.0	71.97	247.4	-3,497.3	234.5	53.2	181.36	1.293	Level 3	
9,900.0	6,779.7	9,837.9	6,707.1	96.4	96.6	71.98	247.4	-3,554.8	234.5	50.1	184.41	1.272	Level 3	
9,940.9	6,779.5	9,878.9	6,707.0	97.6	97.7	71.99	247.4	-3,595.7	234.5	47.9	186.59	1.257	Level 3	
10,000.0	6,779.3	9,937.9	6,706.8	99.2	99.3	72.01	247.4	-3,654.8	234.5	44.7	189.73	1.236	Level 2	
10,039.3	6,779.1	9,977.3	6,706.7	100.3	100.4	72.02	247.4	-3,694.1	234.5	42.6	191.83	1.222	Level 2	
10,100.0	6,778.9	10,037.9	6,706.6	102.0	102.1	72.03	247.4	-3,754.7	234.4	39.4	195.06	1.202	Level 2	
10,137.8	6,778.7	10,075.7	6,706.4	103.0	103.1	72.04	247.4	-3,792.5	234.4	37.4	197.07	1.190	Level 2	
10,200.0	6,778.5	10,137.9	6,706.3	104.8	104.9	72.05	247.4	-3,854.7	234.4	34.0	200.38	1.170	Level 2	
10,236.2	6,778.3	10,174.1	6,706.2	105.8	105.9	72.06	247.4	-3,890.9	234.4	32.1	202.31	1.159	Level 2	
10,300.0	6,778.1	10,237.9	6,706.0	107.5	107.7	72.08	247.4	-3,954.7	234.4	28.7	205.72	1.139	Level 2	
10,334.6	6,778.0	10,272.6	6,705.9	108.5	108.6	72.08	247.4	-3,989.4	234.4	26.8	207.57	1.129	Level 2	
10,400.0	6,777.7	10,337.9	6,705.7	110.3	110.4	72.10	247.4	-4,054.7	234.3	23.3	211.06	1.110	Level 2	
10,433.0	6,777.6	10,371.0	6,705.6	111.2	111.4	72.11	247.4	-4,087.8	234.3	21.5	212.82	1.101	Level 2	
10,500.0	6,777.3	10,437.9	6,705.4	113.1	113.2	72.12	247.4	-4,154.7	234.3	17.9	216.40	1.083	Level 2	
10,531.5	6,777.2	10,469.4	6,705.3	114.0	114.1	72.13	247.4	-4,186.2	234.3	16.2	218.08	1.074	Level 2	
10,600.0	6,776.9	10,537.9	6,705.1	115.9	116.0	72.15	247.4	-4,254.7	234.3	12.5	221.74	1.056	Level 2	
10,629.9	6,776.8	10,567.8	6,705.0	116.7	116.8	72.16	247.4	-4,284.6	234.3	10.9	223.34	1.049	Level 2	
10,700.0	6,776.5	10,637.9	6,704.8	118.7	118.8	72.17	247.4	-4,354.7	234.2	7.1	227.10	1.031	Level 2	
10,728.3	6,776.4	10,666.3	6,704.7	119.5	119.6	72.18	247.4	-4,383.1	234.2	5.6	228.61	1.025	Level 2	
10,800.0	6,776.1	10,737.9	6,704.5	121.4	121.6	72.20	247.4	-4,454.7	234.2	1.8	232.45	1.008	Level 2	
10,826.7	6,776.0	10,764.7	6,704.4	122.2	122.3	72.20	247.4	-4,481.5	234.2	0.3	233.88	1.001	Level 2	
10,900.0	6,775.7	10,837.9	6,704.2	124.2	124.3	72.22	247.4	-4,554.7	234.2	-3.6	237.81	0.985	Level 1	
10,925.2	6,775.6	10,863.1	6,704.1	124.9	125.1	72.23	247.4	-4,579.9	234.2	-5.0	239.16	0.979	Level 1	
11,000.0	6,775.3	10,937.9	6,703.9	127.0	127.1	72.25	247.4	-4,654.7	234.1	-9.0	243.17	0.963	Level 1	
11,023.6	6,775.2	10,961.5	6,703.8	127.7	127.8	72.25	247.4	-4,678.3	234.1	-10.3	244.44	0.958	Level 1	
11,100.0	6,774.9	11,037.9	6,703.6	129.8	129.9	72.27	247.4	-4,754.7	234.1	-14.4	248.53	0.942	Level 1	
11,122.0	6,774.8	11,060.0	6,703.6	130.4	130.5	72.28	247.4	-4,776.8	234.1	-15.6	249.72	0.937	Level 1	
11,200.0	6,774.5	11,137.9	6,703.3	132.6	132.7	72.30	247.4	-4,854.7	234.1	-19.8	253.90	0.922	Level 1	
11,220.4	6,774.4	11,158.4	6,703.3	133.2	133.3	72.30	247.4	-4,875.2	234.1	-20.9	255.00	0.918	Level 1	
11,300.0	6,774.1	11,237.9	6,703.0	135.4	135.5	72.32	247.4	-4,954.7	234.0	-25.2	259.27	0.903	Level 1	
11,318.9	6,774.0	11,256.8	6,703.0	135.9	136.0	72.33	247.4	-4,973.6	234.0	-26.3	260.29	0.899	Level 1	
11,400.0	6,773.7	11,337.9	6,702.7	138.2	138.3	72.35	247.4	-5,054.7	234.0	-30.6	264.65	0.884	Level 1	
11,417.3	6,773.6	11,355.2	6,702.7	138.7	138.8	72.35	247.4	-5,072.0	234.0	-31.6	265.58	0.881	Level 1	
11,500.0	6,773.3	11,437.9	6,702.5	141.0	141.1	72.37	247.4	-5,154.7	234.0	-36.1	270.03	0.866	Level 1	
11,515.7	6,773.2	11,453.7	6,702.4	141.4	141.5	72.38	247.4	-5,170.5	234.0	-36.9	270.87	0.864	Level 1	
11,600.0	6,772.9	11,537.9	6,702.2	143.8	143.9	72.40	247.4	-5,254.7	233.9	-41.5	275.41	0.849	Level 1	
11,614.1	6,772.8	11,552.1	6,702.1	144.2	144.3	72.40	247.4	-5,268.9	233.9	-42.2	276.17	0.847	Level 1	
11,700.0	6,772.5	11,637.9	6,701.9	146.6	146.7	72.42	247.4	-5,354.7	233.9	-46.9	280.79	0.833	Level 1	
11,712.6	6,772.4	11,650.5	6,701.8	146.9	147.0	72.43	247.4	-5,367.3	233.9	-47.6	281.47	0.831	Level 1	
11,800.0	6,772.1	11,737.9	6,701.6	149.4	149.5	72.45	247.4	-5,454.7	233.9	-52.3	286.18	0.817	Level 1	
11,811.0	6,772.1	11,748.9	6,701.5	149.7	149.8	72.45	247.4	-5,465.7	233.9	-52.9	286.77	0.816	Level 1	
11,900.0	6,771.7	11,837.9	6,701.3	152.2	152.3	72.48	247.4	-5,554.7	233.8	-57.7	291.56	0.802	Level 1	
11,909.4	6,771.7	11,847.4	6,701.3	152.4	152.5	72.48	247.4	-5,564.2	233.8	-58.2	292.07	0.801	Level 1	
12,000.0	6,771.3	11,937.9	6,701.0	154.9	155.1	72.50	247.4	-5,654.7	233.8	-63.2	296.96	0.787	Level 1	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-204 - ORIGINAL WELLBORE - PROPOS												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	6,771.3	11,945.8	6,701.0	155.2	155.3	72.50	247.4	-5,662.6	233.8	-63.6	297.38	0.786	Level 1
12,100.0	6,770.9	12,037.9	6,700.7	157.7	157.8	72.53	247.4	-5,754.7	233.8	-68.6	302.35	0.773	Level 1
12,106.3	6,770.9	12,044.2	6,700.7	157.9	158.0	72.53	247.4	-5,761.0	233.8	-68.9	302.69	0.772	Level 1
12,200.0	6,770.5	12,137.9	6,700.4	160.5	160.6	72.56	247.4	-5,854.7	233.7	-74.0	307.75	0.760	Level 1
12,204.7	6,770.5	12,142.6	6,700.4	160.7	160.8	72.56	247.4	-5,859.4	233.7	-74.3	308.00	0.759	Level 1
12,300.0	6,770.1	12,238.0	6,700.1	163.3	163.4	72.57	247.4	-5,954.8	233.7	-79.4	313.13	0.746	Level 1
12,303.1	6,770.1	12,241.1	6,700.1	163.4	163.5	72.57	247.4	-5,957.9	233.7	-79.6	313.30	0.746	Level 1
12,315.5	6,770.0	12,253.4	6,700.0	163.8	163.9	72.57	247.4	-5,970.1	233.7	-80.3	313.95	0.744	Level 1
12,316.4	6,770.0	12,253.4	6,700.0	163.8	163.9	72.57	247.4	-5,970.1	233.7	-80.3	313.98	0.744	Level 1, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-90.45	-0.4	-45.1	45.1				
98.4	98.4	98.4	98.4	0.1	0.1	-90.45	-0.4	-45.1	45.1	44.9	0.19	234.713	
100.0	100.0	100.0	100.0	0.1	0.1	-90.45	-0.4	-45.1	45.1	44.9	0.20	230.740	
196.8	196.8	196.8	196.8	0.3	0.3	-90.45	-0.4	-45.1	45.1	44.5	0.63	71.516	
200.0	200.0	200.0	200.0	0.3	0.3	-90.45	-0.4	-45.1	45.1	44.5	0.65	69.946	
295.3	295.3	295.3	295.3	0.5	0.5	-90.45	-0.4	-45.1	45.1	44.0	1.07	42.036	
300.0	300.0	300.0	300.0	0.5	0.5	-90.45	-0.4	-45.1	45.1	44.0	1.09	41.221	
393.7	393.7	393.7	393.7	0.8	0.8	-90.45	-0.4	-45.1	45.1	43.6	1.52	29.766	
400.0	400.0	400.0	400.0	0.8	0.8	-90.45	-0.4	-45.1	45.1	43.6	1.54	29.220	
492.1	492.1	492.1	492.1	1.0	1.0	-90.45	-0.4	-45.1	45.1	43.2	1.96	23.041	
500.0	500.0	500.0	500.0	1.0	1.0	-90.45	-0.4	-45.1	45.1	43.1	1.99	22.632	
590.5	590.5	590.5	590.5	1.2	1.2	-90.45	-0.4	-45.1	45.1	42.7	2.40	18.795	
600.0	600.0	600.0	600.0	1.2	1.2	-90.45	-0.4	-45.1	45.1	42.7	2.44	18.468	
689.0	689.0	689.0	689.0	1.4	1.4	-90.45	-0.4	-45.1	45.1	42.3	2.84	15.870	
700.0	700.0	700.0	700.0	1.4	1.4	-90.45	-0.4	-45.1	45.1	42.2	2.89	15.598	
787.4	787.4	787.4	787.4	1.6	1.6	-90.45	-0.4	-45.1	45.1	41.8	3.29	13.733	
800.0	800.0	800.0	800.0	1.7	1.7	-90.45	-0.4	-45.1	45.1	41.8	3.34	13.500	
885.8	885.8	885.8	885.8	1.9	1.9	-90.45	-0.4	-45.1	45.1	41.4	3.73	12.103	
900.0	900.0	900.0	900.0	1.9	1.9	-90.45	-0.4	-45.1	45.1	41.3	3.79	11.899	
984.2	984.2	984.2	984.2	2.1	2.1	-90.45	-0.4	-45.1	45.1	40.9	4.17	10.819	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.45	-0.4	-45.1	45.1	40.9	4.24	10.638	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.45	-0.4	-45.1	45.1	40.5	4.61	9.781	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.45	-0.4	-45.1	45.1	40.4	4.69	9.619	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-90.45	-0.4	-45.1	45.1	40.1	5.06	8.925	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.45	-0.4	-45.1	45.1	40.0	5.14	8.778 CC, ES	
1,279.5	1,279.5	1,278.3	1,278.3	2.7	2.7	-90.69	-0.6	-46.2	46.2	40.7	5.48	8.424	
1,300.0	1,300.0	1,298.4	1,298.4	2.8	2.8	-90.82	-0.7	-46.8	46.8	41.2	5.57	8.403	
1,377.9	1,377.9	1,375.0	1,374.9	3.0	2.9	-91.55	-1.4	-50.4	50.5	44.6	5.90	8.557	
1,400.0	1,400.0	1,396.6	1,396.5	3.0	3.0	-91.80	-1.6	-51.7	51.9	45.9	5.99	8.660	
1,476.4	1,476.4	1,471.3	1,470.9	3.2	3.1	-92.76	-2.8	-57.7	58.0	51.7	6.32	9.181	
1,500.0	1,500.0	1,494.4	1,493.9	3.2	3.2	-93.07	-3.2	-60.0	60.4	53.9	6.42	9.394	
1,574.8	1,574.8	1,567.2	1,566.2	3.4	3.3	-13.48	-4.8	-68.2	68.0	61.2	6.72	10.115	
1,600.0	1,600.0	1,591.6	1,590.4	3.5	3.4	-13.92	-5.4	-71.4	70.5	63.7	6.82	10.339	
1,673.2	1,673.1	1,662.6	1,660.6	3.6	3.6	-15.33	-7.4	-81.7	78.0	70.9	7.11	10.966	
1,700.0	1,699.8	1,688.5	1,686.2	3.7	3.7	-15.90	-8.2	-85.9	80.8	73.5	7.22	11.186	
1,771.6	1,771.2	1,757.7	1,754.2	3.8	3.9	-17.48	-10.6	-98.3	88.2	80.6	7.51	11.744	
1,800.0	1,799.5	1,785.0	1,781.0	3.9	3.9	-18.14	-11.6	-103.6	91.1	83.5	7.62	11.958	
1,870.1	1,869.0	1,852.4	1,846.8	4.0	4.2	-19.82	-14.4	-117.8	98.5	90.6	7.90	12.461	
1,900.0	1,898.7	1,881.2	1,874.8	4.1	4.3	-20.55	-15.6	-124.3	101.7	93.7	8.02	12.670	
1,968.5	1,966.4	1,946.8	1,938.3	4.3	4.5	-22.27	-18.7	-140.1	109.1	100.8	8.31	13.126	
2,000.0	1,997.5	1,976.9	1,967.4	4.4	4.7	-23.06	-20.2	-147.9	112.5	104.1	8.44	13.330	
2,066.9	2,063.2	2,040.7	2,028.7	4.6	4.9	-24.77	-23.5	-165.4	120.0	111.3	8.73	13.739	
2,100.1	2,095.7	2,072.2	2,058.8	4.7	5.1	-25.62	-25.3	-174.5	123.8	114.9	8.88	13.936	
2,165.3	2,159.5	2,134.1	2,117.7	4.9	5.4	-27.23	-28.9	-193.3	132.0	122.8	9.21	14.334	
2,200.0	2,193.4	2,166.9	2,148.6	5.0	5.6	-27.96	-31.0	-203.8	136.9	127.5	9.38	14.594	
2,224.2	2,217.1	2,189.6	2,170.1	5.1	5.7	-28.43	-32.4	-211.3	140.6	131.1	9.51	14.789	
2,263.8	2,255.9	2,226.8	2,204.9	5.2	5.9	-29.14	-34.8	-223.9	147.3	137.6	9.73	15.143	
2,300.0	2,291.5	2,260.6	2,236.5	5.3	6.2	-29.63	-37.1	-235.7	154.4	144.4	9.93	15.549	
2,362.2	2,352.7	2,318.0	2,289.8	5.5	6.5	-30.18	-41.1	-256.6	168.3	158.0	10.25	16.410	
2,400.0	2,390.1	2,352.5	2,321.7	5.6	6.8	-30.36	-43.7	-269.7	177.8	167.4	10.45	17.016	
2,460.6	2,450.1	2,410.2	2,374.7	5.7	7.2	-30.46	-48.0	-292.0	194.6	183.8	10.77	18.073	
2,500.0	2,489.2	2,447.8	2,409.3	5.8	7.5	-30.43	-50.8	-306.6	206.1	195.1	10.97	18.786	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,548.0	2,504.0	2,460.9	6.0	7.9	-30.30	-55.0	-328.4	224.1	212.8	11.26	19.901	
2,600.0	2,588.8	2,542.8	2,496.6	6.1	8.2	-30.15	-57.9	-343.4	237.2	225.7	11.46	20.697	
2,657.5	2,646.1	2,597.0	2,546.3	6.2	8.6	-29.88	-61.9	-364.4	256.4	244.7	11.73	21.859	
2,700.0	2,688.6	2,636.8	2,582.9	6.3	8.9	-29.65	-64.9	-379.8	271.2	259.3	11.93	22.743	
2,755.9	2,744.4	2,688.8	2,630.7	6.4	9.3	-29.31	-68.8	-400.0	291.5	279.3	12.17	23.948	
2,800.0	2,788.5	2,729.6	2,668.2	6.5	9.6	-29.03	-71.8	-415.8	308.2	295.8	12.36	24.925	
2,824.3	2,812.8	2,751.9	2,688.7	6.5	9.8	-109.57	-73.5	-424.5	317.6	301.4	16.13	19.683	
2,854.3	2,842.9	2,779.6	2,714.1	6.6	10.0	-109.26	-75.6	-435.2	329.3	312.9	16.41	20.063	
2,900.0	2,888.5	2,821.5	2,752.6	6.7	10.3	-108.83	-78.7	-451.4	347.2	330.3	16.84	20.617	
2,952.7	2,941.3	2,870.0	2,797.2	6.8	10.7	-108.39	-82.3	-470.2	367.8	350.5	17.34	21.210	
3,000.0	2,988.5	2,913.4	2,837.0	6.9	11.1	-108.03	-85.6	-487.0	386.4	368.6	17.79	21.713	
3,051.2	3,039.7	2,960.4	2,880.2	7.0	11.5	-107.67	-89.1	-505.3	406.4	388.1	18.28	22.228	
3,100.0	3,088.5	3,005.3	2,921.5	7.1	11.8	-107.37	-92.4	-522.6	425.6	406.8	18.75	22.695	
3,149.6	3,138.1	3,050.9	2,963.3	7.2	12.2	-107.09	-95.8	-540.3	445.1	425.8	19.23	23.143	
3,200.0	3,188.5	3,097.2	3,005.9	7.3	12.6	-106.82	-99.3	-558.2	464.9	445.1	19.72	23.578	
3,248.0	3,236.6	3,141.3	3,046.4	7.4	12.9	-106.59	-102.6	-575.3	483.7	463.6	20.18	23.970	
3,300.0	3,288.5	3,189.1	3,090.3	7.5	13.3	-106.36	-106.2	-593.9	504.2	483.5	20.68	24.374	
3,346.4	3,335.0	3,231.7	3,129.5	7.6	13.7	-106.17	-109.4	-610.4	522.4	501.3	21.14	24.718	
3,400.0	3,388.5	3,280.9	3,174.7	7.7	14.1	-105.97	-113.0	-629.5	543.5	521.8	21.66	25.097	
3,444.9	3,433.4	3,322.2	3,212.6	7.8	14.4	-105.81	-116.1	-645.4	561.1	539.1	22.09	25.400	
3,500.0	3,488.5	3,372.8	3,259.2	7.9	14.8	-105.63	-119.9	-665.1	582.8	560.2	22.63	25.755	
3,543.3	3,531.8	3,412.6	3,295.7	8.0	15.2	-105.49	-122.9	-680.5	599.9	576.8	23.05	26.022	
3,600.0	3,588.5	3,464.7	3,343.6	8.1	15.6	-105.33	-126.8	-700.7	622.2	598.6	23.61	26.356	
3,641.7	3,630.3	3,503.0	3,378.8	8.2	15.9	-105.21	-129.6	-715.5	638.6	614.6	24.02	26.592	
3,700.0	3,688.5	3,556.6	3,428.0	8.3	16.4	-105.06	-133.6	-736.3	661.6	637.0	24.59	26.907	
3,740.1	3,728.7	3,593.5	3,461.9	8.4	16.7	-104.97	-136.4	-750.6	677.4	652.4	24.98	27.116	
3,800.0	3,788.5	3,648.5	3,512.4	8.5	17.1	-104.83	-140.5	-771.9	701.0	675.4	25.57	27.414	
3,838.6	3,827.1	3,683.9	3,545.0	8.6	17.4	-104.75	-143.2	-785.6	716.1	690.2	25.95	27.599	
3,900.0	3,888.5	3,740.3	3,596.9	8.7	17.9	-104.62	-147.4	-807.5	740.3	713.8	26.55	27.882	
3,937.0	3,925.5	3,774.3	3,628.1	8.8	18.2	-104.55	-149.9	-820.7	754.9	728.0	26.92	28.046	
4,000.0	3,988.5	3,832.2	3,681.3	9.0	18.7	-104.44	-154.2	-843.1	779.7	752.2	27.54	28.315	
4,035.4	4,024.0	3,864.8	3,711.2	9.0	18.9	-104.37	-156.7	-855.7	793.7	765.8	27.89	28.460	
4,100.0	4,088.5	3,924.1	3,765.7	9.2	19.4	-104.27	-161.1	-878.7	819.1	790.6	28.53	28.716	
4,133.8	4,122.4	3,955.2	3,794.3	9.2	19.7	-104.21	-163.4	-890.8	832.5	803.6	28.86	28.845	
4,200.0	4,188.5	4,016.0	3,850.1	9.4	20.2	-104.11	-168.0	-914.3	858.6	829.0	29.51	29.089	
4,232.3	4,220.8	4,045.7	3,877.4	9.4	20.5	-104.07	-170.2	-925.8	871.3	841.4	29.83	29.204	
4,300.0	4,288.5	4,107.9	3,934.6	9.6	21.0	-103.97	-174.8	-949.9	898.0	867.5	30.50	29.437	
4,330.7	4,319.2	4,136.1	3,960.5	9.7	21.2	-103.93	-176.9	-960.8	910.1	879.3	30.81	29.539	
4,400.0	4,388.5	4,199.8	4,019.0	9.8	21.8	-103.84	-181.7	-985.5	937.4	905.9	31.50	29.763	
4,429.1	4,417.7	4,226.5	4,043.6	9.9	22.0	-103.81	-183.7	-995.9	948.9	917.1	31.78	29.853	
4,500.0	4,488.5	4,291.6	4,103.4	10.0	22.5	-103.72	-188.6	-1,021.1	976.8	944.3	32.49	30.067	
4,527.5	4,516.1	4,317.0	4,126.7	10.1	22.7	-103.69	-190.5	-1,030.9	987.7	954.9	32.76	30.147	
4,600.0	4,588.5	4,383.5	4,187.8	10.2	23.3	-103.62	-195.4	-1,056.7	1,016.2	982.8	33.48	30.352	
4,626.0	4,614.5	4,407.4	4,209.8	10.3	23.5	-103.59	-197.2	-1,066.0	1,026.5	992.7	33.74	30.424	
4,700.0	4,688.5	4,475.4	4,272.3	10.5	24.1	-103.51	-202.3	-1,092.3	1,055.7	1,021.2	34.48	30.620	
4,724.4	4,712.9	4,497.8	4,292.9	10.5	24.3	-103.49	-204.0	-1,101.0	1,065.3	1,030.6	34.72	30.684	
4,800.0	4,788.5	4,567.3	4,356.7	10.7	24.9	-103.42	-209.2	-1,127.9	1,095.1	1,059.6	35.47	30.873	
4,822.8	4,811.4	4,588.3	4,376.0	10.7	25.0	-103.40	-210.7	-1,136.1	1,104.1	1,068.4	35.70	30.929	
4,900.0	4,888.5	4,659.2	4,441.1	10.9	25.6	-103.33	-216.0	-1,163.5	1,134.5	1,098.1	36.47	31.111	
4,921.2	4,909.8	4,678.7	4,459.1	10.9	25.8	-103.32	-217.5	-1,171.1	1,142.9	1,106.2	36.68	31.160	
5,000.0	4,988.5	4,751.1	4,525.5	11.1	26.4	-103.25	-222.9	-1,199.2	1,174.0	1,136.5	37.46	31.336	
5,019.7	5,008.2	4,769.1	4,542.2	11.1	26.6	-103.24	-224.3	-1,206.2	1,181.7	1,144.1	37.66	31.379	

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 @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	4,842.9	4,610.0	11.3	27.2	-103.18	-229.8	-1,234.8	1,213.4	1,175.0	38.46	31.549	
5,118.1	5,106.6	4,859.6	4,625.2	11.4	27.3	-103.16	-231.0	-1,241.2	1,220.6	1,181.9	38.64	31.586	
5,200.0	5,188.5	4,934.8	4,694.4	11.5	28.0	-103.11	-236.6	-1,270.4	1,252.9	1,213.4	39.46	31.750	
5,216.5	5,205.1	4,950.0	4,708.3	11.6	28.1	-103.09	-237.8	-1,276.3	1,259.4	1,219.7	39.62	31.783	
5,300.0	5,288.5	5,026.7	4,778.8	11.8	28.8	-103.04	-243.5	-1,306.0	1,292.3	1,251.8	40.46	31.941	
5,314.9	5,303.5	5,040.4	4,791.4	11.8	28.9	-103.03	-244.5	-1,311.3	1,298.2	1,257.6	40.61	31.969	
5,400.0	5,388.5	5,156.4	4,898.4	12.0	29.7	-102.95	-253.0	-1,355.2	1,331.1	1,289.5	41.63	31.975	
5,413.4	5,401.9	8,088.3	6,695.6	12.0	43.5	178.49	-291.2	-140.7	1,331.6	1,303.4	28.19	47.237	
5,500.0	5,488.5	8,087.8	6,695.6	12.2	43.4	178.59	-291.2	-141.3	1,247.6	1,219.2	28.39	43.946	
5,511.8	5,500.3	8,087.7	6,695.6	12.2	43.4	178.61	-291.2	-141.4	1,236.2	1,207.8	28.42	43.502	
5,600.0	5,588.5	8,087.1	6,695.6	12.4	43.4	178.71	-291.2	-141.9	1,151.2	1,122.5	28.62	40.219	
5,610.2	5,598.8	8,087.1	6,695.6	12.4	43.4	178.72	-291.2	-142.0	1,141.3	1,112.7	28.65	39.843	
5,700.0	5,688.5	8,086.5	6,695.6	12.6	43.4	178.82	-291.2	-142.6	1,055.3	1,026.5	28.85	36.575	
5,708.6	5,697.2	8,086.4	6,695.6	12.6	43.4	178.84	-291.2	-142.6	1,047.1	1,018.2	28.87	36.264	
5,800.0	5,788.5	8,085.9	6,695.6	12.8	43.4	178.94	-291.2	-143.2	960.4	931.3	29.09	33.018	
5,807.1	5,795.6	8,085.8	6,695.6	12.9	43.4	178.95	-291.2	-143.3	953.7	924.6	29.10	32.770	
5,900.0	5,888.5	8,085.2	6,695.6	13.1	43.4	179.06	-291.2	-143.9	866.6	837.2	29.32	29.556	
5,905.5	5,894.0	8,085.2	6,695.6	13.1	43.4	179.06	-291.2	-143.9	861.5	832.1	29.33	29.368	
6,000.0	5,988.5	8,084.6	6,695.6	13.3	43.4	179.17	-291.2	-144.5	774.3	744.7	29.55	26.200	
6,003.9	5,992.5	8,084.5	6,695.6	13.3	43.4	179.18	-291.2	-144.5	770.7	741.1	29.56	26.070	
6,085.3	6,073.8	8,084.0	6,695.6	13.5	43.4	179.27	-291.2	-145.1	697.3	667.5	29.75	23.436	
6,100.0	6,088.5	8,083.8	6,695.6	13.5	43.4	-92.97	-291.2	-145.3	684.2	627.3	56.85	12.034	
6,102.3	6,090.9	8,083.7	6,695.6	13.5	43.4	-93.32	-291.2	-145.4	682.1	625.3	56.86	11.996	
6,150.0	6,138.4	8,080.7	6,695.6	13.6	43.3	-99.68	-291.2	-148.4	640.3	583.6	56.72	11.290	
6,200.0	6,188.0	8,074.1	6,695.7	13.7	43.2	-104.94	-291.2	-155.0	597.7	541.5	56.22	10.632	
6,200.8	6,188.8	8,074.0	6,695.7	13.7	43.2	-105.01	-291.2	-155.1	597.1	540.9	56.21	10.622	
6,250.0	6,237.1	8,064.1	6,695.7	13.9	43.0	-108.80	-291.2	-165.0	556.7	501.1	55.62	10.010	
6,299.2	6,284.6	8,051.0	6,695.8	14.0	42.8	-111.38	-291.2	-178.1	518.4	463.3	55.06	9.414	
6,300.0	6,285.3	8,050.7	6,695.8	14.0	42.8	-111.41	-291.2	-178.4	517.8	462.7	55.06	9.404	
6,350.0	6,332.5	8,034.0	6,695.9	14.2	42.5	-112.92	-291.2	-195.1	481.3	426.7	54.61	8.813	
6,397.6	6,376.3	8,015.0	6,696.0	14.4	42.1	-113.45	-291.2	-214.0	449.2	394.9	54.32	8.270	
6,400.0	6,378.5	8,014.0	6,696.0	14.4	42.1	-113.46	-291.2	-215.1	447.7	393.4	54.31	8.244	
6,450.0	6,423.0	7,990.9	6,696.2	14.7	41.7	-113.12	-291.2	-238.2	417.4	363.3	54.15	7.708	
6,496.0	6,462.4	7,966.9	6,696.3	14.9	41.3	-112.11	-291.2	-262.2	392.8	338.7	54.15	7.254	
6,500.0	6,465.7	7,964.7	6,696.4	14.9	41.2	-111.99	-291.2	-264.3	390.9	336.7	54.15	7.218	
6,550.0	6,506.6	7,935.7	6,696.5	15.2	40.7	-110.14	-291.2	-293.4	368.3	314.1	54.26	6.788	
6,594.5	6,541.2	7,907.5	6,696.7	15.6	40.2	-107.96	-291.2	-321.6	351.8	297.4	54.43	6.464	
6,600.0	6,545.3	7,903.9	6,696.7	15.6	40.2	-107.65	-291.2	-325.2	350.0	295.6	54.45	6.428	
6,650.0	6,581.8	7,869.4	6,697.0	16.0	39.6	-104.60	-291.2	-359.7	335.9	281.2	54.71	6.140	
6,692.9	6,611.1	7,837.9	6,697.2	16.4	39.1	-101.63	-291.2	-391.2	327.1	272.1	54.94	5.953	
6,700.0	6,615.8	7,832.5	6,697.2	16.5	39.0	-101.11	-291.2	-396.6	325.9	270.9	54.98	5.928	
6,750.0	6,647.1	7,793.4	6,697.5	17.1	38.4	-97.31	-291.2	-435.7	319.6	264.4	55.18	5.791	
6,791.3	6,670.9	7,759.5	6,697.7	17.6	37.9	-94.06	-291.2	-469.6	316.7	261.4	55.32	5.724	
6,800.0	6,675.7	7,752.2	6,697.7	17.7	37.8	-93.38	-291.2	-476.9	316.3	261.0	55.34	5.717	
6,843.2	6,698.0	7,715.1	6,698.0	18.3	37.3	-90.00	-291.2	-514.0	315.6	260.2	55.38	5.699 SF	
6,850.0	6,701.3	7,709.1	6,698.0	18.4	37.2	-89.48	-291.2	-520.0	315.6	260.2	55.37	5.700	
6,889.7	6,719.5	7,673.6	6,698.2	19.0	36.7	-86.52	-291.2	-555.5	316.3	260.9	55.36	5.713	
6,900.0	6,723.8	7,664.3	6,698.3	19.1	36.6	-85.78	-291.2	-564.8	316.6	261.3	55.34	5.721	
6,950.0	6,743.2	7,618.1	6,698.6	20.0	36.0	-82.45	-291.2	-611.0	318.7	263.5	55.25	5.768	
6,988.2	6,755.8	7,582.0	6,698.8	20.6	35.6	-80.22	-291.2	-647.1	320.7	265.5	55.21	5.809	
7,000.0	6,759.4	7,570.7	6,698.9	20.9	35.5	-79.59	-291.2	-658.4	321.3	266.1	55.20	5.821	
7,050.0	6,772.1	7,522.3	6,699.2	21.8	35.0	-77.28	-291.2	-706.8	323.9	268.7	55.21	5.866	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	7,486.4	6,699.4	22.5	34.6	-75.98	-291.2	-742.7	325.5	270.2	55.31	5.886	
7,100.0	6,781.5	7,473.1	6,699.5	22.8	34.5	-75.58	-291.2	-755.9	326.0	270.7	55.37	5.888	
7,150.0	6,787.5	7,423.5	6,699.8	23.9	34.0	-74.52	-291.2	-805.6	327.5	271.8	55.72	5.877	
7,185.0	6,789.6	7,389.4	6,700.0	24.6	33.7	-74.17	-291.2	-839.7	328.0	271.9	56.10	5.847	
7,200.0	6,789.9	7,376.1	6,699.8	24.9	33.7	-74.07	-291.2	-853.0	328.2	271.9	56.30	5.829	
7,213.0	6,790.0	7,364.6	6,699.5	25.2	33.6	-73.99	-291.2	-864.5	328.3	271.8	56.48	5.813	
7,283.4	6,789.7	7,300.0	6,694.1	26.8	33.1	-73.13	-291.2	-928.8	329.9	272.6	57.30	5.757	
7,300.0	6,789.7	7,288.0	6,692.4	27.2	33.1	-72.87	-291.2	-940.7	330.5	273.0	57.51	5.747	
7,381.9	6,789.4	7,217.9	6,678.9	29.1	32.7	-70.69	-291.2	-1,009.4	335.5	277.2	58.29	5.755	
7,400.0	6,789.3	7,200.0	6,674.4	29.5	32.6	-69.97	-291.2	-1,026.8	337.0	278.7	58.37	5.774	
7,480.3	6,789.0	7,138.0	6,655.4	31.4	32.4	-67.02	-291.2	-1,085.7	346.3	287.4	58.88	5.881	
7,500.0	6,788.9	7,122.7	6,649.9	31.9	32.3	-66.19	-291.2	-1,100.0	349.2	290.2	58.94	5.925	
7,578.7	6,788.6	7,064.1	6,626.2	33.8	32.2	-62.71	-291.1	-1,153.6	363.9	304.8	59.03	6.164	
7,600.0	6,788.5	7,050.0	6,619.8	34.4	32.2	-61.82	-291.1	-1,166.2	368.7	309.7	59.04	6.245	
7,677.1	6,788.2	7,000.0	6,595.3	36.3	32.1	-58.49	-291.1	-1,209.7	389.6	330.7	58.93	6.611	
7,700.0	6,788.2	6,982.4	6,585.9	36.9	32.2	-57.28	-291.1	-1,224.7	396.8	338.1	58.73	6.757	
7,775.6	6,787.9	6,936.7	6,560.0	38.8	32.2	-54.09	-291.1	-1,262.3	424.1	365.7	58.36	7.267	
7,800.0	6,787.8	6,922.8	6,551.6	39.4	32.2	-53.11	-291.1	-1,273.4	434.0	375.8	58.23	7.454	
7,874.0	6,787.5	6,883.0	6,526.5	41.3	32.2	-50.31	-291.1	-1,304.2	467.2	409.3	57.81	8.080	
7,900.0	6,787.4	6,869.9	6,517.8	42.0	32.2	-49.40	-291.1	-1,314.1	479.9	422.2	57.67	8.322	
7,972.4	6,787.1	6,835.5	6,494.3	43.9	32.3	-47.03	-291.1	-1,339.2	518.1	460.8	57.29	9.043	
8,000.0	6,787.0	6,823.1	6,485.5	44.6	32.3	-46.20	-291.1	-1,347.9	533.6	476.5	57.16	9.336	
8,070.8	6,786.7	6,800.0	6,468.8	46.5	32.4	-44.66	-291.1	-1,363.8	576.0	518.7	57.24	10.062	
8,100.0	6,786.6	6,781.8	6,455.2	47.3	32.4	-43.47	-291.1	-1,376.0	594.2	537.4	56.77	10.466	
8,169.3	6,786.4	6,750.0	6,430.8	49.1	32.5	-41.46	-291.1	-1,396.4	639.6	583.3	56.24	11.372	
8,200.0	6,786.3	6,750.0	6,430.8	49.9	32.5	-41.46	-291.1	-1,396.4	660.5	603.7	56.80	11.628	
8,267.7	6,786.0	6,722.9	6,409.4	51.7	32.6	-39.81	-291.1	-1,412.9	708.0	651.6	56.45	12.542	
8,300.0	6,785.9	6,712.9	6,401.3	52.6	32.6	-39.22	-291.1	-1,418.8	731.4	675.0	56.44	12.960	
8,366.1	6,785.6	6,700.0	6,390.7	54.4	32.6	-38.47	-291.1	-1,426.2	780.7	723.8	56.84	13.734	
8,400.0	6,785.5	6,684.1	6,377.5	55.3	32.7	-37.56	-291.1	-1,435.1	806.4	749.9	56.50	14.274	
8,464.5	6,785.2	6,667.2	6,363.3	57.0	32.7	-36.62	-291.1	-1,444.2	856.5	799.9	56.60	15.132	
8,500.0	6,785.1	6,650.0	6,348.6	58.0	32.8	-35.70	-291.1	-1,453.2	884.7	828.5	56.19	15.744	
8,563.0	6,784.9	6,650.0	6,348.6	59.7	32.8	-35.70	-291.1	-1,453.2	935.3	878.1	57.24	16.340	
8,600.0	6,784.7	6,635.4	6,336.0	60.7	32.8	-34.93	-291.1	-1,460.4	965.5	908.5	56.99	16.942	
8,661.4	6,784.5	6,622.5	6,324.7	62.4	32.9	-34.27	-291.1	-1,466.7	1,016.3	959.1	57.23	17.759	
8,700.0	6,784.3	6,614.8	6,317.9	63.4	32.9	-33.88	-291.1	-1,470.3	1,048.7	991.3	57.40	18.270	
8,759.8	6,784.1	6,600.0	6,304.7	65.0	32.9	-33.16	-291.1	-1,477.1	1,099.4	1,041.9	57.49	19.124	
8,800.0	6,784.0	6,600.0	6,304.7	66.1	32.9	-33.16	-291.1	-1,477.1	1,133.8	1,075.7	58.12	19.506	
8,858.2	6,783.7	6,600.0	6,304.7	67.7	32.9	-33.16	-291.1	-1,477.1	1,184.3	1,125.3	59.05	20.055	
8,900.0	6,783.6	6,579.3	6,286.0	68.9	33.0	-32.17	-291.1	-1,486.1	1,220.5	1,162.0	58.47	20.873	
8,956.7	6,783.3	6,570.4	6,278.0	70.4	33.0	-31.76	-291.1	-1,489.8	1,270.2	1,211.4	58.83	21.593	
9,000.0	6,783.2	6,550.0	6,259.3	71.6	33.1	-30.85	-291.1	-1,497.9	1,308.7	1,250.4	58.30	22.450	
9,055.1	6,783.0	6,550.0	6,259.3	73.1	33.1	-30.85	-291.1	-1,497.9	1,357.6	1,298.5	59.13	22.959	
9,100.0	6,782.8	6,550.0	6,259.3	74.3	33.1	-30.85	-291.1	-1,497.9	1,397.8	1,338.0	59.82	23.368	
9,153.5	6,782.6	6,550.0	6,259.3	75.8	33.1	-30.85	-291.1	-1,497.9	1,446.0	1,385.4	60.63	23.850	
9,200.0	6,782.4	6,550.0	6,259.3	77.1	33.1	-30.85	-291.1	-1,497.9	1,488.2	1,426.9	61.34	24.263	
9,251.9	6,782.2	6,530.9	6,241.5	78.5	33.1	-30.02	-291.1	-1,505.0	1,535.3	1,474.3	60.97	25.183	
9,300.0	6,782.0	6,525.3	6,236.4	79.8	33.1	-29.79	-291.1	-1,507.0	1,579.2	1,517.9	61.35	25.740	
9,350.4	6,781.8	6,519.8	6,231.1	81.2	33.1	-29.56	-291.1	-1,509.0	1,625.4	1,563.7	61.77	26.316	
9,400.0	6,781.6	6,500.0	6,212.5	82.6	33.2	-28.75	-291.1	-1,515.5	1,671.3	1,610.0	61.32	27.256	
9,448.8	6,781.4	6,500.0	6,212.5	83.9	33.2	-28.75	-291.1	-1,515.5	1,716.3	1,654.3	62.03	27.669	
9,500.0	6,781.2	6,500.0	6,212.5	85.4	33.2	-28.75	-291.1	-1,515.5	1,763.7	1,701.0	62.78	28.096	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,547.2	6,781.0	6,500.0	6,212.5	86.7	33.2	-28.75	-291.1	-1,515.5	1,807.7	1,744.2	63.46	28.483	
9,600.0	6,780.8	6,500.0	6,212.5	88.1	33.2	-28.75	-291.1	-1,515.5	1,856.9	1,792.7	64.23	28.909	
9,645.6	6,780.7	6,500.0	6,212.5	89.4	33.2	-28.75	-291.1	-1,515.5	1,899.7	1,834.8	64.90	29.271	
9,700.0	6,780.5	6,500.0	6,212.5	90.9	33.2	-28.75	-291.1	-1,515.5	1,950.8	1,885.1	65.69	29.695	
9,744.1	6,780.3	6,500.0	6,212.5	92.1	33.2	-28.75	-291.1	-1,515.5	1,992.4	1,926.0	66.34	30.033	
9,800.0	6,780.1	6,478.7	6,192.2	93.7	33.2	-27.92	-291.1	-1,522.0	2,044.8	1,979.0	65.81	31.072	
9,842.5	6,779.9	6,475.5	6,189.1	94.8	33.2	-27.80	-291.1	-1,523.0	2,085.0	2,018.8	66.22	31.487	
9,900.0	6,779.7	6,471.2	6,185.1	96.4	33.2	-27.64	-291.1	-1,524.2	2,139.5	2,072.7	66.78	32.039	
9,940.9	6,779.5	6,450.0	6,164.6	97.6	33.3	-26.86	-291.1	-1,529.8	2,178.6	2,112.6	66.05	32.983	
10,000.0	6,779.3	6,450.0	6,164.6	99.2	33.3	-26.86	-291.1	-1,529.8	2,234.6	2,167.8	66.88	33.414	
10,039.3	6,779.1	6,450.0	6,164.6	100.3	33.3	-26.86	-291.1	-1,529.8	2,272.1	2,204.6	67.43	33.696	
10,100.0	6,778.9	6,450.0	6,164.6	102.0	33.3	-26.86	-291.1	-1,529.8	2,329.8	2,261.6	68.28	34.124	
10,137.8	6,778.7	6,450.0	6,164.6	103.0	33.3	-26.86	-291.1	-1,529.8	2,365.9	2,297.1	68.80	34.386	
10,200.0	6,778.5	6,450.0	6,164.6	104.8	33.3	-26.86	-291.1	-1,529.8	2,425.4	2,355.8	69.68	34.810	
10,236.2	6,778.3	6,450.0	6,164.6	105.8	33.3	-26.86	-291.1	-1,529.8	2,460.1	2,389.9	70.18	35.053	
10,300.0	6,778.1	6,450.0	6,164.6	107.5	33.3	-26.86	-291.1	-1,529.8	2,521.4	2,450.3	71.08	35.474	
10,334.6	6,778.0	6,450.0	6,164.6	108.5	33.3	-26.86	-291.1	-1,529.8	2,554.6	2,483.1	71.56	35.698	
10,400.0	6,777.7	6,450.0	6,164.6	110.3	33.3	-26.86	-291.1	-1,529.8	2,617.6	2,545.1	72.48	36.115	
10,433.0	6,777.6	6,450.0	6,164.6	111.2	33.3	-26.86	-291.1	-1,529.8	2,649.5	2,576.5	72.94	36.322	
10,500.0	6,777.3	6,450.0	6,164.6	113.1	33.3	-26.86	-291.1	-1,529.8	2,714.1	2,640.2	73.88	36.736	
10,531.5	6,777.2	6,450.0	6,164.6	114.0	33.3	-26.86	-291.1	-1,529.8	2,744.5	2,670.2	74.32	36.927	
10,600.0	6,776.9	6,450.0	6,164.6	115.9	33.3	-26.86	-291.1	-1,529.8	2,810.8	2,735.6	75.29	37.336	
10,629.9	6,776.8	6,429.1	6,144.3	116.7	33.3	-26.13	-291.1	-1,534.8	2,839.4	2,765.1	74.29	38.221	
10,700.0	6,776.5	6,426.0	6,141.2	118.7	33.3	-26.02	-291.1	-1,535.5	2,907.3	2,832.3	75.04	38.742	
10,728.3	6,776.4	6,424.7	6,140.0	119.5	33.3	-25.98	-291.1	-1,535.8	2,934.8	2,859.4	75.35	38.949	
10,800.0	6,776.1	6,421.6	6,137.0	121.4	33.3	-25.87	-291.1	-1,536.4	3,004.3	2,928.2	76.13	39.465	
10,826.7	6,776.0	6,420.5	6,135.9	122.2	33.3	-25.83	-291.1	-1,536.7	3,030.3	2,953.8	76.42	39.654	
10,900.0	6,775.7	6,400.0	6,115.8	124.2	33.4	-25.16	-291.1	-1,540.7	3,101.7	3,025.6	76.04	40.788	
10,925.2	6,775.6	6,400.0	6,115.8	124.9	33.4	-25.16	-291.1	-1,540.7	3,126.1	3,049.8	76.38	40.927	
11,000.0	6,775.3	6,400.0	6,115.8	127.0	33.4	-25.16	-291.1	-1,540.7	3,198.9	3,121.5	77.39	41.334	
11,023.6	6,775.2	6,400.0	6,115.8	127.7	33.4	-25.16	-291.1	-1,540.7	3,221.8	3,144.1	77.71	41.461	
11,100.0	6,774.9	6,400.0	6,115.8	129.8	33.4	-25.15	-291.1	-1,540.7	3,296.2	3,217.5	78.74	41.864	
11,122.0	6,774.8	6,400.0	6,115.8	130.4	33.4	-25.15	-291.1	-1,540.7	3,317.7	3,238.7	79.03	41.978	
11,200.0	6,774.5	6,400.0	6,115.8	132.6	33.4	-25.15	-291.1	-1,540.7	3,393.7	3,313.6	80.08	42.378	
11,220.4	6,774.4	6,400.0	6,115.8	133.2	33.4	-25.15	-291.1	-1,540.7	3,413.7	3,333.3	80.36	42.481	
11,300.0	6,774.1	6,400.0	6,115.8	135.4	33.4	-25.15	-291.1	-1,540.7	3,491.4	3,409.9	81.43	42.876	
11,318.9	6,774.0	6,400.0	6,115.8	135.9	33.4	-25.15	-291.1	-1,540.7	3,509.8	3,428.1	81.68	42.968	
11,400.0	6,773.7	6,400.0	6,115.8	138.2	33.4	-25.15	-291.1	-1,540.7	3,589.2	3,506.4	82.78	43.359	
11,417.3	6,773.6	6,400.0	6,115.8	138.7	33.4	-25.15	-291.1	-1,540.7	3,606.1	3,523.1	83.01	43.441	
11,500.0	6,773.3	6,400.0	6,115.8	141.0	33.4	-25.15	-291.1	-1,540.7	3,687.0	3,602.9	84.13	43.828	
11,515.7	6,773.2	6,400.0	6,115.8	141.4	33.4	-25.15	-291.1	-1,540.7	3,702.5	3,618.1	84.34	43.900	
11,600.0	6,772.9	6,400.0	6,115.8	143.8	33.4	-25.15	-291.1	-1,540.7	3,785.1	3,699.6	85.47	44.283	
11,614.1	6,772.8	6,400.0	6,115.8	144.2	33.4	-25.15	-291.1	-1,540.7	3,798.9	3,713.3	85.66	44.346	
11,700.0	6,772.5	6,400.0	6,115.8	146.6	33.4	-25.15	-291.1	-1,540.7	3,883.2	3,796.3	86.82	44.725	
11,712.6	6,772.4	6,400.0	6,115.8	146.9	33.4	-25.15	-291.1	-1,540.7	3,895.5	3,808.5	86.99	44.780	
11,800.0	6,772.1	6,400.0	6,115.8	149.4	33.4	-25.15	-291.1	-1,540.7	3,981.4	3,893.2	88.17	45.155	
11,811.0	6,772.1	6,400.0	6,115.8	149.7	33.4	-25.15	-291.1	-1,540.7	3,992.2	3,903.9	88.32	45.201	
11,900.0	6,771.7	6,400.0	6,115.8	152.2	33.4	-25.15	-291.1	-1,540.7	4,079.7	3,990.1	89.52	45.572	
11,909.4	6,771.7	6,400.0	6,115.8	152.4	33.4	-25.15	-291.1	-1,540.7	4,088.9	3,999.3	89.65	45.611	
12,000.0	6,771.3	6,400.0	6,115.8	154.9	33.4	-25.15	-291.1	-1,540.7	4,178.0	4,087.1	90.87	45.978	
12,007.8	6,771.3	6,400.0	6,115.8	155.2	33.4	-25.15	-291.1	-1,540.7	4,185.7	4,094.8	90.98	46.009	
12,100.0	6,770.9	6,400.0	6,115.8	157.7	33.4	-25.15	-291.1	-1,540.7	4,276.5	4,184.2	92.22	46.372	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-232 - ORIGINAL WELLBORE - PROPOS												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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,770.9	6,400.0	6,115.8	157.9	33.4	-25.15	-291.1	-1,540.7	4,282.6	4,190.3	92.31	46.396	
12,200.0	6,770.5	6,400.0	6,115.8	160.5	33.4	-25.15	-291.1	-1,540.7	4,375.0	4,281.4	93.57	46.756	
12,204.7	6,770.5	6,378.5	6,094.6	160.7	33.4	-24.47	-291.1	-1,544.4	4,379.2	4,287.3	91.94	47.634	
12,300.0	6,770.1	6,376.4	6,092.6	163.3	33.4	-24.40	-291.1	-1,544.7	4,473.1	4,380.1	93.04	48.079	
12,303.1	6,770.1	6,376.3	6,092.5	163.4	33.4	-24.40	-291.1	-1,544.7	4,476.2	4,383.1	93.07	48.094	
12,316.4	6,770.0	6,376.1	6,092.2	163.8	33.4	-24.39	-291.1	-1,544.8	4,489.2	4,396.0	93.23	48.155	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	89.32	0.4	29.8	29.8					
98.4	98.4	98.4	98.4	0.1	0.1	89.32	0.4	29.8	29.8	29.6	0.19	155.033		
100.0	100.0	100.0	100.0	0.1	0.1	89.32	0.4	29.8	29.8	29.6	0.20	152.409		
196.8	196.8	196.8	196.8	0.3	0.3	89.32	0.4	29.8	29.8	29.2	0.63	47.238		
200.0	200.0	200.0	200.0	0.3	0.3	89.32	0.4	29.8	29.8	29.2	0.65	46.201		
295.3	295.3	295.3	295.3	0.5	0.5	89.32	0.4	29.8	29.8	28.7	1.07	27.766		
300.0	300.0	300.0	300.0	0.5	0.5	89.32	0.4	29.8	29.8	28.7	1.09	27.227		
393.7	393.7	393.7	393.7	0.8	0.8	89.32	0.4	29.8	29.8	28.3	1.52	19.661		
400.0	400.0	400.0	400.0	0.8	0.8	89.32	0.4	29.8	29.8	28.3	1.54	19.301		
492.1	492.1	492.1	492.1	1.0	1.0	89.32	0.4	29.8	29.8	27.8	1.96	15.219		
500.0	500.0	500.0	500.0	1.0	1.0	89.32	0.4	29.8	29.8	27.8	1.99	14.949		
590.5	590.5	590.5	590.5	1.2	1.2	89.32	0.4	29.8	29.8	27.4	2.40	12.414		
600.0	600.0	600.0	600.0	1.2	1.2	89.32	0.4	29.8	29.8	27.4	2.44	12.198		
689.0	689.0	689.0	689.0	1.4	1.4	89.32	0.4	29.8	29.8	27.0	2.84	10.482		
700.0	700.0	700.0	700.0	1.4	1.4	89.32	0.4	29.8	29.8	26.9	2.89	10.303		
787.4	787.4	787.4	787.4	1.6	1.6	89.32	0.4	29.8	29.8	26.5	3.29	9.071		
800.0	800.0	800.0	800.0	1.7	1.7	89.32	0.4	29.8	29.8	26.5	3.34	8.917		
885.8	885.8	885.8	885.8	1.9	1.9	89.32	0.4	29.8	29.8	26.1	3.73	7.994		
900.0	900.0	900.0	900.0	1.9	1.9	89.32	0.4	29.8	29.8	26.0	3.79	7.860		
984.2	984.2	984.2	984.2	2.1	2.1	89.32	0.4	29.8	29.8	25.6	4.17	7.146		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.32	0.4	29.8	29.8	25.6	4.24	7.027		
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	89.32	0.4	29.8	29.8	25.2	4.61	6.461		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	89.32	0.4	29.8	29.8	25.1	4.69	6.353		
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	89.32	0.4	29.8	29.8	24.7	5.06	5.895		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.32	0.4	29.8	29.8	24.7	5.14	5.798		
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	89.32	0.4	29.8	29.8	24.3	5.50	5.421		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	89.32	0.4	29.8	29.8	24.2	5.59	5.332		
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	89.32	0.4	29.8	29.8	23.9	5.94	5.017		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	89.32	0.4	29.8	29.8	23.8	6.04	4.935		
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	89.32	0.4	29.8	29.8	23.4	6.38	4.669		
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	89.32	0.4	29.8	29.8	23.3	6.49	4.593 CC		
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	170.33	0.4	29.8	30.8	24.0	6.82	4.514		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	170.56	0.4	29.8	31.5	24.6	6.92	4.553		
1,673.2	1,673.1	1,673.1	1,673.1	3.6	3.6	171.49	0.4	29.8	35.0	27.7	7.23	4.836		
1,700.0	1,699.8	1,699.8	1,699.8	3.7	3.7	171.88	0.4	29.8	36.7	29.4	7.34	4.998		
1,771.6	1,771.2	1,771.9	1,771.9	3.8	3.8	173.94	-0.3	29.2	42.0	34.3	7.62	5.505		
1,800.0	1,799.5	1,800.4	1,800.4	3.9	3.9	175.18	-0.9	28.6	44.2	36.5	7.73	5.722		
1,870.1	1,869.0	1,870.9	1,870.8	4.0	4.0	178.94	-3.4	26.3	50.4	42.4	7.98	6.316		
1,900.0	1,898.7	1,900.9	1,900.7	4.1	4.1	-179.26	-4.8	25.0	53.4	45.3	8.09	6.596		
1,968.5	1,966.4	1,969.6	1,969.2	4.3	4.2	-174.90	-8.9	21.2	60.8	52.5	8.34	7.292		
2,000.0	1,997.5	2,001.1	2,000.5	4.4	4.3	-172.86	-11.2	19.0	64.7	56.2	8.46	7.644		
2,066.9	2,063.2	2,067.9	2,066.9	4.6	4.4	-168.57	-16.9	13.7	73.7	65.0	8.72	8.449		
2,100.1	2,095.7	2,100.9	2,099.6	4.7	4.5	-166.51	-20.1	10.7	78.6	69.8	8.85	8.883		
2,165.3	2,159.5	2,165.7	2,163.7	4.9	4.6	-162.57	-27.3	4.0	88.6	79.5	9.17	9.672		
2,200.0	2,193.4	2,200.1	2,197.6	5.0	4.7	-160.47	-31.5	0.1	93.9	84.6	9.34	10.062		
2,224.2	2,217.1	2,224.1	2,221.1	5.1	4.8	-159.00	-34.6	-2.8	97.6	88.2	9.46	10.317		
2,263.8	2,255.9	2,263.3	2,259.6	5.2	4.9	-156.57	-40.0	-7.9	103.5	93.8	9.69	10.681		
2,300.0	2,291.5	2,299.1	2,294.7	5.3	5.0	-154.24	-45.3	-12.8	108.5	98.6	9.90	10.965		
2,362.2	2,352.7	2,360.3	2,354.6	5.5	5.1	-150.30	-54.6	-21.5	116.6	106.3	10.26	11.359		
2,400.0	2,390.1	2,397.5	2,391.0	5.6	5.3	-148.00	-60.2	-26.8	121.1	110.7	10.49	11.554		
2,460.6	2,450.1	2,457.2	2,449.4	5.7	5.4	-144.41	-69.3	-35.2	128.0	117.2	10.85	11.799		
2,500.0	2,489.2	2,496.0	2,487.3	5.8	5.6	-142.11	-75.2	-40.7	132.2	121.1	11.09	11.924		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,548.0	2,554.1	2,544.2	6.0	5.8	-138.66	-84.0	-49.0	138.1	126.7	11.45	12.067	
2,600.0	2,588.8	2,594.4	2,583.6	6.1	5.9	-136.24	-90.1	-54.7	142.0	130.3	11.70	12.143	
2,657.5	2,646.1	2,651.0	2,638.9	6.2	6.1	-132.81	-98.7	-62.7	147.2	135.2	12.04	12.230	
2,700.0	2,688.6	2,692.8	2,679.8	6.3	6.3	-130.23	-105.1	-68.7	150.9	138.6	12.29	12.283	
2,755.9	2,744.4	2,747.6	2,733.5	6.4	6.5	-126.76	-113.4	-76.4	155.7	143.1	12.60	12.353	
2,800.0	2,788.5	2,790.8	2,775.7	6.5	6.6	-123.96	-120.0	-82.6	159.4	146.6	12.85	12.411	
2,824.3	2,812.8	2,814.6	2,799.0	6.5	6.7	156.90	-123.6	-85.9	161.5	149.3	12.20	13.233	
2,854.3	2,842.9	2,844.0	2,827.7	6.6	6.8	158.86	-128.1	-90.1	164.2	151.8	12.34	13.302	
2,900.0	2,888.5	2,888.7	2,871.4	6.7	7.0	161.72	-134.9	-96.5	168.6	156.0	12.56	13.425	
2,952.7	2,941.3	2,940.3	2,921.9	6.8	7.2	164.84	-142.7	-103.8	174.2	161.4	12.83	13.576	
3,000.0	2,988.5	2,987.9	2,968.5	6.9	7.4	167.47	-149.7	-110.4	179.5	166.4	13.09	13.718	
3,051.2	3,039.7	3,040.1	3,019.9	7.0	7.5	169.96	-156.8	-117.0	185.1	171.8	13.36	13.855	
3,100.0	3,088.5	3,090.3	3,069.3	7.1	7.7	172.00	-163.0	-122.7	190.2	176.6	13.62	13.961	
3,149.6	3,138.1	3,141.6	3,120.0	7.2	7.8	173.77	-168.6	-128.0	195.0	181.1	13.89	14.043	
3,200.0	3,188.5	3,193.9	3,171.9	7.3	8.0	175.29	-173.7	-132.7	199.5	185.3	14.15	14.094	
3,248.0	3,236.6	3,244.0	3,221.7	7.4	8.1	176.49	-177.9	-136.7	203.2	188.8	14.40	14.115	
3,300.0	3,288.5	3,298.5	3,275.9	7.5	8.2	177.55	-181.8	-140.2	206.7	192.1	14.66	14.100	
3,346.4	3,335.0	3,347.3	3,324.5	7.6	8.4	178.30	-184.6	-142.9	209.3	194.4	14.89	14.061	
3,400.0	3,388.5	3,403.7	3,380.8	7.7	8.5	178.95	-187.1	-145.2	211.6	196.5	15.14	13.977	
3,444.9	3,433.4	3,451.1	3,428.2	7.8	8.6	179.33	-188.5	-146.6	213.0	197.7	15.35	13.881	
3,500.0	3,488.5	3,509.3	3,486.4	7.9	8.7	179.59	-189.5	-147.5	214.0	198.4	15.59	13.725	
3,543.3	3,531.8	3,554.8	3,531.8	8.0	8.8	179.64	-189.7	-147.7	214.2	198.4	15.77	13.579	
3,600.0	3,588.5	3,611.5	3,588.5	8.1	8.9	179.64	-189.7	-147.7	214.2	198.2	16.00	13.383	
3,641.7	3,630.3	3,653.2	3,630.3	8.2	9.0	179.64	-189.7	-147.7	214.2	198.0	16.18	13.240	
3,700.0	3,688.5	3,711.5	3,688.5	8.3	9.1	179.64	-189.7	-147.7	214.2	197.7	16.42	13.045	
3,740.1	3,728.7	3,751.6	3,728.7	8.4	9.1	179.64	-189.7	-147.7	214.2	197.6	16.58	12.914	
3,800.0	3,788.5	3,811.5	3,788.5	8.5	9.2	179.64	-189.7	-147.7	214.2	197.3	16.83	12.723	
3,838.6	3,827.1	3,850.0	3,827.1	8.6	9.3	179.64	-189.7	-147.7	214.2	197.2	16.99	12.602	
3,900.0	3,888.5	3,911.5	3,888.5	8.7	9.4	179.64	-189.7	-147.7	214.2	196.9	17.25	12.414	
3,937.0	3,925.5	3,948.5	3,925.5	8.8	9.5	179.64	-189.7	-147.7	214.2	196.8	17.41	12.304	
4,000.0	3,988.5	4,011.5	3,988.5	9.0	9.6	179.64	-189.7	-147.7	214.2	196.5	17.67	12.120	
4,035.4	4,024.0	4,046.9	4,024.0	9.0	9.7	179.64	-189.7	-147.7	214.2	196.3	17.82	12.018	
4,100.0	4,088.5	4,111.5	4,088.5	9.2	9.8	179.64	-189.7	-147.7	214.2	196.1	18.09	11.838	
4,133.8	4,122.4	4,145.3	4,122.4	9.2	9.9	179.64	-189.7	-147.7	214.2	195.9	18.23	11.745	
4,200.0	4,188.5	4,211.5	4,188.5	9.4	10.0	179.64	-189.7	-147.7	214.2	195.6	18.51	11.568	
4,232.3	4,220.8	4,243.7	4,220.8	9.4	10.1	179.64	-189.7	-147.7	214.2	195.5	18.65	11.483	
4,300.0	4,288.5	4,311.5	4,288.5	9.6	10.2	179.64	-189.7	-147.7	214.2	195.2	18.94	11.309	
4,330.7	4,319.2	4,342.2	4,319.2	9.7	10.3	179.64	-189.7	-147.7	214.2	195.1	19.07	11.232	
4,400.0	4,388.5	4,411.5	4,388.5	9.8	10.4	179.64	-189.7	-147.7	214.2	194.8	19.36	11.061	
4,429.1	4,417.7	4,440.6	4,417.7	9.9	10.4	179.64	-189.7	-147.7	214.2	194.7	19.49	10.991	
4,500.0	4,488.5	4,511.5	4,488.5	10.0	10.6	179.64	-189.7	-147.7	214.2	194.4	19.79	10.823	
4,527.5	4,516.1	4,539.0	4,516.1	10.1	10.6	179.64	-189.7	-147.7	214.2	194.3	19.90	10.760	
4,600.0	4,588.5	4,611.5	4,588.5	10.2	10.8	179.64	-189.7	-147.7	214.2	193.9	20.21	10.595	
4,626.0	4,614.5	4,637.4	4,614.5	10.3	10.8	179.64	-189.7	-147.7	214.2	193.8	20.32	10.537	
4,700.0	4,688.5	4,711.5	4,688.5	10.5	11.0	179.64	-189.7	-147.7	214.2	193.5	20.64	10.376	
4,724.4	4,712.9	4,735.9	4,712.9	10.5	11.0	179.64	-189.7	-147.7	214.2	193.4	20.75	10.323	
4,800.0	4,788.5	4,811.5	4,788.5	10.7	11.2	179.64	-189.7	-147.7	214.2	193.1	21.07	10.165	
4,822.8	4,811.4	4,834.3	4,811.4	10.7	11.2	179.64	-189.7	-147.7	214.2	193.0	21.17	10.118	
4,900.0	4,888.5	4,911.5	4,888.5	10.9	11.4	179.64	-189.7	-147.7	214.2	192.7	21.50	9.962	
4,921.2	4,909.8	4,932.7	4,909.8	10.9	11.4	179.64	-189.7	-147.7	214.2	192.6	21.59	9.920	
5,000.0	4,988.5	5,011.5	4,988.5	11.1	11.6	179.64	-189.7	-147.7	214.2	192.2	21.93	9.766	
5,019.7	5,008.2	5,031.1	5,008.2	11.1	11.6	179.64	-189.7	-147.7	214.2	192.1	22.01	9.729	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,111.5	5,088.5	11.3	11.8	179.64	-189.7	-147.7	214.2	191.8	22.36	9.578	
5,118.1	5,106.6	5,129.6	5,106.6	11.4	11.8	179.64	-189.7	-147.7	214.2	191.7	22.44	9.545	
5,200.0	5,188.5	5,211.5	5,188.5	11.5	12.0	179.64	-189.7	-147.7	214.2	191.4	22.79	9.397	
5,216.5	5,205.1	5,228.0	5,205.1	11.6	12.0	179.64	-189.7	-147.7	214.2	191.3	22.86	9.368	
5,300.0	5,288.5	5,311.5	5,288.5	11.8	12.2	179.64	-189.7	-147.7	214.2	190.9	23.22	9.222	
5,314.9	5,303.5	5,326.4	5,303.5	11.8	12.2	179.64	-189.7	-147.7	214.2	190.9	23.29	9.196	
5,400.0	5,388.5	5,411.5	5,388.5	12.0	12.4	179.64	-189.7	-147.7	214.2	190.5	23.66	9.053	
5,413.4	5,401.9	5,424.8	5,401.9	12.0	12.4	179.64	-189.7	-147.7	214.2	190.4	23.71	9.031	
5,500.0	5,488.5	5,511.5	5,488.5	12.2	12.6	179.64	-189.7	-147.7	214.2	190.1	24.09	8.890	
5,511.8	5,500.3	5,523.3	5,500.3	12.2	12.6	179.64	-189.7	-147.7	214.2	190.0	24.14	8.872	
5,600.0	5,588.5	5,611.5	5,588.5	12.4	12.8	179.64	-189.7	-147.7	214.2	189.6	24.52	8.733	
5,610.2	5,598.8	5,621.7	5,598.8	12.4	12.8	179.64	-189.7	-147.7	214.2	189.6	24.57	8.717	
5,700.0	5,688.5	5,711.5	5,688.5	12.6	13.0	179.64	-189.7	-147.7	214.2	189.2	24.96	8.581	
5,708.6	5,697.2	5,720.1	5,697.2	12.6	13.0	179.64	-189.7	-147.7	214.2	189.2	25.00	8.568	
5,800.0	5,788.5	5,811.5	5,788.5	12.8	13.2	179.64	-189.7	-147.7	214.2	188.8	25.39	8.434	
5,807.1	5,795.6	5,818.5	5,795.6	12.9	13.2	179.64	-189.7	-147.7	214.2	188.7	25.42	8.424	
5,900.0	5,888.5	5,911.5	5,888.5	13.1	13.4	179.64	-189.7	-147.7	214.2	188.3	25.83	8.292	
5,905.5	5,894.0	5,917.0	5,894.0	13.1	13.4	179.64	-189.7	-147.7	214.2	188.3	25.85	8.284	
6,000.0	5,988.5	6,011.5	5,988.5	13.3	13.6	179.64	-189.7	-147.7	214.2	187.9	26.26	8.154	
6,003.9	5,992.5	6,015.4	5,992.5	13.3	13.6	179.64	-189.7	-147.7	214.2	187.9	26.28	8.149	
6,058.5	6,047.0	6,070.0	6,047.1	13.4	13.8	179.99	-189.7	-149.0	214.2	187.6	26.52	8.075	
6,085.3	6,073.8	6,096.6	6,073.6	13.5	13.8	-179.45	-189.7	-151.1	214.2	187.5	26.64	8.039	
6,100.0	6,088.5	6,111.2	6,088.1	13.5	13.9	-89.07	-189.7	-152.7	214.2	187.2	26.98	7.939	
6,102.3	6,090.9	6,113.6	6,090.4	13.5	13.9	-89.01	-189.7	-153.0	214.2	187.2	26.99	7.936	
6,150.0	6,138.4	6,160.6	6,136.9	13.6	14.0	-87.78	-189.7	-160.2	214.3	187.1	27.21	7.877	
6,200.0	6,188.0	6,209.6	6,184.7	13.7	14.1	-86.51	-189.7	-170.9	214.6	187.1	27.47	7.811	
6,200.8	6,188.8	6,210.4	6,185.5	13.7	14.1	-86.49	-189.7	-171.1	214.6	187.1	27.47	7.810	
6,250.0	6,237.1	6,258.4	6,231.4	13.9	14.3	-85.26	-189.7	-184.8	214.9	187.1	27.76	7.741	
6,299.2	6,284.6	6,306.0	6,276.1	14.0	14.5	-84.06	-189.7	-201.5	215.3	187.2	28.08	7.667	
6,300.0	6,285.3	6,306.8	6,276.8	14.0	14.5	-84.04	-189.7	-201.8	215.3	187.2	28.09	7.666	
6,350.0	6,332.5	6,354.9	6,320.6	14.2	14.7	-82.86	-189.7	-221.6	215.8	187.4	28.45	7.586	
6,397.6	6,376.3	6,400.0	6,360.4	14.4	14.9	-81.78	-189.7	-242.8	216.4	187.6	28.84	7.504	
6,400.0	6,378.5	6,402.8	6,362.8	14.4	15.0	-81.72	-189.7	-244.2	216.4	187.6	28.86	7.499	
6,450.0	6,423.0	6,450.0	6,402.9	14.7	15.2	-80.63	-189.7	-269.2	217.1	187.8	29.32	7.403	
6,496.0	6,462.4	6,494.0	6,438.6	14.9	15.5	-79.66	-189.7	-294.8	217.7	187.9	29.81	7.304	
6,500.0	6,465.7	6,497.7	6,441.6	14.9	15.5	-79.58	-189.7	-297.1	217.8	187.9	29.85	7.296	
6,550.0	6,506.6	6,544.9	6,477.9	15.2	15.9	-78.59	-189.7	-327.1	218.5	188.1	30.44	7.178	
6,594.5	6,541.2	6,586.6	6,508.4	15.6	16.2	-77.76	-189.7	-355.6	219.2	188.1	31.04	7.060	
6,600.0	6,545.3	6,591.8	6,512.0	15.6	16.3	-77.66	-189.7	-359.3	219.2	188.1	31.12	7.046	
6,650.0	6,581.8	6,638.5	6,543.8	16.0	16.7	-76.80	-189.7	-393.5	220.0	188.1	31.89	6.900	
6,692.9	6,611.1	6,678.4	6,569.2	16.4	17.2	-76.11	-189.7	-424.3	220.6	188.0	32.63	6.761	
6,700.0	6,615.8	6,685.0	6,573.2	16.5	17.2	-76.00	-189.7	-429.5	220.7	188.0	32.76	6.739	
6,750.0	6,647.1	6,731.4	6,600.1	17.1	17.8	-75.26	-189.7	-467.3	221.5	187.7	33.74	6.563	
6,791.3	6,670.9	6,769.6	6,620.4	17.6	18.3	-74.71	-189.7	-499.6	222.0	187.4	34.65	6.408	
6,800.0	6,675.7	6,777.6	6,624.5	17.7	18.4	-74.60	-189.7	-506.5	222.2	187.3	34.85	6.375	
6,850.0	6,701.3	6,823.6	6,646.2	18.4	19.1	-74.00	-189.7	-547.2	222.8	186.7	36.07	6.177	
6,889.7	6,719.5	6,860.2	6,661.5	19.0	19.7	-73.58	-189.7	-580.3	223.3	186.1	37.14	6.012	
6,900.0	6,723.8	6,869.6	6,665.1	19.1	19.9	-73.48	-189.7	-589.0	223.4	186.0	37.42	5.970	
6,950.0	6,743.2	6,915.4	6,681.4	20.0	20.7	-73.03	-189.7	-631.9	223.9	185.0	38.89	5.757	
6,988.2	6,755.8	6,950.0	6,691.8	20.6	21.3	-72.74	-189.7	-664.8	224.3	184.2	40.09	5.594	
7,000.0	6,759.4	6,961.2	6,694.8	20.9	21.5	-72.66	-189.7	-675.6	224.4	183.9	40.49	5.542	
7,050.0	6,772.1	7,006.9	6,705.4	21.8	22.4	-72.36	-189.7	-720.0	224.7	182.5	42.19	5.327	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	7,040.3	6,711.3	22.5	23.1	-72.18	-189.7	-752.9	224.9	181.4	43.50	5.171	
7,100.0	6,781.5	7,052.5	6,713.1	22.8	23.3	-72.13	-189.7	-765.0	225.0	181.0	43.99	5.115	
7,150.0	6,787.5	7,100.0	6,718.1	23.9	24.3	-71.97	-189.7	-812.2	225.2	179.3	45.92	4.904	
7,152.1	6,787.6	7,100.0	6,718.1	23.9	24.3	-71.97	-189.7	-812.2	225.2	179.2	45.97	4.900	
7,185.0	6,789.6	7,130.0	6,719.7	24.6	24.9	-71.92	-189.7	-842.1	225.3	178.0	47.26	4.767	
7,200.0	6,789.9	7,143.6	6,720.0	24.9	25.2	-71.91	-189.7	-855.8	225.3	177.4	47.85	4.708	
7,213.0	6,790.0	7,155.5	6,720.0	25.2	25.5	-71.90	-189.7	-867.7	225.3	176.9	48.38	4.658	
7,283.4	6,789.7	7,226.0	6,719.7	26.8	27.1	-71.90	-189.7	-938.2	225.3	173.9	51.39	4.385	
7,299.0	6,789.7	7,241.5	6,719.7	27.1	27.4	-71.90	-189.7	-953.7	225.3	173.3	52.06	4.328	
7,300.0	6,789.7	7,242.6	6,719.7	27.2	27.5	-71.90	-189.7	-954.7	225.3	173.2	52.10	4.324	
7,381.9	6,789.4	7,324.4	6,719.4	29.1	29.3	-71.90	-189.7	-1,036.6	225.3	169.6	55.73	4.043	
7,398.7	6,789.3	7,341.3	6,719.3	29.5	29.7	-71.90	-189.7	-1,053.4	225.3	168.8	56.48	3.989	
7,400.0	6,789.3	7,342.6	6,719.3	29.5	29.8	-71.90	-189.7	-1,054.7	225.3	168.8	56.54	3.985	
7,480.3	6,789.0	7,422.9	6,719.0	31.4	31.7	-71.90	-189.7	-1,135.0	225.3	165.1	60.22	3.741	
7,498.0	6,788.9	7,440.5	6,718.9	31.8	32.1	-71.90	-189.7	-1,152.7	225.3	164.3	61.04	3.691	
7,500.0	6,788.9	7,442.6	6,718.9	31.9	32.2	-71.90	-189.7	-1,154.7	225.3	164.2	61.13	3.686	
7,578.7	6,788.6	7,521.3	6,718.6	33.8	34.1	-71.90	-189.7	-1,233.4	225.3	160.5	64.83	3.475	
7,596.9	6,788.6	7,539.4	6,718.5	34.3	34.6	-71.90	-189.7	-1,251.6	225.3	159.6	65.69	3.430	
7,600.0	6,788.5	7,542.6	6,718.5	34.4	34.6	-71.90	-189.7	-1,254.7	225.3	159.5	65.83	3.422	
7,677.1	6,788.2	7,619.7	6,718.2	36.3	36.6	-71.90	-189.7	-1,331.9	225.3	155.8	69.53	3.240	
7,700.0	6,788.2	7,642.6	6,718.2	36.9	37.2	-71.90	-189.7	-1,354.7	225.3	154.7	70.63	3.190	
7,775.6	6,787.9	7,718.1	6,717.9	38.8	39.1	-71.90	-189.7	-1,430.3	225.3	151.0	74.31	3.032	
7,800.0	6,787.8	7,742.6	6,717.8	39.4	39.7	-71.90	-189.7	-1,454.7	225.3	149.8	75.51	2.984	
7,874.0	6,787.5	7,816.6	6,717.5	41.3	41.6	-71.90	-189.7	-1,528.7	225.3	146.2	79.16	2.846	
7,900.0	6,787.4	7,842.6	6,717.4	42.0	42.3	-71.90	-189.7	-1,554.7	225.3	144.9	80.44	2.801	
7,972.4	6,787.1	7,915.0	6,717.1	43.9	44.2	-71.90	-189.7	-1,627.1	225.3	141.3	84.05	2.681	
8,000.0	6,787.0	7,942.6	6,717.0	44.6	44.9	-71.90	-189.7	-1,654.7	225.3	139.9	85.43	2.637	
8,070.8	6,786.7	8,013.4	6,716.7	46.5	46.8	-71.90	-189.7	-1,725.6	225.3	136.3	88.99	2.532	
8,100.0	6,786.6	8,042.6	6,716.6	47.3	47.6	-71.90	-189.7	-1,754.7	225.3	134.9	90.46	2.491	
8,169.3	6,786.4	8,111.8	6,716.4	49.1	49.4	-71.90	-189.7	-1,824.0	225.3	131.3	93.97	2.398	
8,200.0	6,786.3	8,142.6	6,716.3	49.9	50.2	-71.90	-189.7	-1,854.7	225.3	129.8	95.52	2.359	
8,267.7	6,786.0	8,210.3	6,716.0	51.7	52.0	-71.90	-189.7	-1,922.4	225.3	126.3	98.97	2.277	
8,300.0	6,785.9	8,242.6	6,715.9	52.6	52.9	-71.90	-189.7	-1,954.7	225.3	124.7	100.62	2.239	
8,366.1	6,785.6	8,308.7	6,715.6	54.4	54.7	-71.90	-189.7	-2,020.8	225.3	121.3	104.01	2.166	
8,400.0	6,785.5	8,342.6	6,715.5	55.3	55.6	-71.90	-189.7	-2,054.7	225.3	119.6	105.74	2.131	
8,464.5	6,785.2	8,407.1	6,715.2	57.0	57.3	-71.90	-189.7	-2,119.3	225.3	116.3	109.06	2.066	
8,500.0	6,785.1	8,442.6	6,715.1	58.0	58.3	-71.90	-189.7	-2,154.7	225.3	114.4	110.89	2.032	
8,563.0	6,784.9	8,505.5	6,714.9	59.7	60.0	-71.90	-189.7	-2,217.7	225.3	111.2	114.14	1.974	
8,600.0	6,784.7	8,542.6	6,714.7	60.7	61.0	-71.90	-189.7	-2,254.7	225.3	109.3	116.05	1.942	
8,661.4	6,784.5	8,604.0	6,714.5	62.4	62.6	-71.90	-189.7	-2,316.1	225.3	106.1	119.23	1.890	
8,700.0	6,784.3	8,642.6	6,714.3	63.4	63.7	-71.90	-189.8	-2,354.7	225.3	104.1	121.23	1.859	
8,759.8	6,784.1	8,702.4	6,714.1	65.0	65.3	-71.90	-189.8	-2,414.5	225.3	101.0	124.34	1.812	
8,800.0	6,784.0	8,742.6	6,713.9	66.1	66.4	-71.90	-189.8	-2,454.7	225.3	98.9	126.43	1.782	
8,858.2	6,783.7	8,800.8	6,713.7	67.7	68.0	-71.90	-189.8	-2,512.9	225.3	95.9	129.46	1.740	
8,900.0	6,783.6	8,842.5	6,713.6	68.9	69.1	-71.90	-189.8	-2,554.7	225.3	93.7	131.64	1.712	
8,956.7	6,783.3	8,899.2	6,713.3	70.4	70.7	-71.90	-189.8	-2,611.4	225.3	90.7	134.59	1.674	
9,000.0	6,783.2	8,942.5	6,713.2	71.6	71.9	-71.90	-189.8	-2,654.7	225.3	88.5	136.86	1.646	
9,055.1	6,783.0	8,997.6	6,713.0	73.1	73.4	-71.90	-189.8	-2,709.8	225.3	85.6	139.74	1.612	
9,100.0	6,782.8	9,042.5	6,712.8	74.3	74.6	-71.90	-189.8	-2,754.7	225.3	83.2	142.09	1.586	
9,153.5	6,782.6	9,096.1	6,712.6	75.8	76.1	-71.90	-189.8	-2,808.2	225.3	80.4	144.89	1.555	
9,200.0	6,782.4	9,142.5	6,712.4	77.1	77.4	-71.90	-189.8	-2,854.7	225.3	78.0	147.33	1.529	
9,251.9	6,782.2	9,194.5	6,712.2	78.5	78.8	-71.90	-189.8	-2,906.6	225.3	75.3	150.05	1.502	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,300.0	6,782.0	9,242.5	6,712.0	79.8	80.1	-71.90	-189.8	-2,954.7	225.3	72.7	152.57	1.477	Level 3
9,350.4	6,781.8	9,292.9	6,711.8	81.2	81.5	-71.90	-189.8	-3,005.1	225.3	70.1	155.22	1.452	Level 3
9,400.0	6,781.6	9,342.5	6,711.6	82.6	82.9	-71.90	-189.8	-3,054.7	225.3	67.5	157.83	1.428	Level 3
9,448.8	6,781.4	9,391.3	6,711.4	83.9	84.2	-71.90	-189.8	-3,103.5	225.3	64.9	160.40	1.405	Level 3
9,500.0	6,781.2	9,442.5	6,711.2	85.4	85.6	-71.90	-189.8	-3,154.7	225.3	62.2	163.09	1.382	Level 3
9,547.2	6,781.0	9,489.8	6,711.0	86.7	86.9	-71.90	-189.8	-3,201.9	225.3	59.7	165.58	1.361	Level 3
9,600.0	6,780.8	9,542.5	6,710.8	88.1	88.4	-71.90	-189.8	-3,254.7	225.3	57.0	168.36	1.338	Level 3
9,645.6	6,780.7	9,588.2	6,710.7	89.4	89.7	-71.90	-189.8	-3,300.3	225.3	54.6	170.77	1.319	Level 3
9,700.0	6,780.5	9,642.5	6,710.5	90.9	91.2	-71.90	-189.8	-3,354.7	225.3	51.7	173.64	1.298	Level 3
9,744.1	6,780.3	9,686.6	6,710.3	92.1	92.4	-71.90	-189.8	-3,398.8	225.3	49.4	175.96	1.281	Level 3
9,800.0	6,780.1	9,742.5	6,710.1	93.7	93.9	-71.90	-189.8	-3,454.7	225.3	46.4	178.91	1.259	Level 3
9,842.5	6,779.9	9,785.0	6,709.9	94.8	95.1	-71.90	-189.8	-3,497.2	225.3	44.2	181.16	1.244	Level 2
9,900.0	6,779.7	9,842.5	6,709.7	96.4	96.7	-71.90	-189.8	-3,554.7	225.3	41.1	184.20	1.223	Level 2
9,940.9	6,779.5	9,883.5	6,709.5	97.6	97.8	-71.90	-189.8	-3,595.6	225.3	39.0	186.36	1.209	Level 2
10,000.0	6,779.3	9,942.5	6,709.3	99.2	99.5	-71.90	-189.8	-3,654.7	225.3	35.8	189.49	1.189	Level 2
10,039.3	6,779.1	9,981.9	6,709.1	100.3	100.6	-71.90	-189.8	-3,694.0	225.3	33.8	191.57	1.176	Level 2
10,100.0	6,778.9	10,042.5	6,708.9	102.0	102.3	-71.90	-189.8	-3,754.7	225.3	30.5	194.78	1.157	Level 2
10,137.8	6,778.7	10,080.3	6,708.7	103.0	103.3	-71.90	-189.8	-3,792.5	225.3	28.5	196.78	1.145	Level 2
10,200.0	6,778.5	10,142.5	6,708.5	104.8	105.0	-71.90	-189.8	-3,854.7	225.3	25.3	200.07	1.126	Level 2
10,236.2	6,778.3	10,178.7	6,708.3	105.8	106.0	-71.90	-189.8	-3,890.9	225.3	23.3	201.99	1.116	Level 2
10,300.0	6,778.1	10,242.5	6,708.1	107.5	107.8	-71.90	-189.8	-3,954.7	225.3	20.0	205.37	1.097	Level 2
10,334.6	6,778.0	10,277.2	6,708.0	108.5	108.8	-71.90	-189.8	-3,989.3	225.3	18.1	207.21	1.087	Level 2
10,400.0	6,777.7	10,342.5	6,707.7	110.3	110.6	-71.90	-189.8	-4,054.7	225.3	14.7	210.68	1.070	Level 2
10,433.0	6,777.6	10,375.6	6,707.6	111.2	111.5	-71.90	-189.8	-4,087.7	225.3	12.9	212.43	1.061	Level 2
10,500.0	6,777.3	10,442.5	6,707.3	113.1	113.4	-71.90	-189.8	-4,154.7	225.3	9.4	215.98	1.043	Level 2
10,531.5	6,777.2	10,474.0	6,707.2	114.0	114.3	-71.90	-189.8	-4,186.2	225.3	7.7	217.65	1.035	Level 2
10,600.0	6,776.9	10,542.5	6,706.9	115.9	116.2	-71.90	-189.8	-4,254.7	225.3	4.0	221.29	1.018	Level 2
10,629.9	6,776.8	10,572.4	6,706.8	116.7	117.0	-71.90	-189.8	-4,284.6	225.3	2.5	222.87	1.011	Level 2
10,700.0	6,776.5	10,642.5	6,706.5	118.7	118.9	-71.90	-189.8	-4,354.7	225.3	-1.3	226.60	0.994	Level 1
10,728.3	6,776.4	10,670.9	6,706.4	119.5	119.7	-71.90	-189.8	-4,383.0	225.3	-2.8	228.10	0.988	Level 1
10,800.0	6,776.1	10,742.5	6,706.1	121.4	121.7	-71.90	-189.8	-4,454.7	225.3	-6.6	231.91	0.972	Level 1
10,826.7	6,776.0	10,769.3	6,706.0	122.2	122.5	-71.90	-189.8	-4,481.4	225.3	-8.0	233.33	0.966	Level 1
10,900.0	6,775.7	10,842.5	6,705.7	124.2	124.5	-71.90	-189.8	-4,554.7	225.3	-11.9	237.22	0.950	Level 1
10,925.2	6,775.6	10,867.7	6,705.6	124.9	125.2	-71.90	-189.8	-4,579.8	225.3	-13.2	238.56	0.945	Level 1
11,000.0	6,775.3	10,942.5	6,705.3	127.0	127.3	-71.90	-189.8	-4,654.7	225.3	-17.2	242.54	0.929	Level 1
11,023.6	6,775.2	10,966.1	6,705.2	127.7	128.0	-71.90	-189.8	-4,678.3	225.3	-18.5	243.79	0.924	Level 1
11,100.0	6,774.9	11,042.5	6,704.9	129.8	130.1	-71.90	-189.8	-4,754.7	225.3	-22.5	247.86	0.909	Level 1
11,122.0	6,774.8	11,064.6	6,704.8	130.4	130.7	-71.90	-189.8	-4,776.7	225.3	-23.7	249.03	0.905	Level 1
11,200.0	6,774.5	11,142.5	6,704.5	132.6	132.9	-71.90	-189.8	-4,854.7	225.3	-27.8	253.18	0.890	Level 1
11,220.4	6,774.4	11,163.0	6,704.4	133.2	133.5	-71.90	-189.8	-4,875.1	225.3	-28.9	254.27	0.886	Level 1
11,300.0	6,774.1	11,242.5	6,704.1	135.4	135.7	-71.90	-189.8	-4,954.7	225.3	-33.2	258.50	0.872	Level 1
11,318.9	6,774.0	11,261.4	6,704.0	135.9	136.2	-71.90	-189.8	-4,973.5	225.3	-34.2	259.50	0.868	Level 1
11,400.0	6,773.7	11,342.5	6,703.7	138.2	138.5	-71.90	-189.8	-5,054.7	225.3	-38.5	263.82	0.854	Level 1
11,417.3	6,773.6	11,359.8	6,703.6	138.7	139.0	-71.90	-189.8	-5,072.0	225.3	-39.4	264.74	0.851	Level 1
11,500.0	6,773.3	11,442.5	6,703.3	141.0	141.3	-71.90	-189.8	-5,154.7	225.3	-43.8	269.15	0.837	Level 1
11,515.7	6,773.2	11,458.3	6,703.2	141.4	141.7	-71.90	-189.8	-5,170.4	225.3	-44.6	269.98	0.835	Level 1
11,600.0	6,772.9	11,542.5	6,702.9	143.8	144.1	-71.90	-189.8	-5,254.7	225.3	-49.1	274.47	0.821	Level 1
11,614.1	6,772.8	11,556.7	6,702.8	144.2	144.4	-71.90	-189.8	-5,268.8	225.3	-49.9	275.23	0.819	Level 1
11,700.0	6,772.5	11,642.5	6,702.5	146.6	146.8	-71.90	-189.8	-5,354.7	225.3	-54.5	279.80	0.805	Level 1
11,712.6	6,772.4	11,655.1	6,702.5	146.9	147.2	-71.90	-189.8	-5,367.2	225.3	-55.1	280.47	0.803	Level 1
11,800.0	6,772.1	11,742.5	6,702.1	149.4	149.6	-71.90	-189.8	-5,454.7	225.4	-59.8	285.13	0.790	Level 1
11,811.0	6,772.1	11,753.5	6,702.1	149.7	149.9	-71.90	-189.8	-5,465.7	225.4	-60.4	285.71	0.789	Level 1

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-234 - ORIGINAL WELLBORE - PROPOS												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	6,771.7	11,842.5	6,701.7	152.2	152.4	-71.90	-189.8	-5,554.7	225.4	-65.1	290.46	0.776	Level 1
11,909.4	6,771.7	11,852.0	6,701.7	152.4	152.7	-71.90	-189.8	-5,564.1	225.4	-65.6	290.96	0.775	Level 1
12,000.0	6,771.3	11,942.5	6,701.3	154.9	155.2	-71.90	-189.8	-5,654.7	225.4	-70.4	295.79	0.762	Level 1
12,007.8	6,771.3	11,950.4	6,701.3	155.2	155.5	-71.90	-189.8	-5,662.5	225.4	-70.9	296.21	0.761	Level 1
12,100.0	6,770.9	12,042.5	6,700.9	157.7	158.0	-71.90	-189.8	-5,754.7	225.4	-75.8	301.12	0.748	Level 1
12,106.3	6,770.9	12,048.8	6,700.9	157.9	158.2	-71.90	-189.8	-5,760.9	225.4	-76.1	301.46	0.748	Level 1
12,200.0	6,770.5	12,142.5	6,700.5	160.5	160.8	-71.90	-189.8	-5,854.7	225.4	-81.1	306.45	0.735	Level 1
12,204.7	6,770.5	12,147.2	6,700.5	160.7	161.0	-71.90	-189.8	-5,859.4	225.4	-81.3	306.70	0.735	Level 1
12,300.0	6,770.1	12,242.5	6,700.1	163.3	163.2	-71.90	-189.8	-5,954.7	225.4	-86.0	311.39	0.724	Level 1
12,303.1	6,770.1	12,245.7	6,700.1	163.4	163.3	-71.90	-189.8	-5,957.8	225.4	-86.2	311.53	0.723	Level 1
12,316.4	6,770.0	12,258.9	6,700.0	163.8	163.5	-71.90	-189.8	-5,971.0	225.4	-86.8	312.11	0.722	Level 1, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-90.34	-0.4	-60.2	60.2				
98.4	98.4	98.4	98.4	0.1	0.1	-90.34	-0.4	-60.2	60.2	60.0	0.19	312.947	
100.0	100.0	100.0	100.0	0.1	0.1	-90.34	-0.4	-60.2	60.2	60.0	0.20	307.650	
196.8	196.8	196.8	196.8	0.3	0.3	-90.34	-0.4	-60.2	60.2	59.5	0.63	95.353	
200.0	200.0	200.0	200.0	0.3	0.3	-90.34	-0.4	-60.2	60.2	59.5	0.65	93.260	
295.3	295.3	295.3	295.3	0.5	0.5	-90.34	-0.4	-60.2	60.2	59.1	1.07	56.048	
300.0	300.0	300.0	300.0	0.5	0.5	-90.34	-0.4	-60.2	60.2	59.1	1.09	54.960	
393.7	393.7	393.7	393.7	0.8	0.8	-90.34	-0.4	-60.2	60.2	58.6	1.52	39.688	
400.0	400.0	400.0	400.0	0.8	0.8	-90.34	-0.4	-60.2	60.2	58.6	1.54	38.960	
492.1	492.1	492.1	492.1	1.0	1.0	-90.34	-0.4	-60.2	60.2	58.2	1.96	30.721	
500.0	500.0	500.0	500.0	1.0	1.0	-90.34	-0.4	-60.2	60.2	58.2	1.99	30.175	
590.5	590.5	590.5	590.5	1.2	1.2	-90.34	-0.4	-60.2	60.2	57.8	2.40	25.059	
600.0	600.0	600.0	600.0	1.2	1.2	-90.34	-0.4	-60.2	60.2	57.7	2.44	24.623	
689.0	689.0	689.0	689.0	1.4	1.4	-90.34	-0.4	-60.2	60.2	57.3	2.84	21.159	
700.0	700.0	700.0	700.0	1.4	1.4	-90.34	-0.4	-60.2	60.2	57.3	2.89	20.797	
787.4	787.4	787.4	787.4	1.6	1.6	-90.34	-0.4	-60.2	60.2	56.9	3.29	18.310	
800.0	800.0	800.0	800.0	1.7	1.7	-90.34	-0.4	-60.2	60.2	56.8	3.34	18.000	
885.8	885.8	885.8	885.8	1.9	1.9	-90.34	-0.4	-60.2	60.2	56.4	3.73	16.137	
900.0	900.0	900.0	900.0	1.9	1.9	-90.34	-0.4	-60.2	60.2	56.4	3.79	15.866	
984.2	984.2	984.2	984.2	2.1	2.1	-90.34	-0.4	-60.2	60.2	56.0	4.17	14.425	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.34	-0.4	-60.2	60.2	55.9	4.24	14.184	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.34	-0.4	-60.2	60.2	55.5	4.61	13.041	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.34	-0.4	-60.2	60.2	55.5	4.69	12.825 CC	
1,181.1	1,181.1	1,179.4	1,179.4	2.5	2.5	-90.39	-0.4	-61.3	61.3	56.2	5.04	12.157	
1,200.0	1,200.0	1,197.9	1,197.9	2.6	2.6	-90.41	-0.4	-61.8	61.9	56.7	5.12	12.078	
1,279.5	1,279.5	1,275.6	1,275.6	2.7	2.7	-90.57	-0.6	-65.5	65.7	60.2	5.46	12.026	
1,300.0	1,300.0	1,295.6	1,295.4	2.8	2.8	-90.62	-0.7	-66.8	67.0	61.4	5.55	12.077	
1,377.9	1,377.9	1,371.4	1,371.0	3.0	2.9	-90.83	-1.1	-73.0	73.3	67.4	5.89	12.457	
1,400.0	1,400.0	1,392.8	1,392.3	3.0	3.0	-90.90	-1.2	-75.1	75.5	69.5	5.98	12.619	
1,476.4	1,476.4	1,466.6	1,465.6	3.2	3.1	-91.13	-1.6	-83.6	84.3	77.9	6.33	13.313	
1,500.0	1,500.0	1,489.4	1,488.2	3.2	3.2	-91.20	-1.8	-86.5	87.4	80.9	6.44	13.573	
1,574.8	1,574.8	1,561.2	1,559.2	3.4	3.4	-10.78	-2.4	-97.1	97.5	90.8	6.71	14.526	
1,600.0	1,600.0	1,585.3	1,583.0	3.5	3.4	-10.92	-2.6	-101.1	100.9	94.1	6.81	14.803	
1,673.2	1,673.1	1,655.3	1,651.8	3.6	3.7	-11.39	-3.3	-113.7	110.7	103.6	7.11	15.571	
1,700.0	1,699.8	1,680.8	1,676.8	3.7	3.7	-11.58	-3.6	-118.7	114.3	107.1	7.22	15.837	
1,771.6	1,771.2	1,749.0	1,743.4	3.8	4.0	-12.17	-4.4	-133.2	123.9	116.4	7.51	16.499	
1,800.0	1,799.5	1,775.9	1,769.6	3.9	4.1	-12.42	-4.7	-139.4	127.7	120.0	7.62	16.748	
1,870.1	1,869.0	1,842.2	1,834.0	4.0	4.3	-13.08	-5.6	-155.6	137.0	129.1	7.91	17.319	
1,900.0	1,898.7	1,870.5	1,861.3	4.1	4.5	-13.37	-6.1	-163.0	141.0	132.9	8.03	17.550	
1,968.5	1,966.4	1,935.1	1,923.3	4.3	4.7	-14.08	-7.0	-180.8	150.0	141.7	8.32	18.040	
2,000.0	1,997.5	1,964.7	1,951.7	4.4	4.9	-14.41	-7.5	-189.5	154.2	145.8	8.45	18.253	
2,066.9	2,063.2	2,027.6	2,011.4	4.6	5.2	-15.14	-8.6	-208.8	163.1	154.3	8.73	18.671	
2,100.1	2,095.7	2,058.6	2,040.8	4.7	5.4	-15.51	-9.1	-218.8	167.4	158.6	8.87	18.872	
2,165.3	2,159.5	2,119.5	2,098.1	4.9	5.7	-16.24	-10.3	-239.4	176.8	167.6	9.19	19.233	
2,200.0	2,193.4	2,151.7	2,128.2	5.0	5.9	-16.58	-10.9	-250.8	182.3	172.9	9.36	19.472	
2,224.2	2,217.1	2,175.0	2,150.0	5.1	6.1	-16.81	-11.4	-259.2	186.3	176.8	9.48	19.647	
2,263.8	2,255.9	2,214.0	2,186.3	5.2	6.3	-17.19	-12.2	-273.2	193.2	183.5	9.70	19.916	
2,300.0	2,291.5	2,249.5	2,219.5	5.3	6.6	-17.48	-12.9	-286.1	200.0	190.1	9.89	20.213	
2,362.2	2,352.7	2,310.4	2,276.2	5.5	7.0	-17.86	-14.1	-308.1	212.6	202.4	10.22	20.808	
2,400.0	2,390.1	2,347.3	2,310.6	5.6	7.2	-18.02	-14.8	-321.4	220.9	210.5	10.42	21.211	
2,460.6	2,450.1	2,406.2	2,365.5	5.7	7.6	-18.19	-16.0	-342.7	235.2	224.5	10.72	21.931	
2,500.0	2,489.2	2,444.3	2,401.1	5.8	7.9	-18.25	-16.8	-356.4	245.1	234.2	10.92	22.439	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,548.0	2,501.2	2,454.1	6.0	8.3	-18.27	-17.9	-377.0	260.9	249.6	11.21	23.267	
2,600.0	2,588.8	2,540.5	2,490.7	6.1	8.6	-18.25	-18.7	-391.2	272.4	261.0	11.41	23.879	
2,657.5	2,646.1	2,595.4	2,541.9	6.2	9.0	-18.18	-19.8	-411.0	289.6	277.9	11.68	24.798	
2,700.0	2,688.6	2,635.7	2,579.5	6.3	9.3	-18.09	-20.6	-425.5	303.0	291.1	11.87	25.516	
2,755.9	2,744.4	2,688.5	2,628.7	6.4	9.7	-17.96	-21.7	-444.6	321.4	309.3	12.12	26.514	
2,800.0	2,788.5	2,729.8	2,667.2	6.5	10.0	-17.83	-22.5	-459.5	336.7	324.4	12.32	27.340	
2,824.3	2,812.8	2,752.5	2,688.4	6.5	10.1	-98.45	-22.9	-467.7	345.4	328.8	16.60	20.804	
2,854.3	2,842.9	2,780.5	2,714.5	6.6	10.4	-98.29	-23.5	-477.8	356.2	339.3	16.86	21.120	
2,900.0	2,888.5	2,823.1	2,754.2	6.7	10.7	-98.07	-24.4	-493.2	372.6	355.4	17.27	21.582	
2,952.7	2,941.3	2,872.3	2,800.0	6.8	11.0	-97.83	-25.3	-511.0	391.7	373.9	17.74	22.076	
3,000.0	2,988.5	2,916.3	2,841.1	6.9	11.4	-97.63	-26.2	-526.9	408.7	390.5	18.17	22.497	
3,051.2	3,039.7	2,964.0	2,885.6	7.0	11.7	-97.44	-27.2	-544.1	427.2	408.5	18.63	22.928	
3,100.0	3,088.5	3,009.5	2,928.0	7.1	12.1	-97.27	-28.1	-560.5	444.8	425.7	19.07	23.320	
3,149.6	3,138.1	3,055.8	2,971.1	7.2	12.4	-97.11	-29.0	-577.2	462.7	443.2	19.52	23.698	
3,200.0	3,188.5	3,102.8	3,014.9	7.3	12.8	-96.96	-30.0	-594.2	480.9	460.9	19.98	24.065	
3,248.0	3,236.6	3,147.6	3,056.7	7.4	13.1	-96.83	-30.8	-610.4	498.2	477.8	20.42	24.397	
3,300.0	3,288.5	3,196.0	3,101.8	7.5	13.5	-96.70	-31.8	-627.9	517.0	496.1	20.90	24.741	
3,346.4	3,335.0	3,239.3	3,142.2	7.6	13.8	-96.59	-32.7	-643.5	533.8	512.4	21.32	25.033	
3,400.0	3,388.5	3,289.2	3,188.8	7.7	14.2	-96.47	-33.7	-661.6	553.1	531.3	21.81	25.357	
3,444.9	3,433.4	3,331.1	3,227.8	7.8	14.5	-96.37	-34.5	-676.7	569.3	547.1	22.23	25.615	
3,500.0	3,488.5	3,382.5	3,275.7	7.9	14.9	-96.27	-35.6	-695.2	589.2	566.5	22.73	25.920	
3,543.3	3,531.8	3,422.8	3,313.3	8.0	15.2	-96.19	-36.4	-709.8	604.9	581.7	23.13	26.149	
3,600.0	3,588.5	3,475.7	3,362.6	8.1	15.6	-96.09	-37.4	-728.9	625.4	601.7	23.65	26.437	
3,641.7	3,630.3	3,514.6	3,398.9	8.2	15.9	-96.02	-38.2	-742.9	640.4	616.4	24.04	26.641	
3,700.0	3,688.5	3,568.9	3,449.5	8.3	16.3	-95.93	-39.3	-762.6	661.5	636.9	24.58	26.913	
3,740.1	3,728.7	3,606.4	3,484.4	8.4	16.6	-95.87	-40.0	-776.1	676.0	651.0	24.95	27.094	
3,800.0	3,788.5	3,662.2	3,536.4	8.5	17.0	-95.78	-41.1	-796.2	697.6	672.1	25.50	27.353	
3,838.6	3,827.1	3,698.1	3,570.0	8.6	17.3	-95.73	-41.9	-809.2	711.6	685.7	25.86	27.514	
3,900.0	3,888.5	3,755.4	3,623.4	8.7	17.7	-95.66	-43.0	-829.9	733.8	707.3	26.43	27.760	
3,937.0	3,925.5	3,789.9	3,655.5	8.8	18.0	-95.61	-43.7	-842.4	747.1	720.4	26.78	27.904	
4,000.0	3,988.5	3,848.6	3,710.3	9.0	18.4	-95.54	-44.9	-863.6	769.9	742.5	27.36	28.138	
4,035.4	4,024.0	3,881.6	3,741.1	9.0	18.7	-95.50	-45.5	-875.5	782.7	755.0	27.69	28.266	
4,100.0	4,088.5	3,941.8	3,797.2	9.2	19.2	-95.43	-46.7	-897.2	806.0	777.8	28.29	28.490	
4,133.8	4,122.4	3,973.4	3,826.6	9.2	19.4	-95.40	-47.4	-908.6	818.3	789.7	28.61	28.604	
4,200.0	4,188.5	4,035.1	3,884.1	9.4	19.9	-95.34	-48.6	-930.9	842.2	813.0	29.22	28.819	
4,232.3	4,220.8	4,065.2	3,912.2	9.4	20.1	-95.31	-49.2	-941.8	853.9	824.3	29.52	28.920	
4,300.0	4,288.5	4,128.3	3,971.0	9.6	20.6	-95.25	-50.5	-964.6	878.3	848.2	30.16	29.125	
4,330.7	4,319.2	4,156.9	3,997.7	9.7	20.8	-95.22	-51.1	-974.9	889.4	859.0	30.44	29.216	
4,400.0	4,388.5	4,221.5	4,057.9	9.8	21.3	-95.17	-52.3	-998.2	914.5	883.4	31.09	29.413	
4,429.1	4,417.7	4,248.7	4,083.3	9.9	21.5	-95.14	-52.9	-1,008.0	925.0	893.7	31.36	29.493	
4,500.0	4,488.5	4,314.8	4,144.9	10.0	22.0	-95.09	-54.2	-1,031.9	950.6	918.6	32.03	29.683	
4,527.5	4,516.1	4,340.4	4,168.8	10.1	22.2	-95.07	-54.7	-1,041.2	960.6	928.3	32.28	29.754	
4,600.0	4,588.5	4,408.0	4,231.8	10.2	22.7	-95.02	-56.1	-1,065.6	986.8	953.8	32.96	29.936	
4,626.0	4,614.5	4,432.2	4,254.4	10.3	22.9	-95.00	-56.6	-1,074.3	996.2	963.0	33.21	30.000	
4,700.0	4,688.5	4,501.2	4,318.7	10.5	23.5	-94.95	-57.9	-1,099.2	1,022.9	989.0	33.90	30.175	
4,724.4	4,712.9	4,524.0	4,339.9	10.5	23.6	-94.94	-58.4	-1,107.5	1,031.8	997.6	34.13	30.231	
4,800.0	4,788.5	4,594.5	4,405.6	10.7	24.2	-94.89	-59.8	-1,132.9	1,059.1	1,024.3	34.84	30.400	
4,822.8	4,811.4	4,615.7	4,425.5	10.7	24.4	-94.88	-60.2	-1,140.6	1,067.4	1,032.3	35.05	30.450	
4,900.0	4,888.5	4,687.7	4,492.5	10.9	24.9	-94.84	-61.7	-1,166.6	1,095.3	1,059.5	35.78	30.613	
4,921.2	4,909.8	4,707.5	4,511.0	10.9	25.1	-94.82	-62.1	-1,173.7	1,102.9	1,067.0	35.98	30.657	
5,000.0	4,988.5	4,780.9	4,579.4	11.1	25.6	-94.78	-63.5	-1,200.3	1,131.4	1,094.7	36.72	30.815	
5,019.7	5,008.2	4,799.3	4,596.5	11.1	25.8	-94.77	-63.9	-1,206.9	1,138.5	1,101.6	36.90	30.853	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	4,874.1	4,666.4	11.3	26.4	-94.73	-65.4	-1,233.9	1,167.6	1,129.9	37.66	31.006	
5,118.1	5,106.6	4,891.0	4,682.1	11.4	26.5	-94.72	-65.7	-1,240.0	1,174.1	1,136.3	37.83	31.039	
5,200.0	5,188.5	4,967.4	4,753.3	11.5	27.1	-94.69	-67.3	-1,267.6	1,203.7	1,165.1	38.60	31.187	
5,216.5	5,205.1	4,982.8	4,767.6	11.6	27.2	-94.68	-67.6	-1,273.2	1,209.7	1,170.9	38.75	31.216	
5,300.0	5,288.5	5,060.6	4,840.2	11.8	27.8	-94.64	-69.1	-1,301.3	1,239.9	1,200.3	39.54	31.359	
5,314.9	5,303.5	5,074.5	4,853.2	11.8	27.9	-94.64	-69.4	-1,306.3	1,245.3	1,205.6	39.68	31.384	
5,400.0	5,388.5	5,153.8	4,927.1	12.0	28.5	-94.60	-71.0	-1,334.9	1,276.0	1,235.6	40.48	31.523	
5,413.4	5,401.9	5,166.3	4,938.7	12.0	28.6	-94.59	-71.3	-1,339.4	1,280.9	1,240.3	40.61	31.544	
5,500.0	5,488.5	5,135.0	4,911.3	12.2	29.0	-94.55	-73.2	-1,372.1	1,312.7	1,271.9	41.68	31.697	
5,511.8	5,500.3	5,134.9	4,910.3	12.2	29.0	-94.55	-73.2	-1,372.1	1,312.7	1,271.9	41.68	31.697	
5,600.0	5,588.5	5,134.4	4,909.8	12.4	29.4	-94.51	-75.2	-1,404.9	1,344.7	1,303.9	42.76	31.850	
5,610.2	5,598.8	5,134.4	4,909.8	12.4	29.4	-94.51	-75.2	-1,404.9	1,344.7	1,303.9	42.76	31.850	
5,700.0	5,688.5	5,133.9	4,908.3	12.6	29.8	-94.47	-77.2	-1,437.7	1,376.7	1,335.9	43.84	32.003	
5,708.6	5,697.2	5,133.8	4,907.2	12.6	29.8	-94.47	-77.2	-1,437.7	1,376.7	1,335.9	43.84	32.003	
5,800.0	5,788.5	5,133.3	4,906.7	12.8	30.2	-94.43	-79.2	-1,470.5	1,408.7	1,367.9	44.92	32.156	
5,807.1	5,795.6	5,133.3	4,906.7	12.9	30.3	-94.43	-79.2	-1,470.5	1,408.7	1,367.9	44.92	32.156	
5,900.0	5,888.5	5,132.8	4,906.2	13.1	30.6	-94.40	-81.2	-1,503.3	1,440.7	1,400.9	46.00	32.309	
5,905.5	5,894.0	5,132.8	4,906.2	13.1	30.6	-94.40	-81.2	-1,503.3	1,440.7	1,400.9	46.00	32.309	
6,000.0	5,988.5	5,132.3	4,905.7	13.3	31.0	-94.36	-83.2	-1,536.1	1,472.7	1,432.9	47.08	32.462	
6,003.9	5,992.5	5,132.2	4,905.6	13.3	31.0	-94.36	-83.2	-1,536.1	1,472.7	1,432.9	47.08	32.462	
6,085.3	6,073.8	5,131.8	4,905.2	13.5	31.4	-94.32	-85.2	-1,568.9	1,504.7	1,464.9	48.16	32.615	
6,100.0	6,088.5	5,131.6	4,905.0	13.5	31.4	-94.32	-85.2	-1,568.9	1,504.7	1,464.9	48.16	32.615	
6,102.3	6,090.9	5,131.5	4,904.9	13.5	31.4	-94.32	-85.2	-1,568.9	1,504.7	1,464.9	48.16	32.615	
6,150.0	6,138.4	5,128.5	4,904.5	13.6	31.8	-94.28	-87.2	-1,601.7	1,536.7	1,496.9	49.24	32.768	
6,200.0	6,188.0	5,122.0	4,904.0	13.7	32.2	-94.24	-89.2	-1,634.5	1,568.7	1,528.9	50.32	32.921	
6,200.8	6,188.8	5,121.9	4,903.9	13.7	32.2	-94.24	-89.2	-1,634.5	1,568.7	1,528.9	50.32	32.921	
6,250.0	6,237.1	5,112.1	4,903.5	13.9	32.6	-94.20	-91.2	-1,667.3	1,600.7	1,560.9	51.40	33.074	
6,299.2	6,284.6	5,098.9	4,903.1	14.0	33.0	-94.16	-93.2	-1,700.1	1,632.7	1,592.9	52.48	33.227	
6,300.0	6,285.3	5,098.7	4,903.0	14.0	33.0	-94.16	-93.2	-1,700.1	1,632.7	1,592.9	52.48	33.227	
6,350.0	6,332.5	5,082.0	4,902.6	14.2	33.4	-94.12	-95.2	-1,732.9	1,664.7	1,625.9	53.56	33.380	
6,397.6	6,376.3	5,063.1	4,902.2	14.4	33.8	-94.08	-97.2	-1,765.7	1,696.7	1,657.9	54.64	33.533	
6,400.0	6,378.5	5,062.1	4,902.1	14.4	33.8	-94.08	-97.2	-1,765.7	1,696.7	1,657.9	54.64	33.533	
6,450.0	6,423.0	5,039.0	4,901.7	14.7	34.2	-94.04	-99.2	-1,798.5	1,728.7	1,689.9	55.72	33.686	
6,496.0	6,462.4	5,015.1	4,901.3	14.9	34.6	-94.00	-101.2	-1,831.3	1,760.7	1,721.9	56.80	33.839	
6,500.0	6,465.7	5,012.9	4,901.2	14.9	34.6	-94.00	-101.2	-1,831.3	1,760.7	1,721.9	56.80	33.839	
6,550.0	6,506.6	5,006.6	4,900.8	15.2	35.0	-93.96	-103.2	-1,864.1	1,792.7	1,753.9	57.88	33.992	
6,594.5	6,541.2	5,000.0	4,900.4	15.6	35.4	-93.92	-105.2	-1,896.9	1,824.7	1,785.9	58.96	34.145	
6,600.0	6,545.3	5,000.0	4,900.3	15.6	35.4	-93.92	-105.2	-1,896.9	1,824.7	1,785.9	58.96	34.145	
6,650.0	6,581.8	5,000.0	4,900.0	16.0	35.8	-93.88	-107.2	-1,929.7	1,856.7	1,817.9	60.04	34.298	
6,692.9	6,611.1	5,000.0	4,900.0	16.4	36.2	-93.84	-109.2	-1,962.5	1,888.7	1,850.9	61.12	34.451	
6,700.0	6,615.8	5,000.0	4,900.0	16.5	36.2	-93.84	-109.2	-1,962.5	1,888.7	1,850.9	61.12	34.451	
6,750.0	6,647.1	5,000.0	4,900.0	17.1	36.6	-93.80	-111.2	-1,995.3	1,920.7	1,881.9	62.20	34.604	
6,791.3	6,670.9	5,000.0	4,900.0	17.6	37.0	-93.76	-113.2	-2,028.1	1,952.7	1,913.9	63.28	34.757	
6,800.0	6,675.7	5,000.0	4,900.0	17.7	37.0	-93.76	-113.2	-2,028.1	1,952.7	1,913.9	63.28	34.757	
6,850.0	6,701.3	5,000.0	4,900.0	18.4	37.4	-93.72	-115.2	-2,060.9	1,984.7	1,945.9	64.36	34.910	
6,889.7	6,719.5	5,000.0	4,900.0	19.0	37.8	-93.68	-117.2	-2,093.7	2,016.7	1,977.9	65.44	35.063	
6,900.0	6,723.8	5,000.0	4,900.0	19.1	37.8	-93.68	-117.2	-2,093.7	2,016.7	1,977.9	65.44	35.063	
6,950.0	6,743.2	5,000.0	4,900.0	20.0	38.2	-93.64	-119.2	-2,126.5	2,048.7	1,999.9	66.52	35.216	
6,988.2	6,755.8	5,000.0	4,900.0	20.6	38.6	-93.60	-121.2	-2,159.3	2,080.7	2,031.9	67.60	35.369	
7,000.0	6,759.4	5,000.0	4,900.0	20.9	38.6	-93.60	-121.2	-2,159.3	2,080.7	2,031.9	67.60	35.369	
7,050.0	6,772.1	5,000.0	4,900.0	21.8	39.0	-93.56	-123.2	-2,192.1	2,112.7	2,063.9	68.68	35.522	
7,060.3	6,774.4	5,000.0	4,900.0	22.0	39.0	-93.56	-123.2	-2,192.1	2,112.7	2,063.9	68.68	35.522	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	7,534.9	6,774.5	22.5	34.0	-87.46	-83.2	-742.2	107.7	51.2	56.46	1.907	
7,100.0	6,781.5	7,521.6	6,774.6	22.8	33.9	-86.34	-83.2	-755.5	107.8	51.3	56.53	1.907	
7,150.0	6,787.5	7,472.0	6,774.8	23.9	33.4	-83.33	-83.2	-805.1	108.3	51.4	56.85	1.905	
7,185.0	6,789.6	7,437.1	6,775.0	24.6	33.1	-82.30	-83.2	-840.0	108.5	51.4	57.19	1.898	
7,200.0	6,789.9	7,422.4	6,774.8	24.9	33.0	-82.00	-83.2	-854.6	108.6	51.3	57.35	1.894	
7,213.0	6,790.0	7,409.8	6,774.4	25.2	32.9	-81.75	-83.2	-867.3	108.7	51.2	57.50	1.890 ES	
7,283.4	6,789.7	7,341.3	6,768.3	26.8	32.4	-78.73	-83.1	-935.5	109.7	51.6	58.10	1.888 SF	
7,300.0	6,789.7	7,325.4	6,766.0	27.2	32.3	-77.57	-83.1	-951.2	110.2	52.1	58.14	1.896	
7,381.9	6,789.4	7,250.0	6,750.1	29.1	31.9	-69.94	-83.1	-1,024.9	115.1	57.6	57.52	2.001	
7,400.0	6,789.3	7,232.3	6,745.3	29.5	31.8	-67.73	-83.1	-1,041.9	116.9	59.9	57.07	2.049	
7,480.3	6,789.0	7,162.2	6,722.1	31.4	31.6	-58.07	-83.1	-1,108.0	129.6	75.3	54.25	2.389	
7,500.0	6,788.9	7,145.8	6,715.7	31.9	31.6	-55.71	-83.1	-1,123.2	134.0	80.6	53.32	2.512	
7,578.7	6,788.6	7,083.3	6,688.3	33.8	31.5	-46.94	-83.1	-1,179.3	156.8	107.5	49.26	3.183	
7,600.0	6,788.5	7,067.3	6,680.6	34.4	31.4	-44.83	-83.1	-1,193.2	164.4	116.3	48.14	3.416	
7,677.1	6,788.2	7,012.7	6,651.7	36.3	31.4	-38.15	-83.1	-1,239.6	197.0	152.6	44.32	4.444	
7,700.0	6,788.2	7,000.0	6,644.4	36.9	31.4	-36.74	-83.1	-1,250.0	207.9	164.4	43.52	4.778	
7,775.6	6,787.9	6,950.0	6,614.3	38.8	31.5	-31.70	-83.1	-1,289.9	248.0	207.6	40.36	6.145	
7,800.0	6,787.8	6,936.1	6,605.4	39.4	31.5	-30.45	-83.1	-1,300.6	262.1	222.5	39.59	6.619	
7,874.0	6,787.5	6,900.0	6,581.4	41.3	31.5	-27.47	-83.1	-1,327.5	307.6	269.8	37.88	8.122	
7,900.0	6,787.4	6,882.4	6,569.2	42.0	31.6	-26.16	-83.1	-1,340.2	324.5	287.5	37.00	8.772	
7,972.4	6,787.1	6,850.0	6,545.9	43.9	31.6	-23.95	-83.1	-1,362.8	373.9	338.1	35.80	10.443	
8,000.0	6,787.0	6,835.6	6,535.3	44.6	31.7	-23.05	-83.1	-1,372.5	393.4	358.1	35.27	11.154	
8,070.8	6,786.7	6,800.0	6,508.1	46.5	31.8	-21.02	-83.1	-1,395.5	445.3	411.2	34.12	13.053	
8,100.0	6,786.6	6,800.0	6,508.1	47.3	31.8	-21.02	-83.1	-1,395.5	467.3	432.9	34.44	13.569	
8,169.3	6,786.4	6,769.4	6,483.9	49.1	31.8	-19.48	-83.1	-1,414.1	520.8	487.1	33.68	15.464	
8,200.0	6,786.3	6,750.0	6,468.1	49.9	31.9	-18.59	-83.1	-1,425.5	545.2	512.1	33.12	16.463	
8,267.7	6,786.0	6,737.2	6,457.6	51.7	31.9	-18.04	-83.1	-1,432.7	599.6	566.3	33.26	18.026	
8,300.0	6,785.9	6,727.5	6,449.5	52.6	32.0	-17.63	-83.1	-1,438.0	626.1	592.9	33.19	18.866	
8,366.1	6,785.6	6,700.0	6,426.1	54.4	32.0	-16.56	-83.1	-1,452.6	681.2	648.4	32.76	20.791	
8,400.0	6,785.5	6,700.0	6,426.1	55.3	32.0	-16.56	-83.1	-1,452.6	709.6	676.5	33.09	21.442	
8,464.5	6,785.2	6,683.6	6,411.9	57.0	32.1	-15.97	-83.1	-1,460.8	764.7	731.6	33.12	23.089	
8,500.0	6,785.1	6,675.2	6,404.6	58.0	32.1	-15.68	-83.1	-1,464.9	795.3	762.1	33.16	23.982	
8,563.0	6,784.9	6,650.0	6,382.3	59.7	32.2	-14.86	-83.1	-1,476.7	850.3	817.4	32.91	25.837	
8,600.0	6,784.7	6,650.0	6,382.3	60.7	32.2	-14.86	-83.1	-1,476.7	882.7	849.4	33.26	26.542	
8,661.4	6,784.5	6,650.0	6,382.3	62.4	32.2	-14.86	-83.1	-1,476.7	937.2	903.3	33.84	27.697	
8,700.0	6,784.3	6,633.8	6,367.8	63.4	32.2	-14.37	-83.1	-1,483.9	971.5	937.9	33.67	28.852	
8,759.8	6,784.1	6,623.0	6,358.1	65.0	32.3	-14.06	-83.1	-1,488.4	1,025.3	991.4	33.90	30.248	
8,800.0	6,784.0	6,616.2	6,351.8	66.1	32.3	-13.86	-83.1	-1,491.3	1,061.6	1,027.6	34.06	31.171	
8,858.2	6,783.7	6,600.0	6,337.0	67.7	32.3	-13.42	-83.1	-1,497.7	1,114.6	1,080.5	34.12	32.672	
8,900.0	6,783.6	6,600.0	6,337.0	68.9	32.3	-13.42	-83.1	-1,497.7	1,152.7	1,118.2	34.49	33.417	
8,956.7	6,783.3	6,600.0	6,337.0	70.4	32.3	-13.42	-83.1	-1,497.7	1,204.8	1,169.8	35.01	34.412	
9,000.0	6,783.2	6,600.0	6,337.0	71.6	32.3	-13.42	-83.1	-1,497.7	1,244.9	1,209.5	35.41	35.160	
9,055.1	6,783.0	6,578.6	6,317.2	73.1	32.4	-12.88	-83.1	-1,505.7	1,295.7	1,260.5	35.29	36.712	
9,100.0	6,782.8	6,572.9	6,311.8	74.3	32.4	-12.74	-83.1	-1,507.8	1,337.5	1,301.9	35.54	37.633	
9,153.5	6,782.6	6,550.0	6,290.3	75.8	32.4	-12.20	-83.1	-1,515.5	1,387.7	1,352.3	35.41	39.184	
9,200.0	6,782.4	6,550.0	6,290.3	77.1	32.4	-12.20	-83.1	-1,515.5	1,431.0	1,395.2	35.83	39.945	
9,251.9	6,782.2	6,550.0	6,290.3	78.5	32.4	-12.20	-83.1	-1,515.5	1,479.7	1,443.4	36.29	40.779	
9,300.0	6,782.0	6,550.0	6,290.3	79.8	32.4	-12.20	-83.1	-1,515.5	1,524.9	1,488.2	36.71	41.537	
9,350.4	6,781.8	6,550.0	6,290.3	81.2	32.4	-12.20	-83.1	-1,515.5	1,572.5	1,535.3	37.16	42.317	
9,400.0	6,781.6	6,550.0	6,290.3	82.6	32.4	-12.20	-83.1	-1,515.5	1,619.5	1,581.9	37.60	43.071	
9,448.8	6,781.4	6,550.0	6,290.3	83.9	32.4	-12.20	-83.1	-1,515.5	1,665.9	1,627.9	38.04	43.798	
9,500.0	6,781.2	6,530.8	6,272.0	85.4	32.5	-11.78	-83.1	-1,521.5	1,714.4	1,676.4	37.98	45.136	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,547.2	6,781.0	6,526.6	6,268.0	86.7	32.5	-11.70	-83.1	-1,522.7	1,759.4	1,721.1	38.29	45.944	
9,600.0	6,780.8	6,522.2	6,263.8	88.1	32.5	-11.60	-83.1	-1,524.0	1,809.7	1,771.1	38.65	46.829	
9,645.6	6,780.7	6,518.5	6,260.2	89.4	32.5	-11.53	-83.1	-1,525.0	1,853.4	1,814.4	38.95	47.580	
9,700.0	6,780.5	6,500.0	6,242.4	90.9	32.5	-11.16	-83.1	-1,530.0	1,905.6	1,866.7	38.98	48.893	
9,744.1	6,780.3	6,500.0	6,242.4	92.1	32.5	-11.16	-83.1	-1,530.0	1,947.8	1,908.5	39.36	49.489	
9,800.0	6,780.1	6,500.0	6,242.4	93.7	32.5	-11.16	-83.1	-1,530.0	2,001.5	1,961.7	39.84	50.233	
9,842.5	6,779.9	6,500.0	6,242.4	94.8	32.5	-11.16	-83.1	-1,530.0	2,042.4	2,002.2	40.21	50.787	
9,900.0	6,779.7	6,500.0	6,242.4	96.4	32.5	-11.16	-83.1	-1,530.0	2,097.8	2,057.0	40.72	51.523	
9,940.9	6,779.5	6,500.0	6,242.4	97.6	32.5	-11.16	-83.1	-1,530.0	2,137.3	2,096.2	41.07	52.036	
10,000.0	6,779.3	6,500.0	6,242.4	99.2	32.5	-11.16	-83.1	-1,530.0	2,194.3	2,152.8	41.59	52.765	
10,039.3	6,779.1	6,500.0	6,242.4	100.3	32.5	-11.16	-83.1	-1,530.0	2,232.4	2,190.5	41.93	53.240	
10,100.0	6,778.9	6,500.0	6,242.4	102.0	32.5	-11.16	-83.1	-1,530.0	2,291.2	2,248.8	42.46	53.961	
10,137.8	6,778.7	6,500.0	6,242.4	103.0	32.5	-11.16	-83.1	-1,530.0	2,327.9	2,285.1	42.79	54.401	
10,200.0	6,778.5	6,500.0	6,242.4	104.8	32.5	-11.16	-83.1	-1,530.0	2,388.4	2,345.0	43.34	55.113	
10,236.2	6,778.3	6,480.1	6,223.1	105.8	32.6	-10.79	-83.1	-1,534.9	2,423.2	2,380.1	43.14	56.166	
10,300.0	6,778.1	6,476.7	6,219.8	107.5	32.6	-10.73	-83.1	-1,535.6	2,485.2	2,441.6	43.61	56.982	
10,334.6	6,778.0	6,475.0	6,218.1	108.5	32.6	-10.69	-83.1	-1,536.0	2,518.9	2,475.1	43.87	57.417	
10,400.0	6,777.7	6,471.8	6,215.0	110.3	32.6	-10.64	-83.1	-1,536.7	2,582.6	2,538.2	44.36	58.223	
10,433.0	6,777.6	6,470.2	6,213.4	111.2	32.6	-10.61	-83.1	-1,537.1	2,614.8	2,570.2	44.60	58.623	
10,500.0	6,777.3	6,450.0	6,193.7	113.1	32.6	-10.26	-83.1	-1,541.1	2,680.3	2,635.6	44.70	59.964	
10,531.5	6,777.2	6,450.0	6,193.7	114.0	32.6	-10.26	-83.1	-1,541.1	2,711.0	2,666.0	44.97	60.286	
10,600.0	6,776.9	6,450.0	6,193.7	115.9	32.6	-10.26	-83.1	-1,541.1	2,777.9	2,732.3	45.56	60.978	
10,629.9	6,776.8	6,450.0	6,193.7	116.7	32.6	-10.26	-83.1	-1,541.1	2,807.1	2,761.2	45.81	61.274	
10,700.0	6,776.5	6,450.0	6,193.7	118.7	32.6	-10.26	-83.1	-1,541.1	2,875.6	2,829.1	46.41	61.958	
10,728.3	6,776.4	6,450.0	6,193.7	119.5	32.6	-10.26	-83.1	-1,541.1	2,903.3	2,856.6	46.65	62.229	
10,800.0	6,776.1	6,450.0	6,193.7	121.4	32.6	-10.26	-83.1	-1,541.1	2,973.4	2,926.1	47.27	62.904	
10,826.7	6,776.0	6,450.0	6,193.7	122.2	32.6	-10.26	-83.1	-1,541.1	2,999.6	2,952.1	47.50	63.151	
10,900.0	6,775.7	6,450.0	6,193.7	124.2	32.6	-10.26	-83.1	-1,541.1	3,071.4	3,023.3	48.13	63.819	
10,925.2	6,775.6	6,450.0	6,193.7	124.9	32.6	-10.26	-83.1	-1,541.1	3,096.1	3,047.7	48.34	64.044	
11,000.0	6,775.3	6,450.0	6,193.7	127.0	32.6	-10.26	-83.1	-1,541.1	3,169.5	3,120.5	48.99	64.703	
11,023.6	6,775.2	6,450.0	6,193.7	127.7	32.6	-10.26	-83.1	-1,541.1	3,192.7	3,143.5	49.19	64.907	
11,100.0	6,774.9	6,450.0	6,193.7	129.8	32.6	-10.26	-83.1	-1,541.1	3,267.7	3,217.9	49.84	65.558	
11,122.0	6,774.8	6,450.0	6,193.7	130.4	32.6	-10.26	-83.1	-1,541.1	3,289.4	3,239.3	50.03	65.742	
11,200.0	6,774.5	6,450.0	6,193.7	132.6	32.6	-10.26	-83.1	-1,541.1	3,366.0	3,315.3	50.70	66.385	
11,220.4	6,774.4	6,450.0	6,193.7	133.2	32.6	-10.26	-83.1	-1,541.1	3,386.2	3,335.3	50.88	66.551	
11,300.0	6,774.1	6,450.0	6,193.7	135.4	32.6	-10.26	-83.1	-1,541.1	3,464.5	3,412.9	51.57	67.186	
11,318.9	6,774.0	6,450.0	6,193.7	135.9	32.6	-10.26	-83.1	-1,541.1	3,483.1	3,431.3	51.73	67.334	
11,400.0	6,773.7	6,450.0	6,193.7	138.2	32.6	-10.26	-83.1	-1,541.1	3,563.0	3,510.6	52.43	67.961	
11,417.3	6,773.6	6,450.0	6,193.7	138.7	32.6	-10.26	-83.1	-1,541.1	3,580.0	3,527.5	52.58	68.093	
11,500.0	6,773.3	6,450.0	6,193.7	141.0	32.6	-10.26	-83.1	-1,541.1	3,661.6	3,608.3	53.29	68.713	
11,515.7	6,773.2	6,450.0	6,193.7	141.4	32.6	-10.26	-83.1	-1,541.1	3,677.1	3,623.7	53.42	68.828	
11,600.0	6,772.9	6,450.0	6,193.7	143.8	32.6	-10.26	-83.1	-1,541.1	3,760.2	3,706.1	54.15	69.441	
11,614.1	6,772.8	6,428.7	6,172.7	144.2	32.6	-9.92	-83.1	-1,544.8	3,773.8	3,720.1	53.70	70.270	
11,700.0	6,772.5	6,426.5	6,170.6	146.6	32.7	-9.88	-83.1	-1,545.2	3,858.5	3,804.1	54.38	70.953	
11,712.6	6,772.4	6,426.2	6,170.3	146.9	32.7	-9.88	-83.1	-1,545.2	3,870.9	3,816.5	54.48	71.052	
11,800.0	6,772.1	6,424.1	6,168.1	149.4	32.7	-9.85	-83.1	-1,545.6	3,957.2	3,902.1	55.17	71.727	
11,811.0	6,772.1	6,423.8	6,167.9	149.7	32.7	-9.84	-83.1	-1,545.6	3,968.1	3,912.8	55.26	71.810	
11,900.0	6,771.7	6,421.7	6,165.8	152.2	32.7	-9.81	-83.1	-1,545.9	4,056.0	4,000.0	55.96	72.477	
11,909.4	6,771.7	6,421.5	6,165.6	152.4	32.7	-9.81	-83.1	-1,546.0	4,065.3	4,009.3	56.04	72.547	
12,000.0	6,771.3	6,400.0	6,144.3	154.9	32.7	-9.49	-83.1	-1,548.8	4,155.1	4,098.8	56.26	73.851	
12,007.8	6,771.3	6,400.0	6,144.3	155.2	32.7	-9.49	-83.1	-1,548.8	4,162.8	4,106.5	56.33	73.901	
12,100.0	6,770.9	6,400.0	6,144.3	157.7	32.7	-9.49	-83.1	-1,548.8	4,253.9	4,196.8	57.11	74.488	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17F-332 - ORIGINAL WELLBORE - PROPOS												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	6,770.9	6,400.0	6,144.3	157.9	32.7	-9.49	-83.1	-1,548.8	4,260.1	4,202.9	57.16	74.527	
12,200.0	6,770.5	6,400.0	6,144.3	160.5	32.7	-9.49	-83.1	-1,548.8	4,352.7	4,294.8	57.95	75.107	
12,204.7	6,770.5	6,400.0	6,144.3	160.7	32.7	-9.49	-83.1	-1,548.8	4,357.4	4,299.4	57.99	75.136	
12,300.0	6,770.1	6,400.0	6,144.3	163.3	32.7	-9.49	-83.1	-1,548.8	4,451.6	4,392.8	58.80	75.709	
12,303.1	6,770.1	6,400.0	6,144.3	163.4	32.7	-9.49	-83.1	-1,548.8	4,454.7	4,395.9	58.83	75.727	
12,316.4	6,770.0	6,400.0	6,144.3	163.8	32.7	-9.48	-83.1	-1,548.8	4,467.8	4,408.9	58.94	75.806	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-90.00	0.0	-15.0	15.0				
98.4	98.4	98.4	98.4	0.1	0.1	-90.00	0.0	-15.0	15.0	14.8	0.19	78.235	
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-15.0	15.0	14.8	0.20	76.911	
196.8	196.8	196.8	196.8	0.3	0.3	-90.00	0.0	-15.0	15.0	14.4	0.63	23.838	
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-15.0	15.0	14.4	0.65	23.315	
295.3	295.3	295.3	295.3	0.5	0.5	-90.00	0.0	-15.0	15.0	14.0	1.07	14.012	
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-15.0	15.0	13.9	1.09	13.740	
393.7	393.7	393.7	393.7	0.8	0.8	-90.00	0.0	-15.0	15.0	13.5	1.52	9.922	
400.0	400.0	400.0	400.0	0.8	0.8	-90.00	0.0	-15.0	15.0	13.5	1.54	9.740	
492.1	492.1	492.1	492.1	1.0	1.0	-90.00	0.0	-15.0	15.0	13.1	1.96	7.680	
500.0	500.0	500.0	500.0	1.0	1.0	-90.00	0.0	-15.0	15.0	13.0	1.99	7.544	
590.5	590.5	590.5	590.5	1.2	1.2	-90.00	0.0	-15.0	15.0	12.6	2.40	6.265	
600.0	600.0	600.0	600.0	1.2	1.2	-90.00	0.0	-15.0	15.0	12.6	2.44	6.156	
689.0	689.0	689.0	689.0	1.4	1.4	-90.00	0.0	-15.0	15.0	12.2	2.84	5.290	
700.0	700.0	700.0	700.0	1.4	1.4	-90.00	0.0	-15.0	15.0	12.1	2.89	5.199	
787.4	787.4	787.4	787.4	1.6	1.6	-90.00	0.0	-15.0	15.0	11.8	3.29	4.577	
800.0	800.0	800.0	800.0	1.7	1.7	-90.00	0.0	-15.0	15.0	11.7	3.34	4.500	
885.8	885.8	885.8	885.8	1.9	1.9	-90.00	0.0	-15.0	15.0	11.3	3.73	4.034	
900.0	900.0	900.0	900.0	1.9	1.9	-90.00	0.0	-15.0	15.0	11.2	3.79	3.966	
984.2	984.2	984.2	984.2	2.1	2.1	-90.00	0.0	-15.0	15.0	10.9	4.17	3.606	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.00	0.0	-15.0	15.0	10.8	4.24	3.546	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.00	0.0	-15.0	15.0	10.4	4.61	3.260	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.00	0.0	-15.0	15.0	10.3	4.69	3.206	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-90.00	0.0	-15.0	15.0	10.0	5.06	2.975	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.00	0.0	-15.0	15.0	9.9	5.14	2.926	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-90.00	0.0	-15.0	15.0	9.5	5.50	2.736	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.00	0.0	-15.0	15.0	9.4	5.59	2.691	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	-90.00	0.0	-15.0	15.0	9.1	5.94	2.532	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	-90.00	0.0	-15.0	15.0	9.0	6.04	2.490 CC, ES, SF	
1,476.4	1,476.4	1,476.0	1,476.0	3.2	3.2	-91.75	-0.5	-15.9	15.9	9.6	6.37	2.503	
1,500.0	1,500.0	1,499.5	1,499.5	3.2	3.2	-92.88	-0.8	-16.6	16.6	10.1	6.47	2.564	
1,574.8	1,574.8	1,573.8	1,573.7	3.4	3.4	-17.51	-2.5	-19.7	18.9	12.2	6.76	2.797	
1,600.0	1,600.0	1,598.8	1,598.7	3.5	3.4	-19.83	-3.3	-21.1	19.7	12.9	6.86	2.876	
1,673.2	1,673.1	1,671.4	1,671.0	3.6	3.6	-27.64	-6.2	-26.3	22.4	15.2	7.15	3.130	
1,700.0	1,699.8	1,698.0	1,697.4	3.7	3.6	-30.76	-7.5	-28.6	23.5	16.2	7.25	3.239	
1,771.6	1,771.2	1,768.8	1,767.8	3.8	3.8	-39.32	-11.4	-35.8	27.0	19.5	7.54	3.581	
1,800.0	1,799.5	1,796.8	1,795.5	3.9	3.8	-42.68	-13.2	-39.1	28.6	21.0	7.65	3.744	
1,870.1	1,869.0	1,865.8	1,863.8	4.0	4.0	-50.58	-18.2	-48.1	33.5	25.5	7.95	4.208	
1,900.0	1,898.7	1,895.2	1,892.8	4.1	4.1	-53.71	-20.6	-52.4	35.9	27.8	8.09	4.437	
1,968.5	1,966.4	1,962.4	1,958.8	4.3	4.3	-60.21	-26.6	-63.2	42.2	33.8	8.42	5.013	
2,000.0	1,997.5	1,993.3	1,989.0	4.4	4.4	-62.88	-29.5	-68.6	45.5	36.9	8.57	5.305	
2,066.9	2,063.2	2,058.6	2,052.8	4.6	4.6	-67.91	-36.4	-81.0	53.3	44.4	8.95	5.957	
2,100.1	2,095.7	2,090.9	2,084.2	4.7	4.7	-70.10	-40.0	-87.6	57.6	48.4	9.14	6.302	
2,165.3	2,159.5	2,154.2	2,145.5	4.9	4.9	-73.47	-47.6	-101.5	67.0	57.4	9.55	7.013	
2,200.0	2,193.4	2,187.7	2,177.9	5.0	5.0	-74.62	-51.9	-109.3	72.5	62.7	9.76	7.423	
2,224.2	2,217.1	2,211.1	2,200.3	5.1	5.1	-75.22	-55.1	-114.9	76.5	66.6	9.92	7.713	
2,263.8	2,255.9	2,249.2	2,236.8	5.2	5.3	-75.85	-60.3	-124.5	83.6	73.4	10.17	8.215	
2,300.0	2,291.5	2,284.0	2,270.0	5.3	5.5	-75.89	-65.3	-133.5	90.5	80.1	10.39	8.706	
2,362.2	2,352.7	2,343.2	2,326.2	5.5	5.8	-75.11	-74.3	-149.8	103.4	92.6	10.75	9.619	
2,400.0	2,390.1	2,378.9	2,360.0	5.6	6.0	-74.25	-79.9	-160.1	111.9	101.0	10.96	10.214	
2,460.6	2,450.1	2,435.6	2,413.2	5.7	6.3	-72.50	-89.4	-177.2	126.7	115.5	11.28	11.234	
2,500.0	2,489.2	2,472.0	2,447.2	5.8	6.5	-71.21	-95.7	-188.7	137.2	125.7	11.49	11.943	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,548.0	2,525.9	2,497.2	6.0	6.8	-69.16	-105.4	-206.3	154.1	142.3	11.78	13.085	
2,600.0	2,588.8	2,562.8	2,531.1	6.1	7.1	-67.72	-112.3	-218.9	166.7	154.8	11.97	13.929	
2,657.5	2,646.1	2,613.8	2,577.8	6.2	7.4	-65.73	-122.3	-236.9	185.8	173.6	12.22	15.203	
2,700.0	2,688.6	2,650.8	2,611.4	6.3	7.7	-64.30	-129.7	-250.4	201.0	188.6	12.41	16.196	
2,755.9	2,744.4	2,700.0	2,655.8	6.4	8.1	-62.46	-139.9	-269.0	222.2	209.6	12.63	17.595	
2,800.0	2,788.5	2,735.6	2,687.8	6.5	8.4	-61.21	-147.6	-282.8	240.1	227.3	12.81	18.749	
2,824.3	2,812.8	2,755.7	2,705.7	6.5	8.6	-141.22	-152.0	-290.8	250.3	236.0	14.36	17.428	
2,854.3	2,842.9	2,780.3	2,727.5	6.6	8.8	-140.18	-157.4	-300.7	263.4	248.7	14.65	17.975	
2,900.0	2,888.5	2,817.3	2,760.2	6.7	9.1	-138.75	-165.8	-315.9	283.7	268.6	15.09	18.795	
2,952.7	2,941.3	2,859.4	2,797.1	6.8	9.5	-137.30	-175.6	-333.6	308.0	292.4	15.62	19.715	
3,000.0	2,988.5	2,900.0	2,832.4	6.9	9.8	-136.05	-185.3	-351.2	330.4	314.3	16.12	20.496	
3,051.2	3,039.7	2,939.1	2,866.2	7.0	10.2	-134.98	-194.7	-368.4	355.3	338.7	16.63	21.361	
3,100.0	3,088.5	2,981.3	2,902.7	7.1	10.6	-133.95	-205.0	-387.0	379.2	362.0	17.17	22.083	
3,149.6	3,138.1	3,024.2	2,939.7	7.2	11.0	-133.04	-215.4	-405.9	403.5	385.8	17.72	22.773	
3,200.0	3,188.5	3,067.7	2,977.3	7.3	11.5	-132.21	-226.0	-425.1	428.4	410.1	18.28	23.434	
3,248.0	3,236.6	3,109.2	3,013.2	7.4	11.9	-131.51	-236.1	-443.4	452.1	433.3	18.81	24.030	
3,300.0	3,288.5	3,154.1	3,052.0	7.5	12.3	-130.83	-247.0	-463.2	477.8	458.4	19.39	24.637	
3,346.4	3,335.0	3,194.3	3,086.7	7.6	12.8	-130.27	-256.7	-480.9	500.8	480.9	19.91	25.152	
3,400.0	3,388.5	3,240.5	3,126.7	7.7	13.2	-129.70	-268.0	-501.3	527.4	506.8	20.51	25.712	
3,444.9	3,433.4	3,279.3	3,160.2	7.8	13.6	-129.26	-277.4	-518.4	549.7	528.6	21.01	26.157	
3,500.0	3,488.5	3,327.0	3,201.3	7.9	14.1	-128.76	-289.0	-539.4	577.1	555.4	21.63	26.676	
3,543.3	3,531.8	3,364.4	3,233.7	8.0	14.5	-128.40	-298.0	-555.9	598.6	576.5	22.12	27.062	
3,600.0	3,588.5	3,413.4	3,276.0	8.1	15.0	-127.97	-310.0	-577.4	626.9	604.1	22.76	27.544	
3,641.7	3,630.3	3,449.4	3,307.2	8.2	15.4	-127.68	-318.7	-593.3	647.7	624.5	23.23	27.880	
3,700.0	3,688.5	3,499.8	3,350.7	8.3	15.9	-127.30	-330.9	-615.5	676.8	652.9	23.89	28.329	
3,740.1	3,728.7	3,534.5	3,380.7	8.4	16.3	-127.06	-339.4	-630.8	696.8	672.5	24.35	28.623	
3,800.0	3,788.5	3,586.2	3,425.4	8.5	16.8	-126.72	-351.9	-653.6	726.7	701.7	25.02	29.041	
3,838.6	3,827.1	3,619.5	3,454.2	8.6	17.2	-126.52	-360.0	-668.3	746.0	720.5	25.46	29.299	
3,900.0	3,888.5	3,672.6	3,500.0	8.7	17.7	-126.21	-372.9	-691.7	776.7	750.6	26.16	29.691	
3,937.0	3,925.5	3,704.6	3,527.7	8.8	18.1	-126.04	-380.7	-705.8	795.2	768.6	26.58	29.917	
4,000.0	3,988.5	3,759.0	3,574.7	9.0	18.6	-125.77	-393.9	-729.8	826.8	799.5	27.30	30.285	
4,035.4	4,024.0	3,789.6	3,601.1	9.0	19.0	-125.62	-401.4	-743.3	844.5	816.8	27.70	30.484	
4,100.0	4,088.5	3,845.4	3,649.4	9.2	19.5	-125.37	-414.9	-767.9	876.8	848.4	28.44	30.831	
4,133.8	4,122.4	3,874.7	3,674.6	9.2	19.9	-125.25	-422.0	-780.8	893.8	865.0	28.83	31.005	
4,200.0	4,188.5	3,931.8	3,724.0	9.4	20.5	-125.02	-435.9	-806.0	926.9	897.3	29.58	31.333	
4,232.3	4,220.8	3,959.7	3,748.1	9.4	20.8	-124.91	-442.7	-818.3	943.1	913.1	29.95	31.487	
4,300.0	4,288.5	4,018.2	3,798.7	9.6	21.4	-124.70	-456.9	-844.1	977.0	946.3	30.73	31.797	
4,330.7	4,319.2	4,044.8	3,821.6	9.7	21.7	-124.61	-463.3	-855.8	992.4	961.4	31.08	31.932	
4,400.0	4,388.5	4,104.7	3,873.4	9.8	22.3	-124.42	-477.9	-882.2	1,027.2	995.3	31.87	32.227	
4,429.1	4,417.7	4,129.8	3,895.1	9.9	22.6	-124.34	-484.0	-893.3	1,041.8	1,009.6	32.21	32.346	
4,500.0	4,488.5	4,191.1	3,948.0	10.0	23.2	-124.16	-498.9	-920.2	1,077.4	1,044.3	33.02	32.625	
4,527.5	4,516.1	4,214.9	3,968.6	10.1	23.5	-124.09	-504.7	-930.7	1,091.2	1,057.8	33.34	32.730	
4,600.0	4,588.5	4,277.5	4,022.7	10.2	24.2	-123.92	-519.9	-958.3	1,127.5	1,093.4	34.17	32.996	
4,626.0	4,614.5	4,299.9	4,042.1	10.3	24.4	-123.86	-525.3	-968.2	1,140.6	1,106.1	34.47	33.089	
4,700.0	4,688.5	4,363.9	4,097.4	10.5	25.1	-123.71	-540.9	-996.4	1,177.7	1,142.4	35.32	33.343	
4,724.4	4,712.9	4,385.0	4,115.6	10.5	25.3	-123.66	-546.0	-1,005.7	1,190.0	1,154.4	35.60	33.424	
4,800.0	4,788.5	4,450.3	4,172.1	10.7	26.0	-123.51	-561.8	-1,034.5	1,227.9	1,191.4	36.47	33.667	
4,822.8	4,811.4	4,470.0	4,189.1	10.7	26.2	-123.47	-566.6	-1,043.2	1,239.4	1,202.6	36.74	33.738	
4,900.0	4,888.5	4,536.7	4,246.7	10.9	26.9	-123.33	-582.8	-1,072.6	1,278.1	1,240.5	37.63	33.970	
4,921.2	4,909.8	4,555.1	4,262.6	10.9	27.1	-123.29	-587.3	-1,080.7	1,288.8	1,250.9	37.87	34.032	
5,000.0	4,988.5	4,623.1	4,321.4	11.1	27.9	-123.16	-603.8	-1,110.7	1,328.3	1,289.6	38.78	34.255	
5,019.7	5,008.2	4,640.1	4,336.1	11.1	28.1	-123.13	-608.0	-1,118.2	1,338.2	1,299.2	39.01	34.309	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	4,709.5	4,396.1	11.3	28.8	-123.00	-624.8	-1,148.8	1,378.6	1,338.6	39.93	34.523	
5,118.1	5,106.6	4,725.2	4,409.6	11.4	29.0	-122.97	-628.6	-1,155.7	1,387.7	1,347.5	40.14	34.569	
5,200.0	5,188.5	4,796.0	4,470.7	11.5	29.7	-122.85	-645.8	-1,186.9	1,428.8	1,387.7	41.09	34.775	
5,216.5	5,205.1	4,810.2	4,483.1	11.6	29.9	-122.83	-649.3	-1,193.2	1,437.1	1,395.8	41.28	34.815	
5,300.0	5,288.5	4,923.5	4,581.5	11.8	31.0	-122.66	-676.3	-1,242.2	1,478.5	1,436.0	42.55	34.745	
5,314.9	5,303.5	4,950.7	4,605.4	11.8	31.2	-122.62	-682.6	-1,253.6	1,485.6	1,442.8	42.81	34.705	
5,400.0	5,388.5	5,110.8	4,748.7	12.0	32.4	-122.43	-717.0	-1,316.0	1,523.5	1,479.2	44.23	34.446	
5,413.4	5,401.9	5,136.7	4,772.3	12.0	32.6	-122.40	-722.2	-1,325.5	1,529.0	1,484.6	44.44	34.405	
5,500.0	5,488.5	8,200.9	6,695.6	12.2	44.4	179.49	-845.3	-141.3	1,487.8	1,453.1	34.67	42.915	
5,511.8	5,500.3	8,200.9	6,695.6	12.2	44.4	179.49	-845.3	-141.4	1,478.2	1,443.5	34.70	42.606	
5,600.0	5,588.5	8,200.3	6,695.6	12.4	44.4	179.53	-845.3	-141.9	1,407.9	1,373.0	34.90	40.339	
5,610.2	5,598.8	8,200.2	6,695.6	12.4	44.4	179.54	-845.3	-142.0	1,399.8	1,364.9	34.92	40.082	
5,700.0	5,688.5	8,199.7	6,695.6	12.6	44.4	179.57	-845.3	-142.6	1,330.7	1,295.5	35.13	37.875	
5,708.6	5,697.2	8,199.6	6,695.6	12.6	44.4	179.58	-845.3	-142.7	1,324.1	1,289.0	35.15	37.667	
5,800.0	5,788.5	8,199.0	6,695.6	12.8	44.4	179.62	-845.3	-143.2	1,256.7	1,221.3	35.37	35.533	
5,807.1	5,795.6	8,199.0	6,695.6	12.9	44.4	179.62	-845.3	-143.3	1,251.6	1,216.2	35.38	35.373	
5,900.0	5,888.5	8,198.4	6,695.6	13.1	44.4	179.66	-845.3	-143.9	1,186.5	1,150.9	35.60	33.330	
5,905.5	5,894.0	8,198.3	6,695.6	13.1	44.4	179.66	-845.3	-143.9	1,182.8	1,147.2	35.61	33.213	
6,000.0	5,988.5	8,197.7	6,695.6	13.3	44.4	179.70	-845.3	-144.5	1,120.9	1,085.1	35.83	31.282	
6,003.9	5,992.5	8,197.7	6,695.6	13.3	44.4	179.70	-845.3	-144.5	1,118.4	1,082.6	35.84	31.205	
6,085.3	6,073.8	8,197.2	6,695.6	13.5	44.4	179.74	-845.3	-145.1	1,069.1	1,033.1	36.03	29.673	
6,100.0	6,088.5	8,196.9	6,695.6	13.5	44.4	-91.08	-845.3	-145.3	1,060.7	1,003.4	57.22	18.536	
6,102.3	6,090.9	8,196.9	6,695.6	13.5	44.4	-91.21	-845.3	-145.4	1,059.3	1,002.1	57.24	18.506	
6,150.0	6,138.4	8,193.8	6,695.6	13.6	44.3	-93.54	-845.3	-148.4	1,032.9	975.4	57.52	17.958	
6,200.0	6,188.0	8,187.3	6,695.7	13.7	44.2	-95.53	-845.3	-155.0	1,007.0	949.4	57.66	17.465	
6,200.8	6,188.8	8,187.2	6,695.7	13.7	44.2	-95.56	-845.3	-155.1	1,006.6	949.0	57.66	17.458	
6,250.0	6,237.1	8,177.3	6,695.8	13.9	44.1	-97.04	-845.3	-165.0	983.3	925.6	57.68	17.046	
6,299.2	6,284.6	8,164.1	6,695.8	14.0	43.8	-98.09	-845.3	-178.1	962.1	904.4	57.62	16.698	
6,300.0	6,285.3	8,163.9	6,695.8	14.0	43.8	-98.10	-845.3	-178.4	961.7	904.1	57.61	16.693	
6,350.0	6,332.5	8,147.2	6,695.9	14.2	43.6	-98.72	-845.3	-195.1	942.6	885.1	57.48	16.400	
6,397.6	6,376.3	8,128.2	6,696.1	14.4	43.3	-98.95	-845.3	-214.0	926.6	869.3	57.29	16.173	
6,400.0	6,378.5	8,127.2	6,696.1	14.4	43.2	-98.95	-845.3	-215.1	925.9	868.6	57.28	16.163	
6,450.0	6,423.0	8,104.1	6,696.2	14.7	42.9	-98.81	-845.3	-238.2	911.6	854.6	57.05	15.978	
6,496.0	6,462.4	8,080.1	6,696.4	14.9	42.5	-98.39	-845.3	-262.2	900.6	843.8	56.84	15.844	
6,500.0	6,465.7	8,077.9	6,696.4	14.9	42.5	-98.34	-845.3	-264.3	899.8	843.0	56.82	15.835	
6,550.0	6,506.6	8,048.8	6,696.6	15.2	42.0	-97.58	-845.3	-293.4	890.2	833.6	56.59	15.732	
6,594.5	6,541.2	8,020.7	6,696.8	15.6	41.6	-96.71	-845.3	-321.6	883.5	827.1	56.38	15.672	
6,600.0	6,545.3	8,017.0	6,696.8	15.6	41.6	-96.59	-845.3	-325.2	882.8	826.4	56.35	15.667	
6,650.0	6,581.8	7,982.6	6,697.0	16.0	41.1	-95.40	-845.3	-359.7	877.3	821.2	56.14	15.628	
6,692.9	6,611.1	7,951.1	6,697.2	16.4	40.7	-94.27	-845.3	-391.2	874.0	818.0	56.00	15.607	
6,700.0	6,615.8	7,945.7	6,697.2	16.5	40.6	-94.08	-845.3	-396.5	873.5	817.5	55.97	15.607	
6,750.0	6,647.1	7,906.6	6,697.5	17.1	40.1	-92.67	-845.3	-435.7	871.2	815.3	55.83	15.604	
6,791.3	6,670.9	7,872.6	6,697.7	17.6	39.7	-91.48	-845.3	-469.6	870.1	814.3	55.78	15.598	
6,800.0	6,675.7	7,865.3	6,697.8	17.7	39.6	-91.23	-845.3	-476.9	870.0	814.2	55.77	15.599	
6,843.2	6,698.0	7,828.2	6,698.0	18.3	39.2	-90.00	-845.3	-514.1	869.7	813.9	55.77	15.594	
6,850.0	6,701.3	7,822.2	6,698.0	18.4	39.1	-89.81	-845.3	-520.0	869.7	813.9	55.77	15.594	
6,889.7	6,719.5	7,786.8	6,698.3	19.0	38.7	-88.74	-845.3	-555.5	870.0	814.1	55.83	15.582	
6,900.0	6,723.8	7,777.5	6,698.3	19.1	38.6	-88.47	-845.3	-564.8	870.1	814.2	55.86	15.577	
6,950.0	6,743.2	7,731.3	6,698.6	20.0	38.2	-87.25	-845.3	-611.0	870.9	814.8	56.04	15.540	
6,988.2	6,755.8	7,695.2	6,698.8	20.6	37.9	-86.42	-845.3	-647.1	871.6	815.3	56.23	15.499	
7,000.0	6,759.4	7,683.9	6,698.9	20.9	37.8	-86.19	-845.3	-658.4	871.8	815.5	56.31	15.481	
7,050.0	6,772.1	7,635.5	6,699.2	21.8	37.4	-85.32	-845.3	-706.8	872.8	816.1	56.71	15.389	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	7,599.5	6,699.5	22.5	37.2	-84.82	-845.3	-742.7	873.4	816.3	57.05	15.308	
7,100.0	6,781.5	7,586.3	6,699.5	22.8	37.1	-84.67	-845.3	-755.9	873.6	816.4	57.21	15.271	
7,150.0	6,787.5	7,536.6	6,699.9	23.9	36.8	-84.26	-845.3	-805.6	874.1	816.3	57.83	15.116	
7,185.0	6,789.6	7,503.0	6,700.0	24.6	36.6	-84.13	-845.3	-839.2	874.3	816.0	58.32	14.991	
7,200.0	6,789.9	7,489.8	6,699.7	24.9	36.6	-84.08	-845.3	-852.5	874.4	815.8	58.56	14.931	
7,213.0	6,790.0	7,478.2	6,699.3	25.2	36.5	-84.05	-845.3	-864.0	874.4	815.7	58.77	14.878	
7,283.4	6,789.7	7,416.1	6,693.9	26.8	36.3	-83.71	-845.3	-925.9	875.1	815.2	59.87	14.616	
7,300.0	6,789.7	7,400.0	6,691.6	27.2	36.2	-83.57	-845.3	-941.8	875.3	815.2	60.12	14.560	
7,381.9	6,789.4	7,331.8	6,678.1	29.1	36.0	-82.70	-845.3	-1,008.6	877.3	815.7	61.56	14.250	
7,400.0	6,789.3	7,316.7	6,674.2	29.5	36.0	-82.45	-845.3	-1,023.2	877.9	816.0	61.88	14.186	
7,480.3	6,789.0	7,250.0	6,653.5	31.4	35.9	-81.13	-845.3	-1,086.6	881.6	818.2	63.38	13.909	
7,500.0	6,788.9	7,236.9	6,648.7	31.9	35.9	-80.83	-845.3	-1,098.8	882.7	819.0	63.77	13.842	
7,578.7	6,788.6	7,178.5	6,624.8	33.8	35.9	-79.31	-845.3	-1,152.1	888.8	823.4	65.33	13.605	
7,600.0	6,788.5	7,163.5	6,618.0	34.4	35.9	-78.88	-845.3	-1,165.5	890.8	825.0	65.74	13.550	
7,677.1	6,788.2	7,111.6	6,592.3	36.3	35.9	-77.27	-845.3	-1,210.4	899.8	832.5	67.28	13.374	
7,700.0	6,788.2	7,100.0	6,586.0	36.9	35.9	-76.89	-845.3	-1,220.3	903.0	835.2	67.75	13.329	
7,775.6	6,787.9	7,050.0	6,557.5	38.8	36.0	-75.13	-845.3	-1,261.3	915.5	846.3	69.20	13.229	
7,800.0	6,787.8	7,037.8	6,550.2	39.4	36.0	-74.68	-845.3	-1,271.0	920.2	850.5	69.69	13.203	
7,874.0	6,787.5	7,000.0	6,526.2	41.3	36.1	-73.23	-845.3	-1,300.3	936.5	865.3	71.14	13.163	
7,900.0	6,787.4	6,985.2	6,516.5	42.0	36.1	-72.64	-845.3	-1,311.4	942.9	871.3	71.62	13.166	
7,972.4	6,787.1	6,950.0	6,492.3	43.9	36.2	-71.21	-845.3	-1,337.0	963.1	890.2	72.98	13.198	
8,000.0	6,787.0	6,938.7	6,484.2	44.6	36.2	-70.74	-845.3	-1,345.0	971.7	898.2	73.50	13.220	
8,070.8	6,786.7	6,900.0	6,455.9	46.5	36.3	-69.09	-845.3	-1,371.3	995.8	921.1	74.67	13.336	
8,100.0	6,786.6	6,900.0	6,455.9	47.3	36.3	-69.09	-845.3	-1,371.3	1,006.5	931.1	75.39	13.350	
8,169.3	6,786.4	6,871.9	6,434.4	49.1	36.4	-67.87	-845.3	-1,389.3	1,034.1	957.5	76.62	13.497	
8,200.0	6,786.3	6,850.0	6,417.1	49.9	36.4	-66.91	-845.3	-1,402.9	1,047.4	970.4	76.96	13.610	
8,267.7	6,786.0	6,850.0	6,417.1	51.7	36.4	-66.91	-845.3	-1,402.9	1,078.3	999.6	78.63	13.713	
8,300.0	6,785.9	6,829.0	6,400.2	52.6	36.5	-65.97	-845.3	-1,415.3	1,093.8	1,014.8	78.99	13.847	
8,366.1	6,785.6	6,800.0	6,376.3	54.4	36.6	-64.68	-845.3	-1,431.7	1,127.5	1,047.6	79.96	14.101	
8,400.0	6,785.5	6,800.0	6,376.3	55.3	36.6	-64.68	-845.3	-1,431.7	1,145.6	1,064.8	80.79	14.180	
8,464.5	6,785.2	6,783.5	6,362.4	57.0	36.6	-63.93	-845.3	-1,440.6	1,181.6	1,099.6	81.96	14.416	
8,500.0	6,785.1	6,774.8	6,355.0	58.0	36.7	-63.54	-845.3	-1,445.2	1,202.2	1,119.6	82.60	14.554	
8,563.0	6,784.9	6,750.0	6,333.6	59.7	36.7	-62.42	-845.3	-1,457.6	1,240.2	1,156.8	83.47	14.859	
8,600.0	6,784.7	6,750.0	6,333.6	60.7	36.7	-62.42	-845.3	-1,457.6	1,263.2	1,178.8	84.36	14.974	
8,661.4	6,784.5	6,750.0	6,333.6	62.4	36.7	-62.42	-845.3	-1,457.6	1,302.8	1,216.9	85.85	15.175	
8,700.0	6,784.3	6,731.3	6,317.1	63.4	36.8	-61.58	-845.3	-1,466.5	1,328.1	1,241.9	86.24	15.402	
8,759.8	6,784.1	6,720.0	6,307.1	65.0	36.8	-61.07	-845.3	-1,471.7	1,368.7	1,281.4	87.33	15.672	
8,800.0	6,784.0	6,700.0	6,289.1	66.1	36.9	-60.18	-845.3	-1,480.5	1,396.7	1,309.1	87.66	15.933	
8,858.2	6,783.7	6,700.0	6,289.1	67.7	36.9	-60.18	-845.3	-1,480.5	1,437.9	1,348.8	89.05	16.146	
8,900.0	6,783.6	6,700.0	6,289.1	68.9	36.9	-60.17	-845.3	-1,480.5	1,468.1	1,378.1	90.05	16.303	
8,956.7	6,783.3	6,700.0	6,289.1	70.4	36.9	-60.17	-845.3	-1,480.5	1,510.0	1,418.6	91.41	16.519	
9,000.0	6,783.2	6,680.7	6,271.5	71.6	36.9	-59.31	-845.3	-1,488.5	1,542.3	1,450.6	91.77	16.806	
9,055.1	6,783.0	6,672.8	6,264.3	73.1	36.9	-58.96	-845.3	-1,491.6	1,584.3	1,491.5	92.80	17.071	
9,100.0	6,782.8	6,666.7	6,258.7	74.3	36.9	-58.69	-845.3	-1,494.0	1,619.0	1,525.4	93.65	17.289	
9,153.5	6,782.6	6,650.0	6,243.2	75.8	37.0	-57.95	-845.3	-1,500.2	1,661.0	1,566.7	94.29	17.617	
9,200.0	6,782.4	6,650.0	6,243.2	77.1	37.0	-57.95	-845.3	-1,500.2	1,697.8	1,602.4	95.38	17.800	
9,251.9	6,782.2	6,650.0	6,243.2	78.5	37.0	-57.95	-845.3	-1,500.2	1,739.5	1,642.9	96.61	18.006	
9,300.0	6,782.0	6,650.0	6,243.2	79.8	37.0	-57.95	-845.3	-1,500.2	1,778.5	1,680.8	97.74	18.196	
9,350.4	6,781.8	6,650.0	6,243.2	81.2	37.0	-57.95	-845.3	-1,500.2	1,819.9	1,720.9	98.93	18.396	
9,400.0	6,781.6	6,631.4	6,225.8	82.6	37.0	-57.14	-845.3	-1,506.7	1,860.8	1,761.4	99.34	18.732	
9,448.8	6,781.4	6,626.5	6,221.1	83.9	37.0	-56.92	-845.3	-1,508.4	1,901.5	1,801.2	100.27	18.963	
9,500.0	6,781.2	6,621.5	6,216.4	85.4	37.1	-56.70	-845.3	-1,510.0	1,944.6	1,843.3	101.26	19.204	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,547.2	6,781.0	6,600.0	6,196.0	86.7	37.1	-55.77	-845.3	-1,516.7	1,984.8	1,883.4	101.42	19.570	
9,600.0	6,780.8	6,600.0	6,196.0	88.1	37.1	-55.77	-845.3	-1,516.7	2,029.8	1,927.2	102.65	19.775	
9,645.6	6,780.7	6,600.0	6,196.0	89.4	37.1	-55.77	-845.3	-1,516.7	2,069.0	1,965.3	103.70	19.951	
9,700.0	6,780.5	6,600.0	6,196.0	90.9	37.1	-55.77	-845.3	-1,516.7	2,116.0	2,011.0	104.96	20.159	
9,744.1	6,780.3	6,600.0	6,196.0	92.1	37.1	-55.77	-845.3	-1,516.7	2,154.3	2,048.3	105.99	20.326	
9,800.0	6,780.1	6,600.0	6,196.0	93.7	37.1	-55.77	-845.3	-1,516.7	2,203.3	2,096.0	107.28	20.537	
9,842.5	6,779.9	6,600.0	6,196.0	94.8	37.1	-55.77	-845.3	-1,516.7	2,240.7	2,132.4	108.27	20.696	
9,900.0	6,779.7	6,600.0	6,196.0	96.4	37.1	-55.77	-845.3	-1,516.7	2,291.6	2,182.0	109.60	20.908	
9,940.9	6,779.5	6,600.0	6,196.0	97.6	37.1	-55.77	-845.3	-1,516.7	2,328.1	2,217.5	110.56	21.058	
10,000.0	6,779.3	6,600.0	6,196.0	99.2	37.1	-55.77	-845.3	-1,516.7	2,380.9	2,269.0	111.93	21.272	
10,039.3	6,779.1	6,578.7	6,175.6	100.3	37.1	-54.86	-845.3	-1,522.7	2,415.9	2,304.1	111.78	21.613	
10,100.0	6,778.9	6,574.8	6,171.8	102.0	37.2	-54.70	-845.3	-1,523.7	2,470.5	2,357.5	112.98	21.867	
10,137.8	6,778.7	6,572.5	6,169.6	103.0	37.2	-54.60	-845.3	-1,524.3	2,504.6	2,390.9	113.73	22.023	
10,200.0	6,778.5	6,550.0	6,147.7	104.8	37.2	-53.66	-845.3	-1,529.8	2,561.3	2,447.4	113.98	22.471	
10,236.2	6,778.3	6,550.0	6,147.7	105.8	37.2	-53.66	-845.3	-1,529.8	2,594.2	2,479.4	114.81	22.597	
10,300.0	6,778.1	6,550.0	6,147.7	107.5	37.2	-53.65	-845.3	-1,529.8	2,652.4	2,536.1	116.26	22.815	
10,334.6	6,778.0	6,550.0	6,147.7	108.5	37.2	-53.65	-845.3	-1,529.8	2,684.0	2,567.0	117.04	22.932	
10,400.0	6,777.7	6,550.0	6,147.7	110.3	37.2	-53.65	-845.3	-1,529.8	2,744.0	2,625.5	118.53	23.150	
10,433.0	6,777.6	6,550.0	6,147.7	111.2	37.2	-53.65	-845.3	-1,529.8	2,774.4	2,655.1	119.28	23.259	
10,500.0	6,777.3	6,550.0	6,147.7	113.1	37.2	-53.65	-845.3	-1,529.8	2,836.2	2,715.4	120.81	23.477	
10,531.5	6,777.2	6,550.0	6,147.7	114.0	37.2	-53.65	-845.3	-1,529.8	2,865.3	2,743.8	121.53	23.578	
10,600.0	6,776.9	6,550.0	6,147.7	115.9	37.2	-53.65	-845.3	-1,529.8	2,928.9	2,805.8	123.09	23.796	
10,629.9	6,776.8	6,550.0	6,147.7	116.7	37.2	-53.65	-845.3	-1,529.8	2,956.7	2,833.0	123.77	23.890	
10,700.0	6,776.5	6,550.0	6,147.7	118.7	37.2	-53.65	-845.3	-1,529.8	3,022.1	2,896.7	125.36	24.107	
10,728.3	6,776.4	6,550.0	6,147.7	119.5	37.2	-53.65	-845.3	-1,529.8	3,048.6	2,922.6	126.01	24.193	
10,800.0	6,776.1	6,550.0	6,147.7	121.4	37.2	-53.65	-845.3	-1,529.8	3,115.7	2,988.1	127.64	24.409	
10,826.7	6,776.0	6,550.0	6,147.7	122.2	37.2	-53.65	-845.3	-1,529.8	3,140.8	3,012.6	128.25	24.489	
10,900.0	6,775.7	6,550.0	6,147.7	124.2	37.2	-53.65	-845.3	-1,529.8	3,209.7	3,079.8	129.92	24.704	
10,925.2	6,775.6	6,550.0	6,147.7	124.9	37.2	-53.65	-845.3	-1,529.8	3,233.4	3,102.9	130.50	24.777	
11,000.0	6,775.3	6,550.0	6,147.7	127.0	37.2	-53.65	-845.3	-1,529.8	3,304.0	3,171.8	132.20	24.992	
11,023.6	6,775.2	6,550.0	6,147.7	127.7	37.2	-53.65	-845.3	-1,529.8	3,326.4	3,193.6	132.74	25.058	
11,100.0	6,774.9	6,527.1	6,125.4	129.8	37.2	-52.71	-845.3	-1,534.7	3,398.3	3,265.2	133.05	25.542	
11,122.0	6,774.8	6,526.3	6,124.6	130.4	37.2	-52.67	-845.3	-1,534.9	3,419.1	3,285.6	133.50	25.612	
11,200.0	6,774.5	6,523.6	6,121.9	132.6	37.2	-52.56	-845.3	-1,535.4	3,493.1	3,358.0	135.08	25.860	
11,220.4	6,774.4	6,522.9	6,121.3	133.2	37.2	-52.53	-845.3	-1,535.5	3,512.5	3,377.0	135.50	25.924	
11,300.0	6,774.1	6,500.0	6,098.7	135.4	37.3	-51.61	-845.3	-1,539.6	3,588.5	3,452.7	135.79	26.427	
11,318.9	6,774.0	6,500.0	6,098.7	135.9	37.3	-51.61	-845.3	-1,539.6	3,606.5	3,470.3	136.21	26.477	
11,400.0	6,773.7	6,500.0	6,098.7	138.2	37.3	-51.61	-845.3	-1,539.6	3,683.7	3,545.7	138.02	26.690	
11,417.3	6,773.6	6,500.0	6,098.7	138.7	37.3	-51.61	-845.3	-1,539.6	3,700.2	3,561.8	138.41	26.735	
11,500.0	6,773.3	6,500.0	6,098.7	141.0	37.3	-51.61	-845.3	-1,539.6	3,779.2	3,639.0	140.25	26.947	
11,515.7	6,773.2	6,500.0	6,098.7	141.4	37.3	-51.61	-845.3	-1,539.6	3,794.3	3,653.7	140.60	26.986	
11,600.0	6,772.9	6,500.0	6,098.7	143.8	37.3	-51.61	-845.3	-1,539.6	3,874.9	3,732.4	142.48	27.197	
11,614.1	6,772.8	6,500.0	6,098.7	144.2	37.3	-51.61	-845.3	-1,539.6	3,888.5	3,745.7	142.79	27.231	
11,700.0	6,772.5	6,500.0	6,098.7	146.6	37.3	-51.61	-845.3	-1,539.6	3,970.8	3,826.1	144.71	27.440	
11,712.6	6,772.4	6,500.0	6,098.7	146.9	37.3	-51.61	-845.3	-1,539.6	3,982.9	3,837.9	144.99	27.470	
11,800.0	6,772.1	6,500.0	6,098.7	149.4	37.3	-51.60	-845.3	-1,539.6	4,067.0	3,920.0	146.94	27.678	
11,811.0	6,772.1	6,500.0	6,098.7	149.7	37.3	-51.60	-845.3	-1,539.6	4,077.5	3,930.4	147.18	27.704	
11,900.0	6,771.7	6,500.0	6,098.7	152.2	37.3	-51.60	-845.3	-1,539.6	4,163.2	4,014.1	149.17	27.909	
11,909.4	6,771.7	6,500.0	6,098.7	152.4	37.3	-51.60	-845.3	-1,539.6	4,172.3	4,023.0	149.38	27.931	
12,000.0	6,771.3	6,500.0	6,098.7	154.9	37.3	-51.60	-845.3	-1,539.6	4,259.7	4,108.3	151.40	28.135	
12,007.8	6,771.3	6,500.0	6,098.7	155.2	37.3	-51.60	-845.3	-1,539.6	4,267.3	4,115.7	151.58	28.153	
12,100.0	6,770.9	6,500.0	6,098.7	157.7	37.3	-51.60	-845.3	-1,539.6	4,356.3	4,202.7	153.63	28.356	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17G-202 - ORIGINAL WELLBORE - PROPOS												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	6,770.9	6,500.0	6,098.7	157.9	37.3	-51.60	-845.3	-1,539.6	4,362.4	4,208.6	153.77	28.369	
12,200.0	6,770.5	6,500.0	6,098.7	160.5	37.3	-51.60	-845.3	-1,539.6	4,453.1	4,297.2	155.86	28.570	
12,204.7	6,770.5	6,500.0	6,098.7	160.7	37.3	-51.60	-845.3	-1,539.6	4,457.7	4,301.7	155.97	28.580	
12,300.0	6,770.1	6,500.0	6,098.7	163.3	37.3	-51.60	-845.3	-1,539.6	4,550.0	4,391.9	158.10	28.780	
12,303.1	6,770.1	6,500.0	6,098.7	163.4	37.3	-51.60	-845.3	-1,539.6	4,553.1	4,394.9	158.17	28.786	
12,316.4	6,770.0	6,500.0	6,098.7	163.8	37.3	-51.60	-845.3	-1,539.6	4,565.9	4,407.4	158.46	28.814	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	89.63	0.4	59.9	59.9				
98.4	98.4	98.4	98.4	0.1	0.1	89.63	0.4	59.9	59.9	59.7	0.19	311.499	
100.0	100.0	100.0	100.0	0.1	0.1	89.63	0.4	59.9	59.9	59.7	0.20	306.226	
196.8	196.8	196.8	196.8	0.3	0.3	89.63	0.4	59.9	59.9	59.3	0.63	94.912	
200.0	200.0	200.0	200.0	0.3	0.3	89.63	0.4	59.9	59.9	59.2	0.65	92.828	
295.3	295.3	295.3	295.3	0.5	0.5	89.63	0.4	59.9	59.9	58.8	1.07	55.788	
300.0	300.0	300.0	300.0	0.5	0.5	89.63	0.4	59.9	59.9	58.8	1.09	54.706	
393.7	393.7	393.7	393.7	0.8	0.8	89.63	0.4	59.9	59.9	58.4	1.52	39.504	
400.0	400.0	400.0	400.0	0.8	0.8	89.63	0.4	59.9	59.9	58.3	1.54	38.780	
492.1	492.1	492.1	492.1	1.0	1.0	89.63	0.4	59.9	59.9	57.9	1.96	30.579	
500.0	500.0	500.0	500.0	1.0	1.0	89.63	0.4	59.9	59.9	57.9	1.99	30.036	
590.5	590.5	590.5	590.5	1.2	1.2	89.63	0.4	59.9	59.9	57.5	2.40	24.943	
600.0	600.0	600.0	600.0	1.2	1.2	89.63	0.4	59.9	59.9	57.4	2.44	24.509	
689.0	689.0	689.0	689.0	1.4	1.4	89.63	0.4	59.9	59.9	57.0	2.84	21.061	
700.0	700.0	700.0	700.0	1.4	1.4	89.63	0.4	59.9	59.9	57.0	2.89	20.701	
787.4	787.4	787.4	787.4	1.6	1.6	89.63	0.4	59.9	59.9	56.6	3.29	18.225	
800.0	800.0	800.0	800.0	1.7	1.7	89.63	0.4	59.9	59.9	56.5	3.34	17.916	
885.8	885.8	885.8	885.8	1.9	1.9	89.63	0.4	59.9	59.9	56.2	3.73	16.062	
900.0	900.0	900.0	900.0	1.9	1.9	89.63	0.4	59.9	59.9	56.1	3.79	15.792	
984.2	984.2	984.2	984.2	2.1	2.1	89.63	0.4	59.9	59.9	55.7	4.17	14.358	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.63	0.4	59.9	59.9	55.6	4.24	14.119	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	89.63	0.4	59.9	59.9	55.3	4.61	12.981	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	89.63	0.4	59.9	59.9	55.2	4.69	12.766	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	89.63	0.4	59.9	59.9	54.8	5.06	11.845	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.63	0.4	59.9	59.9	54.7	5.14	11.649	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	89.63	0.4	59.9	59.9	54.4	5.50	10.892	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	89.63	0.4	59.9	59.9	54.3	5.59	10.712	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	89.63	0.4	59.9	59.9	53.9	5.94	10.080	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	89.63	0.4	59.9	59.9	53.8	6.04	9.915	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	89.63	0.4	59.9	59.9	53.5	6.38	9.382	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	89.63	0.4	59.9	59.9	53.4	6.49	9.228 CC, ES	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	170.48	0.4	59.9	60.8	54.0	6.82	8.928	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	170.60	0.4	59.9	61.6	54.7	6.92	8.897	
1,673.2	1,673.1	1,673.1	1,673.1	3.6	3.6	171.09	0.4	59.9	65.0	57.8	7.23	8.995	
1,700.0	1,699.8	1,699.8	1,699.8	3.7	3.7	171.32	0.4	59.9	66.8	59.4	7.34	9.094	
1,771.6	1,771.2	1,771.2	1,771.2	3.8	3.9	172.00	0.4	59.9	72.6	65.0	7.64	9.503	
1,800.0	1,799.5	1,799.5	1,799.5	3.9	3.9	172.29	0.4	59.9	75.4	67.6	7.76	9.722	
1,870.1	1,869.0	1,869.0	1,869.0	4.0	4.1	173.03	0.4	59.9	83.5	75.5	8.04	10.385	
1,900.0	1,898.7	1,898.7	1,898.7	4.1	4.1	173.33	0.4	59.9	87.5	79.3	8.16	10.720	
1,968.5	1,966.4	1,966.9	1,966.9	4.3	4.3	174.47	-0.4	59.7	97.6	89.2	8.42	11.597	
2,000.0	1,997.5	1,998.2	1,998.1	4.4	4.3	175.25	-1.2	59.4	102.7	94.2	8.53	12.038	
2,066.9	2,063.2	2,064.3	2,064.3	4.6	4.5	177.26	-4.2	58.6	114.6	105.8	8.76	13.076	
2,100.1	2,095.7	2,097.0	2,096.8	4.7	4.5	178.39	-6.1	58.1	121.0	112.1	8.87	13.634	
2,165.3	2,159.5	2,161.1	2,160.7	4.9	4.6	-179.23	-11.1	56.7	133.9	124.8	9.13	14.669	
2,200.0	2,193.4	2,195.0	2,194.5	5.0	4.7	-177.91	-14.2	55.8	140.9	131.6	9.27	15.198	
2,224.2	2,217.1	2,218.7	2,218.0	5.1	4.7	-176.97	-16.7	55.1	145.7	136.4	9.37	15.554	
2,263.8	2,255.9	2,257.4	2,256.5	5.2	4.8	-175.40	-21.1	53.9	153.5	143.9	9.55	16.066	
2,300.0	2,291.5	2,292.8	2,291.6	5.3	4.9	-173.93	-25.5	52.7	160.2	150.5	9.72	16.488	
2,362.2	2,352.7	2,353.5	2,351.6	5.5	5.0	-171.28	-34.1	50.3	170.9	160.9	10.00	17.090	
2,400.0	2,390.1	2,390.3	2,387.9	5.6	5.1	-169.60	-39.9	48.7	177.0	166.8	10.18	17.392	
2,460.6	2,450.1	2,449.2	2,445.8	5.7	5.2	-166.79	-50.2	45.8	186.2	175.7	10.47	17.780	
2,500.0	2,489.2	2,487.3	2,483.2	5.8	5.3	-164.87	-57.4	43.8	191.8	181.2	10.67	17.987	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,548.0	2,544.4	2,539.0	6.0	5.5	-161.89	-69.1	40.6	199.9	189.0	10.97	18.231	
2,600.0	2,588.8	2,584.3	2,578.0	6.1	5.6	-159.85	-77.3	38.3	205.2	194.0	11.18	18.358	
2,657.5	2,646.1	2,640.4	2,632.8	6.2	5.7	-157.06	-89.0	35.1	212.2	200.7	11.48	18.483	
2,700.0	2,688.6	2,682.0	2,673.3	6.3	5.9	-155.04	-97.6	32.7	216.9	205.2	11.70	18.543	
2,755.9	2,744.4	2,736.6	2,726.7	6.4	6.0	-152.41	-108.9	29.5	222.8	210.8	11.99	18.584	
2,800.0	2,788.5	2,779.6	2,768.7	6.5	6.2	-150.35	-117.8	27.0	227.1	214.9	12.22	18.590	
2,824.3	2,812.8	2,803.4	2,791.9	6.5	6.3	130.09	-122.7	25.7	229.4	217.1	12.32	18.618	
2,854.3	2,842.9	2,832.7	2,820.6	6.6	6.4	131.52	-128.8	24.0	232.2	219.7	12.44	18.661	
2,900.0	2,888.5	2,877.3	2,864.1	6.7	6.5	133.62	-138.0	21.4	236.7	224.1	12.63	18.742	
2,952.7	2,941.3	2,928.8	2,914.4	6.8	6.7	135.94	-148.7	18.5	242.4	229.5	12.87	18.839	
3,000.0	2,988.5	2,975.0	2,959.5	6.9	6.9	137.93	-158.3	15.8	247.8	234.7	13.08	18.938	
3,051.2	3,039.7	3,024.9	3,008.3	7.0	7.0	140.00	-168.6	12.9	253.9	240.6	13.33	19.055	
3,100.0	3,088.5	3,072.6	3,054.9	7.1	7.2	141.87	-178.5	10.2	260.1	246.5	13.56	19.175	
3,149.6	3,138.1	3,121.1	3,102.2	7.2	7.4	143.69	-188.5	7.4	266.7	252.8	13.81	19.303	
3,200.0	3,188.5	3,170.3	3,150.3	7.3	7.6	145.45	-198.7	4.6	273.6	259.5	14.07	19.438	
3,248.0	3,236.6	3,217.2	3,196.1	7.4	7.8	147.05	-208.4	1.9	280.4	266.1	14.33	19.570	
3,300.0	3,288.5	3,268.0	3,245.6	7.5	8.0	148.70	-218.9	-1.1	288.0	273.4	14.61	19.714	
3,346.4	3,335.0	3,313.3	3,289.9	7.6	8.1	150.09	-228.3	-3.7	295.0	280.2	14.87	19.845	
3,400.0	3,388.5	3,365.6	3,341.0	7.7	8.3	151.63	-239.2	-6.7	303.3	288.2	15.17	19.996	
3,444.9	3,433.4	3,409.4	3,383.8	7.8	8.5	152.85	-248.3	-9.2	310.4	295.0	15.43	20.124	
3,500.0	3,488.5	3,463.3	3,436.4	7.9	8.7	154.27	-259.4	-12.3	319.3	303.6	15.75	20.279	
3,543.3	3,531.8	3,505.6	3,477.7	8.0	8.9	155.34	-268.2	-14.8	326.5	310.4	16.00	20.401	
3,600.0	3,588.5	3,560.9	3,531.8	8.1	9.1	156.67	-279.6	-17.9	335.9	319.6	16.34	20.559	
3,641.7	3,630.3	3,601.7	3,571.6	8.2	9.3	157.60	-288.1	-20.3	343.0	326.4	16.59	20.675	
3,700.0	3,688.5	3,658.6	3,627.1	8.3	9.5	158.84	-299.9	-23.6	353.1	336.1	16.95	20.833	
3,740.1	3,728.7	3,697.8	3,665.4	8.4	9.7	159.66	-308.0	-25.8	360.1	342.9	17.20	20.942	
3,800.0	3,788.5	3,756.3	3,722.5	8.5	10.0	160.81	-320.1	-29.2	370.7	353.1	17.57	21.100	
3,838.6	3,827.1	3,793.9	3,759.3	8.6	10.1	161.53	-327.9	-31.4	377.6	359.8	17.81	21.202	
3,900.0	3,888.5	3,853.9	3,817.9	8.7	10.4	162.61	-340.3	-34.8	388.7	370.5	18.20	21.360	
3,937.0	3,925.5	3,890.1	3,853.2	8.8	10.5	163.23	-347.8	-36.9	395.4	377.0	18.43	21.454	
4,000.0	3,988.5	3,951.6	3,913.3	9.0	10.8	164.24	-360.6	-40.4	407.0	388.2	18.83	21.611	
4,035.4	4,024.0	3,986.2	3,947.1	9.0	10.9	164.79	-367.7	-42.4	413.6	394.5	19.06	21.699	
4,100.0	4,088.5	4,049.2	4,008.7	9.2	11.2	165.74	-380.8	-46.0	425.6	406.2	19.48	21.854	
4,133.8	4,122.4	4,082.3	4,040.9	9.2	11.3	166.21	-387.6	-48.0	432.0	412.3	19.70	21.935	
4,200.0	4,188.5	4,146.9	4,104.0	9.4	11.6	167.11	-401.0	-51.7	444.5	424.4	20.13	22.088	
4,232.3	4,220.8	4,178.4	4,134.8	9.4	11.8	167.52	-407.5	-53.5	450.7	430.3	20.34	22.162	
4,300.0	4,288.5	4,244.6	4,199.4	9.6	12.1	168.36	-421.2	-57.3	463.7	442.9	20.78	22.314	
4,330.7	4,319.2	4,274.6	4,228.7	9.7	12.2	168.73	-427.5	-59.0	469.6	448.6	20.98	22.382	
4,400.0	4,388.5	4,342.2	4,294.8	9.8	12.5	169.52	-441.5	-62.9	483.0	461.5	21.44	22.531	
4,429.1	4,417.7	4,370.7	4,322.6	9.9	12.6	169.84	-447.4	-64.6	488.6	467.0	21.63	22.593	
4,500.0	4,488.5	4,439.9	4,390.2	10.0	12.9	170.59	-461.7	-68.5	502.5	480.4	22.10	22.740	
4,527.5	4,516.1	4,466.8	4,416.4	10.1	13.0	170.88	-467.3	-70.1	507.9	485.6	22.28	22.796	
4,600.0	4,588.5	4,537.6	4,485.5	10.2	13.3	171.59	-481.9	-74.2	522.1	499.4	22.76	22.941	
4,626.0	4,614.5	4,562.9	4,510.3	10.3	13.5	171.83	-487.2	-75.6	527.2	504.3	22.93	22.992	
4,700.0	4,688.5	4,635.2	4,580.9	10.5	13.8	172.50	-502.2	-79.8	541.9	518.5	23.42	23.135	
4,724.4	4,712.9	4,659.0	4,604.2	10.5	13.9	172.72	-507.1	-81.2	546.8	523.2	23.59	23.181	
4,800.0	4,788.5	4,732.9	4,676.3	10.7	14.2	173.36	-522.4	-85.4	561.8	537.7	24.09	23.321	
4,822.8	4,811.4	4,755.2	4,698.1	10.7	14.3	173.55	-527.0	-86.7	566.4	542.1	24.24	23.362	
4,900.0	4,888.5	4,830.5	4,771.7	10.9	14.7	174.16	-542.6	-91.0	581.9	557.1	24.76	23.500	
4,921.2	4,909.8	4,851.3	4,791.9	10.9	14.7	174.32	-546.9	-92.2	586.1	561.2	24.90	23.537	
5,000.0	4,988.5	4,928.2	4,867.1	11.1	15.1	174.90	-562.9	-96.6	602.0	576.6	25.43	23.672	
5,019.7	5,008.2	4,947.4	4,885.8	11.1	15.2	175.04	-566.8	-97.8	606.0	580.4	25.56	23.705	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,025.9	4,962.4	11.3	15.5	175.60	-583.1	-102.3	622.2	596.1	26.10	23.837	
5,118.1	5,106.6	5,043.5	4,979.7	11.4	15.6	175.72	-586.8	-103.3	625.9	599.7	26.22	23.867	
5,200.0	5,188.5	5,123.5	5,057.8	11.5	16.0	176.25	-603.3	-107.9	642.5	615.7	26.78	23.997	
5,216.5	5,205.1	5,139.7	5,073.6	11.6	16.0	176.35	-606.7	-108.8	645.9	619.0	26.89	24.022	
5,300.0	5,288.5	5,221.2	5,153.2	11.8	16.4	176.86	-623.6	-113.5	662.9	635.5	27.45	24.150	
5,314.9	5,303.5	5,235.8	5,167.4	11.8	16.5	176.95	-626.6	-114.4	666.0	638.4	27.55	24.173	
5,400.0	5,388.5	5,318.8	5,248.6	12.0	16.9	177.44	-643.8	-119.1	683.4	655.2	28.12	24.298	
5,413.4	5,401.9	5,331.9	5,261.3	12.0	16.9	177.51	-646.5	-119.9	686.1	657.9	28.21	24.317	
5,500.0	5,488.5	5,416.5	5,343.9	12.2	17.3	177.98	-664.0	-124.8	703.9	675.1	28.80	24.440	
5,511.8	5,500.3	5,428.0	5,355.2	12.2	17.4	178.04	-666.4	-125.4	706.3	677.4	28.88	24.457	
5,600.0	5,588.5	5,540.8	5,465.7	12.4	17.8	178.58	-687.8	-131.4	722.9	693.4	29.49	24.512	
5,610.2	5,598.8	5,554.1	5,478.8	12.4	17.8	178.63	-690.0	-132.0	724.6	695.1	29.56	24.516	
5,700.0	5,688.5	5,671.5	5,594.9	12.6	18.1	179.04	-707.3	-136.8	737.7	707.6	30.10	24.509	
5,708.6	5,697.2	5,682.9	5,606.2	12.6	18.2	179.07	-708.7	-137.2	738.8	708.7	30.15	24.504	
5,800.0	5,788.5	5,803.9	5,726.5	12.8	18.5	179.35	-721.2	-140.7	748.2	717.6	30.65	24.409	
5,807.1	5,795.6	5,813.3	5,735.8	12.9	18.5	179.37	-722.0	-140.9	748.8	718.1	30.69	24.400	
5,900.0	5,888.5	5,937.3	5,859.6	13.1	18.7	179.53	-729.3	-142.9	754.3	723.2	31.14	24.224	
5,905.5	5,894.0	5,944.7	5,867.0	13.1	18.7	179.54	-729.6	-143.0	754.5	723.4	31.16	24.211	
6,000.0	5,988.5	6,066.3	5,988.5	13.3	18.9	179.58	-731.5	-143.5	755.9	724.4	31.57	23.949	
6,003.9	5,992.5	6,070.2	5,992.5	13.3	18.9	179.58	-731.5	-143.5	755.9	724.4	31.58	23.938	
6,085.3	6,073.8	6,151.9	6,074.0	13.5	19.0	179.84	-731.5	-147.0	755.9	724.0	31.89	23.704	
6,100.0	6,088.5	6,166.6	6,088.6	13.5	19.1	-90.05	-731.5	-148.6	755.9	728.2	27.70	27.290	
6,102.3	6,090.9	6,168.9	6,090.9	13.5	19.1	-90.03	-731.5	-148.8	755.9	728.2	27.71	27.281	
6,106.7	6,095.2	6,173.2	6,095.2	13.5	19.1	-90.00	-731.5	-149.4	755.9	728.2	27.73	27.262	
6,150.0	6,138.4	6,216.2	6,137.7	13.6	19.2	-89.68	-731.5	-156.1	755.9	728.0	27.92	27.077	
6,200.0	6,188.0	6,265.5	6,185.7	13.7	19.3	-89.32	-731.5	-167.0	756.0	727.8	28.17	26.837	
6,200.8	6,188.8	6,266.3	6,186.5	13.7	19.3	-89.31	-731.5	-167.2	756.0	727.8	28.17	26.833	
6,250.0	6,237.1	6,314.5	6,232.6	13.9	19.4	-88.95	-731.5	-181.1	756.1	727.6	28.45	26.572	
6,299.2	6,284.6	6,362.4	6,277.5	14.0	19.5	-88.60	-731.5	-197.9	756.2	727.4	28.77	26.282	
6,300.0	6,285.3	6,363.2	6,278.2	14.0	19.5	-88.60	-731.5	-198.2	756.2	727.4	28.78	26.277	
6,350.0	6,332.5	6,411.5	6,322.2	14.2	19.7	-88.25	-731.5	-218.2	756.3	727.1	29.14	25.951	
6,397.6	6,376.3	6,457.3	6,362.6	14.4	19.9	-87.93	-731.5	-239.9	756.4	726.9	29.54	25.606	
6,400.0	6,378.5	6,459.6	6,364.6	14.4	19.9	-87.91	-731.5	-241.0	756.4	726.9	29.56	25.588	
6,450.0	6,423.0	6,507.4	6,405.0	14.7	20.1	-87.58	-731.5	-266.5	756.6	726.6	30.04	25.184	
6,496.0	6,462.4	6,551.2	6,440.5	14.9	20.3	-87.29	-731.5	-292.1	756.8	726.2	30.55	24.772	
6,500.0	6,465.7	6,555.0	6,443.5	14.9	20.3	-87.27	-731.5	-294.4	756.8	726.2	30.60	24.734	
6,550.0	6,506.6	6,602.3	6,479.9	15.2	20.5	-86.97	-731.5	-324.7	757.0	725.8	31.24	24.234	
6,594.5	6,541.2	6,644.2	6,510.3	15.6	20.8	-86.71	-731.5	-353.4	757.2	725.3	31.89	23.741	
6,600.0	6,545.3	6,650.0	6,514.4	15.6	20.8	-86.67	-731.5	-357.5	757.2	725.2	31.98	23.677	
6,650.0	6,581.8	6,696.3	6,545.8	16.0	21.1	-86.41	-731.5	-391.5	757.4	724.6	32.83	23.073	
6,692.9	6,611.1	6,736.3	6,571.1	16.4	21.4	-86.19	-731.5	-422.6	757.6	724.0	33.66	22.506	
6,700.0	6,615.8	6,742.9	6,575.1	16.5	21.4	-86.15	-731.5	-427.8	757.6	723.8	33.80	22.415	
6,750.0	6,647.1	6,789.4	6,601.9	17.1	21.8	-85.91	-731.5	-465.8	757.9	723.0	34.90	21.713	
6,791.3	6,670.9	6,827.7	6,622.1	17.6	22.2	-85.73	-731.5	-498.3	758.0	722.1	35.92	21.102	
6,800.0	6,675.7	6,835.8	6,626.1	17.7	22.2	-85.69	-731.5	-505.3	758.1	721.9	36.14	20.976	
6,850.0	6,701.3	6,881.9	6,647.7	18.4	22.7	-85.50	-731.5	-546.1	758.3	720.8	37.51	20.214	
6,889.7	6,719.5	6,918.5	6,662.9	19.0	23.2	-85.35	-731.5	-579.4	758.4	719.7	38.70	19.595	
6,900.0	6,723.8	6,928.0	6,666.5	19.1	23.3	-85.32	-731.5	-588.1	758.5	719.4	39.02	19.439	
6,950.0	6,743.2	6,973.9	6,682.5	20.0	23.9	-85.16	-731.5	-631.1	758.6	718.0	40.65	18.662	
6,988.2	6,755.8	7,008.9	6,692.9	20.6	24.4	-85.06	-731.5	-664.5	758.8	716.8	41.98	18.073	
7,000.0	6,759.4	7,019.7	6,695.8	20.9	24.5	-85.03	-731.5	-675.0	758.8	716.4	42.40	17.894	
7,050.0	6,772.1	7,065.4	6,706.1	21.8	25.2	-84.91	-731.5	-719.5	758.9	714.7	44.26	17.145	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	7,100.0	6,712.1	22.5	25.8	-84.84	-731.5	-753.6	759.0	713.3	45.71	16.605	
7,100.0	6,781.5	7,111.1	6,713.6	22.8	26.0	-84.82	-731.5	-764.5	759.0	712.8	46.22	16.423	
7,150.0	6,787.5	7,156.7	6,718.3	23.9	26.8	-84.76	-731.5	-809.9	759.1	710.9	48.25	15.734	
7,185.0	6,789.6	7,188.6	6,719.8	24.6	27.4	-84.72	-731.5	-841.8	759.1	709.4	49.71	15.272	
7,200.0	6,789.9	7,202.2	6,720.0	24.9	27.6	-84.71	-731.5	-855.4	759.2	708.8	50.34	15.082	
7,213.0	6,790.0	7,214.5	6,720.0	25.2	27.9	-84.71	-731.5	-867.7	759.2	708.3	50.90	14.915	
7,283.4	6,789.7	7,285.0	6,719.7	26.8	29.3	-84.71	-731.5	-938.2	759.2	705.1	54.04	14.049	
7,300.0	6,789.7	7,301.6	6,719.7	27.2	29.6	-84.71	-731.5	-954.7	759.2	704.4	54.77	13.860	
7,381.9	6,789.4	7,383.4	6,719.3	29.1	31.3	-84.71	-731.5	-1,036.6	759.2	700.6	58.57	12.962	
7,400.0	6,789.3	7,401.6	6,719.3	29.5	31.7	-84.71	-731.5	-1,054.7	759.2	699.8	59.41	12.779	
7,480.3	6,789.0	7,481.9	6,719.0	31.4	33.5	-84.71	-731.5	-1,135.0	759.2	695.9	63.25	12.002	
7,500.0	6,788.9	7,501.6	6,718.9	31.9	34.0	-84.71	-731.5	-1,154.7	759.2	695.0	64.20	11.825	
7,578.7	6,788.6	7,580.3	6,718.6	33.8	35.8	-84.71	-731.5	-1,233.4	759.2	691.1	68.06	11.154	
7,600.0	6,788.5	7,601.6	6,718.5	34.4	36.3	-84.71	-731.5	-1,254.7	759.2	690.1	69.11	10.985	
7,677.1	6,788.2	7,678.7	6,718.2	36.3	38.1	-84.71	-731.5	-1,331.9	759.2	686.2	72.97	10.404	
7,700.0	6,788.2	7,701.6	6,718.1	36.9	38.7	-84.71	-731.5	-1,354.7	759.2	685.0	74.12	10.243	
7,775.6	6,787.9	7,777.1	6,717.9	38.8	40.5	-84.71	-731.5	-1,430.3	759.2	681.2	77.96	9.738	
7,800.0	6,787.8	7,801.6	6,717.8	39.4	41.1	-84.71	-731.5	-1,454.7	759.2	680.0	79.20	9.585	
7,874.0	6,787.5	7,875.6	6,717.5	41.3	43.0	-84.71	-731.5	-1,528.7	759.2	676.2	83.02	9.145	
7,900.0	6,787.4	7,901.5	6,717.4	42.0	43.6	-84.71	-731.5	-1,554.7	759.2	674.8	84.36	9.000	
7,972.4	6,787.1	7,974.0	6,717.1	43.9	45.5	-84.71	-731.5	-1,627.1	759.2	671.0	88.12	8.615	
8,000.0	6,787.0	8,001.5	6,717.0	44.6	46.2	-84.71	-731.5	-1,654.7	759.2	669.6	89.56	8.477	
8,070.8	6,786.7	8,072.4	6,716.7	46.5	48.0	-84.71	-731.5	-1,725.6	759.2	665.9	93.28	8.139	
8,100.0	6,786.6	8,101.5	6,716.6	47.3	48.7	-84.71	-731.5	-1,754.7	759.2	664.4	94.81	8.007	
8,169.3	6,786.4	8,170.8	6,716.4	49.1	50.5	-84.71	-731.5	-1,824.0	759.2	660.7	98.47	7.709	
8,200.0	6,786.3	8,201.5	6,716.2	49.9	51.3	-84.71	-731.5	-1,854.7	759.2	659.1	100.10	7.584	
8,267.7	6,786.0	8,269.2	6,716.0	51.7	53.1	-84.71	-731.5	-1,922.4	759.2	655.5	103.70	7.321	
8,300.0	6,785.9	8,301.5	6,715.9	52.6	53.9	-84.71	-731.5	-1,954.7	759.2	653.7	105.42	7.201	
8,366.1	6,785.6	8,367.7	6,715.6	54.4	55.7	-84.71	-731.5	-2,020.8	759.2	650.2	108.95	6.968	
8,400.0	6,785.5	8,401.5	6,715.5	55.3	56.6	-84.71	-731.5	-2,054.7	759.2	648.4	110.77	6.854	
8,464.5	6,785.2	8,466.1	6,715.2	57.0	58.3	-84.71	-731.5	-2,119.3	759.2	644.9	114.23	6.646	
8,500.0	6,785.1	8,501.5	6,715.1	58.0	59.2	-84.71	-731.5	-2,154.7	759.2	643.0	116.14	6.537	
8,563.0	6,784.9	8,564.5	6,714.8	59.7	60.9	-84.71	-731.5	-2,217.7	759.2	639.6	119.53	6.351	
8,600.0	6,784.7	8,601.5	6,714.7	60.7	61.9	-84.71	-731.5	-2,254.7	759.2	637.6	121.53	6.247	
8,661.4	6,784.5	8,662.9	6,714.5	62.4	63.5	-84.71	-731.5	-2,316.1	759.2	634.3	124.85	6.081	
8,700.0	6,784.3	8,701.5	6,714.3	63.4	64.6	-84.71	-731.5	-2,354.7	759.2	632.2	126.94	5.981	
8,759.8	6,784.1	8,761.4	6,714.1	65.0	66.2	-84.71	-731.5	-2,414.5	759.2	629.0	130.18	5.832	
8,800.0	6,784.0	8,801.5	6,713.9	66.1	67.3	-84.71	-731.5	-2,454.7	759.2	626.8	132.36	5.736	
8,858.2	6,783.7	8,859.8	6,713.7	67.7	68.8	-84.71	-731.5	-2,512.9	759.2	623.6	135.53	5.601	
8,900.0	6,783.6	8,901.5	6,713.5	68.9	70.0	-84.71	-731.5	-2,554.7	759.2	621.4	137.80	5.509	
8,956.7	6,783.3	8,958.2	6,713.3	70.4	71.5	-84.71	-731.5	-2,611.4	759.2	618.3	140.89	5.388	
9,000.0	6,783.2	9,001.5	6,713.2	71.6	72.7	-84.71	-731.5	-2,654.7	759.2	615.9	143.25	5.300	
9,055.1	6,783.0	9,056.6	6,712.9	73.1	74.2	-84.71	-731.5	-2,709.8	759.2	612.9	146.26	5.190	
9,100.0	6,782.8	9,101.5	6,712.8	74.3	75.4	-84.71	-731.5	-2,754.7	759.2	610.5	148.71	5.105	
9,153.5	6,782.6	9,155.1	6,712.6	75.8	76.9	-84.71	-731.5	-2,808.2	759.2	607.5	151.64	5.006	
9,200.0	6,782.4	9,201.5	6,712.4	77.1	78.1	-84.71	-731.5	-2,854.7	759.2	605.0	154.19	4.924	
9,251.9	6,782.2	9,253.5	6,712.2	78.5	79.5	-84.71	-731.5	-2,906.6	759.2	602.1	157.03	4.834	
9,300.0	6,782.0	9,301.5	6,712.0	79.8	80.9	-84.71	-731.5	-2,954.7	759.2	599.5	159.67	4.755	
9,350.4	6,781.8	9,351.9	6,711.8	81.2	82.2	-84.71	-731.5	-3,005.1	759.2	596.7	162.43	4.674	
9,400.0	6,781.6	9,401.5	6,711.6	82.6	83.6	-84.71	-731.5	-3,054.7	759.2	594.0	165.15	4.597	
9,448.8	6,781.4	9,450.3	6,711.4	83.9	84.9	-84.71	-731.5	-3,103.5	759.2	591.3	167.84	4.523	
9,500.0	6,781.2	9,501.5	6,711.2	85.4	86.3	-84.71	-731.5	-3,154.7	759.2	588.5	170.65	4.449	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,547.2	6,781.0	9,548.8	6,711.0	86.7	87.6	-84.71	-731.5	-3,201.9	759.2	585.9	173.25	4.382	
9,600.0	6,780.8	9,601.5	6,710.8	88.1	89.1	-84.71	-731.5	-3,254.7	759.2	583.0	176.15	4.310	
9,645.6	6,780.7	9,647.2	6,710.7	89.4	90.3	-84.71	-731.5	-3,300.3	759.2	580.5	178.67	4.249	
9,700.0	6,780.5	9,701.5	6,710.4	90.9	91.8	-84.71	-731.5	-3,354.7	759.2	577.5	181.66	4.179	
9,744.1	6,780.3	9,745.6	6,710.3	92.1	93.0	-84.71	-731.5	-3,398.8	759.2	575.1	184.09	4.124	
9,800.0	6,780.1	9,801.5	6,710.0	93.7	94.6	-84.71	-731.5	-3,454.7	759.2	572.0	187.17	4.056	
9,842.5	6,779.9	9,844.0	6,709.9	94.8	95.8	-84.71	-731.5	-3,497.2	759.2	569.7	189.52	4.006	
9,900.0	6,779.7	9,901.5	6,709.7	96.4	97.3	-84.71	-731.5	-3,554.7	759.2	566.5	192.69	3.940	
9,940.9	6,779.5	9,942.5	6,709.5	97.6	98.5	-84.71	-731.5	-3,595.6	759.2	564.2	194.95	3.894	
10,000.0	6,779.3	10,001.5	6,709.3	99.2	100.1	-84.71	-731.5	-3,654.7	759.2	561.0	198.21	3.830	
10,039.3	6,779.1	10,040.9	6,709.1	100.3	101.2	-84.71	-731.5	-3,694.0	759.2	558.8	200.39	3.789	
10,100.0	6,778.9	10,101.5	6,708.9	102.0	102.9	-84.71	-731.5	-3,754.7	759.2	555.4	203.74	3.726	
10,137.8	6,778.7	10,139.3	6,708.7	103.0	103.9	-84.71	-731.5	-3,792.5	759.2	553.3	205.83	3.688	
10,200.0	6,778.5	10,201.5	6,708.5	104.8	105.6	-84.71	-731.5	-3,854.7	759.2	549.9	209.27	3.628	
10,236.2	6,778.3	10,237.7	6,708.3	105.8	106.6	-84.71	-731.5	-3,890.9	759.2	547.9	211.27	3.593	
10,300.0	6,778.1	10,301.5	6,708.1	107.5	108.4	-84.71	-731.5	-3,954.7	759.2	544.4	214.80	3.534	
10,334.6	6,778.0	10,336.2	6,707.9	108.5	109.4	-84.71	-731.5	-3,989.3	759.2	542.5	216.72	3.503	
10,400.0	6,777.7	10,401.5	6,707.7	110.3	111.2	-84.71	-731.5	-4,054.7	759.2	538.8	220.34	3.445	
10,433.0	6,777.6	10,434.6	6,707.6	111.2	112.1	-84.71	-731.5	-4,087.7	759.2	537.0	222.17	3.417	
10,500.0	6,777.3	10,501.5	6,707.3	113.1	113.9	-84.71	-731.5	-4,154.7	759.2	533.3	225.88	3.361	
10,531.5	6,777.2	10,533.0	6,707.2	114.0	114.8	-84.71	-731.5	-4,186.2	759.2	531.5	227.63	3.335	
10,600.0	6,776.9	10,601.5	6,706.9	115.9	116.7	-84.71	-731.5	-4,254.7	759.2	527.7	231.42	3.280	
10,629.9	6,776.8	10,631.4	6,706.8	116.7	117.5	-84.71	-731.5	-4,284.6	759.2	526.1	233.08	3.257	
10,700.0	6,776.5	10,701.5	6,706.5	118.7	119.5	-84.71	-731.5	-4,354.7	759.2	522.2	236.97	3.204	
10,728.3	6,776.4	10,729.9	6,706.4	119.5	120.3	-84.71	-731.5	-4,383.0	759.2	520.6	238.54	3.183	
10,800.0	6,776.1	10,801.5	6,706.1	121.4	122.3	-84.71	-731.5	-4,454.7	759.2	516.7	242.52	3.130	
10,826.7	6,776.0	10,828.3	6,706.0	122.2	123.0	-84.71	-731.5	-4,481.4	759.2	515.2	244.00	3.111	
10,900.0	6,775.7	10,901.5	6,705.7	124.2	125.0	-84.71	-731.5	-4,554.7	759.2	511.1	248.07	3.060	
10,925.2	6,775.6	10,926.7	6,705.6	124.9	125.7	-84.71	-731.5	-4,579.9	759.2	509.7	249.46	3.043	
11,000.0	6,775.3	11,001.5	6,705.3	127.0	127.8	-84.71	-731.5	-4,654.7	759.2	505.6	253.62	2.993	
11,023.6	6,775.2	11,025.1	6,705.2	127.7	128.5	-84.71	-731.5	-4,678.3	759.2	504.2	254.93	2.978	
11,100.0	6,774.9	11,101.5	6,704.9	129.8	130.6	-84.71	-731.5	-4,754.7	759.2	500.0	259.17	2.929	
11,122.0	6,774.8	11,123.6	6,704.8	130.4	131.2	-84.71	-731.5	-4,776.7	759.2	498.8	260.40	2.915	
11,200.0	6,774.5	11,201.5	6,704.5	132.6	133.4	-84.71	-731.5	-4,854.7	759.2	494.4	264.73	2.868	
11,220.4	6,774.4	11,222.0	6,704.4	133.2	134.0	-84.71	-731.5	-4,875.1	759.2	493.3	265.87	2.855	
11,300.0	6,774.1	11,301.5	6,704.1	135.4	136.2	-84.71	-731.5	-4,954.7	759.2	488.9	270.29	2.809	
11,318.9	6,774.0	11,320.4	6,704.0	135.9	136.7	-84.71	-731.5	-4,973.5	759.2	487.8	271.34	2.798	
11,400.0	6,773.7	11,401.5	6,703.7	138.2	139.0	-84.71	-731.5	-5,054.7	759.2	483.3	275.85	2.752	
11,417.3	6,773.6	11,418.8	6,703.6	138.7	139.4	-84.71	-731.5	-5,072.0	759.2	482.4	276.81	2.743	
11,500.0	6,773.3	11,501.5	6,703.3	141.0	141.7	-84.71	-731.5	-5,154.7	759.2	477.8	281.41	2.698	
11,515.7	6,773.2	11,517.3	6,703.2	141.4	142.2	-84.71	-731.5	-5,170.4	759.2	476.9	282.28	2.689	
11,600.0	6,772.9	11,601.5	6,702.9	143.8	144.5	-84.71	-731.5	-5,254.7	759.2	472.2	286.97	2.645	
11,614.1	6,772.8	11,615.7	6,702.9	144.2	144.9	-84.71	-731.5	-5,268.8	759.2	471.4	287.76	2.638	
11,700.0	6,772.5	11,701.5	6,702.5	146.6	147.3	-84.71	-731.5	-5,354.7	759.2	466.6	292.53	2.595	
11,712.6	6,772.4	11,714.1	6,702.5	146.9	147.7	-84.71	-731.5	-5,367.2	759.2	465.9	293.23	2.589	
11,800.0	6,772.1	11,801.5	6,702.1	149.4	150.1	-84.71	-731.5	-5,454.7	759.2	461.1	298.10	2.547	
11,811.0	6,772.1	11,812.5	6,702.1	149.7	150.4	-84.71	-731.5	-5,465.7	759.2	460.5	298.71	2.542	
11,900.0	6,771.7	11,901.5	6,701.7	152.2	152.9	-84.71	-731.5	-5,554.7	759.2	455.5	303.66	2.500	
11,909.4	6,771.7	11,911.0	6,701.7	152.4	153.2	-84.71	-731.5	-5,564.1	759.2	455.0	304.19	2.496	
12,000.0	6,771.3	12,001.5	6,701.3	154.9	155.7	-84.71	-731.5	-5,654.7	759.2	449.9	309.23	2.455	
12,007.8	6,771.3	12,009.4	6,701.3	155.2	155.9	-84.71	-731.5	-5,662.5	759.2	449.5	309.67	2.452	
12,100.0	6,770.9	12,101.5	6,700.9	157.7	158.5	-84.71	-731.5	-5,754.7	759.2	444.4	314.80	2.412	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17G-214 - ORIGINAL WELLBORE - PROPOS												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	6,770.9	12,107.8	6,700.9	157.9	158.7	-84.71	-731.5	-5,760.9	759.2	444.0	315.15	2.409	
12,200.0	6,770.5	12,201.5	6,700.5	160.5	161.3	-84.71	-731.5	-5,854.7	759.2	438.8	320.37	2.370	
12,204.7	6,770.5	12,206.2	6,700.5	160.7	161.4	-84.71	-731.5	-5,859.4	759.2	438.5	320.63	2.368	
12,300.0	6,770.1	12,301.5	6,700.1	163.3	164.1	-84.71	-731.5	-5,954.7	759.2	433.2	325.94	2.329	
12,303.1	6,770.1	12,304.7	6,700.1	163.4	164.1	-84.71	-731.5	-5,957.8	759.2	433.1	326.11	2.328	
12,316.4	6,770.0	12,317.9	6,700.0	163.8	164.5	-84.71	-731.5	-5,971.0	759.2	432.3	326.85	2.323 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	-90.02	0.0	-30.1	30.1				
98.4	98.4	98.4	98.4	0.1	0.1	-90.02	0.0	-30.1	30.1	29.9	0.19	156.471	
100.0	100.0	100.0	100.0	0.1	0.1	-90.02	0.0	-30.1	30.1	29.9	0.20	153.822	
196.8	196.8	196.8	196.8	0.3	0.3	-90.02	0.0	-30.1	30.1	29.4	0.63	47.676	
200.0	200.0	200.0	200.0	0.3	0.3	-90.02	0.0	-30.1	30.1	29.4	0.65	46.629	
295.3	295.3	295.3	295.3	0.5	0.5	-90.02	0.0	-30.1	30.1	29.0	1.07	28.023	
300.0	300.0	300.0	300.0	0.5	0.5	-90.02	0.0	-30.1	30.1	29.0	1.09	27.480	
393.7	393.7	393.7	393.7	0.8	0.8	-90.02	0.0	-30.1	30.1	28.6	1.52	19.844	
400.0	400.0	400.0	400.0	0.8	0.8	-90.02	0.0	-30.1	30.1	28.5	1.54	19.480	
492.1	492.1	492.1	492.1	1.0	1.0	-90.02	0.0	-30.1	30.1	28.1	1.96	15.360	
500.0	500.0	500.0	500.0	1.0	1.0	-90.02	0.0	-30.1	30.1	28.1	1.99	15.087	
590.5	590.5	590.5	590.5	1.2	1.2	-90.02	0.0	-30.1	30.1	27.7	2.40	12.529	
600.0	600.0	600.0	600.0	1.2	1.2	-90.02	0.0	-30.1	30.1	27.6	2.44	12.311	
689.0	689.0	689.0	689.0	1.4	1.4	-90.02	0.0	-30.1	30.1	27.2	2.84	10.580	
700.0	700.0	700.0	700.0	1.4	1.4	-90.02	0.0	-30.1	30.1	27.2	2.89	10.398	
787.4	787.4	787.4	787.4	1.6	1.6	-90.02	0.0	-30.1	30.1	26.8	3.29	9.155	
800.0	800.0	800.0	800.0	1.7	1.7	-90.02	0.0	-30.1	30.1	26.7	3.34	9.000	
885.8	885.8	885.8	885.8	1.9	1.9	-90.02	0.0	-30.1	30.1	26.4	3.73	8.068	
900.0	900.0	900.0	900.0	1.9	1.9	-90.02	0.0	-30.1	30.1	26.3	3.79	7.933	
984.2	984.2	984.2	984.2	2.1	2.1	-90.02	0.0	-30.1	30.1	25.9	4.17	7.212	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-90.02	0.0	-30.1	30.1	25.8	4.24	7.092	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	-90.02	0.0	-30.1	30.1	25.5	4.61	6.521	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	-90.02	0.0	-30.1	30.1	25.4	4.69	6.412	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	-90.02	0.0	-30.1	30.1	25.0	5.06	5.950	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	-90.02	0.0	-30.1	30.1	24.9	5.14	5.852	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	-90.02	0.0	-30.1	30.1	24.6	5.50	5.471	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	-90.02	0.0	-30.1	30.1	24.5	5.59	5.381 CC, ES	
1,377.9	1,377.9	1,377.2	1,377.2	3.0	3.0	-90.73	-0.4	-31.0	31.1	25.1	5.92	5.242 SF	
1,400.0	1,400.0	1,399.0	1,399.0	3.0	3.0	-91.17	-0.6	-31.7	31.7	25.7	6.02	5.265	
1,476.4	1,476.4	1,474.5	1,474.3	3.2	3.1	-93.24	-2.0	-35.0	35.1	28.8	6.34	5.543	
1,500.0	1,500.0	1,497.8	1,497.6	3.2	3.2	-93.99	-2.5	-36.4	36.6	30.1	6.44	5.685	
1,574.8	1,574.8	1,571.4	1,571.0	3.4	3.3	-16.12	-4.8	-42.0	41.5	34.8	6.73	6.165	
1,600.0	1,600.0	1,596.2	1,595.6	3.5	3.4	-17.23	-5.7	-44.3	43.2	36.4	6.83	6.321	
1,673.2	1,673.1	1,668.1	1,667.0	3.6	3.6	-20.78	-8.8	-52.0	48.2	41.1	7.12	6.768	
1,700.0	1,699.8	1,694.3	1,693.0	3.7	3.6	-22.17	-10.1	-55.2	50.1	42.9	7.23	6.932	
1,771.6	1,771.2	1,764.4	1,762.3	3.8	3.8	-26.06	-13.9	-65.0	55.4	47.9	7.51	7.373	
1,800.0	1,799.5	1,792.0	1,789.6	3.9	3.9	-27.64	-15.6	-69.2	57.6	50.0	7.62	7.553	
1,870.1	1,869.0	1,860.3	1,856.7	4.0	4.1	-31.60	-20.3	-80.8	63.3	55.4	7.91	8.006	
1,900.0	1,898.7	1,889.4	1,885.2	4.1	4.1	-33.30	-22.4	-86.2	65.9	57.9	8.03	8.209	
1,968.5	1,966.4	1,955.8	1,950.1	4.3	4.4	-37.13	-27.7	-99.5	72.3	64.0	8.33	8.681	
2,000.0	1,997.5	1,986.3	1,979.8	4.4	4.5	-38.86	-30.4	-106.1	75.5	67.0	8.47	8.907	
2,066.9	2,063.2	2,050.9	2,042.3	4.6	4.7	-42.44	-36.3	-120.9	82.6	73.8	8.80	9.389	
2,100.1	2,095.7	2,082.8	2,073.1	4.7	4.9	-44.15	-39.4	-128.8	86.3	77.4	8.96	9.635	
2,165.3	2,159.5	2,145.5	2,133.2	4.9	5.1	-47.19	-46.0	-145.1	94.7	85.4	9.33	10.151	
2,200.0	2,193.4	2,178.6	2,164.9	5.0	5.3	-48.49	-49.6	-154.2	99.8	90.3	9.53	10.473	
2,224.2	2,217.1	2,200.0	2,185.3	5.1	5.4	-49.22	-52.0	-160.3	103.6	94.0	9.67	10.722	
2,263.8	2,255.9	2,239.3	2,222.5	5.2	5.6	-50.37	-56.6	-171.8	110.5	100.6	9.91	11.144	
2,300.0	2,291.5	2,273.5	2,254.9	5.3	5.8	-51.03	-60.8	-182.2	117.5	107.3	10.13	11.600	
2,362.2	2,352.7	2,331.9	2,309.7	5.5	6.1	-51.54	-68.2	-200.8	131.0	120.6	10.47	12.513	
2,400.0	2,390.1	2,367.0	2,342.5	5.6	6.3	-51.54	-72.9	-212.5	140.3	129.6	10.68	13.134	
2,460.6	2,450.1	2,422.7	2,394.1	5.7	6.7	-51.19	-80.6	-231.8	156.5	145.5	11.00	14.235	
2,500.0	2,489.2	2,458.4	2,427.1	5.8	6.9	-50.79	-85.7	-244.6	168.1	156.9	11.20	15.010	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,548.0	2,511.1	2,475.4	6.0	7.3	-50.03	-93.6	-264.3	186.9	175.4	11.49	16.274	
2,600.0	2,588.8	2,547.2	2,508.2	6.1	7.6	-49.44	-99.1	-278.2	201.0	189.3	11.68	17.206	
2,657.5	2,646.1	2,598.6	2,554.6	6.2	8.0	-48.52	-107.3	-298.7	222.1	210.2	11.95	18.593	
2,700.0	2,688.6	2,637.7	2,589.9	6.3	8.3	-47.81	-113.5	-314.3	238.4	226.2	12.14	19.634	
2,755.9	2,744.4	2,688.8	2,636.1	6.4	8.7	-46.91	-121.7	-334.7	260.4	248.0	12.38	21.037	
2,800.0	2,788.5	2,728.9	2,672.2	6.5	9.0	-46.22	-128.1	-350.7	278.4	265.8	12.56	22.154	
2,824.3	2,812.8	2,750.8	2,692.1	6.5	9.2	-126.55	-131.6	-359.5	288.5	273.1	15.31	18.837	
2,854.3	2,842.9	2,778.0	2,716.5	6.6	9.4	-125.93	-135.9	-370.4	301.0	285.4	15.61	19.286	
2,900.0	2,888.5	2,819.2	2,753.8	6.7	9.8	-125.07	-142.5	-386.8	320.2	304.2	16.06	19.938	
2,952.7	2,941.3	2,866.8	2,796.8	6.8	10.2	-124.20	-150.1	-405.9	342.5	325.9	16.59	20.638	
3,000.0	2,988.5	2,909.5	2,835.3	6.9	10.6	-123.51	-156.9	-422.9	362.4	345.4	17.07	21.231	
3,051.2	3,039.7	2,955.7	2,877.0	7.0	11.0	-122.84	-164.3	-441.4	384.1	366.5	17.59	21.836	
3,100.0	3,088.5	2,999.7	2,916.7	7.1	11.3	-122.28	-171.3	-459.0	404.8	386.7	18.08	22.384	
3,149.6	3,138.1	3,044.5	2,957.2	7.2	11.7	-121.75	-178.5	-476.9	425.9	407.3	18.59	22.909	
3,200.0	3,188.5	3,090.0	2,998.2	7.3	12.1	-121.27	-185.7	-495.0	447.3	428.2	19.10	23.416	
3,248.0	3,236.6	3,133.4	3,037.4	7.4	12.5	-120.86	-192.6	-512.4	467.7	448.1	19.59	23.873	
3,300.0	3,288.5	3,180.3	3,079.7	7.5	12.9	-120.44	-200.1	-531.1	489.9	469.8	20.12	24.343	
3,346.4	3,335.0	3,222.2	3,117.6	7.6	13.3	-120.11	-206.8	-547.9	509.7	489.1	20.60	24.743	
3,400.0	3,388.5	3,270.6	3,161.2	7.7	13.7	-119.75	-214.5	-567.2	532.5	511.4	21.15	25.180	
3,444.9	3,433.4	3,311.1	3,197.8	7.8	14.1	-119.47	-221.0	-583.4	551.7	530.1	21.61	25.530	
3,500.0	3,488.5	3,360.8	3,242.7	7.9	14.5	-119.15	-228.9	-603.2	575.3	553.1	22.18	25.939	
3,543.3	3,531.8	3,399.9	3,278.0	8.0	14.9	-118.92	-235.2	-618.9	593.8	571.1	22.62	26.247	
3,600.0	3,588.5	3,451.1	3,324.2	8.1	15.3	-118.64	-243.4	-639.3	618.0	594.8	23.21	26.630	
3,641.7	3,630.3	3,488.8	3,358.2	8.2	15.7	-118.45	-249.4	-654.4	635.9	612.2	23.64	26.900	
3,700.0	3,688.5	3,541.4	3,405.7	8.3	16.1	-118.20	-257.8	-675.4	660.8	636.6	24.24	27.260	
3,740.1	3,728.7	3,577.6	3,438.4	8.4	16.5	-118.03	-263.5	-689.9	678.0	653.3	24.66	27.498	
3,800.0	3,788.5	3,631.6	3,487.1	8.5	17.0	-117.80	-272.2	-711.5	703.6	678.4	25.28	27.837	
3,838.6	3,827.1	3,666.5	3,518.6	8.6	17.3	-117.67	-277.7	-725.4	720.2	694.5	25.68	28.047	
3,900.0	3,888.5	3,721.9	3,568.6	8.7	17.8	-117.46	-286.6	-747.5	746.5	720.2	26.31	28.368	
3,937.0	3,925.5	3,755.3	3,598.8	8.8	18.1	-117.34	-291.9	-760.9	762.3	735.6	26.70	28.553	
4,000.0	3,988.5	3,812.2	3,650.1	9.0	18.6	-117.15	-301.0	-783.6	789.3	762.0	27.35	28.857	
4,035.4	4,024.0	3,844.1	3,679.0	9.0	18.9	-117.05	-306.1	-796.4	804.5	776.8	27.72	29.021	
4,100.0	4,088.5	3,902.4	3,731.6	9.2	19.4	-116.87	-315.4	-819.7	832.2	803.8	28.39	29.309	
4,133.8	4,122.4	3,933.0	3,759.2	9.2	19.7	-116.78	-320.3	-831.9	846.7	818.0	28.75	29.454	
4,200.0	4,188.5	3,992.7	3,813.1	9.4	20.2	-116.62	-329.8	-855.7	875.1	845.7	29.44	29.728	
4,232.3	4,220.8	4,021.8	3,839.4	9.4	20.5	-116.55	-334.4	-867.4	889.0	859.2	29.77	29.857	
4,300.0	4,288.5	4,083.0	3,894.6	9.6	21.1	-116.39	-344.2	-891.8	918.0	887.5	30.48	30.118	
4,330.7	4,319.2	4,110.7	3,919.6	9.7	21.3	-116.33	-348.6	-902.9	931.2	900.4	30.80	30.232	
4,400.0	4,388.5	4,173.2	3,976.0	9.8	21.9	-116.19	-358.6	-927.9	960.9	929.4	31.53	30.481	
4,429.1	4,417.7	4,199.5	3,999.8	9.9	22.1	-116.13	-362.8	-938.4	973.4	941.6	31.83	30.582	
4,500.0	4,488.5	4,263.5	4,057.5	10.0	22.7	-116.00	-373.0	-964.0	1,003.9	971.3	32.57	30.819	
4,527.5	4,516.1	4,288.4	4,080.0	10.1	22.9	-115.95	-377.0	-973.9	1,015.7	982.8	32.86	30.909	
4,600.0	4,588.5	4,353.8	4,139.0	10.2	23.5	-115.83	-387.4	-1,000.0	1,046.8	1,013.2	33.62	31.136	
4,626.0	4,614.5	4,377.2	4,160.2	10.3	23.7	-115.78	-391.2	-1,009.4	1,058.0	1,024.1	33.89	31.215	
4,700.0	4,688.5	4,444.1	4,220.5	10.5	24.4	-115.67	-401.8	-1,036.1	1,089.8	1,055.1	34.67	31.434	
4,724.4	4,712.9	4,466.1	4,240.4	10.5	24.6	-115.63	-405.4	-1,044.9	1,100.2	1,065.3	34.92	31.503	
4,800.0	4,788.5	4,534.3	4,302.0	10.7	25.2	-115.52	-416.2	-1,072.2	1,132.7	1,097.0	35.72	31.713	
4,822.8	4,811.4	4,554.9	4,320.6	10.7	25.4	-115.49	-419.5	-1,080.4	1,142.5	1,106.6	35.96	31.774	
4,900.0	4,888.5	4,624.6	4,383.5	10.9	26.0	-115.38	-430.7	-1,108.2	1,175.7	1,138.9	36.77	31.975	
4,921.2	4,909.8	4,643.8	4,400.8	10.9	26.2	-115.35	-433.7	-1,115.9	1,184.8	1,147.8	36.99	32.029	
5,000.0	4,988.5	4,714.9	4,465.0	11.1	26.8	-115.25	-445.1	-1,144.3	1,218.6	1,180.8	37.82	32.223	
5,019.7	5,008.2	4,732.6	4,481.0	11.1	27.0	-115.23	-447.9	-1,151.4	1,227.1	1,189.1	38.03	32.270	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	4,805.1	4,546.4	11.3	27.7	-115.14	-459.5	-1,180.4	1,261.6	1,222.7	38.87	32.457	
5,118.1	5,106.6	4,821.5	4,561.2	11.4	27.8	-115.11	-462.1	-1,186.9	1,269.4	1,230.3	39.06	32.498	
5,200.0	5,188.5	4,895.4	4,627.9	11.5	28.5	-115.02	-473.9	-1,216.5	1,304.6	1,264.6	39.92	32.678	
5,216.5	5,205.1	4,910.3	4,641.4	11.6	28.6	-115.01	-476.3	-1,222.4	1,311.7	1,271.6	40.10	32.713	
5,300.0	5,288.5	4,985.7	4,709.4	11.8	29.3	-114.92	-488.3	-1,252.5	1,347.5	1,306.6	40.97	32.887	
5,314.9	5,303.5	4,999.2	4,721.6	11.8	29.5	-114.91	-490.4	-1,257.9	1,354.0	1,312.8	41.13	32.917	
5,400.0	5,388.5	5,075.9	4,790.9	12.0	30.2	-114.82	-502.7	-1,288.6	1,390.5	1,348.5	42.03	33.085	
5,413.4	5,401.9	5,094.0	4,807.2	12.0	30.3	-114.80	-505.6	-1,295.8	1,396.2	1,354.0	42.21	33.078	
5,500.0	5,488.5	5,202.5	4,771.3	12.2	43.7	179.37	-607.0	-142.1	1,429.8	1,398.1	31.62	45.210	
5,511.8	5,500.3	5,202.4	4,771.3	12.2	43.7	179.38	-607.0	-142.2	1,419.2	1,387.5	31.65	44.837	
5,600.0	5,588.5	5,201.9	4,771.3	12.4	43.7	179.42	-607.0	-142.7	1,340.8	1,308.9	31.86	42.088	
5,610.2	5,598.8	5,201.9	4,771.3	12.4	43.7	179.43	-607.0	-142.7	1,331.8	1,299.9	31.88	41.774	
5,700.0	5,688.5	5,201.4	4,771.3	12.6	43.7	179.47	-607.0	-143.2	1,253.4	1,221.4	32.09	39.062	
5,708.6	5,697.2	5,201.3	4,771.3	12.6	43.7	179.47	-607.0	-143.3	1,246.0	1,213.9	32.11	38.805	
5,800.0	5,788.5	5,200.8	4,771.3	12.8	43.7	179.52	-607.0	-143.8	1,168.1	1,135.8	32.32	36.143	
5,807.1	5,795.6	5,200.8	4,771.3	12.9	43.7	179.52	-607.0	-143.8	1,162.2	1,129.9	32.34	35.941	
5,900.0	5,888.5	5,200.3	4,771.3	13.1	43.7	179.57	-607.0	-144.3	1,085.4	1,052.8	32.55	33.342	
5,905.5	5,894.0	5,200.3	4,771.3	13.1	43.7	179.57	-607.0	-144.3	1,080.9	1,048.3	32.56	33.192	
6,000.0	5,988.5	5,199.8	4,771.3	13.3	43.7	179.62	-607.0	-144.8	1,005.7	972.9	32.78	30.677	
6,003.9	5,992.5	5,199.7	4,771.3	13.3	43.7	179.62	-607.0	-144.9	1,002.7	969.9	32.79	30.575	
6,085.3	6,073.8	5,199.3	4,771.3	13.5	43.6	179.66	-607.0	-145.3	940.9	907.9	32.98	28.526	
6,100.0	6,088.5	5,199.1	4,771.3	13.5	43.6	-91.61	-607.0	-145.5	930.0	873.1	56.89	16.348	
6,102.3	6,090.9	5,199.0	4,771.3	13.5	43.6	-91.80	-607.0	-145.6	928.3	871.4	56.90	16.313	
6,150.0	6,138.4	5,196.0	4,771.3	13.6	43.6	-95.47	-607.0	-148.6	894.0	836.9	57.13	15.649	
6,200.0	6,188.0	5,189.5	4,771.4	13.7	43.5	-98.66	-607.0	-155.1	859.6	802.5	57.16	15.040	
6,200.8	6,188.8	5,189.4	4,771.4	13.7	43.5	-98.70	-607.0	-155.2	859.1	802.0	57.16	15.031	
6,250.0	6,237.1	5,179.6	4,771.4	13.9	43.3	-101.16	-607.0	-165.0	827.2	770.1	57.05	14.500	
6,299.2	6,284.6	5,166.5	4,771.5	14.0	43.1	-103.00	-607.0	-178.1	797.4	740.5	56.86	14.024	
6,300.0	6,285.3	5,166.2	4,771.5	14.0	43.1	-103.03	-607.0	-178.4	796.9	740.1	56.85	14.017	
6,350.0	6,332.5	5,149.5	4,771.6	14.2	42.8	-104.29	-607.0	-195.1	769.1	712.4	56.62	13.584	
6,397.6	6,376.3	5,130.6	4,771.7	14.4	42.5	-104.98	-607.0	-214.0	745.0	688.6	56.38	13.215	
6,400.0	6,378.5	5,129.6	4,771.7	14.4	42.4	-105.00	-607.0	-215.0	743.8	687.5	56.36	13.197	
6,450.0	6,423.0	5,106.5	4,771.8	14.7	42.0	-105.21	-607.0	-238.1	721.4	665.3	56.11	12.857	
6,496.0	6,462.4	5,082.6	4,771.9	14.9	41.6	-105.01	-607.0	-262.0	703.2	647.3	55.91	12.579	
6,500.0	6,465.7	5,080.4	4,772.0	14.9	41.6	-104.98	-607.0	-264.2	701.8	645.9	55.89	12.557	
6,550.0	6,506.6	5,051.4	4,772.1	15.2	41.1	-104.35	-607.0	-293.2	685.0	629.3	55.70	12.299	
6,594.5	6,541.2	5,023.3	4,772.3	15.6	40.7	-103.51	-607.0	-321.3	672.4	616.8	55.55	12.104	
6,600.0	6,545.3	5,019.6	4,772.3	15.6	40.6	-103.39	-607.0	-325.0	671.0	615.4	55.53	12.083	
6,650.0	6,581.8	4,985.2	4,772.5	16.0	40.1	-102.15	-607.0	-359.4	659.6	604.2	55.41	11.903	
6,692.9	6,611.1	4,953.7	4,772.6	16.4	39.7	-100.91	-607.0	-390.9	651.8	596.4	55.36	11.772	
6,700.0	6,615.8	4,948.4	4,772.7	16.5	39.6	-100.70	-607.0	-396.2	650.6	595.3	55.35	11.754	
6,750.0	6,647.1	4,909.3	4,772.9	17.1	39.0	-99.09	-607.0	-435.3	643.8	588.5	55.33	11.637	
6,791.3	6,670.9	4,875.4	4,773.1	17.6	38.6	-97.71	-607.0	-469.2	639.6	584.3	55.37	11.552	
6,800.0	6,675.7	4,868.1	4,773.1	17.7	38.5	-97.41	-607.0	-476.5	638.9	583.5	55.38	11.537	
6,850.0	6,701.3	4,825.0	4,773.3	18.4	37.9	-95.73	-607.0	-519.6	635.5	580.0	55.47	11.456	
6,889.7	6,719.5	4,789.6	4,773.5	19.0	37.5	-94.42	-607.0	-555.0	633.7	578.1	55.60	11.398	
6,900.0	6,723.8	4,780.3	4,773.6	19.1	37.4	-94.10	-607.0	-564.3	633.4	577.7	55.64	11.383	
6,950.0	6,743.2	4,734.1	4,773.8	20.0	36.9	-92.60	-607.0	-610.5	632.2	576.3	55.89	11.312	
6,988.2	6,755.8	4,698.0	4,774.0	20.6	36.5	-91.57	-607.0	-646.6	631.7	575.6	56.11	11.258	
7,000.0	6,759.4	4,686.7	4,774.1	20.9	36.4	-91.28	-607.0	-657.9	631.6	575.4	56.20	11.239	
7,050.0	6,772.1	4,638.3	4,774.3	21.8	36.0	-90.19	-607.0	-706.3	631.4	574.8	56.62	11.153	
7,060.5	6,774.4	4,628.0	4,774.4	22.0	35.9	-90.00	-607.0	-716.5	631.4	574.7	56.71	11.134	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,086.6	6,779.4	7,602.4	6,774.5	22.5	35.7	-89.57	-607.0	-742.2	631.4	574.5	56.96	11.087	
7,100.0	6,781.5	7,589.1	6,774.6	22.8	35.6	-89.38	-607.0	-755.5	631.5	574.4	57.10	11.059	
7,150.0	6,787.5	7,539.5	6,774.9	23.9	35.2	-88.86	-607.0	-805.1	631.5	573.8	57.70	10.945	
7,185.0	6,789.6	7,504.7	6,775.0	24.6	35.0	-88.68	-607.0	-839.9	631.6	573.4	58.16	10.860	
7,200.0	6,789.9	7,490.1	6,774.7	24.9	34.9	-88.62	-607.0	-854.5	631.6	573.2	58.37	10.821	
7,213.0	6,790.0	7,477.4	6,774.2	25.2	34.8	-88.57	-607.0	-867.2	631.6	573.1	58.56	10.785	
7,283.4	6,789.7	7,409.0	6,767.8	26.8	34.5	-88.00	-607.0	-935.3	631.8	572.2	59.66	10.591	
7,300.0	6,789.7	7,393.1	6,765.3	27.2	34.4	-87.79	-607.0	-950.9	631.9	572.0	59.93	10.545	
7,381.9	6,789.4	7,316.6	6,748.8	29.1	34.1	-86.32	-607.0	-1,025.6	632.8	571.4	61.39	10.309	
7,400.0	6,789.3	7,300.0	6,744.1	29.5	34.1	-85.91	-607.0	-1,041.6	633.2	571.5	61.71	10.261	
7,480.3	6,789.0	7,230.4	6,720.7	31.4	33.9	-83.82	-607.0	-1,107.1	635.7	572.5	63.26	10.050	
7,500.0	6,788.9	7,214.0	6,714.3	31.9	33.9	-83.25	-607.0	-1,122.1	636.7	573.0	63.63	10.006	
7,578.7	6,788.6	7,150.0	6,685.9	33.8	33.9	-80.74	-607.0	-1,179.5	642.0	576.9	65.13	9.858	
7,600.0	6,788.5	7,135.9	6,679.0	34.4	33.9	-80.14	-607.0	-1,191.7	644.0	578.4	65.54	9.826	
7,677.1	6,788.2	7,081.6	6,650.1	36.3	33.9	-77.63	-607.0	-1,237.7	653.2	586.3	66.95	9.757	
7,700.0	6,788.2	7,066.5	6,641.4	36.9	33.9	-76.88	-607.0	-1,250.1	656.7	589.3	67.35	9.751	
7,775.6	6,787.9	7,019.6	6,612.9	38.8	34.0	-74.47	-607.0	-1,287.3	670.7	602.1	68.62	9.773	
7,800.0	6,787.8	7,000.0	6,600.3	39.4	34.0	-73.41	-607.0	-1,302.3	676.1	607.2	68.93	9.809	
7,874.0	6,787.5	6,965.3	6,576.9	41.3	34.1	-71.50	-607.0	-1,328.0	695.3	625.1	70.17	9.909	
7,900.0	6,787.4	6,950.0	6,566.3	42.0	34.1	-70.63	-607.0	-1,339.0	703.0	632.5	70.51	9.971	
7,972.4	6,787.1	6,917.7	6,543.0	43.9	34.2	-68.78	-607.0	-1,361.3	727.4	655.8	71.61	10.158	
8,000.0	6,787.0	6,900.0	6,529.8	44.6	34.3	-67.75	-607.0	-1,373.1	737.8	665.9	71.86	10.267	
8,070.8	6,786.7	6,876.1	6,511.6	46.5	34.3	-66.35	-607.0	-1,388.5	766.9	694.0	72.98	10.509	
8,100.0	6,786.6	6,864.8	6,502.8	47.3	34.4	-65.69	-607.0	-1,395.6	780.0	706.7	73.38	10.631	
8,169.3	6,786.4	6,850.0	6,491.0	49.1	34.4	-64.81	-607.0	-1,404.7	813.6	739.0	74.63	10.903	
8,200.0	6,786.3	6,829.2	6,474.3	49.9	34.5	-63.59	-607.0	-1,416.9	829.4	754.7	74.73	11.099	
8,267.7	6,786.0	6,800.0	6,450.1	51.7	34.5	-61.86	-607.0	-1,433.4	866.5	791.2	75.38	11.496	
8,300.0	6,785.9	6,800.0	6,450.1	52.6	34.5	-61.86	-607.0	-1,433.4	885.1	809.0	76.14	11.624	
8,366.1	6,785.6	6,779.4	6,432.7	54.4	34.6	-60.64	-607.0	-1,444.4	925.1	848.1	76.97	12.019	
8,400.0	6,785.5	6,770.4	6,425.0	55.3	34.6	-60.12	-607.0	-1,449.1	946.4	869.0	77.43	12.223	
8,464.5	6,785.2	6,750.0	6,407.3	57.0	34.7	-58.93	-607.0	-1,459.3	988.7	910.5	78.15	12.651	
8,500.0	6,785.1	6,750.0	6,407.3	58.0	34.7	-58.93	-607.0	-1,459.3	1,012.6	933.7	78.98	12.822	
8,563.0	6,784.9	6,732.0	6,391.5	59.7	34.7	-57.89	-607.0	-1,467.8	1,056.5	976.8	79.69	13.257	
8,600.0	6,784.7	6,724.2	6,384.6	60.7	34.8	-57.44	-607.0	-1,471.4	1,083.0	1,002.7	80.22	13.500	
8,661.4	6,784.5	6,700.0	6,362.8	62.4	34.8	-56.06	-607.0	-1,482.0	1,128.1	1,047.5	80.56	14.004	
8,700.0	6,784.3	6,700.0	6,362.8	63.4	34.8	-56.06	-607.0	-1,482.0	1,156.9	1,075.4	81.44	14.206	
8,759.8	6,784.1	6,700.0	6,362.8	65.0	34.8	-56.06	-607.0	-1,482.0	1,202.6	1,119.8	82.81	14.523	
8,800.0	6,784.0	6,700.0	6,362.8	66.1	34.8	-56.06	-607.0	-1,482.0	1,233.9	1,150.2	83.73	14.738	
8,858.2	6,783.7	6,677.8	6,342.6	67.7	34.9	-54.82	-607.0	-1,491.1	1,279.8	1,195.8	83.99	15.238	
8,900.0	6,783.6	6,671.4	6,336.7	68.9	34.9	-54.47	-607.0	-1,493.7	1,313.3	1,228.7	84.61	15.521	
8,956.7	6,783.3	6,650.0	6,316.9	70.4	35.0	-53.29	-607.0	-1,501.7	1,359.5	1,274.7	84.80	16.032	
9,000.0	6,783.2	6,650.0	6,316.9	71.6	35.0	-53.29	-607.0	-1,501.7	1,395.1	1,309.3	85.77	16.265	
9,055.1	6,783.0	6,650.0	6,316.9	73.1	35.0	-53.29	-607.0	-1,501.7	1,440.9	1,353.9	87.00	16.562	
9,100.0	6,782.8	6,650.0	6,316.9	74.3	35.0	-53.29	-607.0	-1,501.7	1,478.7	1,390.7	88.00	16.803	
9,153.5	6,782.6	6,650.0	6,316.9	75.8	35.0	-53.29	-607.0	-1,501.7	1,524.3	1,435.1	89.20	17.088	
9,200.0	6,782.4	6,632.2	6,300.2	77.1	35.0	-52.33	-607.0	-1,507.9	1,563.9	1,474.7	89.26	17.521	
9,251.9	6,782.2	6,626.4	6,294.7	78.5	35.0	-52.02	-607.0	-1,509.8	1,608.8	1,518.7	90.09	17.858	
9,300.0	6,782.0	6,621.3	6,289.9	79.8	35.0	-51.75	-607.0	-1,511.5	1,650.6	1,559.8	90.86	18.167	
9,350.4	6,781.8	6,600.0	6,269.6	81.2	35.1	-50.64	-607.0	-1,518.0	1,695.0	1,604.3	90.74	18.680	
9,400.0	6,781.6	6,600.0	6,269.6	82.6	35.1	-50.64	-607.0	-1,518.0	1,738.7	1,646.8	91.82	18.936	
9,448.8	6,781.4	6,600.0	6,269.6	83.9	35.1	-50.64	-607.0	-1,518.0	1,781.9	1,689.0	92.88	19.185	
9,500.0	6,781.2	6,600.0	6,269.6	85.4	35.1	-50.64	-607.0	-1,518.0	1,827.6	1,733.6	93.99	19.444	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,547.2	6,781.0	6,600.0	6,269.6	86.7	35.1	-50.64	-607.0	-1,518.0	1,869.9	1,774.9	95.02	19.679	
9,600.0	6,780.8	6,600.0	6,269.6	88.1	35.1	-50.64	-607.0	-1,518.0	1,917.5	1,821.4	96.17	19.939	
9,645.6	6,780.7	6,600.0	6,269.6	89.4	35.1	-50.64	-607.0	-1,518.0	1,958.9	1,861.8	97.17	20.161	
9,700.0	6,780.5	6,600.0	6,269.6	90.9	35.1	-50.63	-607.0	-1,518.0	2,008.5	1,910.1	98.35	20.422	
9,744.1	6,780.3	6,600.0	6,269.6	92.1	35.1	-50.63	-607.0	-1,518.0	2,048.8	1,949.5	99.31	20.630	
9,800.0	6,780.1	6,578.3	6,248.8	93.7	35.1	-49.52	-607.0	-1,524.1	2,099.8	2,000.7	99.13	21.182	
9,842.5	6,779.9	6,575.3	6,245.9	94.8	35.1	-49.37	-607.0	-1,524.9	2,138.9	2,039.0	99.85	21.420	
9,900.0	6,779.7	6,571.5	6,242.2	96.4	35.1	-49.18	-607.0	-1,525.9	2,192.0	2,091.1	100.83	21.739	
9,940.9	6,779.5	6,568.8	6,239.6	97.6	35.1	-49.04	-607.0	-1,526.6	2,229.8	2,128.3	101.53	21.962	
10,000.0	6,779.3	6,550.0	6,221.4	99.2	35.2	-48.11	-607.0	-1,531.1	2,284.9	2,183.4	101.53	22.504	
10,039.3	6,779.1	6,550.0	6,221.4	100.3	35.2	-48.11	-607.0	-1,531.1	2,321.5	2,219.1	102.37	22.678	
10,100.0	6,778.9	6,550.0	6,221.4	102.0	35.2	-48.11	-607.0	-1,531.1	2,378.1	2,274.4	103.65	22.943	
10,137.8	6,778.7	6,550.0	6,221.4	103.0	35.2	-48.11	-607.0	-1,531.1	2,413.4	2,308.9	104.45	23.106	
10,200.0	6,778.5	6,550.0	6,221.4	104.8	35.2	-48.11	-607.0	-1,531.1	2,471.7	2,366.0	105.77	23.370	
10,236.2	6,778.3	6,550.0	6,221.4	105.8	35.2	-48.11	-607.0	-1,531.1	2,505.8	2,399.2	106.53	23.521	
10,300.0	6,778.1	6,550.0	6,221.4	107.5	35.2	-48.11	-607.0	-1,531.1	2,565.9	2,458.0	107.88	23.784	
10,334.6	6,778.0	6,550.0	6,221.4	108.5	35.2	-48.11	-607.0	-1,531.1	2,598.6	2,490.0	108.62	23.924	
10,400.0	6,777.7	6,550.0	6,221.4	110.3	35.2	-48.11	-607.0	-1,531.1	2,660.5	2,550.5	110.00	24.186	
10,433.0	6,777.6	6,550.0	6,221.4	111.2	35.2	-48.11	-607.0	-1,531.1	2,691.8	2,581.1	110.70	24.316	
10,500.0	6,777.3	6,550.0	6,221.4	113.1	35.2	-48.11	-607.0	-1,531.1	2,755.4	2,643.3	112.12	24.575	
10,531.5	6,777.2	6,550.0	6,221.4	114.0	35.2	-48.11	-607.0	-1,531.1	2,785.4	2,672.6	112.79	24.695	
10,600.0	6,776.9	6,550.0	6,221.4	115.9	35.2	-48.11	-607.0	-1,531.1	2,850.8	2,736.5	114.24	24.953	
10,629.9	6,776.8	6,550.0	6,221.4	116.7	35.2	-48.11	-607.0	-1,531.1	2,879.3	2,764.4	114.88	25.064	
10,700.0	6,776.5	6,550.0	6,221.4	118.7	35.2	-48.11	-607.0	-1,531.1	2,946.4	2,830.0	116.37	25.320	
10,728.3	6,776.4	6,528.9	6,200.7	119.5	35.2	-47.09	-607.0	-1,535.6	2,973.1	2,857.8	115.33	25.780	
10,800.0	6,776.1	6,526.1	6,198.0	121.4	35.2	-46.95	-607.0	-1,536.1	3,041.8	2,925.2	116.60	26.086	
10,826.7	6,776.0	6,525.0	6,197.0	122.2	35.2	-46.90	-607.0	-1,536.3	3,067.4	2,950.4	117.08	26.199	
10,900.0	6,775.7	6,522.3	6,194.3	124.2	35.2	-46.77	-607.0	-1,536.8	3,137.8	3,019.4	118.40	26.503	
10,925.2	6,775.6	6,521.4	6,193.4	124.9	35.2	-46.73	-607.0	-1,537.0	3,162.0	3,043.1	118.85	26.605	
11,000.0	6,775.3	6,500.0	6,172.3	127.0	35.2	-45.73	-607.0	-1,540.7	3,234.3	3,115.6	118.68	27.252	
11,023.6	6,775.2	6,500.0	6,172.3	127.7	35.2	-45.73	-607.0	-1,540.7	3,257.0	3,137.8	119.17	27.332	
11,100.0	6,774.9	6,500.0	6,172.3	129.8	35.2	-45.73	-607.0	-1,540.7	3,330.6	3,209.9	120.74	27.586	
11,122.0	6,774.8	6,500.0	6,172.3	130.4	35.2	-45.73	-607.0	-1,540.7	3,351.9	3,230.7	121.19	27.658	
11,200.0	6,774.5	6,500.0	6,172.3	132.6	35.2	-45.73	-607.0	-1,540.7	3,427.2	3,304.4	122.79	27.911	
11,220.4	6,774.4	6,500.0	6,172.3	133.2	35.2	-45.73	-607.0	-1,540.7	3,446.9	3,323.7	123.21	27.976	
11,300.0	6,774.1	6,500.0	6,172.3	135.4	35.2	-45.73	-607.0	-1,540.7	3,523.9	3,399.0	124.84	28.226	
11,318.9	6,774.0	6,500.0	6,172.3	135.9	35.2	-45.73	-607.0	-1,540.7	3,542.2	3,416.9	125.23	28.285	
11,400.0	6,773.7	6,500.0	6,172.3	138.2	35.2	-45.73	-607.0	-1,540.7	3,620.8	3,493.9	126.90	28.533	
11,417.3	6,773.6	6,500.0	6,172.3	138.7	35.2	-45.73	-607.0	-1,540.7	3,637.6	3,510.3	127.26	28.585	
11,500.0	6,773.3	6,500.0	6,172.3	141.0	35.2	-45.73	-607.0	-1,540.7	3,717.9	3,588.9	128.96	28.830	
11,515.7	6,773.2	6,500.0	6,172.3	141.4	35.2	-45.73	-607.0	-1,540.7	3,733.1	3,603.9	129.28	28.876	
11,600.0	6,772.9	6,500.0	6,172.3	143.8	35.2	-45.73	-607.0	-1,540.7	3,815.1	3,684.1	131.01	29.120	
11,614.1	6,772.8	6,500.0	6,172.3	144.2	35.2	-45.73	-607.0	-1,540.7	3,828.9	3,697.5	131.30	29.160	
11,700.0	6,772.5	6,500.0	6,172.3	146.6	35.2	-45.73	-607.0	-1,540.7	3,912.4	3,779.4	133.07	29.401	
11,712.6	6,772.4	6,500.0	6,172.3	146.9	35.2	-45.73	-607.0	-1,540.7	3,924.7	3,791.4	133.33	29.436	
11,800.0	6,772.1	6,500.0	6,172.3	149.4	35.2	-45.73	-607.0	-1,540.7	4,009.9	3,874.8	135.13	29.675	
11,811.0	6,772.1	6,500.0	6,172.3	149.7	35.2	-45.73	-607.0	-1,540.7	4,020.7	3,885.3	135.35	29.705	
11,900.0	6,771.7	6,500.0	6,172.3	152.2	35.2	-45.73	-607.0	-1,540.7	4,107.5	3,970.4	137.19	29.942	
11,909.4	6,771.7	6,500.0	6,172.3	152.4	35.2	-45.73	-607.0	-1,540.7	4,116.7	3,979.4	137.38	29.966	
12,000.0	6,771.3	6,500.0	6,172.3	154.9	35.2	-45.72	-607.0	-1,540.7	4,205.3	4,066.0	139.24	30.201	
12,007.8	6,771.3	6,500.0	6,172.3	155.2	35.2	-45.72	-607.0	-1,540.7	4,212.9	4,073.5	139.41	30.221	
12,100.0	6,770.9	6,500.0	6,172.3	157.7	35.2	-45.72	-607.0	-1,540.7	4,303.1	4,161.8	141.30	30.453	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17G-312 - ORIGINAL WELLBORE - PROPOS												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	6,770.9	6,500.0	6,172.3	157.9	35.2	-45.72	-607.0	-1,540.7	4,309.2	4,167.8	141.43	30.469	
12,200.0	6,770.5	6,500.0	6,172.3	160.5	35.2	-45.72	-607.0	-1,540.7	4,401.0	4,257.7	143.36	30.699	
12,204.7	6,770.5	6,500.0	6,172.3	160.7	35.2	-45.72	-607.0	-1,540.7	4,405.6	4,262.2	143.46	30.710	
12,300.0	6,770.1	6,500.0	6,172.3	163.3	35.2	-45.72	-607.0	-1,540.7	4,499.0	4,353.6	145.42	30.938	
12,303.1	6,770.1	6,500.0	6,172.3	163.4	35.2	-45.72	-607.0	-1,540.7	4,502.1	4,356.6	145.48	30.946	
12,316.4	6,770.0	6,500.0	6,172.3	163.8	35.2	-45.72	-607.0	-1,540.7	4,515.1	4,369.3	145.76	30.977	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	89.53	0.4	44.8	44.8				
98.4	98.4	98.4	98.4	0.1	0.1	89.53	0.4	44.8	44.8	44.6	0.19	233.265	
100.0	100.0	100.0	100.0	0.1	0.1	89.53	0.4	44.8	44.8	44.6	0.20	229.317	
196.8	196.8	196.8	196.8	0.3	0.3	89.53	0.4	44.8	44.8	44.2	0.63	71.074	
200.0	200.0	200.0	200.0	0.3	0.3	89.53	0.4	44.8	44.8	44.2	0.65	69.514	
295.3	295.3	295.3	295.3	0.5	0.5	89.53	0.4	44.8	44.8	43.8	1.07	41.777	
300.0	300.0	300.0	300.0	0.5	0.5	89.53	0.4	44.8	44.8	43.7	1.09	40.966	
393.7	393.7	393.7	393.7	0.8	0.8	89.53	0.4	44.8	44.8	43.3	1.52	29.583	
400.0	400.0	400.0	400.0	0.8	0.8	89.53	0.4	44.8	44.8	43.3	1.54	29.040	
492.1	492.1	492.1	492.1	1.0	1.0	89.53	0.4	44.8	44.8	42.9	1.96	22.899	
500.0	500.0	500.0	500.0	1.0	1.0	89.53	0.4	44.8	44.8	42.8	1.99	22.492	
590.5	590.5	590.5	590.5	1.2	1.2	89.53	0.4	44.8	44.8	42.4	2.40	18.679	
600.0	600.0	600.0	600.0	1.2	1.2	89.53	0.4	44.8	44.8	42.4	2.44	18.354	
689.0	689.0	689.0	689.0	1.4	1.4	89.53	0.4	44.8	44.8	42.0	2.84	15.772	
700.0	700.0	700.0	700.0	1.4	1.4	89.53	0.4	44.8	44.8	41.9	2.89	15.502	
787.4	787.4	787.4	787.4	1.6	1.6	89.53	0.4	44.8	44.8	41.6	3.29	13.648	
800.0	800.0	800.0	800.0	1.7	1.7	89.53	0.4	44.8	44.8	41.5	3.34	13.417	
885.8	885.8	885.8	885.8	1.9	1.9	89.53	0.4	44.8	44.8	41.1	3.73	12.028	
900.0	900.0	900.0	900.0	1.9	1.9	89.53	0.4	44.8	44.8	41.1	3.79	11.826	
984.2	984.2	984.2	984.2	2.1	2.1	89.53	0.4	44.8	44.8	40.7	4.17	10.752	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	89.53	0.4	44.8	44.8	40.6	4.24	10.573	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	89.53	0.4	44.8	44.8	40.2	4.61	9.721	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	89.53	0.4	44.8	44.8	40.2	4.69	9.559	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	89.53	0.4	44.8	44.8	39.8	5.06	8.870	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	89.53	0.4	44.8	44.8	39.7	5.14	8.723	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	89.53	0.4	44.8	44.8	39.3	5.50	8.156	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	89.53	0.4	44.8	44.8	39.3	5.59	8.022	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	89.53	0.4	44.8	44.8	38.9	5.94	7.549	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	89.53	0.4	44.8	44.8	38.8	6.04	7.425	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	89.53	0.4	44.8	44.8	38.5	6.38	7.025	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	89.53	0.4	44.8	44.8	38.4	6.49	6.910 CC, ES	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	170.43	0.4	44.8	45.8	39.0	6.82	6.721	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	170.59	0.4	44.8	46.6	39.6	6.92	6.725	
1,673.2	1,673.1	1,673.1	1,673.1	3.6	3.6	171.23	0.4	44.8	50.0	42.8	7.23	6.916	
1,700.0	1,699.8	1,699.8	1,699.8	3.7	3.7	171.52	0.4	44.8	51.7	44.4	7.34	7.046	
1,771.6	1,771.2	1,771.2	1,771.2	3.8	3.9	172.37	0.4	44.8	57.6	49.9	7.64	7.536	
1,800.0	1,799.5	1,799.5	1,799.5	3.9	3.9	172.72	0.4	44.8	60.4	52.6	7.76	7.784	
1,870.1	1,869.0	1,869.0	1,869.5	4.0	4.1	174.25	-0.4	44.5	68.2	60.2	8.02	8.505	
1,900.0	1,898.7	1,899.4	1,899.4	4.1	4.1	175.24	-1.2	44.2	72.0	63.8	8.13	8.848	
1,968.5	1,966.4	1,967.7	1,967.6	4.3	4.2	178.00	-4.2	43.1	81.5	73.1	8.37	9.729	
2,000.0	1,997.5	1,998.9	1,998.8	4.4	4.3	179.42	-6.1	42.3	86.3	77.8	8.48	10.176	
2,066.9	2,063.2	2,065.1	2,064.7	4.6	4.4	-177.39	-11.1	40.4	97.7	89.0	8.72	11.204	
2,100.1	2,095.7	2,097.7	2,097.2	4.7	4.5	-175.77	-14.0	39.3	103.9	95.1	8.84	11.760	
2,165.3	2,159.5	2,161.7	2,160.7	4.9	4.6	-172.61	-20.9	36.6	116.6	107.5	9.11	12.799	
2,200.0	2,193.4	2,195.6	2,194.3	5.0	4.7	-170.93	-25.1	35.0	123.5	114.2	9.26	13.332	
2,224.2	2,217.1	2,219.2	2,217.7	5.1	4.7	-169.76	-28.2	33.8	128.3	118.9	9.37	13.691	
2,263.8	2,255.9	2,257.8	2,255.9	5.2	4.8	-167.85	-33.7	31.6	136.0	126.4	9.57	14.215	
2,300.0	2,291.5	2,293.1	2,290.7	5.3	4.9	-166.06	-39.1	29.5	142.7	133.0	9.74	14.649	
2,362.2	2,352.7	2,353.6	2,350.1	5.5	5.0	-162.89	-49.3	25.6	153.7	143.6	10.06	15.280	
2,400.0	2,390.1	2,390.2	2,386.0	5.6	5.1	-160.89	-56.1	22.9	160.0	149.8	10.25	15.607	
2,460.6	2,450.1	2,449.2	2,443.8	5.7	5.3	-157.68	-67.5	18.5	169.7	159.1	10.58	16.045	
2,500.0	2,489.2	2,487.7	2,481.4	5.8	5.4	-155.70	-75.0	15.6	175.6	164.9	10.79	16.281	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	2,548.0	2,545.4	2,537.8	6.0	5.6	-152.84	-86.2	11.3	184.0	172.9	11.11	16.567		
2,600.0	2,588.8	2,585.4	2,577.0	6.1	5.7	-150.90	-93.9	8.3	189.5	178.2	11.33	16.725		
2,657.5	2,646.1	2,641.7	2,632.0	6.2	5.9	-148.23	-104.8	4.0	196.7	185.1	11.64	16.897		
2,700.0	2,688.6	2,683.3	2,672.8	6.3	6.0	-146.27	-112.9	0.9	201.7	189.9	11.87	16.992		
2,755.9	2,744.4	2,738.1	2,726.3	6.4	6.2	-143.68	-123.5	-3.2	207.9	195.7	12.17	17.086		
2,800.0	2,788.5	2,781.2	2,768.5	6.5	6.3	-141.63	-131.9	-6.4	212.5	200.1	12.40	17.137		
2,824.3	2,812.8	2,805.0	2,791.7	6.5	6.4	138.81	-136.5	-8.2	214.9	202.6	12.29	17.480		
2,854.3	2,842.9	2,834.4	2,820.5	6.6	6.5	140.24	-142.2	-10.4	217.9	205.5	12.42	17.540		
2,900.0	2,888.5	2,879.0	2,864.2	6.7	6.7	142.34	-150.9	-13.8	222.7	210.1	12.62	17.645		
2,952.7	2,941.3	2,930.6	2,914.7	6.8	6.9	144.66	-160.9	-17.7	228.7	215.8	12.87	17.766		
3,000.0	2,988.5	2,976.8	2,959.9	6.9	7.0	146.63	-169.8	-21.1	234.3	221.2	13.10	17.885		
3,051.2	3,039.7	3,026.9	3,008.8	7.0	7.2	148.67	-179.5	-24.9	240.7	227.4	13.36	18.020		
3,100.0	3,088.5	3,074.7	3,055.5	7.1	7.4	150.51	-188.8	-28.5	247.1	233.5	13.61	18.156		
3,149.6	3,138.1	3,123.2	3,103.0	7.2	7.6	152.29	-198.2	-32.1	253.9	240.0	13.87	18.297		
3,200.0	3,188.5	3,172.5	3,151.2	7.3	7.8	154.00	-207.7	-35.9	261.0	246.8	14.15	18.444		
3,248.0	3,236.6	3,219.5	3,197.2	7.4	7.9	155.55	-216.8	-39.4	267.9	253.5	14.42	18.586		
3,300.0	3,288.5	3,270.3	3,246.9	7.5	8.1	157.14	-226.7	-43.2	275.7	261.0	14.71	18.741		
3,346.4	3,335.0	3,315.7	3,291.3	7.6	8.3	158.49	-235.5	-46.6	282.8	267.8	14.98	18.881		
3,400.0	3,388.5	3,368.1	3,342.6	7.7	8.5	159.96	-245.7	-50.6	291.1	275.8	15.29	19.041		
3,444.9	3,433.4	3,412.0	3,385.5	7.8	8.7	161.13	-254.2	-53.9	298.3	282.7	15.55	19.175		
3,500.0	3,488.5	3,465.9	3,438.3	7.9	8.9	162.50	-264.6	-57.9	307.2	291.3	15.89	19.338		
3,543.3	3,531.8	3,508.3	3,479.7	8.0	9.1	163.51	-272.8	-61.1	314.3	298.2	16.15	19.466		
3,600.0	3,588.5	3,563.7	3,533.9	8.1	9.3	164.78	-283.6	-65.3	323.8	307.3	16.50	19.631		
3,641.7	3,630.3	3,604.6	3,573.9	8.2	9.5	165.66	-291.5	-68.3	330.9	314.1	16.75	19.752		
3,700.0	3,688.5	3,661.6	3,629.6	8.3	9.7	166.84	-302.5	-72.6	340.9	323.8	17.12	19.918		
3,740.1	3,728.7	3,700.8	3,668.0	8.4	9.9	167.61	-310.1	-75.6	347.9	330.5	17.37	20.031		
3,800.0	3,788.5	3,759.4	3,725.3	8.5	10.1	168.70	-321.5	-80.0	358.4	340.6	17.74	20.197		
3,838.6	3,827.1	3,797.1	3,762.2	8.6	10.3	169.38	-328.8	-82.8	365.2	347.2	17.99	20.302		
3,900.0	3,888.5	3,857.2	3,821.0	8.7	10.6	170.40	-340.5	-87.3	376.2	357.8	18.38	20.467		
3,937.0	3,925.5	3,893.4	3,856.4	8.8	10.7	170.98	-347.5	-90.0	382.8	364.2	18.62	20.565		
4,000.0	3,988.5	3,955.0	3,916.6	9.0	11.0	171.93	-359.4	-94.7	394.3	375.3	19.02	20.728		
4,035.4	4,024.0	3,989.7	3,950.5	9.0	11.1	172.45	-366.1	-97.3	400.7	381.5	19.25	20.818		
4,100.0	4,088.5	4,052.8	4,012.3	9.2	11.4	173.34	-378.4	-102.0	412.6	393.0	19.67	20.980		
4,133.8	4,122.4	4,085.9	4,044.7	9.2	11.5	173.79	-384.8	-104.5	418.9	399.0	19.89	21.063		
4,200.0	4,188.5	4,150.6	4,108.0	9.4	11.8	174.62	-397.3	-109.4	431.2	410.9	20.32	21.223		
4,232.3	4,220.8	4,182.2	4,138.9	9.4	11.9	175.02	-403.5	-111.7	437.2	416.7	20.53	21.299		
4,300.0	4,288.5	4,248.4	4,203.7	9.6	12.2	175.80	-416.3	-116.7	450.0	429.0	20.97	21.457		
4,330.7	4,319.2	4,278.5	4,233.1	9.7	12.4	176.15	-422.1	-119.0	455.8	434.6	21.17	21.527		
4,400.0	4,388.5	4,349.9	4,302.9	9.8	12.7	176.92	-435.9	-124.3	468.8	447.2	21.63	21.675		
4,429.1	4,417.7	4,383.5	4,335.9	9.9	12.8	177.25	-441.9	-126.7	474.0	452.2	21.82	21.719		
4,500.0	4,488.5	4,466.0	4,417.2	10.0	13.0	177.95	-455.3	-131.9	485.3	463.1	22.25	21.807		
4,527.5	4,516.1	4,498.3	4,449.0	10.1	13.1	178.18	-460.0	-133.7	489.2	466.8	22.42	21.824		
4,600.0	4,588.5	4,583.7	4,533.7	10.2	13.4	178.70	-470.6	-137.8	498.2	475.4	22.82	21.831		
4,626.0	4,614.5	4,614.5	4,564.2	10.3	13.4	178.85	-473.9	-139.1	500.9	478.0	22.96	21.817		
4,700.0	4,688.5	4,702.5	4,651.9	10.5	13.6	179.20	-481.5	-142.0	507.3	484.0	23.34	21.734		
4,724.4	4,712.9	4,731.6	4,681.0	10.5	13.7	179.29	-483.5	-142.8	509.0	485.5	23.46	21.696		
4,800.0	4,788.5	4,822.1	4,771.3	10.7	13.9	179.49	-487.9	-144.5	512.6	488.8	23.81	21.529		
4,822.8	4,811.4	4,849.5	4,798.7	10.7	13.9	179.52	-488.7	-144.8	513.3	489.4	23.91	21.467		
4,900.0	4,888.5	4,939.4	4,888.5	10.9	14.1	179.57	-489.6	-145.2	514.1	489.8	24.23	21.214		
4,921.2	4,909.8	4,960.6	4,909.8	10.9	14.1	179.57	-489.6	-145.2	514.1	489.7	24.31	21.144		
5,000.0	4,988.5	5,039.4	4,988.5	11.1	14.2	179.57	-489.6	-145.2	514.1	489.4	24.61	20.890		
5,019.7	5,008.2	5,059.0	5,008.2	11.1	14.3	179.57	-489.6	-145.2	514.1	489.4	24.68	20.828		

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	5,088.5	5,139.4	5,088.5	11.3	14.4	179.57	-489.6	-145.2	514.1	489.1	24.98	20.576	
5,118.1	5,106.6	5,157.5	5,106.6	11.4	14.4	179.57	-489.6	-145.2	514.1	489.0	25.05	20.520	
5,200.0	5,188.5	5,239.4	5,188.5	11.5	14.5	179.57	-489.6	-145.2	514.1	488.7	25.36	20.270	
5,216.5	5,205.1	5,255.9	5,205.1	11.6	14.6	179.57	-489.6	-145.2	514.1	488.6	25.42	20.220	
5,300.0	5,288.5	5,339.4	5,288.5	11.8	14.7	179.57	-489.6	-145.2	514.1	488.3	25.74	19.971	
5,314.9	5,303.5	5,354.3	5,303.5	11.8	14.7	179.57	-489.6	-145.2	514.1	488.3	25.80	19.927	
5,400.0	5,388.5	5,439.4	5,388.5	12.0	14.8	179.57	-489.6	-145.2	514.1	487.9	26.12	19.679	
5,413.4	5,401.9	5,452.7	5,401.9	12.0	14.9	179.57	-489.6	-145.2	514.1	487.9	26.17	19.641	
5,500.0	5,488.5	5,539.4	5,488.5	12.2	15.0	179.57	-489.6	-145.2	514.1	487.5	26.51	19.395	
5,511.8	5,500.3	5,551.2	5,500.3	12.2	15.0	179.57	-489.6	-145.2	514.1	487.5	26.55	19.361	
5,600.0	5,588.5	5,639.4	5,588.5	12.4	15.2	179.57	-489.6	-145.2	514.1	487.2	26.89	19.117	
5,610.2	5,598.8	5,649.6	5,598.8	12.4	15.2	179.57	-489.6	-145.2	514.1	487.1	26.93	19.089	
5,700.0	5,688.5	5,739.4	5,688.5	12.6	15.3	179.57	-489.6	-145.2	514.1	486.8	27.28	18.846	
5,708.6	5,697.2	5,748.0	5,697.2	12.6	15.3	179.57	-489.6	-145.2	514.1	486.7	27.31	18.823	
5,800.0	5,788.5	5,839.4	5,788.5	12.8	15.5	179.57	-489.6	-145.2	514.1	486.4	27.66	18.581	
5,807.1	5,795.6	5,846.4	5,795.6	12.9	15.5	179.57	-489.6	-145.2	514.1	486.4	27.69	18.563	
5,900.0	5,888.5	5,939.4	5,888.5	13.1	15.6	179.57	-489.6	-145.2	514.1	486.0	28.05	18.323	
5,905.5	5,894.0	5,944.9	5,894.0	13.1	15.6	179.57	-489.6	-145.2	514.1	486.0	28.08	18.309	
6,000.0	5,988.5	6,039.4	5,988.5	13.3	15.8	179.57	-489.6	-145.2	514.1	485.6	28.45	18.071	
6,003.9	5,992.5	6,043.3	5,992.5	13.3	15.8	179.57	-489.6	-145.2	514.1	485.6	28.46	18.061	
6,085.3	6,073.8	6,124.6	6,073.8	13.5	15.9	179.57	-489.6	-145.2	514.1	485.3	28.78	17.861	
6,100.0	6,088.5	6,139.4	6,088.6	13.5	16.0	-90.43	-489.6	-145.3	514.1	487.0	27.10	18.970	
6,102.3	6,090.9	6,141.8	6,091.0	13.5	16.0	-90.43	-489.6	-145.4	514.1	486.9	27.11	18.963	
6,150.0	6,138.4	6,189.7	6,138.8	13.6	16.1	-90.43	-489.6	-148.1	514.1	486.7	27.32	18.815	
6,200.0	6,188.0	6,240.0	6,188.7	13.7	16.2	-90.43	-489.6	-154.4	514.1	486.5	27.58	18.641	
6,200.8	6,188.8	6,240.8	6,189.4	13.7	16.2	-90.43	-489.6	-154.6	514.1	486.5	27.58	18.639	
6,250.0	6,237.1	6,290.3	6,238.0	13.9	16.3	-90.42	-489.6	-164.2	514.1	486.2	27.86	18.449	
6,299.2	6,284.6	6,339.7	6,285.7	14.0	16.5	-90.42	-489.6	-177.2	514.1	485.9	28.18	18.239	
6,300.0	6,285.3	6,340.5	6,286.4	14.0	16.5	-90.42	-489.6	-177.5	514.1	485.9	28.19	18.236	
6,350.0	6,332.5	6,390.8	6,333.9	14.2	16.6	-90.41	-489.6	-194.0	514.1	485.5	28.56	18.001	
6,397.6	6,376.3	6,438.6	6,377.8	14.4	16.8	-90.39	-489.6	-212.9	514.1	485.1	28.96	17.753	
6,400.0	6,378.5	6,441.0	6,380.0	14.4	16.8	-90.39	-489.6	-213.9	514.1	485.1	28.98	17.740	
6,450.0	6,423.0	6,491.3	6,424.6	14.7	17.0	-90.38	-489.6	-237.0	514.1	484.6	29.46	17.451	
6,496.0	6,462.4	6,537.5	6,464.2	14.9	17.2	-90.36	-489.6	-260.9	514.1	484.1	29.96	17.156	
6,500.0	6,465.7	6,541.5	6,467.5	14.9	17.2	-90.36	-489.6	-263.1	514.1	484.0	30.01	17.130	
6,550.0	6,506.6	6,591.7	6,508.5	15.2	17.5	-90.35	-489.6	-292.2	514.0	483.4	30.65	16.774	
6,594.5	6,541.2	6,636.4	6,543.1	15.6	17.8	-90.33	-489.6	-320.3	514.0	482.7	31.30	16.424	
6,600.0	6,545.3	6,641.9	6,547.3	15.6	17.8	-90.33	-489.6	-324.0	514.0	482.7	31.38	16.381	
6,650.0	6,581.8	6,692.1	6,583.8	16.0	18.2	-90.31	-489.6	-358.5	514.0	481.8	32.23	15.950	
6,692.9	6,611.1	6,735.2	6,613.1	16.4	18.5	-90.29	-489.6	-390.0	514.0	481.0	33.06	15.549	
6,700.0	6,615.8	6,742.3	6,617.7	16.5	18.6	-90.28	-489.6	-395.4	514.0	480.8	33.20	15.483	
6,750.0	6,647.1	6,792.5	6,649.0	17.1	19.0	-90.26	-489.6	-434.6	514.0	479.7	34.31	14.984	
6,791.3	6,670.9	6,833.9	6,672.7	17.6	19.4	-90.24	-489.6	-468.6	514.0	478.7	35.33	14.548	
6,800.0	6,675.7	6,842.6	6,677.4	17.7	19.5	-90.23	-489.6	-475.9	514.0	478.5	35.55	14.459	
6,850.0	6,701.3	6,892.8	6,702.9	18.4	20.1	-90.21	-489.6	-519.1	514.0	477.1	36.94	13.915	
6,889.7	6,719.5	6,932.6	6,721.0	19.0	20.7	-90.19	-489.6	-554.6	514.0	475.9	38.16	13.472	
6,900.0	6,723.8	6,942.9	6,725.3	19.1	20.8	-90.18	-489.6	-563.9	514.0	475.6	38.47	13.362	
6,950.0	6,743.2	6,993.0	6,744.5	20.0	21.5	-90.15	-489.6	-610.2	514.0	473.9	40.14	12.806	
6,988.2	6,755.8	7,031.3	6,757.0	20.6	22.1	-90.13	-489.6	-646.3	514.0	472.5	41.51	12.384	
7,000.0	6,759.4	7,043.1	6,760.4	20.9	22.3	-90.12	-489.6	-657.7	514.0	472.1	41.94	12.258	
7,050.0	6,772.1	7,093.2	6,773.0	21.8	23.2	-90.10	-489.6	-706.1	514.0	470.2	43.85	11.724	
7,086.6	6,779.4	7,129.8	6,780.0	22.5	23.9	-90.07	-489.6	-742.1	514.0	468.7	45.32	11.344	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
7,100.0	6,781.5	7,143.2	6,782.1	22.8	24.1	-90.07	-489.6	-755.3	514.0	468.2	45.86	11.210	
7,150.0	6,787.5	7,193.2	6,787.8	23.9	25.1	-90.04	-489.6	-805.0	514.0	466.1	47.95	10.721	
7,185.0	6,789.6	7,228.3	6,789.7	24.6	25.8	-90.01	-489.6	-840.0	514.0	464.6	49.46	10.394	
7,187.4	6,789.6	7,230.7	6,789.8	24.7	25.9	-90.01	-489.6	-842.4	514.0	464.5	49.56	10.372	
7,200.0	6,789.9	7,243.3	6,790.0	24.9	26.1	-90.01	-489.6	-855.0	514.0	463.9	50.10	10.260	
7,213.0	6,790.0	7,256.2	6,790.0	25.2	26.4	-90.00	-489.6	-868.0	514.0	463.4	50.67	10.145	
7,283.4	6,789.7	7,326.7	6,789.7	26.8	27.9	-90.00	-489.6	-938.4	514.0	460.2	53.83	9.549	
7,300.0	6,789.7	7,343.3	6,789.7	27.2	28.3	-90.00	-489.6	-955.0	514.0	459.5	54.58	9.418	
7,381.9	6,789.4	7,425.1	6,789.3	29.1	30.1	-90.00	-489.6	-1,036.9	514.0	455.7	58.39	8.804	
7,400.0	6,789.3	7,443.3	6,789.3	29.5	30.5	-90.00	-489.6	-1,055.0	514.0	454.8	59.24	8.677	
7,480.3	6,789.0	7,523.6	6,789.0	31.4	32.4	-90.00	-489.6	-1,135.3	514.0	450.9	63.10	8.146	
7,500.0	6,788.9	7,543.3	6,788.9	31.9	32.9	-90.00	-489.6	-1,155.0	514.0	450.0	64.06	8.025	
7,578.7	6,788.6	7,622.0	6,788.6	33.8	34.8	-90.00	-489.6	-1,233.7	514.0	446.1	67.94	7.566	
7,600.0	6,788.5	7,643.3	6,788.5	34.4	35.3	-90.00	-489.6	-1,255.0	514.0	445.0	69.00	7.450	
7,677.1	6,788.2	7,720.4	6,788.2	36.3	37.2	-90.00	-489.6	-1,332.1	514.0	441.2	72.88	7.054	
7,700.0	6,788.2	7,743.3	6,788.1	36.9	37.7	-90.00	-489.6	-1,355.0	514.0	440.0	74.03	6.943	
7,775.6	6,787.9	7,818.8	6,787.9	38.8	39.6	-90.00	-489.6	-1,430.6	514.0	436.1	77.89	6.599	
7,800.0	6,787.8	7,843.3	6,787.8	39.4	40.3	-90.00	-489.6	-1,455.0	514.0	434.9	79.15	6.495	
7,874.0	6,787.5	7,917.3	6,787.5	41.3	42.1	-90.00	-489.6	-1,529.0	514.0	431.1	82.98	6.195	
7,900.0	6,787.4	7,943.3	6,787.4	42.0	42.8	-90.00	-489.6	-1,555.0	514.0	429.7	84.33	6.096	
7,972.4	6,787.1	8,015.7	6,787.1	43.9	44.7	-90.00	-489.6	-1,627.4	514.0	425.9	88.11	5.834	
8,000.0	6,787.0	8,043.3	6,787.0	44.6	45.4	-90.00	-489.6	-1,655.0	514.0	424.5	89.56	5.740	
8,070.8	6,786.7	8,114.1	6,786.7	46.5	47.2	-90.00	-489.6	-1,725.8	514.0	420.7	93.30	5.510	
8,100.0	6,786.6	8,143.3	6,786.6	47.3	48.0	-90.00	-489.6	-1,755.0	514.0	419.2	94.84	5.420	
8,169.3	6,786.4	8,212.5	6,786.4	49.1	49.8	-90.00	-489.6	-1,824.3	514.0	415.5	98.52	5.218	
8,200.0	6,786.3	8,243.3	6,786.2	49.9	50.6	-90.00	-489.6	-1,855.0	514.0	413.9	100.15	5.133	
8,267.7	6,786.0	8,311.0	6,786.0	51.7	52.4	-90.00	-489.6	-1,922.7	514.0	410.3	103.77	4.954	
8,300.0	6,785.9	8,343.3	6,785.9	52.6	53.3	-90.00	-489.6	-1,955.0	514.0	408.5	105.50	4.872	
8,366.1	6,785.6	8,409.4	6,785.6	54.4	55.0	-90.00	-489.6	-2,021.1	514.0	405.0	109.05	4.714	
8,400.0	6,785.5	8,443.3	6,785.5	55.3	56.0	-90.00	-489.6	-2,055.0	514.0	403.2	110.87	4.636	
8,464.5	6,785.2	8,507.8	6,785.2	57.0	57.7	-90.00	-489.6	-2,119.5	514.0	399.7	114.35	4.495	
8,500.0	6,785.1	8,543.3	6,785.1	58.0	58.6	-90.00	-489.6	-2,155.0	514.0	397.8	116.27	4.421	
8,563.0	6,784.9	8,606.2	6,784.9	59.7	60.3	-90.00	-489.6	-2,217.9	514.0	394.4	119.68	4.295	
8,600.0	6,784.7	8,643.3	6,784.7	60.7	61.3	-90.00	-489.6	-2,255.0	514.0	392.4	121.69	4.224	
8,661.4	6,784.5	8,704.7	6,784.5	62.4	63.0	-90.00	-489.6	-2,316.4	514.0	389.0	125.02	4.112	
8,700.0	6,784.3	8,743.3	6,784.3	63.4	64.0	-90.00	-489.6	-2,355.0	514.0	386.9	127.12	4.044	
8,759.8	6,784.1	8,803.1	6,784.1	65.0	65.6	-90.00	-489.6	-2,414.8	514.0	383.7	130.38	3.943	
8,800.0	6,784.0	8,843.3	6,783.9	66.1	66.7	-90.00	-489.6	-2,455.0	514.0	381.5	132.57	3.877	
8,858.2	6,783.7	8,901.5	6,783.7	67.7	68.3	-90.00	-489.6	-2,513.2	514.0	378.3	135.76	3.787	
8,900.0	6,783.6	8,943.3	6,783.6	68.9	69.5	-90.00	-489.6	-2,555.0	514.0	376.0	138.04	3.724	
8,956.7	6,783.3	8,999.9	6,783.3	70.4	71.0	-90.00	-489.6	-2,611.6	514.0	372.9	141.14	3.642	
9,000.0	6,783.2	9,043.3	6,783.2	71.6	72.2	-90.00	-489.6	-2,655.0	514.0	370.5	143.51	3.582	
9,055.1	6,783.0	9,098.4	6,783.0	73.1	73.7	-90.00	-489.6	-2,710.1	514.0	367.5	146.54	3.508	
9,100.0	6,782.8	9,143.3	6,782.8	74.3	74.9	-90.00	-489.6	-2,755.0	514.0	365.0	149.00	3.450	
9,153.5	6,782.6	9,196.8	6,782.6	75.8	76.4	-90.00	-489.6	-2,808.5	514.0	362.1	151.94	3.383	
9,200.0	6,782.4	9,243.3	6,782.4	77.1	77.7	-90.00	-489.6	-2,855.0	514.0	359.5	154.50	3.327	
9,251.9	6,782.2	9,295.2	6,782.2	78.5	79.1	-90.00	-489.6	-2,906.9	514.0	356.7	157.36	3.267	
9,300.0	6,782.0	9,343.3	6,782.0	79.8	80.4	-90.00	-489.6	-2,955.0	514.0	354.0	160.00	3.213	
9,350.4	6,781.8	9,393.6	6,781.8	81.2	81.8	-90.00	-489.6	-3,005.3	514.0	351.3	162.78	3.158	
9,400.0	6,781.6	9,443.3	6,781.6	82.6	83.1	-90.00	-489.6	-3,055.0	514.0	348.5	165.52	3.106	
9,448.8	6,781.4	9,492.1	6,781.4	83.9	84.5	-90.00	-489.6	-3,103.8	514.0	345.8	168.21	3.056	
9,500.0	6,781.2	9,543.3	6,781.2	85.4	85.9	-90.00	-489.6	-3,155.0	514.0	343.0	171.04	3.005	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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	
9,547.2	6,781.0	9,590.5	6,781.0	86.7	87.2	-90.00	-489.6	-3,202.2	514.0	340.4	173.65	2.960	
9,600.0	6,780.8	9,643.3	6,780.8	88.1	88.7	-90.00	-489.6	-3,255.0	514.0	337.5	176.56	2.911	
9,645.6	6,780.7	9,688.9	6,780.7	89.4	89.9	-90.00	-489.6	-3,300.6	514.0	335.0	179.09	2.870	
9,700.0	6,780.5	9,743.3	6,780.4	90.9	91.4	-90.00	-489.6	-3,355.0	514.0	331.9	182.10	2.823	
9,744.1	6,780.3	9,787.3	6,780.3	92.1	92.6	-90.00	-489.6	-3,399.0	514.0	329.5	184.54	2.786	
9,800.0	6,780.1	9,843.3	6,780.1	93.7	94.2	-90.00	-489.6	-3,455.0	514.0	326.4	187.64	2.740	
9,842.5	6,779.9	9,885.8	6,779.9	94.8	95.4	-90.00	-489.6	-3,497.5	514.0	324.1	189.99	2.706	
9,900.0	6,779.7	9,943.3	6,779.7	96.4	96.9	-90.00	-489.6	-3,555.0	514.0	320.9	193.18	2.661	
9,940.9	6,779.5	9,984.2	6,779.5	97.6	98.1	-90.00	-489.6	-3,595.9	514.0	318.6	195.45	2.630	
10,000.0	6,779.3	10,043.3	6,779.3	99.2	99.7	-90.00	-489.6	-3,655.0	514.0	315.3	198.72	2.587	
10,039.3	6,779.1	10,082.6	6,779.1	100.3	100.8	-90.00	-489.6	-3,694.3	514.0	313.1	200.91	2.559	
10,100.0	6,778.9	10,143.3	6,778.9	102.0	102.5	-90.00	-489.6	-3,755.0	514.0	309.8	204.28	2.516	
10,137.8	6,778.7	10,181.0	6,778.7	103.0	103.5	-90.00	-489.6	-3,792.7	514.0	307.7	206.37	2.491	
10,200.0	6,778.5	10,243.3	6,778.5	104.8	105.3	-90.00	-489.6	-3,855.0	514.0	304.2	209.83	2.450	
10,236.2	6,778.3	10,279.5	6,778.3	105.8	106.3	-90.00	-489.6	-3,891.2	514.0	302.2	211.84	2.427	
10,300.0	6,778.1	10,343.3	6,778.1	107.5	108.0	-90.00	-489.6	-3,955.0	514.0	298.7	215.39	2.387	
10,334.6	6,778.0	10,377.9	6,777.9	108.5	109.0	-90.00	-489.6	-3,989.6	514.0	296.7	217.31	2.365	
10,400.0	6,777.7	10,443.3	6,777.7	110.3	110.8	-90.00	-489.6	-4,055.0	514.0	293.1	220.95	2.327	
10,433.0	6,777.6	10,476.3	6,777.6	111.2	111.7	-90.00	-489.6	-4,088.0	514.0	291.3	222.79	2.307	
10,500.0	6,777.3	10,543.3	6,777.3	113.1	113.6	-90.00	-489.6	-4,155.0	514.0	287.5	226.51	2.269	
10,531.5	6,777.2	10,574.7	6,777.2	114.0	114.5	-90.00	-489.6	-4,186.4	514.0	285.8	228.27	2.252	
10,600.0	6,776.9	10,643.3	6,776.9	115.9	116.4	-90.00	-489.6	-4,255.0	514.0	282.0	232.08	2.215	
10,629.9	6,776.8	10,673.2	6,776.8	116.7	117.2	-90.00	-489.6	-4,284.9	514.0	280.3	233.75	2.199	
10,700.0	6,776.5	10,743.3	6,776.5	118.7	119.1	-90.00	-489.6	-4,355.0	514.0	276.4	237.65	2.163	
10,728.3	6,776.4	10,771.6	6,776.4	119.5	119.9	-90.00	-489.6	-4,383.3	514.0	274.8	239.23	2.149	
10,800.0	6,776.1	10,843.3	6,776.1	121.4	121.9	-90.00	-489.6	-4,455.0	514.0	270.8	243.22	2.113	
10,826.7	6,776.0	10,870.0	6,776.0	122.2	122.7	-90.00	-489.6	-4,481.7	514.0	269.3	244.71	2.101	
10,900.0	6,775.7	10,943.3	6,775.7	124.2	124.7	-90.00	-489.6	-4,555.0	514.0	265.2	248.80	2.066	
10,925.2	6,775.6	10,968.4	6,775.6	124.9	125.4	-90.00	-489.6	-4,580.1	514.0	263.8	250.20	2.055	
11,000.0	6,775.3	11,043.3	6,775.3	127.0	127.5	-90.00	-489.6	-4,655.0	514.0	259.7	254.37	2.021	
11,023.6	6,775.2	11,066.9	6,775.2	127.7	128.2	-90.00	-489.6	-4,678.6	514.0	258.4	255.69	2.010	
11,100.0	6,774.9	11,143.3	6,774.9	129.8	130.3	-90.00	-489.6	-4,755.0	514.0	254.1	259.95	1.977	
11,122.0	6,774.8	11,165.3	6,774.8	130.4	130.9	-90.00	-489.6	-4,777.0	514.0	252.9	261.18	1.968	
11,200.0	6,774.5	11,243.3	6,774.5	132.6	133.1	-90.00	-489.6	-4,855.0	514.0	248.5	265.53	1.936	
11,220.4	6,774.4	11,263.7	6,774.4	133.2	133.6	-90.00	-489.6	-4,875.4	514.0	247.4	266.67	1.928	
11,300.0	6,774.1	11,343.3	6,774.1	135.4	135.9	-90.00	-489.6	-4,955.0	514.0	242.9	271.11	1.896	
11,318.9	6,774.0	11,362.1	6,774.0	135.9	136.4	-90.00	-489.6	-4,973.8	514.0	241.9	272.17	1.889	
11,400.0	6,773.7	11,443.3	6,773.7	138.2	138.6	-90.00	-489.6	-5,055.0	514.0	237.3	276.70	1.858	
11,417.3	6,773.6	11,460.6	6,773.6	138.7	139.1	-90.00	-489.6	-5,072.3	514.0	236.4	277.66	1.851	
11,500.0	6,773.3	11,543.3	6,773.3	141.0	141.4	-90.00	-489.6	-5,155.0	514.0	231.8	282.28	1.821	
11,515.7	6,773.2	11,559.0	6,773.2	141.4	141.9	-90.00	-489.6	-5,170.7	514.0	230.9	283.16	1.815	
11,600.0	6,772.9	11,643.3	6,772.9	143.8	144.2	-90.00	-489.6	-5,255.0	514.0	226.2	287.87	1.786	
11,614.1	6,772.8	11,657.4	6,772.8	144.2	144.6	-90.00	-489.6	-5,269.1	514.0	225.4	288.66	1.781	
11,700.0	6,772.5	11,743.3	6,772.5	146.6	147.0	-90.00	-489.6	-5,355.0	514.0	220.6	293.46	1.752	
11,712.6	6,772.4	11,755.8	6,772.5	146.9	147.4	-90.00	-489.6	-5,367.5	514.0	219.9	294.16	1.747	
11,800.0	6,772.1	11,843.3	6,772.1	149.4	149.8	-90.00	-489.6	-5,455.0	514.0	215.0	299.05	1.719	
11,811.0	6,772.1	11,854.3	6,772.1	149.7	150.1	-90.00	-489.6	-5,466.0	514.0	214.4	299.66	1.715	
11,900.0	6,771.7	11,943.3	6,771.7	152.2	152.6	-90.00	-489.6	-5,554.9	514.0	209.4	304.64	1.687	
11,909.4	6,771.7	11,952.7	6,771.7	152.4	152.9	-90.00	-489.6	-5,564.4	514.0	208.9	305.16	1.684	
12,000.0	6,771.3	12,043.3	6,771.3	154.9	155.4	-90.00	-489.6	-5,654.9	514.0	203.8	310.23	1.657	
12,007.8	6,771.3	12,051.1	6,771.3	155.2	155.6	-90.00	-489.6	-5,662.8	514.0	203.4	310.67	1.655	
12,100.0	6,770.9	12,143.3	6,770.9	157.7	158.2	-90.00	-489.6	-5,754.9	514.0	198.2	315.82	1.628	

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 SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 SW NW SEC. 17 T5N R64W 6th P.M. - SCHAUMBERG 17G-314 - ORIGINAL WELLBORE - PROPOS												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	6,770.9	12,149.5	6,770.9	157.9	158.4	-90.00	-489.6	-5,761.2	514.0	197.9	316.17	1.626	
12,200.0	6,770.5	12,243.3	6,770.5	160.5	161.0	-90.00	-489.6	-5,854.9	514.0	192.6	321.41	1.599	
12,204.7	6,770.5	12,248.0	6,770.5	160.7	161.1	-90.00	-489.6	-5,859.6	514.0	192.4	321.68	1.598	
12,300.0	6,770.1	12,343.3	6,770.1	163.3	163.8	-90.00	-489.6	-5,954.9	514.0	187.0	327.01	1.572	
12,303.1	6,770.1	12,346.4	6,770.1	163.4	163.9	-90.00	-489.6	-5,958.1	514.0	186.9	327.18	1.571	
12,316.4	6,770.0	12,359.6	6,770.0	163.8	164.2	-90.00	-489.6	-5,971.3	514.0	186.1	327.92	1.568 SF	

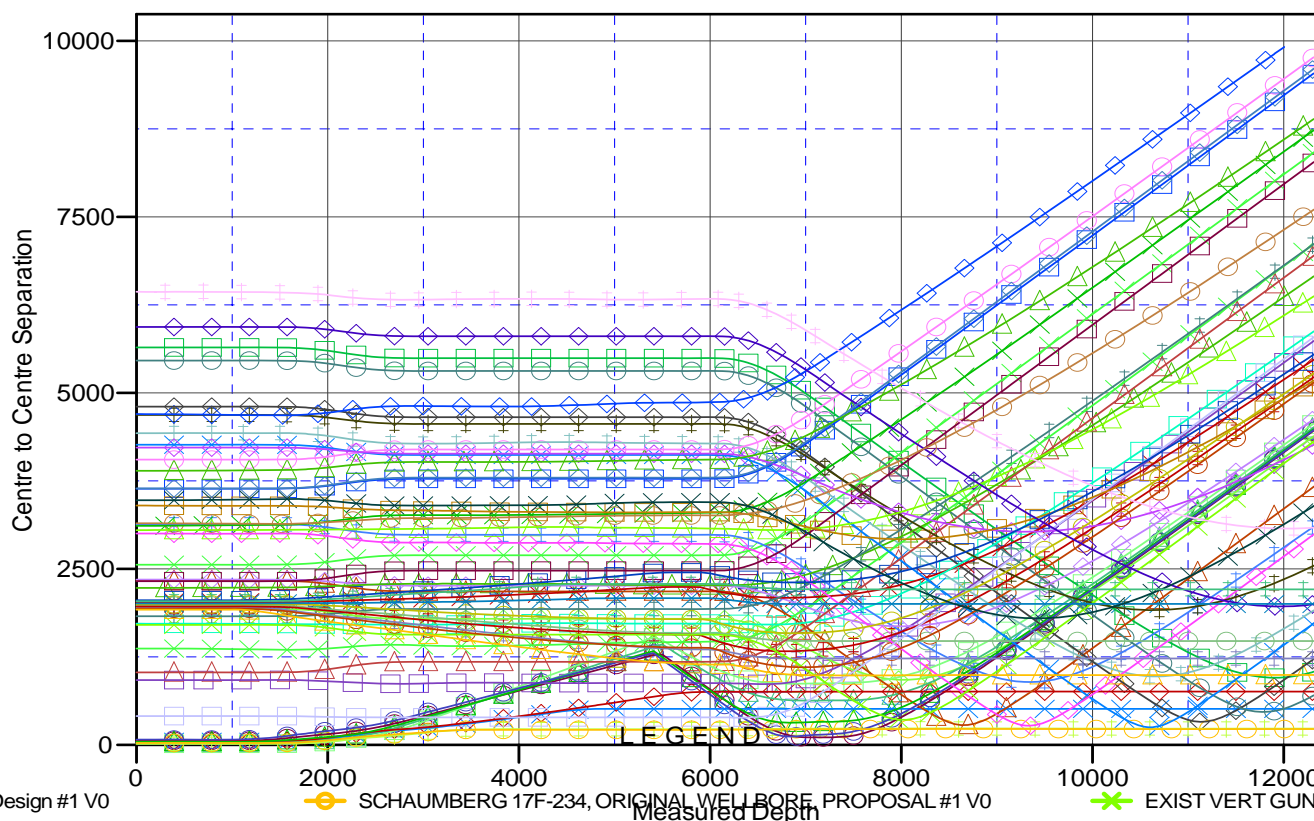
Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well SCHAUMBERG 17F-334
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 17 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4633.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	SCHAUMBERG 17F-334	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 @ 4633.0usft (Original Well ECoordinates are relative to: SCHAUMBERG 17F-334
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.59°

Ladder Plot



1, Design #1 V0	SCHAUMBERG 17F-234, ORIGINAL WELLBORE, PROPOSAL #1 V0	EXIST VERT GUNTHER #18
3ORE, PROPOSAL #1 V0	EXIST VERT BRIGHT #2, Wellbore #1, Design #1 V0	CECIL'S KERSEY FARM 17K
1, Design #1 V0	EXIST VERT HETTINGER #1, Wellbore #1, Design #1 V0	EXIST VERT SOLIS #44-17,
gr #1 V0	CECIL'S KERSEY FARM 17B-212, ORIGINAL WELLBORE, PROPOSAL #2 V0	EXIST VERT MILLER #1, W
BORE, PROPOSAL #1 V0	EXIST VERT DUNN/MILLER #17B, Wellbore #1, Wellbore #1 V0	EXIST VERT H&S #1, Wellb
BORE, PROPOSAL #1 V0	EXIST VERT DUNN/MILLER #23-17, Wellbore #1, Design #1 V0	EXIST VERT HOWARD #14
BORE, PROPOSAL #1 V0	EXIST VERT DUNN/MILLER #1, Wellbore #1, Wellbore #1 V0	CECIL'S KERSEY FARM 17K
BORE, PROPOSAL #1 V0	EXIST VERT DUNN #22-18, Wellbore #1, Design #1 V0	EXIST VERT HETTINGER #
1, Design #1 V0	CECIL'S KERSEY FARM 17K-334, ORIGINAL WELLBORE, PROPOSAL #2 V0	CECIL'S KERSEY FARM 17K
, Design #1 V0	EXIST VERT STEINMETZ #1, Wellbore #1, Design #1 V0	CECIL'S KERSEY FARM 17E
3ORE, PROPOSAL #1 V0	EXIST VERT GUNTHER-PM B #18-7, Wellbore #1, Wellbore #1 V0	EXIST VERT B&H #1, Wellb
re #1 V0	CECIL'S KERSEY FARM 17K-204, ORIGINAL WELLBORE, PROPOSAL #2 V0	EXIST VERT MILLER #2, W
3ORE, PROPOSAL #1 V0	CECIL'S KERSEY FARM 17K-232, ORIGINAL WELLBORE, PROPOSAL #2 V0	CECIL'S KERSEY FARM 17E
Design #1 V0	EXIST VERT MAGNUS #4, Wellbore #1, Design #1 V0	EXIST VERT HOGUE #14

Reference Depths are relative to KB-EST @ 4633.0usft (Original Well ECoordinates are relative to: SCHAUMBERG 17F-334
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°

