

PDC ENERGY

**WELD COUNTY, COLORADO
SW NW SEC. 10 T5N R64W 6th P.M.
WACKER 10F-204**

**ORIGINAL WELLBORE
PROPOSAL #1**

Anticollision Report

04 February, 2016



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are 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	04/02/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	15,033.1	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
Offset Well - Wellbore - Design						
SW NW SEC. 10 T5N R64W 6th P.M.						
ABDN VERT BLOSKAS #13-9 - Wellbore #1 - Design #1	11,628.1	6,606.4	2,057.9	1,784.4	7.525	CC
ABDN VERT BLOSKAS #13-9 - Wellbore #1 - Design #1	11,700.0	6,606.3	2,059.2	1,783.7	7.475	ES
ABDN VERT BLOSKAS #13-9 - Wellbore #1 - Design #1	12,100.0	6,605.8	2,111.3	1,824.7	7.365	SF
ABDN VERT HEINRICH #1 - Wellbore #1 - Design #1	7,967.4	6,623.0	734.1	561.9	4.264	CC
ABDN VERT HEINRICH #1 - Wellbore #1 - Design #1	8,000.0	6,622.9	734.8	561.8	4.247	ES
ABDN VERT HEINRICH #1 - Wellbore #1 - Design #1	8,070.8	6,622.9	741.3	566.5	4.240	SF
ABDN VERT OGRADY #3 - Wellbore #1 - Design #1	9,097.9	6,647.6	577.5	374.8	2.849	CC
ABDN VERT OGRADY #3 - Wellbore #1 - Design #1	9,100.0	6,647.6	577.5	374.8	2.848	ES
ABDN VERT OGRADY #3 - Wellbore #1 - Design #1	9,153.5	6,647.5	580.2	376.0	2.841	SF
ABDN VERT PLUMB #2 - Wellbore #1 - Design #1	15,033.1	6,610.0	863.7	494.9	2.342	CC, ES, SF
EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellb	13,568.3	6,795.0	1,492.0	1,279.5	7.019	CC
EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellb	13,600.0	6,795.0	1,492.4	1,278.9	6.992	ES
EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellb	13,877.9	6,795.0	1,523.8	1,302.6	6.888	SF
EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellb	14,858.6	6,767.1	2,712.7	2,456.5	10.587	CC
EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellb	14,960.6	6,767.1	2,714.7	2,455.6	10.478	ES
EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellb	15,033.1	6,767.0	2,718.4	2,457.2	10.410	SF
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	12,429.1	6,906.8	3,923.2	3,728.7	20.170	CC
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	12,500.0	6,905.5	3,923.8	3,727.3	19.970	ES
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	14,665.3	6,857.0	4,515.5	4,258.4	17.568	SF
EXIST DD PETERSON B #10-24D - Wellbore #1 - Wellb	824.7	817.8	2,344.6	2,342.0	886.649	CC, ES
EXIST DD PETERSON B #10-24D - Wellbore #1 - Wellb	14,200.0	6,618.0	9,989.6	9,761.9	43.881	SF
EXIST DD PJ #8I - Wellbore #1 - Wellbore #1	15,033.1	6,698.4	1,910.1	1,654.9	7.485	CC, ES, SF
EXIST DD WACKER B #10-20D - Wellbore #1 - Wellbore	5,966.5	6,051.2	1,575.1	1,536.5	40.788	CC, ES
EXIST DD WACKER B #10-20D - Wellbore #1 - Wellbore	15,033.1	6,609.7	9,373.8	9,114.7	36.187	SF
EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore	932.9	925.0	4,129.3	4,126.1	1,322.524	CC
EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore	993.2	956.7	4,129.4	4,126.1	1,243.592	ES
EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore	12,303.1	5,938.0	9,966.7	9,798.6	59.279	SF
EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #	2,079.3	1,989.3	4,105.4	4,096.6	469.435	CC
EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #	2,165.3	2,048.0	4,105.7	4,096.5	445.490	ES
EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #	12,500.0	5,937.0	9,994.0	9,823.4	58.585	SF
EXIST HZ SEYLLOR #B10-64-1HN - Wellbore #1 - Wellbc	540.8	526.9	1,041.6	1,039.8	585.024	CC
EXIST HZ SEYLLOR #B10-64-1HN - Wellbore #1 - Wellbc	600.0	584.6	1,041.6	1,039.6	512.214	ES
EXIST HZ SEYLLOR #B10-64-1HN - Wellbore #1 - Wellbc	13,200.0	6,041.0	6,658.4	6,464.9	34.427	SF
EXIST HZ SEYLLOR STATE #B15-79HNM - Wellbore #1	1,270.7	1,339.1	1,013.4	1,008.6	208.106	CC
EXIST HZ SEYLLOR STATE #B15-79HNM - Wellbore #1	1,279.5	1,348.3	1,013.4	1,008.5	206.347	ES
EXIST HZ SEYLLOR STATE #B15-79HNM - Wellbore #1	10,039.3	6,236.0	3,406.6	3,296.2	30.832	SF
EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1	9,254.5	6,610.0	2,238.7	2,160.6	28.666	CC

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:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are 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. 10 T5N R64W 6th P.M.						
EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1	9,300.0	6,610.2	2,239.2	2,159.9	28.221	ES
EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1	11,023.6	6,616.6	2,853.3	2,726.2	22.443	SF
EXIST VERT BLOSKAS #1 - Wellbore #1 - Design #1	11,716.9	6,617.3	528.7	253.7	1.922	CC, ES, SF
EXIST VERT BLOSKAS #12-9 - Wellbore #1 - Design #1	11,697.1	6,607.3	556.6	281.1	2.021	CC
EXIST VERT BLOSKAS #12-9 - Wellbore #1 - Design #1	11,712.6	6,607.3	556.8	280.9	2.018	ES, SF
EXIST VERT BLOSKAS #9-23 - Wellbore #1 - Wellbore	10,539.7	6,585.1	1,916.7	1,803.5	16.935	CC
EXIST VERT BLOSKAS #9-23 - Wellbore #1 - Wellbore	10,600.0	6,585.0	1,917.6	1,802.8	16.696	ES
EXIST VERT BLOSKAS #9-23 - Wellbore #1 - Wellbore	11,417.3	6,582.0	2,108.0	1,970.4	15.317	SF
EXIST VERT BLOSKAS BOND #9D - Wellbore #1 - Wel	11,098.9	6,604.4	99.6	-29.1	0.774	Level 1, CC
EXIST VERT BLOSKAS BOND #9D - Wellbore #1 - Wel	11,100.0	6,604.4	99.6	-29.1	0.774	Level 1, ES, SF
EXIST VERT BOND #1 - Wellbore #1 - Wellbore #1	10,481.4	6,578.3	756.1	644.7	6.788	CC
EXIST VERT BOND #1 - Wellbore #1 - Wellbore #1	10,500.0	6,577.3	756.3	644.4	6.759	ES
EXIST VERT BOND #1 - Wellbore #1 - Wellbore #1	10,629.9	6,570.5	770.5	655.0	6.673	SF
EXIST VERT BOND #21-9 - Wellbore #1 - Design #1	10,402.4	6,627.0	556.6	318.0	2.333	CC
EXIST VERT BOND #21-9 - Wellbore #1 - Design #1	10,433.0	6,626.9	557.4	318.0	2.328	ES, SF
EXIST VERT BOND #32-9 - Wellbore #1 - Wellbore #1	9,088.2	6,600.0	759.3	686.6	10.443	CC
EXIST VERT BOND #32-9 - Wellbore #1 - Wellbore #1	9,100.0	6,600.0	759.4	686.3	10.398	ES
EXIST VERT BOND #32-9 - Wellbore #1 - Wellbore #1	9,300.0	6,600.0	788.3	709.8	10.039	SF
EXIST VERT DR B #10-12 - Wellbore #1 - Wellbore #1	98.4	68.0	1,090.0	1,089.9	10,000.000	CC
EXIST VERT DR B #10-12 - Wellbore #1 - Wellbore #1	600.0	569.8	1,090.6	1,089.1	692.787	ES
EXIST VERT DR B #10-12 - Wellbore #1 - Wellbore #1	15,033.1	6,486.4	8,724.1	8,485.8	36.615	SF
EXIST VERT HECKENDORF #1 - Wellbore #1 - Design	13,086.5	6,616.5	733.5	420.1	2.341	CC
EXIST VERT HECKENDORF #1 - Wellbore #1 - Design	13,100.0	6,616.5	733.6	419.9	2.338	ES, SF
EXIST VERT HEINRICH #41-9 - Wellbore #1 - Design #1	7,702.1	6,648.3	598.6	432.9	3.613	CC, ES
EXIST VERT HEINRICH #41-9 - Wellbore #1 - Design #1	7,775.6	6,648.2	603.1	435.6	3.600	SF
EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #	12,984.8	6,569.1	2,118.8	1,937.5	11.687	CC
EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #	13,000.0	6,568.8	2,118.8	1,937.1	11.660	ES
EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #	13,681.1	6,556.9	2,230.2	2,029.4	11.108	SF
EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore	14,326.5	6,611.3	712.4	493.3	3.252	CC, ES
EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore	14,400.0	6,612.1	716.1	495.1	3.239	SF
EXIST VERT JURGENS #8-14 - Wellbore #1 - Wellbore	13,276.1	6,600.0	947.0	756.9	4.983	CC
EXIST VERT JURGENS #8-14 - Wellbore #1 - Wellbore	13,300.0	6,600.0	947.3	756.6	4.967	ES
EXIST VERT JURGENS #8-14 - Wellbore #1 - Wellbore	13,400.0	6,600.0	955.1	761.5	4.935	SF
EXIST VERT JURGENS PC #B8-23 - Wellbore #1 - Well	13,830.7	6,576.1	2,778.3	2,573.0	13.528	CC
EXIST VERT JURGENS PC #B8-23 - Wellbore #1 - Well	13,900.0	6,576.8	2,779.2	2,571.9	13.406	ES
EXIST VERT JURGENS PC #B8-23 - Wellbore #1 - Well	14,900.0	6,586.4	2,977.0	2,741.6	12.648	SF
EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - D	14,160.8	6,625.1	1,981.8	1,638.3	5.769	CC
EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - D	14,200.0	6,625.1	1,982.2	1,637.6	5.752	ES
EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - D	14,468.5	6,624.7	2,005.6	1,653.4	5.696	SF
EXIST VERT LOWER LATHAM #8-15 - Wellbore #1 - W	13,714.6	6,616.3	423.0	220.9	2.093	CC, ES, SF
EXIST VERT MILLAGE #11-10 - Wellbore #1 - Design #1	6,442.1	6,330.3	933.8	791.6	6.568	CC
EXIST VERT MILLAGE #11-10 - Wellbore #1 - Design #1	6,496.0	6,373.6	934.3	791.3	6.534	ES
EXIST VERT MILLAGE #11-10 - Wellbore #1 - Design #1	6,600.0	6,449.4	939.5	795.0	6.502	SF
EXIST VERT OGRADY #31-9 - Wellbore #1 - Design #1	8,897.7	6,638.8	787.0	589.8	3.992	CC
EXIST VERT OGRADY #31-9 - Wellbore #1 - Design #1	8,900.0	6,638.8	787.0	589.8	3.990	ES
EXIST VERT OGRADY #31-9 - Wellbore #1 - Design #1	9,000.0	6,638.7	793.6	593.7	3.969	SF
EXIST VERT PAULINE #5 - Wellbore #1 - Design #1	15,033.1	6,610.0	1,233.7	864.9	3.345	CC, ES, SF
EXIST VERT PJ #2 - Wellbore #1 - Wellbore #1	15,033.1	6,400.0	1,896.6	1,659.2	7.989	CC, ES, SF
EXIST VERT PJ #5 - Wellbore #1 - Design #1	15,033.1	6,618.0	1,367.1	999.3	3.716	CC, ES, SF
EXIST VERT SLW RANCH #1-10 - Wellbore #1 - Wellbo	6,028.7	6,033.3	4,075.6	4,054.4	192.571	CC, ES
EXIST VERT SLW RANCH #1-10 - Wellbore #1 - Wellbo	12,500.0	6,663.1	9,942.2	9,774.3	59.246	SF
EXIST VERT TREBOR #B10-11 - Wellbore #1 - Wellbore	161.5	139.5	2,082.3	2,082.0	7,514.655	CC
EXIST VERT TREBOR #B10-11 - Wellbore #1 - Wellbore	295.3	261.1	2,082.5	2,081.8	2,902.464	ES

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Anticollision Report



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Well Error:	0.0 usft	Output errors are 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. 10 T5N R64W 6th P.M.						
EXIST VERT TREBOR #B10-11 - Wellbore #1 - Wellbore	14,763.7	6,177.0	9,970.5	9,743.7	43.968	SF
EXIST VERT TREBOR B #10-10 - Wellbore #1 - Wellbor	364.9	346.9	3,053.6	3,052.7	3,344.486	CC
EXIST VERT TREBOR B #10-10 - Wellbore #1 - Wellbor	2,100.0	2,044.5	3,054.5	3,048.1	481.037	ES
EXIST VERT TREBOR B #10-10 - Wellbore #1 - Wellbor	13,681.1	6,542.7	9,993.7	9,793.0	49.807	SF
EXIST VERT WACKER #1 - Wellbore #1 - Wellbore #1	2,531.2	2,494.7	48.7	40.5	5.937	CC, ES
EXIST VERT WACKER #1 - Wellbore #1 - Wellbore #1	2,550.0	2,513.1	48.8	40.6	5.917	SF
EXIST VERT WACKER #10D - Wellbore #1 - Wellbore #	6,014.9	5,925.6	569.5	548.3	26.894	CC, ES
EXIST VERT WACKER #10D - Wellbore #1 - Wellbore #	6,050.0	5,960.7	570.3	549.1	26.882	SF
EXIST VERT WACKER #2 - Wellbore #1 - Design #1	6,009.8	5,920.8	1,507.6	1,372.5	11.164	CC
EXIST VERT WACKER #2 - Wellbore #1 - Design #1	6,050.0	5,961.0	1,508.6	1,371.5	11.001	ES, SF
EXIST VERT WACKER #22-10 - Wellbore #1 - Wellbore	3,200.4	3,143.0	1,588.5	1,577.4	142.983	CC
EXIST VERT WACKER #22-10 - Wellbore #1 - Wellbore	3,248.0	3,183.0	1,588.6	1,577.3	140.261	ES
EXIST VERT WACKER #22-10 - Wellbore #1 - Wellbore	14,900.0	6,300.0	9,970.5	9,750.3	45.267	SF
EXIST VERT WACKER #31-10 - Wellbore #1 - Design #	6,009.8	5,884.8	2,465.1	2,331.5	18.447	CC
EXIST VERT WACKER #31-10 - Wellbore #1 - Design #	6,050.0	5,925.0	2,466.2	2,330.6	18.189	ES, SF
EXIST VERT WACKER #32-10 - Wellbore #1 - Design #	6,009.8	5,924.8	2,411.0	2,280.1	18.422	CC
EXIST VERT WACKER #32-10 - Wellbore #1 - Design #	6,050.0	5,965.0	2,412.1	2,275.3	17.635	ES, SF
EXIST VERT WACKER #41-10 - Wellbore #1 - Wellbore	6,034.3	6,071.8	4,072.7	4,052.9	206.045	CC, ES
EXIST VERT WACKER #41-10 - Wellbore #1 - Wellbore	12,401.5	6,730.0	9,987.1	9,823.3	60.953	SF
EXIST VERT WACKER #42-10 - Wellbore #1 - Wellbore	5,783.4	5,685.2	3,909.3	3,893.7	251.006	CC
EXIST VERT WACKER #42-10 - Wellbore #1 - Wellbore	6,050.0	5,947.0	3,911.3	3,890.3	186.745	ES
EXIST VERT WACKER #42-10 - Wellbore #1 - Wellbore	12,500.0	6,500.0	9,965.5	9,800.9	60.531	SF
EXIST VERT WILLIAMS #1 - Wellbore #1 - Wellbore #1	1,017.2	986.2	1,524.1	1,521.3	553.759	CC, ES
EXIST VERT WILLIAMS #1 - Wellbore #1 - Wellbore #1	11,100.0	6,487.9	4,030.9	3,902.4	31.384	SF
WACKER 10F-232 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	59.8	55.5	14.090	CC, ES
WACKER 10F-232 - ORIGINAL WELLBORE - PROPOS	7,578.7	6,789.9	543.5	489.9	10.139	SF
WACKER 10F-234 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	44.8	40.6	10.565	CC
WACKER 10F-234 - ORIGINAL WELLBORE - PROPOS	15,033.1	14,995.1	459.7	-14.7	0.969	Level 1, ES, SF
WACKER 10F-302 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	29.9	25.6	7.043	CC, ES
WACKER 10F-302 - ORIGINAL WELLBORE - PROPOS	7,500.0	6,908.6	281.3	227.8	5.255	SF
WACKER 10F-304 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	14.9	10.7	3.521	CC
WACKER 10F-304 - ORIGINAL WELLBORE - PROPOS	15,033.1	15,082.8	238.9	-219.7	0.521	Level 1, ES, SF
WACKER 10G-212 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	119.9	115.6	28.260	CC, ES
WACKER 10G-212 - ORIGINAL WELLBORE - PROPOS	8,070.8	6,521.0	1,094.6	1,029.7	16.859	SF
WACKER 10G-214 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	104.9	100.7	24.738	CC, ES
WACKER 10G-214 - ORIGINAL WELLBORE - PROPOS	15,033.1	14,982.9	1,025.2	550.6	2.160	SF
WACKER 10G-302 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	149.7	145.5	35.304	CC, ES
WACKER 10G-302 - ORIGINAL WELLBORE - PROPOS	8,464.5	6,469.3	1,508.0	1,431.5	19.714	SF
WACKER 10G-304 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	134.8	130.6	31.782	CC, ES
WACKER 10G-304 - ORIGINAL WELLBORE - PROPOS	15,033.1	15,065.7	1,241.9	768.5	2.624	SF
WACKER 10G-312 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	90.0	85.7	21.216	CC, ES
WACKER 10G-312 - ORIGINAL WELLBORE - PROPOS	7,800.0	6,700.0	759.5	699.7	12.716	SF
WACKER 10G-314 - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	75.0	70.8	17.695	CC, ES
WACKER 10G-314 - ORIGINAL WELLBORE - PROPOS	15,033.1	15,049.3	790.7	317.3	1.670	SF

Offset Design	SW NW SEC. 10 T5N R64W 6th P.M. - ABDN VERT BLOSKAS #13-9 - 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		Minimum		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Factor

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-104.84	-1,302.7	-4,915.6	5,085.4				
98.4	98.4	65.4	65.4	0.1	0.1	-104.84	-1,302.7	-4,915.6	5,085.3	5,085.1	0.17	N/A	
100.0	100.0	67.0	67.0	0.1	0.1	-104.84	-1,302.7	-4,915.6	5,085.3	5,085.1	0.18	N/A	
196.8	196.8	163.8	163.8	0.3	1.8	-104.84	-1,302.7	-4,915.6	5,085.3	5,083.2	2.10	2,417.314	
200.0	200.0	167.0	167.0	0.3	1.9	-104.84	-1,302.7	-4,915.6	5,085.3	5,083.1	2.19	2,318.784	
295.3	295.3	262.3	262.3	0.5	4.0	-104.84	-1,302.7	-4,915.6	5,085.3	5,080.7	4.55	1,116.439	
300.0	300.0	267.0	267.0	0.5	4.1	-104.84	-1,302.7	-4,915.6	5,085.3	5,080.6	4.66	1,090.546	
393.7	393.7	360.7	360.7	0.8	6.0	-104.84	-1,302.7	-4,915.6	5,085.3	5,078.5	6.79	749.103	
400.0	400.0	367.0	367.0	0.8	6.2	-104.84	-1,302.7	-4,915.6	5,085.3	5,078.3	6.93	733.733	
492.1	492.1	459.1	459.1	1.0	8.0	-104.84	-1,302.7	-4,915.6	5,085.3	5,076.3	9.00	564.759	
500.0	500.0	467.0	467.0	1.0	8.2	-104.84	-1,302.7	-4,915.6	5,085.3	5,076.1	9.18	553.872	
590.5	590.5	557.5	557.5	1.2	10.0	-104.84	-1,302.7	-4,915.6	5,085.3	5,074.1	11.21	453.482	
600.0	600.0	567.0	567.0	1.2	10.2	-104.84	-1,302.7	-4,915.6	5,085.3	5,073.8	11.43	445.070	
689.0	689.0	656.0	656.0	1.4	12.0	-104.84	-1,302.7	-4,915.6	5,085.3	5,071.8	13.42	378.925	
700.0	700.0	667.0	667.0	1.4	12.2	-104.84	-1,302.7	-4,915.6	5,085.3	5,071.6	13.67	372.076	
787.4	787.4	754.4	754.4	1.6	14.0	-104.84	-1,302.7	-4,915.6	5,085.3	5,069.6	15.62	325.458	
800.0	800.0	767.0	767.0	1.7	14.2	-104.84	-1,302.7	-4,915.6	5,085.3	5,069.4	15.91	319.685	
885.8	885.8	852.8	852.8	1.9	16.0	-104.84	-1,302.7	-4,915.6	5,085.3	5,067.4	17.83	285.231	
900.0	900.0	867.0	867.0	1.9	16.3	-104.84	-1,302.7	-4,915.6	5,085.3	5,067.1	18.15	280.243	
984.2	984.2	951.2	951.2	2.1	17.9	-104.84	-1,302.7	-4,915.6	5,085.3	5,065.2	20.03	253.863	
1,000.0	1,000.0	967.0	967.0	2.1	18.3	-104.84	-1,302.7	-4,915.6	5,085.3	5,064.9	20.38	249.473	
1,082.7	1,082.7	1,049.7	1,049.7	2.3	19.9	-131.84	-1,302.7	-4,915.6	5,086.1	5,063.8	22.23	228.812	
1,100.0	1,100.0	1,067.0	1,067.0	2.3	20.3	-131.84	-1,302.7	-4,915.6	5,086.4	5,063.8	22.61	224.932	
1,181.1	1,181.0	1,148.0	1,148.0	2.5	21.9	-131.83	-1,302.7	-4,915.6	5,089.1	5,064.7	24.41	208.500	
1,200.0	1,199.8	1,166.8	1,166.8	2.6	22.3	-131.83	-1,302.7	-4,915.6	5,089.9	5,065.1	24.82	205.039	
1,279.5	1,279.1	1,246.1	1,246.1	2.8	23.9	-131.82	-1,302.7	-4,915.6	5,094.4	5,067.8	26.57	191.734	
1,300.0	1,299.5	1,266.5	1,266.5	2.8	24.3	-131.82	-1,302.7	-4,915.6	5,095.8	5,068.7	27.02	188.616	
1,377.9	1,376.9	1,343.9	1,343.9	3.0	25.8	-131.80	-1,302.7	-4,915.6	5,101.9	5,073.2	28.71	177.683	
1,400.0	1,398.7	1,365.7	1,365.7	3.0	26.3	-131.80	-1,302.7	-4,915.6	5,103.9	5,074.7	29.19	174.854	
1,476.4	1,474.2	1,441.2	1,441.2	3.2	27.8	-131.78	-1,302.7	-4,915.6	5,111.7	5,080.9	30.84	165.755	
1,500.0	1,497.5	1,464.5	1,464.5	3.3	28.3	-131.77	-1,302.7	-4,915.6	5,114.4	5,083.1	31.34	163.169	
1,574.8	1,571.0	1,538.0	1,538.0	3.5	29.8	-131.74	-1,302.7	-4,915.6	5,123.8	5,090.8	32.95	155.513	
1,600.0	1,595.6	1,562.6	1,562.6	3.6	30.2	-131.73	-1,302.7	-4,915.6	5,127.2	5,093.8	33.48	153.134	
1,673.2	1,667.2	1,634.2	1,634.2	3.9	31.7	-131.86	-1,302.7	-4,915.6	5,137.5	5,102.4	35.12	146.279	
1,700.0	1,693.4	1,660.4	1,660.4	4.0	32.2	-131.90	-1,302.7	-4,915.6	5,141.3	5,105.6	35.72	143.934	
1,771.6	1,763.5	1,730.5	1,730.5	4.2	33.6	-132.03	-1,302.7	-4,915.6	5,151.4	5,114.0	37.33	137.984	
1,800.0	1,791.3	1,758.3	1,758.3	4.3	34.2	-132.07	-1,302.7	-4,915.6	5,155.4	5,117.4	37.97	135.773	
1,870.1	1,859.8	1,826.8	1,826.8	4.6	35.6	-132.19	-1,302.7	-4,915.6	5,165.2	5,125.7	39.55	130.584	
1,900.0	1,889.1	1,856.1	1,856.1	4.7	36.2	-132.24	-1,302.7	-4,915.6	5,169.5	5,129.2	40.23	128.496	
1,968.5	1,956.1	1,923.1	1,923.1	4.9	37.5	-132.36	-1,302.7	-4,915.6	5,179.2	5,137.4	41.78	123.951	
2,000.0	1,986.9	1,953.9	1,953.9	5.1	38.1	-132.41	-1,302.7	-4,915.6	5,183.6	5,141.1	42.50	121.972	
2,066.9	2,052.3	2,019.3	2,019.3	5.3	39.4	-132.52	-1,302.7	-4,915.6	5,193.2	5,149.1	44.02	117.971	
2,100.0	2,084.7	2,051.7	2,051.7	5.5	40.1	-132.58	-1,302.7	-4,915.6	5,197.9	5,153.1	44.77	116.095	
2,165.3	2,148.6	2,115.6	2,115.6	5.7	41.4	-132.69	-1,302.7	-4,915.6	5,207.2	5,160.9	46.26	112.559	
2,200.0	2,182.5	2,149.5	2,149.5	5.9	42.1	-132.75	-1,302.7	-4,915.6	5,212.1	5,165.1	47.05	110.775	
2,263.8	2,244.9	2,211.9	2,211.9	6.1	43.3	-132.85	-1,302.7	-4,915.6	5,221.2	5,172.7	48.51	107.639	
2,300.0	2,280.3	2,247.3	2,247.3	6.3	44.0	-132.91	-1,302.7	-4,915.6	5,226.4	5,177.1	49.33	105.941	
2,362.2	2,341.2	2,308.2	2,308.2	6.5	45.2	-133.01	-1,302.7	-4,915.6	5,235.3	5,184.6	50.75	103.150	
2,400.0	2,378.1	2,345.1	2,345.1	6.7	46.0	-133.08	-1,302.7	-4,915.6	5,240.8	5,189.1	51.62	101.529	
2,460.6	2,437.4	2,404.4	2,404.4	6.9	47.2	-133.17	-1,302.7	-4,915.6	5,249.5	5,196.5	53.01	99.037	
2,500.0	2,476.0	2,443.0	2,443.0	7.1	48.0	-133.24	-1,302.7	-4,915.6	5,255.2	5,201.2	53.91	97.488	
2,550.0	2,524.9	2,491.9	2,491.9	7.3	48.9	-133.32	-1,302.7	-4,915.6	5,262.4	5,207.3	55.05	95.593	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,500.7	2,500.7	7.3	49.1	-132.47	-1,302.7	-4,915.6	5,263.7	5,208.4	55.27	95.229	
2,600.0	2,573.8	2,540.8	2,540.8	7.5	49.9	-128.62	-1,302.7	-4,915.6	5,269.3	5,213.0	56.28	93.619	
2,639.4	2,612.3	2,579.3	2,579.3	7.7	50.7	-124.93	-1,302.7	-4,915.6	5,274.2	5,217.0	57.25	92.122	
2,657.5	2,630.0	2,597.0	2,597.0	7.7	51.1	-124.96	-1,302.7	-4,915.6	5,276.4	5,218.7	57.67	91.497	
2,700.0	2,671.6	2,638.6	2,638.6	7.9	51.9	-125.04	-1,302.7	-4,915.6	5,281.6	5,222.9	58.64	90.061	
2,755.9	2,726.3	2,693.3	2,693.3	8.1	53.0	-125.14	-1,302.7	-4,915.6	5,288.3	5,228.4	59.94	88.231	
2,800.0	2,769.4	2,736.4	2,736.4	8.3	53.9	-125.22	-1,302.7	-4,915.6	5,293.7	5,232.7	60.96	86.843	
2,854.3	2,822.5	2,789.5	2,789.5	8.5	54.9	-125.32	-1,302.7	-4,915.6	5,300.3	5,238.1	62.21	85.194	
2,900.0	2,867.2	2,834.2	2,834.2	8.7	55.8	-125.40	-1,302.7	-4,915.6	5,305.9	5,242.6	63.27	83.860	
2,952.7	2,918.8	2,885.8	2,885.8	9.0	56.9	-125.50	-1,302.7	-4,915.6	5,312.4	5,247.9	64.49	82.371	
3,000.0	2,965.0	2,932.0	2,932.0	9.2	57.8	-125.58	-1,302.7	-4,915.6	5,318.1	5,252.6	65.59	81.086	
3,051.2	3,015.1	2,982.1	2,982.1	9.4	58.8	-125.68	-1,302.7	-4,915.6	5,324.4	5,257.7	66.77	79.741	
3,100.0	3,062.8	3,029.8	3,029.8	9.6	59.8	-125.76	-1,302.7	-4,915.6	5,330.5	5,262.5	67.90	78.502	
3,149.6	3,111.4	3,078.4	3,078.4	9.8	60.7	-125.85	-1,302.7	-4,915.6	5,336.6	5,267.5	69.05	77.284	
3,200.0	3,160.7	3,127.7	3,127.7	10.0	61.7	-125.94	-1,302.7	-4,915.6	5,342.8	5,272.6	70.22	76.088	
3,248.0	3,207.6	3,174.6	3,174.6	10.2	62.7	-126.03	-1,302.7	-4,915.6	5,348.8	5,277.4	71.33	74.984	
3,300.0	3,258.5	3,225.5	3,225.5	10.5	63.7	-126.12	-1,302.7	-4,915.6	5,355.2	5,282.7	72.54	73.829	
3,346.4	3,303.9	3,270.9	3,270.9	10.7	64.6	-126.20	-1,302.7	-4,915.6	5,361.0	5,287.4	73.61	72.828	
3,400.0	3,356.3	3,323.3	3,323.3	10.9	65.7	-126.30	-1,302.7	-4,915.6	5,367.7	5,292.8	74.85	71.710	
3,444.9	3,400.2	3,367.2	3,367.2	11.1	66.5	-126.38	-1,302.7	-4,915.6	5,373.3	5,297.4	75.89	70.802	
3,500.0	3,454.1	3,421.1	3,421.1	11.3	67.6	-126.47	-1,302.7	-4,915.6	5,380.2	5,303.0	77.17	69.719	
3,543.3	3,496.5	3,463.5	3,463.5	11.5	68.5	-126.55	-1,302.7	-4,915.6	5,385.6	5,307.4	78.17	68.894	
3,600.0	3,551.9	3,518.9	3,518.9	11.7	69.6	-126.65	-1,302.7	-4,915.6	5,392.7	5,313.3	79.49	67.845	
3,641.7	3,592.7	3,559.7	3,559.7	11.9	70.4	-126.72	-1,302.7	-4,915.6	5,398.0	5,317.5	80.45	67.096	
3,700.0	3,649.7	3,616.7	3,616.7	12.2	71.6	-126.82	-1,302.7	-4,915.6	5,405.4	5,323.5	81.80	66.079	
3,740.1	3,689.0	3,656.0	3,656.0	12.4	72.4	-126.89	-1,302.7	-4,915.6	5,410.4	5,327.7	82.73	65.397	
3,800.0	3,747.5	3,714.5	3,714.5	12.6	73.5	-127.00	-1,302.7	-4,915.6	5,418.0	5,333.9	84.12	64.410	
3,838.6	3,785.3	3,752.3	3,752.3	12.8	74.3	-127.06	-1,302.7	-4,915.6	5,422.9	5,337.9	85.01	63.790	
3,900.0	3,845.4	3,812.4	3,812.4	13.1	75.5	-127.17	-1,302.7	-4,915.6	5,430.7	5,344.3	86.43	62.831	
3,937.0	3,881.6	3,848.6	3,848.6	13.2	76.2	-127.23	-1,302.7	-4,915.6	5,435.4	5,348.2	87.29	62.269	
4,000.0	3,943.2	3,910.2	3,910.2	13.5	77.5	-127.34	-1,302.7	-4,915.6	5,443.5	5,354.7	88.75	61.336	
4,035.4	3,977.8	3,944.8	3,944.8	13.6	78.2	-127.40	-1,302.7	-4,915.6	5,448.0	5,358.5	89.57	60.825	
4,100.0	4,041.0	4,008.0	4,008.0	13.9	79.4	-127.51	-1,302.7	-4,915.6	5,456.3	5,365.2	91.06	59.918	
4,133.8	4,074.1	4,041.1	4,041.1	14.1	80.1	-127.57	-1,302.7	-4,915.6	5,460.6	5,368.8	91.85	59.454	
4,200.0	4,138.8	4,105.8	4,105.8	14.4	81.4	-127.68	-1,302.7	-4,915.6	5,469.2	5,375.8	93.38	58.571	
4,232.3	4,170.4	4,137.4	4,137.4	14.5	82.0	-127.74	-1,302.7	-4,915.6	5,473.3	5,379.2	94.12	58.150	
4,300.0	4,236.6	4,203.6	4,203.6	14.8	83.4	-127.85	-1,302.7	-4,915.6	5,482.1	5,386.4	95.69	57.289	
4,330.7	4,266.7	4,233.7	4,233.7	14.9	84.0	-127.90	-1,302.7	-4,915.6	5,486.0	5,389.6	96.40	56.909	
4,400.0	4,334.4	4,301.4	4,301.4	15.2	85.3	-128.02	-1,302.7	-4,915.6	5,495.0	5,397.0	98.00	56.070	
4,429.1	4,362.9	4,329.9	4,329.9	15.4	85.9	-128.07	-1,302.7	-4,915.6	5,498.8	5,400.1	98.68	55.725	
4,500.0	4,432.3	4,399.3	4,399.3	15.7	87.3	-128.19	-1,302.7	-4,915.6	5,508.0	5,407.7	100.32	54.907	
4,527.5	4,459.2	4,426.2	4,426.2	15.8	87.8	-128.23	-1,302.7	-4,915.6	5,511.6	5,410.7	100.95	54.596	
4,600.0	4,530.1	4,497.1	4,497.1	16.1	89.3	-128.36	-1,302.7	-4,915.6	5,521.1	5,418.5	102.63	53.798	
4,626.0	4,555.5	4,522.5	4,522.5	16.2	89.8	-128.40	-1,302.7	-4,915.6	5,524.5	5,421.3	103.23	53.518	
4,700.0	4,627.9	4,594.9	4,594.9	16.6	91.2	-128.52	-1,302.7	-4,915.6	5,534.2	5,429.2	104.94	52.738	
4,724.4	4,651.7	4,618.7	4,618.7	16.7	91.7	-128.56	-1,302.7	-4,915.6	5,537.4	5,431.9	105.50	52.487	
4,800.0	4,725.7	4,692.7	4,692.7	17.0	93.2	-128.69	-1,302.7	-4,915.6	5,547.3	5,440.1	107.25	51.725	
4,822.8	4,748.0	4,715.0	4,715.0	17.1	93.6	-128.73	-1,302.7	-4,915.6	5,550.3	5,442.6	107.77	51.500	
4,904.9	4,828.3	4,795.3	4,795.3	17.5	95.3	-128.86	-1,302.7	-4,915.6	5,561.2	5,451.5	109.67	50.709	
4,921.2	4,844.3	4,811.3	4,811.3	17.5	95.6	-128.92	-1,302.7	-4,915.6	5,563.3	5,453.2	110.08	50.540	
5,000.0	4,921.6	4,888.6	4,888.6	17.8	97.1	-129.19	-1,302.7	-4,915.6	5,572.8	5,460.7	112.04	49.737	
5,019.7	4,941.0	4,908.0	4,908.0	17.9	97.5	-129.25	-1,302.7	-4,915.6	5,574.9	5,462.4	112.52	49.546	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - ABDN VERT BLOSKAS #13-9 - 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	5,020.4	4,987.4	4,987.4	18.1	99.1	-129.47	-1,302.7	-4,915.6	5,582.9	5,468.4	114.46	48.775			
5,118.1	5,038.3	5,005.3	5,005.3	18.2	99.5	-129.51	-1,302.7	-4,915.6	5,584.5	5,469.6	114.89	48.606			
5,200.0	5,119.6	5,086.6	5,086.6	18.4	101.1	-129.69	-1,302.7	-4,915.6	5,590.8	5,474.0	116.83	47.854			
5,216.5	5,136.0	5,103.0	5,103.0	18.4	101.5	-129.72	-1,302.7	-4,915.6	5,591.9	5,474.7	117.21	47.707			
5,300.0	5,219.2	5,186.2	5,186.2	18.6	103.1	-129.85	-1,302.7	-4,915.6	5,596.5	5,477.3	119.14	46.976			
5,314.9	5,234.1	5,201.1	5,201.1	18.6	103.4	-129.86	-1,302.7	-4,915.6	5,597.1	5,477.7	119.47	46.849			
5,400.0	5,319.1	5,286.1	5,286.1	18.8	105.1	-129.94	-1,302.7	-4,915.6	5,599.9	5,478.6	121.37	46.138			
5,413.4	5,332.4	5,299.4	5,299.4	18.8	105.4	-129.95	-1,302.7	-4,915.6	5,600.2	5,478.6	121.67	46.030			
5,504.9	5,423.9	5,390.9	5,390.9	18.9	107.2	-111.55	-1,302.7	-4,915.6	5,601.2	5,477.9	123.30	45.428			
5,511.8	5,430.8	5,397.8	5,397.8	18.9	107.4	-111.55	-1,302.7	-4,915.6	5,601.2	5,477.7	123.45	45.373			
5,600.0	5,519.0	5,486.0	5,486.0	19.0	109.2	-111.55	-1,302.7	-4,915.6	5,601.2	5,475.8	125.35	44.684			
5,610.2	5,529.3	5,496.3	5,496.3	19.0	109.4	-111.55	-1,302.7	-4,915.6	5,601.2	5,475.6	125.57	44.605			
5,700.0	5,619.0	5,586.0	5,586.0	19.2	111.2	-111.55	-1,302.7	-4,915.6	5,601.2	5,473.7	127.52	43.923			
5,708.6	5,627.7	5,594.7	5,594.7	19.2	111.3	-111.55	-1,302.7	-4,915.6	5,601.2	5,473.5	127.71	43.858			
5,800.0	5,719.0	5,686.0	5,686.0	19.3	113.2	-111.55	-1,302.7	-4,915.6	5,601.2	5,471.5	129.70	43.186			
5,807.1	5,726.1	5,693.1	5,693.1	19.3	113.3	-111.55	-1,302.7	-4,915.6	5,601.2	5,471.3	129.85	43.135			
5,900.0	5,819.0	5,786.0	5,786.0	19.4	115.2	-111.55	-1,302.7	-4,915.6	5,601.2	5,469.3	131.88	42.473			
5,905.5	5,824.5	5,791.5	5,791.5	19.4	115.3	-111.55	-1,302.7	-4,915.6	5,601.2	5,469.2	132.00	42.435			
6,003.9	5,923.0	5,890.0	5,890.0	19.6	117.3	-111.55	-1,302.7	-4,915.6	5,601.2	5,467.0	134.14	41.756			
6,009.8	5,928.8	5,895.8	5,895.8	19.6	117.4	-111.55	-1,302.7	-4,915.6	5,601.2	5,466.9	134.27	41.717			
6,050.0	5,969.0	5,936.0	5,936.0	19.6	118.2	-21.59	-1,302.7	-4,915.6	5,600.1	5,464.9	135.21	41.417			
6,100.0	6,018.8	5,985.8	5,985.8	19.7	119.2	-21.73	-1,302.7	-4,915.6	5,595.9	5,460.4	135.47	41.306			
6,102.3	6,021.1	5,988.1	5,988.1	19.7	119.3	-21.74	-1,302.7	-4,915.6	5,595.6	5,460.2	135.47	41.305			
6,150.0	6,068.1	6,035.1	6,035.1	19.7	120.2	-21.99	-1,302.7	-4,915.6	5,588.5	5,453.3	135.15	41.350			
6,200.0	6,116.8	6,083.8	6,083.8	19.7	121.2	-22.36	-1,302.7	-4,915.6	5,577.8	5,443.6	134.25	41.550			
6,200.8	6,117.5	6,084.5	6,084.5	19.7	121.2	-22.37	-1,302.7	-4,915.6	5,577.6	5,443.4	134.23	41.554			
6,250.0	6,164.5	6,131.5	6,131.5	19.7	122.1	-22.86	-1,302.7	-4,915.6	5,564.1	5,431.3	132.78	41.904			
6,299.2	6,210.4	6,177.4	6,177.4	19.7	123.1	-23.48	-1,302.7	-4,915.6	5,547.6	5,416.7	130.82	42.405			
6,300.0	6,211.1	6,178.1	6,178.1	19.7	123.1	-23.49	-1,302.7	-4,915.6	5,547.3	5,416.5	130.79	42.414			
6,350.0	6,256.4	6,223.4	6,223.4	19.7	124.0	-24.28	-1,302.7	-4,915.6	5,527.5	5,399.2	128.32	43.075			
6,397.6	6,298.0	6,265.0	6,265.0	19.7	124.8	-25.19	-1,302.7	-4,915.6	5,506.0	5,380.4	125.61	43.835			
6,400.0	6,300.0	6,267.0	6,267.0	19.7	124.9	-25.24	-1,302.7	-4,915.6	5,504.9	5,379.4	125.47	43.876			
6,450.0	6,341.8	6,308.8	6,308.8	19.7	125.7	-26.38	-1,302.7	-4,915.6	5,479.5	5,357.1	122.32	44.795			
6,496.0	6,378.6	6,345.6	6,345.6	19.7	126.4	-27.64	-1,302.7	-4,915.6	5,453.8	5,334.5	119.31	45.711			
6,500.0	6,381.6	6,348.6	6,348.6	19.7	126.5	-27.75	-1,302.7	-4,915.6	5,451.5	5,332.4	119.05	45.792			
6,550.0	6,419.2	6,386.2	6,386.2	19.6	127.3	-29.38	-1,302.7	-4,915.6	5,421.0	5,305.1	115.85	46.795			
6,594.5	6,450.7	6,417.7	6,417.7	19.6	127.9	-31.09	-1,302.7	-4,915.6	5,391.9	5,278.6	113.27	47.601			
6,600.0	6,454.4	6,421.4	6,421.4	19.6	128.0	-31.32	-1,302.7	-4,915.6	5,388.2	5,275.2	112.98	47.691			
6,650.0	6,487.1	6,454.1	6,454.1	19.6	128.6	-33.62	-1,302.7	-4,915.6	5,353.2	5,242.4	110.79	48.319			
6,692.9	6,513.0	6,480.0	6,480.0	19.6	129.1	-35.93	-1,302.7	-4,915.6	5,321.6	5,211.9	109.75	48.489			
6,700.0	6,517.0	6,484.0	6,484.0	19.6	129.2	-36.35	-1,302.7	-4,915.6	5,316.3	5,206.6	109.66	48.477			
6,750.0	6,544.1	6,511.1	6,511.1	19.6	129.8	-39.61	-1,302.7	-4,915.6	5,277.5	5,167.5	110.04	47.962			
6,791.3	6,564.2	6,531.2	6,531.2	19.7	130.2	-42.76	-1,302.7	-4,915.6	5,244.3	5,132.6	111.72	46.942			
6,800.0	6,568.2	6,535.2	6,535.2	19.7	130.3	-43.48	-1,302.7	-4,915.6	5,237.2	5,124.9	112.28	46.645			
6,850.0	6,589.1	6,556.1	6,556.1	19.8	130.7	-48.09	-1,302.7	-4,915.6	5,195.5	5,078.9	116.61	44.553			
6,889.7	6,603.5	6,570.5	6,570.5	19.9	131.0	-52.34	-1,302.7	-4,915.6	5,161.5	5,040.0	121.51	42.476			
6,900.0	6,606.9	6,573.9	6,573.9	19.9	131.0	-53.53	-1,302.7	-4,915.6	5,152.6	5,029.7	122.96	41.906			
6,950.0	6,621.3	6,588.3	6,588.3	20.2	131.3	-59.90	-1,302.7	-4,915.6	5,108.8	4,978.0	130.80	39.059			
6,988.2	6,630.0	6,597.0	6,597.0	20.6	131.5	-65.38	-1,302.7	-4,915.6	5,074.8	4,937.6	137.20	36.988			
7,000.0	6,632.4	6,599.4	6,599.4	20.7	131.5	-67.19	-1,302.7	-4,915.6	5,064.2	4,925.1	139.15	36.395			
7,050.0	6,640.0	6,607.0	6,607.0	21.4	131.7	-75.28	-1,302.7	-4,915.6	5,019.1	4,872.5	146.63	34.231			
7,086.6	6,643.4	6,610.4	6,610.4	21.9	131.8	-81.56	-1,302.7	-4,915.6	4,985.9	4,835.2	150.72	33.079			

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,611.2	6,611.2	22.1	131.8	-83.90	-1,302.7	-4,915.6	4,973.7	4,821.9	151.82	32.760	
7,135.7	6,645.0	6,612.0	6,612.0	22.7	131.8	-90.15	-1,302.7	-4,915.6	4,941.3	4,787.7	153.58	32.175	
7,185.0	6,644.9	6,611.9	6,611.9	23.6	131.8	-90.15	-1,302.7	-4,915.6	4,896.4	4,741.9	154.53	31.685	
7,200.0	6,644.9	6,611.9	6,611.9	23.9	131.8	-90.15	-1,302.7	-4,915.6	4,882.9	4,728.0	154.83	31.538	
7,283.4	6,644.8	6,611.8	6,611.8	25.6	131.8	-90.15	-1,302.7	-4,915.6	4,807.3	4,650.8	156.55	30.707	
7,300.0	6,644.8	6,611.8	6,611.8	25.9	131.8	-90.15	-1,302.7	-4,915.6	4,792.4	4,635.5	156.89	30.545	
7,381.9	6,644.7	6,611.7	6,611.7	27.7	131.8	-90.14	-1,302.7	-4,915.6	4,718.6	4,559.9	158.70	29.733	
7,400.0	6,644.7	6,611.7	6,611.7	28.1	131.8	-90.14	-1,302.7	-4,915.6	4,702.3	4,543.2	159.10	29.556	
7,480.3	6,644.6	6,611.6	6,611.6	29.9	131.8	-90.14	-1,302.7	-4,915.6	4,630.2	4,469.2	160.95	28.767	
7,500.0	6,644.6	6,611.6	6,611.6	30.3	131.8	-90.14	-1,302.7	-4,915.6	4,612.5	4,451.1	161.41	28.577	
7,578.7	6,644.5	6,611.5	6,611.5	32.2	131.8	-90.14	-1,302.7	-4,915.6	4,542.2	4,378.9	163.29	27.817	
7,600.0	6,644.4	6,611.4	6,611.4	32.7	131.8	-90.14	-1,302.7	-4,915.6	4,523.3	4,359.5	163.80	27.615	
7,677.1	6,644.3	6,611.3	6,611.3	34.6	131.8	-90.13	-1,302.7	-4,915.6	4,454.7	4,289.0	165.69	26.885	
7,700.0	6,644.3	6,611.3	6,611.3	35.1	131.8	-90.13	-1,302.7	-4,915.6	4,434.5	4,268.2	166.25	26.673	
7,775.6	6,644.2	6,611.2	6,611.2	37.0	131.8	-90.13	-1,302.7	-4,915.6	4,367.6	4,199.5	168.15	25.975	
7,800.0	6,644.2	6,611.2	6,611.2	37.6	131.8	-90.13	-1,302.7	-4,915.6	4,346.1	4,177.4	168.76	25.754	
7,874.0	6,644.1	6,611.1	6,611.1	39.5	131.8	-90.13	-1,302.7	-4,915.6	4,281.1	4,110.4	170.64	25.088	
7,900.0	6,644.1	6,611.1	6,611.1	40.1	131.8	-90.13	-1,302.7	-4,915.6	4,258.3	4,087.0	171.30	24.858	
7,972.4	6,644.0	6,611.0	6,611.0	42.0	131.8	-90.13	-1,302.7	-4,915.6	4,195.0	4,021.9	173.17	24.225	
8,000.0	6,643.9	6,610.9	6,610.9	42.7	131.8	-90.12	-1,302.7	-4,915.6	4,171.0	3,997.2	173.88	23.988	
8,070.8	6,643.9	6,610.9	6,610.9	44.5	131.8	-90.12	-1,302.7	-4,915.6	4,109.6	3,933.8	175.73	23.386	
8,100.0	6,643.8	6,610.8	6,610.8	45.2	131.8	-90.12	-1,302.7	-4,915.6	4,084.4	3,907.9	176.49	23.142	
8,169.3	6,643.7	6,610.7	6,610.7	47.0	131.8	-90.12	-1,302.7	-4,915.6	4,024.7	3,846.4	178.31	22.571	
8,200.0	6,643.7	6,610.7	6,610.7	47.9	131.8	-90.12	-1,302.7	-4,915.6	3,998.3	3,819.2	179.12	22.322	
8,267.7	6,643.6	6,610.6	6,610.6	49.6	131.8	-90.12	-1,302.7	-4,915.6	3,940.4	3,759.5	180.91	21.781	
8,300.0	6,643.6	6,610.6	6,610.6	50.5	131.8	-90.11	-1,302.7	-4,915.6	3,912.9	3,731.1	181.77	21.527	
8,366.1	6,643.5	6,610.5	6,610.5	52.2	131.8	-90.11	-1,302.7	-4,915.6	3,856.8	3,673.3	183.53	21.015	
8,400.0	6,643.4	6,610.4	6,610.4	53.1	131.8	-90.11	-1,302.7	-4,915.6	3,828.2	3,643.8	184.43	20.757	
8,464.5	6,643.4	6,610.4	6,610.4	54.8	131.8	-90.11	-1,302.7	-4,915.6	3,773.9	3,587.8	186.16	20.272	
8,500.0	6,643.3	6,610.3	6,610.3	55.8	131.8	-90.11	-1,302.7	-4,915.6	3,744.3	3,557.2	187.11	20.011	
8,563.0	6,643.2	6,610.2	6,610.2	57.5	131.8	-90.11	-1,302.7	-4,915.6	3,691.8	3,503.0	188.81	19.553	
8,600.0	6,643.2	6,610.2	6,610.2	58.5	131.8	-90.10	-1,302.7	-4,915.6	3,661.1	3,471.3	189.81	19.289	
8,661.4	6,643.1	6,610.1	6,610.1	60.1	131.8	-90.10	-1,302.7	-4,915.6	3,610.5	3,419.1	191.46	18.857	
8,700.0	6,643.1	6,610.1	6,610.1	61.2	131.8	-90.10	-1,302.7	-4,915.6	3,578.9	3,386.4	192.51	18.591	
8,759.8	6,643.0	6,610.0	6,610.0	62.8	131.8	-90.10	-1,302.7	-4,915.6	3,530.1	3,336.0	194.13	18.184	
8,800.0	6,643.0	6,610.0	6,610.0	63.9	131.8	-90.10	-1,302.7	-4,915.6	3,497.5	3,302.3	195.22	17.916	
8,858.2	6,642.9	6,609.9	6,609.9	65.4	131.8	-90.10	-1,302.7	-4,915.6	3,450.6	3,253.8	196.80	17.533	
8,900.0	6,642.8	6,609.8	6,609.8	66.6	131.8	-90.09	-1,302.7	-4,915.6	3,417.2	3,219.2	197.94	17.264	
8,956.7	6,642.8	6,609.8	6,609.8	68.1	131.8	-90.09	-1,302.7	-4,915.6	3,372.1	3,172.6	199.49	16.904	
9,000.0	6,642.7	6,609.7	6,609.7	69.3	131.8	-90.09	-1,302.7	-4,915.6	3,337.9	3,137.2	200.67	16.634	
9,055.1	6,642.6	6,609.6	6,609.6	70.8	131.7	-90.09	-1,302.7	-4,915.6	3,294.7	3,092.5	202.17	16.296	
9,100.0	6,642.6	6,609.6	6,609.6	72.0	131.7	-90.09	-1,302.7	-4,915.6	3,259.7	3,056.3	203.40	16.026	
9,153.5	6,642.5	6,609.5	6,609.5	73.5	131.7	-90.09	-1,302.7	-4,915.6	3,218.4	3,013.5	204.87	15.710	
9,200.0	6,642.5	6,609.5	6,609.5	74.7	131.7	-90.08	-1,302.7	-4,915.6	3,182.8	2,976.7	206.14	15.440	
9,251.9	6,642.4	6,609.4	6,609.4	76.2	131.7	-90.08	-1,302.7	-4,915.6	3,143.4	2,935.8	207.56	15.144	
9,300.0	6,642.3	6,609.3	6,609.3	77.5	131.7	-90.08	-1,302.7	-4,915.6	3,107.2	2,898.3	208.88	14.875	
9,350.4	6,642.3	6,609.3	6,609.3	78.9	131.7	-90.08	-1,302.7	-4,915.6	3,069.6	2,859.4	210.27	14.599	
9,400.0	6,642.2	6,609.2	6,609.2	80.2	131.7	-90.08	-1,302.7	-4,915.6	3,033.0	2,821.4	211.63	14.332	
9,448.8	6,642.1	6,609.1	6,609.1	81.6	131.7	-90.08	-1,302.7	-4,915.6	2,997.3	2,784.4	212.97	14.074	
9,500.0	6,642.1	6,609.1	6,609.1	83.0	131.7	-90.07	-1,302.7	-4,915.6	2,960.3	2,745.9	214.38	13.809	
9,547.2	6,642.0	6,609.0	6,609.0	84.3	131.7	-90.07	-1,302.7	-4,915.6	2,926.6	2,710.9	215.68	13.569	
9,600.0	6,642.0	6,609.0	6,609.0	85.7	131.7	-90.07	-1,302.7	-4,915.6	2,889.3	2,672.1	217.14	13.306	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,608.9	6,608.9	87.0	131.7	-90.07	-1,302.7	-4,915.6	2,857.4	2,639.0	218.40	13.083	
9,700.0	6,641.8	6,608.8	6,608.8	88.5	131.7	-90.07	-1,302.7	-4,915.6	2,820.0	2,600.1	219.90	12.824	
9,744.1	6,641.8	6,608.8	6,608.8	89.7	131.7	-90.07	-1,302.7	-4,915.6	2,790.0	2,568.9	221.12	12.618	
9,800.0	6,641.7	6,608.7	6,608.7	91.2	131.7	-90.06	-1,302.7	-4,915.6	2,752.6	2,529.9	222.66	12.362	
9,842.5	6,641.7	6,608.7	6,608.7	92.4	131.7	-90.06	-1,302.7	-4,915.6	2,724.5	2,500.7	223.84	12.172	
9,900.0	6,641.6	6,608.6	6,608.6	94.0	131.7	-90.06	-1,302.7	-4,915.6	2,687.2	2,461.8	225.43	11.921	
9,940.9	6,641.5	6,608.5	6,608.5	95.1	131.7	-90.06	-1,302.7	-4,915.6	2,661.1	2,434.5	226.56	11.746	
10,000.0	6,641.5	6,608.5	6,608.5	96.7	131.7	-90.06	-1,302.7	-4,915.6	2,624.0	2,395.8	228.19	11.499	
10,039.3	6,641.4	6,608.4	6,608.4	97.8	131.7	-90.06	-1,302.7	-4,915.6	2,599.8	2,370.5	229.28	11.339	
10,100.0	6,641.3	6,608.3	6,608.3	99.5	131.7	-90.05	-1,302.7	-4,915.6	2,563.2	2,332.2	230.96	11.098	
10,137.8	6,641.3	6,608.3	6,608.3	100.6	131.7	-90.05	-1,302.7	-4,915.6	2,540.8	2,308.8	232.01	10.951	
10,200.0	6,641.2	6,608.2	6,608.2	102.3	131.7	-90.05	-1,302.7	-4,915.6	2,504.9	2,271.1	233.74	10.717	
10,236.2	6,641.2	6,608.2	6,608.2	103.3	131.7	-90.05	-1,302.7	-4,915.6	2,484.4	2,249.7	234.74	10.584	
10,300.0	6,641.1	6,608.1	6,608.1	105.0	131.7	-90.05	-1,302.7	-4,915.6	2,449.2	2,212.7	236.51	10.356	
10,334.6	6,641.0	6,608.0	6,608.0	106.0	131.7	-90.05	-1,302.7	-4,915.6	2,430.6	2,193.1	237.47	10.235	
10,400.0	6,641.0	6,608.0	6,608.0	107.8	131.7	-90.04	-1,302.7	-4,915.6	2,396.5	2,157.2	239.28	10.015	
10,433.0	6,640.9	6,607.9	6,607.9	108.7	131.7	-90.04	-1,302.7	-4,915.6	2,379.7	2,139.5	240.20	9.907	
10,500.0	6,640.8	6,607.8	6,607.8	110.6	131.7	-90.04	-1,302.7	-4,915.6	2,346.8	2,104.7	242.06	9.695	
10,531.5	6,640.8	6,607.8	6,607.8	111.5	131.7	-90.04	-1,302.7	-4,915.6	2,331.8	2,088.9	242.94	9.599	
10,600.0	6,640.7	6,607.7	6,607.7	113.4	131.7	-90.04	-1,302.7	-4,915.6	2,300.4	2,055.6	244.84	9.395	
10,629.9	6,640.7	6,607.7	6,607.7	114.2	131.7	-90.04	-1,302.7	-4,915.6	2,287.2	2,041.5	245.67	9.310	
10,700.0	6,640.6	6,607.6	6,607.6	116.1	131.7	-90.03	-1,302.7	-4,915.6	2,257.5	2,009.9	247.62	9.117	
10,728.3	6,640.5	6,607.5	6,607.5	116.9	131.7	-90.03	-1,302.7	-4,915.6	2,246.0	1,997.6	248.41	9.041	
10,800.0	6,640.5	6,607.5	6,607.5	118.9	131.7	-90.03	-1,302.7	-4,915.6	2,218.2	1,967.8	250.40	8.859	
10,826.7	6,640.4	6,607.4	6,607.4	119.7	131.7	-90.03	-1,302.7	-4,915.6	2,208.4	1,957.3	251.15	8.793	
10,900.0	6,640.3	6,607.3	6,607.3	121.7	131.7	-90.03	-1,302.7	-4,915.6	2,182.9	1,929.7	253.19	8.622	
10,925.2	6,640.3	6,607.3	6,607.3	122.4	131.7	-90.02	-1,302.7	-4,915.6	2,174.6	1,920.7	253.89	8.565	
11,000.0	6,640.2	6,607.2	6,607.2	124.5	131.7	-90.02	-1,302.7	-4,915.6	2,151.6	1,895.6	255.97	8.406	
11,023.6	6,640.2	6,607.2	6,607.2	125.1	131.7	-90.02	-1,302.7	-4,915.6	2,144.8	1,888.2	256.63	8.358	
11,100.0	6,640.1	6,607.1	6,607.1	127.3	131.7	-90.02	-1,302.7	-4,915.6	2,124.6	1,865.8	258.75	8.211	
11,122.0	6,640.0	6,607.0	6,607.0	127.9	131.7	-90.02	-1,302.7	-4,915.6	2,119.2	1,859.8	259.37	8.171	
11,200.0	6,639.9	6,606.9	6,606.9	130.1	131.7	-90.02	-1,302.7	-4,915.6	2,101.9	1,840.4	261.54	8.037	
11,220.4	6,639.9	6,606.9	6,606.9	130.6	131.7	-90.01	-1,302.7	-4,915.6	2,097.9	1,835.8	262.11	8.004	
11,300.0	6,639.8	6,606.8	6,606.8	132.8	131.7	-90.01	-1,302.7	-4,915.6	2,083.9	1,819.6	264.33	7.884	
11,318.9	6,639.8	6,606.8	6,606.8	133.4	131.7	-90.01	-1,302.7	-4,915.6	2,081.0	1,816.1	264.85	7.857	
11,400.0	6,639.7	6,606.7	6,606.7	135.6	131.7	-90.01	-1,302.7	-4,915.6	2,070.5	1,803.4	267.12	7.751	
11,417.3	6,639.7	6,606.7	6,606.7	136.1	131.7	-90.01	-1,302.7	-4,915.6	2,068.7	1,801.1	267.60	7.730	
11,500.0	6,639.6	6,606.6	6,606.6	138.4	131.7	-90.00	-1,302.7	-4,915.6	2,061.9	1,792.0	269.90	7.639	
11,515.7	6,639.5	6,606.5	6,606.5	138.9	131.7	-90.00	-1,302.7	-4,915.6	2,061.0	1,790.6	270.34	7.624	
11,600.0	6,639.4	6,606.4	6,606.4	141.2	131.7	-90.00	-1,302.7	-4,915.6	2,058.1	1,785.4	272.69	7.547	
11,614.1	6,639.4	6,606.4	6,606.4	141.6	131.7	-90.00	-1,302.7	-4,915.6	2,057.9	1,784.9	273.09	7.536	
11,628.1	6,639.4	6,606.4	6,606.4	142.0	131.7	-90.00	-1,302.7	-4,915.6	2,057.9	1,784.4	273.48	7.525 CC	
11,700.0	6,639.3	6,606.3	6,606.3	144.0	131.7	-90.00	-1,302.7	-4,915.6	2,059.2	1,783.7	275.48	7.475 ES	
11,712.6	6,639.3	6,606.3	6,606.3	144.3	131.7	-90.00	-1,302.7	-4,915.6	2,059.6	1,783.8	275.83	7.467	
11,800.0	6,639.2	6,606.2	6,606.2	146.8	131.7	-89.99	-1,302.7	-4,915.6	2,065.1	1,786.8	278.27	7.421	
11,811.0	6,639.2	6,606.2	6,606.2	147.1	131.7	-89.99	-1,302.7	-4,915.6	2,066.0	1,787.4	278.58	7.416	
11,900.0	6,639.1	6,606.1	6,606.1	149.6	131.7	-89.99	-1,302.7	-4,915.6	2,075.8	1,794.7	281.07	7.385	
11,909.4	6,639.0	6,606.0	6,606.0	149.8	131.7	-89.99	-1,302.7	-4,915.6	2,077.0	1,795.7	281.33	7.383	
12,000.0	6,638.9	6,605.9	6,605.9	152.4	131.7	-89.99	-1,302.7	-4,915.6	2,091.2	1,807.4	283.86	7.367	
12,007.8	6,638.9	6,605.9	6,605.9	152.6	131.7	-89.99	-1,302.7	-4,915.6	2,092.7	1,808.6	284.08	7.366	
12,100.0	6,638.8	6,605.8	6,605.8	155.2	131.7	-89.98	-1,302.7	-4,915.6	2,111.3	1,824.7	286.65	7.365 SF	
12,106.3	6,638.8	6,605.8	6,605.8	155.3	131.7	-89.98	-1,302.7	-4,915.6	2,112.7	1,825.9	286.83	7.366	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,200.0	6,638.7	6,605.7	6,605.7	157.9	131.7	-89.98	-1,302.7	-4,915.6	2,135.9	1,846.5	289.44	7.379	
12,204.7	6,638.7	6,605.7	6,605.7	158.1	131.7	-89.98	-1,302.7	-4,915.6	2,137.2	1,847.6	289.58	7.380	
12,300.0	6,638.5	6,605.5	6,605.5	160.7	131.7	-89.98	-1,302.7	-4,915.6	2,164.8	1,872.6	292.24	7.408	
12,303.1	6,638.5	6,605.5	6,605.5	160.8	131.7	-89.98	-1,302.7	-4,915.6	2,165.8	1,873.5	292.33	7.409	
12,400.0	6,638.4	6,605.4	6,605.4	163.5	131.7	-89.97	-1,302.7	-4,915.6	2,197.9	1,902.9	295.03	7.450	
12,401.5	6,638.4	6,605.4	6,605.4	163.6	131.7	-89.97	-1,302.7	-4,915.6	2,198.5	1,903.4	295.08	7.450	
12,500.0	6,638.3	6,605.3	6,605.3	166.3	131.7	-89.97	-1,302.7	-4,915.6	2,235.0	1,937.2	297.83	7.504	
12,598.4	6,638.2	6,605.2	6,605.2	169.1	131.7	-89.97	-1,302.7	-4,915.6	2,275.2	1,974.6	300.58	7.569	
12,600.0	6,638.2	6,605.2	6,605.2	169.1	131.7	-89.97	-1,302.7	-4,915.6	2,275.9	1,975.2	300.62	7.571	
12,696.8	6,638.0	6,605.0	6,605.0	171.8	131.7	-89.96	-1,302.7	-4,915.6	2,318.9	2,015.5	303.33	7.645	
12,700.0	6,638.0	6,605.0	6,605.0	171.9	131.7	-89.96	-1,302.7	-4,915.6	2,320.3	2,016.9	303.42	7.647	
12,795.2	6,637.9	6,604.9	6,604.9	174.6	131.7	-89.96	-1,302.7	-4,915.6	2,365.9	2,059.8	306.08	7.729	
12,800.0	6,637.9	6,604.9	6,604.9	174.7	131.7	-89.96	-1,302.7	-4,915.6	2,368.2	2,062.0	306.21	7.734	
12,893.7	6,637.8	6,604.8	6,604.8	177.3	131.7	-89.95	-1,302.7	-4,915.6	2,415.9	2,107.1	308.83	7.823	
12,900.0	6,637.8	6,604.8	6,604.8	177.5	131.7	-89.95	-1,302.7	-4,915.6	2,419.2	2,110.2	309.01	7.829	
12,992.1	6,637.7	6,604.7	6,604.7	180.1	131.6	-89.95	-1,302.7	-4,915.6	2,468.9	2,157.3	311.59	7.924	
13,000.0	6,637.6	6,604.6	6,604.6	180.3	131.6	-89.95	-1,302.7	-4,915.6	2,473.3	2,161.5	311.81	7.932	
13,090.5	6,637.5	6,604.5	6,604.5	182.8	131.6	-89.95	-1,302.7	-4,915.6	2,524.6	2,210.3	314.34	8.032	
13,100.0	6,637.5	6,604.5	6,604.5	183.1	131.6	-89.95	-1,302.7	-4,915.6	2,530.1	2,215.5	314.60	8.042	
13,188.9	6,637.4	6,604.4	6,604.4	185.6	131.6	-89.94	-1,302.7	-4,915.6	2,582.9	2,265.8	317.09	8.146	
13,200.0	6,637.4	6,604.4	6,604.4	185.9	131.6	-89.94	-1,302.7	-4,915.6	2,589.6	2,272.2	317.40	8.159	
13,287.4	6,637.3	6,604.3	6,604.3	188.4	131.6	-89.94	-1,302.7	-4,915.6	2,643.5	2,323.7	319.85	8.265	
13,300.0	6,637.3	6,604.3	6,604.3	188.7	131.6	-89.94	-1,302.7	-4,915.6	2,651.5	2,331.3	320.20	8.281	
13,385.8	6,637.1	6,604.1	6,604.1	191.1	131.6	-89.94	-1,302.7	-4,915.6	2,706.4	2,383.8	322.60	8.389	
13,400.0	6,637.1	6,604.1	6,604.1	191.5	131.6	-89.94	-1,302.7	-4,915.6	2,715.6	2,392.6	323.00	8.408	
13,484.2	6,637.0	6,604.0	6,604.0	193.9	131.6	-89.93	-1,302.7	-4,915.6	2,771.3	2,446.0	325.35	8.518	
13,500.0	6,637.0	6,604.0	6,604.0	194.3	131.6	-89.93	-1,302.7	-4,915.6	2,781.9	2,456.1	325.80	8.539	
13,582.6	6,636.9	6,603.9	6,603.9	196.6	131.6	-89.93	-1,302.7	-4,915.6	2,838.2	2,510.1	328.11	8.650	
13,600.0	6,636.9	6,603.9	6,603.9	197.1	131.6	-89.93	-1,302.7	-4,915.6	2,850.2	2,521.6	328.59	8.674	
13,681.1	6,636.8	6,603.8	6,603.8	199.4	131.6	-89.93	-1,302.7	-4,915.6	2,906.8	2,576.0	330.86	8.786	
13,700.0	6,636.7	6,603.7	6,603.7	199.9	131.6	-89.93	-1,302.7	-4,915.6	2,920.2	2,588.8	331.39	8.812	
13,779.5	6,636.6	6,603.6	6,603.6	202.1	131.6	-89.92	-1,302.7	-4,915.6	2,977.2	2,643.6	333.62	8.924	
13,800.0	6,636.6	6,603.6	6,603.6	202.7	131.6	-89.92	-1,302.7	-4,915.6	2,992.0	2,657.8	334.19	8.953	
13,877.9	6,636.5	6,603.5	6,603.5	204.9	131.6	-89.92	-1,302.7	-4,915.6	3,049.1	2,712.7	336.37	9.064	
13,900.0	6,636.5	6,603.5	6,603.5	205.5	131.6	-89.92	-1,302.7	-4,915.6	3,065.4	2,728.4	336.99	9.096	
13,976.3	6,636.4	6,603.4	6,603.4	207.6	131.6	-89.92	-1,302.7	-4,915.6	3,122.4	2,783.3	339.13	9.207	
14,000.0	6,636.3	6,603.3	6,603.3	208.3	131.6	-89.91	-1,302.7	-4,915.6	3,140.2	2,800.4	339.79	9.242	
14,074.8	6,636.3	6,603.3	6,603.3	210.4	131.6	-89.91	-1,302.7	-4,915.6	3,197.1	2,855.2	341.89	9.351	
14,100.0	6,636.2	6,603.2	6,603.2	211.1	131.6	-89.91	-1,302.7	-4,915.6	3,216.4	2,873.8	342.59	9.388	
14,173.2	6,636.1	6,603.1	6,603.1	213.2	131.6	-89.91	-1,302.7	-4,915.6	3,273.0	2,928.4	344.64	9.497	
14,200.0	6,636.1	6,603.1	6,603.1	213.9	131.6	-89.91	-1,302.7	-4,915.6	3,293.9	2,948.5	345.39	9.537	
14,271.6	6,636.0	6,603.0	6,603.0	215.9	131.6	-89.90	-1,302.7	-4,915.6	3,350.1	3,002.7	347.40	9.643	
14,300.0	6,636.0	6,603.0	6,603.0	216.7	131.6	-89.90	-1,302.7	-4,915.6	3,372.5	3,024.4	348.19	9.686	
14,370.0	6,635.9	6,602.9	6,602.9	218.7	131.6	-89.90	-1,302.7	-4,915.6	3,428.3	3,078.2	350.15	9.791	
14,400.0	6,635.8	6,602.8	6,602.8	219.5	131.6	-89.90	-1,302.7	-4,915.6	3,452.3	3,101.3	350.99	9.836	
14,468.5	6,635.7	6,602.7	6,602.7	221.4	131.6	-89.90	-1,302.7	-4,915.6	3,507.5	3,154.6	352.91	9.939	
14,500.0	6,635.7	6,602.7	6,602.7	222.3	131.6	-89.90	-1,302.7	-4,915.6	3,533.1	3,179.3	353.79	9.986	
14,566.9	6,635.6	6,602.6	6,602.6	224.2	131.6	-89.89	-1,302.7	-4,915.6	3,587.7	3,232.0	355.67	10.087	
14,600.0	6,635.6	6,602.6	6,602.6	225.1	131.6	-89.89	-1,302.7	-4,915.6	3,614.9	3,258.3	356.59	10.137	
14,665.3	6,635.5	6,602.5	6,602.5	226.9	131.6	-89.89	-1,302.7	-4,915.6	3,668.8	3,310.3	358.42	10.236	
14,700.0	6,635.4	6,602.4	6,602.4	227.9	131.6	-89.89	-1,302.7	-4,915.6	3,697.5	3,338.1	359.39	10.288	
14,763.7	6,635.4	6,602.4	6,602.4	229.7	131.6	-89.89	-1,302.7	-4,915.6	3,750.6	3,389.5	361.18	10.384	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - ABDN VERT BLOSKAS #13-9 - 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
14,800.0	6,635.3	6,602.3	6,602.3	230.7	131.6	-89.88	-1,302.7	-4,915.6	3,781.0	3,418.8	362.20	10.439	
14,862.2	6,635.2	6,602.2	6,602.2	232.5	131.6	-89.88	-1,302.7	-4,915.6	3,833.3	3,469.4	363.94	10.533	
14,900.0	6,635.2	6,602.2	6,602.2	233.5	131.6	-89.88	-1,302.7	-4,915.6	3,865.3	3,500.3	365.00	10.590	
14,960.6	6,635.1	6,602.1	6,602.1	235.2	131.6	-89.88	-1,302.7	-4,915.6	3,916.7	3,550.0	366.69	10.681	
15,000.0	6,635.0	6,602.0	6,602.0	236.3	131.6	-89.88	-1,302.7	-4,915.6	3,950.3	3,582.5	367.80	10.740	
15,033.1	6,635.0	6,602.0	6,602.0	237.3	131.6	-89.88	-1,302.7	-4,915.6	3,978.5	3,609.8	368.73	10.790	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-89.03	21.2	-1,255.0	1,255.4				
98.4	98.4	77.4	77.4	0.1	0.0	-89.03	21.2	-1,255.0	1,255.2	1,255.1	0.10	N/A	
100.0	100.0	79.0	79.0	0.1	0.0	-89.03	21.2	-1,255.0	1,255.2	1,255.1	0.10	N/A	
196.8	196.8	175.8	175.8	0.3	1.0	-89.03	21.2	-1,255.0	1,255.2	1,253.9	1.29	969.256	
200.0	200.0	179.0	179.0	0.3	1.0	-89.03	21.2	-1,255.0	1,255.2	1,253.8	1.34	934.782	
295.3	295.3	274.3	274.3	0.5	3.0	-89.03	21.2	-1,255.0	1,255.2	1,251.7	3.51	357.217	
300.0	300.0	279.0	279.0	0.5	3.1	-89.03	21.2	-1,255.0	1,255.2	1,251.6	3.63	345.624	
393.7	393.7	372.7	372.7	0.8	5.1	-89.03	21.2	-1,255.0	1,255.2	1,249.4	5.83	215.354	
400.0	400.0	379.0	379.0	0.8	5.2	-89.03	21.2	-1,255.0	1,255.2	1,249.2	5.97	210.128	
492.1	492.1	471.1	471.1	1.0	7.1	-89.03	21.2	-1,255.0	1,255.2	1,247.1	8.07	155.562	
500.0	500.0	479.0	479.0	1.0	7.3	-89.03	21.2	-1,255.0	1,255.2	1,246.9	8.25	152.196	
590.5	590.5	569.5	569.5	1.2	9.1	-89.03	21.2	-1,255.0	1,255.2	1,244.9	10.29	121.975	
600.0	600.0	579.0	579.0	1.2	9.3	-89.03	21.2	-1,255.0	1,255.2	1,244.7	10.50	119.502	
689.0	689.0	668.0	668.0	1.4	11.1	-89.03	21.2	-1,255.0	1,255.2	1,242.7	12.50	100.379	
700.0	700.0	679.0	679.0	1.4	11.3	-89.03	21.2	-1,255.0	1,255.2	1,242.4	12.75	98.429	
787.4	787.4	766.4	766.4	1.6	13.1	-89.03	21.2	-1,255.0	1,255.2	1,240.5	14.71	85.304	
800.0	800.0	779.0	779.0	1.7	13.3	-89.03	21.2	-1,255.0	1,255.2	1,240.2	15.00	83.696	
885.8	885.8	864.8	864.8	1.9	15.1	-89.03	21.2	-1,255.0	1,255.2	1,238.3	16.92	74.177	
900.0	900.0	879.0	879.0	1.9	15.3	-89.03	21.2	-1,255.0	1,255.2	1,237.9	17.24	72.810	
984.2	984.2	963.2	963.2	2.1	17.0	-89.03	21.2	-1,255.0	1,255.2	1,236.1	19.13	65.623	
1,000.0	1,000.0	979.0	979.0	2.1	17.4	-89.03	21.2	-1,255.0	1,255.2	1,235.7	19.48	64.434	
1,082.7	1,082.7	1,061.7	1,061.7	2.3	19.0	-116.07	21.2	-1,255.0	1,255.7	1,234.4	21.33	58.876	
1,100.0	1,100.0	1,079.0	1,079.0	2.3	19.4	-116.09	21.2	-1,255.0	1,256.0	1,234.2	21.71	57.839	
1,181.1	1,181.0	1,160.0	1,160.0	2.5	21.0	-116.22	21.2	-1,255.0	1,257.7	1,234.2	23.52	53.475	
1,200.0	1,199.8	1,178.8	1,178.8	2.6	21.4	-116.26	21.2	-1,255.0	1,258.3	1,234.3	23.94	52.562	
1,279.5	1,279.1	1,258.1	1,258.1	2.8	23.0	-116.48	21.2	-1,255.0	1,261.2	1,235.5	25.70	49.070	
1,300.0	1,299.5	1,278.5	1,278.5	2.8	23.4	-116.55	21.2	-1,255.0	1,262.2	1,236.0	26.16	48.256	
1,377.9	1,376.9	1,355.9	1,355.9	3.0	24.9	-116.84	21.2	-1,255.0	1,266.3	1,238.4	27.88	45.420	
1,400.0	1,398.7	1,377.7	1,377.7	3.0	25.4	-116.94	21.2	-1,255.0	1,267.7	1,239.3	28.37	44.690	
1,476.4	1,474.2	1,453.2	1,453.2	3.2	26.9	-117.31	21.2	-1,255.0	1,273.0	1,243.0	30.05	42.358	
1,500.0	1,497.5	1,476.5	1,476.5	3.3	27.4	-117.43	21.2	-1,255.0	1,274.9	1,244.3	30.57	41.700	
1,574.8	1,571.0	1,550.0	1,550.0	3.5	28.9	-117.86	21.2	-1,255.0	1,281.5	1,249.2	32.23	39.764	
1,600.0	1,595.6	1,574.6	1,574.6	3.6	29.4	-118.02	21.2	-1,255.0	1,283.9	1,251.1	32.78	39.168	
1,673.2	1,667.2	1,646.2	1,646.2	3.9	30.8	-118.60	21.2	-1,255.0	1,291.2	1,256.8	34.44	37.498	
1,700.0	1,693.4	1,672.4	1,672.4	4.0	31.3	-118.82	21.2	-1,255.0	1,294.0	1,258.9	35.04	36.928	
1,771.6	1,763.5	1,742.5	1,742.5	4.2	32.7	-119.38	21.2	-1,255.0	1,301.3	1,264.7	36.67	35.487	
1,800.0	1,791.3	1,770.3	1,770.3	4.3	33.3	-119.60	21.2	-1,255.0	1,304.3	1,267.0	37.32	34.953	
1,870.1	1,859.8	1,838.8	1,838.8	4.6	34.7	-120.15	21.2	-1,255.0	1,311.7	1,272.7	38.92	33.704	
1,900.0	1,889.1	1,868.1	1,868.1	4.7	35.3	-120.38	21.2	-1,255.0	1,314.8	1,275.2	39.60	33.204	
1,968.5	1,956.1	1,935.1	1,935.1	4.9	36.6	-120.90	21.2	-1,255.0	1,322.2	1,281.1	41.17	32.117	
2,000.0	1,986.9	1,965.9	1,965.9	5.1	37.2	-121.14	21.2	-1,255.0	1,325.6	1,283.8	41.89	31.646	
2,066.9	2,052.3	2,031.3	2,031.3	5.3	38.5	-121.64	21.2	-1,255.0	1,333.0	1,289.6	43.43	30.697	
2,100.0	2,084.7	2,063.7	2,063.7	5.5	39.2	-121.89	21.2	-1,255.0	1,336.7	1,292.5	44.18	30.253	
2,165.3	2,148.6	2,127.6	2,127.6	5.7	40.5	-122.38	21.2	-1,255.0	1,344.0	1,298.3	45.68	29.420	
2,200.0	2,182.5	2,161.5	2,161.5	5.9	41.2	-122.63	21.2	-1,255.0	1,348.0	1,301.5	46.48	29.001	
2,263.8	2,244.9	2,223.9	2,223.9	6.1	42.4	-123.10	21.2	-1,255.0	1,355.3	1,307.3	47.95	28.267	
2,300.0	2,280.3	2,259.3	2,259.3	6.3	43.1	-123.36	21.2	-1,255.0	1,359.5	1,310.7	48.78	27.871	
2,362.2	2,341.2	2,320.2	2,320.2	6.5	44.4	-123.80	21.2	-1,255.0	1,366.7	1,316.5	50.21	27.222	
2,400.0	2,378.1	2,357.1	2,357.1	6.7	45.1	-124.07	21.2	-1,255.0	1,371.2	1,320.1	51.08	26.846	
2,460.6	2,437.4	2,416.4	2,416.4	6.9	46.3	-124.50	21.2	-1,255.0	1,378.4	1,325.9	52.47	26.271	
2,500.0	2,476.0	2,455.0	2,455.0	7.1	47.1	-124.77	21.2	-1,255.0	1,383.1	1,329.7	53.37	25.915	
2,550.0	2,524.9	2,503.9	2,503.9	7.3	48.0	-125.12	21.2	-1,255.0	1,389.2	1,334.6	54.52	25.480	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,512.7	2,512.7	7.3	48.2	-124.32	21.2	-1,255.0	1,390.2	1,335.5	54.74	25.396	
2,600.0	2,573.8	2,552.8	2,552.8	7.5	49.0	-120.72	21.2	-1,255.0	1,394.9	1,339.1	55.75	25.022	
2,639.4	2,612.3	2,591.3	2,591.3	7.7	49.8	-117.27	21.2	-1,255.0	1,398.9	1,342.2	56.70	24.671	
2,657.5	2,630.0	2,609.0	2,609.0	7.7	50.2	-117.40	21.2	-1,255.0	1,400.7	1,343.6	57.12	24.522	
2,700.0	2,671.6	2,650.6	2,650.6	7.9	51.0	-117.72	21.2	-1,255.0	1,404.8	1,346.8	58.09	24.182	
2,755.9	2,726.3	2,705.3	2,705.3	8.1	52.1	-118.13	21.2	-1,255.0	1,410.4	1,351.0	59.39	23.749	
2,800.0	2,769.4	2,748.4	2,748.4	8.3	53.0	-118.45	21.2	-1,255.0	1,414.8	1,354.4	60.41	23.422	
2,854.3	2,822.5	2,801.5	2,801.5	8.5	54.0	-118.85	21.2	-1,255.0	1,420.3	1,358.7	61.66	23.034	
2,900.0	2,867.2	2,846.2	2,846.2	8.7	54.9	-119.17	21.2	-1,255.0	1,425.0	1,362.3	62.72	22.722	
2,952.7	2,918.8	2,897.8	2,897.8	9.0	56.0	-119.55	21.2	-1,255.0	1,430.5	1,366.5	63.93	22.374	
3,000.0	2,965.0	2,944.0	2,944.0	9.2	56.9	-119.89	21.2	-1,255.0	1,435.4	1,370.4	65.02	22.076	
3,051.2	3,015.1	2,994.1	2,994.1	9.4	57.9	-120.25	21.2	-1,255.0	1,440.8	1,374.6	66.20	21.764	
3,100.0	3,062.8	3,041.8	3,041.8	9.6	58.9	-120.59	21.2	-1,255.0	1,446.1	1,378.7	67.33	21.478	
3,149.6	3,111.4	3,090.4	3,090.4	9.8	59.8	-120.93	21.2	-1,255.0	1,451.4	1,382.9	68.47	21.198	
3,200.0	3,160.7	3,139.7	3,139.7	10.0	60.8	-121.28	21.2	-1,255.0	1,456.9	1,387.3	69.63	20.924	
3,248.0	3,207.6	3,186.6	3,186.6	10.2	61.8	-121.61	21.2	-1,255.0	1,462.2	1,391.5	70.74	20.672	
3,300.0	3,258.5	3,237.5	3,237.5	10.5	62.8	-121.97	21.2	-1,255.0	1,468.0	1,396.1	71.93	20.409	
3,346.4	3,303.9	3,282.9	3,282.9	10.7	63.7	-122.28	21.2	-1,255.0	1,473.2	1,400.2	73.00	20.182	
3,400.0	3,356.3	3,335.3	3,335.3	10.9	64.8	-122.64	21.2	-1,255.0	1,479.3	1,405.1	74.23	19.929	
3,444.9	3,400.2	3,379.2	3,379.2	11.1	65.7	-122.94	21.2	-1,255.0	1,484.4	1,409.2	75.26	19.724	
3,500.0	3,454.1	3,433.1	3,433.1	11.3	66.7	-123.30	21.2	-1,255.0	1,490.8	1,414.3	76.52	19.482	
3,543.3	3,496.5	3,475.5	3,475.5	11.5	67.6	-123.58	21.2	-1,255.0	1,495.8	1,418.3	77.51	19.297	
3,600.0	3,551.9	3,530.9	3,530.9	11.7	68.7	-123.95	21.2	-1,255.0	1,502.5	1,423.7	78.81	19.064	
3,641.7	3,592.7	3,571.7	3,571.7	11.9	69.5	-124.22	21.2	-1,255.0	1,507.4	1,427.6	79.77	18.897	
3,700.0	3,649.7	3,628.7	3,628.7	12.2	70.7	-124.60	21.2	-1,255.0	1,514.4	1,433.3	81.10	18.672	
3,740.1	3,689.0	3,668.0	3,668.0	12.4	71.5	-124.85	21.2	-1,255.0	1,519.2	1,437.2	82.02	18.522	
3,800.0	3,747.5	3,726.5	3,726.5	12.6	72.6	-125.23	21.2	-1,255.0	1,526.4	1,443.0	83.39	18.305	
3,838.6	3,785.3	3,764.3	3,764.3	12.8	73.4	-125.47	21.2	-1,255.0	1,531.1	1,446.9	84.27	18.170	
3,900.0	3,845.4	3,824.4	3,824.4	13.1	74.6	-125.85	21.2	-1,255.0	1,538.7	1,453.0	85.67	17.961	
3,937.0	3,881.6	3,860.6	3,860.6	13.2	75.3	-126.08	21.2	-1,255.0	1,543.3	1,456.8	86.51	17.839	
4,000.0	3,943.2	3,922.2	3,922.2	13.5	76.6	-126.47	21.2	-1,255.0	1,551.1	1,463.2	87.95	17.637	
4,035.4	3,977.8	3,956.8	3,956.8	13.6	77.3	-126.68	21.2	-1,255.0	1,555.6	1,466.8	88.75	17.527	
4,100.0	4,041.0	4,020.0	4,020.0	13.9	78.5	-127.07	21.2	-1,255.0	1,563.8	1,473.5	90.22	17.332	
4,133.8	4,074.1	4,053.1	4,053.1	14.1	79.2	-127.27	21.2	-1,255.0	1,568.1	1,477.1	90.99	17.233	
4,200.0	4,138.8	4,117.8	4,117.8	14.4	80.5	-127.67	21.2	-1,255.0	1,576.6	1,484.1	92.50	17.044	
4,232.3	4,170.4	4,149.4	4,149.4	14.5	81.1	-127.86	21.2	-1,255.0	1,580.7	1,487.5	93.23	16.955	
4,300.0	4,236.6	4,215.6	4,215.6	14.8	82.5	-128.25	21.2	-1,255.0	1,589.5	1,494.7	94.77	16.773	
4,330.7	4,266.7	4,245.7	4,245.7	14.9	83.1	-128.43	21.2	-1,255.0	1,593.5	1,498.1	95.46	16.692	
4,400.0	4,334.4	4,313.4	4,313.4	15.2	84.4	-128.83	21.2	-1,255.0	1,602.6	1,505.6	97.03	16.516	
4,429.1	4,362.9	4,341.9	4,341.9	15.4	85.0	-128.99	21.2	-1,255.0	1,606.5	1,508.8	97.69	16.444	
4,500.0	4,432.3	4,411.3	4,411.3	15.7	86.4	-129.39	21.2	-1,255.0	1,615.9	1,516.6	99.30	16.273	
4,527.5	4,459.2	4,438.2	4,438.2	15.8	87.0	-129.55	21.2	-1,255.0	1,619.6	1,519.7	99.92	16.209	
4,600.0	4,530.1	4,509.1	4,509.1	16.1	88.4	-129.95	21.2	-1,255.0	1,629.4	1,527.8	101.56	16.043	
4,626.0	4,555.5	4,534.5	4,534.5	16.2	88.9	-130.09	21.2	-1,255.0	1,632.9	1,530.8	102.15	15.986	
4,700.0	4,627.9	4,606.9	4,606.9	16.6	90.3	-130.50	21.2	-1,255.0	1,643.0	1,539.2	103.82	15.825	
4,724.4	4,651.7	4,630.7	4,630.7	16.7	90.8	-130.63	21.2	-1,255.0	1,646.3	1,542.0	104.37	15.774	
4,800.0	4,725.7	4,704.7	4,704.7	17.0	92.3	-131.04	21.2	-1,255.0	1,656.7	1,550.7	106.07	15.619	
4,822.8	4,748.0	4,727.0	4,727.0	17.1	92.8	-131.16	21.2	-1,255.0	1,659.9	1,553.3	106.59	15.573	
4,904.9	4,828.3	4,807.3	4,807.3	17.5	94.4	-131.60	21.2	-1,255.0	1,671.3	1,562.9	108.44	15.413	
4,921.2	4,844.3	4,823.3	4,823.3	17.5	94.7	-131.72	21.2	-1,255.0	1,673.6	1,564.7	108.84	15.376	
5,000.0	4,921.6	4,900.6	4,900.6	17.8	96.3	-132.24	21.2	-1,255.0	1,683.6	1,572.8	110.79	15.196	
5,019.7	4,941.0	4,920.0	4,920.0	17.9	96.6	-132.36	21.2	-1,255.0	1,685.9	1,574.6	111.27	15.152	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,999.4	4,999.4	18.1	98.2	-132.79	21.2	-1,255.0	1,694.4	1,581.2	113.20	14.968	
5,118.1	5,038.3	5,017.3	5,017.3	18.2	98.6	-132.88	21.2	-1,255.0	1,696.1	1,582.4	113.63	14.926	
5,200.0	5,119.6	5,098.6	5,098.6	18.4	100.2	-133.22	21.2	-1,255.0	1,702.8	1,587.3	115.56	14.735	
5,216.5	5,136.0	5,115.0	5,115.0	18.4	100.6	-133.28	21.2	-1,255.0	1,704.0	1,588.1	115.94	14.697	
5,300.0	5,219.2	5,198.2	5,198.2	18.6	102.2	-133.53	21.2	-1,255.0	1,708.9	1,591.1	117.87	14.499	
5,314.9	5,234.1	5,213.1	5,213.1	18.6	102.5	-133.56	21.2	-1,255.0	1,709.7	1,591.5	118.20	14.464	
5,400.0	5,319.1	5,298.1	5,298.1	18.8	104.2	-133.71	21.2	-1,255.0	1,712.7	1,592.6	120.10	14.260	
5,413.4	5,332.4	5,311.4	5,311.4	18.8	104.5	-133.73	21.2	-1,255.0	1,713.0	1,592.6	120.39	14.228	
5,504.9	5,423.9	5,402.9	5,402.9	18.9	106.4	-115.36	21.2	-1,255.0	1,714.0	1,591.2	122.79	13.958	
5,511.8	5,430.8	5,409.8	5,409.8	18.9	106.5	-115.36	21.2	-1,255.0	1,714.0	1,591.1	122.94	13.941	
5,600.0	5,519.0	5,498.0	5,498.0	19.0	108.3	-115.36	21.2	-1,255.0	1,714.0	1,589.2	124.84	13.729	
5,610.2	5,529.3	5,508.3	5,508.3	19.0	108.5	-115.36	21.2	-1,255.0	1,714.0	1,588.9	125.06	13.705	
5,700.0	5,619.0	5,598.0	5,598.0	19.2	110.3	-115.36	21.2	-1,255.0	1,714.0	1,587.0	127.01	13.495	
5,708.6	5,627.7	5,606.7	5,606.7	19.2	110.5	-115.36	21.2	-1,255.0	1,714.0	1,586.8	127.20	13.475	
5,800.0	5,719.0	5,698.0	5,698.0	19.3	112.3	-115.36	21.2	-1,255.0	1,714.0	1,584.8	129.18	13.268	
5,807.1	5,726.1	5,705.1	5,705.1	19.3	112.4	-115.36	21.2	-1,255.0	1,714.0	1,584.7	129.34	13.252	
5,900.0	5,819.0	5,798.0	5,798.0	19.4	114.3	-115.36	21.2	-1,255.0	1,714.0	1,582.6	131.36	13.048	
5,905.5	5,824.5	5,803.5	5,803.5	19.4	114.4	-115.36	21.2	-1,255.0	1,714.0	1,582.5	131.48	13.037	
6,003.9	5,923.0	5,902.0	5,902.0	19.6	116.4	-115.36	21.2	-1,255.0	1,714.0	1,580.4	133.62	12.828	
6,009.8	5,928.8	5,907.8	5,907.8	19.6	116.5	-115.36	21.2	-1,255.0	1,714.0	1,580.3	133.74	12.816	
6,050.0	5,969.0	5,948.0	5,948.0	19.6	117.3	-25.41	21.2	-1,255.0	1,713.0	1,579.0	133.97	12.786	
6,100.0	6,018.8	5,997.8	5,997.8	19.7	118.3	-25.62	21.2	-1,255.0	1,708.9	1,574.6	134.27	12.727	
6,102.3	6,021.1	6,000.1	6,000.1	19.7	118.4	-25.63	21.2	-1,255.0	1,708.6	1,574.3	134.27	12.725	
6,150.0	6,068.1	6,047.1	6,047.1	19.7	119.3	-25.99	21.2	-1,255.0	1,701.6	1,567.6	134.02	12.697	
6,200.0	6,116.8	6,095.8	6,095.8	19.7	120.3	-26.53	21.2	-1,255.0	1,691.3	1,558.1	133.25	12.693	
6,200.8	6,117.5	6,096.5	6,096.5	19.7	120.3	-26.54	21.2	-1,255.0	1,691.2	1,557.9	133.23	12.694	
6,250.0	6,164.5	6,143.5	6,143.5	19.7	121.2	-27.26	21.2	-1,255.0	1,678.0	1,546.1	131.97	12.715	
6,299.2	6,210.4	6,189.4	6,189.4	19.7	122.2	-28.16	21.2	-1,255.0	1,662.1	1,531.8	130.28	12.758	
6,300.0	6,211.1	6,190.1	6,190.1	19.7	122.2	-28.18	21.2	-1,255.0	1,661.8	1,531.5	130.25	12.759	
6,350.0	6,256.4	6,235.4	6,235.4	19.7	123.1	-29.32	21.2	-1,255.0	1,642.7	1,514.5	128.17	12.817	
6,397.6	6,298.0	6,277.0	6,277.0	19.7	123.9	-30.64	21.2	-1,255.0	1,622.0	1,496.0	125.95	12.878	
6,400.0	6,300.0	6,279.0	6,279.0	19.7	124.0	-30.71	21.2	-1,255.0	1,620.9	1,495.1	125.84	12.881	
6,450.0	6,341.8	6,320.8	6,320.8	19.7	124.8	-32.36	21.2	-1,255.0	1,596.5	1,473.1	123.43	12.935	
6,496.0	6,378.6	6,357.6	6,357.6	19.7	125.6	-34.16	21.2	-1,255.0	1,571.9	1,450.6	121.31	12.959	
6,500.0	6,381.6	6,360.6	6,360.6	19.7	125.6	-34.33	21.2	-1,255.0	1,569.7	1,448.6	121.13	12.959	
6,550.0	6,419.2	6,398.2	6,398.2	19.6	126.4	-36.63	21.2	-1,255.0	1,540.7	1,421.5	119.22	12.923	
6,594.5	6,450.7	6,429.7	6,429.7	19.6	127.0	-39.01	21.2	-1,255.0	1,513.1	1,395.1	118.07	12.815	
6,600.0	6,454.4	6,433.4	6,433.4	19.6	127.1	-39.33	21.2	-1,255.0	1,509.6	1,391.6	117.98	12.796	
6,650.0	6,487.1	6,466.1	6,466.1	19.6	127.7	-42.45	21.2	-1,255.0	1,476.6	1,358.9	117.73	12.543	
6,692.9	6,513.0	6,492.0	6,492.0	19.6	128.3	-45.49	21.2	-1,255.0	1,447.0	1,328.5	118.52	12.209	
6,700.0	6,517.0	6,496.0	6,496.0	19.6	128.3	-46.03	21.2	-1,255.0	1,442.0	1,323.3	118.74	12.144	
6,750.0	6,544.1	6,523.1	6,523.1	19.6	128.9	-50.10	21.2	-1,255.0	1,406.0	1,284.8	121.18	11.603	
6,791.3	6,564.2	6,543.2	6,543.2	19.7	129.3	-53.83	21.2	-1,255.0	1,375.4	1,251.1	124.22	11.072	
6,800.0	6,568.2	6,547.2	6,547.2	19.7	129.4	-54.65	21.2	-1,255.0	1,368.8	1,243.9	124.99	10.952	
6,850.0	6,589.1	6,568.1	6,568.1	19.8	129.8	-59.65	21.2	-1,255.0	1,330.8	1,200.9	129.89	10.245	
6,889.7	6,603.5	6,582.5	6,582.5	19.9	130.1	-63.88	21.2	-1,255.0	1,300.0	1,165.8	134.23	9.685	
6,900.0	6,606.9	6,585.9	6,585.9	19.9	130.1	-65.00	21.2	-1,255.0	1,292.0	1,156.7	135.36	9.545	
6,950.0	6,621.3	6,600.3	6,600.3	20.2	130.4	-70.56	21.2	-1,255.0	1,252.9	1,112.2	140.77	8.901	
6,988.2	6,630.0	6,609.0	6,609.0	20.6	130.6	-74.84	21.2	-1,255.0	1,223.0	1,078.5	144.48	8.465	
7,000.0	6,632.4	6,611.4	6,611.4	20.7	130.7	-76.16	21.2	-1,255.0	1,213.8	1,068.3	145.52	8.341	
7,050.0	6,640.0	6,619.0	6,619.0	21.4	130.8	-81.61	21.2	-1,255.0	1,174.8	1,025.6	149.19	7.875	
7,086.6	6,643.4	6,622.4	6,622.4	21.9	130.9	-85.39	21.2	-1,255.0	1,146.6	995.5	151.10	7.588	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,623.2	6,623.2	22.1	130.9	-86.72	21.2	-1,255.0	1,136.3	984.7	151.64	7.494		
7,135.7	6,645.0	6,624.0	6,624.0	22.7	130.9	-90.08	21.2	-1,255.0	1,109.4	956.7	152.69	7.266		
7,185.0	6,644.9	6,623.9	6,623.9	23.6	130.9	-90.07	21.2	-1,255.0	1,072.9	919.2	153.64	6.983		
7,200.0	6,644.9	6,623.9	6,623.9	23.9	130.9	-90.07	21.2	-1,255.0	1,062.0	908.0	153.94	6.899		
7,283.4	6,644.8	6,623.8	6,623.8	25.6	130.9	-90.07	21.2	-1,255.0	1,003.3	847.7	155.66	6.446		
7,300.0	6,644.8	6,623.8	6,623.8	25.9	130.9	-90.06	21.2	-1,255.0	992.1	836.1	156.00	6.360		
7,381.9	6,644.7	6,623.7	6,623.7	27.7	130.9	-90.06	21.2	-1,255.0	939.0	781.2	157.81	5.950		
7,400.0	6,644.7	6,623.7	6,623.7	28.1	130.9	-90.05	21.2	-1,255.0	927.8	769.6	158.21	5.865		
7,480.3	6,644.6	6,623.6	6,623.6	29.9	130.9	-90.05	21.2	-1,255.0	881.0	720.9	160.06	5.504		
7,500.0	6,644.6	6,623.6	6,623.6	30.3	130.9	-90.04	21.2	-1,255.0	870.3	709.7	160.52	5.422		
7,578.7	6,644.5	6,623.5	6,623.5	32.2	130.9	-90.04	21.2	-1,255.0	830.6	668.2	162.40	5.115		
7,600.0	6,644.4	6,623.4	6,623.4	32.7	130.9	-90.04	21.2	-1,255.0	820.9	658.0	162.91	5.039		
7,677.1	6,644.3	6,623.3	6,623.3	34.6	130.9	-90.03	21.2	-1,255.0	789.4	624.6	164.80	4.790		
7,700.0	6,644.3	6,623.3	6,623.3	35.1	130.9	-90.03	21.2	-1,255.0	781.3	615.9	165.36	4.725		
7,775.6	6,644.2	6,623.2	6,623.2	37.0	130.9	-90.02	21.2	-1,255.0	758.7	591.5	167.25	4.536		
7,800.0	6,644.2	6,623.2	6,623.2	37.6	130.9	-90.02	21.2	-1,255.0	752.9	585.0	167.87	4.485		
7,874.0	6,644.1	6,623.1	6,623.1	39.5	130.9	-90.01	21.2	-1,255.0	740.0	570.2	169.75	4.359		
7,900.0	6,644.1	6,623.1	6,623.1	40.1	130.9	-90.01	21.2	-1,255.0	737.1	566.7	170.41	4.326		
7,967.4	6,644.0	6,623.0	6,623.0	41.8	130.9	-90.00	21.2	-1,255.0	734.1	561.9	172.15	4.264 CC		
7,972.4	6,644.0	6,623.0	6,623.0	42.0	130.9	-90.00	21.2	-1,255.0	734.1	561.8	172.28	4.261		
8,000.0	6,643.9	6,622.9	6,622.9	42.7	130.9	-90.00	21.2	-1,255.0	734.8	561.8	172.99	4.247 ES		
8,070.8	6,643.9	6,622.9	6,622.9	44.5	130.9	-89.99	21.2	-1,255.0	741.3	566.5	174.84	4.240 SF		
8,100.0	6,643.8	6,622.8	6,622.8	45.2	130.9	-89.99	21.2	-1,255.0	745.9	570.3	175.60	4.248		
8,169.3	6,643.7	6,622.7	6,622.7	47.0	130.9	-89.98	21.2	-1,255.0	761.3	583.9	177.42	4.291		
8,200.0	6,643.7	6,622.7	6,622.7	47.9	130.9	-89.98	21.2	-1,255.0	770.0	591.8	178.23	4.320		
8,267.7	6,643.6	6,622.6	6,622.6	49.6	130.9	-89.97	21.2	-1,255.0	793.1	613.1	180.02	4.406		
8,300.0	6,643.6	6,622.6	6,622.6	50.5	130.9	-89.97	21.2	-1,255.0	805.9	625.0	180.88	4.455		
8,366.1	6,643.5	6,622.5	6,622.5	52.2	130.9	-89.96	21.2	-1,255.0	835.3	652.7	182.64	4.574		
8,400.0	6,643.4	6,622.4	6,622.4	53.1	130.9	-89.96	21.2	-1,255.0	852.0	668.5	183.54	4.642		
8,464.5	6,643.4	6,622.4	6,622.4	54.8	130.9	-89.95	21.2	-1,255.0	886.5	701.3	185.27	4.785		
8,500.0	6,643.3	6,622.3	6,622.3	55.8	130.9	-89.95	21.2	-1,255.0	906.9	720.7	186.22	4.870		
8,563.0	6,643.2	6,622.2	6,622.2	57.5	130.9	-89.94	21.2	-1,255.0	945.2	757.3	187.92	5.030		
8,600.0	6,643.2	6,622.2	6,622.2	58.5	130.9	-89.94	21.2	-1,255.0	969.0	780.1	188.91	5.129		
8,661.4	6,643.1	6,622.1	6,622.1	60.1	130.9	-89.93	21.2	-1,255.0	1,010.2	819.6	190.57	5.301		
8,700.0	6,643.1	6,622.1	6,622.1	61.2	130.9	-89.93	21.2	-1,255.0	1,037.0	845.4	191.62	5.412		
8,759.8	6,643.0	6,622.0	6,622.0	62.8	130.9	-89.92	21.2	-1,255.0	1,080.1	886.9	193.24	5.590		
8,800.0	6,643.0	6,622.0	6,622.0	63.9	130.9	-89.92	21.2	-1,255.0	1,109.9	915.6	194.33	5.712		
8,858.2	6,642.9	6,621.9	6,621.9	65.4	130.9	-89.91	21.2	-1,255.0	1,154.3	958.4	195.91	5.892		
8,900.0	6,642.8	6,621.8	6,621.8	66.6	130.9	-89.91	21.2	-1,255.0	1,186.8	989.8	197.05	6.023		
8,956.7	6,642.8	6,621.8	6,621.8	68.1	130.9	-89.90	21.2	-1,255.0	1,231.8	1,033.2	198.59	6.203		
9,000.0	6,642.7	6,621.7	6,621.7	69.3	130.9	-89.90	21.2	-1,255.0	1,266.9	1,067.1	199.77	6.342		
9,055.1	6,642.6	6,621.6	6,621.6	70.8	130.9	-89.89	21.2	-1,255.0	1,312.2	1,110.9	201.28	6.519		
9,100.0	6,642.6	6,621.6	6,621.6	72.0	130.9	-89.89	21.2	-1,255.0	1,349.6	1,147.1	202.51	6.665		
9,153.5	6,642.5	6,621.5	6,621.5	73.5	130.9	-89.88	21.2	-1,255.0	1,394.9	1,190.9	203.97	6.838		
9,200.0	6,642.5	6,621.5	6,621.5	74.7	130.9	-89.88	21.2	-1,255.0	1,434.6	1,229.3	205.24	6.990		
9,251.9	6,642.4	6,621.4	6,621.4	76.2	130.9	-89.88	21.2	-1,255.0	1,479.5	1,272.8	206.67	7.159		
9,300.0	6,642.3	6,621.3	6,621.3	77.5	130.9	-89.87	21.2	-1,255.0	1,521.4	1,313.4	207.99	7.315		
9,350.4	6,642.3	6,621.3	6,621.3	78.9	130.9	-89.87	21.2	-1,255.0	1,565.7	1,356.3	209.37	7.478		
9,400.0	6,642.2	6,621.2	6,621.2	80.2	130.9	-89.86	21.2	-1,255.0	1,609.7	1,398.9	210.74	7.638		
9,448.8	6,642.1	6,621.1	6,621.1	81.6	130.9	-89.86	21.2	-1,255.0	1,653.3	1,441.2	212.08	7.795		
9,500.0	6,642.1	6,621.1	6,621.1	83.0	130.9	-89.85	21.2	-1,255.0	1,699.3	1,485.8	213.49	7.960		
9,547.2	6,642.0	6,621.0	6,621.0	84.3	130.9	-89.85	21.2	-1,255.0	1,742.0	1,527.2	214.79	8.110		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,642.0	6,621.0	6,621.0	85.7	130.8	-89.84	21.2	-1,255.0	1,790.0	1,573.7	216.24	8.278	
9,645.6	6,641.9	6,620.9	6,620.9	87.0	130.8	-89.84	21.2	-1,255.0	1,831.7	1,614.2	217.50	8.422	
9,700.0	6,641.8	6,620.8	6,620.8	88.5	130.8	-89.83	21.2	-1,255.0	1,881.6	1,662.6	219.00	8.592	
9,744.1	6,641.8	6,620.8	6,620.8	89.7	130.8	-89.83	21.2	-1,255.0	1,922.3	1,702.1	220.22	8.729	
9,800.0	6,641.7	6,620.7	6,620.7	91.2	130.8	-89.82	21.2	-1,255.0	1,974.1	1,752.3	221.76	8.902	
9,842.5	6,641.7	6,620.7	6,620.7	92.4	130.8	-89.82	21.2	-1,255.0	2,013.6	1,790.7	222.94	9.032	
9,900.0	6,641.6	6,620.6	6,620.6	94.0	130.8	-89.81	21.2	-1,255.0	2,067.3	1,842.7	224.53	9.207	
9,940.9	6,641.5	6,620.5	6,620.5	95.1	130.8	-89.81	21.2	-1,255.0	2,105.6	1,879.9	225.66	9.331	
10,000.0	6,641.5	6,620.5	6,620.5	96.7	130.8	-89.80	21.2	-1,255.0	2,161.0	1,933.7	227.30	9.508	
10,039.3	6,641.4	6,620.4	6,620.4	97.8	130.8	-89.80	21.2	-1,255.0	2,198.1	1,969.7	228.39	9.624	
10,100.0	6,641.3	6,620.3	6,620.3	99.5	130.8	-89.79	21.2	-1,255.0	2,255.3	2,025.3	230.07	9.803	
10,137.8	6,641.3	6,620.3	6,620.3	100.6	130.8	-89.79	21.2	-1,255.0	2,291.1	2,060.0	231.11	9.913	
10,200.0	6,641.2	6,620.2	6,620.2	102.3	130.8	-89.78	21.2	-1,255.0	2,350.1	2,117.3	232.84	10.093	
10,236.2	6,641.2	6,620.2	6,620.2	103.3	130.8	-89.78	21.2	-1,255.0	2,384.5	2,150.7	233.84	10.197	
10,300.0	6,641.1	6,620.1	6,620.1	105.0	130.8	-89.77	21.2	-1,255.0	2,445.3	2,209.7	235.61	10.379	
10,334.6	6,641.0	6,620.0	6,620.0	106.0	130.8	-89.77	21.2	-1,255.0	2,478.4	2,241.8	236.57	10.476	
10,400.0	6,641.0	6,620.0	6,620.0	107.8	130.8	-89.76	21.2	-1,255.0	2,540.9	2,302.5	238.39	10.659	
10,433.0	6,640.9	6,619.9	6,619.9	108.7	130.8	-89.76	21.2	-1,255.0	2,572.5	2,333.2	239.30	10.750	
10,500.0	6,640.8	6,619.8	6,619.8	110.6	130.8	-89.75	21.2	-1,255.0	2,636.8	2,395.6	241.16	10.934	
10,531.5	6,640.8	6,619.8	6,619.8	111.5	130.8	-89.75	21.2	-1,255.0	2,667.0	2,425.0	242.04	11.019	
10,600.0	6,640.7	6,619.7	6,619.7	113.4	130.8	-89.74	21.2	-1,255.0	2,733.0	2,489.0	243.94	11.203	
10,629.9	6,640.7	6,619.7	6,619.7	114.2	130.8	-89.74	21.2	-1,255.0	2,761.8	2,517.0	244.77	11.283	
10,700.0	6,640.6	6,619.6	6,619.6	116.1	130.8	-89.73	21.2	-1,255.0	2,829.4	2,582.7	246.72	11.468	
10,728.3	6,640.5	6,619.5	6,619.5	116.9	130.8	-89.73	21.2	-1,255.0	2,856.8	2,609.3	247.51	11.542	
10,800.0	6,640.5	6,619.5	6,619.5	118.9	130.8	-89.72	21.2	-1,255.0	2,926.1	2,676.6	249.50	11.728	
10,826.7	6,640.4	6,619.4	6,619.4	119.7	130.8	-89.72	21.2	-1,255.0	2,952.0	2,701.8	250.25	11.796	
10,900.0	6,640.3	6,619.3	6,619.3	121.7	130.8	-89.71	21.2	-1,255.0	3,023.0	2,770.7	252.29	11.983	
10,925.2	6,640.3	6,619.3	6,619.3	122.4	130.8	-89.71	21.2	-1,255.0	3,047.4	2,794.5	252.99	12.046	
11,000.0	6,640.2	6,619.2	6,619.2	124.5	130.8	-89.70	21.2	-1,255.0	3,120.1	2,865.1	255.07	12.232	
11,023.6	6,640.2	6,619.2	6,619.2	125.1	130.8	-89.70	21.2	-1,255.0	3,143.1	2,887.3	255.73	12.291	
11,100.0	6,640.1	6,619.1	6,619.1	127.3	130.8	-89.69	21.2	-1,255.0	3,217.4	2,959.5	257.85	12.478	
11,122.0	6,640.0	6,619.0	6,619.0	127.9	130.8	-89.69	21.2	-1,255.0	3,238.8	2,980.4	258.47	12.531	
11,200.0	6,639.9	6,618.9	6,618.9	130.1	130.8	-89.68	21.2	-1,255.0	3,314.8	3,054.2	260.64	12.718	
11,220.4	6,639.9	6,618.9	6,618.9	130.6	130.8	-89.68	21.2	-1,255.0	3,334.8	3,073.6	261.21	12.767	
11,300.0	6,639.8	6,618.8	6,618.8	132.8	130.8	-89.67	21.2	-1,255.0	3,412.4	3,149.0	263.43	12.954	
11,318.9	6,639.8	6,618.8	6,618.8	133.4	130.8	-89.67	21.2	-1,255.0	3,430.9	3,166.9	263.95	12.998	
11,400.0	6,639.7	6,618.7	6,618.7	135.6	130.8	-89.66	21.2	-1,255.0	3,510.2	3,243.9	266.21	13.186	
11,417.3	6,639.7	6,618.7	6,618.7	136.1	130.8	-89.66	21.2	-1,255.0	3,527.1	3,260.4	266.69	13.225	
11,500.0	6,639.6	6,618.6	6,618.6	138.4	130.8	-89.65	21.2	-1,255.0	3,608.0	3,339.0	269.00	13.413	
11,515.7	6,639.5	6,618.5	6,618.5	138.9	130.8	-89.65	21.2	-1,255.0	3,623.4	3,354.0	269.44	13.448	
11,600.0	6,639.4	6,618.4	6,618.4	141.2	130.8	-89.64	21.2	-1,255.0	3,706.0	3,434.2	271.79	13.635	
11,614.1	6,639.4	6,618.4	6,618.4	141.6	130.8	-89.64	21.2	-1,255.0	3,719.8	3,447.7	272.18	13.667	
11,700.0	6,639.3	6,618.3	6,618.3	144.0	130.8	-89.63	21.2	-1,255.0	3,804.0	3,529.5	274.58	13.854	
11,712.6	6,639.3	6,618.3	6,618.3	144.3	130.8	-89.63	21.2	-1,255.0	3,816.4	3,541.4	274.93	13.881	
11,800.0	6,639.2	6,618.2	6,618.2	146.8	130.8	-89.62	21.2	-1,255.0	3,902.2	3,624.8	277.37	14.069	
11,811.0	6,639.2	6,618.2	6,618.2	147.1	130.8	-89.62	21.2	-1,255.0	3,913.0	3,635.3	277.68	14.092	
11,900.0	6,639.1	6,618.1	6,618.1	149.6	130.8	-89.61	21.2	-1,255.0	4,000.5	3,720.3	280.16	14.279	
11,909.4	6,639.0	6,618.0	6,618.0	149.8	130.8	-89.61	21.2	-1,255.0	4,009.7	3,729.3	280.42	14.299	
12,000.0	6,638.9	6,617.9	6,617.9	152.4	130.8	-89.60	21.2	-1,255.0	4,098.8	3,815.9	282.95	14.486	
12,007.8	6,638.9	6,617.9	6,617.9	152.6	130.8	-89.60	21.2	-1,255.0	4,106.5	3,823.4	283.17	14.502	
12,100.0	6,638.8	6,617.8	6,617.8	155.2	130.8	-89.59	21.2	-1,255.0	4,197.2	3,911.5	285.74	14.689	
12,106.3	6,638.8	6,617.8	6,617.8	155.3	130.8	-89.59	21.2	-1,255.0	4,203.4	3,917.5	285.92	14.701	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,200.0	6,638.7	6,617.7	6,617.7	157.9	130.8	-89.58	21.2	-1,255.0	4,295.7	4,007.2	288.54	14.888		
12,204.7	6,638.7	6,617.7	6,617.7	158.1	130.8	-89.58	21.2	-1,255.0	4,300.4	4,011.7	288.67	14.897		
12,300.0	6,638.5	6,617.5	6,617.5	160.7	130.8	-89.57	21.2	-1,255.0	4,394.3	4,103.0	291.33	15.084		
12,303.1	6,638.5	6,617.5	6,617.5	160.8	130.8	-89.57	21.2	-1,255.0	4,397.4	4,105.9	291.42	15.090		
12,400.0	6,638.4	6,617.4	6,617.4	163.5	130.8	-89.56	21.2	-1,255.0	4,492.9	4,198.8	294.12	15.276		
12,401.5	6,638.4	6,617.4	6,617.4	163.6	130.8	-89.56	21.2	-1,255.0	4,494.4	4,200.3	294.17	15.279		
12,500.0	6,638.3	6,617.3	6,617.3	166.3	130.8	-89.55	21.2	-1,255.0	4,591.6	4,294.7	296.92	15.464		
12,598.4	6,638.2	6,617.2	6,617.2	169.1	130.8	-89.54	21.2	-1,255.0	4,688.8	4,389.1	299.67	15.647		
12,600.0	6,638.2	6,617.2	6,617.2	169.1	130.8	-89.54	21.2	-1,255.0	4,690.3	4,390.6	299.71	15.650		
12,696.8	6,638.0	6,617.0	6,617.0	171.8	130.8	-89.53	21.2	-1,255.0	4,786.0	4,483.6	302.42	15.826		
12,700.0	6,638.0	6,617.0	6,617.0	171.9	130.8	-89.53	21.2	-1,255.0	4,789.1	4,486.6	302.51	15.832		
12,795.2	6,637.9	6,616.9	6,616.9	174.6	130.8	-89.52	21.2	-1,255.0	4,883.3	4,578.1	305.17	16.002		
12,800.0	6,637.9	6,616.9	6,616.9	174.7	130.8	-89.51	21.2	-1,255.0	4,888.0	4,582.7	305.30	16.010		
12,893.7	6,637.8	6,616.8	6,616.8	177.3	130.8	-89.51	21.2	-1,255.0	4,980.6	4,672.7	307.92	16.175		
12,900.0	6,637.8	6,616.8	6,616.8	177.5	130.8	-89.50	21.2	-1,255.0	4,986.9	4,678.8	308.10	16.186		
12,992.1	6,637.7	6,616.7	6,616.7	180.1	130.8	-89.50	21.2	-1,255.0	5,078.0	4,767.3	310.67	16.345		
13,000.0	6,637.6	6,616.6	6,616.6	180.3	130.8	-89.49	21.2	-1,255.0	5,085.8	4,774.9	310.89	16.359		
13,090.5	6,637.5	6,616.5	6,616.5	182.8	130.8	-89.48	21.2	-1,255.0	5,175.4	4,862.0	313.42	16.512		
13,100.0	6,637.5	6,616.5	6,616.5	183.1	130.8	-89.48	21.2	-1,255.0	5,184.8	4,871.1	313.69	16.528		
13,188.9	6,637.4	6,616.4	6,616.4	185.6	130.8	-89.47	21.2	-1,255.0	5,272.8	4,956.7	316.18	16.677		
13,200.0	6,637.4	6,616.4	6,616.4	185.9	130.8	-89.47	21.2	-1,255.0	5,283.8	4,967.3	316.49	16.695		
13,287.4	6,637.3	6,616.3	6,616.3	188.4	130.8	-89.46	21.2	-1,255.0	5,370.3	5,051.4	318.93	16.839		
13,300.0	6,637.3	6,616.3	6,616.3	188.7	130.8	-89.46	21.2	-1,255.0	5,382.8	5,063.5	319.28	16.859		
13,385.8	6,637.1	6,616.1	6,616.1	191.1	130.8	-89.45	21.2	-1,255.0	5,467.8	5,146.2	321.68	16.998		
13,400.0	6,637.1	6,616.1	6,616.1	191.5	130.8	-89.45	21.2	-1,255.0	5,481.9	5,159.8	322.08	17.020		
13,484.2	6,637.0	6,616.0	6,616.0	193.9	130.7	-89.44	21.2	-1,255.0	5,565.4	5,240.9	324.44	17.154		
13,500.0	6,637.0	6,616.0	6,616.0	194.3	130.7	-89.44	21.2	-1,255.0	5,581.0	5,256.1	324.88	17.179		
13,582.6	6,636.9	6,615.9	6,615.9	196.6	130.7	-89.43	21.2	-1,255.0	5,663.0	5,335.8	327.19	17.308		
13,600.0	6,636.9	6,615.9	6,615.9	197.1	130.7	-89.43	21.2	-1,255.0	5,680.2	5,352.5	327.68	17.335		
13,681.1	6,636.8	6,615.8	6,615.8	199.4	130.7	-89.42	21.2	-1,255.0	5,760.6	5,430.6	329.94	17.459		
13,700.0	6,636.7	6,615.7	6,615.7	199.9	130.7	-89.42	21.2	-1,255.0	5,779.3	5,448.9	330.47	17.488		
13,779.5	6,636.6	6,615.6	6,615.6	202.1	130.7	-89.41	21.2	-1,255.0	5,858.2	5,525.5	332.70	17.608		
13,800.0	6,636.6	6,615.6	6,615.6	202.7	130.7	-89.41	21.2	-1,255.0	5,878.5	5,545.3	333.27	17.639		
13,877.9	6,636.5	6,615.5	6,615.5	204.9	130.7	-89.40	21.2	-1,255.0	5,955.9	5,620.4	335.45	17.755		
13,900.0	6,636.5	6,615.5	6,615.5	205.5	130.7	-89.40	21.2	-1,255.0	5,977.8	5,641.7	336.07	17.787		
13,976.3	6,636.4	6,615.4	6,615.4	207.6	130.7	-89.39	21.2	-1,255.0	6,053.6	5,715.3	338.21	17.899		
14,000.0	6,636.3	6,615.3	6,615.3	208.3	130.7	-89.39	21.2	-1,255.0	6,077.0	5,738.2	338.87	17.933		
14,074.8	6,636.3	6,615.3	6,615.3	210.4	130.7	-89.38	21.2	-1,255.0	6,151.3	5,810.3	340.96	18.041		
14,100.0	6,636.2	6,615.2	6,615.2	211.1	130.7	-89.38	21.2	-1,255.0	6,176.3	5,834.6	341.67	18.077		
14,173.2	6,636.1	6,615.1	6,615.1	213.2	130.7	-89.37	21.2	-1,255.0	6,249.0	5,905.3	343.72	18.181		
14,200.0	6,636.1	6,615.1	6,615.1	213.9	130.7	-89.37	21.2	-1,255.0	6,275.6	5,931.1	344.47	18.218		
14,271.6	6,636.0	6,615.0	6,615.0	215.9	130.7	-89.36	21.2	-1,255.0	6,346.8	6,000.3	346.47	18.318		
14,300.0	6,636.0	6,615.0	6,615.0	216.7	130.7	-89.36	21.2	-1,255.0	6,374.9	6,027.7	347.27	18.358		
14,370.0	6,635.9	6,614.9	6,614.9	218.7	130.7	-89.35	21.2	-1,255.0	6,444.5	6,095.3	349.23	18.454		
14,400.0	6,635.8	6,614.8	6,614.8	219.5	130.7	-89.34	21.2	-1,255.0	6,474.3	6,124.2	350.06	18.495		
14,468.5	6,635.7	6,614.7	6,614.7	221.4	130.7	-89.34	21.2	-1,255.0	6,542.3	6,190.3	351.98	18.587		
14,500.0	6,635.7	6,614.7	6,614.7	222.3	130.7	-89.33	21.2	-1,255.0	6,573.6	6,220.8	352.86	18.629		
14,566.9	6,635.6	6,614.6	6,614.6	224.2	130.7	-89.33	21.2	-1,255.0	6,640.1	6,285.4	354.74	18.718		
14,600.0	6,635.6	6,614.6	6,614.6	225.1	130.7	-89.32	21.2	-1,255.0	6,673.0	6,317.4	355.66	18.762		
14,665.3	6,635.5	6,614.5	6,614.5	226.9	130.7	-89.32	21.2	-1,255.0	6,738.0	6,380.5	357.49	18.848		
14,700.0	6,635.4	6,614.4	6,614.4	227.9	130.7	-89.31	21.2	-1,255.0	6,772.4	6,414.0	358.46	18.893		
14,763.7	6,635.4	6,614.4	6,614.4	229.7	130.7	-89.31	21.2	-1,255.0	6,835.8	6,475.6	360.25	18.975		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - ABDN VERT HEINRICH #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
14,800.0	6,635.3	6,614.3	6,614.3	230.7	130.7	-89.30	21.2	-1,255.0	6,871.8	6,510.6	361.26	19.022	
14,862.2	6,635.2	6,614.2	6,614.2	232.5	130.7	-89.30	21.2	-1,255.0	6,933.7	6,570.7	363.00	19.101	
14,900.0	6,635.2	6,614.2	6,614.2	233.5	130.7	-89.29	21.2	-1,255.0	6,971.3	6,607.2	364.06	19.149	
14,960.6	6,635.1	6,614.1	6,614.1	235.2	130.7	-89.28	21.2	-1,255.0	7,031.6	6,665.8	365.76	19.224	
15,000.0	6,635.0	6,614.0	6,614.0	236.3	130.7	-89.28	21.2	-1,255.0	7,070.7	6,703.9	366.86	19.273	
15,033.1	6,635.0	6,614.0	6,614.0	237.3	130.7	-89.28	21.2	-1,255.0	7,103.6	6,735.8	367.79	19.314	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	0.0	-60.81	1,332.8	-2,385.4	2,732.5				
98.4	98.4	103.4	103.4	0.1	0.0	-60.81	1,332.8	-2,385.4	2,732.5	2,732.4	0.13	N/A	
100.0	100.0	105.0	105.0	0.1	0.0	-60.81	1,332.8	-2,385.4	2,732.5	2,732.3	0.15	N/A	
196.8	196.8	201.8	201.8	0.3	1.0	-60.81	1,332.8	-2,385.4	2,732.5	2,731.2	1.30	2,095.168	
200.0	200.0	205.0	205.0	0.3	1.1	-60.81	1,332.8	-2,385.4	2,732.5	2,731.1	1.39	1,972.529	
295.3	295.3	300.3	300.3	0.5	3.3	-60.81	1,332.8	-2,385.4	2,732.5	2,728.7	3.84	712.132	
300.0	300.0	305.0	305.0	0.5	3.4	-60.81	1,332.8	-2,385.4	2,732.5	2,728.5	3.95	692.465	
393.7	393.7	398.7	398.7	0.8	5.3	-60.81	1,332.8	-2,385.4	2,732.5	2,726.4	6.11	447.431	
400.0	400.0	405.0	405.0	0.8	5.5	-60.81	1,332.8	-2,385.4	2,732.5	2,726.2	6.25	437.169	
492.1	492.1	497.1	497.1	1.0	7.4	-60.81	1,332.8	-2,385.4	2,732.5	2,724.2	8.34	327.663	
500.0	500.0	505.0	505.0	1.0	7.5	-60.81	1,332.8	-2,385.4	2,732.5	2,724.0	8.52	320.820	
590.5	590.5	595.5	595.5	1.2	9.4	-60.81	1,332.8	-2,385.4	2,732.5	2,721.9	10.56	258.806	
600.0	600.0	605.0	605.0	1.2	9.5	-60.81	1,332.8	-2,385.4	2,732.5	2,721.7	10.77	253.696	
689.0	689.0	694.0	694.0	1.4	11.3	-60.81	1,332.8	-2,385.4	2,732.5	2,719.7	12.77	213.970	
700.0	700.0	705.0	705.0	1.4	11.6	-60.81	1,332.8	-2,385.4	2,732.5	2,719.5	13.02	209.901	
787.4	787.4	792.4	792.4	1.6	13.3	-60.81	1,332.8	-2,385.4	2,732.5	2,717.5	14.98	182.419	
800.0	800.0	805.0	805.0	1.7	13.6	-60.81	1,332.8	-2,385.4	2,732.5	2,717.2	15.26	179.041	
885.8	885.8	890.8	890.8	1.9	15.3	-60.81	1,332.8	-2,385.4	2,732.5	2,715.3	17.19	158.996	
900.0	900.0	905.0	905.0	1.9	15.6	-60.81	1,332.8	-2,385.4	2,732.5	2,715.0	17.50	156.110	
984.2	984.2	989.2	989.2	2.1	17.3	-60.81	1,332.8	-2,385.4	2,732.5	2,713.1	19.39	140.914	
1,000.0	1,000.0	1,005.0	1,005.0	2.1	17.6	-60.81	1,332.8	-2,385.4	2,732.5	2,712.7	19.74	138.396	
1,082.7	1,082.7	1,087.7	1,087.7	2.3	19.3	-87.83	1,332.8	-2,385.4	2,732.4	2,710.9	21.59	126.541	
1,100.0	1,100.0	1,105.0	1,105.0	2.3	19.6	-87.85	1,332.8	-2,385.4	2,732.4	2,710.4	21.98	124.310	
1,181.1	1,181.0	1,186.0	1,186.0	2.5	21.3	-87.93	1,332.8	-2,385.4	2,732.3	2,708.5	23.79	114.839	
1,200.0	1,199.8	1,204.8	1,204.8	2.6	21.6	-87.96	1,332.8	-2,385.4	2,732.2	2,708.0	24.21	112.836	
1,279.5	1,279.1	1,284.1	1,284.1	2.8	23.2	-88.10	1,332.8	-2,385.4	2,732.0	2,706.0	25.99	105.109	
1,300.0	1,299.5	1,304.5	1,304.5	2.8	23.7	-88.15	1,332.8	-2,385.4	2,731.9	2,705.5	26.45	103.289	
1,377.9	1,376.9	1,381.9	1,381.9	3.0	25.2	-88.34	1,332.8	-2,385.4	2,731.7	2,703.5	28.20	96.874	
1,400.0	1,398.7	1,403.7	1,403.7	3.0	25.7	-88.41	1,332.8	-2,385.4	2,731.6	2,702.9	28.69	95.202	
1,476.4	1,474.2	1,479.2	1,479.2	3.2	27.2	-88.65	1,332.8	-2,385.4	2,731.3	2,700.8	30.42	89.792	
1,500.0	1,497.5	1,502.5	1,502.5	3.3	27.6	-88.74	1,332.8	-2,385.4	2,731.2	2,700.2	30.95	88.243	
1,574.8	1,571.0	1,576.0	1,576.0	3.5	29.1	-89.03	1,332.8	-2,385.4	2,730.9	2,698.2	32.66	83.624	
1,600.0	1,595.6	1,600.6	1,600.6	3.6	29.6	-89.14	1,332.8	-2,385.4	2,730.8	2,697.6	33.23	82.176	
1,673.2	1,667.2	1,672.2	1,672.2	3.9	31.1	-89.45	1,332.8	-2,385.4	2,730.6	2,695.7	34.92	78.199	
1,700.0	1,693.4	1,698.4	1,698.4	4.0	31.6	-89.57	1,332.8	-2,385.4	2,730.6	2,695.0	35.54	76.838	
1,771.6	1,763.5	1,768.5	1,768.5	4.2	33.0	-89.87	1,332.8	-2,385.4	2,730.5	2,693.3	37.20	73.396	
1,800.0	1,791.3	1,796.3	1,796.3	4.3	33.6	-89.99	1,332.8	-2,385.4	2,730.5	2,692.6	37.86	72.116	
1,801.8	1,793.0	1,798.0	1,798.0	4.3	33.6	-90.00	1,332.8	-2,385.4	2,730.5	2,692.6	37.90	72.038	
1,870.1	1,859.8	1,864.8	1,864.8	4.6	34.9	-90.29	1,332.8	-2,385.4	2,730.5	2,691.0	39.50	69.124	
1,900.0	1,889.1	1,894.1	1,894.1	4.7	35.5	-90.42	1,332.8	-2,385.4	2,730.6	2,690.4	40.20	67.920	
1,968.5	1,956.1	1,961.1	1,961.1	4.9	36.9	-90.71	1,332.8	-2,385.4	2,730.7	2,688.9	41.81	65.307	
2,000.0	1,986.9	1,991.9	1,991.9	5.1	37.5	-90.85	1,332.8	-2,385.4	2,730.8	2,688.2	42.55	64.172	
2,066.9	2,052.3	2,057.3	2,057.3	5.3	38.8	-91.13	1,332.8	-2,385.4	2,731.0	2,686.9	44.13	61.880	
2,100.0	2,084.7	2,089.7	2,089.7	5.5	39.5	-91.27	1,332.8	-2,385.4	2,731.2	2,686.3	44.92	60.807	
2,165.3	2,148.6	2,153.6	2,153.6	5.7	40.7	-91.55	1,332.8	-2,385.4	2,731.5	2,685.1	46.46	58.789	
2,200.0	2,182.5	2,187.5	2,187.5	5.9	41.4	-91.70	1,332.8	-2,385.4	2,731.7	2,684.5	47.28	57.773	
2,263.8	2,244.9	2,249.9	2,249.9	6.1	42.7	-91.97	1,332.8	-2,385.4	2,732.2	2,683.4	48.80	55.990	
2,300.0	2,280.3	2,285.3	2,285.3	6.3	43.4	-92.13	1,332.8	-2,385.4	2,732.5	2,682.8	49.66	55.026	
2,362.2	2,341.2	2,346.2	2,346.2	6.5	44.6	-92.39	1,332.8	-2,385.4	2,733.0	2,681.8	51.14	53.445	
2,400.0	2,378.1	2,383.1	2,383.1	6.7	45.4	-92.55	1,332.8	-2,385.4	2,733.3	2,681.3	52.04	52.528	
2,460.6	2,437.4	2,442.4	2,442.4	6.9	46.6	-92.81	1,332.8	-2,385.4	2,733.9	2,680.4	53.48	51.121	
2,500.0	2,476.0	2,481.0	2,481.0	7.1	47.3	-92.98	1,332.8	-2,385.4	2,734.3	2,679.9	54.42	50.248	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
2,550.0	2,524.9	2,529.9	2,529.9	7.3	48.3	-93.19	1,332.8	-2,385.4	2,734.9	2,679.3	55.61	49.181		
2,559.0	2,533.7	2,538.7	2,538.7	7.3	48.5	-92.38	1,332.8	-2,385.4	2,735.0	2,679.2	55.82	48.993		
2,600.0	2,573.8	2,578.8	2,578.8	7.5	49.3	-88.71	1,332.8	-2,385.4	2,735.1	2,678.3	56.79	48.159		
2,639.4	2,612.3	2,617.3	2,617.3	7.7	50.1	-85.18	1,332.8	-2,385.4	2,734.6	2,676.9	57.71	47.389		
2,657.5	2,630.0	2,635.0	2,635.0	7.7	50.4	-85.25	1,332.8	-2,385.4	2,734.3	2,676.2	58.13	47.035		
2,700.0	2,671.6	2,676.6	2,676.6	7.9	51.3	-85.43	1,332.8	-2,385.4	2,733.6	2,674.5	59.14	46.222		
2,755.9	2,726.3	2,731.3	2,731.3	8.1	52.4	-85.67	1,332.8	-2,385.4	2,732.7	2,672.2	60.48	45.186		
2,800.0	2,769.4	2,774.4	2,774.4	8.3	53.2	-85.86	1,332.8	-2,385.4	2,732.0	2,670.5	61.53	44.401		
2,854.3	2,822.5	2,827.5	2,827.5	8.5	54.3	-86.09	1,332.8	-2,385.4	2,731.2	2,668.3	62.83	43.470		
2,900.0	2,867.2	2,872.2	2,872.2	8.7	55.2	-86.29	1,332.8	-2,385.4	2,730.5	2,666.6	63.92	42.717		
2,952.7	2,918.8	2,923.8	2,923.8	9.0	56.2	-86.51	1,332.8	-2,385.4	2,729.8	2,664.6	65.18	41.879		
3,000.0	2,965.0	2,970.0	2,970.0	9.2	57.2	-86.71	1,332.8	-2,385.4	2,729.2	2,662.9	66.31	41.156		
3,051.2	3,015.1	3,020.1	3,020.1	9.4	58.2	-86.93	1,332.8	-2,385.4	2,728.6	2,661.1	67.54	40.400		
3,100.0	3,062.8	3,067.8	3,067.8	9.6	59.1	-87.14	1,332.8	-2,385.4	2,728.1	2,659.4	68.71	39.705		
3,149.6	3,111.4	3,116.4	3,116.4	9.8	60.1	-87.35	1,332.8	-2,385.4	2,727.6	2,657.7	69.90	39.023		
3,200.0	3,160.7	3,165.7	3,165.7	10.0	61.1	-87.56	1,332.8	-2,385.4	2,727.1	2,656.0	71.10	38.353		
3,248.0	3,207.6	3,212.6	3,212.6	10.2	62.0	-87.77	1,332.8	-2,385.4	2,726.7	2,654.4	72.26	37.737		
3,300.0	3,258.5	3,263.5	3,263.5	10.5	63.1	-87.99	1,332.8	-2,385.4	2,726.3	2,652.8	73.50	37.091		
3,346.4	3,303.9	3,308.9	3,308.9	10.7	64.0	-88.19	1,332.8	-2,385.4	2,726.0	2,651.3	74.62	36.533		
3,400.0	3,356.3	3,361.3	3,361.3	10.9	65.0	-88.42	1,332.8	-2,385.4	2,725.6	2,649.7	75.90	35.911		
3,444.9	3,400.2	3,405.2	3,405.2	11.1	65.9	-88.61	1,332.8	-2,385.4	2,725.4	2,648.4	76.98	35.406		
3,500.0	3,454.1	3,459.1	3,459.1	11.3	67.0	-88.85	1,332.8	-2,385.4	2,725.1	2,646.8	78.30	34.805		
3,543.3	3,496.5	3,501.5	3,501.5	11.5	67.9	-89.03	1,332.8	-2,385.4	2,724.9	2,645.6	79.34	34.347		
3,600.0	3,551.9	3,556.9	3,556.9	11.7	69.0	-89.27	1,332.8	-2,385.4	2,724.8	2,644.1	80.70	33.766		
3,641.7	3,592.7	3,597.7	3,597.7	11.9	69.8	-89.45	1,332.8	-2,385.4	2,724.7	2,643.0	81.70	33.351		
3,700.0	3,649.7	3,654.7	3,654.7	12.2	70.9	-89.70	1,332.8	-2,385.4	2,724.6	2,641.5	83.09	32.789		
3,740.1	3,689.0	3,694.0	3,694.0	12.4	71.7	-89.87	1,332.8	-2,385.4	2,724.5	2,640.5	84.06	32.413		
3,769.8	3,718.0	3,723.0	3,723.0	12.5	72.3	-90.00	1,332.8	-2,385.4	2,724.5	2,639.8	84.77	32.141		
3,800.0	3,747.5	3,752.5	3,752.5	12.6	72.9	-90.13	1,332.8	-2,385.4	2,724.5	2,639.0	85.49	31.868		
3,838.6	3,785.3	3,790.3	3,790.3	12.8	73.7	-90.29	1,332.8	-2,385.4	2,724.6	2,638.1	86.42	31.527		
3,900.0	3,845.4	3,850.4	3,850.4	13.1	74.9	-90.56	1,332.8	-2,385.4	2,724.7	2,636.8	87.89	31.000		
3,937.0	3,881.6	3,886.6	3,886.6	13.2	75.6	-90.72	1,332.8	-2,385.4	2,724.8	2,636.0	88.78	30.691		
4,000.0	3,943.2	3,948.2	3,948.2	13.5	76.8	-90.98	1,332.8	-2,385.4	2,724.9	2,634.7	90.29	30.179		
4,035.4	3,977.8	3,982.8	3,982.8	13.6	77.5	-91.14	1,332.8	-2,385.4	2,725.1	2,633.9	91.14	29.899		
4,100.0	4,041.0	4,046.0	4,046.0	13.9	78.8	-91.41	1,332.8	-2,385.4	2,725.4	2,632.7	92.69	29.403		
4,133.8	4,074.1	4,079.1	4,079.1	14.1	79.5	-91.56	1,332.8	-2,385.4	2,725.6	2,632.1	93.50	29.150		
4,200.0	4,138.8	4,143.8	4,143.8	14.4	80.8	-91.84	1,332.8	-2,385.4	2,726.0	2,630.9	95.09	28.668		
4,232.3	4,170.4	4,175.4	4,175.4	14.5	81.4	-91.98	1,332.8	-2,385.4	2,726.2	2,630.4	95.86	28.439		
4,300.0	4,236.6	4,241.6	4,241.6	14.8	82.7	-92.27	1,332.8	-2,385.4	2,726.8	2,629.3	97.49	27.970		
4,330.7	4,266.7	4,271.7	4,271.7	14.9	83.3	-92.40	1,332.8	-2,385.4	2,727.0	2,628.8	98.22	27.763		
4,400.0	4,334.4	4,339.4	4,339.4	15.2	84.7	-92.69	1,332.8	-2,385.4	2,727.7	2,627.8	99.89	27.308		
4,429.1	4,362.9	4,367.9	4,367.9	15.4	85.3	-92.82	1,332.8	-2,385.4	2,728.0	2,627.4	100.58	27.121		
4,500.0	4,432.3	4,437.3	4,437.3	15.7	86.7	-93.12	1,332.8	-2,385.4	2,728.8	2,626.5	102.28	26.679		
4,527.5	4,459.2	4,464.2	4,464.2	15.8	87.2	-93.24	1,332.8	-2,385.4	2,729.1	2,626.1	102.94	26.511		
4,600.0	4,530.1	4,535.1	4,535.1	16.1	88.6	-93.55	1,332.8	-2,385.4	2,730.0	2,625.3	104.68	26.080		
4,626.0	4,555.5	4,560.5	4,560.5	16.2	89.2	-93.66	1,332.8	-2,385.4	2,730.3	2,625.0	105.30	25.929		
4,700.0	4,627.9	4,632.9	4,632.9	16.6	90.6	-93.97	1,332.8	-2,385.4	2,731.4	2,624.3	107.07	25.509		
4,724.4	4,651.7	4,656.7	4,656.7	16.7	91.1	-94.08	1,332.8	-2,385.4	2,731.7	2,624.1	107.66	25.374		
4,800.0	4,725.7	4,730.7	4,730.7	17.0	92.6	-94.40	1,332.8	-2,385.4	2,732.9	2,623.5	109.47	24.965		
4,822.8	4,748.0	4,753.0	4,753.0	17.1	93.0	-94.49	1,332.8	-2,385.4	2,733.3	2,623.3	110.02	24.845		
4,904.9	4,828.3	4,833.3	4,833.3	17.5	94.6	-94.84	1,332.8	-2,385.4	2,734.7	2,622.8	111.98	24.421		
4,921.2	4,844.3	4,849.3	4,849.3	17.5	95.0	-94.92	1,332.8	-2,385.4	2,735.0	2,622.7	112.36	24.341		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
5,000.0	4,921.6	4,926.6	4,926.6	17.8	96.5	-95.25	1,332.8	-2,385.4	2,736.4	2,622.2	114.21	23.960	
5,019.7	4,941.0	4,946.0	4,946.0	17.9	96.9	-95.32	1,332.8	-2,385.4	2,736.7	2,622.0	114.65	23.869	
5,100.0	5,020.4	5,025.4	5,025.4	18.1	98.5	-95.60	1,332.8	-2,385.4	2,737.9	2,621.4	116.48	23.505	
5,118.1	5,038.3	5,043.3	5,043.3	18.2	98.9	-95.66	1,332.8	-2,385.4	2,738.1	2,621.2	116.89	23.425	
5,200.0	5,119.6	5,124.6	5,124.6	18.4	100.5	-95.88	1,332.8	-2,385.4	2,739.1	2,620.4	118.73	23.071	
5,216.5	5,136.0	5,141.0	5,141.0	18.4	100.8	-95.92	1,332.8	-2,385.4	2,739.3	2,620.2	119.09	23.001	
5,300.0	5,219.2	5,224.2	5,224.2	18.6	102.5	-96.09	1,332.8	-2,385.4	2,740.1	2,619.1	120.94	22.655	
5,314.9	5,234.1	5,239.1	5,239.1	18.6	102.8	-96.11	1,332.8	-2,385.4	2,740.2	2,618.9	121.27	22.595	
5,400.0	5,319.1	5,324.1	5,324.1	18.8	104.5	-96.21	1,332.8	-2,385.4	2,740.6	2,617.5	123.13	22.258	
5,413.4	5,332.4	5,337.4	5,337.4	18.8	104.8	-96.22	1,332.8	-2,385.4	2,740.7	2,617.3	123.42	22.207	
5,504.9	5,423.9	5,428.9	5,428.9	18.9	106.6	-77.83	1,332.8	-2,385.4	2,740.8	2,621.0	119.83	22.873	
5,511.8	5,430.8	5,435.8	5,435.8	18.9	106.8	-77.83	1,332.8	-2,385.4	2,740.8	2,620.9	119.98	22.844	
5,600.0	5,519.0	5,524.0	5,524.0	19.0	108.5	-77.83	1,332.8	-2,385.4	2,740.8	2,618.9	121.91	22.482	
5,610.2	5,529.3	5,534.3	5,534.3	19.0	108.7	-77.83	1,332.8	-2,385.4	2,740.8	2,618.7	122.14	22.441	
5,700.0	5,619.0	5,624.0	5,624.0	19.2	110.5	-77.83	1,332.8	-2,385.4	2,740.8	2,616.7	124.12	22.082	
5,708.6	5,627.7	5,632.7	5,632.7	19.2	110.7	-77.83	1,332.8	-2,385.4	2,740.8	2,616.5	124.31	22.048	
5,800.0	5,719.0	5,724.0	5,724.0	19.3	112.6	-77.83	1,332.8	-2,385.4	2,740.8	2,614.5	126.33	21.696	
5,807.1	5,726.1	5,731.1	5,731.1	19.3	112.7	-77.83	1,332.8	-2,385.4	2,740.8	2,614.4	126.48	21.669	
5,900.0	5,819.0	5,824.0	5,824.0	19.4	114.6	-77.83	1,332.8	-2,385.4	2,740.8	2,612.3	128.54	21.323	
5,905.5	5,824.5	5,829.5	5,829.5	19.4	114.7	-77.83	1,332.8	-2,385.4	2,740.8	2,612.2	128.66	21.303	
6,003.9	5,923.0	5,928.0	5,928.0	19.6	116.7	-77.83	1,332.8	-2,385.4	2,740.8	2,610.0	130.83	20.949	
6,009.8	5,928.8	5,933.8	5,933.8	19.6	116.8	-77.83	1,332.8	-2,385.4	2,740.8	2,609.9	130.96	20.928	
6,050.0	5,969.0	5,974.0	5,974.0	19.6	117.6	12.19	1,332.8	-2,385.4	2,739.7	2,602.9	136.87	20.017	
6,100.0	6,018.8	6,023.8	6,023.8	19.7	118.6	12.28	1,332.8	-2,385.4	2,735.3	2,598.2	137.09	19.952	
6,102.3	6,021.1	6,026.1	6,026.1	19.7	118.6	12.29	1,332.8	-2,385.4	2,735.0	2,597.9	137.09	19.951	
6,150.0	6,068.1	6,073.1	6,073.1	19.7	119.6	12.46	1,332.8	-2,385.4	2,727.5	2,590.8	136.66	19.958	
6,200.0	6,116.8	6,121.8	6,121.8	19.7	120.5	12.71	1,332.8	-2,385.4	2,716.3	2,580.7	135.57	20.036	
6,200.8	6,117.5	6,122.5	6,122.5	19.7	120.6	12.71	1,332.8	-2,385.4	2,716.1	2,580.5	135.55	20.037	
6,250.0	6,164.5	6,169.5	6,169.5	19.7	121.5	13.05	1,332.8	-2,385.4	2,701.8	2,568.0	133.83	20.188	
6,299.2	6,210.4	6,215.4	6,215.4	19.7	122.4	13.47	1,332.8	-2,385.4	2,684.5	2,553.0	131.50	20.414	
6,300.0	6,211.1	6,216.1	6,216.1	19.7	122.4	13.48	1,332.8	-2,385.4	2,684.2	2,552.7	131.46	20.419	
6,350.0	6,256.4	6,261.4	6,261.4	19.7	123.4	14.02	1,332.8	-2,385.4	2,663.4	2,534.9	128.47	20.732	
6,397.6	6,298.0	6,303.0	6,303.0	19.7	124.2	14.66	1,332.8	-2,385.4	2,640.8	2,515.7	125.09	21.110	
6,400.0	6,300.0	6,305.0	6,305.0	19.7	124.2	14.69	1,332.8	-2,385.4	2,639.6	2,514.6	124.91	21.131	
6,450.0	6,341.8	6,346.8	6,346.8	19.7	125.1	15.50	1,332.8	-2,385.4	2,612.8	2,492.0	120.86	21.619	
6,496.0	6,378.6	6,383.6	6,383.6	19.7	125.8	16.41	1,332.8	-2,385.4	2,585.8	2,469.0	116.75	22.147	
6,500.0	6,381.6	6,386.6	6,386.6	19.7	125.9	16.49	1,332.8	-2,385.4	2,583.4	2,467.0	116.39	22.196	
6,550.0	6,419.2	6,424.2	6,424.2	19.6	126.6	17.69	1,332.8	-2,385.4	2,551.3	2,439.6	111.65	22.850	
6,594.5	6,450.7	6,455.7	6,455.7	19.6	127.3	18.97	1,332.8	-2,385.4	2,520.7	2,413.3	107.38	23.475	
6,600.0	6,454.4	6,459.4	6,459.4	19.6	127.3	19.14	1,332.8	-2,385.4	2,516.7	2,409.9	106.85	23.554	
6,650.0	6,487.1	6,492.1	6,492.1	19.6	128.0	20.92	1,332.8	-2,385.4	2,479.9	2,377.6	102.27	24.248	
6,692.9	6,513.0	6,518.0	6,518.0	19.6	128.5	22.77	1,332.8	-2,385.4	2,446.6	2,347.8	98.84	24.753	
6,700.0	6,517.0	6,522.0	6,522.0	19.6	128.6	23.12	1,332.8	-2,385.4	2,441.0	2,342.6	98.35	24.820	
6,750.0	6,544.1	6,549.1	6,549.1	19.6	129.1	25.85	1,332.8	-2,385.4	2,400.2	2,304.5	95.68	25.086	
6,791.3	6,564.2	6,569.2	6,569.2	19.7	129.5	28.62	1,332.8	-2,385.4	2,365.1	2,270.1	95.00	24.897	
6,800.0	6,568.2	6,573.2	6,573.2	19.7	129.6	29.28	1,332.8	-2,385.4	2,357.7	2,262.6	95.05	24.804	
6,850.0	6,589.1	6,594.1	6,594.1	19.8	130.0	33.65	1,332.8	-2,385.4	2,313.7	2,216.3	97.38	23.759	
6,889.7	6,603.5	6,608.5	6,608.5	19.9	130.3	38.00	1,332.8	-2,385.4	2,277.8	2,175.9	101.91	22.352	
6,900.0	6,606.9	6,611.9	6,611.9	19.9	130.4	39.27	1,332.8	-2,385.4	2,268.5	2,165.0	103.48	21.921	
6,950.0	6,621.3	6,626.3	6,626.3	20.2	130.7	46.53	1,332.8	-2,385.4	2,222.2	2,108.6	113.63	19.556	
6,988.2	6,630.0	6,635.0	6,635.0	20.6	130.9	53.42	1,332.8	-2,385.4	2,186.3	2,062.7	123.64	17.683	
7,000.0	6,632.4	6,637.4	6,637.4	20.7	130.9	55.81	1,332.8	-2,385.4	2,175.2	2,048.2	126.96	17.132	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,640.0	6,645.0	6,645.0	21.4	131.1	67.28	1,332.8	-2,385.4	2,127.6	1,986.8	140.76	15.115	
7,086.6	6,643.4	6,648.4	6,648.4	21.9	131.1	76.82	1,332.8	-2,385.4	2,092.5	1,943.9	148.60	14.081	
7,100.0	6,644.2	6,649.2	6,649.2	22.1	131.2	80.47	1,332.8	-2,385.4	2,079.7	1,929.1	150.58	13.811	
7,135.7	6,645.0	6,650.0	6,650.0	22.7	131.2	90.24	1,332.8	-2,385.4	2,045.5	1,892.5	152.93	13.375	
7,185.0	6,644.9	6,649.9	6,649.9	23.6	131.2	90.23	1,332.8	-2,385.4	1,998.1	1,844.2	153.89	12.984	
7,200.0	6,644.9	6,649.9	6,649.9	23.9	131.2	90.23	1,332.8	-2,385.4	1,983.8	1,829.6	154.18	12.867	
7,283.4	6,644.8	6,649.8	6,649.8	25.6	131.2	90.22	1,332.8	-2,385.4	1,904.1	1,748.2	155.91	12.213	
7,300.0	6,644.8	6,649.8	6,649.8	25.9	131.2	90.22	1,332.8	-2,385.4	1,888.4	1,732.1	156.25	12.085	
7,381.9	6,644.7	6,649.7	6,649.7	27.7	131.2	90.21	1,332.8	-2,385.4	1,810.6	1,652.5	158.06	11.455	
7,400.0	6,644.7	6,649.7	6,649.7	28.1	131.2	90.21	1,332.8	-2,385.4	1,793.4	1,635.0	158.46	11.318	
7,480.3	6,644.6	6,649.6	6,649.6	29.9	131.2	90.20	1,332.8	-2,385.4	1,717.6	1,557.3	160.31	10.714	
7,500.0	6,644.6	6,649.6	6,649.6	30.3	131.2	90.19	1,332.8	-2,385.4	1,699.0	1,538.3	160.77	10.568	
7,578.7	6,644.5	6,649.5	6,649.5	32.2	131.2	90.18	1,332.8	-2,385.4	1,625.2	1,462.6	162.65	9.992	
7,600.0	6,644.4	6,649.4	6,649.4	32.7	131.2	90.18	1,332.8	-2,385.4	1,605.4	1,442.2	163.16	9.839	
7,677.1	6,644.3	6,649.3	6,649.3	34.6	131.2	90.17	1,332.8	-2,385.4	1,533.6	1,368.6	165.05	9.292	
7,700.0	6,644.3	6,649.3	6,649.3	35.1	131.2	90.17	1,332.8	-2,385.4	1,512.5	1,346.9	165.62	9.133	
7,775.6	6,644.2	6,649.2	6,649.2	37.0	131.2	90.16	1,332.8	-2,385.4	1,442.9	1,275.4	167.51	8.614	
7,800.0	6,644.2	6,649.2	6,649.2	37.6	131.2	90.16	1,332.8	-2,385.4	1,420.6	1,252.5	168.12	8.450	
7,874.0	6,644.1	6,649.1	6,649.1	39.5	131.2	90.15	1,332.8	-2,385.4	1,353.3	1,183.3	170.01	7.960	
7,900.0	6,644.1	6,649.1	6,649.1	40.1	131.2	90.15	1,332.8	-2,385.4	1,329.8	1,159.2	170.67	7.792	
7,972.4	6,644.0	6,649.0	6,649.0	42.0	131.2	90.14	1,332.8	-2,385.4	1,265.0	1,092.5	172.54	7.332	
8,000.0	6,643.9	6,648.9	6,648.9	42.7	131.2	90.13	1,332.8	-2,385.4	1,240.5	1,067.3	173.25	7.160	
8,070.8	6,643.9	6,648.9	6,648.9	44.5	131.1	90.13	1,332.8	-2,385.4	1,178.3	1,003.2	175.09	6.729	
8,100.0	6,643.8	6,648.8	6,648.8	45.2	131.1	90.12	1,332.8	-2,385.4	1,153.0	977.1	175.85	6.556	
8,169.3	6,643.7	6,648.7	6,648.7	47.0	131.1	90.11	1,332.8	-2,385.4	1,093.6	915.9	177.68	6.155	
8,200.0	6,643.7	6,648.7	6,648.7	47.9	131.1	90.11	1,332.8	-2,385.4	1,067.6	889.1	178.48	5.981	
8,267.7	6,643.6	6,648.6	6,648.6	49.6	131.1	90.10	1,332.8	-2,385.4	1,011.3	831.0	180.28	5.610	
8,300.0	6,643.6	6,648.6	6,648.6	50.5	131.1	90.10	1,332.8	-2,385.4	985.0	803.8	181.13	5.438	
8,366.1	6,643.5	6,648.5	6,648.5	52.2	131.1	90.09	1,332.8	-2,385.4	932.2	749.3	182.90	5.097	
8,400.0	6,643.4	6,648.4	6,648.4	53.1	131.1	90.09	1,332.8	-2,385.4	905.9	722.1	183.80	4.928	
8,464.5	6,643.4	6,648.4	6,648.4	54.8	131.1	90.08	1,332.8	-2,385.4	857.1	671.6	185.53	4.620	
8,500.0	6,643.3	6,648.3	6,648.3	55.8	131.1	90.07	1,332.8	-2,385.4	831.3	644.8	186.48	4.458	
8,563.0	6,643.2	6,648.2	6,648.2	57.5	131.1	90.07	1,332.8	-2,385.4	787.2	599.0	188.18	4.183	
8,600.0	6,643.2	6,648.2	6,648.2	58.5	131.1	90.06	1,332.8	-2,385.4	762.5	573.3	189.17	4.031	
8,661.4	6,643.1	6,648.1	6,648.1	60.1	131.1	90.05	1,332.8	-2,385.4	723.9	533.1	190.83	3.793	
8,700.0	6,643.1	6,648.1	6,648.1	61.2	131.1	90.05	1,332.8	-2,385.4	701.3	509.4	191.88	3.655	
8,759.8	6,643.0	6,648.0	6,648.0	62.8	131.1	90.04	1,332.8	-2,385.4	669.2	475.7	193.50	3.458	
8,800.0	6,643.0	6,648.0	6,648.0	63.9	131.1	90.04	1,332.8	-2,385.4	649.8	455.2	194.59	3.339	
8,858.2	6,642.9	6,647.9	6,647.9	65.4	131.1	90.03	1,332.8	-2,385.4	625.3	429.1	196.17	3.187	
8,900.0	6,642.8	6,647.8	6,647.8	66.6	131.1	90.02	1,332.8	-2,385.4	610.5	413.2	197.31	3.094	
8,956.7	6,642.8	6,647.8	6,647.8	68.1	131.1	90.02	1,332.8	-2,385.4	594.5	395.7	198.86	2.990	
9,000.0	6,642.7	6,647.7	6,647.7	69.3	131.1	90.01	1,332.8	-2,385.4	585.8	385.7	200.04	2.928	
9,055.1	6,642.6	6,647.6	6,647.6	70.8	131.1	90.01	1,332.8	-2,385.4	579.1	377.6	201.54	2.873	
9,097.9	6,642.6	6,647.6	6,647.6	71.9	131.1	90.00	1,332.8	-2,385.4	577.5	374.8	202.71	2.849 CC	
9,100.0	6,642.6	6,647.6	6,647.6	72.0	131.1	90.00	1,332.8	-2,385.4	577.5	374.8	202.77	2.848 ES	
9,153.5	6,642.5	6,647.5	6,647.5	73.5	131.1	89.99	1,332.8	-2,385.4	580.2	376.0	204.24	2.841 SF	
9,200.0	6,642.5	6,647.5	6,647.5	74.7	131.1	89.99	1,332.8	-2,385.4	586.5	381.0	205.51	2.854	
9,251.9	6,642.4	6,647.4	6,647.4	76.2	131.1	89.98	1,332.8	-2,385.4	597.7	390.8	206.94	2.888	
9,300.0	6,642.3	6,647.3	6,647.3	77.5	131.1	89.98	1,332.8	-2,385.4	611.9	403.6	208.26	2.938	
9,350.4	6,642.3	6,647.3	6,647.3	78.9	131.1	89.97	1,332.8	-2,385.4	630.3	420.7	209.64	3.007	
9,400.0	6,642.2	6,647.2	6,647.2	80.2	131.1	89.96	1,332.8	-2,385.4	651.8	440.8	211.00	3.089	
9,448.8	6,642.1	6,647.1	6,647.1	81.6	131.1	89.96	1,332.8	-2,385.4	675.8	463.4	212.35	3.182	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,642.1	6,647.1	6,647.1	83.0	131.1	89.95	1,332.8	-2,385.4	703.7	490.0	213.76	3.292	
9,547.2	6,642.0	6,647.0	6,647.0	84.3	131.1	89.94	1,332.8	-2,385.4	731.7	516.7	215.06	3.403	
9,600.0	6,642.0	6,647.0	6,647.0	85.7	131.1	89.94	1,332.8	-2,385.4	765.3	548.8	216.51	3.535	
9,645.6	6,641.9	6,646.9	6,646.9	87.0	131.1	89.93	1,332.8	-2,385.4	796.0	578.2	217.77	3.655	
9,700.0	6,641.8	6,646.8	6,646.8	88.5	131.1	89.93	1,332.8	-2,385.4	834.3	615.1	219.27	3.805	
9,744.1	6,641.8	6,646.8	6,646.8	89.7	131.1	89.92	1,332.8	-2,385.4	866.7	646.2	220.49	3.931	
9,800.0	6,641.7	6,646.7	6,646.7	91.2	131.1	89.91	1,332.8	-2,385.4	909.1	687.1	222.04	4.095	
9,842.5	6,641.7	6,646.7	6,646.7	92.4	131.1	89.91	1,332.8	-2,385.4	942.3	719.1	223.21	4.222	
9,900.0	6,641.6	6,646.6	6,646.6	94.0	131.1	89.90	1,332.8	-2,385.4	988.4	763.6	224.80	4.397	
9,940.9	6,641.5	6,646.5	6,646.5	95.1	131.1	89.90	1,332.8	-2,385.4	1,021.9	796.0	225.93	4.523	
10,000.0	6,641.5	6,646.5	6,646.5	96.7	131.1	89.89	1,332.8	-2,385.4	1,071.2	843.6	227.57	4.707	
10,039.3	6,641.4	6,646.4	6,646.4	97.8	131.1	89.88	1,332.8	-2,385.4	1,104.5	875.8	228.66	4.830	
10,100.0	6,641.3	6,646.3	6,646.3	99.5	131.1	89.88	1,332.8	-2,385.4	1,156.6	926.3	230.34	5.021	
10,137.8	6,641.3	6,646.3	6,646.3	100.6	131.1	89.87	1,332.8	-2,385.4	1,189.5	958.1	231.39	5.141	
10,200.0	6,641.2	6,646.2	6,646.2	102.3	131.1	89.86	1,332.8	-2,385.4	1,244.3	1,011.2	233.11	5.338	
10,236.2	6,641.2	6,646.2	6,646.2	103.3	131.1	89.86	1,332.8	-2,385.4	1,276.4	1,042.3	234.12	5.452	
10,300.0	6,641.1	6,646.1	6,646.1	105.0	131.1	89.85	1,332.8	-2,385.4	1,333.7	1,097.8	235.89	5.654	
10,334.6	6,641.0	6,646.0	6,646.0	106.0	131.1	89.85	1,332.8	-2,385.4	1,365.0	1,128.1	236.85	5.763	
10,400.0	6,641.0	6,646.0	6,646.0	107.8	131.1	89.84	1,332.8	-2,385.4	1,424.5	1,185.8	238.66	5.968	
10,433.0	6,640.9	6,645.9	6,645.9	108.7	131.1	89.83	1,332.8	-2,385.4	1,454.7	1,215.1	239.58	6.072	
10,500.0	6,640.8	6,645.8	6,645.8	110.6	131.1	89.82	1,332.8	-2,385.4	1,516.4	1,275.0	241.44	6.281	
10,531.5	6,640.8	6,645.8	6,645.8	111.5	131.1	89.82	1,332.8	-2,385.4	1,545.6	1,303.2	242.31	6.378	
10,600.0	6,640.7	6,645.7	6,645.7	113.4	131.1	89.81	1,332.8	-2,385.4	1,609.3	1,365.1	244.22	6.590	
10,629.9	6,640.7	6,645.7	6,645.7	114.2	131.1	89.81	1,332.8	-2,385.4	1,637.3	1,392.2	245.05	6.681	
10,700.0	6,640.6	6,645.6	6,645.6	116.1	131.1	89.80	1,332.8	-2,385.4	1,703.0	1,456.0	247.00	6.895	
10,728.3	6,640.5	6,645.5	6,645.5	116.9	131.1	89.80	1,332.8	-2,385.4	1,729.7	1,481.9	247.79	6.981	
10,800.0	6,640.5	6,645.5	6,645.5	118.9	131.1	89.79	1,332.8	-2,385.4	1,797.4	1,547.7	249.78	7.196	
10,826.7	6,640.4	6,645.4	6,645.4	119.7	131.1	89.78	1,332.8	-2,385.4	1,822.8	1,572.3	250.53	7.276	
10,900.0	6,640.3	6,645.3	6,645.3	121.7	131.1	89.77	1,332.8	-2,385.4	1,892.4	1,639.8	252.57	7.493	
10,925.2	6,640.3	6,645.3	6,645.3	122.4	131.1	89.77	1,332.8	-2,385.4	1,916.4	1,663.1	253.27	7.567	
11,000.0	6,640.2	6,645.2	6,645.2	124.5	131.1	89.76	1,332.8	-2,385.4	1,987.9	1,732.5	255.35	7.785	
11,023.6	6,640.2	6,645.2	6,645.2	125.1	131.1	89.76	1,332.8	-2,385.4	2,010.5	1,754.5	256.01	7.853	
11,100.0	6,640.1	6,645.1	6,645.1	127.3	131.1	89.75	1,332.8	-2,385.4	2,083.8	1,825.6	258.13	8.072	
11,122.0	6,640.0	6,645.0	6,645.0	127.9	131.1	89.75	1,332.8	-2,385.4	2,104.9	1,846.2	258.75	8.135	
11,200.0	6,639.9	6,644.9	6,644.9	130.1	131.1	89.74	1,332.8	-2,385.4	2,180.0	1,919.1	260.92	8.355	
11,220.4	6,639.9	6,644.9	6,644.9	130.6	131.1	89.73	1,332.8	-2,385.4	2,199.7	1,938.3	261.49	8.412	
11,300.0	6,639.8	6,644.8	6,644.8	132.8	131.1	89.72	1,332.8	-2,385.4	2,276.6	2,012.9	263.71	8.633	
11,318.9	6,639.8	6,644.8	6,644.8	133.4	131.1	89.72	1,332.8	-2,385.4	2,294.9	2,030.6	264.23	8.685	
11,400.0	6,639.7	6,644.7	6,644.7	135.6	131.1	89.71	1,332.8	-2,385.4	2,373.5	2,107.0	266.50	8.906	
11,417.3	6,639.7	6,644.7	6,644.7	136.1	131.1	89.71	1,332.8	-2,385.4	2,390.2	2,123.3	266.98	8.953	
11,500.0	6,639.6	6,644.6	6,644.6	138.4	131.1	89.70	1,332.8	-2,385.4	2,470.6	2,201.3	269.29	9.175	
11,515.7	6,639.5	6,644.5	6,644.5	138.9	131.1	89.70	1,332.8	-2,385.4	2,485.9	2,216.1	269.72	9.216	
11,600.0	6,639.4	6,644.4	6,644.4	141.2	131.1	89.68	1,332.8	-2,385.4	2,567.9	2,295.8	272.07	9.438	
11,614.1	6,639.4	6,644.4	6,644.4	141.6	131.1	89.68	1,332.8	-2,385.4	2,581.7	2,309.2	272.47	9.475	
11,700.0	6,639.3	6,644.3	6,644.3	144.0	131.1	89.67	1,332.8	-2,385.4	2,665.4	2,390.6	274.87	9.697	
11,712.6	6,639.3	6,644.3	6,644.3	144.3	131.1	89.67	1,332.8	-2,385.4	2,677.7	2,402.5	275.22	9.730	
11,800.0	6,639.2	6,644.2	6,644.2	146.8	131.1	89.66	1,332.8	-2,385.4	2,763.2	2,485.5	277.66	9.952	
11,811.0	6,639.2	6,644.2	6,644.2	147.1	131.1	89.66	1,332.8	-2,385.4	2,773.9	2,495.9	277.96	9.979	
11,900.0	6,639.1	6,644.1	6,644.1	149.6	131.1	89.65	1,332.8	-2,385.4	2,861.0	2,580.6	280.45	10.202	
11,909.4	6,639.0	6,644.0	6,644.0	149.8	131.1	89.64	1,332.8	-2,385.4	2,870.3	2,589.5	280.71	10.225	
12,000.0	6,638.9	6,643.9	6,643.9	152.4	131.0	89.63	1,332.8	-2,385.4	2,959.0	2,675.8	283.24	10.447	
12,007.8	6,638.9	6,643.9	6,643.9	152.6	131.0	89.63	1,332.8	-2,385.4	2,966.7	2,683.3	283.46	10.466	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,100.0	6,638.8	6,643.8	6,643.8	155.2	131.0	89.62	1,332.8	-2,385.4	3,057.2	2,771.1	286.03	10.688		
12,106.3	6,638.8	6,643.8	6,643.8	155.3	131.0	89.62	1,332.8	-2,385.4	3,063.3	2,777.1	286.21	10.703		
12,200.0	6,638.7	6,643.7	6,643.7	157.9	131.0	89.61	1,332.8	-2,385.4	3,155.4	2,866.6	288.83	10.925		
12,204.7	6,638.7	6,643.7	6,643.7	158.1	131.0	89.61	1,332.8	-2,385.4	3,160.0	2,871.1	288.96	10.936		
12,300.0	6,638.5	6,643.5	6,643.5	160.7	131.0	89.59	1,332.8	-2,385.4	3,253.8	2,962.2	291.62	11.158		
12,303.1	6,638.5	6,643.5	6,643.5	160.8	131.0	89.59	1,332.8	-2,385.4	3,256.9	2,965.2	291.71	11.165		
12,400.0	6,638.4	6,643.4	6,643.4	163.5	131.0	89.58	1,332.8	-2,385.4	3,352.3	3,057.8	294.41	11.386		
12,401.5	6,638.4	6,643.4	6,643.4	163.6	131.0	89.58	1,332.8	-2,385.4	3,353.8	3,059.3	294.46	11.390		
12,500.0	6,638.3	6,643.3	6,643.3	166.3	131.0	89.57	1,332.8	-2,385.4	3,450.8	3,153.6	297.21	11.611		
12,598.4	6,638.2	6,643.2	6,643.2	169.1	131.0	89.55	1,332.8	-2,385.4	3,547.8	3,247.9	299.96	11.828		
12,600.0	6,638.2	6,643.2	6,643.2	169.1	131.0	89.55	1,332.8	-2,385.4	3,549.4	3,249.4	300.00	11.831		
12,696.8	6,638.0	6,643.0	6,643.0	171.8	131.0	89.54	1,332.8	-2,385.4	3,645.0	3,342.3	302.71	12.041		
12,700.0	6,638.0	6,643.0	6,643.0	171.9	131.0	89.54	1,332.8	-2,385.4	3,648.1	3,345.3	302.80	12.048		
12,795.2	6,637.9	6,642.9	6,642.9	174.6	131.0	89.53	1,332.8	-2,385.4	3,742.2	3,436.7	305.46	12.251		
12,800.0	6,637.9	6,642.9	6,642.9	174.7	131.0	89.53	1,332.8	-2,385.4	3,746.9	3,441.3	305.60	12.261		
12,893.7	6,637.8	6,642.8	6,642.8	177.3	131.0	89.52	1,332.8	-2,385.4	3,839.5	3,531.3	308.22	12.457		
12,900.0	6,637.8	6,642.8	6,642.8	177.5	131.0	89.51	1,332.8	-2,385.4	3,845.7	3,537.3	308.39	12.470		
12,992.1	6,637.7	6,642.7	6,642.7	180.1	131.0	89.50	1,332.8	-2,385.4	3,936.8	3,625.9	310.97	12.660		
13,000.0	6,637.6	6,642.6	6,642.6	180.3	131.0	89.50	1,332.8	-2,385.4	3,944.6	3,633.4	311.19	12.676		
13,090.5	6,637.5	6,642.5	6,642.5	182.8	131.0	89.49	1,332.8	-2,385.4	4,034.2	3,720.5	313.72	12.859		
13,100.0	6,637.5	6,642.5	6,642.5	183.1	131.0	89.49	1,332.8	-2,385.4	4,043.6	3,729.6	313.99	12.878		
13,188.9	6,637.4	6,642.4	6,642.4	185.6	131.0	89.48	1,332.8	-2,385.4	4,131.6	3,815.2	316.47	13.055		
13,200.0	6,637.4	6,642.4	6,642.4	185.9	131.0	89.47	1,332.8	-2,385.4	4,142.6	3,825.8	316.78	13.077		
13,287.4	6,637.3	6,642.3	6,642.3	188.4	131.0	89.46	1,332.8	-2,385.4	4,229.1	3,909.9	319.23	13.248		
13,300.0	6,637.3	6,642.3	6,642.3	188.7	131.0	89.46	1,332.8	-2,385.4	4,241.6	3,922.0	319.58	13.272		
13,385.8	6,637.1	6,642.1	6,642.1	191.1	131.0	89.45	1,332.8	-2,385.4	4,326.6	4,004.7	321.98	13.438		
13,400.0	6,637.1	6,642.1	6,642.1	191.5	131.0	89.45	1,332.8	-2,385.4	4,340.7	4,018.3	322.38	13.465		
13,484.2	6,637.0	6,642.0	6,642.0	193.9	131.0	89.44	1,332.8	-2,385.4	4,424.2	4,099.5	324.74	13.624		
13,500.0	6,637.0	6,642.0	6,642.0	194.3	131.0	89.43	1,332.8	-2,385.4	4,439.9	4,114.7	325.18	13.654		
13,582.6	6,636.9	6,641.9	6,641.9	196.6	131.0	89.42	1,332.8	-2,385.4	4,521.8	4,194.3	327.49	13.807		
13,600.0	6,636.9	6,641.9	6,641.9	197.1	131.0	89.42	1,332.8	-2,385.4	4,539.0	4,211.0	327.98	13.840		
13,681.1	6,636.8	6,641.8	6,641.8	199.4	131.0	89.41	1,332.8	-2,385.4	4,619.4	4,289.2	330.24	13.988		
13,700.0	6,636.7	6,641.7	6,641.7	199.9	131.0	89.41	1,332.8	-2,385.4	4,638.2	4,307.5	330.77	14.022		
13,779.5	6,636.6	6,641.6	6,641.6	202.1	131.0	89.40	1,332.8	-2,385.4	4,717.1	4,384.1	333.00	14.166		
13,800.0	6,636.6	6,641.6	6,641.6	202.7	131.0	89.39	1,332.8	-2,385.4	4,737.5	4,403.9	333.57	14.202		
13,877.9	6,636.5	6,641.5	6,641.5	204.9	131.0	89.38	1,332.8	-2,385.4	4,814.8	4,479.1	335.75	14.340		
13,900.0	6,636.5	6,641.5	6,641.5	205.5	131.0	89.38	1,332.8	-2,385.4	4,836.7	4,500.4	336.37	14.379		
13,976.3	6,636.4	6,641.4	6,641.4	207.6	131.0	89.37	1,332.8	-2,385.4	4,912.5	4,574.0	338.51	14.512		
14,000.0	6,636.3	6,641.3	6,641.3	208.3	131.0	89.37	1,332.8	-2,385.4	4,936.0	4,596.9	339.17	14.553		
14,074.8	6,636.3	6,641.3	6,641.3	210.4	131.0	89.36	1,332.8	-2,385.4	5,010.3	4,669.0	341.26	14.682		
14,100.0	6,636.2	6,641.2	6,641.2	211.1	131.0	89.35	1,332.8	-2,385.4	5,035.4	4,693.4	341.97	14.725		
14,173.2	6,636.1	6,641.1	6,641.1	213.2	131.0	89.34	1,332.8	-2,385.4	5,108.1	4,764.1	344.02	14.848		
14,200.0	6,636.1	6,641.1	6,641.1	213.9	131.0	89.34	1,332.8	-2,385.4	5,134.7	4,789.9	344.77	14.893		
14,271.6	6,636.0	6,641.0	6,641.0	215.9	131.0	89.33	1,332.8	-2,385.4	5,205.9	4,859.1	346.78	15.012		
14,300.0	6,636.0	6,641.0	6,641.0	216.7	131.0	89.33	1,332.8	-2,385.4	5,234.1	4,886.5	347.57	15.059		
14,370.0	6,635.9	6,640.9	6,640.9	218.7	131.0	89.32	1,332.8	-2,385.4	5,303.7	4,954.2	349.53	15.174		
14,400.0	6,635.8	6,640.8	6,640.8	219.5	131.0	89.31	1,332.8	-2,385.4	5,333.5	4,983.1	350.37	15.222		
14,468.5	6,635.7	6,640.7	6,640.7	221.4	131.0	89.30	1,332.8	-2,385.4	5,401.6	5,049.3	352.29	15.333		
14,500.0	6,635.7	6,640.7	6,640.7	222.3	131.0	89.30	1,332.8	-2,385.4	5,432.9	5,079.7	353.17	15.383		
14,566.9	6,635.6	6,640.6	6,640.6	224.2	131.0	89.29	1,332.8	-2,385.4	5,499.4	5,144.4	355.04	15.489		
14,600.0	6,635.6	6,640.6	6,640.6	225.1	131.0	89.29	1,332.8	-2,385.4	5,532.4	5,176.4	355.97	15.542		
14,665.3	6,635.5	6,640.5	6,640.5	226.9	131.0	89.28	1,332.8	-2,385.4	5,597.3	5,239.5	357.80	15.644		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - ABDN VERT OGRADY #3 - 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
14,700.0	6,635.4	6,640.4	6,640.4	227.9	131.0	89.27	1,332.8	-2,385.4	5,631.8	5,273.0	358.77	15.698	
14,763.7	6,635.4	6,640.4	6,640.4	229.7	131.0	89.26	1,332.8	-2,385.4	5,695.2	5,334.7	360.56	15.796	
14,800.0	6,635.3	6,640.3	6,640.3	230.7	131.0	89.26	1,332.8	-2,385.4	5,731.3	5,369.7	361.57	15.851	
14,862.2	6,635.2	6,640.2	6,640.2	232.5	131.0	89.25	1,332.8	-2,385.4	5,793.2	5,429.9	363.31	15.945	
14,900.0	6,635.2	6,640.2	6,640.2	233.5	131.0	89.25	1,332.8	-2,385.4	5,830.8	5,466.4	364.37	16.002	
14,960.6	6,635.1	6,640.1	6,640.1	235.2	131.0	89.24	1,332.8	-2,385.4	5,891.1	5,525.0	366.07	16.093	
15,000.0	6,635.0	6,640.0	6,640.0	236.3	131.0	89.23	1,332.8	-2,385.4	5,930.3	5,563.1	367.17	16.151	
15,033.1	6,635.0	6,640.0	6,640.0	237.3	131.0	89.23	1,332.8	-2,385.4	5,963.2	5,595.1	368.10	16.200	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-82.13	1,248.3	-9,029.6	9,115.6				
98.4	98.4	73.4	73.4	0.1	0.0	-82.13	1,248.3	-9,029.6	9,115.5	9,115.4	0.11	N/A	
100.0	100.0	75.0	75.0	0.1	0.0	-82.13	1,248.3	-9,029.6	9,115.5	9,115.4	0.11	N/A	
196.8	196.8	171.8	171.8	0.3	1.9	-82.13	1,248.3	-9,029.6	9,115.5	9,113.3	2.24	4,073.362	
200.0	200.0	175.0	175.0	0.3	2.0	-82.13	1,248.3	-9,029.6	9,115.5	9,113.2	2.33	3,914.571	
295.3	295.3	270.3	270.3	0.5	4.1	-82.13	1,248.3	-9,029.6	9,115.5	9,110.9	4.65	1,959.207	
300.0	300.0	275.0	275.0	0.5	4.2	-82.13	1,248.3	-9,029.6	9,115.5	9,110.8	4.76	1,914.833	
393.7	393.7	368.7	368.7	0.8	6.1	-82.13	1,248.3	-9,029.6	9,115.5	9,108.6	6.88	1,325.018	
400.0	400.0	375.0	375.0	0.8	6.2	-82.13	1,248.3	-9,029.6	9,115.5	9,108.5	7.02	1,298.220	
492.1	492.1	467.1	467.1	1.0	8.1	-82.13	1,248.3	-9,029.6	9,115.5	9,106.4	9.09	1,002.533	
500.0	500.0	475.0	475.0	1.0	8.3	-82.13	1,248.3	-9,029.6	9,115.5	9,106.3	9.27	983.406	
590.5	590.5	565.5	565.5	1.2	10.1	-82.13	1,248.3	-9,029.6	9,115.5	9,104.2	11.30	806.659	
600.0	600.0	575.0	575.0	1.2	10.3	-82.13	1,248.3	-9,029.6	9,115.5	9,104.0	11.51	791.814	
689.0	689.0	664.0	664.0	1.4	12.1	-82.13	1,248.3	-9,029.6	9,115.5	9,102.0	13.51	674.938	
700.0	700.0	675.0	675.0	1.4	12.3	-82.13	1,248.3	-9,029.6	9,115.5	9,101.8	13.75	662.818	
787.4	787.4	762.4	762.4	1.6	14.1	-82.13	1,248.3	-9,029.6	9,115.5	9,099.8	15.71	580.249	
800.0	800.0	775.0	775.0	1.7	14.3	-82.13	1,248.3	-9,029.6	9,115.5	9,099.5	15.99	570.013	
885.8	885.8	860.8	860.8	1.9	16.0	-82.13	1,248.3	-9,029.6	9,115.5	9,097.6	17.91	508.884	
900.0	900.0	875.0	875.0	1.9	16.3	-82.13	1,248.3	-9,029.6	9,115.5	9,097.3	18.23	500.028	
984.2	984.2	959.2	959.2	2.1	18.0	-82.13	1,248.3	-9,029.6	9,115.5	9,095.4	20.12	453.163	
1,000.0	1,000.0	975.0	975.0	2.1	18.3	-82.13	1,248.3	-9,029.6	9,115.5	9,095.1	20.47	445.361	
1,082.7	1,082.7	1,057.7	1,057.7	2.3	20.0	-109.13	1,248.3	-9,029.6	9,115.9	9,093.6	22.31	408.523	
1,100.0	1,100.0	1,075.0	1,075.0	2.3	20.4	-109.13	1,248.3	-9,029.6	9,116.1	9,093.4	22.70	401.576	
1,181.1	1,181.0	1,156.0	1,156.0	2.5	22.0	-109.13	1,248.3	-9,029.6	9,117.4	9,092.9	24.51	372.035	
1,200.0	1,199.8	1,174.8	1,174.8	2.6	22.4	-109.13	1,248.3	-9,029.6	9,117.8	9,092.9	24.93	365.781	
1,279.5	1,279.1	1,254.1	1,254.1	2.8	24.0	-109.13	1,248.3	-9,029.6	9,120.0	9,093.3	26.70	341.628	
1,300.0	1,299.5	1,274.5	1,274.5	2.8	24.4	-109.12	1,248.3	-9,029.6	9,120.7	9,093.5	27.15	335.937	
1,377.9	1,376.9	1,351.9	1,351.9	3.0	25.9	-109.12	1,248.3	-9,029.6	9,123.7	9,094.8	28.88	315.865	
1,400.0	1,398.7	1,373.7	1,373.7	3.0	26.4	-109.12	1,248.3	-9,029.6	9,124.7	9,095.3	29.37	310.636	
1,476.4	1,474.2	1,449.2	1,449.2	3.2	27.9	-109.12	1,248.3	-9,029.6	9,128.6	9,097.5	31.08	293.714	
1,500.0	1,497.5	1,472.5	1,472.5	3.3	28.4	-109.11	1,248.3	-9,029.6	9,129.9	9,098.3	31.61	288.870	
1,574.8	1,571.0	1,546.0	1,546.0	3.5	29.8	-109.11	1,248.3	-9,029.6	9,134.5	9,101.2	33.29	274.426	
1,600.0	1,595.6	1,570.6	1,570.6	3.6	30.3	-109.10	1,248.3	-9,029.6	9,136.2	9,102.4	33.85	269.906	
1,673.2	1,667.2	1,642.2	1,642.2	3.9	31.8	-109.19	1,248.3	-9,029.6	9,141.3	9,105.8	35.52	257.326	
1,700.0	1,693.4	1,668.4	1,668.4	4.0	32.3	-109.23	1,248.3	-9,029.6	9,143.2	9,107.1	36.14	253.016	
1,771.6	1,763.5	1,738.5	1,738.5	4.2	33.7	-109.31	1,248.3	-9,029.6	9,148.2	9,110.4	37.79	242.090	
1,800.0	1,791.3	1,766.3	1,766.3	4.3	34.3	-109.35	1,248.3	-9,029.6	9,150.2	9,111.8	38.44	238.025	
1,870.1	1,859.8	1,834.8	1,834.8	4.6	35.6	-109.43	1,248.3	-9,029.6	9,155.1	9,115.1	40.07	228.492	
1,900.0	1,889.1	1,864.1	1,864.1	4.7	36.2	-109.47	1,248.3	-9,029.6	9,157.2	9,116.5	40.76	224.655	
1,968.5	1,956.1	1,931.1	1,931.1	4.9	37.6	-109.55	1,248.3	-9,029.6	9,162.1	9,119.7	42.36	216.305	
2,000.0	1,986.9	1,961.9	1,961.9	5.1	38.2	-109.59	1,248.3	-9,029.6	9,164.3	9,121.2	43.09	212.672	
2,066.9	2,052.3	2,027.3	2,027.3	5.3	39.5	-109.67	1,248.3	-9,029.6	9,169.1	9,124.4	44.66	205.325	
2,100.0	2,084.7	2,059.7	2,059.7	5.5	40.2	-109.71	1,248.3	-9,029.6	9,171.5	9,126.0	45.43	201.881	
2,165.3	2,148.6	2,123.6	2,123.6	5.7	41.5	-109.78	1,248.3	-9,029.6	9,176.1	9,129.2	46.96	195.392	
2,200.0	2,182.5	2,157.5	2,157.5	5.9	42.1	-109.83	1,248.3	-9,029.6	9,178.6	9,130.9	47.78	192.121	
2,263.8	2,244.9	2,219.9	2,219.9	6.1	43.4	-109.90	1,248.3	-9,029.6	9,183.2	9,133.9	49.27	186.369	
2,300.0	2,280.3	2,255.3	2,255.3	6.3	44.1	-109.95	1,248.3	-9,029.6	9,185.8	9,135.7	50.13	183.256	
2,362.2	2,341.2	2,316.2	2,316.2	6.5	45.3	-110.02	1,248.3	-9,029.6	9,190.3	9,138.8	51.59	178.140	
2,400.0	2,378.1	2,353.1	2,353.1	6.7	46.1	-110.07	1,248.3	-9,029.6	9,193.1	9,140.6	52.48	175.171	
2,460.6	2,437.4	2,412.4	2,412.4	6.9	47.3	-110.14	1,248.3	-9,029.6	9,197.5	9,143.6	53.91	170.608	
2,500.0	2,476.0	2,451.0	2,451.0	7.1	48.0	-110.18	1,248.3	-9,029.6	9,200.4	9,145.5	54.84	167.771	
2,550.0	2,524.9	2,499.9	2,499.9	7.3	49.0	-110.24	1,248.3	-9,029.6	9,204.1	9,148.0	56.02	164.302	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - ABDN VERT PLUMB #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	2,533.7	2,508.7	2,508.7	7.3	49.2	-109.40	1,248.3	-9,029.6	9,204.7	9,148.5	56.24	163.663					
2,600.0	2,573.8	2,548.8	2,548.8	7.5	50.0	-105.59	1,248.3	-9,029.6	9,207.3	9,150.1	57.24	160.841					
2,639.4	2,612.3	2,587.3	2,587.3	7.7	50.8	-101.93	1,248.3	-9,029.6	9,209.3	9,151.1	58.20	158.248					
2,657.5	2,630.0	2,605.0	2,605.0	7.7	51.1	-101.95	1,248.3	-9,029.6	9,210.1	9,151.5	58.62	157.111					
2,700.0	2,671.6	2,646.6	2,646.6	7.9	52.0	-102.01	1,248.3	-9,029.6	9,212.0	9,152.3	59.62	154.504					
2,755.9	2,726.3	2,701.3	2,701.3	8.1	53.1	-102.08	1,248.3	-9,029.6	9,214.4	9,153.5	60.95	151.177					
2,800.0	2,769.4	2,744.4	2,744.4	8.3	53.9	-102.13	1,248.3	-9,029.6	9,216.4	9,154.4	62.00	148.653					
2,854.3	2,822.5	2,797.5	2,797.5	8.5	55.0	-102.20	1,248.3	-9,029.6	9,218.8	9,155.5	63.29	145.657					
2,900.0	2,867.2	2,842.2	2,842.2	8.7	55.9	-102.25	1,248.3	-9,029.6	9,220.9	9,156.5	64.38	143.231					
2,952.7	2,918.8	2,893.8	2,893.8	9.0	56.9	-102.32	1,248.3	-9,029.6	9,223.3	9,157.6	65.63	140.527					
3,000.0	2,965.0	2,940.0	2,940.0	9.2	57.9	-102.38	1,248.3	-9,029.6	9,225.4	9,158.7	66.76	138.192					
3,051.2	3,015.1	2,990.1	2,990.1	9.4	58.9	-102.44	1,248.3	-9,029.6	9,227.8	9,159.8	67.98	135.749					
3,100.0	3,062.8	3,037.8	3,037.8	9.6	59.8	-102.50	1,248.3	-9,029.6	9,230.0	9,160.9	69.14	133.498					
3,149.6	3,111.4	3,086.4	3,086.4	9.8	60.8	-102.56	1,248.3	-9,029.6	9,232.3	9,162.0	70.32	131.287					
3,200.0	3,160.7	3,135.7	3,135.7	10.0	61.8	-102.62	1,248.3	-9,029.6	9,234.6	9,163.1	71.52	129.115					
3,248.0	3,207.6	3,182.6	3,182.6	10.2	62.8	-102.68	1,248.3	-9,029.6	9,236.8	9,164.2	72.67	127.112					
3,300.0	3,258.5	3,233.5	3,233.5	10.5	63.8	-102.75	1,248.3	-9,029.6	9,239.3	9,165.4	73.91	125.014					
3,346.4	3,303.9	3,278.9	3,278.9	10.7	64.7	-102.80	1,248.3	-9,029.6	9,241.5	9,166.4	75.01	123.197					
3,400.0	3,356.3	3,331.3	3,331.3	10.9	65.7	-102.87	1,248.3	-9,029.6	9,244.0	9,167.7	76.29	121.168					
3,444.9	3,400.2	3,375.2	3,375.2	11.1	66.6	-102.93	1,248.3	-9,029.6	9,246.1	9,168.7	77.36	119.519					
3,500.0	3,454.1	3,429.1	3,429.1	11.3	67.7	-102.99	1,248.3	-9,029.6	9,248.7	9,170.1	78.68	117.555					
3,543.3	3,496.5	3,471.5	3,471.5	11.5	68.6	-103.05	1,248.3	-9,029.6	9,250.8	9,171.1	79.71	116.057					
3,600.0	3,551.9	3,526.9	3,526.9	11.7	69.7	-103.12	1,248.3	-9,029.6	9,253.5	9,172.5	81.06	114.154					
3,641.7	3,592.7	3,567.7	3,567.7	11.9	70.5	-103.17	1,248.3	-9,029.6	9,255.5	9,173.5	82.06	112.794					
3,700.0	3,649.7	3,624.7	3,624.7	12.2	71.6	-103.24	1,248.3	-9,029.6	9,258.4	9,174.9	83.45	110.948					
3,740.1	3,689.0	3,664.0	3,664.0	12.4	72.4	-103.29	1,248.3	-9,029.6	9,260.3	9,175.9	84.41	109.712					
3,800.0	3,747.5	3,722.5	3,722.5	12.6	73.6	-103.36	1,248.3	-9,029.6	9,263.3	9,177.4	85.83	107.920					
3,838.6	3,785.3	3,760.3	3,760.3	12.8	74.4	-103.41	1,248.3	-9,029.6	9,265.2	9,178.4	86.76	106.797					
3,900.0	3,845.4	3,820.4	3,820.4	13.1	75.6	-103.48	1,248.3	-9,029.6	9,268.2	9,180.0	88.22	105.056					
3,937.0	3,881.6	3,856.6	3,856.6	13.2	76.3	-103.53	1,248.3	-9,029.6	9,270.0	9,180.9	89.10	104.035					
4,000.0	3,943.2	3,918.2	3,918.2	13.5	77.5	-103.61	1,248.3	-9,029.6	9,273.2	9,182.5	90.61	102.343					
4,035.4	3,977.8	3,952.8	3,952.8	13.6	78.2	-103.65	1,248.3	-9,029.6	9,274.9	9,183.5	91.45	101.416					
4,100.0	4,041.0	4,016.0	4,016.0	13.9	79.5	-103.73	1,248.3	-9,029.6	9,278.2	9,185.2	93.00	99.770					
4,133.8	4,074.1	4,049.1	4,049.1	14.1	80.2	-103.77	1,248.3	-9,029.6	9,279.9	9,186.1	93.80	98.929					
4,200.0	4,138.8	4,113.8	4,113.8	14.4	81.5	-103.85	1,248.3	-9,029.6	9,283.2	9,187.8	95.38	97.326					
4,232.3	4,170.4	4,145.4	4,145.4	14.5	82.1	-103.89	1,248.3	-9,029.6	9,284.9	9,188.7	96.15	96.563					
4,300.0	4,236.6	4,211.6	4,211.6	14.8	83.4	-103.97	1,248.3	-9,029.6	9,288.3	9,190.6	97.77	95.002					
4,330.7	4,266.7	4,241.7	4,241.7	14.9	84.0	-104.01	1,248.3	-9,029.6	9,289.9	9,191.4	98.50	94.311					
4,400.0	4,334.4	4,309.4	4,309.4	15.2	85.4	-104.09	1,248.3	-9,029.6	9,293.5	9,193.3	100.16	92.789					
4,429.1	4,362.9	4,337.9	4,337.9	15.4	86.0	-104.13	1,248.3	-9,029.6	9,295.0	9,194.1	100.85	92.164					
4,500.0	4,432.3	4,407.3	4,407.3	15.7	87.4	-104.22	1,248.3	-9,029.6	9,298.7	9,196.1	102.54	90.679					
4,527.5	4,459.2	4,434.2	4,434.2	15.8	87.9	-104.25	1,248.3	-9,029.6	9,300.1	9,196.9	103.20	90.115					
4,600.0	4,530.1	4,505.1	4,505.1	16.1	89.3	-104.34	1,248.3	-9,029.6	9,303.9	9,199.0	104.93	88.666					
4,626.0	4,555.5	4,530.5	4,530.5	16.2	89.9	-104.37	1,248.3	-9,029.6	9,305.3	9,199.7	105.55	88.158					
4,700.0	4,627.9	4,602.9	4,602.9	16.6	91.3	-104.46	1,248.3	-9,029.6	9,309.2	9,201.9	107.32	86.743					
4,724.4	4,651.7	4,626.7	4,626.7	16.7	91.8	-104.49	1,248.3	-9,029.6	9,310.5	9,202.6	107.90	86.287					
4,800.0	4,725.7	4,700.7	4,700.7	17.0	93.3	-104.58	1,248.3	-9,029.6	9,314.5	9,204.8	109.71	84.904					
4,822.8	4,748.0	4,723.0	4,723.0	17.1	93.7	-104.61	1,248.3	-9,029.6	9,315.7	9,205.5	110.25	84.496					
4,904.9	4,828.3	4,803.3	4,803.3	17.5	95.3	-104.71	1,248.3	-9,029.6	9,320.1	9,207.9	112.21	83.060					
4,921.2	4,844.3	4,819.3	4,819.3	17.5	95.7	-104.74	1,248.3	-9,029.6	9,321.0	9,208.4	112.60	82.783					
5,000.0	4,921.6	4,896.6	4,896.6	17.8	97.2	-104.91	1,248.3	-9,029.6	9,324.9	9,210.4	114.46	81.468					
5,019.7	4,941.0	4,916.0	4,916.0	17.9	97.6	-104.94	1,248.3	-9,029.6	9,325.8	9,210.8	114.91	81.155					

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,995.4	4,995.4	18.1	99.2	-105.08	1,248.3	-9,029.6	9,329.0	9,212.3	116.76	79.900	
5,118.1	5,038.3	5,013.3	5,013.3	18.2	99.6	-105.11	1,248.3	-9,029.6	9,329.7	9,212.5	117.17	79.626	
5,200.0	5,119.6	5,094.6	5,094.6	18.4	101.2	-105.21	1,248.3	-9,029.6	9,332.3	9,213.2	119.03	78.405	
5,216.5	5,136.0	5,111.0	5,111.0	18.4	101.5	-105.23	1,248.3	-9,029.6	9,332.7	9,213.3	119.40	78.166	
5,300.0	5,219.2	5,194.2	5,194.2	18.6	103.2	-105.31	1,248.3	-9,029.6	9,334.6	9,213.4	121.26	76.981	
5,314.9	5,234.1	5,209.1	5,209.1	18.6	103.5	-105.32	1,248.3	-9,029.6	9,334.9	9,213.3	121.59	76.776	
5,400.0	5,319.1	5,294.1	5,294.1	18.8	105.2	-105.37	1,248.3	-9,029.6	9,336.0	9,212.6	123.45	75.625	
5,413.4	5,332.4	5,307.4	5,307.4	18.8	105.5	-105.38	1,248.3	-9,029.6	9,336.2	9,212.4	123.74	75.450	
5,504.9	5,423.9	5,398.9	5,398.9	18.9	107.3	-86.97	1,248.3	-9,029.6	9,336.6	9,215.5	121.06	77.122	
5,511.8	5,430.8	5,405.8	5,405.8	18.9	107.5	-86.97	1,248.3	-9,029.6	9,336.6	9,215.3	121.21	77.026	
5,600.0	5,519.0	5,494.0	5,494.0	19.0	109.2	-86.97	1,248.3	-9,029.6	9,336.6	9,213.4	123.14	75.822	
5,610.2	5,529.3	5,504.3	5,504.3	19.0	109.4	-86.97	1,248.3	-9,029.6	9,336.6	9,213.2	123.36	75.684	
5,700.0	5,619.0	5,594.0	5,594.0	19.2	111.2	-86.97	1,248.3	-9,029.6	9,336.6	9,211.2	125.34	74.491	
5,708.6	5,627.7	5,602.7	5,602.7	19.2	111.4	-86.97	1,248.3	-9,029.6	9,336.6	9,211.0	125.53	74.378	
5,800.0	5,719.0	5,694.0	5,694.0	19.3	113.3	-86.97	1,248.3	-9,029.6	9,336.6	9,209.0	127.54	73.205	
5,807.1	5,726.1	5,701.1	5,701.1	19.3	113.4	-86.97	1,248.3	-9,029.6	9,336.6	9,208.9	127.70	73.116	
5,900.0	5,819.0	5,794.0	5,794.0	19.4	115.3	-86.97	1,248.3	-9,029.6	9,336.6	9,206.8	129.74	71.962	
5,905.5	5,824.5	5,799.5	5,799.5	19.4	115.4	-86.97	1,248.3	-9,029.6	9,336.6	9,206.7	129.86	71.895	
6,003.9	5,923.0	5,898.0	5,898.0	19.6	117.4	-86.97	1,248.3	-9,029.6	9,336.6	9,204.5	132.03	70.714	
6,009.8	5,928.8	5,903.8	5,903.8	19.6	117.5	-86.97	1,248.3	-9,029.6	9,336.6	9,204.4	132.16	70.645	
6,050.0	5,969.0	5,944.0	5,944.0	19.6	118.3	3.03	1,248.3	-9,029.6	9,335.4	9,198.2	137.19	68.047	
6,100.0	6,018.8	5,993.8	5,993.8	19.7	119.3	3.05	1,248.3	-9,029.6	9,330.9	9,193.5	137.36	67.928	
6,102.3	6,021.1	5,996.1	5,996.1	19.7	119.3	3.05	1,248.3	-9,029.6	9,330.6	9,193.2	137.36	67.930	
6,150.0	6,068.1	6,043.1	6,043.1	19.7	120.3	3.09	1,248.3	-9,029.6	9,322.9	9,186.0	136.85	68.123	
6,200.0	6,116.8	6,091.8	6,091.8	19.7	121.3	3.14	1,248.3	-9,029.6	9,311.5	9,175.8	135.65	68.644	
6,200.8	6,117.5	6,092.5	6,092.5	19.7	121.3	3.15	1,248.3	-9,029.6	9,311.3	9,175.6	135.62	68.655	
6,250.0	6,164.5	6,139.5	6,139.5	19.7	122.2	3.22	1,248.3	-9,029.6	9,296.7	9,163.0	133.74	69.511	
6,299.2	6,210.4	6,185.4	6,185.4	19.7	123.1	3.31	1,248.3	-9,029.6	9,278.9	9,147.8	131.19	70.730	
6,300.0	6,211.1	6,186.1	6,186.1	19.7	123.2	3.31	1,248.3	-9,029.6	9,278.6	9,147.5	131.14	70.753	
6,350.0	6,256.4	6,231.4	6,231.4	19.7	124.1	3.43	1,248.3	-9,029.6	9,257.4	9,129.5	127.85	72.410	
6,397.6	6,298.0	6,273.0	6,273.0	19.7	124.9	3.57	1,248.3	-9,029.6	9,234.2	9,110.1	124.07	74.426	
6,400.0	6,300.0	6,275.0	6,275.0	19.7	124.9	3.58	1,248.3	-9,029.6	9,233.0	9,109.1	123.87	74.539	
6,450.0	6,341.8	6,316.8	6,316.8	19.7	125.8	3.76	1,248.3	-9,029.6	9,205.7	9,086.4	119.23	77.210	
6,496.0	6,378.6	6,353.6	6,353.6	19.7	126.5	3.95	1,248.3	-9,029.6	9,177.9	9,063.6	114.39	80.232	
6,500.0	6,381.6	6,356.6	6,356.6	19.7	126.6	3.97	1,248.3	-9,029.6	9,175.5	9,061.5	113.95	80.520	
6,550.0	6,419.2	6,394.2	6,394.2	19.6	127.3	4.24	1,248.3	-9,029.6	9,142.6	9,034.5	108.08	84.593	
6,594.5	6,450.7	6,425.7	6,425.7	19.6	128.0	4.52	1,248.3	-9,029.6	9,111.2	9,008.8	102.38	88.992	
6,600.0	6,454.4	6,429.4	6,429.4	19.6	128.0	4.56	1,248.3	-9,029.6	9,107.1	9,005.5	101.65	89.597	
6,650.0	6,487.1	6,462.1	6,462.1	19.6	128.7	4.97	1,248.3	-9,029.6	9,069.3	8,974.6	94.72	95.745	
6,692.9	6,513.0	6,488.0	6,488.0	19.6	129.2	5.39	1,248.3	-9,029.6	9,035.2	8,946.7	88.45	102.144	
6,700.0	6,517.0	6,492.0	6,492.0	19.6	129.3	5.47	1,248.3	-9,029.6	9,029.4	8,942.0	87.39	103.318	
6,750.0	6,544.1	6,519.1	6,519.1	19.6	129.8	6.13	1,248.3	-9,029.6	8,987.4	8,907.6	79.78	112.653	
6,791.3	6,564.2	6,539.2	6,539.2	19.7	130.3	6.82	1,248.3	-9,029.6	8,951.4	8,877.9	73.42	121.926	
6,800.0	6,568.2	6,543.2	6,543.2	19.7	130.3	6.98	1,248.3	-9,029.6	8,943.6	8,871.6	72.08	124.084	
6,850.0	6,589.1	6,564.1	6,564.1	19.8	130.8	8.15	1,248.3	-9,029.6	8,898.3	8,833.7	64.63	137.676	
6,889.7	6,603.5	6,578.5	6,578.5	19.9	131.0	9.43	1,248.3	-9,029.6	8,861.3	8,802.0	59.34	149.329	
6,900.0	6,606.9	6,581.9	6,581.9	19.9	131.1	9.83	1,248.3	-9,029.6	8,851.7	8,793.5	58.14	152.240	
6,950.0	6,621.3	6,596.3	6,596.3	20.2	131.4	12.39	1,248.3	-9,029.6	8,803.9	8,749.7	54.16	162.561	
6,988.2	6,630.0	6,605.0	6,605.0	20.6	131.6	15.48	1,248.3	-9,029.6	8,766.8	8,711.9	54.87	159.774	
7,000.0	6,632.4	6,607.4	6,607.4	20.7	131.6	16.77	1,248.3	-9,029.6	8,755.2	8,699.0	56.21	155.766	
7,050.0	6,640.0	6,615.0	6,615.0	21.4	131.8	25.65	1,248.3	-9,029.6	8,705.9	8,633.9	72.02	120.879	
7,086.6	6,643.4	6,618.4	6,618.4	21.9	131.8	40.27	1,248.3	-9,029.6	8,669.5	8,567.5	102.03	84.969	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - ABDN VERT PLUMB #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	6,644.2	6,619.2	6,619.2	22.1	131.9	49.60	1,248.3	-9,029.6	8,656.1	8,537.3	118.89	72.807			
7,135.7	6,645.0	6,620.0	6,620.0	22.7	131.9	91.22	1,248.3	-9,029.6	8,620.6	8,467.0	153.57	56.135			
7,185.0	6,644.9	6,619.9	6,619.9	23.6	131.9	91.21	1,248.3	-9,029.6	8,571.3	8,416.7	154.53	55.468			
7,200.0	6,644.9	6,619.9	6,619.9	23.9	131.9	91.21	1,248.3	-9,029.6	8,556.3	8,401.5	154.82	55.267			
7,283.4	6,644.8	6,619.8	6,619.8	25.6	131.9	91.20	1,248.3	-9,029.6	8,473.0	8,316.5	156.55	54.125			
7,300.0	6,644.8	6,619.8	6,619.8	25.9	131.9	91.20	1,248.3	-9,029.6	8,456.5	8,299.6	156.89	53.901			
7,381.9	6,644.7	6,619.7	6,619.7	27.7	131.9	91.19	1,248.3	-9,029.6	8,374.8	8,216.1	158.69	52.773			
7,400.0	6,644.7	6,619.7	6,619.7	28.1	131.9	91.19	1,248.3	-9,029.6	8,356.7	8,197.6	159.09	52.527			
7,480.3	6,644.6	6,619.6	6,619.6	29.9	131.9	91.17	1,248.3	-9,029.6	8,276.5	8,115.6	160.95	51.423			
7,500.0	6,644.6	6,619.6	6,619.6	30.3	131.9	91.17	1,248.3	-9,029.6	8,256.8	8,095.4	161.41	51.156			
7,578.7	6,644.5	6,619.5	6,619.5	32.2	131.9	91.16	1,248.3	-9,029.6	8,178.3	8,015.0	163.29	50.085			
7,600.0	6,644.4	6,619.4	6,619.4	32.7	131.9	91.16	1,248.3	-9,029.6	8,157.0	7,993.2	163.80	49.799			
7,677.1	6,644.3	6,619.3	6,619.3	34.6	131.9	91.15	1,248.3	-9,029.6	8,080.0	7,914.3	165.69	48.765			
7,700.0	6,644.3	6,619.3	6,619.3	35.1	131.9	91.15	1,248.3	-9,029.6	8,057.2	7,891.0	166.25	48.463			
7,775.6	6,644.2	6,619.2	6,619.2	37.0	131.9	91.14	1,248.3	-9,029.6	7,981.8	7,813.6	168.15	47.469			
7,800.0	6,644.2	6,619.2	6,619.2	37.6	131.9	91.13	1,248.3	-9,029.6	7,957.4	7,788.6	168.76	47.152			
7,874.0	6,644.1	6,619.1	6,619.1	39.5	131.9	91.12	1,248.3	-9,029.6	7,883.5	7,712.9	170.64	46.199			
7,900.0	6,644.1	6,619.1	6,619.1	40.1	131.9	91.12	1,248.3	-9,029.6	7,857.6	7,686.3	171.31	45.869			
7,972.4	6,644.0	6,619.0	6,619.0	42.0	131.9	91.11	1,248.3	-9,029.6	7,785.3	7,612.1	173.18	44.956			
8,000.0	6,643.9	6,618.9	6,618.9	42.7	131.9	91.11	1,248.3	-9,029.6	7,757.8	7,583.9	173.89	44.614			
8,070.8	6,643.9	6,618.9	6,618.9	44.5	131.9	91.10	1,248.3	-9,029.6	7,687.1	7,511.3	175.73	43.743			
8,100.0	6,643.8	6,618.8	6,618.8	45.2	131.9	91.09	1,248.3	-9,029.6	7,658.0	7,481.5	176.50	43.389			
8,169.3	6,643.7	6,618.7	6,618.7	47.0	131.9	91.08	1,248.3	-9,029.6	7,588.9	7,410.5	178.32	42.558			
8,200.0	6,643.7	6,618.7	6,618.7	47.9	131.9	91.08	1,248.3	-9,029.6	7,558.2	7,379.1	179.13	42.195			
8,267.7	6,643.6	6,618.6	6,618.6	49.6	131.9	91.07	1,248.3	-9,029.6	7,490.6	7,309.7	180.92	41.403			
8,300.0	6,643.6	6,618.6	6,618.6	50.5	131.8	91.07	1,248.3	-9,029.6	7,458.4	7,276.6	181.78	41.031			
8,366.1	6,643.5	6,618.5	6,618.5	52.2	131.8	91.06	1,248.3	-9,029.6	7,392.4	7,208.9	183.54	40.277			
8,400.0	6,643.4	6,618.4	6,618.4	53.1	131.8	91.05	1,248.3	-9,029.6	7,358.6	7,174.2	184.44	39.896			
8,464.5	6,643.4	6,618.4	6,618.4	54.8	131.8	91.04	1,248.3	-9,029.6	7,294.2	7,108.1	186.17	39.180			
8,500.0	6,643.3	6,618.3	6,618.3	55.8	131.8	91.04	1,248.3	-9,029.6	7,258.9	7,071.7	187.12	38.792			
8,563.0	6,643.2	6,618.2	6,618.2	57.5	131.8	91.03	1,248.3	-9,029.6	7,196.0	7,007.2	188.82	38.110			
8,600.0	6,643.2	6,618.2	6,618.2	58.5	131.8	91.03	1,248.3	-9,029.6	7,159.1	6,969.3	189.82	37.716			
8,661.4	6,643.1	6,618.1	6,618.1	60.1	131.8	91.02	1,248.3	-9,029.6	7,097.8	6,906.4	191.48	37.069			
8,700.0	6,643.1	6,618.1	6,618.1	61.2	131.8	91.01	1,248.3	-9,029.6	7,059.3	6,866.8	192.52	36.668			
8,759.8	6,643.0	6,618.0	6,618.0	62.8	131.8	91.00	1,248.3	-9,029.6	6,999.7	6,805.5	194.14	36.054			
8,800.0	6,643.0	6,618.0	6,618.0	63.9	131.8	91.00	1,248.3	-9,029.6	6,959.6	6,764.4	195.23	35.647			
8,858.2	6,642.9	6,617.9	6,617.9	65.4	131.8	90.99	1,248.3	-9,029.6	6,901.5	6,704.7	196.82	35.065			
8,900.0	6,642.8	6,617.8	6,617.8	66.6	131.8	90.99	1,248.3	-9,029.6	6,859.8	6,661.9	197.96	34.653			
8,956.7	6,642.8	6,617.8	6,617.8	68.1	131.8	90.98	1,248.3	-9,029.6	6,803.3	6,603.8	199.50	34.102			
9,000.0	6,642.7	6,617.7	6,617.7	69.3	131.8	90.97	1,248.3	-9,029.6	6,760.1	6,559.4	200.68	33.685			
9,055.1	6,642.6	6,617.6	6,617.6	70.8	131.8	90.96	1,248.3	-9,029.6	6,705.2	6,503.0	202.19	33.163			
9,100.0	6,642.6	6,617.6	6,617.6	72.0	131.8	90.96	1,248.3	-9,029.6	6,660.4	6,457.0	203.42	32.742			
9,153.5	6,642.5	6,617.5	6,617.5	73.5	131.8	90.95	1,248.3	-9,029.6	6,607.0	6,402.1	204.88	32.247			
9,200.0	6,642.5	6,617.5	6,617.5	74.7	131.8	90.95	1,248.3	-9,029.6	6,560.7	6,354.5	206.16	31.823			
9,251.9	6,642.4	6,617.4	6,617.4	76.2	131.8	90.94	1,248.3	-9,029.6	6,508.9	6,301.3	207.58	31.355			
9,300.0	6,642.3	6,617.3	6,617.3	77.5	131.8	90.93	1,248.3	-9,029.6	6,460.9	6,252.0	208.90	30.928			
9,350.4	6,642.3	6,617.3	6,617.3	78.9	131.8	90.92	1,248.3	-9,029.6	6,410.7	6,200.4	210.29	30.485			
9,400.0	6,642.2	6,617.2	6,617.2	80.2	131.8	90.92	1,248.3	-9,029.6	6,361.2	6,149.6	211.65	30.055			
9,448.8	6,642.1	6,617.1	6,617.1	81.6	131.8	90.91	1,248.3	-9,029.6	6,312.6	6,099.6	213.00	29.637			
9,500.0	6,642.1	6,617.1	6,617.1	83.0	131.8	90.90	1,248.3	-9,029.6	6,261.5	6,047.1	214.41	29.204			
9,547.2	6,642.0	6,617.0	6,617.0	84.3	131.8	90.90	1,248.3	-9,029.6	6,214.5	5,998.8	215.71	28.810			
9,600.0	6,642.0	6,617.0	6,617.0	85.7	131.8	90.89	1,248.3	-9,029.6	6,161.9	5,944.7	217.16	28.374			

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - ABDN VERT PLUMB #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					
9,645.6	6,641.9	6,616.9	6,616.9	87.0	131.8	90.88	1,248.3	-9,029.6	6,116.4	5,897.9	218.42	28.002					
9,700.0	6,641.8	6,616.8	6,616.8	88.5	131.8	90.88	1,248.3	-9,029.6	6,062.2	5,842.3	219.92	27.565					
9,744.1	6,641.8	6,616.8	6,616.8	89.7	131.8	90.87	1,248.3	-9,029.6	6,018.3	5,797.1	221.14	27.215					
9,800.0	6,641.7	6,616.7	6,616.7	91.2	131.8	90.86	1,248.3	-9,029.6	5,962.5	5,739.8	222.69	26.775					
9,842.5	6,641.7	6,616.7	6,616.7	92.4	131.8	90.86	1,248.3	-9,029.6	5,920.2	5,696.3	223.86	26.446					
9,900.0	6,641.6	6,616.6	6,616.6	94.0	131.8	90.85	1,248.3	-9,029.6	5,862.9	5,637.4	225.45	26.005					
9,940.9	6,641.5	6,616.5	6,616.5	95.1	131.8	90.84	1,248.3	-9,029.6	5,822.1	5,595.5	226.59	25.695					
10,000.0	6,641.5	6,616.5	6,616.5	96.7	131.8	90.84	1,248.3	-9,029.6	5,763.2	5,535.0	228.22	25.253					
10,039.3	6,641.4	6,616.4	6,616.4	97.8	131.8	90.83	1,248.3	-9,029.6	5,724.0	5,494.7	229.31	24.962					
10,100.0	6,641.3	6,616.3	6,616.3	99.5	131.8	90.82	1,248.3	-9,029.6	5,663.6	5,432.6	230.99	24.519					
10,137.8	6,641.3	6,616.3	6,616.3	100.6	131.8	90.82	1,248.3	-9,029.6	5,626.0	5,393.9	232.04	24.246					
10,200.0	6,641.2	6,616.2	6,616.2	102.3	131.8	90.81	1,248.3	-9,029.6	5,564.0	5,330.2	233.77	23.802					
10,236.2	6,641.2	6,616.2	6,616.2	103.3	131.8	90.80	1,248.3	-9,029.6	5,527.9	5,293.2	234.77	23.546					
10,300.0	6,641.1	6,616.1	6,616.1	105.0	131.8	90.79	1,248.3	-9,029.6	5,464.4	5,227.9	236.54	23.101					
10,334.6	6,641.0	6,616.0	6,616.0	106.0	131.8	90.79	1,248.3	-9,029.6	5,429.9	5,192.4	237.50	22.863					
10,400.0	6,641.0	6,616.0	6,616.0	107.8	131.8	90.78	1,248.3	-9,029.6	5,364.8	5,125.5	239.32	22.417					
10,433.0	6,640.9	6,615.9	6,615.9	108.7	131.8	90.78	1,248.3	-9,029.6	5,331.9	5,091.7	240.24	22.194					
10,500.0	6,640.8	6,615.8	6,615.8	110.6	131.8	90.77	1,248.3	-9,029.6	5,265.2	5,023.1	242.10	21.749					
10,531.5	6,640.8	6,615.8	6,615.8	111.5	131.8	90.76	1,248.3	-9,029.6	5,233.9	4,990.9	242.97	21.541					
10,600.0	6,640.7	6,615.7	6,615.7	113.4	131.8	90.75	1,248.3	-9,029.6	5,165.7	4,920.8	244.88	21.095					
10,629.9	6,640.7	6,615.7	6,615.7	114.2	131.8	90.75	1,248.3	-9,029.6	5,135.9	4,890.2	245.71	20.903					
10,700.0	6,640.6	6,615.6	6,615.6	116.1	131.8	90.74	1,248.3	-9,029.6	5,066.2	4,818.5	247.66	20.456					
10,728.3	6,640.5	6,615.5	6,615.5	116.9	131.8	90.74	1,248.3	-9,029.6	5,038.0	4,789.5	248.45	20.278					
10,800.0	6,640.5	6,615.5	6,615.5	118.9	131.8	90.73	1,248.3	-9,029.6	4,966.6	4,716.2	250.44	19.832					
10,826.7	6,640.4	6,615.4	6,615.4	119.7	131.8	90.72	1,248.3	-9,029.6	4,940.0	4,688.8	251.18	19.667					
10,900.0	6,640.3	6,615.3	6,615.3	121.7	131.8	90.71	1,248.3	-9,029.6	4,867.1	4,613.9	253.22	19.221					
10,925.2	6,640.3	6,615.3	6,615.3	122.4	131.8	90.71	1,248.3	-9,029.6	4,842.1	4,588.2	253.92	19.069					
11,000.0	6,640.2	6,615.2	6,615.2	124.5	131.8	90.70	1,248.3	-9,029.6	4,767.7	4,511.7	256.01	18.623					
11,023.6	6,640.2	6,615.2	6,615.2	125.1	131.8	90.69	1,248.3	-9,029.6	4,744.2	4,487.5	256.67	18.484					
11,100.0	6,640.1	6,615.1	6,615.1	127.3	131.8	90.68	1,248.3	-9,029.6	4,668.2	4,409.4	258.79	18.038					
11,122.0	6,640.0	6,615.0	6,615.0	127.9	131.8	90.68	1,248.3	-9,029.6	4,646.3	4,386.9	259.41	17.911					
11,200.0	6,639.9	6,614.9	6,614.9	130.1	131.8	90.67	1,248.3	-9,029.6	4,568.8	4,307.2	261.58	17.466					
11,220.4	6,639.9	6,614.9	6,614.9	130.6	131.8	90.67	1,248.3	-9,029.6	4,548.5	4,286.3	262.15	17.350					
11,300.0	6,639.8	6,614.8	6,614.8	132.8	131.8	90.65	1,248.3	-9,029.6	4,469.4	4,205.0	264.37	16.906					
11,318.9	6,639.8	6,614.8	6,614.8	133.4	131.8	90.65	1,248.3	-9,029.6	4,450.6	4,185.7	264.90	16.801					
11,400.0	6,639.7	6,614.7	6,614.7	135.6	131.8	90.64	1,248.3	-9,029.6	4,370.0	4,102.9	267.16	16.357					
11,417.3	6,639.7	6,614.7	6,614.7	136.1	131.8	90.64	1,248.3	-9,029.6	4,352.8	4,085.2	267.64	16.264					
11,500.0	6,639.6	6,614.6	6,614.6	138.4	131.8	90.63	1,248.3	-9,029.6	4,270.7	4,000.7	269.95	15.820					
11,515.7	6,639.5	6,614.5	6,614.5	138.9	131.8	90.62	1,248.3	-9,029.6	4,255.0	3,984.7	270.39	15.737					
11,600.0	6,639.4	6,614.4	6,614.4	141.2	131.8	90.61	1,248.3	-9,029.6	4,171.3	3,898.6	272.74	15.294					
11,614.1	6,639.4	6,614.4	6,614.4	141.6	131.8	90.61	1,248.3	-9,029.6	4,157.3	3,884.2	273.13	15.221					
11,700.0	6,639.3	6,614.3	6,614.3	144.0	131.8	90.60	1,248.3	-9,029.6	4,072.1	3,796.5	275.53	14.779					
11,712.6	6,639.3	6,614.3	6,614.3	144.3	131.8	90.60	1,248.3	-9,029.6	4,059.6	3,783.7	275.88	14.715					
11,800.0	6,639.2	6,614.2	6,614.2	146.8	131.8	90.58	1,248.3	-9,029.6	3,972.8	3,694.5	278.32	14.274					
11,811.0	6,639.2	6,614.2	6,614.2	147.1	131.8	90.58	1,248.3	-9,029.6	3,961.9	3,683.3	278.63	14.219					
11,900.0	6,639.1	6,614.1	6,614.1	149.6	131.8	90.57	1,248.3	-9,029.6	3,873.6	3,592.5	281.12	13.779					
11,909.4	6,639.0	6,614.0	6,614.0	149.8	131.8	90.57	1,248.3	-9,029.6	3,864.3	3,582.9	281.38	13.733					
12,000.0	6,638.9	6,613.9	6,613.9	152.4	131.8	90.56	1,248.3	-9,029.6	3,774.5	3,490.5	283.91	13.295					
12,007.8	6,638.9	6,613.9	6,613.9	152.6	131.8	90.55	1,248.3	-9,029.6	3,766.7	3,482.5	284.13	13.257					
12,100.0	6,638.8	6,613.8	6,613.8	155.2	131.8	90.54	1,248.3	-9,029.6	3,675.3	3,388.6	286.70	12.819					
12,106.3	6,638.8	6,613.8	6,613.8	155.3	131.8	90.54	1,248.3	-9,029.6	3,669.1	3,382.2	286.88	12.790					
12,200.0	6,638.7	6,613.7	6,613.7	157.9	131.8	90.53	1,248.3	-9,029.6	3,576.3	3,286.8	289.50	12.353					

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,204.7	6,638.7	6,613.7	6,613.7	158.1	131.8	90.53	1,248.3	-9,029.6	3,571.6	3,282.0	289.63	12.332	
12,300.0	6,638.5	6,613.5	6,613.5	160.7	131.7	90.51	1,248.3	-9,029.6	3,477.2	3,185.0	292.29	11.896	
12,303.1	6,638.5	6,613.5	6,613.5	160.8	131.7	90.51	1,248.3	-9,029.6	3,474.1	3,181.8	292.38	11.882	
12,400.0	6,638.4	6,613.4	6,613.4	163.5	131.7	90.50	1,248.3	-9,029.6	3,378.3	3,083.2	295.09	11.448	
12,401.5	6,638.4	6,613.4	6,613.4	163.6	131.7	90.50	1,248.3	-9,029.6	3,376.8	3,081.6	295.13	11.442	
12,500.0	6,638.3	6,613.3	6,613.3	166.3	131.7	90.48	1,248.3	-9,029.6	3,279.4	2,981.5	297.88	11.009	
12,598.4	6,638.2	6,613.2	6,613.2	169.1	131.7	90.47	1,248.3	-9,029.6	3,182.1	2,881.5	300.63	10.585	
12,600.0	6,638.2	6,613.2	6,613.2	169.1	131.7	90.47	1,248.3	-9,029.6	3,180.6	2,879.9	300.68	10.578	
12,696.8	6,638.0	6,613.0	6,613.0	171.8	131.7	90.45	1,248.3	-9,029.6	3,084.9	2,781.6	303.39	10.168	
12,700.0	6,638.0	6,613.0	6,613.0	171.9	131.7	90.45	1,248.3	-9,029.6	3,081.8	2,778.3	303.48	10.155	
12,795.2	6,637.9	6,612.9	6,612.9	174.6	131.7	90.44	1,248.3	-9,029.6	2,987.8	2,681.7	306.14	9.760	
12,800.0	6,637.9	6,612.9	6,612.9	174.7	131.7	90.44	1,248.3	-9,029.6	2,983.1	2,676.9	306.27	9.740	
12,893.7	6,637.8	6,612.8	6,612.8	177.3	131.7	90.43	1,248.3	-9,029.6	2,890.8	2,581.9	308.89	9.359	
12,900.0	6,637.8	6,612.8	6,612.8	177.5	131.7	90.43	1,248.3	-9,029.6	2,884.6	2,575.5	309.07	9.333	
12,992.1	6,637.7	6,612.7	6,612.7	180.1	131.7	90.41	1,248.3	-9,029.6	2,793.9	2,482.2	311.65	8.965	
13,000.0	6,637.6	6,612.6	6,612.6	180.3	131.7	90.41	1,248.3	-9,029.6	2,786.1	2,474.2	311.87	8.934	
13,090.5	6,637.5	6,612.5	6,612.5	182.8	131.7	90.40	1,248.3	-9,029.6	2,697.0	2,382.6	314.40	8.578	
13,100.0	6,637.5	6,612.5	6,612.5	183.1	131.7	90.40	1,248.3	-9,029.6	2,687.7	2,373.1	314.67	8.542	
13,188.9	6,637.4	6,612.4	6,612.4	185.6	131.7	90.38	1,248.3	-9,029.6	2,600.3	2,283.2	317.16	8.199	
13,200.0	6,637.4	6,612.4	6,612.4	185.9	131.7	90.38	1,248.3	-9,029.6	2,589.5	2,272.0	317.47	8.157	
13,287.4	6,637.3	6,612.3	6,612.3	188.4	131.7	90.37	1,248.3	-9,029.6	2,503.8	2,183.9	319.91	7.826	
13,300.0	6,637.3	6,612.3	6,612.3	188.7	131.7	90.37	1,248.3	-9,029.6	2,491.4	2,171.1	320.26	7.779	
13,385.8	6,637.1	6,612.1	6,612.1	191.1	131.7	90.35	1,248.3	-9,029.6	2,407.3	2,084.7	322.67	7.461	
13,400.0	6,637.1	6,612.1	6,612.1	191.5	131.7	90.35	1,248.3	-9,029.6	2,393.5	2,070.4	323.06	7.409	
13,484.2	6,637.0	6,612.0	6,612.0	193.9	131.7	90.34	1,248.3	-9,029.6	2,311.1	1,985.7	325.42	7.102	
13,500.0	6,637.0	6,612.0	6,612.0	194.3	131.7	90.34	1,248.3	-9,029.6	2,295.7	1,969.8	325.86	7.045	
13,582.6	6,636.9	6,611.9	6,611.9	196.6	131.7	90.32	1,248.3	-9,029.6	2,215.0	1,886.9	328.18	6.750	
13,600.0	6,636.9	6,611.9	6,611.9	197.1	131.7	90.32	1,248.3	-9,029.6	2,198.1	1,869.5	328.66	6.688	
13,681.1	6,636.8	6,611.8	6,611.8	199.4	131.7	90.31	1,248.3	-9,029.6	2,119.2	1,788.3	330.93	6.404	
13,700.0	6,636.7	6,611.7	6,611.7	199.9	131.7	90.31	1,248.3	-9,029.6	2,100.8	1,769.3	331.46	6.338	
13,779.5	6,636.6	6,611.6	6,611.6	202.1	131.7	90.30	1,248.3	-9,029.6	2,023.6	1,689.9	333.69	6.064	
13,800.0	6,636.6	6,611.6	6,611.6	202.7	131.7	90.29	1,248.3	-9,029.6	2,003.7	1,669.5	334.26	5.994	
13,877.9	6,636.5	6,611.5	6,611.5	204.9	131.7	90.28	1,248.3	-9,029.6	1,928.3	1,591.9	336.44	5.731	
13,900.0	6,636.5	6,611.5	6,611.5	205.5	131.7	90.28	1,248.3	-9,029.6	1,907.0	1,569.9	337.06	5.658	
13,976.3	6,636.4	6,611.4	6,611.4	207.6	131.7	90.27	1,248.3	-9,029.6	1,833.3	1,494.1	339.20	5.405	
14,000.0	6,636.3	6,611.3	6,611.3	208.3	131.7	90.26	1,248.3	-9,029.6	1,810.6	1,470.7	339.86	5.327	
14,074.8	6,636.3	6,611.3	6,611.3	210.4	131.7	90.25	1,248.3	-9,029.6	1,738.7	1,396.8	341.96	5.085	
14,100.0	6,636.2	6,611.2	6,611.2	211.1	131.7	90.25	1,248.3	-9,029.6	1,714.6	1,371.9	342.66	5.004	
14,173.2	6,636.1	6,611.1	6,611.1	213.2	131.7	90.24	1,248.3	-9,029.6	1,644.6	1,299.9	344.71	4.771	
14,200.0	6,636.1	6,611.1	6,611.1	213.9	131.7	90.23	1,248.3	-9,029.6	1,619.0	1,273.6	345.47	4.687	
14,271.6	6,636.0	6,611.0	6,611.0	215.9	131.7	90.22	1,248.3	-9,029.6	1,551.0	1,203.5	347.47	4.464	
14,300.0	6,636.0	6,611.0	6,611.0	216.7	131.7	90.22	1,248.3	-9,029.6	1,524.1	1,175.8	348.27	4.376	
14,370.0	6,635.9	6,610.9	6,610.9	218.7	131.7	90.21	1,248.3	-9,029.6	1,458.0	1,107.8	350.23	4.163	
14,400.0	6,635.8	6,610.8	6,610.8	219.5	131.7	90.20	1,248.3	-9,029.6	1,429.8	1,078.8	351.07	4.073	
14,468.5	6,635.7	6,610.7	6,610.7	221.4	131.7	90.19	1,248.3	-9,029.6	1,365.8	1,012.8	352.99	3.869	
14,500.0	6,635.7	6,610.7	6,610.7	222.3	131.7	90.19	1,248.3	-9,029.6	1,336.4	982.5	353.87	3.777	
14,566.9	6,635.6	6,610.6	6,610.6	224.2	131.7	90.18	1,248.3	-9,029.6	1,274.5	918.7	355.74	3.583	
14,600.0	6,635.6	6,610.6	6,610.6	225.1	131.7	90.17	1,248.3	-9,029.6	1,244.0	887.4	356.67	3.488	
14,665.3	6,635.5	6,610.5	6,610.5	226.9	131.7	90.16	1,248.3	-9,029.6	1,184.3	825.8	358.50	3.304	
14,700.0	6,635.4	6,610.4	6,610.4	227.9	131.7	90.16	1,248.3	-9,029.6	1,152.9	793.4	359.47	3.207	
14,763.7	6,635.4	6,610.4	6,610.4	229.7	131.7	90.15	1,248.3	-9,029.6	1,095.6	734.4	361.26	3.033	
14,800.0	6,635.3	6,610.3	6,610.3	230.7	131.7	90.14	1,248.3	-9,029.6	1,063.4	701.1	362.28	2.935	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - ABDN VERT PLUMB #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
14,862.2	6,635.2	6,610.2	6,610.2	232.5	131.7	90.13	1,248.3	-9,029.6	1,008.7	644.7	364.02	2.771	
14,900.0	6,635.2	6,610.2	6,610.2	233.5	131.7	90.13	1,248.3	-9,029.6	975.9	610.8	365.08	2.673	
14,960.6	6,635.1	6,610.1	6,610.1	235.2	131.7	90.12	1,248.3	-9,029.6	924.1	557.3	366.78	2.520	
15,000.0	6,635.0	6,610.0	6,610.0	236.3	131.7	90.11	1,248.3	-9,029.6	891.0	523.1	367.88	2.422	
15,033.1	6,635.0	6,610.0	6,610.0	237.3	131.7	90.11	1,248.3	-9,029.6	863.7	494.9	368.81	2.342	CC, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft	
Survey Program: 137-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		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
							+N/-S (usft)	+E/-W (usft)								
0.0	0.0	0.0	0.0	0.0	0.0	-105.29	-1,939.3	-7,092.9	7,353.3							
98.4	98.4	46.2	46.2	0.1	0.0	-105.29	-1,939.3	-7,092.9	7,353.3	7,353.2	0.11	N/A				
100.0	100.0	47.3	47.3	0.1	0.0	-105.29	-1,939.3	-7,092.9	7,353.3	7,353.2	0.12	N/A				
196.8	196.8	115.7	115.7	0.3	0.0	-105.29	-1,939.2	-7,093.3	7,353.8	7,353.4	0.36	N/A				
200.0	200.0	137.0	137.0	0.3	0.1	-105.29	-1,939.2	-7,093.5	7,353.8	7,353.4	0.38	N/A				
295.3	295.3	340.7	340.7	0.5	0.5	-105.28	-1,937.9	-7,093.8	7,354.1	7,353.1	1.02	7,199.708				
300.0	300.0	344.5	344.5	0.5	0.5	-105.28	-1,937.9	-7,093.7	7,354.1	7,353.0	1.04	7,069.170				
393.7	393.7	425.0	425.0	0.8	0.7	-105.27	-1,936.9	-7,093.2	7,353.2	7,351.8	1.42	5,170.188				
400.0	400.0	432.9	432.9	0.8	0.7	-105.27	-1,936.8	-7,093.2	7,353.1	7,351.7	1.45	5,060.206				
492.1	492.1	592.1	592.0	1.0	1.0	-105.26	-1,934.5	-7,091.7	7,352.1	7,350.1	2.00	3,672.032				
500.0	500.0	607.0	607.0	1.0	1.1	-105.26	-1,934.3	-7,091.5	7,351.9	7,349.9	2.05	3,582.309				
590.5	590.5	1,431.3	1,420.3	1.2	3.5	-104.51	-1,828.4	-7,063.7	7,347.3	7,342.9	4.36	1,685.965				
600.0	600.0	1,435.0	1,423.9	1.2	3.5	-104.50	-1,827.3	-7,063.5	7,346.2	7,341.8	4.39	1,672.695				
689.0	689.0	1,482.0	1,468.9	1.4	3.7	-104.41	-1,814.0	-7,061.7	7,336.2	7,331.4	4.75	1,544.175				
700.0	700.0	1,482.0	1,468.9	1.4	3.7	-104.41	-1,814.0	-7,061.7	7,335.0	7,330.2	4.78	1,535.908				
787.4	787.4	1,583.6	1,566.1	1.6	4.2	-104.19	-1,785.0	-7,058.1	7,325.4	7,320.1	5.34	1,373.037				
800.0	800.0	1,597.1	1,579.1	1.7	4.3	-104.16	-1,781.1	-7,057.6	7,324.0	7,318.6	5.42	1,352.525				
885.8	885.8	1,671.4	1,650.1	1.9	4.7	-104.00	-1,759.5	-7,054.9	7,314.5	7,308.7	5.89	1,242.319				
900.0	900.0	1,680.4	1,658.7	1.9	4.7	-103.98	-1,756.9	-7,054.5	7,313.0	7,307.0	5.95	1,228.537				
984.2	984.2	1,739.5	1,715.3	2.1	5.0	-103.86	-1,740.0	-7,052.5	7,304.1	7,297.7	6.36	1,148.658				
1,000.0	1,000.0	1,759.6	1,734.6	2.1	5.1	-103.82	-1,734.2	-7,051.8	7,302.4	7,295.9	6.47	1,129.257				
1,082.7	1,082.7	1,841.6	1,813.2	2.3	5.5	-130.77	-1,711.0	-7,048.9	7,294.5	7,286.9	7.59	961.510				
1,100.0	1,100.0	1,854.5	1,825.5	2.3	5.6	-130.77	-1,707.4	-7,048.5	7,293.0	7,285.3	7.69	948.988				
1,181.1	1,181.0	1,917.5	1,886.0	2.5	5.9	-130.74	-1,689.6	-7,046.3	7,287.3	7,279.1	8.16	893.502				
1,200.0	1,199.8	1,933.3	1,901.1	2.6	6.0	-130.73	-1,685.3	-7,045.8	7,286.2	7,277.9	8.27	881.148				
1,279.5	1,279.1	2,218.0	2,174.5	2.8	7.4	-130.37	-1,607.4	-7,030.9	7,280.4	7,270.6	9.79	743.304				
1,300.0	1,299.5	2,218.0	2,174.5	2.8	7.4	-130.39	-1,607.4	-7,030.9	7,279.2	7,269.4	9.84	739.836				
1,377.9	1,376.9	2,271.2	2,225.6	3.0	7.7	-130.38	-1,593.0	-7,027.5	7,275.4	7,265.1	10.26	708.854				
1,400.0	1,398.7	2,300.0	2,253.3	3.0	7.8	-130.36	-1,585.2	-7,025.9	7,274.7	7,264.3	10.45	696.324				
1,476.4	1,474.2	2,344.6	2,296.2	3.2	8.0	-130.34	-1,573.2	-7,023.5	7,273.2	7,262.4	10.85	670.560				
1,500.0	1,497.5	2,376.3	2,326.7	3.3	8.2	-130.31	-1,564.5	-7,021.7	7,273.0	7,262.0	11.06	657.803				
1,526.3	1,523.4	2,396.2	2,345.8	3.4	8.3	-130.29	-1,559.0	-7,020.7	7,272.9	7,261.7	11.23	647.905				
1,574.8	1,571.0	2,427.4	2,375.7	3.5	8.5	-130.26	-1,550.3	-7,019.0	7,273.3	7,261.8	11.51	631.926				
1,600.0	1,595.6	2,443.7	2,391.2	3.6	8.6	-130.23	-1,545.7	-7,018.3	7,273.7	7,262.1	11.66	623.986				
1,673.2	1,667.2	2,488.9	2,434.5	3.9	8.8	-130.19	-1,532.7	-7,016.2	7,275.4	7,263.3	12.10	601.300				
1,700.0	1,693.4	2,505.0	2,449.9	4.0	8.9	-130.18	-1,528.2	-7,015.5	7,276.1	7,263.8	12.26	593.622				
1,771.6	1,763.5	2,778.1	2,711.4	4.2	10.4	-129.95	-1,450.8	-7,000.3	7,277.3	7,263.4	13.86	524.874				
1,793.9	1,785.3	2,791.0	2,723.7	4.3	10.4	-129.94	-1,447.0	-6,999.4	7,277.3	7,263.3	14.00	519.814				
1,800.0	1,791.3	2,791.0	2,723.7	4.3	10.4	-129.94	-1,447.0	-6,999.4	7,277.3	7,263.3	14.02	519.124				
1,870.1	1,859.8	2,829.0	2,760.0	4.6	10.6	-129.91	-1,436.3	-6,996.8	7,277.5	7,263.0	14.43	504.468				
1,900.0	1,889.1	2,843.2	2,773.6	4.7	10.7	-129.90	-1,432.3	-6,995.9	7,277.7	7,263.1	14.59	498.823				
1,968.5	1,956.1	2,977.9	2,902.5	4.9	11.4	-129.79	-1,394.0	-6,986.9	7,277.9	7,262.4	15.50	469.572				
1,988.3	1,975.4	2,986.4	2,910.6	5.0	11.5	-129.78	-1,391.4	-6,986.4	7,277.9	7,262.3	15.61	466.218				
2,000.0	1,986.9	2,991.5	2,915.4	5.1	11.5	-129.77	-1,389.8	-6,986.0	7,277.9	7,262.2	15.68	464.253				
2,066.9	2,052.3	3,035.0	2,956.7	5.3	11.8	-129.73	-1,376.7	-6,983.4	7,278.2	7,262.0	16.14	451.017				
2,100.0	2,084.7	3,035.0	2,956.7	5.5	11.8	-129.73	-1,376.7	-6,983.4	7,278.4	7,262.1	16.25	447.933				
2,165.3	2,148.6	3,062.6	2,983.0	5.7	11.9	-129.70	-1,368.5	-6,981.9	7,279.1	7,262.5	16.61	438.137				
2,200.0	2,182.5	3,077.4	2,997.2	5.9	12.0	-129.69	-1,364.2	-6,981.1	7,279.7	7,262.8	16.81	433.098				
2,263.8	2,244.9	3,117.0	3,035.2	6.1	12.2	-129.66	-1,353.1	-6,979.1	7,280.9	7,263.7	17.23	422.520				
2,300.0	2,280.3	3,127.8	3,045.6	6.3	12.3	-129.65	-1,350.2	-6,978.6	7,281.7	7,264.3	17.41	418.236				
2,362.2	2,341.2	3,233.8	3,147.5	6.5	12.8	-129.57	-1,321.8	-6,972.9	7,283.1	7,264.9	18.14	401.433				
2,400.0	2,378.1	3,281.0	3,192.9	6.7	13.0	-129.54	-1,309.2	-6,970.1	7,283.6	7,265.1	18.51	393.600				

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 137-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		
2,460.6	2,437.4	3,325.0	3,235.2	6.9	13.3	-129.51	-1,297.3	-6,967.6	7,284.6	7,265.7	18.94	384.579		
2,500.0	2,476.0	3,362.0	3,270.7	7.1	13.5	-129.48	-1,287.1	-6,965.7	7,285.4	7,266.2	19.27	378.115		
2,550.0	2,524.9	3,401.6	3,308.8	7.3	13.7	-129.45	-1,276.2	-6,963.7	7,286.5	7,266.8	19.65	370.900		
2,559.0	2,533.7	3,419.8	3,326.2	7.3	13.8	-128.58	-1,271.2	-6,962.7	7,286.7	7,266.9	19.77	368.569		
2,600.0	2,573.8	3,477.0	3,381.2	7.5	14.1	-124.69	-1,255.7	-6,959.5	7,287.0	7,266.8	20.21	360.603		
2,639.4	2,612.3	3,662.2	3,558.6	7.7	15.1	-120.88	-1,203.9	-6,947.5	7,286.5	7,265.2	21.30	342.058		
2,657.5	2,630.0	3,683.2	3,578.6	7.7	15.2	-120.86	-1,197.8	-6,946.0	7,286.0	7,264.5	21.48	339.214		
2,700.0	2,671.6	3,717.1	3,611.0	7.9	15.4	-120.84	-1,187.8	-6,943.5	7,284.8	7,263.0	21.82	333.917		
2,755.9	2,726.3	3,759.0	3,650.8	8.1	15.6	-120.80	-1,175.3	-6,940.7	7,283.3	7,261.1	22.26	327.247		
2,800.0	2,769.4	3,805.8	3,695.3	8.3	15.9	-120.76	-1,161.2	-6,937.5	7,282.2	7,259.5	22.68	321.046		
2,854.3	2,822.5	3,868.8	3,755.1	8.5	16.3	-120.71	-1,141.9	-6,933.3	7,280.7	7,257.5	23.25	313.215		
2,900.0	2,867.2	3,913.5	3,797.4	8.7	16.6	-120.67	-1,127.8	-6,930.4	7,279.5	7,255.8	23.68	307.436		
2,952.7	2,918.8	3,935.0	3,817.8	9.0	16.7	-120.65	-1,120.9	-6,929.0	7,278.2	7,254.2	24.01	303.184		
3,000.0	2,965.0	3,965.3	3,846.4	9.2	16.9	-120.62	-1,111.4	-6,927.1	7,277.1	7,252.7	24.36	298.791		
3,051.2	3,015.1	3,985.2	3,865.3	9.4	17.0	-120.60	-1,105.2	-6,926.0	7,276.2	7,251.5	24.66	295.021		
3,100.0	3,062.8	4,098.0	3,972.8	9.6	17.6	-120.51	-1,071.5	-6,919.1	7,275.4	7,249.9	25.47	285.686		
3,149.6	3,111.4	4,127.3	4,000.5	9.8	17.8	-120.48	-1,062.4	-6,917.2	7,274.1	7,248.3	25.83	281.657		
3,200.0	3,160.7	4,141.8	4,014.3	10.0	17.9	-120.47	-1,057.9	-6,916.3	7,273.2	7,247.1	26.11	278.607		
3,248.0	3,207.6	4,180.0	4,050.5	10.2	18.1	-120.43	-1,045.9	-6,914.4	7,272.6	7,246.1	26.51	274.323		
3,300.0	3,258.5	4,180.0	4,050.5	10.5	18.1	-120.43	-1,045.9	-6,914.4	7,272.0	7,245.3	26.71	272.215		
3,346.4	3,303.9	4,204.7	4,074.0	10.7	18.3	-120.41	-1,038.1	-6,913.4	7,271.7	7,244.7	27.03	268.984		
3,400.0	3,356.3	4,293.3	4,158.2	10.9	18.8	-120.33	-1,011.1	-6,909.0	7,271.3	7,243.6	27.73	262.219		
3,444.9	3,400.2	4,343.0	4,205.6	11.1	19.0	-120.29	-996.4	-6,906.3	7,270.8	7,242.6	28.17	258.093		
3,500.0	3,454.1	4,382.9	4,243.7	11.3	19.2	-120.26	-984.8	-6,904.1	7,270.2	7,241.6	28.60	254.245		
3,543.3	3,496.5	4,425.0	4,284.0	11.5	19.5	-120.23	-972.7	-6,901.9	7,269.9	7,241.0	28.98	250.818		
3,600.0	3,551.9	4,507.0	4,362.5	11.7	19.9	-120.17	-949.4	-6,897.2	7,269.3	7,239.7	29.63	245.299		
3,641.7	3,592.7	4,507.0	4,362.5	11.9	19.9	-120.17	-949.4	-6,897.2	7,269.0	7,239.2	29.80	243.928		
3,700.0	3,649.7	4,553.5	4,407.0	12.2	20.2	-120.14	-936.3	-6,894.6	7,268.4	7,238.1	30.27	240.106		
3,715.3	3,664.7	4,558.9	4,412.2	12.3	20.2	-120.14	-934.8	-6,894.3	7,268.4	7,238.0	30.36	239.403		
3,740.1	3,689.0	4,589.0	4,441.0	12.4	20.4	-120.12	-926.4	-6,892.9	7,268.4	7,237.8	30.61	237.414		
3,767.6	3,715.8	4,589.0	4,441.0	12.5	20.4	-120.12	-926.4	-6,892.9	7,268.3	7,237.6	30.72	236.573		
3,800.0	3,747.5	4,589.0	4,441.0	12.6	20.4	-120.12	-926.4	-6,892.9	7,268.4	7,237.6	30.85	235.589		
3,838.6	3,785.3	4,633.3	4,483.5	12.8	20.6	-120.09	-914.2	-6,890.9	7,268.6	7,237.4	31.23	232.758		
3,900.0	3,845.4	4,670.0	4,518.9	13.1	20.8	-120.06	-904.3	-6,889.2	7,268.8	7,237.2	31.66	229.615		
3,937.0	3,881.6	4,702.2	4,549.9	13.2	20.9	-120.05	-895.7	-6,887.8	7,269.0	7,237.1	31.96	227.414		
4,000.0	3,943.2	4,752.0	4,597.8	13.5	21.2	-120.02	-882.3	-6,885.9	7,269.7	7,237.3	32.46	223.941		
4,035.4	3,977.8	4,752.0	4,597.8	13.6	21.2	-120.02	-882.3	-6,885.9	7,270.2	7,237.6	32.60	222.984		
4,100.0	4,041.0	4,800.1	4,644.2	13.9	21.4	-119.99	-869.8	-6,884.2	7,271.2	7,238.1	33.09	219.719		
4,133.8	4,074.1	4,834.0	4,677.0	14.1	21.6	-119.97	-861.3	-6,882.9	7,271.8	7,238.4	33.39	217.773		
4,200.0	4,138.8	4,890.0	4,731.5	14.4	21.8	-119.96	-848.4	-6,880.7	7,273.0	7,239.1	33.90	214.571		
4,232.3	4,170.4	4,926.1	4,766.7	14.5	22.0	-119.95	-840.9	-6,879.1	7,273.6	7,239.4	34.18	212.829		
4,300.0	4,236.6	5,030.6	4,868.9	14.8	22.5	-119.94	-819.2	-6,874.0	7,274.5	7,239.6	34.87	208.621		
4,330.7	4,266.7	5,065.5	4,902.9	14.9	22.6	-119.94	-811.9	-6,872.2	7,274.9	7,239.8	35.13	207.056		
4,400.0	4,334.4	5,106.1	4,942.6	15.2	22.8	-119.93	-803.5	-6,870.2	7,275.8	7,240.3	35.57	204.537		
4,429.1	4,362.9	5,119.9	4,956.1	15.4	22.8	-119.93	-800.8	-6,869.5	7,276.3	7,240.6	35.74	203.579		
4,500.0	4,432.3	5,161.0	4,996.4	15.7	23.0	-119.93	-792.9	-6,867.6	7,277.8	7,241.6	36.18	201.130		
4,527.5	4,459.2	5,161.0	4,996.4	15.8	23.0	-119.93	-792.9	-6,867.6	7,278.5	7,242.2	36.30	200.536		
4,600.0	4,530.1	5,193.4	5,028.3	16.1	23.1	-119.94	-787.1	-6,866.3	7,280.5	7,243.8	36.69	198.410		
4,626.0	4,555.5	5,203.5	5,038.2	16.2	23.1	-119.94	-785.5	-6,865.9	7,281.4	7,244.5	36.83	197.691		
4,700.0	4,627.9	5,242.0	5,076.2	16.6	23.3	-119.95	-779.6	-6,864.5	7,284.1	7,246.8	37.26	195.511		
4,724.4	4,651.7	5,242.0	5,076.2	16.7	23.3	-119.95	-779.6	-6,864.5	7,285.1	7,247.7	37.35	195.024		
4,800.0	4,725.7	5,276.5	5,110.4	17.0	23.4	-119.96	-774.7	-6,863.4	7,288.5	7,250.7	37.76	193.038		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 137-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		
4,822.8	4,748.0	5,287.0	5,120.8	17.1	23.4	-119.97	-773.3	-6,863.1	7,289.6	7,251.7	37.88	192.447		
4,904.9	4,828.3	5,324.0	5,157.5	17.5	23.5	-119.99	-768.6	-6,862.0	7,293.8	7,255.5	38.31	190.377		
4,921.2	4,844.3	5,324.0	5,157.5	17.5	23.5	-120.00	-768.6	-6,862.0	7,294.7	7,256.4	38.37	190.126		
5,000.0	4,921.6	5,360.6	5,193.8	17.8	23.6	-120.09	-764.4	-6,861.2	7,298.7	7,260.0	38.72	188.481		
5,019.7	4,941.0	5,368.0	5,201.1	17.9	23.6	-120.11	-763.6	-6,861.1	7,299.6	7,260.8	38.79	188.161		
5,100.0	5,020.4	5,406.0	5,239.0	18.1	23.8	-120.17	-759.7	-6,860.5	7,302.9	7,263.8	39.10	186.770		
5,118.1	5,038.3	5,406.0	5,239.0	18.2	23.8	-120.19	-759.7	-6,860.5	7,303.6	7,264.4	39.14	186.589		
5,200.0	5,119.6	5,438.3	5,271.1	18.4	23.8	-120.24	-756.9	-6,860.1	7,306.2	7,266.8	39.39	185.468		
5,216.5	5,136.0	5,445.0	5,277.8	18.4	23.8	-120.25	-756.4	-6,860.1	7,306.7	7,267.2	39.44	185.266		
5,300.0	5,219.2	5,488.0	5,320.7	18.6	23.9	-120.28	-753.9	-6,859.7	7,308.6	7,268.9	39.69	184.164		
5,314.9	5,234.1	5,488.0	5,320.7	18.6	23.9	-120.29	-753.9	-6,859.7	7,308.9	7,269.1	39.71	184.062		
5,400.0	5,319.1	5,527.9	5,360.6	18.8	24.0	-120.31	-752.2	-6,859.6	7,310.0	7,270.1	39.90	183.200		
5,413.4	5,332.4	5,534.8	5,367.5	18.8	24.0	-120.31	-752.0	-6,859.5	7,310.1	7,270.1	39.93	183.080		
5,504.9	5,423.9	5,675.1	5,507.8	18.9	24.2	-101.88	-749.5	-6,858.5	7,309.9	7,278.8	31.07	235.276		
5,511.8	5,430.8	5,680.6	5,513.2	18.9	24.2	-101.88	-749.5	-6,858.4	7,309.8	7,278.7	31.09	235.126		
5,600.0	5,519.0	5,733.0	5,565.7	19.0	24.2	-101.88	-749.2	-6,857.7	7,308.5	7,277.2	31.31	233.434		
5,610.2	5,529.3	5,733.0	5,565.7	19.0	24.2	-101.88	-749.2	-6,857.7	7,308.4	7,277.1	31.33	233.298		
5,700.0	5,619.0	5,815.0	5,647.7	19.2	24.3	-101.88	-748.7	-6,857.0	7,307.6	7,276.0	31.61	231.192		
5,708.6	5,627.7	5,815.0	5,647.7	19.2	24.3	-101.88	-748.7	-6,857.0	7,307.5	7,275.9	31.62	231.080		
5,800.0	5,719.0	5,903.4	5,736.0	19.3	24.4	-101.87	-748.4	-6,856.6	7,307.0	7,275.0	31.92	228.932		
5,807.1	5,726.1	5,909.9	5,742.5	19.3	24.4	-101.87	-748.4	-6,856.5	7,306.9	7,275.0	31.94	228.770		
5,900.0	5,819.0	5,978.0	5,810.6	19.4	24.5	-101.87	-748.1	-6,856.1	7,306.4	7,274.2	32.21	226.845		
5,905.5	5,824.5	5,993.0	5,825.7	19.4	24.5	-101.87	-748.0	-6,856.1	7,306.3	7,274.1	32.24	226.613		
6,003.9	5,923.0	6,060.0	5,892.6	19.6	24.6	-101.87	-747.4	-6,856.0	7,306.1	7,273.6	32.52	224.678		
6,009.8	5,928.8	6,060.0	5,892.6	19.6	24.6	-101.87	-747.4	-6,856.0	7,306.1	7,273.6	32.53	224.606		
6,011.6	5,930.6	6,062.4	5,895.0	19.6	24.6	-11.87	-747.4	-6,856.1	7,306.1	7,264.7	41.40	176.474		
6,050.0	5,969.0	6,136.2	5,968.8	19.6	24.7	-11.89	-746.7	-6,856.0	7,304.9	7,263.5	41.41	176.421		
6,100.0	6,018.8	6,177.0	6,009.7	19.7	24.7	-11.97	-746.4	-6,855.9	7,300.3	7,259.1	41.17	177.311		
6,102.3	6,021.1	6,178.8	6,011.4	19.7	24.7	-11.97	-746.4	-6,855.9	7,300.0	7,258.8	41.16	177.372		
6,150.0	6,068.1	6,223.0	6,055.6	19.7	24.8	-12.11	-746.0	-6,855.9	7,292.3	7,251.6	40.75	178.943		
6,200.0	6,116.8	6,246.6	6,079.3	19.7	24.8	-12.31	-745.7	-6,856.0	7,281.1	7,241.0	40.12	181.491		
6,200.8	6,117.5	6,247.1	6,079.7	19.7	24.8	-12.32	-745.7	-6,856.0	7,280.9	7,240.8	40.11	181.537		
6,250.0	6,164.5	6,277.4	6,110.1	19.7	24.9	-12.59	-745.3	-6,856.1	7,266.7	7,227.4	39.31	184.866		
6,299.2	6,210.4	6,308.3	6,140.9	19.7	24.9	-12.93	-744.9	-6,856.3	7,249.5	7,211.2	38.34	189.100		
6,300.0	6,211.1	6,309.1	6,141.7	19.7	24.9	-12.93	-744.9	-6,856.3	7,249.2	7,210.9	38.32	189.176		
6,350.0	6,256.4	6,356.1	6,188.7	19.7	25.0	-13.38	-744.1	-6,856.7	7,228.6	7,191.4	37.18	194.416		
6,397.6	6,298.0	6,408.3	6,240.9	19.7	25.0	-13.91	-743.1	-6,857.2	7,206.1	7,170.1	35.95	200.429		
6,400.0	6,300.0	6,411.9	6,244.5	19.7	25.0	-13.94	-743.0	-6,857.2	7,204.9	7,169.0	35.89	200.753		
6,450.0	6,341.8	6,492.4	6,325.0	19.7	25.1	-14.65	-742.0	-6,857.5	7,178.1	7,143.7	34.47	208.229		
6,496.0	6,378.6	6,570.8	6,403.4	19.7	25.2	-15.47	-740.8	-6,857.3	7,150.8	7,117.8	33.05	216.351		
6,500.0	6,381.6	6,575.9	6,408.5	19.7	25.2	-15.55	-740.7	-6,857.3	7,148.4	7,115.4	32.92	217.123		
6,550.0	6,419.2	6,637.2	6,469.8	19.6	25.3	-16.61	-739.5	-6,856.9	7,115.8	7,084.5	31.24	227.772		
6,594.5	6,450.7	6,682.3	6,514.9	19.6	25.4	-17.74	-738.7	-6,856.5	7,084.6	7,055.0	29.67	238.798		
6,600.0	6,454.4	6,687.6	6,520.1	19.6	25.4	-17.89	-738.6	-6,856.4	7,080.6	7,051.2	29.47	240.285		
6,650.0	6,487.1	6,714.0	6,546.6	19.6	25.4	-19.41	-738.1	-6,856.2	7,043.2	7,015.5	27.64	254.852		
6,692.9	6,513.0	6,714.0	6,546.6	19.6	25.4	-20.92	-738.1	-6,856.2	7,009.4	6,983.4	26.07	268.896		
6,700.0	6,517.0	6,714.0	6,546.6	19.6	25.4	-21.19	-738.1	-6,856.2	7,003.7	6,977.9	25.81	271.364		
6,750.0	6,544.1	6,745.2	6,577.7	19.6	25.5	-23.57	-737.5	-6,855.9	6,962.3	6,938.2	24.16	288.232		
6,791.3	6,564.2	6,754.1	6,586.7	19.7	25.5	-25.92	-737.4	-6,855.8	6,926.9	6,903.9	22.96	301.696		
6,800.0	6,568.2	6,755.9	6,588.4	19.7	25.5	-26.48	-737.3	-6,855.8	6,919.3	6,896.5	22.77	303.829		
6,850.0	6,589.1	6,765.3	6,597.8	19.8	25.5	-30.24	-737.2	-6,855.8	6,874.9	6,852.9	21.94	313.333		
6,889.7	6,603.5	6,771.7	6,604.3	19.9	25.5	-34.07	-737.1	-6,855.8	6,838.6	6,816.7	21.92	312.037		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 137-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	
6,900.0	6,606.9	6,795.0	6,627.5	19.9	25.5	-35.46	-736.6	-6,855.8	6,829.2	6,807.1	22.12	308.676	
6,950.0	6,621.3	6,795.0	6,627.5	20.2	25.5	-42.12	-736.6	-6,855.8	6,782.4	6,758.9	23.58	287.601	
6,988.2	6,630.0	6,795.0	6,627.5	20.6	25.5	-48.77	-736.6	-6,855.8	6,746.2	6,720.3	25.82	261.305	
7,000.0	6,632.4	6,795.0	6,627.5	20.7	25.5	-51.17	-736.6	-6,855.8	6,734.8	6,708.1	26.70	252.237	
7,050.0	6,640.0	6,795.0	6,627.5	21.4	25.5	-63.33	-736.6	-6,855.8	6,686.6	6,655.4	31.24	214.051	
7,086.6	6,643.4	6,795.0	6,627.5	21.9	25.5	-74.33	-736.6	-6,855.8	6,651.1	6,616.3	34.79	191.185	
7,100.0	6,644.2	6,795.0	6,627.5	22.1	25.5	-78.72	-736.6	-6,855.8	6,638.1	6,602.1	35.95	184.646	
7,135.7	6,645.0	6,795.0	6,627.5	22.7	25.5	-90.90	-736.6	-6,855.8	6,603.4	6,565.1	38.29	172.467	
7,185.0	6,644.9	6,795.0	6,627.5	23.6	25.5	-90.90	-736.6	-6,855.8	6,555.3	6,516.0	39.25	167.023	
7,200.0	6,644.9	6,795.0	6,627.5	23.9	25.5	-90.90	-736.6	-6,855.8	6,540.7	6,501.2	39.54	165.425	
7,283.4	6,644.8	6,795.0	6,627.5	25.6	25.5	-90.90	-736.6	-6,855.8	6,459.5	6,418.2	41.27	156.528	
7,300.0	6,644.8	6,795.0	6,627.5	25.9	25.5	-90.90	-736.6	-6,855.8	6,443.4	6,401.8	41.61	154.851	
7,381.9	6,644.7	6,795.0	6,627.5	27.7	25.5	-90.90	-736.6	-6,855.8	6,363.7	6,320.3	43.41	146.582	
7,400.0	6,644.7	6,795.0	6,627.5	28.1	25.5	-90.90	-736.6	-6,855.8	6,346.1	6,302.3	43.81	144.844	
7,480.3	6,644.6	6,795.0	6,627.5	29.9	25.5	-90.90	-736.6	-6,855.8	6,268.1	6,222.4	45.67	137.244	
7,500.0	6,644.6	6,795.0	6,627.5	30.3	25.5	-90.90	-736.6	-6,855.8	6,249.0	6,202.9	46.13	135.473	
7,578.7	6,644.5	6,795.0	6,627.5	32.2	25.5	-90.90	-736.6	-6,855.8	6,172.6	6,124.5	48.01	128.566	
7,600.0	6,644.4	6,795.0	6,627.5	32.7	25.5	-90.90	-736.6	-6,855.8	6,151.9	6,103.4	48.52	126.792	
7,677.1	6,644.3	6,795.0	6,627.5	34.6	25.5	-90.90	-736.6	-6,855.8	6,077.1	6,026.7	50.41	120.542	
7,700.0	6,644.3	6,795.0	6,627.5	35.1	25.5	-90.90	-736.6	-6,855.8	6,055.0	6,004.0	50.98	118.781	
7,775.6	6,644.2	6,795.0	6,627.5	37.0	25.5	-90.90	-736.6	-6,855.8	5,981.7	5,928.9	52.87	113.140	
7,800.0	6,644.2	6,795.0	6,627.5	37.6	25.5	-90.90	-736.6	-6,855.8	5,958.1	5,904.6	53.48	111.403	
7,874.0	6,644.1	6,795.0	6,627.5	39.5	25.5	-90.90	-736.6	-6,855.8	5,886.5	5,831.1	55.37	106.316	
7,900.0	6,644.1	6,795.0	6,627.5	40.1	25.5	-90.90	-736.6	-6,855.8	5,861.3	5,805.3	56.03	104.611	
7,972.4	6,644.0	6,795.0	6,627.5	42.0	25.5	-90.90	-736.6	-6,855.8	5,791.3	5,733.4	57.90	100.024	
8,000.0	6,643.9	6,795.0	6,627.5	42.7	25.5	-90.90	-736.6	-6,855.8	5,764.7	5,706.1	58.61	98.355	
8,070.8	6,643.9	6,795.0	6,627.5	44.5	25.5	-90.90	-736.6	-6,855.8	5,696.3	5,635.8	60.46	94.217	
8,100.0	6,643.8	6,795.0	6,627.5	45.2	25.5	-90.90	-736.6	-6,855.8	5,668.1	5,606.9	61.22	92.587	
8,169.3	6,643.7	6,795.0	6,627.5	47.0	25.5	-90.90	-736.6	-6,855.8	5,601.3	5,538.3	63.04	88.850	
8,200.0	6,643.7	6,795.0	6,627.5	47.9	25.5	-90.90	-736.6	-6,855.8	5,571.7	5,507.9	63.85	87.261	
8,267.7	6,643.6	6,795.0	6,627.5	49.6	25.5	-90.90	-736.6	-6,855.8	5,506.5	5,440.9	65.65	83.882	
8,300.0	6,643.6	6,795.0	6,627.5	50.5	25.5	-90.90	-736.6	-6,855.8	5,475.5	5,409.0	66.50	82.334	
8,366.1	6,643.5	6,795.0	6,627.5	52.2	25.5	-90.90	-736.6	-6,855.8	5,411.9	5,343.6	68.27	79.275	
8,400.0	6,643.4	6,795.0	6,627.5	53.1	25.5	-90.90	-736.6	-6,855.8	5,379.3	5,310.1	69.17	77.769	
8,464.5	6,643.4	6,795.0	6,627.5	54.8	25.5	-90.90	-736.6	-6,855.8	5,317.3	5,246.4	70.90	74.996	
8,500.0	6,643.3	6,795.0	6,627.5	55.8	25.5	-90.90	-736.6	-6,855.8	5,283.3	5,211.5	71.85	73.530	
8,563.0	6,643.2	6,795.0	6,627.5	57.5	25.5	-90.90	-736.6	-6,855.8	5,222.9	5,149.4	73.55	71.013	
8,600.0	6,643.2	6,795.0	6,627.5	58.5	25.5	-90.90	-736.6	-6,855.8	5,187.5	5,112.9	74.55	69.587	
8,661.4	6,643.1	6,795.0	6,627.5	60.1	25.5	-90.90	-736.6	-6,855.8	5,128.7	5,052.5	76.21	67.299	
8,700.0	6,643.1	6,795.0	6,627.5	61.2	25.5	-90.90	-736.6	-6,855.8	5,091.8	5,014.5	77.25	65.912	
8,759.8	6,643.0	6,795.0	6,627.5	62.8	25.5	-90.90	-736.6	-6,855.8	5,034.6	4,955.7	78.87	63.830	
8,800.0	6,643.0	6,795.0	6,627.5	63.9	25.5	-90.90	-736.6	-6,855.8	4,996.2	4,916.3	79.97	62.480	
8,858.2	6,642.9	6,795.0	6,627.5	65.4	25.5	-90.90	-736.6	-6,855.8	4,940.7	4,859.1	81.55	60.584	
8,900.0	6,642.8	6,795.0	6,627.5	66.6	25.5	-90.90	-736.6	-6,855.8	4,900.9	4,818.2	82.69	59.270	
8,956.7	6,642.8	6,795.0	6,627.5	68.1	25.5	-90.90	-736.6	-6,855.8	4,846.9	4,762.7	84.23	57.541	
9,000.0	6,642.7	6,795.0	6,627.5	69.3	25.5	-90.90	-736.6	-6,855.8	4,805.7	4,720.3	85.42	56.262	
9,055.1	6,642.6	6,795.0	6,627.5	70.8	25.5	-90.90	-736.6	-6,855.8	4,753.4	4,666.5	86.92	54.685	
9,100.0	6,642.6	6,795.0	6,627.5	72.0	25.5	-90.90	-736.6	-6,855.8	4,710.8	4,622.6	88.15	53.439	
9,153.5	6,642.5	6,795.0	6,627.5	73.5	25.5	-90.90	-736.6	-6,855.8	4,660.0	4,570.4	89.62	51.998	
9,200.0	6,642.5	6,795.0	6,627.5	74.7	25.5	-90.90	-736.6	-6,855.8	4,616.0	4,525.1	90.89	50.785	
9,251.9	6,642.4	6,795.0	6,627.5	76.2	25.5	-90.90	-736.6	-6,855.8	4,566.9	4,474.6	92.32	49.469	
9,300.0	6,642.3	6,795.0	6,627.5	77.5	25.5	-90.90	-736.6	-6,855.8	4,521.5	4,427.9	93.64	48.287	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 137-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	
9,350.4	6,642.3	6,795.0	6,627.5	78.9	25.5	-90.90	-736.6	-6,855.8	4,474.0	4,379.0	95.02	47.083	
9,400.0	6,642.2	6,795.0	6,627.5	80.2	25.5	-90.90	-736.6	-6,855.8	4,427.2	4,330.9	96.39	45.931	
9,448.8	6,642.1	6,795.0	6,627.5	81.6	25.5	-90.90	-736.6	-6,855.8	4,381.3	4,283.6	97.73	44.829	
9,500.0	6,642.1	6,795.0	6,627.5	83.0	25.5	-90.90	-736.6	-6,855.8	4,333.2	4,234.1	99.14	43.706	
9,547.2	6,642.0	6,795.0	6,627.5	84.3	25.5	-90.90	-736.6	-6,855.8	4,288.9	4,188.5	100.45	42.699	
9,600.0	6,642.0	6,795.0	6,627.5	85.7	25.5	-90.90	-736.6	-6,855.8	4,239.5	4,137.6	101.90	41.603	
9,645.6	6,641.9	6,795.0	6,627.5	87.0	25.5	-90.90	-736.6	-6,855.8	4,196.8	4,093.6	103.16	40.681	
9,700.0	6,641.8	6,795.0	6,627.5	88.5	25.5	-90.90	-736.6	-6,855.8	4,146.0	4,041.4	104.66	39.613	
9,744.1	6,641.8	6,795.0	6,627.5	89.7	25.5	-90.90	-736.6	-6,855.8	4,104.9	3,999.1	105.88	38.769	
9,800.0	6,641.7	6,795.0	6,627.5	91.2	25.5	-90.90	-736.6	-6,855.8	4,052.9	3,945.5	107.43	37.726	
9,842.5	6,641.7	6,795.0	6,627.5	92.4	25.5	-90.90	-736.6	-6,855.8	4,013.4	3,904.8	108.60	36.954	
9,900.0	6,641.6	6,795.0	6,627.5	94.0	25.5	-90.90	-736.6	-6,855.8	3,960.1	3,849.9	110.20	35.937	
9,940.9	6,641.5	6,795.0	6,627.5	95.1	25.5	-90.90	-736.6	-6,855.8	3,922.2	3,810.9	111.33	35.231	
10,000.0	6,641.5	6,795.0	6,627.5	96.7	25.5	-90.90	-736.6	-6,855.8	3,867.6	3,754.7	112.97	34.237	
10,039.3	6,641.4	6,795.0	6,627.5	97.8	25.5	-90.90	-736.6	-6,855.8	3,831.4	3,717.3	114.06	33.592	
10,100.0	6,641.3	6,795.0	6,627.5	99.5	25.5	-90.90	-736.6	-6,855.8	3,775.6	3,659.8	115.74	32.622	
10,137.8	6,641.3	6,795.0	6,627.5	100.6	25.5	-90.90	-736.6	-6,855.8	3,740.9	3,624.1	116.79	32.032	
10,200.0	6,641.2	6,795.0	6,627.5	102.3	25.5	-90.91	-736.6	-6,855.8	3,683.9	3,565.4	118.51	31.085	
10,236.2	6,641.2	6,795.0	6,627.5	103.3	25.5	-90.91	-736.6	-6,855.8	3,650.9	3,531.3	119.52	30.547	
10,300.0	6,641.1	6,795.0	6,627.5	105.0	25.5	-90.91	-736.6	-6,855.8	3,592.7	3,471.4	121.29	29.621	
10,334.6	6,641.0	6,795.0	6,627.5	106.0	25.5	-90.91	-736.6	-6,855.8	3,561.3	3,439.0	122.25	29.131	
10,400.0	6,641.0	6,795.0	6,627.5	107.8	25.5	-90.91	-736.6	-6,855.8	3,502.0	3,377.9	124.07	28.227	
10,433.0	6,640.9	6,795.0	6,627.5	108.7	25.5	-90.91	-736.6	-6,855.8	3,472.1	3,347.1	124.98	27.780	
10,500.0	6,640.8	6,795.0	6,627.5	110.6	25.5	-90.91	-736.6	-6,855.8	3,411.8	3,285.0	126.85	26.897	
10,531.5	6,640.8	6,795.0	6,627.5	111.5	25.5	-90.91	-736.6	-6,855.8	3,383.5	3,255.8	127.72	26.491	
10,600.0	6,640.7	6,795.0	6,627.5	113.4	25.5	-90.91	-736.6	-6,855.8	3,322.2	3,192.5	129.63	25.629	
10,629.9	6,640.7	6,795.0	6,627.5	114.2	25.5	-90.91	-736.6	-6,855.8	3,295.5	3,165.0	130.46	25.261	
10,700.0	6,640.6	6,795.0	6,627.5	116.1	25.5	-90.91	-736.6	-6,855.8	3,233.1	3,100.7	132.41	24.418	
10,728.3	6,640.5	6,795.0	6,627.5	116.9	25.5	-90.91	-736.6	-6,855.8	3,208.0	3,074.8	133.20	24.085	
10,800.0	6,640.5	6,795.0	6,627.5	118.9	25.5	-90.91	-736.6	-6,855.8	3,144.7	3,009.6	135.19	23.261	
10,826.7	6,640.4	6,795.0	6,627.5	119.7	25.5	-90.91	-736.6	-6,855.8	3,121.2	2,985.3	135.94	22.961	
10,900.0	6,640.3	6,795.0	6,627.5	121.7	25.5	-90.91	-736.6	-6,855.8	3,057.1	2,919.1	137.98	22.156	
10,925.2	6,640.3	6,795.0	6,627.5	122.4	25.5	-90.91	-736.6	-6,855.8	3,035.1	2,896.5	138.68	21.886	
11,000.0	6,640.2	6,795.0	6,627.5	124.5	25.5	-90.91	-736.6	-6,855.8	2,970.2	2,829.4	140.77	21.100	
11,023.6	6,640.2	6,795.0	6,627.5	125.1	25.5	-90.91	-736.6	-6,855.8	2,949.8	2,808.4	141.42	20.858	
11,100.0	6,640.1	6,795.0	6,627.5	127.3	25.5	-90.91	-736.6	-6,855.8	2,884.2	2,740.6	143.55	20.091	
11,122.0	6,640.0	6,795.0	6,627.5	127.9	25.5	-90.91	-736.6	-6,855.8	2,865.4	2,721.2	144.17	19.875	
11,200.0	6,639.9	6,795.0	6,627.5	130.1	25.5	-90.91	-736.6	-6,855.8	2,799.1	2,652.7	146.34	19.127	
11,220.4	6,639.9	6,795.0	6,627.5	130.6	25.5	-90.91	-736.6	-6,855.8	2,781.8	2,634.9	146.91	18.935	
11,300.0	6,639.8	6,795.0	6,627.5	132.8	25.5	-90.91	-736.6	-6,855.8	2,715.0	2,565.9	149.13	18.206	
11,318.9	6,639.8	6,795.0	6,627.5	133.4	25.5	-90.91	-736.6	-6,855.8	2,699.2	2,549.6	149.66	18.036	
11,400.0	6,639.7	6,795.0	6,627.5	135.6	25.5	-90.91	-736.6	-6,855.8	2,632.0	2,480.1	151.92	17.325	
11,417.3	6,639.7	6,795.0	6,627.5	136.1	25.5	-90.91	-736.6	-6,855.8	2,617.8	2,465.4	152.40	17.177	
11,500.0	6,639.6	6,795.0	6,627.5	138.4	25.5	-90.91	-736.6	-6,855.8	2,550.3	2,395.6	154.71	16.484	
11,515.7	6,639.5	6,795.0	6,627.5	138.9	25.5	-90.91	-736.6	-6,855.8	2,537.5	2,382.4	155.15	16.355	
11,600.0	6,639.4	6,795.0	6,627.5	141.2	25.5	-90.91	-736.6	-6,855.8	2,469.9	2,312.4	157.50	15.681	
11,614.1	6,639.4	6,795.0	6,627.5	141.6	25.5	-90.91	-736.6	-6,855.8	2,458.6	2,300.7	157.90	15.571	
11,700.0	6,639.3	6,795.0	6,627.5	144.0	25.5	-90.91	-736.6	-6,855.8	2,390.9	2,230.6	160.30	14.916	
11,712.6	6,639.3	6,795.0	6,627.5	144.3	25.5	-90.91	-736.6	-6,855.8	2,381.1	2,220.5	160.65	14.822	
11,800.0	6,639.2	6,795.0	6,627.5	146.8	25.5	-90.91	-736.6	-6,855.8	2,313.6	2,150.6	163.09	14.186	
11,811.0	6,639.2	6,795.0	6,627.5	147.1	25.5	-90.91	-736.6	-6,855.8	2,305.2	2,141.8	163.40	14.108	
11,900.0	6,639.1	6,795.0	6,627.5	149.6	25.5	-90.91	-736.6	-6,855.8	2,238.1	2,072.3	165.88	13.492	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 137-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		
11,909.4	6,639.0	6,795.0	6,627.5	149.8	25.5	-90.91	-736.6	-6,855.8	2,231.1	2,065.0	166.15	13.429		
12,000.0	6,638.9	6,795.0	6,627.5	152.4	25.5	-90.91	-736.6	-6,855.8	2,164.6	1,996.0	168.68	12.833		
12,007.8	6,638.9	6,795.0	6,627.5	152.6	25.5	-90.91	-736.6	-6,855.8	2,159.0	1,990.1	168.90	12.783		
12,100.0	6,638.8	6,795.0	6,627.5	155.2	25.5	-90.91	-736.6	-6,855.8	2,093.3	1,921.8	171.47	12.208		
12,106.3	6,638.8	6,795.0	6,627.5	155.3	25.5	-90.91	-736.6	-6,855.8	2,088.9	1,917.3	171.65	12.170		
12,200.0	6,638.7	6,795.0	6,627.5	157.9	25.5	-90.91	-736.6	-6,855.8	2,024.4	1,850.2	174.27	11.617		
12,204.7	6,638.7	6,795.0	6,627.5	158.1	25.5	-90.91	-736.6	-6,855.8	2,021.3	1,846.9	174.40	11.590		
12,300.0	6,638.5	6,795.0	6,627.5	160.7	25.5	-90.91	-736.6	-6,855.8	1,958.2	1,781.2	177.06	11.059		
12,303.1	6,638.5	6,795.0	6,627.5	160.8	25.5	-90.91	-736.6	-6,855.8	1,956.2	1,779.1	177.15	11.043		
12,400.0	6,638.4	6,795.0	6,627.5	163.5	25.5	-90.91	-736.6	-6,855.8	1,895.0	1,715.1	179.86	10.536		
12,401.5	6,638.4	6,795.0	6,627.5	163.6	25.5	-90.91	-736.6	-6,855.8	1,894.0	1,714.1	179.90	10.528		
12,500.0	6,638.3	6,795.0	6,627.5	166.3	25.5	-90.91	-736.6	-6,855.8	1,835.0	1,652.4	182.66	10.046		
12,598.4	6,638.2	6,795.0	6,627.5	169.1	25.5	-90.91	-736.6	-6,855.8	1,779.6	1,594.1	185.41	9.598		
12,600.0	6,638.2	6,795.0	6,627.5	169.1	25.5	-90.91	-736.6	-6,855.8	1,778.7	1,593.2	185.46	9.591		
12,696.8	6,638.0	6,795.0	6,627.5	171.8	25.5	-90.91	-736.6	-6,855.8	1,727.9	1,539.7	188.17	9.183		
12,700.0	6,638.0	6,795.0	6,627.5	171.9	25.5	-90.91	-736.6	-6,855.8	1,726.3	1,538.0	188.25	9.170		
12,795.2	6,637.9	6,795.0	6,627.5	174.6	25.5	-90.91	-736.6	-6,855.8	1,680.4	1,489.5	190.92	8.802		
12,800.0	6,637.9	6,795.0	6,627.5	174.7	25.5	-90.91	-736.6	-6,855.8	1,678.2	1,487.2	191.05	8.784		
12,893.7	6,637.8	6,795.0	6,627.5	177.3	25.5	-90.91	-736.6	-6,855.8	1,637.4	1,443.8	193.67	8.455		
12,900.0	6,637.8	6,795.0	6,627.5	177.5	25.5	-90.91	-736.6	-6,855.8	1,634.9	1,441.0	193.85	8.434		
12,992.1	6,637.7	6,795.0	6,627.5	180.1	25.5	-90.91	-736.6	-6,855.8	1,599.4	1,403.0	196.43	8.142		
13,000.0	6,637.6	6,795.0	6,627.5	180.3	25.5	-90.91	-736.6	-6,855.8	1,596.6	1,399.9	196.65	8.119		
13,090.5	6,637.5	6,795.0	6,627.5	182.8	25.5	-90.91	-736.6	-6,855.8	1,566.7	1,367.5	199.19	7.865		
13,100.0	6,637.5	6,795.0	6,627.5	183.1	25.5	-90.91	-736.6	-6,855.8	1,563.8	1,364.3	199.45	7.840		
13,188.9	6,637.4	6,795.0	6,627.5	185.6	25.5	-90.91	-736.6	-6,855.8	1,539.5	1,337.6	201.94	7.623		
13,200.0	6,637.4	6,795.0	6,627.5	185.9	25.5	-90.91	-736.6	-6,855.8	1,536.8	1,334.6	202.25	7.599		
13,287.4	6,637.3	6,795.0	6,627.5	188.4	25.5	-90.91	-736.6	-6,855.8	1,518.2	1,313.5	204.70	7.417		
13,300.0	6,637.3	6,795.0	6,627.5	188.7	25.5	-90.91	-736.6	-6,855.8	1,516.0	1,310.9	205.05	7.393		
13,385.8	6,637.1	6,795.0	6,627.5	191.1	25.5	-90.91	-736.6	-6,855.8	1,503.1	1,295.7	207.45	7.246		
13,400.0	6,637.1	6,795.0	6,627.5	191.5	25.5	-90.91	-736.6	-6,855.8	1,501.5	1,293.6	207.85	7.224		
13,484.2	6,637.0	6,795.0	6,627.5	193.9	25.5	-90.91	-736.6	-6,855.8	1,494.4	1,284.2	210.21	7.109		
13,500.0	6,637.0	6,795.0	6,627.5	194.3	25.5	-90.91	-736.6	-6,855.8	1,493.6	1,282.9	210.65	7.090		
13,568.3	6,636.9	6,795.0	6,627.5	196.2	25.5	-90.91	-736.6	-6,855.8	1,492.0	1,279.5	212.56	7.019 CC		
13,582.6	6,636.9	6,795.0	6,627.5	196.6	25.5	-90.91	-736.6	-6,855.8	1,492.1	1,279.1	212.97	7.006		
13,600.0	6,636.9	6,795.0	6,627.5	197.1	25.5	-90.91	-736.6	-6,855.8	1,492.4	1,278.9	213.45	6.992 ES		
13,681.1	6,636.8	6,795.0	6,627.5	199.4	25.5	-90.91	-736.6	-6,855.8	1,496.3	1,280.6	215.72	6.936		
13,700.0	6,636.7	6,795.0	6,627.5	199.9	25.5	-90.91	-736.6	-6,855.8	1,497.8	1,281.6	216.25	6.926		
13,779.5	6,636.6	6,795.0	6,627.5	202.1	25.5	-90.91	-736.6	-6,855.8	1,506.9	1,288.4	218.48	6.897		
13,800.0	6,636.6	6,795.0	6,627.5	202.7	25.5	-90.91	-736.6	-6,855.8	1,509.9	1,290.9	219.06	6.893		
13,877.9	6,636.5	6,795.0	6,627.5	204.9	25.5	-90.91	-736.6	-6,855.8	1,523.8	1,302.6	221.24	6.888 SF		
13,900.0	6,636.5	6,795.0	6,627.5	205.5	25.5	-90.91	-736.6	-6,855.8	1,528.5	1,306.6	221.86	6.889		
13,976.3	6,636.4	6,795.0	6,627.5	207.6	25.5	-90.91	-736.6	-6,855.8	1,546.8	1,322.8	224.00	6.906		
14,000.0	6,636.3	6,795.0	6,627.5	208.3	25.5	-90.91	-736.6	-6,855.8	1,553.2	1,328.6	224.66	6.914		
14,074.8	6,636.3	6,795.0	6,627.5	210.4	25.5	-90.91	-736.6	-6,855.8	1,575.7	1,348.9	226.76	6.949		
14,100.0	6,636.2	6,795.0	6,627.5	211.1	25.5	-90.91	-736.6	-6,855.8	1,583.9	1,356.5	227.46	6.964		
14,173.2	6,636.1	6,795.0	6,627.5	213.2	25.5	-90.91	-736.6	-6,855.8	1,610.0	1,380.5	229.51	7.015		
14,200.0	6,636.1	6,795.0	6,627.5	213.9	25.5	-90.91	-736.6	-6,855.8	1,620.3	1,390.0	230.27	7.036		
14,271.6	6,636.0	6,795.0	6,627.5	215.9	25.5	-90.91	-736.6	-6,855.8	1,649.5	1,417.2	232.27	7.102		
14,300.0	6,636.0	6,795.0	6,627.5	216.7	25.5	-90.91	-736.6	-6,855.8	1,661.8	1,428.7	233.07	7.130		
14,370.0	6,635.9	6,795.0	6,627.5	218.7	25.5	-90.91	-736.6	-6,855.8	1,693.8	1,458.8	235.03	7.207		
14,400.0	6,635.8	6,795.0	6,627.5	219.5	25.5	-90.91	-736.6	-6,855.8	1,708.2	1,472.3	235.87	7.242		
14,468.5	6,635.7	6,795.0	6,627.5	221.4	25.5	-90.91	-736.6	-6,855.8	1,742.6	1,504.8	237.79	7.328		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD JURGENS PC #B8-22D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 137-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
14,500.0	6,635.7	6,800.6	6,633.2	222.3	25.6	-91.12	-736.5	-6,855.8	1,759.0	1,520.4	238.69	7.370	
14,566.9	6,635.6	6,800.8	6,633.3	224.2	25.6	-91.13	-736.5	-6,855.8	1,795.4	1,554.8	240.56	7.463	
14,600.0	6,635.6	6,800.8	6,633.4	225.1	25.6	-91.13	-736.5	-6,855.8	1,814.0	1,572.5	241.49	7.512	
14,665.3	6,635.5	6,801.0	6,633.5	226.9	25.6	-91.14	-736.5	-6,855.8	1,851.9	1,608.6	243.32	7.611	
14,700.0	6,635.4	6,801.1	6,633.6	227.9	25.6	-91.14	-736.5	-6,855.8	1,872.7	1,628.4	244.29	7.666	
14,763.7	6,635.4	6,801.2	6,633.8	229.7	25.6	-91.15	-736.5	-6,855.8	1,911.9	1,665.8	246.08	7.769	
14,800.0	6,635.3	6,801.3	6,633.8	230.7	25.6	-91.15	-736.5	-6,855.8	1,934.7	1,687.6	247.10	7.830	
14,862.2	6,635.2	6,801.4	6,634.0	232.5	25.6	-91.15	-736.5	-6,855.8	1,974.9	1,726.1	248.84	7.936	
14,900.0	6,635.2	6,801.5	6,634.1	233.5	25.6	-91.16	-736.5	-6,855.8	1,999.9	1,750.0	249.90	8.003	
14,960.6	6,635.1	6,801.7	6,634.2	235.2	25.6	-91.16	-736.5	-6,855.8	2,040.7	1,789.1	251.60	8.111	
15,000.0	6,635.0	6,801.8	6,634.3	236.3	25.6	-91.17	-736.5	-6,855.8	2,067.8	1,815.1	252.71	8.183	
15,033.1	6,635.0	6,801.9	6,634.4	237.3	25.6	-91.17	-736.5	-6,855.8	2,090.9	1,837.2	253.63	8.244	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-MWD													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	-105.64	-1,985.6	-7,092.6	7,365.3					
98.4	98.4	39.0	39.0	0.1	0.0	-105.64	-1,985.6	-7,092.7	7,365.5	7,365.4	0.10	N/A		
100.0	100.0	39.8	39.8	0.1	0.0	-105.64	-1,985.6	-7,092.7	7,365.5	7,365.4	0.10	N/A		
196.8	196.8	94.3	94.3	0.3	0.0	-105.64	-1,985.9	-7,093.1	7,366.3	7,366.0	0.33	N/A		
200.0	200.0	96.5	96.5	0.3	0.0	-105.64	-1,985.9	-7,093.1	7,366.4	7,366.0	0.34	N/A		
295.3	295.3	168.0	168.0	0.5	0.1	-105.65	-1,986.9	-7,093.8	7,367.6	7,367.0	0.62	N/A		
300.0	300.0	168.0	168.0	0.5	0.1	-105.65	-1,986.9	-7,093.8	7,367.7	7,367.0	0.63	N/A		
393.7	393.7	283.5	283.5	0.8	0.3	-105.66	-1,989.1	-7,094.7	7,368.8	7,367.7	1.08	6,810.881		
400.0	400.0	287.8	287.8	0.8	0.3	-105.66	-1,989.2	-7,094.7	7,368.9	7,367.8	1.11	6,667.609		
492.1	492.1	352.0	351.9	1.0	0.5	-105.67	-1,990.6	-7,095.3	7,370.2	7,368.8	1.45	5,093.625		
500.0	500.0	365.3	365.2	1.0	0.5	-105.67	-1,990.9	-7,095.5	7,370.4	7,368.9	1.49	4,938.640		
590.5	590.5	468.7	468.7	1.2	0.7	-105.69	-1,993.2	-7,096.2	7,371.5	7,369.5	1.91	3,856.000		
600.0	600.0	473.3	473.2	1.2	0.7	-105.69	-1,993.3	-7,096.2	7,371.6	7,369.7	1.94	3,795.282		
689.0	689.0	535.0	534.9	1.4	0.9	-105.70	-1,994.4	-7,097.1	7,373.2	7,370.9	2.27	3,248.355		
700.0	700.0	535.0	534.9	1.4	0.9	-105.70	-1,994.4	-7,097.1	7,373.4	7,371.1	2.29	3,213.365		
787.4	787.4	578.7	578.6	1.6	1.0	-105.70	-1,995.2	-7,098.0	7,375.5	7,372.9	2.58	2,855.795		
800.0	800.0	588.0	587.9	1.7	1.0	-105.70	-1,995.4	-7,098.2	7,375.8	7,373.2	2.63	2,803.904		
885.8	885.8	653.4	653.3	1.9	1.1	-105.71	-1,996.4	-7,099.7	7,378.1	7,375.2	2.96	2,491.908		
900.0	900.0	665.1	664.9	1.9	1.1	-105.71	-1,996.6	-7,100.0	7,378.5	7,375.5	3.02	2,445.332		
984.2	984.2	734.5	734.4	2.1	1.3	-105.71	-1,997.4	-7,102.0	7,381.1	7,377.7	3.35	2,200.991		
1,000.0	1,000.0	747.0	746.8	2.1	1.3	-105.71	-1,997.5	-7,102.4	7,381.6	7,378.1	3.42	2,161.363		
1,082.7	1,082.7	819.9	819.7	2.3	1.5	-132.66	-1,997.9	-7,104.7	7,385.0	7,381.3	3.76	1,962.068		
1,100.0	1,100.0	828.0	827.8	2.3	1.5	-132.65	-1,998.0	-7,104.9	7,386.0	7,382.1	3.82	1,933.513		
1,181.1	1,181.0	881.0	880.7	2.5	1.6	-132.58	-1,997.8	-7,106.9	7,391.5	7,387.4	4.11	1,796.485		
1,200.0	1,199.8	892.2	891.9	2.6	1.6	-132.55	-1,997.7	-7,107.4	7,393.1	7,388.9	4.18	1,768.539		
1,279.5	1,279.1	936.2	935.9	2.8	1.7	-132.45	-1,996.9	-7,109.5	7,400.9	7,396.4	4.46	1,661.240		
1,300.0	1,299.5	947.1	946.7	2.8	1.8	-132.42	-1,996.7	-7,110.1	7,403.2	7,398.7	4.52	1,636.262		
1,377.9	1,376.9	992.0	991.6	3.0	1.9	-132.29	-1,995.6	-7,112.6	7,413.1	7,408.3	4.80	1,543.077		
1,400.0	1,398.7	992.0	991.6	3.0	1.9	-132.24	-1,995.6	-7,112.6	7,416.2	7,411.4	4.86	1,527.446		
1,476.4	1,474.2	1,024.9	1,024.4	3.2	1.9	-132.08	-1,994.8	-7,114.7	7,428.2	7,423.1	5.12	1,451.363		
1,500.0	1,497.5	1,033.4	1,032.8	3.3	2.0	-132.02	-1,994.6	-7,115.2	7,432.3	7,427.1	5.19	1,430.675		
1,574.8	1,571.0	1,073.0	1,072.3	3.5	2.1	-131.84	-1,993.6	-7,118.2	7,446.5	7,441.0	5.48	1,357.914		
1,600.0	1,595.6	1,073.0	1,072.3	3.6	2.1	-131.76	-1,993.6	-7,118.2	7,451.6	7,446.0	5.55	1,342.380		
1,673.2	1,667.2	1,073.0	1,072.3	3.9	2.1	-131.76	-1,993.6	-7,118.2	7,467.1	7,461.3	5.77	1,295.199		
1,700.0	1,693.4	1,102.6	1,101.8	4.0	2.1	-131.79	-1,992.9	-7,120.6	7,472.8	7,466.9	5.91	1,264.489		
1,771.6	1,763.5	1,126.4	1,125.5	4.2	2.2	-131.81	-1,992.2	-7,122.8	7,488.5	7,482.3	6.18	1,211.126		
1,800.0	1,791.3	1,155.0	1,154.0	4.3	2.3	-131.83	-1,991.3	-7,125.6	7,494.9	7,488.6	6.33	1,183.352		
1,870.1	1,859.8	1,155.0	1,154.0	4.6	2.3	-131.83	-1,991.3	-7,125.6	7,510.8	7,504.2	6.56	1,145.638		
1,900.0	1,889.1	1,155.0	1,154.0	4.7	2.3	-131.83	-1,991.3	-7,125.6	7,517.8	7,511.1	6.65	1,130.477		
1,968.5	1,956.1	1,155.0	1,154.0	4.9	2.3	-131.83	-1,991.3	-7,125.6	7,534.1	7,527.3	6.87	1,096.257		
2,000.0	1,986.9	1,155.0	1,154.0	5.1	2.3	-131.83	-1,991.3	-7,125.6	7,541.9	7,534.9	6.98	1,081.227		
2,066.9	2,052.3	1,196.7	1,195.3	5.3	2.4	-131.86	-1,989.9	-7,130.3	7,558.2	7,550.9	7.30	1,035.767		
2,100.0	2,084.7	1,203.2	1,201.8	5.5	2.4	-131.86	-1,989.7	-7,131.2	7,566.5	7,559.1	7.42	1,019.376		
2,165.3	2,148.6	1,236.0	1,234.3	5.7	2.5	-131.89	-1,988.6	-7,135.7	7,583.4	7,575.7	7.72	982.069		
2,200.0	2,182.5	1,236.0	1,234.3	5.9	2.5	-131.89	-1,988.6	-7,135.7	7,592.4	7,584.6	7.84	968.553		
2,263.8	2,244.9	1,236.0	1,234.3	6.1	2.5	-131.89	-1,988.6	-7,135.7	7,609.4	7,601.3	8.06	944.380		
2,300.0	2,280.3	1,236.0	1,234.3	6.3	2.5	-131.89	-1,988.6	-7,135.7	7,619.2	7,611.0	8.18	931.260		
2,362.2	2,341.2	1,236.0	1,234.3	6.5	2.5	-131.89	-1,988.6	-7,135.7	7,636.5	7,628.1	8.40	909.401		
2,400.0	2,378.1	1,267.3	1,265.2	6.7	2.6	-131.91	-1,987.6	-7,140.4	7,646.9	7,638.3	8.61	888.591		
2,460.6	2,437.4	1,281.5	1,279.2	6.9	2.6	-131.92	-1,987.2	-7,142.7	7,664.2	7,655.4	8.85	865.746		
2,500.0	2,476.0	1,318.0	1,315.2	7.1	2.7	-131.94	-1,986.4	-7,148.8	7,675.8	7,666.7	9.08	845.305		
2,550.0	2,524.9	1,318.0	1,315.2	7.3	2.7	-131.94	-1,986.4	-7,148.8	7,690.4	7,681.1	9.26	830.804		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-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	2,533.7	1,318.0	1,315.2	7.3	2.7	-131.06	-1,986.4	-7,148.8	7,693.0	7,683.7	9.29	828.202	
2,600.0	2,573.8	1,318.0	1,315.2	7.5	2.7	-127.05	-1,986.4	-7,148.8	7,704.9	7,695.4	9.43	816.678	
2,639.4	2,612.3	1,318.0	1,315.2	7.7	2.7	-123.22	-1,986.4	-7,148.8	7,716.1	7,706.5	9.57	806.250	
2,657.5	2,630.0	1,318.0	1,315.2	7.7	2.7	-123.22	-1,986.4	-7,148.8	7,721.2	7,711.5	9.63	801.396	
2,700.0	2,671.6	1,318.0	1,315.2	7.9	2.7	-123.22	-1,986.4	-7,148.8	7,733.3	7,723.5	9.79	790.258	
2,755.9	2,726.3	1,357.8	1,354.3	8.1	2.9	-123.26	-1,985.8	-7,156.0	7,749.3	7,739.2	10.09	767.915	
2,800.0	2,769.4	1,370.5	1,366.8	8.3	2.9	-123.27	-1,985.7	-7,158.4	7,762.1	7,751.8	10.29	754.571	
2,854.3	2,822.5	1,400.0	1,395.7	8.5	3.0	-123.29	-1,985.5	-7,164.1	7,778.2	7,767.7	10.56	736.408	
2,900.0	2,867.2	1,400.0	1,395.7	8.7	3.0	-123.29	-1,985.5	-7,164.1	7,791.9	7,781.1	10.73	725.894	
2,952.7	2,918.8	1,400.0	1,395.7	9.0	3.0	-123.29	-1,985.5	-7,164.1	7,807.9	7,797.0	10.93	714.115	
3,000.0	2,965.0	1,433.2	1,428.3	9.2	3.1	-123.32	-1,985.4	-7,170.7	7,822.4	7,811.2	11.19	698.861	
3,051.2	3,015.1	1,450.7	1,445.4	9.4	3.2	-123.34	-1,985.3	-7,174.3	7,838.3	7,826.9	11.43	685.774	
3,100.0	3,062.8	1,481.0	1,475.0	9.6	3.3	-123.36	-1,985.2	-7,180.7	7,853.7	7,842.0	11.69	671.899	
3,149.6	3,111.4	1,481.0	1,475.0	9.8	3.3	-123.36	-1,985.2	-7,180.7	7,869.5	7,857.6	11.88	662.516	
3,200.0	3,160.7	1,481.0	1,475.0	10.0	3.3	-123.36	-1,985.2	-7,180.7	7,885.8	7,873.7	12.07	653.307	
3,248.0	3,207.6	1,520.1	1,513.2	10.2	3.5	-123.40	-1,985.1	-7,189.3	7,901.3	7,889.0	12.35	639.716	
3,300.0	3,258.5	1,563.0	1,554.9	10.5	3.7	-123.43	-1,985.0	-7,199.0	7,918.5	7,905.9	12.66	625.631	
3,346.4	3,303.9	1,563.0	1,554.9	10.7	3.7	-123.43	-1,985.0	-7,199.0	7,933.9	7,921.0	12.84	618.126	
3,400.0	3,356.3	1,563.0	1,554.9	10.9	3.7	-123.43	-1,985.0	-7,199.0	7,951.9	7,938.8	13.04	609.751	
3,444.9	3,400.2	1,563.0	1,554.9	11.1	3.7	-123.43	-1,985.0	-7,199.0	7,967.2	7,954.0	13.21	602.929	
3,500.0	3,454.1	1,597.9	1,588.8	11.3	3.8	-123.46	-1,984.8	-7,207.3	7,986.1	7,972.5	13.52	590.838	
3,543.3	3,496.5	1,609.2	1,599.8	11.5	3.9	-123.47	-1,984.8	-7,210.1	8,001.1	7,987.4	13.71	583.469	
3,600.0	3,551.9	1,645.0	1,634.4	11.7	4.0	-123.49	-1,984.5	-7,219.2	8,021.2	8,007.1	14.02	571.931	
3,641.7	3,592.7	1,645.0	1,634.4	11.9	4.0	-123.49	-1,984.5	-7,219.2	8,035.9	8,021.7	14.19	566.457	
3,700.0	3,649.7	1,645.0	1,634.4	12.2	4.0	-123.49	-1,984.5	-7,219.2	8,056.9	8,042.4	14.41	559.040	
3,740.1	3,689.0	1,645.0	1,634.4	12.4	4.0	-123.49	-1,984.5	-7,219.2	8,071.5	8,056.9	14.57	554.066	
3,800.0	3,747.5	1,645.0	1,634.4	12.6	4.0	-123.49	-1,984.5	-7,219.2	8,093.6	8,078.8	14.80	546.866	
3,838.6	3,785.3	1,682.9	1,671.0	12.8	4.2	-123.52	-1,984.2	-7,229.3	8,107.8	8,092.7	15.05	538.644	
3,900.0	3,845.4	1,726.0	1,712.3	13.1	4.5	-123.55	-1,984.0	-7,241.4	8,131.0	8,115.6	15.41	527.723	
3,937.0	3,881.6	1,726.0	1,712.3	13.2	4.5	-123.55	-1,984.0	-7,241.4	8,144.9	8,129.4	15.55	523.730	
4,000.0	3,943.2	1,726.0	1,712.3	13.5	4.5	-123.55	-1,984.0	-7,241.4	8,169.0	8,153.2	15.80	517.120	
4,035.4	3,977.8	1,726.0	1,712.3	13.6	4.5	-123.55	-1,984.0	-7,241.4	8,182.7	8,166.7	15.94	513.498	
4,100.0	4,041.0	1,726.0	1,712.3	13.9	4.5	-123.55	-1,984.0	-7,241.4	8,208.0	8,191.8	16.19	507.073	
4,133.8	4,074.1	1,760.1	1,745.0	14.1	4.6	-123.57	-1,983.8	-7,251.4	8,221.2	8,204.8	16.41	500.928	
4,200.0	4,138.8	1,779.8	1,763.7	14.4	4.7	-123.58	-1,983.7	-7,257.3	8,247.5	8,230.8	16.73	493.105	
4,232.3	4,170.4	1,808.0	1,790.6	14.5	4.9	-123.59	-1,983.4	-7,265.9	8,260.5	8,243.6	16.93	487.892	
4,300.0	4,236.6	1,824.5	1,806.2	14.8	5.0	-123.60	-1,983.2	-7,271.0	8,287.8	8,270.6	17.24	480.736	
4,330.7	4,266.7	1,906.4	1,884.2	14.9	5.4	-123.65	-1,982.2	-7,296.1	8,300.1	8,282.5	17.57	472.424	
4,400.0	4,334.4	1,971.0	1,945.8	15.2	5.7	-123.68	-1,981.6	-7,315.5	8,327.7	8,309.7	18.00	462.680	
4,429.1	4,362.9	1,971.0	1,945.8	15.4	5.7	-123.68	-1,981.6	-7,315.5	8,339.3	8,321.2	18.11	460.411	
4,500.0	4,432.3	2,014.3	1,987.0	15.7	6.0	-123.71	-1,981.1	-7,328.6	8,367.8	8,349.2	18.51	452.103	
4,527.5	4,459.2	2,023.9	1,996.2	15.8	6.0	-123.71	-1,981.0	-7,331.7	8,378.9	8,360.3	18.64	449.440	
4,600.0	4,530.1	2,053.0	2,023.8	16.1	6.2	-123.73	-1,980.4	-7,340.8	8,408.5	8,389.5	19.01	442.399	
4,626.0	4,555.5	2,071.1	2,041.0	16.2	6.3	-123.73	-1,980.1	-7,346.6	8,419.1	8,400.0	19.16	439.429	
4,700.0	4,627.9	2,168.2	2,133.2	16.6	6.8	-123.79	-1,979.5	-7,376.8	8,449.4	8,429.7	19.72	428.575	
4,724.4	4,651.7	2,209.9	2,172.9	16.7	7.1	-123.81	-1,979.8	-7,389.6	8,459.3	8,439.4	19.92	424.679	
4,800.0	4,725.7	2,252.2	2,213.3	17.0	7.3	-123.84	-1,980.2	-7,402.4	8,490.1	8,469.7	20.33	417.601	
4,822.8	4,748.0	2,263.7	2,224.2	17.1	7.4	-123.85	-1,980.3	-7,406.0	8,499.4	8,478.9	20.45	415.589	
4,904.9	4,828.3	2,307.7	2,266.0	17.5	7.6	-123.88	-1,980.4	-7,419.6	8,533.1	8,512.2	20.89	408.383	
4,921.2	4,844.3	2,319.4	2,277.1	17.5	7.7	-124.01	-1,980.5	-7,423.3	8,539.8	8,518.9	20.98	407.044	
5,000.0	4,921.6	2,379.0	2,333.7	17.8	8.1	-124.61	-1,980.8	-7,442.0	8,571.6	8,550.2	21.40	400.486	
5,019.7	4,941.0	2,379.0	2,333.7	17.9	8.1	-124.75	-1,980.8	-7,442.0	8,579.4	8,558.0	21.45	399.932	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-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	5,020.4	2,407.8	2,361.0	18.1	8.3	-125.31	-1,981.0	-7,451.1	8,610.8	8,589.0	21.74	396.110		
5,118.1	5,038.3	2,413.3	2,366.2	18.2	8.3	-125.44	-1,981.1	-7,452.9	8,617.7	8,595.9	21.79	395.412		
5,200.0	5,119.6	2,461.0	2,411.3	18.4	8.6	-125.98	-1,981.8	-7,468.4	8,648.8	8,626.7	22.12	391.025		
5,216.5	5,136.0	2,461.0	2,411.3	18.4	8.6	-126.09	-1,981.8	-7,468.4	8,654.9	8,632.7	22.15	390.764		
5,300.0	5,219.2	2,656.4	2,596.1	18.6	9.8	-126.54	-1,979.6	-7,531.8	8,684.3	8,661.3	22.93	378.729		
5,314.9	5,234.1	2,664.6	2,603.9	18.6	9.9	-126.62	-1,979.4	-7,534.4	8,689.3	8,666.4	22.98	378.096		
5,400.0	5,319.1	2,726.7	2,662.5	18.8	10.3	-127.06	-1,977.8	-7,554.7	8,717.5	8,694.2	23.33	373.676		
5,413.4	5,332.4	2,869.0	2,797.5	18.8	11.1	-127.04	-1,975.1	-7,599.7	8,721.7	8,697.8	23.82	366.124		
5,504.9	5,423.9	2,924.1	2,849.9	18.9	11.5	-109.03	-1,973.3	-7,616.9	8,748.9	8,722.1	26.81	326.345		
5,511.8	5,430.8	2,951.0	2,875.3	18.9	11.6	-109.00	-1,972.1	-7,625.6	8,751.0	8,724.0	26.97	324.458		
5,600.0	5,519.0	3,482.1	3,384.0	19.0	14.6	-108.60	-1,960.3	-7,776.8	8,773.8	8,743.9	29.86	293.808		
5,610.2	5,529.3	3,487.0	3,388.8	19.0	14.6	-108.59	-1,960.2	-7,778.1	8,776.2	8,746.3	29.90	293.486		
5,700.0	5,619.0	3,522.0	3,422.6	19.2	14.8	-108.57	-1,959.4	-7,787.3	8,798.2	8,767.9	30.22	291.091		
5,708.6	5,627.7	3,539.1	3,439.1	19.2	14.9	-108.56	-1,959.1	-7,791.9	8,800.3	8,769.9	30.33	290.176		
5,800.0	5,719.0	3,604.0	3,501.6	19.3	15.2	-108.51	-1,957.7	-7,809.2	8,822.9	8,792.1	30.81	286.322		
5,807.1	5,726.1	3,604.0	3,501.6	19.3	15.2	-108.51	-1,957.7	-7,809.2	8,824.7	8,793.9	30.83	286.268		
5,900.0	5,819.0	3,641.0	3,537.2	19.4	15.5	-108.49	-1,957.1	-7,819.2	8,848.2	8,817.0	31.18	283.772		
5,905.5	5,824.5	3,643.2	3,539.3	19.4	15.5	-108.48	-1,957.0	-7,819.8	8,849.6	8,818.4	31.20	283.627		
6,003.9	5,923.0	6,003.7	5,855.8	19.6	23.0	-107.81	-1,954.0	-8,140.3	8,858.7	8,820.0	38.72	228.804		
6,009.8	5,928.8	6,008.6	5,860.8	19.6	23.1	-107.81	-1,954.2	-8,140.3	8,858.8	8,820.0	38.73	228.711		
6,050.0	5,969.0	6,042.8	5,895.0	19.6	23.1	-17.84	-1,954.9	-8,140.3	8,857.9	8,825.1	32.87	269.451		
6,100.0	6,018.8	6,074.2	5,926.3	19.7	23.1	-17.95	-1,955.6	-8,140.3	8,853.9	8,821.0	32.93	268.855		
6,102.3	6,021.1	6,075.5	5,927.6	19.7	23.1	-17.95	-1,955.6	-8,140.3	8,853.7	8,820.7	32.93	268.849		
6,150.0	6,068.1	6,101.8	5,954.0	19.7	23.2	-18.14	-1,955.9	-8,140.4	8,846.8	8,813.9	32.87	269.145		
6,200.0	6,116.8	6,135.0	5,987.1	19.7	23.2	-18.42	-1,956.1	-8,140.8	8,836.5	8,803.8	32.70	270.200		
6,200.8	6,117.5	6,135.0	5,987.1	19.7	23.2	-18.42	-1,956.1	-8,140.8	8,836.3	8,803.6	32.70	270.229		
6,250.0	6,164.5	6,190.5	6,042.6	19.7	23.3	-18.81	-1,956.1	-8,141.5	8,823.0	8,790.5	32.47	271.738		
6,299.2	6,210.4	6,254.4	6,106.6	19.7	23.3	-19.31	-1,956.0	-8,142.3	8,806.6	8,774.4	32.15	273.893		
6,300.0	6,211.1	6,255.4	6,107.5	19.7	23.3	-19.32	-1,956.0	-8,142.3	8,806.3	8,774.1	32.15	273.935		
6,350.0	6,256.4	6,298.0	6,150.1	19.7	23.4	-19.95	-1,956.1	-8,142.6	8,786.4	8,754.7	31.70	277.187		
6,397.6	6,298.0	6,329.8	6,181.9	19.7	23.4	-20.66	-1,956.3	-8,142.9	8,764.8	8,733.6	31.19	281.044		
6,400.0	6,300.0	6,331.0	6,183.1	19.7	23.4	-20.70	-1,956.3	-8,142.9	8,763.6	8,732.5	31.16	281.260		
6,450.0	6,341.8	6,355.3	6,207.4	19.7	23.5	-21.60	-1,956.5	-8,143.1	8,738.1	8,707.5	30.55	286.027		
6,496.0	6,378.6	6,469.1	6,321.2	19.7	23.6	-22.76	-1,957.3	-8,144.1	8,712.2	8,682.1	30.12	289.279		
6,500.0	6,381.6	6,471.9	6,324.1	19.7	23.6	-22.86	-1,957.3	-8,144.1	8,709.9	8,679.8	30.07	289.675		
6,550.0	6,419.2	6,506.8	6,358.9	19.6	23.7	-24.21	-1,957.3	-8,144.2	8,678.7	8,649.3	29.47	294.538		
6,594.5	6,450.7	6,536.0	6,388.1	19.6	23.7	-25.63	-1,957.3	-8,144.4	8,649.0	8,620.0	28.98	298.447		
6,600.0	6,454.4	6,539.5	6,391.7	19.6	23.7	-25.82	-1,957.3	-8,144.4	8,645.2	8,616.3	28.92	298.904		
6,650.0	6,487.1	6,561.5	6,413.6	19.6	23.7	-27.74	-1,957.2	-8,144.6	8,609.4	8,580.9	28.49	302.202		
6,692.9	6,513.0	6,578.0	6,430.1	19.6	23.8	-29.69	-1,957.2	-8,144.7	8,577.1	8,548.9	28.28	303.257		
6,700.0	6,517.0	6,580.6	6,432.7	19.6	23.8	-30.04	-1,957.2	-8,144.7	8,571.7	8,543.4	28.26	303.284		
6,750.0	6,544.1	6,598.0	6,450.1	19.6	23.8	-32.84	-1,957.3	-8,144.8	8,532.0	8,503.7	28.35	300.908		
6,791.3	6,564.2	6,625.0	6,477.1	19.7	23.8	-35.71	-1,957.3	-8,145.1	8,498.0	8,469.2	28.78	295.260		
6,800.0	6,568.2	6,625.0	6,477.1	19.7	23.8	-36.34	-1,957.3	-8,145.1	8,490.7	8,461.8	28.93	293.485		
6,850.0	6,589.1	6,628.9	6,481.0	19.8	23.8	-40.48	-1,957.4	-8,145.1	8,447.9	8,417.9	30.02	281.414		
6,889.7	6,603.5	6,646.6	6,498.7	19.9	23.8	-44.61	-1,957.4	-8,145.3	8,413.0	8,381.5	31.45	267.522		
6,900.0	6,606.9	6,650.9	6,503.0	19.9	23.8	-45.79	-1,957.5	-8,145.3	8,403.9	8,372.0	31.89	263.528		
6,950.0	6,621.3	6,669.4	6,521.5	20.2	23.9	-52.35	-1,957.5	-8,145.5	8,358.7	8,324.2	34.50	242.264		
6,988.2	6,630.0	6,680.7	6,532.8	20.6	23.9	-58.32	-1,957.5	-8,145.6	8,323.7	8,286.7	36.92	225.423		
7,000.0	6,632.4	6,683.7	6,535.8	20.7	23.9	-60.35	-1,957.5	-8,145.6	8,312.7	8,275.0	37.72	220.389		
7,050.0	6,640.0	6,693.7	6,545.8	21.4	23.9	-69.86	-1,957.6	-8,145.7	8,266.1	8,225.0	41.15	200.901		
7,086.6	6,643.4	6,698.3	6,550.4	21.9	23.9	-77.65	-1,957.6	-8,145.7	8,231.7	8,188.3	43.42	189.572		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 75-MWDD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,100.0	6,644.2	6,788.0	6,640.1	22.1	24.0	-82.45	-1,957.5	-8,146.1	8,219.1	8,174.6	44.50	184.717	
7,135.7	6,645.0	6,788.0	6,640.1	22.7	24.0	-90.54	-1,957.5	-8,146.1	8,185.5	8,139.7	45.81	178.698	
7,185.0	6,644.9	6,788.0	6,640.1	23.6	24.0	-90.54	-1,957.5	-8,146.1	8,138.9	8,092.1	46.77	174.034	
7,200.0	6,644.9	6,788.0	6,640.1	23.9	24.0	-90.54	-1,957.5	-8,146.1	8,124.8	8,077.7	47.06	172.657	
7,283.4	6,644.8	6,788.0	6,640.1	25.6	24.0	-90.54	-1,957.5	-8,146.1	8,046.2	7,997.4	48.79	164.928	
7,300.0	6,644.8	6,788.0	6,640.1	25.9	24.0	-90.54	-1,957.5	-8,146.1	8,030.6	7,981.5	49.13	163.460	
7,381.9	6,644.7	6,788.0	6,640.1	27.7	24.0	-90.54	-1,957.5	-8,146.1	7,953.6	7,902.6	50.93	156.156	
7,400.0	6,644.7	6,788.0	6,640.1	28.1	24.0	-90.54	-1,957.5	-8,146.1	7,936.5	7,885.2	51.33	154.609	
7,480.3	6,644.6	6,788.0	6,640.1	29.9	24.0	-90.54	-1,957.5	-8,146.1	7,861.1	7,807.9	53.19	147.791	
7,500.0	6,644.6	6,788.0	6,640.1	30.3	24.0	-90.54	-1,957.5	-8,146.1	7,842.6	7,789.0	53.65	146.191	
7,578.7	6,644.5	6,788.0	6,640.1	32.2	24.0	-90.54	-1,957.5	-8,146.1	7,768.8	7,713.3	55.53	139.902	
7,600.0	6,644.4	6,788.0	6,640.1	32.7	24.0	-90.54	-1,957.5	-8,146.1	7,748.9	7,692.9	56.04	138.275	
7,677.1	6,644.3	6,788.0	6,640.1	34.6	24.0	-90.54	-1,957.5	-8,146.1	7,676.7	7,618.7	57.93	132.505	
7,700.0	6,644.3	6,788.0	6,640.1	35.1	24.0	-90.54	-1,957.5	-8,146.1	7,655.3	7,596.8	58.50	130.868	
7,775.6	6,644.2	6,788.0	6,640.1	37.0	24.0	-90.54	-1,957.5	-8,146.1	7,584.7	7,524.3	60.39	125.593	
7,800.0	6,644.2	6,788.0	6,640.1	37.6	24.0	-90.54	-1,957.5	-8,146.1	7,561.9	7,500.9	61.00	123.959	
7,874.0	6,644.1	6,788.0	6,640.1	39.5	24.0	-90.54	-1,957.5	-8,146.1	7,492.9	7,430.0	62.89	119.145	
7,900.0	6,644.1	6,788.0	6,640.1	40.1	24.0	-90.54	-1,957.5	-8,146.1	7,468.6	7,405.1	63.55	117.522	
7,972.4	6,644.0	6,788.0	6,640.1	42.0	24.0	-90.54	-1,957.5	-8,146.1	7,401.2	7,335.8	65.42	113.133	
8,000.0	6,643.9	6,788.0	6,640.1	42.7	24.0	-90.54	-1,957.5	-8,146.1	7,375.5	7,309.4	66.13	111.527	
8,070.8	6,643.9	6,788.0	6,640.1	44.5	24.0	-90.54	-1,957.5	-8,146.1	7,309.7	7,241.7	67.98	107.526	
8,100.0	6,643.8	6,788.0	6,640.1	45.2	24.0	-90.54	-1,957.5	-8,146.1	7,282.6	7,213.9	68.74	105.943	
8,169.3	6,643.7	6,788.0	6,640.1	47.0	24.0	-90.54	-1,957.5	-8,146.1	7,218.4	7,147.8	70.56	102.295	
8,200.0	6,643.7	6,788.0	6,640.1	47.9	24.0	-90.54	-1,957.5	-8,146.1	7,189.9	7,118.6	71.37	100.737	
8,267.7	6,643.6	6,788.0	6,640.1	49.6	24.0	-90.54	-1,957.5	-8,146.1	7,127.3	7,054.1	73.17	97.409	
8,300.0	6,643.6	6,788.0	6,640.1	50.5	24.0	-90.54	-1,957.5	-8,146.1	7,097.4	7,023.4	74.02	95.879	
8,366.1	6,643.5	6,788.0	6,640.1	52.2	24.0	-90.54	-1,957.5	-8,146.1	7,036.4	6,960.6	75.79	92.842	
8,400.0	6,643.4	6,788.0	6,640.1	53.1	24.0	-90.54	-1,957.5	-8,146.1	7,005.1	6,928.4	76.69	91.340	
8,464.5	6,643.4	6,788.0	6,640.1	54.8	24.0	-90.54	-1,957.5	-8,146.1	6,945.7	6,867.2	78.42	88.565	
8,500.0	6,643.3	6,788.0	6,640.1	55.8	24.0	-90.54	-1,957.5	-8,146.1	6,913.0	6,833.7	79.38	87.093	
8,563.0	6,643.2	6,788.0	6,640.1	57.5	24.0	-90.54	-1,957.5	-8,146.1	6,855.2	6,774.1	81.07	84.557	
8,600.0	6,643.2	6,788.0	6,640.1	58.5	24.0	-90.54	-1,957.5	-8,146.1	6,821.2	6,739.1	82.07	83.115	
8,661.4	6,643.1	6,788.0	6,640.1	60.1	24.0	-90.54	-1,957.5	-8,146.1	6,764.9	6,681.2	83.73	80.794	
8,700.0	6,643.1	6,788.0	6,640.1	61.2	24.0	-90.54	-1,957.5	-8,146.1	6,729.5	6,644.8	84.77	79.382	
8,759.8	6,643.0	6,788.0	6,640.1	62.8	24.0	-90.54	-1,957.5	-8,146.1	6,674.8	6,588.4	86.40	77.257	
8,800.0	6,643.0	6,788.0	6,640.1	63.9	24.0	-90.54	-1,957.5	-8,146.1	6,638.2	6,550.7	87.49	75.874	
8,858.2	6,642.9	6,788.0	6,640.1	65.4	24.0	-90.54	-1,957.5	-8,146.1	6,585.0	6,496.0	89.07	73.927	
8,900.0	6,642.8	6,788.0	6,640.1	66.6	24.0	-90.54	-1,957.5	-8,146.1	6,547.0	6,456.8	90.21	72.575	
8,956.7	6,642.8	6,788.0	6,640.1	68.1	24.0	-90.54	-1,957.5	-8,146.1	6,495.5	6,403.7	91.76	70.789	
9,000.0	6,642.7	6,788.0	6,640.1	69.3	24.0	-90.54	-1,957.5	-8,146.1	6,456.1	6,363.2	92.94	69.465	
9,055.1	6,642.6	6,788.0	6,640.1	70.8	24.0	-90.54	-1,957.5	-8,146.1	6,406.2	6,311.7	94.45	67.828	
9,100.0	6,642.6	6,788.0	6,640.1	72.0	24.0	-90.54	-1,957.5	-8,146.1	6,365.5	6,269.9	95.68	66.532	
9,153.5	6,642.5	6,788.0	6,640.1	73.5	24.0	-90.54	-1,957.5	-8,146.1	6,317.2	6,220.0	97.14	65.029	
9,200.0	6,642.5	6,788.0	6,640.1	74.7	24.0	-90.54	-1,957.5	-8,146.1	6,275.2	6,176.8	98.42	63.761	
9,251.9	6,642.4	6,788.0	6,640.1	76.2	24.0	-90.54	-1,957.5	-8,146.1	6,228.4	6,128.6	99.84	62.381	
9,300.0	6,642.3	6,787.7	6,639.9	77.5	24.0	-90.54	-1,957.5	-8,146.1	6,185.2	6,084.0	101.16	61.141	
9,350.4	6,642.3	6,786.7	6,638.8	78.9	24.0	-90.52	-1,957.5	-8,146.1	6,140.0	6,037.4	102.55	59.875	
9,400.0	6,642.2	6,785.7	6,637.9	80.2	24.0	-90.50	-1,957.5	-8,146.1	6,095.5	5,991.6	103.91	58.661	
9,448.8	6,642.1	6,784.9	6,637.0	81.6	24.0	-90.48	-1,957.5	-8,146.1	6,051.8	5,946.6	105.25	57.498	
9,500.0	6,642.1	6,784.0	6,636.2	83.0	24.0	-90.46	-1,957.5	-8,146.1	6,006.1	5,899.4	106.66	56.309	
9,547.2	6,642.0	6,783.3	6,635.4	84.3	24.0	-90.44	-1,957.5	-8,146.1	5,964.0	5,856.0	107.96	55.241	
9,600.0	6,642.0	6,782.6	6,634.7	85.7	24.0	-90.43	-1,957.5	-8,146.1	5,917.1	5,807.6	109.42	54.077	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-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	
9,645.6	6,641.9	6,782.0	6,634.1	87.0	24.0	-90.42	-1,957.5	-8,146.1	5,876.5	5,765.8	110.68	53.095	
9,700.0	6,641.8	6,781.3	6,633.4	88.5	24.0	-90.40	-1,957.5	-8,146.1	5,828.4	5,716.2	112.18	51.956	
9,744.1	6,641.8	6,780.8	6,632.9	89.7	24.0	-90.39	-1,957.5	-8,146.1	5,789.4	5,676.0	113.40	51.055	
9,800.0	6,641.7	6,780.2	6,632.3	91.2	24.0	-90.38	-1,957.5	-8,146.1	5,740.1	5,625.1	114.94	49.939	
9,842.5	6,641.7	6,779.8	6,631.9	92.4	24.0	-90.37	-1,957.5	-8,146.1	5,702.6	5,586.5	116.12	49.111	
9,900.0	6,641.6	6,779.2	6,631.3	94.0	24.0	-90.36	-1,957.5	-8,146.1	5,652.1	5,534.4	117.71	48.018	
9,940.9	6,641.5	6,778.8	6,630.9	95.1	24.0	-90.35	-1,957.5	-8,146.1	5,616.3	5,497.4	118.84	47.259	
10,000.0	6,641.5	6,778.3	6,630.4	96.7	24.0	-90.34	-1,957.5	-8,146.1	5,564.6	5,444.1	120.48	46.188	
10,039.3	6,641.4	6,778.0	6,630.1	97.8	24.0	-90.33	-1,957.5	-8,146.1	5,530.3	5,408.7	121.57	45.492	
10,100.0	6,641.3	6,777.5	6,629.6	99.5	24.0	-90.32	-1,957.5	-8,146.1	5,477.5	5,354.3	123.25	44.443	
10,137.8	6,641.3	6,777.3	6,629.4	100.6	24.0	-90.32	-1,957.5	-8,146.1	5,444.7	5,320.4	124.29	43.805	
10,200.0	6,641.2	6,776.8	6,628.9	102.3	24.0	-90.31	-1,957.5	-8,146.1	5,390.9	5,264.8	126.02	42.778	
10,236.2	6,641.2	6,776.6	6,628.7	103.3	24.0	-90.30	-1,957.5	-8,146.1	5,359.6	5,232.6	127.03	42.193	
10,300.0	6,641.1	6,776.2	6,628.3	105.0	24.0	-90.29	-1,957.5	-8,146.1	5,304.7	5,175.9	128.80	41.187	
10,334.6	6,641.0	6,776.0	6,628.1	106.0	24.0	-90.29	-1,957.5	-8,146.1	5,275.0	5,145.2	129.76	40.652	
10,400.0	6,641.0	6,775.6	6,627.7	107.8	24.0	-90.28	-1,957.5	-8,146.1	5,219.0	5,087.4	131.57	39.666	
10,433.0	6,640.9	6,775.4	6,627.5	108.7	24.0	-90.28	-1,957.5	-8,146.1	5,190.8	5,058.3	132.49	39.178	
10,500.0	6,640.8	6,775.0	6,627.2	110.6	24.0	-90.27	-1,957.5	-8,146.1	5,133.8	4,999.5	134.35	38.212	
10,531.5	6,640.8	6,774.9	6,627.0	111.5	24.0	-90.27	-1,957.5	-8,146.1	5,107.1	4,971.9	135.23	37.767	
10,600.0	6,640.7	6,774.6	6,626.7	113.4	24.0	-90.26	-1,957.5	-8,146.1	5,049.2	4,912.1	137.13	36.820	
10,629.9	6,640.7	6,774.4	6,626.5	114.2	24.0	-90.26	-1,957.5	-8,146.1	5,024.0	4,886.1	137.96	36.415	
10,700.0	6,640.6	6,774.1	6,626.2	116.1	24.0	-90.25	-1,957.5	-8,146.1	4,965.2	4,825.2	139.91	35.487	
10,728.3	6,640.5	6,774.0	6,626.1	116.9	24.0	-90.25	-1,957.5	-8,146.1	4,941.5	4,800.8	140.70	35.120	
10,800.0	6,640.5	6,773.7	6,625.8	118.9	24.0	-90.24	-1,957.5	-8,146.1	4,881.7	4,739.0	142.70	34.210	
10,826.7	6,640.4	6,773.6	6,625.7	119.7	24.0	-90.24	-1,957.5	-8,146.1	4,859.5	4,716.1	143.44	33.877	
10,900.0	6,640.3	6,773.3	6,625.4	121.7	24.0	-90.23	-1,957.6	-8,146.1	4,798.9	4,653.4	145.48	32.986	
10,925.2	6,640.3	6,773.2	6,625.3	122.4	24.0	-90.23	-1,957.6	-8,146.1	4,778.2	4,632.0	146.18	32.686	
11,000.0	6,640.2	6,772.9	6,625.0	124.5	24.0	-90.23	-1,957.6	-8,146.1	4,716.7	4,568.5	148.27	31.812	
11,023.6	6,640.2	6,772.8	6,625.0	125.1	24.0	-90.22	-1,957.6	-8,146.1	4,697.5	4,548.5	148.93	31.542	
11,100.0	6,640.1	6,772.6	6,624.7	127.3	24.0	-90.22	-1,957.6	-8,146.1	4,635.3	4,484.2	151.06	30.686	
11,122.0	6,640.0	6,772.5	6,624.6	127.9	24.0	-90.22	-1,957.6	-8,146.1	4,617.5	4,465.8	151.67	30.444	
11,200.0	6,639.9	6,772.3	6,624.4	130.1	24.0	-90.21	-1,957.6	-8,146.1	4,554.6	4,400.7	153.84	29.605	
11,220.4	6,639.9	6,772.2	6,624.3	130.6	24.0	-90.21	-1,957.6	-8,146.1	4,538.2	4,383.8	154.41	29.390	
11,300.0	6,639.8	6,772.0	6,624.1	132.8	24.0	-90.21	-1,957.6	-8,146.1	4,474.7	4,318.0	156.63	28.568	
11,318.9	6,639.8	6,771.9	6,624.0	133.4	24.0	-90.21	-1,957.6	-8,146.1	4,459.7	4,302.5	157.16	28.377	
11,400.0	6,639.7	6,771.7	6,623.8	135.6	24.0	-90.20	-1,957.6	-8,146.1	4,395.6	4,236.1	159.42	27.572	
11,417.3	6,639.7	6,771.7	6,623.8	136.1	24.0	-90.20	-1,957.6	-8,146.1	4,382.0	4,222.0	159.91	27.403	
11,500.0	6,639.6	6,771.4	6,623.5	138.4	24.0	-90.20	-1,957.6	-8,146.1	4,317.3	4,155.1	162.21	26.615	
11,515.7	6,639.5	6,771.4	6,623.5	138.9	24.0	-90.19	-1,957.6	-8,146.1	4,305.1	4,142.4	162.65	26.468	
11,600.0	6,639.4	6,771.2	6,623.3	141.2	24.0	-90.19	-1,957.6	-8,146.1	4,240.0	4,075.0	165.01	25.696	
11,614.1	6,639.4	6,771.2	6,623.3	141.6	24.0	-90.19	-1,957.6	-8,146.1	4,229.1	4,063.7	165.40	25.569	
11,700.0	6,639.3	6,771.0	6,623.1	144.0	24.0	-90.19	-1,957.6	-8,146.1	4,163.6	3,995.8	167.80	24.813	
11,712.6	6,639.3	6,770.9	6,623.0	144.3	24.0	-90.18	-1,957.6	-8,146.1	4,154.1	3,985.9	168.15	24.705	
11,800.0	6,639.2	6,770.7	6,622.8	146.8	24.0	-90.18	-1,957.6	-8,146.1	4,088.3	3,917.7	170.59	23.965	
11,811.0	6,639.2	6,770.7	6,622.8	147.1	24.0	-90.18	-1,957.6	-8,146.1	4,080.1	3,909.2	170.90	23.874	
11,900.0	6,639.1	6,770.5	6,622.6	149.6	24.0	-90.18	-1,957.6	-8,146.1	4,014.0	3,840.6	173.39	23.151	
11,909.4	6,639.0	6,770.5	6,622.6	149.8	24.0	-90.18	-1,957.6	-8,146.1	4,007.1	3,833.4	173.65	23.076	
12,000.0	6,638.9	6,770.3	6,622.4	152.4	24.0	-90.17	-1,957.6	-8,146.1	3,940.9	3,764.7	176.18	22.369	
12,007.8	6,638.9	6,770.3	6,622.4	152.6	24.0	-90.17	-1,957.6	-8,146.1	3,935.2	3,758.8	176.40	22.308	
12,100.0	6,638.8	6,770.1	6,622.3	155.2	24.0	-90.17	-1,957.6	-8,146.1	3,869.0	3,690.0	178.98	21.617	
12,106.3	6,638.8	6,770.1	6,622.2	155.3	24.0	-90.17	-1,957.6	-8,146.1	3,864.5	3,685.3	179.15	21.571	
12,200.0	6,638.7	6,770.0	6,622.1	157.9	24.0	-90.16	-1,957.6	-8,146.1	3,798.3	3,616.5	181.77	20.896	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-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		
12,204.7	6,638.7	6,770.0	6,622.1	158.1	24.0	-90.16	-1,957.6	-8,146.1	3,795.0	3,613.1	181.90	20.863		
12,300.0	6,638.5	6,769.8	6,621.9	160.7	24.0	-90.16	-1,957.6	-8,146.1	3,729.0	3,544.4	184.57	20.204		
12,303.1	6,638.5	6,769.8	6,621.9	160.8	24.0	-90.16	-1,957.6	-8,146.1	3,726.9	3,542.2	184.65	20.183		
12,400.0	6,638.4	6,769.6	6,621.7	163.5	24.0	-90.16	-1,957.6	-8,146.1	3,661.1	3,473.7	187.36	19.540		
12,401.5	6,638.4	6,769.6	6,621.7	163.6	24.0	-90.16	-1,957.6	-8,146.1	3,660.1	3,472.7	187.41	19.530		
12,500.0	6,638.3	6,769.5	6,621.6	166.3	24.0	-90.15	-1,957.6	-8,146.1	3,594.7	3,404.6	190.16	18.904		
12,598.4	6,638.2	6,769.3	6,621.4	169.1	24.0	-90.15	-1,957.6	-8,146.1	3,530.9	3,338.0	192.91	18.303		
12,600.0	6,638.2	6,769.3	6,621.4	169.1	24.0	-90.15	-1,957.6	-8,146.1	3,529.9	3,337.0	192.96	18.294		
12,696.8	6,638.0	6,769.2	6,621.3	171.8	24.0	-90.15	-1,957.6	-8,146.1	3,468.8	3,273.1	195.67	17.728		
12,700.0	6,638.0	6,769.2	6,621.3	171.9	24.0	-90.15	-1,957.6	-8,146.1	3,466.8	3,271.0	195.76	17.710		
12,795.2	6,637.9	6,769.1	6,621.2	174.6	24.0	-90.15	-1,957.6	-8,146.1	3,408.3	3,209.9	198.42	17.177		
12,800.0	6,637.9	6,769.0	6,621.2	174.7	24.0	-90.15	-1,957.6	-8,146.1	3,405.4	3,206.9	198.55	17.151		
12,893.7	6,637.8	6,768.9	6,621.0	177.3	24.0	-90.14	-1,957.6	-8,146.1	3,349.6	3,148.4	201.18	16.650		
12,900.0	6,637.8	6,768.9	6,621.0	177.5	24.0	-90.14	-1,957.6	-8,146.1	3,345.9	3,144.6	201.35	16.617		
12,992.1	6,637.7	6,768.8	6,620.9	180.1	24.0	-90.14	-1,957.6	-8,146.1	3,292.9	3,088.9	203.93	16.147		
13,000.0	6,637.6	6,768.8	6,620.9	180.3	24.0	-90.14	-1,957.6	-8,146.1	3,288.4	3,084.2	204.15	16.107		
13,090.5	6,637.5	6,768.7	6,620.8	182.8	24.0	-90.14	-1,957.6	-8,146.1	3,238.1	3,031.4	206.69	15.667		
13,100.0	6,637.5	6,768.7	6,620.8	183.1	24.0	-90.14	-1,957.6	-8,146.1	3,232.9	3,026.0	206.95	15.622		
13,188.9	6,637.4	6,768.6	6,620.7	185.6	24.0	-90.14	-1,957.6	-8,146.1	3,185.4	2,976.0	209.44	15.209		
13,200.0	6,637.4	6,768.6	6,620.7	185.9	24.0	-90.14	-1,957.6	-8,146.1	3,179.6	2,969.9	209.75	15.159		
13,287.4	6,637.3	6,768.5	6,620.6	188.4	24.0	-90.13	-1,957.6	-8,146.1	3,134.9	2,922.7	212.20	14.774		
13,300.0	6,637.3	6,768.4	6,620.6	188.7	24.0	-90.13	-1,957.6	-8,146.1	3,128.6	2,916.1	212.55	14.719		
13,385.8	6,637.1	6,768.4	6,620.5	191.1	24.0	-90.13	-1,957.6	-8,146.1	3,086.8	2,871.8	214.96	14.360		
13,400.0	6,637.1	6,768.3	6,620.4	191.5	24.0	-90.13	-1,957.6	-8,146.1	3,080.0	2,864.7	215.35	14.302		
13,484.2	6,637.0	6,768.2	6,620.4	193.9	24.0	-90.13	-1,957.6	-8,146.1	3,041.0	2,823.3	217.71	13.968		
13,500.0	6,637.0	6,768.2	6,620.3	194.3	24.0	-90.13	-1,957.6	-8,146.1	3,034.0	2,815.8	218.15	13.907		
13,582.6	6,636.9	6,768.1	6,620.3	196.6	24.0	-90.13	-1,957.6	-8,146.1	2,997.9	2,777.4	220.47	13.598		
13,600.0	6,636.9	6,768.1	6,620.2	197.1	24.0	-90.13	-1,957.6	-8,146.1	2,990.5	2,769.6	220.96	13.534		
13,681.1	6,636.8	6,768.1	6,620.2	199.4	24.0	-90.13	-1,957.6	-8,146.1	2,957.3	2,734.1	223.23	13.248		
13,700.0	6,636.7	6,768.0	6,620.1	199.9	24.0	-90.12	-1,957.6	-8,146.1	2,949.8	2,726.1	223.76	13.183		
13,779.5	6,636.6	6,768.0	6,620.1	202.1	24.0	-90.12	-1,957.6	-8,146.1	2,919.5	2,693.5	225.98	12.919		
13,800.0	6,636.6	6,767.9	6,620.1	202.7	24.0	-90.12	-1,957.6	-8,146.1	2,912.0	2,685.4	226.56	12.853		
13,877.9	6,636.5	6,767.9	6,620.0	204.9	24.0	-90.12	-1,957.6	-8,146.1	2,884.6	2,655.8	228.74	12.611		
13,900.0	6,636.5	6,767.9	6,620.0	205.5	24.0	-90.12	-1,957.6	-8,146.1	2,877.1	2,647.8	229.36	12.544		
13,976.3	6,636.4	6,767.8	6,619.9	207.6	24.0	-90.12	-1,957.6	-8,146.1	2,852.6	2,621.1	231.50	12.322		
14,000.0	6,636.3	6,767.8	6,619.9	208.3	24.0	-90.12	-1,957.6	-8,146.1	2,845.4	2,613.2	232.16	12.256		
14,074.8	6,636.3	6,767.7	6,619.8	210.4	24.0	-90.12	-1,957.6	-8,146.1	2,823.7	2,589.5	234.26	12.054		
14,100.0	6,636.2	6,767.7	6,619.8	211.1	24.0	-90.12	-1,957.6	-8,146.1	2,816.8	2,581.9	234.97	11.988		
14,173.2	6,636.1	6,767.6	6,619.7	213.2	24.0	-90.12	-1,957.6	-8,146.1	2,798.0	2,561.0	237.02	11.805		
14,200.0	6,636.1	6,767.6	6,619.7	213.9	24.0	-90.12	-1,957.6	-8,146.1	2,791.6	2,553.8	237.77	11.741		
14,271.6	6,636.0	6,767.5	6,619.7	215.9	24.0	-90.11	-1,957.6	-8,146.1	2,775.5	2,535.8	239.78	11.576		
14,300.0	6,636.0	6,767.5	6,619.6	216.7	24.0	-90.11	-1,957.6	-8,146.1	2,769.7	2,529.1	240.57	11.513		
14,370.0	6,635.9	6,767.5	6,619.6	218.7	24.0	-90.11	-1,957.6	-8,146.1	2,756.4	2,513.9	242.53	11.365		
14,400.0	6,635.8	6,767.4	6,619.6	219.5	24.0	-90.11	-1,957.6	-8,146.1	2,751.2	2,507.9	243.37	11.305		
14,468.5	6,635.7	6,767.4	6,619.5	221.4	24.0	-90.11	-1,957.6	-8,146.1	2,740.7	2,495.4	245.29	11.173		
14,500.0	6,635.7	6,767.4	6,619.5	222.3	24.0	-90.11	-1,957.6	-8,146.1	2,736.4	2,490.2	246.18	11.115		
14,566.9	6,635.6	6,767.3	6,619.4	224.2	24.0	-90.11	-1,957.6	-8,146.1	2,728.4	2,480.3	248.05	10.999		
14,600.0	6,635.6	6,767.3	6,619.4	225.1	24.0	-90.11	-1,957.6	-8,146.1	2,725.1	2,476.1	248.98	10.945		
14,665.3	6,635.5	6,767.2	6,619.4	226.9	24.0	-90.11	-1,957.6	-8,146.1	2,719.6	2,468.8	250.81	10.843		
14,700.0	6,635.4	6,767.2	6,619.3	227.9	24.0	-90.11	-1,957.6	-8,146.1	2,717.4	2,465.6	251.78	10.792		
14,763.7	6,635.4	6,767.2	6,619.3	229.7	24.0	-90.11	-1,957.6	-8,146.1	2,714.4	2,460.8	253.57	10.705		
14,800.0	6,635.3	6,767.2	6,619.3	230.7	24.0	-90.11	-1,957.6	-8,146.1	2,713.4	2,458.8	254.59	10.658		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD JURGENS PC #B8-24D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 75-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
14,858.6	6,635.2	6,767.1	6,619.2	232.4	24.0	-90.11	-1,957.6	-8,146.1	2,712.7	2,456.5	256.23	10.587 CC	
14,862.2	6,635.2	6,767.1	6,619.2	232.5	24.0	-90.11	-1,957.6	-8,146.1	2,712.8	2,456.4	256.33	10.583	
14,900.0	6,635.2	6,767.1	6,619.2	233.5	24.0	-90.11	-1,957.6	-8,146.1	2,713.1	2,455.7	257.39	10.541	
14,960.6	6,635.1	6,767.1	6,619.2	235.2	24.0	-90.10	-1,957.6	-8,146.1	2,714.7	2,455.6	259.09	10.478 ES	
15,000.0	6,635.0	6,767.0	6,619.1	236.3	24.0	-90.10	-1,957.6	-8,146.1	2,716.4	2,456.2	260.20	10.440	
15,033.1	6,635.0	6,767.0	6,619.1	237.3	24.0	-90.10	-1,957.6	-8,146.1	2,718.4	2,457.2	261.12	10.410 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-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	-105.80	-2,007.1	-7,092.1	7,370.6				
98.4	98.4	51.0	51.0	0.1	0.0	-105.80	-2,007.0	-7,092.2	7,370.7	7,370.6	0.10	N/A	
100.0	100.0	52.0	52.0	0.1	0.0	-105.80	-2,007.0	-7,092.2	7,370.7	7,370.6	0.10	N/A	
196.8	196.8	152.4	152.4	0.3	0.1	-105.80	-2,007.2	-7,092.6	7,371.2	7,370.8	0.38	N/A	
200.0	200.0	156.4	156.4	0.3	0.1	-105.80	-2,007.3	-7,092.6	7,371.2	7,370.8	0.39	N/A	
295.3	295.3	1,104.0	1,089.7	0.5	3.5	-106.83	-2,119.1	-7,005.1	7,363.7	7,359.7	4.00	1,841.816	
300.0	300.0	1,106.0	1,091.6	0.5	3.5	-106.84	-2,119.5	-7,004.7	7,363.2	7,359.2	4.02	1,831.667	
393.7	393.7	1,583.0	1,540.9	0.8	6.5	-108.00	-2,242.1	-6,902.3	7,350.6	7,343.4	7.20	1,020.967	
400.0	400.0	1,586.6	1,544.3	0.8	6.5	-108.00	-2,243.0	-6,901.4	7,349.6	7,342.4	7.24	1,015.179	
492.1	492.1	1,645.0	1,598.8	1.0	6.9	-108.16	-2,258.6	-6,887.4	7,335.3	7,327.4	7.86	932.849	
500.0	500.0	1,645.0	1,598.8	1.0	6.9	-108.16	-2,258.6	-6,887.4	7,334.1	7,326.2	7.88	930.601	
590.5	590.5	1,705.2	1,654.7	1.2	7.4	-108.32	-2,275.4	-6,872.9	7,320.5	7,311.9	8.52	858.753	
600.0	600.0	1,711.5	1,660.6	1.2	7.4	-108.34	-2,277.3	-6,871.3	7,319.1	7,310.5	8.59	851.796	
689.0	689.0	1,753.1	1,699.1	1.4	7.7	-108.45	-2,289.3	-6,861.4	7,306.2	7,297.1	9.09	803.395	
700.0	700.0	1,757.6	1,703.2	1.4	7.7	-108.46	-2,290.6	-6,860.3	7,304.6	7,295.5	9.15	798.246	
787.4	787.4	1,808.0	1,749.9	1.6	8.1	-108.61	-2,305.7	-6,848.6	7,292.8	7,283.0	9.71	750.962	
800.0	800.0	1,808.0	1,749.9	1.7	8.1	-108.61	-2,305.7	-6,848.6	7,291.1	7,281.3	9.74	748.605	
885.8	885.8	1,841.4	1,780.8	1.9	8.4	-108.70	-2,315.9	-6,840.9	7,280.0	7,269.8	10.18	715.291	
900.0	900.0	2,086.2	2,005.5	1.9	10.2	-109.43	-2,392.3	-6,781.0	7,278.2	7,266.2	12.05	604.154	
984.2	984.2	2,135.0	2,050.1	2.1	10.6	-109.58	-2,407.5	-6,768.4	7,265.5	7,252.9	12.61	576.354	
1,000.0	1,000.0	2,135.0	2,050.1	2.1	10.6	-109.58	-2,407.5	-6,768.4	7,263.1	7,250.5	12.64	574.555	
1,082.7	1,082.7	2,216.0	2,124.4	2.3	11.2	-136.98	-2,432.1	-6,747.6	7,251.6	7,238.5	13.05	555.729	
1,100.0	1,100.0	2,216.0	2,124.4	2.3	11.2	-137.01	-2,432.1	-6,747.6	7,249.5	7,236.4	13.09	553.894	
1,181.1	1,181.0	2,255.3	2,160.7	2.5	11.4	-137.25	-2,443.6	-6,737.8	7,240.7	7,227.2	13.53	535.198	
1,200.0	1,199.8	3,056.1	2,905.4	2.6	17.0	-139.58	-2,629.1	-6,514.0	7,238.5	7,219.8	18.77	385.712	
1,279.5	1,279.1	3,114.0	2,959.0	2.8	17.4	-139.93	-2,640.5	-6,495.3	7,224.6	7,205.3	19.32	373.931	
1,300.0	1,299.5	3,114.0	2,959.0	2.8	17.4	-139.97	-2,640.5	-6,495.3	7,221.4	7,202.0	19.36	372.950	
1,377.9	1,376.9	3,149.0	2,991.6	3.0	17.7	-140.22	-2,647.1	-6,484.2	7,210.4	7,190.6	19.73	365.364	
1,400.0	1,398.7	3,156.7	2,998.8	3.0	17.7	-140.28	-2,648.5	-6,481.9	7,207.6	7,187.8	19.82	363.591	
1,476.4	1,474.2	3,196.0	3,035.5	3.2	18.0	-140.50	-2,655.8	-6,469.9	7,199.6	7,179.4	20.21	356.205	
1,500.0	1,497.5	3,196.0	3,035.5	3.3	18.0	-140.53	-2,655.8	-6,469.9	7,197.5	7,177.2	20.26	355.343	
1,574.8	1,571.0	3,221.0	3,058.9	3.5	18.1	-140.68	-2,660.4	-6,462.5	7,192.2	7,171.7	20.55	349.935	
1,600.0	1,595.6	3,231.1	3,068.3	3.6	18.2	-140.73	-2,662.3	-6,459.5	7,190.9	7,170.2	20.66	348.059	
1,673.2	1,667.2	3,277.0	3,111.3	3.9	18.5	-140.88	-2,671.3	-6,446.0	7,187.7	7,166.5	21.15	339.906	
1,700.0	1,693.4	3,660.1	3,468.7	4.0	21.2	-142.14	-2,739.3	-6,326.4	7,186.3	7,162.7	23.64	303.961	
1,771.6	1,763.5	3,717.5	3,521.3	4.2	21.7	-142.35	-2,750.9	-6,306.4	7,180.0	7,155.8	24.26	295.918	
1,800.0	1,791.3	3,734.3	3,536.6	4.3	21.8	-142.41	-2,754.5	-6,300.5	7,177.6	7,153.2	24.47	293.327	
1,870.1	1,859.8	3,837.8	3,630.3	4.6	22.7	-142.80	-2,778.5	-6,263.6	7,171.9	7,146.4	25.50	281.294	
1,900.0	1,889.1	4,047.9	3,817.2	4.7	24.6	-143.65	-2,830.8	-6,183.3	7,168.7	7,141.3	27.39	261.683	
1,968.5	1,956.1	4,118.9	3,880.0	4.9	25.3	-143.94	-2,848.5	-6,155.3	7,161.3	7,133.1	28.20	253.927	
2,000.0	1,986.9	4,144.0	3,902.4	5.1	25.5	-144.04	-2,854.2	-6,145.6	7,158.0	7,129.5	28.50	251.180	
2,066.9	2,052.3	4,176.0	3,931.2	5.3	25.8	-144.16	-2,861.1	-6,133.3	7,151.1	7,122.1	28.96	246.956	
2,100.0	2,084.7	4,176.0	3,931.2	5.5	25.8	-144.16	-2,861.1	-6,133.3	7,147.8	7,118.8	29.06	245.998	
2,165.3	2,148.6	4,208.1	3,960.1	5.7	26.1	-144.28	-2,867.8	-6,121.3	7,141.6	7,112.1	29.50	242.087	
2,200.0	2,182.5	4,216.9	3,968.1	5.9	26.1	-144.32	-2,869.7	-6,118.0	7,138.6	7,108.9	29.67	240.572	
2,263.8	2,244.9	4,257.0	4,004.4	6.1	26.5	-144.47	-2,878.6	-6,103.4	7,133.4	7,103.2	30.18	236.394	
2,300.0	2,280.3	4,257.0	4,004.4	6.3	26.5	-144.47	-2,878.6	-6,103.4	7,130.5	7,100.2	30.29	235.425	
2,362.2	2,341.2	4,257.0	4,004.4	6.5	26.5	-144.47	-2,878.6	-6,103.4	7,126.0	7,095.5	30.48	233.774	
2,400.0	2,378.1	4,281.3	4,026.4	6.7	26.7	-144.56	-2,884.0	-6,094.7	7,123.4	7,092.6	30.79	231.365	
2,460.6	2,437.4	4,316.0	4,057.8	6.9	27.0	-144.69	-2,891.9	-6,082.4	7,119.5	7,088.2	31.25	227.834	
2,500.0	2,476.0	4,339.0	4,078.7	7.1	27.1	-144.78	-2,897.2	-6,074.2	7,117.1	7,085.5	31.55	225.573	
2,550.0	2,524.9	4,339.0	4,078.7	7.3	27.1	-144.78	-2,897.2	-6,074.2	7,114.3	7,082.5	31.71	224.360	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-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	2,533.7	4,339.0	4,078.7	7.3	27.1	-143.94	-2,897.2	-6,074.2	7,113.8	7,082.0	31.75	224.079	
2,600.0	2,573.8	4,368.2	4,105.2	7.5	27.4	-140.25	-2,904.1	-6,064.0	7,111.4	7,079.2	32.15	221.208	
2,639.4	2,612.3	4,379.7	4,115.6	7.7	27.5	-136.63	-2,906.8	-6,060.0	7,108.9	7,076.5	32.40	219.397	
2,657.5	2,630.0	4,384.9	4,120.4	7.7	27.5	-136.65	-2,908.1	-6,058.2	7,107.7	7,075.2	32.50	218.687	
2,700.0	2,671.6	4,420.0	4,152.2	7.9	27.8	-136.80	-2,916.7	-6,046.2	7,105.3	7,072.3	32.92	215.851	
2,755.9	2,726.3	4,420.0	4,152.2	8.1	27.8	-136.80	-2,916.7	-6,046.2	7,102.1	7,069.0	33.11	214.529	
2,800.0	2,769.4	4,420.0	4,152.2	8.3	27.8	-136.80	-2,916.7	-6,046.2	7,099.8	7,066.6	33.25	213.507	
2,854.3	2,822.5	4,420.0	4,152.2	8.5	27.8	-136.80	-2,916.7	-6,046.2	7,097.5	7,064.0	33.44	212.263	
2,900.0	2,867.2	4,459.3	4,187.9	8.7	28.1	-136.96	-2,926.6	-6,033.1	7,095.5	7,061.6	33.90	209.326	
2,952.7	2,918.8	4,502.0	4,226.9	9.0	28.5	-137.13	-2,937.2	-6,019.3	7,093.8	7,059.4	34.41	206.166	
3,000.0	2,965.0	4,502.0	4,226.9	9.2	28.5	-137.13	-2,937.2	-6,019.3	7,092.3	7,057.7	34.57	205.165	
3,051.2	3,015.1	4,552.5	4,273.1	9.4	28.9	-137.33	-2,949.6	-6,003.3	7,090.9	7,055.8	35.13	201.863	
3,100.0	3,062.8	4,584.0	4,302.0	9.6	29.1	-137.46	-2,957.2	-5,993.2	7,089.5	7,054.0	35.53	199.518	
3,149.6	3,111.4	4,614.5	4,329.9	9.8	29.4	-137.58	-2,964.6	-5,983.4	7,088.3	7,052.4	35.93	197.266	
3,200.0	3,160.7	4,632.4	4,346.4	10.0	29.5	-137.65	-2,968.9	-5,977.8	7,087.3	7,051.1	36.24	195.565	
3,248.0	3,207.6	4,665.0	4,376.4	10.2	29.8	-137.78	-2,976.8	-5,967.8	7,086.7	7,050.0	36.65	193.359	
3,300.0	3,258.5	4,665.0	4,376.4	10.5	29.8	-137.78	-2,976.8	-5,967.8	7,086.1	7,049.3	36.83	192.410	
3,346.4	3,303.9	4,665.0	4,376.4	10.7	29.8	-137.78	-2,976.8	-5,967.8	7,086.0	7,049.0	36.99	191.575	
3,386.2	3,342.8	4,700.1	4,408.8	10.8	30.0	-137.92	-2,985.3	-5,957.2	7,085.9	7,048.5	37.37	189.593	
3,400.0	3,356.3	4,705.3	4,413.5	10.9	30.1	-137.94	-2,986.5	-5,955.7	7,085.9	7,048.4	37.46	189.170	
3,444.9	3,400.2	4,722.1	4,429.1	11.1	30.2	-138.00	-2,990.4	-5,950.8	7,086.1	7,048.4	37.73	187.804	
3,500.0	3,454.1	4,747.0	4,452.3	11.3	30.4	-138.10	-2,996.2	-5,943.7	7,086.6	7,048.5	38.10	186.011	
3,543.3	3,496.5	4,829.0	4,528.7	11.5	30.9	-138.40	-3,014.7	-5,920.5	7,087.1	7,048.2	38.81	182.590	
3,600.0	3,551.9	4,877.7	4,574.2	11.7	31.3	-138.59	-3,025.5	-5,906.6	7,087.5	7,048.2	39.34	180.145	
3,641.7	3,592.7	4,910.0	4,604.3	11.9	31.5	-138.71	-3,032.5	-5,897.4	7,087.9	7,048.2	39.71	178.497	
3,700.0	3,649.7	4,910.0	4,604.3	12.2	31.5	-138.71	-3,032.5	-5,897.4	7,088.8	7,048.9	39.91	177.623	
3,740.1	3,689.0	4,938.3	4,630.8	12.4	31.7	-138.81	-3,038.5	-5,889.6	7,089.5	7,049.3	40.22	176.247	
3,800.0	3,747.5	4,955.1	4,646.7	12.6	31.8	-138.87	-3,042.0	-5,885.2	7,091.0	7,050.4	40.54	174.931	
3,838.6	3,785.3	4,992.0	4,681.7	12.8	32.0	-138.99	-3,049.3	-5,875.9	7,092.3	7,051.4	40.90	173.407	
3,900.0	3,845.4	4,992.0	4,681.7	13.1	32.0	-138.99	-3,049.3	-5,875.9	7,094.3	7,053.1	41.11	172.563	
3,937.0	3,881.6	5,155.0	4,836.6	13.2	33.0	-139.54	-3,078.8	-5,834.7	7,094.9	7,052.7	42.20	168.114	
4,000.0	3,943.2	5,190.5	4,870.5	13.5	33.2	-139.65	-3,084.6	-5,825.8	7,096.3	7,053.7	42.61	166.527	
4,035.4	3,977.8	5,203.6	4,882.9	13.6	33.3	-139.69	-3,086.7	-5,822.6	7,097.3	7,054.5	42.81	165.799	
4,100.0	4,041.0	5,237.0	4,915.0	13.9	33.5	-139.80	-3,092.0	-5,814.7	7,099.4	7,056.2	43.21	164.296	
4,133.8	4,074.1	5,237.0	4,915.0	14.1	33.5	-139.80	-3,092.0	-5,814.7	7,100.6	7,057.3	43.33	163.883	
4,200.0	4,138.8	5,264.4	4,941.4	14.4	33.6	-139.88	-3,096.1	-5,808.5	7,103.3	7,059.6	43.68	162.616	
4,232.3	4,170.4	5,276.5	4,953.1	14.5	33.7	-139.92	-3,097.8	-5,805.9	7,104.8	7,060.9	43.85	162.031	
4,300.0	4,236.6	5,318.0	4,993.4	14.8	33.9	-140.03	-3,102.8	-5,797.7	7,108.2	7,063.9	44.27	160.558	
4,330.7	4,266.7	5,318.0	4,993.4	14.9	33.9	-140.03	-3,102.8	-5,797.7	7,109.8	7,065.4	44.38	160.212	
4,400.0	4,334.4	5,318.0	4,993.4	15.2	33.9	-140.03	-3,102.8	-5,797.7	7,114.0	7,069.4	44.62	159.450	
4,429.1	4,362.9	5,318.0	4,993.4	15.4	33.9	-140.03	-3,102.8	-5,797.7	7,115.9	7,071.2	44.72	159.136	
4,500.0	4,432.3	5,351.4	5,026.1	15.7	34.0	-140.11	-3,106.4	-5,791.9	7,120.8	7,075.7	45.08	157.949	
4,527.5	4,459.2	5,357.2	5,031.8	15.8	34.0	-140.13	-3,107.0	-5,790.9	7,122.9	7,077.7	45.20	157.588	
4,600.0	4,530.1	5,400.0	5,073.9	16.1	34.2	-140.23	-3,111.4	-5,784.6	7,129.1	7,083.5	45.61	156.319	
4,626.0	4,555.5	5,400.0	5,073.9	16.2	34.2	-140.23	-3,111.4	-5,784.6	7,131.2	7,085.6	45.70	156.060	
4,700.0	4,627.9	5,400.0	5,073.9	16.6	34.2	-140.23	-3,111.4	-5,784.6	7,138.0	7,092.0	45.95	155.340	
4,724.4	4,651.7	5,400.0	5,073.9	16.7	34.2	-140.23	-3,111.4	-5,784.6	7,140.3	7,094.3	46.03	155.108	
4,800.0	4,725.7	5,435.6	5,109.0	17.0	34.3	-140.31	-3,115.0	-5,779.9	7,148.1	7,101.7	46.41	154.022	
4,822.8	4,748.0	5,447.1	5,120.3	17.1	34.4	-140.34	-3,116.2	-5,778.4	7,150.5	7,104.0	46.52	153.692	
4,904.9	4,828.3	5,482.0	5,154.8	17.5	34.5	-140.41	-3,119.5	-5,774.2	7,159.5	7,112.6	46.92	152.591	
4,921.2	4,844.3	5,482.0	5,154.8	17.5	34.5	-140.44	-3,119.5	-5,774.2	7,161.3	7,114.3	46.99	152.390	
5,000.0	4,921.6	5,527.8	5,200.1	17.8	34.6	-140.64	-3,123.8	-5,769.0	7,169.3	7,121.9	47.47	151.027	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-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		
5,019.7	4,941.0	5,536.2	5,208.5	17.9	34.6	-140.68	-3,124.6	-5,768.1	7,171.2	7,123.6	47.57	150.759		
5,100.0	5,020.4	5,563.0	5,235.0	18.1	34.7	-140.81	-3,127.0	-5,765.4	7,177.9	7,130.0	47.93	149.773		
5,118.1	5,038.3	5,563.0	5,235.0	18.2	34.7	-140.83	-3,127.0	-5,765.4	7,179.3	7,131.3	47.98	149.628		
5,200.0	5,119.6	5,596.7	5,268.4	18.4	34.8	-140.95	-3,130.0	-5,762.3	7,184.7	7,136.3	48.30	148.736		
5,216.5	5,136.0	5,601.4	5,273.1	18.4	34.8	-140.97	-3,130.4	-5,761.9	7,185.6	7,137.2	48.36	148.592		
5,300.0	5,219.2	5,645.0	5,316.4	18.6	34.9	-141.08	-3,134.0	-5,758.9	7,189.8	7,141.1	48.66	147.748		
5,314.9	5,234.1	5,645.0	5,316.4	18.6	34.9	-141.08	-3,134.0	-5,758.9	7,190.4	7,141.7	48.69	147.673		
5,400.0	5,319.1	5,664.6	5,335.9	18.8	35.0	-141.14	-3,135.6	-5,757.7	7,193.0	7,144.1	48.88	147.143		
5,413.4	5,332.4	5,672.7	5,344.0	18.8	35.0	-141.15	-3,136.2	-5,757.3	7,193.3	7,144.4	48.92	147.039		
5,504.9	5,423.9	5,833.6	5,504.1	18.9	35.3	-122.87	-3,149.0	-5,747.7	7,194.0	7,158.2	35.77	201.110		
5,511.8	5,430.8	5,838.4	5,508.9	18.9	35.3	-122.87	-3,149.3	-5,747.5	7,193.9	7,158.1	35.79	201.012		
5,600.0	5,519.0	5,916.5	5,586.7	19.0	35.5	-122.92	-3,153.7	-5,743.5	7,192.9	7,156.8	36.03	199.631		
5,610.2	5,529.3	5,936.0	5,606.2	19.0	35.5	-122.93	-3,154.6	-5,742.6	7,192.7	7,156.7	36.08	199.378		
5,700.0	5,619.0	6,034.0	5,704.0	19.2	35.7	-122.97	-3,158.0	-5,738.7	7,191.4	7,155.0	36.36	197.783		
5,708.6	5,627.7	6,041.5	5,711.6	19.2	35.7	-122.97	-3,158.2	-5,738.4	7,191.3	7,154.9	36.38	197.645		
5,800.0	5,719.0	6,129.2	5,799.2	19.3	35.8	-123.00	-3,160.2	-5,735.6	7,190.0	7,153.3	36.65	196.160		
5,807.1	5,726.1	6,136.3	5,806.3	19.3	35.8	-123.00	-3,160.3	-5,735.5	7,189.9	7,153.2	36.67	196.043		
5,900.0	5,819.0	6,243.7	5,913.7	19.4	35.9	-123.02	-3,161.5	-5,732.8	7,188.5	7,151.5	36.97	194.418		
5,905.5	5,824.5	6,250.8	5,920.7	19.4	35.9	-123.02	-3,161.6	-5,732.6	7,188.4	7,151.4	36.99	194.316		
6,003.9	5,923.0	6,353.9	6,023.8	19.6	36.0	-123.04	-3,162.4	-5,730.0	7,186.7	7,149.4	37.30	192.678		
6,009.8	5,928.8	6,359.2	6,029.1	19.6	36.0	-123.04	-3,162.4	-5,729.9	7,186.6	7,149.3	37.32	192.587		
6,050.0	5,969.0	6,397.4	6,067.3	19.6	36.1	-33.12	-3,162.9	-5,728.8	7,185.0	7,134.1	50.92	141.109		
6,100.0	6,018.8	6,447.8	6,117.6	19.7	36.2	-33.36	-3,163.5	-5,727.4	7,180.4	7,129.6	50.76	141.456		
6,102.3	6,021.1	6,450.1	6,120.0	19.7	36.2	-33.37	-3,163.5	-5,727.3	7,180.1	7,129.3	50.75	141.479		
6,150.0	6,068.1	6,480.4	6,150.2	19.7	36.2	-33.72	-3,163.8	-5,726.6	7,172.9	7,122.4	50.45	142.169		
6,200.0	6,116.8	6,506.4	6,176.3	19.7	36.2	-34.22	-3,164.2	-5,726.0	7,162.7	7,112.7	50.02	143.197		
6,200.8	6,117.5	6,506.8	6,176.7	19.7	36.2	-34.23	-3,164.2	-5,726.0	7,162.5	7,112.5	50.01	143.215		
6,250.0	6,164.5	6,543.0	6,212.8	19.7	36.3	-34.88	-3,164.6	-5,725.3	7,149.9	7,100.4	49.49	144.460		
6,299.2	6,210.4	6,609.2	6,279.0	19.7	36.3	-35.76	-3,165.4	-5,724.0	7,134.6	7,085.7	48.93	145.818		
6,300.0	6,211.1	6,611.1	6,281.0	19.7	36.3	-35.77	-3,165.4	-5,724.0	7,134.4	7,085.4	48.92	145.839		
6,350.0	6,256.4	6,699.8	6,369.5	19.7	36.4	-36.92	-3,166.0	-5,721.9	7,115.9	7,067.5	48.31	147.291		
6,397.6	6,298.0	6,738.2	6,408.0	19.7	36.5	-38.11	-3,166.2	-5,720.9	7,095.8	7,048.1	47.65	148.924		
6,400.0	6,300.0	6,739.9	6,409.7	19.7	36.5	-38.18	-3,166.2	-5,720.9	7,094.7	7,047.1	47.61	149.009		
6,450.0	6,341.8	6,774.9	6,444.7	19.7	36.5	-39.63	-3,166.5	-5,719.9	7,071.1	7,024.2	46.91	150.750		
6,496.0	6,378.6	6,807.9	6,477.7	19.7	36.6	-41.20	-3,166.8	-5,719.0	7,047.5	7,001.2	46.29	152.235		
6,500.0	6,381.6	6,810.8	6,480.6	19.7	36.6	-41.34	-3,166.9	-5,719.0	7,045.3	6,999.1	46.24	152.358		
6,550.0	6,419.2	6,846.2	6,516.0	19.6	36.6	-43.32	-3,167.2	-5,718.0	7,017.4	6,971.7	45.66	153.680		
6,594.5	6,450.7	6,870.0	6,539.7	19.6	36.6	-45.29	-3,167.4	-5,717.4	6,990.8	6,945.6	45.25	154.506		
6,600.0	6,454.4	6,870.0	6,539.7	19.6	36.6	-45.54	-3,167.4	-5,717.4	6,987.4	6,942.2	45.19	154.611		
6,650.0	6,487.1	6,894.4	6,564.1	19.6	36.7	-48.09	-3,167.6	-5,716.8	6,955.6	6,910.7	44.91	154.890		
6,692.9	6,513.0	6,909.1	6,578.8	19.6	36.7	-50.51	-3,167.8	-5,716.5	6,927.1	6,882.2	44.83	154.513		
6,700.0	6,517.0	6,911.5	6,581.2	19.6	36.7	-50.94	-3,167.8	-5,716.4	6,922.2	6,877.4	44.83	154.416		
6,750.0	6,544.1	6,926.9	6,596.6	19.6	36.7	-54.15	-3,168.0	-5,716.1	6,887.3	6,842.3	45.00	153.041		
6,791.3	6,564.2	6,951.0	6,620.7	19.7	36.7	-57.22	-3,168.3	-5,715.6	6,857.5	6,812.2	45.37	151.137		
6,800.0	6,568.2	6,951.0	6,620.7	19.7	36.7	-57.85	-3,168.3	-5,715.6	6,851.2	6,805.7	45.48	150.642		
6,850.0	6,589.1	6,954.2	6,623.9	19.8	36.7	-61.77	-3,168.3	-5,715.5	6,813.8	6,767.7	46.15	147.649		
6,889.7	6,603.5	6,972.4	6,642.1	19.9	36.7	-65.35	-3,168.6	-5,715.2	6,783.4	6,736.5	46.90	144.633		
6,900.0	6,606.9	6,976.7	6,646.4	19.9	36.7	-66.31	-3,168.6	-5,715.1	6,775.5	6,728.4	47.11	143.835		
6,950.0	6,621.3	6,994.8	6,664.5	20.2	36.8	-71.20	-3,168.8	-5,714.8	6,736.4	6,688.2	48.21	139.742		
6,988.2	6,630.0	7,005.5	6,675.2	20.6	36.8	-75.14	-3,168.9	-5,714.6	6,706.2	6,657.1	49.10	136.591		
7,000.0	6,632.4	7,008.3	6,678.0	20.7	36.8	-76.38	-3,169.0	-5,714.5	6,696.7	6,647.4	49.37	135.655		
7,050.0	6,640.0	7,017.3	6,687.0	21.4	36.8	-81.76	-3,169.0	-5,714.3	6,656.7	6,606.2	50.51	131.801		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-MWDD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,086.6	6,643.4	7,021.0	6,690.7	21.9	36.8	-85.75	-3,169.1	-5,714.3	6,627.3	6,576.0	51.30	129.199		
7,100.0	6,644.2	7,021.7	6,691.4	22.1	36.8	-87.21	-3,169.1	-5,714.3	6,616.5	6,564.9	51.56	128.317		
7,135.7	6,645.0	7,022.0	6,691.7	22.7	36.8	-91.07	-3,169.1	-5,714.2	6,587.8	6,535.6	52.25	126.082		
7,185.0	6,644.9	7,020.7	6,690.4	23.6	36.8	-91.05	-3,169.1	-5,714.3	6,548.2	6,495.0	53.21	123.067		
7,200.0	6,644.9	7,020.3	6,690.0	23.9	36.8	-91.04	-3,169.1	-5,714.3	6,536.3	6,482.8	53.50	122.174		
7,283.4	6,644.8	7,018.1	6,687.8	25.6	36.8	-91.01	-3,169.0	-5,714.3	6,469.7	6,414.5	55.23	117.151		
7,300.0	6,644.8	7,017.6	6,687.3	25.9	36.8	-91.00	-3,169.0	-5,714.3	6,456.6	6,401.0	55.57	116.193		
7,381.9	6,644.7	7,015.5	6,685.2	27.7	36.8	-90.97	-3,169.0	-5,714.4	6,391.8	6,334.4	57.37	111.414		
7,400.0	6,644.7	7,015.0	6,684.7	28.1	36.8	-90.97	-3,169.0	-5,714.4	6,377.5	6,319.7	57.77	110.397		
7,480.3	6,644.6	7,012.9	6,682.5	29.9	36.8	-90.93	-3,169.0	-5,714.4	6,314.4	6,254.7	59.62	105.904		
7,500.0	6,644.6	7,012.3	6,682.0	30.3	36.8	-90.93	-3,169.0	-5,714.4	6,298.9	6,238.9	60.08	104.845		
7,578.7	6,644.5	7,010.2	6,679.9	32.2	36.8	-90.90	-3,169.0	-5,714.5	6,237.6	6,175.6	61.96	100.671		
7,600.0	6,644.4	7,009.6	6,679.3	32.7	36.8	-90.89	-3,169.0	-5,714.5	6,221.0	6,158.6	62.47	99.587		
7,677.1	6,644.3	7,007.6	6,677.2	34.6	36.8	-90.86	-3,168.9	-5,714.5	6,161.4	6,097.0	64.36	95.731		
7,700.0	6,644.3	7,006.9	6,676.6	35.1	36.8	-90.85	-3,168.9	-5,714.5	6,143.8	6,078.9	64.92	94.633		
7,775.6	6,644.2	7,004.9	6,674.6	37.0	36.8	-90.82	-3,168.9	-5,714.6	6,085.8	6,019.0	66.81	91.086		
7,800.0	6,644.2	7,004.2	6,673.9	37.6	36.8	-90.81	-3,168.9	-5,714.6	6,067.2	5,999.8	67.43	89.983		
7,874.0	6,644.1	7,002.2	6,671.9	39.5	36.8	-90.78	-3,168.9	-5,714.6	6,010.9	5,941.6	69.31	86.727		
7,900.0	6,644.1	7,001.5	6,671.2	40.1	36.8	-90.77	-3,168.9	-5,714.6	5,991.3	5,921.3	69.97	85.626		
7,972.4	6,644.0	6,999.5	6,669.2	42.0	36.8	-90.74	-3,168.9	-5,714.7	5,936.7	5,864.9	71.84	82.641		
8,000.0	6,643.9	6,998.7	6,668.4	42.7	36.8	-90.73	-3,168.9	-5,714.7	5,916.1	5,843.5	72.55	81.546		
8,070.8	6,643.9	6,996.8	6,666.5	44.5	36.8	-90.70	-3,168.8	-5,714.7	5,863.2	5,788.8	74.39	78.812		
8,100.0	6,643.8	6,996.0	6,665.7	45.2	36.8	-90.69	-3,168.8	-5,714.7	5,841.6	5,766.5	75.15	77.728		
8,169.3	6,643.7	6,994.1	6,663.7	47.0	36.8	-90.66	-3,168.8	-5,714.8	5,790.5	5,713.5	76.98	75.225		
8,200.0	6,643.7	6,993.2	6,662.9	47.9	36.8	-90.65	-3,168.8	-5,714.8	5,767.9	5,690.2	77.78	74.154		
8,267.7	6,643.6	6,991.3	6,661.0	49.6	36.8	-90.62	-3,168.8	-5,714.8	5,718.5	5,638.9	79.58	71.861		
8,300.0	6,643.6	6,990.4	6,660.1	50.5	36.8	-90.61	-3,168.8	-5,714.8	5,695.1	5,614.6	80.43	70.806		
8,366.1	6,643.5	6,988.5	6,658.2	52.2	36.8	-90.58	-3,168.8	-5,714.9	5,647.3	5,565.1	82.19	68.707		
8,400.0	6,643.4	6,987.6	6,657.3	53.1	36.8	-90.57	-3,168.7	-5,714.9	5,623.0	5,539.9	83.10	67.668		
8,464.5	6,643.4	6,985.8	6,655.4	54.8	36.8	-90.54	-3,168.7	-5,714.9	5,577.0	5,492.1	84.83	65.745		
8,500.0	6,643.3	6,984.8	6,654.4	55.8	36.8	-90.53	-3,168.7	-5,714.9	5,551.8	5,466.0	85.78	64.724		
8,563.0	6,643.2	6,983.0	6,652.7	57.5	36.8	-90.50	-3,168.7	-5,715.0	5,507.5	5,420.0	87.47	62.963		
8,600.0	6,643.2	6,981.9	6,651.6	58.5	36.8	-90.48	-3,168.7	-5,715.0	5,481.5	5,393.1	88.47	61.961		
8,661.4	6,643.1	6,980.1	6,649.8	60.1	36.7	-90.46	-3,168.7	-5,715.0	5,438.8	5,348.7	90.13	60.346		
8,700.0	6,643.1	6,979.0	6,648.7	61.2	36.7	-90.44	-3,168.6	-5,715.1	5,412.2	5,321.0	91.17	59.364		
8,759.8	6,643.0	6,977.3	6,647.0	62.8	36.7	-90.42	-3,168.6	-5,715.1	5,371.2	5,278.4	92.79	57.884		
8,800.0	6,643.0	6,976.2	6,645.8	63.9	36.7	-90.40	-3,168.6	-5,715.1	5,343.8	5,249.9	93.88	56.921		
8,858.2	6,642.9	6,974.5	6,644.2	65.4	36.7	-90.38	-3,168.6	-5,715.1	5,304.4	5,209.0	95.47	55.564		
8,900.0	6,642.8	6,973.2	6,642.9	66.6	36.7	-90.36	-3,168.6	-5,715.2	5,276.4	5,179.8	96.60	54.621		
8,956.7	6,642.8	6,971.6	6,641.3	68.1	36.7	-90.33	-3,168.6	-5,715.2	5,238.7	5,140.6	98.15	53.377		
9,000.0	6,642.7	6,970.3	6,640.0	69.3	36.7	-90.32	-3,168.5	-5,715.2	5,210.1	5,110.8	99.33	52.454		
9,055.1	6,642.6	6,968.7	6,638.4	70.8	36.7	-90.29	-3,168.5	-5,715.3	5,174.0	5,073.2	100.83	51.313		
9,100.0	6,642.6	6,967.4	6,637.1	72.0	36.7	-90.27	-3,168.5	-5,715.3	5,144.9	5,042.8	102.06	50.411		
9,153.5	6,642.5	6,965.8	6,635.5	73.5	36.7	-90.25	-3,168.5	-5,715.3	5,110.4	5,006.9	103.52	49.364		
9,200.0	6,642.5	6,964.4	6,634.1	74.7	36.7	-90.23	-3,168.5	-5,715.3	5,080.8	4,976.0	104.80	48.482		
9,251.9	6,642.4	6,962.9	6,632.6	76.2	36.7	-90.21	-3,168.4	-5,715.4	5,047.9	4,941.7	106.22	47.522		
9,300.0	6,642.3	6,961.5	6,631.2	77.5	36.7	-90.19	-3,168.4	-5,715.4	5,017.8	4,910.3	107.54	46.660		
9,350.4	6,642.3	6,960.0	6,629.7	78.9	36.7	-90.16	-3,168.4	-5,715.4	4,986.6	4,877.7	108.92	45.780		
9,400.0	6,642.2	6,958.5	6,628.2	80.2	36.7	-90.14	-3,168.4	-5,715.5	4,956.1	4,845.8	110.29	44.938		
9,448.8	6,642.1	6,957.0	6,626.7	81.6	36.7	-90.12	-3,168.4	-5,715.5	4,926.5	4,814.8	111.63	44.132		
9,500.0	6,642.1	6,955.5	6,625.2	83.0	36.7	-90.10	-3,168.3	-5,715.5	4,895.7	4,782.6	113.04	43.309		
9,547.2	6,642.0	6,954.0	6,623.7	84.3	36.7	-90.08	-3,168.3	-5,715.5	4,867.6	4,753.2	114.34	42.571		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-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	
9,600.0	6,642.0	6,952.4	6,622.1	85.7	36.7	-90.05	-3,168.3	-5,715.6	4,836.5	4,720.7	115.79	41.768	
9,645.6	6,641.9	6,951.0	6,620.7	87.0	36.7	-90.03	-3,168.3	-5,715.6	4,810.0	4,692.9	117.05	41.092	
9,700.0	6,641.8	6,951.0	6,620.7	88.5	36.7	-90.03	-3,168.3	-5,715.6	4,778.7	4,660.2	118.55	40.308	
9,744.1	6,641.8	6,951.0	6,620.7	89.7	36.7	-90.03	-3,168.3	-5,715.6	4,753.7	4,633.9	119.77	39.689	
9,800.0	6,641.7	6,951.0	6,620.7	91.2	36.7	-90.03	-3,168.3	-5,715.6	4,722.4	4,601.0	121.32	38.925	
9,842.5	6,641.7	6,951.0	6,620.7	92.4	36.7	-90.03	-3,168.3	-5,715.6	4,698.8	4,576.4	122.50	38.359	
9,900.0	6,641.6	6,951.0	6,620.7	94.0	36.7	-90.03	-3,168.3	-5,715.6	4,667.5	4,543.4	124.09	37.614	
9,940.9	6,641.5	6,951.0	6,620.7	95.1	36.7	-90.03	-3,168.3	-5,715.6	4,645.4	4,520.2	125.22	37.098	
10,000.0	6,641.5	6,951.0	6,620.7	96.7	36.7	-90.03	-3,168.3	-5,715.6	4,614.1	4,487.2	126.86	36.372	
10,039.3	6,641.4	6,951.0	6,620.7	97.8	36.7	-90.03	-3,168.3	-5,715.6	4,593.5	4,465.5	127.95	35.901	
10,100.0	6,641.3	6,951.0	6,620.7	99.5	36.7	-90.03	-3,168.3	-5,715.6	4,562.2	4,432.6	129.63	35.194	
10,137.8	6,641.3	6,951.0	6,620.7	100.6	36.7	-90.03	-3,168.3	-5,715.6	4,543.1	4,412.4	130.68	34.765	
10,200.0	6,641.2	6,951.0	6,620.7	102.3	36.7	-90.03	-3,168.3	-5,715.6	4,512.0	4,379.6	132.40	34.078	
10,236.2	6,641.2	6,951.0	6,620.7	103.3	36.7	-90.03	-3,168.3	-5,715.6	4,494.3	4,360.8	133.41	33.688	
10,300.0	6,641.1	6,951.0	6,620.7	105.0	36.7	-90.03	-3,168.3	-5,715.6	4,463.5	4,328.3	135.18	33.019	
10,334.6	6,641.0	6,951.0	6,620.7	106.0	36.7	-90.03	-3,168.3	-5,715.6	4,447.1	4,310.9	136.14	32.665	
10,400.0	6,641.0	6,951.0	6,620.7	107.8	36.7	-90.03	-3,168.3	-5,715.6	4,416.7	4,278.7	137.96	32.014	
10,433.0	6,640.9	6,951.0	6,620.7	108.7	36.7	-90.03	-3,168.3	-5,715.6	4,401.6	4,262.7	138.88	31.694	
10,500.0	6,640.8	6,951.0	6,620.7	110.6	36.7	-90.03	-3,168.3	-5,715.6	4,371.7	4,230.9	140.74	31.062	
10,531.5	6,640.8	6,938.1	6,607.9	111.5	36.7	-89.85	-3,168.1	-5,715.9	4,357.9	4,216.3	141.60	30.776	
10,600.0	6,640.7	6,937.1	6,606.8	113.4	36.7	-89.83	-3,168.1	-5,715.9	4,328.5	4,185.0	143.50	30.163	
10,629.9	6,640.7	6,936.7	6,606.4	114.2	36.7	-89.82	-3,168.1	-5,715.9	4,315.9	4,171.6	144.33	29.902	
10,700.0	6,640.6	6,935.6	6,605.3	116.1	36.7	-89.81	-3,168.1	-5,715.9	4,287.2	4,140.9	146.28	29.307	
10,728.3	6,640.5	6,935.1	6,604.9	116.9	36.7	-89.80	-3,168.1	-5,715.9	4,275.8	4,128.8	147.07	29.073	
10,800.0	6,640.5	6,934.0	6,603.7	118.9	36.7	-89.79	-3,168.1	-5,715.9	4,247.9	4,098.8	149.07	28.496	
10,826.7	6,640.4	6,933.6	6,603.3	119.7	36.7	-89.78	-3,168.0	-5,716.0	4,237.7	4,087.9	149.81	28.287	
10,900.0	6,640.3	6,932.5	6,602.2	121.7	36.7	-89.76	-3,168.0	-5,716.0	4,210.5	4,058.7	151.85	27.728	
10,925.2	6,640.3	6,932.1	6,601.8	122.4	36.7	-89.76	-3,168.0	-5,716.0	4,201.5	4,048.9	152.55	27.541	
11,000.0	6,640.2	6,930.9	6,600.6	124.5	36.7	-89.74	-3,168.0	-5,716.0	4,175.3	4,020.6	154.63	27.001	
11,023.6	6,640.2	6,930.5	6,600.3	125.1	36.7	-89.74	-3,168.0	-5,716.0	4,167.3	4,012.0	155.29	26.835	
11,100.0	6,640.1	6,929.3	6,599.0	127.3	36.7	-89.72	-3,168.0	-5,716.0	4,142.1	3,984.7	157.42	26.313	
11,122.0	6,640.0	6,929.0	6,598.7	127.9	36.7	-89.71	-3,168.0	-5,716.0	4,135.1	3,977.1	158.03	26.166	
11,200.0	6,639.9	6,927.7	6,597.4	130.1	36.7	-89.69	-3,168.0	-5,716.1	4,111.1	3,950.9	160.21	25.662	
11,220.4	6,639.9	6,927.4	6,597.1	130.6	36.7	-89.69	-3,168.0	-5,716.1	4,105.1	3,944.3	160.78	25.533	
11,300.0	6,639.8	6,926.1	6,595.8	132.8	36.7	-89.67	-3,168.0	-5,716.1	4,082.4	3,919.4	162.99	25.046	
11,318.9	6,639.8	6,925.8	6,595.5	133.4	36.7	-89.67	-3,167.9	-5,716.1	4,077.2	3,913.7	163.52	24.934	
11,400.0	6,639.7	6,924.5	6,594.2	135.6	36.7	-89.65	-3,167.9	-5,716.1	4,055.9	3,890.1	165.78	24.465	
11,417.3	6,639.7	6,924.2	6,593.9	136.1	36.7	-89.64	-3,167.9	-5,716.2	4,051.5	3,885.2	166.26	24.368	
11,500.0	6,639.6	6,922.8	6,592.6	138.4	36.7	-89.62	-3,167.9	-5,716.2	4,031.7	3,863.1	168.57	23.917	
11,515.7	6,639.5	6,922.6	6,592.3	138.9	36.7	-89.62	-3,167.9	-5,716.2	4,028.1	3,859.1	169.01	23.834	
11,600.0	6,639.4	6,921.2	6,590.9	141.2	36.7	-89.60	-3,167.9	-5,716.2	4,009.8	3,838.4	171.36	23.400	
11,614.1	6,639.4	6,921.0	6,590.7	141.6	36.7	-89.60	-3,167.9	-5,716.2	4,006.9	3,835.2	171.75	23.329	
11,700.0	6,639.3	6,919.5	6,589.2	144.0	36.7	-89.57	-3,167.9	-5,716.3	3,990.3	3,816.2	174.15	22.913	
11,712.6	6,639.3	6,919.3	6,589.0	144.3	36.7	-89.57	-3,167.9	-5,716.3	3,988.1	3,813.6	174.50	22.854	
11,800.0	6,639.2	6,917.8	6,587.5	146.8	36.7	-89.55	-3,167.9	-5,716.3	3,973.3	3,796.4	176.94	22.456	
11,811.0	6,639.2	6,917.6	6,587.3	147.1	36.7	-89.55	-3,167.9	-5,716.3	3,971.6	3,794.3	177.25	22.407	
11,900.0	6,639.1	6,916.1	6,585.8	149.6	36.7	-89.52	-3,167.8	-5,716.3	3,958.7	3,779.0	179.73	22.026	
11,909.4	6,639.0	6,916.0	6,585.7	149.8	36.7	-89.52	-3,167.8	-5,716.3	3,957.4	3,777.5	179.99	21.986	
12,000.0	6,638.9	6,914.4	6,584.1	152.4	36.7	-89.50	-3,167.8	-5,716.4	3,946.6	3,764.1	182.52	21.622	
12,007.8	6,638.9	6,914.3	6,584.0	152.6	36.7	-89.50	-3,167.8	-5,716.4	3,945.7	3,763.0	182.74	21.592	
12,100.0	6,638.8	6,912.6	6,582.4	155.2	36.7	-89.47	-3,167.8	-5,716.4	3,937.0	3,751.7	185.32	21.245	
12,106.3	6,638.8	6,912.5	6,582.3	155.3	36.7	-89.47	-3,167.8	-5,716.4	3,936.4	3,751.0	185.49	21.222	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 75-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	
12,200.0	6,638.7	6,910.9	6,580.6	157.9	36.7	-89.45	-3,167.8	-5,716.4	3,929.9	3,741.8	188.11	20.892	
12,204.7	6,638.7	6,910.8	6,580.5	158.1	36.7	-89.45	-3,167.8	-5,716.4	3,929.6	3,741.4	188.24	20.876	
12,300.0	6,638.5	6,909.1	6,578.8	160.7	36.7	-89.42	-3,167.8	-5,716.5	3,925.3	3,734.4	190.90	20.562	
12,303.1	6,638.5	6,909.1	6,578.8	160.8	36.7	-89.42	-3,167.8	-5,716.5	3,925.2	3,734.2	190.99	20.552	
12,400.0	6,638.4	6,907.3	6,577.0	163.5	36.7	-89.40	-3,167.7	-5,716.5	3,923.3	3,729.6	193.70	20.255	
12,401.5	6,638.4	6,907.3	6,577.0	163.6	36.7	-89.40	-3,167.7	-5,716.5	3,923.3	3,729.6	193.74	20.250	
12,429.1	6,638.4	6,906.8	6,576.5	164.4	36.7	-89.39	-3,167.7	-5,716.5	3,923.2	3,728.7	194.51	20.170 CC	
12,500.0	6,638.3	6,905.5	6,575.2	166.3	36.7	-89.37	-3,167.7	-5,716.6	3,923.8	3,727.3	196.49	19.970 ES	
12,598.4	6,638.2	6,903.7	6,573.4	169.1	36.7	-89.34	-3,167.7	-5,716.6	3,926.8	3,727.6	199.24	19.709	
12,600.0	6,638.2	6,903.7	6,573.4	169.1	36.7	-89.34	-3,167.7	-5,716.6	3,926.9	3,727.6	199.28	19.705	
12,696.8	6,638.0	6,901.9	6,571.6	171.8	36.7	-89.32	-3,167.7	-5,716.6	3,932.3	3,730.3	201.99	19.468	
12,700.0	6,638.0	6,901.8	6,571.6	171.9	36.7	-89.32	-3,167.7	-5,716.6	3,932.5	3,730.5	202.08	19.460	
12,795.2	6,637.9	6,900.1	6,569.8	174.6	36.7	-89.29	-3,167.7	-5,716.7	3,940.2	3,735.5	204.74	19.245	
12,800.0	6,637.9	6,900.0	6,569.7	174.7	36.7	-89.29	-3,167.7	-5,716.7	3,940.7	3,735.8	204.87	19.235	
12,893.7	6,637.8	6,898.2	6,567.9	177.3	36.7	-89.26	-3,167.6	-5,716.7	3,950.6	3,743.1	207.49	19.040	
12,900.0	6,637.8	6,898.1	6,567.8	177.5	36.7	-89.26	-3,167.6	-5,716.7	3,951.3	3,743.7	207.67	19.027	
12,992.1	6,637.7	6,896.3	6,566.1	180.1	36.7	-89.24	-3,167.6	-5,716.8	3,963.4	3,753.1	210.24	18.851	
13,000.0	6,637.6	6,896.2	6,565.9	180.3	36.7	-89.23	-3,167.6	-5,716.8	3,964.5	3,754.0	210.47	18.837	
13,090.5	6,637.5	6,894.5	6,564.2	182.8	36.7	-89.21	-3,167.6	-5,716.8	3,978.5	3,765.5	213.00	18.679	
13,100.0	6,637.5	6,894.3	6,564.0	183.1	36.7	-89.21	-3,167.6	-5,716.8	3,980.1	3,766.9	213.26	18.663	
13,188.9	6,637.4	6,892.5	6,562.3	185.6	36.6	-89.18	-3,167.6	-5,716.9	3,996.1	3,780.3	215.75	18.522	
13,200.0	6,637.4	6,892.3	6,562.0	185.9	36.6	-89.18	-3,167.6	-5,716.9	3,998.2	3,782.1	216.06	18.505	
13,287.4	6,637.3	6,890.6	6,560.3	188.4	36.6	-89.15	-3,167.6	-5,716.9	4,015.9	3,797.4	218.50	18.380	
13,300.0	6,637.3	6,890.4	6,560.1	188.7	36.6	-89.15	-3,167.6	-5,716.9	4,018.7	3,799.8	218.85	18.362	
13,385.8	6,637.1	6,888.7	6,558.4	191.1	36.6	-89.12	-3,167.6	-5,717.0	4,038.1	3,816.9	221.25	18.251	
13,400.0	6,637.1	6,888.4	6,558.1	191.5	36.6	-89.12	-3,167.5	-5,717.0	4,041.5	3,819.8	221.65	18.234	
13,484.2	6,637.0	6,886.7	6,556.4	193.9	36.6	-89.10	-3,167.5	-5,717.0	4,062.5	3,838.5	224.00	18.136	
13,500.0	6,637.0	6,886.4	6,556.1	194.3	36.6	-89.09	-3,167.5	-5,717.0	4,066.7	3,842.2	224.45	18.119	
13,582.6	6,636.9	6,884.7	6,554.4	196.6	36.6	-89.07	-3,167.5	-5,717.1	4,089.2	3,862.4	226.76	18.033	
13,600.0	6,636.9	6,884.4	6,554.1	197.1	36.6	-89.06	-3,167.5	-5,717.1	4,094.1	3,866.9	227.24	18.016	
13,681.1	6,636.8	6,882.7	6,552.4	199.4	36.6	-89.04	-3,167.5	-5,717.1	4,118.0	3,888.5	229.51	17.943	
13,700.0	6,636.7	6,882.3	6,552.0	199.9	36.6	-89.03	-3,167.5	-5,717.1	4,123.8	3,893.8	230.04	17.927	
13,779.5	6,636.6	6,880.7	6,550.4	202.1	36.6	-89.01	-3,167.5	-5,717.2	4,149.0	3,916.7	232.26	17.863	
13,800.0	6,636.6	6,880.2	6,550.0	202.7	36.6	-89.00	-3,167.5	-5,717.2	4,155.7	3,922.9	232.84	17.848	
13,877.9	6,636.5	6,878.6	6,548.3	204.9	36.6	-88.98	-3,167.5	-5,717.2	4,182.0	3,947.0	235.02	17.795	
13,900.0	6,636.5	6,878.2	6,547.9	205.5	36.6	-88.97	-3,167.5	-5,717.2	4,189.7	3,954.1	235.63	17.781	
13,976.3	6,636.4	6,870.0	6,539.7	207.6	36.6	-88.85	-3,167.4	-5,717.4	4,217.1	3,979.4	237.75	17.737	
14,000.0	6,636.3	6,870.0	6,539.7	208.3	36.6	-88.85	-3,167.4	-5,717.4	4,225.9	3,987.5	238.42	17.725	
14,074.8	6,636.3	6,870.0	6,539.7	210.4	36.6	-88.85	-3,167.4	-5,717.4	4,254.2	4,013.7	240.51	17.688	
14,100.0	6,636.2	6,870.0	6,539.7	211.1	36.6	-88.85	-3,167.4	-5,717.4	4,264.0	4,022.8	241.22	17.677	
14,173.2	6,636.1	6,870.0	6,539.7	213.2	36.6	-88.85	-3,167.4	-5,717.4	4,293.2	4,050.0	243.27	17.648	
14,200.0	6,636.1	6,870.0	6,539.7	213.9	36.6	-88.85	-3,167.4	-5,717.4	4,304.2	4,060.2	244.02	17.639	
14,271.6	6,636.0	6,870.0	6,539.7	215.9	36.6	-88.85	-3,167.4	-5,717.4	4,334.1	4,088.1	246.03	17.616	
14,300.0	6,636.0	6,869.4	6,539.1	216.7	36.6	-88.84	-3,167.4	-5,717.4	4,346.3	4,099.4	246.82	17.609	
14,370.0	6,635.9	6,867.0	6,536.7	218.7	36.6	-88.81	-3,167.4	-5,717.5	4,376.8	4,128.1	248.78	17.593	
14,400.0	6,635.8	6,866.0	6,535.7	219.5	36.6	-88.79	-3,167.4	-5,717.5	4,390.2	4,140.6	249.62	17.588	
14,468.5	6,635.7	6,863.7	6,533.4	221.4	36.6	-88.76	-3,167.3	-5,717.6	4,421.4	4,169.8	251.53	17.578	
14,500.0	6,635.7	6,862.6	6,532.4	222.3	36.6	-88.74	-3,167.3	-5,717.6	4,436.0	4,183.6	252.41	17.575	
14,566.9	6,635.6	6,860.4	6,530.1	224.2	36.6	-88.71	-3,167.3	-5,717.7	4,467.6	4,213.3	254.28	17.570	
14,600.0	6,635.6	6,859.2	6,529.0	225.1	36.6	-88.69	-3,167.3	-5,717.7	4,483.5	4,228.3	255.20	17.568	
14,665.3	6,635.5	6,857.0	6,526.7	226.9	36.6	-88.66	-3,167.3	-5,717.7	4,515.5	4,258.4	257.03	17.568 SF	
14,700.0	6,635.4	6,855.8	6,525.5	227.9	36.6	-88.64	-3,167.3	-5,717.8	4,532.7	4,274.7	258.00	17.569	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD JURGENS STATE #B16-30D - Wellbore #1 - Wellbo												Offset Site Error:	0.0 usft
Survey Program: 75-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
14,763.7	6,635.4	6,853.6	6,523.3	229.7	36.6	-88.61	-3,167.3	-5,717.8	4,565.0	4,305.2	259.78	17.573	
14,800.0	6,635.3	6,852.4	6,522.1	230.7	36.6	-88.59	-3,167.3	-5,717.9	4,583.6	4,322.8	260.79	17.576	
14,862.2	6,635.2	6,850.2	6,519.9	232.5	36.6	-88.56	-3,167.2	-5,717.9	4,616.1	4,353.5	262.53	17.583	
14,900.0	6,635.2	6,848.9	6,518.6	233.5	36.6	-88.54	-3,167.2	-5,718.0	4,636.1	4,372.5	263.58	17.589	
14,960.6	6,635.1	6,846.7	6,516.5	235.2	36.6	-88.51	-3,167.2	-5,718.0	4,668.7	4,403.4	265.28	17.599	
15,000.0	6,635.0	6,845.3	6,515.1	236.3	36.6	-88.49	-3,167.2	-5,718.0	4,690.1	4,423.8	266.38	17.607	
15,033.1	6,635.0	6,844.2	6,513.9	237.3	36.6	-88.47	-3,167.2	-5,718.1	4,708.3	4,441.0	267.30	17.614	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 683-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	121.02	-1,210.2	2,012.2	2,348.1				
98.4	98.4	93.7	93.7	0.1	0.1	121.02	-1,210.1	2,012.2	2,348.1	2,347.9	0.18	N/A	
100.0	100.0	95.3	95.3	0.1	0.1	121.02	-1,210.1	2,012.2	2,348.1	2,347.9	0.19	N/A	
196.8	196.8	194.5	194.5	0.3	0.2	121.02	-1,210.0	2,012.1	2,347.9	2,347.4	0.50	4,728.691	
200.0	200.0	197.7	197.7	0.3	0.2	121.02	-1,210.0	2,012.1	2,347.9	2,347.4	0.51	4,634.552	
295.3	295.3	295.3	295.3	0.5	0.3	121.02	-1,209.9	2,011.9	2,347.7	2,346.9	0.81	2,892.567	
300.0	300.0	300.1	300.1	0.5	0.3	121.02	-1,209.9	2,011.9	2,347.7	2,346.8	0.83	2,839.626	
393.7	393.7	396.1	396.1	0.8	0.4	121.02	-1,209.7	2,011.6	2,347.3	2,346.2	1.13	2,083.330	
400.0	400.0	402.6	402.6	0.8	0.4	121.02	-1,209.6	2,011.6	2,347.3	2,346.2	1.15	2,046.672	
492.1	492.1	496.9	496.9	1.0	0.5	121.02	-1,209.4	2,011.2	2,346.9	2,345.4	1.44	1,627.729	
500.0	500.0	505.0	505.0	1.0	0.5	121.02	-1,209.3	2,011.2	2,346.8	2,345.4	1.47	1,599.729	
590.5	590.5	597.8	597.8	1.2	0.6	121.02	-1,209.0	2,010.8	2,346.3	2,344.6	1.76	1,335.491	
600.0	600.0	607.4	607.4	1.2	0.6	121.02	-1,209.0	2,010.8	2,346.3	2,344.5	1.79	1,312.852	
689.0	689.0	700.9	700.9	1.4	0.7	121.02	-1,208.6	2,010.2	2,345.7	2,343.6	2.10	1,119.283	
700.0	700.0	713.9	713.9	1.4	0.7	121.02	-1,208.7	2,010.1	2,345.6	2,343.4	2.15	1,091.899	
787.4	787.4	794.2	794.2	1.6	0.9	121.08	-1,210.3	2,008.1	2,344.7	2,342.2	2.51	933.086	
800.0	800.0	802.2	802.1	1.7	0.9	121.09	-1,210.6	2,007.9	2,344.7	2,342.1	2.56	916.848	
824.7	824.7	817.8	817.7	1.7	0.9	121.11	-1,211.3	2,007.4	2,344.6	2,342.0	2.64	886.649 CC, ES	
885.8	885.8	854.0	853.8	1.9	1.0	121.16	-1,213.3	2,006.4	2,344.9	2,342.0	2.86	821.290	
900.0	900.0	854.0	853.8	1.9	1.0	121.16	-1,213.3	2,006.4	2,345.1	2,342.2	2.89	812.294	
984.2	984.2	912.8	912.4	2.1	1.1	121.27	-1,217.7	2,005.0	2,346.7	2,343.5	3.20	733.100	
1,000.0	1,000.0	939.0	938.6	2.1	1.2	121.33	-1,220.1	2,004.6	2,347.3	2,344.0	3.29	712.891	
1,082.7	1,082.7	968.0	967.4	2.3	1.3	94.34	-1,223.0	2,004.2	2,350.4	2,346.9	3.56	660.892	
1,100.0	1,100.0	977.5	976.8	2.3	1.3	94.35	-1,224.0	2,004.1	2,351.3	2,347.7	3.62	649.826	
1,181.1	1,181.0	1,025.0	1,024.0	2.5	1.4	94.43	-1,229.5	2,003.9	2,356.3	2,352.4	3.92	601.647	
1,200.0	1,199.8	1,025.0	1,024.0	2.6	1.4	94.40	-1,229.5	2,003.9	2,357.6	2,353.7	3.96	595.596	
1,279.5	1,279.1	1,094.1	1,092.5	2.8	1.6	94.59	-1,238.4	2,004.1	2,363.9	2,359.5	4.33	546.209	
1,300.0	1,299.5	1,110.0	1,108.3	2.8	1.6	94.64	-1,240.6	2,004.2	2,365.6	2,361.2	4.42	535.436	
1,377.9	1,376.9	1,156.5	1,154.3	3.0	1.8	94.76	-1,247.2	2,004.6	2,373.0	2,368.3	4.74	500.264	
1,400.0	1,398.7	1,169.7	1,167.4	3.0	1.8	94.79	-1,249.2	2,004.8	2,375.3	2,370.5	4.84	491.133	
1,476.4	1,474.2	1,215.6	1,212.7	3.2	2.0	94.92	-1,256.3	2,005.7	2,384.1	2,378.9	5.18	460.273	
1,500.0	1,497.5	1,229.9	1,226.8	3.3	2.0	94.96	-1,258.7	2,006.0	2,387.0	2,381.7	5.29	451.339	
1,574.8	1,571.0	1,281.0	1,277.1	3.5	2.2	95.15	-1,267.5	2,007.2	2,397.1	2,391.5	5.68	422.328	
1,600.0	1,595.6	1,281.0	1,277.1	3.6	2.2	95.07	-1,267.5	2,007.2	2,400.8	2,395.1	5.75	417.246	
1,673.2	1,667.2	1,329.0	1,324.2	3.9	2.4	95.47	-1,276.6	2,008.7	2,412.2	2,406.0	6.16	391.508	
1,700.0	1,693.4	1,343.5	1,338.5	4.0	2.4	95.59	-1,279.4	2,009.2	2,416.6	2,410.3	6.30	383.515	
1,771.6	1,763.5	1,385.0	1,379.0	4.2	2.6	95.94	-1,288.0	2,010.8	2,429.1	2,422.4	6.70	362.760	
1,800.0	1,791.3	1,403.0	1,396.6	4.3	2.7	96.09	-1,291.8	2,011.5	2,434.3	2,427.4	6.86	354.864	
1,870.1	1,859.8	1,452.0	1,444.4	4.6	2.9	96.50	-1,302.3	2,013.8	2,447.6	2,440.3	7.29	335.692	
1,900.0	1,889.1	1,474.0	1,465.8	4.7	2.9	96.69	-1,307.1	2,014.9	2,453.5	2,446.0	7.47	328.251	
1,968.5	1,956.1	1,540.6	1,530.8	4.9	3.2	97.24	-1,321.4	2,018.3	2,467.1	2,459.2	7.94	310.820	
2,000.0	1,986.9	1,571.3	1,560.8	5.1	3.3	97.49	-1,327.9	2,019.9	2,473.4	2,465.3	8.15	303.665	
2,066.9	2,052.3	1,639.9	1,627.7	5.3	3.6	98.04	-1,342.3	2,023.4	2,486.9	2,478.3	8.60	289.143	
2,100.0	2,084.7	1,679.6	1,666.6	5.5	3.7	98.36	-1,350.6	2,025.3	2,493.5	2,484.6	8.85	281.804	
2,165.3	2,148.6	1,747.6	1,732.9	5.7	4.0	98.91	-1,365.0	2,028.0	2,506.4	2,497.1	9.32	268.982	
2,200.0	2,182.5	1,780.2	1,764.7	5.9	4.1	99.17	-1,372.0	2,029.2	2,513.3	2,503.8	9.56	262.890	
2,263.8	2,244.9	1,845.4	1,828.4	6.1	4.4	99.70	-1,386.0	2,031.5	2,526.1	2,516.1	10.02	252.077	
2,300.0	2,280.3	1,883.8	1,865.9	6.3	4.5	100.00	-1,394.0	2,032.9	2,533.4	2,523.1	10.29	246.313	
2,362.2	2,341.2	1,954.0	1,934.6	6.5	4.8	100.55	-1,408.3	2,035.5	2,545.8	2,535.1	10.74	236.968	
2,400.0	2,378.1	1,999.8	1,979.4	6.7	5.0	100.90	-1,417.6	2,036.9	2,553.3	2,542.3	11.03	231.392	
2,460.6	2,437.4	2,067.8	2,046.0	6.9	5.3	101.43	-1,431.3	2,038.6	2,565.1	2,553.6	11.49	223.261	
2,500.0	2,476.0	2,102.0	2,079.5	7.1	5.4	101.69	-1,438.2	2,039.4	2,572.8	2,561.0	11.76	218.821	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD PETERSON B #10-24D - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 usft
Survey Program: 683-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		
2,550.0	2,524.9	2,148.5	2,125.0	7.3	5.6	102.05	-1,447.6	2,040.5	2,582.7	2,570.6	12.11	213.340		
2,559.0	2,533.7	2,158.9	2,135.2	7.3	5.6	102.98	-1,449.7	2,040.8	2,584.5	2,572.4	12.17	212.345		
2,600.0	2,573.8	2,206.0	2,181.4	7.5	5.8	107.23	-1,459.0	2,042.0	2,593.0	2,580.6	12.46	208.034		
2,639.4	2,612.3	2,244.7	2,219.3	7.7	6.0	111.26	-1,466.4	2,043.0	2,601.7	2,589.0	12.71	204.695		
2,657.5	2,630.0	2,260.8	2,235.1	7.7	6.0	111.38	-1,469.4	2,043.4	2,605.8	2,593.0	12.82	203.194		
2,700.0	2,671.6	2,298.6	2,272.3	7.9	6.2	111.64	-1,476.6	2,044.5	2,615.5	2,602.4	13.09	199.785		
2,755.9	2,726.3	2,363.7	2,336.2	8.1	6.4	112.10	-1,488.8	2,046.3	2,628.3	2,614.8	13.50	194.742		
2,800.0	2,769.4	2,407.7	2,379.4	8.3	6.6	112.40	-1,496.8	2,047.5	2,638.3	2,624.5	13.79	191.255		
2,854.3	2,822.5	2,446.9	2,417.9	8.5	6.7	112.66	-1,504.0	2,048.7	2,650.8	2,636.7	14.12	187.710		
2,900.0	2,867.2	2,479.0	2,449.4	8.7	6.9	112.88	-1,509.9	2,049.8	2,661.5	2,647.1	14.39	184.910		
2,952.7	2,918.8	2,522.3	2,491.9	9.0	7.0	113.17	-1,518.1	2,051.2	2,674.2	2,659.4	14.73	181.545		
3,000.0	2,965.0	2,564.0	2,532.8	9.2	7.2	113.45	-1,526.2	2,052.5	2,685.7	2,670.6	15.04	178.588		
3,051.2	3,015.1	2,600.8	2,568.9	9.4	7.4	113.70	-1,533.4	2,053.7	2,698.3	2,683.0	15.35	175.802		
3,100.0	3,062.8	2,639.7	2,607.0	9.6	7.5	113.96	-1,541.1	2,055.1	2,710.6	2,694.9	15.65	173.151		
3,149.6	3,111.4	2,681.1	2,647.6	9.8	7.7	114.23	-1,549.2	2,056.7	2,723.2	2,707.2	15.97	170.522		
3,200.0	3,160.7	2,723.9	2,689.4	10.0	7.9	114.51	-1,557.6	2,058.4	2,736.2	2,719.9	16.29	167.960		
3,248.0	3,207.6	2,821.0	2,784.8	10.2	8.2	115.13	-1,575.7	2,061.8	2,748.0	2,731.3	16.73	164.234		
3,300.0	3,258.5	2,861.9	2,825.1	10.5	8.4	115.38	-1,582.8	2,063.1	2,760.5	2,743.5	17.05	161.941		
3,346.4	3,303.9	2,886.9	2,849.7	10.7	8.5	115.53	-1,587.5	2,064.0	2,772.1	2,754.8	17.30	160.258		
3,400.0	3,356.3	2,923.7	2,885.7	10.9	8.6	115.76	-1,594.5	2,065.3	2,785.9	2,768.3	17.61	158.217		
3,444.9	3,400.2	2,968.0	2,929.1	11.1	8.8	116.04	-1,603.0	2,067.0	2,797.5	2,779.6	17.90	156.259		
3,500.0	3,454.1	3,035.0	2,995.0	11.3	9.1	116.44	-1,615.5	2,069.7	2,811.8	2,793.5	18.29	153.755		
3,543.3	3,496.5	3,116.7	3,075.4	11.5	9.4	116.90	-1,629.5	2,073.1	2,822.7	2,804.1	18.65	151.382		
3,600.0	3,551.9	3,265.7	3,222.6	11.7	9.9	117.73	-1,651.8	2,076.8	2,835.3	2,816.1	19.19	147.729		
3,641.7	3,592.7	3,297.4	3,254.0	11.9	10.0	117.91	-1,656.3	2,077.3	2,844.3	2,824.8	19.43	146.384		
3,700.0	3,649.7	3,334.0	3,290.2	12.2	10.1	118.11	-1,661.6	2,077.8	2,857.0	2,837.3	19.74	144.698		
3,740.1	3,689.0	3,334.0	3,290.2	12.4	10.1	118.11	-1,661.6	2,077.8	2,866.3	2,846.4	19.91	143.980		
3,800.0	3,747.5	3,377.2	3,332.9	12.6	10.3	118.35	-1,668.3	2,078.8	2,880.3	2,860.0	20.25	142.231		
3,838.6	3,785.3	3,392.3	3,347.7	12.8	10.3	118.43	-1,670.8	2,079.2	2,889.8	2,869.4	20.44	141.367		
3,900.0	3,845.4	3,419.0	3,374.0	13.1	10.4	118.58	-1,675.6	2,080.0	2,905.5	2,884.8	20.75	140.013		
3,937.0	3,881.6	3,438.5	3,393.2	13.2	10.5	118.69	-1,679.2	2,080.7	2,915.4	2,894.4	20.95	139.162		
4,000.0	3,943.2	3,480.7	3,434.6	13.5	10.7	118.93	-1,687.2	2,082.2	2,932.4	2,911.1	21.31	137.632		
4,035.4	3,977.8	3,505.0	3,458.4	13.6	10.8	119.07	-1,691.8	2,083.1	2,942.2	2,920.6	21.51	136.795		
4,100.0	4,041.0	3,539.8	3,492.5	13.9	10.9	119.26	-1,698.8	2,084.5	2,960.4	2,938.5	21.86	135.452		
4,133.8	4,074.1	3,558.3	3,510.6	14.1	11.0	119.37	-1,702.6	2,085.3	2,970.1	2,948.1	22.04	134.776		
4,200.0	4,138.8	3,590.0	3,541.5	14.4	11.1	119.55	-1,709.3	2,086.5	2,989.7	2,967.3	22.38	133.577		
4,232.3	4,170.4	3,619.1	3,569.9	14.5	11.3	119.72	-1,715.7	2,087.7	2,999.4	2,976.9	22.59	132.805		
4,300.0	4,236.6	3,676.0	3,625.3	14.8	11.5	120.04	-1,728.2	2,090.3	3,020.1	2,997.1	23.00	131.309		
4,330.7	4,266.7	3,695.8	3,644.6	14.9	11.6	120.15	-1,732.6	2,091.2	3,029.6	3,006.4	23.17	130.750		
4,400.0	4,334.4	3,762.9	3,710.0	15.2	11.9	120.53	-1,747.4	2,094.3	3,051.0	3,027.4	23.61	129.235		
4,429.1	4,362.9	3,794.2	3,740.5	15.4	12.0	120.70	-1,754.3	2,095.8	3,060.1	3,036.3	23.80	128.597		
4,500.0	4,432.3	3,887.2	3,831.2	15.7	12.4	121.19	-1,773.9	2,100.5	3,081.8	3,057.5	24.28	126.922		
4,527.5	4,459.2	3,932.0	3,875.2	15.8	12.6	121.41	-1,782.5	2,103.2	3,090.0	3,065.6	24.49	126.199		
4,600.0	4,530.1	3,976.8	3,919.0	16.1	12.8	121.62	-1,791.1	2,105.9	3,111.8	3,086.9	24.87	125.124		
4,626.0	4,555.5	3,992.0	3,933.9	16.2	12.9	121.70	-1,794.1	2,106.8	3,119.8	3,094.8	25.01	124.763		
4,700.0	4,627.9	4,035.6	3,976.5	16.6	13.0	121.91	-1,803.2	2,109.4	3,142.9	3,117.5	25.40	123.758		
4,724.4	4,651.7	4,050.2	3,990.7	16.7	13.1	121.99	-1,806.3	2,110.2	3,150.6	3,125.1	25.53	123.428		
4,800.0	4,725.7	4,103.0	4,042.1	17.0	13.3	122.26	-1,818.1	2,113.1	3,175.1	3,149.1	25.95	122.372		
4,822.8	4,748.0	4,116.2	4,055.0	17.1	13.4	122.33	-1,821.1	2,113.8	3,182.5	3,156.5	26.07	122.083		
4,904.9	4,828.3	4,221.0	4,156.7	17.5	13.9	122.91	-1,845.9	2,116.9	3,209.1	3,182.4	26.64	120.467		
4,921.2	4,844.3	4,238.3	4,173.5	17.5	14.0	123.09	-1,850.1	2,117.3	3,214.3	3,187.6	26.72	120.276		
5,000.0	4,921.6	4,316.9	4,249.9	17.8	14.3	123.93	-1,868.6	2,119.0	3,238.7	3,211.6	27.13	119.372		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 683-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	
5,019.7	4,941.0	4,335.7	4,268.1	17.9	14.4	124.13	-1,873.1	2,119.3	3,244.7	3,217.4	27.22	119.212	
5,100.0	5,020.4	4,900.1	4,824.6	18.1	16.3	126.53	-1,962.1	2,126.7	3,265.8	3,237.2	28.53	114.468	
5,118.1	5,038.3	5,130.3	5,054.5	18.2	16.7	127.15	-1,971.5	2,123.0	3,267.6	3,238.7	28.92	112.972	
5,200.0	5,119.6	5,211.6	5,135.8	18.4	16.8	127.39	-1,971.3	2,122.3	3,273.0	3,243.8	29.23	111.959	
5,216.5	5,136.0	5,226.6	5,150.8	18.4	16.9	127.43	-1,971.3	2,122.1	3,273.9	3,244.6	29.29	111.774	
5,300.0	5,219.2	5,301.0	5,225.2	18.6	16.9	127.59	-1,971.4	2,121.3	3,277.9	3,248.3	29.58	110.819	
5,314.9	5,234.1	5,313.1	5,237.3	18.6	17.0	127.61	-1,971.4	2,121.2	3,278.5	3,248.8	29.62	110.668	
5,400.0	5,319.1	5,386.0	5,310.2	18.8	17.1	127.71	-1,971.6	2,120.8	3,281.0	3,251.1	29.89	109.756	
5,413.4	5,332.4	5,396.9	5,321.1	18.8	17.1	127.72	-1,971.6	2,120.8	3,281.3	3,251.4	29.93	109.629	
5,504.9	5,423.9	5,482.9	5,407.1	18.9	17.2	146.18	-1,971.8	2,120.9	3,282.4	3,251.0	31.45	104.355	
5,511.8	5,430.8	5,490.7	5,414.9	18.9	17.2	146.18	-1,971.8	2,120.9	3,282.5	3,251.0	31.48	104.284	
5,600.0	5,519.0	5,585.6	5,509.8	19.0	17.3	146.18	-1,972.0	2,120.9	3,282.6	3,250.8	31.74	103.411	
5,610.2	5,529.3	5,595.4	5,519.6	19.0	17.3	146.18	-1,972.0	2,120.8	3,282.6	3,250.8	31.77	103.311	
5,700.0	5,619.0	5,696.5	5,620.7	19.2	17.5	146.19	-1,972.2	2,120.5	3,282.6	3,250.5	32.06	102.375	
5,708.6	5,627.7	5,708.1	5,632.3	19.2	17.5	146.19	-1,972.2	2,120.5	3,282.6	3,250.5	32.10	102.277	
5,800.0	5,719.0	5,810.4	5,734.6	19.3	17.6	146.19	-1,971.8	2,120.1	3,282.1	3,249.7	32.39	101.337	
5,807.1	5,726.1	5,814.0	5,738.2	19.3	17.6	146.19	-1,971.8	2,120.1	3,282.0	3,249.6	32.40	101.283	
5,900.0	5,819.0	5,899.0	5,823.2	19.4	17.7	146.19	-1,971.3	2,119.9	3,281.5	3,248.8	32.68	100.421	
5,905.5	5,824.5	5,906.7	5,830.9	19.4	17.7	146.19	-1,971.2	2,119.9	3,281.5	3,248.8	32.70	100.359	
5,981.6	5,900.6	5,969.4	5,893.6	19.5	17.8	146.19	-1,971.1	2,119.9	3,281.3	3,248.4	32.92	99.689	
6,003.9	5,923.0	5,988.5	5,912.7	19.6	17.8	146.18	-1,971.1	2,120.0	3,281.3	3,248.3	32.98	99.492	
6,009.8	5,928.8	5,994.4	5,918.6	19.6	17.8	146.18	-1,971.1	2,120.0	3,281.3	3,248.3	33.00	99.436	
6,050.0	5,969.0	6,035.2	5,959.4	19.6	17.9	-123.79	-1,971.0	2,120.1	3,282.0	3,250.1	31.92	102.820	
6,100.0	6,018.8	6,085.1	6,009.3	19.7	18.0	-123.69	-1,971.0	2,120.2	3,284.6	3,252.6	31.93	102.882	
6,102.3	6,021.1	6,087.4	6,011.6	19.7	18.0	-123.68	-1,971.0	2,120.2	3,284.7	3,252.8	31.92	102.896	
6,150.0	6,068.1	6,133.2	6,057.4	19.7	18.0	-123.50	-1,970.9	2,120.4	3,289.1	3,257.2	31.83	103.324	
6,200.0	6,116.8	6,184.5	6,108.7	19.7	18.1	-123.24	-1,970.8	2,120.7	3,295.5	3,263.9	31.66	104.096	
6,200.8	6,117.5	6,185.3	6,109.5	19.7	18.1	-123.24	-1,970.8	2,120.7	3,295.7	3,264.0	31.66	104.111	
6,250.0	6,164.5	6,238.1	6,162.3	19.7	18.2	-122.92	-1,970.6	2,121.0	3,303.9	3,272.4	31.41	105.171	
6,299.2	6,210.4	6,290.6	6,214.8	19.7	18.2	-122.52	-1,970.2	2,121.3	3,313.8	3,282.7	31.11	106.514	
6,300.0	6,211.1	6,291.4	6,215.6	19.7	18.2	-122.52	-1,970.2	2,121.3	3,314.0	3,282.9	31.11	106.537	
6,350.0	6,256.4	6,339.1	6,263.3	19.7	18.3	-121.99	-1,969.8	2,121.5	3,326.0	3,295.2	30.74	108.196	
6,397.6	6,298.0	6,374.5	6,298.7	19.7	18.4	-121.32	-1,969.5	2,121.7	3,339.2	3,308.8	30.35	110.039	
6,400.0	6,300.0	6,376.2	6,300.4	19.7	18.4	-121.29	-1,969.5	2,121.7	3,339.9	3,309.6	30.33	110.134	
6,450.0	6,341.8	6,412.0	6,336.2	19.7	18.4	-120.45	-1,969.3	2,121.9	3,355.7	3,325.8	29.91	112.188	
6,496.0	6,378.6	6,457.9	6,382.1	19.7	18.5	-119.69	-1,969.0	2,122.2	3,372.0	3,342.4	29.59	113.967	
6,500.0	6,381.6	6,461.7	6,385.9	19.7	18.5	-119.62	-1,969.0	2,122.2	3,373.4	3,343.9	29.56	114.118	
6,550.0	6,419.2	6,505.8	6,430.0	19.6	18.5	-118.62	-1,968.6	2,122.4	3,392.8	3,363.5	29.26	115.949	
6,594.5	6,450.7	6,534.0	6,458.2	19.6	18.6	-117.50	-1,968.2	2,122.6	3,411.5	3,382.4	29.06	117.402	
6,600.0	6,454.4	6,537.4	6,461.6	19.6	18.6	-117.35	-1,968.2	2,122.7	3,413.9	3,384.8	29.04	117.565	
6,650.0	6,487.1	6,566.5	6,490.7	19.6	18.6	-115.89	-1,967.9	2,122.9	3,436.7	3,407.8	28.95	118.715	
6,692.9	6,513.0	6,584.0	6,508.2	19.6	18.6	-114.39	-1,967.7	2,123.1	3,457.7	3,428.7	29.00	119.228	
6,700.0	6,517.0	6,584.0	6,508.2	19.6	18.6	-114.09	-1,967.7	2,123.1	3,461.2	3,432.2	29.02	119.279	
6,750.0	6,544.1	6,611.7	6,535.9	19.6	18.7	-112.26	-1,967.4	2,123.4	3,487.3	3,458.0	29.29	119.075	
6,791.3	6,564.2	6,626.6	6,550.8	19.7	18.7	-110.47	-1,967.3	2,123.6	3,510.0	3,480.3	29.68	118.281	
6,800.0	6,568.2	6,629.6	6,553.7	19.7	18.7	-110.08	-1,967.3	2,123.6	3,514.9	3,485.1	29.75	118.147	
6,850.0	6,589.1	6,645.0	6,569.2	19.8	18.7	-107.66	-1,967.2	2,123.8	3,543.8	3,513.4	30.41	116.544	
6,889.7	6,603.5	6,655.6	6,579.7	19.9	18.7	-105.56	-1,967.1	2,123.9	3,567.7	3,536.7	31.06	114.865	
6,900.0	6,606.9	6,658.0	6,582.2	19.9	18.7	-104.99	-1,967.1	2,123.9	3,574.0	3,542.8	31.24	114.423	
6,950.0	6,621.3	6,669.0	6,593.2	20.2	18.8	-102.08	-1,967.1	2,124.1	3,605.3	3,573.1	32.19	111.993	
6,988.2	6,630.0	6,669.0	6,593.2	20.6	18.8	-99.57	-1,967.1	2,124.1	3,629.8	3,596.8	32.98	110.060	
7,000.0	6,632.4	6,669.0	6,593.2	20.7	18.8	-98.76	-1,967.1	2,124.1	3,637.5	3,604.3	33.22	109.496	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 683-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	
7,050.0	6,640.0	6,669.0	6,593.2	21.4	18.8	-95.27	-1,967.1	2,124.1	3,670.6	3,636.3	34.26	107.146	
7,086.6	6,643.4	6,669.0	6,593.2	21.9	18.8	-92.63	-1,967.1	2,124.1	3,695.1	3,660.1	34.99	105.604	
7,100.0	6,644.2	6,669.0	6,593.2	22.1	18.8	-91.64	-1,967.1	2,124.1	3,704.2	3,669.0	35.24	105.111	
7,135.7	6,645.0	6,669.0	6,593.2	22.7	18.8	-88.99	-1,967.1	2,124.1	3,728.5	3,692.6	35.88	103.916	
7,185.0	6,644.9	6,669.0	6,593.2	23.6	18.8	-88.99	-1,967.1	2,124.1	3,762.4	3,725.5	36.84	102.128	
7,200.0	6,644.9	6,669.0	6,593.2	23.9	18.8	-88.99	-1,967.1	2,124.1	3,772.7	3,735.6	37.13	101.605	
7,283.4	6,644.8	6,669.0	6,593.2	25.6	18.8	-88.99	-1,967.1	2,124.1	3,831.0	3,792.1	38.86	98.583	
7,300.0	6,644.8	6,669.0	6,593.2	25.9	18.8	-88.99	-1,967.1	2,124.1	3,842.6	3,803.4	39.20	98.019	
7,381.9	6,644.7	6,669.0	6,593.2	27.7	18.8	-88.99	-1,967.1	2,124.1	3,900.8	3,859.8	41.01	95.124	
7,400.0	6,644.7	6,669.0	6,593.2	28.1	18.8	-88.99	-1,967.1	2,124.1	3,913.8	3,872.4	41.41	94.520	
7,480.3	6,644.6	6,669.0	6,593.2	29.9	18.8	-88.99	-1,967.1	2,124.1	3,971.9	3,928.6	43.27	91.803	
7,500.0	6,644.6	6,669.0	6,593.2	30.3	18.8	-88.99	-1,967.1	2,124.1	3,986.3	3,942.6	43.72	91.174	
7,578.7	6,644.5	6,669.0	6,593.2	32.2	18.8	-88.99	-1,967.1	2,124.1	4,044.1	3,998.5	45.61	88.675	
7,600.0	6,644.4	6,669.0	6,593.2	32.7	18.8	-88.99	-1,967.1	2,124.1	4,059.9	4,013.8	46.12	88.037	
7,677.1	6,644.3	6,669.0	6,593.2	34.6	18.8	-88.99	-1,967.1	2,124.1	4,117.4	4,069.4	48.01	85.760	
7,700.0	6,644.3	6,669.0	6,593.2	35.1	18.8	-88.99	-1,967.1	2,124.1	4,134.6	4,086.0	48.57	85.123	
7,775.6	6,644.2	6,669.0	6,593.2	37.0	18.8	-88.99	-1,967.1	2,124.1	4,191.8	4,141.3	50.47	83.059	
7,800.0	6,644.2	6,669.0	6,593.2	37.6	18.8	-88.99	-1,967.1	2,124.1	4,210.4	4,159.3	51.08	82.428	
7,874.0	6,644.1	6,669.0	6,593.2	39.5	18.8	-88.99	-1,967.1	2,124.1	4,267.1	4,214.1	52.97	80.564	
7,900.0	6,644.1	6,669.0	6,593.2	40.1	18.8	-88.99	-1,967.1	2,124.1	4,287.2	4,233.5	53.63	79.942	
7,972.4	6,644.0	6,669.0	6,593.2	42.0	18.8	-88.99	-1,967.1	2,124.1	4,343.3	4,287.8	55.50	78.261	
8,000.0	6,643.9	6,669.0	6,593.2	42.7	18.8	-88.99	-1,967.1	2,124.1	4,364.9	4,308.6	56.21	77.653	
8,070.8	6,643.9	6,669.0	6,593.2	44.5	18.8	-88.99	-1,967.1	2,124.1	4,420.5	4,362.4	58.06	76.138	
8,100.0	6,643.8	6,669.0	6,593.2	45.2	18.8	-88.99	-1,967.1	2,124.1	4,443.5	4,384.6	58.82	75.545	
8,169.3	6,643.7	6,669.0	6,593.2	47.0	18.8	-88.99	-1,967.1	2,124.1	4,498.4	4,437.8	60.64	74.179	
8,200.0	6,643.7	6,669.0	6,593.2	47.9	18.8	-88.99	-1,967.1	2,124.1	4,522.9	4,461.5	61.45	73.601	
8,267.7	6,643.6	6,669.0	6,593.2	49.6	18.8	-88.99	-1,967.1	2,124.1	4,577.1	4,513.9	63.25	72.370	
8,300.0	6,643.6	6,669.0	6,593.2	50.5	18.8	-88.99	-1,967.1	2,124.1	4,603.1	4,539.0	64.10	71.808	
8,366.1	6,643.5	6,669.0	6,593.2	52.2	18.8	-88.99	-1,967.1	2,124.1	4,656.6	4,590.8	65.87	70.697	
8,400.0	6,643.4	6,669.0	6,593.2	53.1	18.8	-88.99	-1,967.1	2,124.1	4,684.2	4,617.4	66.77	70.152	
8,464.5	6,643.4	6,669.0	6,593.2	54.8	18.8	-88.99	-1,967.1	2,124.1	4,736.8	4,668.3	68.50	69.148	
8,500.0	6,643.3	6,669.0	6,593.2	55.8	18.8	-88.99	-1,967.1	2,124.1	4,765.9	4,696.4	69.45	68.620	
8,563.0	6,643.2	6,669.0	6,593.2	57.5	18.8	-88.99	-1,967.1	2,124.1	4,817.7	4,746.5	71.15	67.711	
8,600.0	6,643.2	6,669.0	6,593.2	58.5	18.8	-88.99	-1,967.1	2,124.1	4,848.3	4,776.1	72.15	67.199	
8,661.4	6,643.1	6,669.0	6,593.2	60.1	18.8	-88.99	-1,967.1	2,124.1	4,899.2	4,825.4	73.81	66.377	
8,700.0	6,643.1	6,669.0	6,593.2	61.2	18.8	-88.99	-1,967.1	2,124.1	4,931.4	4,856.5	74.85	65.880	
8,759.8	6,643.0	6,669.0	6,593.2	62.8	18.8	-88.99	-1,967.1	2,124.1	4,981.3	4,904.9	76.48	65.135	
8,800.0	6,643.0	6,669.0	6,593.2	63.9	18.8	-88.99	-1,967.1	2,124.1	5,015.0	4,937.5	77.57	64.654	
8,858.2	6,642.9	6,669.0	6,593.2	65.4	18.8	-88.99	-1,967.1	2,124.1	5,064.1	4,984.9	79.15	63.978	
8,900.0	6,642.8	6,669.0	6,593.2	66.6	18.8	-88.99	-1,967.1	2,124.1	5,099.3	5,019.0	80.29	63.511	
8,956.7	6,642.8	6,669.0	6,593.2	68.1	18.8	-88.99	-1,967.1	2,124.1	5,147.3	5,065.5	81.84	62.898	
9,000.0	6,642.7	6,669.0	6,593.2	69.3	18.8	-88.99	-1,967.1	2,124.1	5,184.1	5,101.1	83.02	62.445	
9,055.1	6,642.6	6,669.0	6,593.2	70.8	18.8	-88.99	-1,967.1	2,124.1	5,231.1	5,146.6	84.53	61.887	
9,100.0	6,642.6	6,669.0	6,593.2	72.0	18.8	-88.99	-1,967.1	2,124.1	5,269.5	5,183.7	85.75	61.449	
9,153.5	6,642.5	6,669.0	6,593.2	73.5	18.8	-88.99	-1,967.1	2,124.1	5,315.4	5,228.2	87.22	60.941	
9,200.0	6,642.5	6,669.0	6,593.2	74.7	18.8	-88.99	-1,967.1	2,124.1	5,355.4	5,266.9	88.50	60.516	
9,251.9	6,642.4	6,669.0	6,593.2	76.2	18.8	-88.99	-1,967.1	2,124.1	5,400.2	5,310.2	89.92	60.054	
9,300.0	6,642.3	6,669.0	6,593.2	77.5	18.8	-88.99	-1,967.1	2,124.1	5,441.7	5,350.5	91.24	59.641	
9,350.4	6,642.3	6,669.0	6,593.2	78.9	18.8	-88.99	-1,967.1	2,124.1	5,485.4	5,392.8	92.63	59.220	
9,400.0	6,642.2	6,669.0	6,593.2	80.2	18.8	-88.99	-1,967.1	2,124.1	5,528.5	5,434.5	93.99	58.819	
9,448.8	6,642.1	6,669.0	6,593.2	81.6	18.8	-88.99	-1,967.1	2,124.1	5,571.0	5,475.7	95.34	58.435	
9,500.0	6,642.1	6,669.0	6,593.2	83.0	18.8	-88.99	-1,967.1	2,124.1	5,615.8	5,519.0	96.75	58.046	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 683-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	6,642.0	6,669.0	6,593.2	84.3	18.8	-88.99	-1,967.1	2,124.1	5,657.1	5,559.1	98.05	57.696	
9,600.0	6,642.0	6,669.0	6,593.2	85.7	18.8	-88.99	-1,967.1	2,124.1	5,703.4	5,603.9	99.51	57.318	
9,645.6	6,641.9	6,669.0	6,593.2	87.0	18.8	-88.99	-1,967.1	2,124.1	5,743.6	5,642.8	100.77	56.999	
9,700.0	6,641.8	6,669.0	6,593.2	88.5	18.8	-88.99	-1,967.1	2,124.1	5,791.5	5,689.2	102.27	56.631	
9,744.1	6,641.8	6,669.0	6,593.2	89.7	18.8	-88.99	-1,967.1	2,124.1	5,830.4	5,726.9	103.49	56.341	
9,800.0	6,641.7	6,669.0	6,593.2	91.2	18.8	-88.99	-1,967.1	2,124.1	5,879.9	5,774.9	105.03	55.983	
9,842.5	6,641.7	6,669.0	6,593.2	92.4	18.8	-88.99	-1,967.1	2,124.1	5,917.6	5,811.4	106.21	55.718	
9,900.0	6,641.6	6,657.5	6,581.7	94.0	18.7	-88.75	-1,967.1	2,123.9	5,968.7	5,861.0	107.77	55.385	
9,940.9	6,641.5	6,657.1	6,581.3	95.1	18.7	-88.74	-1,967.1	2,123.9	6,005.2	5,896.3	108.90	55.144	
10,000.0	6,641.5	6,656.5	6,580.7	96.7	18.7	-88.73	-1,967.1	2,123.9	6,057.9	5,947.4	110.53	54.806	
10,039.3	6,641.4	6,656.2	6,580.3	97.8	18.7	-88.72	-1,967.1	2,123.9	6,093.1	5,981.5	111.62	54.586	
10,100.0	6,641.3	6,655.6	6,579.8	99.5	18.7	-88.71	-1,967.1	2,123.9	6,147.4	6,034.1	113.30	54.256	
10,137.8	6,641.3	6,655.2	6,579.4	100.6	18.7	-88.70	-1,967.1	2,123.9	6,181.3	6,066.9	114.35	54.056	
10,200.0	6,641.2	6,654.6	6,578.8	102.3	18.7	-88.69	-1,967.1	2,123.9	6,237.2	6,121.1	116.07	53.735	
10,236.2	6,641.2	6,654.3	6,578.5	103.3	18.7	-88.68	-1,967.1	2,123.9	6,269.8	6,152.7	117.08	53.552	
10,300.0	6,641.1	6,653.7	6,577.8	105.0	18.7	-88.67	-1,967.1	2,123.9	6,327.3	6,208.5	118.85	53.239	
10,334.6	6,641.0	6,653.4	6,577.5	106.0	18.7	-88.66	-1,967.1	2,123.9	6,358.6	6,238.8	119.81	53.073	
10,400.0	6,641.0	6,652.7	6,576.9	107.8	18.7	-88.65	-1,967.1	2,123.9	6,417.7	6,296.1	121.62	52.768	
10,433.0	6,640.9	6,652.4	6,576.6	108.7	18.7	-88.64	-1,967.1	2,123.9	6,447.7	6,325.1	122.54	52.617	
10,500.0	6,640.8	6,651.8	6,576.0	110.6	18.7	-88.63	-1,967.1	2,123.9	6,508.4	6,384.0	124.40	52.319	
10,531.5	6,640.8	6,651.5	6,575.7	111.5	18.7	-88.62	-1,967.2	2,123.9	6,537.0	6,411.7	125.27	52.182	
10,600.0	6,640.7	6,650.8	6,575.0	113.4	18.7	-88.61	-1,967.2	2,123.8	6,599.4	6,472.2	127.18	51.891	
10,629.9	6,640.7	6,650.6	6,574.7	114.2	18.7	-88.60	-1,967.2	2,123.8	6,626.6	6,498.6	128.01	51.767	
10,700.0	6,640.6	6,649.9	6,574.1	116.1	18.7	-88.59	-1,967.2	2,123.8	6,690.6	6,560.6	129.96	51.484	
10,728.3	6,640.5	6,649.6	6,573.8	116.9	18.7	-88.58	-1,967.2	2,123.8	6,716.5	6,585.7	130.74	51.371	
10,800.0	6,640.5	6,649.0	6,573.1	118.9	18.7	-88.57	-1,967.2	2,123.8	6,782.1	6,649.3	132.74	51.094	
10,826.7	6,640.4	6,648.7	6,572.9	119.7	18.7	-88.56	-1,967.2	2,123.8	6,806.6	6,673.1	133.48	50.993	
10,900.0	6,640.3	6,648.0	6,572.2	121.7	18.7	-88.55	-1,967.2	2,123.8	6,873.8	6,738.2	135.52	50.722	
10,925.2	6,640.3	6,647.8	6,571.9	122.4	18.7	-88.54	-1,967.2	2,123.8	6,896.9	6,760.7	136.22	50.631	
11,000.0	6,640.2	6,647.1	6,571.2	124.5	18.7	-88.53	-1,967.2	2,123.8	6,965.7	6,827.4	138.30	50.366	
11,023.6	6,640.2	6,646.9	6,571.0	125.1	18.7	-88.52	-1,967.2	2,123.8	6,987.4	6,848.5	138.96	50.285	
11,100.0	6,640.1	6,646.1	6,570.3	127.3	18.7	-88.51	-1,967.2	2,123.8	7,057.8	6,916.8	141.08	50.026	
11,122.0	6,640.0	6,645.9	6,570.1	127.9	18.7	-88.50	-1,967.2	2,123.8	7,078.2	6,936.5	141.70	49.953	
11,200.0	6,639.9	6,645.2	6,569.4	130.1	18.7	-88.49	-1,967.2	2,123.8	7,150.2	7,006.3	143.87	49.699	
11,220.4	6,639.9	6,645.0	6,569.2	130.6	18.7	-88.48	-1,967.2	2,123.8	7,169.1	7,024.7	144.44	49.634	
11,300.0	6,639.8	6,644.3	6,568.4	132.8	18.7	-88.47	-1,967.2	2,123.8	7,242.8	7,096.1	146.65	49.386	
11,318.9	6,639.8	6,644.1	6,568.3	133.4	18.7	-88.46	-1,967.2	2,123.8	7,260.3	7,113.1	147.18	49.329	
11,400.0	6,639.7	6,643.4	6,567.5	135.6	18.7	-88.45	-1,967.2	2,123.8	7,335.5	7,186.1	149.44	49.086	
11,417.3	6,639.7	6,643.2	6,567.4	136.1	18.7	-88.44	-1,967.2	2,123.8	7,351.6	7,201.7	149.92	49.036	
11,500.0	6,639.6	6,642.4	6,566.6	138.4	18.7	-88.43	-1,967.2	2,123.7	7,428.5	7,276.2	152.23	48.798	
11,515.7	6,639.5	6,642.3	6,566.4	138.9	18.7	-88.42	-1,967.2	2,123.7	7,443.1	7,290.4	152.67	48.754	
11,600.0	6,639.4	6,641.5	6,565.7	141.2	18.7	-88.41	-1,967.2	2,123.7	7,521.6	7,366.6	155.02	48.521	
11,614.1	6,639.4	6,641.4	6,565.5	141.6	18.7	-88.40	-1,967.2	2,123.7	7,534.8	7,379.4	155.41	48.483	
11,700.0	6,639.3	6,640.6	6,564.7	144.0	18.7	-88.39	-1,967.2	2,123.7	7,614.9	7,457.1	157.80	48.255	
11,712.6	6,639.3	6,640.5	6,564.6	144.3	18.7	-88.39	-1,967.2	2,123.7	7,626.6	7,468.5	158.16	48.222	
11,800.0	6,639.2	6,639.6	6,563.8	146.8	18.7	-88.37	-1,967.2	2,123.7	7,708.4	7,547.8	160.59	47.999	
11,811.0	6,639.2	6,639.5	6,563.7	147.1	18.7	-88.37	-1,967.2	2,123.7	7,718.6	7,557.7	160.90	47.971	
11,900.0	6,639.1	6,638.7	6,562.9	149.6	18.7	-88.35	-1,967.2	2,123.7	7,802.0	7,638.6	163.38	47.753	
11,909.4	6,639.0	6,638.6	6,562.8	149.8	18.7	-88.35	-1,967.2	2,123.7	7,810.8	7,647.2	163.65	47.730	
12,000.0	6,638.9	6,637.8	6,562.0	152.4	18.7	-88.33	-1,967.2	2,123.7	7,895.8	7,729.6	166.17	47.515	
12,007.8	6,638.9	6,637.7	6,561.9	152.6	18.7	-88.33	-1,967.2	2,123.7	7,903.1	7,736.7	166.39	47.497	
12,100.0	6,638.8	6,636.9	6,561.1	155.2	18.7	-88.31	-1,967.2	2,123.7	7,989.7	7,820.7	168.96	47.286	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD PETERSON B #10-24D - Wellbore #1 - Wellbore #1										Offset Site Error:	0.0 usft
Survey Program: 683-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	6,638.8	6,636.8	6,561.0	155.3	18.7	-88.31	-1,967.2	2,123.7	7,995.6	7,826.5	169.14	47.272	
12,200.0	6,638.7	6,636.0	6,560.1	157.9	18.7	-88.29	-1,967.2	2,123.7	8,083.8	7,912.0	171.76	47.066	
12,204.7	6,638.7	6,635.9	6,560.1	158.1	18.7	-88.29	-1,967.2	2,123.7	8,088.2	7,916.3	171.89	47.055	
12,300.0	6,638.5	6,635.1	6,559.2	160.7	18.7	-88.27	-1,967.2	2,123.7	8,178.0	8,003.5	174.55	46.853	
12,303.1	6,638.5	6,635.0	6,559.2	160.8	18.7	-88.27	-1,967.2	2,123.7	8,181.0	8,006.3	174.64	46.846	
12,400.0	6,638.4	6,634.1	6,558.3	163.5	18.7	-88.25	-1,967.2	2,123.7	8,272.4	8,095.0	177.34	46.647	
12,401.5	6,638.4	6,634.1	6,558.3	163.6	18.7	-88.25	-1,967.2	2,123.7	8,273.8	8,096.4	177.38	46.644	
12,500.0	6,638.3	6,633.2	6,557.4	166.3	18.7	-88.23	-1,967.2	2,123.6	8,366.9	8,186.7	180.13	46.448	
12,598.4	6,638.2	6,632.3	6,556.5	169.1	18.7	-88.21	-1,967.3	2,123.6	8,460.0	8,277.1	182.88	46.259	
12,600.0	6,638.2	6,632.3	6,556.5	169.1	18.7	-88.21	-1,967.3	2,123.6	8,461.5	8,278.5	182.93	46.256	
12,696.8	6,638.0	6,631.4	6,555.6	171.8	18.7	-88.19	-1,967.3	2,123.6	8,553.2	8,367.6	185.63	46.077	
12,700.0	6,638.0	6,631.4	6,555.6	171.9	18.7	-88.19	-1,967.3	2,123.6	8,556.2	8,370.5	185.72	46.071	
12,795.2	6,637.9	6,630.6	6,554.7	174.6	18.7	-88.18	-1,967.3	2,123.6	8,646.6	8,458.2	188.38	45.900	
12,800.0	6,637.9	6,630.5	6,554.7	174.7	18.7	-88.17	-1,967.3	2,123.6	8,651.1	8,462.5	188.51	45.891	
12,893.7	6,637.8	6,629.7	6,553.8	177.3	18.7	-88.16	-1,967.3	2,123.6	8,740.0	8,548.9	191.13	45.728	
12,900.0	6,637.8	6,629.6	6,553.8	177.5	18.7	-88.16	-1,967.3	2,123.6	8,746.0	8,554.7	191.31	45.717	
12,992.1	6,637.7	6,628.8	6,552.9	180.1	18.7	-88.14	-1,967.3	2,123.6	8,833.6	8,639.7	193.88	45.562	
13,000.0	6,637.6	6,628.7	6,552.9	180.3	18.7	-88.14	-1,967.3	2,123.6	8,841.1	8,647.0	194.10	45.549	
13,090.5	6,637.5	6,627.9	6,552.1	182.8	18.7	-88.12	-1,967.3	2,123.6	8,927.3	8,730.6	196.63	45.401	
13,100.0	6,637.5	6,627.8	6,552.0	183.1	18.7	-88.12	-1,967.3	2,123.6	8,936.3	8,739.4	196.90	45.386	
13,188.9	6,637.4	6,627.0	6,551.2	185.6	18.7	-88.10	-1,967.3	2,123.6	9,021.1	8,821.7	199.38	45.245	
13,200.0	6,637.4	6,626.9	6,551.1	185.9	18.7	-88.10	-1,967.3	2,123.6	9,031.6	8,831.9	199.69	45.228	
13,287.4	6,637.3	6,626.1	6,550.3	188.4	18.7	-88.08	-1,967.3	2,123.6	9,114.9	8,912.8	202.13	45.094	
13,300.0	6,637.3	6,626.0	6,550.2	188.7	18.7	-88.08	-1,967.3	2,123.6	9,127.0	8,924.5	202.49	45.075	
13,385.8	6,637.1	6,625.2	6,549.4	191.1	18.7	-88.06	-1,967.3	2,123.6	9,208.9	9,004.0	204.88	44.947	
13,400.0	6,637.1	6,625.1	6,549.3	191.5	18.7	-88.06	-1,967.3	2,123.6	9,222.5	9,017.2	205.28	44.926	
13,484.2	6,637.0	6,624.4	6,548.5	193.9	18.7	-88.04	-1,967.3	2,123.5	9,303.0	9,095.3	207.63	44.804	
13,500.0	6,637.0	6,624.2	6,548.4	194.3	18.7	-88.04	-1,967.3	2,123.5	9,318.1	9,110.0	208.08	44.782	
13,582.6	6,636.9	6,623.5	6,547.7	196.6	18.7	-88.03	-1,967.3	2,123.5	9,397.1	9,186.7	210.39	44.666	
13,600.0	6,636.9	6,623.3	6,547.5	197.1	18.7	-88.02	-1,967.3	2,123.5	9,413.7	9,202.9	210.87	44.642	
13,681.1	6,636.8	6,622.6	6,546.8	199.4	18.7	-88.01	-1,967.3	2,123.5	9,491.4	9,278.2	213.14	44.531	
13,700.0	6,636.7	6,622.4	6,546.6	199.9	18.7	-88.00	-1,967.3	2,123.5	9,509.5	9,295.8	213.67	44.506	
13,779.5	6,636.6	6,621.7	6,545.9	202.1	18.7	-87.99	-1,967.3	2,123.5	9,585.7	9,369.8	215.89	44.401	
13,800.0	6,636.6	6,621.6	6,545.7	202.7	18.7	-87.98	-1,967.3	2,123.5	9,605.4	9,388.9	216.46	44.374	
13,877.9	6,636.5	6,620.9	6,545.0	204.9	18.7	-87.97	-1,967.3	2,123.5	9,680.1	9,461.5	218.64	44.274	
13,900.0	6,636.5	6,620.7	6,544.8	205.5	18.7	-87.97	-1,967.3	2,123.5	9,701.3	9,482.0	219.26	44.246	
13,976.3	6,636.4	6,620.0	6,544.2	207.6	18.7	-87.95	-1,967.3	2,123.5	9,774.6	9,553.2	221.39	44.150	
14,000.0	6,636.3	6,619.8	6,543.9	208.3	18.7	-87.95	-1,967.3	2,123.5	9,797.3	9,575.2	222.06	44.121	
14,074.8	6,636.3	6,619.1	6,543.3	210.4	18.7	-87.93	-1,967.3	2,123.5	9,869.1	9,645.0	224.15	44.030	
14,100.0	6,636.2	6,618.9	6,543.1	211.1	18.7	-87.93	-1,967.3	2,123.5	9,893.4	9,668.5	224.85	43.999	
14,173.2	6,636.1	6,618.3	6,542.4	213.2	18.7	-87.91	-1,967.4	2,123.5	9,963.8	9,736.9	226.90	43.913	
14,200.0	6,636.1	6,618.0	6,542.2	213.9	18.7	-87.91	-1,967.4	2,123.5	9,989.6	9,761.9	227.65	43.881 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 510-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		
6,350.0	6,256.4	6,372.5	6,293.9	19.7	19.5	-8.70	-586.3	-9,680.6	9,985.8	9,953.9	31.91	312.972		
6,397.6	6,298.0	6,424.0	6,345.3	19.7	19.6	-9.05	-586.7	-9,680.3	9,962.7	9,931.6	31.06	320.757		
6,400.0	6,300.0	6,424.0	6,345.3	19.7	19.6	-9.07	-586.7	-9,680.3	9,961.5	9,930.5	31.01	321.222		
6,450.0	6,341.8	6,434.1	6,355.4	19.7	19.6	-9.50	-586.7	-9,680.2	9,934.1	9,904.2	29.96	331.604		
6,496.0	6,378.6	6,471.1	6,392.4	19.7	19.6	-10.00	-586.9	-9,680.0	9,906.5	9,877.5	28.96	342.016		
6,500.0	6,381.6	6,474.2	6,395.5	19.7	19.6	-10.04	-586.9	-9,680.0	9,904.0	9,875.1	28.88	342.974		
6,550.0	6,419.2	6,512.0	6,433.3	19.6	19.7	-10.71	-587.1	-9,679.9	9,871.2	9,843.5	27.74	355.859		
6,594.5	6,450.7	6,543.6	6,464.9	19.6	19.7	-11.42	-587.3	-9,679.7	9,840.0	9,813.3	26.70	368.513		
6,600.0	6,454.4	6,547.4	6,468.7	19.6	19.7	-11.52	-587.3	-9,679.7	9,835.9	9,809.4	26.57	370.171		
6,650.0	6,487.1	6,580.2	6,501.5	19.6	19.8	-12.52	-587.5	-9,679.5	9,798.3	9,772.9	25.41	385.631		
6,692.9	6,513.0	6,604.7	6,526.1	19.6	19.8	-13.57	-587.6	-9,679.4	9,764.3	9,739.9	24.45	399.358		
6,700.0	6,517.0	6,608.6	6,529.9	19.6	19.8	-13.76	-587.6	-9,679.4	9,758.5	9,734.3	24.29	401.674		
6,750.0	6,544.1	6,634.3	6,555.6	19.6	19.9	-15.34	-587.7	-9,679.3	9,716.8	9,693.5	23.30	417.055		
6,791.3	6,564.2	6,653.3	6,574.7	19.7	19.9	-17.00	-587.7	-9,679.2	9,681.0	9,658.4	22.61	428.094		
6,800.0	6,568.2	6,657.1	6,578.4	19.7	19.9	-17.40	-587.7	-9,679.2	9,673.3	9,650.8	22.52	429.611		
6,850.0	6,589.1	6,676.9	6,598.3	19.8	19.9	-20.14	-587.6	-9,679.2	9,628.3	9,606.2	22.10	435.747		
6,889.7	6,603.5	6,690.6	6,611.9	19.9	20.0	-23.06	-587.6	-9,679.1	9,591.6	9,569.4	22.17	432.550		
6,900.0	6,606.9	6,693.8	6,615.1	19.9	20.0	-23.95	-587.6	-9,679.1	9,582.0	9,559.7	22.28	430.164		
6,950.0	6,621.3	6,707.4	6,628.8	20.2	20.0	-29.46	-587.5	-9,679.1	9,534.6	9,511.1	23.44	406.729		
6,988.2	6,630.0	6,715.7	6,637.0	20.6	20.0	-35.53	-587.5	-9,679.0	9,497.7	9,472.4	25.36	374.453		
7,000.0	6,632.4	6,717.9	6,639.2	20.7	20.0	-37.88	-587.5	-9,679.0	9,486.3	9,460.1	26.19	362.177		
7,050.0	6,640.0	6,725.1	6,646.4	21.4	20.0	-51.38	-587.5	-9,679.0	9,437.3	9,406.2	31.14	303.063		
7,086.6	6,643.4	6,728.2	6,649.6	21.9	20.0	-66.09	-587.4	-9,679.0	9,401.2	9,365.4	35.80	262.581		
7,100.0	6,644.2	6,729.0	6,650.3	22.1	20.0	-72.60	-587.4	-9,679.0	9,388.0	9,350.6	37.39	251.115		
7,135.7	6,645.0	6,729.7	6,651.0	22.7	20.0	-91.76	-587.4	-9,679.0	9,352.7	9,312.8	39.92	234.261		
7,185.0	6,644.9	6,729.5	6,650.8	23.6	20.0	-91.75	-587.4	-9,679.0	9,303.9	9,263.0	40.88	227.569		
7,200.0	6,644.9	6,729.5	6,650.8	23.9	20.0	-91.75	-587.4	-9,679.0	9,289.1	9,247.9	41.17	225.602		
7,283.4	6,644.8	6,729.2	6,650.5	25.6	20.0	-91.74	-587.4	-9,679.0	9,206.5	9,163.6	42.90	214.595		
7,300.0	6,644.8	6,729.1	6,650.4	25.9	20.0	-91.74	-587.4	-9,679.0	9,190.1	9,146.9	43.24	212.517		
7,381.9	6,644.7	6,728.8	6,650.2	27.7	20.0	-91.73	-587.4	-9,679.0	9,109.1	9,064.1	45.05	202.214		
7,400.0	6,644.7	6,728.8	6,650.1	28.1	20.0	-91.72	-587.4	-9,679.0	9,091.2	9,045.8	45.45	200.044		
7,480.3	6,644.6	6,728.5	6,649.8	29.9	20.0	-91.71	-587.4	-9,679.0	9,011.8	8,964.5	47.30	190.516		
7,500.0	6,644.6	6,728.4	6,649.7	30.3	20.0	-91.71	-587.4	-9,679.0	8,992.3	8,944.6	47.76	188.291		
7,578.7	6,644.5	6,728.1	6,649.5	32.2	20.0	-91.70	-587.4	-9,679.0	8,914.5	8,864.8	49.64	179.583		
7,600.0	6,644.4	6,728.1	6,649.4	32.7	20.0	-91.69	-587.4	-9,679.0	8,893.5	8,843.3	50.15	177.342		
7,677.1	6,644.3	6,727.8	6,649.1	34.6	20.0	-91.68	-587.4	-9,679.0	8,817.2	8,765.2	52.04	169.424		
7,700.0	6,644.3	6,727.7	6,649.0	35.1	20.0	-91.68	-587.4	-9,679.0	8,794.6	8,742.0	52.60	167.189		
7,775.6	6,644.2	6,727.4	6,648.8	37.0	20.0	-91.67	-587.4	-9,679.0	8,719.9	8,665.4	54.50	160.011		
7,800.0	6,644.2	6,727.4	6,648.7	37.6	20.0	-91.67	-587.4	-9,679.0	8,695.8	8,640.7	55.11	157.796		
7,874.0	6,644.1	6,727.1	6,648.4	39.5	20.0	-91.65	-587.4	-9,679.0	8,622.7	8,565.7	56.99	151.297		
7,900.0	6,644.1	6,727.0	6,648.3	40.1	20.0	-91.65	-587.4	-9,679.0	8,597.0	8,539.4	57.65	149.115		
7,972.4	6,644.0	6,726.8	6,648.1	42.0	20.0	-91.64	-587.4	-9,679.0	8,525.5	8,466.0	59.52	143.233		
8,000.0	6,643.9	6,726.7	6,648.0	42.7	20.0	-91.64	-587.4	-9,679.0	8,498.3	8,438.0	60.23	141.089		
8,070.8	6,643.9	6,726.4	6,647.7	44.5	20.0	-91.63	-587.4	-9,679.0	8,428.3	8,366.2	62.08	135.765		
8,100.0	6,643.8	6,726.3	6,647.6	45.2	20.0	-91.62	-587.4	-9,679.0	8,399.5	8,336.7	62.84	133.665		
8,169.3	6,643.7	6,726.1	6,647.4	47.0	20.0	-91.61	-587.5	-9,679.0	8,331.2	8,266.5	64.66	128.841		
8,200.0	6,643.7	6,725.9	6,647.3	47.9	20.0	-91.61	-587.5	-9,679.0	8,300.8	8,235.4	65.47	126.787		
8,267.7	6,643.6	6,725.7	6,647.0	49.6	20.0	-91.60	-587.5	-9,679.0	8,234.0	8,166.8	67.26	122.413		
8,300.0	6,643.6	6,725.6	6,646.9	50.5	20.0	-91.59	-587.5	-9,679.0	8,202.2	8,134.0	68.12	120.407		
8,366.1	6,643.5	6,725.3	6,646.7	52.2	20.0	-91.58	-587.5	-9,679.0	8,136.9	8,067.1	69.88	116.435		
8,400.0	6,643.4	6,725.2	6,646.6	53.1	20.0	-91.58	-587.5	-9,679.0	8,103.5	8,032.7	70.79	114.478		
8,464.5	6,643.4	6,725.0	6,646.3	54.8	20.0	-91.57	-587.5	-9,679.0	8,039.9	7,967.4	72.52	110.868		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 510-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	
8,500.0	6,643.3	6,724.9	6,646.2	55.8	20.0	-91.56	-587.5	-9,679.0	8,004.9	7,931.5	73.47	108.958	
8,563.0	6,643.2	6,724.6	6,646.0	57.5	20.0	-91.55	-587.5	-9,679.0	7,942.9	7,867.7	75.16	105.674	
8,600.0	6,643.2	6,724.5	6,645.8	58.5	20.0	-91.55	-587.5	-9,679.0	7,906.4	7,830.2	76.16	103.812	
8,661.4	6,643.1	6,724.3	6,645.6	60.1	20.0	-91.54	-587.5	-9,679.0	7,845.9	7,768.0	77.82	100.820	
8,700.0	6,643.1	6,724.1	6,645.5	61.2	20.0	-91.53	-587.5	-9,679.0	7,807.8	7,729.0	78.86	99.004	
8,759.8	6,643.0	6,723.9	6,645.2	62.8	20.0	-91.52	-587.5	-9,679.0	7,748.9	7,668.4	80.49	96.275	
8,800.0	6,643.0	6,723.8	6,645.1	63.9	20.0	-91.52	-587.5	-9,679.0	7,709.4	7,627.8	81.58	94.504	
8,858.2	6,642.9	6,723.6	6,644.9	65.4	20.0	-91.51	-587.5	-9,679.0	7,652.0	7,568.8	83.16	92.013	
8,900.0	6,642.8	6,723.4	6,644.7	66.6	20.0	-91.50	-587.5	-9,679.0	7,610.9	7,526.6	84.30	90.286	
8,956.7	6,642.8	6,723.2	6,644.5	68.1	20.0	-91.49	-587.5	-9,679.0	7,555.1	7,469.3	85.84	88.010	
9,000.0	6,642.7	6,723.0	6,644.4	69.3	20.0	-91.49	-587.5	-9,679.0	7,512.5	7,425.5	87.03	86.325	
9,055.1	6,642.6	6,722.8	6,644.2	70.8	20.0	-91.48	-587.5	-9,679.0	7,458.3	7,369.8	88.53	84.243	
9,100.0	6,642.6	6,722.7	6,644.0	72.0	20.0	-91.47	-587.5	-9,679.0	7,414.1	7,324.4	89.76	82.599	
9,153.5	6,642.5	6,722.5	6,643.8	73.5	20.0	-91.46	-587.5	-9,679.0	7,361.5	7,270.3	91.23	80.694	
9,200.0	6,642.5	6,722.3	6,643.6	74.7	20.0	-91.46	-587.5	-9,679.0	7,315.8	7,223.3	92.50	79.089	
9,251.9	6,642.4	6,722.1	6,643.4	76.2	20.0	-91.45	-587.5	-9,679.0	7,264.7	7,170.8	93.93	77.345	
9,300.0	6,642.3	6,721.9	6,643.3	77.5	20.0	-91.44	-587.5	-9,679.0	7,217.5	7,122.3	95.25	75.778	
9,350.4	6,642.3	6,721.7	6,643.1	78.9	20.0	-91.43	-587.5	-9,679.0	7,168.0	7,071.4	96.63	74.180	
9,400.0	6,642.2	6,721.6	6,642.9	80.2	20.0	-91.42	-587.5	-9,679.0	7,119.3	7,021.3	98.00	72.649	
9,448.8	6,642.1	6,721.4	6,642.7	81.6	20.0	-91.42	-587.5	-9,679.0	7,071.4	6,972.0	99.34	71.184	
9,500.0	6,642.1	6,721.2	6,642.5	83.0	20.0	-91.41	-587.5	-9,679.0	7,021.1	6,920.4	100.75	69.689	
9,547.2	6,642.0	6,721.0	6,642.3	84.3	20.0	-91.40	-587.5	-9,679.0	6,974.8	6,872.7	102.05	68.346	
9,600.0	6,642.0	6,720.8	6,642.1	85.7	20.0	-91.39	-587.5	-9,679.0	6,923.0	6,819.5	103.51	66.884	
9,645.6	6,641.9	6,720.6	6,642.0	87.0	20.0	-91.39	-587.5	-9,679.0	6,878.2	6,773.4	104.77	65.652	
9,700.0	6,641.8	6,720.4	6,641.8	88.5	20.0	-91.38	-587.5	-9,679.0	6,824.9	6,718.7	106.27	64.224	
9,744.1	6,641.8	6,720.3	6,641.6	89.7	20.0	-91.37	-587.5	-9,679.0	6,781.7	6,674.2	107.49	63.094	
9,800.0	6,641.7	6,720.1	6,641.4	91.2	20.0	-91.36	-587.5	-9,679.0	6,726.9	6,617.9	109.03	61.697	
9,842.5	6,641.7	6,719.9	6,641.2	92.4	20.0	-91.36	-587.5	-9,679.0	6,685.3	6,575.1	110.21	60.661	
9,900.0	6,641.6	6,719.7	6,641.0	94.0	20.0	-91.35	-587.5	-9,679.0	6,628.9	6,517.2	111.80	59.294	
9,940.9	6,641.5	6,719.5	6,640.9	95.1	20.0	-91.34	-587.5	-9,679.0	6,588.9	6,475.9	112.93	58.344	
10,000.0	6,641.5	6,719.3	6,640.6	96.7	20.0	-91.33	-587.5	-9,679.0	6,531.1	6,416.5	114.57	57.006	
10,039.3	6,641.4	6,719.1	6,640.5	97.8	20.0	-91.32	-587.5	-9,679.0	6,492.5	6,376.9	115.66	56.136	
10,100.0	6,641.3	6,718.9	6,640.2	99.5	20.0	-91.31	-587.5	-9,679.0	6,433.2	6,315.9	117.34	54.826	
10,137.8	6,641.3	6,718.8	6,640.1	100.6	20.0	-91.31	-587.5	-9,679.0	6,396.3	6,277.9	118.39	54.029	
10,200.0	6,641.2	6,718.5	6,639.9	102.3	20.0	-91.30	-587.5	-9,679.0	6,335.5	6,215.3	120.11	52.746	
10,236.2	6,641.2	6,718.4	6,639.7	103.3	20.0	-91.29	-587.5	-9,679.0	6,300.1	6,179.0	121.12	52.016	
10,300.0	6,641.1	6,718.1	6,639.5	105.0	20.0	-91.28	-587.5	-9,679.0	6,237.8	6,114.9	122.89	50.760	
10,334.6	6,641.0	6,718.0	6,639.3	106.0	20.0	-91.28	-587.5	-9,679.0	6,204.0	6,080.1	123.85	50.093	
10,400.0	6,641.0	6,717.8	6,639.1	107.8	20.0	-91.27	-587.5	-9,679.0	6,140.2	6,014.5	125.67	48.861	
10,433.0	6,640.9	6,717.6	6,639.0	108.7	20.0	-91.26	-587.5	-9,679.0	6,107.9	5,981.3	126.58	48.252	
10,500.0	6,640.8	6,717.4	6,638.7	110.6	20.0	-91.25	-587.5	-9,679.0	6,042.6	5,914.2	128.44	47.045	
10,531.5	6,640.8	6,717.3	6,638.6	111.5	20.0	-91.24	-587.5	-9,679.0	6,011.9	5,882.6	129.32	46.489	
10,600.0	6,640.7	6,717.0	6,638.3	113.4	20.0	-91.23	-587.5	-9,679.0	5,945.2	5,813.9	131.23	45.305	
10,629.9	6,640.7	6,716.9	6,638.2	114.2	20.0	-91.23	-587.5	-9,679.0	5,916.0	5,784.0	132.06	44.799	
10,700.0	6,640.6	6,716.6	6,637.9	116.1	20.0	-91.22	-587.5	-9,679.0	5,847.8	5,713.8	134.01	43.638	
10,728.3	6,640.5	6,716.5	6,637.8	116.9	20.0	-91.21	-587.5	-9,679.0	5,820.2	5,685.4	134.80	43.178	
10,800.0	6,640.5	6,716.2	6,637.5	118.9	20.0	-91.20	-587.5	-9,679.0	5,750.5	5,613.7	136.79	42.039	
10,826.7	6,640.4	6,716.1	6,637.4	119.7	20.0	-91.20	-587.5	-9,679.0	5,724.5	5,587.0	137.54	41.622	
10,900.0	6,640.3	6,715.8	6,637.2	121.7	20.0	-91.18	-587.5	-9,679.0	5,653.3	5,513.7	139.58	40.504	
10,925.2	6,640.3	6,715.7	6,637.1	122.4	20.0	-91.18	-587.5	-9,679.0	5,628.9	5,488.6	140.28	40.127	
11,000.0	6,640.2	6,715.4	6,636.8	124.5	20.0	-91.17	-587.5	-9,679.0	5,556.2	5,413.9	142.36	39.029	
11,023.6	6,640.2	6,715.3	6,636.7	125.1	20.0	-91.16	-587.5	-9,679.0	5,533.3	5,390.3	143.02	38.689	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD PJ #81 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 510-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	
11,100.0	6,640.1	6,715.0	6,636.4	127.3	20.0	-91.15	-587.5	-9,679.0	5,459.3	5,314.1	145.15	37.612	
11,122.0	6,640.0	6,714.9	6,636.3	127.9	20.0	-91.15	-587.5	-9,679.1	5,437.9	5,292.1	145.76	37.307	
11,200.0	6,639.9	6,714.6	6,636.0	130.1	20.0	-91.14	-587.5	-9,679.1	5,362.4	5,214.4	147.94	36.248	
11,220.4	6,639.9	6,714.6	6,635.9	130.6	20.0	-91.13	-587.5	-9,679.1	5,342.6	5,194.1	148.51	35.975	
11,300.0	6,639.8	6,714.2	6,635.6	132.8	20.0	-91.12	-587.5	-9,679.1	5,265.6	5,114.9	150.73	34.935	
11,318.9	6,639.8	6,714.2	6,635.5	133.4	20.0	-91.12	-587.5	-9,679.1	5,247.4	5,096.1	151.25	34.693	
11,400.0	6,639.7	6,713.8	6,635.2	135.6	20.0	-91.10	-587.5	-9,679.1	5,169.0	5,015.5	153.52	33.671	
11,417.3	6,639.7	6,713.8	6,635.1	136.1	20.0	-91.10	-587.5	-9,679.1	5,152.3	4,998.3	154.00	33.457	
11,500.0	6,639.6	6,713.4	6,634.8	138.4	20.0	-91.08	-587.5	-9,679.1	5,072.5	4,916.2	156.31	32.452	
11,515.7	6,639.5	6,713.4	6,634.7	138.9	20.0	-91.08	-587.5	-9,679.1	5,057.3	4,900.6	156.75	32.265	
11,600.0	6,639.4	6,713.0	6,634.4	141.2	20.0	-91.07	-587.5	-9,679.1	4,976.1	4,817.0	159.10	31.277	
11,614.1	6,639.4	6,713.0	6,634.3	141.6	20.0	-91.07	-587.5	-9,679.1	4,962.5	4,803.0	159.49	31.114	
11,700.0	6,639.3	6,712.6	6,634.0	144.0	20.0	-91.05	-587.5	-9,679.1	4,879.9	4,718.0	161.89	30.143	
11,712.6	6,639.3	6,712.6	6,633.9	144.3	20.0	-91.05	-587.5	-9,679.1	4,867.8	4,705.6	162.24	30.004	
11,800.0	6,639.2	6,712.2	6,633.6	146.8	20.0	-91.03	-587.5	-9,679.1	4,783.9	4,619.2	164.68	29.049	
11,811.0	6,639.2	6,712.2	6,633.5	147.1	20.0	-91.03	-587.5	-9,679.1	4,773.3	4,608.3	164.99	28.931	
11,900.0	6,639.1	6,711.8	6,633.2	149.6	20.0	-91.02	-587.5	-9,679.1	4,688.0	4,520.5	167.48	27.992	
11,909.4	6,639.0	6,711.8	6,633.1	149.8	20.0	-91.02	-587.5	-9,679.1	4,678.9	4,511.2	167.74	27.894	
12,000.0	6,638.9	6,711.4	6,632.8	152.4	20.0	-91.00	-587.5	-9,679.1	4,592.2	4,422.0	170.27	26.970	
12,007.8	6,638.9	6,711.4	6,632.7	152.6	20.0	-91.00	-587.5	-9,679.1	4,584.7	4,414.3	170.49	26.892	
12,100.0	6,638.8	6,711.0	6,632.3	155.2	20.0	-90.98	-587.5	-9,679.1	4,496.7	4,323.7	173.07	25.983	
12,106.3	6,638.8	6,711.0	6,632.3	155.3	20.0	-90.98	-587.5	-9,679.1	4,490.7	4,317.5	173.24	25.922	
12,200.0	6,638.7	6,710.6	6,631.9	157.9	20.0	-90.97	-587.5	-9,679.1	4,401.4	4,225.5	175.86	25.028	
12,204.7	6,638.7	6,710.6	6,631.9	158.1	20.0	-90.96	-587.5	-9,679.1	4,396.9	4,220.9	175.99	24.983	
12,300.0	6,638.5	6,710.2	6,631.5	160.7	20.0	-90.95	-587.5	-9,679.1	4,306.3	4,127.6	178.66	24.103	
12,303.1	6,638.5	6,710.2	6,631.5	160.8	20.0	-90.95	-587.5	-9,679.1	4,303.3	4,124.5	178.74	24.075	
12,400.0	6,638.4	6,709.8	6,631.1	163.5	20.0	-90.93	-587.5	-9,679.1	4,211.4	4,029.9	181.45	23.209	
12,401.5	6,638.4	6,709.8	6,631.1	163.6	20.0	-90.93	-587.5	-9,679.1	4,209.9	4,028.4	181.50	23.195	
12,500.0	6,638.3	6,709.4	6,630.7	166.3	20.0	-90.91	-587.5	-9,679.1	4,116.7	3,932.5	184.25	22.343	
12,598.4	6,638.2	6,709.0	6,630.3	169.1	20.0	-90.90	-587.5	-9,679.1	4,023.8	3,836.8	187.00	21.517	
12,600.0	6,638.2	6,708.9	6,630.3	169.1	20.0	-90.90	-587.5	-9,679.1	4,022.3	3,835.3	187.05	21.504	
12,696.8	6,638.0	6,708.5	6,629.9	171.8	20.0	-90.88	-587.5	-9,679.1	3,931.2	3,741.4	189.76	20.717	
12,700.0	6,638.0	6,708.5	6,629.9	171.9	20.0	-90.88	-587.5	-9,679.1	3,928.2	3,738.3	189.85	20.691	
12,795.2	6,637.9	6,708.1	6,629.5	174.6	20.0	-90.86	-587.5	-9,679.1	3,838.8	3,646.3	192.51	19.941	
12,800.0	6,637.9	6,708.1	6,629.4	174.7	20.0	-90.86	-587.5	-9,679.1	3,834.4	3,641.7	192.64	19.904	
12,893.7	6,637.8	6,707.7	6,629.1	177.3	20.0	-90.84	-587.5	-9,679.1	3,746.8	3,551.5	195.27	19.188	
12,900.0	6,637.8	6,707.7	6,629.0	177.5	20.0	-90.84	-587.5	-9,679.1	3,740.9	3,545.4	195.44	19.140	
12,992.1	6,637.7	6,707.3	6,628.6	180.1	20.0	-90.83	-587.5	-9,679.1	3,655.0	3,457.0	198.02	18.458	
13,000.0	6,637.6	6,707.3	6,628.6	180.3	20.0	-90.82	-587.5	-9,679.1	3,647.7	3,449.5	198.24	18.400	
13,090.5	6,637.5	6,706.9	6,628.2	182.8	20.0	-90.81	-587.5	-9,679.1	3,563.7	3,362.9	200.78	17.750	
13,100.0	6,637.5	6,706.8	6,628.2	183.1	20.0	-90.81	-587.5	-9,679.1	3,554.9	3,353.9	201.04	17.683	
13,188.9	6,637.4	6,706.5	6,627.8	185.6	20.0	-90.79	-587.5	-9,679.1	3,472.7	3,269.2	203.53	17.062	
13,200.0	6,637.4	6,706.4	6,627.8	185.9	20.0	-90.79	-587.5	-9,679.1	3,462.5	3,258.7	203.84	16.986	
13,287.4	6,637.3	6,706.1	6,627.4	188.4	20.0	-90.77	-587.5	-9,679.1	3,382.2	3,175.9	206.29	16.395	
13,300.0	6,637.3	6,706.0	6,627.3	188.7	20.0	-90.77	-587.5	-9,679.1	3,370.6	3,163.9	206.64	16.311	
13,385.8	6,637.1	6,705.6	6,627.0	191.1	20.0	-90.76	-587.6	-9,679.1	3,292.1	3,083.0	209.04	15.748	
13,400.0	6,637.1	6,705.6	6,626.9	191.5	20.0	-90.75	-587.6	-9,679.1	3,279.1	3,069.7	209.44	15.656	
13,484.2	6,637.0	6,705.2	6,626.5	193.9	20.0	-90.74	-587.6	-9,679.1	3,202.4	2,990.6	211.80	15.120	
13,500.0	6,637.0	6,705.1	6,626.5	194.3	20.0	-90.73	-587.6	-9,679.1	3,188.1	2,975.9	212.24	15.021	
13,582.6	6,636.9	6,704.8	6,626.1	196.6	20.0	-90.72	-587.6	-9,679.1	3,113.4	2,898.8	214.56	14.511	
13,600.0	6,636.9	6,704.7	6,626.0	197.1	20.0	-90.72	-587.6	-9,679.1	3,097.7	2,882.7	215.04	14.405	
13,681.1	6,636.8	6,704.4	6,625.7	199.4	20.0	-90.70	-587.6	-9,679.1	3,024.9	2,807.5	217.31	13.919	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD PJ #81 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 510-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
13,700.0	6,636.7	6,704.3	6,625.6	199.9	20.0	-90.70	-587.6	-9,679.1	3,007.9	2,790.1	217.84	13.808	
13,779.5	6,636.6	6,703.9	6,625.3	202.1	20.0	-90.68	-587.6	-9,679.1	2,937.0	2,716.9	220.07	13.346	
13,800.0	6,636.6	6,703.8	6,625.2	202.7	20.0	-90.68	-587.6	-9,679.1	2,918.8	2,698.1	220.65	13.228	
13,877.9	6,636.5	6,703.5	6,624.8	204.9	20.0	-90.67	-587.6	-9,679.1	2,849.8	2,627.0	222.83	12.789	
13,900.0	6,636.5	6,703.4	6,624.7	205.5	20.0	-90.66	-587.6	-9,679.1	2,830.4	2,606.9	223.45	12.667	
13,976.3	6,636.4	6,703.1	6,624.4	207.6	20.0	-90.65	-587.6	-9,679.1	2,763.4	2,537.8	225.59	12.250	
14,000.0	6,636.3	6,703.0	6,624.3	208.3	20.0	-90.64	-587.6	-9,679.1	2,742.7	2,516.5	226.25	12.123	
14,074.8	6,636.3	6,702.6	6,624.0	210.4	20.0	-90.63	-587.6	-9,679.1	2,677.8	2,449.4	228.34	11.727	
14,100.0	6,636.2	6,702.5	6,623.9	211.1	20.0	-90.62	-587.6	-9,679.1	2,656.0	2,426.9	229.05	11.596	
14,173.2	6,636.1	6,702.2	6,623.5	213.2	20.0	-90.61	-587.6	-9,679.1	2,593.1	2,362.0	231.10	11.221	
14,200.0	6,636.1	6,702.1	6,623.4	213.9	20.0	-90.61	-587.6	-9,679.1	2,570.2	2,338.4	231.85	11.085	
14,271.6	6,636.0	6,701.8	6,623.1	215.9	20.0	-90.59	-587.6	-9,679.1	2,509.4	2,275.6	233.86	10.730	
14,300.0	6,636.0	6,701.7	6,623.0	216.7	20.0	-90.59	-587.6	-9,679.1	2,485.5	2,250.8	234.66	10.592	
14,370.0	6,635.9	6,701.3	6,622.7	218.7	20.0	-90.57	-587.6	-9,679.1	2,426.8	2,190.2	236.62	10.256	
14,400.0	6,635.8	6,701.2	6,622.5	219.5	20.0	-90.57	-587.6	-9,679.1	2,402.0	2,164.5	237.46	10.115	
14,468.5	6,635.7	6,700.9	6,622.2	221.4	20.0	-90.56	-587.6	-9,679.1	2,345.5	2,106.1	239.38	9.798	
14,500.0	6,635.7	6,700.8	6,622.1	222.3	20.0	-90.55	-587.6	-9,679.1	2,319.7	2,079.5	240.26	9.655	
14,566.9	6,635.6	6,700.5	6,621.8	224.2	20.0	-90.54	-587.6	-9,679.1	2,265.5	2,023.4	242.14	9.356	
14,600.0	6,635.6	6,700.3	6,621.7	225.1	20.0	-90.53	-587.6	-9,679.1	2,238.9	1,995.9	243.07	9.211	
14,665.3	6,635.5	6,700.0	6,621.4	226.9	20.0	-90.52	-587.6	-9,679.1	2,187.0	1,942.1	244.90	8.930	
14,700.0	6,635.4	6,699.9	6,621.2	227.9	20.0	-90.51	-587.6	-9,679.1	2,159.7	1,913.9	245.87	8.784	
14,763.7	6,635.4	6,699.6	6,620.9	229.7	20.0	-90.50	-587.6	-9,679.1	2,110.2	1,862.5	247.66	8.521	
14,800.0	6,635.3	6,699.4	6,620.8	230.7	20.0	-90.49	-587.6	-9,679.1	2,082.3	1,833.7	248.67	8.374	
14,862.2	6,635.2	6,699.1	6,620.5	232.5	20.0	-90.48	-587.6	-9,679.1	2,035.2	1,784.8	250.42	8.127	
14,900.0	6,635.2	6,699.0	6,620.3	233.5	20.0	-90.47	-587.6	-9,679.1	2,006.9	1,755.5	251.48	7.981	
14,960.6	6,635.1	6,698.7	6,620.0	235.2	20.0	-90.46	-587.6	-9,679.1	1,962.3	1,709.1	253.17	7.751	
15,000.0	6,635.0	6,698.5	6,619.9	236.3	20.0	-90.45	-587.6	-9,679.1	1,933.8	1,679.5	254.28	7.605	
15,033.1	6,635.0	6,698.4	6,619.7	237.3	20.0	-90.45	-587.6	-9,679.1	1,910.1	1,654.9	255.21	7.485 CC, ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 223-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	120.80	-1,211.6	2,032.3	2,366.1				
98.4	98.4	93.4	93.4	0.1	0.1	120.82	-1,212.1	2,031.9	2,366.0	2,365.8	0.15	N/A	
100.0	100.0	95.0	95.0	0.1	0.1	120.82	-1,212.2	2,031.9	2,366.0	2,365.8	0.15	N/A	
196.8	196.8	195.0	195.0	0.3	0.1	120.87	-1,213.9	2,030.6	2,365.8	2,365.4	0.43	5,499.818	
200.0	200.0	198.3	198.2	0.3	0.1	120.87	-1,214.0	2,030.6	2,365.8	2,365.4	0.44	5,387.190	
295.3	295.3	295.4	295.4	0.5	0.3	120.95	-1,216.4	2,028.7	2,365.5	2,364.7	0.82	2,899.589	
300.0	300.0	299.7	299.6	0.5	0.3	120.95	-1,216.5	2,028.6	2,365.5	2,364.6	0.84	2,832.302	
378.5	378.5	371.0	370.9	0.7	0.4	120.99	-1,217.9	2,027.7	2,365.3	2,364.2	1.16	2,043.316	
393.7	393.7	382.7	382.6	0.8	0.5	121.00	-1,218.1	2,027.6	2,365.3	2,364.1	1.22	1,943.826	
400.0	400.0	387.7	387.6	0.8	0.5	121.00	-1,218.1	2,027.6	2,365.4	2,364.1	1.24	1,905.121	
492.1	492.1	460.4	460.3	1.0	0.6	121.02	-1,219.2	2,027.5	2,365.9	2,364.3	1.60	1,474.853	
500.0	500.0	467.3	467.2	1.0	0.6	121.02	-1,219.3	2,027.5	2,366.0	2,364.4	1.64	1,445.650	
590.5	590.5	548.1	548.0	1.2	0.8	121.04	-1,220.5	2,027.9	2,367.2	2,365.1	2.01	1,175.341	
600.0	600.0	556.9	556.8	1.2	0.8	121.04	-1,220.7	2,028.0	2,367.3	2,365.2	2.05	1,152.318	
689.0	689.0	640.4	640.3	1.4	1.0	121.07	-1,222.3	2,028.6	2,368.7	2,366.3	2.43	973.025	
700.0	700.0	650.8	650.6	1.4	1.0	121.07	-1,222.5	2,028.6	2,368.9	2,366.4	2.48	954.638	
787.4	787.4	732.4	732.2	1.6	1.2	121.10	-1,224.3	2,029.3	2,370.5	2,367.7	2.85	830.546	
800.0	800.0	744.1	743.9	1.7	1.2	121.11	-1,224.6	2,029.5	2,370.8	2,367.9	2.91	815.300	
885.8	885.8	837.5	837.3	1.9	1.4	121.11	-1,225.8	2,030.9	2,372.5	2,369.2	3.30	719.175	
900.0	900.0	853.8	853.7	1.9	1.5	121.11	-1,225.8	2,031.2	2,372.7	2,369.3	3.37	705.065	
984.2	984.2	1,119.0	1,118.6	2.1	2.0	120.91	-1,215.9	2,031.2	2,371.6	2,367.5	4.09	579.856	
1,000.0	1,000.0	1,149.8	1,149.2	2.1	2.1	120.87	-1,213.6	2,030.3	2,370.6	2,366.4	4.19	565.690	
1,082.7	1,082.7	1,376.5	1,374.7	2.3	2.6	93.88	-1,194.5	2,016.3	2,362.8	2,357.9	4.86	485.680	
1,100.0	1,100.0	1,410.5	1,408.4	2.3	2.7	93.94	-1,191.8	2,012.7	2,360.5	2,355.6	4.98	474.248	
1,181.1	1,181.0	1,567.6	1,563.7	2.5	3.1	94.38	-1,180.1	1,992.2	2,348.6	2,343.0	5.50	426.810	
1,200.0	1,199.8	1,598.2	1,593.8	2.6	3.2	94.51	-1,177.8	1,987.5	2,345.4	2,339.8	5.61	417.880	
1,279.5	1,279.1	1,980.2	1,964.8	2.8	4.7	96.05	-1,143.9	1,904.6	2,328.4	2,321.7	6.73	345.940	
1,300.0	1,299.5	2,055.9	2,036.8	2.8	5.1	96.47	-1,134.4	1,882.8	2,322.2	2,315.2	6.98	332.619	
1,377.9	1,376.9	2,121.7	2,099.0	3.0	5.5	97.26	-1,126.1	1,863.3	2,298.2	2,290.8	7.35	312.779	
1,400.0	1,398.7	2,136.0	2,112.5	3.0	5.6	97.47	-1,124.3	1,859.1	2,291.5	2,284.0	7.44	307.964	
1,476.4	1,474.2	2,197.1	2,170.5	3.2	5.9	98.28	-1,116.8	1,841.2	2,268.8	2,261.0	7.81	290.649	
1,500.0	1,497.5	2,222.0	2,194.1	3.3	6.0	98.58	-1,113.9	1,833.9	2,262.0	2,254.0	7.94	285.042	
1,574.8	1,571.0	2,284.8	2,253.8	3.5	6.3	99.43	-1,106.3	1,815.8	2,240.6	2,232.3	8.34	268.757	
1,600.0	1,595.6	2,309.4	2,277.2	3.6	6.5	99.75	-1,103.3	1,808.8	2,233.5	2,225.0	8.48	263.279	
1,673.2	1,667.2	2,393.0	2,356.4	3.9	7.0	100.35	-1,092.5	1,784.5	2,212.6	2,203.7	8.98	246.530	
1,700.0	1,693.4	2,419.3	2,381.3	4.0	7.1	100.54	-1,089.1	1,776.8	2,204.9	2,195.8	9.14	241.118	
1,771.6	1,763.5	2,479.0	2,437.9	4.2	7.5	100.98	-1,081.7	1,759.3	2,184.8	2,175.2	9.58	228.096	
1,800.0	1,791.3	2,495.6	2,453.7	4.3	7.6	101.11	-1,079.7	1,754.5	2,176.9	2,167.2	9.73	223.765	
1,870.1	1,859.8	2,550.5	2,505.9	4.6	7.9	101.52	-1,073.0	1,738.8	2,157.8	2,147.7	10.15	212.608	
1,900.0	1,889.1	2,574.2	2,528.4	4.7	8.0	101.70	-1,070.1	1,732.1	2,149.8	2,139.5	10.33	208.091	
1,968.5	1,956.1	2,628.9	2,580.5	4.9	8.3	102.11	-1,063.3	1,716.9	2,131.8	2,121.0	10.76	198.203	
2,000.0	1,986.9	2,655.4	2,605.8	5.1	8.4	102.32	-1,060.1	1,709.6	2,123.6	2,112.7	10.96	193.822	
2,066.9	2,052.3	2,727.1	2,674.2	5.3	8.9	102.87	-1,051.2	1,689.7	2,106.3	2,094.8	11.44	184.056	
2,100.0	2,084.7	2,753.7	2,699.4	5.5	9.0	103.07	-1,047.8	1,682.4	2,097.7	2,086.1	11.66	179.953	
2,165.3	2,148.6	2,801.3	2,744.9	5.7	9.3	103.44	-1,041.7	1,669.5	2,081.2	2,069.1	12.07	172.460	
2,200.0	2,182.5	2,831.4	2,773.6	5.9	9.4	103.66	-1,037.8	1,661.6	2,072.6	2,060.3	12.30	168.494	
2,263.8	2,244.9	2,913.5	2,852.0	6.1	9.9	104.27	-1,026.3	1,640.0	2,056.6	2,043.8	12.82	160.441	
2,300.0	2,280.3	2,949.3	2,886.1	6.3	10.1	104.54	-1,021.0	1,630.5	2,047.4	2,034.3	13.08	156.517	
2,362.2	2,341.2	2,992.0	2,926.8	6.5	10.4	104.86	-1,014.7	1,619.2	2,031.6	2,018.1	13.47	150.794	
2,400.0	2,378.1	3,019.1	2,952.7	6.7	10.5	105.06	-1,010.8	1,612.1	2,022.3	2,008.6	13.71	147.478	
2,460.6	2,437.4	3,048.2	2,980.6	6.9	10.7	105.29	-1,006.9	1,604.7	2,008.1	1,994.1	14.05	142.895	
2,500.0	2,476.0	3,077.0	3,008.2	7.1	10.9	105.52	-1,003.5	1,597.6	1,999.5	1,985.2	14.31	139.758	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 223-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	
2,550.0	2,524.9	3,101.3	3,031.7	7.3	11.0	105.71	-1,000.7	1,591.7	1,988.8	1,974.3	14.59	136.325	
2,559.0	2,533.7	3,108.7	3,038.8	7.3	11.0	106.61	-999.9	1,589.9	1,987.0	1,972.3	14.65	135.660	
2,600.0	2,573.8	3,142.4	3,071.3	7.5	11.2	110.67	-996.1	1,581.8	1,979.0	1,964.0	14.91	132.748	
2,639.4	2,612.3	3,184.4	3,111.8	7.7	11.4	114.64	-991.3	1,571.8	1,971.9	1,956.7	15.18	129.908	
2,657.5	2,630.0	3,211.1	3,137.5	7.7	11.5	114.85	-988.2	1,565.3	1,968.6	1,953.3	15.34	128.362	
2,700.0	2,671.6	3,265.7	3,190.0	7.9	11.8	115.28	-981.7	1,551.8	1,960.8	1,945.1	15.68	125.041	
2,755.9	2,726.3	3,322.3	3,244.4	8.1	12.2	115.73	-974.6	1,537.8	1,950.5	1,934.4	16.10	121.149	
2,800.0	2,769.4	3,357.4	3,278.1	8.3	12.3	116.00	-970.1	1,529.2	1,942.4	1,926.0	16.39	118.476	
2,854.3	2,822.5	3,396.5	3,315.7	8.5	12.6	116.30	-965.3	1,519.8	1,932.8	1,916.1	16.74	115.434	
2,900.0	2,867.2	3,419.0	3,337.4	8.7	12.7	116.48	-962.6	1,514.4	1,925.1	1,908.1	17.00	113.224	
2,952.7	2,918.8	3,465.8	3,382.6	9.0	12.9	116.86	-957.3	1,503.3	1,916.6	1,899.2	17.37	110.331	
3,000.0	2,965.0	3,505.0	3,420.5	9.2	13.1	117.19	-953.2	1,494.2	1,909.4	1,891.7	17.69	107.917	
3,051.2	3,015.1	3,581.3	3,494.2	9.4	13.5	117.82	-945.0	1,476.1	1,901.5	1,883.3	18.17	104.657	
3,100.0	3,062.8	3,653.0	3,563.0	9.6	13.9	118.44	-936.6	1,458.1	1,893.2	1,874.5	18.63	101.613	
3,149.6	3,111.4	3,712.9	3,620.4	9.8	14.2	118.96	-929.4	1,442.4	1,884.3	1,865.3	19.06	98.861	
3,200.0	3,160.7	3,767.4	3,672.6	10.0	14.6	119.45	-922.8	1,427.8	1,875.3	1,855.8	19.48	96.282	
3,248.0	3,207.6	3,813.8	3,716.8	10.2	14.8	119.88	-917.2	1,415.3	1,866.6	1,846.8	19.86	94.010	
3,300.0	3,258.5	3,864.2	3,765.0	10.5	15.1	120.35	-911.3	1,401.4	1,857.4	1,837.1	20.27	91.632	
3,346.4	3,303.9	3,910.0	3,808.6	10.7	15.4	120.79	-906.0	1,388.7	1,849.1	1,828.5	20.65	89.561	
3,400.0	3,356.3	3,958.8	3,855.1	10.9	15.7	121.26	-900.3	1,375.1	1,839.8	1,818.7	21.06	87.340	
3,444.9	3,400.2	3,997.5	3,892.1	11.1	15.9	121.63	-895.7	1,364.6	1,832.1	1,810.7	21.40	85.593	
3,500.0	3,454.1	4,061.5	3,953.1	11.3	16.3	122.24	-888.0	1,347.2	1,822.8	1,800.9	21.90	83.245	
3,543.3	3,496.5	4,114.5	4,003.5	11.5	16.6	122.77	-881.6	1,332.0	1,815.2	1,792.9	22.30	81.403	
3,600.0	3,551.9	4,165.1	4,051.8	11.7	16.9	123.26	-874.9	1,318.1	1,805.2	1,782.5	22.74	79.388	
3,641.7	3,592.7	4,213.8	4,098.2	11.9	17.2	123.70	-867.7	1,305.5	1,798.1	1,774.9	23.11	77.816	
3,700.0	3,649.7	4,293.5	4,174.1	12.2	17.7	124.41	-854.9	1,284.5	1,787.4	1,763.7	23.66	75.535	
3,740.1	3,689.0	4,331.0	4,209.7	12.4	17.9	124.75	-848.7	1,274.6	1,779.9	1,755.9	23.98	74.234	
3,800.0	3,747.5	4,395.3	4,270.7	12.6	18.4	125.35	-838.3	1,257.3	1,768.9	1,744.4	24.49	72.228	
3,838.6	3,785.3	4,441.9	4,314.7	12.8	18.6	125.82	-831.1	1,243.9	1,761.6	1,736.8	24.85	70.883	
3,900.0	3,845.4	4,496.1	4,365.9	13.1	19.0	126.39	-823.2	1,227.5	1,750.1	1,724.7	25.36	69.009	
3,937.0	3,881.6	4,531.0	4,398.7	13.2	19.2	126.78	-818.4	1,216.8	1,743.3	1,717.7	25.68	67.886	
4,000.0	3,943.2	4,563.9	4,429.7	13.5	19.5	127.15	-814.0	1,206.7	1,732.4	1,706.3	26.09	66.407	
4,035.4	3,977.8	4,583.6	4,448.4	13.6	19.6	127.36	-811.5	1,200.9	1,726.7	1,700.4	26.32	65.598	
4,100.0	4,041.0	4,621.6	4,484.5	13.9	19.8	127.78	-806.9	1,190.1	1,717.2	1,690.4	26.76	64.170	
4,133.8	4,074.1	4,652.2	4,513.7	14.1	20.0	128.11	-803.2	1,181.6	1,712.5	1,685.5	27.03	63.345	
4,200.0	4,138.8	4,717.2	4,575.7	14.4	20.4	128.80	-795.1	1,164.2	1,703.6	1,676.0	27.60	61.731	
4,232.3	4,170.4	4,759.9	4,616.4	14.5	20.6	129.25	-789.5	1,152.6	1,699.1	1,671.2	27.93	60.843	
4,300.0	4,236.6	4,814.4	4,668.4	14.8	20.9	129.83	-782.1	1,137.7	1,689.7	1,661.3	28.44	59.405	
4,330.7	4,266.7	4,832.1	4,685.3	14.9	21.0	130.01	-779.7	1,133.2	1,685.8	1,657.2	28.64	58.857	
4,400.0	4,334.4	4,873.0	4,724.6	15.2	21.3	130.42	-774.2	1,123.4	1,677.9	1,648.8	29.09	57.673	
4,429.1	4,362.9	4,904.7	4,755.2	15.4	21.5	130.73	-770.1	1,116.1	1,674.8	1,645.5	29.34	57.077	
4,500.0	4,432.3	5,020.0	4,865.8	15.7	22.1	131.91	-754.6	1,087.4	1,667.0	1,636.8	30.15	55.281	
4,527.5	4,459.2	5,044.0	4,888.6	15.8	22.3	132.17	-751.1	1,080.9	1,663.3	1,632.9	30.38	54.754	
4,600.0	4,530.1	5,095.9	4,938.1	16.1	22.6	132.75	-743.9	1,066.8	1,654.3	1,623.4	30.91	53.519	
4,626.0	4,555.5	5,110.8	4,952.3	16.2	22.7	132.91	-742.0	1,062.8	1,651.4	1,620.3	31.08	53.131	
4,700.0	4,627.9	5,157.9	4,997.5	16.6	22.9	133.43	-736.3	1,050.7	1,644.2	1,612.6	31.59	52.050	
4,724.4	4,651.7	5,174.8	5,013.7	16.7	23.0	133.61	-734.3	1,046.4	1,642.1	1,610.3	31.76	51.702	
4,800.0	4,725.7	5,215.0	5,052.4	17.0	23.2	134.05	-729.8	1,036.6	1,636.4	1,604.1	32.23	50.766	
4,822.8	4,748.0	5,236.0	5,072.7	17.1	23.3	134.27	-727.5	1,031.7	1,634.9	1,602.5	32.41	50.444	
4,904.9	4,828.3	5,278.8	5,114.3	17.5	23.5	134.71	-723.2	1,022.6	1,631.0	1,598.1	32.90	49.578	
4,921.2	4,844.3	5,301.0	5,136.0	17.5	23.6	134.91	-721.1	1,018.3	1,630.5	1,597.5	33.05	49.328	
5,000.0	4,921.6	5,335.9	5,170.2	17.8	23.8	135.18	-718.0	1,012.0	1,627.8	1,594.3	33.47	48.634	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 223-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	
5,019.7	4,941.0	5,349.0	5,183.0	17.9	23.8	135.27	-716.8	1,009.8	1,627.1	1,593.6	33.58	48.462	
5,100.0	5,020.4	5,410.3	5,243.4	18.1	24.0	135.68	-711.6	1,000.5	1,624.2	1,590.2	34.02	47.747	
5,118.1	5,038.3	5,428.0	5,260.8	18.2	24.1	135.78	-710.1	997.9	1,623.4	1,589.3	34.12	47.579	
5,200.0	5,119.6	5,499.2	5,331.0	18.4	24.4	136.17	-704.1	987.4	1,619.0	1,584.4	34.55	46.865	
5,216.5	5,136.0	5,511.3	5,343.0	18.4	24.4	136.23	-703.1	985.7	1,618.0	1,583.4	34.62	46.740	
5,300.0	5,219.2	5,571.8	5,402.7	18.6	24.6	136.48	-698.6	977.5	1,612.6	1,577.7	34.96	46.130	
5,314.9	5,234.1	5,582.0	5,412.8	18.6	24.6	136.51	-697.9	976.2	1,611.6	1,576.6	35.01	46.033	
5,400.0	5,319.1	5,643.0	5,473.2	18.8	24.8	136.69	-694.2	968.7	1,605.6	1,570.3	35.30	45.487	
5,413.4	5,332.4	5,643.0	5,473.2	18.8	24.8	136.68	-694.2	968.7	1,604.7	1,569.3	35.31	45.444	
5,504.9	5,423.9	5,728.0	5,557.6	18.9	25.1	155.29	-690.4	959.0	1,597.6	1,560.2	37.33	42.793	
5,511.8	5,430.8	5,728.0	5,557.6	18.9	25.1	155.29	-690.4	959.0	1,597.0	1,559.6	37.34	42.765	
5,600.0	5,519.0	5,794.5	5,623.6	19.0	25.2	155.49	-688.2	951.8	1,590.3	1,552.7	37.61	42.287	
5,610.2	5,529.3	5,803.0	5,632.1	19.0	25.3	155.52	-688.0	951.0	1,589.6	1,551.9	37.64	42.230	
5,700.0	5,619.0	5,871.7	5,700.5	19.2	25.4	155.71	-686.2	944.4	1,583.9	1,546.0	37.91	41.777	
5,708.6	5,627.7	5,878.2	5,707.0	19.2	25.4	155.73	-686.0	943.8	1,583.4	1,545.5	37.94	41.736	
5,800.0	5,719.0	5,947.7	5,776.2	19.3	25.6	155.89	-684.8	938.4	1,579.0	1,540.8	38.20	41.331	
5,807.1	5,726.1	5,953.1	5,781.6	19.3	25.6	155.90	-684.7	938.0	1,578.7	1,540.5	38.22	41.302	
5,900.0	5,819.0	6,013.9	5,842.3	19.4	25.7	156.02	-684.3	934.1	1,575.8	1,537.3	38.46	40.971	
5,905.5	5,824.5	6,017.0	5,845.4	19.4	25.7	156.03	-684.3	933.9	1,575.7	1,537.2	38.47	40.955	
5,966.5	5,885.5	6,051.2	5,879.6	19.5	25.8	156.09	-684.7	932.3	1,575.1	1,536.5	38.62	40.788 CC, ES	
6,003.9	5,923.0	6,070.0	5,898.3	19.6	25.8	156.12	-685.1	931.5	1,575.2	1,536.5	38.70	40.703	
6,009.8	5,928.8	6,070.0	5,898.3	19.6	25.8	156.12	-685.1	931.5	1,575.3	1,536.6	38.71	40.694	
6,050.0	5,969.0	6,108.6	5,936.9	19.6	25.8	-113.80	-686.0	930.6	1,576.2	1,538.8	37.41	42.132	
6,100.0	6,018.8	6,156.0	5,984.3	19.7	25.9	-113.73	-687.1	930.5	1,579.1	1,541.5	37.58	42.018	
6,102.3	6,021.1	6,156.0	5,984.3	19.7	25.9	-113.72	-687.1	930.5	1,579.2	1,541.6	37.58	42.018	
6,150.0	6,068.1	6,214.9	6,043.1	19.7	25.9	-113.77	-687.8	931.5	1,583.2	1,545.5	37.69	42.005	
6,200.0	6,116.8	6,271.6	6,099.9	19.7	26.0	-113.86	-687.7	932.6	1,588.3	1,550.5	37.76	42.067	
6,200.8	6,117.5	6,272.4	6,100.6	19.7	26.0	-113.86	-687.7	932.6	1,588.4	1,550.6	37.76	42.069	
6,250.0	6,164.5	6,317.4	6,145.7	19.7	26.0	-113.86	-687.6	933.4	1,594.8	1,557.0	37.78	42.210	
6,299.2	6,210.4	6,355.7	6,183.9	19.7	26.0	-113.73	-687.7	934.0	1,602.9	1,565.1	37.79	42.416	
6,300.0	6,211.1	6,356.3	6,184.5	19.7	26.0	-113.73	-687.7	934.0	1,603.0	1,565.2	37.79	42.420	
6,350.0	6,256.4	6,392.3	6,220.6	19.7	26.1	-113.51	-687.9	934.7	1,613.1	1,575.3	37.78	42.691	
6,397.6	6,298.0	6,426.3	6,254.5	19.7	26.1	-113.22	-688.3	935.4	1,624.4	1,586.6	37.78	42.992	
6,400.0	6,300.0	6,428.0	6,256.2	19.7	26.1	-113.21	-688.4	935.4	1,625.0	1,587.2	37.78	43.008	
6,450.0	6,341.8	6,463.5	6,291.7	19.7	26.1	-112.82	-688.9	936.2	1,638.7	1,600.9	37.80	43.352	
6,496.0	6,378.6	6,498.0	6,326.2	19.7	26.1	-112.42	-689.6	936.8	1,653.0	1,615.1	37.84	43.678	
6,500.0	6,381.6	6,498.0	6,326.2	19.7	26.1	-112.32	-689.6	936.8	1,654.3	1,616.4	37.86	43.700	
6,550.0	6,419.2	6,531.6	6,359.8	19.6	26.1	-111.70	-690.5	937.4	1,671.7	1,633.7	37.97	44.026	
6,594.5	6,450.7	6,560.3	6,388.5	19.6	26.2	-111.03	-691.2	937.9	1,688.6	1,650.5	38.14	44.273	
6,600.0	6,454.4	6,563.8	6,391.9	19.6	26.2	-110.94	-691.3	938.0	1,690.8	1,652.7	38.17	44.302	
6,650.0	6,487.1	6,594.0	6,422.1	19.6	26.2	-110.01	-692.2	938.5	1,711.8	1,673.3	38.47	44.500	
6,692.9	6,513.0	6,618.5	6,446.7	19.6	26.2	-109.06	-692.9	938.9	1,731.1	1,692.3	38.82	44.588	
6,700.0	6,517.0	6,622.4	6,450.5	19.6	26.2	-108.89	-693.0	938.9	1,734.5	1,695.6	38.89	44.598	
6,750.0	6,544.1	6,648.1	6,476.2	19.6	26.2	-107.53	-693.8	939.3	1,758.8	1,719.4	39.45	44.579	
6,791.3	6,564.2	6,667.1	6,495.2	19.7	26.2	-106.22	-694.4	939.6	1,780.2	1,740.1	40.05	44.454	
6,800.0	6,568.2	6,670.9	6,499.0	19.7	26.2	-105.93	-694.5	939.7	1,784.8	1,744.6	40.16	44.442	
6,850.0	6,589.1	6,691.8	6,519.8	19.8	26.3	-104.08	-695.2	940.0	1,812.3	1,771.3	41.00	44.204	
6,889.7	6,603.5	6,706.0	6,534.1	19.9	26.3	-102.39	-695.6	940.2	1,835.2	1,793.5	41.75	43.954	
6,900.0	6,606.9	6,709.4	6,537.4	19.9	26.3	-101.92	-695.7	940.2	1,841.3	1,799.3	41.95	43.894	
6,950.0	6,621.3	6,723.6	6,551.7	20.2	26.3	-99.45	-696.2	940.4	1,871.5	1,828.6	42.97	43.555	
6,988.2	6,630.0	6,732.2	6,560.3	20.6	26.3	-97.34	-696.5	940.5	1,895.5	1,851.7	43.77	43.306	
7,000.0	6,632.4	6,734.4	6,562.5	20.7	26.3	-96.65	-696.6	940.5	1,903.0	1,859.0	44.01	43.244	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 223-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	
7,050.0	6,640.0	6,741.8	6,569.8	21.4	26.3	-93.52	-696.8	940.6	1,935.5	1,890.5	44.99	43.023	
7,086.6	6,643.4	6,744.9	6,572.9	21.9	26.3	-91.03	-696.9	940.6	1,959.9	1,914.3	45.63	42.950	
7,100.0	6,644.2	6,745.5	6,573.6	22.1	26.3	-90.08	-696.9	940.6	1,968.9	1,923.1	45.84	42.955	
7,135.7	6,645.0	6,746.0	6,574.1	22.7	26.3	-87.45	-696.9	940.6	1,993.2	1,946.9	46.32	43.035	
7,185.0	6,644.9	6,745.4	6,573.4	23.6	26.3	-87.43	-696.9	940.6	2,027.3	1,980.0	47.27	42.885	
7,200.0	6,644.9	6,745.2	6,573.2	23.9	26.3	-87.42	-696.9	940.6	2,037.7	1,990.2	47.56	42.843	
7,283.4	6,644.8	6,744.1	6,572.2	25.6	26.3	-87.38	-696.9	940.6	2,097.1	2,047.8	49.29	42.549	
7,300.0	6,644.8	6,743.9	6,572.0	25.9	26.3	-87.37	-696.9	940.6	2,109.0	2,059.4	49.63	42.497	
7,381.9	6,644.7	6,742.9	6,570.9	27.7	26.3	-87.33	-696.8	940.6	2,169.1	2,117.7	51.43	42.178	
7,400.0	6,644.7	6,742.6	6,570.7	28.1	26.3	-87.32	-696.8	940.6	2,182.6	2,130.7	51.83	42.114	
7,480.3	6,644.6	6,741.6	6,569.7	29.9	26.3	-87.28	-696.8	940.6	2,243.1	2,189.4	53.68	41.788	
7,500.0	6,644.6	6,741.3	6,569.4	30.3	26.3	-87.27	-696.8	940.6	2,258.1	2,204.0	54.13	41.715	
7,578.7	6,644.5	6,740.3	6,568.4	32.2	26.3	-87.23	-696.8	940.6	2,318.9	2,262.9	56.01	41.401	
7,600.0	6,644.4	6,740.0	6,568.1	32.7	26.3	-87.22	-696.7	940.6	2,335.6	2,279.0	56.52	41.324	
7,677.1	6,644.3	6,739.0	6,567.1	34.6	26.3	-87.18	-696.7	940.6	2,396.4	2,338.0	58.41	41.029	
7,700.0	6,644.3	6,738.7	6,566.8	35.1	26.3	-87.16	-696.7	940.5	2,414.6	2,355.7	58.97	40.948	
7,775.6	6,644.2	6,737.7	6,565.7	37.0	26.3	-87.12	-696.7	940.5	2,475.4	2,414.5	60.86	40.676	
7,800.0	6,644.2	6,737.4	6,565.4	37.6	26.3	-87.11	-696.7	940.5	2,495.2	2,433.7	61.47	40.594	
7,874.0	6,644.1	6,736.4	6,564.4	39.5	26.3	-87.07	-696.6	940.5	2,555.7	2,492.4	63.35	40.345	
7,900.0	6,644.1	6,736.0	6,564.1	40.1	26.3	-87.06	-696.6	940.5	2,577.1	2,513.1	64.01	40.264	
7,972.4	6,644.0	6,735.0	6,563.1	42.0	26.3	-87.02	-696.6	940.5	2,637.3	2,571.4	65.87	40.037	
8,000.0	6,643.9	6,734.6	6,562.7	42.7	26.3	-87.00	-696.6	940.5	2,660.3	2,593.7	66.58	39.957	
8,070.8	6,643.9	6,733.7	6,561.7	44.5	26.3	-86.96	-696.5	940.5	2,719.9	2,651.5	68.42	39.752	
8,100.0	6,643.8	6,733.3	6,561.3	45.2	26.3	-86.95	-696.5	940.5	2,744.6	2,675.4	69.18	39.674	
8,169.3	6,643.7	6,732.3	6,560.3	47.0	26.3	-86.91	-696.5	940.5	2,803.6	2,732.6	71.00	39.490	
8,200.0	6,643.7	6,731.8	6,559.9	47.9	26.3	-86.89	-696.5	940.5	2,829.9	2,758.1	71.80	39.413	
8,267.7	6,643.6	6,730.9	6,558.9	49.6	26.3	-86.86	-696.4	940.5	2,888.2	2,814.6	73.59	39.247	
8,300.0	6,643.6	6,730.4	6,558.5	50.5	26.3	-86.84	-696.4	940.5	2,916.2	2,841.7	74.44	39.173	
8,366.1	6,643.5	6,729.5	6,557.5	52.2	26.3	-86.80	-696.4	940.4	2,973.7	2,897.5	76.20	39.024	
8,400.0	6,643.4	6,729.0	6,557.1	53.1	26.3	-86.78	-696.4	940.4	3,003.3	2,926.2	77.10	38.953	
8,464.5	6,643.4	6,728.1	6,556.1	54.8	26.3	-86.74	-696.4	940.4	3,059.9	2,981.1	78.83	38.819	
8,500.0	6,643.3	6,727.5	6,555.6	55.8	26.3	-86.72	-696.3	940.4	3,091.2	3,011.4	79.77	38.750	
8,563.0	6,643.2	6,726.6	6,554.7	57.5	26.3	-86.69	-696.3	940.4	3,146.9	3,065.4	81.46	38.630	
8,600.0	6,643.2	6,726.1	6,554.1	58.5	26.3	-86.67	-696.3	940.4	3,179.7	3,097.3	82.45	38.564	
8,661.4	6,643.1	6,725.2	6,553.2	60.1	26.3	-86.63	-696.3	940.4	3,234.5	3,150.4	84.11	38.456	
8,700.0	6,643.1	6,724.6	6,552.7	61.2	26.3	-86.61	-696.2	940.4	3,269.0	3,183.9	85.15	38.392	
8,759.8	6,643.0	6,723.7	6,551.8	62.8	26.3	-86.57	-696.2	940.4	3,322.7	3,235.9	86.76	38.296	
8,800.0	6,643.0	6,723.1	6,551.2	63.9	26.3	-86.55	-696.2	940.4	3,358.9	3,271.0	87.85	38.235	
8,858.2	6,642.9	6,722.2	6,550.3	65.4	26.3	-86.51	-696.2	940.4	3,411.5	3,322.0	89.43	38.148	
8,900.0	6,642.8	6,721.6	6,549.6	66.6	26.3	-86.49	-696.1	940.4	3,449.3	3,358.7	90.56	38.089	
8,956.7	6,642.8	6,720.7	6,548.8	68.1	26.3	-86.45	-696.1	940.3	3,500.7	3,408.7	92.10	38.012	
9,000.0	6,642.7	6,720.0	6,548.1	69.3	26.3	-86.43	-696.1	940.3	3,540.2	3,446.9	93.27	37.955	
9,055.1	6,642.6	6,719.2	6,547.3	70.8	26.3	-86.39	-696.1	940.3	3,590.5	3,495.7	94.77	37.886	
9,100.0	6,642.6	6,718.5	6,546.6	72.0	26.3	-86.37	-696.0	940.3	3,631.6	3,535.6	95.99	37.832	
9,153.5	6,642.5	6,717.7	6,545.7	73.5	26.3	-86.33	-696.0	940.3	3,680.7	3,583.3	97.45	37.769	
9,200.0	6,642.5	6,716.9	6,545.0	74.7	26.3	-86.30	-696.0	940.3	3,723.5	3,624.7	98.72	37.718	
9,251.9	6,642.4	6,716.1	6,544.2	76.2	26.3	-86.27	-696.0	940.3	3,771.3	3,671.2	100.14	37.661	
9,300.0	6,642.3	6,715.3	6,543.4	77.5	26.3	-86.24	-695.9	940.3	3,815.7	3,714.3	101.45	37.612	
9,350.4	6,642.3	6,714.5	6,542.6	78.9	26.3	-86.21	-695.9	940.3	3,862.3	3,759.5	102.83	37.561	
9,400.0	6,642.2	6,713.7	6,541.8	80.2	26.3	-86.18	-695.9	940.3	3,908.4	3,804.2	104.18	37.514	
9,448.8	6,642.1	6,712.9	6,541.0	81.6	26.3	-86.15	-695.9	940.2	3,953.7	3,848.2	105.52	37.469	
9,500.0	6,642.1	6,712.1	6,540.2	83.0	26.3	-86.11	-695.8	940.2	4,001.3	3,894.4	106.92	37.423	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 223-MWD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,547.2	6,642.0	6,711.3	6,539.4	84.3	26.3	-86.08	-695.8	940.2	4,045.4	3,937.2	108.22	37.382	
9,600.0	6,642.0	6,710.4	6,538.5	85.7	26.3	-86.05	-695.8	940.2	4,094.7	3,985.0	109.66	37.339	
9,645.6	6,641.9	6,709.7	6,537.8	87.0	26.3	-86.02	-695.8	940.2	4,137.4	4,026.5	110.91	37.302	
9,700.0	6,641.8	6,708.8	6,536.8	88.5	26.3	-85.98	-695.7	940.2	4,188.3	4,075.9	112.41	37.261	
9,744.1	6,641.8	6,708.0	6,536.1	89.7	26.3	-85.95	-695.7	940.2	4,229.7	4,116.0	113.62	37.228	
9,800.0	6,641.7	6,707.1	6,535.2	91.2	26.3	-85.92	-695.7	940.2	4,282.2	4,167.1	115.15	37.188	
9,842.5	6,641.7	6,706.4	6,534.4	92.4	26.3	-85.89	-695.6	940.2	4,322.2	4,205.9	116.32	37.158	
9,900.0	6,641.6	6,705.4	6,533.4	94.0	26.3	-85.85	-695.6	940.1	4,376.4	4,258.5	117.90	37.120	
9,940.9	6,641.5	6,704.7	6,532.7	95.1	26.3	-85.82	-695.6	940.1	4,415.0	4,296.0	119.02	37.094	
10,000.0	6,641.5	6,703.6	6,531.7	96.7	26.3	-85.78	-695.6	940.1	4,470.8	4,350.2	120.65	37.057	
10,039.3	6,641.4	6,703.0	6,531.0	97.8	26.3	-85.75	-695.5	940.1	4,508.1	4,386.3	121.73	37.033	
10,100.0	6,641.3	6,701.9	6,530.0	99.5	26.3	-85.71	-695.5	940.1	4,565.5	4,442.1	123.40	36.998	
10,137.8	6,641.3	6,701.2	6,529.3	100.6	26.3	-85.68	-695.5	940.1	4,601.3	4,476.9	124.44	36.977	
10,200.0	6,641.2	6,700.1	6,528.2	102.3	26.3	-85.64	-695.4	940.1	4,660.4	4,534.3	126.15	36.944	
10,236.2	6,641.2	6,699.5	6,527.5	103.3	26.3	-85.62	-695.4	940.1	4,694.8	4,567.7	127.15	36.925	
10,300.0	6,641.1	6,698.3	6,526.4	105.0	26.3	-85.57	-695.4	940.1	4,755.5	4,626.6	128.90	36.892	
10,334.6	6,641.0	6,697.7	6,525.8	106.0	26.3	-85.55	-695.4	940.0	4,788.5	4,658.6	129.86	36.875	
10,400.0	6,641.0	6,696.5	6,524.6	107.8	26.3	-85.50	-695.3	940.0	4,850.8	4,719.2	131.66	36.845	
10,433.0	6,640.9	6,695.9	6,524.0	108.7	26.3	-85.47	-695.3	940.0	4,882.4	4,749.8	132.57	36.829	
10,500.0	6,640.8	6,694.7	6,522.7	110.6	26.3	-85.43	-695.3	940.0	4,946.3	4,811.9	134.41	36.800	
10,531.5	6,640.8	6,694.1	6,522.2	111.5	26.3	-85.40	-695.2	940.0	4,976.4	4,841.1	135.28	36.786	
10,600.0	6,640.7	6,692.8	6,520.9	113.4	26.3	-85.35	-695.2	940.0	5,042.0	4,904.8	137.17	36.758	
10,629.9	6,640.7	6,692.2	6,520.3	114.2	26.3	-85.33	-695.2	940.0	5,070.6	4,932.6	137.99	36.746	
10,700.0	6,640.6	6,690.9	6,519.0	116.1	26.3	-85.28	-695.1	940.0	5,137.8	4,997.9	139.92	36.719	
10,728.3	6,640.5	6,690.4	6,518.4	116.9	26.3	-85.26	-695.1	939.9	5,165.0	5,024.3	140.70	36.709	
10,800.0	6,640.5	6,689.0	6,517.1	118.9	26.3	-85.20	-695.1	939.9	5,233.8	5,091.1	142.68	36.683	
10,826.7	6,640.4	6,688.5	6,516.5	119.7	26.3	-85.18	-695.1	939.9	5,259.5	5,116.1	143.41	36.673	
10,900.0	6,640.3	6,687.0	6,515.1	121.7	26.3	-85.13	-695.0	939.9	5,329.9	5,184.5	145.43	36.649	
10,925.2	6,640.3	6,686.6	6,514.6	122.4	26.3	-85.11	-695.0	939.9	5,354.1	5,208.0	146.13	36.640	
11,000.0	6,640.2	6,685.1	6,513.2	124.5	26.3	-85.05	-695.0	939.9	5,426.2	5,278.0	148.19	36.617	
11,023.6	6,640.2	6,684.6	6,512.7	125.1	26.3	-85.03	-694.9	939.9	5,448.9	5,300.1	148.84	36.609	
11,100.0	6,640.1	6,683.1	6,511.2	127.3	26.3	-84.97	-694.9	939.8	5,522.6	5,371.6	150.94	36.587	
11,122.0	6,640.0	6,682.6	6,510.7	127.9	26.2	-84.95	-694.9	939.8	5,543.8	5,392.3	151.55	36.581	
11,200.0	6,639.9	6,681.1	6,509.2	130.1	26.2	-84.89	-694.8	939.8	5,619.1	5,465.4	153.70	36.559	
11,220.4	6,639.9	6,680.7	6,508.7	130.6	26.2	-84.87	-694.8	939.8	5,638.8	5,484.6	154.26	36.553	
11,300.0	6,639.8	6,679.0	6,507.1	132.8	26.2	-84.81	-694.8	939.8	5,715.7	5,559.3	156.45	36.533	
11,318.9	6,639.8	6,678.6	6,506.7	133.4	26.2	-84.79	-694.8	939.8	5,734.0	5,577.0	156.97	36.528	
11,400.0	6,639.7	6,676.9	6,505.0	135.6	26.2	-84.73	-694.7	939.8	5,812.5	5,653.3	159.21	36.508	
11,417.3	6,639.7	6,676.6	6,504.7	136.1	26.2	-84.71	-694.7	939.8	5,829.2	5,669.5	159.69	36.504	
11,500.0	6,639.6	6,674.8	6,502.9	138.4	26.2	-84.65	-694.6	939.7	5,909.3	5,747.4	161.96	36.486	
11,515.7	6,639.5	6,674.5	6,502.6	138.9	26.2	-84.63	-694.6	939.7	5,924.6	5,762.2	162.40	36.482	
11,600.0	6,639.4	6,672.7	6,500.8	141.2	26.2	-84.56	-694.6	939.7	6,006.3	5,841.6	164.72	36.464	
11,614.1	6,639.4	6,672.4	6,500.5	141.6	26.2	-84.55	-694.6	939.7	6,020.0	5,854.9	165.11	36.462	
11,700.0	6,639.3	6,670.6	6,498.6	144.0	26.2	-84.48	-694.5	939.7	6,103.4	5,935.9	167.47	36.445	
11,712.6	6,639.3	6,670.3	6,498.4	144.3	26.2	-84.47	-694.5	939.7	6,115.6	5,947.8	167.82	36.442	
11,800.0	6,639.2	6,668.5	6,496.6	146.8	26.2	-84.40	-694.4	939.6	6,200.5	6,030.3	170.22	36.426	
11,811.0	6,639.2	6,668.3	6,496.4	147.1	26.2	-84.39	-694.4	939.6	6,211.2	6,040.7	170.53	36.424	
11,900.0	6,639.1	6,666.8	6,494.9	149.6	26.2	-84.33	-694.4	939.6	6,297.8	6,124.8	172.98	36.407	
11,909.4	6,639.0	6,666.6	6,494.7	149.8	26.2	-84.32	-694.4	939.6	6,306.9	6,133.7	173.24	36.405	
12,000.0	6,638.9	6,665.1	6,493.2	152.4	26.2	-84.26	-694.3	939.6	6,395.1	6,219.4	175.74	36.390	
12,007.8	6,638.9	6,665.0	6,493.1	152.6	26.2	-84.26	-694.3	939.6	6,402.8	6,226.8	175.96	36.388	
12,100.0	6,638.8	6,663.4	6,491.5	155.2	26.2	-84.19	-694.3	939.6	6,492.5	6,314.0	178.50	36.373	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 223-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	6,638.8	6,663.3	6,491.4	155.3	26.2	-84.19	-694.3	939.6	6,498.6	6,320.0	178.67	36.372	
12,200.0	6,638.7	6,661.6	6,489.7	157.9	26.2	-84.13	-694.2	939.5	6,590.0	6,408.8	181.26	36.358	
12,204.7	6,638.7	6,661.6	6,489.7	158.1	26.2	-84.12	-694.2	939.5	6,594.6	6,413.2	181.38	36.357	
12,300.0	6,638.5	6,659.9	6,488.0	160.7	26.2	-84.06	-694.2	939.5	6,687.6	6,503.6	184.01	36.343	
12,303.1	6,638.5	6,659.9	6,488.0	160.8	26.2	-84.05	-694.2	939.5	6,690.6	6,506.5	184.10	36.343	
12,400.0	6,638.4	6,658.2	6,486.3	163.5	26.2	-83.99	-694.1	939.5	6,785.2	6,598.4	186.77	36.329	
12,401.5	6,638.4	6,658.1	6,486.2	163.6	26.2	-83.99	-694.1	939.5	6,786.7	6,599.9	186.81	36.329	
12,500.0	6,638.3	6,656.4	6,484.5	166.3	26.2	-83.92	-694.1	939.5	6,882.9	6,693.4	189.52	36.317	
12,598.4	6,638.2	6,654.7	6,482.8	169.1	26.2	-83.85	-694.0	939.4	6,979.1	6,786.9	192.24	36.305	
12,600.0	6,638.2	6,654.7	6,482.8	169.1	26.2	-83.85	-694.0	939.4	6,980.7	6,788.4	192.28	36.305	
12,696.8	6,638.0	6,653.0	6,481.1	171.8	26.2	-83.78	-693.9	939.4	7,075.4	6,880.4	194.95	36.294	
12,700.0	6,638.0	6,652.9	6,481.0	171.9	26.2	-83.78	-693.9	939.4	7,078.5	6,883.5	195.03	36.294	
12,795.2	6,637.9	6,651.2	6,479.3	174.6	26.2	-83.72	-693.9	939.4	7,171.7	6,974.1	197.66	36.284	
12,800.0	6,637.9	6,651.1	6,479.2	174.7	26.2	-83.71	-693.9	939.4	7,176.4	6,978.6	197.79	36.283	
12,893.7	6,637.8	6,649.5	6,477.6	177.3	26.2	-83.65	-693.8	939.4	7,268.1	7,067.8	200.37	36.274	
12,900.0	6,637.8	6,649.4	6,477.5	177.5	26.2	-83.64	-693.8	939.4	7,274.3	7,073.8	200.54	36.273	
12,992.1	6,637.7	6,647.7	6,475.8	180.1	26.2	-83.58	-693.8	939.3	7,364.6	7,161.5	203.08	36.265	
13,000.0	6,637.6	6,647.6	6,475.7	180.3	26.2	-83.57	-693.8	939.3	7,372.3	7,169.0	203.29	36.264	
13,090.5	6,637.5	6,646.0	6,474.1	182.8	26.2	-83.51	-693.7	939.3	7,461.1	7,255.3	205.78	36.257	
13,100.0	6,637.5	6,645.8	6,473.9	183.1	26.2	-83.50	-693.7	939.3	7,470.4	7,264.3	206.04	36.256	
13,188.9	6,637.4	6,644.2	6,472.3	185.6	26.2	-83.44	-693.7	939.3	7,557.6	7,349.1	208.49	36.249	
13,200.0	6,637.4	6,644.0	6,472.1	185.9	26.2	-83.43	-693.7	939.3	7,568.5	7,359.7	208.80	36.248	
13,287.4	6,637.3	6,642.4	6,470.5	188.4	26.2	-83.37	-693.6	939.3	7,654.2	7,443.0	211.20	36.242	
13,300.0	6,637.3	6,642.2	6,470.3	188.7	26.2	-83.36	-693.6	939.2	7,666.6	7,455.1	211.55	36.241	
13,385.8	6,637.1	6,640.6	6,468.7	191.1	26.2	-83.30	-693.6	939.2	7,750.9	7,537.0	213.90	36.235	
13,400.0	6,637.1	6,640.4	6,468.5	191.5	26.2	-83.29	-693.6	939.2	7,764.8	7,550.5	214.29	36.234	
13,484.2	6,637.0	6,638.9	6,467.0	193.9	26.2	-83.23	-693.5	939.2	7,847.6	7,630.9	216.61	36.229	
13,500.0	6,637.0	6,638.6	6,466.7	194.3	26.2	-83.22	-693.5	939.2	7,863.1	7,646.0	217.04	36.228	
13,582.6	6,636.9	6,637.1	6,465.2	196.6	26.2	-83.16	-693.5	939.2	7,944.3	7,725.0	219.31	36.223	
13,600.0	6,636.9	6,636.7	6,464.8	197.1	26.2	-83.15	-693.4	939.2	7,961.3	7,741.5	219.79	36.222	
13,681.1	6,636.8	6,635.3	6,463.4	199.4	26.2	-83.09	-693.4	939.1	8,041.1	7,819.0	222.02	36.218	
13,700.0	6,636.7	6,634.9	6,463.0	199.9	26.2	-83.07	-693.4	939.1	8,059.7	7,837.1	222.54	36.217	
13,779.5	6,636.6	6,633.4	6,461.6	202.1	26.2	-83.02	-693.3	939.1	8,137.9	7,913.1	224.72	36.214	
13,800.0	6,636.6	6,633.1	6,461.2	202.7	26.2	-83.00	-693.3	939.1	8,158.0	7,932.7	225.28	36.213	
13,877.9	6,636.5	6,631.6	6,459.7	204.9	26.2	-82.94	-693.3	939.1	8,234.7	8,007.3	227.42	36.209	
13,900.0	6,636.5	6,631.2	6,459.3	205.5	26.2	-82.93	-693.3	939.1	8,256.4	8,028.4	228.03	36.208	
13,976.3	6,636.4	6,629.8	6,457.9	207.6	26.2	-82.87	-693.2	939.1	8,331.6	8,101.5	230.12	36.205	
14,000.0	6,636.3	6,629.4	6,457.5	208.3	26.2	-82.86	-693.2	939.1	8,354.9	8,124.1	230.77	36.205	
14,074.8	6,636.3	6,628.0	6,456.1	210.4	26.2	-82.80	-693.2	939.0	8,428.5	8,195.7	232.82	36.202	
14,100.0	6,636.2	6,627.5	6,455.6	211.1	26.2	-82.78	-693.2	939.0	8,453.4	8,219.8	233.51	36.201	
14,173.2	6,636.1	6,626.1	6,454.2	213.2	26.2	-82.73	-693.1	939.0	8,525.5	8,289.9	235.52	36.199	
14,200.0	6,636.1	6,625.6	6,453.7	213.9	26.2	-82.71	-693.1	939.0	8,551.9	8,315.6	236.25	36.198	
14,271.6	6,636.0	6,624.3	6,452.4	215.9	26.2	-82.66	-693.1	939.0	8,622.5	8,384.2	238.21	36.196	
14,300.0	6,636.0	6,623.7	6,451.9	216.7	26.2	-82.64	-693.0	939.0	8,650.4	8,411.4	238.99	36.196	
14,370.0	6,635.9	6,622.4	6,450.5	218.7	26.2	-82.58	-693.0	938.9	8,719.5	8,478.6	240.91	36.194	
14,400.0	6,635.8	6,621.9	6,450.0	219.5	26.2	-82.56	-693.0	938.9	8,749.0	8,507.3	241.73	36.193	
14,468.5	6,635.7	6,620.6	6,448.7	221.4	26.2	-82.51	-693.0	938.9	8,816.5	8,572.9	243.60	36.192	
14,500.0	6,635.7	6,620.0	6,448.1	222.3	26.2	-82.49	-692.9	938.9	8,847.6	8,603.1	244.47	36.191	
14,566.9	6,635.6	6,618.7	6,446.8	224.2	26.2	-82.44	-692.9	938.9	8,913.6	8,667.3	246.30	36.190	
14,600.0	6,635.6	6,618.1	6,446.2	225.1	26.2	-82.41	-692.9	938.9	8,946.3	8,699.1	247.20	36.190	
14,665.3	6,635.5	6,616.8	6,444.9	226.9	26.2	-82.36	-692.8	938.9	9,010.7	8,761.7	248.99	36.189	
14,700.0	6,635.4	6,616.2	6,444.3	227.9	26.2	-82.34	-692.8	938.8	9,044.9	8,795.0	249.94	36.189	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST DD WACKER B #10-20D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 223-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
14,763.7	6,635.4	6,614.9	6,443.1	229.7	26.2	-82.29	-692.8	938.8	9,107.8	8,856.2	251.68	36.188	
14,800.0	6,635.3	6,614.2	6,442.4	230.7	26.2	-82.26	-692.8	938.8	9,143.6	8,891.0	252.67	36.188	
14,862.2	6,635.2	6,613.0	6,441.2	232.5	26.2	-82.22	-692.7	938.8	9,205.0	8,950.6	254.37	36.188	
14,900.0	6,635.2	6,612.3	6,440.4	233.5	26.2	-82.19	-692.7	938.8	9,242.4	8,987.0	255.40	36.187	
14,960.6	6,635.1	6,611.1	6,439.3	235.2	26.2	-82.14	-692.7	938.8	9,302.2	9,045.1	257.06	36.187	
15,000.0	6,635.0	6,610.4	6,438.5	236.3	26.2	-82.11	-692.6	938.8	9,341.1	9,083.0	258.13	36.187	
15,033.1	6,635.0	6,609.7	6,437.9	237.3	26.2	-82.09	-692.6	938.7	9,373.8	9,114.7	259.04	36.187 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 655-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	110.43	-1,442.0	3,870.8	4,130.7				
98.4	98.4	90.4	90.4	0.1	0.1	110.43	-1,442.0	3,870.8	4,130.7	4,130.5	0.18	N/A	
100.0	100.0	92.0	92.0	0.1	0.1	110.43	-1,442.0	3,870.8	4,130.7	4,130.5	0.18	N/A	
196.8	196.8	188.8	188.8	0.3	0.2	110.43	-1,442.0	3,870.8	4,130.7	4,130.2	0.49	8,428.072	
200.0	200.0	192.0	192.0	0.3	0.2	110.43	-1,442.0	3,870.8	4,130.7	4,130.2	0.50	8,259.658	
295.3	295.3	287.3	287.3	0.5	0.3	110.43	-1,442.0	3,870.8	4,130.7	4,129.9	0.80	5,148.160	
300.0	300.0	292.0	292.0	0.5	0.3	110.43	-1,442.0	3,870.8	4,130.7	4,129.8	0.82	5,053.745	
393.7	393.7	385.7	385.7	0.8	0.4	110.43	-1,442.0	3,870.8	4,130.7	4,129.5	1.11	3,705.938	
400.0	400.0	392.0	392.0	0.8	0.4	110.43	-1,442.0	3,870.8	4,130.7	4,129.5	1.13	3,640.656	
492.1	492.1	484.1	484.1	1.0	0.4	110.43	-1,442.0	3,870.8	4,130.7	4,129.2	1.43	2,894.941	
500.0	500.0	492.0	492.0	1.0	0.5	110.43	-1,442.0	3,870.8	4,130.7	4,129.2	1.45	2,845.125	
590.5	590.5	582.5	582.5	1.2	0.5	110.43	-1,442.0	3,870.8	4,130.7	4,128.9	1.74	2,375.166	
600.0	600.0	592.0	592.0	1.2	0.5	110.43	-1,442.0	3,870.8	4,130.7	4,128.9	1.77	2,334.915	
689.0	689.0	701.3	701.3	1.4	0.7	110.43	-1,441.8	3,870.7	4,130.6	4,128.5	2.13	1,938.330	
700.0	700.0	720.9	720.9	1.4	0.8	110.43	-1,441.6	3,870.7	4,130.5	4,128.3	2.20	1,877.696	
787.4	787.4	802.2	802.2	1.6	0.9	110.42	-1,440.9	3,870.3	4,129.9	4,127.3	2.56	1,612.373	
800.0	800.0	812.5	812.5	1.7	0.9	110.42	-1,440.9	3,870.3	4,129.8	4,127.2	2.61	1,582.160	
885.8	885.8	898.6	898.6	1.9	1.1	110.43	-1,441.4	3,869.7	4,129.4	4,126.5	2.97	1,391.861	
900.0	900.0	913.8	913.8	1.9	1.1	110.43	-1,441.5	3,869.5	4,129.4	4,126.3	3.03	1,364.075	
932.9	932.9	925.0	925.0	2.0	1.2	110.43	-1,441.6	3,869.4	4,129.3	4,126.1	3.12	1,322.524 CC	
984.2	984.2	925.0	925.0	2.1	1.2	110.43	-1,441.6	3,869.4	4,129.6	4,126.3	3.24	1,275.510	
993.2	993.2	956.7	956.6	2.1	1.2	110.44	-1,442.0	3,869.3	4,129.4	4,126.1	3.32	1,243.592 ES	
1,000.0	1,000.0	959.2	959.2	2.1	1.2	110.44	-1,442.0	3,869.3	4,129.4	4,126.1	3.34	1,236.041	
1,082.7	1,082.7	1,018.0	1,018.0	2.3	1.3	83.45	-1,443.5	3,870.0	4,130.7	4,127.1	3.64	1,134.254	
1,100.0	1,100.0	1,018.0	1,018.0	2.3	1.3	83.45	-1,443.5	3,870.0	4,130.9	4,127.2	3.68	1,122.451	
1,181.1	1,181.0	1,018.0	1,018.0	2.5	1.3	83.41	-1,443.5	3,870.0	4,132.7	4,128.8	3.86	1,070.602	
1,200.0	1,199.8	1,045.6	1,045.5	2.6	1.4	83.44	-1,444.4	3,870.6	4,133.2	4,129.2	3.96	1,044.035	
1,279.5	1,279.1	1,111.0	1,110.9	2.8	1.5	83.49	-1,447.2	3,872.4	4,135.6	4,131.3	4.28	967.346	
1,300.0	1,299.5	1,111.0	1,110.9	2.8	1.5	83.48	-1,447.2	3,872.4	4,136.2	4,131.9	4.32	956.993	
1,377.9	1,376.9	1,151.2	1,151.0	3.0	1.6	83.51	-1,449.4	3,873.7	4,139.0	4,134.4	4.60	900.208	
1,400.0	1,398.7	1,164.2	1,163.9	3.0	1.6	83.53	-1,450.1	3,874.2	4,139.8	4,135.2	4.68	884.597	
1,476.4	1,474.2	1,211.0	1,210.6	3.2	1.7	83.60	-1,453.3	3,875.9	4,143.0	4,138.1	4.98	831.172	
1,500.0	1,497.5	1,229.3	1,228.8	3.3	1.8	83.63	-1,454.6	3,876.6	4,144.1	4,139.0	5.09	814.200	
1,574.8	1,571.0	1,297.9	1,297.1	3.5	1.9	83.80	-1,460.2	3,879.1	4,147.4	4,141.9	5.47	758.260	
1,600.0	1,595.6	1,343.7	1,342.7	3.6	2.1	83.96	-1,464.6	3,880.4	4,148.4	4,142.8	5.66	733.547	
1,673.2	1,667.2	1,428.6	1,427.1	3.9	2.3	84.32	-1,474.8	3,881.3	4,150.9	4,144.8	6.11	679.461	
1,700.0	1,693.4	1,444.0	1,442.3	4.0	2.3	84.39	-1,476.8	3,881.5	4,151.9	4,145.7	6.24	665.456	
1,771.6	1,763.5	1,494.0	1,491.9	4.2	2.5	84.61	-1,483.3	3,882.2	4,155.0	4,148.4	6.62	627.456	
1,800.0	1,791.3	1,508.0	1,505.7	4.3	2.5	84.67	-1,485.2	3,882.4	4,156.4	4,149.6	6.76	614.708	
1,870.1	1,859.8	1,583.5	1,580.4	4.6	2.7	85.01	-1,495.8	3,883.4	4,159.7	4,152.5	7.23	575.605	
1,900.0	1,889.1	1,631.2	1,627.7	4.7	2.9	85.24	-1,502.8	3,883.7	4,161.1	4,153.7	7.48	556.591	
1,968.5	1,956.1	1,684.0	1,679.8	4.9	3.0	85.49	-1,511.0	3,883.5	4,164.1	4,156.2	7.89	527.614	
2,000.0	1,986.9	1,684.0	1,679.8	5.1	3.0	85.49	-1,511.0	3,883.5	4,165.8	4,157.8	8.01	519.850	
2,066.9	2,052.3	1,730.4	1,725.6	5.3	3.2	85.71	-1,518.5	3,883.6	4,169.4	4,161.0	8.42	495.409	
2,100.0	2,084.7	1,763.0	1,757.7	5.5	3.3	85.87	-1,524.0	3,884.1	4,171.7	4,163.1	8.64	482.577	
2,165.3	2,148.6	1,763.0	1,757.7	5.7	3.3	85.87	-1,524.0	3,884.1	4,176.3	4,167.4	8.91	468.917	
2,200.0	2,182.5	1,763.0	1,757.7	5.9	3.3	85.87	-1,524.0	3,884.1	4,179.2	4,170.2	9.05	462.029	
2,263.8	2,244.9	1,814.7	1,808.6	6.1	3.5	86.12	-1,533.3	3,885.4	4,184.6	4,175.2	9.47	441.677	
2,300.0	2,280.3	1,833.1	1,826.6	6.3	3.5	86.21	-1,536.8	3,885.8	4,188.0	4,178.3	9.68	432.550	
2,362.2	2,341.2	1,870.6	1,863.4	6.5	3.7	86.41	-1,544.5	3,886.8	4,194.1	4,184.1	10.06	416.769	
2,400.0	2,378.1	1,908.5	1,900.4	6.7	3.8	86.60	-1,552.3	3,887.8	4,198.0	4,187.6	10.35	405.614	
2,460.6	2,437.4	1,982.0	1,972.3	6.9	4.1	86.99	-1,567.6	3,889.5	4,204.1	4,193.3	10.86	387.121	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 655-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		
2,500.0	2,476.0	2,047.0	2,035.6	7.1	4.4	87.34	-1,582.0	3,890.1	4,208.0	4,196.7	11.26	373.705		
2,550.0	2,524.9	2,081.5	2,069.2	7.3	4.5	87.53	-1,590.1	3,890.1	4,212.8	4,201.2	11.60	363.050		
2,559.0	2,533.7	2,087.5	2,075.0	7.3	4.5	88.42	-1,591.5	3,890.2	4,213.7	4,202.1	11.66	361.274		
2,600.0	2,573.8	2,114.4	2,101.1	7.5	4.6	92.41	-1,597.8	3,890.3	4,218.4	4,206.4	11.93	353.541		
2,639.4	2,612.3	2,142.0	2,128.0	7.7	4.8	96.27	-1,604.3	3,890.4	4,223.5	4,211.3	12.19	346.605		
2,657.5	2,630.0	2,237.0	2,220.5	7.7	5.1	96.80	-1,625.9	3,890.4	4,225.7	4,213.1	12.60	335.356		
2,700.0	2,671.6	2,272.0	2,254.6	7.9	5.3	96.99	-1,633.7	3,890.1	4,230.9	4,218.0	12.91	327.849		
2,755.9	2,726.3	2,306.6	2,288.2	8.1	5.4	97.18	-1,641.8	3,889.7	4,238.0	4,224.8	13.27	319.278		
2,800.0	2,769.4	2,332.0	2,312.9	8.3	5.5	97.33	-1,648.0	3,889.5	4,243.9	4,230.3	13.56	313.031		
2,854.3	2,822.5	2,360.0	2,340.0	8.5	5.7	97.49	-1,655.0	3,889.2	4,251.4	4,237.5	13.91	305.572		
2,900.0	2,867.2	2,382.4	2,361.6	8.7	5.8	97.62	-1,660.8	3,888.9	4,258.0	4,243.8	14.21	299.733		
2,952.7	2,918.8	2,427.0	2,404.6	9.0	6.0	97.89	-1,672.8	3,888.6	4,266.0	4,251.4	14.63	291.627		
3,000.0	2,965.0	2,436.2	2,413.4	9.2	6.0	97.94	-1,675.3	3,888.5	4,273.3	4,258.5	14.87	287.410		
3,051.2	3,015.1	2,496.0	2,470.9	9.4	6.3	98.30	-1,691.7	3,888.1	4,281.5	4,266.1	15.34	279.060		
3,100.0	3,062.8	2,543.5	2,516.7	9.6	6.5	98.58	-1,704.5	3,887.6	4,289.2	4,273.5	15.74	272.418		
3,149.6	3,111.4	2,583.9	2,555.6	9.8	6.7	98.82	-1,715.2	3,887.4	4,297.2	4,281.1	16.11	266.689		
3,200.0	3,160.7	2,626.1	2,596.4	10.0	6.9	99.06	-1,726.0	3,887.4	4,305.4	4,289.0	16.49	261.080		
3,248.0	3,207.6	2,669.3	2,638.2	10.2	7.1	99.30	-1,737.0	3,887.5	4,313.4	4,296.6	16.86	255.813		
3,300.0	3,258.5	2,711.0	2,678.5	10.5	7.3	99.53	-1,747.6	3,887.6	4,322.1	4,304.9	17.24	250.669		
3,346.4	3,303.9	2,750.9	2,717.2	10.7	7.5	99.76	-1,757.7	3,887.8	4,330.1	4,312.5	17.59	246.100		
3,400.0	3,356.3	2,792.1	2,757.0	10.9	7.6	99.98	-1,767.9	3,888.1	4,339.4	4,321.4	17.98	241.324		
3,444.9	3,400.2	2,829.3	2,793.1	11.1	7.8	100.18	-1,777.1	3,888.5	4,347.3	4,329.0	18.32	237.270		
3,500.0	3,454.1	2,876.7	2,838.9	11.3	8.0	100.44	-1,789.2	3,888.8	4,357.2	4,338.4	18.75	232.365		
3,543.3	3,496.5	2,918.2	2,879.0	11.5	8.2	100.68	-1,800.1	3,888.8	4,365.0	4,345.9	19.11	228.448		
3,600.0	3,551.9	2,984.3	2,942.7	11.7	8.6	101.05	-1,817.5	3,888.7	4,375.3	4,355.7	19.62	222.956		
3,641.7	3,592.7	3,028.9	2,985.8	11.9	8.8	101.30	-1,829.0	3,888.7	4,382.8	4,362.8	19.98	219.370		
3,700.0	3,649.7	3,090.1	3,045.1	12.2	9.0	101.63	-1,844.2	3,888.9	4,393.4	4,372.9	20.47	214.671		
3,740.1	3,689.0	3,123.8	3,077.8	12.4	9.2	101.81	-1,852.3	3,889.1	4,400.7	4,379.9	20.77	211.914		
3,800.0	3,747.5	3,173.7	3,126.3	12.6	9.4	102.07	-1,864.4	3,889.4	4,411.7	4,390.5	21.21	207.976		
3,838.6	3,785.3	3,225.2	3,176.2	12.8	9.7	102.34	-1,876.9	3,889.8	4,418.9	4,397.3	21.57	204.819		
3,900.0	3,845.4	3,311.2	3,259.7	13.1	10.0	102.79	-1,897.4	3,889.8	4,430.0	4,407.8	22.16	199.914		
3,937.0	3,881.6	3,352.4	3,299.8	13.2	10.2	103.00	-1,906.8	3,890.0	4,436.6	4,414.1	22.47	197.473		
4,000.0	3,943.2	3,401.5	3,347.8	13.5	10.4	103.24	-1,917.4	3,890.5	4,448.0	4,425.1	22.91	194.139		
4,035.4	3,977.8	3,423.1	3,368.8	13.6	10.5	103.34	-1,922.1	3,890.8	4,454.5	4,431.4	23.14	192.519		
4,100.0	4,041.0	3,470.0	3,414.6	13.9	10.7	103.57	-1,932.3	3,891.6	4,466.7	4,443.1	23.58	189.451		
4,133.8	4,074.1	3,484.5	3,428.8	14.1	10.8	103.64	-1,935.6	3,891.8	4,473.3	4,449.5	23.78	188.143		
4,200.0	4,138.8	3,529.8	3,472.8	14.4	11.0	103.86	-1,946.0	3,892.5	4,486.3	4,462.1	24.22	185.196		
4,232.3	4,170.4	3,551.8	3,494.1	14.5	11.1	103.97	-1,951.2	3,892.8	4,492.8	4,468.4	24.44	183.810		
4,300.0	4,236.6	3,712.9	3,650.3	14.8	11.9	104.81	-1,990.7	3,891.4	4,505.4	4,480.1	25.35	177.740		
4,330.7	4,266.7	3,738.5	3,675.1	14.9	12.0	104.95	-1,997.1	3,890.9	4,511.1	4,485.6	25.58	176.352		
4,400.0	4,334.4	3,788.1	3,723.2	15.2	12.2	105.21	-2,009.6	3,889.8	4,524.2	4,498.1	26.07	173.529		
4,429.1	4,362.9	3,807.7	3,742.1	15.4	12.3	105.31	-2,014.5	3,889.4	4,529.8	4,503.5	26.27	172.414		
4,500.0	4,432.3	3,857.2	3,790.0	15.7	12.6	105.57	-2,027.0	3,888.7	4,543.7	4,516.9	26.77	169.744		
4,527.5	4,459.2	3,883.1	3,815.1	15.8	12.7	105.71	-2,033.4	3,888.3	4,549.2	4,522.2	26.98	168.602		
4,600.0	4,530.1	3,964.2	3,893.7	16.1	13.1	106.12	-2,053.2	3,887.6	4,563.7	4,536.1	27.59	165.423		
4,626.0	4,555.5	4,037.0	3,964.4	16.2	13.4	106.48	-2,070.3	3,886.6	4,568.7	4,540.8	27.95	163.432		
4,700.0	4,627.9	4,147.3	4,071.9	16.6	13.9	107.02	-2,095.1	3,884.7	4,582.5	4,553.9	28.65	159.971		
4,724.4	4,651.7	4,182.1	4,105.9	16.7	14.0	107.18	-2,102.5	3,884.2	4,587.0	4,558.1	28.86	158.924		
4,800.0	4,725.7	4,276.2	4,198.1	17.0	14.4	107.61	-2,121.3	3,883.1	4,600.5	4,571.1	29.48	156.056		
4,822.8	4,748.0	4,301.3	4,222.7	17.1	14.5	107.72	-2,126.1	3,883.0	4,604.6	4,575.0	29.65	155.282		
4,904.9	4,828.3	4,392.2	4,312.1	17.5	14.8	108.11	-2,142.8	3,882.6	4,619.2	4,589.0	30.27	152.614		
4,921.2	4,844.3	4,410.4	4,330.0	17.5	14.9	108.25	-2,146.0	3,882.6	4,622.1	4,591.7	30.37	152.175		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 655-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		
5,000.0	4,921.6	4,494.1	4,412.5	17.8	15.2	108.83	-2,160.5	3,882.7	4,635.6	4,604.7	30.87	150.189		
5,019.7	4,941.0	4,515.1	4,433.2	17.9	15.3	108.97	-2,164.0	3,882.7	4,638.8	4,607.9	30.97	149.771		
5,100.0	5,020.4	4,838.8	4,754.1	18.1	16.3	110.15	-2,205.4	3,883.6	4,650.1	4,618.1	31.94	145.602		
5,118.1	5,038.3	4,861.0	4,776.2	18.2	16.3	110.25	-2,207.5	3,883.5	4,651.9	4,619.9	32.03	145.259		
5,200.0	5,119.6	4,958.9	4,873.8	18.4	16.6	110.62	-2,216.3	3,883.0	4,659.7	4,627.3	32.42	143.743		
5,216.5	5,136.0	4,978.4	4,893.2	18.4	16.6	110.68	-2,217.9	3,882.9	4,661.2	4,628.7	32.49	143.465		
5,300.0	5,219.2	5,129.6	5,044.0	18.6	17.0	111.06	-2,228.7	3,882.2	4,667.2	4,634.3	32.95	141.634		
5,314.9	5,234.1	5,147.8	5,062.2	18.6	17.0	111.10	-2,229.8	3,882.1	4,668.1	4,635.1	33.01	141.406		
5,400.0	5,319.1	5,268.6	5,182.7	18.8	17.3	111.31	-2,236.3	3,881.7	4,672.4	4,639.0	33.38	139.974		
5,413.4	5,332.4	5,285.5	5,199.6	18.8	17.3	111.34	-2,237.1	3,881.7	4,672.9	4,639.5	33.43	139.790		
5,504.9	5,423.9	5,492.9	5,406.9	18.9	17.7	129.89	-2,242.8	3,881.1	4,675.1	4,646.8	28.32	165.098		
5,511.8	5,430.8	5,497.8	5,411.8	18.9	17.7	129.89	-2,242.9	3,881.0	4,675.1	4,646.7	28.34	164.983		
5,600.0	5,519.0	5,561.1	5,475.1	19.0	17.8	129.90	-2,243.9	3,880.6	4,675.5	4,646.9	28.59	163.543		
5,610.2	5,529.3	5,572.8	5,486.8	19.0	17.8	129.90	-2,244.1	3,880.6	4,675.6	4,647.0	28.63	163.325		
5,700.0	5,619.0	5,675.6	5,589.6	19.2	17.9	129.92	-2,245.3	3,880.4	4,676.1	4,647.2	28.97	161.441		
5,708.6	5,627.7	5,685.5	5,599.5	19.2	17.9	129.92	-2,245.4	3,880.4	4,676.2	4,647.2	29.00	161.260		
5,800.0	5,719.0	5,792.1	5,706.2	19.3	18.1	129.92	-2,246.0	3,880.3	4,676.4	4,647.1	29.34	159.371		
5,807.1	5,726.1	5,800.7	5,714.7	19.3	18.1	129.92	-2,246.0	3,880.2	4,676.4	4,647.1	29.37	159.225		
5,900.0	5,819.0	5,871.3	5,785.3	19.4	18.2	129.93	-2,246.3	3,880.1	4,676.6	4,646.9	29.66	157.670		
5,905.5	5,824.5	5,873.9	5,787.9	19.4	18.2	129.93	-2,246.3	3,880.1	4,676.6	4,646.9	29.68	157.592		
6,003.9	5,923.0	5,938.0	5,852.0	19.6	18.3	129.91	-2,245.9	3,881.5	4,677.8	4,647.9	29.97	156.103		
6,009.8	5,928.8	5,938.0	5,852.0	19.6	18.3	129.91	-2,245.9	3,881.5	4,677.9	4,647.9	29.98	156.048		
6,050.0	5,969.0	5,938.0	5,852.0	19.6	18.3	-140.01	-2,245.9	3,881.5	4,679.5	4,644.3	35.27	132.661		
6,100.0	6,018.8	5,938.0	5,852.0	19.7	18.3	-139.75	-2,245.9	3,881.5	4,684.4	4,649.3	35.11	133.417		
6,102.3	6,021.1	5,938.0	5,852.0	19.7	18.3	-139.73	-2,245.9	3,881.5	4,684.7	4,649.6	35.10	133.471		
6,150.0	6,068.1	5,938.0	5,852.0	19.7	18.3	-139.33	-2,245.9	3,881.5	4,692.5	4,657.7	34.80	134.844		
6,200.0	6,116.8	5,938.0	5,852.0	19.7	18.3	-138.72	-2,245.9	3,881.5	4,703.7	4,669.4	34.35	136.944		
6,200.8	6,117.5	5,938.0	5,852.0	19.7	18.3	-138.71	-2,245.9	3,881.5	4,703.9	4,669.6	34.34	136.983		
6,250.0	6,164.5	5,938.0	5,852.0	19.7	18.3	-137.93	-2,245.9	3,881.5	4,717.9	4,684.1	33.77	139.717		
6,299.2	6,210.4	5,938.0	5,852.0	19.7	18.3	-136.96	-2,245.9	3,881.5	4,734.8	4,701.7	33.09	143.094		
6,300.0	6,211.1	5,938.0	5,852.0	19.7	18.3	-136.95	-2,245.9	3,881.5	4,735.1	4,702.0	33.08	143.153		
6,350.0	6,256.4	5,982.2	5,896.0	19.7	18.3	-135.97	-2,244.9	3,885.1	4,753.7	4,721.3	32.34	146.977		
6,397.6	6,298.0	5,987.9	5,901.7	19.7	18.3	-134.67	-2,244.7	3,885.9	4,774.8	4,743.3	31.55	151.327		
6,400.0	6,300.0	5,988.2	5,901.9	19.7	18.3	-134.60	-2,244.7	3,885.9	4,775.9	4,744.4	31.51	151.554		
6,450.0	6,341.8	6,033.0	5,946.0	19.7	18.4	-133.30	-2,242.3	3,894.0	4,801.8	4,771.1	30.69	156.444		
6,496.0	6,378.6	6,033.0	5,946.0	19.7	18.4	-131.57	-2,242.3	3,894.0	4,826.5	4,796.6	29.92	161.306		
6,500.0	6,381.6	6,033.0	5,946.0	19.7	18.4	-131.41	-2,242.3	3,894.0	4,828.7	4,798.9	29.86	161.725		
6,550.0	6,419.2	6,033.0	5,946.0	19.6	18.4	-129.22	-2,242.3	3,894.0	4,857.9	4,828.8	29.10	166.936		
6,594.5	6,450.7	6,033.0	5,946.0	19.6	18.4	-126.99	-2,242.3	3,894.0	4,885.6	4,857.0	28.54	171.157		
6,600.0	6,454.4	6,033.0	5,946.0	19.6	18.4	-126.70	-2,242.3	3,894.0	4,889.1	4,860.6	28.48	171.639		
6,650.0	6,487.1	6,033.0	5,946.0	19.6	18.4	-123.81	-2,242.3	3,894.0	4,922.3	4,894.2	28.08	175.307		
6,692.9	6,513.0	6,033.0	5,946.0	19.6	18.4	-121.01	-2,242.3	3,894.0	4,952.0	4,924.1	27.94	177.227		
6,700.0	6,517.0	6,033.0	5,946.0	19.6	18.4	-120.52	-2,242.3	3,894.0	4,957.1	4,929.1	27.94	177.422		
6,750.0	6,544.1	6,033.0	5,946.0	19.6	18.4	-116.81	-2,242.3	3,894.0	4,993.4	4,965.3	28.11	177.635		
6,791.3	6,564.2	6,033.0	5,946.0	19.7	18.4	-113.41	-2,242.3	3,894.0	5,024.4	4,995.9	28.51	176.220		
6,800.0	6,568.2	6,033.0	5,946.0	19.7	18.4	-112.66	-2,242.3	3,894.0	5,031.0	5,002.4	28.60	175.929		
6,850.0	6,589.1	6,033.0	5,946.0	19.8	18.4	-108.08	-2,242.3	3,894.0	5,069.7	5,040.3	29.36	172.675		
6,889.7	6,603.5	6,033.0	5,946.0	19.9	18.4	-104.15	-2,242.3	3,894.0	5,101.1	5,071.0	30.12	169.384		
6,900.0	6,606.9	6,033.0	5,946.0	19.9	18.4	-103.10	-2,242.3	3,894.0	5,109.3	5,078.9	30.31	168.543		
6,950.0	6,621.3	6,033.0	5,946.0	20.2	18.4	-97.78	-2,242.3	3,894.0	5,149.5	5,118.1	31.34	164.308		
6,988.2	6,630.0	6,033.0	5,946.0	20.6	18.4	-93.55	-2,242.3	3,894.0	5,180.5	5,148.4	32.10	161.405		
7,000.0	6,632.4	6,033.0	5,946.0	20.7	18.4	-92.22	-2,242.3	3,894.0	5,190.1	5,157.8	32.31	160.655		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft		
Survey Program: 655-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					
7,050.0	6,640.0	6,033.0	5,946.0	21.4	18.4	-86.54	-2,242.3	3,894.0	5,231.0	5,197.9	33.09	158.068					
7,086.6	6,643.4	6,033.0	5,946.0	21.9	18.4	-82.38	-2,242.3	3,894.0	5,261.0	5,227.5	33.51	156.977					
7,100.0	6,644.2	6,033.0	5,946.0	22.1	18.4	-80.87	-2,242.3	3,894.0	5,271.9	5,238.3	33.62	156.791					
7,135.7	6,645.0	6,033.0	5,946.0	22.7	18.4	-76.92	-2,242.3	3,894.0	5,301.0	5,267.2	33.83	156.698					
7,185.0	6,644.9	6,033.0	5,946.0	23.6	18.4	-76.92	-2,242.3	3,894.0	5,341.3	5,306.5	34.77	153.630					
7,200.0	6,644.9	6,033.0	5,946.0	23.9	18.4	-76.92	-2,242.3	3,894.0	5,353.5	5,318.5	35.05	152.733					
7,283.4	6,644.8	6,033.0	5,946.0	25.6	18.4	-76.92	-2,242.3	3,894.0	5,422.0	5,385.3	36.74	147.571					
7,300.0	6,644.8	6,033.0	5,946.0	25.9	18.4	-76.92	-2,242.3	3,894.0	5,435.7	5,398.6	37.08	146.605					
7,381.9	6,644.7	6,033.0	5,946.0	27.7	18.4	-76.92	-2,242.3	3,894.0	5,503.4	5,464.5	38.84	141.684					
7,400.0	6,644.7	6,033.0	5,946.0	28.1	18.4	-76.92	-2,242.3	3,894.0	5,518.4	5,479.2	39.23	140.657					
7,480.3	6,644.6	6,033.0	5,946.0	29.9	18.4	-76.92	-2,242.3	3,894.0	5,585.2	5,544.2	41.05	136.056					
7,500.0	6,644.6	6,033.0	5,946.0	30.3	18.4	-76.92	-2,242.3	3,894.0	5,601.7	5,560.2	41.50	134.991					
7,578.7	6,644.5	6,033.0	5,946.0	32.2	18.4	-76.92	-2,242.3	3,894.0	5,667.6	5,624.3	43.34	130.770					
7,600.0	6,644.4	6,033.0	5,946.0	32.7	18.4	-76.92	-2,242.3	3,894.0	5,685.5	5,641.7	43.84	129.692					
7,677.1	6,644.3	6,033.0	5,946.0	34.6	18.4	-76.92	-2,242.3	3,894.0	5,750.5	5,704.8	45.69	125.853					
7,700.0	6,644.3	6,033.0	5,946.0	35.1	18.4	-76.92	-2,242.3	3,894.0	5,769.9	5,723.6	46.24	124.777					
7,775.6	6,644.2	6,033.0	5,946.0	37.0	18.4	-76.92	-2,242.3	3,894.0	5,833.9	5,785.8	48.09	121.301					
7,800.0	6,644.2	6,033.0	5,946.0	37.6	18.4	-76.92	-2,242.3	3,894.0	5,854.7	5,806.0	48.69	120.236					
7,874.0	6,644.1	6,033.0	5,946.0	39.5	18.4	-76.92	-2,242.3	3,894.0	5,917.8	5,867.2	50.54	117.097					
7,900.0	6,644.1	6,033.0	5,946.0	40.1	18.4	-76.92	-2,242.3	3,894.0	5,940.0	5,888.8	51.18	116.050					
7,972.4	6,644.0	6,033.0	5,946.0	42.0	18.4	-76.92	-2,242.3	3,894.0	6,002.1	5,949.0	53.01	113.219					
8,000.0	6,643.9	6,033.0	5,946.0	42.7	18.4	-76.92	-2,242.3	3,894.0	6,025.8	5,972.0	53.71	112.193					
8,070.8	6,643.9	6,033.0	5,946.0	44.5	18.4	-76.92	-2,242.3	3,894.0	6,086.8	6,031.3	55.52	109.641					
8,100.0	6,643.8	6,033.0	5,946.0	45.2	18.4	-76.92	-2,242.3	3,894.0	6,111.9	6,055.7	56.26	108.640					
8,169.3	6,643.7	6,033.0	5,946.0	47.0	18.4	-76.92	-2,242.3	3,894.0	6,171.9	6,113.9	58.04	106.337					
8,200.0	6,643.7	6,033.0	5,946.0	47.9	18.4	-76.92	-2,242.3	3,894.0	6,198.5	6,139.7	58.83	105.361					
8,267.7	6,643.6	6,033.0	5,946.0	49.6	18.4	-76.92	-2,242.3	3,894.0	6,257.4	6,196.8	60.59	103.282					
8,300.0	6,643.6	6,033.0	5,946.0	50.5	18.4	-76.92	-2,242.3	3,894.0	6,285.5	6,224.1	61.42	102.333					
8,366.1	6,643.5	6,033.0	5,946.0	52.2	18.4	-76.92	-2,242.3	3,894.0	6,343.3	6,280.1	63.15	100.454					
8,400.0	6,643.4	6,033.0	5,946.0	53.1	18.4	-76.92	-2,242.3	3,894.0	6,372.9	6,308.9	64.03	99.532					
8,464.5	6,643.4	6,033.0	5,946.0	54.8	18.4	-76.92	-2,242.3	3,894.0	6,429.5	6,363.8	65.72	97.831					
8,500.0	6,643.3	6,033.0	5,946.0	55.8	18.4	-76.92	-2,242.3	3,894.0	6,460.7	6,394.0	66.65	96.935					
8,563.0	6,643.2	6,033.0	5,946.0	57.5	18.4	-76.92	-2,242.3	3,894.0	6,516.1	6,447.8	68.31	95.395					
8,600.0	6,643.2	6,033.0	5,946.0	58.5	18.4	-76.92	-2,242.3	3,894.0	6,548.8	6,479.5	69.28	94.524					
8,661.4	6,643.1	6,033.0	5,946.0	60.1	18.4	-76.92	-2,242.3	3,894.0	6,603.0	6,532.1	70.90	93.127					
8,700.0	6,643.1	6,033.0	5,946.0	61.2	18.4	-76.92	-2,242.3	3,894.0	6,637.2	6,565.3	71.92	92.282					
8,759.8	6,643.0	6,033.0	5,946.0	62.8	18.4	-76.92	-2,242.3	3,894.0	6,690.3	6,616.8	73.51	91.013					
8,800.0	6,643.0	6,033.0	5,946.0	63.9	18.4	-76.92	-2,242.3	3,894.0	6,726.0	6,651.4	74.57	90.192					
8,858.2	6,642.9	6,033.0	5,946.0	65.4	18.4	-76.92	-2,242.3	3,894.0	6,777.8	6,701.7	76.12	89.038					
8,900.0	6,642.8	5,989.4	5,903.2	66.6	18.3	-76.16	-2,244.6	3,886.1	6,813.5	6,736.5	76.93	88.564					
8,956.7	6,642.8	5,988.8	5,902.5	68.1	18.3	-76.15	-2,244.6	3,886.0	6,864.0	6,785.6	78.43	87.513					
9,000.0	6,642.7	5,988.3	5,902.0	69.3	18.3	-76.14	-2,244.7	3,885.9	6,902.7	6,823.1	79.58	86.738					
9,055.1	6,642.6	5,987.6	5,901.4	70.8	18.3	-76.13	-2,244.7	3,885.8	6,952.0	6,871.0	81.04	85.781					
9,100.0	6,642.6	5,987.1	5,900.9	72.0	18.3	-76.12	-2,244.7	3,885.7	6,992.3	6,910.1	82.24	85.027					
9,153.5	6,642.5	5,986.5	5,900.3	73.5	18.3	-76.11	-2,244.7	3,885.7	7,040.3	6,956.7	83.66	84.155					
9,200.0	6,642.5	5,986.0	5,899.8	74.7	18.3	-76.10	-2,244.7	3,885.6	7,082.1	6,997.2	84.90	83.422					
9,251.9	6,642.4	5,985.4	5,899.2	76.2	18.3	-76.09	-2,244.8	3,885.5	7,128.9	7,042.6	86.28	82.626					
9,300.0	6,642.3	5,984.9	5,898.7	77.5	18.3	-76.08	-2,244.8	3,885.5	7,172.2	7,084.7	87.56	81.913					
9,350.4	6,642.3	5,984.4	5,898.2	78.9	18.3	-76.07	-2,244.8	3,885.4	7,217.7	7,128.8	88.90	81.186					
9,400.0	6,642.2	5,983.9	5,897.7	80.2	18.3	-76.06	-2,244.8	3,885.3	7,262.6	7,172.4	90.23	80.492					
9,448.8	6,642.1	5,983.4	5,897.2	81.6	18.3	-76.05	-2,244.8	3,885.3	7,306.8	7,215.3	91.53	79.828					
9,500.0	6,642.1	5,982.8	5,896.7	83.0	18.3	-76.04	-2,244.9	3,885.2	7,353.2	7,260.3	92.90	79.153					

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 655-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	6,642.0	5,982.4	5,896.2	84.3	18.3	-76.03	-2,244.9	3,885.1	7,396.1	7,301.9	94.16	78.546	
9,600.0	6,642.0	5,981.9	5,895.7	85.7	18.3	-76.02	-2,244.9	3,885.1	7,444.1	7,348.5	95.57	77.888	
9,645.6	6,641.9	5,938.0	5,852.0	87.0	18.3	-75.25	-2,245.9	3,881.5	7,487.3	7,390.8	96.42	77.654	
9,700.0	6,641.8	5,938.0	5,852.0	88.5	18.3	-75.25	-2,245.9	3,881.5	7,536.8	7,438.9	97.87	77.005	
9,744.1	6,641.8	5,938.0	5,852.0	89.7	18.3	-75.25	-2,245.9	3,881.5	7,576.9	7,477.9	99.05	76.493	
9,800.0	6,641.7	5,938.0	5,852.0	91.2	18.3	-75.24	-2,245.9	3,881.5	7,628.0	7,527.4	100.55	75.860	
9,842.5	6,641.7	5,938.0	5,852.0	92.4	18.3	-75.24	-2,245.9	3,881.5	7,666.8	7,565.1	101.69	75.391	
9,900.0	6,641.6	5,938.0	5,852.0	94.0	18.3	-75.24	-2,245.9	3,881.5	7,719.5	7,616.2	103.24	74.774	
9,940.9	6,641.5	5,938.0	5,852.0	95.1	18.3	-75.24	-2,245.9	3,881.5	7,756.9	7,652.6	104.34	74.346	
10,000.0	6,641.5	5,938.0	5,852.0	96.7	18.3	-75.24	-2,245.9	3,881.5	7,811.1	7,705.2	105.92	73.744	
10,039.3	6,641.4	5,938.0	5,852.0	97.8	18.3	-75.24	-2,245.9	3,881.5	7,847.2	7,740.3	106.98	73.353	
10,100.0	6,641.3	5,938.0	5,852.0	99.5	18.3	-75.24	-2,245.9	3,881.5	7,903.0	7,794.4	108.61	72.765	
10,137.8	6,641.3	5,938.0	5,852.0	100.6	18.3	-75.24	-2,245.9	3,881.5	7,937.7	7,828.1	109.63	72.408	
10,200.0	6,641.2	5,938.0	5,852.0	102.3	18.3	-75.24	-2,245.9	3,881.5	7,995.0	7,883.7	111.30	71.834	
10,236.2	6,641.2	5,938.0	5,852.0	103.3	18.3	-75.24	-2,245.9	3,881.5	8,028.4	7,916.1	112.27	71.508	
10,300.0	6,641.1	5,938.0	5,852.0	105.0	18.3	-75.24	-2,245.9	3,881.5	8,087.3	7,973.3	113.99	70.947	
10,334.6	6,641.0	5,938.0	5,852.0	106.0	18.3	-75.24	-2,245.9	3,881.5	8,119.3	8,004.4	114.92	70.650	
10,400.0	6,641.0	5,938.0	5,852.0	107.8	18.3	-75.24	-2,245.9	3,881.5	8,179.7	8,063.1	116.68	70.102	
10,433.0	6,640.9	5,938.0	5,852.0	108.7	18.3	-75.24	-2,245.9	3,881.5	8,210.3	8,092.7	117.57	69.831	
10,500.0	6,640.8	5,938.0	5,852.0	110.6	18.3	-75.24	-2,245.9	3,881.5	8,272.3	8,153.0	119.38	69.296	
10,531.5	6,640.8	5,938.0	5,852.0	111.5	18.3	-75.24	-2,245.9	3,881.5	8,301.5	8,181.3	120.23	69.049	
10,600.0	6,640.7	5,938.0	5,852.0	113.4	18.3	-75.24	-2,245.9	3,881.5	8,365.1	8,243.0	122.07	68.525	
10,629.9	6,640.7	5,938.0	5,852.0	114.2	18.3	-75.24	-2,245.9	3,881.5	8,392.9	8,270.0	122.88	68.302	
10,700.0	6,640.6	5,938.0	5,852.0	116.1	18.3	-75.24	-2,245.9	3,881.5	8,458.1	8,333.3	124.77	67.789	
10,728.3	6,640.5	5,938.0	5,852.0	116.9	18.3	-75.24	-2,245.9	3,881.5	8,484.4	8,358.9	125.53	67.586	
10,800.0	6,640.5	5,938.0	5,852.0	118.9	18.3	-75.24	-2,245.9	3,881.5	8,551.2	8,423.7	127.47	67.084	
10,826.7	6,640.4	5,938.0	5,852.0	119.7	18.3	-75.24	-2,245.9	3,881.5	8,576.1	8,447.9	128.19	66.901	
10,900.0	6,640.3	5,938.0	5,852.0	121.7	18.3	-75.24	-2,245.9	3,881.5	8,644.4	8,514.3	130.17	66.409	
10,925.2	6,640.3	5,938.0	5,852.0	122.4	18.3	-75.24	-2,245.9	3,881.5	8,667.9	8,537.1	130.85	66.244	
11,000.0	6,640.2	5,938.0	5,852.0	124.5	18.3	-75.24	-2,245.9	3,881.5	8,737.8	8,605.0	132.87	65.763	
11,023.6	6,640.2	5,938.0	5,852.0	125.1	18.3	-75.24	-2,245.9	3,881.5	8,759.9	8,626.4	133.51	65.614	
11,100.0	6,640.1	5,938.0	5,852.0	127.3	18.3	-75.24	-2,245.9	3,881.5	8,831.4	8,695.8	135.57	65.142	
11,122.0	6,640.0	5,938.0	5,852.0	127.9	18.3	-75.24	-2,245.9	3,881.5	8,852.0	8,715.8	136.17	65.009	
11,200.0	6,639.9	5,938.0	5,852.0	130.1	18.3	-75.24	-2,245.9	3,881.5	8,925.1	8,786.8	138.27	64.547	
11,220.4	6,639.9	5,938.0	5,852.0	130.6	18.3	-75.24	-2,245.9	3,881.5	8,944.3	8,805.4	138.83	64.428	
11,300.0	6,639.8	5,938.0	5,852.0	132.8	18.3	-75.24	-2,245.9	3,881.5	9,018.9	8,877.9	140.98	63.974	
11,318.9	6,639.8	5,938.0	5,852.0	133.4	18.3	-75.24	-2,245.9	3,881.5	9,036.6	8,895.1	141.49	63.869	
11,400.0	6,639.7	5,938.0	5,852.0	135.6	18.3	-75.24	-2,245.9	3,881.5	9,112.9	8,969.2	143.68	63.424	
11,417.3	6,639.7	5,938.0	5,852.0	136.1	18.3	-75.24	-2,245.9	3,881.5	9,129.1	8,985.0	144.15	63.331	
11,500.0	6,639.6	5,938.0	5,852.0	138.4	18.3	-75.24	-2,245.9	3,881.5	9,206.9	9,060.6	146.39	62.895	
11,515.7	6,639.5	5,938.0	5,852.0	138.9	18.3	-75.24	-2,245.9	3,881.5	9,221.8	9,074.9	146.81	62.814	
11,600.0	6,639.4	5,938.0	5,852.0	141.2	18.3	-75.24	-2,245.9	3,881.5	9,301.2	9,152.1	149.09	62.385	
11,614.1	6,639.4	5,938.0	5,852.0	141.6	18.3	-75.24	-2,245.9	3,881.5	9,314.5	9,165.0	149.47	62.315	
11,700.0	6,639.3	5,938.0	5,852.0	144.0	18.3	-75.24	-2,245.9	3,881.5	9,395.5	9,243.7	151.80	61.895	
11,712.6	6,639.3	5,938.0	5,852.0	144.3	18.3	-75.24	-2,245.9	3,881.5	9,407.4	9,255.2	152.14	61.834	
11,800.0	6,639.2	5,938.0	5,852.0	146.8	18.3	-75.24	-2,245.9	3,881.5	9,489.9	9,335.4	154.51	61.421	
11,811.0	6,639.2	5,938.0	5,852.0	147.1	18.3	-75.24	-2,245.9	3,881.5	9,500.3	9,345.5	154.80	61.370	
11,900.0	6,639.1	5,938.0	5,852.0	149.6	18.3	-75.24	-2,245.9	3,881.5	9,584.5	9,427.3	157.21	60.965	
11,909.4	6,639.0	5,938.0	5,852.0	149.8	18.3	-75.24	-2,245.9	3,881.5	9,593.4	9,435.9	157.47	60.923	
12,000.0	6,638.9	5,938.0	5,852.0	152.4	18.3	-75.24	-2,245.9	3,881.5	9,679.1	9,519.2	159.92	60.525	
12,007.8	6,638.9	5,938.0	5,852.0	152.6	18.3	-75.24	-2,245.9	3,881.5	9,686.6	9,526.4	160.13	60.491	
12,100.0	6,638.8	5,938.0	5,852.0	155.2	18.3	-75.24	-2,245.9	3,881.5	9,773.9	9,611.3	162.63	60.099	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST HZ KELLY #B11-63-1HN - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 655-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	6,638.8	5,938.0	5,852.0	155.3	18.3	-75.24	-2,245.9	3,881.5	9,779.9	9,617.1	162.80	60.073	
12,200.0	6,638.7	5,938.0	5,852.0	157.9	18.3	-75.24	-2,245.9	3,881.5	9,868.8	9,703.5	165.34	59.688	
12,204.7	6,638.7	5,938.0	5,852.0	158.1	18.3	-75.24	-2,245.9	3,881.5	9,873.3	9,707.8	165.47	59.669	
12,300.0	6,638.5	5,938.0	5,852.0	160.7	18.3	-75.24	-2,245.9	3,881.5	9,963.8	9,795.7	168.05	59.291	
12,303.1	6,638.5	5,938.0	5,852.0	160.8	18.3	-75.24	-2,245.9	3,881.5	9,966.7	9,798.6	168.13	59.279 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 645-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	110.14	-1,419.4	3,871.1	4,123.1				
98.4	98.4	91.4	91.4	0.1	0.1	110.14	-1,419.4	3,871.1	4,123.1	4,122.9	0.18	N/A	
100.0	100.0	93.0	93.0	0.1	0.1	110.14	-1,419.4	3,871.1	4,123.1	4,122.9	0.18	N/A	
196.8	196.8	189.8	189.8	0.3	0.2	110.14	-1,419.4	3,871.1	4,123.1	4,122.6	0.49	8,412.477	
200.0	200.0	193.0	193.0	0.3	0.2	110.14	-1,419.4	3,871.1	4,123.1	4,122.6	0.50	8,244.628	
295.3	295.3	288.3	288.3	0.5	0.3	110.14	-1,419.4	3,871.1	4,123.1	4,122.3	0.80	5,141.713	
300.0	300.0	293.0	293.0	0.5	0.3	110.14	-1,419.4	3,871.1	4,123.1	4,122.3	0.82	5,047.503	
393.7	393.7	386.7	386.7	0.8	0.4	110.14	-1,419.4	3,871.1	4,123.1	4,122.0	1.11	3,702.273	
400.0	400.0	393.0	393.0	0.8	0.4	110.14	-1,419.4	3,871.1	4,123.1	4,122.0	1.13	3,637.098	
492.1	492.1	485.1	485.1	1.0	0.4	110.14	-1,419.4	3,871.1	4,123.1	4,121.7	1.43	2,892.506	
500.0	500.0	493.0	493.0	1.0	0.5	110.14	-1,419.4	3,871.1	4,123.1	4,121.6	1.45	2,842.758	
590.5	590.5	583.5	583.5	1.2	0.5	110.14	-1,419.4	3,871.1	4,123.1	4,121.4	1.74	2,373.393	
600.0	600.0	593.0	593.0	1.2	0.5	110.14	-1,419.4	3,871.1	4,123.1	4,121.3	1.77	2,333.190	
638.2	638.2	631.2	631.2	1.3	0.6	110.14	-1,419.4	3,871.1	4,123.1	4,121.2	1.89	2,183.558	
689.0	689.0	672.3	672.3	1.4	0.6	110.14	-1,419.5	3,871.1	4,123.1	4,121.1	2.07	1,992.854	
700.0	700.0	680.4	680.4	1.4	0.7	110.14	-1,419.6	3,871.1	4,123.2	4,121.1	2.11	1,954.256	
787.4	787.4	753.7	753.7	1.6	0.8	110.16	-1,420.9	3,871.0	4,123.6	4,121.2	2.45	1,681.262	
800.0	800.0	766.9	766.9	1.7	0.8	110.16	-1,421.2	3,871.0	4,123.7	4,121.2	2.51	1,644.361	
885.8	885.8	853.5	853.4	1.9	1.0	110.17	-1,422.2	3,871.2	4,124.2	4,121.4	2.88	1,433.303	
900.0	900.0	867.0	867.0	1.9	1.0	110.17	-1,422.4	3,871.2	4,124.3	4,121.4	2.94	1,404.140	
984.2	984.2	1,018.3	1,018.3	2.1	1.4	110.19	-1,423.1	3,870.9	4,124.4	4,121.0	3.44	1,199.501	
1,000.0	1,000.0	1,032.4	1,032.4	2.1	1.4	110.19	-1,423.1	3,870.8	4,124.3	4,120.8	3.50	1,177.013	
1,082.7	1,082.7	1,108.5	1,108.4	2.3	1.5	83.21	-1,422.6	3,870.3	4,123.4	4,119.6	3.85	1,070.618	
1,100.0	1,100.0	1,127.5	1,127.5	2.3	1.6	83.23	-1,422.4	3,870.2	4,123.2	4,119.3	3.93	1,048.864	
1,181.1	1,181.0	1,216.4	1,216.4	2.5	1.8	83.30	-1,421.6	3,869.6	4,122.0	4,117.7	4.30	957.911	
1,200.0	1,199.8	1,236.8	1,236.8	2.6	1.8	83.33	-1,421.4	3,869.4	4,121.6	4,117.3	4.39	939.046	
1,279.5	1,279.1	1,315.9	1,315.8	2.8	2.0	83.44	-1,420.6	3,868.8	4,120.0	4,115.3	4.74	869.303	
1,300.0	1,299.5	1,333.1	1,333.1	2.8	2.0	83.47	-1,420.4	3,868.7	4,119.5	4,114.7	4.82	854.393	
1,377.9	1,376.9	1,399.5	1,399.4	3.0	2.2	83.61	-1,419.9	3,868.3	4,117.8	4,112.7	5.15	800.183	
1,400.0	1,398.7	1,419.3	1,419.3	3.0	2.2	83.66	-1,419.8	3,868.2	4,117.3	4,112.1	5.24	785.849	
1,476.4	1,474.2	1,488.1	1,488.0	3.2	2.3	83.83	-1,419.6	3,867.8	4,115.6	4,110.0	5.58	737.573	
1,500.0	1,497.5	1,509.7	1,509.6	3.3	2.4	83.90	-1,419.5	3,867.7	4,115.1	4,109.4	5.69	723.504	
1,574.8	1,571.0	1,575.0	1,574.9	3.5	2.5	84.10	-1,419.5	3,867.4	4,113.3	4,107.2	6.05	680.282	
1,600.0	1,595.6	1,600.2	1,600.1	3.6	2.6	84.18	-1,419.5	3,867.4	4,112.7	4,106.5	6.18	665.990	
1,673.2	1,667.2	1,665.0	1,664.9	3.9	2.7	84.37	-1,419.6	3,867.2	4,111.0	4,104.4	6.55	627.221	
1,700.0	1,693.4	1,691.8	1,691.7	4.0	2.8	84.45	-1,419.6	3,867.1	4,110.4	4,103.7	6.70	613.504	
1,771.6	1,763.5	1,764.0	1,763.9	4.2	2.9	84.67	-1,420.0	3,866.9	4,108.8	4,101.7	7.10	578.481	
1,800.0	1,791.3	1,785.4	1,785.3	4.3	2.9	84.73	-1,420.1	3,866.8	4,108.2	4,101.0	7.25	566.773	
1,870.1	1,859.8	1,835.1	1,835.1	4.6	3.0	84.89	-1,421.0	3,866.5	4,107.0	4,099.4	7.61	539.567	
1,900.0	1,889.1	1,859.0	1,858.9	4.7	3.1	84.96	-1,421.6	3,866.4	4,106.6	4,098.8	7.77	528.343	
1,968.5	1,956.1	1,911.1	1,911.0	4.9	3.2	85.14	-1,423.4	3,866.2	4,105.9	4,097.8	8.15	504.073	
2,000.0	1,986.9	1,936.5	1,936.3	5.1	3.3	85.22	-1,424.4	3,866.0	4,105.7	4,097.3	8.32	493.456	
2,066.9	2,052.3	1,981.7	1,981.5	5.3	3.4	85.38	-1,426.5	3,865.8	4,105.4	4,096.7	8.68	472.951	
2,079.3	2,064.4	1,989.3	1,989.1	5.4	3.4	85.41	-1,426.8	3,865.8	4,105.4	4,096.6	8.75	469.435 CC	
2,100.0	2,084.7	2,002.0	2,001.8	5.5	3.4	85.45	-1,427.5	3,865.7	4,105.4	4,096.5	8.85	463.646	
2,165.3	2,148.6	2,048.0	2,047.7	5.7	3.5	85.62	-1,430.2	3,865.7	4,105.7	4,096.5	9.22	445.490 ES	
2,200.0	2,182.5	2,066.1	2,065.8	5.9	3.5	85.69	-1,431.4	3,865.7	4,106.1	4,096.7	9.40	437.016	
2,263.8	2,244.9	2,112.7	2,112.2	6.1	3.6	85.86	-1,434.6	3,865.8	4,106.9	4,097.2	9.76	420.832	
2,300.0	2,280.3	2,144.0	2,143.5	6.3	3.7	85.98	-1,436.9	3,865.9	4,107.6	4,097.6	9.98	411.717	
2,362.2	2,341.2	2,181.9	2,181.2	6.5	3.8	86.13	-1,439.9	3,866.0	4,108.9	4,098.6	10.32	398.151	
2,400.0	2,378.1	2,207.7	2,206.9	6.7	3.9	86.23	-1,442.0	3,866.2	4,109.8	4,099.3	10.54	390.109	
2,460.6	2,437.4	2,238.0	2,237.2	6.9	3.9	86.35	-1,444.6	3,866.4	4,111.6	4,100.8	10.86	378.707	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 645-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	
2,500.0	2,476.0	2,272.0	2,271.1	7.1	4.0	86.48	-1,447.6	3,866.8	4,113.0	4,101.9	11.10	370.468	
2,550.0	2,524.9	2,302.6	2,301.5	7.3	4.1	86.60	-1,450.6	3,867.1	4,114.9	4,103.5	11.38	361.455	
2,559.0	2,533.7	2,308.1	2,306.9	7.3	4.1	87.48	-1,451.2	3,867.2	4,115.3	4,103.9	11.43	359.927	
2,600.0	2,573.8	2,333.0	2,331.7	7.5	4.2	91.42	-1,453.8	3,867.5	4,117.5	4,105.9	11.66	353.253	
2,639.4	2,612.3	2,356.1	2,354.7	7.7	4.2	95.22	-1,456.3	3,867.9	4,120.4	4,108.5	11.86	347.422	
2,657.5	2,630.0	2,366.7	2,365.2	7.7	4.2	95.26	-1,457.5	3,868.0	4,121.9	4,109.9	11.96	344.684	
2,700.0	2,671.6	2,391.6	2,389.9	7.9	4.3	95.37	-1,460.4	3,868.4	4,125.5	4,113.3	12.19	338.441	
2,755.9	2,726.3	2,428.0	2,426.0	8.1	4.4	95.53	-1,464.9	3,869.1	4,130.6	4,118.1	12.52	330.015	
2,800.0	2,769.4	2,452.8	2,450.6	8.3	4.5	95.63	-1,468.1	3,869.7	4,134.8	4,122.1	12.77	323.876	
2,854.3	2,822.5	2,488.6	2,486.1	8.5	4.6	95.79	-1,472.9	3,870.4	4,140.3	4,127.2	13.09	316.272	
2,900.0	2,867.2	2,523.0	2,520.1	8.7	4.7	95.95	-1,477.8	3,871.2	4,145.1	4,131.7	13.37	309.930	
2,952.7	2,918.8	2,566.7	2,563.3	9.0	4.8	96.15	-1,484.4	3,872.1	4,150.7	4,137.0	13.72	302.573	
3,000.0	2,965.0	2,611.0	2,607.0	9.2	4.9	96.36	-1,491.6	3,872.7	4,155.9	4,141.9	14.04	296.010	
3,051.2	3,015.1	2,659.8	2,655.0	9.4	5.1	96.60	-1,500.3	3,873.0	4,161.5	4,147.1	14.40	289.000	
3,100.0	3,062.8	2,705.8	2,700.2	9.6	5.2	96.84	-1,509.1	3,872.9	4,167.0	4,152.2	14.74	282.639	
3,149.6	3,111.4	2,744.1	2,737.7	9.8	5.3	97.04	-1,516.8	3,872.7	4,172.6	4,157.6	15.07	276.940	
3,200.0	3,160.7	2,781.8	2,774.7	10.0	5.4	97.23	-1,524.2	3,872.7	4,178.6	4,163.2	15.39	271.469	
3,248.0	3,207.6	2,842.0	2,833.8	10.2	5.6	97.54	-1,535.8	3,872.8	4,184.3	4,168.6	15.77	265.343	
3,300.0	3,258.5	2,902.0	2,892.7	10.5	5.8	97.85	-1,547.2	3,872.5	4,190.2	4,174.1	16.16	259.297	
3,346.4	3,303.9	2,935.8	2,925.9	10.7	5.9	98.02	-1,553.6	3,872.3	4,195.6	4,179.2	16.46	254.850	
3,400.0	3,356.3	2,960.4	2,949.9	10.9	6.0	98.15	-1,558.4	3,872.3	4,202.2	4,185.5	16.77	250.607	
3,444.9	3,400.2	2,997.0	2,985.8	11.1	6.1	98.34	-1,565.7	3,872.4	4,208.1	4,191.1	17.07	246.480	
3,500.0	3,454.1	3,018.6	3,007.0	11.3	6.2	98.45	-1,570.1	3,872.6	4,215.6	4,198.2	17.38	242.613	
3,543.3	3,496.5	3,066.1	3,053.6	11.5	6.3	98.69	-1,579.3	3,873.2	4,221.5	4,203.8	17.71	238.430	
3,600.0	3,551.9	3,145.6	3,131.8	11.7	6.6	99.07	-1,593.9	3,874.2	4,229.2	4,211.1	18.18	232.674	
3,641.7	3,592.7	3,202.4	3,187.7	11.9	6.8	99.34	-1,603.8	3,874.8	4,234.7	4,216.2	18.51	228.730	
3,700.0	3,649.7	3,258.2	3,242.6	12.2	6.9	99.60	-1,613.2	3,875.6	4,242.3	4,223.4	18.92	224.230	
3,740.1	3,689.0	3,295.5	3,279.5	12.4	7.1	99.77	-1,619.2	3,876.2	4,247.6	4,228.4	19.19	221.295	
3,800.0	3,747.5	3,348.7	3,332.1	12.6	7.2	100.00	-1,627.0	3,877.6	4,255.6	4,236.0	19.59	217.200	
3,838.6	3,785.3	3,495.4	3,477.7	12.8	7.6	100.57	-1,644.1	3,882.0	4,260.6	4,240.5	20.12	211.789	
3,900.0	3,845.4	3,747.4	3,729.2	13.1	8.2	101.40	-1,658.8	3,887.8	4,266.4	4,245.5	20.90	204.112	
3,937.0	3,881.6	3,864.0	3,845.7	13.2	8.4	101.71	-1,659.3	3,889.6	4,268.5	4,247.2	21.27	200.713	
4,000.0	3,943.2	3,925.3	3,907.0	13.5	8.5	101.87	-1,659.1	3,890.2	4,271.7	4,250.0	21.65	197.350	
4,035.4	3,977.8	3,958.7	3,940.5	13.6	8.6	101.96	-1,659.2	3,890.4	4,273.5	4,251.6	21.86	195.518	
4,100.0	4,041.0	4,017.1	3,998.8	13.9	8.7	102.12	-1,659.3	3,890.8	4,276.8	4,254.6	22.24	192.290	
4,133.8	4,074.1	4,049.7	4,031.4	14.1	8.7	102.21	-1,659.4	3,891.1	4,278.6	4,256.2	22.45	190.612	
4,200.0	4,138.8	4,126.4	4,108.1	14.4	8.9	102.42	-1,659.9	3,891.4	4,282.1	4,259.2	22.87	187.206	
4,232.3	4,170.4	4,155.3	4,137.0	14.5	9.0	102.50	-1,660.2	3,891.5	4,283.8	4,260.7	23.07	185.706	
4,300.0	4,236.6	4,209.8	4,191.5	14.8	9.1	102.66	-1,660.8	3,891.5	4,287.4	4,264.0	23.46	182.731	
4,330.7	4,266.7	4,238.7	4,220.4	14.9	9.1	102.74	-1,661.3	3,891.6	4,289.2	4,265.5	23.65	181.355	
4,400.0	4,334.4	4,342.3	4,324.0	15.2	9.3	103.04	-1,662.7	3,891.2	4,292.7	4,268.5	24.15	177.764	
4,429.1	4,362.9	4,364.9	4,346.5	15.4	9.4	103.11	-1,663.1	3,891.0	4,294.1	4,269.8	24.32	176.585	
4,500.0	4,432.3	4,421.0	4,402.7	15.7	9.5	103.27	-1,664.0	3,890.6	4,297.8	4,273.1	24.73	173.775	
4,527.5	4,459.2	4,459.7	4,441.3	15.8	9.5	103.38	-1,664.5	3,890.5	4,299.3	4,274.4	24.92	172.505	
4,600.0	4,530.1	4,547.3	4,529.0	16.1	9.7	103.62	-1,664.3	3,890.6	4,302.8	4,277.4	25.40	169.425	
4,626.0	4,555.5	4,570.5	4,552.2	16.2	9.8	103.68	-1,664.2	3,890.6	4,304.1	4,278.5	25.55	168.453	
4,700.0	4,627.9	4,710.4	4,692.1	16.6	10.0	104.06	-1,664.1	3,889.7	4,307.6	4,281.4	26.13	164.875	
4,724.4	4,651.7	4,734.6	4,716.3	16.7	10.1	104.12	-1,664.0	3,889.3	4,308.4	4,282.1	26.28	163.963	
4,800.0	4,725.7	4,809.7	4,791.4	17.0	10.2	104.33	-1,663.8	3,887.9	4,311.1	4,284.3	26.74	161.202	
4,822.8	4,748.0	4,832.7	4,814.4	17.1	10.2	104.40	-1,663.8	3,887.4	4,311.9	4,285.0	26.89	160.378	
4,904.9	4,828.3	4,912.2	4,893.8	17.5	10.4	104.62	-1,663.9	3,885.7	4,314.8	4,287.4	27.39	157.524	
4,921.2	4,844.3	4,926.0	4,907.6	17.5	10.4	104.68	-1,664.0	3,885.4	4,315.4	4,287.9	27.48	157.044	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 645-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		
5,000.0	4,921.6	4,992.9	4,974.5	17.8	10.6	104.90	-1,664.2	3,884.1	4,318.0	4,290.1	27.90	154.768		
5,019.7	4,941.0	5,012.0	4,993.6	17.9	10.6	104.96	-1,664.2	3,883.7	4,318.6	4,290.7	27.99	154.275		
5,100.0	5,020.4	5,086.0	5,067.6	18.1	10.7	105.15	-1,664.1	3,882.6	4,320.8	4,292.4	28.37	152.320		
5,118.1	5,038.3	5,086.0	5,067.6	18.2	10.7	105.16	-1,664.1	3,882.6	4,321.3	4,292.9	28.41	152.090		
5,200.0	5,119.6	5,149.8	5,131.4	18.4	10.9	105.30	-1,663.9	3,882.0	4,323.2	4,294.5	28.74	150.427		
5,216.5	5,136.0	5,159.9	5,141.5	18.4	10.9	105.32	-1,663.9	3,882.0	4,323.6	4,294.8	28.79	150.155		
5,300.0	5,219.2	5,221.1	5,202.7	18.6	11.0	105.43	-1,663.9	3,882.0	4,325.5	4,296.4	29.09	148.693		
5,314.9	5,234.1	5,233.2	5,214.8	18.6	11.0	105.44	-1,664.0	3,882.0	4,325.8	4,296.7	29.14	148.450		
5,400.0	5,319.1	5,310.7	5,292.3	18.8	11.2	105.52	-1,664.2	3,882.3	4,327.4	4,297.9	29.44	146.994		
5,413.4	5,332.4	5,325.0	5,306.6	18.8	11.2	105.53	-1,664.1	3,882.4	4,327.5	4,298.0	29.48	146.772		
5,504.9	5,423.9	5,423.7	5,405.3	18.9	11.4	123.98	-1,663.6	3,883.2	4,328.3	4,304.0	24.25	178.481		
5,511.8	5,430.8	5,431.3	5,412.9	18.9	11.4	123.97	-1,663.6	3,883.2	4,328.3	4,304.0	24.28	178.282		
5,600.0	5,519.0	5,577.2	5,558.8	19.0	11.7	123.95	-1,661.9	3,883.7	4,328.0	4,303.3	24.72	175.086		
5,610.2	5,529.3	5,587.9	5,569.5	19.0	11.7	123.95	-1,661.7	3,883.7	4,327.9	4,303.1	24.76	174.793		
5,700.0	5,619.0	5,685.6	5,667.2	19.2	11.9	123.94	-1,660.4	3,883.3	4,326.8	4,301.7	25.13	172.208		
5,708.6	5,627.7	5,695.9	5,677.5	19.2	11.9	123.94	-1,660.3	3,883.2	4,326.7	4,301.6	25.16	171.949		
5,800.0	5,719.0	5,780.6	5,762.1	19.3	12.0	123.94	-1,659.7	3,882.1	4,325.5	4,300.0	25.51	169.565		
5,807.1	5,726.1	5,785.3	5,766.8	19.3	12.1	123.94	-1,659.7	3,882.0	4,325.4	4,299.9	25.53	169.407		
5,900.0	5,819.0	5,842.0	5,823.5	19.4	12.2	123.95	-1,659.7	3,881.5	4,324.7	4,298.9	25.83	167.442		
5,905.5	5,824.5	5,842.0	5,823.5	19.4	12.2	123.95	-1,659.7	3,881.5	4,324.7	4,298.9	25.84	167.372		
5,911.5	5,830.5	5,842.0	5,823.5	19.5	12.2	123.95	-1,659.7	3,881.5	4,324.7	4,298.8	25.85	167.295		
6,003.9	5,923.0	5,842.0	5,823.5	19.6	12.2	123.95	-1,659.7	3,881.5	4,325.7	4,299.6	26.03	166.167		
6,009.8	5,928.8	5,842.0	5,823.5	19.6	12.2	123.95	-1,659.7	3,881.5	4,325.8	4,299.8	26.04	166.099		
6,050.0	5,969.0	5,885.6	5,867.1	19.6	12.3	-145.98	-1,659.9	3,881.9	4,327.0	4,295.6	31.42	137.721		
6,100.0	6,018.8	5,899.3	5,880.8	19.7	12.3	-145.77	-1,660.0	3,882.2	4,332.1	4,300.8	31.36	138.160		
6,102.3	6,021.1	5,899.9	5,881.5	19.7	12.3	-145.75	-1,660.0	3,882.2	4,332.4	4,301.1	31.35	138.198		
6,150.0	6,068.1	5,937.0	5,918.5	19.7	12.4	-145.44	-1,660.3	3,883.9	4,340.7	4,309.5	31.22	139.014		
6,200.0	6,116.8	5,937.0	5,918.5	19.7	12.4	-144.91	-1,660.3	3,883.9	4,352.1	4,321.2	30.91	140.812		
6,200.8	6,117.5	5,937.0	5,918.5	19.7	12.4	-144.90	-1,660.3	3,883.9	4,352.3	4,321.4	30.90	140.845		
6,250.0	6,164.5	5,937.0	5,918.5	19.7	12.4	-144.20	-1,660.3	3,883.9	4,366.7	4,336.2	30.49	143.225		
6,299.2	6,210.4	5,937.0	5,918.5	19.7	12.4	-143.31	-1,660.3	3,883.9	4,384.2	4,354.3	29.99	146.180		
6,300.0	6,211.1	5,937.0	5,918.5	19.7	12.4	-143.30	-1,660.3	3,883.9	4,384.6	4,354.6	29.98	146.232		
6,350.0	6,256.4	5,937.0	5,918.5	19.7	12.4	-142.18	-1,660.3	3,883.9	4,405.5	4,376.1	29.41	149.794		
6,397.6	6,298.0	5,937.0	5,918.5	19.7	12.4	-140.90	-1,660.3	3,883.9	4,428.1	4,399.3	28.82	153.636		
6,400.0	6,300.0	5,937.0	5,918.5	19.7	12.4	-140.83	-1,660.3	3,883.9	4,429.3	4,400.5	28.79	153.836		
6,450.0	6,341.8	5,937.0	5,918.5	19.7	12.4	-139.22	-1,660.3	3,883.9	4,455.9	4,427.7	28.16	158.232		
6,496.0	6,378.6	5,937.0	5,918.5	19.7	12.4	-137.47	-1,660.3	3,883.9	4,482.6	4,455.0	27.60	162.422		
6,500.0	6,381.6	5,937.0	5,918.5	19.7	12.4	-137.30	-1,660.3	3,883.9	4,485.0	4,457.5	27.55	162.779		
6,550.0	6,419.2	5,937.0	5,918.5	19.6	12.4	-135.05	-1,660.3	3,883.9	4,516.6	4,489.5	27.02	167.175		
6,594.5	6,450.7	5,937.0	5,918.5	19.6	12.4	-132.72	-1,660.3	3,883.9	4,546.5	4,519.8	26.65	170.627		
6,600.0	6,454.4	5,937.0	5,918.5	19.6	12.4	-132.41	-1,660.3	3,883.9	4,550.3	4,523.7	26.61	171.010		
6,650.0	6,487.1	5,937.0	5,918.5	19.6	12.4	-129.32	-1,660.3	3,883.9	4,586.0	4,559.6	26.39	173.794		
6,692.9	6,513.0	5,937.0	5,918.5	19.6	12.4	-126.27	-1,660.3	3,883.9	4,618.0	4,591.6	26.39	174.976		
6,700.0	6,517.0	5,937.0	5,918.5	19.6	12.4	-125.73	-1,660.3	3,883.9	4,623.5	4,597.0	26.41	175.047		
6,750.0	6,544.1	5,979.9	5,961.2	19.6	12.5	-122.23	-1,661.1	3,887.9	4,660.8	4,634.0	26.74	174.309		
6,791.3	6,564.2	5,981.6	5,962.9	19.7	12.5	-118.45	-1,661.2	3,888.1	4,693.9	4,666.6	27.24	172.325		
6,800.0	6,568.2	5,982.0	5,963.3	19.7	12.5	-117.60	-1,661.2	3,888.1	4,700.9	4,673.6	27.34	171.942		
6,850.0	6,589.1	5,983.7	5,964.9	19.8	12.5	-112.34	-1,661.3	3,888.4	4,742.2	4,713.9	28.21	168.121		
6,889.7	6,603.5	5,984.7	5,966.0	19.9	12.5	-107.71	-1,661.3	3,888.5	4,775.6	4,746.6	29.03	164.491		
6,900.0	6,606.9	5,984.9	5,966.2	19.9	12.5	-106.46	-1,661.3	3,888.5	4,784.3	4,755.0	29.25	163.587		
6,950.0	6,621.3	5,985.8	5,967.0	20.2	12.5	-100.03	-1,661.3	3,888.6	4,827.1	4,796.8	30.31	159.236		
6,988.2	6,630.0	5,986.2	5,967.4	20.6	12.5	-94.84	-1,661.3	3,888.7	4,860.1	4,829.0	31.05	156.527		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 645-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		
7,000.0	6,632.4	5,986.3	5,967.5	20.7	12.5	-93.20	-1,661.3	3,888.7	4,870.3	4,839.1	31.24	155.896		
7,050.0	6,640.0	5,986.3	5,967.6	21.4	12.5	-86.17	-1,661.3	3,888.7	4,913.8	4,881.9	31.88	154.156		
7,086.6	6,643.4	5,986.2	5,967.4	21.9	12.5	-81.04	-1,661.3	3,888.7	4,945.6	4,913.5	32.10	154.047		
7,100.0	6,644.2	5,986.0	5,967.3	22.1	12.5	-79.19	-1,661.3	3,888.7	4,957.3	4,925.1	32.13	154.296		
7,135.7	6,645.0	5,985.6	5,966.8	22.7	12.5	-74.36	-1,661.3	3,888.6	4,988.2	4,956.1	32.07	155.541		
7,185.0	6,644.9	5,984.9	5,966.1	23.6	12.5	-74.35	-1,661.3	3,888.5	5,030.9	4,997.9	32.99	152.482		
7,200.0	6,644.9	5,984.6	5,965.9	23.9	12.5	-74.34	-1,661.3	3,888.5	5,043.9	5,010.6	33.27	151.589		
7,283.4	6,644.8	5,983.4	5,964.7	25.6	12.5	-74.31	-1,661.2	3,888.3	5,116.4	5,081.5	34.94	146.440		
7,300.0	6,644.8	5,983.2	5,964.4	25.9	12.5	-74.31	-1,661.2	3,888.3	5,130.9	5,095.6	35.27	145.478		
7,381.9	6,644.7	5,982.0	5,963.3	27.7	12.5	-74.28	-1,661.2	3,888.1	5,202.4	5,165.4	37.01	140.572		
7,400.0	6,644.7	5,981.8	5,963.1	28.1	12.5	-74.28	-1,661.2	3,888.1	5,218.3	5,180.9	37.39	139.550		
7,480.3	6,644.6	5,980.7	5,962.0	29.9	12.5	-74.25	-1,661.2	3,888.0	5,288.8	5,249.7	39.19	134.968		
7,500.0	6,644.6	5,980.4	5,961.7	30.3	12.5	-74.25	-1,661.2	3,887.9	5,306.2	5,266.6	39.63	133.910		
7,578.7	6,644.5	5,937.0	5,918.5	32.2	12.4	-73.30	-1,660.3	3,883.9	5,377.3	5,336.2	41.16	130.637		
7,600.0	6,644.4	5,937.0	5,918.5	32.7	12.4	-73.30	-1,660.3	3,883.9	5,396.1	5,354.5	41.65	129.550		
7,677.1	6,644.3	5,937.0	5,918.5	34.6	12.4	-73.30	-1,660.3	3,883.9	5,464.5	5,421.0	43.48	125.680		
7,700.0	6,644.3	5,937.0	5,918.5	35.1	12.4	-73.30	-1,660.3	3,883.9	5,484.7	5,440.7	44.02	124.597		
7,775.6	6,644.2	5,937.0	5,918.5	37.0	12.4	-73.30	-1,660.3	3,883.9	5,552.0	5,506.1	45.85	121.102		
7,800.0	6,644.2	5,937.0	5,918.5	37.6	12.4	-73.30	-1,660.3	3,883.9	5,573.7	5,527.3	46.43	120.033		
7,874.0	6,644.1	5,937.0	5,918.5	39.5	12.4	-73.30	-1,660.3	3,883.9	5,639.8	5,591.6	48.25	116.885		
7,900.0	6,644.1	5,937.0	5,918.5	40.1	12.4	-73.30	-1,660.3	3,883.9	5,663.1	5,614.2	48.89	115.836		
7,972.4	6,644.0	5,937.0	5,918.5	42.0	12.4	-73.30	-1,660.3	3,883.9	5,728.0	5,677.3	50.69	113.003		
8,000.0	6,643.9	5,937.0	5,918.5	42.7	12.4	-73.30	-1,660.3	3,883.9	5,752.8	5,701.4	51.37	111.978		
8,070.8	6,643.9	5,937.0	5,918.5	44.5	12.4	-73.30	-1,660.3	3,883.9	5,816.6	5,763.4	53.15	109.428		
8,100.0	6,643.8	5,937.0	5,918.5	45.2	12.4	-73.30	-1,660.3	3,883.9	5,842.9	5,789.0	53.89	108.430		
8,169.3	6,643.7	5,937.0	5,918.5	47.0	12.4	-73.30	-1,660.3	3,883.9	5,905.4	5,849.8	55.64	106.134		
8,200.0	6,643.7	5,937.0	5,918.5	47.9	12.4	-73.30	-1,660.3	3,883.9	5,933.2	5,876.8	56.42	105.163		
8,267.7	6,643.6	5,937.0	5,918.5	49.6	12.4	-73.30	-1,660.3	3,883.9	5,994.6	5,936.4	58.15	103.093		
8,300.0	6,643.6	5,937.0	5,918.5	50.5	12.4	-73.30	-1,660.3	3,883.9	6,023.9	5,964.9	58.97	102.150		
8,366.1	6,643.5	5,937.0	5,918.5	52.2	12.4	-73.30	-1,660.3	3,883.9	6,084.0	6,023.3	60.67	100.282		
8,400.0	6,643.4	5,937.0	5,918.5	53.1	12.4	-73.30	-1,660.3	3,883.9	6,114.8	6,053.3	61.54	99.367		
8,464.5	6,643.4	5,937.0	5,918.5	54.8	12.4	-73.30	-1,660.3	3,883.9	6,173.7	6,110.5	63.20	97.679		
8,500.0	6,643.3	5,937.0	5,918.5	55.8	12.4	-73.30	-1,660.3	3,883.9	6,206.1	6,142.0	64.12	96.791		
8,563.0	6,643.2	5,937.0	5,918.5	57.5	12.4	-73.30	-1,660.3	3,883.9	6,263.7	6,197.9	65.75	95.264		
8,600.0	6,643.2	5,937.0	5,918.5	58.5	12.4	-73.30	-1,660.3	3,883.9	6,297.6	6,230.9	66.71	94.402		
8,661.4	6,643.1	5,937.0	5,918.5	60.1	12.4	-73.30	-1,660.3	3,883.9	6,353.9	6,285.6	68.31	93.019		
8,700.0	6,643.1	5,937.0	5,918.5	61.2	12.4	-73.30	-1,660.3	3,883.9	6,389.3	6,320.0	69.31	92.183		
8,759.8	6,643.0	5,937.0	5,918.5	62.8	12.4	-73.30	-1,660.3	3,883.9	6,444.3	6,373.5	70.87	90.928		
8,800.0	6,643.0	5,937.0	5,918.5	63.9	12.4	-73.30	-1,660.3	3,883.9	6,481.3	6,409.4	71.92	90.117		
8,858.2	6,642.9	5,937.0	5,918.5	65.4	12.4	-73.30	-1,660.3	3,883.9	6,535.0	6,461.6	73.45	88.977		
8,900.0	6,642.8	5,937.0	5,918.5	66.6	12.4	-73.30	-1,660.3	3,883.9	6,573.6	6,499.0	74.54	88.190		
8,956.7	6,642.8	5,937.0	5,918.5	68.1	12.4	-73.30	-1,660.3	3,883.9	6,625.9	6,549.9	76.03	87.154		
9,000.0	6,642.7	5,937.0	5,918.5	69.3	12.4	-73.30	-1,660.3	3,883.9	6,666.0	6,588.9	77.16	86.389		
9,055.1	6,642.6	5,937.0	5,918.5	70.8	12.4	-73.30	-1,660.3	3,883.9	6,717.1	6,638.5	78.61	85.446		
9,100.0	6,642.6	5,937.0	5,918.5	72.0	12.4	-73.30	-1,660.3	3,883.9	6,758.7	6,678.9	79.79	84.703		
9,153.5	6,642.5	5,937.0	5,918.5	73.5	12.4	-73.30	-1,660.3	3,883.9	6,808.4	6,727.2	81.20	83.844		
9,200.0	6,642.5	5,937.0	5,918.5	74.7	12.4	-73.30	-1,660.3	3,883.9	6,851.6	6,769.2	82.43	83.122		
9,251.9	6,642.4	5,937.0	5,918.5	76.2	12.4	-73.30	-1,660.3	3,883.9	6,899.9	6,816.1	83.80	82.339		
9,300.0	6,642.3	5,937.0	5,918.5	77.5	12.4	-73.30	-1,660.3	3,883.9	6,944.7	6,859.6	85.07	81.637		
9,350.4	6,642.3	5,937.0	5,918.5	78.9	12.4	-73.30	-1,660.3	3,883.9	6,991.6	6,905.2	86.40	80.922		
9,400.0	6,642.2	5,937.0	5,918.5	80.2	12.4	-73.30	-1,660.3	3,883.9	7,037.9	6,950.2	87.71	80.240		
9,448.8	6,642.1	5,937.0	5,918.5	81.6	12.4	-73.30	-1,660.3	3,883.9	7,083.5	6,994.5	89.00	79.587		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 645-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
9,500.0	6,642.1	5,937.0	5,918.5	83.0	12.4	-73.30	-1,660.3	3,883.9	7,131.4	7,041.0	90.36	78.923	
9,547.2	6,642.0	5,937.0	5,918.5	84.3	12.4	-73.30	-1,660.3	3,883.9	7,175.6	7,084.0	91.61	78.327	
9,600.0	6,642.0	5,937.0	5,918.5	85.7	12.4	-73.30	-1,660.3	3,883.9	7,225.0	7,132.0	93.01	77.680	
9,645.6	6,641.9	5,937.0	5,918.5	87.0	12.4	-73.30	-1,660.3	3,883.9	7,267.8	7,173.6	94.22	77.135	
9,700.0	6,641.8	5,937.0	5,918.5	88.5	12.4	-73.29	-1,660.3	3,883.9	7,318.8	7,223.1	95.66	76.505	
9,744.1	6,641.8	5,937.0	5,918.5	89.7	12.4	-73.29	-1,660.3	3,883.9	7,360.2	7,263.4	96.83	76.008	
9,800.0	6,641.7	5,937.0	5,918.5	91.2	12.4	-73.29	-1,660.3	3,883.9	7,412.8	7,314.4	98.32	75.394	
9,842.5	6,641.7	5,937.0	5,918.5	92.4	12.4	-73.29	-1,660.3	3,883.9	7,452.7	7,353.3	99.45	74.939	
9,900.0	6,641.6	5,937.0	5,918.5	94.0	12.4	-73.29	-1,660.3	3,883.9	7,506.9	7,405.9	100.98	74.340	
9,940.9	6,641.5	5,937.0	5,918.5	95.1	12.4	-73.29	-1,660.3	3,883.9	7,545.4	7,443.4	102.07	73.925	
10,000.0	6,641.5	5,937.0	5,918.5	96.7	12.4	-73.29	-1,660.3	3,883.9	7,601.1	7,497.5	103.64	73.341	
10,039.3	6,641.4	5,937.0	5,918.5	97.8	12.4	-73.29	-1,660.3	3,883.9	7,638.3	7,533.6	104.69	72.961	
10,100.0	6,641.3	5,937.0	5,918.5	99.5	12.4	-73.29	-1,660.3	3,883.9	7,695.5	7,589.2	106.30	72.391	
10,137.8	6,641.3	5,937.0	5,918.5	100.6	12.4	-73.29	-1,660.3	3,883.9	7,731.2	7,623.9	107.31	72.044	
10,200.0	6,641.2	5,937.0	5,918.5	102.3	12.4	-73.29	-1,660.3	3,883.9	7,790.1	7,681.1	108.97	71.488	
10,236.2	6,641.2	5,937.0	5,918.5	103.3	12.4	-73.29	-1,660.3	3,883.9	7,824.3	7,714.4	109.94	71.172	
10,300.0	6,641.1	5,937.0	5,918.5	105.0	12.4	-73.29	-1,660.3	3,883.9	7,884.8	7,773.1	111.64	70.628	
10,334.6	6,641.0	5,937.0	5,918.5	106.0	12.4	-73.29	-1,660.3	3,883.9	7,917.6	7,805.0	112.56	70.340	
10,400.0	6,641.0	5,937.0	5,918.5	107.8	12.4	-73.29	-1,660.3	3,883.9	7,979.6	7,865.3	114.31	69.808	
10,433.0	6,640.9	5,937.0	5,918.5	108.7	12.4	-73.29	-1,660.3	3,883.9	8,010.9	7,895.7	115.19	69.546	
10,500.0	6,640.8	5,937.0	5,918.5	110.6	12.4	-73.29	-1,660.3	3,883.9	8,074.5	7,957.5	116.98	69.026	
10,531.5	6,640.8	5,937.0	5,918.5	111.5	12.4	-73.29	-1,660.3	3,883.9	8,104.4	7,986.6	117.82	68.787	
10,600.0	6,640.7	5,937.0	5,918.5	113.4	12.4	-73.29	-1,660.3	3,883.9	8,169.6	8,049.9	119.65	68.279	
10,629.9	6,640.7	5,937.0	5,918.5	114.2	12.4	-73.29	-1,660.3	3,883.9	8,198.0	8,077.6	120.45	68.062	
10,700.0	6,640.6	5,937.0	5,918.5	116.1	12.4	-73.29	-1,660.3	3,883.9	8,264.7	8,142.4	122.32	67.565	
10,728.3	6,640.5	5,937.0	5,918.5	116.9	12.4	-73.29	-1,660.3	3,883.9	8,291.7	8,168.6	123.08	67.368	
10,800.0	6,640.5	5,937.0	5,918.5	118.9	12.4	-73.29	-1,660.3	3,883.9	8,360.0	8,235.0	125.00	66.882	
10,826.7	6,640.4	5,937.0	5,918.5	119.7	12.4	-73.29	-1,660.3	3,883.9	8,385.5	8,259.8	125.71	66.704	
10,900.0	6,640.3	5,937.0	5,918.5	121.7	12.4	-73.29	-1,660.3	3,883.9	8,455.4	8,327.7	127.67	66.227	
10,925.2	6,640.3	5,937.0	5,918.5	122.4	12.4	-73.29	-1,660.3	3,883.9	8,479.4	8,351.1	128.35	66.067	
11,000.0	6,640.2	5,937.0	5,918.5	124.5	12.4	-73.29	-1,660.3	3,883.9	8,550.9	8,420.6	130.35	65.600	
11,023.6	6,640.2	5,937.0	5,918.5	125.1	12.4	-73.29	-1,660.3	3,883.9	8,573.5	8,442.5	130.98	65.456	
11,100.0	6,640.1	5,937.0	5,918.5	127.3	12.4	-73.29	-1,660.3	3,883.9	8,646.5	8,513.5	133.03	64.998	
11,122.0	6,640.0	5,937.0	5,918.5	127.9	12.4	-73.29	-1,660.3	3,883.9	8,667.6	8,534.0	133.62	64.869	
11,200.0	6,639.9	5,937.0	5,918.5	130.1	12.4	-73.29	-1,660.3	3,883.9	8,742.2	8,606.5	135.71	64.421	
11,220.4	6,639.9	5,937.0	5,918.5	130.6	12.4	-73.29	-1,660.3	3,883.9	8,761.8	8,625.5	136.25	64.305	
11,300.0	6,639.8	5,937.0	5,918.5	132.8	12.4	-73.29	-1,660.3	3,883.9	8,838.0	8,699.6	138.38	63.865	
11,318.9	6,639.8	5,937.0	5,918.5	133.4	12.4	-73.29	-1,660.3	3,883.9	8,856.1	8,717.2	138.89	63.763	
11,400.0	6,639.7	5,937.0	5,918.5	135.6	12.4	-73.29	-1,660.3	3,883.9	8,933.9	8,792.8	141.07	63.332	
11,417.3	6,639.7	5,937.0	5,918.5	136.1	12.4	-73.29	-1,660.3	3,883.9	8,950.5	8,809.0	141.53	63.242	
11,500.0	6,639.6	5,937.0	5,918.5	138.4	12.4	-73.29	-1,660.3	3,883.9	9,029.9	8,886.1	143.75	62.818	
11,515.7	6,639.5	5,937.0	5,918.5	138.9	12.4	-73.29	-1,660.3	3,883.9	9,045.0	8,900.8	144.17	62.739	
11,600.0	6,639.4	5,937.0	5,918.5	141.2	12.4	-73.29	-1,660.3	3,883.9	9,125.9	8,979.5	146.43	62.324	
11,614.1	6,639.4	5,937.0	5,918.5	141.6	12.4	-73.29	-1,660.3	3,883.9	9,139.5	8,992.7	146.81	62.255	
11,700.0	6,639.3	5,937.0	5,918.5	144.0	12.4	-73.29	-1,660.3	3,883.9	9,222.1	9,073.0	149.11	61.848	
11,712.6	6,639.3	5,937.0	5,918.5	144.3	12.4	-73.29	-1,660.3	3,883.9	9,234.2	9,084.7	149.45	61.789	
11,800.0	6,639.2	5,937.0	5,918.5	146.8	12.4	-73.29	-1,660.3	3,883.9	9,318.3	9,166.5	151.79	61.388	
11,811.0	6,639.2	5,937.0	5,918.5	147.1	12.4	-73.29	-1,660.3	3,883.9	9,328.9	9,176.8	152.09	61.339	
11,900.0	6,639.1	5,937.0	5,918.5	149.6	12.4	-73.29	-1,660.3	3,883.9	9,414.6	9,260.1	154.48	60.945	
11,909.4	6,639.0	5,937.0	5,918.5	149.8	12.4	-73.29	-1,660.3	3,883.9	9,423.7	9,269.0	154.73	60.904	
12,000.0	6,638.9	5,937.0	5,918.5	152.4	12.4	-73.29	-1,660.3	3,883.9	9,511.0	9,353.8	157.16	60.518	
12,007.8	6,638.9	5,937.0	5,918.5	152.6	12.4	-73.29	-1,660.3	3,883.9	9,518.6	9,361.2	157.37	60.485	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST HZ MAX #B11-64-1HN - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 645-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	6,638.8	5,937.0	5,918.5	155.2	12.4	-73.29	-1,660.3	3,883.9	9,607.5	9,447.6	159.85	60.105	
12,106.3	6,638.8	5,937.0	5,918.5	155.3	12.4	-73.29	-1,660.3	3,883.9	9,613.5	9,453.5	160.01	60.079	
12,200.0	6,638.7	5,937.0	5,918.5	157.9	12.4	-73.29	-1,660.3	3,883.9	9,704.0	9,541.5	162.53	59.706	
12,204.7	6,638.7	5,937.0	5,918.5	158.1	12.4	-73.29	-1,660.3	3,883.9	9,708.5	9,545.9	162.66	59.687	
12,300.0	6,638.5	5,937.0	5,918.5	160.7	12.4	-73.29	-1,660.3	3,883.9	9,800.6	9,635.4	165.22	59.320	
12,303.1	6,638.5	5,937.0	5,918.5	160.8	12.4	-73.29	-1,660.3	3,883.9	9,803.6	9,638.3	165.30	59.308	
12,400.0	6,638.4	5,937.0	5,918.5	163.5	12.4	-73.29	-1,660.3	3,883.9	9,897.2	9,729.3	167.90	58.947	
12,401.5	6,638.4	5,937.0	5,918.5	163.6	12.4	-73.29	-1,660.3	3,883.9	9,898.7	9,730.8	167.94	58.941	
12,500.0	6,638.3	5,937.0	5,918.5	166.3	12.4	-73.29	-1,660.3	3,883.9	9,994.0	9,823.4	170.59	58.585 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 290-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	173.43	-1,037.2	119.5	1,044.1				
98.4	98.4	87.8	87.8	0.1	0.1	173.44	-1,037.1	119.3	1,043.9	1,043.8	0.16	6,584.896	
100.0	100.0	89.5	89.5	0.1	0.1	173.44	-1,037.1	119.3	1,043.9	1,043.7	0.16	6,465.109	
196.8	196.8	190.2	190.2	0.3	0.1	173.48	-1,036.6	118.5	1,043.4	1,043.0	0.45	2,314.155	
200.0	200.0	193.5	193.5	0.3	0.1	173.48	-1,036.6	118.5	1,043.4	1,042.9	0.46	2,266.783	
295.3	295.3	290.0	290.0	0.5	0.2	173.54	-1,035.9	117.3	1,042.5	1,041.8	0.74	1,402.880	
300.0	300.0	296.7	296.7	0.5	0.2	173.54	-1,035.8	117.2	1,042.5	1,041.7	0.77	1,359.348	
393.7	393.7	384.0	384.0	0.8	0.4	173.58	-1,035.3	116.6	1,041.8	1,040.7	1.15	904.168	
400.0	400.0	389.5	389.5	0.8	0.4	173.58	-1,035.3	116.6	1,041.8	1,040.6	1.18	884.504	
492.1	492.1	479.3	479.3	1.0	0.6	173.57	-1,035.1	116.6	1,041.6	1,040.0	1.57	662.593	
500.0	500.0	487.0	487.0	1.0	0.6	173.57	-1,035.0	116.6	1,041.6	1,040.0	1.61	648.685	
540.8	540.8	526.9	526.8	1.1	0.7	173.57	-1,035.0	116.7	1,041.6	1,039.8	1.78	585.024 CC	
590.5	590.5	575.3	575.3	1.2	0.8	173.55	-1,035.0	116.9	1,041.6	1,039.6	1.99	522.599	
600.0	600.0	584.6	584.5	1.2	0.8	173.55	-1,035.0	117.0	1,041.6	1,039.6	2.03	512.214 ES	
689.0	689.0	666.1	666.1	1.4	1.0	173.59	-1,035.5	116.4	1,042.1	1,039.7	2.41	433.254	
700.0	700.0	676.9	676.8	1.4	1.0	173.60	-1,035.6	116.2	1,042.2	1,039.7	2.45	424.836	
787.4	787.4	762.3	762.3	1.6	1.2	173.67	-1,036.6	114.9	1,043.0	1,040.2	2.83	368.273	
800.0	800.0	774.7	774.6	1.7	1.2	173.69	-1,036.8	114.7	1,043.2	1,040.3	2.89	361.353	
885.8	885.8	858.6	858.5	1.9	1.4	173.76	-1,037.9	113.5	1,044.2	1,040.9	3.26	320.389	
900.0	900.0	872.5	872.4	1.9	1.4	173.77	-1,038.1	113.3	1,044.4	1,041.0	3.32	314.507	
984.2	984.2	955.8	955.7	2.1	1.6	173.84	-1,039.4	112.1	1,045.5	1,041.8	3.69	283.482	
1,000.0	1,000.0	971.8	971.7	2.1	1.6	173.86	-1,039.6	111.9	1,045.7	1,042.0	3.76	278.300	
1,082.7	1,082.7	1,055.8	1,055.7	2.3	1.8	146.93	-1,040.8	110.9	1,047.8	1,043.7	4.12	254.284	
1,100.0	1,100.0	1,073.3	1,073.2	2.3	1.9	146.95	-1,041.1	110.7	1,048.5	1,044.3	4.20	249.842	
1,181.1	1,181.0	1,160.3	1,160.2	2.5	2.0	147.10	-1,042.1	109.7	1,052.7	1,048.1	4.56	230.893	
1,200.0	1,199.8	1,182.0	1,181.9	2.6	2.1	147.16	-1,042.3	109.1	1,053.8	1,049.2	4.65	226.868	
1,279.5	1,279.1	1,287.6	1,287.4	2.8	2.3	147.62	-1,042.0	104.3	1,058.9	1,053.9	5.04	210.014	
1,300.0	1,299.5	1,314.6	1,314.3	2.8	2.4	147.79	-1,041.5	102.4	1,060.2	1,055.0	5.14	206.130	
1,377.9	1,376.9	1,394.8	1,394.2	3.0	2.5	148.30	-1,039.7	96.6	1,065.8	1,060.3	5.49	194.016	
1,400.0	1,398.7	1,415.2	1,414.6	3.0	2.6	148.43	-1,039.2	95.2	1,067.7	1,062.1	5.59	191.070	
1,476.4	1,474.2	1,482.3	1,481.5	3.2	2.7	148.88	-1,038.0	90.4	1,075.9	1,069.9	5.92	181.869	
1,500.0	1,497.5	1,503.1	1,502.3	3.3	2.8	149.03	-1,037.7	88.9	1,078.9	1,072.8	6.02	179.304	
1,574.8	1,571.0	1,570.3	1,569.2	3.5	2.9	149.55	-1,037.1	83.3	1,089.8	1,083.5	6.35	171.539	
1,600.0	1,595.6	1,590.0	1,588.8	3.6	3.0	149.71	-1,037.0	81.5	1,094.0	1,087.6	6.46	169.392	
1,673.2	1,667.2	1,659.0	1,657.6	3.9	3.2	150.41	-1,036.8	75.3	1,106.8	1,100.0	6.82	162.376	
1,700.0	1,693.4	1,683.0	1,681.5	4.0	3.2	150.65	-1,036.8	73.3	1,111.6	1,104.7	6.94	160.088	
1,771.6	1,763.5	1,735.3	1,733.6	4.2	3.3	151.15	-1,037.2	68.9	1,125.1	1,117.9	7.26	154.878	
1,800.0	1,791.3	1,755.9	1,754.1	4.3	3.4	151.34	-1,037.6	67.2	1,130.8	1,123.4	7.39	153.006	
1,870.1	1,859.8	1,811.0	1,809.0	4.6	3.5	151.86	-1,039.1	62.5	1,145.6	1,137.9	7.72	148.409	
1,900.0	1,889.1	1,835.9	1,833.8	4.7	3.6	152.10	-1,040.0	60.3	1,152.1	1,144.2	7.86	146.495	
1,968.5	1,956.1	1,890.7	1,888.3	4.9	3.7	152.62	-1,042.2	55.3	1,167.5	1,159.3	8.19	142.535	
2,000.0	1,986.9	1,914.2	1,911.6	5.1	3.8	152.84	-1,043.3	53.2	1,174.9	1,166.5	8.34	140.914	
2,066.9	2,052.3	1,967.0	1,964.2	5.3	3.9	153.31	-1,046.3	48.6	1,191.2	1,182.5	8.66	137.606	
2,100.0	2,084.7	1,988.8	1,985.9	5.5	4.0	153.50	-1,047.8	46.8	1,199.5	1,190.7	8.80	136.252	
2,165.3	2,148.6	2,037.8	2,034.6	5.7	4.1	153.92	-1,051.4	42.6	1,216.7	1,207.6	9.11	133.548	
2,200.0	2,182.5	2,062.0	2,058.6	5.9	4.2	154.13	-1,053.4	40.5	1,226.1	1,216.8	9.27	132.289	
2,263.8	2,244.9	2,106.0	2,102.3	6.1	4.3	154.49	-1,057.4	36.9	1,244.0	1,234.5	9.56	130.165	
2,300.0	2,280.3	2,130.0	2,126.1	6.3	4.4	154.67	-1,059.9	35.0	1,254.7	1,244.9	9.72	129.094	
2,362.2	2,341.2	2,176.9	2,172.5	6.5	4.5	155.02	-1,065.3	31.6	1,273.6	1,263.6	10.01	127.253	
2,400.0	2,378.1	2,212.0	2,207.2	6.7	4.6	155.28	-1,069.4	29.0	1,285.2	1,275.0	10.20	126.042	
2,460.6	2,437.4	2,268.3	2,263.0	6.9	4.7	155.69	-1,076.0	24.5	1,304.0	1,293.5	10.50	124.207	
2,500.0	2,476.0	2,304.8	2,299.1	7.1	4.8	155.97	-1,080.3	21.3	1,316.2	1,305.5	10.69	123.090	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST HZ SEYLROR #B10-64-1HN - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft	
Survey Program: 290-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				
2,550.0	2,524.9	2,345.0	2,338.8	7.3	5.0	156.28	-1,085.0	17.5	1,331.8	1,320.9	10.93	121.892				
2,559.0	2,533.7	2,345.0	2,338.8	7.3	5.0	157.19	-1,085.0	17.5	1,334.7	1,323.7	10.95	121.914				
2,600.0	2,573.8	2,384.5	2,377.9	7.5	5.1	161.59	-1,089.8	13.4	1,347.8	1,336.7	11.14	120.996				
2,639.4	2,612.3	2,411.9	2,404.8	7.7	5.2	165.74	-1,093.4	10.5	1,361.0	1,349.7	11.29	120.548				
2,657.5	2,630.0	2,424.4	2,417.2	7.7	5.2	165.83	-1,095.0	9.2	1,367.1	1,355.8	11.37	120.275				
2,700.0	2,671.6	2,454.9	2,447.2	7.9	5.3	166.03	-1,099.3	5.7	1,381.8	1,370.3	11.55	119.623				
2,755.9	2,726.3	2,496.5	2,488.1	8.1	5.4	166.31	-1,105.3	1.0	1,401.6	1,389.8	11.81	118.681				
2,800.0	2,769.4	2,534.0	2,524.9	8.3	5.6	166.55	-1,111.0	-3.4	1,417.4	1,405.4	12.02	117.879				
2,854.3	2,822.5	2,564.5	2,554.8	8.5	5.7	166.75	-1,115.9	-7.0	1,437.4	1,425.1	12.25	117.318				
2,900.0	2,867.2	2,593.5	2,583.1	8.7	5.8	166.93	-1,120.8	-10.5	1,454.6	1,442.1	12.45	116.828				
2,952.7	2,918.8	2,628.0	2,616.8	9.0	5.9	167.15	-1,126.9	-14.7	1,475.0	1,462.3	12.68	116.302				
3,000.0	2,965.0	2,668.4	2,656.2	9.2	6.1	167.41	-1,134.3	-19.7	1,493.5	1,480.6	12.91	115.679				
3,051.2	3,015.1	2,714.3	2,701.0	9.4	6.2	167.68	-1,142.8	-25.3	1,513.6	1,500.4	13.16	114.994				
3,100.0	3,062.8	2,760.9	2,746.4	9.6	6.4	167.94	-1,151.3	-30.8	1,532.8	1,519.4	13.40	114.371				
3,149.6	3,111.4	2,808.9	2,793.4	9.8	6.6	168.20	-1,160.1	-36.1	1,552.3	1,538.6	13.65	113.757				
3,200.0	3,160.7	2,857.6	2,840.9	10.0	6.8	168.43	-1,169.0	-41.1	1,572.0	1,558.1	13.89	113.182				
3,248.0	3,207.6	2,904.0	2,886.4	10.2	6.9	168.64	-1,177.5	-45.5	1,590.7	1,576.6	14.12	112.652				
3,300.0	3,258.5	2,953.4	2,934.7	10.5	7.1	168.84	-1,186.5	-50.0	1,610.9	1,596.5	14.37	112.108				
3,346.4	3,303.9	2,997.3	2,977.7	10.7	7.2	169.03	-1,194.4	-54.2	1,629.0	1,614.4	14.59	111.645				
3,400.0	3,356.3	3,064.7	3,043.7	10.9	7.5	169.31	-1,206.1	-60.9	1,649.5	1,634.7	14.88	110.860				
3,444.9	3,400.2	3,120.4	3,098.5	11.1	7.7	169.54	-1,215.2	-66.2	1,666.3	1,651.2	15.12	110.214				
3,500.0	3,454.1	3,180.1	3,157.1	11.3	7.9	169.78	-1,224.6	-71.9	1,686.6	1,671.2	15.39	109.571				
3,543.3	3,496.5	3,222.7	3,199.0	11.5	8.0	169.94	-1,231.1	-75.9	1,702.4	1,686.8	15.60	109.121				
3,600.0	3,551.9	3,275.6	3,251.1	11.7	8.2	170.15	-1,239.2	-81.0	1,723.1	1,707.3	15.87	108.582				
3,641.7	3,592.7	3,313.7	3,288.5	11.9	8.3	170.29	-1,245.0	-84.7	1,738.4	1,722.3	16.07	108.194				
3,700.0	3,649.7	3,366.0	3,339.9	12.2	8.5	170.49	-1,253.0	-90.0	1,759.7	1,743.4	16.34	107.672				
3,740.1	3,689.0	3,386.0	3,359.6	12.4	8.6	170.57	-1,256.1	-92.1	1,774.5	1,758.0	16.50	107.566				
3,800.0	3,747.5	3,433.3	3,406.0	12.6	8.8	170.76	-1,263.6	-97.2	1,797.0	1,780.2	16.77	107.136				
3,838.6	3,785.3	3,456.6	3,428.8	12.8	8.8	170.85	-1,267.5	-99.8	1,811.8	1,794.8	16.93	106.996				
3,900.0	3,845.4	3,500.5	3,471.8	13.1	9.0	171.02	-1,275.3	-104.7	1,835.8	1,818.6	17.20	106.710				
3,937.0	3,881.6	3,535.2	3,505.7	13.2	9.2	171.15	-1,281.5	-108.6	1,850.3	1,832.9	17.39	106.431				
4,000.0	3,943.2	3,590.6	3,559.9	13.5	9.4	171.36	-1,291.3	-114.8	1,875.1	1,857.4	17.69	106.022				
4,035.4	3,977.8	3,617.1	3,585.7	13.6	9.5	171.45	-1,296.1	-117.7	1,889.1	1,871.3	17.84	105.872				
4,100.0	4,041.0	3,671.0	3,638.4	13.9	9.7	171.64	-1,306.1	-123.8	1,915.0	1,896.8	18.14	105.544				
4,133.8	4,074.1	3,692.0	3,658.8	14.1	9.8	171.72	-1,310.1	-126.2	1,928.7	1,910.4	18.29	105.474				
4,200.0	4,138.8	3,745.5	3,711.1	14.4	10.0	171.89	-1,320.4	-132.1	1,955.6	1,937.0	18.59	105.180				
4,232.3	4,170.4	3,772.3	3,737.2	14.5	10.1	171.98	-1,325.6	-135.0	1,968.8	1,950.0	18.74	105.038				
4,300.0	4,236.6	3,833.0	3,796.4	14.8	10.4	172.16	-1,337.5	-141.4	1,996.5	1,977.5	19.07	104.713				
4,330.7	4,266.7	3,873.8	3,836.1	14.9	10.5	172.28	-1,345.5	-145.4	2,009.1	1,989.9	19.24	104.417				
4,400.0	4,334.4	4,050.0	4,009.3	15.2	11.2	172.74	-1,373.3	-161.5	2,034.2	2,014.4	19.80	102.732				
4,429.1	4,362.9	4,078.1	4,037.0	15.4	11.3	172.82	-1,377.1	-164.2	2,044.4	2,024.5	19.94	102.517				
4,500.0	4,432.3	4,136.9	4,095.0	15.7	11.5	172.98	-1,385.2	-169.9	2,069.6	2,049.3	20.27	102.124				
4,527.5	4,459.2	4,157.6	4,115.4	15.8	11.6	173.04	-1,388.1	-171.9	2,079.4	2,059.0	20.39	101.994				
4,600.0	4,530.1	4,208.8	4,165.8	16.1	11.7	173.18	-1,395.5	-177.1	2,105.7	2,085.0	20.70	101.703				
4,626.0	4,555.5	4,227.0	4,183.7	16.2	11.8	173.23	-1,398.2	-179.1	2,115.3	2,094.5	20.82	101.609				
4,700.0	4,627.9	4,284.1	4,239.8	16.6	12.0	173.39	-1,406.9	-185.3	2,142.8	2,121.7	21.15	101.294				
4,724.4	4,651.7	4,303.4	4,258.7	16.7	12.1	173.45	-1,409.9	-187.4	2,152.0	2,130.7	21.27	101.190				
4,800.0	4,725.7	4,358.1	4,312.4	17.0	12.3	173.61	-1,418.5	-193.7	2,180.6	2,159.0	21.60	100.935				
4,822.8	4,748.0	4,373.1	4,327.0	17.1	12.4	173.65	-1,420.9	-195.4	2,189.3	2,167.6	21.70	100.881				
4,904.9	4,828.3	4,429.0	4,381.8	17.5	12.6	173.82	-1,430.3	-202.4	2,221.3	2,199.3	22.06	100.691				
4,921.2	4,844.3	4,446.1	4,398.5	17.5	12.7	173.89	-1,433.2	-204.6	2,227.7	2,205.6	22.16	100.548				
5,000.0	4,921.6	4,543.7	4,494.0	17.8	13.1	174.23	-1,449.1	-216.4	2,256.7	2,234.0	22.64	99.656				

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 290-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	
5,019.7	4,941.0	4,560.0	4,510.0	17.9	13.2	174.29	-1,451.8	-218.3	2,263.5	2,240.8	22.74	99.545	
5,100.0	5,020.4	4,631.3	4,579.8	18.1	13.4	174.52	-1,463.4	-226.7	2,290.5	2,267.3	23.13	99.038	
5,118.1	5,038.3	4,654.1	4,602.2	18.2	13.5	174.59	-1,467.1	-229.4	2,296.2	2,273.0	23.23	98.855	
5,200.0	5,119.6	4,739.9	4,686.3	18.4	13.9	174.84	-1,480.5	-239.6	2,320.5	2,296.9	23.63	98.184	
5,216.5	5,136.0	4,752.3	4,698.4	18.4	13.9	174.87	-1,482.5	-241.1	2,325.2	2,301.5	23.70	98.105	
5,300.0	5,219.2	4,808.0	4,753.0	18.6	14.1	175.03	-1,491.5	-247.6	2,347.7	2,323.7	24.01	97.769	
5,314.9	5,234.1	4,823.6	4,768.3	18.6	14.2	175.07	-1,494.1	-249.5	2,351.5	2,327.4	24.08	97.648	
5,400.0	5,319.1	4,879.1	4,822.5	18.8	14.5	175.23	-1,503.7	-256.4	2,372.6	2,348.2	24.38	97.327	
5,413.4	5,332.4	4,903.0	4,845.8	18.8	14.6	175.29	-1,508.0	-259.5	2,375.8	2,351.4	24.46	97.127	
5,504.9	5,423.9	4,989.0	4,929.7	18.9	14.9	-166.10	-1,523.4	-270.2	2,395.9	2,362.8	33.11	72.358	
5,511.8	5,430.8	4,997.7	4,938.3	18.9	15.0	-166.08	-1,524.9	-271.2	2,397.3	2,364.2	33.16	72.300	
5,600.0	5,519.0	5,345.1	5,281.7	19.0	16.0	-165.96	-1,572.2	-288.0	2,409.4	2,375.0	34.37	70.103	
5,610.2	5,529.3	5,371.5	5,308.1	19.0	16.1	-165.97	-1,574.6	-288.2	2,410.3	2,375.8	34.45	69.965	
5,700.0	5,619.0	5,497.5	5,433.6	19.2	16.4	-165.98	-1,584.4	-290.5	2,417.6	2,382.7	34.87	69.334	
5,708.6	5,627.7	5,526.3	5,462.4	19.2	16.4	-165.97	-1,586.2	-291.3	2,418.1	2,383.2	34.94	69.199	
5,800.0	5,719.0	5,704.3	5,640.1	19.3	16.8	-165.86	-1,592.5	-297.4	2,421.8	2,386.4	35.43	68.360	
5,807.1	5,726.1	5,715.6	5,651.5	19.3	16.8	-165.85	-1,592.7	-297.8	2,422.0	2,386.6	35.46	68.306	
5,900.0	5,819.0	5,851.0	5,786.8	19.4	17.0	-165.79	-1,594.0	-301.0	2,423.4	2,387.6	35.82	67.658	
5,905.5	5,824.5	5,851.0	5,786.8	19.4	17.0	-165.79	-1,594.0	-301.0	2,423.4	2,387.6	35.83	67.645	
6,003.9	5,923.0	6,061.7	5,996.8	19.6	17.3	-166.09	-1,596.5	-288.5	2,424.3	2,388.1	36.24	66.888	
6,009.8	5,928.8	6,067.4	6,002.4	19.6	17.3	-166.11	-1,596.6	-287.5	2,424.1	2,387.9	36.26	66.859	
6,050.0	5,969.0	6,106.1	6,040.2	19.6	17.3	-76.45	-1,597.0	-279.9	2,422.4	2,394.4	28.00	86.522	
6,100.0	6,018.8	6,161.9	6,094.5	19.7	17.3	-77.10	-1,598.3	-266.6	2,419.6	2,391.5	28.15	85.961	
6,102.3	6,021.1	6,165.3	6,097.7	19.7	17.3	-77.14	-1,598.4	-265.6	2,419.5	2,391.3	28.16	85.933	
6,150.0	6,068.1	6,383.1	6,294.7	19.7	17.1	-80.39	-1,603.8	-174.6	2,414.4	2,385.9	28.51	84.678	
6,200.0	6,116.8	6,425.3	6,329.8	19.7	17.1	-81.67	-1,604.6	-151.3	2,407.6	2,379.0	28.68	83.936	
6,200.8	6,117.5	6,425.8	6,330.2	19.7	17.1	-81.68	-1,604.7	-151.0	2,407.5	2,378.8	28.69	83.924	
6,250.0	6,164.5	6,453.9	6,352.9	19.7	17.1	-82.76	-1,605.4	-134.4	2,400.9	2,372.0	28.85	83.209	
6,299.2	6,210.4	6,476.8	6,370.9	19.7	17.0	-83.74	-1,606.2	-120.3	2,394.5	2,365.5	29.00	82.572	
6,300.0	6,211.1	6,477.1	6,371.2	19.7	17.0	-83.75	-1,606.2	-120.1	2,394.4	2,365.4	29.00	82.563	
6,350.0	6,256.4	6,495.4	6,385.2	19.7	17.0	-84.63	-1,607.0	-108.5	2,388.4	2,359.3	29.13	81.989	
6,397.6	6,298.0	6,514.0	6,399.2	19.7	17.0	-85.48	-1,607.8	-96.2	2,383.2	2,353.9	29.26	81.460	
6,400.0	6,300.0	6,514.0	6,399.2	19.7	17.0	-85.50	-1,607.8	-96.2	2,383.0	2,353.7	29.26	81.441	
6,450.0	6,341.8	6,527.5	6,409.1	19.7	17.0	-86.20	-1,608.4	-87.0	2,378.2	2,348.8	29.41	80.868	
6,496.0	6,378.6	6,541.0	6,418.8	19.7	17.0	-86.82	-1,609.1	-77.7	2,374.4	2,344.9	29.56	80.321	
6,500.0	6,381.6	6,541.7	6,419.4	19.7	17.0	-86.86	-1,609.1	-77.2	2,374.1	2,344.6	29.57	80.281	
6,550.0	6,419.2	6,547.2	6,423.2	19.6	17.0	-87.25	-1,609.4	-73.4	2,370.9	2,341.2	29.73	79.751	
6,594.5	6,450.7	6,547.0	6,423.1	19.6	17.0	-87.41	-1,609.4	-73.5	2,368.8	2,338.9	29.89	79.262	
6,600.0	6,454.4	6,546.7	6,422.9	19.6	17.0	-87.42	-1,609.3	-73.7	2,368.6	2,338.7	29.90	79.207	
6,650.0	6,487.1	6,542.2	6,419.7	19.6	17.0	-87.43	-1,609.1	-76.9	2,367.2	2,337.1	30.12	78.596	
6,692.9	6,513.0	6,536.0	6,415.3	19.6	17.0	-87.32	-1,608.8	-81.2	2,366.6	2,336.3	30.35	77.977	
6,700.0	6,517.0	6,534.8	6,414.4	19.6	17.0	-87.29	-1,608.8	-82.0	2,366.6	2,336.2	30.39	77.880	
6,706.7	6,520.8	6,533.6	6,413.5	19.6	17.0	-87.27	-1,608.7	-82.9	2,366.6	2,336.2	30.43	77.761	
6,750.0	6,544.1	6,525.2	6,407.4	19.6	17.0	-87.04	-1,608.3	-88.7	2,366.9	2,336.2	30.72	77.038	
6,791.3	6,564.2	6,514.0	6,399.2	19.7	17.0	-86.71	-1,607.8	-96.2	2,367.8	2,336.8	31.06	76.245	
6,800.0	6,568.2	6,514.0	6,399.2	19.7	17.0	-86.69	-1,607.8	-96.2	2,368.1	2,336.9	31.13	76.058	
6,850.0	6,589.1	6,514.0	6,399.2	19.8	17.0	-86.53	-1,607.8	-96.2	2,370.0	2,338.4	31.66	74.853	
6,889.7	6,603.5	6,514.0	6,399.2	19.9	17.0	-86.36	-1,607.8	-96.2	2,372.2	2,340.1	32.15	73.796	
6,900.0	6,606.9	6,514.0	6,399.2	19.9	17.0	-86.31	-1,607.8	-96.2	2,372.8	2,340.6	32.27	73.532	
6,950.0	6,621.3	6,486.7	6,378.6	20.2	17.0	-85.42	-1,606.6	-114.0	2,376.2	2,343.2	32.91	72.197	
6,988.2	6,630.0	6,478.3	6,372.1	20.6	17.0	-84.99	-1,606.3	-119.3	2,379.2	2,345.8	33.47	71.082	
7,000.0	6,632.4	6,475.6	6,370.0	20.7	17.0	-84.85	-1,606.2	-121.0	2,380.3	2,346.6	33.64	70.750	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 290-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
7,050.0	6,640.0	6,463.7	6,360.7	21.4	17.0	-84.23	-1,605.7	-128.5	2,385.0	2,350.6	34.43	69.272	
7,086.6	6,643.4	6,454.5	6,353.4	21.9	17.1	-83.73	-1,605.4	-134.1	2,388.8	2,353.8	35.04	68.179	
7,100.0	6,644.2	6,451.0	6,350.6	22.1	17.1	-83.55	-1,605.3	-136.2	2,390.3	2,355.0	35.26	67.794	
7,135.7	6,645.0	6,420.0	6,325.5	22.7	17.1	-82.61	-1,604.5	-154.3	2,394.6	2,358.7	35.83	66.835	
7,185.0	6,644.9	6,420.0	6,325.5	23.6	17.1	-82.61	-1,604.5	-154.3	2,400.6	2,363.8	36.78	65.267	
7,200.0	6,644.9	6,420.0	6,325.5	23.9	17.1	-82.61	-1,604.5	-154.3	2,402.6	2,365.6	37.07	64.813	
7,283.4	6,644.8	6,420.0	6,325.5	25.6	17.1	-82.61	-1,604.5	-154.3	2,415.6	2,376.8	38.79	62.277	
7,300.0	6,644.8	6,395.5	6,305.1	25.9	17.1	-82.13	-1,604.0	-168.0	2,418.3	2,379.2	39.10	61.853	
7,381.9	6,644.7	6,372.5	6,285.7	27.7	17.1	-81.66	-1,603.6	-180.3	2,433.6	2,392.7	40.86	59.566	
7,400.0	6,644.7	6,367.6	6,281.5	28.1	17.2	-81.57	-1,603.6	-182.8	2,437.3	2,396.1	41.24	59.095	
7,480.3	6,644.6	6,325.0	6,244.7	29.9	17.2	-80.69	-1,603.0	-204.2	2,455.2	2,412.2	43.01	57.086	
7,500.0	6,644.6	6,325.0	6,244.7	30.3	17.2	-80.69	-1,603.0	-204.2	2,459.8	2,416.3	43.46	56.599	
7,578.7	6,644.5	6,325.0	6,244.7	32.2	17.2	-80.69	-1,603.0	-204.2	2,479.6	2,434.3	45.33	54.708	
7,600.0	6,644.4	6,314.4	6,235.4	32.7	17.2	-80.47	-1,602.9	-209.2	2,485.4	2,439.6	45.81	54.256	
7,677.1	6,644.3	6,286.8	6,210.8	34.6	17.2	-79.89	-1,602.4	-221.7	2,507.3	2,459.7	47.62	52.650	
7,700.0	6,644.3	6,279.3	6,204.0	35.1	17.2	-79.73	-1,602.3	-225.0	2,514.2	2,466.0	48.16	52.206	
7,775.6	6,644.2	6,256.6	6,183.4	37.0	17.3	-79.24	-1,601.6	-234.4	2,537.9	2,488.0	49.97	50.790	
7,800.0	6,644.2	6,249.9	6,177.2	37.6	17.3	-79.10	-1,601.4	-237.1	2,546.0	2,495.4	50.55	50.362	
7,874.0	6,644.1	6,230.0	6,158.8	39.5	17.3	-78.66	-1,600.6	-244.6	2,571.5	2,519.2	52.35	49.121	
7,900.0	6,644.1	6,230.0	6,158.8	40.1	17.3	-78.66	-1,600.6	-244.6	2,580.9	2,527.9	53.00	48.694	
7,972.4	6,644.0	6,230.0	6,158.8	42.0	17.3	-78.66	-1,600.6	-244.6	2,608.2	2,553.4	54.84	47.560	
8,000.0	6,643.9	6,230.0	6,158.8	42.7	17.3	-78.66	-1,600.6	-244.6	2,619.1	2,563.6	55.54	47.156	
8,070.8	6,643.9	6,230.0	6,158.8	44.5	17.3	-78.66	-1,600.6	-244.6	2,648.1	2,590.7	57.36	46.167	
8,100.0	6,643.8	6,230.0	6,158.8	45.2	17.3	-78.66	-1,600.6	-244.6	2,660.5	2,602.4	58.11	45.786	
8,169.3	6,643.7	6,230.0	6,158.8	47.0	17.3	-78.66	-1,600.6	-244.6	2,690.9	2,631.0	59.90	44.924	
8,200.0	6,643.7	6,195.2	6,126.2	47.9	17.3	-77.89	-1,599.3	-256.7	2,704.2	2,643.6	60.55	44.662	
8,267.7	6,643.6	6,189.0	6,120.3	49.6	17.3	-77.76	-1,599.1	-258.6	2,735.6	2,673.3	62.28	43.925	
8,300.0	6,643.6	6,186.1	6,117.6	50.5	17.3	-77.69	-1,599.0	-259.5	2,751.0	2,687.9	63.10	43.595	
8,366.1	6,643.5	6,180.5	6,112.2	52.2	17.3	-77.57	-1,598.8	-261.2	2,783.5	2,718.7	64.81	42.952	
8,400.0	6,643.4	6,177.7	6,109.6	53.1	17.3	-77.51	-1,598.7	-262.0	2,800.6	2,734.9	65.68	42.642	
8,464.5	6,643.4	6,172.7	6,104.8	54.8	17.3	-77.39	-1,598.6	-263.5	2,834.0	2,766.6	67.35	42.081	
8,500.0	6,643.3	6,136.0	6,069.4	55.8	17.3	-76.57	-1,597.6	-273.2	2,853.5	2,785.5	68.08	41.917	
8,563.0	6,643.2	6,136.0	6,069.4	57.5	17.3	-76.57	-1,597.6	-273.2	2,887.4	2,817.7	69.73	41.408	
8,600.0	6,643.2	6,136.0	6,069.4	58.5	17.3	-76.57	-1,597.6	-273.2	2,907.8	2,837.1	70.70	41.126	
8,661.4	6,643.1	6,136.0	6,069.4	60.1	17.3	-76.57	-1,597.6	-273.2	2,942.3	2,870.0	72.32	40.682	
8,700.0	6,643.1	6,136.0	6,069.4	61.2	17.3	-76.57	-1,597.6	-273.2	2,964.5	2,891.1	73.34	40.419	
8,759.8	6,643.0	6,136.0	6,069.4	62.8	17.3	-76.57	-1,597.6	-273.2	2,999.5	2,924.5	74.93	40.032	
8,800.0	6,643.0	6,136.0	6,069.4	63.9	17.3	-76.57	-1,597.6	-273.2	3,023.4	2,947.4	75.99	39.787	
8,858.2	6,642.9	6,136.0	6,069.4	65.4	17.3	-76.57	-1,597.6	-273.2	3,058.7	2,981.1	77.54	39.448	
8,900.0	6,642.8	6,136.0	6,069.4	66.6	17.3	-76.57	-1,597.6	-273.2	3,084.4	3,005.8	78.64	39.220	
8,956.7	6,642.8	6,136.0	6,069.4	68.1	17.3	-76.57	-1,597.6	-273.2	3,119.9	3,039.7	80.15	38.924	
9,000.0	6,642.7	6,136.0	6,069.4	69.3	17.3	-76.57	-1,597.6	-273.2	3,147.4	3,066.1	81.31	38.711	
9,055.1	6,642.6	6,136.0	6,069.4	70.8	17.3	-76.57	-1,597.6	-273.2	3,183.0	3,100.2	82.78	38.453	
9,100.0	6,642.6	6,136.0	6,069.4	72.0	17.3	-76.57	-1,597.6	-273.2	3,212.3	3,128.4	83.97	38.254	
9,153.5	6,642.5	6,136.0	6,069.4	73.5	17.3	-76.57	-1,597.6	-273.2	3,247.8	3,162.4	85.40	38.028	
9,200.0	6,642.5	6,136.0	6,069.4	74.7	17.3	-76.57	-1,597.6	-273.2	3,279.0	3,192.3	86.65	37.843	
9,251.9	6,642.4	6,136.0	6,069.4	76.2	17.3	-76.57	-1,597.6	-273.2	3,314.3	3,226.2	88.04	37.646	
9,300.0	6,642.3	6,136.0	6,069.4	77.5	17.3	-76.57	-1,597.6	-273.2	3,347.3	3,258.0	89.32	37.474	
9,350.4	6,642.3	6,136.0	6,069.4	78.9	17.3	-76.57	-1,597.6	-273.2	3,382.3	3,291.7	90.68	37.302	
9,400.0	6,642.2	6,136.0	6,069.4	80.2	17.3	-76.57	-1,597.6	-273.2	3,417.2	3,325.2	92.01	37.141	
9,448.8	6,642.1	6,136.0	6,069.4	81.6	17.3	-76.57	-1,597.6	-273.2	3,451.8	3,358.5	93.32	36.991	
9,500.0	6,642.1	6,136.0	6,069.4	83.0	17.3	-76.57	-1,597.6	-273.2	3,488.6	3,393.9	94.69	36.841	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 290-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	6,642.0	6,136.0	6,069.4	84.3	17.3	-76.57	-1,597.6	-273.2	3,522.7	3,426.8	95.96	36.710	
9,600.0	6,642.0	6,136.0	6,069.4	85.7	17.3	-76.57	-1,597.6	-273.2	3,561.3	3,463.9	97.38	36.571	
9,645.6	6,641.9	6,098.6	6,033.0	87.0	17.3	-75.73	-1,596.9	-281.5	3,594.2	3,495.9	98.27	36.575	
9,700.0	6,641.8	6,095.7	6,030.1	88.5	17.3	-75.66	-1,596.9	-282.1	3,634.4	3,534.7	99.70	36.454	
9,744.1	6,641.8	6,093.4	6,027.9	89.7	17.3	-75.61	-1,596.8	-282.6	3,667.4	3,566.5	100.86	36.361	
9,800.0	6,641.7	6,090.5	6,025.0	91.2	17.3	-75.55	-1,596.8	-283.1	3,709.5	3,607.1	102.33	36.249	
9,842.5	6,641.7	6,088.4	6,022.9	92.4	17.3	-75.50	-1,596.8	-283.6	3,741.7	3,638.2	103.45	36.167	
9,900.0	6,641.6	6,085.6	6,020.2	94.0	17.3	-75.44	-1,596.7	-284.1	3,785.6	3,680.6	104.97	36.064	
9,940.9	6,641.5	6,083.6	6,018.2	95.1	17.3	-75.39	-1,596.7	-284.5	3,817.1	3,711.0	106.05	35.993	
10,000.0	6,641.5	6,080.8	6,015.5	96.7	17.3	-75.33	-1,596.7	-285.0	3,862.8	3,755.2	107.61	35.897	
10,039.3	6,641.4	6,079.0	6,013.7	97.8	17.3	-75.29	-1,596.7	-285.4	3,893.4	3,784.8	108.65	35.836	
10,100.0	6,641.3	6,041.0	5,976.3	99.5	17.3	-74.44	-1,596.4	-292.0	3,941.6	3,831.8	109.86	35.880	
10,137.8	6,641.3	6,041.0	5,976.3	100.6	17.3	-74.44	-1,596.4	-292.0	3,971.4	3,860.5	110.87	35.820	
10,200.0	6,641.2	6,041.0	5,976.3	102.3	17.3	-74.44	-1,596.4	-292.0	4,020.6	3,908.1	112.54	35.727	
10,236.2	6,641.2	6,041.0	5,976.3	103.3	17.3	-74.44	-1,596.4	-292.0	4,049.5	3,936.0	113.51	35.676	
10,300.0	6,641.1	6,041.0	5,976.3	105.0	17.3	-74.44	-1,596.4	-292.0	4,100.5	3,985.3	115.22	35.589	
10,334.6	6,641.0	6,041.0	5,976.3	106.0	17.3	-74.44	-1,596.4	-292.0	4,128.4	4,012.3	116.15	35.545	
10,400.0	6,641.0	6,041.0	5,976.3	107.8	17.3	-74.44	-1,596.4	-292.0	4,181.3	4,063.4	117.90	35.464	
10,433.0	6,640.9	6,041.0	5,976.3	108.7	17.3	-74.44	-1,596.4	-292.0	4,208.2	4,089.4	118.79	35.426	
10,500.0	6,640.8	6,041.0	5,976.3	110.6	17.3	-74.44	-1,596.4	-292.0	4,262.9	4,142.3	120.59	35.351	
10,531.5	6,640.8	6,041.0	5,976.3	111.5	17.3	-74.44	-1,596.4	-292.0	4,288.7	4,167.3	121.43	35.318	
10,600.0	6,640.7	6,041.0	5,976.3	113.4	17.3	-74.44	-1,596.4	-292.0	4,345.3	4,222.0	123.27	35.249	
10,629.9	6,640.7	6,041.0	5,976.3	114.2	17.3	-74.44	-1,596.4	-292.0	4,370.0	4,246.0	124.08	35.220	
10,700.0	6,640.6	6,041.0	5,976.3	116.1	17.3	-74.44	-1,596.4	-292.0	4,428.3	4,302.4	125.96	35.157	
10,728.3	6,640.5	6,041.0	5,976.3	116.9	17.3	-74.44	-1,596.4	-292.0	4,452.0	4,325.3	126.72	35.132	
10,800.0	6,640.5	6,041.0	5,976.3	118.9	17.3	-74.44	-1,596.4	-292.0	4,512.1	4,383.5	128.65	35.073	
10,826.7	6,640.4	6,041.0	5,976.3	119.7	17.3	-74.44	-1,596.4	-292.0	4,534.6	4,405.3	129.37	35.052	
10,900.0	6,640.3	6,041.0	5,976.3	121.7	17.3	-74.44	-1,596.4	-292.0	4,596.5	4,465.2	131.34	34.997	
10,925.2	6,640.3	6,041.0	5,976.3	122.4	17.3	-74.44	-1,596.4	-292.0	4,617.9	4,485.9	132.02	34.979	
11,000.0	6,640.2	6,041.0	5,976.3	124.5	17.3	-74.44	-1,596.4	-292.0	4,681.6	4,547.5	134.03	34.929	
11,023.6	6,640.2	6,041.0	5,976.3	125.1	17.3	-74.44	-1,596.4	-292.0	4,701.7	4,567.1	134.67	34.914	
11,100.0	6,640.1	6,041.0	5,976.3	127.3	17.3	-74.44	-1,596.4	-292.0	4,767.2	4,630.5	136.72	34.868	
11,122.0	6,640.0	6,041.0	5,976.3	127.9	17.3	-74.44	-1,596.4	-292.0	4,786.1	4,648.8	137.32	34.855	
11,200.0	6,639.9	6,041.0	5,976.3	130.1	17.3	-74.44	-1,596.4	-292.0	4,853.3	4,713.9	139.42	34.812	
11,220.4	6,639.9	6,041.0	5,976.3	130.6	17.3	-74.44	-1,596.4	-292.0	4,871.0	4,731.1	139.97	34.801	
11,300.0	6,639.8	6,041.0	5,976.3	132.8	17.3	-74.44	-1,596.4	-292.0	4,940.0	4,797.9	142.11	34.762	
11,318.9	6,639.8	6,041.0	5,976.3	133.4	17.3	-74.44	-1,596.4	-292.0	4,956.4	4,813.8	142.62	34.753	
11,400.0	6,639.7	6,041.0	5,976.3	135.6	17.3	-74.44	-1,596.4	-292.0	5,027.2	4,882.4	144.80	34.717	
11,417.3	6,639.7	6,041.0	5,976.3	136.1	17.3	-74.44	-1,596.4	-292.0	5,042.3	4,897.1	145.27	34.710	
11,500.0	6,639.6	6,041.0	5,976.3	138.4	17.3	-74.44	-1,596.4	-292.0	5,114.9	4,967.4	147.50	34.677	
11,515.7	6,639.5	6,041.0	5,976.3	138.9	17.3	-74.44	-1,596.4	-292.0	5,128.7	4,980.8	147.92	34.671	
11,600.0	6,639.4	6,041.0	5,976.3	141.2	17.3	-74.44	-1,596.4	-292.0	5,203.0	5,052.8	150.20	34.641	
11,614.1	6,639.4	6,041.0	5,976.3	141.6	17.3	-74.44	-1,596.4	-292.0	5,215.5	5,064.9	150.58	34.636	
11,700.0	6,639.3	6,041.0	5,976.3	144.0	17.3	-74.44	-1,596.4	-292.0	5,291.5	5,138.6	152.89	34.609	
11,712.6	6,639.3	6,041.0	5,976.3	144.3	17.3	-74.44	-1,596.4	-292.0	5,302.6	5,149.4	153.23	34.605	
11,800.0	6,639.2	6,041.0	5,976.3	146.8	17.3	-74.44	-1,596.4	-292.0	5,380.4	5,224.8	155.59	34.581	
11,811.0	6,639.2	6,041.0	5,976.3	147.1	17.3	-74.44	-1,596.4	-292.0	5,390.2	5,234.3	155.89	34.578	
11,900.0	6,639.1	6,041.0	5,976.3	149.6	17.3	-74.44	-1,596.4	-292.0	5,469.7	5,311.4	158.29	34.555	
11,909.4	6,639.0	6,041.0	5,976.3	149.8	17.3	-74.44	-1,596.4	-292.0	5,478.1	5,319.6	158.54	34.553	
12,000.0	6,638.9	6,041.0	5,976.3	152.4	17.3	-74.44	-1,596.4	-292.0	5,559.4	5,398.4	160.99	34.533	
12,007.8	6,638.9	6,041.0	5,976.3	152.6	17.3	-74.44	-1,596.4	-292.0	5,566.4	5,405.2	161.20	34.531	
12,100.0	6,638.8	6,041.0	5,976.3	155.2	17.3	-74.44	-1,596.4	-292.0	5,649.4	5,485.7	163.69	34.513	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 290-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	6,638.8	6,041.0	5,976.3	155.3	17.3	-74.44	-1,596.4	-292.0	5,655.0	5,491.2	163.86	34.512	
12,200.0	6,638.7	6,041.0	5,976.3	157.9	17.3	-74.44	-1,596.4	-292.0	5,739.7	5,573.3	166.39	34.496	
12,204.7	6,638.7	6,041.0	5,976.3	158.1	17.3	-74.44	-1,596.4	-292.0	5,744.0	5,577.5	166.51	34.496	
12,300.0	6,638.5	6,041.0	5,976.3	160.7	17.3	-74.44	-1,596.4	-292.0	5,830.4	5,661.3	169.09	34.482	
12,303.1	6,638.5	6,041.0	5,976.3	160.8	17.3	-74.44	-1,596.4	-292.0	5,833.2	5,664.0	169.17	34.481	
12,400.0	6,638.4	6,041.0	5,976.3	163.5	17.3	-74.44	-1,596.4	-292.0	5,921.3	5,749.6	171.79	34.469	
12,401.5	6,638.4	6,041.0	5,976.3	163.6	17.3	-74.44	-1,596.4	-292.0	5,922.7	5,750.9	171.83	34.469	
12,500.0	6,638.3	6,041.0	5,976.3	166.3	17.3	-74.44	-1,596.4	-292.0	6,012.6	5,838.1	174.49	34.459	
12,598.4	6,638.2	6,041.0	5,976.3	169.1	17.3	-74.44	-1,596.4	-292.0	6,102.6	5,925.5	177.15	34.450	
12,600.0	6,638.2	6,041.0	5,976.3	169.1	17.3	-74.44	-1,596.4	-292.0	6,104.1	5,926.9	177.19	34.450	
12,696.8	6,638.0	6,041.0	5,976.3	171.8	17.3	-74.44	-1,596.4	-292.0	6,193.0	6,013.2	179.81	34.443	
12,700.0	6,638.0	6,041.0	5,976.3	171.9	17.3	-74.44	-1,596.4	-292.0	6,195.9	6,016.0	179.89	34.442	
12,795.2	6,637.9	6,041.0	5,976.3	174.6	17.3	-74.44	-1,596.4	-292.0	6,283.5	6,101.1	182.46	34.437	
12,800.0	6,637.9	6,041.0	5,976.3	174.7	17.3	-74.44	-1,596.4	-292.0	6,287.9	6,105.3	182.59	34.437	
12,893.7	6,637.8	6,041.0	5,976.3	177.3	17.3	-74.44	-1,596.4	-292.0	6,374.4	6,189.2	185.12	34.433	
12,900.0	6,637.8	6,041.0	5,976.3	177.5	17.3	-74.44	-1,596.4	-292.0	6,380.2	6,194.9	185.30	34.433	
12,992.1	6,637.7	6,041.0	5,976.3	180.1	17.3	-74.44	-1,596.4	-292.0	6,465.4	6,277.6	187.79	34.430	
13,000.0	6,637.6	6,041.0	5,976.3	180.3	17.3	-74.44	-1,596.4	-292.0	6,472.7	6,284.7	188.00	34.430	
13,090.5	6,637.5	6,041.0	5,976.3	182.8	17.3	-74.44	-1,596.4	-292.0	6,556.6	6,366.2	190.45	34.428	
13,100.0	6,637.5	6,041.0	5,976.3	183.1	17.3	-74.44	-1,596.4	-292.0	6,565.4	6,374.7	190.70	34.428	
13,188.9	6,637.4	6,041.0	5,976.3	185.6	17.3	-74.44	-1,596.4	-292.0	6,648.1	6,455.0	193.11	34.427	
13,200.0	6,637.4	6,041.0	5,976.3	185.9	17.3	-74.44	-1,596.4	-292.0	6,658.4	6,464.9	193.41	34.427 SF	
13,287.4	6,637.3	6,041.0	5,976.3	188.4	17.3	-74.44	-1,596.4	-292.0	6,739.7	6,544.0	195.77	34.427	
13,300.0	6,637.3	6,041.0	5,976.3	188.7	17.3	-74.44	-1,596.4	-292.0	6,751.5	6,555.4	196.11	34.427	
13,385.8	6,637.1	6,041.0	5,976.3	191.1	17.3	-74.44	-1,596.4	-292.0	6,831.6	6,633.1	198.43	34.428	
13,400.0	6,637.1	6,041.0	5,976.3	191.5	17.3	-74.43	-1,596.4	-292.0	6,844.8	6,646.0	198.81	34.428	
13,484.2	6,637.0	6,041.0	5,976.3	193.9	17.3	-74.43	-1,596.4	-292.0	6,923.6	6,722.5	201.09	34.430	
13,500.0	6,637.0	6,041.0	5,976.3	194.3	17.3	-74.43	-1,596.4	-292.0	6,938.3	6,736.8	201.52	34.430	
13,582.6	6,636.9	6,041.0	5,976.3	196.6	17.3	-74.43	-1,596.4	-292.0	7,015.8	6,812.0	203.75	34.433	
13,600.0	6,636.9	6,041.0	5,976.3	197.1	17.3	-74.43	-1,596.4	-292.0	7,032.0	6,827.8	204.22	34.433	
13,681.1	6,636.8	6,041.0	5,976.3	199.4	17.3	-74.43	-1,596.4	-292.0	7,108.1	6,901.7	206.42	34.436	
13,700.0	6,636.7	6,041.0	5,976.3	199.9	17.3	-74.43	-1,596.4	-292.0	7,125.9	6,919.0	206.93	34.437	
13,779.5	6,636.6	6,041.0	5,976.3	202.1	17.3	-74.43	-1,596.4	-292.0	7,200.6	6,991.6	209.08	34.440	
13,800.0	6,636.6	6,041.0	5,976.3	202.7	17.3	-74.43	-1,596.4	-292.0	7,219.9	7,010.3	209.63	34.441	
13,877.9	6,636.5	6,041.0	5,976.3	204.9	17.3	-74.43	-1,596.4	-292.0	7,293.3	7,081.6	211.74	34.445	
13,900.0	6,636.5	6,041.0	5,976.3	205.5	17.3	-74.43	-1,596.4	-292.0	7,314.1	7,101.8	212.34	34.446	
13,976.3	6,636.4	6,041.0	5,976.3	207.6	17.3	-74.43	-1,596.4	-292.0	7,386.1	7,171.7	214.40	34.450	
14,000.0	6,636.3	5,997.7	5,933.4	208.3	17.2	-73.47	-1,596.1	-297.5	7,407.1	7,193.0	214.03	34.608	
14,074.8	6,636.3	5,997.1	5,932.8	210.4	17.2	-73.45	-1,596.1	-297.5	7,477.7	7,261.6	216.03	34.614	
14,100.0	6,636.2	5,996.9	5,932.5	211.1	17.2	-73.45	-1,596.1	-297.5	7,501.5	7,284.8	216.70	34.617	
14,173.2	6,636.1	5,996.2	5,931.9	213.2	17.2	-73.43	-1,596.1	-297.6	7,570.7	7,352.1	218.66	34.623	
14,200.0	6,636.1	5,996.0	5,931.7	213.9	17.2	-73.43	-1,596.1	-297.6	7,596.1	7,376.7	219.37	34.626	
14,271.6	6,636.0	5,995.4	5,931.1	215.9	17.2	-73.42	-1,596.1	-297.7	7,663.9	7,442.6	221.29	34.633	
14,300.0	6,636.0	5,995.2	5,930.9	216.7	17.2	-73.41	-1,596.1	-297.7	7,690.8	7,468.7	222.05	34.636	
14,370.0	6,635.9	5,994.6	5,930.3	218.7	17.2	-73.40	-1,596.1	-297.7	7,757.2	7,533.3	223.92	34.643	
14,400.0	6,635.8	5,994.4	5,930.1	219.5	17.2	-73.39	-1,596.1	-297.8	7,785.6	7,560.9	224.72	34.646	
14,468.5	6,635.7	5,993.9	5,929.6	221.4	17.2	-73.38	-1,596.1	-297.8	7,850.6	7,624.1	226.55	34.653	
14,500.0	6,635.7	5,993.6	5,929.3	222.3	17.2	-73.37	-1,596.1	-297.8	7,880.6	7,653.2	227.39	34.656	
14,566.9	6,635.6	5,993.1	5,928.8	224.2	17.2	-73.36	-1,596.1	-297.9	7,944.2	7,715.0	229.18	34.663	
14,600.0	6,635.6	5,992.9	5,928.6	225.1	17.2	-73.36	-1,596.1	-297.9	7,975.7	7,745.6	230.07	34.667	
14,665.3	6,635.5	5,992.4	5,928.1	226.9	17.2	-73.35	-1,596.1	-297.9	8,037.8	7,806.0	231.81	34.674	
14,700.0	6,635.4	5,992.1	5,927.8	227.9	17.2	-73.34	-1,596.1	-298.0	8,070.9	7,838.1	232.74	34.677	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST HZ SEYLOR #B10-64-1HN - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 290-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
14,763.7	6,635.4	5,991.7	5,927.4	229.7	17.2	-73.33	-1,596.1	-298.0	8,131.6	7,897.2	234.45	34.684	
14,800.0	6,635.3	5,991.4	5,927.1	230.7	17.2	-73.32	-1,596.1	-298.0	8,166.2	7,930.8	235.41	34.689	
14,862.2	6,635.2	5,991.0	5,926.7	232.5	17.2	-73.31	-1,596.1	-298.1	8,225.5	7,988.4	237.08	34.695	
14,900.0	6,635.2	5,990.7	5,926.4	233.5	17.2	-73.31	-1,596.0	-298.1	8,261.6	8,023.5	238.09	34.700	
14,960.6	6,635.1	5,990.3	5,926.0	235.2	17.2	-73.30	-1,596.0	-298.1	8,319.5	8,079.8	239.71	34.707	
15,000.0	6,635.0	5,990.0	5,925.7	236.3	17.2	-73.29	-1,596.0	-298.1	8,357.2	8,116.4	240.76	34.711	
15,033.1	6,635.0	5,989.8	5,925.5	237.3	17.2	-73.29	-1,596.0	-298.2	8,388.8	8,147.1	241.65	34.715	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 597-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	173.39	-1,016.1	117.8	1,023.0				
98.4	98.4	85.4	85.4	0.1	0.1	173.39	-1,016.1	117.8	1,022.9	1,022.7	0.17	5,873.261	
100.0	100.0	87.0	87.0	0.1	0.1	173.39	-1,016.1	117.8	1,022.9	1,022.7	0.18	5,766.935	
196.8	196.8	183.8	183.8	0.3	0.2	173.39	-1,016.1	117.8	1,022.9	1,022.4	0.48	2,114.851	
200.0	200.0	187.0	187.0	0.3	0.2	173.39	-1,016.1	117.8	1,022.9	1,022.4	0.49	2,072.170	
295.3	295.3	282.3	282.3	0.5	0.3	173.39	-1,016.1	117.8	1,022.9	1,022.1	0.79	1,286.736	
300.0	300.0	287.0	287.0	0.5	0.3	173.39	-1,016.1	117.8	1,022.9	1,022.1	0.81	1,262.994	
393.7	393.7	380.7	380.7	0.8	0.3	173.39	-1,016.1	117.8	1,022.9	1,021.8	1.11	924.664	
400.0	400.0	387.0	387.0	0.8	0.4	173.39	-1,016.1	117.8	1,022.9	1,021.7	1.13	908.304	
492.1	492.1	479.1	479.1	1.0	0.4	173.39	-1,016.1	117.8	1,022.9	1,021.5	1.42	721.611	
500.0	500.0	487.0	487.0	1.0	0.4	173.39	-1,016.1	117.8	1,022.9	1,021.4	1.44	709.151	
590.5	590.5	577.5	577.5	1.2	0.5	173.39	-1,016.1	117.8	1,022.9	1,021.1	1.73	591.680	
600.0	600.0	587.0	587.0	1.2	0.5	173.39	-1,016.1	117.8	1,022.9	1,021.1	1.76	581.625	
689.0	689.0	683.2	683.2	1.4	0.7	173.36	-1,015.6	118.3	1,022.5	1,020.3	2.16	474.278	
700.0	700.0	694.3	694.3	1.4	0.8	173.35	-1,015.5	118.4	1,022.4	1,020.2	2.20	463.779	
787.4	787.4	784.9	784.9	1.6	1.0	173.28	-1,014.6	119.5	1,021.7	1,019.1	2.60	393.437	
800.0	800.0	798.4	798.3	1.7	1.0	173.27	-1,014.5	119.7	1,021.6	1,018.9	2.65	384.846	
885.8	885.8	884.5	884.5	1.9	1.2	173.21	-1,013.3	120.7	1,020.5	1,017.5	3.03	337.156	
900.0	900.0	898.1	898.1	1.9	1.2	173.20	-1,013.1	120.8	1,020.3	1,017.2	3.09	330.629	
984.2	984.2	997.5	997.5	2.1	1.4	173.18	-1,011.5	121.0	1,019.1	1,015.6	3.47	293.286	
1,000.0	1,000.0	1,018.3	1,018.2	2.1	1.4	173.19	-1,011.0	120.7	1,018.6	1,015.1	3.55	286.801	
1,082.7	1,082.7	1,117.9	1,117.7	2.3	1.6	146.43	-1,007.5	117.2	1,016.4	1,012.4	3.95	257.476	
1,100.0	1,100.0	1,139.7	1,139.5	2.3	1.7	146.52	-1,006.5	116.0	1,016.0	1,012.0	4.03	251.845	
1,181.1	1,181.0	1,239.7	1,239.1	2.5	1.9	146.99	-1,001.0	110.1	1,014.3	1,009.9	4.44	228.517	
1,200.0	1,199.8	1,261.3	1,260.7	2.6	2.0	147.11	-999.6	108.5	1,014.0	1,009.5	4.53	223.837	
1,270.7	1,270.3	1,339.1	1,338.0	2.7	2.2	147.63	-994.2	102.3	1,013.4	1,008.6	4.87	208.106 CC	
1,279.5	1,279.1	1,348.3	1,347.1	2.8	2.2	147.70	-993.6	101.5	1,013.4	1,008.5	4.91	206.347 ES	
1,300.0	1,299.5	1,369.5	1,368.2	2.8	2.3	147.87	-992.0	99.4	1,013.6	1,008.5	5.01	202.417	
1,377.9	1,376.9	1,436.5	1,434.6	3.0	2.4	148.48	-987.4	92.0	1,015.3	1,010.0	5.35	189.761	
1,400.0	1,398.7	1,452.5	1,450.4	3.0	2.5	148.65	-986.5	89.9	1,016.4	1,010.9	5.44	186.791	
1,476.4	1,474.2	1,499.0	1,496.4	3.2	2.6	149.18	-984.5	82.8	1,022.4	1,016.7	5.74	178.147	
1,500.0	1,497.5	1,520.3	1,517.4	3.3	2.7	149.45	-983.9	79.3	1,025.0	1,019.1	5.85	175.073	
1,574.8	1,571.0	1,565.6	1,562.0	3.5	2.8	149.99	-983.5	71.9	1,035.7	1,029.6	6.16	168.181	
1,600.0	1,595.6	1,594.0	1,590.1	3.6	2.9	150.36	-983.8	67.3	1,040.3	1,034.0	6.30	165.098	
1,673.2	1,667.2	1,635.4	1,630.9	3.9	3.0	150.96	-984.7	60.7	1,054.7	1,048.0	6.61	159.539	
1,700.0	1,693.4	1,657.2	1,652.4	4.0	3.0	151.26	-985.3	57.3	1,060.2	1,053.4	6.74	157.260	
1,771.6	1,763.5	1,714.3	1,708.9	4.2	3.2	152.04	-987.3	48.8	1,075.6	1,068.6	7.09	151.652	
1,800.0	1,791.3	1,736.4	1,730.7	4.3	3.3	152.32	-988.2	45.7	1,082.0	1,074.8	7.23	149.699	
1,870.1	1,859.8	1,783.0	1,776.8	4.6	3.4	152.90	-990.4	39.4	1,098.5	1,091.0	7.54	145.610	
1,900.0	1,889.1	1,814.1	1,807.7	4.7	3.4	153.27	-992.1	35.4	1,105.8	1,098.1	7.71	143.439	
1,968.5	1,956.1	1,867.1	1,860.1	4.9	3.6	153.86	-995.5	29.1	1,123.2	1,115.1	8.04	139.740	
2,000.0	1,986.9	1,897.0	1,889.8	5.1	3.7	154.17	-997.7	25.8	1,131.4	1,123.2	8.20	137.923	
2,066.9	2,052.3	1,968.9	1,961.0	5.3	3.9	154.92	-1,002.4	17.5	1,148.7	1,140.1	8.58	133.951	
2,100.0	2,084.7	2,006.5	1,998.3	5.5	4.0	155.32	-1,004.6	12.9	1,157.1	1,148.3	8.77	131.976	
2,165.3	2,148.6	2,082.8	2,073.9	5.7	4.2	156.11	-1,008.5	3.5	1,173.3	1,164.1	9.15	128.201	
2,200.0	2,182.5	2,126.1	2,116.9	5.9	4.3	156.55	-1,010.2	-1.8	1,181.5	1,172.2	9.36	126.202	
2,263.8	2,244.9	2,203.5	2,193.7	6.1	4.5	157.30	-1,012.4	-11.0	1,196.1	1,186.4	9.74	122.782	
2,300.0	2,280.3	2,246.4	2,236.3	6.3	4.6	157.70	-1,013.2	-15.9	1,204.1	1,194.2	9.95	120.972	
2,362.2	2,341.2	2,310.4	2,299.9	6.5	4.8	158.30	-1,014.0	-23.4	1,217.6	1,207.3	10.30	118.215	
2,400.0	2,378.1	2,348.5	2,337.6	6.7	4.9	158.66	-1,014.4	-28.1	1,225.8	1,215.3	10.51	116.653	
2,460.6	2,437.4	2,417.5	2,406.0	6.9	5.2	159.34	-1,014.6	-37.4	1,238.7	1,227.8	10.88	113.876	
2,500.0	2,476.0	2,458.6	2,446.7	7.1	5.3	159.76	-1,014.4	-43.3	1,246.9	1,235.8	11.11	112.248	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 597-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	
2,550.0	2,524.9	2,503.7	2,491.3	7.3	5.4	160.22	-1,014.2	-50.1	1,257.4	1,246.0	11.39	110.436	
2,559.0	2,533.7	2,511.8	2,499.3	7.3	5.5	161.19	-1,014.1	-51.4	1,259.4	1,247.9	11.43	110.156	
2,600.0	2,573.8	2,549.0	2,536.0	7.5	5.6	165.59	-1,014.0	-57.3	1,268.3	1,256.6	11.65	108.907	
2,639.4	2,612.3	2,585.6	2,572.1	7.7	5.7	169.82	-1,013.9	-63.4	1,277.1	1,265.2	11.85	107.749	
2,657.5	2,630.0	2,602.4	2,588.6	7.7	5.8	169.98	-1,013.8	-66.4	1,281.1	1,269.2	11.95	107.184	
2,700.0	2,671.6	2,641.7	2,627.3	7.9	5.9	170.37	-1,013.6	-73.5	1,290.8	1,278.6	12.19	105.901	
2,755.9	2,726.3	2,693.6	2,678.3	8.1	6.1	170.88	-1,013.3	-83.2	1,303.7	1,291.2	12.51	104.213	
2,800.0	2,769.4	2,729.0	2,713.1	8.3	6.3	171.22	-1,013.2	-89.7	1,314.0	1,301.2	12.74	103.104	
2,854.3	2,822.5	2,779.1	2,762.2	8.5	6.4	171.70	-1,013.1	-99.0	1,326.9	1,313.8	13.05	101.681	
2,900.0	2,867.2	2,816.9	2,799.4	8.7	6.6	172.05	-1,013.3	-106.0	1,338.0	1,324.7	13.29	100.663	
2,952.7	2,918.8	2,863.3	2,845.1	9.0	6.7	172.47	-1,013.6	-114.5	1,351.1	1,337.5	13.58	99.501	
3,000.0	2,965.0	2,905.4	2,886.5	9.2	6.9	172.84	-1,014.1	-122.0	1,362.9	1,349.1	13.84	98.506	
3,051.2	3,015.1	2,948.7	2,929.1	9.4	7.0	173.20	-1,014.7	-129.7	1,376.0	1,361.9	14.10	97.557	
3,100.0	3,062.8	2,989.1	2,968.9	9.6	7.2	173.53	-1,015.5	-136.7	1,388.7	1,374.4	14.36	96.719	
3,149.6	3,111.4	3,030.7	3,009.8	9.8	7.3	173.85	-1,016.5	-143.7	1,401.9	1,387.3	14.62	95.916	
3,200.0	3,160.7	3,073.7	3,052.3	10.0	7.5	174.17	-1,017.8	-150.8	1,415.6	1,400.7	14.88	95.148	
3,248.0	3,207.6	3,117.3	3,095.3	10.2	7.6	174.47	-1,019.3	-157.6	1,428.7	1,413.6	15.13	94.420	
3,300.0	3,258.5	3,179.0	3,156.2	10.5	7.8	174.88	-1,021.2	-166.9	1,442.8	1,427.4	15.44	93.432	
3,346.4	3,303.9	3,231.5	3,208.2	10.7	8.0	175.20	-1,022.5	-174.5	1,455.1	1,439.4	15.71	92.629	
3,400.0	3,356.3	3,289.6	3,265.8	10.9	8.2	175.54	-1,023.8	-182.4	1,469.0	1,453.0	16.01	91.777	
3,444.9	3,400.2	3,343.8	3,319.4	11.1	8.3	175.85	-1,024.7	-189.5	1,480.5	1,464.2	16.27	90.980	
3,500.0	3,454.1	3,412.1	3,387.1	11.3	8.5	176.24	-1,025.2	-198.8	1,494.1	1,477.5	16.61	89.971	
3,543.3	3,496.5	3,466.6	3,441.1	11.5	8.7	176.54	-1,025.1	-206.0	1,504.5	1,487.6	16.87	89.166	
3,600.0	3,551.9	3,522.2	3,496.3	11.7	8.9	176.84	-1,024.6	-213.2	1,517.7	1,500.6	17.18	88.357	
3,641.7	3,592.7	3,558.4	3,532.2	11.9	9.0	177.04	-1,024.4	-218.0	1,527.6	1,510.2	17.39	87.854	
3,700.0	3,649.7	3,609.4	3,582.8	12.2	9.2	177.31	-1,024.3	-224.7	1,541.6	1,523.9	17.69	87.164	
3,740.1	3,689.0	3,644.8	3,617.8	12.4	9.3	177.50	-1,024.2	-229.6	1,551.3	1,533.4	17.89	86.697	
3,800.0	3,747.5	3,698.9	3,671.3	12.6	9.4	177.79	-1,024.2	-237.1	1,566.1	1,547.9	18.21	86.011	
3,838.6	3,785.3	3,735.2	3,707.2	12.8	9.6	177.99	-1,024.2	-242.2	1,575.6	1,557.2	18.41	85.561	
3,900.0	3,845.4	3,793.4	3,764.9	13.1	9.8	178.29	-1,024.3	-250.4	1,590.9	1,572.1	18.74	84.874	
3,937.0	3,881.6	3,829.1	3,800.2	13.2	9.9	178.47	-1,024.4	-255.3	1,600.1	1,581.2	18.94	84.474	
4,000.0	3,943.2	3,906.0	3,876.4	13.5	10.1	178.85	-1,024.5	-265.5	1,615.7	1,596.4	19.32	83.615	
4,035.4	3,977.8	3,961.0	3,931.0	13.6	10.3	179.11	-1,023.7	-272.8	1,624.0	1,604.4	19.57	82.984	
4,100.0	4,041.0	4,015.6	3,985.1	13.9	10.4	179.38	-1,022.7	-280.0	1,638.9	1,619.0	19.89	82.379	
4,133.8	4,074.1	4,043.5	4,012.8	14.1	10.5	179.51	-1,022.4	-283.6	1,646.8	1,626.8	20.06	82.085	
4,200.0	4,138.8	4,120.6	4,089.2	14.4	10.8	179.86	-1,021.3	-293.5	1,662.3	1,641.9	20.45	81.271	
4,232.3	4,170.4	4,159.9	4,128.2	14.5	10.9	-179.96	-1,020.4	-298.5	1,669.6	1,649.0	20.65	80.856	
4,300.0	4,236.6	4,232.8	4,200.5	14.8	11.1	-179.65	-1,018.6	-307.5	1,684.8	1,663.7	21.03	80.112	
4,330.7	4,266.7	4,261.3	4,228.8	14.9	11.2	-179.53	-1,017.9	-310.9	1,691.6	1,670.4	21.19	79.823	
4,400.0	4,334.4	4,319.4	4,286.5	15.2	11.4	-179.28	-1,016.5	-318.1	1,707.2	1,685.6	21.54	79.261	
4,429.1	4,362.9	4,340.0	4,306.9	15.4	11.4	-179.19	-1,016.0	-320.8	1,713.8	1,692.2	21.67	79.077	
4,500.0	4,432.3	4,392.3	4,358.7	15.7	11.6	-178.96	-1,015.1	-327.9	1,730.6	1,708.6	22.02	78.599	
4,527.5	4,459.2	4,411.3	4,377.5	15.8	11.7	-178.87	-1,014.9	-330.6	1,737.3	1,715.2	22.15	78.443	
4,600.0	4,530.1	4,474.3	4,439.8	16.1	11.9	-178.59	-1,014.5	-339.7	1,755.4	1,732.9	22.52	77.946	
4,626.0	4,555.5	4,501.2	4,466.5	16.2	11.9	-178.48	-1,014.5	-343.2	1,761.9	1,739.3	22.67	77.732	
4,700.0	4,627.9	4,578.7	4,543.4	16.6	12.2	-178.20	-1,014.5	-352.7	1,780.3	1,757.2	23.08	77.148	
4,724.4	4,651.7	4,604.4	4,569.0	16.7	12.3	-178.11	-1,014.4	-355.7	1,786.3	1,763.1	23.21	76.962	
4,800.0	4,725.7	4,674.9	4,638.9	17.0	12.5	-177.86	-1,014.1	-364.4	1,804.9	1,781.3	23.61	76.462	
4,822.8	4,748.0	4,695.2	4,659.0	17.1	12.5	-177.78	-1,014.1	-367.0	1,810.6	1,786.9	23.72	76.322	
4,904.9	4,828.3	4,761.8	4,725.0	17.5	12.7	-177.53	-1,013.9	-375.8	1,831.3	1,807.1	24.13	75.885	
4,921.2	4,844.3	4,774.5	4,737.6	17.5	12.8	-177.48	-1,013.9	-377.5	1,835.4	1,811.2	24.22	75.768	
5,000.0	4,921.6	4,838.2	4,800.7	17.8	13.0	-177.26	-1,014.3	-386.3	1,854.5	1,829.8	24.67	75.172	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 597-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	
5,019.7	4,941.0	4,855.3	4,817.7	17.9	13.1	-177.20	-1,014.4	-388.8	1,859.0	1,834.2	24.78	75.026	
5,100.0	5,020.4	4,928.2	4,889.6	18.1	13.3	-176.90	-1,014.7	-400.3	1,876.3	1,851.1	25.22	74.401	
5,118.1	5,038.3	4,946.8	4,908.0	18.2	13.4	-176.82	-1,014.7	-403.3	1,879.9	1,854.6	25.32	74.240	
5,200.0	5,119.6	5,029.5	4,989.6	18.4	13.6	-176.49	-1,015.0	-416.2	1,894.7	1,869.0	25.77	73.530	
5,216.5	5,136.0	5,045.3	5,005.3	18.4	13.7	-176.43	-1,015.1	-418.6	1,897.5	1,871.6	25.85	73.403	
5,300.0	5,219.2	5,128.6	5,087.8	18.6	14.0	-176.16	-1,016.1	-429.8	1,909.8	1,883.6	26.25	72.748	
5,314.9	5,234.1	5,144.6	5,103.7	18.6	14.0	-176.11	-1,016.4	-431.8	1,911.8	1,885.4	26.32	72.631	
5,400.0	5,319.1	5,265.1	5,223.4	18.8	14.3	-175.80	-1,018.3	-444.4	1,920.9	1,894.1	26.77	71.768	
5,413.4	5,332.4	5,288.9	5,247.2	18.8	14.4	-175.75	-1,018.5	-446.5	1,921.9	1,895.0	26.84	71.598	
5,504.9	5,423.9	5,392.3	5,350.2	18.9	14.7	-157.09	-1,018.5	-455.5	1,926.5	1,895.7	30.74	62.673	
5,511.8	5,430.8	5,399.2	5,357.1	18.9	14.7	-157.08	-1,018.5	-456.1	1,926.7	1,895.9	30.76	62.630	
5,600.0	5,519.0	5,488.3	5,445.9	19.0	14.9	-156.89	-1,018.6	-463.0	1,929.5	1,898.4	31.08	62.086	
5,610.2	5,529.3	5,499.6	5,457.1	19.0	14.9	-156.87	-1,018.7	-463.7	1,929.8	1,898.7	31.12	62.018	
5,700.0	5,619.0	5,601.8	5,559.2	19.2	15.2	-156.71	-1,019.2	-469.9	1,932.3	1,900.9	31.46	61.413	
5,708.6	5,627.7	5,612.7	5,570.1	19.2	15.2	-156.70	-1,019.2	-470.4	1,932.5	1,901.0	31.50	61.351	
5,800.0	5,719.0	5,738.4	5,695.7	19.3	15.4	-156.57	-1,019.2	-475.2	1,933.9	1,902.1	31.89	60.650	
5,807.1	5,726.1	5,748.9	5,706.2	19.3	15.4	-156.56	-1,019.2	-475.5	1,934.0	1,902.1	31.92	60.592	
5,900.0	5,819.0	5,857.0	5,814.3	19.4	15.6	-156.50	-1,017.9	-477.3	1,933.5	1,901.3	32.26	59.944	
5,905.5	5,824.5	5,857.0	5,814.3	19.4	15.6	-156.50	-1,017.9	-477.3	1,933.5	1,901.3	32.26	59.929	
5,920.6	5,839.7	5,857.0	5,814.3	19.5	15.6	-156.50	-1,017.9	-477.3	1,933.6	1,901.3	32.29	59.890	
6,003.9	5,923.0	5,915.8	5,873.0	19.6	15.7	-156.48	-1,017.9	-477.8	1,934.1	1,901.6	32.52	59.478	
6,009.8	5,928.8	5,918.7	5,876.0	19.6	15.7	-156.48	-1,018.0	-477.9	1,934.2	1,901.7	32.53	59.456	
6,050.0	5,969.0	5,952.0	5,909.2	19.6	15.8	-66.48	-1,018.9	-478.1	1,934.9	1,905.6	29.34	65.958	
6,100.0	6,018.8	5,952.0	5,909.2	19.7	15.8	-66.47	-1,018.9	-478.1	1,934.9	1,905.6	29.36	65.897	
6,102.3	6,021.1	5,952.0	5,909.2	19.7	15.8	-66.47	-1,018.9	-478.1	1,934.9	1,905.6	29.36	65.894	
6,150.0	6,068.1	5,952.0	5,909.2	19.7	15.8	-66.48	-1,018.9	-478.1	1,934.9	1,905.5	29.38	65.865	
6,200.0	6,116.8	5,993.5	5,950.7	19.7	15.9	-66.81	-1,021.4	-478.5	1,933.4	1,904.0	29.45	65.653	
6,200.8	6,117.5	5,993.7	5,950.9	19.7	15.9	-66.81	-1,021.4	-478.5	1,933.4	1,903.9	29.45	65.651	
6,250.0	6,164.5	6,009.7	5,966.8	19.7	15.9	-67.06	-1,022.8	-478.7	1,931.9	1,902.4	29.47	65.547	
6,299.2	6,210.4	6,046.0	6,002.8	19.7	16.0	-67.61	-1,027.1	-479.2	1,930.3	1,900.8	29.54	65.351	
6,300.0	6,211.1	6,046.0	6,002.8	19.7	16.0	-67.61	-1,027.1	-479.2	1,930.3	1,900.7	29.54	65.350	
6,350.0	6,256.4	6,046.0	6,002.8	19.7	16.0	-67.81	-1,027.1	-479.2	1,927.6	1,898.1	29.53	65.268	
6,397.6	6,298.0	6,046.0	6,002.8	19.7	16.0	-68.00	-1,027.1	-479.2	1,925.1	1,895.5	29.54	65.175	
6,400.0	6,300.0	6,046.0	6,002.8	19.7	16.0	-68.01	-1,027.1	-479.2	1,924.9	1,895.4	29.54	65.171	
6,450.0	6,341.8	6,046.0	6,002.8	19.7	16.0	-68.21	-1,027.1	-479.2	1,922.2	1,892.7	29.55	65.043	
6,496.0	6,378.6	6,082.3	6,038.7	19.7	16.0	-69.07	-1,032.7	-479.9	1,918.7	1,889.0	29.70	64.601	
6,500.0	6,381.6	6,083.3	6,039.7	19.7	16.0	-69.11	-1,032.9	-479.9	1,918.5	1,888.7	29.71	64.578	
6,550.0	6,419.2	6,096.1	6,052.3	19.6	16.0	-69.63	-1,035.2	-480.2	1,914.9	1,885.1	29.83	64.184	
6,594.5	6,450.7	6,106.9	6,062.9	19.6	16.1	-70.10	-1,037.2	-480.5	1,911.6	1,881.6	29.99	63.738	
6,600.0	6,454.4	6,108.2	6,064.1	19.6	16.1	-70.16	-1,037.5	-480.6	1,911.2	1,881.2	30.01	63.684	
6,650.0	6,487.1	6,141.0	6,096.2	19.6	16.1	-71.20	-1,044.5	-481.7	1,907.8	1,877.5	30.33	62.893	
6,692.9	6,513.0	6,141.0	6,096.2	19.6	16.1	-71.46	-1,044.5	-481.7	1,904.3	1,873.7	30.56	62.308	
6,700.0	6,517.0	6,141.0	6,096.2	19.6	16.1	-71.51	-1,044.5	-481.7	1,903.7	1,873.1	30.60	62.218	
6,750.0	6,544.1	6,141.0	6,096.2	19.6	16.1	-71.80	-1,044.5	-481.7	1,899.8	1,868.9	30.93	61.422	
6,791.3	6,564.2	6,141.0	6,096.2	19.7	16.1	-72.03	-1,044.5	-481.7	1,896.8	1,865.5	31.25	60.688	
6,800.0	6,568.2	6,141.0	6,096.2	19.7	16.1	-72.08	-1,044.5	-481.7	1,896.2	1,864.8	31.34	60.506	
6,850.0	6,589.1	6,141.0	6,096.2	19.8	16.1	-72.34	-1,044.5	-481.7	1,892.8	1,860.9	31.82	59.476	
6,889.7	6,603.5	6,141.0	6,096.2	19.9	16.1	-72.54	-1,044.5	-481.7	1,890.2	1,857.9	32.27	58.574	
6,900.0	6,606.9	6,141.0	6,096.2	19.9	16.1	-72.58	-1,044.5	-481.7	1,889.6	1,857.2	32.39	58.346	
6,950.0	6,621.3	6,141.0	6,096.2	20.2	16.1	-72.80	-1,044.5	-481.7	1,886.7	1,853.7	33.02	57.136	
6,988.2	6,630.0	6,141.0	6,096.2	20.6	16.1	-72.96	-1,044.5	-481.7	1,884.7	1,851.1	33.56	56.162	
7,000.0	6,632.4	6,141.0	6,096.2	20.7	16.1	-73.00	-1,044.5	-481.7	1,884.1	1,850.4	33.72	55.868	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 597-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	
7,050.0	6,640.0	6,141.0	6,096.2	21.4	16.1	-73.18	-1,044.5	-481.7	1,881.8	1,847.3	34.49	54.566	
7,086.6	6,643.4	6,141.0	6,096.2	21.9	16.1	-73.29	-1,044.5	-481.7	1,880.4	1,845.3	35.08	53.597	
7,100.0	6,644.2	6,141.0	6,096.2	22.1	16.1	-73.33	-1,044.5	-481.7	1,879.9	1,844.6	35.30	53.253	
7,135.7	6,645.0	6,141.0	6,096.2	22.7	16.1	-73.42	-1,044.5	-481.7	1,878.7	1,842.7	35.91	52.323	
7,185.0	6,644.9	6,141.0	6,096.2	23.6	16.1	-73.42	-1,044.5	-481.7	1,877.7	1,840.9	36.83	50.986	
7,194.8	6,644.9	6,141.0	6,096.2	23.8	16.1	-73.42	-1,044.5	-481.7	1,877.7	1,840.7	37.01	50.734	
7,200.0	6,644.9	6,141.0	6,096.2	23.9	16.1	-73.42	-1,044.5	-481.7	1,877.7	1,840.6	37.11	50.600	
7,283.4	6,644.8	6,141.0	6,096.2	25.6	16.1	-73.42	-1,044.5	-481.7	1,879.8	1,841.0	38.77	48.481	
7,300.0	6,644.8	6,141.0	6,096.2	25.9	16.1	-73.42	-1,044.5	-481.7	1,880.7	1,841.6	39.10	48.093	
7,381.9	6,644.7	6,141.0	6,096.2	27.7	16.1	-73.42	-1,044.5	-481.7	1,887.0	1,846.2	40.84	46.200	
7,400.0	6,644.7	6,141.0	6,096.2	28.1	16.1	-73.42	-1,044.5	-481.7	1,888.9	1,847.7	41.23	45.814	
7,480.3	6,644.6	6,141.0	6,096.2	29.9	16.1	-73.42	-1,044.5	-481.7	1,899.3	1,856.3	43.02	44.148	
7,500.0	6,644.6	6,141.0	6,096.2	30.3	16.1	-73.42	-1,044.5	-481.7	1,902.4	1,858.9	43.46	43.772	
7,578.7	6,644.5	6,141.0	6,096.2	32.2	16.1	-73.42	-1,044.5	-481.7	1,916.6	1,871.3	45.28	42.329	
7,600.0	6,644.4	6,141.0	6,096.2	32.7	16.1	-73.42	-1,044.5	-481.7	1,921.0	1,875.2	45.77	41.971	
7,677.1	6,644.3	6,175.9	6,129.9	34.6	16.2	-74.49	-1,053.3	-483.2	1,937.5	1,889.6	47.93	40.424	
7,700.0	6,644.3	6,176.2	6,130.1	35.1	16.2	-74.49	-1,053.4	-483.2	1,943.3	1,894.9	48.48	40.088	
7,775.6	6,644.2	6,177.1	6,131.0	37.0	16.2	-74.52	-1,053.6	-483.3	1,964.3	1,914.0	50.32	39.035	
7,800.0	6,644.2	6,177.4	6,131.3	37.6	16.2	-74.53	-1,053.7	-483.3	1,971.6	1,920.7	50.92	38.723	
7,874.0	6,644.1	6,178.3	6,132.2	39.5	16.2	-74.56	-1,054.0	-483.3	1,995.5	1,942.8	52.75	37.829	
7,900.0	6,644.1	6,178.6	6,132.5	40.1	16.2	-74.57	-1,054.1	-483.3	2,004.5	1,951.1	53.40	37.540	
7,972.4	6,644.0	6,179.5	6,133.3	42.0	16.2	-74.60	-1,054.3	-483.4	2,031.1	1,975.8	55.22	36.784	
8,000.0	6,643.9	6,179.8	6,133.7	42.7	16.2	-74.61	-1,054.4	-483.4	2,041.7	1,985.8	55.91	36.519	
8,070.8	6,643.9	6,180.7	6,134.5	44.5	16.2	-74.63	-1,054.7	-483.4	2,070.7	2,012.9	57.71	35.881	
8,100.0	6,643.8	6,181.1	6,134.9	45.2	16.2	-74.64	-1,054.8	-483.4	2,083.1	2,024.7	58.45	35.640	
8,169.3	6,643.7	6,182.0	6,135.7	47.0	16.2	-74.67	-1,055.0	-483.5	2,114.1	2,053.9	60.22	35.104	
8,200.0	6,643.7	6,182.3	6,136.1	47.9	16.2	-74.68	-1,055.1	-483.5	2,128.4	2,067.4	61.01	34.885	
8,267.7	6,643.6	6,183.2	6,136.9	49.6	16.2	-74.71	-1,055.4	-483.5	2,161.2	2,098.4	62.76	34.435	
8,300.0	6,643.6	6,183.6	6,137.3	50.5	16.2	-74.72	-1,055.5	-483.6	2,177.3	2,113.7	63.59	34.238	
8,366.1	6,643.5	6,184.4	6,138.1	52.2	16.2	-74.75	-1,055.7	-483.6	2,211.6	2,146.3	65.31	33.862	
8,400.0	6,643.4	6,184.9	6,138.5	53.1	16.2	-74.76	-1,055.9	-483.6	2,229.7	2,163.5	66.19	33.685	
8,464.5	6,643.4	6,185.7	6,139.3	54.8	16.2	-74.78	-1,056.1	-483.7	2,265.2	2,197.3	67.88	33.370	
8,500.0	6,643.3	6,186.2	6,139.7	55.8	16.2	-74.80	-1,056.2	-483.7	2,285.2	2,216.4	68.81	33.212	
8,563.0	6,643.2	6,187.0	6,140.5	57.5	16.2	-74.82	-1,056.5	-483.7	2,321.7	2,251.2	70.46	32.951	
8,600.0	6,643.2	6,187.5	6,141.0	58.5	16.2	-74.84	-1,056.6	-483.8	2,343.7	2,272.2	71.43	32.810	
8,661.4	6,643.1	6,188.3	6,141.7	60.1	16.2	-74.86	-1,056.9	-483.8	2,380.9	2,307.9	73.05	32.593	
8,700.0	6,643.1	6,188.8	6,142.2	61.2	16.2	-74.88	-1,057.0	-483.8	2,404.9	2,330.8	74.07	32.468	
8,759.8	6,643.0	6,189.6	6,143.0	62.8	16.2	-74.90	-1,057.2	-483.9	2,442.7	2,367.1	75.65	32.289	
8,800.0	6,643.0	6,190.1	6,143.5	63.9	16.2	-74.92	-1,057.4	-483.9	2,468.6	2,391.9	76.71	32.179	
8,858.2	6,642.9	6,190.9	6,144.2	65.4	16.2	-74.94	-1,057.6	-483.9	2,506.8	2,428.6	78.26	32.032	
8,900.0	6,642.8	6,191.5	6,144.8	66.6	16.3	-74.96	-1,057.8	-483.9	2,534.7	2,455.3	79.37	31.936	
8,956.7	6,642.8	6,192.2	6,145.5	68.1	16.3	-74.98	-1,058.0	-484.0	2,573.1	2,492.2	80.88	31.815	
9,000.0	6,642.7	6,192.8	6,146.1	69.3	16.3	-75.00	-1,058.2	-484.0	2,602.9	2,520.9	82.03	31.731	
9,055.1	6,642.6	6,193.6	6,146.8	70.8	16.3	-75.02	-1,058.4	-484.0	2,641.4	2,557.9	83.50	31.633	
9,100.0	6,642.6	6,194.2	6,147.4	72.0	16.3	-75.04	-1,058.6	-484.1	2,673.2	2,588.5	84.70	31.560	
9,153.5	6,642.5	6,194.9	6,148.1	73.5	16.3	-75.06	-1,058.9	-484.1	2,711.5	2,625.4	86.13	31.481	
9,200.0	6,642.5	6,195.6	6,148.7	74.7	16.3	-75.08	-1,059.0	-484.1	2,745.3	2,657.9	87.38	31.419	
9,251.9	6,642.4	6,196.3	6,149.3	76.2	16.3	-75.11	-1,059.3	-484.2	2,783.4	2,694.6	88.77	31.355	
9,300.0	6,642.3	6,196.9	6,150.0	77.5	16.3	-75.13	-1,059.5	-484.2	2,819.0	2,729.0	90.06	31.302	
9,350.4	6,642.3	6,197.7	6,150.7	78.9	16.3	-75.15	-1,059.7	-484.2	2,856.8	2,765.4	91.41	31.252	
9,400.0	6,642.2	6,198.4	6,151.3	80.2	16.3	-75.17	-1,059.9	-484.3	2,894.4	2,801.7	92.75	31.208	
9,448.8	6,642.1	6,199.0	6,152.0	81.6	16.3	-75.19	-1,060.1	-484.3	2,931.7	2,837.6	94.06	31.169	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 597-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	6,642.1	6,199.8	6,152.7	83.0	16.3	-75.21	-1,060.3	-484.3	2,971.2	2,875.8	95.44	31.133	
9,547.2	6,642.0	6,200.4	6,153.3	84.3	16.3	-75.23	-1,060.6	-484.4	3,008.0	2,911.2	96.71	31.103	
9,600.0	6,642.0	6,201.2	6,154.0	85.7	16.3	-75.26	-1,060.8	-484.4	3,049.4	2,951.2	98.13	31.074	
9,645.6	6,641.9	6,201.9	6,154.6	87.0	16.3	-75.28	-1,061.0	-484.5	3,085.5	2,986.1	99.37	31.051	
9,700.0	6,641.8	6,236.0	6,186.7	88.5	16.4	-76.31	-1,072.6	-486.3	3,129.4	3,028.0	101.35	30.878	
9,744.1	6,641.8	6,236.0	6,186.7	89.7	16.4	-76.31	-1,072.6	-486.3	3,164.7	3,062.2	102.53	30.865	
9,800.0	6,641.7	6,236.0	6,186.7	91.2	16.4	-76.31	-1,072.6	-486.3	3,209.8	3,105.8	104.04	30.853	
9,842.5	6,641.7	6,236.0	6,186.7	92.4	16.4	-76.31	-1,072.6	-486.3	3,244.4	3,139.2	105.18	30.845	
9,900.0	6,641.6	6,236.0	6,186.7	94.0	16.4	-76.31	-1,072.6	-486.3	3,291.4	3,184.6	106.73	30.838	
9,940.9	6,641.5	6,236.0	6,186.7	95.1	16.4	-76.31	-1,072.6	-486.3	3,325.0	3,217.2	107.84	30.834	
10,000.0	6,641.5	6,236.0	6,186.7	96.7	16.4	-76.31	-1,072.6	-486.3	3,373.9	3,264.5	109.43	30.832	
10,039.3	6,641.4	6,236.0	6,186.7	97.8	16.4	-76.31	-1,072.6	-486.3	3,406.6	3,296.2	110.49	30.832 SF	
10,100.0	6,641.3	6,236.0	6,186.7	99.5	16.4	-76.31	-1,072.6	-486.3	3,457.4	3,345.2	112.13	30.834	
10,137.8	6,641.3	6,236.0	6,186.7	100.6	16.4	-76.31	-1,072.6	-486.3	3,489.1	3,376.0	113.15	30.837	
10,200.0	6,641.2	6,236.0	6,186.7	102.3	16.4	-76.31	-1,072.6	-486.3	3,541.7	3,426.9	114.83	30.843	
10,236.2	6,641.2	6,236.0	6,186.7	103.3	16.4	-76.31	-1,072.6	-486.3	3,572.4	3,456.6	115.81	30.848	
10,300.0	6,641.1	6,236.0	6,186.7	105.0	16.4	-76.31	-1,072.6	-486.3	3,626.8	3,509.3	117.53	30.858	
10,334.6	6,641.0	6,236.0	6,186.7	106.0	16.4	-76.31	-1,072.6	-486.3	3,656.5	3,538.0	118.47	30.864	
10,400.0	6,641.0	6,236.0	6,186.7	107.8	16.4	-76.31	-1,072.6	-486.3	3,712.7	3,592.4	120.24	30.878	
10,433.0	6,640.9	6,236.0	6,186.7	108.7	16.4	-76.31	-1,072.6	-486.3	3,741.2	3,620.1	121.13	30.885	
10,500.0	6,640.8	6,236.0	6,186.7	110.6	16.4	-76.31	-1,072.6	-486.3	3,799.2	3,676.3	122.94	30.902	
10,531.5	6,640.8	6,236.0	6,186.7	111.5	16.4	-76.31	-1,072.6	-486.3	3,826.6	3,702.8	123.80	30.910	
10,600.0	6,640.7	6,236.0	6,186.7	113.4	16.4	-76.31	-1,072.6	-486.3	3,886.4	3,760.8	125.65	30.930	
10,629.9	6,640.7	6,236.0	6,186.7	114.2	16.4	-76.31	-1,072.6	-486.3	3,912.6	3,786.1	126.46	30.939	
10,700.0	6,640.6	6,236.0	6,186.7	116.1	16.4	-76.31	-1,072.6	-486.3	3,974.2	3,845.8	128.36	30.961	
10,728.3	6,640.5	6,236.0	6,186.7	116.9	16.4	-76.31	-1,072.6	-486.3	3,999.2	3,870.1	129.13	30.971	
10,800.0	6,640.5	6,236.0	6,186.7	118.9	16.4	-76.31	-1,072.6	-486.3	4,062.6	3,931.5	131.07	30.995	
10,826.7	6,640.4	6,236.0	6,186.7	119.7	16.4	-76.31	-1,072.6	-486.3	4,086.3	3,954.5	131.80	31.005	
10,900.0	6,640.3	6,236.0	6,186.7	121.7	16.4	-76.31	-1,072.6	-486.3	4,151.5	4,017.7	133.78	31.031	
10,925.2	6,640.3	6,236.0	6,186.7	122.4	16.4	-76.31	-1,072.6	-486.3	4,173.9	4,039.5	134.47	31.041	
11,000.0	6,640.2	6,236.0	6,186.7	124.5	16.4	-76.31	-1,072.6	-486.3	4,240.8	4,104.4	136.50	31.070	
11,023.6	6,640.2	6,236.0	6,186.7	125.1	16.4	-76.31	-1,072.6	-486.3	4,262.0	4,124.9	137.14	31.079	
11,100.0	6,640.1	6,236.0	6,186.7	127.3	16.4	-76.31	-1,072.6	-486.3	4,330.7	4,191.5	139.21	31.109	
11,122.0	6,640.0	6,236.0	6,186.7	127.9	16.4	-76.31	-1,072.6	-486.3	4,350.5	4,210.7	139.81	31.118	
11,200.0	6,639.9	6,236.0	6,186.7	130.1	16.4	-76.31	-1,072.6	-486.3	4,421.0	4,279.1	141.92	31.151	
11,220.4	6,639.9	6,236.0	6,186.7	130.6	16.4	-76.31	-1,072.6	-486.3	4,439.5	4,297.0	142.48	31.159	
11,300.0	6,639.8	6,236.0	6,186.7	132.8	16.4	-76.31	-1,072.6	-486.3	4,511.7	4,367.0	144.64	31.193	
11,318.9	6,639.8	6,236.0	6,186.7	133.4	16.4	-76.31	-1,072.6	-486.3	4,528.8	4,383.7	145.15	31.201	
11,400.0	6,639.7	6,236.0	6,186.7	135.6	16.4	-76.31	-1,072.6	-486.3	4,602.8	4,455.4	147.35	31.236	
11,417.3	6,639.7	6,236.0	6,186.7	136.1	16.4	-76.31	-1,072.6	-486.3	4,618.5	4,470.7	147.82	31.243	
11,500.0	6,639.6	6,236.0	6,186.7	138.4	16.4	-76.31	-1,072.6	-486.3	4,694.2	4,544.1	150.07	31.280	
11,515.7	6,639.5	6,236.0	6,186.7	138.9	16.4	-76.31	-1,072.6	-486.3	4,708.6	4,558.1	150.50	31.287	
11,600.0	6,639.4	6,236.0	6,186.7	141.2	16.4	-76.31	-1,072.6	-486.3	4,786.0	4,633.2	152.79	31.324	
11,614.1	6,639.4	6,236.0	6,186.7	141.6	16.4	-76.31	-1,072.6	-486.3	4,799.0	4,645.8	153.17	31.330	
11,700.0	6,639.3	6,236.0	6,186.7	144.0	16.4	-76.31	-1,072.6	-486.3	4,878.1	4,722.6	155.51	31.369	
11,712.6	6,639.3	6,236.0	6,186.7	144.3	16.4	-76.31	-1,072.6	-486.3	4,889.7	4,733.8	155.85	31.375	
11,800.0	6,639.2	6,236.0	6,186.7	146.8	16.4	-76.31	-1,072.6	-486.3	4,970.5	4,812.3	158.23	31.414	
11,811.0	6,639.2	6,236.0	6,186.7	147.1	16.4	-76.31	-1,072.6	-486.3	4,980.7	4,822.2	158.53	31.419	
11,900.0	6,639.1	6,236.0	6,186.7	149.6	16.4	-76.31	-1,072.6	-486.3	5,063.2	4,902.3	160.95	31.459	
11,909.4	6,639.0	6,236.0	6,186.7	149.8	16.4	-76.31	-1,072.6	-486.3	5,072.0	4,910.8	161.20	31.463	
12,000.0	6,638.9	6,236.0	6,186.7	152.4	16.4	-76.31	-1,072.6	-486.3	5,156.2	4,992.5	163.67	31.504	
12,007.8	6,638.9	6,236.0	6,186.7	152.6	16.4	-76.31	-1,072.6	-486.3	5,163.5	4,999.6	163.88	31.508	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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: 597-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	6,638.8	6,236.0	6,186.7	155.2	16.4	-76.31	-1,072.6	-486.3	5,249.4	5,083.0	166.39	31.549	
12,106.3	6,638.8	6,236.0	6,186.7	155.3	16.4	-76.31	-1,072.6	-486.3	5,255.3	5,088.7	166.56	31.552	
12,200.0	6,638.7	6,236.0	6,186.7	157.9	16.4	-76.31	-1,072.6	-486.3	5,342.9	5,173.8	169.11	31.595	
12,204.7	6,638.7	6,236.0	6,186.7	158.1	16.4	-76.31	-1,072.6	-486.3	5,347.3	5,178.1	169.24	31.597	
12,300.0	6,638.5	6,236.0	6,186.7	160.7	16.4	-76.31	-1,072.6	-486.3	5,436.6	5,264.8	171.83	31.639	
12,303.1	6,638.5	6,236.0	6,186.7	160.8	16.4	-76.31	-1,072.6	-486.3	5,439.5	5,267.6	171.91	31.641	
12,400.0	6,638.4	6,236.0	6,186.7	163.5	16.4	-76.31	-1,072.6	-486.3	5,530.5	5,356.0	174.55	31.684	
12,401.5	6,638.4	6,236.0	6,186.7	163.6	16.4	-76.31	-1,072.6	-486.3	5,532.0	5,357.4	174.59	31.685	
12,500.0	6,638.3	6,236.0	6,186.7	166.3	16.4	-76.31	-1,072.6	-486.3	5,624.7	5,447.4	177.27	31.729	
12,598.4	6,638.2	6,236.0	6,186.7	169.1	16.4	-76.31	-1,072.6	-486.3	5,717.5	5,537.5	179.95	31.772	
12,600.0	6,638.2	6,236.0	6,186.7	169.1	16.4	-76.31	-1,072.6	-486.3	5,719.0	5,539.0	180.00	31.773	
12,696.8	6,638.0	6,236.0	6,186.7	171.8	16.4	-76.31	-1,072.6	-486.3	5,810.5	5,627.9	182.63	31.815	
12,700.0	6,638.0	6,236.0	6,186.7	171.9	16.4	-76.31	-1,072.6	-486.3	5,813.5	5,630.8	182.72	31.816	
12,795.2	6,637.9	6,236.0	6,186.7	174.6	16.4	-76.31	-1,072.6	-486.3	5,903.7	5,718.4	185.32	31.858	
12,800.0	6,637.9	6,236.0	6,186.7	174.7	16.4	-76.31	-1,072.6	-486.3	5,908.2	5,722.8	185.44	31.860	
12,893.7	6,637.8	6,236.0	6,186.7	177.3	16.4	-76.31	-1,072.6	-486.3	5,997.1	5,809.1	188.00	31.900	
12,900.0	6,637.8	6,236.0	6,186.7	177.5	16.4	-76.31	-1,072.6	-486.3	6,003.1	5,815.0	188.17	31.903	
12,992.1	6,637.7	6,236.0	6,186.7	180.1	16.4	-76.31	-1,072.6	-486.3	6,090.7	5,900.0	190.68	31.942	
13,000.0	6,637.6	6,236.0	6,186.7	180.3	16.4	-76.31	-1,072.6	-486.3	6,098.2	5,907.3	190.89	31.945	
13,090.5	6,637.5	6,236.0	6,186.7	182.8	16.4	-76.31	-1,072.6	-486.3	6,184.3	5,991.0	193.36	31.984	
13,100.0	6,637.5	6,236.0	6,186.7	183.1	16.4	-76.31	-1,072.6	-486.3	6,193.4	5,999.7	193.62	31.988	
13,188.9	6,637.4	6,236.0	6,186.7	185.6	16.4	-76.31	-1,072.6	-486.3	6,278.2	6,082.1	196.04	32.025	
13,200.0	6,637.4	6,236.0	6,186.7	185.9	16.4	-76.31	-1,072.6	-486.3	6,288.7	6,092.4	196.34	32.029	
13,287.4	6,637.3	6,236.0	6,186.7	188.4	16.4	-76.31	-1,072.6	-486.3	6,372.1	6,173.4	198.72	32.065	
13,300.0	6,637.3	6,236.0	6,186.7	188.7	16.4	-76.31	-1,072.6	-486.3	6,384.2	6,185.1	199.07	32.070	
13,385.8	6,637.1	6,236.0	6,186.7	191.1	16.4	-76.31	-1,072.6	-486.3	6,466.2	6,264.8	201.41	32.105	
13,400.0	6,637.1	6,236.0	6,186.7	191.5	16.4	-76.30	-1,072.6	-486.3	6,479.8	6,278.0	201.79	32.111	
13,484.2	6,637.0	6,236.0	6,186.7	193.9	16.4	-76.30	-1,072.6	-486.3	6,560.5	6,356.4	204.09	32.145	
13,500.0	6,637.0	6,236.0	6,186.7	194.3	16.4	-76.30	-1,072.6	-486.3	6,575.6	6,371.1	204.52	32.151	
13,582.6	6,636.9	6,236.0	6,186.7	196.6	16.4	-76.30	-1,072.6	-486.3	6,654.8	6,448.0	206.77	32.184	
13,600.0	6,636.9	6,236.0	6,186.7	197.1	16.4	-76.30	-1,072.6	-486.3	6,671.5	6,464.2	207.25	32.191	
13,681.1	6,636.8	6,236.0	6,186.7	199.4	16.4	-76.30	-1,072.6	-486.3	6,749.3	6,539.8	209.46	32.223	
13,700.0	6,636.7	6,236.0	6,186.7	199.9	16.4	-76.30	-1,072.6	-486.3	6,767.5	6,557.5	209.97	32.230	
13,779.5	6,636.6	6,236.0	6,186.7	202.1	16.4	-76.30	-1,072.6	-486.3	6,843.9	6,631.7	212.14	32.261	
13,800.0	6,636.6	6,236.0	6,186.7	202.7	16.4	-76.30	-1,072.6	-486.3	6,863.6	6,650.9	212.70	32.269	
13,877.9	6,636.5	6,236.0	6,186.7	204.9	16.4	-76.30	-1,072.6	-486.3	6,938.6	6,723.7	214.82	32.299	
13,900.0	6,636.5	6,236.0	6,186.7	205.5	16.4	-76.30	-1,072.6	-486.3	6,959.8	6,744.4	215.43	32.307	
13,976.3	6,636.4	6,236.0	6,186.7	207.6	16.4	-76.30	-1,072.6	-486.3	7,033.3	6,815.8	217.51	32.336	
14,000.0	6,636.3	6,236.0	6,186.7	208.3	16.4	-76.30	-1,072.6	-486.3	7,056.1	6,838.0	218.15	32.345	
14,074.8	6,636.3	6,236.0	6,186.7	210.4	16.4	-76.30	-1,072.6	-486.3	7,128.2	6,908.0	220.19	32.373	
14,100.0	6,636.2	6,236.0	6,186.7	211.1	16.4	-76.30	-1,072.6	-486.3	7,152.6	6,931.7	220.88	32.382	
14,173.2	6,636.1	6,236.0	6,186.7	213.2	16.4	-76.30	-1,072.6	-486.3	7,223.2	7,000.3	222.88	32.409	
14,200.0	6,636.1	6,236.0	6,186.7	213.9	16.4	-76.30	-1,072.6	-486.3	7,249.1	7,025.5	223.61	32.419	
14,271.6	6,636.0	6,236.0	6,186.7	215.9	16.4	-76.30	-1,072.6	-486.3	7,318.3	7,092.7	225.56	32.445	
14,300.0	6,636.0	6,236.0	6,186.7	216.7	16.4	-76.30	-1,072.6	-486.3	7,345.7	7,119.4	226.34	32.455	
14,370.0	6,635.9	6,236.0	6,186.7	218.7	16.4	-76.30	-1,072.6	-486.3	7,413.4	7,185.2	228.25	32.480	
14,400.0	6,635.8	6,271.9	6,219.8	219.5	16.4	-77.38	-1,086.5	-488.2	7,442.1	7,212.0	230.11	32.342	
14,468.5	6,635.7	6,272.8	6,220.6	221.4	16.5	-77.41	-1,086.9	-488.3	7,508.3	7,276.3	232.01	32.363	
14,500.0	6,635.7	6,273.3	6,221.0	222.3	16.5	-77.42	-1,087.1	-488.3	7,538.8	7,306.0	232.88	32.372	
14,566.9	6,635.6	6,274.2	6,221.8	224.2	16.5	-77.44	-1,087.4	-488.4	7,603.6	7,368.9	234.74	32.392	
14,600.0	6,635.6	6,274.6	6,222.2	225.1	16.5	-77.46	-1,087.6	-488.4	7,635.7	7,400.0	235.66	32.401	
14,665.3	6,635.5	6,275.5	6,223.0	226.9	16.5	-77.48	-1,088.0	-488.4	7,699.0	7,461.5	237.48	32.420	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST HZ SEYLOR STATE #B15-79HNM - Wellbore #1 - Wellb												Offset Site Error:	0.0 usft
Survey Program: 597-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
14,700.0	6,635.4	6,276.0	6,223.4	227.9	16.5	-77.50	-1,088.2	-488.5	7,732.6	7,494.2	238.44	32.430	
14,763.7	6,635.4	6,276.8	6,224.2	229.7	16.5	-77.52	-1,088.6	-488.5	7,794.5	7,554.3	240.21	32.448	
14,800.0	6,635.3	6,277.3	6,224.7	230.7	16.5	-77.54	-1,088.8	-488.5	7,829.6	7,588.4	241.22	32.459	
14,862.2	6,635.2	6,278.2	6,225.4	232.5	16.5	-77.56	-1,089.1	-488.6	7,890.0	7,647.0	242.95	32.476	
14,900.0	6,635.2	6,278.7	6,225.9	233.5	16.5	-77.58	-1,089.3	-488.6	7,926.7	7,682.7	244.00	32.487	
14,960.6	6,635.1	6,279.5	6,226.6	235.2	16.5	-77.60	-1,089.7	-488.6	7,985.6	7,739.9	245.68	32.503	
15,000.0	6,635.0	6,280.0	6,227.1	236.3	16.5	-77.62	-1,089.9	-488.7	8,023.9	7,777.1	246.78	32.514	
15,033.1	6,635.0	6,280.5	6,227.5	237.3	16.5	-77.63	-1,090.1	-488.7	8,056.0	7,808.3	247.70	32.523	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-119.57	-1,422.9	-2,507.7	2,883.5				
98.4	98.4	49.0	49.0	0.1	0.0	-119.57	-1,423.0	-2,507.7	2,883.3	2,883.2	0.11	N/A	
100.0	100.0	50.3	50.3	0.1	0.0	-119.57	-1,423.0	-2,507.7	2,883.3	2,883.2	0.11	N/A	
196.8	196.8	139.5	139.5	0.3	0.1	-119.59	-1,423.9	-2,507.7	2,883.8	2,883.4	0.42	6,910.792	
200.0	200.0	142.8	142.8	0.3	0.1	-119.59	-1,424.0	-2,507.7	2,883.8	2,883.4	0.43	6,701.557	
295.3	295.3	238.3	238.3	0.5	0.2	-119.61	-1,424.9	-2,507.7	2,884.3	2,883.5	0.78	3,678.751	
300.0	300.0	242.9	242.9	0.5	0.3	-119.61	-1,425.0	-2,507.7	2,884.3	2,883.5	0.80	3,611.122	
393.7	393.7	335.9	335.9	0.8	0.3	-119.62	-1,425.7	-2,507.9	2,884.9	2,883.8	1.09	2,656.994	
400.0	400.0	342.4	342.4	0.8	0.3	-119.62	-1,425.8	-2,507.9	2,884.9	2,883.8	1.10	2,611.790	
492.1	492.1	436.1	436.1	1.0	0.4	-119.63	-1,426.5	-2,508.1	2,885.4	2,884.1	1.38	2,097.577	
500.0	500.0	444.0	444.0	1.0	0.4	-119.63	-1,426.5	-2,508.1	2,885.5	2,884.1	1.40	2,063.663	
590.5	590.5	537.1	537.0	1.2	0.5	-119.64	-1,427.2	-2,508.3	2,885.9	2,884.3	1.66	1,741.263	
600.0	600.0	547.1	547.1	1.2	0.5	-119.64	-1,427.3	-2,508.3	2,886.0	2,884.3	1.68	1,713.509	
689.0	689.0	640.7	640.7	1.4	0.5	-119.65	-1,427.8	-2,508.3	2,886.2	2,884.3	1.93	1,492.574	
700.0	700.0	652.1	652.0	1.4	0.5	-119.65	-1,427.9	-2,508.3	2,886.3	2,884.3	1.96	1,469.506	
787.4	787.4	744.0	743.9	1.6	0.6	-119.67	-1,428.6	-2,508.1	2,886.4	2,884.2	2.20	1,310.036	
800.0	800.0	757.5	757.5	1.7	0.6	-119.67	-1,428.7	-2,508.0	2,886.4	2,884.2	2.24	1,289.976	
855.9	855.9	815.0	814.9	1.8	0.6	-119.68	-1,429.1	-2,507.8	2,886.4	2,884.0	2.39	1,208.783	
885.8	885.8	842.2	842.2	1.9	0.6	-119.68	-1,429.3	-2,507.7	2,886.4	2,884.0	2.47	1,170.474	
900.0	900.0	855.1	855.1	1.9	0.6	-119.68	-1,429.4	-2,507.7	2,886.5	2,884.0	2.50	1,153.051	
984.2	984.2	936.2	936.2	2.1	0.7	-119.70	-1,430.1	-2,507.5	2,886.7	2,883.9	2.73	1,058.596	
1,000.0	1,000.0	952.5	952.5	2.1	0.7	-119.70	-1,430.2	-2,507.5	2,886.7	2,883.9	2.77	1,042.483	
1,082.7	1,082.7	1,039.5	1,039.5	2.3	0.7	-146.72	-1,431.0	-2,507.2	2,887.8	2,884.9	2.96	975.788	
1,100.0	1,100.0	1,058.1	1,058.1	2.3	0.7	-146.72	-1,431.1	-2,507.1	2,888.3	2,885.3	3.00	961.176	
1,181.1	1,181.0	1,139.1	1,139.0	2.5	0.7	-146.74	-1,431.7	-2,506.8	2,891.6	2,888.4	3.22	899.071	
1,200.0	1,199.8	1,156.6	1,156.5	2.6	0.8	-146.75	-1,431.9	-2,506.7	2,892.7	2,889.4	3.26	885.965	
1,279.5	1,279.1	1,235.5	1,235.4	2.8	0.8	-146.77	-1,432.4	-2,506.5	2,898.4	2,894.9	3.48	833.999	
1,300.0	1,299.5	1,257.7	1,257.7	2.8	0.8	-146.77	-1,432.6	-2,506.5	2,900.1	2,896.6	3.53	821.655	
1,377.9	1,376.9	1,336.6	1,336.5	3.0	0.8	-146.80	-1,433.0	-2,506.2	2,907.8	2,904.0	3.74	777.228	
1,400.0	1,398.7	1,357.2	1,357.1	3.0	0.8	-146.81	-1,433.1	-2,506.1	2,910.3	2,906.5	3.80	765.898	
1,476.4	1,474.2	1,430.9	1,430.8	3.2	0.9	-146.83	-1,433.6	-2,505.9	2,920.1	2,916.1	4.01	727.413	
1,500.0	1,497.5	1,454.8	1,454.7	3.3	0.9	-146.84	-1,433.7	-2,505.8	2,923.5	2,919.4	4.08	716.477	
1,574.8	1,571.0	1,529.2	1,529.1	3.5	0.9	-146.87	-1,434.1	-2,505.6	2,935.3	2,931.0	4.30	682.296	
1,600.0	1,595.6	1,553.7	1,553.6	3.6	0.9	-146.88	-1,434.2	-2,505.6	2,939.6	2,935.2	4.38	671.875	
1,673.2	1,667.2	1,626.3	1,626.2	3.9	0.9	-147.05	-1,434.6	-2,505.4	2,952.5	2,947.9	4.59	643.375	
1,700.0	1,693.4	1,653.9	1,653.8	4.0	1.0	-147.11	-1,434.8	-2,505.3	2,957.2	2,952.5	4.67	633.788	
1,771.6	1,763.5	1,726.1	1,726.1	4.2	1.0	-147.28	-1,435.2	-2,504.9	2,969.7	2,964.8	4.88	608.434	
1,800.0	1,791.3	1,753.7	1,753.6	4.3	1.0	-147.35	-1,435.4	-2,504.8	2,974.6	2,969.7	4.96	599.253	
1,870.1	1,859.8	1,819.0	1,818.9	4.6	1.0	-147.50	-1,435.9	-2,504.4	2,986.9	2,981.8	5.18	576.918	
1,900.0	1,889.1	1,844.4	1,844.4	4.7	1.0	-147.56	-1,436.1	-2,504.3	2,992.2	2,987.0	5.27	568.045	
1,968.5	1,956.1	1,900.0	1,899.9	4.9	1.0	-147.69	-1,436.5	-2,504.2	3,004.5	2,999.1	5.48	548.447	
2,000.0	1,986.9	1,931.8	1,931.7	5.1	1.1	-147.77	-1,436.9	-2,504.2	3,010.2	3,004.7	5.58	539.648	
2,066.9	2,052.3	1,993.3	1,993.2	5.3	1.1	-147.91	-1,437.5	-2,504.1	3,022.4	3,016.7	5.79	521.929	
2,100.0	2,084.7	2,023.5	2,023.5	5.5	1.1	-147.98	-1,437.9	-2,504.1	3,028.5	3,022.6	5.90	513.687	
2,165.3	2,148.6	2,083.3	2,083.3	5.7	1.1	-148.12	-1,438.7	-2,504.2	3,040.6	3,034.5	6.10	498.075	
2,200.0	2,182.5	2,115.4	2,115.3	5.9	1.1	-148.19	-1,439.1	-2,504.2	3,047.0	3,040.8	6.22	490.231	
2,263.8	2,244.9	2,175.0	2,175.0	6.1	1.2	-148.33	-1,439.9	-2,504.3	3,058.9	3,052.5	6.42	476.344	
2,300.0	2,280.3	2,208.6	2,208.5	6.3	1.2	-148.41	-1,440.4	-2,504.4	3,065.7	3,059.2	6.54	468.877	
2,362.2	2,341.2	2,264.7	2,264.6	6.5	1.2	-148.53	-1,441.3	-2,504.6	3,077.5	3,070.8	6.74	456.568	
2,400.0	2,378.1	2,300.0	2,299.9	6.7	1.2	-148.61	-1,441.9	-2,504.7	3,084.7	3,077.8	6.86	449.451	
2,460.6	2,437.4	2,358.4	2,358.2	6.9	1.2	-148.75	-1,442.9	-2,504.9	3,096.3	3,089.2	7.06	438.463	
2,500.0	2,476.0	2,397.1	2,397.0	7.1	1.2	-148.83	-1,443.6	-2,505.1	3,103.8	3,096.6	7.19	431.661	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BAUER #9-1 - 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	
2,550.0	2,524.9	2,442.9	2,442.8	7.3	1.2	-148.94	-1,444.4	-2,505.2	3,113.4	3,106.0	7.35	423.374	
2,559.0	2,533.7	2,451.2	2,451.0	7.3	1.3	-148.08	-1,444.5	-2,505.3	3,115.1	3,107.7	7.38	421.975	
2,600.0	2,573.8	2,488.5	2,488.4	7.5	1.3	-144.19	-1,445.1	-2,505.5	3,122.8	3,115.3	7.51	415.769	
2,639.4	2,612.3	2,527.8	2,527.6	7.7	1.3	-140.48	-1,445.8	-2,505.8	3,129.9	3,122.2	7.63	410.074	
2,657.5	2,630.0	2,546.5	2,546.4	7.7	1.3	-140.53	-1,446.1	-2,505.9	3,133.0	3,125.4	7.69	407.273	
2,700.0	2,671.6	2,590.6	2,590.4	7.9	1.3	-140.65	-1,446.8	-2,506.1	3,140.5	3,132.7	7.83	400.870	
2,755.9	2,726.3	2,643.6	2,643.4	8.1	1.3	-140.79	-1,447.8	-2,506.3	3,150.3	3,142.3	8.03	392.471	
2,800.0	2,769.4	2,684.7	2,684.5	8.3	1.3	-140.90	-1,448.5	-2,506.5	3,158.1	3,149.9	8.18	386.151	
2,854.3	2,822.5	2,738.1	2,737.9	8.5	1.4	-141.04	-1,449.5	-2,506.7	3,167.7	3,159.3	8.37	378.606	
2,900.0	2,867.2	2,784.0	2,783.8	8.7	1.4	-141.16	-1,450.3	-2,506.9	3,175.7	3,167.2	8.52	372.521	
2,952.7	2,918.8	2,836.9	2,836.7	9.0	1.4	-141.30	-1,451.2	-2,507.1	3,185.0	3,176.3	8.71	365.757	
3,000.0	2,965.0	2,884.1	2,883.9	9.2	1.4	-141.42	-1,452.1	-2,507.3	3,193.4	3,184.5	8.87	359.956	
3,051.2	3,015.1	2,944.7	2,944.5	9.4	1.4	-141.58	-1,453.2	-2,507.4	3,202.4	3,193.3	9.05	353.900	
3,100.0	3,062.8	3,004.6	3,004.4	9.6	1.4	-141.73	-1,454.0	-2,507.3	3,210.7	3,201.5	9.22	348.322	
3,149.6	3,111.4	3,048.5	3,048.3	9.8	1.5	-141.84	-1,454.7	-2,507.2	3,219.2	3,209.8	9.39	342.917	
3,200.0	3,160.7	3,093.2	3,093.0	10.0	1.5	-141.96	-1,455.4	-2,507.1	3,227.9	3,218.3	9.56	337.661	
3,248.0	3,207.6	3,140.2	3,140.0	10.2	1.5	-142.08	-1,456.2	-2,507.1	3,236.2	3,226.5	9.73	332.756	
3,300.0	3,258.5	3,192.0	3,191.7	10.5	1.5	-142.21	-1,457.1	-2,507.0	3,245.2	3,235.3	9.91	327.627	
3,346.4	3,303.9	3,231.5	3,231.3	10.7	1.5	-142.31	-1,457.8	-2,506.9	3,253.3	3,243.3	10.07	323.205	
3,400.0	3,356.3	3,275.5	3,275.3	10.9	1.5	-142.42	-1,458.6	-2,506.9	3,262.8	3,252.6	10.25	318.321	
3,444.9	3,400.2	3,313.1	3,312.8	11.1	1.6	-142.52	-1,459.4	-2,507.0	3,270.9	3,260.5	10.41	314.347	
3,500.0	3,454.1	3,361.2	3,360.9	11.3	1.6	-142.64	-1,460.4	-2,507.2	3,280.9	3,270.3	10.60	309.600	
3,543.3	3,496.5	3,400.0	3,399.7	11.5	1.6	-142.74	-1,461.2	-2,507.4	3,288.8	3,278.1	10.75	305.976	
3,600.0	3,551.9	3,449.6	3,449.3	11.7	1.6	-142.86	-1,462.3	-2,507.7	3,299.3	3,288.3	10.95	301.409	
3,641.7	3,592.7	3,486.8	3,486.6	11.9	1.6	-142.95	-1,463.1	-2,508.0	3,307.0	3,296.0	11.09	298.148	
3,700.0	3,649.7	3,541.0	3,540.7	12.2	1.6	-143.08	-1,464.3	-2,508.5	3,318.0	3,306.7	11.30	293.738	
3,740.1	3,689.0	3,578.9	3,578.5	12.4	1.6	-143.17	-1,465.1	-2,508.9	3,325.5	3,314.1	11.44	290.789	
3,800.0	3,747.5	3,638.8	3,638.5	12.6	1.7	-143.32	-1,466.5	-2,509.4	3,336.8	3,325.2	11.65	286.531	
3,838.6	3,785.3	3,678.8	3,678.5	12.8	1.7	-143.41	-1,467.4	-2,509.8	3,344.1	3,332.3	11.78	283.863	
3,900.0	3,845.4	3,738.0	3,737.7	13.1	1.7	-143.55	-1,468.7	-2,510.3	3,355.6	3,343.6	11.99	279.761	
3,937.0	3,881.6	3,772.3	3,771.9	13.2	1.7	-143.64	-1,469.4	-2,510.6	3,362.6	3,350.4	12.12	277.367	
4,000.0	3,943.2	3,836.6	3,836.2	13.5	1.7	-143.79	-1,470.9	-2,511.1	3,374.5	3,362.1	12.34	273.393	
4,035.4	3,977.8	3,875.9	3,875.5	13.6	1.7	-143.88	-1,471.7	-2,511.5	3,381.1	3,368.7	12.47	271.206	
4,100.0	4,041.0	3,945.1	3,944.7	13.9	1.8	-144.04	-1,473.0	-2,512.0	3,393.2	3,380.5	12.69	267.335	
4,133.8	4,074.1	3,980.8	3,980.4	14.1	1.8	-144.12	-1,473.6	-2,512.3	3,399.4	3,386.6	12.81	265.363	
4,200.0	4,138.8	4,046.1	4,045.7	14.4	1.8	-144.26	-1,474.5	-2,512.8	3,411.7	3,398.6	13.04	261.568	
4,232.3	4,170.4	4,077.1	4,076.7	14.5	1.8	-144.33	-1,474.9	-2,513.1	3,417.7	3,404.5	13.16	259.795	
4,300.0	4,236.6	4,143.7	4,143.2	14.8	1.8	-144.47	-1,475.8	-2,513.7	3,430.2	3,416.8	13.39	256.185	
4,330.7	4,266.7	4,174.3	4,173.8	14.9	1.8	-144.54	-1,476.2	-2,514.0	3,435.9	3,422.4	13.50	254.559	
4,400.0	4,334.4	4,247.3	4,246.8	15.2	1.9	-144.69	-1,477.1	-2,514.7	3,448.8	3,435.0	13.74	250.972	
4,429.1	4,362.9	4,279.0	4,278.5	15.4	1.9	-144.75	-1,477.4	-2,515.0	3,454.1	3,440.3	13.84	249.499	
4,500.0	4,432.3	4,352.1	4,351.7	15.7	1.9	-144.90	-1,478.0	-2,515.6	3,467.1	3,453.0	14.09	246.019	
4,527.5	4,459.2	4,380.0	4,379.5	15.8	1.9	-144.96	-1,478.2	-2,515.8	3,472.1	3,457.9	14.19	244.699	
4,600.0	4,530.1	4,454.3	4,453.9	16.1	1.9	-145.11	-1,478.7	-2,516.4	3,485.3	3,470.9	14.44	241.309	
4,626.0	4,555.5	4,481.2	4,480.7	16.2	1.9	-145.16	-1,478.9	-2,516.6	3,490.0	3,475.5	14.53	240.119	
4,700.0	4,627.9	4,546.2	4,545.7	16.6	1.9	-145.29	-1,479.3	-2,517.2	3,503.5	3,488.7	14.79	236.841	
4,724.4	4,651.7	4,566.4	4,566.0	16.7	2.0	-145.33	-1,479.4	-2,517.4	3,508.0	3,493.1	14.88	235.792	
4,800.0	4,725.7	4,639.3	4,638.8	17.0	2.0	-145.47	-1,480.0	-2,518.2	3,522.1	3,506.9	15.14	232.594	
4,822.8	4,748.0	4,665.0	4,664.5	17.1	2.0	-145.52	-1,480.2	-2,518.4	3,526.3	3,511.1	15.22	231.637	
4,904.9	4,828.3	4,745.7	4,745.2	17.5	2.0	-145.68	-1,480.7	-2,519.2	3,541.4	3,525.9	15.51	228.320	
4,921.2	4,844.3	4,760.4	4,759.9	17.5	2.0	-145.74	-1,480.8	-2,519.4	3,544.4	3,528.8	15.55	227.902	
5,000.0	4,921.6	4,833.5	4,833.0	17.8	2.0	-146.02	-1,481.3	-2,520.2	3,557.8	3,542.0	15.75	225.852	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,019.7	4,941.0	4,852.5	4,851.9	17.9	2.0	-146.08	-1,481.4	-2,520.4	3,560.8	3,545.1	15.79	225.468		
5,100.0	5,020.4	4,939.6	4,939.0	18.1	2.0	-146.33	-1,482.0	-2,521.4	3,572.3	3,556.3	15.96	223.833		
5,118.1	5,038.3	4,962.7	4,962.1	18.2	2.0	-146.38	-1,482.1	-2,521.7	3,574.5	3,558.5	15.99	223.494		
5,200.0	5,119.6	5,057.9	5,057.4	18.4	2.1	-146.57	-1,482.1	-2,522.5	3,583.4	3,567.2	16.15	221.919		
5,216.5	5,136.0	5,076.1	5,075.6	18.4	2.1	-146.60	-1,482.1	-2,522.6	3,584.9	3,568.7	16.17	221.637		
5,300.0	5,219.2	5,162.9	5,162.4	18.6	2.1	-146.73	-1,482.1	-2,523.2	3,591.3	3,575.0	16.31	220.155		
5,314.9	5,234.1	5,178.1	5,177.6	18.6	2.1	-146.75	-1,482.1	-2,523.3	3,592.2	3,575.9	16.33	219.918		
5,400.0	5,319.1	5,261.0	5,260.5	18.8	2.1	-146.83	-1,481.9	-2,523.9	3,596.3	3,579.8	16.46	218.494		
5,413.4	5,332.4	5,273.9	5,273.3	18.8	2.1	-146.83	-1,481.9	-2,524.0	3,596.7	3,580.2	16.48	218.293		
5,504.9	5,423.9	5,363.0	5,362.4	18.9	2.1	-128.44	-1,481.8	-2,524.7	3,598.4	3,579.1	19.39	185.614		
5,511.8	5,430.8	5,369.8	5,369.2	18.9	2.1	-128.44	-1,481.8	-2,524.7	3,598.5	3,579.1	19.40	185.528		
5,600.0	5,519.0	5,447.2	5,446.6	19.0	2.1	-128.43	-1,481.7	-2,525.5	3,599.1	3,579.6	19.51	184.436		
5,610.2	5,529.3	5,455.6	5,455.0	19.0	2.1	-128.43	-1,481.7	-2,525.6	3,599.2	3,579.6	19.53	184.298		
5,700.0	5,619.0	5,530.5	5,530.0	19.2	2.1	-128.42	-1,481.8	-2,526.5	3,600.2	3,580.5	19.66	183.086		
5,708.6	5,627.7	5,537.9	5,537.4	19.2	2.1	-128.42	-1,481.9	-2,526.6	3,600.3	3,580.6	19.68	182.968		
5,800.0	5,719.0	5,616.4	5,615.9	19.3	2.1	-128.41	-1,482.4	-2,527.8	3,601.7	3,581.9	19.82	181.730		
5,807.1	5,726.1	5,622.7	5,622.1	19.3	2.2	-128.41	-1,482.4	-2,527.9	3,601.8	3,582.0	19.83	181.633		
5,900.0	5,819.0	5,700.0	5,699.4	19.4	2.2	-128.41	-1,483.2	-2,529.2	3,603.6	3,583.6	19.98	180.380		
5,905.5	5,824.5	5,709.5	5,709.0	19.4	2.2	-128.41	-1,483.3	-2,529.3	3,603.7	3,583.7	19.99	180.301		
6,003.9	5,923.0	5,800.0	5,799.4	19.6	2.2	-128.41	-1,484.3	-2,531.1	3,605.9	3,585.8	20.15	178.986		
6,009.8	5,928.8	5,803.0	5,802.4	19.6	2.2	-128.41	-1,484.4	-2,531.2	3,606.1	3,585.9	20.16	178.912		
6,050.0	5,969.0	5,857.0	5,856.4	19.6	2.2	-38.42	-1,484.9	-2,532.3	3,606.0	3,588.4	17.62	204.632		
6,100.0	6,018.8	5,921.9	5,921.3	19.7	2.2	-38.60	-1,485.2	-2,533.5	3,603.4	3,585.7	17.63	204.428		
6,102.3	6,021.1	5,924.8	5,924.2	19.7	2.2	-38.62	-1,485.2	-2,533.5	3,603.2	3,585.5	17.63	204.415		
6,150.0	6,068.1	5,982.7	5,982.1	19.7	2.2	-38.97	-1,485.3	-2,534.5	3,597.8	3,580.2	17.62	204.198		
6,200.0	6,116.8	6,038.7	6,038.1	19.7	2.2	-39.52	-1,485.2	-2,535.4	3,589.4	3,571.8	17.60	203.976		
6,200.8	6,117.5	6,039.5	6,038.9	19.7	2.2	-39.53	-1,485.2	-2,535.4	3,589.3	3,571.7	17.60	203.972		
6,250.0	6,164.5	6,092.0	6,091.4	19.7	2.3	-40.26	-1,485.0	-2,536.2	3,578.3	3,560.8	17.56	203.784		
6,299.2	6,210.4	6,139.8	6,139.1	19.7	2.3	-41.17	-1,484.8	-2,536.9	3,564.9	3,547.4	17.51	203.639		
6,300.0	6,211.1	6,140.5	6,139.9	19.7	2.3	-41.19	-1,484.8	-2,536.9	3,564.6	3,547.1	17.50	203.638		
6,350.0	6,256.4	6,187.0	6,186.4	19.7	2.3	-42.31	-1,484.7	-2,537.5	3,548.5	3,531.0	17.44	203.506		
6,397.6	6,298.0	6,229.8	6,229.2	19.7	2.3	-43.59	-1,484.6	-2,538.0	3,530.9	3,513.5	17.37	203.315		
6,400.0	6,300.0	6,231.9	6,231.3	19.7	2.3	-43.66	-1,484.6	-2,538.0	3,529.9	3,512.6	17.36	203.310		
6,450.0	6,341.8	6,275.1	6,274.4	19.7	2.3	-45.23	-1,484.5	-2,538.5	3,509.1	3,491.8	17.29	202.924		
6,496.0	6,378.6	6,312.5	6,311.8	19.7	2.3	-46.88	-1,484.5	-2,538.9	3,488.1	3,470.8	17.25	202.231		
6,500.0	6,381.6	6,315.5	6,314.9	19.7	2.3	-47.04	-1,484.5	-2,539.0	3,486.2	3,469.0	17.24	202.173		
6,550.0	6,419.2	6,353.0	6,352.3	19.6	2.3	-49.09	-1,484.4	-2,539.4	3,461.3	3,444.1	17.23	200.840		
6,594.5	6,450.7	6,384.4	6,383.8	19.6	2.3	-51.13	-1,484.3	-2,539.8	3,437.6	3,420.3	17.28	198.937		
6,600.0	6,454.4	6,388.2	6,387.5	19.6	2.3	-51.40	-1,484.2	-2,539.8	3,434.6	3,417.3	17.29	198.692		
6,650.0	6,487.1	6,422.1	6,421.4	19.6	2.3	-54.00	-1,484.1	-2,540.3	3,406.2	3,388.8	17.42	195.522		
6,692.9	6,513.0	6,449.4	6,448.7	19.6	2.3	-56.46	-1,484.0	-2,540.6	3,380.7	3,363.1	17.62	191.823		
6,700.0	6,517.0	6,453.7	6,453.0	19.6	2.3	-56.89	-1,484.0	-2,540.7	3,376.4	3,358.7	17.66	191.218		
6,750.0	6,544.1	6,482.3	6,481.7	19.6	2.3	-60.05	-1,483.9	-2,541.0	3,345.2	3,327.2	18.00	185.801		
6,791.3	6,564.2	6,504.1	6,503.4	19.7	2.3	-62.86	-1,483.8	-2,541.3	3,318.6	3,300.2	18.36	180.722		
6,800.0	6,568.2	6,508.8	6,508.2	19.7	2.3	-63.48	-1,483.8	-2,541.3	3,312.9	3,294.5	18.47	179.411		
6,850.0	6,589.1	6,533.9	6,533.2	19.8	2.3	-67.19	-1,483.7	-2,541.6	3,279.7	3,260.7	19.04	172.290		
6,889.7	6,603.5	6,551.1	6,550.4	19.9	2.3	-70.27	-1,483.7	-2,541.7	3,252.8	3,233.3	19.56	166.262		
6,900.0	6,606.9	6,555.1	6,554.4	19.9	2.3	-71.08	-1,483.7	-2,541.8	3,245.8	3,226.1	19.70	164.740		
6,950.0	6,621.3	6,572.3	6,571.7	20.2	2.3	-75.10	-1,483.6	-2,541.9	3,211.4	3,190.9	20.45	156.998		
6,988.2	6,630.0	6,582.8	6,582.1	20.6	2.3	-78.21	-1,483.6	-2,542.0	3,184.9	3,163.8	21.09	151.016		
7,000.0	6,632.4	6,585.6	6,584.9	20.7	2.3	-79.18	-1,483.6	-2,542.0	3,176.6	3,155.3	21.29	149.223		
7,050.0	6,640.0	6,594.8	6,594.1	21.4	2.3	-83.25	-1,483.5	-2,542.0	3,141.8	3,119.6	22.20	141.500		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BAUER #9-1 - 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	
7,086.6	6,643.4	6,598.9	6,598.3	21.9	2.3	-86.17	-1,483.5	-2,542.1	3,116.3	3,093.4	22.93	135.882	
7,100.0	6,644.2	6,599.9	6,599.2	22.1	2.3	-87.23	-1,483.5	-2,542.1	3,107.0	3,083.8	23.21	133.886	
7,135.7	6,645.0	6,601.0	6,600.3	22.7	2.3	-89.97	-1,483.5	-2,542.1	3,082.4	3,058.5	23.97	128.577	
7,185.0	6,644.9	6,601.2	6,600.5	23.6	2.3	-89.98	-1,483.5	-2,542.1	3,048.7	3,023.8	24.93	122.271	
7,200.0	6,644.9	6,601.3	6,600.6	23.9	2.3	-89.98	-1,483.5	-2,542.1	3,038.6	3,013.3	25.23	120.457	
7,283.4	6,644.8	6,601.7	6,601.0	25.6	2.3	-89.99	-1,483.5	-2,542.1	2,982.8	2,955.8	26.95	110.659	
7,300.0	6,644.8	6,601.7	6,601.1	25.9	2.3	-89.99	-1,483.5	-2,542.1	2,971.9	2,944.6	27.30	108.869	
7,381.9	6,644.7	6,602.1	6,601.4	27.7	2.3	-90.00	-1,483.5	-2,542.1	2,918.7	2,889.6	29.10	100.289	
7,400.0	6,644.7	6,602.2	6,601.5	28.1	2.3	-90.00	-1,483.5	-2,542.1	2,907.1	2,877.6	29.50	98.537	
7,480.3	6,644.6	6,602.5	6,601.9	29.9	2.3	-90.01	-1,483.5	-2,542.1	2,856.5	2,825.2	31.36	91.086	
7,500.0	6,644.6	6,602.6	6,602.0	30.3	2.3	-90.01	-1,483.5	-2,542.1	2,844.3	2,812.5	31.82	89.397	
7,578.7	6,644.5	6,603.0	6,602.3	32.2	2.3	-90.02	-1,483.5	-2,542.1	2,796.5	2,762.8	33.70	82.977	
7,600.0	6,644.4	6,603.1	6,602.4	32.7	2.3	-90.03	-1,483.5	-2,542.1	2,783.8	2,749.6	34.21	81.370	
7,677.1	6,644.3	6,603.4	6,602.7	34.6	2.3	-90.03	-1,483.5	-2,542.1	2,738.6	2,702.5	36.11	75.848	
7,700.0	6,644.3	6,603.5	6,602.8	35.1	2.3	-90.04	-1,483.5	-2,542.1	2,725.5	2,688.9	36.67	74.329	
7,775.6	6,644.2	6,603.8	6,603.2	37.0	2.3	-90.05	-1,483.5	-2,542.1	2,683.1	2,644.6	38.56	69.577	
7,800.0	6,644.2	6,604.0	6,603.3	37.6	2.3	-90.05	-1,483.5	-2,542.1	2,669.7	2,630.6	39.18	68.148	
7,874.0	6,644.1	6,604.3	6,603.6	39.5	2.3	-90.06	-1,483.5	-2,542.1	2,630.2	2,589.1	41.06	64.054	
7,900.0	6,644.1	6,604.4	6,603.7	40.1	2.3	-90.06	-1,483.5	-2,542.1	2,616.6	2,574.9	41.72	62.712	
7,972.4	6,644.0	6,604.7	6,604.0	42.0	2.3	-90.07	-1,483.5	-2,542.1	2,579.9	2,536.3	43.59	59.179	
8,000.0	6,643.9	6,604.8	6,604.1	42.7	2.3	-90.07	-1,483.5	-2,542.1	2,566.3	2,522.0	44.31	57.921	
8,070.8	6,643.9	6,605.1	6,604.4	44.5	2.3	-90.08	-1,483.5	-2,542.1	2,532.4	2,486.2	46.16	54.867	
8,100.0	6,643.8	6,605.2	6,604.6	45.2	2.3	-90.08	-1,483.5	-2,542.1	2,518.9	2,472.0	46.92	53.689	
8,169.3	6,643.7	6,605.5	6,604.9	47.0	2.3	-90.09	-1,483.5	-2,542.1	2,487.9	2,439.2	48.74	51.045	
8,200.0	6,643.7	6,605.7	6,605.0	47.9	2.3	-90.09	-1,483.5	-2,542.1	2,474.7	2,425.1	49.55	49.944	
8,267.7	6,643.6	6,606.0	6,605.3	49.6	2.3	-90.10	-1,483.5	-2,542.1	2,446.6	2,395.2	51.34	47.650	
8,300.0	6,643.6	6,606.1	6,605.4	50.5	2.3	-90.10	-1,483.5	-2,542.1	2,433.7	2,381.5	52.20	46.622	
8,366.1	6,643.5	6,606.4	6,605.7	52.2	2.3	-90.11	-1,483.5	-2,542.1	2,408.6	2,354.6	53.97	44.631	
8,400.0	6,643.4	6,606.5	6,605.8	53.1	2.3	-90.11	-1,483.5	-2,542.1	2,396.3	2,341.4	54.87	43.672	
8,464.5	6,643.4	6,606.8	6,606.1	54.8	2.3	-90.12	-1,483.5	-2,542.1	2,374.0	2,317.4	56.60	41.943	
8,500.0	6,643.3	6,606.9	6,606.2	55.8	2.3	-90.12	-1,483.5	-2,542.1	2,362.5	2,304.9	57.55	41.049	
8,563.0	6,643.2	6,607.2	6,606.5	57.5	2.3	-90.13	-1,483.5	-2,542.1	2,343.1	2,283.9	59.25	39.546	
8,600.0	6,643.2	6,607.3	6,606.7	58.5	2.3	-90.13	-1,483.5	-2,542.1	2,332.5	2,272.2	60.25	38.715	
8,661.4	6,643.1	6,607.6	6,606.9	60.1	2.3	-90.14	-1,483.5	-2,542.1	2,316.0	2,254.1	61.91	37.410	
8,700.0	6,643.1	6,607.7	6,607.1	61.2	2.3	-90.15	-1,483.5	-2,542.1	2,306.4	2,243.4	62.95	36.637	
8,759.8	6,643.0	6,608.0	6,607.3	62.8	2.3	-90.15	-1,483.5	-2,542.1	2,292.7	2,228.2	64.58	35.504	
8,800.0	6,643.0	6,608.2	6,607.5	63.9	2.3	-90.16	-1,483.5	-2,542.1	2,284.4	2,218.7	65.67	34.787	
8,858.2	6,642.9	6,608.4	6,607.7	65.4	2.3	-90.16	-1,483.5	-2,542.1	2,273.5	2,206.3	67.25	33.805	
8,900.0	6,642.8	6,608.6	6,607.9	66.6	2.3	-90.17	-1,483.5	-2,542.1	2,266.6	2,198.2	68.39	33.143	
8,956.7	6,642.8	6,608.8	6,608.1	68.1	2.3	-90.17	-1,483.5	-2,542.1	2,258.5	2,188.5	69.94	32.293	
9,000.0	6,642.7	6,609.0	6,608.3	69.3	2.3	-90.18	-1,483.5	-2,542.1	2,253.2	2,182.0	71.12	31.681	
9,055.1	6,642.6	6,609.2	6,608.5	70.8	2.3	-90.18	-1,483.5	-2,542.1	2,247.6	2,175.0	72.63	30.947	
9,100.0	6,642.6	6,609.4	6,608.7	72.0	2.3	-90.19	-1,483.5	-2,542.1	2,244.1	2,170.2	73.86	30.384	
9,153.5	6,642.5	6,609.6	6,608.9	73.5	2.3	-90.19	-1,483.5	-2,542.1	2,241.0	2,165.7	75.32	29.752	
9,200.0	6,642.5	6,609.8	6,609.1	74.7	2.3	-90.20	-1,483.5	-2,542.1	2,239.4	2,162.8	76.60	29.236	
9,251.9	6,642.4	6,610.0	6,609.3	76.2	2.3	-90.20	-1,483.5	-2,542.1	2,238.7	2,160.7	78.03	28.693	
9,254.5	6,642.4	6,610.0	6,609.3	76.2	2.3	-90.20	-1,483.5	-2,542.1	2,238.7	2,160.6	78.10	28.666 CC	
9,300.0	6,642.3	6,610.2	6,609.5	77.5	2.3	-90.21	-1,483.5	-2,542.1	2,239.2	2,159.9	79.35	28.221 ES	
9,350.4	6,642.3	6,610.4	6,609.7	78.9	2.3	-90.21	-1,483.5	-2,542.1	2,240.8	2,160.1	80.73	27.756	
9,400.0	6,642.2	6,610.5	6,609.9	80.2	2.3	-90.22	-1,483.5	-2,542.1	2,243.5	2,161.4	82.10	27.327	
9,448.8	6,642.1	6,610.7	6,610.1	81.6	2.3	-90.22	-1,483.5	-2,542.1	2,247.2	2,163.7	83.44	26.931	
9,500.0	6,642.1	6,610.9	6,610.3	83.0	2.3	-90.23	-1,483.5	-2,542.1	2,252.2	2,167.3	84.85	26.542	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,642.0	6,611.1	6,610.4	84.3	2.3	-90.23	-1,483.5	-2,542.1	2,257.8	2,171.6	86.15	26.206	
9,600.0	6,642.0	6,611.3	6,610.6	85.7	2.3	-90.24	-1,483.5	-2,542.1	2,265.2	2,177.6	87.61	25.856	
9,645.6	6,641.9	6,611.5	6,610.8	87.0	2.3	-90.24	-1,483.5	-2,542.1	2,272.6	2,183.8	88.87	25.572	
9,700.0	6,641.8	6,611.7	6,611.0	88.5	2.3	-90.25	-1,483.5	-2,542.1	2,282.6	2,192.3	90.37	25.258	
9,744.1	6,641.8	6,611.9	6,611.2	89.7	2.3	-90.25	-1,483.5	-2,542.1	2,291.6	2,200.0	91.59	25.020	
9,800.0	6,641.7	6,612.1	6,611.4	91.2	2.3	-90.26	-1,483.5	-2,542.1	2,304.2	2,211.1	93.14	24.740	
9,842.5	6,641.7	6,612.2	6,611.6	92.4	2.3	-90.26	-1,483.5	-2,542.1	2,314.7	2,220.3	94.31	24.542	
9,900.0	6,641.6	6,612.5	6,611.8	94.0	2.3	-90.27	-1,483.5	-2,542.1	2,329.9	2,234.0	95.91	24.294	
9,940.9	6,641.5	6,612.6	6,611.9	95.1	2.3	-90.27	-1,483.5	-2,542.1	2,341.6	2,244.6	97.04	24.130	
10,000.0	6,641.5	6,612.8	6,612.2	96.7	2.3	-90.28	-1,483.5	-2,542.1	2,359.6	2,260.9	98.68	23.912	
10,039.3	6,641.4	6,613.0	6,612.3	97.8	2.3	-90.28	-1,483.5	-2,542.1	2,372.3	2,272.5	99.77	23.779	
10,100.0	6,641.3	6,613.2	6,612.5	99.5	2.3	-90.29	-1,483.5	-2,542.1	2,393.1	2,291.6	101.45	23.589	
10,137.8	6,641.3	6,613.4	6,612.7	100.6	2.3	-90.29	-1,483.5	-2,542.1	2,406.7	2,304.2	102.50	23.480	
10,200.0	6,641.2	6,613.6	6,612.9	102.3	2.3	-90.29	-1,483.5	-2,542.1	2,430.2	2,326.0	104.22	23.317	
10,236.2	6,641.2	6,613.7	6,613.0	103.3	2.3	-90.30	-1,483.5	-2,542.1	2,444.5	2,339.3	105.23	23.230	
10,300.0	6,641.1	6,614.0	6,613.3	105.0	2.3	-90.30	-1,483.5	-2,542.1	2,470.8	2,363.8	107.00	23.092	
10,334.6	6,641.0	6,614.1	6,613.4	106.0	2.3	-90.31	-1,483.5	-2,542.1	2,485.7	2,377.7	107.96	23.023	
10,400.0	6,641.0	6,614.3	6,613.6	107.8	2.3	-90.31	-1,483.5	-2,542.1	2,514.8	2,405.0	109.78	22.907	
10,433.0	6,640.9	6,614.4	6,613.8	108.7	2.3	-90.32	-1,483.5	-2,542.1	2,530.0	2,419.3	110.70	22.855	
10,500.0	6,640.8	6,614.7	6,614.0	110.6	2.3	-90.32	-1,483.5	-2,542.1	2,561.9	2,449.3	112.56	22.760	
10,531.5	6,640.8	6,614.8	6,614.1	111.5	2.3	-90.33	-1,483.5	-2,542.1	2,577.3	2,463.9	113.43	22.721	
10,600.0	6,640.7	6,615.1	6,614.4	113.4	2.3	-90.33	-1,483.5	-2,542.1	2,611.9	2,496.6	115.34	22.645	
10,629.9	6,640.7	6,615.2	6,614.5	114.2	2.3	-90.33	-1,483.5	-2,542.1	2,627.5	2,511.3	116.17	22.617	
10,700.0	6,640.6	6,615.4	6,614.7	116.1	2.3	-90.34	-1,483.5	-2,542.1	2,664.8	2,546.7	118.12	22.560	
10,728.3	6,640.5	6,615.5	6,614.8	116.9	2.3	-90.34	-1,483.5	-2,542.1	2,680.3	2,561.4	118.91	22.540	
10,800.0	6,640.5	6,615.8	6,615.1	118.9	2.3	-90.35	-1,483.5	-2,542.1	2,720.4	2,599.4	120.91	22.499	
10,826.7	6,640.4	6,615.9	6,615.2	119.7	2.3	-90.35	-1,483.5	-2,542.1	2,735.6	2,614.0	121.65	22.487	
10,900.0	6,640.3	6,616.1	6,615.5	121.7	2.3	-90.36	-1,483.5	-2,542.1	2,778.4	2,654.7	123.69	22.462	
10,925.2	6,640.3	6,616.2	6,615.5	122.4	2.3	-90.36	-1,483.5	-2,542.2	2,793.4	2,669.0	124.40	22.456	
11,000.0	6,640.2	6,616.5	6,615.8	124.5	2.3	-90.37	-1,483.5	-2,542.2	2,838.8	2,712.3	126.48	22.444	
11,023.6	6,640.2	6,616.6	6,615.9	125.1	2.3	-90.37	-1,483.5	-2,542.2	2,853.3	2,726.2	127.14	22.443 SF	
11,100.0	6,640.1	6,616.8	6,616.2	127.3	2.3	-90.38	-1,483.5	-2,542.2	2,901.3	2,772.0	129.27	22.444	
11,122.0	6,640.0	6,616.9	6,616.2	127.9	2.3	-90.38	-1,483.5	-2,542.2	2,915.4	2,785.5	129.88	22.446	
11,200.0	6,639.9	6,617.2	6,616.5	130.1	2.3	-90.39	-1,483.5	-2,542.2	2,965.9	2,833.9	132.06	22.459	
11,220.4	6,639.9	6,617.3	6,616.6	130.6	2.3	-90.39	-1,483.5	-2,542.2	2,979.4	2,846.7	132.63	22.464	
11,300.0	6,639.8	6,617.5	6,616.9	132.8	2.3	-90.40	-1,483.5	-2,542.2	3,032.5	2,897.6	134.85	22.488	
11,318.9	6,639.8	6,617.6	6,616.9	133.4	2.3	-90.40	-1,483.5	-2,542.2	3,045.2	2,909.8	135.37	22.495	
11,400.0	6,639.7	6,617.9	6,617.2	135.6	2.3	-90.40	-1,483.5	-2,542.2	3,100.8	2,963.1	137.64	22.529	
11,417.3	6,639.7	6,617.9	6,617.3	136.1	2.3	-90.41	-1,483.5	-2,542.2	3,112.8	2,974.7	138.12	22.537	
11,500.0	6,639.6	6,618.2	6,617.5	138.4	2.3	-90.41	-1,483.5	-2,542.2	3,170.8	3,030.4	140.43	22.579	
11,515.7	6,639.5	6,618.3	6,617.6	138.9	2.3	-90.41	-1,483.5	-2,542.2	3,181.9	3,041.1	140.87	22.588	
11,600.0	6,639.4	6,618.6	6,617.9	141.2	2.3	-90.42	-1,483.5	-2,542.2	3,242.4	3,099.2	143.22	22.639	
11,614.1	6,639.4	6,618.6	6,617.9	141.6	2.3	-90.42	-1,483.5	-2,542.2	3,252.6	3,109.0	143.62	22.648	
11,700.0	6,639.3	6,618.9	6,618.2	144.0	2.3	-90.43	-1,483.5	-2,542.2	3,315.4	3,169.4	146.01	22.706	
11,712.6	6,639.3	6,618.9	6,618.3	144.3	2.3	-90.43	-1,483.5	-2,542.2	3,324.7	3,178.3	146.37	22.715	
11,800.0	6,639.2	6,619.2	6,618.6	146.8	2.3	-90.44	-1,483.5	-2,542.2	3,389.9	3,241.1	148.81	22.780	
11,811.0	6,639.2	6,619.3	6,618.6	147.1	2.3	-90.44	-1,483.5	-2,542.2	3,398.1	3,249.0	149.12	22.789	
11,900.0	6,639.1	6,619.6	6,618.9	149.6	2.3	-90.45	-1,483.5	-2,542.2	3,465.6	3,314.0	151.60	22.860	
11,909.4	6,639.0	6,619.6	6,618.9	149.8	2.3	-90.45	-1,483.5	-2,542.2	3,472.8	3,320.9	151.87	22.867	
12,000.0	6,638.9	6,619.9	6,619.2	152.4	2.3	-90.46	-1,483.5	-2,542.2	3,542.5	3,388.1	154.40	22.944	
12,007.8	6,638.9	6,619.9	6,619.3	152.6	2.3	-90.46	-1,483.5	-2,542.2	3,548.6	3,394.0	154.62	22.951	
12,100.0	6,638.8	6,620.2	6,619.6	155.2	2.3	-90.46	-1,483.4	-2,542.2	3,620.5	3,463.4	157.19	23.032	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BAUER #9-1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,106.3	6,638.8	6,620.3	6,619.6	155.3	2.3	-90.46	-1,483.4	-2,542.2	3,625.5	3,468.1	157.37	23.038		
12,200.0	6,638.7	6,620.6	6,619.9	157.9	2.3	-90.47	-1,483.4	-2,542.2	3,699.7	3,539.7	159.99	23.124		
12,204.7	6,638.7	6,620.6	6,619.9	158.1	2.3	-90.47	-1,483.4	-2,542.2	3,703.4	3,543.3	160.12	23.129		
12,300.0	6,638.5	6,620.9	6,620.2	160.7	2.3	-90.48	-1,483.4	-2,542.2	3,779.8	3,617.0	162.79	23.219		
12,303.1	6,638.5	6,620.9	6,620.2	160.8	2.3	-90.48	-1,483.4	-2,542.2	3,782.3	3,619.4	162.87	23.222		
12,400.0	6,638.4	6,621.2	6,620.5	163.5	2.3	-90.49	-1,483.4	-2,542.2	3,860.8	3,695.2	165.58	23.316		
12,401.5	6,638.4	6,621.2	6,620.5	163.6	2.3	-90.49	-1,483.4	-2,542.2	3,862.0	3,696.4	165.63	23.318		
12,500.0	6,638.3	6,621.5	6,620.9	166.3	2.3	-90.50	-1,483.4	-2,542.2	3,942.7	3,774.3	168.38	23.415		
12,598.4	6,638.2	6,621.9	6,621.2	169.1	2.3	-90.50	-1,483.4	-2,542.2	4,024.1	3,852.9	171.13	23.514		
12,600.0	6,638.2	6,621.9	6,621.2	169.1	2.3	-90.50	-1,483.4	-2,542.2	4,025.4	3,854.2	171.18	23.516		
12,696.8	6,638.0	6,622.2	6,621.5	171.8	2.3	-90.51	-1,483.4	-2,542.2	4,106.2	3,932.3	173.89	23.614		
12,700.0	6,638.0	6,622.2	6,621.5	171.9	2.3	-90.51	-1,483.4	-2,542.2	4,108.9	3,934.9	173.98	23.617		
12,795.2	6,637.9	6,622.5	6,621.8	174.6	2.3	-90.52	-1,483.4	-2,542.2	4,189.1	4,012.4	176.64	23.715		
12,800.0	6,637.9	6,622.5	6,621.8	174.7	2.3	-90.52	-1,483.4	-2,542.2	4,193.1	4,016.3	176.78	23.720		
12,893.7	6,637.8	6,622.8	6,622.1	177.3	2.3	-90.53	-1,483.4	-2,542.2	4,272.6	4,093.2	179.40	23.816		
12,900.0	6,637.8	6,622.8	6,622.1	177.5	2.3	-90.53	-1,483.4	-2,542.2	4,278.0	4,098.4	179.57	23.823		
12,992.1	6,637.7	6,623.1	6,622.4	180.1	2.3	-90.54	-1,483.4	-2,542.2	4,356.7	4,174.6	182.15	23.918		
13,000.0	6,637.6	6,623.1	6,622.4	180.3	2.3	-90.54	-1,483.4	-2,542.2	4,363.5	4,181.1	182.37	23.926		
13,090.5	6,637.5	6,623.4	6,622.7	182.8	2.3	-90.54	-1,483.4	-2,542.2	4,441.4	4,256.5	184.91	24.020		
13,100.0	6,637.5	6,623.4	6,622.8	183.1	2.3	-90.54	-1,483.4	-2,542.2	4,449.6	4,264.4	185.17	24.029		
13,188.9	6,637.4	6,623.7	6,623.0	185.6	2.3	-90.55	-1,483.4	-2,542.2	4,526.7	4,339.0	187.66	24.121		
13,200.0	6,637.4	6,623.7	6,623.1	185.9	2.3	-90.55	-1,483.4	-2,542.2	4,536.3	4,348.3	187.97	24.133		
13,287.4	6,637.3	6,624.0	6,623.3	188.4	2.3	-90.56	-1,483.4	-2,542.2	4,612.5	4,422.1	190.42	24.223		
13,300.0	6,637.3	6,624.0	6,623.4	188.7	2.3	-90.56	-1,483.4	-2,542.2	4,623.6	4,432.8	190.77	24.236		
13,385.8	6,637.1	6,624.3	6,623.6	191.1	2.3	-90.57	-1,483.4	-2,542.2	4,698.8	4,505.6	193.18	24.324		
13,400.0	6,637.1	6,624.4	6,623.7	191.5	2.3	-90.57	-1,483.4	-2,542.2	4,711.3	4,517.7	193.58	24.338		
13,484.2	6,637.0	6,624.6	6,623.9	193.9	2.3	-90.57	-1,483.4	-2,542.2	4,785.6	4,589.6	195.93	24.424		
13,500.0	6,637.0	6,624.7	6,624.0	194.3	2.3	-90.58	-1,483.4	-2,542.2	4,799.5	4,603.1	196.38	24.440		
13,582.6	6,636.9	6,624.9	6,624.2	196.6	2.3	-90.58	-1,483.4	-2,542.2	4,872.8	4,674.1	198.69	24.524		
13,600.0	6,636.9	6,625.0	6,624.3	197.1	2.3	-90.58	-1,483.4	-2,542.2	4,888.2	4,689.0	199.18	24.542		
13,681.1	6,636.8	6,625.2	6,624.5	199.4	2.3	-90.59	-1,483.4	-2,542.2	4,960.4	4,759.0	201.45	24.624		
13,700.0	6,636.7	6,625.3	6,624.6	199.9	2.3	-90.59	-1,483.4	-2,542.2	4,977.3	4,775.3	201.98	24.643		
13,779.5	6,636.6	6,625.5	6,624.8	202.1	2.3	-90.60	-1,483.4	-2,542.2	5,048.4	4,844.2	204.21	24.722		
13,800.0	6,636.6	6,625.6	6,624.9	202.7	2.3	-90.60	-1,483.4	-2,542.2	5,066.8	4,862.0	204.78	24.743		
13,877.9	6,636.5	6,625.8	6,625.1	204.9	2.3	-90.60	-1,483.4	-2,542.2	5,136.8	4,929.9	206.96	24.820		
13,900.0	6,636.5	6,625.9	6,625.2	205.5	2.3	-90.61	-1,483.4	-2,542.2	5,156.7	4,949.1	207.58	24.842		
13,976.3	6,636.4	6,626.1	6,625.4	207.6	2.3	-90.61	-1,483.4	-2,542.2	5,225.6	5,015.9	209.72	24.917		
14,000.0	6,636.3	6,626.2	6,625.5	208.3	2.3	-90.61	-1,483.4	-2,542.2	5,247.0	5,036.6	210.39	24.940		
14,074.8	6,636.3	6,626.4	6,625.7	210.4	2.3	-90.62	-1,483.4	-2,542.2	5,314.7	5,102.2	212.48	25.013		
14,100.0	6,636.2	6,626.4	6,625.8	211.1	2.3	-90.62	-1,483.4	-2,542.2	5,337.6	5,124.4	213.19	25.037		
14,173.2	6,636.1	6,626.7	6,626.0	213.2	2.3	-90.63	-1,483.4	-2,542.2	5,404.1	5,188.9	215.24	25.107		
14,200.0	6,636.1	6,626.7	6,626.1	213.9	2.3	-90.63	-1,483.4	-2,542.2	5,428.5	5,212.5	215.99	25.133		
14,271.6	6,636.0	6,626.9	6,626.3	215.9	2.3	-90.63	-1,483.4	-2,542.2	5,493.8	5,275.8	218.00	25.201		
14,300.0	6,636.0	6,627.0	6,626.4	216.7	2.3	-90.63	-1,483.4	-2,542.2	5,519.8	5,301.0	218.79	25.228		
14,370.0	6,635.9	6,627.2	6,626.6	218.7	2.3	-90.64	-1,483.4	-2,542.2	5,583.9	5,363.1	220.76	25.294		
14,400.0	6,635.8	6,627.3	6,626.6	219.5	2.3	-90.64	-1,483.4	-2,542.2	5,611.3	5,389.7	221.60	25.322		
14,468.5	6,635.7	6,627.5	6,626.8	221.4	2.3	-90.65	-1,483.4	-2,542.2	5,674.2	5,450.7	223.52	25.386		
14,500.0	6,635.7	6,627.6	6,626.9	222.3	2.3	-90.65	-1,483.4	-2,542.2	5,703.2	5,478.8	224.40	25.415		
14,566.9	6,635.6	6,627.8	6,627.1	224.2	2.3	-90.65	-1,483.4	-2,542.2	5,764.7	5,538.5	226.28	25.477		
14,600.0	6,635.6	6,627.9	6,627.2	225.1	2.3	-90.66	-1,483.4	-2,542.2	5,795.3	5,568.1	227.20	25.507		
14,665.3	6,635.5	6,628.1	6,627.4	226.9	2.3	-90.66	-1,483.4	-2,542.2	5,855.6	5,626.5	229.04	25.566		
14,700.0	6,635.4	6,628.2	6,627.5	227.9	2.3	-90.66	-1,483.4	-2,542.2	5,887.6	5,657.6	230.01	25.598		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BAUER #9-1 - 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
14,763.7	6,635.4	6,628.4	6,627.7	229.7	2.3	-90.67	-1,483.4	-2,542.2	5,946.6	5,714.8	231.79	25.655	
14,800.0	6,635.3	6,628.5	6,627.8	230.7	2.3	-90.67	-1,483.4	-2,542.2	5,980.2	5,747.4	232.81	25.687	
14,862.2	6,635.2	6,628.6	6,628.0	232.5	2.3	-90.68	-1,483.4	-2,542.2	6,037.9	5,803.4	234.55	25.742	
14,900.0	6,635.2	6,628.7	6,628.1	233.5	2.3	-90.68	-1,483.4	-2,542.2	6,073.1	5,837.5	235.62	25.775	
14,960.6	6,635.1	6,628.9	6,628.2	235.2	2.3	-90.68	-1,483.4	-2,542.2	6,129.4	5,892.1	237.31	25.828	
15,000.0	6,635.0	6,629.0	6,628.3	236.3	2.3	-90.68	-1,483.4	-2,542.2	6,166.1	5,927.7	238.42	25.863	
15,033.1	6,635.0	6,629.1	6,628.4	237.3	2.3	-90.69	-1,483.4	-2,542.2	6,197.0	5,957.6	239.35	25.891	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-75.61	1,284.0	-5,004.5	5,166.6				
98.4	98.4	76.4	76.4	0.1	0.0	-75.61	1,284.0	-5,004.5	5,166.5	5,166.5	0.10	N/A	
100.0	100.0	78.0	78.0	0.1	0.0	-75.61	1,284.0	-5,004.5	5,166.5	5,166.5	0.10	N/A	
196.8	196.8	174.8	174.8	0.3	1.0	-75.61	1,284.0	-5,004.5	5,166.5	5,165.3	1.29	3,998.722	
200.0	200.0	178.0	178.0	0.3	1.0	-75.61	1,284.0	-5,004.5	5,166.5	5,165.2	1.34	3,854.974	
295.3	295.3	273.3	273.3	0.5	3.0	-75.61	1,284.0	-5,004.5	5,166.5	5,163.0	3.50	1,475.160	
300.0	300.0	278.0	278.0	0.5	3.1	-75.61	1,284.0	-5,004.5	5,166.5	5,162.9	3.62	1,427.189	
393.7	393.7	371.7	371.7	0.8	5.1	-75.61	1,284.0	-5,004.5	5,166.5	5,160.7	5.82	888.027	
400.0	400.0	378.0	378.0	0.8	5.2	-75.61	1,284.0	-5,004.5	5,166.5	5,160.6	5.96	866.439	
492.1	492.1	470.1	470.1	1.0	7.1	-75.61	1,284.0	-5,004.5	5,166.5	5,158.5	8.06	641.133	
500.0	500.0	478.0	478.0	1.0	7.2	-75.61	1,284.0	-5,004.5	5,166.5	5,158.3	8.24	627.241	
590.5	590.5	568.5	568.5	1.2	9.1	-75.61	1,284.0	-5,004.5	5,166.5	5,156.3	10.28	502.565	
600.0	600.0	578.0	578.0	1.2	9.3	-75.61	1,284.0	-5,004.5	5,166.5	5,156.1	10.49	492.365	
689.0	689.0	667.0	667.0	1.4	11.1	-75.61	1,284.0	-5,004.5	5,166.5	5,154.1	12.49	413.511	
700.0	700.0	678.0	678.0	1.4	11.3	-75.61	1,284.0	-5,004.5	5,166.5	5,153.8	12.74	405.470	
787.4	787.4	765.4	765.4	1.6	13.1	-75.61	1,284.0	-5,004.5	5,166.5	5,151.8	14.70	351.367	
800.0	800.0	778.0	778.0	1.7	13.3	-75.61	1,284.0	-5,004.5	5,166.5	5,151.6	14.99	344.739	
885.8	885.8	863.8	863.8	1.9	15.0	-75.61	1,284.0	-5,004.5	5,166.5	5,149.6	16.91	305.507	
900.0	900.0	878.0	878.0	1.9	15.3	-75.61	1,284.0	-5,004.5	5,166.5	5,149.3	17.23	299.872	
984.2	984.2	962.2	962.2	2.1	17.0	-75.61	1,284.0	-5,004.5	5,166.5	5,147.4	19.12	270.258	
1,000.0	1,000.0	978.0	978.0	2.1	17.3	-75.61	1,284.0	-5,004.5	5,166.5	5,147.1	19.47	265.360	
1,082.7	1,082.7	1,060.7	1,060.7	2.3	19.0	-102.62	1,284.0	-5,004.5	5,166.8	5,145.5	21.32	242.355	
1,100.0	1,100.0	1,078.0	1,078.0	2.3	19.4	-102.62	1,284.0	-5,004.5	5,166.9	5,145.2	21.71	238.038	
1,181.1	1,181.0	1,159.0	1,159.0	2.5	21.0	-102.65	1,284.0	-5,004.5	5,167.8	5,144.3	23.52	219.755	
1,200.0	1,199.8	1,177.8	1,177.8	2.6	21.4	-102.66	1,284.0	-5,004.5	5,168.1	5,144.1	23.94	215.900	
1,279.5	1,279.1	1,257.1	1,257.1	2.8	23.0	-102.70	1,284.0	-5,004.5	5,169.5	5,143.8	25.71	201.058	
1,300.0	1,299.5	1,277.5	1,277.5	2.8	23.4	-102.71	1,284.0	-5,004.5	5,170.0	5,143.8	26.17	197.571	
1,377.9	1,376.9	1,354.9	1,354.9	3.0	24.9	-102.77	1,284.0	-5,004.5	5,172.0	5,144.1	27.91	185.307	
1,400.0	1,398.7	1,376.7	1,376.7	3.0	25.4	-102.79	1,284.0	-5,004.5	5,172.7	5,144.3	28.40	182.120	
1,476.4	1,474.2	1,452.2	1,452.2	3.2	26.9	-102.86	1,284.0	-5,004.5	5,175.3	5,145.2	30.12	171.829	
1,500.0	1,497.5	1,475.5	1,475.5	3.3	27.4	-102.89	1,284.0	-5,004.5	5,176.2	5,145.6	30.65	168.890	
1,574.8	1,571.0	1,549.0	1,549.0	3.5	28.8	-102.97	1,284.0	-5,004.5	5,179.4	5,147.1	32.34	160.141	
1,600.0	1,595.6	1,573.6	1,573.6	3.6	29.3	-103.01	1,284.0	-5,004.5	5,180.6	5,147.7	32.91	157.408	
1,673.2	1,667.2	1,645.2	1,645.2	3.9	30.8	-103.17	1,284.0	-5,004.5	5,184.1	5,149.5	34.59	149.862	
1,700.0	1,693.4	1,671.4	1,671.4	4.0	31.3	-103.22	1,284.0	-5,004.5	5,185.4	5,150.2	35.21	147.281	
1,771.6	1,763.5	1,741.5	1,741.5	4.2	32.7	-103.38	1,284.0	-5,004.5	5,188.9	5,152.0	36.87	140.751	
1,800.0	1,791.3	1,769.3	1,769.3	4.3	33.3	-103.44	1,284.0	-5,004.5	5,190.3	5,152.8	37.52	138.326	
1,870.1	1,859.8	1,837.8	1,837.8	4.6	34.7	-103.60	1,284.0	-5,004.5	5,193.8	5,154.6	39.15	132.649	
1,900.0	1,889.1	1,867.1	1,867.1	4.7	35.2	-103.66	1,284.0	-5,004.5	5,195.3	5,155.4	39.85	130.368	
1,968.5	1,956.1	1,934.1	1,934.1	4.9	36.6	-103.81	1,284.0	-5,004.5	5,198.7	5,157.3	41.45	125.411	
2,000.0	1,986.9	1,964.9	1,964.9	5.1	37.2	-103.88	1,284.0	-5,004.5	5,200.3	5,158.1	42.19	123.258	
2,066.9	2,052.3	2,030.3	2,030.3	5.3	38.5	-104.03	1,284.0	-5,004.5	5,203.7	5,160.0	43.76	118.910	
2,100.0	2,084.7	2,062.7	2,062.7	5.5	39.2	-104.10	1,284.0	-5,004.5	5,205.4	5,160.9	44.54	116.875	
2,165.3	2,148.6	2,126.6	2,126.6	5.7	40.5	-104.24	1,284.0	-5,004.5	5,208.8	5,162.8	46.08	113.046	
2,200.0	2,182.5	2,160.5	2,160.5	5.9	41.2	-104.31	1,284.0	-5,004.5	5,210.7	5,163.8	46.89	111.117	
2,263.8	2,244.9	2,222.9	2,222.9	6.1	42.4	-104.45	1,284.0	-5,004.5	5,214.0	5,165.6	48.40	107.731	
2,300.0	2,280.3	2,258.3	2,258.3	6.3	43.1	-104.53	1,284.0	-5,004.5	5,215.9	5,166.7	49.25	105.901	
2,362.2	2,341.2	2,319.2	2,319.2	6.5	44.3	-104.67	1,284.0	-5,004.5	5,219.3	5,168.6	50.72	102.896	
2,400.0	2,378.1	2,356.1	2,356.1	6.7	45.1	-104.75	1,284.0	-5,004.5	5,221.3	5,169.7	51.62	101.154	
2,460.6	2,437.4	2,415.4	2,415.4	6.9	46.3	-104.88	1,284.0	-5,004.5	5,224.6	5,171.5	53.05	98.480	
2,500.0	2,476.0	2,454.0	2,454.0	7.1	47.1	-104.96	1,284.0	-5,004.5	5,226.8	5,172.8	53.98	96.819	
2,550.0	2,524.9	2,502.9	2,502.9	7.3	48.0	-105.07	1,284.0	-5,004.5	5,229.5	5,174.3	55.17	94.790	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,511.7	2,511.7	7.3	48.2	-104.24	1,284.0	-5,004.5	5,230.0	5,174.6	55.39	94.421	
2,600.0	2,573.8	2,551.8	2,551.8	7.5	49.0	-100.47	1,284.0	-5,004.5	5,231.8	5,175.5	56.38	92.791	
2,639.4	2,612.3	2,590.3	2,590.3	7.7	49.8	-96.86	1,284.0	-5,004.5	5,233.1	5,175.8	57.32	91.292	
2,657.5	2,630.0	2,608.0	2,608.0	7.7	50.2	-96.90	1,284.0	-5,004.5	5,233.6	5,175.8	57.75	90.624	
2,700.0	2,671.6	2,649.6	2,649.6	7.9	51.0	-96.99	1,284.0	-5,004.5	5,234.7	5,175.9	58.75	89.095	
2,755.9	2,726.3	2,704.3	2,704.3	8.1	52.1	-97.12	1,284.0	-5,004.5	5,236.1	5,176.0	60.08	87.145	
2,800.0	2,769.4	2,747.4	2,747.4	8.3	53.0	-97.22	1,284.0	-5,004.5	5,237.3	5,176.2	61.14	85.667	
2,854.3	2,822.5	2,800.5	2,800.5	8.5	54.0	-97.33	1,284.0	-5,004.5	5,238.8	5,176.3	62.43	83.914	
2,900.0	2,867.2	2,845.2	2,845.2	8.7	54.9	-97.44	1,284.0	-5,004.5	5,240.0	5,176.5	63.52	82.495	
2,952.7	2,918.8	2,896.8	2,896.8	9.0	56.0	-97.55	1,284.0	-5,004.5	5,241.5	5,176.7	64.78	80.915	
3,000.0	2,965.0	2,943.0	2,943.0	9.2	56.9	-97.66	1,284.0	-5,004.5	5,242.8	5,176.9	65.90	79.552	
3,051.2	3,015.1	2,993.1	2,993.1	9.4	57.9	-97.77	1,284.0	-5,004.5	5,244.2	5,177.1	67.13	78.126	
3,100.0	3,062.8	3,040.8	3,040.8	9.6	58.9	-97.88	1,284.0	-5,004.5	5,245.7	5,177.4	68.29	76.814	
3,149.6	3,111.4	3,089.4	3,089.4	9.8	59.8	-97.99	1,284.0	-5,004.5	5,247.1	5,177.6	69.47	75.526	
3,200.0	3,160.7	3,138.7	3,138.7	10.0	60.8	-98.10	1,284.0	-5,004.5	5,248.6	5,177.9	70.68	74.261	
3,248.0	3,207.6	3,185.6	3,185.6	10.2	61.8	-98.20	1,284.0	-5,004.5	5,250.1	5,178.2	71.82	73.095	
3,300.0	3,258.5	3,236.5	3,236.5	10.5	62.8	-98.32	1,284.0	-5,004.5	5,251.6	5,178.6	73.07	71.876	
3,346.4	3,303.9	3,281.9	3,281.9	10.7	63.7	-98.42	1,284.0	-5,004.5	5,253.1	5,178.9	74.18	70.820	
3,400.0	3,356.3	3,334.3	3,334.3	10.9	64.8	-98.54	1,284.0	-5,004.5	5,254.8	5,179.3	75.45	69.641	
3,444.9	3,400.2	3,378.2	3,378.2	11.1	65.6	-98.63	1,284.0	-5,004.5	5,256.2	5,179.7	76.53	68.684	
3,500.0	3,454.1	3,432.1	3,432.1	11.3	66.7	-98.76	1,284.0	-5,004.5	5,258.0	5,180.1	77.84	67.545	
3,543.3	3,496.5	3,474.5	3,474.5	11.5	67.6	-98.85	1,284.0	-5,004.5	5,259.4	5,180.5	78.88	66.677	
3,600.0	3,551.9	3,529.9	3,529.9	11.7	68.7	-98.97	1,284.0	-5,004.5	5,261.2	5,181.0	80.23	65.574	
3,641.7	3,592.7	3,570.7	3,570.7	11.9	69.5	-99.07	1,284.0	-5,004.5	5,262.6	5,181.4	81.23	64.786	
3,700.0	3,649.7	3,627.7	3,627.7	12.2	70.7	-99.19	1,284.0	-5,004.5	5,264.6	5,182.0	82.62	63.718	
3,740.1	3,689.0	3,667.0	3,667.0	12.4	71.5	-99.28	1,284.0	-5,004.5	5,265.9	5,182.4	83.58	63.003	
3,800.0	3,747.5	3,725.5	3,725.5	12.6	72.6	-99.41	1,284.0	-5,004.5	5,268.0	5,183.0	85.01	61.967	
3,838.6	3,785.3	3,763.3	3,763.3	12.8	73.4	-99.50	1,284.0	-5,004.5	5,269.4	5,183.4	85.94	61.318	
3,900.0	3,845.4	3,823.4	3,823.4	13.1	74.6	-99.63	1,284.0	-5,004.5	5,271.5	5,184.1	87.40	60.313	
3,937.0	3,881.6	3,859.6	3,859.6	13.2	75.3	-99.71	1,284.0	-5,004.5	5,272.8	5,184.6	88.29	59.723	
4,000.0	3,943.2	3,921.2	3,921.2	13.5	76.6	-99.85	1,284.0	-5,004.5	5,275.1	5,185.3	89.79	58.747	
4,035.4	3,977.8	3,955.8	3,955.8	13.6	77.3	-99.92	1,284.0	-5,004.5	5,276.4	5,185.8	90.64	58.213	
4,100.0	4,041.0	4,019.0	4,019.0	13.9	78.5	-100.07	1,284.0	-5,004.5	5,278.8	5,186.6	92.18	57.264	
4,133.8	4,074.1	4,052.1	4,052.1	14.1	79.2	-100.14	1,284.0	-5,004.5	5,280.1	5,187.1	92.99	56.779	
4,200.0	4,138.8	4,116.8	4,116.8	14.4	80.5	-100.28	1,284.0	-5,004.5	5,282.5	5,188.0	94.57	55.857	
4,232.3	4,170.4	4,148.4	4,148.4	14.5	81.1	-100.35	1,284.0	-5,004.5	5,283.8	5,188.4	95.34	55.418	
4,300.0	4,236.6	4,214.6	4,214.6	14.8	82.5	-100.50	1,284.0	-5,004.5	5,286.4	5,189.4	96.96	54.520	
4,330.7	4,266.7	4,244.7	4,244.7	14.9	83.1	-100.57	1,284.0	-5,004.5	5,287.6	5,189.9	97.70	54.123	
4,400.0	4,334.4	4,312.4	4,312.4	15.2	84.4	-100.72	1,284.0	-5,004.5	5,290.3	5,190.9	99.35	53.248	
4,429.1	4,362.9	4,340.9	4,340.9	15.4	85.0	-100.78	1,284.0	-5,004.5	5,291.4	5,191.4	100.05	52.889	
4,500.0	4,432.3	4,410.3	4,410.3	15.7	86.4	-100.93	1,284.0	-5,004.5	5,294.3	5,192.5	101.74	52.037	
4,527.5	4,459.2	4,437.2	4,437.2	15.8	86.9	-100.99	1,284.0	-5,004.5	5,295.4	5,193.0	102.40	51.713	
4,600.0	4,530.1	4,508.1	4,508.1	16.1	88.4	-101.15	1,284.0	-5,004.5	5,298.3	5,194.2	104.13	50.882	
4,626.0	4,555.5	4,533.5	4,533.5	16.2	88.9	-101.20	1,284.0	-5,004.5	5,299.4	5,194.7	104.75	50.591	
4,700.0	4,627.9	4,605.9	4,605.9	16.6	90.3	-101.36	1,284.0	-5,004.5	5,302.5	5,196.0	106.52	49.780	
4,724.4	4,651.7	4,629.7	4,629.7	16.7	90.8	-101.42	1,284.0	-5,004.5	5,303.5	5,196.4	107.10	49.519	
4,800.0	4,725.7	4,703.7	4,703.7	17.0	92.3	-101.58	1,284.0	-5,004.5	5,306.7	5,197.8	108.91	48.727	
4,822.8	4,748.0	4,726.0	4,726.0	17.1	92.8	-101.63	1,284.0	-5,004.5	5,307.7	5,198.2	109.45	48.494	
4,904.9	4,828.3	4,806.3	4,806.3	17.5	94.4	-101.81	1,284.0	-5,004.5	5,311.2	5,199.8	111.41	47.673	
4,921.2	4,844.3	4,822.3	4,822.3	17.5	94.7	-101.85	1,284.0	-5,004.5	5,311.9	5,200.1	111.79	47.515	
5,000.0	4,921.6	4,899.6	4,899.6	17.8	96.2	-102.07	1,284.0	-5,004.5	5,315.1	5,201.4	113.65	46.767	
5,019.7	4,941.0	4,919.0	4,919.0	17.9	96.6	-102.12	1,284.0	-5,004.5	5,315.8	5,201.7	114.10	46.589	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,998.4	4,998.4	18.1	98.2	-102.30	1,284.0	-5,004.5	5,318.4	5,202.5	115.94	45.874		
5,118.1	5,038.3	5,016.3	5,016.3	18.2	98.6	-102.34	1,284.0	-5,004.5	5,319.0	5,202.6	116.34	45.717		
5,200.0	5,119.6	5,097.6	5,097.6	18.4	100.2	-102.48	1,284.0	-5,004.5	5,321.1	5,202.9	118.19	45.020		
5,216.5	5,136.0	5,114.0	5,114.0	18.4	100.6	-102.51	1,284.0	-5,004.5	5,321.5	5,202.9	118.56	44.883		
5,300.0	5,219.2	5,197.2	5,197.2	18.6	102.2	-102.61	1,284.0	-5,004.5	5,323.0	5,202.6	120.42	44.204		
5,314.9	5,234.1	5,212.1	5,212.1	18.6	102.5	-102.63	1,284.0	-5,004.5	5,323.3	5,202.5	120.75	44.086		
5,400.0	5,319.1	5,297.1	5,297.1	18.8	104.2	-102.69	1,284.0	-5,004.5	5,324.2	5,201.6	122.61	43.424		
5,413.4	5,332.4	5,310.4	5,310.4	18.8	104.5	-102.70	1,284.0	-5,004.5	5,324.3	5,201.4	122.90	43.324		
5,504.9	5,423.9	5,401.9	5,401.9	18.9	106.3	-84.30	1,284.0	-5,004.5	5,324.7	5,204.8	119.90	44.409		
5,511.8	5,430.8	5,408.8	5,408.8	18.9	106.5	-84.30	1,284.0	-5,004.5	5,324.7	5,204.6	120.05	44.353		
5,600.0	5,519.0	5,497.0	5,497.0	19.0	108.3	-84.30	1,284.0	-5,004.5	5,324.7	5,202.7	121.98	43.653		
5,610.2	5,529.3	5,507.3	5,507.3	19.0	108.5	-84.30	1,284.0	-5,004.5	5,324.7	5,202.5	122.20	43.572		
5,700.0	5,619.0	5,597.0	5,597.0	19.2	110.3	-84.30	1,284.0	-5,004.5	5,324.7	5,200.5	124.18	42.878		
5,708.6	5,627.7	5,605.7	5,605.7	19.2	110.4	-84.30	1,284.0	-5,004.5	5,324.7	5,200.3	124.37	42.813		
5,800.0	5,719.0	5,697.0	5,697.0	19.3	112.3	-84.30	1,284.0	-5,004.5	5,324.7	5,198.3	126.39	42.130		
5,807.1	5,726.1	5,704.1	5,704.1	19.3	112.4	-84.30	1,284.0	-5,004.5	5,324.7	5,198.1	126.54	42.078		
5,900.0	5,819.0	5,797.0	5,797.0	19.4	114.3	-84.30	1,284.0	-5,004.5	5,324.7	5,196.1	128.59	41.408		
5,905.5	5,824.5	5,802.5	5,802.5	19.4	114.4	-84.30	1,284.0	-5,004.5	5,324.7	5,195.9	128.71	41.369		
6,003.9	5,923.0	5,901.0	5,901.0	19.6	116.4	-84.30	1,284.0	-5,004.5	5,324.7	5,193.8	130.88	40.683		
6,009.8	5,928.8	5,906.8	5,906.8	19.6	116.5	-84.30	1,284.0	-5,004.5	5,324.7	5,193.6	131.01	40.642		
6,050.0	5,969.0	5,947.0	5,947.0	19.6	117.3	5.71	1,284.0	-5,004.5	5,323.5	5,187.2	136.35	39.044		
6,100.0	6,018.8	5,996.8	5,996.8	19.7	118.3	5.75	1,284.0	-5,004.5	5,319.0	5,182.5	136.54	38.957		
6,102.3	6,021.1	5,999.1	5,999.1	19.7	118.4	5.75	1,284.0	-5,004.5	5,318.7	5,182.2	136.53	38.957		
6,150.0	6,068.1	6,046.1	6,046.1	19.7	119.3	5.82	1,284.0	-5,004.5	5,311.0	5,175.0	136.05	39.037		
6,200.0	6,116.8	6,094.8	6,094.8	19.7	120.3	5.93	1,284.0	-5,004.5	5,299.7	5,164.8	134.88	39.292		
6,200.8	6,117.5	6,095.5	6,095.5	19.7	120.3	5.93	1,284.0	-5,004.5	5,299.5	5,164.6	134.86	39.297		
6,250.0	6,164.5	6,142.5	6,142.5	19.7	121.2	6.08	1,284.0	-5,004.5	5,284.9	5,151.9	133.02	39.730		
6,299.2	6,210.4	6,188.4	6,188.4	19.7	122.2	6.26	1,284.0	-5,004.5	5,267.3	5,136.7	130.53	40.354		
6,300.0	6,211.1	6,189.1	6,189.1	19.7	122.2	6.26	1,284.0	-5,004.5	5,266.9	5,136.5	130.48	40.366		
6,350.0	6,256.4	6,234.4	6,234.4	19.7	123.1	6.50	1,284.0	-5,004.5	5,245.8	5,118.5	127.26	41.220		
6,397.6	6,298.0	6,276.0	6,276.0	19.7	123.9	6.77	1,284.0	-5,004.5	5,222.7	5,099.1	123.58	42.261		
6,400.0	6,300.0	6,278.0	6,278.0	19.7	124.0	6.79	1,284.0	-5,004.5	5,221.5	5,098.1	123.38	42.319		
6,450.0	6,341.8	6,319.8	6,319.8	19.7	124.8	7.14	1,284.0	-5,004.5	5,194.2	5,075.4	118.88	43.695		
6,496.0	6,378.6	6,356.6	6,356.6	19.7	125.5	7.53	1,284.0	-5,004.5	5,166.6	5,052.4	114.20	45.243		
6,500.0	6,381.6	6,359.6	6,359.6	19.7	125.6	7.57	1,284.0	-5,004.5	5,164.2	5,050.4	113.77	45.390		
6,550.0	6,419.2	6,397.2	6,397.2	19.6	126.4	8.09	1,284.0	-5,004.5	5,131.4	5,023.3	108.13	47.455		
6,594.5	6,450.7	6,428.7	6,428.7	19.6	127.0	8.65	1,284.0	-5,004.5	5,100.1	4,997.4	102.72	49.651		
6,600.0	6,454.4	6,432.4	6,432.4	19.6	127.1	8.73	1,284.0	-5,004.5	5,096.1	4,994.1	102.02	49.950		
6,650.0	6,487.1	6,465.1	6,465.1	19.6	127.7	9.52	1,284.0	-5,004.5	5,058.4	4,962.9	95.57	52.931		
6,692.9	6,513.0	6,491.0	6,491.0	19.6	128.2	10.36	1,284.0	-5,004.5	5,024.4	4,934.5	89.87	55.906		
6,700.0	6,517.0	6,495.0	6,495.0	19.6	128.3	10.52	1,284.0	-5,004.5	5,018.6	4,929.7	88.93	56.435		
6,750.0	6,544.1	6,522.1	6,522.1	19.6	128.9	11.79	1,284.0	-5,004.5	4,976.8	4,894.5	82.37	60.418		
6,791.3	6,564.2	6,542.2	6,542.2	19.7	129.3	13.13	1,284.0	-5,004.5	4,941.0	4,863.6	77.35	63.878		
6,800.0	6,568.2	6,546.2	6,546.2	19.7	129.4	13.45	1,284.0	-5,004.5	4,933.3	4,856.9	76.36	64.607		
6,850.0	6,589.1	6,567.1	6,567.1	19.8	129.8	15.69	1,284.0	-5,004.5	4,888.2	4,816.5	71.68	68.195		
6,889.7	6,603.5	6,581.5	6,581.5	19.9	130.1	18.10	1,284.0	-5,004.5	4,851.3	4,781.5	69.81	69.491		
6,900.0	6,606.9	6,584.9	6,584.9	19.9	130.1	18.84	1,284.0	-5,004.5	4,841.7	4,772.0	69.73	69.437		
6,950.0	6,621.3	6,599.3	6,599.3	20.2	130.4	23.50	1,284.0	-5,004.5	4,794.1	4,721.3	72.81	65.842		
6,988.2	6,630.0	6,608.0	6,608.0	20.6	130.6	28.82	1,284.0	-5,004.5	4,757.2	4,676.6	80.60	59.023		
7,000.0	6,632.4	6,610.4	6,610.4	20.7	130.6	30.93	1,284.0	-5,004.5	4,745.7	4,661.4	84.27	56.314		
7,050.0	6,640.0	6,618.0	6,618.0	21.4	130.8	43.81	1,284.0	-5,004.5	4,696.6	4,588.7	107.92	43.518		
7,086.6	6,643.4	6,621.4	6,621.4	21.9	130.9	59.51	1,284.0	-5,004.5	4,660.4	4,527.9	132.43	35.190		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,622.2	6,622.2	22.1	130.9	67.03	1,284.0	-5,004.5	4,647.1	4,506.0	141.10	32.936	
7,135.7	6,645.0	6,623.0	6,623.0	22.7	130.9	90.61	1,284.0	-5,004.5	4,611.7	4,459.0	152.64	30.213	
7,185.0	6,644.9	6,622.9	6,622.9	23.6	130.9	90.60	1,284.0	-5,004.5	4,562.6	4,409.0	153.60	29.705	
7,200.0	6,644.9	6,622.9	6,622.9	23.9	130.9	90.60	1,284.0	-5,004.5	4,547.8	4,393.9	153.89	29.552	
7,283.4	6,644.8	6,622.8	6,622.8	25.6	130.9	90.59	1,284.0	-5,004.5	4,464.9	4,309.3	155.62	28.691	
7,300.0	6,644.8	6,622.8	6,622.8	25.9	130.9	90.58	1,284.0	-5,004.5	4,448.5	4,292.5	155.96	28.523	
7,381.9	6,644.7	6,622.7	6,622.7	27.7	130.9	90.57	1,284.0	-5,004.5	4,367.2	4,209.4	157.76	27.682	
7,400.0	6,644.7	6,622.7	6,622.7	28.1	130.9	90.57	1,284.0	-5,004.5	4,349.2	4,191.0	158.16	27.498	
7,480.3	6,644.6	6,622.6	6,622.6	29.9	130.9	90.56	1,284.0	-5,004.5	4,269.5	4,109.5	160.02	26.681	
7,500.0	6,644.6	6,622.6	6,622.6	30.3	130.9	90.56	1,284.0	-5,004.5	4,249.9	4,089.5	160.48	26.483	
7,578.7	6,644.5	6,622.5	6,622.5	32.2	130.9	90.55	1,284.0	-5,004.5	4,171.8	4,009.5	162.36	25.695	
7,600.0	6,644.4	6,622.4	6,622.4	32.7	130.9	90.55	1,284.0	-5,004.5	4,150.7	3,987.9	162.87	25.485	
7,677.1	6,644.3	6,622.3	6,622.3	34.6	130.9	90.54	1,284.0	-5,004.5	4,074.2	3,909.5	164.76	24.728	
7,700.0	6,644.3	6,622.3	6,622.3	35.1	130.9	90.53	1,284.0	-5,004.5	4,051.6	3,886.2	165.32	24.507	
7,775.6	6,644.2	6,622.2	6,622.2	37.0	130.9	90.52	1,284.0	-5,004.5	3,976.6	3,809.4	167.22	23.781	
7,800.0	6,644.2	6,622.2	6,622.2	37.6	130.9	90.52	1,284.0	-5,004.5	3,952.4	3,784.6	167.83	23.550	
7,874.0	6,644.1	6,622.1	6,622.1	39.5	130.9	90.51	1,284.0	-5,004.5	3,879.1	3,709.4	169.71	22.857	
7,900.0	6,644.1	6,622.1	6,622.1	40.1	130.9	90.51	1,284.0	-5,004.5	3,853.4	3,683.0	170.38	22.617	
7,972.4	6,644.0	6,622.0	6,622.0	42.0	130.9	90.50	1,284.0	-5,004.5	3,781.6	3,609.4	172.24	21.955	
8,000.0	6,643.9	6,621.9	6,621.9	42.7	130.9	90.50	1,284.0	-5,004.5	3,754.3	3,581.4	172.96	21.707	
8,070.8	6,643.9	6,621.9	6,621.9	44.5	130.9	90.49	1,284.0	-5,004.5	3,684.2	3,509.4	174.80	21.076	
8,100.0	6,643.8	6,621.8	6,621.8	45.2	130.9	90.48	1,284.0	-5,004.5	3,655.4	3,479.8	175.56	20.821	
8,169.3	6,643.7	6,621.7	6,621.7	47.0	130.9	90.47	1,284.0	-5,004.5	3,586.8	3,409.4	177.39	20.220	
8,200.0	6,643.7	6,621.7	6,621.7	47.9	130.9	90.47	1,284.0	-5,004.5	3,556.4	3,378.2	178.19	19.958	
8,267.7	6,643.6	6,621.6	6,621.6	49.6	130.9	90.46	1,284.0	-5,004.5	3,489.5	3,309.5	179.99	19.387	
8,300.0	6,643.6	6,621.6	6,621.6	50.5	130.9	90.46	1,284.0	-5,004.5	3,457.6	3,276.7	180.85	19.119	
8,366.1	6,643.5	6,621.5	6,621.5	52.2	130.9	90.45	1,284.0	-5,004.5	3,392.2	3,209.6	182.61	18.577	
8,400.0	6,643.4	6,621.4	6,621.4	53.1	130.9	90.44	1,284.0	-5,004.5	3,358.8	3,175.3	183.51	18.303	
8,464.5	6,643.4	6,621.4	6,621.4	54.8	130.9	90.44	1,284.0	-5,004.5	3,295.1	3,109.8	185.24	17.788	
8,500.0	6,643.3	6,621.3	6,621.3	55.8	130.9	90.43	1,284.0	-5,004.5	3,260.1	3,073.9	186.19	17.509	
8,563.0	6,643.2	6,621.2	6,621.2	57.5	130.9	90.42	1,284.0	-5,004.5	3,198.0	3,010.1	187.89	17.020	
8,600.0	6,643.2	6,621.2	6,621.2	58.5	130.9	90.42	1,284.0	-5,004.5	3,161.4	2,972.6	188.89	16.737	
8,661.4	6,643.1	6,621.1	6,621.1	60.1	130.9	90.41	1,284.0	-5,004.5	3,100.9	2,910.4	190.55	16.274	
8,700.0	6,643.1	6,621.1	6,621.1	61.2	130.9	90.40	1,284.0	-5,004.5	3,062.9	2,871.3	191.59	15.987	
8,759.8	6,643.0	6,621.0	6,621.0	62.8	130.9	90.40	1,284.0	-5,004.5	3,004.0	2,810.8	193.21	15.548	
8,800.0	6,643.0	6,621.0	6,621.0	63.9	130.9	90.39	1,284.0	-5,004.5	2,964.4	2,770.1	194.30	15.257	
8,858.2	6,642.9	6,620.9	6,620.9	65.4	130.9	90.38	1,284.0	-5,004.5	2,907.2	2,711.3	195.89	14.841	
8,900.0	6,642.8	6,620.8	6,620.8	66.6	130.9	90.38	1,284.0	-5,004.5	2,866.1	2,669.1	197.02	14.547	
8,956.7	6,642.8	6,620.8	6,620.8	68.1	130.9	90.37	1,284.0	-5,004.5	2,810.4	2,611.9	198.57	14.153	
9,000.0	6,642.7	6,620.7	6,620.7	69.3	130.9	90.37	1,284.0	-5,004.5	2,767.9	2,568.1	199.75	13.857	
9,055.1	6,642.6	6,620.6	6,620.6	70.8	130.9	90.36	1,284.0	-5,004.5	2,713.8	2,512.6	201.26	13.484	
9,100.0	6,642.6	6,620.6	6,620.6	72.0	130.9	90.35	1,284.0	-5,004.5	2,669.8	2,467.3	202.48	13.185	
9,153.5	6,642.5	6,620.5	6,620.5	73.5	130.9	90.35	1,284.0	-5,004.5	2,617.4	2,413.4	203.95	12.833	
9,200.0	6,642.5	6,620.5	6,620.5	74.7	130.8	90.34	1,284.0	-5,004.5	2,571.9	2,366.6	205.22	12.532	
9,251.9	6,642.4	6,620.4	6,620.4	76.2	130.8	90.33	1,284.0	-5,004.5	2,521.0	2,314.4	206.65	12.200	
9,300.0	6,642.3	6,620.3	6,620.3	77.5	130.8	90.33	1,284.0	-5,004.5	2,474.1	2,266.1	207.97	11.896	
9,350.4	6,642.3	6,620.3	6,620.3	78.9	130.8	90.32	1,284.0	-5,004.5	2,424.9	2,215.5	209.35	11.583	
9,400.0	6,642.2	6,620.2	6,620.2	80.2	130.8	90.31	1,284.0	-5,004.5	2,376.5	2,165.8	210.72	11.278	
9,448.8	6,642.1	6,620.1	6,620.1	81.6	130.8	90.31	1,284.0	-5,004.5	2,328.9	2,116.9	212.06	10.982	
9,500.0	6,642.1	6,620.1	6,620.1	83.0	130.8	90.30	1,284.0	-5,004.5	2,279.1	2,065.6	213.47	10.676	
9,547.2	6,642.0	6,620.0	6,620.0	84.3	130.8	90.29	1,284.0	-5,004.5	2,233.2	2,018.4	214.77	10.398	
9,600.0	6,642.0	6,620.0	6,620.0	85.7	130.8	90.29	1,284.0	-5,004.5	2,181.9	1,965.7	216.23	10.091	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,619.9	6,619.9	87.0	130.8	90.28	1,284.0	-5,004.5	2,137.7	1,920.2	217.49	9.829	
9,700.0	6,641.8	6,619.8	6,619.8	88.5	130.8	90.27	1,284.0	-5,004.5	2,085.1	1,866.1	218.99	9.521	
9,744.1	6,641.8	6,619.8	6,619.8	89.7	130.8	90.27	1,284.0	-5,004.5	2,042.5	1,822.3	220.21	9.275	
9,800.0	6,641.7	6,619.7	6,619.7	91.2	130.8	90.26	1,284.0	-5,004.5	1,988.5	1,766.7	221.75	8.967	
9,842.5	6,641.7	6,619.7	6,619.7	92.4	130.8	90.25	1,284.0	-5,004.5	1,947.6	1,724.6	222.93	8.736	
9,900.0	6,641.6	6,619.6	6,619.6	94.0	130.8	90.25	1,284.0	-5,004.5	1,892.3	1,667.8	224.52	8.428	
9,940.9	6,641.5	6,619.5	6,619.5	95.1	130.8	90.24	1,284.0	-5,004.5	1,853.0	1,627.4	225.65	8.212	
10,000.0	6,641.5	6,619.5	6,619.5	96.7	130.8	90.23	1,284.0	-5,004.5	1,796.5	1,569.2	227.28	7.904	
10,039.3	6,641.4	6,619.4	6,619.4	97.8	130.8	90.23	1,284.0	-5,004.5	1,758.9	1,530.5	228.38	7.702	
10,100.0	6,641.3	6,619.3	6,619.3	99.5	130.8	90.22	1,284.0	-5,004.5	1,701.2	1,471.1	230.06	7.395	
10,137.8	6,641.3	6,619.3	6,619.3	100.6	130.8	90.21	1,284.0	-5,004.5	1,665.3	1,434.2	231.10	7.206	
10,200.0	6,641.2	6,619.2	6,619.2	102.3	130.8	90.21	1,284.0	-5,004.5	1,606.4	1,373.6	232.83	6.900	
10,236.2	6,641.2	6,619.2	6,619.2	103.3	130.8	90.20	1,284.0	-5,004.5	1,572.3	1,338.5	233.83	6.724	
10,300.0	6,641.1	6,619.1	6,619.1	105.0	130.8	90.19	1,284.0	-5,004.5	1,512.4	1,276.7	235.60	6.419	
10,334.6	6,641.0	6,619.0	6,619.0	106.0	130.8	90.19	1,284.0	-5,004.5	1,480.0	1,243.4	236.56	6.256	
10,400.0	6,641.0	6,619.0	6,619.0	107.8	130.8	90.18	1,284.0	-5,004.5	1,419.1	1,180.7	238.38	5.953	
10,433.0	6,640.9	6,618.9	6,618.9	108.7	130.8	90.18	1,284.0	-5,004.5	1,388.5	1,149.2	239.30	5.802	
10,500.0	6,640.8	6,618.8	6,618.8	110.6	130.8	90.17	1,284.0	-5,004.5	1,326.8	1,085.7	241.16	5.502	
10,531.5	6,640.8	6,618.8	6,618.8	111.5	130.8	90.16	1,284.0	-5,004.5	1,298.0	1,056.0	242.03	5.363	
10,600.0	6,640.7	6,618.7	6,618.7	113.4	130.8	90.15	1,284.0	-5,004.5	1,235.7	991.8	243.94	5.066	
10,629.9	6,640.7	6,618.7	6,618.7	114.2	130.8	90.15	1,284.0	-5,004.5	1,208.8	964.0	244.77	4.938	
10,700.0	6,640.6	6,618.6	6,618.6	116.1	130.8	90.14	1,284.0	-5,004.5	1,146.2	899.4	246.72	4.646	
10,728.3	6,640.5	6,618.5	6,618.5	116.9	130.8	90.14	1,284.0	-5,004.5	1,121.1	873.6	247.51	4.530	
10,800.0	6,640.5	6,618.5	6,618.5	118.9	130.8	90.13	1,284.0	-5,004.5	1,058.4	808.9	249.50	4.242	
10,826.7	6,640.4	6,618.4	6,618.4	119.7	130.8	90.12	1,284.0	-5,004.5	1,035.4	785.1	250.24	4.137	
10,900.0	6,640.3	6,618.3	6,618.3	121.7	130.8	90.11	1,284.0	-5,004.5	973.1	720.8	252.28	3.857	
10,925.2	6,640.3	6,618.3	6,618.3	122.4	130.8	90.11	1,284.0	-5,004.5	952.1	699.1	252.98	3.763	
11,000.0	6,640.2	6,618.2	6,618.2	124.5	130.8	90.10	1,284.0	-5,004.5	890.8	635.7	255.07	3.492	
11,023.6	6,640.2	6,618.2	6,618.2	125.1	130.8	90.10	1,284.0	-5,004.5	871.9	616.2	255.73	3.410	
11,100.0	6,640.1	6,618.1	6,618.1	127.3	130.8	90.08	1,284.0	-5,004.5	812.5	554.6	257.85	3.151	
11,122.0	6,640.0	6,618.0	6,618.0	127.9	130.8	90.08	1,284.0	-5,004.5	795.9	537.4	258.47	3.079	
11,200.0	6,639.9	6,617.9	6,617.9	130.1	130.8	90.07	1,284.0	-5,004.5	739.4	478.8	260.64	2.837	
11,220.4	6,639.9	6,617.9	6,617.9	130.6	130.8	90.07	1,284.0	-5,004.5	725.3	464.1	261.21	2.777	
11,300.0	6,639.8	6,617.8	6,617.8	132.8	130.8	90.06	1,284.0	-5,004.5	673.3	409.9	263.43	2.556	
11,318.9	6,639.8	6,617.8	6,617.8	133.4	130.8	90.05	1,284.0	-5,004.5	661.8	397.9	263.95	2.507	
11,400.0	6,639.7	6,617.7	6,617.7	135.6	130.8	90.04	1,284.0	-5,004.5	616.4	350.2	266.22	2.316	
11,417.3	6,639.7	6,617.7	6,617.7	136.1	130.8	90.04	1,284.0	-5,004.5	607.7	341.0	266.70	2.279	
11,500.0	6,639.6	6,617.6	6,617.6	138.4	130.8	90.03	1,284.0	-5,004.5	571.5	302.5	269.01	2.124	
11,515.7	6,639.5	6,617.5	6,617.5	138.9	130.8	90.03	1,284.0	-5,004.5	565.7	296.3	269.44	2.100	
11,600.0	6,639.4	6,617.4	6,617.4	141.2	130.8	90.02	1,284.0	-5,004.5	541.5	269.7	271.80	1.992	
11,614.1	6,639.4	6,617.4	6,617.4	141.6	130.8	90.01	1,284.0	-5,004.5	538.6	266.4	272.19	1.979	
11,700.0	6,639.3	6,617.3	6,617.3	144.0	130.8	90.00	1,284.0	-5,004.5	529.0	254.4	274.59	1.927	
11,712.6	6,639.3	6,617.3	6,617.3	144.3	130.8	90.00	1,284.0	-5,004.5	528.8	253.8	274.94	1.923	
11,716.9	6,639.3	6,617.3	6,617.3	144.5	130.8	90.00	1,284.0	-5,004.5	528.7	253.7	275.06	1.922 CC, ES, SF	
11,800.0	6,639.2	6,617.2	6,617.2	146.8	130.8	89.99	1,284.0	-5,004.5	535.2	257.8	277.38	1.930	
11,811.0	6,639.2	6,617.2	6,617.2	147.1	130.8	89.99	1,284.0	-5,004.5	537.0	259.4	277.69	1.934	
11,900.0	6,639.1	6,617.1	6,617.1	149.6	130.8	89.97	1,284.0	-5,004.5	559.5	279.4	280.17	1.997	
11,909.4	6,639.0	6,617.0	6,617.0	149.8	130.8	89.97	1,284.0	-5,004.5	562.7	282.3	280.43	2.007	
12,000.0	6,638.9	6,616.9	6,616.9	152.4	130.8	89.96	1,284.0	-5,004.5	599.8	316.8	282.96	2.120	
12,007.8	6,638.9	6,616.9	6,616.9	152.6	130.8	89.96	1,284.0	-5,004.5	603.5	320.3	283.18	2.131	
12,100.0	6,638.8	6,616.8	6,616.8	155.2	130.8	89.95	1,284.0	-5,004.5	652.9	367.2	285.76	2.285	
12,106.3	6,638.8	6,616.8	6,616.8	155.3	130.8	89.95	1,284.0	-5,004.5	656.6	370.7	285.93	2.296	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,200.0	6,638.7	6,616.7	6,616.7	157.9	130.8	89.93	1,284.0	-5,004.5	716.2	427.6	288.55	2.482	
12,204.7	6,638.7	6,616.7	6,616.7	158.1	130.8	89.93	1,284.0	-5,004.5	719.4	430.7	288.68	2.492	
12,300.0	6,638.5	6,616.5	6,616.5	160.7	130.8	89.92	1,284.0	-5,004.5	787.1	495.8	291.34	2.702	
12,303.1	6,638.5	6,616.5	6,616.5	160.8	130.8	89.92	1,284.0	-5,004.5	789.4	498.0	291.43	2.709	
12,400.0	6,638.4	6,616.4	6,616.4	163.5	130.8	89.91	1,284.0	-5,004.5	863.8	569.7	294.14	2.937	
12,401.5	6,638.4	6,616.4	6,616.4	163.6	130.8	89.90	1,284.0	-5,004.5	865.0	570.9	294.18	2.940	
12,500.0	6,638.3	6,616.3	6,616.3	166.3	130.8	89.89	1,284.0	-5,004.5	944.9	647.9	296.93	3.182	
12,598.4	6,638.2	6,616.2	6,616.2	169.1	130.8	89.88	1,284.0	-5,004.5	1,027.9	728.2	299.69	3.430	
12,600.0	6,638.2	6,616.2	6,616.2	169.1	130.8	89.88	1,284.0	-5,004.5	1,029.3	729.5	299.73	3.434	
12,696.8	6,638.0	6,616.0	6,616.0	171.8	130.8	89.86	1,284.0	-5,004.5	1,113.5	811.0	302.44	3.682	
12,700.0	6,638.0	6,616.0	6,616.0	171.9	130.8	89.86	1,284.0	-5,004.5	1,116.3	813.7	302.53	3.690	
12,795.2	6,637.9	6,615.9	6,615.9	174.6	130.8	89.85	1,284.0	-5,004.5	1,201.0	895.8	305.19	3.935	
12,800.0	6,637.9	6,615.9	6,615.9	174.7	130.8	89.85	1,284.0	-5,004.5	1,205.3	899.9	305.32	3.947	
12,893.7	6,637.8	6,615.8	6,615.8	177.3	130.8	89.84	1,284.0	-5,004.5	1,290.1	982.2	307.94	4.189	
12,900.0	6,637.8	6,615.8	6,615.8	177.5	130.8	89.83	1,284.0	-5,004.5	1,295.9	987.7	308.12	4.206	
12,992.1	6,637.7	6,615.7	6,615.7	180.1	130.8	89.82	1,284.0	-5,004.5	1,380.5	1,069.8	310.70	4.443	
13,000.0	6,637.6	6,615.6	6,615.6	180.3	130.8	89.82	1,284.0	-5,004.5	1,387.8	1,076.8	310.92	4.463	
13,090.5	6,637.5	6,615.5	6,615.5	182.8	130.7	89.81	1,284.0	-5,004.5	1,471.9	1,158.4	313.45	4.696	
13,100.0	6,637.5	6,615.5	6,615.5	183.1	130.7	89.81	1,284.0	-5,004.5	1,480.7	1,167.0	313.71	4.720	
13,188.9	6,637.4	6,615.4	6,615.4	185.6	130.7	89.79	1,284.0	-5,004.5	1,564.1	1,247.9	316.20	4.947	
13,200.0	6,637.4	6,615.4	6,615.4	185.9	130.7	89.79	1,284.0	-5,004.5	1,574.5	1,258.0	316.51	4.975	
13,287.4	6,637.3	6,615.3	6,615.3	188.4	130.7	89.78	1,284.0	-5,004.5	1,657.1	1,338.1	318.96	5.195	
13,300.0	6,637.3	6,615.3	6,615.3	188.7	130.7	89.78	1,284.0	-5,004.5	1,669.1	1,349.7	319.31	5.227	
13,385.8	6,637.1	6,615.1	6,615.1	191.1	130.7	89.77	1,284.0	-5,004.5	1,750.6	1,428.9	321.71	5.442	
13,400.0	6,637.1	6,615.1	6,615.1	191.5	130.7	89.76	1,284.0	-5,004.5	1,764.2	1,442.1	322.11	5.477	
13,484.2	6,637.0	6,615.0	6,615.0	193.9	130.7	89.75	1,284.0	-5,004.5	1,844.7	1,520.2	324.47	5.685	
13,500.0	6,637.0	6,615.0	6,615.0	194.3	130.7	89.75	1,284.0	-5,004.5	1,859.8	1,534.9	324.91	5.724	
13,582.6	6,636.9	6,614.9	6,614.9	196.6	130.7	89.74	1,284.0	-5,004.5	1,939.2	1,612.0	327.22	5.926	
13,600.0	6,636.9	6,614.9	6,614.9	197.1	130.7	89.74	1,284.0	-5,004.5	1,955.9	1,628.2	327.71	5.969	
13,681.1	6,636.8	6,614.8	6,614.8	199.4	130.7	89.72	1,284.0	-5,004.5	2,034.1	1,704.1	329.98	6.164	
13,700.0	6,636.7	6,614.7	6,614.7	199.9	130.7	89.72	1,284.0	-5,004.5	2,052.4	1,721.9	330.50	6.210	
13,779.5	6,636.6	6,614.6	6,614.6	202.1	130.7	89.71	1,284.0	-5,004.5	2,129.3	1,796.6	332.73	6.399	
13,800.0	6,636.6	6,614.6	6,614.6	202.7	130.7	89.71	1,284.0	-5,004.5	2,149.1	1,815.8	333.30	6.448	
13,877.9	6,636.5	6,614.5	6,614.5	204.9	130.7	89.70	1,284.0	-5,004.5	2,224.8	1,889.3	335.49	6.631	
13,900.0	6,636.5	6,614.5	6,614.5	205.5	130.7	89.69	1,284.0	-5,004.5	2,246.2	1,910.1	336.10	6.683	
13,976.3	6,636.4	6,614.4	6,614.4	207.6	130.7	89.68	1,284.0	-5,004.5	2,320.5	1,982.2	338.24	6.860	
14,000.0	6,636.3	6,614.3	6,614.3	208.3	130.7	89.68	1,284.0	-5,004.5	2,343.5	2,004.6	338.90	6.915	
14,074.8	6,636.3	6,614.3	6,614.3	210.4	130.7	89.67	1,284.0	-5,004.5	2,416.4	2,075.4	341.00	7.086	
14,100.0	6,636.2	6,614.2	6,614.2	211.1	130.7	89.66	1,284.0	-5,004.5	2,441.0	2,099.3	341.70	7.144	
14,173.2	6,636.1	6,614.1	6,614.1	213.2	130.7	89.65	1,284.0	-5,004.5	2,512.6	2,168.8	343.75	7.309	
14,200.0	6,636.1	6,614.1	6,614.1	213.9	130.7	89.65	1,284.0	-5,004.5	2,538.8	2,194.3	344.50	7.369	
14,271.6	6,636.0	6,614.0	6,614.0	215.9	130.7	89.64	1,284.0	-5,004.5	2,608.9	2,262.3	346.51	7.529	
14,300.0	6,636.0	6,614.0	6,614.0	216.7	130.7	89.63	1,284.0	-5,004.5	2,636.7	2,289.3	347.30	7.592	
14,370.0	6,635.9	6,613.9	6,613.9	218.7	130.7	89.63	1,284.0	-5,004.5	2,705.3	2,356.0	349.27	7.746	
14,400.0	6,635.8	6,613.8	6,613.8	219.5	130.7	89.62	1,284.0	-5,004.5	2,734.7	2,384.6	350.10	7.811	
14,468.5	6,635.7	6,613.7	6,613.7	221.4	130.7	89.61	1,284.0	-5,004.5	2,801.9	2,449.9	352.02	7.959	
14,500.0	6,635.7	6,613.7	6,613.7	222.3	130.7	89.61	1,284.0	-5,004.5	2,832.9	2,480.0	352.91	8.027	
14,566.9	6,635.6	6,613.6	6,613.6	224.2	130.7	89.60	1,284.0	-5,004.5	2,898.6	2,543.8	354.78	8.170	
14,600.0	6,635.6	6,613.6	6,613.6	225.1	130.7	89.59	1,284.0	-5,004.5	2,931.2	2,575.5	355.71	8.240	
14,665.3	6,635.5	6,613.5	6,613.5	226.9	130.7	89.58	1,284.0	-5,004.5	2,995.5	2,637.9	357.54	8.378	
14,700.0	6,635.4	6,613.4	6,613.4	227.9	130.7	89.58	1,284.0	-5,004.5	3,029.6	2,671.1	358.51	8.451	
14,763.7	6,635.4	6,613.4	6,613.4	229.7	130.7	89.57	1,284.0	-5,004.5	3,092.4	2,732.1	360.29	8.583	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS #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
14,800.0	6,635.3	6,613.3	6,613.3	230.7	130.7	89.56	1,284.0	-5,004.5	3,128.1	2,766.8	361.31	8.658	
14,862.2	6,635.2	6,613.2	6,613.2	232.5	130.7	89.55	1,284.0	-5,004.5	3,189.4	2,826.3	363.05	8.785	
14,900.0	6,635.2	6,613.2	6,613.2	233.5	130.7	89.55	1,284.0	-5,004.5	3,226.7	2,862.6	364.11	8.862	
14,960.6	6,635.1	6,613.1	6,613.1	235.2	130.7	89.54	1,284.0	-5,004.5	3,286.5	2,920.7	365.81	8.984	
15,000.0	6,635.0	6,613.0	6,613.0	236.3	130.7	89.53	1,284.0	-5,004.5	3,325.4	2,958.5	366.91	9.063	
15,033.1	6,635.0	6,613.0	6,613.0	237.3	130.7	89.53	1,284.0	-5,004.5	3,358.1	2,990.2	367.84	9.129	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-87.72	198.7	-4,984.6	4,988.7				
98.4	98.4	66.4	66.4	0.1	0.1	-87.72	198.7	-4,984.6	4,988.6	4,988.4	0.17	N/A	
100.0	100.0	68.0	68.0	0.1	0.1	-87.72	198.7	-4,984.6	4,988.6	4,988.4	0.17	N/A	
196.8	196.8	164.8	164.8	0.3	1.8	-87.72	198.7	-4,984.6	4,988.6	4,986.5	2.12	2,353.138	
200.0	200.0	168.0	168.0	0.3	1.9	-87.72	198.7	-4,984.6	4,988.6	4,986.4	2.21	2,257.759	
295.3	295.3	263.3	263.3	0.5	4.0	-87.72	198.7	-4,984.6	4,988.6	4,984.0	4.57	1,092.293	
300.0	300.0	268.0	268.0	0.5	4.1	-87.72	198.7	-4,984.6	4,988.6	4,983.9	4.68	1,067.034	
393.7	393.7	361.7	361.7	0.8	6.0	-87.72	198.7	-4,984.6	4,988.6	4,981.8	6.80	733.634	
400.0	400.0	368.0	368.0	0.8	6.2	-87.72	198.7	-4,984.6	4,988.6	4,981.6	6.94	718.609	
492.1	492.1	460.1	460.1	1.0	8.0	-87.72	198.7	-4,984.6	4,988.6	4,979.6	9.02	553.346	
500.0	500.0	468.0	468.0	1.0	8.2	-87.72	198.7	-4,984.6	4,988.6	4,979.4	9.19	542.693	
590.5	590.5	558.5	558.5	1.2	10.0	-87.72	198.7	-4,984.6	4,988.6	4,977.4	11.22	444.433	
600.0	600.0	568.0	568.0	1.2	10.2	-87.72	198.7	-4,984.6	4,988.6	4,977.2	11.44	436.196	
689.0	689.0	657.0	657.0	1.4	12.0	-87.72	198.7	-4,984.6	4,988.6	4,975.2	13.43	371.426	
700.0	700.0	668.0	668.0	1.4	12.2	-87.72	198.7	-4,984.6	4,988.6	4,974.9	13.68	364.718	
787.4	787.4	755.4	755.4	1.6	14.0	-87.72	198.7	-4,984.6	4,988.6	4,973.0	15.64	319.054	
800.0	800.0	768.0	768.0	1.7	14.2	-87.72	198.7	-4,984.6	4,988.6	4,972.7	15.92	313.399	
885.8	885.8	853.8	853.8	1.9	16.0	-87.72	198.7	-4,984.6	4,988.6	4,970.8	17.84	279.643	
900.0	900.0	868.0	868.0	1.9	16.3	-87.72	198.7	-4,984.6	4,988.6	4,970.4	18.16	274.756	
984.2	984.2	952.2	952.2	2.1	18.0	-87.72	198.7	-4,984.6	4,988.6	4,968.5	20.04	248.906	
1,000.0	1,000.0	968.0	968.0	2.1	18.3	-87.72	198.7	-4,984.6	4,988.6	4,968.2	20.39	244.605	
1,082.7	1,082.7	1,050.7	1,050.7	2.3	19.9	-114.72	198.7	-4,984.6	4,989.1	4,966.8	22.24	224.322	
1,100.0	1,100.0	1,068.0	1,068.0	2.3	20.3	-114.72	198.7	-4,984.6	4,989.3	4,966.7	22.63	220.503	
1,181.1	1,181.0	1,149.0	1,149.0	2.5	21.9	-114.73	198.7	-4,984.6	4,991.0	4,966.6	24.43	204.290	
1,200.0	1,199.8	1,167.8	1,167.8	2.6	22.3	-114.74	198.7	-4,984.6	4,991.5	4,966.7	24.85	200.864	
1,279.5	1,279.1	1,247.1	1,247.1	2.8	23.9	-114.76	198.7	-4,984.6	4,994.3	4,967.7	26.61	187.655	
1,300.0	1,299.5	1,267.5	1,267.5	2.8	24.3	-114.76	198.7	-4,984.6	4,995.2	4,968.1	27.07	184.548	
1,377.9	1,376.9	1,344.9	1,344.9	3.0	25.9	-114.79	198.7	-4,984.6	4,999.1	4,970.3	28.79	173.613	
1,400.0	1,398.7	1,366.7	1,366.7	3.0	26.3	-114.79	198.7	-4,984.6	5,000.3	4,971.0	29.28	170.771	
1,476.4	1,474.2	1,442.2	1,442.2	3.2	27.8	-114.82	198.7	-4,984.6	5,005.2	4,974.3	30.97	161.591	
1,500.0	1,497.5	1,465.5	1,465.5	3.3	28.3	-114.83	198.7	-4,984.6	5,006.9	4,975.4	31.50	158.970	
1,574.8	1,571.0	1,539.0	1,539.0	3.5	29.8	-114.87	198.7	-4,984.6	5,012.9	4,979.7	33.16	151.171	
1,600.0	1,595.6	1,563.6	1,563.6	3.6	30.3	-114.88	198.7	-4,984.6	5,015.1	4,981.4	33.72	148.737	
1,673.2	1,667.2	1,635.2	1,635.2	3.9	31.7	-115.04	198.7	-4,984.6	5,021.6	4,986.2	35.38	141.917	
1,700.0	1,693.4	1,661.4	1,661.4	4.0	32.2	-115.09	198.7	-4,984.6	5,024.0	4,988.0	35.99	139.582	
1,771.6	1,763.5	1,731.5	1,731.5	4.2	33.6	-115.24	198.7	-4,984.6	5,030.5	4,992.8	37.64	133.661	
1,800.0	1,791.3	1,759.3	1,759.3	4.3	34.2	-115.30	198.7	-4,984.6	5,033.0	4,994.8	38.29	131.460	
1,870.1	1,859.8	1,827.8	1,827.8	4.6	35.6	-115.45	198.7	-4,984.6	5,039.4	4,999.5	39.90	126.295	
1,900.0	1,889.1	1,857.1	1,857.1	4.7	36.2	-115.51	198.7	-4,984.6	5,042.1	5,001.5	40.59	124.218	
1,968.5	1,956.1	1,924.1	1,924.1	4.9	37.5	-115.66	198.7	-4,984.6	5,048.4	5,006.2	42.18	119.696	
2,000.0	1,986.9	1,954.9	1,954.9	5.1	38.1	-115.72	198.7	-4,984.6	5,051.3	5,008.4	42.91	117.729	
2,066.9	2,052.3	2,020.3	2,020.3	5.3	39.4	-115.86	198.7	-4,984.6	5,057.4	5,013.0	44.46	113.752	
2,100.0	2,084.7	2,052.7	2,052.7	5.5	40.1	-115.93	198.7	-4,984.6	5,060.5	5,015.3	45.23	111.887	
2,165.3	2,148.6	2,116.6	2,116.6	5.7	41.4	-116.07	198.7	-4,984.6	5,066.6	5,019.8	46.75	108.375	
2,200.0	2,182.5	2,150.5	2,150.5	5.9	42.1	-116.14	198.7	-4,984.6	5,069.8	5,022.2	47.56	106.605	
2,263.8	2,244.9	2,212.9	2,212.9	6.1	43.3	-116.27	198.7	-4,984.6	5,075.7	5,026.7	49.04	103.492	
2,300.0	2,280.3	2,248.3	2,248.3	6.3	44.0	-116.34	198.7	-4,984.6	5,079.1	5,029.3	49.89	101.808	
2,362.2	2,341.2	2,309.2	2,309.2	6.5	45.3	-116.47	198.7	-4,984.6	5,085.0	5,033.7	51.34	99.040	
2,400.0	2,378.1	2,346.1	2,346.1	6.7	46.0	-116.55	198.7	-4,984.6	5,088.6	5,036.3	52.23	97.434	
2,460.6	2,437.4	2,405.4	2,405.4	6.9	47.2	-116.67	198.7	-4,984.6	5,094.3	5,040.7	53.64	94.965	
2,500.0	2,476.0	2,444.0	2,444.0	7.1	48.0	-116.76	198.7	-4,984.6	5,098.1	5,043.5	54.57	93.431	
2,550.0	2,524.9	2,492.9	2,492.9	7.3	48.9	-116.86	198.7	-4,984.6	5,102.8	5,047.1	55.74	91.555	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,501.7	2,501.7	7.3	49.1	-116.02	198.7	-4,984.6	5,103.7	5,047.7	55.96	91.203	
2,600.0	2,573.8	2,541.8	2,541.8	7.5	49.9	-112.23	198.7	-4,984.6	5,107.2	5,050.3	56.97	89.650	
2,639.4	2,612.3	2,580.3	2,580.3	7.7	50.7	-108.60	198.7	-4,984.6	5,110.1	5,052.2	57.93	88.215	
2,657.5	2,630.0	2,598.0	2,598.0	7.7	51.1	-108.64	198.7	-4,984.6	5,111.4	5,053.0	58.35	87.596	
2,700.0	2,671.6	2,639.6	2,639.6	7.9	51.9	-108.73	198.7	-4,984.6	5,114.3	5,054.9	59.35	86.176	
2,755.9	2,726.3	2,694.3	2,694.3	8.1	53.0	-108.85	198.7	-4,984.6	5,118.1	5,057.4	60.67	84.365	
2,800.0	2,769.4	2,737.4	2,737.4	8.3	53.9	-108.94	198.7	-4,984.6	5,121.1	5,059.4	61.71	82.992	
2,854.3	2,822.5	2,790.5	2,790.5	8.5	54.9	-109.06	198.7	-4,984.6	5,124.8	5,061.9	62.99	81.361	
2,900.0	2,867.2	2,835.2	2,835.2	8.7	55.8	-109.16	198.7	-4,984.6	5,128.0	5,064.0	64.07	80.041	
2,952.7	2,918.8	2,886.8	2,886.8	9.0	56.9	-109.27	198.7	-4,984.6	5,131.7	5,066.4	65.31	78.570	
3,000.0	2,965.0	2,933.0	2,933.0	9.2	57.8	-109.37	198.7	-4,984.6	5,135.0	5,068.6	66.43	77.300	
3,051.2	3,015.1	2,983.1	2,983.1	9.4	58.8	-109.48	198.7	-4,984.6	5,138.6	5,071.0	67.64	75.971	
3,100.0	3,062.8	3,030.8	3,030.8	9.6	59.8	-109.59	198.7	-4,984.6	5,142.1	5,073.3	68.79	74.747	
3,149.6	3,111.4	3,079.4	3,079.4	9.8	60.7	-109.69	198.7	-4,984.6	5,145.6	5,075.7	69.97	73.545	
3,200.0	3,160.7	3,128.7	3,128.7	10.0	61.7	-109.80	198.7	-4,984.6	5,149.2	5,078.1	71.16	72.364	
3,248.0	3,207.6	3,175.6	3,175.6	10.2	62.7	-109.90	198.7	-4,984.6	5,152.7	5,080.4	72.29	71.275	
3,300.0	3,258.5	3,226.5	3,226.5	10.5	63.7	-110.02	198.7	-4,984.6	5,156.5	5,082.9	73.52	70.135	
3,346.4	3,303.9	3,271.9	3,271.9	10.7	64.6	-110.11	198.7	-4,984.6	5,159.8	5,085.2	74.62	69.148	
3,400.0	3,356.3	3,324.3	3,324.3	10.9	65.7	-110.23	198.7	-4,984.6	5,163.7	5,087.9	75.89	68.046	
3,444.9	3,400.2	3,368.2	3,368.2	11.1	66.6	-110.32	198.7	-4,984.6	5,167.0	5,090.1	76.95	67.150	
3,500.0	3,454.1	3,422.1	3,422.1	11.3	67.6	-110.44	198.7	-4,984.6	5,171.1	5,092.9	78.25	66.084	
3,543.3	3,496.5	3,464.5	3,464.5	11.5	68.5	-110.53	198.7	-4,984.6	5,174.3	5,095.0	79.28	65.270	
3,600.0	3,551.9	3,519.9	3,519.9	11.7	69.6	-110.65	198.7	-4,984.6	5,178.5	5,097.9	80.62	64.237	
3,641.7	3,592.7	3,560.7	3,560.7	11.9	70.4	-110.74	198.7	-4,984.6	5,181.7	5,100.1	81.60	63.499	
3,700.0	3,649.7	3,617.7	3,617.7	12.2	71.6	-110.86	198.7	-4,984.6	5,186.1	5,103.1	82.98	62.497	
3,740.1	3,689.0	3,657.0	3,657.0	12.4	72.4	-110.95	198.7	-4,984.6	5,189.1	5,105.2	83.93	61.827	
3,800.0	3,747.5	3,715.5	3,715.5	12.6	73.5	-111.07	198.7	-4,984.6	5,193.6	5,108.3	85.34	60.855	
3,838.6	3,785.3	3,753.3	3,753.3	12.8	74.3	-111.15	198.7	-4,984.6	5,196.6	5,110.3	86.26	60.245	
3,900.0	3,845.4	3,813.4	3,813.4	13.1	75.5	-111.28	198.7	-4,984.6	5,201.3	5,113.6	87.71	59.302	
3,937.0	3,881.6	3,849.6	3,849.6	13.2	76.2	-111.36	198.7	-4,984.6	5,204.2	5,115.6	88.58	58.748	
4,000.0	3,943.2	3,911.2	3,911.2	13.5	77.5	-111.49	198.7	-4,984.6	5,209.0	5,119.0	90.07	57.831	
4,035.4	3,977.8	3,945.8	3,945.8	13.6	78.2	-111.57	198.7	-4,984.6	5,211.8	5,120.9	90.91	57.329	
4,100.0	4,041.0	4,009.0	4,009.0	13.9	79.4	-111.70	198.7	-4,984.6	5,216.8	5,124.4	92.44	56.437	
4,133.8	4,074.1	4,042.1	4,042.1	14.1	80.1	-111.77	198.7	-4,984.6	5,219.5	5,126.2	93.24	55.981	
4,200.0	4,138.8	4,106.8	4,106.8	14.4	81.4	-111.91	198.7	-4,984.6	5,224.7	5,129.9	94.80	55.114	
4,232.3	4,170.4	4,138.4	4,138.4	14.5	82.0	-111.97	198.7	-4,984.6	5,227.3	5,131.7	95.56	54.701	
4,300.0	4,236.6	4,204.6	4,204.6	14.8	83.4	-112.12	198.7	-4,984.6	5,232.6	5,135.5	97.16	53.855	
4,330.7	4,266.7	4,234.7	4,234.7	14.9	84.0	-112.18	198.7	-4,984.6	5,235.1	5,137.2	97.89	53.481	
4,400.0	4,334.4	4,302.4	4,302.4	15.2	85.3	-112.32	198.7	-4,984.6	5,240.7	5,141.1	99.52	52.658	
4,429.1	4,362.9	4,330.9	4,330.9	15.4	85.9	-112.38	198.7	-4,984.6	5,243.0	5,142.8	100.21	52.320	
4,500.0	4,432.3	4,400.3	4,400.3	15.7	87.3	-112.53	198.7	-4,984.6	5,248.7	5,146.9	101.88	51.517	
4,527.5	4,459.2	4,427.2	4,427.2	15.8	87.9	-112.58	198.7	-4,984.6	5,251.0	5,148.4	102.53	51.212	
4,600.0	4,530.1	4,498.1	4,498.1	16.1	89.3	-112.73	198.7	-4,984.6	5,256.9	5,152.6	104.24	50.429	
4,626.0	4,555.5	4,523.5	4,523.5	16.2	89.8	-112.79	198.7	-4,984.6	5,259.0	5,154.2	104.86	50.154	
4,700.0	4,627.9	4,595.9	4,595.9	16.6	91.2	-112.94	198.7	-4,984.6	5,265.1	5,158.5	106.60	49.390	
4,724.4	4,651.7	4,619.7	4,619.7	16.7	91.7	-112.99	198.7	-4,984.6	5,267.1	5,159.9	107.18	49.143	
4,800.0	4,725.7	4,693.7	4,693.7	17.0	93.2	-113.14	198.7	-4,984.6	5,273.4	5,164.4	108.96	48.397	
4,822.8	4,748.0	4,716.0	4,716.0	17.1	93.7	-113.19	198.7	-4,984.6	5,275.3	5,165.8	109.50	48.176	
4,904.9	4,828.3	4,796.3	4,796.3	17.5	95.3	-113.36	198.7	-4,984.6	5,282.2	5,170.7	111.44	47.401	
4,921.2	4,844.3	4,812.3	4,812.3	17.5	95.6	-113.41	198.7	-4,984.6	5,283.5	5,171.7	111.83	47.247	
5,000.0	4,921.6	4,889.6	4,889.6	17.8	97.2	-113.67	198.7	-4,984.6	5,289.6	5,175.8	113.71	46.516	
5,019.7	4,941.0	4,909.0	4,909.0	17.9	97.5	-113.73	198.7	-4,984.6	5,290.9	5,176.8	114.17	46.342	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS #12-9 - 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	5,020.4	4,988.4	4,988.4	18.1	99.1	-113.94	198.7	-4,984.6	5,296.0	5,180.0	116.04	45.640	
5,118.1	5,038.3	5,006.3	5,006.3	18.2	99.5	-113.99	198.7	-4,984.6	5,297.0	5,180.6	116.45	45.486	
5,200.0	5,119.6	5,087.6	5,087.6	18.4	101.1	-114.16	198.7	-4,984.6	5,301.1	5,182.7	118.33	44.799	
5,216.5	5,136.0	5,104.0	5,104.0	18.4	101.5	-114.19	198.7	-4,984.6	5,301.8	5,183.1	118.70	44.664	
5,300.0	5,219.2	5,187.2	5,187.2	18.6	103.1	-114.31	198.7	-4,984.6	5,304.7	5,184.2	120.58	43.993	
5,314.9	5,234.1	5,202.1	5,202.1	18.6	103.4	-114.33	198.7	-4,984.6	5,305.2	5,184.2	120.91	43.876	
5,400.0	5,319.1	5,287.1	5,287.1	18.8	105.1	-114.40	198.7	-4,984.6	5,307.0	5,184.2	122.79	43.221	
5,413.4	5,332.4	5,300.4	5,300.4	18.8	105.4	-114.41	198.7	-4,984.6	5,307.2	5,184.1	123.07	43.122	
5,504.9	5,423.9	5,391.9	5,391.9	18.9	107.3	-96.02	198.7	-4,984.6	5,307.8	5,186.0	121.75	43.595	
5,511.8	5,430.8	5,398.8	5,398.8	18.9	107.4	-96.02	198.7	-4,984.6	5,307.8	5,185.9	121.90	43.542	
5,600.0	5,519.0	5,487.0	5,487.0	19.0	109.2	-96.02	198.7	-4,984.6	5,307.8	5,183.9	123.82	42.868	
5,610.2	5,529.3	5,497.3	5,497.3	19.0	109.4	-96.02	198.7	-4,984.6	5,307.8	5,183.7	124.04	42.790	
5,700.0	5,619.0	5,587.0	5,587.0	19.2	111.2	-96.02	198.7	-4,984.6	5,307.8	5,181.7	126.01	42.122	
5,708.6	5,627.7	5,595.7	5,595.7	19.2	111.3	-96.02	198.7	-4,984.6	5,307.8	5,181.6	126.20	42.059	
5,800.0	5,719.0	5,687.0	5,687.0	19.3	113.2	-96.02	198.7	-4,984.6	5,307.8	5,179.6	128.20	41.402	
5,807.1	5,726.1	5,694.1	5,694.1	19.3	113.3	-96.02	198.7	-4,984.6	5,307.8	5,179.4	128.36	41.352	
5,900.0	5,819.0	5,787.0	5,787.0	19.4	115.2	-96.02	198.7	-4,984.6	5,307.8	5,177.4	130.39	40.705	
5,905.5	5,824.5	5,792.5	5,792.5	19.4	115.3	-96.02	198.7	-4,984.6	5,307.8	5,177.2	130.51	40.668	
6,003.9	5,923.0	5,891.0	5,891.0	19.6	117.3	-96.02	198.7	-4,984.6	5,307.8	5,175.1	132.68	40.006	
6,009.8	5,928.8	5,896.8	5,896.8	19.6	117.4	-96.02	198.7	-4,984.6	5,307.8	5,175.0	132.80	39.967	
6,050.0	5,969.0	5,937.0	5,937.0	19.6	118.2	-6.03	198.7	-4,984.6	5,306.6	5,170.1	136.54	38.864	
6,100.0	6,018.8	5,986.8	5,986.8	19.7	119.2	-6.07	198.7	-4,984.6	5,302.1	5,165.4	136.71	38.783	
6,102.3	6,021.1	5,989.1	5,989.1	19.7	119.3	-6.08	198.7	-4,984.6	5,301.8	5,165.1	136.70	38.783	
6,150.0	6,068.1	6,036.1	6,036.1	19.7	120.2	-6.15	198.7	-4,984.6	5,294.1	5,157.9	136.21	38.868	
6,200.0	6,116.8	6,084.8	6,084.8	19.7	121.2	-6.27	198.7	-4,984.6	5,282.8	5,147.8	135.02	39.127	
6,200.8	6,117.5	6,085.5	6,085.5	19.7	121.2	-6.27	198.7	-4,984.6	5,282.6	5,147.6	134.99	39.132	
6,250.0	6,164.5	6,132.5	6,132.5	19.7	122.1	-6.42	198.7	-4,984.6	5,268.1	5,134.9	133.14	39.569	
6,299.2	6,210.4	6,178.4	6,178.4	19.7	123.1	-6.61	198.7	-4,984.6	5,250.4	5,119.8	130.62	40.197	
6,300.0	6,211.1	6,179.1	6,179.1	19.7	123.1	-6.62	198.7	-4,984.6	5,250.1	5,119.5	130.57	40.209	
6,350.0	6,256.4	6,224.4	6,224.4	19.7	124.0	-6.86	198.7	-4,984.6	5,228.9	5,101.6	127.33	41.067	
6,397.6	6,298.0	6,266.0	6,266.0	19.7	124.8	-7.15	198.7	-4,984.6	5,205.9	5,082.2	123.62	42.110	
6,400.0	6,300.0	6,268.0	6,268.0	19.7	124.9	-7.17	198.7	-4,984.6	5,204.6	5,081.2	123.42	42.169	
6,450.0	6,341.8	6,309.8	6,309.8	19.7	125.7	-7.54	198.7	-4,984.6	5,177.4	5,058.5	118.89	43.549	
6,496.0	6,378.6	6,346.6	6,346.6	19.7	126.4	-7.95	198.7	-4,984.6	5,149.8	5,035.6	114.18	45.102	
6,500.0	6,381.6	6,349.6	6,349.6	19.7	126.5	-7.99	198.7	-4,984.6	5,147.3	5,033.6	113.76	45.249	
6,550.0	6,419.2	6,387.2	6,387.2	19.6	127.3	-8.54	198.7	-4,984.6	5,114.6	5,006.5	108.08	47.321	
6,594.5	6,450.7	6,418.7	6,418.7	19.6	127.9	-9.14	198.7	-4,984.6	5,083.3	4,980.7	102.65	49.522	
6,600.0	6,454.4	6,422.4	6,422.4	19.6	128.0	-9.22	198.7	-4,984.6	5,079.3	4,977.4	101.95	49.821	
6,650.0	6,487.1	6,455.1	6,455.1	19.6	128.6	-10.06	198.7	-4,984.6	5,041.7	4,946.2	95.47	52.810	
6,692.9	6,513.0	6,481.0	6,481.0	19.6	129.2	-10.94	198.7	-4,984.6	5,007.7	4,917.9	89.76	55.789	
6,700.0	6,517.0	6,485.0	6,485.0	19.6	129.2	-11.11	198.7	-4,984.6	5,001.9	4,913.1	88.81	56.320	
6,750.0	6,544.1	6,512.1	6,512.1	19.6	129.8	-12.44	198.7	-4,984.6	4,960.2	4,877.9	82.26	60.299	
6,791.3	6,564.2	6,532.2	6,532.2	19.7	130.2	-13.85	198.7	-4,984.6	4,924.3	4,847.1	77.23	63.761	
6,800.0	6,568.2	6,536.2	6,536.2	19.7	130.3	-14.19	198.7	-4,984.6	4,916.6	4,840.3	76.28	64.457	
6,850.0	6,589.1	6,557.1	6,557.1	19.8	130.7	-16.54	198.7	-4,984.6	4,871.5	4,799.8	71.69	67.952	
6,889.7	6,603.5	6,571.5	6,571.5	19.9	131.0	-19.06	198.7	-4,984.6	4,834.7	4,764.8	69.96	69.107	
6,900.0	6,606.9	6,574.9	6,574.9	19.9	131.0	-19.83	198.7	-4,984.6	4,825.1	4,755.2	69.92	69.004	
6,950.0	6,621.3	6,589.3	6,589.3	20.2	131.3	-24.69	198.7	-4,984.6	4,777.6	4,704.3	73.29	65.183	
6,988.2	6,630.0	6,598.0	6,598.0	20.6	131.5	-30.19	198.7	-4,984.6	4,740.7	4,659.3	81.33	58.288	
7,000.0	6,632.4	6,600.4	6,600.4	20.7	131.6	-32.36	198.7	-4,984.6	4,729.1	4,644.1	85.08	55.587	
7,050.0	6,640.0	6,608.0	6,608.0	21.4	131.7	-45.41	198.7	-4,984.6	4,680.1	4,571.3	108.83	43.003	
7,086.6	6,643.4	6,611.4	6,611.4	21.9	131.8	-60.89	198.7	-4,984.6	4,643.9	4,511.0	132.95	34.931	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,612.2	6,612.2	22.1	131.8	-68.16	198.7	-4,984.6	4,630.6	4,489.2	141.42	32.743	
7,135.7	6,645.0	6,613.0	6,613.0	22.7	131.8	-90.57	198.7	-4,984.6	4,595.3	4,441.7	153.60	29.918	
7,185.0	6,644.9	6,612.9	6,612.9	23.6	131.8	-90.57	198.7	-4,984.6	4,546.2	4,391.7	154.55	29.415	
7,200.0	6,644.9	6,612.9	6,612.9	23.9	131.8	-90.56	198.7	-4,984.6	4,531.4	4,376.5	154.85	29.264	
7,283.4	6,644.8	6,612.8	6,612.8	25.6	131.8	-90.55	198.7	-4,984.6	4,448.6	4,292.0	156.57	28.412	
7,300.0	6,644.8	6,612.8	6,612.8	25.9	131.8	-90.55	198.7	-4,984.6	4,432.2	4,275.2	156.91	28.246	
7,381.9	6,644.7	6,612.7	6,612.7	27.7	131.8	-90.54	198.7	-4,984.6	4,350.9	4,192.2	158.72	27.413	
7,400.0	6,644.7	6,612.7	6,612.7	28.1	131.8	-90.54	198.7	-4,984.6	4,333.0	4,173.9	159.12	27.232	
7,480.3	6,644.6	6,612.6	6,612.6	29.9	131.8	-90.53	198.7	-4,984.6	4,253.3	4,092.4	160.97	26.423	
7,500.0	6,644.6	6,612.6	6,612.6	30.3	131.8	-90.53	198.7	-4,984.6	4,233.8	4,072.4	161.43	26.227	
7,578.7	6,644.5	6,612.5	6,612.5	32.2	131.8	-90.52	198.7	-4,984.6	4,155.8	3,992.5	163.31	25.447	
7,600.0	6,644.4	6,612.4	6,612.4	32.7	131.8	-90.52	198.7	-4,984.6	4,134.7	3,970.9	163.82	25.240	
7,677.1	6,644.3	6,612.3	6,612.3	34.6	131.8	-90.51	198.7	-4,984.6	4,058.3	3,892.6	165.71	24.490	
7,700.0	6,644.3	6,612.3	6,612.3	35.1	131.8	-90.50	198.7	-4,984.6	4,035.6	3,869.4	166.27	24.271	
7,775.6	6,644.2	6,612.2	6,612.2	37.0	131.8	-90.49	198.7	-4,984.6	3,960.8	3,792.6	168.16	23.553	
7,800.0	6,644.2	6,612.2	6,612.2	37.6	131.8	-90.49	198.7	-4,984.6	3,936.6	3,767.8	168.78	23.325	
7,874.0	6,644.1	6,612.1	6,612.1	39.5	131.8	-90.48	198.7	-4,984.6	3,863.4	3,692.7	170.66	22.638	
7,900.0	6,644.1	6,612.1	6,612.1	40.1	131.8	-90.48	198.7	-4,984.6	3,837.7	3,666.3	171.32	22.400	
7,972.4	6,644.0	6,612.0	6,612.0	42.0	131.8	-90.47	198.7	-4,984.6	3,766.0	3,592.8	173.19	21.745	
8,000.0	6,643.9	6,611.9	6,611.9	42.7	131.8	-90.47	198.7	-4,984.6	3,738.7	3,564.8	173.90	21.499	
8,070.8	6,643.9	6,611.9	6,611.9	44.5	131.8	-90.46	198.7	-4,984.6	3,668.7	3,492.9	175.75	20.875	
8,100.0	6,643.8	6,611.8	6,611.8	45.2	131.8	-90.46	198.7	-4,984.6	3,639.9	3,463.4	176.51	20.622	
8,169.3	6,643.7	6,611.7	6,611.7	47.0	131.8	-90.45	198.7	-4,984.6	3,571.4	3,393.1	178.33	20.027	
8,200.0	6,643.7	6,611.7	6,611.7	47.9	131.8	-90.44	198.7	-4,984.6	3,541.1	3,362.0	179.14	19.768	
8,267.7	6,643.6	6,611.6	6,611.6	49.6	131.8	-90.43	198.7	-4,984.6	3,474.2	3,293.3	180.93	19.202	
8,300.0	6,643.6	6,611.6	6,611.6	50.5	131.8	-90.43	198.7	-4,984.6	3,442.4	3,260.6	181.78	18.937	
8,366.1	6,643.5	6,611.5	6,611.5	52.2	131.8	-90.42	198.7	-4,984.6	3,377.1	3,193.6	183.55	18.399	
8,400.0	6,643.4	6,611.4	6,611.4	53.1	131.8	-90.42	198.7	-4,984.6	3,343.7	3,159.3	184.45	18.128	
8,464.5	6,643.4	6,611.4	6,611.4	54.8	131.8	-90.41	198.7	-4,984.6	3,280.1	3,093.9	186.18	17.618	
8,500.0	6,643.3	6,611.3	6,611.3	55.8	131.8	-90.41	198.7	-4,984.6	3,245.2	3,058.0	187.13	17.342	
8,563.0	6,643.2	6,611.2	6,611.2	57.5	131.8	-90.40	198.7	-4,984.6	3,183.1	2,994.3	188.82	16.858	
8,600.0	6,643.2	6,611.2	6,611.2	58.5	131.8	-90.39	198.7	-4,984.6	3,146.7	2,956.9	189.82	16.577	
8,661.4	6,643.1	6,611.1	6,611.1	60.1	131.8	-90.39	198.7	-4,984.6	3,086.3	2,894.8	191.48	16.118	
8,700.0	6,643.1	6,611.1	6,611.1	61.2	131.8	-90.38	198.7	-4,984.6	3,048.3	2,855.8	192.52	15.833	
8,759.8	6,643.0	6,611.0	6,611.0	62.8	131.8	-90.37	198.7	-4,984.6	2,989.5	2,795.4	194.15	15.398	
8,800.0	6,643.0	6,611.0	6,611.0	63.9	131.8	-90.37	198.7	-4,984.6	2,950.1	2,754.8	195.24	15.110	
8,858.2	6,642.9	6,610.9	6,610.9	65.4	131.8	-90.36	198.7	-4,984.6	2,892.9	2,696.1	196.82	14.698	
8,900.0	6,642.8	6,610.8	6,610.8	66.6	131.8	-90.36	198.7	-4,984.6	2,851.9	2,654.0	197.96	14.407	
8,956.7	6,642.8	6,610.8	6,610.8	68.1	131.8	-90.35	198.7	-4,984.6	2,796.4	2,596.9	199.50	14.017	
9,000.0	6,642.7	6,610.7	6,610.7	69.3	131.8	-90.34	198.7	-4,984.6	2,753.9	2,553.2	200.68	13.723	
9,055.1	6,642.6	6,610.6	6,610.6	70.8	131.8	-90.34	198.7	-4,984.6	2,700.0	2,497.8	202.19	13.354	
9,100.0	6,642.6	6,610.6	6,610.6	72.0	131.8	-90.33	198.7	-4,984.6	2,656.0	2,452.6	203.42	13.057	
9,153.5	6,642.5	6,610.5	6,610.5	73.5	131.8	-90.33	198.7	-4,984.6	2,603.7	2,398.9	204.88	12.709	
9,200.0	6,642.5	6,610.5	6,610.5	74.7	131.8	-90.32	198.7	-4,984.6	2,558.4	2,352.2	206.15	12.410	
9,251.9	6,642.4	6,610.4	6,610.4	76.2	131.8	-90.31	198.7	-4,984.6	2,507.7	2,300.1	207.58	12.081	
9,300.0	6,642.3	6,610.3	6,610.3	77.5	131.8	-90.31	198.7	-4,984.6	2,460.8	2,251.9	208.90	11.780	
9,350.4	6,642.3	6,610.3	6,610.3	78.9	131.8	-90.30	198.7	-4,984.6	2,411.8	2,201.5	210.28	11.469	
9,400.0	6,642.2	6,610.2	6,610.2	80.2	131.8	-90.29	198.7	-4,984.6	2,363.5	2,151.9	211.65	11.167	
9,448.8	6,642.1	6,610.1	6,610.1	81.6	131.8	-90.29	198.7	-4,984.6	2,316.1	2,103.2	212.99	10.874	
9,500.0	6,642.1	6,610.1	6,610.1	83.0	131.7	-90.28	198.7	-4,984.6	2,266.5	2,052.1	214.40	10.571	
9,547.2	6,642.0	6,610.0	6,610.0	84.3	131.7	-90.28	198.7	-4,984.6	2,220.7	2,005.0	215.70	10.295	
9,600.0	6,642.0	6,610.0	6,610.0	85.7	131.7	-90.27	198.7	-4,984.6	2,169.7	1,952.5	217.15	9.991	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,609.9	6,609.9	87.0	131.7	-90.26	198.7	-4,984.6	2,125.6	1,907.2	218.41	9.732	
9,700.0	6,641.8	6,609.8	6,609.8	88.5	131.7	-90.26	198.7	-4,984.6	2,073.2	1,853.3	219.91	9.427	
9,744.1	6,641.8	6,609.8	6,609.8	89.7	131.7	-90.25	198.7	-4,984.6	2,030.8	1,809.6	221.13	9.184	
9,800.0	6,641.7	6,609.7	6,609.7	91.2	131.7	-90.24	198.7	-4,984.6	1,977.0	1,754.4	222.68	8.879	
9,842.5	6,641.7	6,609.7	6,609.7	92.4	131.7	-90.24	198.7	-4,984.6	1,936.3	1,712.4	223.85	8.650	
9,900.0	6,641.6	6,609.6	6,609.6	94.0	131.7	-90.23	198.7	-4,984.6	1,881.3	1,655.9	225.44	8.345	
9,940.9	6,641.5	6,609.5	6,609.5	95.1	131.7	-90.23	198.7	-4,984.6	1,842.2	1,615.7	226.57	8.131	
10,000.0	6,641.5	6,609.5	6,609.5	96.7	131.7	-90.22	198.7	-4,984.6	1,786.0	1,557.8	228.21	7.826	
10,039.3	6,641.4	6,609.4	6,609.4	97.8	131.7	-90.21	198.7	-4,984.6	1,748.7	1,519.4	229.30	7.626	
10,100.0	6,641.3	6,609.3	6,609.3	99.5	131.7	-90.21	198.7	-4,984.6	1,691.3	1,460.3	230.98	7.322	
10,137.8	6,641.3	6,609.3	6,609.3	100.6	131.7	-90.20	198.7	-4,984.6	1,655.7	1,423.6	232.02	7.136	
10,200.0	6,641.2	6,609.2	6,609.2	102.3	131.7	-90.19	198.7	-4,984.6	1,597.2	1,363.4	233.75	6.833	
10,236.2	6,641.2	6,609.2	6,609.2	103.3	131.7	-90.19	198.7	-4,984.6	1,563.3	1,328.6	234.75	6.659	
10,300.0	6,641.1	6,609.1	6,609.1	105.0	131.7	-90.18	198.7	-4,984.6	1,503.9	1,267.3	236.52	6.358	
10,334.6	6,641.0	6,609.0	6,609.0	106.0	131.7	-90.18	198.7	-4,984.6	1,471.8	1,234.3	237.48	6.197	
10,400.0	6,641.0	6,609.0	6,609.0	107.8	131.7	-90.17	198.7	-4,984.6	1,411.4	1,172.2	239.30	5.898	
10,433.0	6,640.9	6,608.9	6,608.9	108.7	131.7	-90.16	198.7	-4,984.6	1,381.1	1,140.9	240.22	5.750	
10,500.0	6,640.8	6,608.8	6,608.8	110.6	131.7	-90.16	198.7	-4,984.6	1,320.1	1,078.1	242.08	5.453	
10,531.5	6,640.8	6,608.8	6,608.8	111.5	131.7	-90.15	198.7	-4,984.6	1,291.7	1,048.7	242.95	5.317	
10,600.0	6,640.7	6,608.7	6,608.7	113.4	131.7	-90.14	198.7	-4,984.6	1,230.2	985.3	244.85	5.024	
10,629.9	6,640.7	6,608.7	6,608.7	114.2	131.7	-90.14	198.7	-4,984.6	1,203.6	957.9	245.69	4.899	
10,700.0	6,640.6	6,608.6	6,608.6	116.1	131.7	-90.13	198.7	-4,984.6	1,141.9	894.3	247.63	4.611	
10,728.3	6,640.5	6,608.5	6,608.5	116.9	131.7	-90.13	198.7	-4,984.6	1,117.3	868.8	248.42	4.497	
10,800.0	6,640.5	6,608.5	6,608.5	118.9	131.7	-90.12	198.7	-4,984.6	1,055.7	805.3	250.42	4.216	
10,826.7	6,640.4	6,608.4	6,608.4	119.7	131.7	-90.11	198.7	-4,984.6	1,033.1	781.9	251.16	4.113	
10,900.0	6,640.3	6,608.3	6,608.3	121.7	131.7	-90.10	198.7	-4,984.6	972.2	719.0	253.20	3.840	
10,925.2	6,640.3	6,608.3	6,608.3	122.4	131.7	-90.10	198.7	-4,984.6	951.6	697.7	253.90	3.748	
11,000.0	6,640.2	6,608.2	6,608.2	124.5	131.7	-90.09	198.7	-4,984.6	892.0	636.0	255.98	3.485	
11,023.6	6,640.2	6,608.2	6,608.2	125.1	131.7	-90.09	198.7	-4,984.6	873.7	617.1	256.64	3.404	
11,100.0	6,640.1	6,608.1	6,608.1	127.3	131.7	-90.08	198.7	-4,984.6	816.3	557.5	258.77	3.154	
11,122.0	6,640.0	6,608.0	6,608.0	127.9	131.7	-90.07	198.7	-4,984.6	800.3	540.9	259.38	3.085	
11,200.0	6,639.9	6,607.9	6,607.9	130.1	131.7	-90.06	198.7	-4,984.6	746.2	484.7	261.55	2.853	
11,220.4	6,639.9	6,607.9	6,607.9	130.6	131.7	-90.06	198.7	-4,984.6	732.8	470.6	262.12	2.795	
11,300.0	6,639.8	6,607.8	6,607.8	132.8	131.7	-90.05	198.7	-4,984.6	683.7	419.4	264.34	2.586	
11,318.9	6,639.8	6,607.8	6,607.8	133.4	131.7	-90.05	198.7	-4,984.6	672.9	408.0	264.87	2.541	
11,400.0	6,639.7	6,607.7	6,607.7	135.6	131.7	-90.04	198.7	-4,984.6	630.9	363.8	267.13	2.362	
11,417.3	6,639.7	6,607.7	6,607.7	136.1	131.7	-90.04	198.7	-4,984.6	622.9	355.3	267.61	2.328	
11,500.0	6,639.6	6,607.6	6,607.6	138.4	131.7	-90.03	198.7	-4,984.6	590.4	320.5	269.92	2.187	
11,515.7	6,639.5	6,607.5	6,607.5	138.9	131.7	-90.02	198.7	-4,984.6	585.4	315.0	270.35	2.165	
11,600.0	6,639.4	6,607.4	6,607.4	141.2	131.7	-90.01	198.7	-4,984.6	565.0	292.3	272.70	2.072	
11,614.1	6,639.4	6,607.4	6,607.4	141.6	131.7	-90.01	198.7	-4,984.6	562.7	289.6	273.10	2.060	
11,697.1	6,639.3	6,607.3	6,607.3	143.9	131.7	-90.00	198.7	-4,984.6	556.6	281.1	275.41	2.021 CC	
11,700.0	6,639.3	6,607.3	6,607.3	144.0	131.7	-90.00	198.7	-4,984.6	556.6	281.1	275.49	2.020	
11,712.6	6,639.3	6,607.3	6,607.3	144.3	131.7	-90.00	198.7	-4,984.6	556.8	280.9	275.85	2.018 ES, SF	
11,800.0	6,639.2	6,607.2	6,607.2	146.8	131.7	-89.99	198.7	-4,984.6	566.0	287.7	278.28	2.034	
11,811.0	6,639.2	6,607.2	6,607.2	147.1	131.7	-89.99	198.7	-4,984.6	568.1	289.5	278.59	2.039	
11,900.0	6,639.1	6,607.1	6,607.1	149.6	131.7	-89.97	198.7	-4,984.6	592.4	311.3	281.08	2.108	
11,909.4	6,639.0	6,607.0	6,607.0	149.8	131.7	-89.97	198.7	-4,984.6	595.7	314.3	281.34	2.117	
12,000.0	6,638.9	6,606.9	6,606.9	152.4	131.7	-89.96	198.7	-4,984.6	633.6	349.8	283.87	2.232	
12,007.8	6,638.9	6,606.9	6,606.9	152.6	131.7	-89.96	198.7	-4,984.6	637.4	353.3	284.09	2.244	
12,100.0	6,638.8	6,606.8	6,606.8	155.2	131.7	-89.95	198.7	-4,984.6	687.1	400.4	286.66	2.397	
12,106.3	6,638.8	6,606.8	6,606.8	155.3	131.7	-89.95	198.7	-4,984.6	690.8	403.9	286.84	2.408	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,200.0	6,638.7	6,606.7	6,606.7	157.9	131.7	-89.93	198.7	-4,984.6	750.1	460.7	289.45	2.591	
12,204.7	6,638.7	6,606.7	6,606.7	158.1	131.7	-89.93	198.7	-4,984.6	753.3	463.7	289.58	2.601	
12,300.0	6,638.5	6,606.5	6,606.5	160.7	131.7	-89.92	198.7	-4,984.6	820.5	528.3	292.25	2.808	
12,303.1	6,638.5	6,606.5	6,606.5	160.8	131.7	-89.92	198.7	-4,984.6	822.8	530.5	292.33	2.815	
12,400.0	6,638.4	6,606.4	6,606.4	163.5	131.7	-89.91	198.7	-4,984.6	896.6	601.5	295.04	3.039	
12,401.5	6,638.4	6,606.4	6,606.4	163.6	131.7	-89.91	198.7	-4,984.6	897.8	602.7	295.08	3.042	
12,500.0	6,638.3	6,606.3	6,606.3	166.3	131.7	-89.89	198.7	-4,984.6	976.9	679.1	297.83	3.280	
12,598.4	6,638.2	6,606.2	6,606.2	169.1	131.7	-89.88	198.7	-4,984.6	1,059.3	758.7	300.58	3.524	
12,600.0	6,638.2	6,606.2	6,606.2	169.1	131.7	-89.88	198.7	-4,984.6	1,060.7	760.0	300.63	3.528	
12,696.8	6,638.0	6,606.0	6,606.0	171.8	131.7	-89.87	198.7	-4,984.6	1,144.2	840.9	303.34	3.772	
12,700.0	6,638.0	6,606.0	6,606.0	171.9	131.7	-89.87	198.7	-4,984.6	1,147.0	843.6	303.42	3.780	
12,795.2	6,637.9	6,605.9	6,605.9	174.6	131.7	-89.85	198.7	-4,984.6	1,231.1	925.1	306.09	4.022	
12,800.0	6,637.9	6,605.9	6,605.9	174.7	131.7	-89.85	198.7	-4,984.6	1,235.4	929.2	306.22	4.034	
12,893.7	6,637.8	6,605.8	6,605.8	177.3	131.7	-89.84	198.7	-4,984.6	1,319.7	1,010.8	308.84	4.273	
12,900.0	6,637.8	6,605.8	6,605.8	177.5	131.7	-89.84	198.7	-4,984.6	1,325.4	1,016.4	309.02	4.289	
12,992.1	6,637.7	6,605.7	6,605.7	180.1	131.7	-89.83	198.7	-4,984.6	1,409.5	1,097.9	311.59	4.524	
13,000.0	6,637.6	6,605.6	6,605.6	180.3	131.7	-89.83	198.7	-4,984.6	1,416.8	1,105.0	311.81	4.544	
13,090.5	6,637.5	6,605.5	6,605.5	182.8	131.7	-89.82	198.7	-4,984.6	1,500.5	1,186.1	314.34	4.773	
13,100.0	6,637.5	6,605.5	6,605.5	183.1	131.7	-89.81	198.7	-4,984.6	1,509.3	1,194.7	314.61	4.797	
13,188.9	6,637.4	6,605.4	6,605.4	185.6	131.7	-89.80	198.7	-4,984.6	1,592.3	1,275.2	317.10	5.021	
13,200.0	6,637.4	6,605.4	6,605.4	185.9	131.7	-89.80	198.7	-4,984.6	1,602.6	1,285.2	317.41	5.049	
13,287.4	6,637.3	6,605.3	6,605.3	188.4	131.7	-89.79	198.7	-4,984.6	1,684.9	1,365.0	319.85	5.268	
13,300.0	6,637.3	6,605.3	6,605.3	188.7	131.7	-89.79	198.7	-4,984.6	1,696.8	1,376.6	320.20	5.299	
13,385.8	6,637.1	6,605.1	6,605.1	191.1	131.6	-89.78	198.7	-4,984.6	1,778.1	1,455.5	322.60	5.512	
13,400.0	6,637.1	6,605.1	6,605.1	191.5	131.6	-89.77	198.7	-4,984.6	1,791.5	1,468.5	323.00	5.547	
13,484.2	6,637.0	6,605.0	6,605.0	193.9	131.6	-89.76	198.7	-4,984.6	1,871.8	1,546.4	325.36	5.753	
13,500.0	6,637.0	6,605.0	6,605.0	194.3	131.6	-89.76	198.7	-4,984.6	1,886.9	1,561.1	325.80	5.791	
13,582.6	6,636.9	6,604.9	6,604.9	196.6	131.6	-89.75	198.7	-4,984.6	1,966.0	1,637.9	328.11	5.992	
13,600.0	6,636.9	6,604.9	6,604.9	197.1	131.6	-89.75	198.7	-4,984.6	1,982.6	1,654.0	328.60	6.034	
13,681.1	6,636.8	6,604.8	6,604.8	199.4	131.6	-89.74	198.7	-4,984.6	2,060.6	1,729.7	330.86	6.228	
13,700.0	6,636.7	6,604.7	6,604.7	199.9	131.6	-89.73	198.7	-4,984.6	2,078.8	1,747.4	331.39	6.273	
13,779.5	6,636.6	6,604.6	6,604.6	202.1	131.6	-89.72	198.7	-4,984.6	2,155.5	1,821.9	333.62	6.461	
13,800.0	6,636.6	6,604.6	6,604.6	202.7	131.6	-89.72	198.7	-4,984.6	2,175.3	1,841.1	334.19	6.509	
13,877.9	6,636.5	6,604.5	6,604.5	204.9	131.6	-89.71	198.7	-4,984.6	2,250.7	1,914.4	336.37	6.691	
13,900.0	6,636.5	6,604.5	6,604.5	205.5	131.6	-89.71	198.7	-4,984.6	2,272.1	1,935.1	336.99	6.742	
13,976.3	6,636.4	6,604.4	6,604.4	207.6	131.6	-89.70	198.7	-4,984.6	2,346.2	2,007.1	339.13	6.918	
14,000.0	6,636.3	6,604.3	6,604.3	208.3	131.6	-89.69	198.7	-4,984.6	2,369.2	2,029.4	339.79	6.973	
14,074.8	6,636.3	6,604.3	6,604.3	210.4	131.6	-89.68	198.7	-4,984.6	2,441.9	2,100.1	341.88	7.143	
14,100.0	6,636.2	6,604.2	6,604.2	211.1	131.6	-89.68	198.7	-4,984.6	2,466.5	2,123.9	342.59	7.200	
14,173.2	6,636.1	6,604.1	6,604.1	213.2	131.6	-89.67	198.7	-4,984.6	2,537.9	2,193.2	344.64	7.364	
14,200.0	6,636.1	6,604.1	6,604.1	213.9	131.6	-89.66	198.7	-4,984.6	2,564.0	2,218.6	345.39	7.424	
14,271.6	6,636.0	6,604.0	6,604.0	215.9	131.6	-89.65	198.7	-4,984.6	2,634.0	2,286.6	347.39	7.582	
14,300.0	6,636.0	6,604.0	6,604.0	216.7	131.6	-89.65	198.7	-4,984.6	2,661.7	2,313.6	348.19	7.645	
14,370.0	6,635.9	6,603.9	6,603.9	218.7	131.6	-89.64	198.7	-4,984.6	2,730.3	2,380.1	350.15	7.797	
14,400.0	6,635.8	6,603.8	6,603.8	219.5	131.6	-89.64	198.7	-4,984.6	2,759.6	2,408.6	350.99	7.862	
14,468.5	6,635.7	6,603.7	6,603.7	221.4	131.6	-89.63	198.7	-4,984.6	2,826.7	2,473.8	352.90	8.010	
14,500.0	6,635.7	6,603.7	6,603.7	222.3	131.6	-89.62	198.7	-4,984.6	2,857.6	2,503.8	353.79	8.077	
14,566.9	6,635.6	6,603.6	6,603.6	224.2	131.6	-89.61	198.7	-4,984.6	2,923.3	2,567.6	355.66	8.219	
14,600.0	6,635.6	6,603.6	6,603.6	225.1	131.6	-89.61	198.7	-4,984.6	2,955.8	2,599.2	356.59	8.289	
14,665.3	6,635.5	6,603.5	6,603.5	226.9	131.6	-89.60	198.7	-4,984.6	3,020.0	2,661.5	358.42	8.426	
14,700.0	6,635.4	6,603.4	6,603.4	227.9	131.6	-89.60	198.7	-4,984.6	3,054.0	2,694.7	359.39	8.498	
14,763.7	6,635.4	6,603.4	6,603.4	229.7	131.6	-89.59	198.7	-4,984.6	3,116.7	2,755.6	361.17	8.630	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS #12-9 - 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
14,800.0	6,635.3	6,603.3	6,603.3	230.7	131.6	-89.58	198.7	-4,984.6	3,152.4	2,790.2	362.19	8.704	
14,862.2	6,635.2	6,603.2	6,603.2	232.5	131.6	-89.57	198.7	-4,984.6	3,213.6	2,849.7	363.93	8.830	
14,900.0	6,635.2	6,603.2	6,603.2	233.5	131.6	-89.57	198.7	-4,984.6	3,250.9	2,885.9	364.99	8.907	
14,960.6	6,635.1	6,603.1	6,603.1	235.2	131.6	-89.56	198.7	-4,984.6	3,310.6	2,943.9	366.68	9.029	
15,000.0	6,635.0	6,603.0	6,603.0	236.3	131.6	-89.55	198.7	-4,984.6	3,349.5	2,981.7	367.79	9.107	
15,033.1	6,635.0	6,603.0	6,603.0	237.3	131.6	-89.55	198.7	-4,984.6	3,382.1	3,013.4	368.71	9.173	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-106.79	-1,160.0	-3,844.8	4,016.2				
98.4	98.4	63.5	63.5	0.1	0.0	-106.79	-1,159.9	-3,844.8	4,016.0	4,015.9	0.11	N/A	
100.0	100.0	65.2	65.2	0.1	0.0	-106.79	-1,159.9	-3,844.8	4,016.0	4,015.9	0.11	N/A	
177.8	177.8	137.8	137.8	0.3	0.1	-106.78	-1,159.6	-3,844.8	4,015.9	4,015.5	0.35	N/A	
196.8	196.8	153.5	153.5	0.3	0.1	-106.78	-1,159.5	-3,844.9	4,015.9	4,015.5	0.42	9,494.109	
200.0	200.0	156.1	156.1	0.3	0.1	-106.78	-1,159.5	-3,844.9	4,015.9	4,015.5	0.43	9,245.723	
295.3	295.3	246.6	246.6	0.5	0.2	-106.78	-1,159.2	-3,845.2	4,016.1	4,015.4	0.74	5,429.315	
300.0	300.0	251.8	251.8	0.5	0.2	-106.78	-1,159.2	-3,845.2	4,016.1	4,015.4	0.75	5,337.383	
393.7	393.7	346.4	346.4	0.8	0.3	-106.78	-1,159.3	-3,845.3	4,016.3	4,015.3	1.02	3,928.628	
400.0	400.0	352.2	352.2	0.8	0.3	-106.78	-1,159.3	-3,845.3	4,016.3	4,015.2	1.04	3,856.959	
492.1	492.1	442.5	442.5	1.0	0.3	-106.78	-1,159.6	-3,845.5	4,016.5	4,015.2	1.32	3,053.899	
500.0	500.0	450.8	450.8	1.0	0.3	-106.78	-1,159.7	-3,845.5	4,016.5	4,015.2	1.34	3,001.465	
590.5	590.5	545.4	545.4	1.2	0.4	-106.79	-1,160.2	-3,845.5	4,016.7	4,015.1	1.60	2,510.574	
600.0	600.0	555.2	555.2	1.2	0.4	-106.79	-1,160.3	-3,845.5	4,016.7	4,015.1	1.63	2,468.921	
689.0	689.0	651.5	651.5	1.4	0.5	-106.79	-1,160.6	-3,845.4	4,016.8	4,014.9	1.88	2,141.304	
700.0	700.0	663.9	663.9	1.4	0.5	-106.80	-1,160.6	-3,845.4	4,016.7	4,014.8	1.91	2,107.335	
787.4	787.4	756.5	756.5	1.6	0.5	-106.80	-1,161.0	-3,845.1	4,016.6	4,014.4	2.14	1,874.078	
800.0	800.0	769.4	769.4	1.7	0.5	-106.80	-1,161.1	-3,845.1	4,016.6	4,014.4	2.18	1,844.786	
885.8	885.8	849.5	849.5	1.9	0.5	-106.81	-1,161.7	-3,844.7	4,016.4	4,014.0	2.40	1,670.546	
900.0	900.0	862.1	862.1	1.9	0.6	-106.81	-1,161.8	-3,844.7	4,016.4	4,013.9	2.44	1,645.158	
918.1	918.1	878.1	878.1	1.9	0.6	-106.82	-1,161.9	-3,844.6	4,016.4	4,013.9	2.49	1,613.848	
984.2	984.2	938.2	938.2	2.1	0.6	-106.82	-1,162.4	-3,844.5	4,016.4	4,013.8	2.66	1,508.666	
1,000.0	1,000.0	952.7	952.7	2.1	0.6	-106.82	-1,162.5	-3,844.5	4,016.4	4,013.7	2.70	1,485.603	
1,082.7	1,082.7	1,031.8	1,031.8	2.3	0.6	-133.83	-1,163.0	-3,844.6	4,017.5	4,014.6	2.91	1,381.211	
1,100.0	1,100.0	1,049.4	1,049.3	2.3	0.6	-133.83	-1,163.1	-3,844.6	4,017.9	4,015.0	2.95	1,359.971	
1,181.1	1,181.0	1,139.2	1,139.2	2.5	0.7	-133.84	-1,163.7	-3,844.6	4,020.8	4,017.7	3.17	1,269.407	
1,200.0	1,199.8	1,163.1	1,163.1	2.6	0.7	-133.85	-1,163.8	-3,844.6	4,021.7	4,018.5	3.22	1,250.229	
1,279.5	1,279.1	1,256.0	1,256.0	2.8	0.7	-133.87	-1,164.2	-3,844.2	4,026.1	4,022.7	3.43	1,174.485	
1,300.0	1,299.5	1,278.8	1,278.8	2.8	0.7	-133.87	-1,164.2	-3,844.1	4,027.4	4,024.0	3.48	1,156.730	
1,377.9	1,376.9	1,351.8	1,351.8	3.0	0.8	-133.88	-1,164.5	-3,843.6	4,033.5	4,029.8	3.69	1,092.393	
1,400.0	1,398.7	1,371.2	1,371.1	3.0	0.8	-133.88	-1,164.5	-3,843.6	4,035.5	4,031.7	3.75	1,075.749	
1,476.4	1,474.2	1,453.7	1,453.7	3.2	0.8	-133.90	-1,164.7	-3,843.2	4,043.4	4,039.4	3.97	1,017.867	
1,500.0	1,497.5	1,482.8	1,482.8	3.3	0.8	-133.91	-1,164.7	-3,843.0	4,046.0	4,042.0	4.04	1,001.238	
1,574.8	1,571.0	1,548.8	1,548.8	3.5	0.8	-133.91	-1,164.9	-3,842.6	4,055.3	4,051.1	4.27	950.257	
1,600.0	1,595.6	1,568.9	1,568.9	3.6	0.8	-133.90	-1,165.0	-3,842.5	4,058.8	4,054.5	4.34	934.627	
1,673.2	1,667.2	1,628.5	1,628.4	3.9	0.8	-134.03	-1,165.3	-3,842.3	4,069.4	4,064.8	4.57	890.577	
1,700.0	1,693.4	1,650.7	1,650.7	4.0	0.9	-134.08	-1,165.4	-3,842.2	4,073.3	4,068.7	4.65	875.638	
1,771.6	1,763.5	1,713.1	1,713.1	4.2	0.9	-134.22	-1,165.7	-3,842.3	4,084.0	4,079.1	4.88	836.199	
1,800.0	1,791.3	1,743.1	1,743.1	4.3	0.9	-134.28	-1,165.8	-3,842.3	4,088.2	4,083.2	4.98	821.566	
1,870.1	1,859.8	1,815.4	1,815.4	4.6	0.9	-134.44	-1,166.1	-3,842.3	4,098.6	4,093.4	5.21	786.361	
1,900.0	1,889.1	1,843.7	1,843.7	4.7	0.9	-134.50	-1,166.3	-3,842.3	4,103.0	4,097.7	5.31	772.535	
1,968.5	1,956.1	1,908.5	1,908.5	4.9	0.9	-134.64	-1,166.7	-3,842.3	4,113.2	4,107.7	5.54	741.866	
2,000.0	1,986.9	1,938.9	1,938.9	5.1	1.0	-134.71	-1,166.9	-3,842.2	4,118.0	4,112.3	5.65	728.562	
2,066.9	2,052.3	2,000.0	2,000.0	5.3	1.0	-134.84	-1,167.4	-3,842.2	4,128.0	4,122.1	5.88	701.571	
2,100.0	2,084.7	2,028.0	2,028.0	5.5	1.0	-134.90	-1,167.6	-3,842.2	4,133.0	4,127.0	6.00	689.056	
2,165.3	2,148.6	2,077.9	2,077.9	5.7	1.0	-135.01	-1,168.2	-3,842.3	4,143.1	4,136.9	6.23	665.470	
2,200.0	2,182.5	2,107.0	2,106.9	5.9	1.0	-135.08	-1,168.7	-3,842.4	4,148.5	4,142.2	6.35	653.594	
2,263.8	2,244.9	2,185.0	2,185.0	6.1	1.0	-135.25	-1,169.8	-3,842.6	4,158.5	4,151.9	6.58	632.257	
2,300.0	2,280.3	2,221.8	2,221.8	6.3	1.1	-135.33	-1,170.3	-3,842.6	4,164.0	4,157.3	6.71	621.011	
2,362.2	2,341.2	2,278.5	2,278.4	6.5	1.1	-135.46	-1,171.2	-3,842.6	4,173.6	4,166.7	6.93	602.625	
2,400.0	2,378.1	2,312.9	2,312.9	6.7	1.1	-135.53	-1,171.7	-3,842.6	4,179.5	4,172.5	7.06	592.015	
2,460.6	2,437.4	2,368.4	2,368.3	6.9	1.1	-135.66	-1,172.6	-3,842.7	4,189.0	4,181.7	7.28	575.630	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,476.0	2,405.8	2,405.7	7.1	1.1	-135.74	-1,173.0	-3,842.8	4,195.2	4,187.8	7.42	565.504		
2,550.0	2,524.9	2,465.9	2,465.9	7.3	1.1	-135.87	-1,173.8	-3,842.9	4,203.1	4,195.5	7.60	553.083		
2,559.0	2,533.7	2,476.8	2,476.7	7.3	1.2	-135.02	-1,174.0	-3,842.9	4,204.4	4,196.8	7.63	551.017		
2,600.0	2,573.8	2,521.2	2,521.2	7.5	1.2	-131.19	-1,174.6	-3,842.8	4,210.5	4,202.7	7.77	541.936		
2,639.4	2,612.3	2,559.9	2,559.8	7.7	1.2	-127.52	-1,175.1	-3,842.8	4,215.8	4,207.9	7.90	533.732		
2,657.5	2,630.0	2,577.7	2,577.6	7.7	1.2	-127.56	-1,175.2	-3,842.8	4,218.2	4,210.3	7.96	529.662		
2,700.0	2,671.6	2,616.0	2,615.9	7.9	1.2	-127.65	-1,175.4	-3,842.9	4,223.8	4,215.7	8.12	520.369		
2,755.9	2,726.3	2,661.2	2,661.1	8.1	1.2	-127.76	-1,175.7	-3,843.0	4,231.3	4,223.0	8.33	508.110		
2,800.0	2,769.4	2,700.0	2,699.9	8.3	1.2	-127.85	-1,176.1	-3,843.1	4,237.3	4,228.8	8.49	498.800		
2,854.3	2,822.5	2,757.7	2,757.6	8.5	1.2	-127.98	-1,176.5	-3,843.4	4,244.7	4,236.0	8.70	487.725		
2,900.0	2,867.2	2,807.8	2,807.7	8.7	1.3	-128.09	-1,176.8	-3,843.6	4,250.9	4,242.0	8.88	478.802		
2,952.7	2,918.8	2,854.4	2,854.3	9.0	1.3	-128.20	-1,176.9	-3,843.8	4,258.0	4,248.9	9.08	468.966		
3,000.0	2,965.0	2,900.0	2,899.9	9.2	1.3	-128.30	-1,177.1	-3,844.0	4,264.5	4,255.2	9.26	460.513		
3,051.2	3,015.1	2,955.3	2,955.2	9.4	1.3	-128.43	-1,177.5	-3,844.2	4,271.5	4,262.0	9.46	451.746		
3,100.0	3,062.8	3,009.6	3,009.5	9.6	1.3	-128.55	-1,177.9	-3,844.3	4,278.1	4,268.4	9.64	443.703		
3,149.6	3,111.4	3,052.8	3,052.7	9.8	1.3	-128.65	-1,178.2	-3,844.3	4,284.8	4,274.9	9.83	435.872		
3,200.0	3,160.7	3,100.0	3,099.9	10.0	1.4	-128.76	-1,178.7	-3,844.4	4,291.7	4,281.6	10.02	428.212		
3,248.0	3,207.6	3,141.2	3,141.1	10.2	1.4	-128.85	-1,179.1	-3,844.5	4,298.3	4,288.1	10.21	421.148		
3,300.0	3,258.5	3,189.7	3,189.6	10.5	1.4	-128.96	-1,179.6	-3,844.7	4,305.5	4,295.1	10.41	413.773		
3,346.4	3,303.9	3,236.8	3,236.7	10.7	1.4	-129.07	-1,179.9	-3,844.8	4,312.0	4,301.4	10.58	407.508		
3,400.0	3,356.3	3,292.5	3,292.4	10.9	1.4	-129.19	-1,179.9	-3,845.2	4,319.4	4,308.6	10.78	400.662		
3,444.9	3,400.2	3,350.5	3,350.3	11.1	1.4	-129.30	-1,179.4	-3,845.7	4,325.6	4,314.6	10.95	394.968		
3,500.0	3,454.1	3,414.8	3,414.7	11.3	1.4	-129.42	-1,178.1	-3,846.2	4,332.9	4,321.8	11.16	388.175		
3,543.3	3,496.5	3,450.0	3,449.9	11.5	1.4	-129.49	-1,177.2	-3,846.6	4,338.8	4,327.4	11.33	383.051		
3,600.0	3,551.9	3,500.0	3,499.8	11.7	1.4	-129.57	-1,175.8	-3,847.3	4,346.5	4,335.0	11.54	376.560		
3,641.7	3,592.7	3,541.2	3,541.0	11.9	1.4	-129.64	-1,174.5	-3,847.9	4,352.3	4,340.6	11.70	371.900		
3,700.0	3,649.7	3,605.1	3,604.9	12.2	1.4	-129.75	-1,172.5	-3,848.9	4,360.2	4,348.3	11.93	365.575		
3,740.1	3,689.0	3,643.7	3,643.5	12.4	1.4	-129.81	-1,171.3	-3,849.4	4,365.7	4,353.6	12.08	361.388		
3,800.0	3,747.5	3,700.0	3,699.7	12.6	1.4	-129.91	-1,169.5	-3,850.2	4,373.8	4,361.5	12.31	355.352		
3,838.6	3,785.3	3,731.2	3,730.9	12.8	1.4	-129.96	-1,168.6	-3,850.7	4,379.1	4,366.7	12.46	351.572		
3,900.0	3,845.4	3,779.3	3,779.0	13.1	1.4	-130.04	-1,167.4	-3,851.4	4,387.7	4,375.0	12.69	345.759		
3,937.0	3,881.6	3,814.6	3,814.2	13.2	1.4	-130.10	-1,166.6	-3,852.0	4,393.0	4,380.2	12.83	342.352		
4,000.0	3,943.2	3,900.7	3,900.3	13.5	1.4	-130.26	-1,165.3	-3,852.9	4,401.8	4,388.7	13.07	336.680		
4,035.4	3,977.8	3,935.3	3,935.0	13.6	1.4	-130.33	-1,164.9	-3,853.0	4,406.6	4,393.4	13.21	333.633		
4,100.0	4,041.0	3,998.4	3,998.0	13.9	1.4	-130.45	-1,164.5	-3,853.2	4,415.5	4,402.0	13.45	328.244		
4,133.8	4,074.1	4,020.2	4,019.9	14.1	1.4	-130.50	-1,164.4	-3,853.3	4,420.2	4,406.6	13.58	325.489		
4,200.0	4,138.8	4,061.8	4,061.4	14.4	1.4	-130.58	-1,164.1	-3,853.7	4,429.6	4,415.8	13.83	320.270		
4,232.3	4,170.4	4,082.1	4,081.7	14.5	1.4	-130.62	-1,164.0	-3,854.0	4,434.3	4,420.4	13.95	317.798		
4,300.0	4,236.6	4,140.7	4,140.4	14.8	1.4	-130.73	-1,163.4	-3,855.0	4,444.5	4,430.3	14.21	312.701		
4,330.7	4,266.7	4,172.7	4,172.3	14.9	1.4	-130.78	-1,163.0	-3,855.7	4,449.1	4,434.8	14.33	310.428		
4,400.0	4,334.4	4,252.3	4,251.9	15.2	1.4	-130.92	-1,161.5	-3,857.2	4,459.4	4,444.8	14.60	305.468		
4,429.1	4,362.9	4,287.7	4,287.3	15.4	1.4	-130.98	-1,160.8	-3,857.9	4,463.7	4,449.0	14.71	303.444		
4,500.0	4,432.3	4,339.2	4,338.8	15.7	1.4	-131.07	-1,159.7	-3,858.9	4,474.1	4,459.2	14.98	298.686		
4,527.5	4,459.2	4,357.0	4,356.6	15.8	1.4	-131.10	-1,159.3	-3,859.3	4,478.3	4,463.2	15.08	296.890		
4,600.0	4,530.1	4,400.0	4,399.5	16.1	1.4	-131.17	-1,158.4	-3,860.4	4,489.6	4,474.2	15.36	292.313		
4,626.0	4,555.5	4,400.0	4,399.5	16.2	1.4	-131.17	-1,158.4	-3,860.4	4,493.8	4,478.3	15.46	290.759		
4,700.0	4,627.9	4,452.0	4,451.5	16.6	1.5	-131.25	-1,157.6	-3,862.2	4,505.9	4,490.2	15.74	286.236		
4,724.4	4,651.7	4,464.0	4,463.5	16.7	1.5	-131.27	-1,157.4	-3,862.7	4,510.1	4,494.2	15.84	284.810		
4,800.0	4,725.7	4,511.0	4,510.5	17.0	1.5	-131.35	-1,157.0	-3,864.8	4,523.4	4,507.2	16.13	280.501		
4,822.8	4,748.0	4,625.9	4,625.3	17.1	1.5	-131.57	-1,157.7	-3,868.1	4,527.2	4,511.0	16.22	279.096		
4,904.9	4,828.3	4,808.4	4,807.8	17.5	1.5	-131.96	-1,159.9	-3,868.1	4,538.9	4,522.4	16.52	274.807		
4,921.2	4,844.3	4,825.5	4,824.9	17.5	1.5	-132.03	-1,160.0	-3,868.0	4,541.1	4,524.5	16.56	274.221		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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)	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	4,921.6	4,907.0	4,906.4	17.8	1.5	-132.33	-1,160.8	-3,867.1	4,550.8	4,534.0	16.77	271.372	
5,019.7	4,941.0	4,925.1	4,924.4	17.9	1.5	-132.40	-1,161.0	-3,867.0	4,553.0	4,536.2	16.81	270.847	
5,100.0	5,020.4	5,000.0	4,999.3	18.1	1.6	-132.63	-1,161.3	-3,866.4	4,561.1	4,544.1	16.98	268.651	
5,118.1	5,038.3	5,023.6	5,022.9	18.2	1.6	-132.69	-1,161.3	-3,866.3	4,562.7	4,545.7	17.01	268.244	
5,200.0	5,119.6	5,127.0	5,126.4	18.4	1.6	-132.89	-1,160.9	-3,865.5	4,568.7	4,551.6	17.16	266.294	
5,216.5	5,136.0	5,144.1	5,143.4	18.4	1.6	-132.92	-1,160.8	-3,865.4	4,569.7	4,552.5	17.18	265.947	
5,300.0	5,219.2	5,222.4	5,221.7	18.6	1.6	-133.04	-1,160.5	-3,864.7	4,573.7	4,556.4	17.32	264.100	
5,314.9	5,234.1	5,233.8	5,233.1	18.6	1.6	-133.06	-1,160.4	-3,864.6	4,574.3	4,557.0	17.34	263.818	
5,400.0	5,319.1	5,300.0	5,299.3	18.8	1.6	-133.12	-1,160.3	-3,864.2	4,576.8	4,559.3	17.46	262.131	
5,413.4	5,332.4	5,310.8	5,310.1	18.8	1.6	-133.13	-1,160.3	-3,864.1	4,577.0	4,559.6	17.48	261.908	
5,504.9	5,423.9	5,396.5	5,395.8	18.9	1.6	-114.74	-1,160.5	-3,863.7	4,577.7	4,559.8	17.93	255.312	
5,511.8	5,430.8	5,404.9	5,404.3	18.9	1.6	-114.74	-1,160.6	-3,863.7	4,577.7	4,559.8	17.94	255.147	
5,600.0	5,519.0	5,537.5	5,536.8	19.0	1.6	-114.75	-1,160.7	-3,862.4	4,577.0	4,558.9	18.09	252.959	
5,610.2	5,529.3	5,551.5	5,550.8	19.0	1.6	-114.75	-1,160.8	-3,862.2	4,576.9	4,558.7	18.11	252.685	
5,700.0	5,619.0	5,670.8	5,670.1	19.2	1.6	-114.76	-1,160.9	-3,859.9	4,575.3	4,557.1	18.28	250.293	
5,708.6	5,627.7	5,682.0	5,681.3	19.2	1.6	-114.76	-1,160.9	-3,859.7	4,575.2	4,556.9	18.30	250.064	
5,800.0	5,719.0	5,794.5	5,793.7	19.3	1.6	-114.78	-1,160.9	-3,856.9	4,573.1	4,554.6	18.46	247.668	
5,807.1	5,726.1	5,802.6	5,801.8	19.3	1.6	-114.78	-1,160.9	-3,856.6	4,572.9	4,554.4	18.48	247.479	
5,900.0	5,819.0	5,897.4	5,896.6	19.4	1.7	-114.80	-1,161.1	-3,853.9	4,570.5	4,551.9	18.65	245.085	
5,905.5	5,824.5	5,903.3	5,902.5	19.4	1.7	-114.80	-1,161.1	-3,853.7	4,570.4	4,551.7	18.66	244.943	
6,003.9	5,923.0	6,024.3	6,023.4	19.6	1.7	-114.82	-1,161.1	-3,850.0	4,567.7	4,548.9	18.84	242.392	
6,009.8	5,928.8	6,035.5	6,034.6	19.6	1.7	-114.82	-1,161.1	-3,849.6	4,567.5	4,548.7	18.86	242.230	
6,050.0	5,969.0	6,107.7	6,106.8	19.6	1.7	-24.93	-1,161.1	-3,846.8	4,565.1	4,546.6	18.46	247.228	
6,100.0	6,018.8	6,165.7	6,164.8	19.7	1.7	-25.18	-1,161.1	-3,844.2	4,558.9	4,540.4	18.50	246.388	
6,102.3	6,021.1	6,168.5	6,167.5	19.7	1.7	-25.20	-1,161.1	-3,844.1	4,558.6	4,540.1	18.51	246.339	
6,150.0	6,068.1	6,220.6	6,219.6	19.7	1.7	-25.57	-1,161.3	-3,841.6	4,549.6	4,531.1	18.54	245.351	
6,200.0	6,116.8	6,271.1	6,270.0	19.7	1.7	-26.10	-1,161.4	-3,839.2	4,537.2	4,518.7	18.57	244.375	
6,200.8	6,117.5	6,271.9	6,270.8	19.7	1.7	-26.11	-1,161.4	-3,839.2	4,537.0	4,518.4	18.57	244.360	
6,250.0	6,164.5	6,322.4	6,321.3	19.7	1.7	-26.78	-1,161.4	-3,836.8	4,521.8	4,503.2	18.56	243.630	
6,299.2	6,210.4	6,374.2	6,373.0	19.7	1.7	-27.62	-1,161.2	-3,834.4	4,503.7	4,485.2	18.52	243.221	
6,300.0	6,211.1	6,375.0	6,373.8	19.7	1.7	-27.63	-1,161.2	-3,834.3	4,503.4	4,484.8	18.52	243.218	
6,350.0	6,256.4	6,400.0	6,398.8	19.7	1.7	-28.59	-1,161.0	-3,833.2	4,482.1	4,463.7	18.42	243.337	
6,397.6	6,298.0	6,440.1	6,438.8	19.7	1.7	-29.74	-1,160.8	-3,831.4	4,459.4	4,441.1	18.29	243.754	
6,400.0	6,300.0	6,441.3	6,440.1	19.7	1.7	-29.80	-1,160.8	-3,831.3	4,458.2	4,439.9	18.29	243.793	
6,450.0	6,341.8	6,467.2	6,465.9	19.7	1.7	-31.17	-1,160.8	-3,830.2	4,431.9	4,413.8	18.12	244.644	
6,496.0	6,378.6	6,500.0	6,498.7	19.7	1.8	-32.70	-1,160.8	-3,828.9	4,405.6	4,387.7	17.95	245.494	
6,500.0	6,381.6	6,500.0	6,498.7	19.7	1.8	-32.83	-1,160.8	-3,828.9	4,403.3	4,385.4	17.93	245.602	
6,550.0	6,419.2	6,500.0	6,498.7	19.6	1.8	-34.57	-1,160.8	-3,828.9	4,372.5	4,354.8	17.73	246.683	
6,594.5	6,450.7	6,500.0	6,498.7	19.6	1.8	-36.34	-1,160.8	-3,828.9	4,343.5	4,325.9	17.57	247.261	
6,600.0	6,454.4	6,500.0	6,498.7	19.6	1.8	-36.58	-1,160.8	-3,828.9	4,339.8	4,322.3	17.55	247.336	
6,650.0	6,487.1	6,500.0	6,498.7	19.6	1.8	-38.90	-1,160.8	-3,828.9	4,305.4	4,288.0	17.42	247.081	
6,692.9	6,513.0	6,540.9	6,539.5	19.6	1.8	-41.64	-1,161.0	-3,827.7	4,274.0	4,256.5	17.44	245.093	
6,700.0	6,517.0	6,542.3	6,541.0	19.6	1.8	-42.07	-1,161.0	-3,827.7	4,268.7	4,251.3	17.44	244.791	
6,750.0	6,544.1	6,551.8	6,550.5	19.6	1.8	-45.39	-1,161.1	-3,827.5	4,230.9	4,213.3	17.57	240.797	
6,791.3	6,564.2	6,559.0	6,557.7	19.7	1.8	-48.53	-1,161.2	-3,827.4	4,198.5	4,180.7	17.79	236.047	
6,800.0	6,568.2	6,560.4	6,559.1	19.7	1.8	-49.24	-1,161.2	-3,827.4	4,191.6	4,173.8	17.88	234.493	
6,850.0	6,589.1	6,567.9	6,566.6	19.8	1.8	-53.66	-1,161.2	-3,827.3	4,151.2	4,132.8	18.37	226.007	
6,889.7	6,603.5	6,600.0	6,598.7	19.9	1.8	-58.17	-1,161.5	-3,827.3	4,118.6	4,099.6	18.94	217.508	
6,900.0	6,606.9	6,600.0	6,598.7	19.9	1.8	-59.25	-1,161.5	-3,827.3	4,110.0	4,090.9	19.08	215.424	
6,950.0	6,621.3	6,600.0	6,598.7	20.2	1.8	-64.88	-1,161.5	-3,827.3	4,067.6	4,047.7	19.87	204.665	
6,988.2	6,630.0	6,600.0	6,598.7	20.6	1.8	-69.59	-1,161.5	-3,827.3	4,034.8	4,014.3	20.55	196.356	
7,000.0	6,632.4	6,600.0	6,598.7	20.7	1.8	-71.11	-1,161.5	-3,827.3	4,024.6	4,003.9	20.76	193.896	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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)	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	6,640.0	6,600.0	6,598.7	21.4	1.8	-77.83	-1,161.5	-3,827.3	3,981.3	3,959.6	21.69	183.561	
7,086.6	6,643.4	6,600.0	6,598.7	21.9	1.8	-82.96	-1,161.5	-3,827.3	3,949.4	3,926.9	22.42	176.161	
7,100.0	6,644.2	6,600.0	6,598.7	22.1	1.8	-84.86	-1,161.5	-3,827.3	3,937.7	3,915.0	22.70	173.490	
7,135.7	6,645.0	6,600.0	6,598.7	22.7	1.8	-89.93	-1,161.5	-3,827.3	3,906.6	3,883.1	23.52	166.120	
7,185.0	6,644.9	6,600.0	6,598.7	23.6	1.8	-89.93	-1,161.5	-3,827.3	3,863.6	3,839.2	24.48	157.849	
7,200.0	6,644.9	6,600.0	6,598.7	23.9	1.8	-89.93	-1,161.5	-3,827.3	3,850.6	3,825.9	24.77	155.468	
7,283.4	6,644.8	6,600.0	6,598.7	25.6	1.8	-89.93	-1,161.5	-3,827.3	3,778.5	3,752.0	26.50	142.601	
7,300.0	6,644.8	6,600.0	6,598.7	25.9	1.8	-89.93	-1,161.5	-3,827.3	3,764.2	3,737.4	26.84	140.248	
7,381.9	6,644.7	6,600.0	6,598.7	27.7	1.8	-89.93	-1,161.5	-3,827.3	3,694.0	3,665.4	28.64	128.960	
7,400.0	6,644.7	6,600.0	6,598.7	28.1	1.8	-89.93	-1,161.5	-3,827.3	3,678.5	3,649.5	29.04	126.653	
7,480.3	6,644.6	6,600.0	6,598.7	29.9	1.8	-89.93	-1,161.5	-3,827.3	3,610.2	3,579.3	30.90	116.827	
7,500.0	6,644.6	6,600.0	6,598.7	30.3	1.8	-89.93	-1,161.5	-3,827.3	3,593.6	3,562.2	31.36	114.597	
7,578.7	6,644.5	6,600.0	6,598.7	32.2	1.8	-89.93	-1,161.5	-3,827.3	3,527.2	3,494.0	33.24	106.105	
7,600.0	6,644.4	6,600.0	6,598.7	32.7	1.8	-89.93	-1,161.5	-3,827.3	3,509.4	3,475.6	33.75	103.975	
7,677.1	6,644.3	6,600.0	6,598.7	34.6	1.8	-89.93	-1,161.5	-3,827.3	3,445.0	3,409.4	35.65	96.641	
7,700.0	6,644.3	6,600.0	6,598.7	35.1	1.8	-89.93	-1,161.5	-3,827.3	3,426.0	3,389.8	36.21	94.619	
7,775.6	6,644.2	6,600.0	6,598.7	37.0	1.8	-89.93	-1,161.5	-3,827.3	3,363.7	3,325.6	38.10	88.277	
7,800.0	6,644.2	6,600.0	6,598.7	37.6	1.8	-89.94	-1,161.5	-3,827.3	3,343.6	3,304.9	38.72	86.363	
7,874.0	6,644.1	6,600.0	6,598.7	39.5	1.8	-89.94	-1,161.5	-3,827.3	3,283.3	3,242.7	40.60	80.865	
7,900.0	6,644.1	6,600.0	6,598.7	40.1	1.8	-89.94	-1,161.5	-3,827.3	3,262.2	3,220.9	41.26	79.056	
7,972.4	6,644.0	6,600.0	6,598.7	42.0	1.8	-89.94	-1,161.5	-3,827.3	3,203.9	3,160.7	43.13	74.277	
8,000.0	6,643.9	6,600.0	6,598.7	42.7	1.8	-89.94	-1,161.5	-3,827.3	3,181.8	3,138.0	43.85	72.568	
8,070.8	6,643.9	6,600.0	6,598.7	44.5	1.8	-89.94	-1,161.5	-3,827.3	3,125.6	3,079.9	45.69	68.401	
8,100.0	6,643.8	6,600.0	6,598.7	45.2	1.8	-89.94	-1,161.5	-3,827.3	3,102.6	3,056.1	46.46	66.787	
8,169.3	6,643.7	6,600.0	6,598.7	47.0	1.8	-89.94	-1,161.5	-3,827.3	3,048.4	3,000.1	48.28	63.142	
8,200.0	6,643.7	6,600.0	6,598.7	47.9	1.8	-89.94	-1,161.5	-3,827.3	3,024.6	2,975.5	49.09	61.616	
8,267.7	6,643.6	6,600.0	6,598.7	49.6	1.8	-89.94	-1,161.5	-3,827.3	2,972.5	2,921.6	50.88	58.419	
8,300.0	6,643.6	6,600.0	6,598.7	50.5	1.8	-89.94	-1,161.5	-3,827.3	2,947.9	2,896.2	51.74	56.976	
8,366.1	6,643.5	6,600.0	6,598.7	52.2	1.8	-89.94	-1,161.5	-3,827.3	2,898.0	2,844.5	53.50	54.164	
8,400.0	6,643.4	6,600.0	6,598.7	53.1	1.8	-89.94	-1,161.5	-3,827.3	2,872.7	2,818.3	54.41	52.799	
8,464.5	6,643.4	6,600.0	6,598.7	54.8	1.8	-89.94	-1,161.5	-3,827.3	2,824.9	2,768.8	56.14	50.320	
8,500.0	6,643.3	6,600.0	6,598.7	55.8	1.8	-89.94	-1,161.5	-3,827.3	2,799.0	2,741.9	57.09	49.027	
8,563.0	6,643.2	6,600.0	6,598.7	57.5	1.8	-89.94	-1,161.5	-3,827.3	2,753.4	2,694.6	58.79	46.837	
8,600.0	6,643.2	6,600.0	6,598.7	58.5	1.8	-89.94	-1,161.5	-3,827.3	2,727.0	2,667.2	59.79	45.613	
8,661.4	6,643.1	6,600.0	6,598.7	60.1	1.8	-89.94	-1,161.5	-3,827.3	2,683.6	2,622.2	61.45	43.675	
8,700.0	6,643.1	6,600.0	6,598.7	61.2	1.8	-89.94	-1,161.5	-3,827.3	2,656.8	2,594.3	62.49	42.515	
8,759.8	6,643.0	6,600.0	6,598.7	62.8	1.8	-89.94	-1,161.5	-3,827.3	2,615.7	2,551.6	64.11	40.798	
8,800.0	6,643.0	6,600.0	6,598.7	63.9	1.8	-89.94	-1,161.5	-3,827.3	2,588.5	2,523.3	65.20	39.699	
8,858.2	6,642.9	6,600.0	6,598.7	65.4	1.8	-89.94	-1,161.5	-3,827.3	2,549.7	2,483.0	66.79	38.175	
8,900.0	6,642.8	6,600.0	6,598.7	66.6	1.8	-89.94	-1,161.5	-3,827.3	2,522.4	2,454.5	67.93	37.134	
8,956.7	6,642.8	6,600.0	6,598.7	68.1	1.8	-89.94	-1,161.5	-3,827.3	2,485.9	2,416.5	69.47	35.782	
9,000.0	6,642.7	6,600.0	6,598.7	69.3	1.8	-89.94	-1,161.5	-3,827.3	2,458.6	2,387.9	70.66	34.796	
9,055.1	6,642.6	6,600.0	6,598.7	70.8	1.8	-89.94	-1,161.5	-3,827.3	2,424.5	2,352.3	72.16	33.596	
9,100.0	6,642.6	6,600.0	6,598.7	72.0	1.8	-89.94	-1,161.5	-3,827.3	2,397.2	2,323.8	73.39	32.663	
9,153.5	6,642.5	6,600.0	6,598.7	73.5	1.8	-89.94	-1,161.5	-3,827.3	2,365.5	2,290.6	74.86	31.599	
9,200.0	6,642.5	6,600.0	6,598.7	74.7	1.8	-89.94	-1,161.5	-3,827.3	2,338.5	2,262.4	76.13	30.716	
9,251.9	6,642.4	6,600.0	6,598.7	76.2	1.8	-89.94	-1,161.5	-3,827.3	2,309.2	2,231.6	77.56	29.772	
9,300.0	6,642.3	6,600.0	6,598.7	77.5	1.8	-89.94	-1,161.5	-3,827.3	2,282.7	2,203.8	78.88	28.939	
9,350.4	6,642.3	6,600.0	6,598.7	78.9	1.8	-89.94	-1,161.5	-3,827.3	2,255.8	2,175.5	80.27	28.103	
9,400.0	6,642.2	6,600.0	6,598.7	80.2	1.8	-89.94	-1,161.5	-3,827.3	2,230.0	2,148.4	81.63	27.318	
9,448.8	6,642.1	6,600.0	6,598.7	81.6	1.8	-89.94	-1,161.5	-3,827.3	2,205.5	2,122.5	82.98	26.579	
9,500.0	6,642.1	6,600.0	6,598.7	83.0	1.8	-89.94	-1,161.5	-3,827.3	2,180.6	2,096.2	84.39	25.840	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,642.0	6,600.0	6,598.7	84.3	1.8	-89.94	-1,161.5	-3,827.3	2,158.5	2,072.8	85.69	25.189	
9,600.0	6,642.0	6,600.0	6,598.7	85.7	1.8	-89.94	-1,161.5	-3,827.3	2,134.7	2,047.6	87.14	24.496	
9,645.6	6,641.9	6,600.0	6,598.7	87.0	1.8	-89.94	-1,161.5	-3,827.3	2,115.0	2,026.6	88.41	23.924	
9,700.0	6,641.8	6,600.0	6,598.7	88.5	1.8	-89.94	-1,161.5	-3,827.3	2,092.6	2,002.7	89.91	23.275	
9,744.1	6,641.8	6,600.0	6,598.7	89.7	1.8	-89.94	-1,161.5	-3,827.3	2,075.3	1,984.2	91.13	22.774	
9,800.0	6,641.7	6,600.0	6,598.7	91.2	1.8	-89.94	-1,161.5	-3,827.3	2,054.5	1,961.9	92.67	22.170	
9,842.5	6,641.7	6,600.0	6,598.7	92.4	1.8	-89.94	-1,161.5	-3,827.3	2,039.6	1,945.8	93.85	21.733	
9,900.0	6,641.6	6,600.0	6,598.7	94.0	1.8	-89.94	-1,161.5	-3,827.3	2,020.7	1,925.2	95.44	21.172	
9,940.9	6,641.5	6,586.3	6,584.9	95.1	1.8	-89.53	-1,161.4	-3,827.2	2,008.0	1,911.5	96.56	20.797	
10,000.0	6,641.5	6,586.2	6,584.8	96.7	1.8	-89.52	-1,161.4	-3,827.2	1,991.2	1,893.0	98.19	20.279	
10,039.3	6,641.4	6,586.1	6,584.8	97.8	1.8	-89.52	-1,161.4	-3,827.2	1,980.9	1,881.6	99.28	19.952	
10,100.0	6,641.3	6,586.0	6,584.7	99.5	1.8	-89.52	-1,161.4	-3,827.2	1,966.5	1,865.5	100.96	19.477	
10,137.8	6,641.3	6,586.0	6,584.6	100.6	1.8	-89.52	-1,161.4	-3,827.2	1,958.4	1,856.4	102.01	19.197	
10,200.0	6,641.2	6,585.8	6,584.5	102.3	1.8	-89.51	-1,161.4	-3,827.2	1,946.6	1,842.8	103.74	18.764	
10,236.2	6,641.2	6,585.8	6,584.4	103.3	1.8	-89.51	-1,161.4	-3,827.2	1,940.6	1,835.8	104.74	18.527	
10,300.0	6,641.1	6,585.6	6,584.3	105.0	1.8	-89.51	-1,161.4	-3,827.2	1,931.6	1,825.1	106.52	18.135	
10,334.6	6,641.0	6,585.6	6,584.2	106.0	1.8	-89.51	-1,161.4	-3,827.2	1,927.6	1,820.2	107.48	17.935	
10,400.0	6,641.0	6,585.4	6,584.1	107.8	1.8	-89.50	-1,161.4	-3,827.2	1,921.8	1,812.5	109.29	17.584	
10,433.0	6,640.9	6,585.4	6,584.0	108.7	1.8	-89.50	-1,161.4	-3,827.2	1,919.7	1,809.4	110.21	17.418	
10,500.0	6,640.8	6,585.2	6,583.9	110.6	1.8	-89.49	-1,161.4	-3,827.2	1,917.1	1,805.0	112.07	17.106	
10,531.5	6,640.8	6,585.1	6,583.8	111.5	1.8	-89.49	-1,161.4	-3,827.2	1,916.7	1,803.8	112.95	16.970	
10,539.7	6,640.8	6,585.1	6,583.8	111.7	1.8	-89.49	-1,161.4	-3,827.2	1,916.7	1,803.5	113.18	16.935 CC	
10,600.0	6,640.7	6,585.0	6,583.6	113.4	1.8	-89.49	-1,161.4	-3,827.2	1,917.6	1,802.8	114.85	16.696 ES	
10,629.9	6,640.7	6,584.9	6,583.6	114.2	1.8	-89.49	-1,161.4	-3,827.2	1,918.8	1,803.1	115.69	16.586	
10,700.0	6,640.6	6,584.7	6,583.4	116.1	1.8	-89.48	-1,161.4	-3,827.2	1,923.4	1,805.7	117.64	16.350	
10,728.3	6,640.5	6,584.6	6,583.3	116.9	1.8	-89.48	-1,161.4	-3,827.2	1,925.9	1,807.5	118.42	16.263	
10,800.0	6,640.5	6,584.4	6,583.1	118.9	1.8	-89.47	-1,161.4	-3,827.2	1,934.3	1,813.9	120.42	16.063	
10,826.7	6,640.4	6,584.4	6,583.0	119.7	1.8	-89.47	-1,161.4	-3,827.2	1,938.1	1,816.9	121.16	15.995	
10,900.0	6,640.3	6,584.1	6,582.8	121.7	1.8	-89.46	-1,161.4	-3,827.2	1,950.3	1,827.1	123.20	15.829	
10,925.2	6,640.3	6,584.1	6,582.7	122.4	1.8	-89.46	-1,161.4	-3,827.2	1,955.1	1,831.2	123.91	15.779	
11,000.0	6,640.2	6,583.8	6,582.4	124.5	1.8	-89.45	-1,161.4	-3,827.2	1,971.2	1,845.2	125.99	15.645	
11,023.6	6,640.2	6,583.7	6,582.4	125.1	1.8	-89.45	-1,161.3	-3,827.2	1,976.8	1,850.2	126.65	15.609	
11,100.0	6,640.1	6,583.4	6,582.1	127.3	1.8	-89.44	-1,161.3	-3,827.2	1,996.9	1,868.1	128.78	15.507	
11,122.0	6,640.0	6,583.3	6,582.0	127.9	1.8	-89.44	-1,161.3	-3,827.2	2,003.2	1,873.8	129.39	15.482	
11,200.0	6,639.9	6,583.0	6,581.7	130.1	1.8	-89.43	-1,161.3	-3,827.2	2,027.2	1,895.7	131.57	15.409	
11,220.4	6,639.9	6,582.9	6,581.6	130.6	1.8	-89.43	-1,161.3	-3,827.2	2,034.0	1,901.8	132.14	15.393	
11,300.0	6,639.8	6,582.6	6,581.2	132.8	1.8	-89.42	-1,161.3	-3,827.2	2,062.0	1,927.6	134.35	15.347	
11,318.9	6,639.8	6,582.5	6,581.1	133.4	1.8	-89.41	-1,161.3	-3,827.2	2,069.0	1,934.1	134.88	15.339	
11,400.0	6,639.7	6,582.1	6,580.7	135.6	1.8	-89.40	-1,161.3	-3,827.2	2,100.9	1,963.8	137.14	15.319	
11,417.3	6,639.7	6,582.0	6,580.6	136.1	1.8	-89.40	-1,161.3	-3,827.2	2,108.0	1,970.4	137.63	15.317 SF	
11,500.0	6,639.6	6,581.5	6,580.1	138.4	1.8	-89.38	-1,161.3	-3,827.2	2,143.8	2,003.9	139.93	15.320	
11,515.7	6,639.5	6,581.4	6,580.0	138.9	1.8	-89.38	-1,161.3	-3,827.2	2,150.9	2,010.5	140.37	15.323	
11,600.0	6,639.4	6,580.8	6,579.5	141.2	1.8	-89.36	-1,161.3	-3,827.2	2,190.4	2,047.7	142.73	15.347	
11,614.1	6,639.4	6,580.7	6,579.4	141.6	1.8	-89.36	-1,161.3	-3,827.2	2,197.3	2,054.2	143.12	15.353	
11,700.0	6,639.3	6,580.1	6,578.8	144.0	1.8	-89.34	-1,161.3	-3,827.2	2,240.5	2,095.0	145.52	15.397	
11,712.6	6,639.3	6,580.0	6,578.7	144.3	1.8	-89.34	-1,161.3	-3,827.2	2,247.1	2,101.2	145.87	15.405	
11,800.0	6,639.2	6,579.3	6,577.9	146.8	1.8	-89.32	-1,161.3	-3,827.2	2,293.9	2,145.6	148.31	15.467	
11,811.0	6,639.2	6,579.2	6,577.8	147.1	1.8	-89.31	-1,161.3	-3,827.2	2,300.0	2,151.3	148.62	15.476	
11,900.0	6,639.1	6,578.3	6,576.9	149.6	1.8	-89.29	-1,161.3	-3,827.3	2,350.3	2,199.2	151.10	15.555	
11,909.4	6,639.0	6,578.2	6,576.8	149.8	1.8	-89.28	-1,161.3	-3,827.3	2,355.8	2,204.4	151.36	15.564	
12,000.0	6,638.9	6,577.1	6,575.8	152.4	1.8	-89.25	-1,161.3	-3,827.3	2,409.6	2,255.7	153.89	15.658	
12,007.8	6,638.9	6,577.0	6,575.7	152.6	1.8	-89.25	-1,161.3	-3,827.3	2,414.3	2,260.2	154.11	15.666	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
12,100.0	6,638.8	6,575.7	6,574.4	155.2	1.8	-89.21	-1,161.3	-3,827.3	2,471.5	2,314.8	156.69	15.773		
12,106.3	6,638.8	6,575.6	6,574.3	155.3	1.8	-89.21	-1,161.3	-3,827.3	2,475.4	2,318.6	156.86	15.781		
12,200.0	6,638.7	6,574.0	6,572.7	157.9	1.8	-89.16	-1,161.3	-3,827.3	2,535.8	2,376.3	159.48	15.900		
12,204.7	6,638.7	6,573.9	6,572.6	158.1	1.8	-89.16	-1,161.3	-3,827.3	2,538.9	2,379.3	159.61	15.907		
12,300.0	6,638.5	6,571.9	6,570.6	160.7	1.8	-89.10	-1,161.3	-3,827.3	2,602.3	2,440.1	162.27	16.037		
12,303.1	6,638.5	6,571.8	6,570.5	160.8	1.8	-89.09	-1,161.2	-3,827.3	2,604.5	2,442.1	162.36	16.042		
12,400.0	6,638.4	6,569.2	6,567.9	163.5	1.8	-89.02	-1,161.2	-3,827.3	2,671.0	2,505.9	165.06	16.182		
12,401.5	6,638.4	6,569.2	6,567.8	163.6	1.8	-89.01	-1,161.2	-3,827.3	2,672.1	2,507.0	165.10	16.184		
12,500.0	6,638.3	6,565.7	6,564.3	166.3	1.8	-88.91	-1,161.2	-3,827.3	2,741.6	2,573.7	167.85	16.334		
12,598.4	6,638.2	6,560.8	6,559.5	169.1	1.8	-88.76	-1,161.2	-3,827.4	2,812.8	2,642.2	170.59	16.489		
12,600.0	6,638.2	6,560.7	6,559.4	169.1	1.8	-88.76	-1,161.2	-3,827.4	2,813.9	2,643.3	170.63	16.491		
12,696.8	6,638.0	6,553.7	6,552.3	171.8	1.8	-88.55	-1,161.1	-3,827.5	2,885.6	2,712.3	173.32	16.648		
12,700.0	6,638.0	6,553.4	6,552.1	171.9	1.8	-88.54	-1,161.1	-3,827.5	2,888.0	2,714.5	173.41	16.654		
12,795.2	6,637.9	6,542.2	6,540.9	174.6	1.8	-88.21	-1,161.0	-3,827.7	2,959.9	2,783.8	176.04	16.813		
12,800.0	6,637.9	6,541.5	6,540.2	174.7	1.8	-88.19	-1,161.0	-3,827.7	2,963.5	2,787.3	176.17	16.821		
12,893.7	6,637.8	6,520.8	6,519.4	177.3	1.8	-87.57	-1,160.9	-3,828.2	3,035.5	2,856.8	178.72	16.985		
12,900.0	6,637.8	6,518.7	6,517.4	177.5	1.8	-87.51	-1,160.9	-3,828.3	3,040.4	2,861.5	178.88	16.997		
12,992.1	6,637.7	6,498.2	6,496.8	180.1	1.8	-86.89	-1,160.8	-3,829.0	3,112.4	2,931.1	181.36	17.161		
13,000.0	6,637.6	6,497.9	6,496.5	180.3	1.8	-86.88	-1,160.8	-3,829.0	3,118.6	2,937.1	181.58	17.175		
13,090.5	6,637.5	6,494.3	6,493.0	182.8	1.8	-86.78	-1,160.8	-3,829.1	3,190.5	3,006.4	184.09	17.331		
13,100.0	6,637.5	6,493.9	6,492.6	183.1	1.8	-86.77	-1,160.8	-3,829.2	3,198.1	3,013.7	184.36	17.347		
13,188.9	6,637.4	6,490.3	6,489.0	185.6	1.8	-86.66	-1,160.8	-3,829.3	3,269.6	3,082.8	186.82	17.501		
13,200.0	6,637.4	6,489.9	6,488.6	185.9	1.8	-86.65	-1,160.8	-3,829.3	3,278.6	3,091.5	187.13	17.520		
13,287.4	6,637.3	6,486.3	6,485.0	188.4	1.8	-86.54	-1,160.8	-3,829.4	3,349.8	3,160.3	189.55	17.672		
13,300.0	6,637.3	6,485.8	6,484.5	188.7	1.8	-86.53	-1,160.8	-3,829.5	3,360.2	3,170.3	189.90	17.694		
13,385.8	6,637.1	6,482.2	6,480.9	191.1	1.8	-86.42	-1,160.8	-3,829.6	3,430.9	3,238.7	192.28	17.843		
13,400.0	6,637.1	6,481.6	6,480.3	191.5	1.8	-86.40	-1,160.8	-3,829.6	3,442.7	3,250.0	192.67	17.868		
13,484.2	6,637.0	6,478.1	6,476.8	193.9	1.8	-86.30	-1,160.8	-3,829.8	3,512.9	3,317.9	195.01	18.015		
13,500.0	6,637.0	6,477.4	6,476.1	194.3	1.8	-86.28	-1,160.8	-3,829.8	3,526.2	3,330.7	195.44	18.042		
13,582.6	6,636.9	6,473.8	6,472.5	196.6	1.8	-86.17	-1,160.8	-3,829.9	3,595.8	3,398.0	197.73	18.185		
13,600.0	6,636.9	6,473.1	6,471.8	197.1	1.8	-86.15	-1,160.8	-3,830.0	3,610.5	3,412.2	198.21	18.215		
13,681.1	6,636.8	6,469.5	6,468.2	199.4	1.7	-86.04	-1,160.8	-3,830.1	3,679.4	3,478.9	200.45	18.355		
13,700.0	6,636.7	6,468.7	6,467.4	199.9	1.7	-86.02	-1,160.8	-3,830.2	3,695.5	3,494.5	200.98	18.388		
13,779.5	6,636.6	6,465.1	6,463.8	202.1	1.7	-85.91	-1,160.8	-3,830.3	3,763.7	3,560.5	203.17	18.524		
13,800.0	6,636.6	6,464.2	6,462.9	202.7	1.7	-85.88	-1,160.8	-3,830.3	3,781.3	3,577.6	203.74	18.560		
13,877.9	6,636.5	6,460.7	6,459.4	204.9	1.7	-85.78	-1,160.8	-3,830.5	3,848.6	3,642.7	205.89	18.693		
13,900.0	6,636.5	6,459.7	6,458.4	205.5	1.7	-85.75	-1,160.8	-3,830.5	3,867.8	3,661.3	206.50	18.730		
13,976.3	6,636.4	6,456.1	6,454.9	207.6	1.7	-85.64	-1,160.8	-3,830.7	3,934.2	3,725.6	208.61	18.859		
14,000.0	6,636.3	6,455.0	6,453.8	208.3	1.7	-85.61	-1,160.8	-3,830.7	3,954.9	3,745.6	209.26	18.899		
14,074.8	6,636.3	6,451.5	6,450.2	210.4	1.7	-85.51	-1,160.8	-3,830.9	4,020.4	3,809.1	211.32	19.025		
14,100.0	6,636.2	6,450.3	6,449.0	211.1	1.7	-85.47	-1,160.8	-3,830.9	4,042.6	3,830.5	212.02	19.067		
14,173.2	6,636.1	6,446.8	6,445.5	213.2	1.7	-85.37	-1,160.8	-3,831.1	4,107.1	3,893.1	214.03	19.189		
14,200.0	6,636.1	6,445.5	6,444.2	213.9	1.7	-85.33	-1,160.8	-3,831.1	4,130.8	3,916.0	214.77	19.234		
14,271.6	6,636.0	6,442.0	6,440.7	215.9	1.7	-85.22	-1,160.8	-3,831.3	4,194.3	3,977.6	216.74	19.352		
14,300.0	6,636.0	6,440.6	6,439.3	216.7	1.7	-85.18	-1,160.8	-3,831.3	4,219.6	4,002.0	217.52	19.398		
14,370.0	6,635.9	6,437.1	6,435.8	218.7	1.7	-85.08	-1,160.8	-3,831.5	4,282.0	4,062.6	219.45	19.513		
14,400.0	6,635.8	6,435.6	6,434.3	219.5	1.7	-85.03	-1,160.8	-3,831.6	4,308.8	4,088.5	220.27	19.562		
14,468.5	6,635.7	6,432.1	6,430.9	221.4	1.7	-84.93	-1,160.8	-3,831.7	4,370.2	4,148.0	222.15	19.672		
14,500.0	6,635.7	6,430.5	6,429.2	222.3	1.7	-84.88	-1,160.8	-3,831.8	4,398.5	4,175.5	223.01	19.723		
14,566.9	6,635.6	6,427.1	6,425.8	224.2	1.7	-84.78	-1,160.9	-3,831.9	4,458.8	4,233.9	224.85	19.830		
14,600.0	6,635.6	6,425.3	6,424.1	225.1	1.7	-84.73	-1,160.9	-3,832.0	4,488.7	4,262.9	225.76	19.883		
14,665.3	6,635.5	6,421.9	6,420.6	226.9	1.7	-84.63	-1,160.9	-3,832.2	4,547.8	4,320.2	227.54	19.986		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS #9-23 - 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
14,700.0	6,635.4	6,420.0	6,418.8	227.9	1.7	-84.57	-1,160.9	-3,832.2	4,579.2	4,350.7	228.49	20.041	
14,763.7	6,635.4	6,416.6	6,415.3	229.7	1.7	-84.47	-1,160.9	-3,832.4	4,637.1	4,406.9	230.24	20.141	
14,800.0	6,635.3	6,414.6	6,413.4	230.7	1.7	-84.41	-1,160.9	-3,832.5	4,670.1	4,438.9	231.23	20.197	
14,862.2	6,635.2	6,411.2	6,410.0	232.5	1.7	-84.31	-1,161.0	-3,832.6	4,726.8	4,493.9	232.93	20.293	
14,900.0	6,635.2	6,409.1	6,407.9	233.5	1.7	-84.25	-1,161.0	-3,832.7	4,761.4	4,527.4	233.96	20.352	
14,960.6	6,635.1	6,405.7	6,404.5	235.2	1.7	-84.15	-1,161.0	-3,832.9	4,816.9	4,581.3	235.61	20.444	
15,000.0	6,635.0	6,403.5	6,402.2	236.3	1.7	-84.08	-1,161.0	-3,833.0	4,853.0	4,616.3	236.68	20.504	
15,033.1	6,635.0	6,401.6	6,400.4	237.3	1.7	-84.03	-1,161.0	-3,833.1	4,883.4	4,645.8	237.58	20.554	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-81.29	679.8	-4,439.1	4,491.0				
98.4	98.4	50.9	50.9	0.1	0.0	-81.29	680.0	-4,439.1	4,490.9	4,490.8	0.10	N/A	
100.0	100.0	52.2	52.2	0.1	0.0	-81.29	680.0	-4,439.1	4,490.9	4,490.8	0.10	N/A	
196.8	196.8	144.1	144.1	0.3	0.1	-81.28	680.7	-4,439.4	4,491.3	4,490.9	0.41	N/A	
200.0	200.0	147.8	147.8	0.3	0.1	-81.28	680.8	-4,439.4	4,491.3	4,490.9	0.43	N/A	
295.3	295.3	291.3	291.2	0.5	0.3	-81.24	683.7	-4,438.8	4,491.3	4,490.5	0.82	5,455.796	
300.0	300.0	299.9	299.9	0.5	0.3	-81.24	683.9	-4,438.7	4,491.3	4,490.4	0.84	5,335.999	
393.7	393.7	407.4	407.3	0.8	0.4	-81.19	687.5	-4,437.1	4,490.4	4,489.2	1.13	3,972.928	
400.0	400.0	413.4	413.3	0.8	0.4	-81.19	687.8	-4,437.0	4,490.3	4,489.1	1.15	3,911.357	
492.1	492.1	500.5	500.3	1.0	0.4	-81.14	691.4	-4,435.5	4,489.3	4,487.9	1.41	3,188.633	
500.0	500.0	508.6	508.4	1.0	0.5	-81.14	691.7	-4,435.4	4,489.2	4,487.8	1.43	3,139.467	
590.5	590.5	601.7	601.4	1.2	0.5	-81.08	696.0	-4,433.8	4,488.3	4,486.6	1.68	2,666.661	
600.0	600.0	611.7	611.3	1.2	0.5	-81.07	696.4	-4,433.6	4,488.2	4,486.5	1.71	2,625.909	
689.0	689.0	704.6	704.2	1.4	0.6	-81.02	700.7	-4,431.9	4,487.2	4,485.3	1.95	2,295.952	
700.0	700.0	715.2	714.8	1.4	0.6	-81.01	701.1	-4,431.7	4,487.1	4,485.1	1.98	2,261.678	
787.4	787.4	800.0	799.4	1.6	0.6	-80.96	704.9	-4,430.2	4,486.2	4,483.9	2.22	2,022.004	
800.0	800.0	812.1	811.5	1.7	0.6	-80.95	705.4	-4,430.0	4,486.0	4,483.8	2.25	1,991.935	
885.8	885.8	899.5	898.9	1.9	0.7	-80.90	709.1	-4,428.4	4,485.1	4,482.6	2.48	1,807.074	
900.0	900.0	913.4	912.7	1.9	0.7	-80.90	709.7	-4,428.2	4,485.0	4,482.4	2.52	1,780.163	
984.2	984.2	995.3	994.6	2.1	0.7	-80.85	712.8	-4,426.8	4,484.1	4,481.3	2.74	1,635.434	
1,000.0	1,000.0	1,010.4	1,009.7	2.1	0.7	-80.84	713.4	-4,426.5	4,483.9	4,481.1	2.78	1,611.106	
1,082.7	1,082.7	1,089.2	1,088.4	2.3	0.7	-107.83	716.4	-4,425.3	4,483.5	4,480.5	2.97	1,508.967	
1,086.7	1,086.7	1,093.0	1,092.2	2.3	0.7	-107.83	716.5	-4,425.2	4,483.5	4,480.5	2.98	1,503.791	
1,100.0	1,100.0	1,105.5	1,104.7	2.3	0.7	-107.83	717.0	-4,425.0	4,483.5	4,480.5	3.02	1,486.910	
1,181.1	1,181.0	1,180.0	1,179.1	2.5	0.8	-107.82	719.6	-4,424.0	4,484.0	4,480.8	3.22	1,392.542	
1,200.0	1,199.8	1,200.0	1,199.1	2.6	0.8	-107.83	720.3	-4,423.7	4,484.3	4,481.0	3.27	1,371.907	
1,279.5	1,279.1	1,266.8	1,265.9	2.8	0.8	-107.83	722.7	-4,422.9	4,485.8	4,482.3	3.47	1,292.056	
1,300.0	1,299.5	1,284.6	1,283.7	2.8	0.8	-107.84	723.3	-4,422.7	4,486.3	4,482.8	3.52	1,272.918	
1,377.9	1,376.9	1,384.3	1,383.3	3.0	0.9	-107.89	726.8	-4,421.5	4,488.7	4,485.0	3.74	1,198.932	
1,400.0	1,398.7	1,415.9	1,414.9	3.0	0.9	-107.92	727.8	-4,421.1	4,489.4	4,485.6	3.81	1,179.287	
1,476.4	1,474.2	1,518.4	1,517.3	3.2	0.9	-108.02	730.5	-4,419.0	4,491.8	4,487.8	4.04	1,112.249	
1,500.0	1,497.5	1,541.1	1,540.0	3.3	0.9	-108.04	731.1	-4,418.6	4,492.7	4,488.6	4.11	1,093.622	
1,574.8	1,571.0	1,600.0	1,598.8	3.5	1.0	-108.09	732.5	-4,417.3	4,495.8	4,491.4	4.35	1,034.133	
1,600.0	1,595.6	1,629.2	1,628.1	3.6	1.0	-108.13	733.1	-4,416.7	4,497.0	4,492.5	4.43	1,014.822	
1,673.2	1,667.2	1,684.2	1,683.0	3.9	1.0	-108.26	734.4	-4,415.8	4,500.8	4,496.1	4.69	960.451	
1,700.0	1,693.4	1,700.0	1,698.8	4.0	1.0	-108.29	734.7	-4,415.6	4,502.3	4,497.5	4.78	942.230	
1,771.6	1,763.5	1,760.5	1,759.3	4.2	1.0	-108.43	735.9	-4,414.9	4,506.5	4,501.4	5.04	893.645	
1,800.0	1,791.3	1,782.6	1,781.4	4.3	1.0	-108.48	736.4	-4,414.7	4,508.2	4,503.0	5.15	875.888	
1,870.1	1,859.8	1,833.4	1,832.1	4.6	1.0	-108.59	737.2	-4,414.3	4,512.6	4,507.2	5.41	833.785	
1,900.0	1,889.1	1,854.2	1,853.0	4.7	1.1	-108.64	737.5	-4,414.3	4,514.6	4,509.1	5.52	817.193	
1,968.5	1,956.1	1,900.0	1,898.8	4.9	1.1	-108.75	738.1	-4,414.3	4,519.4	4,513.6	5.79	780.726	
2,000.0	1,986.9	1,927.8	1,926.6	5.1	1.1	-108.81	738.4	-4,414.4	4,521.7	4,515.8	5.91	764.872	
2,066.9	2,052.3	1,982.0	1,980.7	5.3	1.1	-108.94	739.0	-4,414.7	4,526.8	4,520.6	6.18	732.866	
2,100.0	2,084.7	2,000.0	1,998.8	5.5	1.1	-108.99	739.1	-4,414.8	4,529.4	4,523.1	6.31	718.181	
2,165.3	2,148.6	2,060.2	2,059.0	5.7	1.1	-109.13	739.7	-4,415.3	4,534.6	4,528.0	6.57	690.070	
2,200.0	2,182.5	2,087.7	2,086.4	5.9	1.1	-109.20	739.9	-4,415.6	4,537.4	4,530.7	6.71	676.164	
2,263.8	2,244.9	2,144.2	2,142.9	6.1	1.1	-109.33	740.3	-4,416.4	4,542.8	4,535.8	6.97	651.655	
2,300.0	2,280.3	2,177.4	2,176.1	6.3	1.1	-109.41	740.5	-4,416.9	4,545.9	4,538.8	7.12	638.534	
2,362.2	2,341.2	2,238.1	2,236.9	6.5	1.2	-109.56	740.7	-4,417.8	4,551.3	4,543.9	7.38	616.964	
2,400.0	2,378.1	2,276.5	2,275.3	6.7	1.2	-109.66	740.7	-4,418.3	4,554.5	4,547.0	7.53	604.566	
2,460.6	2,437.4	2,333.2	2,331.9	6.9	1.2	-109.80	740.8	-4,419.2	4,559.8	4,552.0	7.79	585.621	
2,500.0	2,476.0	2,368.0	2,366.7	7.1	1.2	-109.89	740.8	-4,419.7	4,563.2	4,555.3	7.95	573.996	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
2,550.0	2,524.9	2,412.9	2,411.7	7.3	1.2	-110.00	740.8	-4,420.5	4,567.7	4,559.5	8.16	559.827	
2,559.0	2,533.7	2,421.5	2,420.2	7.3	1.2	-109.16	740.8	-4,420.6	4,568.5	4,560.3	8.19	557.497	
2,600.0	2,573.8	2,460.1	2,458.9	7.5	1.2	-105.40	740.7	-4,421.3	4,571.8	4,563.4	8.35	547.191	
2,639.4	2,612.3	2,497.3	2,496.0	7.7	1.2	-101.78	740.5	-4,422.0	4,574.4	4,565.9	8.50	538.028	
2,657.5	2,630.0	2,514.8	2,513.5	7.7	1.2	-101.83	740.4	-4,422.3	4,575.5	4,567.0	8.58	533.497	
2,700.0	2,671.6	2,556.2	2,554.9	7.9	1.2	-101.94	740.2	-4,423.0	4,578.2	4,569.4	8.75	523.166	
2,755.9	2,726.3	2,610.9	2,609.6	8.1	1.2	-102.08	739.9	-4,424.0	4,581.6	4,572.6	8.99	509.512	
2,800.0	2,769.4	2,655.0	2,653.7	8.3	1.2	-102.20	739.7	-4,424.8	4,584.4	4,575.2	9.18	499.266	
2,854.3	2,822.5	2,709.9	2,708.6	8.5	1.2	-102.35	739.2	-4,425.8	4,587.8	4,578.4	9.42	487.127	
2,900.0	2,867.2	2,758.2	2,756.8	8.7	1.2	-102.48	738.7	-4,426.7	4,590.7	4,581.0	9.62	477.388	
2,952.7	2,918.8	2,813.0	2,811.7	9.0	1.2	-102.63	737.9	-4,427.6	4,593.9	4,584.1	9.85	466.588	
3,000.0	2,965.0	2,859.7	2,858.4	9.2	1.2	-102.75	737.2	-4,428.4	4,596.9	4,586.8	10.05	457.360	
3,051.2	3,015.1	2,911.1	2,909.7	9.4	1.2	-102.89	736.4	-4,429.3	4,600.1	4,589.8	10.27	447.746	
3,100.0	3,062.8	2,962.9	2,961.5	9.6	1.2	-103.04	735.6	-4,430.1	4,603.2	4,592.7	10.49	438.946	
3,149.6	3,111.4	3,019.2	3,017.8	9.8	1.2	-103.19	734.7	-4,431.0	4,606.2	4,595.5	10.70	430.330	
3,200.0	3,160.7	3,085.3	3,083.8	10.0	1.3	-103.37	733.6	-4,431.8	4,609.2	4,598.3	10.92	421.903	
3,248.0	3,207.6	3,140.0	3,138.5	10.2	1.3	-103.52	732.5	-4,432.3	4,612.0	4,600.9	11.13	414.208	
3,300.0	3,258.5	3,196.4	3,195.0	10.5	1.3	-103.68	731.4	-4,432.7	4,614.9	4,603.6	11.36	406.220	
3,346.4	3,303.9	3,251.3	3,249.8	10.7	1.3	-103.83	730.3	-4,433.1	4,617.5	4,606.0	11.56	399.325	
3,400.0	3,356.3	3,314.6	3,313.1	10.9	1.3	-104.01	728.9	-4,433.4	4,620.4	4,608.6	11.80	391.677	
3,444.9	3,400.2	3,366.9	3,365.4	11.1	1.3	-104.15	727.7	-4,433.5	4,622.7	4,610.8	11.99	385.498	
3,500.0	3,454.1	3,428.2	3,426.7	11.3	1.3	-104.32	726.3	-4,433.5	4,625.6	4,613.3	12.23	378.191	
3,543.3	3,496.5	3,474.0	3,472.5	11.5	1.3	-104.45	725.3	-4,433.5	4,627.7	4,615.3	12.42	372.649	
3,600.0	3,551.9	3,531.8	3,530.3	11.7	1.3	-104.61	723.9	-4,433.4	4,630.6	4,617.9	12.66	365.649	
3,641.7	3,592.7	3,573.1	3,571.6	11.9	1.3	-104.72	722.9	-4,433.3	4,632.7	4,619.9	12.84	360.667	
3,700.0	3,649.7	3,630.8	3,629.3	12.2	1.3	-104.89	721.5	-4,433.2	4,635.7	4,622.6	13.10	353.951	
3,740.1	3,689.0	3,670.6	3,669.0	12.4	1.3	-105.00	720.5	-4,433.1	4,637.7	4,624.5	13.27	349.469	
3,800.0	3,747.5	3,730.5	3,728.9	12.6	1.3	-105.16	719.0	-4,433.0	4,640.8	4,627.3	13.53	343.009	
3,838.6	3,785.3	3,769.5	3,767.9	12.8	1.3	-105.27	718.0	-4,432.9	4,642.8	4,629.1	13.70	338.973	
3,900.0	3,845.4	3,834.0	3,832.4	13.1	1.3	-105.45	716.3	-4,432.7	4,646.0	4,632.0	13.96	332.753	
3,937.0	3,881.6	3,874.3	3,872.6	13.2	1.3	-105.56	715.3	-4,432.5	4,647.9	4,633.8	14.12	329.116	
4,000.0	3,943.2	3,941.5	3,939.8	13.5	1.3	-105.75	713.6	-4,432.2	4,651.1	4,636.7	14.39	323.119	
4,035.4	3,977.8	3,978.8	3,977.1	13.6	1.3	-105.85	712.7	-4,431.9	4,652.9	4,638.3	14.55	319.845	
4,100.0	4,041.0	4,041.2	4,039.5	13.9	1.3	-106.02	711.3	-4,431.5	4,656.1	4,641.3	14.83	314.062	
4,133.8	4,074.1	4,072.6	4,070.9	14.1	1.3	-106.11	710.6	-4,431.3	4,657.9	4,642.9	14.97	311.118	
4,200.0	4,138.8	4,132.8	4,131.1	14.4	1.3	-106.27	709.4	-4,430.9	4,661.3	4,646.1	15.26	305.534	
4,232.3	4,170.4	4,161.8	4,160.1	14.5	1.3	-106.35	708.9	-4,430.8	4,663.1	4,647.7	15.40	302.886	
4,300.0	4,236.6	4,222.2	4,220.5	14.8	1.4	-106.51	707.9	-4,430.5	4,666.8	4,651.1	15.69	297.491	
4,330.7	4,266.7	4,249.2	4,247.5	14.9	1.4	-106.58	707.5	-4,430.4	4,668.5	4,652.7	15.82	295.113	
4,400.0	4,334.4	4,310.6	4,308.9	15.2	1.4	-106.74	706.7	-4,430.3	4,672.5	4,656.4	16.12	289.896	
4,429.1	4,362.9	4,337.1	4,335.4	15.4	1.4	-106.81	706.4	-4,430.2	4,674.2	4,658.0	16.24	287.762	
4,500.0	4,432.3	4,400.0	4,398.2	15.7	1.4	-106.97	705.7	-4,430.2	4,678.5	4,662.0	16.55	282.714	
4,527.5	4,459.2	4,426.7	4,424.9	15.8	1.4	-107.04	705.4	-4,430.2	4,680.2	4,663.5	16.67	280.800	
4,600.0	4,530.1	4,492.8	4,491.1	16.1	1.4	-107.21	704.7	-4,430.2	4,684.7	4,667.8	16.98	275.911	
4,626.0	4,555.5	4,515.5	4,513.8	16.2	1.4	-107.26	704.5	-4,430.2	4,686.4	4,669.3	17.09	274.203	
4,700.0	4,627.9	4,578.9	4,577.1	16.6	1.4	-107.43	703.8	-4,430.3	4,691.3	4,673.8	17.41	269.468	
4,724.4	4,651.7	4,600.0	4,598.2	16.7	1.4	-107.48	703.4	-4,430.4	4,692.9	4,675.4	17.51	267.947	
4,800.0	4,725.7	4,666.1	4,664.3	17.0	1.4	-107.66	702.2	-4,430.7	4,698.1	4,680.2	17.84	263.359	
4,822.8	4,748.0	4,686.1	4,684.3	17.1	1.4	-107.71	701.8	-4,430.8	4,699.7	4,681.7	17.94	262.008	
4,904.9	4,828.3	4,781.8	4,780.0	17.5	1.4	-107.97	699.5	-4,431.3	4,705.4	4,687.1	18.29	257.283	
4,921.2	4,844.3	4,802.0	4,800.2	17.5	1.4	-108.04	699.0	-4,431.3	4,706.5	4,688.2	18.35	256.535	
5,000.0	4,921.6	4,899.8	4,898.0	17.8	1.5	-108.38	696.3	-4,431.3	4,711.2	4,692.6	18.62	252.975	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,941.0	4,928.5	4,926.6	17.9	1.5	-108.47	695.5	-4,431.2	4,712.2	4,693.5	18.68	252.293	
5,100.0	5,020.4	5,038.0	5,036.1	18.1	1.5	-108.76	692.7	-4,430.3	4,715.5	4,696.6	18.90	249.504	
5,118.1	5,038.3	5,060.0	5,058.0	18.2	1.5	-108.81	692.2	-4,430.0	4,716.1	4,697.2	18.94	248.958	
5,200.0	5,119.6	5,156.0	5,154.1	18.4	1.5	-109.01	690.5	-4,428.7	4,718.3	4,699.1	19.14	246.457	
5,216.5	5,136.0	5,175.0	5,173.1	18.4	1.5	-109.04	690.2	-4,428.4	4,718.6	4,699.4	19.18	246.026	
5,300.0	5,219.2	5,281.2	5,279.2	18.6	1.5	-109.18	688.5	-4,426.5	4,719.4	4,700.1	19.36	243.798	
5,314.9	5,234.1	5,300.7	5,298.7	18.6	1.5	-109.20	688.3	-4,426.1	4,719.5	4,700.1	19.38	243.460	
5,400.0	5,319.1	5,393.2	5,391.2	18.8	1.5	-109.26	686.8	-4,424.0	4,719.0	4,699.5	19.54	241.511	
5,413.4	5,332.4	5,407.5	5,405.4	18.8	1.5	-109.27	686.6	-4,423.7	4,718.9	4,699.3	19.56	241.261	
5,504.9	5,423.9	5,500.0	5,497.9	18.9	1.6	-90.85	685.1	-4,421.5	4,717.2	4,701.6	15.60	302.456	
5,511.8	5,430.8	5,509.4	5,507.3	18.9	1.6	-90.85	684.9	-4,421.3	4,717.0	4,701.4	15.61	302.187	
5,600.0	5,519.0	5,592.3	5,590.2	19.0	1.6	-90.87	683.3	-4,419.3	4,715.0	4,699.2	15.77	298.940	
5,610.2	5,529.3	5,602.1	5,600.0	19.0	1.6	-90.88	683.1	-4,419.1	4,714.7	4,698.9	15.79	298.528	
5,700.0	5,619.0	5,697.5	5,695.3	19.2	1.6	-90.90	681.0	-4,416.9	4,712.7	4,696.7	15.98	294.915	
5,708.6	5,627.7	5,706.5	5,704.4	19.2	1.6	-90.90	680.8	-4,416.6	4,712.5	4,696.5	16.00	294.569	
5,800.0	5,719.0	5,801.7	5,799.5	19.3	1.6	-90.93	678.4	-4,414.3	4,710.2	4,694.0	16.19	290.957	
5,807.1	5,726.1	5,808.6	5,806.4	19.3	1.6	-90.94	678.2	-4,414.1	4,710.1	4,693.8	16.20	290.680	
5,900.0	5,819.0	5,900.0	5,897.7	19.4	1.6	-90.97	675.7	-4,411.8	4,707.8	4,691.4	16.40	287.091	
5,905.5	5,824.5	5,905.1	5,902.8	19.4	1.6	-90.97	675.5	-4,411.7	4,707.6	4,691.2	16.41	286.881	
6,003.9	5,923.0	6,008.9	6,006.5	19.6	1.7	-91.01	672.2	-4,409.1	4,705.2	4,688.6	16.62	283.117	
6,009.8	5,928.8	6,016.4	6,014.1	19.6	1.7	-91.01	672.0	-4,408.9	4,705.1	4,688.4	16.63	282.891	
6,050.0	5,969.0	6,068.1	6,065.7	19.6	1.7	-1.04	670.3	-4,407.5	4,702.9	4,682.3	20.53	229.091	
6,100.0	6,018.8	6,128.7	6,126.2	19.7	1.7	-1.07	668.4	-4,405.6	4,696.8	4,676.2	20.60	227.947	
6,102.3	6,021.1	6,131.4	6,128.9	19.7	1.7	-1.07	668.3	-4,405.6	4,696.5	4,675.9	20.61	227.888	
6,150.0	6,068.1	6,185.5	6,183.0	19.7	1.7	-1.11	666.8	-4,403.8	4,687.3	4,666.6	20.68	226.645	
6,200.0	6,116.8	6,242.3	6,239.8	19.7	1.7	-1.16	665.2	-4,401.9	4,674.3	4,653.5	20.74	225.410	
6,200.8	6,117.5	6,243.2	6,240.6	19.7	1.7	-1.16	665.2	-4,401.9	4,674.0	4,653.3	20.74	225.392	
6,250.0	6,164.5	6,298.2	6,295.6	19.7	1.7	-1.21	663.7	-4,399.9	4,657.8	4,637.1	20.75	224.428	
6,299.2	6,210.4	6,363.5	6,360.8	19.7	1.7	-1.28	662.0	-4,397.4	4,638.3	4,617.6	20.73	223.732	
6,300.0	6,211.1	6,364.6	6,361.8	19.7	1.7	-1.28	662.0	-4,397.4	4,638.0	4,617.2	20.73	223.724	
6,350.0	6,256.4	6,420.4	6,417.6	19.7	1.7	-1.35	660.5	-4,395.0	4,614.8	4,594.1	20.65	223.521	
6,397.6	6,298.0	6,462.1	6,459.3	19.7	1.8	-1.43	659.5	-4,393.2	4,589.9	4,569.4	20.50	223.890	
6,400.0	6,300.0	6,464.2	6,461.3	19.7	1.8	-1.44	659.4	-4,393.1	4,588.5	4,568.0	20.49	223.922	
6,450.0	6,341.8	6,509.5	6,506.6	19.7	1.8	-1.54	658.2	-4,391.1	4,559.4	4,539.1	20.28	224.844	
6,496.0	6,378.6	6,568.7	6,565.7	19.7	1.8	-1.67	656.7	-4,388.3	4,530.0	4,509.9	20.05	225.951	
6,500.0	6,381.6	6,573.6	6,570.6	19.7	1.8	-1.68	656.5	-4,388.1	4,527.3	4,507.3	20.03	226.069	
6,550.0	6,419.2	6,632.9	6,629.8	19.6	1.8	-1.86	654.9	-4,385.0	4,492.5	4,472.7	19.72	227.832	
6,594.5	6,450.7	6,681.7	6,678.5	19.6	1.8	-2.04	653.5	-4,382.2	4,459.3	4,439.9	19.40	229.857	
6,600.0	6,454.4	6,687.5	6,684.3	19.6	1.8	-2.07	653.4	-4,381.8	4,455.0	4,435.7	19.36	230.144	
6,650.0	6,487.1	6,743.0	6,739.6	19.6	1.8	-2.34	651.7	-4,378.3	4,415.2	4,396.3	18.96	232.890	
6,692.9	6,513.0	6,787.3	6,783.8	19.6	1.8	-2.64	650.3	-4,375.3	4,379.3	4,360.8	18.59	235.615	
6,700.0	6,517.0	6,794.2	6,790.7	19.6	1.8	-2.70	650.1	-4,374.8	4,373.3	4,354.7	18.52	236.111	
6,750.0	6,544.1	6,790.0	6,786.5	19.6	1.8	-3.05	650.2	-4,375.1	4,329.5	4,311.5	17.98	240.734	
6,791.3	6,564.2	6,790.0	6,786.5	19.7	1.8	-3.44	650.2	-4,375.1	4,292.3	4,274.7	17.54	244.773	
6,800.0	6,568.2	6,790.0	6,786.5	19.7	1.8	-3.54	650.2	-4,375.1	4,284.3	4,266.9	17.45	245.581	
6,850.0	6,589.1	6,790.0	6,786.5	19.8	1.8	-4.22	650.2	-4,375.1	4,237.8	4,220.9	16.92	250.478	
6,889.7	6,603.5	6,790.0	6,786.5	19.9	1.8	-5.00	650.2	-4,375.1	4,200.1	4,183.5	16.53	254.157	
6,900.0	6,606.9	6,790.0	6,786.5	19.9	1.8	-5.25	650.2	-4,375.1	4,190.2	4,173.8	16.43	255.059	
6,950.0	6,621.3	6,790.0	6,786.5	20.2	1.8	-6.96	650.2	-4,375.1	4,141.7	4,125.7	16.01	258.763	
6,988.2	6,630.0	6,790.0	6,786.5	20.6	1.8	-9.26	650.2	-4,375.1	4,104.2	4,088.4	15.77	260.231	
7,000.0	6,632.4	6,790.0	6,786.5	20.7	1.8	-10.31	650.2	-4,375.1	4,092.5	4,076.8	15.73	260.217	
7,050.0	6,640.0	6,790.0	6,786.5	21.4	1.8	-19.58	650.2	-4,375.1	4,042.8	4,026.7	16.16	250.101	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,643.4	6,790.0	6,786.5	21.9	1.8	-49.36	650.2	-4,375.1	4,006.3	3,985.9	20.34	196.994		
7,100.0	6,644.2	6,790.0	6,786.5	22.1	1.8	-81.66	650.2	-4,375.1	3,992.9	3,970.3	22.62	176.527		
7,135.7	6,645.0	6,790.0	6,786.5	22.7	1.8	-150.04	650.2	-4,375.1	3,957.3	3,936.0	21.27	186.065		
7,185.0	6,644.9	6,790.0	6,786.5	23.6	1.8	-150.04	650.2	-4,375.1	3,908.0	3,886.2	21.78	179.413		
7,200.0	6,644.9	6,790.0	6,786.5	23.9	1.8	-150.04	650.2	-4,375.1	3,893.0	3,871.1	21.94	177.455		
7,283.4	6,644.8	6,790.0	6,786.5	25.6	1.8	-150.04	650.2	-4,375.1	3,809.7	3,786.8	22.86	166.670		
7,300.0	6,644.8	6,790.0	6,786.5	25.9	1.8	-150.04	650.2	-4,375.1	3,793.1	3,770.1	23.04	164.633		
7,381.9	6,644.7	6,790.0	6,786.5	27.7	1.8	-150.04	650.2	-4,375.1	3,711.4	3,687.4	24.00	154.666		
7,400.0	6,644.7	6,790.0	6,786.5	28.1	1.8	-150.04	650.2	-4,375.1	3,693.3	3,669.1	24.21	152.564		
7,480.3	6,644.6	6,790.0	6,786.5	29.9	1.8	-150.04	650.2	-4,375.1	3,613.1	3,587.9	25.19	143.425		
7,500.0	6,644.6	6,790.0	6,786.5	30.3	1.8	-150.05	650.2	-4,375.1	3,593.5	3,568.0	25.43	141.290		
7,578.7	6,644.5	6,790.0	6,786.5	32.2	1.8	-150.05	650.2	-4,375.1	3,514.9	3,488.5	26.43	132.978		
7,600.0	6,644.4	6,790.0	6,786.5	32.7	1.8	-150.05	650.2	-4,375.1	3,493.6	3,466.9	26.70	130.837		
7,677.1	6,644.3	6,790.0	6,786.5	34.6	1.8	-150.05	650.2	-4,375.1	3,416.6	3,388.9	27.71	123.305		
7,700.0	6,644.3	6,790.0	6,786.5	35.1	1.8	-150.05	650.2	-4,375.1	3,393.8	3,365.8	28.01	121.178		
7,775.6	6,644.2	6,790.0	6,786.5	37.0	1.8	-150.05	650.2	-4,375.1	3,318.4	3,289.4	29.02	114.366		
7,800.0	6,644.2	6,790.0	6,786.5	37.6	1.8	-150.05	650.2	-4,375.1	3,294.0	3,264.7	29.34	112.264		
7,874.0	6,644.1	6,790.0	6,786.5	39.5	1.8	-150.05	650.2	-4,375.1	3,220.2	3,189.8	30.35	106.109		
7,900.0	6,644.1	6,790.0	6,786.5	40.1	1.8	-150.05	650.2	-4,375.1	3,194.2	3,163.5	30.70	104.042		
7,972.4	6,644.0	6,790.0	6,786.5	42.0	1.8	-150.05	650.2	-4,375.1	3,122.0	3,090.3	31.70	98.481		
8,000.0	6,643.9	6,790.0	6,786.5	42.7	1.8	-150.05	650.2	-4,375.1	3,094.5	3,062.4	32.08	96.455		
8,070.8	6,643.9	6,790.0	6,786.5	44.5	1.8	-150.05	650.2	-4,375.1	3,023.8	2,990.7	33.07	91.429		
8,100.0	6,643.8	6,790.0	6,786.5	45.2	1.8	-150.05	650.2	-4,375.1	2,994.7	2,961.2	33.48	89.447		
8,169.3	6,643.7	6,790.0	6,786.5	47.0	1.8	-150.05	650.2	-4,375.1	2,925.6	2,891.2	34.46	84.900		
8,200.0	6,643.7	6,790.0	6,786.5	47.9	1.8	-150.05	650.2	-4,375.1	2,895.0	2,860.1	34.89	82.966		
8,267.7	6,643.6	6,790.0	6,786.5	49.6	1.8	-150.05	650.2	-4,375.1	2,827.4	2,791.6	35.86	78.849		
8,300.0	6,643.6	6,790.0	6,786.5	50.5	1.8	-150.05	650.2	-4,375.1	2,795.2	2,758.9	36.32	76.962		
8,366.1	6,643.5	6,806.5	6,803.0	52.2	1.8	-152.03	649.7	-4,373.9	2,729.3	2,693.1	36.17	75.455		
8,400.0	6,643.4	6,803.0	6,799.4	53.1	1.8	-151.63	649.8	-4,374.1	2,695.5	2,658.6	36.86	73.124		
8,464.5	6,643.4	6,796.4	6,792.9	54.8	1.8	-150.85	650.0	-4,374.6	2,631.2	2,593.0	38.22	68.836		
8,500.0	6,643.3	6,792.8	6,789.3	55.8	1.8	-150.41	650.1	-4,374.9	2,595.8	2,556.9	38.99	66.572		
8,563.0	6,643.2	6,786.5	6,783.0	57.5	1.8	-149.60	650.3	-4,375.3	2,533.1	2,492.7	40.40	62.695		
8,600.0	6,643.2	6,782.9	6,779.4	58.5	1.8	-149.12	650.4	-4,375.6	2,496.2	2,454.9	41.26	60.504		
8,661.4	6,643.1	6,776.9	6,773.5	60.1	1.8	-148.29	650.6	-4,376.0	2,435.0	2,392.3	42.71	57.006		
8,700.0	6,643.1	6,773.3	6,769.8	61.2	1.8	-147.76	650.7	-4,376.3	2,396.5	2,352.9	43.66	54.893		
8,759.8	6,643.0	6,767.6	6,764.2	62.8	1.8	-146.90	650.9	-4,376.6	2,336.9	2,291.7	45.16	51.742		
8,800.0	6,643.0	6,763.9	6,760.5	63.9	1.8	-146.32	651.0	-4,376.9	2,296.9	2,250.7	46.20	49.711		
8,858.2	6,642.9	6,758.6	6,755.2	65.4	1.8	-145.44	651.2	-4,377.3	2,238.8	2,191.0	47.76	46.879		
8,900.0	6,642.8	6,754.8	6,751.5	66.6	1.8	-144.80	651.3	-4,377.5	2,197.2	2,148.3	48.90	44.932		
8,956.7	6,642.8	6,749.8	6,746.4	68.1	1.8	-143.90	651.5	-4,377.8	2,140.7	2,090.2	50.50	42.392		
9,000.0	6,642.7	6,746.0	6,742.6	69.3	1.8	-143.19	651.6	-4,378.1	2,097.5	2,045.8	51.75	40.530		
9,055.1	6,642.6	6,741.2	6,737.9	70.8	1.8	-142.27	651.7	-4,378.4	2,042.6	1,989.2	53.39	38.257		
9,100.0	6,642.6	6,737.4	6,734.1	72.0	1.8	-141.49	651.9	-4,378.7	1,997.9	1,943.1	54.76	36.483		
9,153.5	6,642.5	6,732.9	6,729.6	73.5	1.8	-140.55	652.0	-4,379.0	1,944.5	1,888.1	56.44	34.453		
9,200.0	6,642.5	6,729.1	6,725.7	74.7	1.8	-139.70	652.1	-4,379.2	1,898.2	1,840.3	57.93	32.765		
9,251.9	6,642.4	6,724.8	6,721.5	76.2	1.8	-138.73	652.2	-4,379.5	1,846.5	1,786.8	59.65	30.957		
9,300.0	6,642.3	6,720.9	6,717.6	77.5	1.8	-137.81	652.4	-4,379.7	1,798.6	1,737.3	61.27	29.356		
9,350.4	6,642.3	6,716.9	6,713.6	78.9	1.8	-136.82	652.5	-4,380.0	1,748.4	1,685.4	63.01	27.749		
9,400.0	6,642.2	6,713.0	6,709.7	80.2	1.8	-135.82	652.6	-4,380.2	1,699.0	1,634.2	64.76	26.234		
9,448.8	6,642.1	6,709.2	6,706.0	81.6	1.8	-134.80	652.7	-4,380.5	1,650.3	1,583.8	66.52	24.809		
9,500.0	6,642.1	6,705.3	6,702.0	83.0	1.8	-133.72	652.8	-4,380.7	1,599.3	1,530.9	68.41	23.379		
9,547.2	6,642.0	6,701.7	6,698.5	84.3	1.8	-132.69	652.9	-4,380.9	1,552.3	1,482.1	70.18	22.118		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,600.0	6,642.0	6,697.9	6,694.6	85.7	1.8	-131.53	653.0	-4,381.2	1,499.7	1,427.6	72.19	20.776	
9,645.6	6,641.9	6,694.6	6,691.4	87.0	1.8	-130.52	653.1	-4,381.4	1,454.3	1,380.3	73.94	19.669	
9,700.0	6,641.8	6,690.7	6,687.5	88.5	1.8	-129.28	653.3	-4,381.6	1,400.2	1,324.1	76.06	18.410	
9,744.1	6,641.8	6,687.7	6,684.4	89.7	1.8	-128.25	653.3	-4,381.8	1,356.3	1,278.5	77.80	17.433	
9,800.0	6,641.7	6,683.8	6,680.6	91.2	1.8	-126.92	653.5	-4,382.0	1,300.6	1,220.6	80.05	16.248	
9,842.5	6,641.7	6,680.9	6,677.7	92.4	1.8	-125.88	653.5	-4,382.2	1,258.3	1,176.6	81.78	15.387	
9,900.0	6,641.6	6,676.9	6,673.8	94.0	1.8	-124.44	653.7	-4,382.4	1,201.1	1,117.0	84.14	14.275	
9,940.9	6,641.5	6,674.2	6,671.0	95.1	1.8	-123.39	653.7	-4,382.6	1,160.4	1,074.6	85.84	13.518	
10,000.0	6,641.5	6,670.3	6,667.1	96.7	1.8	-121.85	653.9	-4,382.8	1,101.7	1,013.4	88.31	12.475	
10,039.3	6,641.4	6,667.7	6,664.5	97.8	1.8	-120.80	653.9	-4,383.0	1,062.6	972.6	89.97	11.811	
10,100.0	6,641.3	6,663.7	6,660.5	99.5	1.8	-119.14	654.0	-4,383.2	1,002.3	909.8	92.52	10.833	
10,137.8	6,641.3	6,661.2	6,658.1	100.6	1.8	-118.09	654.1	-4,383.4	964.8	870.7	94.12	10.251	
10,200.0	6,641.2	6,657.2	6,654.1	102.3	1.8	-116.33	654.2	-4,383.6	903.0	806.3	96.75	9.334	
10,236.2	6,641.2	6,654.9	6,651.8	103.3	1.8	-115.29	654.3	-4,383.7	867.1	768.9	98.27	8.824	
10,300.0	6,641.1	6,650.9	6,647.8	105.0	1.8	-113.43	654.4	-4,383.9	803.9	703.0	100.94	7.964	
10,334.6	6,641.0	6,648.8	6,645.6	106.0	1.8	-112.40	654.5	-4,384.1	769.6	667.2	102.37	7.518	
10,400.0	6,641.0	6,644.7	6,641.6	107.8	1.8	-110.44	654.6	-4,384.3	704.9	599.9	105.05	6.710	
10,433.0	6,640.9	6,642.7	6,639.6	108.7	1.8	-109.43	654.6	-4,384.4	672.3	565.9	106.39	6.319	
10,500.0	6,640.8	6,638.6	6,635.5	110.6	1.8	-107.37	654.8	-4,384.6	606.3	497.2	109.05	5.559	
10,531.5	6,640.8	6,636.7	6,633.6	111.5	1.8	-106.39	654.8	-4,384.7	575.3	465.0	110.28	5.217	
10,600.0	6,640.7	6,632.7	6,629.6	113.4	1.8	-104.25	654.9	-4,385.0	508.1	395.2	112.89	4.500	
10,629.9	6,640.7	6,630.9	6,627.8	114.2	1.8	-103.31	655.0	-4,385.1	478.8	364.8	114.01	4.200	
10,700.0	6,640.6	6,626.8	6,623.7	116.1	1.8	-101.08	655.1	-4,385.3	410.6	294.1	116.54	3.523	
10,728.3	6,640.5	6,625.1	6,622.1	116.9	1.8	-100.18	655.1	-4,385.4	383.2	265.7	117.53	3.261	
10,800.0	6,640.5	6,621.0	6,618.0	118.9	1.8	-97.90	655.2	-4,385.6	314.7	194.7	119.96	2.623	
10,826.7	6,640.4	6,619.5	6,616.4	119.7	1.8	-97.05	655.3	-4,385.7	289.5	168.6	120.83	2.396	
10,900.0	6,640.3	6,615.4	6,612.3	121.7	1.8	-94.71	655.4	-4,385.9	222.2	99.1	123.13	1.805	
10,925.2	6,640.3	6,614.0	6,610.9	122.4	1.8	-93.91	655.4	-4,386.0	200.1	76.2	123.89	1.615	
11,000.0	6,640.2	6,609.8	6,606.8	124.5	1.8	-91.54	655.5	-4,386.2	140.3	14.2	126.05	1.113 Level 2	
11,023.6	6,640.2	6,608.5	6,605.5	125.1	1.8	-90.80	655.6	-4,386.3	124.8	-1.9	126.71	0.985 Level 1	
11,098.9	6,640.1	6,604.4	6,601.4	127.2	1.8	-88.44	655.7	-4,386.5	99.6	-29.1	128.69	0.774 Level 1, CC	
11,100.0	6,640.1	6,604.4	6,601.3	127.3	1.8	-88.41	655.7	-4,386.5	99.6	-29.1	128.71	0.774 Level 1, ES, SF	
11,122.0	6,640.0	6,603.2	6,600.1	127.9	1.8	-87.73	655.7	-4,386.6	102.2	-27.0	129.26	0.791 Level 1	
11,200.0	6,639.9	6,599.0	6,596.0	130.1	1.8	-85.33	655.8	-4,386.8	141.8	10.7	131.10	1.081 Level 2	
11,220.4	6,639.9	6,597.9	6,594.9	130.6	1.8	-84.71	655.9	-4,386.9	157.0	25.4	131.56	1.193 Level 2	
11,300.0	6,639.8	6,593.7	6,590.7	132.8	1.8	-82.32	656.0	-4,387.1	224.1	90.9	133.21	1.682	
11,318.9	6,639.8	6,592.7	6,589.7	133.4	1.8	-81.76	656.0	-4,387.1	241.1	107.5	133.58	1.805	
11,400.0	6,639.7	6,588.5	6,585.5	135.6	1.8	-79.39	656.1	-4,387.3	316.7	181.6	135.03	2.345	
11,417.3	6,639.7	6,587.6	6,584.6	136.1	1.8	-78.89	656.1	-4,387.4	333.1	197.8	135.32	2.462	
11,500.0	6,639.6	6,583.4	6,580.4	138.4	1.8	-76.56	656.3	-4,387.6	412.7	276.1	136.57	3.022	
11,515.7	6,639.5	6,582.6	6,579.6	138.9	1.8	-76.12	656.3	-4,387.6	427.9	291.1	136.78	3.128	
11,600.0	6,639.4	6,578.4	6,575.4	141.2	1.8	-73.83	656.4	-4,387.9	510.1	372.3	137.83	3.701	
11,614.1	6,639.4	6,577.7	6,574.7	141.6	1.8	-73.45	656.4	-4,387.9	524.0	386.0	137.99	3.798	
11,700.0	6,639.3	6,573.5	6,570.5	144.0	1.8	-71.21	656.5	-4,388.1	608.4	469.6	138.84	4.382	
11,712.6	6,639.3	6,572.9	6,569.9	144.3	1.8	-70.89	656.5	-4,388.1	620.8	481.8	138.95	4.468	
11,800.0	6,639.2	6,568.6	6,565.7	146.8	1.8	-68.71	656.7	-4,388.3	707.1	567.5	139.61	5.065	
11,811.0	6,639.2	6,568.1	6,565.1	147.1	1.8	-68.44	656.7	-4,388.4	718.0	578.3	139.68	5.140	
11,900.0	6,639.1	6,563.9	6,560.9	149.6	1.8	-66.32	656.8	-4,388.6	806.1	665.9	140.17	5.751	
11,909.4	6,639.0	6,563.4	6,560.4	149.8	1.8	-66.10	656.8	-4,388.6	815.4	675.2	140.22	5.816	
12,000.0	6,638.9	6,559.2	6,556.2	152.4	1.8	-64.05	656.9	-4,388.8	905.3	764.7	140.56	6.441	
12,007.8	6,638.9	6,558.8	6,555.8	152.6	1.8	-63.87	656.9	-4,388.8	913.1	772.5	140.58	6.495	
12,100.0	6,638.8	6,554.6	6,551.6	155.2	1.8	-61.89	657.0	-4,389.0	1,004.6	863.8	140.78	7.136	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,106.3	6,638.8	6,554.3	6,551.3	155.3	1.8	-61.76	657.0	-4,389.1	1,010.9	870.1	140.79	7.180	
12,200.0	6,638.7	6,550.0	6,547.1	157.9	1.8	-59.84	657.2	-4,389.3	1,104.1	963.2	140.88	7.837	
12,204.7	6,638.7	6,549.8	6,546.9	158.1	1.8	-59.75	657.2	-4,389.3	1,108.7	967.8	140.89	7.870	
12,300.0	6,638.5	6,545.6	6,542.6	160.7	1.8	-57.90	657.3	-4,389.5	1,203.6	1,062.7	140.88	8.543	
12,303.1	6,638.5	6,545.4	6,542.5	160.8	1.8	-57.84	657.3	-4,389.5	1,206.7	1,065.8	140.88	8.566	
12,400.0	6,638.4	6,541.2	6,538.2	163.5	1.8	-56.06	657.4	-4,389.7	1,303.1	1,162.3	140.78	9.256	
12,401.5	6,638.4	6,541.1	6,538.2	163.6	1.8	-56.03	657.4	-4,389.7	1,304.7	1,163.9	140.78	9.267	
12,500.0	6,638.3	6,536.8	6,533.9	166.3	1.8	-54.32	657.5	-4,389.9	1,402.7	1,262.1	140.63	9.975	
12,598.4	6,638.2	6,532.6	6,529.7	169.1	1.8	-52.71	657.6	-4,390.1	1,500.8	1,360.4	140.42	10.688	
12,600.0	6,638.2	6,532.6	6,529.6	169.1	1.8	-52.68	657.6	-4,390.1	1,502.4	1,362.0	140.41	10.700	
12,696.8	6,638.0	6,528.5	6,525.6	171.8	1.8	-51.17	657.7	-4,390.3	1,598.9	1,458.7	140.18	11.406	
12,700.0	6,638.0	6,528.4	6,525.5	171.9	1.8	-51.13	657.7	-4,390.3	1,602.1	1,461.9	140.17	11.430	
12,795.2	6,637.9	6,524.5	6,521.5	174.6	1.8	-49.72	657.8	-4,390.5	1,697.0	1,557.1	139.91	12.130	
12,800.0	6,637.9	6,524.3	6,521.3	174.7	1.8	-49.66	657.8	-4,390.5	1,701.8	1,561.9	139.90	12.165	
12,893.7	6,637.8	6,520.4	6,517.5	177.3	1.8	-48.35	657.9	-4,390.6	1,795.2	1,655.6	139.63	12.857	
12,900.0	6,637.8	6,520.2	6,517.3	177.5	1.8	-48.27	657.9	-4,390.7	1,801.5	1,661.9	139.61	12.904	
12,992.1	6,637.7	6,516.5	6,513.6	180.1	1.8	-47.05	658.0	-4,390.8	1,893.4	1,754.0	139.34	13.588	
13,000.0	6,637.6	6,516.2	6,513.3	180.3	1.8	-46.95	658.0	-4,390.8	1,901.2	1,761.9	139.31	13.647	
13,090.5	6,637.5	6,512.6	6,509.7	182.8	1.8	-45.82	658.1	-4,391.0	1,991.6	1,852.5	139.05	14.323	
13,100.0	6,637.5	6,512.2	6,509.3	183.1	1.8	-45.70	658.2	-4,391.0	2,001.0	1,862.0	139.02	14.394	
13,188.9	6,637.4	6,508.8	6,505.9	185.6	1.8	-44.65	658.2	-4,391.2	2,089.8	1,951.0	138.76	15.060	
13,200.0	6,637.4	6,508.4	6,505.5	185.9	1.8	-44.52	658.3	-4,391.2	2,100.8	1,962.1	138.73	15.143	
13,287.4	6,637.3	6,500.0	6,497.1	188.4	1.8	-42.14	658.5	-4,391.6	2,188.0	2,052.4	135.55	16.141	
13,300.0	6,637.3	6,500.0	6,497.1	188.7	1.8	-42.14	658.5	-4,391.6	2,200.6	2,064.8	135.80	16.205	
13,385.8	6,637.1	6,500.0	6,497.1	191.1	1.8	-42.14	658.5	-4,391.6	2,286.2	2,148.7	137.47	16.630	
13,400.0	6,637.1	6,500.0	6,497.1	191.5	1.8	-42.14	658.5	-4,391.6	2,300.4	2,162.6	137.75	16.700	
13,484.2	6,637.0	6,497.2	6,494.3	193.9	1.8	-41.37	658.5	-4,391.7	2,384.4	2,246.7	137.72	17.314	
13,500.0	6,637.0	6,496.5	6,493.6	194.3	1.8	-41.18	658.6	-4,391.7	2,400.2	2,262.6	137.61	17.442	
13,582.6	6,636.9	6,492.8	6,489.9	196.6	1.8	-40.23	658.7	-4,391.9	2,482.7	2,345.6	137.06	18.114	
13,600.0	6,636.9	6,492.0	6,489.1	197.1	1.8	-40.04	658.7	-4,391.9	2,500.0	2,363.1	136.94	18.256	
13,681.1	6,636.8	6,488.4	6,485.6	199.4	1.8	-39.15	658.8	-4,392.1	2,580.9	2,444.5	136.41	18.920	
13,700.0	6,636.7	6,487.6	6,484.7	199.9	1.8	-38.94	658.8	-4,392.1	2,599.8	2,463.5	136.29	19.076	
13,779.5	6,636.6	6,484.1	6,481.2	202.1	1.8	-38.11	658.9	-4,392.3	2,679.2	2,543.4	135.77	19.733	
13,800.0	6,636.6	6,483.2	6,480.3	202.7	1.8	-37.90	658.9	-4,392.3	2,699.7	2,564.0	135.64	19.903	
13,877.9	6,636.5	6,479.7	6,476.9	204.9	1.8	-37.11	659.0	-4,392.4	2,777.4	2,642.3	135.14	20.552	
13,900.0	6,636.5	6,478.7	6,475.9	205.5	1.8	-36.89	659.0	-4,392.5	2,799.5	2,664.5	135.00	20.736	
13,976.3	6,636.4	6,475.4	6,472.5	207.6	1.8	-36.16	659.1	-4,392.6	2,875.7	2,741.2	134.53	21.376	
14,000.0	6,636.3	6,474.3	6,471.5	208.3	1.8	-35.94	659.1	-4,392.7	2,899.3	2,764.9	134.39	21.574	
14,074.8	6,636.3	6,471.0	6,468.2	210.4	1.8	-35.25	659.2	-4,392.8	2,974.0	2,840.0	133.94	22.204	
14,100.0	6,636.2	6,469.9	6,467.1	211.1	1.8	-35.02	659.3	-4,392.9	2,999.2	2,865.4	133.79	22.417	
14,173.2	6,636.1	6,466.7	6,463.9	213.2	1.8	-34.37	659.3	-4,393.0	3,072.3	2,938.9	133.37	23.036	
14,200.0	6,636.1	6,465.5	6,462.7	213.9	1.8	-34.14	659.4	-4,393.1	3,099.0	2,965.8	133.21	23.264	
14,271.6	6,636.0	6,462.4	6,459.5	215.9	1.8	-33.54	659.5	-4,393.2	3,170.5	3,037.7	132.81	23.872	
14,300.0	6,636.0	6,461.1	6,458.3	216.7	1.8	-33.30	659.5	-4,393.3	3,198.9	3,066.2	132.66	24.113	
14,370.0	6,635.9	6,458.0	6,455.2	218.7	1.8	-32.73	659.6	-4,393.4	3,268.8	3,136.5	132.28	24.710	
14,400.0	6,635.8	6,456.7	6,453.9	219.5	1.8	-32.50	659.6	-4,393.4	3,298.7	3,166.6	132.13	24.966	
14,468.5	6,635.7	6,453.7	6,450.9	221.4	1.8	-31.96	659.7	-4,393.6	3,367.1	3,235.3	131.78	25.551	
14,500.0	6,635.7	6,452.3	6,449.5	222.3	1.8	-31.72	659.7	-4,393.6	3,398.6	3,266.9	131.62	25.821	
14,566.9	6,635.6	6,449.4	6,446.6	224.2	1.8	-31.23	659.8	-4,393.8	3,465.4	3,334.1	131.30	26.393	
14,600.0	6,635.6	6,448.0	6,445.1	225.1	1.8	-30.98	659.8	-4,393.8	3,498.4	3,367.3	131.14	26.677	
14,665.3	6,635.5	6,445.1	6,442.3	226.9	1.8	-30.52	659.9	-4,394.0	3,563.7	3,432.8	130.84	27.237	
14,700.0	6,635.4	6,443.6	6,440.8	227.9	1.8	-30.27	659.9	-4,394.0	3,598.3	3,467.6	130.69	27.534	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BLOSKAS BOND #9D - 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
14,763.7	6,635.4	6,440.8	6,438.0	229.7	1.8	-29.83	660.0	-4,394.1	3,661.9	3,531.5	130.41	28.081	
14,800.0	6,635.3	6,439.2	6,436.4	230.7	1.7	-29.59	660.1	-4,394.2	3,698.1	3,567.9	130.25	28.392	
14,862.2	6,635.2	6,436.5	6,433.7	232.5	1.7	-29.18	660.1	-4,394.3	3,760.2	3,630.2	130.00	28.925	
14,900.0	6,635.2	6,434.8	6,432.0	233.5	1.7	-28.93	660.2	-4,394.4	3,798.0	3,668.2	129.85	29.249	
14,960.6	6,635.1	6,432.2	6,429.4	235.2	1.7	-28.55	660.2	-4,394.5	3,858.5	3,728.9	129.62	29.769	
15,000.0	6,635.0	6,430.5	6,427.7	236.3	1.7	-28.30	660.3	-4,394.6	3,897.9	3,768.4	129.47	30.106	
15,033.1	6,635.0	6,429.0	6,426.2	237.3	1.7	-28.10	660.3	-4,394.6	3,930.9	3,801.6	129.35	30.389	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.02	-1.2	-3,799.6	3,799.7				
98.4	98.4	39.5	39.5	0.1	0.0	-90.02	-1.2	-3,799.7	3,799.7	3,799.6	0.11	N/A	
100.0	100.0	40.5	40.5	0.1	0.0	-90.02	-1.2	-3,799.7	3,799.7	3,799.6	0.11	N/A	
196.8	196.8	106.0	106.0	0.3	0.0	-90.02	-1.3	-3,800.4	3,800.8	3,800.4	0.36	N/A	
200.0	200.0	110.5	110.5	0.3	0.0	-90.02	-1.4	-3,800.4	3,800.8	3,800.4	0.38	N/A	
295.3	295.3	236.4	236.4	0.5	0.2	-90.03	-1.8	-3,801.6	3,801.7	3,800.9	0.78	4,880.536	
300.0	300.0	241.8	241.8	0.5	0.2	-90.03	-1.8	-3,801.6	3,801.7	3,800.9	0.79	4,789.617	
393.7	393.7	348.1	348.1	0.8	0.3	-90.04	-2.6	-3,802.0	3,802.0	3,801.0	1.08	3,509.833	
400.0	400.0	355.2	355.2	0.8	0.3	-90.04	-2.7	-3,802.1	3,802.1	3,801.0	1.10	3,448.858	
492.1	492.1	448.7	448.7	1.0	0.4	-90.05	-3.5	-3,802.2	3,802.2	3,800.8	1.37	2,775.188	
500.0	500.0	456.0	456.0	1.0	0.4	-90.05	-3.5	-3,802.2	3,802.2	3,800.8	1.39	2,731.198	
590.5	590.5	542.3	542.3	1.2	0.4	-90.06	-4.1	-3,802.4	3,802.4	3,800.8	1.65	2,310.856	
600.0	600.0	551.5	551.5	1.2	0.5	-90.06	-4.2	-3,802.4	3,802.5	3,800.8	1.67	2,274.401	
689.0	689.0	639.9	639.8	1.4	0.5	-90.07	-4.8	-3,802.7	3,802.7	3,800.8	1.92	1,981.421	
700.0	700.0	651.0	651.0	1.4	0.5	-90.07	-4.9	-3,802.8	3,802.8	3,800.8	1.95	1,950.466	
787.4	787.4	741.4	741.3	1.6	0.6	-90.08	-5.6	-3,803.0	3,803.0	3,800.8	2.19	1,736.419	
800.0	800.0	754.7	754.7	1.7	0.6	-90.09	-5.7	-3,803.0	3,803.1	3,800.8	2.22	1,709.531	
885.8	885.8	846.3	846.3	1.9	0.6	-90.10	-6.6	-3,803.2	3,803.2	3,800.7	2.46	1,547.428	
900.0	900.0	861.6	861.6	1.9	0.6	-90.10	-6.7	-3,803.2	3,803.2	3,800.7	2.50	1,523.728	
984.2	984.2	955.1	955.1	2.1	0.7	-90.11	-7.4	-3,803.1	3,803.1	3,800.4	2.72	1,398.933	
1,000.0	1,000.0	973.0	972.9	2.1	0.7	-90.11	-7.5	-3,803.1	3,803.1	3,800.3	2.76	1,378.143	
1,021.1	1,021.1	996.9	996.9	2.2	0.7	-117.12	-7.6	-3,803.0	3,803.1	3,800.3	2.79	1,362.894	
1,082.7	1,082.7	1,059.6	1,059.5	2.3	0.7	-117.13	-7.9	-3,802.8	3,803.4	3,800.4	2.95	1,290.520	
1,100.0	1,100.0	1,077.1	1,077.0	2.3	0.7	-117.14	-8.0	-3,802.7	3,803.5	3,800.6	2.99	1,271.555	
1,181.1	1,181.0	1,152.4	1,152.3	2.5	0.7	-117.17	-8.5	-3,802.5	3,805.1	3,801.9	3.20	1,190.727	
1,200.0	1,199.8	1,169.3	1,169.3	2.6	0.7	-117.17	-8.6	-3,802.4	3,805.6	3,802.4	3.24	1,173.459	
1,279.5	1,279.1	1,251.1	1,251.1	2.8	0.8	-117.22	-8.9	-3,802.3	3,808.6	3,805.1	3.45	1,103.882	
1,300.0	1,299.5	1,274.3	1,274.2	2.8	0.8	-117.23	-9.0	-3,802.3	3,809.5	3,806.0	3.50	1,087.202	
1,377.9	1,376.9	1,348.2	1,348.2	3.0	0.8	-117.28	-9.4	-3,802.0	3,813.5	3,809.7	3.71	1,026.825	
1,400.0	1,398.7	1,367.5	1,367.5	3.0	0.8	-117.30	-9.5	-3,802.0	3,814.8	3,811.0	3.77	1,011.168	
1,476.4	1,474.2	1,445.5	1,445.4	3.2	0.8	-117.37	-9.9	-3,801.9	3,820.1	3,816.1	3.99	956.463	
1,500.0	1,497.5	1,472.9	1,472.9	3.3	0.9	-117.40	-10.0	-3,801.8	3,821.9	3,817.8	4.06	940.672	
1,574.8	1,571.0	1,547.7	1,547.7	3.5	0.9	-117.48	-10.3	-3,801.5	3,828.1	3,823.8	4.30	890.161	
1,600.0	1,595.6	1,571.0	1,571.0	3.6	0.9	-117.50	-10.5	-3,801.4	3,830.5	3,826.1	4.38	874.511	
1,673.2	1,667.2	1,642.4	1,642.4	3.9	0.9	-117.71	-11.0	-3,801.2	3,837.4	3,832.8	4.63	829.092	
1,700.0	1,693.4	1,669.6	1,669.6	4.0	0.9	-117.79	-11.2	-3,801.1	3,840.0	3,835.2	4.72	813.628	
1,771.6	1,763.5	1,735.3	1,735.2	4.2	0.9	-117.97	-11.6	-3,800.9	3,846.8	3,841.8	4.97	773.533	
1,800.0	1,791.3	1,759.3	1,759.2	4.3	1.0	-118.04	-11.7	-3,800.9	3,849.6	3,844.5	5.07	758.941	
1,870.1	1,859.8	1,817.9	1,817.8	4.6	1.0	-118.21	-12.0	-3,800.8	3,856.6	3,851.2	5.33	723.949	
1,900.0	1,889.1	1,842.3	1,842.2	4.7	1.0	-118.27	-12.1	-3,800.9	3,859.6	3,854.2	5.43	710.229	
1,968.5	1,956.1	1,900.0	1,899.9	4.9	1.0	-118.43	-12.3	-3,801.1	3,866.8	3,861.1	5.69	679.740	
2,000.0	1,986.9	1,931.9	1,931.8	5.1	1.0	-118.52	-12.4	-3,801.3	3,870.1	3,864.3	5.81	666.391	
2,066.9	2,052.3	2,000.0	1,999.9	5.3	1.0	-118.71	-12.6	-3,801.5	3,877.1	3,871.1	6.07	639.227	
2,100.0	2,084.7	2,032.5	2,032.4	5.5	1.0	-118.80	-12.7	-3,801.6	3,880.6	3,874.4	6.19	626.800	
2,165.3	2,148.6	2,089.3	2,089.2	5.7	1.1	-118.95	-12.8	-3,801.9	3,887.6	3,881.2	6.44	603.442	
2,200.0	2,182.5	2,123.8	2,123.7	5.9	1.1	-119.05	-12.8	-3,802.1	3,891.4	3,884.8	6.58	591.689	
2,263.8	2,244.9	2,191.9	2,191.9	6.1	1.1	-119.23	-12.7	-3,802.4	3,898.2	3,891.4	6.83	570.891	
2,300.0	2,280.3	2,232.5	2,232.5	6.3	1.1	-119.33	-12.5	-3,802.6	3,902.1	3,895.1	6.97	559.796	
2,362.2	2,341.2	2,302.9	2,302.8	6.5	1.1	-119.52	-12.1	-3,802.7	3,908.7	3,901.5	7.22	541.578	
2,400.0	2,378.1	2,341.6	2,341.5	6.7	1.1	-119.62	-11.9	-3,802.7	3,912.6	3,905.3	7.37	531.159	
2,460.6	2,437.4	2,403.8	2,403.7	6.9	1.1	-119.78	-11.6	-3,802.7	3,918.9	3,911.3	7.61	515.149	
2,500.0	2,476.0	2,446.7	2,446.6	7.1	1.1	-119.89	-11.4	-3,802.7	3,923.0	3,915.3	7.76	505.303	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
2,550.0	2,524.9	2,500.0	2,499.9	7.3	1.1	-120.03	-11.2	-3,802.5	3,928.2	3,920.2	7.96	493.342	
2,559.0	2,533.7	2,509.1	2,509.1	7.3	1.1	-119.19	-11.1	-3,802.5	3,929.1	3,921.1	8.00	491.372	
2,600.0	2,573.8	2,546.4	2,546.3	7.5	1.1	-115.41	-10.9	-3,802.4	3,932.9	3,924.8	8.15	482.683	
2,639.4	2,612.3	2,582.2	2,582.2	7.7	1.1	-111.78	-10.7	-3,802.4	3,936.2	3,927.9	8.29	474.879	
2,657.5	2,630.0	2,600.0	2,599.9	7.7	1.1	-111.83	-10.5	-3,802.4	3,937.6	3,929.2	8.36	471.010	
2,700.0	2,671.6	2,643.6	2,643.5	7.9	1.1	-111.95	-10.2	-3,802.3	3,940.9	3,932.3	8.53	462.170	
2,755.9	2,726.3	2,700.0	2,699.9	8.1	1.1	-112.10	-9.9	-3,802.2	3,945.2	3,936.4	8.76	450.490	
2,800.0	2,769.4	2,740.4	2,740.4	8.3	1.1	-112.21	-9.7	-3,802.1	3,948.6	3,939.6	8.94	441.756	
2,854.3	2,822.5	2,787.4	2,787.4	8.5	1.1	-112.34	-9.4	-3,802.0	3,952.9	3,943.7	9.16	431.445	
2,900.0	2,867.2	2,830.5	2,830.4	8.7	1.1	-112.46	-9.3	-3,802.0	3,956.5	3,947.2	9.35	423.114	
2,952.7	2,918.8	2,882.1	2,882.0	9.0	1.1	-112.60	-9.0	-3,802.1	3,960.8	3,951.2	9.57	413.851	
3,000.0	2,965.0	2,932.2	2,932.2	9.2	1.1	-112.73	-8.6	-3,802.1	3,964.7	3,954.9	9.77	405.945	
3,051.2	3,015.1	2,989.2	2,989.1	9.4	1.1	-112.89	-8.3	-3,802.0	3,968.8	3,958.8	9.98	397.720	
3,100.0	3,062.8	3,037.0	3,037.0	9.6	1.1	-113.02	-8.1	-3,801.9	3,972.6	3,962.5	10.18	390.213	
3,149.6	3,111.4	3,084.0	3,084.0	9.8	1.1	-113.14	-7.8	-3,801.8	3,976.6	3,966.2	10.39	382.868	
3,200.0	3,160.7	3,126.6	3,126.6	10.0	1.1	-113.26	-7.5	-3,801.7	3,980.7	3,970.2	10.60	375.712	
3,248.0	3,207.6	3,164.7	3,164.7	10.2	1.1	-113.36	-7.2	-3,801.7	3,984.8	3,974.0	10.79	369.167	
3,300.0	3,258.5	3,207.7	3,207.7	10.5	1.1	-113.47	-6.8	-3,801.9	3,989.3	3,978.3	11.01	362.345	
3,346.4	3,303.9	3,255.5	3,255.5	10.7	1.2	-113.59	-6.3	-3,802.1	3,993.4	3,982.2	11.20	356.412	
3,400.0	3,356.3	3,309.8	3,309.7	10.9	1.2	-113.73	-5.6	-3,802.3	3,998.1	3,986.6	11.43	349.832	
3,444.9	3,400.2	3,352.0	3,351.9	11.1	1.2	-113.84	-5.0	-3,802.5	4,002.0	3,990.4	11.62	344.532	
3,500.0	3,454.1	3,403.8	3,403.7	11.3	1.2	-113.97	-4.5	-3,802.7	4,006.9	3,995.1	11.85	338.264	
3,543.3	3,496.5	3,444.3	3,444.3	11.5	1.2	-114.08	-4.2	-3,802.9	4,010.8	3,998.8	12.03	333.499	
3,600.0	3,551.9	3,497.4	3,497.3	11.7	1.2	-114.22	-3.8	-3,803.1	4,016.0	4,003.7	12.26	327.484	
3,641.7	3,592.7	3,538.9	3,538.8	11.9	1.2	-114.32	-3.4	-3,803.4	4,019.8	4,007.3	12.44	323.200	
3,700.0	3,649.7	3,597.0	3,596.9	12.2	1.2	-114.47	-2.8	-3,803.7	4,025.1	4,012.4	12.68	317.420	
3,740.1	3,689.0	3,633.9	3,633.8	12.4	1.2	-114.56	-2.3	-3,803.9	4,028.8	4,016.0	12.85	313.571	
3,800.0	3,747.5	3,688.3	3,688.2	12.6	1.2	-114.70	-1.8	-3,804.2	4,034.4	4,021.3	13.10	308.030	
3,838.6	3,785.3	3,724.9	3,724.8	12.8	1.2	-114.80	-1.5	-3,804.5	4,038.0	4,024.8	13.26	304.563	
3,900.0	3,845.4	3,784.3	3,784.2	13.1	1.2	-114.95	-1.1	-3,804.9	4,043.9	4,030.4	13.51	299.215	
3,937.0	3,881.6	3,824.1	3,824.0	13.2	1.2	-115.05	-0.8	-3,805.1	4,047.4	4,033.7	13.67	296.091	
4,000.0	3,943.2	3,897.3	3,897.2	13.5	1.3	-115.24	-0.4	-3,805.5	4,053.3	4,039.4	13.93	290.935	
4,035.4	3,977.8	3,938.3	3,938.2	13.6	1.3	-115.35	-0.3	-3,805.5	4,056.6	4,042.5	14.08	288.167	
4,100.0	4,041.0	4,011.2	4,011.1	13.9	1.3	-115.54	0.0	-3,805.5	4,062.4	4,048.0	14.34	283.260	
4,133.8	4,074.1	4,044.8	4,044.7	14.1	1.3	-115.63	0.1	-3,805.5	4,065.4	4,050.9	14.48	280.748	
4,200.0	4,138.8	4,114.1	4,114.0	14.4	1.3	-115.81	0.4	-3,805.4	4,071.4	4,056.6	14.75	275.989	
4,232.3	4,170.4	4,157.9	4,157.7	14.5	1.3	-115.92	0.5	-3,805.2	4,074.2	4,059.3	14.88	273.744	
4,300.0	4,236.6	4,231.9	4,231.8	14.8	1.3	-116.11	0.8	-3,804.6	4,079.9	4,064.8	15.16	269.152	
4,330.7	4,266.7	4,258.6	4,258.5	14.9	1.3	-116.18	0.9	-3,804.4	4,082.6	4,067.3	15.28	267.114	
4,400.0	4,334.4	4,324.5	4,324.4	15.2	1.3	-116.35	1.2	-3,804.1	4,088.6	4,073.0	15.57	262.642	
4,429.1	4,362.9	4,357.3	4,357.1	15.4	1.3	-116.44	1.4	-3,803.9	4,091.1	4,075.5	15.69	260.804	
4,500.0	4,432.3	4,423.4	4,423.2	15.7	1.3	-116.61	1.7	-3,803.4	4,097.3	4,081.3	15.98	256.461	
4,527.5	4,459.2	4,442.9	4,442.8	15.8	1.3	-116.65	1.8	-3,803.3	4,099.7	4,083.6	16.09	254.824	
4,600.0	4,530.1	4,500.0	4,499.9	16.1	1.4	-116.80	2.1	-3,803.2	4,106.4	4,090.0	16.38	250.652	
4,626.0	4,555.5	4,521.3	4,521.1	16.2	1.4	-116.85	2.2	-3,803.2	4,108.9	4,092.4	16.49	249.197	
4,700.0	4,627.9	4,608.9	4,608.7	16.6	1.4	-117.08	2.5	-3,803.0	4,115.8	4,099.0	16.79	245.157	
4,724.4	4,651.7	4,636.5	4,636.3	16.7	1.4	-117.15	2.6	-3,802.9	4,118.0	4,101.1	16.89	243.845	
4,800.0	4,725.7	4,717.8	4,717.7	17.0	1.4	-117.35	2.9	-3,802.4	4,124.9	4,107.7	17.20	239.876	
4,822.8	4,748.0	4,738.6	4,738.5	17.1	1.4	-117.41	3.0	-3,802.3	4,126.9	4,109.6	17.29	238.701	
4,904.9	4,828.3	4,817.5	4,817.3	17.5	1.4	-117.61	3.3	-3,801.8	4,134.4	4,116.8	17.62	234.598	
4,921.2	4,844.3	4,836.7	4,836.6	17.5	1.4	-117.68	3.3	-3,801.7	4,135.9	4,118.2	17.68	233.984	
5,000.0	4,921.6	4,923.9	4,923.8	17.8	1.4	-118.00	3.6	-3,801.0	4,142.2	4,124.3	17.93	231.020	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,941.0	4,942.6	4,942.5	17.9	1.4	-118.06	3.6	-3,800.8	4,143.7	4,125.7	17.98	230.460	
5,100.0	5,020.4	5,020.2	5,020.0	18.1	1.4	-118.30	3.9	-3,800.2	4,148.9	4,130.7	18.19	228.148	
5,118.1	5,038.3	5,038.3	5,038.1	18.2	1.4	-118.34	4.0	-3,800.0	4,149.9	4,131.7	18.23	227.694	
5,200.0	5,119.6	5,122.7	5,122.5	18.4	1.5	-118.53	4.5	-3,799.3	4,153.9	4,135.5	18.41	225.598	
5,216.5	5,136.0	5,141.1	5,141.0	18.4	1.5	-118.56	4.7	-3,799.2	4,154.5	4,136.1	18.45	225.232	
5,300.0	5,219.2	5,236.5	5,236.4	18.6	1.5	-118.70	5.6	-3,798.2	4,157.0	4,138.4	18.61	223.318	
5,314.9	5,234.1	5,254.3	5,254.1	18.6	1.5	-118.72	5.7	-3,798.0	4,157.3	4,138.7	18.64	223.024	
5,400.0	5,319.1	5,342.6	5,342.4	18.8	1.5	-118.78	6.6	-3,796.8	4,158.2	4,139.4	18.79	221.295	
5,413.4	5,332.4	5,354.8	5,354.6	18.8	1.5	-118.78	6.7	-3,796.7	4,158.2	4,139.4	18.81	221.070	
5,504.9	5,423.9	5,466.2	5,466.0	18.9	1.5	-100.36	7.7	-3,795.2	4,157.5	4,141.1	16.43	253.076	
5,511.8	5,430.8	5,477.1	5,476.9	18.9	1.5	-100.36	7.8	-3,795.0	4,157.4	4,141.0	16.44	252.876	
5,600.0	5,519.0	5,566.5	5,566.3	19.0	1.6	-100.36	8.2	-3,793.1	4,155.5	4,139.0	16.59	250.460	
5,610.2	5,529.3	5,575.7	5,575.5	19.0	1.6	-100.36	8.2	-3,792.9	4,155.3	4,138.7	16.61	250.157	
5,700.0	5,619.0	5,650.9	5,650.6	19.2	1.6	-100.36	8.3	-3,791.5	4,153.7	4,136.9	16.78	247.550	
5,708.6	5,627.7	5,657.9	5,657.6	19.2	1.6	-100.36	8.3	-3,791.4	4,153.5	4,136.7	16.80	247.302	
5,800.0	5,719.0	5,745.2	5,745.0	19.3	1.6	-100.36	8.6	-3,790.2	4,152.2	4,135.2	16.97	244.694	
5,807.1	5,726.1	5,753.4	5,753.1	19.3	1.6	-100.36	8.6	-3,790.0	4,152.1	4,135.1	16.98	244.490	
5,900.0	5,819.0	5,839.6	5,839.3	19.4	1.6	-100.36	8.7	-3,788.7	4,150.6	4,133.5	17.16	241.889	
5,905.5	5,824.5	5,843.7	5,843.5	19.4	1.6	-100.36	8.7	-3,788.6	4,150.6	4,133.4	17.17	241.739	
6,003.9	5,923.0	5,925.4	5,925.1	19.6	1.6	-100.37	8.4	-3,787.7	4,149.5	4,132.1	17.36	239.085	
6,009.8	5,928.8	5,931.6	5,931.4	19.6	1.6	-100.37	8.4	-3,787.6	4,149.4	4,132.1	17.37	238.927	
6,050.0	5,969.0	5,974.5	5,974.3	19.6	1.6	-10.40	8.2	-3,787.2	4,147.9	4,128.1	19.82	209.270	
6,100.0	6,018.8	6,028.4	6,028.1	19.7	1.6	-10.49	8.1	-3,786.5	4,142.9	4,123.0	19.88	208.438	
6,102.3	6,021.1	6,030.9	6,030.6	19.7	1.6	-10.49	8.1	-3,786.5	4,142.6	4,122.7	19.88	208.392	
6,150.0	6,068.1	6,082.3	6,082.0	19.7	1.6	-10.64	7.9	-3,785.9	4,134.5	4,114.5	19.93	207.460	
6,200.0	6,116.8	6,139.8	6,139.5	19.7	1.7	-10.86	7.7	-3,785.1	4,122.6	4,102.6	19.96	206.526	
6,200.8	6,117.5	6,140.7	6,140.4	19.7	1.7	-10.87	7.7	-3,785.0	4,122.4	4,102.4	19.96	206.512	
6,250.0	6,164.5	6,198.1	6,197.9	19.7	1.7	-11.17	7.2	-3,784.0	4,107.3	4,087.3	19.96	205.801	
6,299.2	6,210.4	6,307.4	6,307.1	19.7	1.7	-11.63	6.0	-3,781.0	4,088.6	4,068.7	19.94	205.037	
6,300.0	6,211.1	6,308.2	6,307.9	19.7	1.7	-11.64	5.9	-3,781.0	4,088.3	4,068.4	19.94	205.033	
6,350.0	6,256.4	6,357.2	6,356.8	19.7	1.7	-12.13	5.2	-3,779.2	4,065.9	4,046.0	19.83	204.985	
6,397.6	6,298.0	6,402.8	6,402.4	19.7	1.7	-12.72	4.3	-3,777.4	4,041.7	4,022.0	19.68	205.368	
6,400.0	6,300.0	6,406.0	6,405.6	19.7	1.7	-12.75	4.3	-3,777.3	4,040.4	4,020.7	19.67	205.394	
6,450.0	6,341.8	6,470.9	6,470.4	19.7	1.7	-13.56	2.8	-3,774.5	4,011.9	3,992.5	19.46	206.136	
6,496.0	6,378.6	6,522.9	6,522.3	19.7	1.7	-14.44	1.4	-3,771.9	3,983.1	3,963.9	19.22	207.258	
6,500.0	6,381.6	6,526.8	6,526.2	19.7	1.7	-14.53	1.3	-3,771.7	3,980.5	3,961.3	19.19	207.381	
6,550.0	6,419.2	6,574.7	6,574.0	19.6	1.7	-15.70	-0.2	-3,769.1	3,946.4	3,927.6	18.87	209.105	
6,594.5	6,450.7	6,600.0	6,599.3	19.6	1.8	-16.89	-1.1	-3,767.7	3,914.1	3,895.5	18.54	211.088	
6,600.0	6,454.4	6,600.0	6,599.3	19.6	1.8	-17.03	-1.1	-3,767.7	3,909.9	3,891.4	18.50	211.400	
6,650.0	6,487.1	6,634.7	6,633.9	19.6	1.8	-18.75	-2.4	-3,765.7	3,871.3	3,853.2	18.11	213.763	
6,692.9	6,513.0	6,653.4	6,652.5	19.6	1.8	-20.49	-3.1	-3,764.7	3,836.5	3,818.8	17.78	215.752	
6,700.0	6,517.0	6,656.3	6,655.4	19.6	1.8	-20.81	-3.2	-3,764.5	3,830.7	3,812.9	17.73	216.100	
6,750.0	6,544.1	6,675.7	6,674.8	19.6	1.8	-23.41	-3.9	-3,763.5	3,788.3	3,770.9	17.40	217.681	
6,791.3	6,564.2	6,700.0	6,699.0	19.7	1.8	-26.25	-4.7	-3,762.2	3,752.1	3,734.9	17.23	217.800	
6,800.0	6,568.2	6,700.0	6,699.0	19.7	1.8	-26.86	-4.7	-3,762.2	3,744.4	3,727.2	17.23	217.345	
6,850.0	6,589.1	6,700.0	6,699.0	19.8	1.8	-30.99	-4.7	-3,762.2	3,699.1	3,681.9	17.25	214.385	
6,889.7	6,603.5	6,700.0	6,699.0	19.9	1.8	-35.23	-4.7	-3,762.2	3,662.3	3,644.8	17.53	208.916	
6,900.0	6,606.9	6,700.0	6,699.0	19.9	1.8	-36.49	-4.7	-3,762.2	3,652.7	3,635.1	17.64	207.028	
6,950.0	6,621.3	6,700.0	6,699.0	20.2	1.8	-43.97	-4.7	-3,762.2	3,605.5	3,587.0	18.51	194.792	
6,988.2	6,630.0	6,700.0	6,699.0	20.6	1.8	-51.49	-4.7	-3,762.2	3,568.9	3,549.4	19.50	183.006	
7,000.0	6,632.4	6,700.0	6,699.0	20.7	1.8	-54.21	-4.7	-3,762.2	3,557.5	3,537.7	19.85	179.258	
7,050.0	6,640.0	6,700.0	6,699.0	21.4	1.8	-67.87	-4.7	-3,762.2	3,509.1	3,487.7	21.36	164.322	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BOND #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		
7,086.6	6,643.4	6,700.0	6,699.0	21.9	1.8	-79.91	-4.7	-3,762.2	3,473.5	3,451.2	22.29	155.815		
7,100.0	6,644.2	6,700.0	6,699.0	22.1	1.8	-84.59	-4.7	-3,762.2	3,460.4	3,437.8	22.62	152.992		
7,135.7	6,645.0	6,700.0	6,699.0	22.7	1.8	-97.13	-4.7	-3,762.2	3,425.6	3,401.8	23.82	143.820		
7,185.0	6,644.9	6,700.0	6,699.0	23.6	1.8	-97.13	-4.7	-3,762.2	3,377.5	3,352.7	24.77	136.349		
7,200.0	6,644.9	6,700.0	6,699.0	23.9	1.8	-97.13	-4.7	-3,762.2	3,362.9	3,337.9	25.06	134.196		
7,283.4	6,644.8	6,700.0	6,699.0	25.6	1.8	-97.13	-4.7	-3,762.2	3,281.7	3,255.0	26.77	122.573		
7,300.0	6,644.8	6,700.0	6,699.0	25.9	1.8	-97.13	-4.7	-3,762.2	3,265.6	3,238.5	27.11	120.442		
7,381.9	6,644.7	6,700.0	6,699.0	27.7	1.8	-97.13	-4.7	-3,762.2	3,186.1	3,157.2	28.90	110.237		
7,400.0	6,644.7	6,700.0	6,699.0	28.1	1.8	-97.13	-4.7	-3,762.2	3,168.5	3,139.2	29.30	108.147		
7,480.3	6,644.6	6,700.0	6,699.0	29.9	1.8	-97.13	-4.7	-3,762.2	3,090.7	3,059.5	31.14	99.252		
7,500.0	6,644.6	6,700.0	6,699.0	30.3	1.8	-97.14	-4.7	-3,762.2	3,071.6	3,040.0	31.59	97.228		
7,578.7	6,644.5	6,700.0	6,699.0	32.2	1.8	-97.14	-4.7	-3,762.2	2,995.4	2,961.9	33.46	89.525		
7,600.0	6,644.4	6,700.0	6,699.0	32.7	1.8	-97.14	-4.7	-3,762.2	2,974.8	2,940.9	33.96	87.589		
7,677.1	6,644.3	6,700.0	6,699.0	34.6	1.8	-97.14	-4.7	-3,762.2	2,900.4	2,864.5	35.84	80.920		
7,700.0	6,644.3	6,700.0	6,699.0	35.1	1.8	-97.14	-4.7	-3,762.2	2,878.3	2,841.9	36.40	79.078		
7,775.6	6,644.2	6,700.0	6,699.0	37.0	1.8	-97.14	-4.7	-3,762.2	2,805.5	2,767.3	38.28	73.296		
7,800.0	6,644.2	6,700.0	6,699.0	37.6	1.8	-97.14	-4.7	-3,762.2	2,782.1	2,743.2	38.88	71.547		
7,874.0	6,644.1	6,700.0	6,699.0	39.5	1.8	-97.14	-4.7	-3,762.2	2,711.0	2,670.2	40.75	66.522		
7,900.0	6,644.1	6,700.0	6,699.0	40.1	1.8	-97.14	-4.7	-3,762.2	2,686.1	2,644.6	41.41	64.864		
7,972.4	6,644.0	6,700.0	6,699.0	42.0	1.8	-97.14	-4.7	-3,762.2	2,616.7	2,573.5	43.26	60.482		
8,000.0	6,643.9	6,700.0	6,699.0	42.7	1.8	-97.14	-4.7	-3,762.2	2,590.4	2,546.4	43.97	58.912		
8,070.8	6,643.9	6,700.0	6,699.0	44.5	1.8	-97.14	-4.7	-3,762.2	2,522.8	2,477.0	45.80	55.078		
8,100.0	6,643.8	6,700.0	6,699.0	45.2	1.8	-97.14	-4.7	-3,762.2	2,495.0	2,448.5	46.56	53.590		
8,169.3	6,643.7	6,700.0	6,699.0	47.0	1.8	-97.14	-4.7	-3,762.2	2,429.2	2,380.8	48.37	50.225		
8,200.0	6,643.7	6,700.0	6,699.0	47.9	1.8	-97.14	-4.7	-3,762.2	2,400.0	2,350.9	49.17	48.812		
8,267.7	6,643.6	6,700.0	6,699.0	49.6	1.8	-97.14	-4.7	-3,762.2	2,336.0	2,285.0	50.95	45.849		
8,300.0	6,643.6	6,692.3	6,691.3	50.5	1.8	-96.57	-4.4	-3,762.6	2,305.5	2,253.7	51.80	44.508		
8,366.1	6,643.5	6,689.3	6,688.3	52.2	1.8	-96.34	-4.3	-3,762.8	2,243.2	2,189.6	53.55	41.888		
8,400.0	6,643.4	6,687.7	6,686.8	53.1	1.8	-96.23	-4.3	-3,762.9	2,211.4	2,156.9	54.45	40.613		
8,464.5	6,643.4	6,684.7	6,683.8	54.8	1.8	-96.01	-4.2	-3,763.0	2,150.9	2,094.7	56.17	38.292		
8,500.0	6,643.3	6,683.1	6,682.2	55.8	1.8	-95.89	-4.1	-3,763.1	2,117.8	2,060.7	57.12	37.078		
8,563.0	6,643.2	6,680.1	6,679.2	57.5	1.8	-95.67	-4.0	-3,763.2	2,059.2	2,000.4	58.81	35.016		
8,600.0	6,643.2	6,678.4	6,677.5	58.5	1.8	-95.54	-4.0	-3,763.3	2,024.8	1,965.0	59.80	33.860		
8,661.4	6,643.1	6,675.5	6,674.6	60.1	1.8	-95.32	-3.8	-3,763.5	1,968.1	1,906.7	61.45	32.026		
8,700.0	6,643.1	6,673.6	6,672.7	61.2	1.8	-95.18	-3.8	-3,763.6	1,932.6	1,870.1	62.49	30.924		
8,759.8	6,643.0	6,670.8	6,669.9	62.8	1.8	-94.97	-3.7	-3,763.7	1,877.7	1,813.6	64.11	29.288		
8,800.0	6,643.0	6,668.8	6,667.9	63.9	1.8	-94.82	-3.6	-3,763.8	1,841.1	1,775.9	65.20	28.237		
8,858.2	6,642.9	6,666.0	6,665.1	65.4	1.8	-94.61	-3.5	-3,764.0	1,788.2	1,721.4	66.78	26.777		
8,900.0	6,642.8	6,663.9	6,663.1	66.6	1.8	-94.46	-3.4	-3,764.1	1,750.5	1,682.6	67.92	25.775		
8,956.7	6,642.8	6,661.1	6,660.3	68.1	1.8	-94.25	-3.3	-3,764.2	1,699.7	1,630.2	69.46	24.470		
9,000.0	6,642.7	6,659.0	6,658.1	69.3	1.8	-94.09	-3.3	-3,764.4	1,661.0	1,590.4	70.64	23.514		
9,055.1	6,642.6	6,656.2	6,655.3	70.8	1.8	-93.88	-3.2	-3,764.5	1,612.2	1,540.1	72.15	22.347		
9,100.0	6,642.6	6,653.9	6,653.1	72.0	1.8	-93.71	-3.1	-3,764.6	1,572.8	1,499.4	73.37	21.436		
9,153.5	6,642.5	6,651.2	6,650.4	73.5	1.8	-93.51	-3.0	-3,764.8	1,526.1	1,451.3	74.84	20.393		
9,200.0	6,642.5	6,648.8	6,648.0	74.7	1.8	-93.33	-2.9	-3,764.9	1,486.0	1,409.9	76.11	19.525		
9,251.9	6,642.4	6,646.2	6,645.3	76.2	1.8	-93.13	-2.8	-3,765.1	1,441.6	1,364.1	77.54	18.593		
9,300.0	6,642.3	6,643.7	6,642.8	77.5	1.8	-92.94	-2.7	-3,765.2	1,401.0	1,322.1	78.85	17.767		
9,350.4	6,642.3	6,641.0	6,640.2	78.9	1.8	-92.74	-2.6	-3,765.3	1,358.9	1,278.7	80.24	16.936		
9,400.0	6,642.2	6,638.4	6,637.6	80.2	1.8	-92.55	-2.5	-3,765.5	1,318.0	1,236.4	81.60	16.152		
9,448.8	6,642.1	6,635.8	6,635.0	81.6	1.8	-92.35	-2.4	-3,765.6	1,278.4	1,195.5	82.94	15.413		
9,500.0	6,642.1	6,633.1	6,632.2	83.0	1.8	-92.15	-2.3	-3,765.8	1,237.6	1,153.2	84.35	14.672		
9,547.2	6,642.0	6,630.5	6,629.7	84.3	1.8	-91.95	-2.2	-3,765.9	1,200.6	1,114.9	85.65	14.017		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BOND #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,600.0	6,642.0	6,627.6	6,626.8	85.7	1.8	-91.74	-2.1	-3,766.1	1,160.1	1,073.0	87.11	13.319	
9,645.6	6,641.9	6,625.1	6,624.3	87.0	1.8	-91.55	-2.1	-3,766.2	1,126.0	1,037.6	88.36	12.742	
9,700.0	6,641.8	6,622.1	6,621.3	88.5	1.8	-91.32	-1.9	-3,766.4	1,086.4	996.5	89.86	12.089	
9,744.1	6,641.8	6,619.7	6,618.9	89.7	1.8	-91.14	-1.9	-3,766.5	1,055.2	964.1	91.08	11.586	
9,800.0	6,641.7	6,616.6	6,615.8	91.2	1.8	-90.90	-1.7	-3,766.7	1,017.1	924.4	92.62	10.981	
9,842.5	6,641.7	6,614.1	6,613.4	92.4	1.8	-90.72	-1.6	-3,766.8	989.2	895.4	93.79	10.547	
9,900.0	6,641.6	6,610.9	6,610.1	94.0	1.8	-90.47	-1.5	-3,767.0	953.2	857.8	95.37	9.994	
9,940.9	6,641.5	6,608.5	6,607.8	95.1	1.8	-90.30	-1.4	-3,767.2	928.9	832.4	96.50	9.625	
10,000.0	6,641.5	6,605.1	6,604.4	96.7	1.8	-90.04	-1.3	-3,767.4	895.9	797.8	98.13	9.130	
10,039.3	6,641.4	6,602.8	6,602.1	97.8	1.8	-89.87	-1.2	-3,767.5	875.4	776.2	99.22	8.824	
10,100.0	6,641.3	6,600.0	6,599.3	99.5	1.8	-89.65	-1.1	-3,767.7	846.5	745.6	100.89	8.391	
10,137.8	6,641.3	6,597.2	6,596.4	100.6	1.8	-89.44	-1.0	-3,767.8	830.3	728.3	101.93	8.146	
10,200.0	6,641.2	6,593.7	6,592.9	102.3	1.7	-89.17	-0.9	-3,768.0	806.6	702.9	103.64	7.782	
10,236.2	6,641.2	6,591.7	6,590.9	103.3	1.7	-89.02	-0.8	-3,768.1	794.7	690.1	104.64	7.595	
10,300.0	6,641.1	6,588.1	6,587.4	105.0	1.7	-88.75	-0.7	-3,768.3	777.4	671.1	106.39	7.307	
10,334.6	6,641.0	6,586.2	6,585.5	106.0	1.7	-88.61	-0.6	-3,768.5	770.1	662.8	107.34	7.174	
10,400.0	6,641.0	6,582.7	6,582.0	107.8	1.7	-88.34	-0.5	-3,768.7	760.4	651.3	109.14	6.967	
10,433.0	6,640.9	6,580.9	6,580.2	108.7	1.7	-88.21	-0.4	-3,768.8	757.6	647.5	110.05	6.884	
10,481.4	6,640.9	6,578.3	6,577.6	110.1	1.7	-88.01	-0.4	-3,768.9	756.1	644.7	111.38	6.788 CC	
10,500.0	6,640.8	6,577.3	6,576.6	110.6	1.7	-87.94	-0.3	-3,769.0	756.3	644.4	111.89	6.759 ES	
10,531.5	6,640.8	6,575.7	6,575.0	111.5	1.7	-87.81	-0.3	-3,769.1	757.7	645.0	112.75	6.720	
10,600.0	6,640.7	6,572.1	6,571.4	113.4	1.7	-87.54	-0.1	-3,769.3	765.3	650.6	114.63	6.676	
10,629.9	6,640.7	6,570.5	6,569.8	114.2	1.7	-87.42	-0.1	-3,769.3	770.5	655.0	115.45	6.673 SF	
10,700.0	6,640.6	6,566.9	6,566.2	116.1	1.7	-87.15	0.0	-3,769.5	786.9	669.6	117.37	6.705	
10,728.3	6,640.5	6,565.4	6,564.7	116.9	1.7	-87.04	0.1	-3,769.6	795.2	677.1	118.15	6.731	
10,800.0	6,640.5	6,561.7	6,561.1	118.9	1.7	-86.76	0.2	-3,769.8	820.3	700.2	120.11	6.829	
10,826.7	6,640.4	6,560.4	6,559.7	119.7	1.7	-86.66	0.3	-3,769.9	831.0	710.1	120.84	6.877	
10,900.0	6,640.3	6,556.7	6,556.1	121.7	1.7	-86.38	0.4	-3,770.1	863.9	741.1	122.85	7.032	
10,925.2	6,640.3	6,555.5	6,554.8	122.4	1.7	-86.28	0.4	-3,770.2	876.3	752.8	123.53	7.094	
11,000.0	6,640.2	6,551.8	6,551.1	124.5	1.7	-86.00	0.5	-3,770.4	916.4	790.8	125.58	7.298	
11,023.6	6,640.2	6,550.6	6,550.0	125.1	1.7	-85.92	0.6	-3,770.4	929.9	803.7	126.22	7.367	
11,100.0	6,640.1	6,546.9	6,546.2	127.3	1.7	-85.63	0.7	-3,770.6	976.3	848.0	128.30	7.610	
11,122.0	6,640.0	6,545.8	6,545.2	127.9	1.7	-85.55	0.7	-3,770.7	990.4	861.5	128.90	7.683	
11,200.0	6,639.9	6,542.1	6,541.4	130.1	1.7	-85.27	0.8	-3,770.9	1,042.4	911.3	131.02	7.956	
11,220.4	6,639.9	6,541.1	6,540.5	130.6	1.7	-85.20	0.9	-3,770.9	1,056.5	924.9	131.58	8.030	
11,300.0	6,639.8	6,537.3	6,536.7	132.8	1.7	-84.91	1.0	-3,771.1	1,113.5	979.7	133.74	8.326	
11,318.9	6,639.8	6,536.4	6,535.8	133.4	1.7	-84.85	1.0	-3,771.2	1,127.4	993.1	134.25	8.398	
11,400.0	6,639.7	6,532.7	6,532.1	135.6	1.7	-84.56	1.1	-3,771.4	1,188.7	1,052.3	136.45	8.712	
11,417.3	6,639.7	6,531.9	6,531.3	136.1	1.7	-84.50	1.1	-3,771.4	1,202.1	1,065.2	136.92	8.780	
11,500.0	6,639.6	6,528.1	6,527.5	138.4	1.7	-84.22	1.3	-3,771.6	1,267.4	1,128.2	139.16	9.108	
11,515.7	6,639.5	6,527.3	6,526.8	138.9	1.7	-84.16	1.3	-3,771.7	1,280.0	1,140.4	139.58	9.170	
11,600.0	6,639.4	6,523.5	6,522.9	141.2	1.7	-83.87	1.4	-3,771.9	1,348.8	1,207.0	141.86	9.508	
11,614.1	6,639.4	6,522.9	6,522.3	141.6	1.7	-83.83	1.4	-3,771.9	1,360.6	1,218.3	142.24	9.565	
11,700.0	6,639.3	6,519.1	6,518.5	144.0	1.7	-83.54	1.5	-3,772.1	1,432.6	1,288.1	144.55	9.911	
11,712.6	6,639.3	6,518.5	6,517.9	144.3	1.7	-83.50	1.5	-3,772.1	1,443.3	1,298.4	144.89	9.961	
11,800.0	6,639.2	6,514.7	6,514.1	146.8	1.7	-83.21	1.6	-3,772.3	1,518.4	1,371.1	147.24	10.312	
11,811.0	6,639.2	6,514.2	6,513.6	147.1	1.7	-83.17	1.6	-3,772.4	1,527.9	1,380.4	147.54	10.356	
11,900.0	6,639.1	6,510.3	6,509.8	149.6	1.7	-82.88	1.8	-3,772.5	1,605.8	1,455.8	149.93	10.710	
11,909.4	6,639.0	6,509.9	6,509.4	149.8	1.7	-82.85	1.8	-3,772.6	1,614.1	1,463.9	150.18	10.748	
12,000.0	6,638.9	6,500.0	6,499.5	152.4	1.7	-82.11	2.0	-3,773.1	1,694.5	1,542.1	152.47	11.114	
12,007.8	6,638.9	6,500.0	6,499.5	152.6	1.7	-82.11	2.0	-3,773.1	1,701.6	1,548.9	152.69	11.144	
12,100.0	6,638.8	6,500.0	6,499.5	155.2	1.7	-82.11	2.0	-3,773.1	1,784.5	1,629.2	155.24	11.495	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BOND #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,106.3	6,638.8	6,500.0	6,499.5	155.3	1.7	-82.11	2.0	-3,773.1	1,790.2	1,634.7	155.41	11.519	
12,200.0	6,638.7	6,500.0	6,499.5	157.9	1.7	-82.11	2.0	-3,773.1	1,875.4	1,717.4	158.01	11.869	
12,204.7	6,638.7	6,500.0	6,499.5	158.1	1.7	-82.11	2.0	-3,773.1	1,879.7	1,721.6	158.14	11.886	
12,300.0	6,638.5	6,500.0	6,499.5	160.7	1.7	-82.11	2.0	-3,773.1	1,967.3	1,806.5	160.78	12.236	
12,303.1	6,638.5	6,500.0	6,499.5	160.8	1.7	-82.11	2.0	-3,773.1	1,970.1	1,809.3	160.87	12.247	
12,400.0	6,638.4	6,489.4	6,488.9	163.5	1.7	-81.32	2.3	-3,773.6	2,059.8	1,896.5	163.27	12.616	
12,401.5	6,638.4	6,489.4	6,488.8	163.6	1.7	-81.31	2.3	-3,773.6	2,061.3	1,897.9	163.31	12.622	
12,500.0	6,638.3	6,485.4	6,484.9	166.3	1.7	-81.02	2.4	-3,773.8	2,153.0	1,987.1	165.92	12.976	
12,598.4	6,638.2	6,481.6	6,481.0	169.1	1.7	-80.73	2.5	-3,774.0	2,245.3	2,076.8	168.53	13.323	
12,600.0	6,638.2	6,481.5	6,481.0	169.1	1.7	-80.73	2.5	-3,774.0	2,246.8	2,078.3	168.57	13.329	
12,696.8	6,638.0	6,477.7	6,477.2	171.8	1.7	-80.45	2.6	-3,774.1	2,338.1	2,167.0	171.13	13.663	
12,700.0	6,638.0	6,477.6	6,477.1	171.9	1.7	-80.44	2.6	-3,774.2	2,341.1	2,169.9	171.21	13.674	
12,795.2	6,637.9	6,474.0	6,473.5	174.6	1.7	-80.17	2.7	-3,774.3	2,431.4	2,257.7	173.72	13.996	
12,800.0	6,637.9	6,473.8	6,473.3	174.7	1.7	-80.16	2.7	-3,774.3	2,435.9	2,262.0	173.84	14.012	
12,893.7	6,637.8	6,470.3	6,469.8	177.3	1.7	-79.90	2.8	-3,774.5	2,525.0	2,348.7	176.31	14.322	
12,900.0	6,637.8	6,470.1	6,469.6	177.5	1.7	-79.88	2.8	-3,774.5	2,531.0	2,354.6	176.47	14.342	
12,992.1	6,637.7	6,466.7	6,466.2	180.1	1.7	-79.63	2.9	-3,774.7	2,619.0	2,440.1	178.89	14.640	
13,000.0	6,637.6	6,466.4	6,465.9	180.3	1.7	-79.61	2.9	-3,774.7	2,626.5	2,447.4	179.10	14.665	
13,090.5	6,637.5	6,463.1	6,462.6	182.8	1.7	-79.36	3.0	-3,774.8	2,713.3	2,531.8	181.47	14.951	
13,100.0	6,637.5	6,462.7	6,462.3	183.1	1.7	-79.34	3.0	-3,774.8	2,722.4	2,540.6	181.72	14.981	
13,188.9	6,637.4	6,459.6	6,459.1	185.6	1.7	-79.10	3.0	-3,775.0	2,807.8	2,623.8	184.05	15.256	
13,200.0	6,637.4	6,459.2	6,458.7	185.9	1.7	-79.07	3.1	-3,775.0	2,818.5	2,634.1	184.33	15.290	
13,287.4	6,637.3	6,456.1	6,455.6	188.4	1.7	-78.85	3.1	-3,775.1	2,902.6	2,716.0	186.61	15.554	
13,300.0	6,637.3	6,455.7	6,455.2	188.7	1.7	-78.82	3.1	-3,775.2	2,914.8	2,727.9	186.94	15.592	
13,385.8	6,637.1	6,452.7	6,452.2	191.1	1.7	-78.60	3.2	-3,775.3	2,997.7	2,808.5	189.18	15.846	
13,400.0	6,637.1	6,452.2	6,451.7	191.5	1.7	-78.56	3.2	-3,775.3	3,011.4	2,821.9	189.55	15.887	
13,484.2	6,637.0	6,449.3	6,448.9	193.9	1.7	-78.35	3.3	-3,775.5	3,092.9	2,901.2	191.74	16.131	
13,500.0	6,637.0	6,448.8	6,448.3	194.3	1.7	-78.31	3.3	-3,775.5	3,108.2	2,916.1	192.15	16.176	
13,582.6	6,636.9	6,446.0	6,445.5	196.6	1.7	-78.11	3.4	-3,775.6	3,188.4	2,994.1	194.29	16.410	
13,600.0	6,636.9	6,445.4	6,445.0	197.1	1.7	-78.06	3.4	-3,775.6	3,205.2	3,010.5	194.74	16.459	
13,681.1	6,636.8	6,442.7	6,442.3	199.4	1.7	-77.87	3.4	-3,775.7	3,284.0	3,087.1	196.84	16.683	
13,700.0	6,636.7	6,442.1	6,441.7	199.9	1.7	-77.82	3.5	-3,775.8	3,302.4	3,105.0	197.33	16.735	
13,779.5	6,636.6	6,439.5	6,439.1	202.1	1.7	-77.63	3.5	-3,775.9	3,379.7	3,180.3	199.39	16.951	
13,800.0	6,636.6	6,438.9	6,438.4	202.7	1.7	-77.58	3.5	-3,775.9	3,399.7	3,199.8	199.92	17.006	
13,877.9	6,636.5	6,436.4	6,435.9	204.9	1.7	-77.40	3.6	-3,776.0	3,475.6	3,273.7	201.93	17.212	
13,900.0	6,636.5	6,435.7	6,435.2	205.5	1.7	-77.35	3.6	-3,776.0	3,497.2	3,294.7	202.50	17.270	
13,976.3	6,636.4	6,433.2	6,432.8	207.6	1.7	-77.17	3.7	-3,776.2	3,571.7	3,367.2	204.46	17.469	
14,000.0	6,636.3	6,432.5	6,432.1	208.3	1.7	-77.12	3.7	-3,776.2	3,594.8	3,389.7	205.07	17.529	
14,074.8	6,636.3	6,430.2	6,429.7	210.4	1.7	-76.95	3.7	-3,776.3	3,667.8	3,460.9	207.00	17.719	
14,100.0	6,636.2	6,429.4	6,428.9	211.1	1.7	-76.89	3.7	-3,776.3	3,692.5	3,484.9	207.64	17.783	
14,173.2	6,636.1	6,427.1	6,426.7	213.2	1.7	-76.73	3.8	-3,776.4	3,764.1	3,554.6	209.52	17.965	
14,200.0	6,636.1	6,426.3	6,425.9	213.9	1.7	-76.67	3.8	-3,776.4	3,790.4	3,580.1	210.21	18.031	
14,271.6	6,636.0	6,424.1	6,423.7	215.9	1.7	-76.51	3.9	-3,776.5	3,860.5	3,648.5	212.04	18.206	
14,300.0	6,636.0	6,423.3	6,422.9	216.7	1.7	-76.45	3.9	-3,776.6	3,888.3	3,675.5	212.77	18.275	
14,370.0	6,635.9	6,421.2	6,420.8	218.7	1.7	-76.30	3.9	-3,776.7	3,957.0	3,742.4	214.56	18.442	
14,400.0	6,635.8	6,420.3	6,419.9	219.5	1.7	-76.24	3.9	-3,776.7	3,986.4	3,771.0	215.33	18.513	
14,468.5	6,635.7	6,418.3	6,417.9	221.4	1.7	-76.09	4.0	-3,776.8	4,053.6	3,836.5	217.08	18.673	
14,500.0	6,635.7	6,417.4	6,416.9	222.3	1.7	-76.02	4.0	-3,776.8	4,084.5	3,866.6	217.88	18.747	
14,566.9	6,635.6	6,400.0	6,399.6	224.2	1.7	-74.78	4.4	-3,777.5	4,150.3	3,931.6	218.62	18.984	
14,600.0	6,635.6	6,400.0	6,399.6	225.1	1.7	-74.78	4.4	-3,777.5	4,182.8	3,963.3	219.51	19.055	
14,665.3	6,635.5	6,400.0	6,399.6	226.9	1.7	-74.78	4.4	-3,777.5	4,247.0	4,025.7	221.28	19.192	
14,700.0	6,635.4	6,400.0	6,399.6	227.9	1.7	-74.78	4.4	-3,777.5	4,281.1	4,058.8	222.22	19.265	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BOND #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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,763.7	6,635.4	6,400.0	6,399.6	229.7	1.7	-74.78	4.4	-3,777.5	4,343.8	4,119.8	223.95	19.396	
14,800.0	6,635.3	6,400.0	6,399.6	230.7	1.7	-74.78	4.4	-3,777.5	4,379.4	4,154.5	224.93	19.470	
14,862.2	6,635.2	6,400.0	6,399.6	232.5	1.7	-74.78	4.4	-3,777.5	4,440.6	4,214.0	226.62	19.595	
14,900.0	6,635.2	6,400.0	6,399.6	233.5	1.7	-74.78	4.4	-3,777.5	4,477.9	4,250.2	227.65	19.670	
14,960.6	6,635.1	6,400.0	6,399.6	235.2	1.7	-74.78	4.4	-3,777.5	4,537.6	4,308.3	229.29	19.790	
15,000.0	6,635.0	6,400.0	6,399.6	236.3	1.7	-74.78	4.4	-3,777.5	4,576.4	4,346.0	230.36	19.867	
15,033.1	6,635.0	6,400.0	6,399.6	237.3	1.7	-74.77	4.4	-3,777.5	4,609.0	4,377.7	231.25	19.930	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-70.43	1,311.8	-3,689.9	3,916.2				
98.4	98.4	84.4	84.4	0.1	0.0	-70.43	1,311.8	-3,689.9	3,916.2	3,916.1	0.10	N/A	
100.0	100.0	86.0	86.0	0.1	0.0	-70.43	1,311.8	-3,689.9	3,916.2	3,916.1	0.10	N/A	
196.8	196.8	182.8	182.8	0.3	1.0	-70.43	1,311.8	-3,689.9	3,916.2	3,914.9	1.31	2,993.587	
200.0	200.0	186.0	186.0	0.3	1.0	-70.43	1,311.8	-3,689.9	3,916.2	3,914.8	1.35	2,894.412	
295.3	295.3	281.3	281.3	0.5	3.1	-70.43	1,311.8	-3,689.9	3,916.2	3,912.6	3.60	1,089.089	
300.0	300.0	286.0	286.0	0.5	3.2	-70.43	1,311.8	-3,689.9	3,916.2	3,912.5	3.71	1,054.256	
393.7	393.7	379.7	379.7	0.8	5.1	-70.43	1,311.8	-3,689.9	3,916.2	3,910.3	5.90	663.509	
400.0	400.0	386.0	386.0	0.8	5.3	-70.43	1,311.8	-3,689.9	3,916.2	3,910.1	6.05	647.590	
492.1	492.1	478.1	478.1	1.0	7.2	-70.43	1,311.8	-3,689.9	3,916.2	3,908.0	8.14	481.055	
500.0	500.0	486.0	486.0	1.0	7.3	-70.43	1,311.8	-3,689.9	3,916.2	3,907.8	8.32	470.732	
590.5	590.5	576.5	576.5	1.2	9.2	-70.43	1,311.8	-3,689.9	3,916.2	3,905.8	10.36	377.936	
600.0	600.0	586.0	586.0	1.2	9.4	-70.43	1,311.8	-3,689.9	3,916.2	3,905.6	10.57	370.324	
689.0	689.0	675.0	675.0	1.4	11.2	-70.43	1,311.8	-3,689.9	3,916.2	3,903.6	12.58	311.410	
700.0	700.0	686.0	686.0	1.4	11.4	-70.43	1,311.8	-3,689.9	3,916.2	3,903.3	12.82	305.392	
787.4	787.4	773.4	773.4	1.6	13.1	-70.43	1,311.8	-3,689.9	3,916.2	3,901.4	14.79	264.871	
800.0	800.0	786.0	786.0	1.7	13.4	-70.43	1,311.8	-3,689.9	3,916.2	3,901.1	15.07	259.901	
885.8	885.8	871.8	871.8	1.9	15.1	-70.43	1,311.8	-3,689.9	3,916.2	3,899.2	16.99	230.466	
900.0	900.0	886.0	886.0	1.9	15.4	-70.43	1,311.8	-3,689.9	3,916.2	3,898.9	17.31	226.235	
984.2	984.2	970.2	970.2	2.1	17.1	-70.43	1,311.8	-3,689.9	3,916.2	3,897.0	19.20	203.989	
1,000.0	1,000.0	986.0	986.0	2.1	17.4	-70.43	1,311.8	-3,689.9	3,916.2	3,896.6	19.55	200.307	
1,082.7	1,082.7	1,068.7	1,068.7	2.3	19.1	-97.44	1,311.8	-3,689.9	3,916.3	3,894.9	21.40	183.004	
1,100.0	1,100.0	1,086.0	1,086.0	2.3	19.4	-97.45	1,311.8	-3,689.9	3,916.4	3,894.6	21.79	179.754	
1,181.1	1,181.0	1,167.0	1,167.0	2.5	21.1	-97.50	1,311.8	-3,689.9	3,916.9	3,893.3	23.60	165.981	
1,200.0	1,199.8	1,185.8	1,185.8	2.6	21.5	-97.51	1,311.8	-3,689.9	3,917.1	3,893.1	24.02	163.075	
1,279.5	1,279.1	1,265.1	1,265.1	2.8	23.1	-97.59	1,311.8	-3,689.9	3,918.0	3,892.2	25.80	151.879	
1,300.0	1,299.5	1,285.5	1,285.5	2.8	23.5	-97.62	1,311.8	-3,689.9	3,918.2	3,892.0	26.25	149.247	
1,377.9	1,376.9	1,362.9	1,362.9	3.0	25.0	-97.72	1,311.8	-3,689.9	3,919.5	3,891.5	28.00	139.982	
1,400.0	1,398.7	1,384.7	1,384.7	3.0	25.5	-97.76	1,311.8	-3,689.9	3,919.9	3,891.4	28.49	137.572	
1,476.4	1,474.2	1,460.2	1,460.2	3.2	27.0	-97.89	1,311.8	-3,689.9	3,921.5	3,891.3	30.21	129.787	
1,500.0	1,497.5	1,483.5	1,483.5	3.3	27.4	-97.94	1,311.8	-3,689.9	3,922.0	3,891.3	30.75	127.562	
1,574.8	1,571.0	1,557.0	1,557.0	3.5	28.9	-98.10	1,311.8	-3,689.9	3,924.0	3,891.6	32.45	120.935	
1,600.0	1,595.6	1,581.6	1,581.6	3.6	29.4	-98.16	1,311.8	-3,689.9	3,924.8	3,891.7	33.02	118.864	
1,673.2	1,667.2	1,653.2	1,653.2	3.9	30.9	-98.37	1,311.8	-3,689.9	3,927.0	3,892.3	34.70	113.159	
1,700.0	1,693.4	1,679.4	1,679.4	4.0	31.4	-98.45	1,311.8	-3,689.9	3,927.8	3,892.5	35.32	111.208	
1,771.6	1,763.5	1,749.5	1,749.5	4.2	32.8	-98.66	1,311.8	-3,689.9	3,930.1	3,893.1	36.98	106.272	
1,800.0	1,791.3	1,777.3	1,777.3	4.3	33.4	-98.74	1,311.8	-3,689.9	3,931.0	3,893.4	37.64	104.438	
1,870.1	1,859.8	1,845.8	1,845.8	4.6	34.7	-98.95	1,311.8	-3,689.9	3,933.3	3,894.0	39.28	100.147	
1,900.0	1,889.1	1,875.1	1,875.1	4.7	35.3	-99.04	1,311.8	-3,689.9	3,934.3	3,894.3	39.97	98.422	
1,968.5	1,956.1	1,942.1	1,942.1	4.9	36.7	-99.24	1,311.8	-3,689.9	3,936.6	3,895.0	41.58	94.675	
2,000.0	1,986.9	1,972.9	1,972.9	5.1	37.3	-99.33	1,311.8	-3,689.9	3,937.7	3,895.4	42.32	93.048	
2,066.9	2,052.3	2,038.3	2,038.3	5.3	38.6	-99.52	1,311.8	-3,689.9	3,940.0	3,896.1	43.89	89.761	
2,100.0	2,084.7	2,070.7	2,070.7	5.5	39.3	-99.62	1,311.8	-3,689.9	3,941.2	3,896.5	44.67	88.223	
2,165.3	2,148.6	2,134.6	2,134.6	5.7	40.5	-99.81	1,311.8	-3,689.9	3,943.5	3,897.3	46.22	85.329	
2,200.0	2,182.5	2,168.5	2,168.5	5.9	41.2	-99.91	1,311.8	-3,689.9	3,944.8	3,897.7	47.03	83.872	
2,263.8	2,244.9	2,230.9	2,230.9	6.1	42.5	-100.10	1,311.8	-3,689.9	3,947.1	3,898.6	48.54	81.313	
2,300.0	2,280.3	2,266.3	2,266.3	6.3	43.2	-100.20	1,311.8	-3,689.9	3,948.5	3,899.1	49.40	79.930	
2,362.2	2,341.2	2,327.2	2,327.2	6.5	44.4	-100.38	1,311.8	-3,689.9	3,950.8	3,900.0	50.87	77.660	
2,400.0	2,378.1	2,364.1	2,364.1	6.7	45.2	-100.49	1,311.8	-3,689.9	3,952.3	3,900.5	51.77	76.344	
2,460.6	2,437.4	2,423.4	2,423.4	6.9	46.4	-100.67	1,311.8	-3,689.9	3,954.7	3,901.5	53.21	74.324	
2,500.0	2,476.0	2,462.0	2,462.0	7.1	47.1	-100.78	1,311.8	-3,689.9	3,956.2	3,902.1	54.14	73.070	
2,550.0	2,524.9	2,510.9	2,510.9	7.3	48.1	-100.93	1,311.8	-3,689.9	3,958.2	3,902.9	55.33	71.538	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,519.7	2,519.7	7.3	48.3	-100.10	1,311.8	-3,689.9	3,958.6	3,903.0	55.55	71.262	
2,600.0	2,573.8	2,559.8	2,559.8	7.5	49.1	-96.37	1,311.8	-3,689.9	3,959.8	3,903.3	56.53	70.042	
2,639.4	2,612.3	2,598.3	2,598.3	7.7	49.9	-92.79	1,311.8	-3,689.9	3,960.5	3,903.0	57.47	68.920	
2,657.5	2,630.0	2,616.0	2,616.0	7.7	50.2	-92.84	1,311.8	-3,689.9	3,960.7	3,902.8	57.89	68.414	
2,700.0	2,671.6	2,657.6	2,657.6	7.9	51.1	-92.97	1,311.8	-3,689.9	3,961.1	3,902.2	58.90	67.255	
2,755.9	2,726.3	2,712.3	2,712.3	8.1	52.2	-93.13	1,311.8	-3,689.9	3,961.8	3,901.5	60.23	65.776	
2,800.0	2,769.4	2,755.4	2,755.4	8.3	53.0	-93.26	1,311.8	-3,689.9	3,962.3	3,901.0	61.28	64.656	
2,854.3	2,822.5	2,808.5	2,808.5	8.5	54.1	-93.42	1,311.8	-3,689.9	3,963.0	3,900.4	62.58	63.327	
2,900.0	2,867.2	2,853.2	2,853.2	8.7	55.0	-93.56	1,311.8	-3,689.9	3,963.5	3,899.9	63.67	62.252	
2,952.7	2,918.8	2,904.8	2,904.8	9.0	56.0	-93.71	1,311.8	-3,689.9	3,964.3	3,899.3	64.93	61.055	
3,000.0	2,965.0	2,951.0	2,951.0	9.2	57.0	-93.85	1,311.8	-3,689.9	3,964.9	3,898.9	66.06	60.022	
3,051.2	3,015.1	3,001.1	3,001.1	9.4	58.0	-94.00	1,311.8	-3,689.9	3,965.7	3,898.4	67.28	58.942	
3,100.0	3,062.8	3,048.8	3,048.8	9.6	58.9	-94.14	1,311.8	-3,689.9	3,966.4	3,898.0	68.45	57.948	
3,149.6	3,111.4	3,097.4	3,097.4	9.8	59.9	-94.29	1,311.8	-3,689.9	3,967.2	3,897.5	69.63	56.972	
3,200.0	3,160.7	3,146.7	3,146.7	10.0	60.9	-94.43	1,311.8	-3,689.9	3,968.0	3,897.2	70.84	56.015	
3,248.0	3,207.6	3,193.6	3,193.6	10.2	61.9	-94.58	1,311.8	-3,689.9	3,968.8	3,896.8	71.99	55.132	
3,300.0	3,258.5	3,244.5	3,244.5	10.5	62.9	-94.73	1,311.8	-3,689.9	3,969.7	3,896.5	73.23	54.209	
3,346.4	3,303.9	3,289.9	3,289.9	10.7	63.8	-94.86	1,311.8	-3,689.9	3,970.5	3,896.2	74.34	53.410	
3,400.0	3,356.3	3,342.3	3,342.3	10.9	64.8	-95.02	1,311.8	-3,689.9	3,971.5	3,895.9	75.62	52.518	
3,444.9	3,400.2	3,386.2	3,386.2	11.1	65.7	-95.15	1,311.8	-3,689.9	3,972.3	3,895.6	76.70	51.794	
3,500.0	3,454.1	3,440.1	3,440.1	11.3	66.8	-95.31	1,311.8	-3,689.9	3,973.4	3,895.4	78.01	50.932	
3,543.3	3,496.5	3,482.5	3,482.5	11.5	67.7	-95.44	1,311.8	-3,689.9	3,974.3	3,895.2	79.05	50.275	
3,600.0	3,551.9	3,537.9	3,537.9	11.7	68.8	-95.60	1,311.8	-3,689.9	3,975.4	3,895.0	80.41	49.441	
3,641.7	3,592.7	3,578.7	3,578.7	11.9	69.6	-95.73	1,311.8	-3,689.9	3,976.3	3,894.9	81.41	48.846	
3,700.0	3,649.7	3,635.7	3,635.7	12.2	70.7	-95.90	1,311.8	-3,689.9	3,977.6	3,894.8	82.80	48.038	
3,740.1	3,689.0	3,675.0	3,675.0	12.4	71.5	-96.01	1,311.8	-3,689.9	3,978.4	3,894.7	83.76	47.498	
3,800.0	3,747.5	3,733.5	3,733.5	12.6	72.7	-96.19	1,311.8	-3,689.9	3,979.8	3,894.6	85.19	46.715	
3,838.6	3,785.3	3,771.3	3,771.3	12.8	73.5	-96.30	1,311.8	-3,689.9	3,980.7	3,894.6	86.12	46.225	
3,900.0	3,845.4	3,831.4	3,831.4	13.1	74.7	-96.48	1,311.8	-3,689.9	3,982.1	3,894.6	87.59	45.466	
3,937.0	3,881.6	3,867.6	3,867.6	13.2	75.4	-96.59	1,311.8	-3,689.9	3,983.0	3,894.6	88.47	45.021	
4,000.0	3,943.2	3,929.2	3,929.2	13.5	76.6	-96.77	1,311.8	-3,689.9	3,984.6	3,894.6	89.98	44.284	
4,035.4	3,977.8	3,963.8	3,963.8	13.6	77.3	-96.87	1,311.8	-3,689.9	3,985.5	3,894.7	90.83	43.880	
4,100.0	4,041.0	4,027.0	4,027.0	13.9	78.6	-97.06	1,311.8	-3,689.9	3,987.1	3,894.8	92.37	43.164	
4,133.8	4,074.1	4,060.1	4,060.1	14.1	79.3	-97.16	1,311.8	-3,689.9	3,988.0	3,894.9	93.18	42.799	
4,200.0	4,138.8	4,124.8	4,124.8	14.4	80.6	-97.35	1,311.8	-3,689.9	3,989.8	3,895.0	94.76	42.103	
4,232.3	4,170.4	4,156.4	4,156.4	14.5	81.2	-97.44	1,311.8	-3,689.9	3,990.7	3,895.2	95.54	41.772	
4,300.0	4,236.6	4,222.6	4,222.6	14.8	82.5	-97.64	1,311.8	-3,689.9	3,992.6	3,895.4	97.16	41.095	
4,330.7	4,266.7	4,252.7	4,252.7	14.9	83.2	-97.73	1,311.8	-3,689.9	3,993.5	3,895.6	97.89	40.795	
4,400.0	4,334.4	4,320.4	4,320.4	15.2	84.5	-97.93	1,311.8	-3,689.9	3,995.5	3,895.9	99.55	40.136	
4,429.1	4,362.9	4,348.9	4,348.9	15.4	85.1	-98.01	1,311.8	-3,689.9	3,996.3	3,896.1	100.24	39.866	
4,500.0	4,432.3	4,418.3	4,418.3	15.7	86.5	-98.22	1,311.8	-3,689.9	3,998.4	3,896.5	101.94	39.224	
4,527.5	4,459.2	4,445.2	4,445.2	15.8	87.0	-98.30	1,311.8	-3,689.9	3,999.3	3,896.7	102.60	38.980	
4,600.0	4,530.1	4,516.1	4,516.1	16.1	88.4	-98.50	1,311.8	-3,689.9	4,001.5	3,897.2	104.33	38.355	
4,626.0	4,555.5	4,541.5	4,541.5	16.2	89.0	-98.58	1,311.8	-3,689.9	4,002.3	3,897.4	104.95	38.135	
4,700.0	4,627.9	4,613.9	4,613.9	16.6	90.4	-98.79	1,311.8	-3,689.9	4,004.7	3,898.0	106.72	37.525	
4,724.4	4,651.7	4,637.7	4,637.7	16.7	90.9	-98.86	1,311.8	-3,689.9	4,005.5	3,898.2	107.30	37.329	
4,800.0	4,725.7	4,711.7	4,711.7	17.0	92.4	-99.08	1,311.8	-3,689.9	4,008.0	3,898.9	109.11	36.734	
4,822.8	4,748.0	4,734.0	4,734.0	17.1	92.8	-99.15	1,311.8	-3,689.9	4,008.8	3,899.1	109.66	36.558	
4,904.9	4,828.3	4,814.3	4,814.3	17.5	94.4	-99.38	1,311.8	-3,689.9	4,011.6	3,900.0	111.62	35.941	
4,921.2	4,844.3	4,830.3	4,830.3	17.5	94.8	-99.44	1,311.8	-3,689.9	4,012.2	3,900.2	112.00	35.823	
5,000.0	4,921.6	4,907.6	4,907.6	17.8	96.3	-99.69	1,311.8	-3,689.9	4,014.7	3,900.8	113.85	35.263	
5,019.7	4,941.0	4,927.0	4,927.0	17.9	96.7	-99.75	1,311.8	-3,689.9	4,015.3	3,901.0	114.30	35.130	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	5,006.4	5,006.4	18.1	98.3	-99.97	1,311.8	-3,689.9	4,017.4	3,901.3	116.13	34.594	
5,118.1	5,038.3	5,024.3	5,024.3	18.2	98.7	-100.01	1,311.8	-3,689.9	4,017.8	3,901.3	116.54	34.477	
5,200.0	5,119.6	5,105.6	5,105.6	18.4	100.3	-100.18	1,311.8	-3,689.9	4,019.6	3,901.2	118.38	33.954	
5,216.5	5,136.0	5,122.0	5,122.0	18.4	100.6	-100.21	1,311.8	-3,689.9	4,019.9	3,901.1	118.75	33.852	
5,300.0	5,219.2	5,205.2	5,205.2	18.6	102.3	-100.34	1,311.8	-3,689.9	4,021.2	3,900.6	120.60	33.342	
5,314.9	5,234.1	5,220.1	5,220.1	18.6	102.6	-100.36	1,311.8	-3,689.9	4,021.4	3,900.4	120.93	33.254	
5,400.0	5,319.1	5,305.1	5,305.1	18.8	104.3	-100.43	1,311.8	-3,689.9	4,022.1	3,899.4	122.79	32.756	
5,413.4	5,332.4	5,318.4	5,318.4	18.8	104.6	-100.44	1,311.8	-3,689.9	4,022.2	3,899.2	123.08	32.681	
5,504.9	5,423.9	5,409.9	5,409.9	18.9	106.4	-82.05	1,311.8	-3,689.9	4,022.5	3,902.7	119.85	33.564	
5,511.8	5,430.8	5,416.8	5,416.8	18.9	106.6	-82.05	1,311.8	-3,689.9	4,022.5	3,902.5	120.00	33.522	
5,600.0	5,519.0	5,505.0	5,505.0	19.0	108.3	-82.05	1,311.8	-3,689.9	4,022.5	3,900.6	121.92	32.992	
5,610.2	5,529.3	5,515.3	5,515.3	19.0	108.5	-82.05	1,311.8	-3,689.9	4,022.5	3,900.3	122.15	32.931	
5,700.0	5,619.0	5,605.0	5,605.0	19.2	110.3	-82.05	1,311.8	-3,689.9	4,022.5	3,898.4	124.13	32.406	
5,708.6	5,627.7	5,613.7	5,613.7	19.2	110.5	-82.05	1,311.8	-3,689.9	4,022.5	3,898.2	124.32	32.356	
5,800.0	5,719.0	5,705.0	5,705.0	19.3	112.4	-82.05	1,311.8	-3,689.9	4,022.5	3,896.2	126.33	31.840	
5,807.1	5,726.1	5,712.1	5,712.1	19.3	112.5	-82.05	1,311.8	-3,689.9	4,022.5	3,896.0	126.49	31.801	
5,900.0	5,819.0	5,805.0	5,805.0	19.4	114.4	-82.05	1,311.8	-3,689.9	4,022.5	3,894.0	128.54	31.293	
5,905.5	5,824.5	5,810.5	5,810.5	19.4	114.5	-82.05	1,311.8	-3,689.9	4,022.5	3,893.8	128.66	31.264	
6,003.9	5,923.0	5,909.0	5,909.0	19.6	116.5	-82.05	1,311.8	-3,689.9	4,022.5	3,891.7	130.84	30.745	
6,009.8	5,928.8	5,914.8	5,914.8	19.6	116.6	-82.05	1,311.8	-3,689.9	4,022.5	3,891.5	130.97	30.714	
6,050.0	5,969.0	5,955.0	5,955.0	19.6	117.4	7.97	1,311.8	-3,689.9	4,021.4	3,884.9	136.53	29.454	
6,100.0	6,018.8	6,004.8	6,004.8	19.7	118.4	8.03	1,311.8	-3,689.9	4,016.9	3,880.1	136.73	29.379	
6,102.3	6,021.1	6,007.1	6,007.1	19.7	118.4	8.03	1,311.8	-3,689.9	4,016.6	3,879.9	136.72	29.378	
6,150.0	6,068.1	6,054.1	6,054.1	19.7	119.4	8.13	1,311.8	-3,689.9	4,008.9	3,872.7	136.26	29.422	
6,200.0	6,116.8	6,102.8	6,102.8	19.7	120.4	8.29	1,311.8	-3,689.9	3,997.6	3,862.5	135.11	29.589	
6,200.8	6,117.5	6,103.5	6,103.5	19.7	120.4	8.29	1,311.8	-3,689.9	3,997.4	3,862.3	135.08	29.592	
6,250.0	6,164.5	6,150.5	6,150.5	19.7	121.3	8.50	1,311.8	-3,689.9	3,983.0	3,849.7	133.28	29.884	
6,299.2	6,210.4	6,196.4	6,196.4	19.7	122.2	8.76	1,311.8	-3,689.9	3,965.4	3,834.5	130.83	30.310	
6,300.0	6,211.1	6,197.1	6,197.1	19.7	122.3	8.77	1,311.8	-3,689.9	3,965.1	3,834.3	130.78	30.318	
6,350.0	6,256.4	6,242.4	6,242.4	19.7	123.2	9.11	1,311.8	-3,689.9	3,944.0	3,816.3	127.63	30.902	
6,397.6	6,298.0	6,284.0	6,284.0	19.7	124.0	9.50	1,311.8	-3,689.9	3,921.0	3,797.0	124.03	31.614	
6,400.0	6,300.0	6,286.0	6,286.0	19.7	124.0	9.52	1,311.8	-3,689.9	3,919.8	3,796.0	123.84	31.653	
6,450.0	6,341.8	6,327.8	6,327.8	19.7	124.9	10.03	1,311.8	-3,689.9	3,892.7	3,773.3	119.45	32.589	
6,496.0	6,378.6	6,364.6	6,364.6	19.7	125.6	10.59	1,311.8	-3,689.9	3,865.2	3,750.3	114.92	33.633	
6,500.0	6,381.6	6,367.6	6,367.6	19.7	125.7	10.64	1,311.8	-3,689.9	3,862.8	3,748.3	114.52	33.731	
6,550.0	6,419.2	6,405.2	6,405.2	19.6	126.4	11.39	1,311.8	-3,689.9	3,830.2	3,721.1	109.12	35.101	
6,594.5	6,450.7	6,436.7	6,436.7	19.6	127.1	12.20	1,311.8	-3,689.9	3,799.1	3,695.1	104.02	36.523	
6,600.0	6,454.4	6,440.4	6,440.4	19.6	127.1	12.31	1,311.8	-3,689.9	3,795.1	3,691.7	103.37	36.713	
6,650.0	6,487.1	6,473.1	6,473.1	19.6	127.8	13.45	1,311.8	-3,689.9	3,757.7	3,660.2	97.44	38.562	
6,692.9	6,513.0	6,499.0	6,499.0	19.6	128.3	14.64	1,311.8	-3,689.9	3,723.8	3,631.4	92.41	40.296	
6,700.0	6,517.0	6,503.0	6,503.0	19.6	128.4	14.86	1,311.8	-3,689.9	3,718.1	3,626.5	91.60	40.590	
6,750.0	6,544.1	6,530.1	6,530.1	19.6	129.0	16.66	1,311.8	-3,689.9	3,676.5	3,590.3	86.25	42.624	
6,791.3	6,564.2	6,550.2	6,550.2	19.7	129.4	18.53	1,311.8	-3,689.9	3,640.8	3,558.1	82.69	44.029	
6,800.0	6,568.2	6,554.2	6,554.2	19.7	129.4	18.98	1,311.8	-3,689.9	3,633.2	3,551.1	82.07	44.270	
6,850.0	6,589.1	6,575.1	6,575.1	19.8	129.9	22.07	1,311.8	-3,689.9	3,588.4	3,508.3	80.09	44.807	
6,889.7	6,603.5	6,589.5	6,589.5	19.9	130.1	25.31	1,311.8	-3,689.9	3,551.8	3,470.7	81.07	43.812	
6,900.0	6,606.9	6,592.9	6,592.9	19.9	130.2	26.29	1,311.8	-3,689.9	3,542.2	3,460.4	81.81	43.299	
6,950.0	6,621.3	6,607.3	6,607.3	20.2	130.5	32.30	1,311.8	-3,689.9	3,494.9	3,405.8	89.11	39.221	
6,988.2	6,630.0	6,616.0	6,616.0	20.6	130.7	38.73	1,311.8	-3,689.9	3,458.3	3,358.7	99.54	34.741	
7,000.0	6,632.4	6,618.4	6,618.4	20.7	130.7	41.17	1,311.8	-3,689.9	3,446.8	3,343.1	103.70	33.239	
7,050.0	6,640.0	6,626.0	6,626.0	21.4	130.9	54.57	1,311.8	-3,689.9	3,398.1	3,272.7	125.37	27.104	
7,086.6	6,643.4	6,629.4	6,629.4	21.9	130.9	68.17	1,311.8	-3,689.9	3,362.1	3,220.1	142.03	23.672	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,630.2	6,630.2	22.1	131.0	73.93	1,311.8	-3,689.9	3,348.9	3,202.1	146.88	22.800	
7,135.7	6,645.0	6,631.0	6,631.0	22.7	131.0	90.41	1,311.8	-3,689.9	3,313.8	3,161.1	152.73	21.697	
7,185.0	6,644.9	6,630.9	6,630.9	23.6	131.0	90.40	1,311.8	-3,689.9	3,265.1	3,111.5	153.69	21.245	
7,200.0	6,644.9	6,630.9	6,630.9	23.9	131.0	90.40	1,311.8	-3,689.9	3,250.4	3,096.4	153.98	21.109	
7,283.4	6,644.8	6,630.8	6,630.8	25.6	131.0	90.39	1,311.8	-3,689.9	3,168.2	3,012.5	155.71	20.347	
7,300.0	6,644.8	6,630.8	6,630.8	25.9	131.0	90.39	1,311.8	-3,689.9	3,151.9	2,995.9	156.05	20.198	
7,381.9	6,644.7	6,630.7	6,630.7	27.7	131.0	90.38	1,311.8	-3,689.9	3,071.4	2,913.5	157.86	19.457	
7,400.0	6,644.7	6,630.7	6,630.7	28.1	131.0	90.38	1,311.8	-3,689.9	3,053.5	2,895.3	158.26	19.295	
7,480.3	6,644.6	6,630.6	6,630.6	29.9	131.0	90.37	1,311.8	-3,689.9	2,974.6	2,814.5	160.11	18.578	
7,500.0	6,644.6	6,630.6	6,630.6	30.3	131.0	90.37	1,311.8	-3,689.9	2,955.3	2,794.7	160.57	18.405	
7,578.7	6,644.5	6,630.5	6,630.5	32.2	131.0	90.36	1,311.8	-3,689.9	2,878.0	2,715.5	162.45	17.716	
7,600.0	6,644.4	6,630.4	6,630.4	32.7	131.0	90.35	1,311.8	-3,689.9	2,857.1	2,694.2	162.96	17.533	
7,677.1	6,644.3	6,630.3	6,630.3	34.6	131.0	90.34	1,311.8	-3,689.9	2,781.5	2,616.6	164.85	16.872	
7,700.0	6,644.3	6,630.3	6,630.3	35.1	131.0	90.34	1,311.8	-3,689.9	2,759.1	2,593.7	165.42	16.680	
7,775.6	6,644.2	6,630.2	6,630.2	37.0	131.0	90.33	1,311.8	-3,689.9	2,685.1	2,517.8	167.31	16.049	
7,800.0	6,644.2	6,630.2	6,630.2	37.6	131.0	90.33	1,311.8	-3,689.9	2,661.2	2,493.3	167.92	15.848	
7,874.0	6,644.1	6,630.1	6,630.1	39.5	131.0	90.32	1,311.8	-3,689.9	2,588.9	2,419.1	169.81	15.246	
7,900.0	6,644.1	6,630.1	6,630.1	40.1	131.0	90.32	1,311.8	-3,689.9	2,563.5	2,393.1	170.47	15.038	
7,972.4	6,644.0	6,630.0	6,630.0	42.0	131.0	90.31	1,311.8	-3,689.9	2,492.9	2,320.5	172.34	14.465	
8,000.0	6,643.9	6,629.9	6,629.9	42.7	131.0	90.30	1,311.8	-3,689.9	2,466.0	2,293.0	173.05	14.250	
8,070.8	6,643.9	6,629.9	6,629.9	44.5	131.0	90.30	1,311.8	-3,689.9	2,397.0	2,222.1	174.90	13.706	
8,100.0	6,643.8	6,629.8	6,629.8	45.2	131.0	90.29	1,311.8	-3,689.9	2,368.7	2,193.0	175.66	13.485	
8,169.3	6,643.7	6,629.7	6,629.7	47.0	131.0	90.28	1,311.8	-3,689.9	2,301.4	2,123.9	177.48	12.967	
8,200.0	6,643.7	6,629.7	6,629.7	47.9	131.0	90.28	1,311.8	-3,689.9	2,271.6	2,093.3	178.29	12.741	
8,267.7	6,643.6	6,629.6	6,629.6	49.6	131.0	90.27	1,311.8	-3,689.9	2,206.0	2,026.0	180.08	12.250	
8,300.0	6,643.6	6,629.6	6,629.6	50.5	131.0	90.27	1,311.8	-3,689.9	2,174.8	1,993.9	180.94	12.020	
8,366.1	6,643.5	6,629.5	6,629.5	52.2	131.0	90.26	1,311.8	-3,689.9	2,110.9	1,928.2	182.70	11.554	
8,400.0	6,643.4	6,629.4	6,629.4	53.1	130.9	90.25	1,311.8	-3,689.9	2,078.3	1,894.7	183.60	11.320	
8,464.5	6,643.4	6,629.4	6,629.4	54.8	130.9	90.25	1,311.8	-3,689.9	2,016.2	1,830.8	185.33	10.879	
8,500.0	6,643.3	6,629.3	6,629.3	55.8	130.9	90.24	1,311.8	-3,689.9	1,982.1	1,795.8	186.28	10.640	
8,563.0	6,643.2	6,629.2	6,629.2	57.5	130.9	90.23	1,311.8	-3,689.9	1,921.8	1,733.8	187.98	10.223	
8,600.0	6,643.2	6,629.2	6,629.2	58.5	130.9	90.23	1,311.8	-3,689.9	1,886.4	1,697.4	188.98	9.982	
8,661.4	6,643.1	6,629.1	6,629.1	60.1	130.9	90.22	1,311.8	-3,689.9	1,827.8	1,637.1	190.64	9.588	
8,700.0	6,643.1	6,629.1	6,629.1	61.2	130.9	90.22	1,311.8	-3,689.9	1,791.1	1,599.4	191.68	9.344	
8,759.8	6,643.0	6,629.0	6,629.0	62.8	130.9	90.21	1,311.8	-3,689.9	1,734.3	1,541.0	193.30	8.972	
8,800.0	6,643.0	6,629.0	6,629.0	63.9	130.9	90.20	1,311.8	-3,689.9	1,696.3	1,501.9	194.39	8.726	
8,858.2	6,642.9	6,628.9	6,628.9	65.4	130.9	90.20	1,311.8	-3,689.9	1,641.4	1,445.4	195.98	8.375	
8,900.0	6,642.8	6,628.8	6,628.8	66.6	130.9	90.19	1,311.8	-3,689.9	1,602.2	1,405.0	197.11	8.128	
8,956.7	6,642.8	6,628.8	6,628.8	68.1	130.9	90.18	1,311.8	-3,689.9	1,549.1	1,350.5	198.66	7.798	
9,000.0	6,642.7	6,628.7	6,628.7	69.3	130.9	90.18	1,311.8	-3,689.9	1,508.8	1,308.9	199.84	7.550	
9,055.1	6,642.6	6,628.6	6,628.6	70.8	130.9	90.17	1,311.8	-3,689.9	1,457.7	1,256.4	201.35	7.240	
9,100.0	6,642.6	6,628.6	6,628.6	72.0	130.9	90.17	1,311.8	-3,689.9	1,416.3	1,213.7	202.57	6.992	
9,153.5	6,642.5	6,628.5	6,628.5	73.5	130.9	90.16	1,311.8	-3,689.9	1,367.3	1,163.2	204.04	6.701	
9,200.0	6,642.5	6,628.5	6,628.5	74.7	130.9	90.15	1,311.8	-3,689.9	1,324.9	1,119.6	205.31	6.453	
9,251.9	6,642.4	6,628.4	6,628.4	76.2	130.9	90.15	1,311.8	-3,689.9	1,278.0	1,071.2	206.74	6.182	
9,300.0	6,642.3	6,628.3	6,628.3	77.5	130.9	90.14	1,311.8	-3,689.9	1,234.9	1,026.9	208.06	5.935	
9,350.4	6,642.3	6,628.3	6,628.3	78.9	130.9	90.13	1,311.8	-3,689.9	1,190.2	980.7	209.44	5.682	
9,400.0	6,642.2	6,628.2	6,628.2	80.2	130.9	90.13	1,311.8	-3,689.9	1,146.5	935.7	210.81	5.439	
9,448.8	6,642.1	6,628.1	6,628.1	81.6	130.9	90.12	1,311.8	-3,689.9	1,104.1	892.0	212.15	5.204	
9,500.0	6,642.1	6,628.1	6,628.1	83.0	130.9	90.12	1,311.8	-3,689.9	1,060.2	846.7	213.56	4.964	
9,547.2	6,642.0	6,628.0	6,628.0	84.3	130.9	90.11	1,311.8	-3,689.9	1,020.3	805.5	214.86	4.749	
9,600.0	6,642.0	6,628.0	6,628.0	85.7	130.9	90.10	1,311.8	-3,689.9	976.5	760.2	216.32	4.514	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,627.9	6,627.9	87.0	130.9	90.10	1,311.8	-3,689.9	939.4	721.8	217.58	4.317	
9,700.0	6,641.8	6,627.8	6,627.8	88.5	130.9	90.09	1,311.8	-3,689.9	896.2	677.1	219.08	4.091	
9,744.1	6,641.8	6,627.8	6,627.8	89.7	130.9	90.08	1,311.8	-3,689.9	862.0	641.7	220.29	3.913	
9,800.0	6,641.7	6,627.7	6,627.7	91.2	130.9	90.08	1,311.8	-3,689.9	820.1	598.3	221.84	3.697	
9,842.5	6,641.7	6,627.7	6,627.7	92.4	130.9	90.07	1,311.8	-3,689.9	789.4	566.4	223.01	3.540	
9,900.0	6,641.6	6,627.6	6,627.6	94.0	130.9	90.06	1,311.8	-3,689.9	749.8	525.2	224.60	3.338	
9,940.9	6,641.5	6,627.5	6,627.5	95.1	130.9	90.06	1,311.8	-3,689.9	723.0	497.2	225.74	3.203	
10,000.0	6,641.5	6,627.5	6,627.5	96.7	130.9	90.05	1,311.8	-3,689.9	686.8	459.4	227.37	3.020	
10,039.3	6,641.4	6,627.4	6,627.4	97.8	130.9	90.05	1,311.8	-3,689.9	664.5	436.0	228.46	2.909	
10,100.0	6,641.3	6,627.3	6,627.3	99.5	130.9	90.04	1,311.8	-3,689.9	633.4	403.2	230.14	2.752	
10,137.8	6,641.3	6,627.3	6,627.3	100.6	130.9	90.03	1,311.8	-3,689.9	616.3	385.1	231.19	2.666	
10,200.0	6,641.2	6,627.2	6,627.2	102.3	130.9	90.03	1,311.8	-3,689.9	592.2	359.3	232.92	2.543	
10,236.2	6,641.2	6,627.2	6,627.2	103.3	130.9	90.02	1,311.8	-3,689.9	580.8	346.9	233.92	2.483	
10,300.0	6,641.1	6,627.1	6,627.1	105.0	130.9	90.01	1,311.8	-3,689.9	565.9	330.2	235.69	2.401	
10,334.6	6,641.0	6,627.0	6,627.0	106.0	130.9	90.01	1,311.8	-3,689.9	560.7	324.0	236.65	2.369	
10,400.0	6,641.0	6,627.0	6,627.0	107.8	130.9	90.00	1,311.8	-3,689.9	556.6	318.1	238.47	2.334	
10,402.4	6,641.0	6,627.0	6,627.0	107.9	130.9	90.00	1,311.8	-3,689.9	556.6	318.0	238.53	2.333 CC	
10,433.0	6,640.9	6,626.9	6,626.9	108.7	130.9	90.00	1,311.8	-3,689.9	557.4	318.0	239.38	2.328 ES, SF	
10,500.0	6,640.8	6,626.8	6,626.8	110.6	130.9	89.99	1,311.8	-3,689.9	565.0	323.8	241.24	2.342	
10,531.5	6,640.8	6,626.8	6,626.8	111.5	130.9	89.98	1,311.8	-3,689.9	571.3	329.2	242.12	2.360	
10,600.0	6,640.7	6,626.7	6,626.7	113.4	130.9	89.97	1,311.8	-3,689.9	590.6	346.6	244.02	2.420	
10,629.9	6,640.7	6,626.7	6,626.7	114.2	130.9	89.97	1,311.8	-3,689.9	601.3	356.4	244.86	2.456	
10,700.0	6,640.6	6,626.6	6,626.6	116.1	130.9	89.96	1,311.8	-3,689.9	631.1	384.3	246.80	2.557	
10,728.3	6,640.5	6,626.5	6,626.5	116.9	130.9	89.96	1,311.8	-3,689.9	645.0	397.4	247.59	2.605	
10,800.0	6,640.5	6,626.5	6,626.5	118.9	130.9	89.95	1,311.8	-3,689.9	684.0	434.4	249.59	2.741	
10,826.7	6,640.4	6,626.4	6,626.4	119.7	130.9	89.94	1,311.8	-3,689.9	699.9	449.6	250.33	2.796	
10,900.0	6,640.3	6,626.3	6,626.3	121.7	130.9	89.94	1,311.8	-3,689.9	746.6	494.2	252.37	2.958	
10,925.2	6,640.3	6,626.3	6,626.3	122.4	130.9	89.93	1,311.8	-3,689.9	763.6	510.5	253.07	3.017	
11,000.0	6,640.2	6,626.2	6,626.2	124.5	130.9	89.92	1,311.8	-3,689.9	816.6	561.5	255.15	3.201	
11,023.6	6,640.2	6,626.2	6,626.2	125.1	130.9	89.92	1,311.8	-3,689.9	834.1	578.3	255.81	3.260	
11,100.0	6,640.1	6,626.1	6,626.1	127.3	130.9	89.91	1,311.8	-3,689.9	892.4	634.5	257.94	3.460	
11,122.0	6,640.0	6,626.0	6,626.0	127.9	130.9	89.91	1,311.8	-3,689.9	909.7	651.2	258.55	3.519	
11,200.0	6,639.9	6,625.9	6,625.9	130.1	130.9	89.90	1,311.8	-3,689.9	972.6	711.9	260.73	3.730	
11,220.4	6,639.9	6,625.9	6,625.9	130.6	130.9	89.89	1,311.8	-3,689.9	989.4	728.1	261.30	3.787	
11,300.0	6,639.8	6,625.8	6,625.8	132.8	130.9	89.88	1,311.8	-3,689.9	1,056.2	792.6	263.51	4.008	
11,318.9	6,639.8	6,625.8	6,625.8	133.4	130.9	89.88	1,311.8	-3,689.9	1,072.2	808.2	264.04	4.061	
11,400.0	6,639.7	6,625.7	6,625.7	135.6	130.9	89.87	1,311.8	-3,689.9	1,142.4	876.1	266.30	4.290	
11,417.3	6,639.7	6,625.7	6,625.7	136.1	130.9	89.87	1,311.8	-3,689.9	1,157.5	890.7	266.78	4.339	
11,500.0	6,639.6	6,625.6	6,625.6	138.4	130.9	89.86	1,311.8	-3,689.9	1,230.7	961.6	269.09	4.573	
11,515.7	6,639.5	6,625.5	6,625.5	138.9	130.9	89.85	1,311.8	-3,689.9	1,244.7	975.2	269.53	4.618	
11,600.0	6,639.4	6,625.4	6,625.4	141.2	130.9	89.84	1,311.8	-3,689.9	1,320.6	1,048.7	271.88	4.857	
11,614.1	6,639.4	6,625.4	6,625.4	141.6	130.9	89.84	1,311.8	-3,689.9	1,333.5	1,061.2	272.28	4.897	
11,700.0	6,639.3	6,625.3	6,625.3	144.0	130.9	89.83	1,311.8	-3,689.9	1,411.9	1,137.3	274.67	5.140	
11,712.6	6,639.3	6,625.3	6,625.3	144.3	130.9	89.83	1,311.8	-3,689.9	1,423.5	1,148.5	275.02	5.176	
11,800.0	6,639.2	6,625.2	6,625.2	146.8	130.9	89.82	1,311.8	-3,689.9	1,504.4	1,226.9	277.46	5.422	
11,811.0	6,639.2	6,625.2	6,625.2	147.1	130.9	89.82	1,311.8	-3,689.9	1,514.6	1,236.8	277.77	5.453	
11,900.0	6,639.1	6,625.1	6,625.1	149.6	130.9	89.80	1,311.8	-3,689.9	1,597.7	1,317.4	280.25	5.701	
11,909.4	6,639.0	6,625.0	6,625.0	149.8	130.9	89.80	1,311.8	-3,689.9	1,606.5	1,326.0	280.52	5.727	
12,000.0	6,638.9	6,624.9	6,624.9	152.4	130.9	89.79	1,311.8	-3,689.9	1,691.8	1,408.7	283.05	5.977	
12,007.8	6,638.9	6,624.9	6,624.9	152.6	130.9	89.79	1,311.8	-3,689.9	1,699.2	1,415.9	283.27	5.999	
12,100.0	6,638.8	6,624.8	6,624.8	155.2	130.9	89.78	1,311.8	-3,689.9	1,786.5	1,500.7	285.84	6.250	
12,106.3	6,638.8	6,624.8	6,624.8	155.3	130.9	89.78	1,311.8	-3,689.9	1,792.5	1,506.5	286.02	6.267	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,200.0	6,638.7	6,624.7	6,624.7	157.9	130.9	89.76	1,311.8	-3,689.9	1,881.8	1,593.2	288.63	6.520	
12,204.7	6,638.7	6,624.7	6,624.7	158.1	130.9	89.76	1,311.8	-3,689.9	1,886.3	1,597.5	288.77	6.532	
12,300.0	6,638.5	6,624.5	6,624.5	160.7	130.9	89.75	1,311.8	-3,689.9	1,977.6	1,686.1	291.43	6.786	
12,303.1	6,638.5	6,624.5	6,624.5	160.8	130.9	89.75	1,311.8	-3,689.9	1,980.6	1,689.0	291.52	6.794	
12,400.0	6,638.4	6,624.4	6,624.4	163.5	130.8	89.74	1,311.8	-3,689.9	2,073.7	1,779.5	294.22	7.048	
12,401.5	6,638.4	6,624.4	6,624.4	163.6	130.8	89.74	1,311.8	-3,689.9	2,075.2	1,780.9	294.27	7.052	
12,500.0	6,638.3	6,624.3	6,624.3	166.3	130.8	89.72	1,311.8	-3,689.9	2,170.2	1,873.2	297.02	7.307	
12,598.4	6,638.2	6,624.2	6,624.2	169.1	130.8	89.71	1,311.8	-3,689.9	2,265.5	1,965.7	299.77	7.557	
12,600.0	6,638.2	6,624.2	6,624.2	169.1	130.8	89.71	1,311.8	-3,689.9	2,267.0	1,967.2	299.81	7.561	
12,696.8	6,638.0	6,624.0	6,624.0	171.8	130.8	89.70	1,311.8	-3,689.9	2,361.0	2,058.5	302.52	7.804	
12,700.0	6,638.0	6,624.0	6,624.0	171.9	130.8	89.70	1,311.8	-3,689.9	2,364.1	2,061.5	302.61	7.812	
12,795.2	6,637.9	6,623.9	6,623.9	174.6	130.8	89.68	1,311.8	-3,689.9	2,456.7	2,151.5	305.27	8.048	
12,800.0	6,637.9	6,623.9	6,623.9	174.7	130.8	89.68	1,311.8	-3,689.9	2,461.4	2,156.0	305.41	8.059	
12,893.7	6,637.8	6,623.8	6,623.8	177.3	130.8	89.67	1,311.8	-3,689.9	2,552.7	2,244.7	308.02	8.287	
12,900.0	6,637.8	6,623.8	6,623.8	177.5	130.8	89.67	1,311.8	-3,689.9	2,558.9	2,250.7	308.20	8.303	
12,992.1	6,637.7	6,623.7	6,623.7	180.1	130.8	89.66	1,311.8	-3,689.9	2,648.9	2,338.1	310.78	8.523	
13,000.0	6,637.6	6,623.6	6,623.6	180.3	130.8	89.66	1,311.8	-3,689.9	2,656.6	2,345.6	311.00	8.542	
13,090.5	6,637.5	6,623.5	6,623.5	182.8	130.8	89.64	1,311.8	-3,689.9	2,745.2	2,431.6	313.53	8.756	
13,100.0	6,637.5	6,623.5	6,623.5	183.1	130.8	89.64	1,311.8	-3,689.9	2,754.4	2,440.6	313.80	8.778	
13,188.9	6,637.4	6,623.4	6,623.4	185.6	130.8	89.63	1,311.8	-3,689.9	2,841.6	2,525.3	316.28	8.984	
13,200.0	6,637.4	6,623.4	6,623.4	185.9	130.8	89.63	1,311.8	-3,689.9	2,852.4	2,535.9	316.59	9.010	
13,287.4	6,637.3	6,623.3	6,623.3	188.4	130.8	89.62	1,311.8	-3,689.9	2,938.2	2,619.2	319.04	9.210	
13,300.0	6,637.3	6,623.3	6,623.3	188.7	130.8	89.61	1,311.8	-3,689.9	2,950.6	2,631.2	319.39	9.238	
13,385.8	6,637.1	6,623.1	6,623.1	191.1	130.8	89.60	1,311.8	-3,689.9	3,034.9	2,713.1	321.79	9.431	
13,400.0	6,637.1	6,623.1	6,623.1	191.5	130.8	89.60	1,311.8	-3,689.9	3,048.9	2,726.7	322.19	9.463	
13,484.2	6,637.0	6,623.0	6,623.0	193.9	130.8	89.59	1,311.8	-3,689.9	3,131.7	2,807.2	324.55	9.649	
13,500.0	6,637.0	6,623.0	6,623.0	194.3	130.8	89.59	1,311.8	-3,689.9	3,147.2	2,822.2	324.99	9.684	
13,582.6	6,636.9	6,622.9	6,622.9	196.6	130.8	89.58	1,311.8	-3,689.9	3,228.6	2,901.3	327.30	9.864	
13,600.0	6,636.9	6,622.9	6,622.9	197.1	130.8	89.57	1,311.8	-3,689.9	3,245.7	2,917.9	327.79	9.902	
13,681.1	6,636.8	6,622.8	6,622.8	199.4	130.8	89.56	1,311.8	-3,689.9	3,325.6	2,995.5	330.06	10.076	
13,700.0	6,636.7	6,622.7	6,622.7	199.9	130.8	89.56	1,311.8	-3,689.9	3,344.3	3,013.7	330.59	10.116	
13,779.5	6,636.6	6,622.6	6,622.6	202.1	130.8	89.55	1,311.8	-3,689.9	3,422.7	3,089.9	332.81	10.284	
13,800.0	6,636.6	6,622.6	6,622.6	202.7	130.8	89.55	1,311.8	-3,689.9	3,442.9	3,109.5	333.38	10.327	
13,877.9	6,636.5	6,622.5	6,622.5	204.9	130.8	89.54	1,311.8	-3,689.9	3,519.8	3,184.3	335.57	10.489	
13,900.0	6,636.5	6,622.5	6,622.5	205.5	130.8	89.53	1,311.8	-3,689.9	3,541.6	3,205.4	336.18	10.535	
13,976.3	6,636.4	6,622.4	6,622.4	207.6	130.8	89.52	1,311.8	-3,689.9	3,617.0	3,278.7	338.32	10.691	
14,000.0	6,636.3	6,622.3	6,622.3	208.3	130.8	89.52	1,311.8	-3,689.9	3,640.4	3,301.4	338.98	10.739	
14,074.8	6,636.3	6,622.3	6,622.3	210.4	130.8	89.51	1,311.8	-3,689.9	3,714.3	3,373.3	341.08	10.890	
14,100.0	6,636.2	6,622.2	6,622.2	211.1	130.8	89.50	1,311.8	-3,689.9	3,739.3	3,397.5	341.78	10.940	
14,173.2	6,636.1	6,622.1	6,622.1	213.2	130.8	89.49	1,311.8	-3,689.9	3,811.7	3,467.8	343.83	11.086	
14,200.0	6,636.1	6,622.1	6,622.1	213.9	130.8	89.49	1,311.8	-3,689.9	3,838.2	3,493.6	344.58	11.139	
14,271.6	6,636.0	6,622.0	6,622.0	215.9	130.8	89.48	1,311.8	-3,689.9	3,909.1	3,562.5	346.59	11.279	
14,300.0	6,636.0	6,622.0	6,622.0	216.7	130.8	89.48	1,311.8	-3,689.9	3,937.2	3,589.8	347.38	11.334	
14,370.0	6,635.9	6,621.9	6,621.9	218.7	130.8	89.47	1,311.8	-3,689.9	4,006.5	3,657.2	349.34	11.469	
14,400.0	6,635.8	6,621.8	6,621.8	219.5	130.8	89.46	1,311.8	-3,689.9	4,036.2	3,686.0	350.18	11.526	
14,468.5	6,635.7	6,621.7	6,621.7	221.4	130.8	89.45	1,311.8	-3,689.9	4,104.0	3,751.9	352.10	11.656	
14,500.0	6,635.7	6,621.7	6,621.7	222.3	130.8	89.45	1,311.8	-3,689.9	4,135.2	3,782.3	352.98	11.715	
14,566.9	6,635.6	6,621.6	6,621.6	224.2	130.8	89.44	1,311.8	-3,689.9	4,201.5	3,846.7	354.86	11.840	
14,600.0	6,635.6	6,621.6	6,621.6	225.1	130.8	89.43	1,311.8	-3,689.9	4,234.4	3,878.6	355.78	11.901	
14,665.3	6,635.5	6,621.5	6,621.5	226.9	130.8	89.43	1,311.8	-3,689.9	4,299.1	3,941.5	357.61	12.022	
14,700.0	6,635.4	6,621.4	6,621.4	227.9	130.8	89.42	1,311.8	-3,689.9	4,333.5	3,974.9	358.59	12.085	
14,763.7	6,635.4	6,621.4	6,621.4	229.7	130.8	89.41	1,311.8	-3,689.9	4,396.7	4,036.4	360.37	12.201	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BOND #21-9 - 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	
14,800.0	6,635.3	6,621.3	6,621.3	230.7	130.8	89.41	1,311.8	-3,689.9	4,432.7	4,071.3	361.39	12.266	
14,862.2	6,635.2	6,621.2	6,621.2	232.5	130.8	89.40	1,311.8	-3,689.9	4,494.4	4,131.3	363.13	12.377	
14,900.0	6,635.2	6,621.2	6,621.2	233.5	130.8	89.39	1,311.8	-3,689.9	4,531.9	4,167.7	364.19	12.444	
14,960.6	6,635.1	6,621.1	6,621.1	235.2	130.8	89.38	1,311.8	-3,689.9	4,592.1	4,226.2	365.88	12.551	
15,000.0	6,635.0	6,621.0	6,621.0	236.3	130.8	89.38	1,311.8	-3,689.9	4,631.2	4,264.2	366.99	12.619	
15,033.1	6,635.0	6,621.0	6,621.0	237.3	130.8	89.37	1,311.8	-3,689.9	4,664.0	4,296.1	367.91	12.677	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-89.62	15.8	-2,405.6	2,405.9				
98.4	98.4	79.6	79.6	0.1	0.0	-89.63	15.6	-2,405.3	2,405.4	2,405.3	0.11	N/A	
100.0	100.0	81.7	81.7	0.1	0.0	-89.63	15.6	-2,405.3	2,405.4	2,405.3	0.12	N/A	
196.8	196.8	165.6	165.6	0.3	0.1	-89.63	15.3	-2,404.7	2,404.7	2,404.4	0.37	6,445.391	
200.0	200.0	168.1	168.1	0.3	0.1	-89.64	15.3	-2,404.7	2,404.7	2,404.3	0.38	6,303.678	
238.4	238.4	200.0	200.0	0.4	0.1	-89.64	15.3	-2,404.6	2,404.7	2,404.2	0.48	4,964.494	
295.3	295.3	258.6	258.6	0.5	0.1	-89.64	15.2	-2,404.7	2,404.7	2,404.0	0.66	3,632.035	
300.0	300.0	263.7	263.7	0.5	0.1	-89.64	15.2	-2,404.7	2,404.7	2,404.0	0.68	3,552.175	
393.7	393.7	374.6	374.6	0.8	0.2	-89.64	15.0	-2,404.3	2,404.4	2,403.4	0.96	2,515.537	
400.0	400.0	382.4	382.4	0.8	0.2	-89.64	15.0	-2,404.2	2,404.3	2,403.4	0.97	2,468.846	
492.1	492.1	461.7	461.6	1.0	0.2	-89.63	15.4	-2,403.6	2,403.7	2,402.5	1.22	1,972.708	
500.0	500.0	467.9	467.9	1.0	0.2	-89.63	15.4	-2,403.6	2,403.7	2,402.4	1.24	1,939.873	
590.5	590.5	565.8	565.8	1.2	0.3	-89.63	15.5	-2,403.4	2,403.5	2,402.1	1.46	1,644.339	
600.0	600.0	578.2	578.2	1.2	0.3	-89.63	15.5	-2,403.4	2,403.5	2,402.0	1.48	1,619.908	
689.0	689.0	659.8	659.8	1.4	0.3	-89.64	15.2	-2,402.8	2,402.9	2,401.2	1.70	1,410.594	
700.0	700.0	668.9	668.9	1.4	0.3	-89.64	15.1	-2,402.8	2,402.8	2,401.1	1.73	1,388.098	
787.4	787.4	770.8	770.7	1.6	0.3	-89.64	15.2	-2,402.4	2,402.6	2,400.6	1.97	1,218.859	
800.0	800.0	788.7	788.7	1.7	0.3	-89.64	15.2	-2,402.2	2,402.4	2,400.4	2.01	1,196.214	
885.8	885.8	871.2	871.2	1.9	0.4	-89.64	15.2	-2,401.3	2,401.5	2,399.2	2.25	1,065.781	
900.0	900.0	884.2	884.1	1.9	0.4	-89.64	15.2	-2,401.2	2,401.4	2,399.1	2.29	1,046.999	
984.2	984.2	959.6	959.6	2.1	0.4	-89.64	15.1	-2,400.6	2,400.7	2,398.2	2.52	952.594	
1,000.0	1,000.0	973.6	973.6	2.1	0.4	-89.64	15.1	-2,400.6	2,400.6	2,398.1	2.56	937.015	
1,023.5	1,023.5	994.5	994.5	2.2	0.5	-116.64	15.0	-2,400.5	2,400.6	2,398.0	2.63	913.897	
1,082.7	1,082.7	1,044.5	1,044.5	2.3	0.5	-116.66	14.9	-2,400.4	2,401.0	2,398.2	2.76	869.185	
1,100.0	1,100.0	1,059.0	1,059.0	2.3	0.5	-116.66	15.0	-2,400.4	2,401.2	2,398.4	2.80	857.142	
1,181.1	1,181.0	1,135.0	1,134.9	2.5	0.5	-116.70	15.4	-2,400.6	2,403.3	2,400.3	3.00	801.321	
1,200.0	1,199.8	1,155.4	1,155.4	2.6	0.5	-116.71	15.6	-2,400.7	2,403.9	2,400.8	3.05	788.056	
1,279.5	1,279.1	1,234.7	1,234.6	2.8	0.5	-116.79	16.0	-2,400.9	2,407.1	2,403.8	3.26	738.988	
1,300.0	1,299.5	1,253.2	1,253.2	2.8	0.5	-116.81	16.0	-2,400.9	2,408.1	2,404.7	3.31	728.260	
1,377.9	1,376.9	1,328.5	1,328.5	3.0	0.5	-116.92	15.8	-2,401.3	2,412.6	2,409.1	3.51	686.808	
1,400.0	1,398.7	1,352.7	1,352.6	3.0	0.5	-116.97	15.7	-2,401.4	2,414.0	2,410.5	3.58	675.159	
1,476.4	1,474.2	1,439.9	1,439.9	3.2	0.5	-117.15	15.6	-2,401.5	2,419.5	2,415.7	3.80	637.494	
1,500.0	1,497.5	1,468.4	1,468.4	3.3	0.5	-117.22	15.6	-2,401.4	2,421.3	2,417.4	3.86	627.424	
1,574.8	1,571.0	1,554.1	1,554.1	3.5	0.6	-117.46	15.3	-2,400.8	2,427.3	2,423.2	4.10	592.333	
1,600.0	1,595.6	1,582.1	1,582.1	3.6	0.6	-117.55	15.0	-2,400.6	2,429.5	2,425.3	4.18	581.051	
1,673.2	1,667.2	1,647.9	1,647.9	3.9	0.6	-117.85	14.1	-2,399.9	2,435.9	2,431.5	4.43	549.273	
1,700.0	1,693.4	1,670.4	1,670.4	4.0	0.6	-117.96	13.9	-2,399.8	2,438.4	2,433.9	4.53	538.593	
1,771.6	1,763.5	1,739.6	1,739.6	4.2	0.6	-118.27	13.4	-2,399.4	2,445.2	2,440.4	4.79	511.005	
1,800.0	1,791.3	1,770.5	1,770.4	4.3	0.6	-118.40	13.4	-2,399.2	2,447.8	2,443.0	4.89	501.010	
1,870.1	1,859.8	1,838.8	1,838.8	4.6	0.7	-118.69	13.5	-2,398.7	2,454.4	2,449.2	5.15	476.802	
1,900.0	1,889.1	1,865.9	1,865.8	4.7	0.7	-118.81	13.6	-2,398.5	2,457.2	2,452.0	5.26	467.208	
1,968.5	1,956.1	1,940.3	1,940.3	4.9	0.7	-119.12	13.8	-2,398.1	2,463.8	2,458.3	5.52	445.966	
2,000.0	1,986.9	1,981.7	1,981.7	5.1	0.7	-119.29	13.8	-2,397.6	2,466.7	2,461.1	5.65	436.763	
2,066.9	2,052.3	2,042.3	2,042.2	5.3	0.7	-119.56	13.6	-2,396.8	2,472.8	2,466.9	5.91	418.694	
2,100.0	2,084.7	2,068.6	2,068.6	5.5	0.7	-119.67	13.4	-2,396.5	2,475.9	2,469.8	6.03	410.434	
2,165.3	2,148.6	2,119.1	2,119.0	5.7	0.8	-119.89	13.0	-2,396.1	2,482.3	2,476.0	6.28	395.101	
2,200.0	2,182.5	2,144.7	2,144.6	5.9	0.8	-120.00	12.9	-2,396.1	2,485.9	2,479.5	6.41	387.697	
2,263.8	2,244.9	2,200.0	2,199.9	6.1	0.8	-120.24	12.7	-2,396.3	2,492.9	2,486.2	6.65	374.821	
2,300.0	2,280.3	2,230.0	2,229.9	6.3	0.8	-120.36	12.8	-2,396.5	2,497.0	2,490.2	6.79	367.900	
2,362.2	2,341.2	2,300.0	2,299.9	6.5	0.8	-120.64	13.0	-2,396.6	2,503.8	2,496.8	7.03	356.353	
2,400.0	2,378.1	2,334.2	2,334.1	6.7	0.8	-120.78	13.1	-2,396.7	2,507.9	2,500.7	7.17	349.806	
2,460.6	2,437.4	2,383.7	2,383.6	6.9	0.8	-120.98	13.2	-2,396.9	2,514.7	2,507.3	7.40	339.797	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
2,500.0	2,476.0	2,418.1	2,418.1	7.1	0.8	-121.12	13.2	-2,397.2	2,519.3	2,511.8	7.55	333.557		
2,550.0	2,524.9	2,464.8	2,464.7	7.3	0.8	-121.31	13.1	-2,397.6	2,525.2	2,517.5	7.75	325.831		
2,559.0	2,533.7	2,473.2	2,473.2	7.3	0.8	-120.49	13.1	-2,397.6	2,526.3	2,518.5	7.78	324.590		
2,600.0	2,573.8	2,513.9	2,513.9	7.5	0.8	-116.77	13.1	-2,398.0	2,530.8	2,522.9	7.93	319.131		
2,639.4	2,612.3	2,558.8	2,558.7	7.7	0.8	-113.23	13.2	-2,398.3	2,534.6	2,526.6	8.06	314.318		
2,657.5	2,630.0	2,579.5	2,579.4	7.7	0.8	-113.31	13.3	-2,398.5	2,536.2	2,528.1	8.13	311.861		
2,700.0	2,671.6	2,621.2	2,621.1	7.9	0.8	-113.48	13.6	-2,398.7	2,540.0	2,531.7	8.30	306.201		
2,755.9	2,726.3	2,669.5	2,669.4	8.1	0.8	-113.69	14.0	-2,399.0	2,545.1	2,536.6	8.52	298.680		
2,800.0	2,769.4	2,710.4	2,710.3	8.3	0.8	-113.86	14.1	-2,399.4	2,549.2	2,540.5	8.70	293.043		
2,854.3	2,822.5	2,775.3	2,775.2	8.5	0.8	-114.13	14.4	-2,399.8	2,554.2	2,545.3	8.92	286.352		
2,900.0	2,867.2	2,821.5	2,821.4	8.7	0.9	-114.32	14.8	-2,400.0	2,558.3	2,549.2	9.10	281.006		
2,952.7	2,918.8	2,866.8	2,866.7	9.0	0.9	-114.50	15.1	-2,400.2	2,563.2	2,553.9	9.32	275.114		
3,000.0	2,965.0	2,911.9	2,911.8	9.2	0.9	-114.69	15.1	-2,400.5	2,567.6	2,558.1	9.51	270.105		
3,051.2	3,015.1	2,984.7	2,984.6	9.4	0.9	-114.99	15.7	-2,400.7	2,572.3	2,562.6	9.71	264.945		
3,100.0	3,062.8	3,030.9	3,030.8	9.6	0.9	-115.17	16.2	-2,400.6	2,576.5	2,566.6	9.90	260.153		
3,149.6	3,111.4	3,071.2	3,071.1	9.8	0.9	-115.33	16.5	-2,400.6	2,580.9	2,570.8	10.10	255.456		
3,200.0	3,160.7	3,119.1	3,119.0	10.0	0.9	-115.53	16.7	-2,400.7	2,585.6	2,575.3	10.31	250.902		
3,248.0	3,207.6	3,181.5	3,181.4	10.2	0.9	-115.78	17.1	-2,400.6	2,589.9	2,579.4	10.50	246.719		
3,300.0	3,258.5	3,237.0	3,236.9	10.5	0.9	-116.00	17.6	-2,400.4	2,594.4	2,583.7	10.71	242.337		
3,346.4	3,303.9	3,282.5	3,282.4	10.7	0.9	-116.18	17.8	-2,400.1	2,598.4	2,587.6	10.89	238.565		
3,400.0	3,356.3	3,333.2	3,333.1	10.9	0.9	-116.39	17.7	-2,399.8	2,603.1	2,592.0	11.11	234.351		
3,444.9	3,400.2	3,375.1	3,375.0	11.1	0.9	-116.57	17.8	-2,399.6	2,607.1	2,595.8	11.29	230.925		
3,500.0	3,454.1	3,424.2	3,424.1	11.3	1.0	-116.76	18.1	-2,399.4	2,612.1	2,600.6	11.51	226.868		
3,543.3	3,496.5	3,461.0	3,460.9	11.5	1.0	-116.91	18.3	-2,399.4	2,616.2	2,604.5	11.69	223.793		
3,600.0	3,551.9	3,510.8	3,510.6	11.7	1.0	-117.10	18.7	-2,399.5	2,621.6	2,609.7	11.92	219.962		
3,641.7	3,592.7	3,551.8	3,551.7	11.9	1.0	-117.26	18.9	-2,399.5	2,625.7	2,613.6	12.08	217.344		
3,700.0	3,649.7	3,600.0	3,599.9	12.2	1.0	-117.46	18.9	-2,399.6	2,631.5	2,619.2	12.31	213.801		
3,740.1	3,689.0	3,639.7	3,639.5	12.4	1.0	-117.62	18.8	-2,399.7	2,635.5	2,623.0	12.47	211.371		
3,800.0	3,747.5	3,687.8	3,687.7	12.6	1.0	-117.82	18.7	-2,400.0	2,641.8	2,629.1	12.71	207.882		
3,838.6	3,785.3	3,729.5	3,729.3	12.8	1.0	-117.98	18.6	-2,400.3	2,645.9	2,633.1	12.86	205.720		
3,900.0	3,845.4	3,805.5	3,805.4	13.1	1.0	-118.28	18.7	-2,400.6	2,652.3	2,639.2	13.10	202.398		
3,937.0	3,881.6	3,842.0	3,841.9	13.2	1.0	-118.43	18.6	-2,400.6	2,656.0	2,642.8	13.25	200.528		
4,000.0	3,943.2	3,904.7	3,904.6	13.5	1.0	-118.69	18.2	-2,400.6	2,662.4	2,648.9	13.49	197.409		
4,035.4	3,977.8	3,946.0	3,945.9	13.6	1.0	-118.86	17.6	-2,400.4	2,666.0	2,652.4	13.63	195.617		
4,100.0	4,041.0	4,022.5	4,022.3	13.9	1.0	-119.20	15.9	-2,399.7	2,672.3	2,658.4	13.88	192.462		
4,133.8	4,074.1	4,064.2	4,064.1	14.1	1.0	-119.39	14.6	-2,399.1	2,675.5	2,661.5	14.02	190.859		
4,200.0	4,138.8	4,141.5	4,141.2	14.4	1.0	-119.76	11.9	-2,397.5	2,681.5	2,667.3	14.28	187.813		
4,232.3	4,170.4	4,177.6	4,177.3	14.5	1.1	-119.93	10.5	-2,396.6	2,684.4	2,670.0	14.40	186.363		
4,300.0	4,236.6	4,236.9	4,236.6	14.8	1.1	-120.21	8.2	-2,395.1	2,690.5	2,675.8	14.67	183.385		
4,330.7	4,266.7	4,260.7	4,260.3	14.9	1.1	-120.32	7.2	-2,394.6	2,693.3	2,678.5	14.79	182.074		
4,400.0	4,334.4	4,317.2	4,316.8	15.2	1.1	-120.59	4.9	-2,393.6	2,700.1	2,685.0	15.07	179.219		
4,429.1	4,362.9	4,344.3	4,343.8	15.4	1.1	-120.72	3.9	-2,393.1	2,703.0	2,687.9	15.18	178.055		
4,500.0	4,432.3	4,411.5	4,411.0	15.7	1.1	-121.03	1.3	-2,392.1	2,710.3	2,694.8	15.46	175.315		
4,527.5	4,459.2	4,440.2	4,439.7	15.8	1.1	-121.16	0.3	-2,391.7	2,713.1	2,697.5	15.57	174.287		
4,600.0	4,530.1	4,517.8	4,517.3	16.1	1.1	-121.50	-1.8	-2,390.5	2,720.5	2,704.6	15.85	171.653		
4,626.0	4,555.5	4,547.8	4,547.3	16.2	1.1	-121.63	-2.5	-2,390.1	2,723.1	2,707.1	15.95	170.735		
4,700.0	4,627.9	4,623.3	4,622.7	16.6	1.1	-121.95	-4.1	-2,388.7	2,730.4	2,714.1	16.24	168.166		
4,724.4	4,651.7	4,643.0	4,642.4	16.7	1.2	-122.03	-4.5	-2,388.4	2,732.8	2,716.5	16.33	167.336		
4,800.0	4,725.7	4,704.4	4,703.8	17.0	1.2	-122.30	-6.0	-2,387.5	2,740.7	2,724.1	16.63	164.850		
4,822.8	4,748.0	4,725.4	4,724.7	17.1	1.2	-122.39	-6.6	-2,387.2	2,743.2	2,726.5	16.71	164.121		
4,904.9	4,828.3	4,800.0	4,799.3	17.5	1.2	-122.69	-8.1	-2,386.5	2,752.1	2,735.1	17.03	161.571		
4,921.2	4,844.3	4,814.5	4,813.9	17.5	1.2	-122.78	-8.3	-2,386.4	2,753.9	2,736.8	17.08	161.226		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BOND #32-9 - 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	4,921.6	4,880.1	4,879.5	17.8	1.2	-123.16	-9.3	-2,386.1	2,762.1	2,744.7	17.31	159.555	
5,019.7	4,941.0	4,900.0	4,899.3	17.9	1.2	-123.25	-9.6	-2,386.0	2,764.0	2,746.6	17.36	159.259	
5,100.0	5,020.4	5,007.4	5,006.7	18.1	1.2	-123.68	-10.7	-2,385.3	2,770.6	2,753.1	17.53	158.025	
5,118.1	5,038.3	5,024.2	5,023.5	18.2	1.2	-123.74	-10.8	-2,385.1	2,771.8	2,754.3	17.57	157.767	
5,200.0	5,119.6	5,100.6	5,099.9	18.4	1.3	-123.99	-11.2	-2,384.4	2,776.8	2,759.0	17.74	156.547	
5,216.5	5,136.0	5,116.8	5,116.1	18.4	1.3	-124.04	-11.2	-2,384.3	2,777.6	2,759.8	17.77	156.336	
5,300.0	5,219.2	5,199.1	5,198.4	18.6	1.3	-124.22	-11.2	-2,383.8	2,781.1	2,763.2	17.92	155.196	
5,314.9	5,234.1	5,214.4	5,213.7	18.6	1.3	-124.25	-11.2	-2,383.7	2,781.6	2,763.7	17.94	155.016	
5,400.0	5,319.1	5,301.9	5,301.2	18.8	1.3	-124.35	-10.8	-2,383.2	2,783.5	2,765.4	18.09	153.906	
5,413.4	5,332.4	5,315.4	5,314.7	18.8	1.3	-124.36	-10.7	-2,383.1	2,783.6	2,765.5	18.10	153.757	
5,504.9	5,423.9	5,409.2	5,408.5	18.9	1.3	-105.95	-9.8	-2,382.6	2,783.8	2,767.0	16.77	165.994	
5,511.8	5,430.8	5,417.0	5,416.3	18.9	1.3	-105.95	-9.7	-2,382.6	2,783.7	2,766.9	16.78	165.878	
5,600.0	5,519.0	5,516.1	5,515.4	19.0	1.3	-105.93	-8.4	-2,381.9	2,782.8	2,765.9	16.93	164.410	
5,610.2	5,529.3	5,527.5	5,526.8	19.0	1.3	-105.92	-8.2	-2,381.8	2,782.7	2,765.7	16.94	164.223	
5,700.0	5,619.0	5,619.9	5,619.2	19.2	1.3	-105.92	-7.5	-2,380.7	2,781.4	2,764.3	17.11	162.586	
5,708.6	5,627.7	5,626.9	5,626.2	19.2	1.4	-105.92	-7.4	-2,380.6	2,781.3	2,764.2	17.12	162.430	
5,800.0	5,719.0	5,701.1	5,700.4	19.3	1.4	-105.91	-6.9	-2,379.9	2,780.4	2,763.1	17.29	160.826	
5,807.1	5,726.1	5,710.7	5,710.0	19.3	1.4	-105.91	-6.9	-2,379.9	2,780.3	2,763.0	17.30	160.699	
5,900.0	5,819.0	5,819.9	5,819.2	19.4	1.4	-105.90	-6.3	-2,378.6	2,779.1	2,761.6	17.47	159.039	
5,905.5	5,824.5	5,824.0	5,823.2	19.4	1.4	-105.90	-6.3	-2,378.6	2,779.0	2,761.6	17.48	158.945	
6,003.9	5,923.0	5,900.0	5,899.3	19.6	1.4	-105.90	-5.7	-2,378.1	2,778.2	2,760.5	17.66	157.304	
6,009.8	5,928.8	5,900.6	5,899.8	19.6	1.4	-105.90	-5.7	-2,378.1	2,778.2	2,760.5	17.67	157.212	
6,050.0	5,969.0	5,948.2	5,947.5	19.6	1.4	-15.93	-5.4	-2,377.9	2,776.9	2,757.8	19.14	145.066	
6,100.0	6,018.8	6,000.0	5,999.3	19.7	1.4	-16.05	-5.0	-2,377.6	2,772.2	2,753.0	19.20	144.370	
6,102.3	6,021.1	6,007.5	6,006.7	19.7	1.4	-16.06	-4.9	-2,377.6	2,771.9	2,752.7	19.21	144.322	
6,150.0	6,068.1	6,049.2	6,048.5	19.7	1.4	-16.27	-4.6	-2,377.4	2,764.1	2,744.8	19.26	143.497	
6,200.0	6,116.8	6,092.5	6,091.8	19.7	1.4	-16.59	-4.2	-2,377.2	2,752.8	2,733.5	19.30	142.640	
6,200.8	6,117.5	6,093.2	6,092.4	19.7	1.4	-16.59	-4.2	-2,377.2	2,752.6	2,733.3	19.30	142.627	
6,250.0	6,164.5	6,145.4	6,144.6	19.7	1.4	-17.03	-3.7	-2,377.1	2,738.3	2,719.1	19.30	141.900	
6,299.2	6,210.4	6,198.2	6,197.4	19.7	1.5	-17.60	-3.6	-2,376.7	2,720.9	2,701.7	19.25	141.364	
6,300.0	6,211.1	6,199.0	6,198.3	19.7	1.5	-17.61	-3.6	-2,376.7	2,720.6	2,701.4	19.25	141.357	
6,350.0	6,256.4	6,234.7	6,234.0	19.7	1.5	-18.28	-3.5	-2,376.4	2,699.8	2,680.7	19.13	141.121	
6,397.6	6,298.0	6,267.4	6,266.6	19.7	1.5	-19.06	-3.6	-2,376.2	2,677.4	2,658.4	18.97	141.148	
6,400.0	6,300.0	6,269.0	6,268.2	19.7	1.5	-19.10	-3.6	-2,376.2	2,676.2	2,657.3	18.96	141.158	
6,450.0	6,341.8	6,303.0	6,302.2	19.7	1.5	-20.09	-3.6	-2,376.2	2,649.9	2,631.2	18.73	141.453	
6,496.0	6,378.6	6,347.5	6,346.8	19.7	1.5	-21.26	-3.7	-2,376.1	2,623.3	2,604.9	18.49	141.850	
6,500.0	6,381.6	6,351.2	6,350.5	19.7	1.5	-21.37	-3.7	-2,376.1	2,621.0	2,602.5	18.47	141.897	
6,550.0	6,419.2	6,396.6	6,395.9	19.6	1.5	-22.93	-3.8	-2,375.9	2,589.3	2,571.1	18.17	142.465	
6,594.5	6,450.7	6,423.6	6,422.9	19.6	1.5	-24.49	-3.8	-2,375.8	2,559.1	2,541.2	17.90	142.994	
6,600.0	6,454.4	6,426.7	6,426.0	19.6	1.5	-24.70	-3.8	-2,375.7	2,555.2	2,537.4	17.86	143.070	
6,650.0	6,487.1	6,453.8	6,453.1	19.6	1.5	-26.82	-3.8	-2,375.7	2,519.0	2,501.4	17.56	143.445	
6,692.9	6,513.0	6,475.4	6,474.7	19.6	1.5	-28.99	-3.8	-2,375.6	2,486.4	2,469.0	17.35	143.271	
6,700.0	6,517.0	6,478.8	6,478.1	19.6	1.5	-29.38	-3.8	-2,375.6	2,480.8	2,463.5	17.32	143.228	
6,750.0	6,544.1	6,501.9	6,501.2	19.6	1.5	-32.50	-3.8	-2,375.7	2,440.9	2,423.7	17.20	141.928	
6,791.3	6,564.2	6,523.0	6,522.2	19.7	1.5	-35.68	-3.8	-2,375.7	2,406.7	2,389.4	17.22	139.786	
6,800.0	6,568.2	6,527.1	6,526.4	19.7	1.5	-36.41	-3.8	-2,375.7	2,399.3	2,382.1	17.27	138.920	
6,850.0	6,589.1	6,549.0	6,548.3	19.8	1.5	-41.22	-3.8	-2,375.8	2,356.4	2,338.8	17.61	133.839	
6,889.7	6,603.5	6,564.0	6,563.2	19.9	1.5	-45.80	-3.9	-2,375.8	2,321.3	2,303.2	18.09	128.313	
6,900.0	6,606.9	6,567.5	6,566.7	19.9	1.5	-47.11	-3.9	-2,375.8	2,312.2	2,293.9	18.24	126.742	
6,950.0	6,621.3	6,582.4	6,581.7	20.2	1.5	-54.25	-3.9	-2,375.8	2,267.0	2,247.9	19.16	118.317	
6,988.2	6,630.0	6,591.4	6,590.7	20.6	1.5	-60.59	-4.0	-2,375.7	2,232.1	2,212.1	19.99	111.661	
7,000.0	6,632.4	6,593.8	6,593.1	20.7	1.5	-62.71	-4.0	-2,375.7	2,221.2	2,200.9	20.25	109.699	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,640.0	6,600.0	6,599.2	21.4	1.5	-72.23	-4.0	-2,375.7	2,174.8	2,153.5	21.33	101.971	
7,086.6	6,643.4	6,600.0	6,599.2	21.9	1.5	-79.50	-4.0	-2,375.7	2,140.7	2,118.7	22.06	97.036	
7,100.0	6,644.2	6,600.0	6,599.2	22.1	1.5	-82.24	-4.0	-2,375.7	2,128.2	2,105.9	22.32	95.331	
7,135.7	6,645.0	6,600.0	6,599.2	22.7	1.5	-89.59	-4.0	-2,375.7	2,095.0	2,071.8	23.16	90.474	
7,185.0	6,644.9	6,600.0	6,599.2	23.6	1.5	-89.59	-4.0	-2,375.7	2,049.0	2,024.9	24.12	84.967	
7,200.0	6,644.9	6,600.0	6,599.2	23.9	1.5	-89.59	-4.0	-2,375.7	2,035.1	2,010.7	24.41	83.384	
7,283.4	6,644.8	6,600.0	6,599.2	25.6	1.5	-89.59	-4.0	-2,375.7	1,957.9	1,931.8	26.14	74.914	
7,300.0	6,644.8	6,600.0	6,599.2	25.9	1.5	-89.60	-4.0	-2,375.7	1,942.7	1,916.2	26.48	73.369	
7,381.9	6,644.7	6,600.0	6,599.2	27.7	1.5	-89.60	-4.0	-2,375.7	1,867.6	1,839.3	28.28	66.032	
7,400.0	6,644.7	6,600.0	6,599.2	28.1	1.5	-89.60	-4.0	-2,375.7	1,851.1	1,822.4	28.68	64.535	
7,480.3	6,644.6	6,600.0	6,599.2	29.9	1.5	-89.60	-4.0	-2,375.7	1,778.1	1,747.6	30.54	58.221	
7,500.0	6,644.6	6,600.0	6,599.2	30.3	1.5	-89.60	-4.0	-2,375.7	1,760.3	1,729.3	31.00	56.790	
7,578.7	6,644.5	6,600.0	6,599.2	32.2	1.5	-89.60	-4.0	-2,375.7	1,689.7	1,656.8	32.88	51.386	
7,600.0	6,644.4	6,600.0	6,599.2	32.7	1.5	-89.60	-4.0	-2,375.7	1,670.7	1,637.3	33.39	50.034	
7,677.1	6,644.3	6,600.0	6,599.2	34.6	1.5	-89.60	-4.0	-2,375.7	1,602.3	1,567.1	35.29	45.409	
7,700.0	6,644.3	6,600.0	6,599.2	35.1	1.5	-89.60	-4.0	-2,375.7	1,582.3	1,546.4	35.85	44.138	
7,775.6	6,644.2	6,600.0	6,599.2	37.0	1.5	-89.60	-4.0	-2,375.7	1,516.4	1,478.6	37.74	40.177	
7,800.0	6,644.2	6,600.0	6,599.2	37.6	1.5	-89.60	-4.0	-2,375.7	1,495.3	1,456.9	38.36	38.985	
7,874.0	6,644.1	6,600.0	6,599.2	39.5	1.5	-89.60	-4.0	-2,375.7	1,432.0	1,391.8	40.24	35.586	
7,900.0	6,644.1	6,600.0	6,599.2	40.1	1.5	-89.60	-4.0	-2,375.7	1,410.1	1,369.2	40.90	34.473	
7,972.4	6,644.0	6,600.0	6,599.2	42.0	1.5	-89.60	-4.0	-2,375.7	1,349.6	1,306.8	42.77	31.552	
8,000.0	6,643.9	6,600.0	6,599.2	42.7	1.5	-89.60	-4.0	-2,375.7	1,326.9	1,283.4	43.49	30.513	
8,070.8	6,643.9	6,600.0	6,599.2	44.5	1.5	-89.60	-4.0	-2,375.7	1,269.4	1,224.1	45.33	28.002	
8,100.0	6,643.8	6,600.0	6,599.2	45.2	1.5	-89.60	-4.0	-2,375.7	1,246.2	1,200.1	46.09	27.035	
8,169.3	6,643.7	6,600.0	6,599.2	47.0	1.5	-89.60	-4.0	-2,375.7	1,192.0	1,144.1	47.92	24.876	
8,200.0	6,643.7	6,600.0	6,599.2	47.9	1.5	-89.60	-4.0	-2,375.7	1,168.5	1,119.8	48.73	23.980	
8,267.7	6,643.6	6,600.0	6,599.2	49.6	1.5	-89.60	-4.0	-2,375.7	1,117.9	1,067.4	50.52	22.127	
8,300.0	6,643.6	6,600.0	6,599.2	50.5	1.5	-89.60	-4.0	-2,375.7	1,094.4	1,043.0	51.38	21.301	
8,366.1	6,643.5	6,600.0	6,599.2	52.2	1.5	-89.60	-4.0	-2,375.7	1,047.8	994.7	53.14	19.716	
8,400.0	6,643.4	6,600.0	6,599.2	53.1	1.5	-89.60	-4.0	-2,375.7	1,024.7	970.7	54.05	18.960	
8,464.5	6,643.4	6,600.0	6,599.2	54.8	1.5	-89.60	-4.0	-2,375.7	982.6	926.8	55.78	17.615	
8,500.0	6,643.3	6,600.0	6,599.2	55.8	1.5	-89.60	-4.0	-2,375.7	960.5	903.7	56.73	16.930	
8,563.0	6,643.2	6,600.0	6,599.2	57.5	1.5	-89.60	-4.0	-2,375.7	923.2	864.8	58.43	15.801	
8,600.0	6,643.2	6,600.0	6,599.2	58.5	1.5	-89.60	-4.0	-2,375.7	902.7	843.3	59.42	15.190	
8,661.4	6,643.1	6,600.0	6,599.2	60.1	1.5	-89.60	-4.0	-2,375.7	871.0	809.9	61.09	14.259	
8,700.0	6,643.1	6,600.0	6,599.2	61.2	1.5	-89.60	-4.0	-2,375.7	852.8	790.6	62.13	13.725	
8,759.8	6,643.0	6,600.0	6,599.2	62.8	1.5	-89.60	-4.0	-2,375.7	827.2	763.5	63.75	12.976	
8,800.0	6,643.0	6,600.0	6,599.2	63.9	1.5	-89.60	-4.0	-2,375.7	812.1	747.3	64.84	12.524	
8,858.2	6,642.9	6,600.0	6,599.2	65.4	1.5	-89.60	-4.0	-2,375.7	793.3	726.9	66.43	11.942	
8,900.0	6,642.8	6,600.0	6,599.2	66.6	1.5	-89.60	-4.0	-2,375.7	782.3	714.7	67.57	11.577	
8,956.7	6,642.8	6,600.0	6,599.2	68.1	1.5	-89.60	-4.0	-2,375.7	770.6	701.5	69.11	11.149	
9,000.0	6,642.7	6,600.0	6,599.2	69.3	1.5	-89.60	-4.0	-2,375.7	764.4	694.1	70.30	10.874	
9,055.1	6,642.6	6,600.0	6,599.2	70.8	1.5	-89.60	-4.0	-2,375.7	760.0	688.2	71.80	10.584	
9,088.2	6,642.6	6,600.0	6,599.2	71.7	1.5	-89.60	-4.0	-2,375.7	759.3	686.6	72.71	10.443 CC	
9,100.0	6,642.6	6,600.0	6,599.2	72.0	1.5	-89.60	-4.0	-2,375.7	759.4	686.3	73.03	10.398 ES	
9,153.5	6,642.5	6,600.0	6,599.2	73.5	1.5	-89.60	-4.0	-2,375.7	762.1	687.6	74.50	10.229	
9,200.0	6,642.5	6,600.0	6,599.2	74.7	1.5	-89.60	-4.0	-2,375.7	767.5	691.7	75.77	10.128	
9,251.9	6,642.4	6,600.0	6,599.2	76.2	1.5	-89.60	-4.0	-2,375.7	776.7	699.5	77.20	10.061	
9,300.0	6,642.3	6,600.0	6,599.2	77.5	1.5	-89.60	-4.0	-2,375.7	788.3	709.8	78.52	10.039 SF	
9,350.4	6,642.3	6,600.0	6,599.2	78.9	1.5	-89.60	-4.0	-2,375.7	803.3	723.4	79.91	10.053	
9,400.0	6,642.2	6,600.0	6,599.2	80.2	1.5	-89.60	-4.0	-2,375.7	820.8	739.5	81.27	10.100	
9,448.8	6,642.1	6,600.0	6,599.2	81.6	1.5	-89.60	-4.0	-2,375.7	840.6	757.9	82.62	10.174	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,642.1	6,600.0	6,599.2	83.0	1.5	-89.60	-4.0	-2,375.7	863.8	779.7	84.03	10.280	
9,547.2	6,642.0	6,600.0	6,599.2	84.3	1.5	-89.60	-4.0	-2,375.7	887.3	801.9	85.33	10.398	
9,600.0	6,642.0	6,600.0	6,599.2	85.7	1.5	-89.60	-4.0	-2,375.7	915.7	828.9	86.78	10.551	
9,645.6	6,641.9	6,600.0	6,599.2	87.0	1.5	-89.60	-4.0	-2,375.7	942.0	853.9	88.05	10.698	
9,700.0	6,641.8	6,600.0	6,599.2	88.5	1.5	-89.60	-4.0	-2,375.7	975.1	885.6	89.55	10.889	
9,744.1	6,641.8	6,600.0	6,599.2	89.7	1.5	-89.60	-4.0	-2,375.7	1,003.3	912.6	90.77	11.054	
9,800.0	6,641.7	6,600.0	6,599.2	91.2	1.5	-89.60	-4.0	-2,375.7	1,040.8	948.4	92.31	11.274	
9,842.5	6,641.7	6,600.0	6,599.2	92.4	1.5	-89.60	-4.0	-2,375.7	1,070.3	976.8	93.49	11.448	
9,900.0	6,641.6	6,600.0	6,599.2	94.0	1.5	-89.60	-4.0	-2,375.7	1,111.6	1,016.5	95.08	11.691	
9,940.9	6,641.5	6,600.0	6,599.2	95.1	1.5	-89.60	-4.0	-2,375.7	1,141.8	1,045.6	96.21	11.867	
10,000.0	6,641.5	6,600.0	6,599.2	96.7	1.5	-89.60	-4.0	-2,375.7	1,186.6	1,088.7	97.85	12.126	
10,039.3	6,641.4	6,600.0	6,599.2	97.8	1.5	-89.60	-4.0	-2,375.7	1,217.1	1,118.1	98.94	12.301	
10,100.0	6,641.3	6,600.0	6,599.2	99.5	1.5	-89.60	-4.0	-2,375.7	1,265.0	1,164.4	100.62	12.572	
10,137.8	6,641.3	6,600.0	6,599.2	100.6	1.5	-89.60	-4.0	-2,375.7	1,295.4	1,193.8	101.67	12.742	
10,200.0	6,641.2	6,600.0	6,599.2	102.3	1.5	-89.60	-4.0	-2,375.7	1,346.3	1,242.9	103.40	13.021	
10,236.2	6,641.2	6,600.0	6,599.2	103.3	1.5	-89.60	-4.0	-2,375.7	1,376.4	1,272.0	104.40	13.184	
10,300.0	6,641.1	6,600.0	6,599.2	105.0	1.5	-89.60	-4.0	-2,375.7	1,430.0	1,323.9	106.17	13.469	
10,334.6	6,641.0	6,600.0	6,599.2	106.0	1.5	-89.60	-4.0	-2,375.7	1,459.5	1,352.4	107.13	13.623	
10,400.0	6,641.0	6,600.0	6,599.2	107.8	1.5	-89.60	-4.0	-2,375.7	1,515.7	1,406.8	108.95	13.912	
10,433.0	6,640.9	6,600.0	6,599.2	108.7	1.5	-89.60	-4.0	-2,375.7	1,544.4	1,434.5	109.87	14.057	
10,500.0	6,640.8	6,600.0	6,599.2	110.6	1.5	-89.60	-4.0	-2,375.7	1,603.0	1,491.3	111.73	14.347	
10,531.5	6,640.8	6,600.0	6,599.2	111.5	1.5	-89.60	-4.0	-2,375.7	1,630.8	1,518.2	112.61	14.483	
10,600.0	6,640.7	6,600.0	6,599.2	113.4	1.5	-89.60	-4.0	-2,375.7	1,691.8	1,577.3	114.51	14.774	
10,629.9	6,640.7	6,600.0	6,599.2	114.2	1.5	-89.60	-4.0	-2,375.7	1,718.5	1,603.2	115.34	14.899	
10,700.0	6,640.6	6,600.0	6,599.2	116.1	1.5	-89.60	-4.0	-2,375.7	1,781.7	1,664.4	117.30	15.190	
10,728.3	6,640.5	6,600.0	6,599.2	116.9	1.5	-89.60	-4.0	-2,375.7	1,807.4	1,689.3	118.08	15.306	
10,800.0	6,640.5	6,600.0	6,599.2	118.9	1.5	-89.60	-4.0	-2,375.7	1,872.6	1,752.6	120.08	15.595	
10,826.7	6,640.4	6,600.0	6,599.2	119.7	1.5	-89.60	-4.0	-2,375.7	1,897.1	1,776.3	120.82	15.702	
10,900.0	6,640.3	6,600.0	6,599.2	121.7	1.5	-89.60	-4.0	-2,375.7	1,964.5	1,841.6	122.86	15.989	
10,925.2	6,640.3	6,600.0	6,599.2	122.4	1.5	-89.60	-4.0	-2,375.7	1,987.7	1,864.2	123.57	16.086	
11,000.0	6,640.2	6,600.0	6,599.2	124.5	1.5	-89.59	-4.0	-2,375.7	2,057.1	1,931.4	125.65	16.371	
11,023.6	6,640.2	6,600.0	6,599.2	125.1	1.5	-89.59	-4.0	-2,375.7	2,079.0	1,952.7	126.31	16.460	
11,100.0	6,640.1	6,600.0	6,599.2	127.3	1.5	-89.59	-4.0	-2,375.7	2,150.3	2,021.9	128.44	16.742	
11,122.0	6,640.0	6,600.0	6,599.2	127.9	1.5	-89.59	-4.0	-2,375.7	2,170.9	2,041.9	129.05	16.822	
11,200.0	6,639.9	6,600.0	6,599.2	130.1	1.5	-89.59	-4.0	-2,375.7	2,244.2	2,112.9	131.23	17.101	
11,220.4	6,639.9	6,600.0	6,599.2	130.6	1.5	-89.59	-4.0	-2,375.7	2,263.4	2,131.6	131.80	17.173	
11,300.0	6,639.8	6,600.0	6,599.2	132.8	1.5	-89.59	-4.0	-2,375.7	2,338.5	2,204.5	134.02	17.449	
11,318.9	6,639.8	6,600.0	6,599.2	133.4	1.5	-89.59	-4.0	-2,375.7	2,356.4	2,221.8	134.54	17.514	
11,400.0	6,639.7	6,600.0	6,599.2	135.6	1.5	-89.59	-4.0	-2,375.7	2,433.3	2,296.5	136.81	17.786	
11,417.3	6,639.7	6,600.0	6,599.2	136.1	1.5	-89.59	-4.0	-2,375.7	2,449.7	2,312.5	137.29	17.844	
11,500.0	6,639.6	6,600.0	6,599.2	138.4	1.5	-89.59	-4.0	-2,375.7	2,528.5	2,388.9	139.60	18.113	
11,515.7	6,639.5	6,600.0	6,599.2	138.9	1.5	-89.59	-4.0	-2,375.7	2,543.5	2,403.5	140.04	18.163	
11,600.0	6,639.4	6,600.0	6,599.2	141.2	1.5	-89.59	-4.0	-2,375.7	2,624.1	2,481.7	142.39	18.429	
11,614.1	6,639.4	6,600.0	6,599.2	141.6	1.5	-89.59	-4.0	-2,375.7	2,637.6	2,494.8	142.79	18.472	
11,700.0	6,639.3	6,600.0	6,599.2	144.0	1.5	-89.59	-4.0	-2,375.7	2,719.9	2,574.8	145.18	18.734	
11,712.6	6,639.3	6,600.0	6,599.2	144.3	1.5	-89.59	-4.0	-2,375.7	2,732.0	2,586.5	145.53	18.772	
11,800.0	6,639.2	6,600.0	6,599.2	146.8	1.5	-89.59	-4.0	-2,375.7	2,816.1	2,668.1	147.98	19.031	
11,811.0	6,639.2	6,600.0	6,599.2	147.1	1.5	-89.59	-4.0	-2,375.7	2,826.7	2,678.4	148.28	19.063	
11,900.0	6,639.1	6,600.0	6,599.2	149.6	1.5	-89.59	-4.0	-2,375.7	2,912.5	2,761.7	150.77	19.317	
11,909.4	6,639.0	6,600.0	6,599.2	149.8	1.5	-89.59	-4.0	-2,375.7	2,921.6	2,770.6	151.03	19.344	
12,000.0	6,638.9	6,600.0	6,599.2	152.4	1.5	-89.59	-4.0	-2,375.7	3,009.2	2,855.6	153.57	19.595	
12,007.8	6,638.9	6,600.0	6,599.2	152.6	1.5	-89.59	-4.0	-2,375.7	3,016.8	2,863.0	153.79	19.617	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BOND #32-9 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
12,100.0	6,638.8	6,600.0	6,599.2	155.2	1.5	-89.59	-4.0	-2,375.7	3,106.0	2,949.7	156.36	19.865		
12,106.3	6,638.8	6,600.0	6,599.2	155.3	1.5	-89.59	-4.0	-2,375.7	3,112.1	2,955.6	156.54	19.881		
12,200.0	6,638.7	6,600.0	6,599.2	157.9	1.5	-89.59	-4.0	-2,375.7	3,203.1	3,043.9	159.16	20.125		
12,204.7	6,638.7	6,600.0	6,599.2	158.1	1.5	-89.59	-4.0	-2,375.7	3,207.7	3,048.4	159.29	20.137		
12,300.0	6,638.5	6,600.0	6,599.2	160.7	1.5	-89.59	-4.0	-2,375.7	3,300.3	3,138.4	161.95	20.378		
12,303.1	6,638.5	6,600.0	6,599.2	160.8	1.5	-89.59	-4.0	-2,375.7	3,303.4	3,141.3	162.04	20.386		
12,400.0	6,638.4	6,600.0	6,599.2	163.5	1.5	-89.59	-4.0	-2,375.7	3,397.7	3,233.0	164.75	20.624		
12,401.5	6,638.4	6,600.0	6,599.2	163.6	1.5	-89.59	-4.0	-2,375.7	3,399.2	3,234.4	164.79	20.627		
12,500.0	6,638.3	6,600.0	6,599.2	166.3	1.5	-89.59	-4.0	-2,375.7	3,495.3	3,327.7	167.55	20.861		
12,598.4	6,638.2	6,600.0	6,599.2	169.1	1.5	-89.59	-4.0	-2,375.7	3,591.4	3,421.1	170.30	21.088		
12,600.0	6,638.2	6,600.0	6,599.2	169.1	1.5	-89.59	-4.0	-2,375.7	3,592.9	3,422.6	170.35	21.092		
12,696.8	6,638.0	6,600.0	6,599.2	171.8	1.5	-89.59	-4.0	-2,375.7	3,687.6	3,514.6	173.05	21.309		
12,700.0	6,638.0	6,600.0	6,599.2	171.9	1.5	-89.59	-4.0	-2,375.7	3,690.7	3,517.6	173.14	21.316		
12,795.2	6,637.9	6,600.0	6,599.2	174.6	1.5	-89.59	-4.0	-2,375.7	3,784.0	3,608.2	175.81	21.523		
12,800.0	6,637.9	6,600.0	6,599.2	174.7	1.5	-89.59	-4.0	-2,375.7	3,788.7	3,612.7	175.94	21.534		
12,893.7	6,637.8	6,600.0	6,599.2	177.3	1.5	-89.59	-4.0	-2,375.7	3,880.5	3,701.9	178.56	21.732		
12,900.0	6,637.8	6,600.0	6,599.2	177.5	1.5	-89.59	-4.0	-2,375.7	3,886.7	3,707.9	178.74	21.745		
12,992.1	6,637.7	6,600.0	6,599.2	180.1	1.5	-89.59	-4.0	-2,375.7	3,977.1	3,795.7	181.32	21.934		
13,000.0	6,637.6	6,600.0	6,599.2	180.3	1.5	-89.59	-4.0	-2,375.7	3,984.8	3,803.3	181.54	21.950		
13,090.5	6,637.5	6,600.0	6,599.2	182.8	1.5	-89.59	-4.0	-2,375.7	4,073.7	3,889.6	184.08	22.131		
13,100.0	6,637.5	6,600.0	6,599.2	183.1	1.5	-89.59	-4.0	-2,375.7	4,083.0	3,898.7	184.34	22.149		
13,188.9	6,637.4	6,600.0	6,599.2	185.6	1.5	-89.59	-4.0	-2,375.7	4,170.5	3,983.6	186.83	22.322		
13,200.0	6,637.4	6,600.0	6,599.2	185.9	1.5	-89.59	-4.0	-2,375.7	4,181.3	3,994.2	187.14	22.343		
13,287.4	6,637.3	6,600.0	6,599.2	188.4	1.5	-89.59	-4.0	-2,375.7	4,267.3	4,077.7	189.59	22.508		
13,300.0	6,637.3	6,600.0	6,599.2	188.7	1.5	-89.59	-4.0	-2,375.7	4,279.7	4,089.8	189.94	22.532		
13,385.8	6,637.1	6,600.0	6,599.2	191.1	1.5	-89.59	-4.0	-2,375.7	4,364.2	4,171.8	192.34	22.689		
13,400.0	6,637.1	6,600.0	6,599.2	191.5	1.5	-89.59	-4.0	-2,375.7	4,378.1	4,185.4	192.74	22.715		
13,484.2	6,637.0	6,600.0	6,599.2	193.9	1.5	-89.59	-4.0	-2,375.7	4,461.1	4,266.0	195.10	22.866		
13,500.0	6,637.0	6,600.0	6,599.2	194.3	1.5	-89.59	-4.0	-2,375.7	4,476.7	4,281.1	195.54	22.894		
13,582.6	6,636.9	6,600.0	6,599.2	196.6	1.5	-89.59	-4.0	-2,375.7	4,558.1	4,360.3	197.86	23.037		
13,600.0	6,636.9	6,600.0	6,599.2	197.1	1.5	-89.59	-4.0	-2,375.7	4,575.2	4,376.9	198.34	23.067		
13,681.1	6,636.8	6,600.0	6,599.2	199.4	1.5	-89.59	-4.0	-2,375.7	4,655.2	4,454.6	200.62	23.205		
13,700.0	6,636.7	6,600.0	6,599.2	199.9	1.5	-89.59	-4.0	-2,375.7	4,673.9	4,472.7	201.15	23.236		
13,779.5	6,636.6	6,600.0	6,599.2	202.1	1.5	-89.59	-4.0	-2,375.7	4,752.3	4,549.0	203.37	23.368		
13,800.0	6,636.6	6,600.0	6,599.2	202.7	1.5	-89.59	-4.0	-2,375.7	4,772.6	4,568.6	203.95	23.401		
13,877.9	6,636.5	6,600.0	6,599.2	204.9	1.5	-89.59	-4.0	-2,375.7	4,849.5	4,643.4	206.13	23.526		
13,900.0	6,636.5	6,600.0	6,599.2	205.5	1.5	-89.59	-4.0	-2,375.7	4,871.3	4,664.6	206.75	23.562		
13,976.3	6,636.4	6,600.0	6,599.2	207.6	1.5	-89.59	-4.0	-2,375.7	4,946.8	4,737.9	208.89	23.681		
14,000.0	6,636.3	6,600.0	6,599.2	208.3	1.5	-89.59	-4.0	-2,375.7	4,970.1	4,760.6	209.55	23.718		
14,074.8	6,636.3	6,600.0	6,599.2	210.4	1.5	-89.59	-4.0	-2,375.7	5,044.0	4,832.4	211.65	23.832		
14,100.0	6,636.2	6,600.0	6,599.2	211.1	1.5	-89.59	-4.0	-2,375.7	5,069.0	4,856.6	212.35	23.870		
14,173.2	6,636.1	6,600.0	6,599.2	213.2	1.5	-89.59	-4.0	-2,375.7	5,141.4	4,927.0	214.41	23.980		
14,200.0	6,636.1	6,589.8	6,589.1	213.9	1.5	-88.82	-4.0	-2,375.7	5,167.9	4,952.8	215.10	24.026		
14,271.6	6,636.0	6,589.7	6,589.0	215.9	1.5	-88.81	-4.0	-2,375.7	5,238.7	5,021.6	217.10	24.130		
14,300.0	6,636.0	6,589.7	6,588.9	216.7	1.5	-88.80	-4.0	-2,375.7	5,266.8	5,048.9	217.90	24.171		
14,370.0	6,635.9	6,589.5	6,588.8	218.7	1.5	-88.79	-4.0	-2,375.7	5,336.1	5,116.3	219.86	24.270		
14,400.0	6,635.8	6,589.5	6,588.7	219.5	1.5	-88.79	-4.0	-2,375.7	5,365.8	5,145.1	220.70	24.313		
14,468.5	6,635.7	6,589.3	6,588.6	221.4	1.5	-88.78	-4.0	-2,375.7	5,433.6	5,211.0	222.62	24.408		
14,500.0	6,635.7	6,589.3	6,588.5	222.3	1.5	-88.78	-4.0	-2,375.7	5,464.8	5,241.3	223.50	24.451		
14,566.9	6,635.6	6,589.2	6,588.4	224.2	1.5	-88.77	-4.0	-2,375.7	5,531.0	5,305.7	225.38	24.541		
14,600.0	6,635.6	6,589.1	6,588.4	225.1	1.5	-88.76	-4.0	-2,375.7	5,563.8	5,337.5	226.30	24.586		
14,665.3	6,635.5	6,589.0	6,588.2	226.9	1.5	-88.75	-4.0	-2,375.7	5,628.6	5,400.4	228.13	24.672		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT BOND #32-9 - 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
14,700.0	6,635.4	6,588.9	6,588.2	227.9	1.5	-88.75	-4.0	-2,375.7	5,662.9	5,433.8	229.10	24.718	
14,763.7	6,635.4	6,588.8	6,588.1	229.7	1.5	-88.74	-4.0	-2,375.7	5,726.1	5,495.2	230.89	24.800	
14,800.0	6,635.3	6,588.7	6,588.0	230.7	1.5	-88.73	-4.0	-2,375.7	5,762.0	5,530.1	231.91	24.846	
14,862.2	6,635.2	6,588.6	6,587.9	232.5	1.5	-88.72	-4.0	-2,375.7	5,823.7	5,590.0	233.65	24.925	
14,900.0	6,635.2	6,588.6	6,587.8	233.5	1.5	-88.72	-4.0	-2,375.7	5,861.2	5,626.5	234.71	24.972	
14,960.6	6,635.1	6,588.4	6,587.7	235.2	1.5	-88.71	-4.0	-2,375.7	5,921.3	5,684.9	236.41	25.047	
15,000.0	6,635.0	6,588.4	6,587.6	236.3	1.5	-88.70	-4.0	-2,375.7	5,960.3	5,722.8	237.51	25.095	
15,033.1	6,635.0	6,588.3	6,587.6	237.3	1.5	-88.70	-4.0	-2,375.7	5,993.2	5,754.7	238.44	25.135	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	173.74	-1,083.5	118.9	1,090.3				
98.4	98.4	68.0	68.0	0.1	0.0	173.74	-1,083.5	118.9	1,090.0	1,089.9	0.10	N/A CC	
100.0	100.0	69.5	69.5	0.1	0.0	173.74	-1,083.5	118.9	1,090.0	1,089.9	0.10	N/A	
196.8	196.8	169.4	169.4	0.3	0.0	173.73	-1,083.7	119.0	1,090.2	1,089.9	0.33	3,296.294	
200.0	200.0	172.7	172.7	0.3	0.0	173.73	-1,083.7	119.0	1,090.2	1,089.9	0.34	3,224.110	
280.8	280.8	252.8	252.8	0.5	0.1	173.74	-1,083.6	118.9	1,090.1	1,089.5	0.59	1,860.949	
295.3	295.3	266.6	266.6	0.5	0.1	173.74	-1,083.6	118.9	1,090.1	1,089.5	0.63	1,716.831	
300.0	300.0	271.2	271.2	0.5	0.1	173.74	-1,083.6	118.9	1,090.1	1,089.5	0.65	1,674.461	
393.7	393.7	363.7	363.7	0.8	0.2	173.75	-1,083.8	118.7	1,090.3	1,089.3	0.99	1,130.293	
400.0	400.0	370.0	370.0	0.8	0.2	173.75	-1,083.8	118.7	1,090.3	1,089.3	0.99	1,106.417	
492.1	492.1	462.5	462.5	1.0	0.3	173.75	-1,084.0	118.7	1,090.5	1,089.2	1.26	864.192	
500.0	500.0	470.4	470.4	1.0	0.3	173.75	-1,084.0	118.7	1,090.5	1,089.2	1.28	849.070	
590.5	590.5	560.4	560.4	1.2	0.3	173.75	-1,084.1	118.8	1,090.6	1,089.1	1.55	705.099	
600.0	600.0	569.8	569.8	1.2	0.4	173.74	-1,084.1	118.8	1,090.6	1,089.1	1.57	692.787 ES	
689.0	689.0	656.4	656.4	1.4	0.4	173.73	-1,084.4	119.2	1,090.9	1,089.1	1.83	597.041	
700.0	700.0	667.1	667.1	1.4	0.4	173.73	-1,084.4	119.2	1,090.9	1,089.1	1.86	587.075	
787.4	787.4	750.9	750.9	1.6	0.5	173.71	-1,084.9	119.7	1,091.5	1,089.4	2.10	518.984	
800.0	800.0	763.0	763.0	1.7	0.5	173.70	-1,084.9	119.7	1,091.6	1,089.4	2.14	510.528	
885.8	885.8	845.9	845.9	1.9	0.5	173.67	-1,085.7	120.4	1,092.4	1,090.0	2.38	459.858	
900.0	900.0	859.8	859.8	1.9	0.5	173.67	-1,085.8	120.5	1,092.6	1,090.1	2.41	452.486	
984.2	984.2	941.9	941.9	2.1	0.6	173.63	-1,086.7	121.4	1,093.6	1,090.9	2.65	413.373	
1,000.0	1,000.0	957.3	957.2	2.1	0.6	173.62	-1,086.9	121.6	1,093.8	1,091.1	2.69	406.844	
1,082.7	1,082.7	1,040.2	1,040.1	2.3	0.6	146.58	-1,088.0	122.6	1,095.9	1,093.0	2.91	376.228	
1,100.0	1,100.0	1,058.1	1,058.0	2.3	0.6	146.58	-1,088.2	122.8	1,096.6	1,093.7	2.96	370.377	
1,181.1	1,181.0	1,140.3	1,140.3	2.5	0.7	146.60	-1,089.0	123.8	1,100.9	1,097.7	3.19	345.588	
1,200.0	1,199.8	1,159.1	1,159.1	2.6	0.7	146.62	-1,089.2	124.0	1,102.2	1,098.9	3.24	340.435	
1,279.5	1,279.1	1,239.4	1,239.4	2.8	0.7	146.70	-1,090.1	124.7	1,108.6	1,105.2	3.46	320.338	
1,300.0	1,299.5	1,260.4	1,260.3	2.8	0.7	146.74	-1,090.3	124.9	1,110.6	1,107.1	3.52	315.656	
1,377.9	1,376.9	1,340.7	1,340.6	3.0	0.7	146.90	-1,091.0	125.2	1,119.0	1,115.2	3.74	298.974	
1,400.0	1,398.7	1,363.5	1,363.4	3.0	0.7	146.95	-1,091.1	125.3	1,121.6	1,117.8	3.81	294.696	
1,476.4	1,474.2	1,441.2	1,441.1	3.2	0.8	147.17	-1,091.5	125.3	1,131.8	1,127.8	4.03	280.962	
1,500.0	1,497.5	1,464.9	1,464.8	3.3	0.8	147.25	-1,091.6	125.2	1,135.3	1,131.2	4.10	277.183	
1,574.8	1,571.0	1,541.9	1,541.9	3.5	0.8	147.55	-1,091.9	124.6	1,147.4	1,143.0	4.32	265.749	
1,600.0	1,595.6	1,568.6	1,568.5	3.6	0.8	147.66	-1,091.9	124.4	1,151.7	1,147.3	4.39	262.254	
1,673.2	1,667.2	1,640.5	1,640.4	3.9	0.8	148.08	-1,091.8	123.9	1,164.6	1,160.0	4.60	252.980	
1,700.0	1,693.4	1,665.3	1,665.3	4.0	0.8	148.22	-1,091.8	123.8	1,169.3	1,164.6	4.68	249.807	
1,771.6	1,763.5	1,733.4	1,733.3	4.2	0.8	148.60	-1,091.9	123.5	1,182.2	1,177.3	4.89	241.632	
1,800.0	1,791.3	1,761.0	1,760.9	4.3	0.8	148.75	-1,092.0	123.5	1,187.3	1,182.3	4.97	238.670	
1,870.1	1,859.8	1,827.7	1,827.6	4.6	0.9	149.09	-1,092.2	123.6	1,200.0	1,194.8	5.19	231.321	
1,900.0	1,889.1	1,855.3	1,855.2	4.7	0.9	149.23	-1,092.3	123.7	1,205.5	1,200.2	5.28	228.185	
1,968.5	1,956.1	1,919.4	1,919.3	4.9	0.9	149.55	-1,092.7	124.0	1,218.2	1,212.7	5.50	221.456	
2,000.0	1,986.9	1,949.8	1,949.8	5.1	0.9	149.69	-1,092.9	124.2	1,224.2	1,218.6	5.60	218.522	
2,066.9	2,052.3	2,015.3	2,015.2	5.3	0.9	149.99	-1,093.3	124.8	1,236.8	1,230.9	5.82	212.622	
2,100.0	2,084.7	2,049.1	2,049.0	5.5	0.9	150.13	-1,093.6	125.2	1,243.0	1,237.1	5.92	209.916	
2,165.3	2,148.6	2,114.8	2,114.7	5.7	1.0	150.41	-1,093.9	126.0	1,255.2	1,249.0	6.13	204.795	
2,200.0	2,182.5	2,147.9	2,147.8	5.9	1.0	150.55	-1,094.0	126.5	1,261.6	1,255.4	6.24	202.241	
2,263.8	2,244.9	2,208.9	2,208.8	6.1	1.0	150.79	-1,094.3	127.5	1,273.6	1,267.2	6.44	197.740	
2,300.0	2,280.3	2,244.5	2,244.4	6.3	1.0	150.93	-1,094.5	128.1	1,280.5	1,273.9	6.56	195.299	
2,362.2	2,341.2	2,305.4	2,305.3	6.5	1.0	151.15	-1,094.9	129.2	1,292.2	1,285.5	6.76	191.281	
2,400.0	2,378.1	2,341.4	2,341.2	6.7	1.0	151.29	-1,095.1	129.8	1,299.4	1,292.5	6.88	188.966	
2,460.6	2,437.4	2,400.0	2,399.9	6.9	1.0	151.51	-1,095.5	130.8	1,310.9	1,303.9	7.07	185.410	
2,500.0	2,476.0	2,438.8	2,438.6	7.1	1.1	151.65	-1,095.8	131.4	1,318.5	1,311.3	7.20	183.215	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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
2,550.0	2,524.9	2,489.3	2,489.2	7.3	1.1	151.84	-1,096.1	132.1	1,328.0	1,320.6	7.36	180.519	
2,559.0	2,533.7	2,498.5	2,498.3	7.3	1.1	152.75	-1,096.2	132.2	1,329.7	1,322.3	7.38	180.088	
2,600.0	2,573.8	2,538.9	2,538.8	7.5	1.1	156.88	-1,096.4	132.8	1,337.7	1,330.2	7.51	178.223	
2,639.4	2,612.3	2,577.8	2,577.6	7.7	1.1	160.83	-1,096.6	133.3	1,345.5	1,337.9	7.61	176.745	
2,657.5	2,630.0	2,595.7	2,595.5	7.7	1.1	160.87	-1,096.7	133.5	1,349.2	1,341.5	7.66	176.020	
2,700.0	2,671.6	2,636.6	2,636.4	7.9	1.1	160.97	-1,096.9	134.1	1,357.8	1,350.0	7.79	174.352	
2,755.9	2,726.3	2,690.2	2,690.0	8.1	1.1	161.09	-1,097.2	134.9	1,369.1	1,361.1	7.96	172.056	
2,800.0	2,769.4	2,733.2	2,733.0	8.3	1.2	161.19	-1,097.4	135.5	1,378.0	1,370.0	8.09	170.306	
2,854.3	2,822.5	2,786.4	2,786.2	8.5	1.2	161.31	-1,097.8	136.1	1,389.1	1,380.8	8.26	168.227	
2,900.0	2,867.2	2,829.2	2,829.0	8.7	1.2	161.42	-1,098.0	136.4	1,398.4	1,390.0	8.40	166.542	
2,952.7	2,918.8	2,877.5	2,877.3	9.0	1.2	161.52	-1,098.5	137.0	1,409.3	1,400.7	8.56	164.669	
3,000.0	2,965.0	2,922.1	2,921.9	9.2	1.2	161.62	-1,098.9	137.7	1,419.1	1,410.4	8.70	163.051	
3,051.2	3,015.1	2,972.1	2,971.9	9.4	1.2	161.73	-1,099.5	138.4	1,429.7	1,420.9	8.86	161.351	
3,100.0	3,062.8	3,020.5	3,020.3	9.6	1.3	161.83	-1,100.0	138.9	1,439.9	1,430.9	9.01	159.801	
3,149.6	3,111.4	3,070.9	3,070.7	9.8	1.3	161.94	-1,100.5	139.5	1,450.2	1,441.0	9.16	158.283	
3,200.0	3,160.7	3,121.1	3,120.8	10.0	1.3	162.04	-1,100.9	140.2	1,460.6	1,451.3	9.32	156.791	
3,248.0	3,207.6	3,167.5	3,167.3	10.2	1.3	162.14	-1,101.3	140.8	1,470.5	1,461.0	9.46	155.420	
3,300.0	3,258.5	3,219.0	3,218.8	10.5	1.3	162.24	-1,101.7	141.4	1,481.2	1,471.6	9.62	153.992	
3,346.4	3,303.9	3,267.3	3,267.0	10.7	1.3	162.33	-1,102.1	142.3	1,490.8	1,481.0	9.76	152.751	
3,400.0	3,356.3	3,321.2	3,320.9	10.9	1.4	162.41	-1,102.4	143.5	1,501.7	1,491.7	9.92	151.358	
3,444.9	3,400.2	3,364.3	3,364.0	11.1	1.4	162.47	-1,102.6	144.7	1,510.8	1,500.7	10.06	150.232	
3,500.0	3,454.1	3,418.0	3,417.7	11.3	1.4	162.54	-1,103.0	146.3	1,522.0	1,511.8	10.22	148.885	
3,543.3	3,496.5	3,461.3	3,461.0	11.5	1.4	162.59	-1,103.2	147.7	1,530.9	1,520.5	10.35	147.848	
3,600.0	3,551.9	3,518.2	3,517.9	11.7	1.4	162.65	-1,103.5	149.7	1,542.4	1,531.9	10.53	146.529	
3,641.7	3,592.7	3,560.5	3,560.2	11.9	1.4	162.69	-1,103.7	151.1	1,550.8	1,540.2	10.65	145.588	
3,700.0	3,649.7	3,617.5	3,617.1	12.2	1.5	162.75	-1,103.9	153.0	1,562.6	1,551.7	10.83	144.305	
3,740.1	3,689.0	3,653.8	3,653.4	12.4	1.5	162.79	-1,104.1	154.3	1,570.7	1,559.8	10.95	143.446	
3,800.0	3,747.5	3,708.9	3,708.4	12.6	1.5	162.84	-1,104.5	156.2	1,583.0	1,571.9	11.13	142.210	
3,838.6	3,785.3	3,748.3	3,747.9	12.8	1.5	162.88	-1,104.8	157.6	1,590.9	1,579.7	11.25	141.423	
3,900.0	3,845.4	3,811.0	3,810.5	13.1	1.5	162.93	-1,105.1	160.0	1,603.4	1,592.0	11.44	140.198	
3,937.0	3,881.6	3,848.4	3,847.8	13.2	1.5	162.96	-1,105.3	161.4	1,611.0	1,599.4	11.55	139.488	
4,000.0	3,943.2	3,911.7	3,911.1	13.5	1.5	163.01	-1,105.6	163.9	1,623.7	1,611.9	11.74	138.304	
4,035.4	3,977.8	3,946.6	3,946.0	13.6	1.6	163.04	-1,105.7	165.3	1,630.8	1,619.0	11.85	137.653	
4,100.0	4,041.0	4,010.6	4,009.9	13.9	1.6	163.09	-1,105.9	167.8	1,643.8	1,631.8	12.04	136.496	
4,133.8	4,074.1	4,044.6	4,043.9	14.1	1.6	163.11	-1,106.0	169.1	1,650.6	1,638.5	12.15	135.904	
4,200.0	4,138.8	4,112.2	4,111.4	14.4	1.6	163.17	-1,106.2	171.5	1,663.9	1,651.5	12.35	134.777	
4,232.3	4,170.4	4,147.6	4,146.8	14.5	1.6	163.21	-1,106.2	172.6	1,670.3	1,657.8	12.44	134.244	
4,300.0	4,236.6	4,221.6	4,220.8	14.8	1.6	163.29	-1,105.9	174.8	1,683.4	1,670.8	12.64	133.155	
4,330.7	4,266.7	4,254.6	4,253.8	14.9	1.6	163.33	-1,105.6	175.7	1,689.3	1,676.6	12.73	132.670	
4,400.0	4,334.4	4,330.2	4,329.3	15.2	1.7	163.41	-1,104.9	177.6	1,702.4	1,689.5	12.94	131.594	
4,429.1	4,362.9	4,362.7	4,361.8	15.4	1.7	163.45	-1,104.4	178.4	1,707.8	1,694.8	13.02	131.150	
4,500.0	4,432.3	4,439.3	4,438.4	15.7	1.7	163.55	-1,103.1	180.3	1,720.7	1,707.4	13.23	130.087	
4,527.5	4,459.2	4,468.3	4,467.3	15.8	1.7	163.58	-1,102.5	181.0	1,725.6	1,712.3	13.31	129.679	
4,600.0	4,530.1	4,542.1	4,541.1	16.1	1.7	163.67	-1,101.0	182.6	1,738.5	1,725.0	13.52	128.617	
4,626.0	4,555.5	4,568.0	4,567.0	16.2	1.7	163.70	-1,100.4	183.2	1,743.1	1,729.6	13.59	128.242	
4,700.0	4,627.9	4,643.5	4,642.5	16.6	1.7	163.80	-1,098.7	184.9	1,756.3	1,742.4	13.81	127.190	
4,724.4	4,651.7	4,668.9	4,667.9	16.7	1.7	163.83	-1,098.1	185.4	1,760.5	1,746.7	13.88	126.848	
4,800.0	4,725.7	4,746.4	4,745.4	17.0	1.7	163.93	-1,096.2	187.1	1,773.7	1,759.6	14.10	125.804	
4,822.8	4,748.0	4,769.6	4,768.6	17.1	1.7	163.95	-1,095.6	187.5	1,777.7	1,763.5	14.17	125.494	
4,904.9	4,828.3	4,846.9	4,845.8	17.5	1.8	164.05	-1,093.6	189.1	1,791.9	1,777.5	14.41	124.396	
4,921.2	4,844.3	4,861.7	4,860.6	17.5	1.8	164.08	-1,093.2	189.4	1,794.8	1,780.3	14.44	124.314	
5,000.0	4,921.6	4,930.0	4,928.8	17.8	1.8	164.23	-1,091.7	190.7	1,807.3	1,792.8	14.59	123.858	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,941.0	4,946.3	4,945.2	17.9	1.8	164.26	-1,091.4	191.0	1,810.2	1,795.6	14.62	123.797	
5,100.0	5,020.4	5,014.4	5,013.3	18.1	1.8	164.38	-1,090.5	192.1	1,821.1	1,806.3	14.75	123.497	
5,118.1	5,038.3	5,031.1	5,029.9	18.2	1.8	164.40	-1,090.3	192.3	1,823.3	1,808.5	14.77	123.431	
5,200.0	5,119.6	5,106.5	5,105.3	18.4	1.8	164.49	-1,089.7	193.4	1,832.0	1,817.2	14.89	123.066	
5,216.5	5,136.0	5,121.4	5,120.2	18.4	1.8	164.51	-1,089.6	193.6	1,833.6	1,818.7	14.91	122.994	
5,300.0	5,219.2	5,200.0	5,198.8	18.6	1.8	164.57	-1,089.3	194.6	1,840.1	1,825.1	15.02	122.550	
5,314.9	5,234.1	5,209.7	5,208.5	18.6	1.8	164.57	-1,089.3	194.7	1,841.1	1,826.1	15.03	122.473	
5,400.0	5,319.1	5,285.2	5,284.0	18.8	1.9	164.60	-1,089.5	195.6	1,845.4	1,830.3	15.14	121.928	
5,413.4	5,332.4	5,300.0	5,298.8	18.8	1.9	164.61	-1,089.5	195.7	1,845.9	1,830.8	15.15	121.839	
5,504.9	5,423.9	5,384.5	5,383.3	18.9	1.9	-176.98	-1,090.1	196.4	1,847.9	1,827.6	20.25	91.262	
5,511.8	5,430.8	5,391.1	5,389.9	18.9	1.9	-176.98	-1,090.1	196.5	1,847.9	1,827.6	20.26	91.217	
5,600.0	5,519.0	5,476.8	5,475.6	19.0	1.9	-177.00	-1,090.8	197.1	1,848.6	1,828.2	20.39	90.653	
5,610.2	5,529.3	5,486.7	5,485.5	19.0	1.9	-177.00	-1,090.9	197.1	1,848.7	1,828.3	20.41	90.584	
5,700.0	5,619.0	5,571.0	5,569.8	19.2	2.0	-177.01	-1,091.7	197.5	1,849.5	1,829.0	20.55	90.003	
5,708.6	5,627.7	5,579.1	5,577.8	19.2	2.0	-177.01	-1,091.8	197.5	1,849.6	1,829.1	20.56	89.948	
5,800.0	5,719.0	5,664.8	5,663.6	19.3	2.0	-177.03	-1,093.0	197.9	1,850.9	1,830.2	20.71	89.382	
5,807.1	5,726.1	5,671.5	5,670.3	19.3	2.0	-177.03	-1,093.1	197.9	1,851.0	1,830.3	20.72	89.339	
5,900.0	5,819.0	5,762.4	5,761.2	19.4	2.0	-177.04	-1,094.6	198.3	1,852.5	1,831.6	20.87	88.776	
5,905.5	5,824.5	5,767.9	5,766.6	19.4	2.0	-177.04	-1,094.7	198.4	1,852.5	1,831.7	20.88	88.742	
6,003.9	5,923.0	5,870.2	5,868.9	19.6	2.0	-177.06	-1,096.3	198.9	1,854.1	1,833.0	21.04	88.140	
6,009.8	5,928.8	5,876.4	5,875.1	19.6	2.0	-177.06	-1,096.4	198.9	1,854.1	1,833.1	21.05	88.103	
6,050.0	5,969.0	5,917.3	5,916.0	19.6	2.0	-87.07	-1,096.9	199.2	1,854.6	1,838.2	16.39	113.145	
6,100.0	6,018.8	5,965.2	5,964.0	19.7	2.1	-87.18	-1,097.6	199.4	1,855.1	1,838.6	16.47	112.631	
6,102.3	6,021.1	5,967.5	5,966.2	19.7	2.1	-87.18	-1,097.6	199.4	1,855.1	1,838.6	16.47	112.610	
6,150.0	6,068.1	6,014.5	6,013.2	19.7	2.1	-87.40	-1,098.3	199.7	1,855.5	1,838.9	16.55	112.144	
6,200.0	6,116.8	6,067.7	6,066.5	19.7	2.1	-87.77	-1,099.1	200.0	1,855.6	1,839.0	16.62	111.650	
6,200.8	6,117.5	6,068.5	6,067.3	19.7	2.1	-87.78	-1,099.1	200.0	1,855.6	1,839.0	16.62	111.643	
6,250.0	6,164.5	6,120.0	6,118.7	19.7	2.1	-88.25	-1,099.6	200.2	1,855.7	1,839.0	16.69	111.162	
6,299.2	6,210.4	6,170.3	6,169.1	19.7	2.1	-88.83	-1,100.1	200.5	1,855.6	1,838.9	16.77	110.682	
6,300.0	6,211.1	6,171.2	6,169.9	19.7	2.1	-88.83	-1,100.1	200.5	1,855.6	1,838.9	16.77	110.674	
6,333.2	6,241.3	6,204.2	6,202.9	19.7	2.1	-89.26	-1,100.3	200.6	1,855.6	1,838.8	16.82	110.343	
6,350.0	6,256.4	6,220.5	6,219.2	19.7	2.1	-89.49	-1,100.4	200.7	1,855.6	1,838.8	16.84	110.182	
6,397.6	6,298.0	6,265.6	6,264.3	19.7	2.1	-90.16	-1,100.5	200.9	1,855.8	1,838.8	16.92	109.696	
6,400.0	6,300.0	6,267.8	6,266.5	19.7	2.1	-90.20	-1,100.6	200.9	1,855.8	1,838.9	16.92	109.672	
6,450.0	6,341.8	6,311.3	6,310.0	19.7	2.2	-90.90	-1,100.6	201.1	1,856.2	1,839.2	17.01	109.121	
6,496.0	6,378.6	6,345.6	6,344.4	19.7	2.2	-91.47	-1,100.7	201.3	1,857.1	1,840.0	17.11	108.563	
6,500.0	6,381.6	6,348.5	6,347.2	19.7	2.2	-91.52	-1,100.7	201.3	1,857.2	1,840.1	17.11	108.518	
6,550.0	6,419.2	6,383.5	6,382.2	19.6	2.2	-92.10	-1,100.9	201.6	1,858.9	1,841.6	17.25	107.778	
6,594.5	6,450.7	6,411.6	6,410.3	19.6	2.2	-92.55	-1,101.0	201.9	1,861.0	1,843.6	17.40	106.953	
6,600.0	6,454.4	6,414.8	6,413.5	19.6	2.2	-92.59	-1,101.0	201.9	1,861.4	1,843.9	17.42	106.857	
6,650.0	6,487.1	6,442.5	6,441.2	19.6	2.2	-92.97	-1,101.2	202.2	1,864.8	1,847.2	17.64	105.707	
6,692.9	6,513.0	6,464.4	6,463.1	19.6	2.2	-93.20	-1,101.4	202.5	1,868.6	1,850.8	17.89	104.477	
6,700.0	6,517.0	6,467.8	6,466.5	19.6	2.2	-93.23	-1,101.5	202.5	1,869.4	1,851.4	17.93	104.282	
6,750.0	6,544.1	6,490.7	6,489.4	19.6	2.2	-93.37	-1,101.7	202.8	1,875.0	1,856.8	18.28	102.561	
6,791.3	6,564.2	6,500.0	6,498.7	19.7	2.2	-93.17	-1,101.9	202.9	1,880.7	1,862.0	18.63	100.934	
6,800.0	6,568.2	6,500.0	6,498.7	19.7	2.2	-93.06	-1,101.9	202.9	1,882.0	1,863.3	18.70	100.638	
6,850.0	6,589.1	6,525.2	6,523.9	19.8	2.2	-93.10	-1,102.3	203.2	1,890.2	1,870.9	19.23	98.300	
6,889.7	6,603.5	6,535.7	6,534.4	19.9	2.2	-92.79	-1,102.5	203.3	1,897.6	1,877.9	19.70	96.320	
6,900.0	6,606.9	6,538.2	6,536.9	19.9	2.2	-92.70	-1,102.5	203.3	1,899.7	1,879.9	19.82	95.834	
6,950.0	6,621.3	6,548.7	6,547.4	20.2	2.2	-92.12	-1,102.7	203.5	1,910.6	1,890.1	20.49	93.226	
6,988.2	6,630.0	6,555.0	6,553.7	20.6	2.2	-91.55	-1,102.9	203.6	1,919.7	1,898.7	21.06	91.157	
7,000.0	6,632.4	6,556.6	6,555.3	20.7	2.2	-91.35	-1,102.9	203.6	1,922.7	1,901.5	21.23	90.549	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,640.0	6,561.9	6,560.6	21.4	2.2	-90.40	-1,103.0	203.6	1,936.2	1,914.1	22.03	87.876	
7,086.6	6,643.4	6,564.1	6,562.8	21.9	2.2	-89.58	-1,103.1	203.7	1,946.8	1,924.1	22.65	85.939	
7,100.0	6,644.2	6,564.5	6,563.2	22.1	2.2	-89.25	-1,103.1	203.7	1,950.8	1,927.9	22.88	85.269	
7,135.7	6,645.0	6,564.8	6,563.5	22.7	2.2	-88.33	-1,103.1	203.7	1,961.9	1,938.4	23.50	83.481	
7,185.0	6,644.9	6,564.2	6,562.9	23.6	2.2	-88.31	-1,103.1	203.7	1,978.2	1,953.8	24.46	80.875	
7,200.0	6,644.9	6,564.1	6,562.8	23.9	2.2	-88.30	-1,103.1	203.7	1,983.4	1,958.7	24.75	80.134	
7,283.4	6,644.8	6,563.1	6,561.8	25.6	2.2	-88.28	-1,103.1	203.7	2,014.0	1,987.5	26.48	76.062	
7,300.0	6,644.8	6,563.0	6,561.6	25.9	2.2	-88.27	-1,103.1	203.7	2,020.4	1,993.6	26.82	75.330	
7,381.9	6,644.7	6,562.1	6,560.7	27.7	2.2	-88.24	-1,103.0	203.6	2,053.9	2,025.3	28.62	71.752	
7,400.0	6,644.7	6,561.9	6,560.5	28.1	2.2	-88.24	-1,103.0	203.6	2,061.7	2,032.6	29.02	71.033	
7,480.3	6,644.6	6,561.0	6,559.7	29.9	2.2	-88.21	-1,103.0	203.6	2,097.6	2,066.7	30.88	67.926	
7,500.0	6,644.6	6,560.7	6,559.4	30.3	2.2	-88.20	-1,103.0	203.6	2,106.8	2,075.5	31.34	67.232	
7,578.7	6,644.5	6,559.9	6,558.6	32.2	2.2	-88.18	-1,103.0	203.6	2,145.0	2,111.7	33.22	64.570	
7,600.0	6,644.4	6,559.6	6,558.3	32.7	2.2	-88.17	-1,103.0	203.6	2,155.7	2,121.9	33.73	63.913	
7,677.1	6,644.3	6,558.8	6,557.5	34.6	2.2	-88.14	-1,103.0	203.6	2,195.7	2,160.1	35.62	61.639	
7,700.0	6,644.3	6,558.6	6,557.2	35.1	2.2	-88.13	-1,102.9	203.6	2,208.0	2,171.8	36.18	61.022	
7,775.6	6,644.2	6,557.7	6,556.4	37.0	2.2	-88.11	-1,102.9	203.6	2,249.6	2,211.6	38.08	59.082	
7,800.0	6,644.2	6,557.5	6,556.2	37.6	2.2	-88.10	-1,102.9	203.6	2,263.5	2,224.8	38.69	58.506	
7,874.0	6,644.1	6,556.7	6,555.3	39.5	2.2	-88.08	-1,102.9	203.6	2,306.5	2,265.9	40.57	56.849	
7,900.0	6,644.1	6,556.4	6,555.1	40.1	2.2	-88.07	-1,102.9	203.6	2,322.0	2,280.7	41.23	56.312	
7,972.4	6,644.0	6,555.6	6,554.3	42.0	2.2	-88.04	-1,102.9	203.6	2,366.1	2,323.0	43.10	54.895	
8,000.0	6,643.9	6,555.3	6,554.0	42.7	2.2	-88.03	-1,102.9	203.6	2,383.2	2,339.4	43.81	54.395	
8,070.8	6,643.9	6,554.5	6,553.2	44.5	2.2	-88.01	-1,102.9	203.5	2,428.2	2,382.5	45.66	53.179	
8,100.0	6,643.8	6,554.2	6,552.9	45.2	2.2	-88.00	-1,102.8	203.5	2,447.0	2,400.6	46.42	52.715	
8,169.3	6,643.7	6,553.5	6,552.2	47.0	2.2	-87.98	-1,102.8	203.5	2,492.6	2,444.4	48.24	51.669	
8,200.0	6,643.7	6,553.1	6,551.8	47.9	2.2	-87.97	-1,102.8	203.5	2,513.2	2,464.1	49.05	51.238	
8,267.7	6,643.6	6,552.4	6,551.1	49.6	2.2	-87.95	-1,102.8	203.5	2,559.2	2,508.4	50.84	50.336	
8,300.0	6,643.6	6,552.1	6,550.8	50.5	2.2	-87.93	-1,102.8	203.5	2,581.5	2,529.8	51.70	49.934	
8,366.1	6,643.5	6,551.4	6,550.1	52.2	2.2	-87.91	-1,102.8	203.5	2,627.9	2,574.4	53.46	49.154	
8,400.0	6,643.4	6,551.0	6,549.7	53.1	2.2	-87.90	-1,102.8	203.5	2,651.9	2,597.5	54.36	48.780	
8,464.5	6,643.4	6,550.3	6,549.0	54.8	2.2	-87.88	-1,102.8	203.5	2,698.3	2,642.2	56.09	48.104	
8,500.0	6,643.3	6,549.9	6,548.6	55.8	2.2	-87.87	-1,102.8	203.5	2,724.1	2,667.1	57.04	47.755	
8,563.0	6,643.2	6,549.3	6,548.0	57.5	2.2	-87.85	-1,102.7	203.5	2,770.5	2,711.7	58.74	47.166	
8,600.0	6,643.2	6,548.9	6,547.6	58.5	2.2	-87.84	-1,102.7	203.5	2,798.0	2,738.3	59.73	46.841	
8,661.4	6,643.1	6,548.2	6,546.9	60.1	2.2	-87.82	-1,102.7	203.5	2,844.2	2,782.8	61.39	46.327	
8,700.0	6,643.1	6,547.8	6,546.5	61.2	2.2	-87.80	-1,102.7	203.5	2,873.5	2,811.1	62.44	46.023	
8,759.8	6,643.0	6,547.2	6,545.9	62.8	2.2	-87.78	-1,102.7	203.4	2,919.4	2,855.3	64.06	45.574	
8,800.0	6,643.0	6,546.8	6,545.5	63.9	2.2	-87.77	-1,102.7	203.4	2,950.5	2,885.3	65.15	45.289	
8,858.2	6,642.9	6,546.2	6,544.9	65.4	2.2	-87.75	-1,102.7	203.4	2,995.9	2,929.2	66.73	44.896	
8,900.0	6,642.8	6,545.7	6,544.4	66.6	2.2	-87.74	-1,102.7	203.4	3,028.8	2,960.9	67.87	44.629	
8,956.7	6,642.8	6,545.2	6,543.9	68.1	2.2	-87.72	-1,102.7	203.4	3,073.7	3,004.3	69.41	44.283	
9,000.0	6,642.7	6,544.7	6,543.4	69.3	2.2	-87.71	-1,102.6	203.4	3,108.3	3,037.7	70.59	44.032	
9,055.1	6,642.6	6,544.1	6,542.8	70.8	2.2	-87.69	-1,102.6	203.4	3,152.7	3,080.6	72.10	43.728	
9,100.0	6,642.6	6,543.7	6,542.4	72.0	2.2	-87.67	-1,102.6	203.4	3,189.0	3,115.7	73.32	43.493	
9,153.5	6,642.5	6,543.1	6,541.8	73.5	2.2	-87.66	-1,102.6	203.4	3,232.7	3,157.9	74.79	43.224	
9,200.0	6,642.5	6,542.6	6,541.3	74.7	2.2	-87.64	-1,102.6	203.4	3,270.8	3,194.7	76.06	43.002	
9,251.9	6,642.4	6,542.1	6,540.8	76.2	2.2	-87.63	-1,102.6	203.4	3,313.7	3,236.2	77.49	42.765	
9,300.0	6,642.3	6,541.6	6,540.3	77.5	2.2	-87.61	-1,102.6	203.4	3,353.5	3,274.7	78.80	42.556	
9,350.4	6,642.3	6,541.1	6,539.8	78.9	2.2	-87.60	-1,102.6	203.4	3,395.6	3,315.4	80.19	42.346	
9,400.0	6,642.2	6,540.6	6,539.3	80.2	2.2	-87.58	-1,102.6	203.4	3,437.2	3,355.7	81.55	42.149	
9,448.8	6,642.1	6,540.1	6,538.8	81.6	2.2	-87.56	-1,102.5	203.4	3,478.4	3,395.5	82.89	41.963	
9,500.0	6,642.1	6,539.6	6,538.3	83.0	2.2	-87.55	-1,102.5	203.3	3,521.7	3,437.4	84.30	41.776	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,642.0	6,539.1	6,537.8	84.3	2.2	-87.53	-1,102.5	203.3	3,561.9	3,476.3	85.60	41.611	
9,600.0	6,642.0	6,538.6	6,537.3	85.7	2.2	-87.52	-1,102.5	203.3	3,607.0	3,520.0	87.05	41.435	
9,645.6	6,641.9	6,538.1	6,536.8	87.0	2.2	-87.50	-1,102.5	203.3	3,646.2	3,557.9	88.31	41.288	
9,700.0	6,641.8	6,537.5	6,536.2	88.5	2.2	-87.49	-1,102.5	203.3	3,693.1	3,603.3	89.81	41.121	
9,744.1	6,641.8	6,537.1	6,535.8	89.7	2.2	-87.47	-1,102.5	203.3	3,731.2	3,640.2	91.03	40.990	
9,800.0	6,641.7	6,536.5	6,535.2	91.2	2.2	-87.45	-1,102.5	203.3	3,779.8	3,687.3	92.57	40.832	
9,842.5	6,641.7	6,536.1	6,534.8	92.4	2.2	-87.44	-1,102.5	203.3	3,816.9	3,723.1	93.74	40.716	
9,900.0	6,641.6	6,535.5	6,534.2	94.0	2.2	-87.42	-1,102.5	203.3	3,867.2	3,771.9	95.33	40.565	
9,940.9	6,641.5	6,535.1	6,533.8	95.1	2.2	-87.41	-1,102.5	203.3	3,903.1	3,806.7	96.46	40.462	
10,000.0	6,641.5	6,534.5	6,533.2	96.7	2.2	-87.39	-1,102.4	203.3	3,955.2	3,857.1	98.10	40.319	
10,039.3	6,641.4	6,534.1	6,532.8	97.8	2.2	-87.38	-1,102.4	203.3	3,989.9	3,890.8	99.19	40.227	
10,100.0	6,641.3	6,533.5	6,532.2	99.5	2.2	-87.36	-1,102.4	203.3	4,043.7	3,942.8	100.86	40.090	
10,137.8	6,641.3	6,533.2	6,531.9	100.6	2.2	-87.35	-1,102.4	203.3	4,077.3	3,975.4	101.91	40.008	
10,200.0	6,641.2	6,532.5	6,531.2	102.3	2.2	-87.33	-1,102.4	203.3	4,132.8	4,029.1	103.63	39.879	
10,236.2	6,641.2	6,532.2	6,530.9	103.3	2.2	-87.32	-1,102.4	203.3	4,165.1	4,060.5	104.64	39.806	
10,300.0	6,641.1	6,531.6	6,530.3	105.0	2.2	-87.30	-1,102.4	203.2	4,222.3	4,115.9	106.40	39.682	
10,334.6	6,641.0	6,531.2	6,529.9	106.0	2.2	-87.29	-1,102.4	203.2	4,253.4	4,146.0	107.36	39.617	
10,400.0	6,641.0	6,530.6	6,529.3	107.8	2.2	-87.27	-1,102.4	203.2	4,312.3	4,203.1	109.18	39.498	
10,433.0	6,640.9	6,530.2	6,528.9	108.7	2.2	-87.26	-1,102.4	203.2	4,342.1	4,232.0	110.09	39.441	
10,500.0	6,640.8	6,529.6	6,528.3	110.6	2.2	-87.24	-1,102.3	203.2	4,402.7	4,290.8	111.95	39.328	
10,531.5	6,640.8	6,529.3	6,528.0	111.5	2.2	-87.23	-1,102.3	203.2	4,431.3	4,318.5	112.82	39.276	
10,600.0	6,640.7	6,528.6	6,527.3	113.4	2.2	-87.21	-1,102.3	203.2	4,493.6	4,378.8	114.73	39.168	
10,629.9	6,640.7	6,528.3	6,527.0	114.2	2.2	-87.20	-1,102.3	203.2	4,520.8	4,405.3	115.56	39.122	
10,700.0	6,640.6	6,527.6	6,526.3	116.1	2.2	-87.18	-1,102.3	203.2	4,584.8	4,467.3	117.50	39.019	
10,728.3	6,640.5	6,527.4	6,526.1	116.9	2.2	-87.17	-1,102.3	203.2	4,610.7	4,492.4	118.29	38.978	
10,800.0	6,640.5	6,526.7	6,525.4	118.9	2.2	-87.15	-1,102.3	203.2	4,676.4	4,556.1	120.28	38.879	
10,826.7	6,640.4	6,526.4	6,525.1	119.7	2.2	-87.14	-1,102.3	203.2	4,700.9	4,579.9	121.02	38.843	
10,900.0	6,640.3	6,525.7	6,524.4	121.7	2.2	-87.12	-1,102.3	203.2	4,768.3	4,645.2	123.06	38.748	
10,925.2	6,640.3	6,525.5	6,524.2	122.4	2.2	-87.11	-1,102.3	203.2	4,791.5	4,667.7	123.76	38.716	
11,000.0	6,640.2	6,524.7	6,523.4	124.5	2.2	-87.09	-1,102.3	203.2	4,860.5	4,734.7	125.84	38.625	
11,023.6	6,640.2	6,524.5	6,523.2	125.1	2.2	-87.08	-1,102.3	203.2	4,882.3	4,755.8	126.49	38.597	
11,100.0	6,640.1	6,523.8	6,522.5	127.3	2.2	-87.06	-1,102.2	203.2	4,953.1	4,824.4	128.62	38.510	
11,122.0	6,640.0	6,523.6	6,522.3	127.9	2.2	-87.05	-1,102.2	203.1	4,973.5	4,844.2	129.23	38.485	
11,200.0	6,639.9	6,522.8	6,521.5	130.1	2.2	-87.03	-1,102.2	203.1	5,045.9	4,914.5	131.40	38.401	
11,220.4	6,639.9	6,522.6	6,521.3	130.6	2.2	-87.02	-1,102.2	203.1	5,064.9	4,932.9	131.97	38.379	
11,300.0	6,639.8	6,521.9	6,520.6	132.8	2.2	-87.00	-1,102.2	203.1	5,139.0	5,004.8	134.18	38.298	
11,318.9	6,639.8	6,521.7	6,520.4	133.4	2.2	-87.00	-1,102.2	203.1	5,156.6	5,021.9	134.71	38.280	
11,400.0	6,639.7	6,520.9	6,519.6	135.6	2.2	-86.97	-1,102.2	203.1	5,232.3	5,095.3	136.97	38.202	
11,417.3	6,639.7	6,520.8	6,519.5	136.1	2.2	-86.97	-1,102.2	203.1	5,248.5	5,111.0	137.45	38.186	
11,500.0	6,639.6	6,520.0	6,518.7	138.4	2.2	-86.94	-1,102.2	203.1	5,325.9	5,186.2	139.75	38.111	
11,515.7	6,639.5	6,519.8	6,518.5	138.9	2.2	-86.94	-1,102.2	203.1	5,340.6	5,200.5	140.19	38.097	
11,600.0	6,639.4	6,519.0	6,517.7	141.2	2.2	-86.91	-1,102.2	203.1	5,419.7	5,277.2	142.53	38.024	
11,614.1	6,639.4	6,518.9	6,517.6	141.6	2.2	-86.91	-1,102.2	203.1	5,433.0	5,290.1	142.93	38.012	
11,700.0	6,639.3	6,518.1	6,516.8	144.0	2.2	-86.88	-1,102.1	203.1	5,513.7	5,368.4	145.32	37.943	
11,712.6	6,639.3	6,518.0	6,516.7	144.3	2.2	-86.88	-1,102.1	203.1	5,525.6	5,379.9	145.67	37.933	
11,800.0	6,639.2	6,517.2	6,515.9	146.8	2.2	-86.86	-1,102.1	203.1	5,608.0	5,459.9	148.10	37.865	
11,811.0	6,639.2	6,517.1	6,515.8	147.1	2.2	-86.85	-1,102.1	203.1	5,618.4	5,470.0	148.41	37.857	
11,900.0	6,639.1	6,516.2	6,514.9	149.6	2.2	-86.83	-1,102.1	203.1	5,702.4	5,551.5	150.89	37.792	
11,909.4	6,639.0	6,516.2	6,514.9	149.8	2.2	-86.82	-1,102.1	203.1	5,711.3	5,560.2	151.15	37.785	
12,000.0	6,638.9	6,500.0	6,498.7	152.4	2.2	-86.33	-1,101.9	202.9	5,797.1	5,643.5	153.60	37.742	
12,007.8	6,638.9	6,500.0	6,498.7	152.6	2.2	-86.33	-1,101.9	202.9	5,804.5	5,650.7	153.82	37.736	
12,100.0	6,638.8	6,500.0	6,498.7	155.2	2.2	-86.33	-1,101.9	202.9	5,891.9	5,735.5	156.39	37.675	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,106.3	6,638.8	6,500.0	6,498.7	155.3	2.2	-86.33	-1,101.9	202.9	5,897.8	5,741.3	156.56	37.671	
12,200.0	6,638.7	6,500.0	6,498.7	157.9	2.2	-86.33	-1,101.9	202.9	5,986.8	5,827.7	159.18	37.611	
12,204.7	6,638.7	6,500.0	6,498.7	158.1	2.2	-86.33	-1,101.9	202.9	5,991.3	5,832.0	159.31	37.608	
12,300.0	6,638.5	6,500.0	6,498.7	160.7	2.2	-86.33	-1,101.9	202.9	6,082.0	5,920.0	161.97	37.550	
12,303.1	6,638.5	6,500.0	6,498.7	160.8	2.2	-86.33	-1,101.9	202.9	6,084.9	5,922.9	162.06	37.548	
12,400.0	6,638.4	6,500.0	6,498.7	163.5	2.2	-86.33	-1,101.9	202.9	6,177.2	6,012.5	164.76	37.492	
12,401.5	6,638.4	6,500.0	6,498.7	163.6	2.2	-86.33	-1,101.9	202.9	6,178.7	6,013.9	164.80	37.491	
12,500.0	6,638.3	6,500.0	6,498.7	166.3	2.2	-86.33	-1,101.9	202.9	6,272.7	6,105.1	167.55	37.437	
12,598.4	6,638.2	6,500.0	6,498.7	169.1	2.2	-86.33	-1,101.9	202.9	6,366.7	6,196.4	170.30	37.385	
12,600.0	6,638.2	6,500.0	6,498.7	169.1	2.2	-86.33	-1,101.9	202.9	6,368.2	6,197.9	170.34	37.384	
12,696.8	6,638.0	6,500.0	6,498.7	171.8	2.2	-86.33	-1,101.9	202.9	6,460.9	6,287.8	173.05	37.336	
12,700.0	6,638.0	6,500.0	6,498.7	171.9	2.2	-86.33	-1,101.9	202.9	6,463.9	6,290.8	173.14	37.334	
12,795.2	6,637.9	6,500.0	6,498.7	174.6	2.2	-86.33	-1,101.9	202.9	6,555.2	6,379.4	175.80	37.288	
12,800.0	6,637.9	6,500.0	6,498.7	174.7	2.2	-86.32	-1,101.9	202.9	6,559.8	6,383.8	175.93	37.286	
12,893.7	6,637.8	6,500.0	6,498.7	177.3	2.2	-86.32	-1,101.9	202.9	6,649.6	6,471.1	178.55	37.243	
12,900.0	6,637.8	6,500.0	6,498.7	177.5	2.2	-86.32	-1,101.9	202.9	6,655.7	6,477.0	178.72	37.240	
12,992.1	6,637.7	6,500.0	6,498.7	180.1	2.2	-86.32	-1,101.9	202.9	6,744.2	6,562.9	181.30	37.200	
13,000.0	6,637.6	6,500.0	6,498.7	180.3	2.2	-86.32	-1,101.9	202.9	6,751.8	6,570.3	181.52	37.196	
13,090.5	6,637.5	6,500.0	6,498.7	182.8	2.2	-86.32	-1,101.9	202.9	6,838.8	6,654.8	184.05	37.158	
13,100.0	6,637.5	6,500.0	6,498.7	183.1	2.2	-86.32	-1,101.9	202.9	6,848.0	6,663.6	184.31	37.154	
13,188.9	6,637.4	6,500.0	6,498.7	185.6	2.2	-86.32	-1,101.9	202.9	6,933.6	6,746.8	186.80	37.118	
13,200.0	6,637.4	6,500.0	6,498.7	185.9	2.2	-86.32	-1,101.9	202.9	6,944.2	6,757.1	187.11	37.114	
13,287.4	6,637.3	6,500.0	6,498.7	188.4	2.2	-86.32	-1,101.9	202.9	7,028.5	6,838.9	189.55	37.080	
13,300.0	6,637.3	6,500.0	6,498.7	188.7	2.2	-86.32	-1,101.9	202.9	7,040.6	6,850.7	189.90	37.075	
13,385.8	6,637.1	6,500.0	6,498.7	191.1	2.2	-86.32	-1,101.9	202.9	7,123.4	6,931.1	192.30	37.043	
13,400.0	6,637.1	6,500.0	6,498.7	191.5	2.2	-86.32	-1,101.9	202.9	7,137.1	6,944.4	192.70	37.038	
13,484.2	6,637.0	6,500.0	6,498.7	193.9	2.2	-86.32	-1,101.9	202.9	7,218.5	7,023.4	195.05	37.008	
13,500.0	6,637.0	6,500.0	6,498.7	194.3	2.2	-86.32	-1,101.9	202.9	7,233.7	7,038.2	195.49	37.003	
13,582.6	6,636.9	6,500.0	6,498.7	196.6	2.2	-86.32	-1,101.9	202.9	7,313.6	7,115.8	197.80	36.974	
13,600.0	6,636.9	6,500.0	6,498.7	197.1	2.2	-86.32	-1,101.9	202.9	7,330.4	7,132.1	198.29	36.968	
13,681.1	6,636.8	6,500.0	6,498.7	199.4	2.2	-86.32	-1,101.9	202.9	7,408.8	7,208.3	200.55	36.942	
13,700.0	6,636.7	6,500.0	6,498.7	199.9	2.2	-86.32	-1,101.9	202.9	7,427.2	7,226.1	201.08	36.936	
13,779.5	6,636.6	6,500.0	6,498.7	202.1	2.2	-86.32	-1,101.9	202.9	7,504.2	7,300.8	203.31	36.910	
13,800.0	6,636.6	6,500.0	6,498.7	202.7	2.2	-86.32	-1,101.9	202.9	7,524.0	7,320.1	203.88	36.904	
13,877.9	6,636.5	6,500.0	6,498.7	204.9	2.2	-86.32	-1,101.9	202.9	7,599.5	7,393.5	206.06	36.880	
13,900.0	6,636.5	6,500.0	6,498.7	205.5	2.2	-86.32	-1,101.9	202.9	7,621.0	7,414.3	206.68	36.874	
13,976.3	6,636.4	6,500.0	6,498.7	207.6	2.2	-86.32	-1,101.9	202.9	7,695.0	7,486.2	208.81	36.851	
14,000.0	6,636.3	6,500.0	6,498.7	208.3	2.2	-86.32	-1,101.9	202.9	7,718.0	7,508.5	209.47	36.845	
14,074.8	6,636.3	6,500.0	6,498.7	210.4	2.2	-86.32	-1,101.9	202.9	7,790.6	7,579.0	211.56	36.823	
14,100.0	6,636.2	6,500.0	6,498.7	211.1	2.2	-86.32	-1,101.9	202.9	7,815.0	7,602.8	212.27	36.816	
14,173.2	6,636.1	6,500.0	6,498.7	213.2	2.2	-86.32	-1,101.9	202.9	7,886.2	7,671.8	214.32	36.797	
14,200.0	6,636.1	6,500.0	6,498.7	213.9	2.2	-86.32	-1,101.9	202.9	7,912.2	7,697.1	215.07	36.789	
14,271.6	6,636.0	6,500.0	6,498.7	215.9	2.2	-86.32	-1,101.9	202.9	7,981.8	7,764.8	217.07	36.771	
14,300.0	6,636.0	6,500.0	6,498.7	216.7	2.2	-86.32	-1,101.9	202.9	8,009.4	7,791.6	217.86	36.763	
14,370.0	6,635.9	6,500.0	6,498.7	218.7	2.2	-86.32	-1,101.9	202.9	8,077.6	7,857.8	219.82	36.746	
14,400.0	6,635.8	6,500.0	6,498.7	219.5	2.2	-86.32	-1,101.9	202.9	8,106.7	7,886.1	220.66	36.738	
14,468.5	6,635.7	6,500.0	6,498.7	221.4	2.2	-86.32	-1,101.9	202.9	8,173.4	7,950.8	222.58	36.721	
14,500.0	6,635.7	6,500.0	6,498.7	222.3	2.2	-86.32	-1,101.9	202.9	8,204.1	7,980.6	223.46	36.714	
14,566.9	6,635.6	6,500.0	6,498.7	224.2	2.2	-86.32	-1,101.9	202.9	8,269.3	8,043.9	225.33	36.698	
14,600.0	6,635.6	6,500.0	6,498.7	225.1	2.2	-86.32	-1,101.9	202.9	8,301.5	8,075.3	226.26	36.690	
14,665.3	6,635.5	6,500.0	6,498.7	226.9	2.2	-86.32	-1,101.9	202.9	8,365.2	8,137.1	228.09	36.676	
14,700.0	6,635.4	6,500.0	6,498.7	227.9	2.2	-86.32	-1,101.9	202.9	8,399.0	8,169.9	229.06	36.668	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT DR B #10-12 - 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
14,763.7	6,635.4	6,489.2	6,487.9	229.7	2.2	-85.99	-1,101.7	202.7	8,461.2	8,230.4	230.75	36.668	
14,800.0	6,635.3	6,488.8	6,487.5	230.7	2.2	-85.98	-1,101.7	202.7	8,496.5	8,264.8	231.76	36.660	
14,862.2	6,635.2	6,488.2	6,486.9	232.5	2.2	-85.96	-1,101.7	202.7	8,557.2	8,323.7	233.50	36.648	
14,900.0	6,635.2	6,487.8	6,486.5	233.5	2.2	-85.94	-1,101.7	202.7	8,594.1	8,359.6	234.55	36.641	
14,960.6	6,635.1	6,487.2	6,485.9	235.2	2.2	-85.92	-1,101.7	202.7	8,653.3	8,417.1	236.24	36.629	
15,000.0	6,635.0	6,486.8	6,485.5	236.3	2.2	-85.91	-1,101.7	202.7	8,691.8	8,454.4	237.34	36.622	
15,033.1	6,635.0	6,486.4	6,485.1	237.3	2.2	-85.90	-1,101.7	202.7	8,724.1	8,485.8	238.26	36.615 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-76.85	1,488.7	-6,374.1	6,545.6				
98.4	98.4	77.4	77.4	0.1	0.0	-76.85	1,488.7	-6,374.1	6,545.6	6,545.5	0.10	N/A	
100.0	100.0	79.0	79.0	0.1	0.0	-76.85	1,488.7	-6,374.1	6,545.6	6,545.5	0.10	N/A	
196.8	196.8	175.8	175.8	0.3	1.0	-76.85	1,488.7	-6,374.1	6,545.6	6,544.3	1.29	5,054.524	
200.0	200.0	179.0	179.0	0.3	1.0	-76.85	1,488.7	-6,374.1	6,545.6	6,544.3	1.34	4,874.742	
295.3	295.3	274.3	274.3	0.5	3.0	-76.85	1,488.7	-6,374.1	6,545.6	6,542.1	3.51	1,862.829	
300.0	300.0	279.0	279.0	0.5	3.1	-76.85	1,488.7	-6,374.1	6,545.6	6,542.0	3.63	1,802.376	
393.7	393.7	372.7	372.7	0.8	5.1	-76.85	1,488.7	-6,374.1	6,545.6	6,539.8	5.83	1,123.041	
400.0	400.0	379.0	379.0	0.8	5.2	-76.85	1,488.7	-6,374.1	6,545.6	6,539.6	5.97	1,095.784	
492.1	492.1	471.1	471.1	1.0	7.1	-76.85	1,488.7	-6,374.1	6,545.6	6,537.5	8.07	811.233	
500.0	500.0	479.0	479.0	1.0	7.3	-76.85	1,488.7	-6,374.1	6,545.6	6,537.4	8.25	793.676	
590.5	590.5	569.5	569.5	1.2	9.1	-76.85	1,488.7	-6,374.1	6,545.6	6,535.3	10.29	636.080	
600.0	600.0	579.0	579.0	1.2	9.3	-76.85	1,488.7	-6,374.1	6,545.6	6,535.1	10.50	623.183	
689.0	689.0	668.0	668.0	1.4	11.1	-76.85	1,488.7	-6,374.1	6,545.6	6,533.1	12.50	523.461	
700.0	700.0	679.0	679.0	1.4	11.3	-76.85	1,488.7	-6,374.1	6,545.6	6,532.9	12.75	513.290	
787.4	787.4	766.4	766.4	1.6	13.1	-76.85	1,488.7	-6,374.1	6,545.6	6,530.9	14.71	444.848	
800.0	800.0	779.0	779.0	1.7	13.3	-76.85	1,488.7	-6,374.1	6,545.6	6,530.6	15.00	436.461	
885.8	885.8	864.8	864.8	1.9	15.1	-76.85	1,488.7	-6,374.1	6,545.6	6,528.7	16.92	386.821	
900.0	900.0	879.0	879.0	1.9	15.3	-76.85	1,488.7	-6,374.1	6,545.6	6,528.4	17.24	379.691	
984.2	984.2	963.2	963.2	2.1	17.0	-76.85	1,488.7	-6,374.1	6,545.6	6,526.5	19.13	342.214	
1,000.0	1,000.0	979.0	979.0	2.1	17.4	-76.85	1,488.7	-6,374.1	6,545.6	6,526.1	19.48	336.015	
1,082.7	1,082.7	1,061.7	1,061.7	2.3	19.0	-103.86	1,488.7	-6,374.1	6,545.9	6,524.6	21.33	306.899	
1,100.0	1,100.0	1,079.0	1,079.0	2.3	19.4	-103.86	1,488.7	-6,374.1	6,546.0	6,524.3	21.72	301.434	
1,181.1	1,181.0	1,160.0	1,160.0	2.5	21.0	-103.88	1,488.7	-6,374.1	6,547.0	6,523.4	23.53	278.289	
1,200.0	1,199.8	1,178.8	1,178.8	2.6	21.4	-103.88	1,488.7	-6,374.1	6,547.3	6,523.3	23.95	273.408	
1,279.5	1,279.1	1,258.1	1,258.1	2.8	23.0	-103.91	1,488.7	-6,374.1	6,548.9	6,523.2	25.72	254.616	
1,300.0	1,299.5	1,278.5	1,278.5	2.8	23.4	-103.91	1,488.7	-6,374.1	6,549.4	6,523.2	26.18	250.202	
1,377.9	1,376.9	1,355.9	1,355.9	3.0	24.9	-103.95	1,488.7	-6,374.1	6,551.6	6,523.7	27.92	234.672	
1,400.0	1,398.7	1,377.7	1,377.7	3.0	25.4	-103.96	1,488.7	-6,374.1	6,552.3	6,523.9	28.41	230.636	
1,476.4	1,474.2	1,453.2	1,453.2	3.2	26.9	-104.00	1,488.7	-6,374.1	6,555.2	6,525.1	30.12	217.601	
1,500.0	1,497.5	1,476.5	1,476.5	3.3	27.4	-104.02	1,488.7	-6,374.1	6,556.2	6,525.5	30.65	213.878	
1,574.8	1,571.0	1,550.0	1,550.0	3.5	28.9	-104.07	1,488.7	-6,374.1	6,559.6	6,527.3	32.35	202.794	
1,600.0	1,595.6	1,574.6	1,574.6	3.6	29.4	-104.08	1,488.7	-6,374.1	6,560.9	6,528.0	32.91	199.331	
1,673.2	1,667.2	1,646.2	1,646.2	3.9	30.8	-104.21	1,488.7	-6,374.1	6,564.7	6,530.1	34.59	189.760	
1,700.0	1,693.4	1,672.4	1,672.4	4.0	31.3	-104.26	1,488.7	-6,374.1	6,566.1	6,530.9	35.21	186.487	
1,771.6	1,763.5	1,742.5	1,742.5	4.2	32.7	-104.38	1,488.7	-6,374.1	6,569.8	6,533.0	36.87	178.205	
1,800.0	1,791.3	1,770.3	1,770.3	4.3	33.3	-104.43	1,488.7	-6,374.1	6,571.3	6,533.8	37.52	175.129	
1,870.1	1,859.8	1,838.8	1,838.8	4.6	34.7	-104.55	1,488.7	-6,374.1	6,575.0	6,535.9	39.15	167.927	
1,900.0	1,889.1	1,868.1	1,868.1	4.7	35.3	-104.60	1,488.7	-6,374.1	6,576.6	6,536.8	39.85	165.033	
1,968.5	1,956.1	1,935.1	1,935.1	4.9	36.6	-104.72	1,488.7	-6,374.1	6,580.3	6,538.9	41.45	158.744	
2,000.0	1,986.9	1,965.9	1,965.9	5.1	37.2	-104.77	1,488.7	-6,374.1	6,582.0	6,539.8	42.19	156.012	
2,066.9	2,052.3	2,031.3	2,031.3	5.3	38.5	-104.89	1,488.7	-6,374.1	6,585.7	6,541.9	43.76	150.495	
2,100.0	2,084.7	2,063.7	2,063.7	5.5	39.2	-104.94	1,488.7	-6,374.1	6,587.5	6,542.9	44.54	147.912	
2,165.3	2,148.6	2,127.6	2,127.6	5.7	40.5	-105.05	1,488.7	-6,374.1	6,591.1	6,545.0	46.07	143.051	
2,200.0	2,182.5	2,161.5	2,161.5	5.9	41.2	-105.11	1,488.7	-6,374.1	6,593.0	6,546.1	46.89	140.603	
2,263.8	2,244.9	2,223.9	2,223.9	6.1	42.4	-105.22	1,488.7	-6,374.1	6,596.5	6,548.1	48.40	136.305	
2,300.0	2,280.3	2,259.3	2,259.3	6.3	43.1	-105.28	1,488.7	-6,374.1	6,598.5	6,549.3	49.25	133.981	
2,362.2	2,341.2	2,320.2	2,320.2	6.5	44.4	-105.39	1,488.7	-6,374.1	6,602.0	6,551.3	50.72	130.166	
2,400.0	2,378.1	2,357.1	2,357.1	6.7	45.1	-105.45	1,488.7	-6,374.1	6,604.2	6,552.5	51.61	127.954	
2,460.6	2,437.4	2,416.4	2,416.4	6.9	46.3	-105.56	1,488.7	-6,374.1	6,607.6	6,554.6	53.05	124.558	
2,500.0	2,476.0	2,455.0	2,455.0	7.1	47.1	-105.62	1,488.7	-6,374.1	6,609.8	6,555.9	53.98	122.449	
2,550.0	2,524.9	2,503.9	2,503.9	7.3	48.0	-105.71	1,488.7	-6,374.1	6,612.7	6,557.5	55.16	119.872	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,512.7	2,512.7	7.3	48.2	-104.87	1,488.7	-6,374.1	6,613.2	6,557.8	55.39	119.402	
2,600.0	2,573.8	2,552.8	2,552.8	7.5	49.0	-101.09	1,488.7	-6,374.1	6,615.2	6,558.8	56.38	117.330	
2,639.4	2,612.3	2,591.3	2,591.3	7.7	49.8	-97.46	1,488.7	-6,374.1	6,616.5	6,559.2	57.32	115.427	
2,657.5	2,630.0	2,609.0	2,609.0	7.7	50.2	-97.49	1,488.7	-6,374.1	6,617.0	6,559.3	57.75	114.582	
2,700.0	2,671.6	2,650.6	2,650.6	7.9	51.0	-97.56	1,488.7	-6,374.1	6,618.2	6,559.5	58.75	112.645	
2,755.9	2,726.3	2,705.3	2,705.3	8.1	52.1	-97.66	1,488.7	-6,374.1	6,619.8	6,559.7	60.08	110.175	
2,800.0	2,769.4	2,748.4	2,748.4	8.3	53.0	-97.74	1,488.7	-6,374.1	6,621.0	6,559.9	61.13	108.303	
2,854.3	2,822.5	2,801.5	2,801.5	8.5	54.0	-97.83	1,488.7	-6,374.1	6,622.6	6,560.2	62.43	106.081	
2,900.0	2,867.2	2,846.2	2,846.2	8.7	54.9	-97.91	1,488.7	-6,374.1	6,623.9	6,560.4	63.52	104.283	
2,952.7	2,918.8	2,897.8	2,897.8	9.0	56.0	-98.00	1,488.7	-6,374.1	6,625.5	6,560.7	64.78	102.281	
3,000.0	2,965.0	2,944.0	2,944.0	9.2	56.9	-98.08	1,488.7	-6,374.1	6,626.9	6,561.0	65.90	100.553	
3,051.2	3,015.1	2,994.1	2,994.1	9.4	57.9	-98.17	1,488.7	-6,374.1	6,628.4	6,561.3	67.13	98.746	
3,100.0	3,062.8	3,041.8	3,041.8	9.6	58.9	-98.26	1,488.7	-6,374.1	6,629.9	6,561.6	68.29	97.083	
3,149.6	3,111.4	3,090.4	3,090.4	9.8	59.8	-98.35	1,488.7	-6,374.1	6,631.4	6,561.9	69.48	95.450	
3,200.0	3,160.7	3,139.7	3,139.7	10.0	60.8	-98.43	1,488.7	-6,374.1	6,633.0	6,562.3	70.68	93.847	
3,248.0	3,207.6	3,186.6	3,186.6	10.2	61.8	-98.52	1,488.7	-6,374.1	6,634.5	6,562.7	71.83	92.368	
3,300.0	3,258.5	3,237.5	3,237.5	10.5	62.8	-98.61	1,488.7	-6,374.1	6,636.1	6,563.1	73.07	90.821	
3,346.4	3,303.9	3,282.9	3,282.9	10.7	63.7	-98.69	1,488.7	-6,374.1	6,637.6	6,563.4	74.18	89.482	
3,400.0	3,356.3	3,335.3	3,335.3	10.9	64.8	-98.78	1,488.7	-6,374.1	6,639.3	6,563.9	75.46	87.988	
3,444.9	3,400.2	3,379.2	3,379.2	11.1	65.7	-98.86	1,488.7	-6,374.1	6,640.8	6,564.3	76.53	86.774	
3,500.0	3,454.1	3,433.1	3,433.1	11.3	66.7	-98.95	1,488.7	-6,374.1	6,642.6	6,564.8	77.85	85.328	
3,543.3	3,496.5	3,475.5	3,475.5	11.5	67.6	-99.03	1,488.7	-6,374.1	6,644.1	6,565.2	78.88	84.227	
3,600.0	3,551.9	3,530.9	3,530.9	11.7	68.7	-99.13	1,488.7	-6,374.1	6,646.0	6,565.7	80.24	82.827	
3,641.7	3,592.7	3,571.7	3,571.7	11.9	69.5	-99.20	1,488.7	-6,374.1	6,647.4	6,566.1	81.24	81.827	
3,700.0	3,649.7	3,628.7	3,628.7	12.2	70.7	-99.30	1,488.7	-6,374.1	6,649.4	6,566.7	82.63	80.472	
3,740.1	3,689.0	3,668.0	3,668.0	12.4	71.5	-99.37	1,488.7	-6,374.1	6,650.7	6,567.1	83.59	79.564	
3,800.0	3,747.5	3,726.5	3,726.5	12.6	72.6	-99.47	1,488.7	-6,374.1	6,652.8	6,567.8	85.02	78.249	
3,838.6	3,785.3	3,764.3	3,764.3	12.8	73.4	-99.54	1,488.7	-6,374.1	6,654.2	6,568.2	85.94	77.425	
3,900.0	3,845.4	3,824.4	3,824.4	13.1	74.6	-99.65	1,488.7	-6,374.1	6,656.3	6,568.9	87.41	76.148	
3,937.0	3,881.6	3,860.6	3,860.6	13.2	75.3	-99.71	1,488.7	-6,374.1	6,657.7	6,569.4	88.30	75.400	
4,000.0	3,943.2	3,922.2	3,922.2	13.5	76.6	-99.82	1,488.7	-6,374.1	6,659.9	6,570.1	89.80	74.160	
4,035.4	3,977.8	3,956.8	3,956.8	13.6	77.3	-99.88	1,488.7	-6,374.1	6,661.2	6,570.6	90.65	73.481	
4,100.0	4,041.0	4,020.0	4,020.0	13.9	78.5	-99.99	1,488.7	-6,374.1	6,663.6	6,571.4	92.20	72.276	
4,133.8	4,074.1	4,053.1	4,053.1	14.1	79.2	-100.05	1,488.7	-6,374.1	6,664.8	6,571.8	93.01	71.660	
4,200.0	4,138.8	4,117.8	4,117.8	14.4	80.5	-100.16	1,488.7	-6,374.1	6,667.3	6,572.7	94.59	70.488	
4,232.3	4,170.4	4,149.4	4,149.4	14.5	81.1	-100.22	1,488.7	-6,374.1	6,668.5	6,573.2	95.36	69.930	
4,300.0	4,236.6	4,215.6	4,215.6	14.8	82.5	-100.33	1,488.7	-6,374.1	6,671.1	6,574.1	96.98	68.788	
4,330.7	4,266.7	4,245.7	4,245.7	14.9	83.1	-100.39	1,488.7	-6,374.1	6,672.3	6,574.5	97.71	68.283	
4,400.0	4,334.4	4,313.4	4,313.4	15.2	84.4	-100.51	1,488.7	-6,374.1	6,674.9	6,575.6	99.37	67.171	
4,429.1	4,362.9	4,341.9	4,341.9	15.4	85.0	-100.56	1,488.7	-6,374.1	6,676.1	6,576.0	100.07	66.715	
4,500.0	4,432.3	4,411.3	4,411.3	15.7	86.4	-100.68	1,488.7	-6,374.1	6,678.8	6,577.1	101.76	65.631	
4,527.5	4,459.2	4,438.2	4,438.2	15.8	87.0	-100.73	1,488.7	-6,374.1	6,679.9	6,577.5	102.42	65.220	
4,600.0	4,530.1	4,509.1	4,509.1	16.1	88.4	-100.85	1,488.7	-6,374.1	6,682.8	6,578.6	104.15	64.162	
4,626.0	4,555.5	4,534.5	4,534.5	16.2	88.9	-100.89	1,488.7	-6,374.1	6,683.8	6,579.1	104.78	63.792	
4,700.0	4,627.9	4,606.9	4,606.9	16.6	90.3	-101.02	1,488.7	-6,374.1	6,686.8	6,580.3	106.55	62.760	
4,724.4	4,651.7	4,630.7	4,630.7	16.7	90.8	-101.06	1,488.7	-6,374.1	6,687.8	6,580.7	107.13	62.428	
4,800.0	4,725.7	4,704.7	4,704.7	17.0	92.3	-101.19	1,488.7	-6,374.1	6,690.9	6,582.0	108.94	61.420	
4,822.8	4,748.0	4,727.0	4,727.0	17.1	92.8	-101.23	1,488.7	-6,374.1	6,691.9	6,582.4	109.48	61.123	
4,904.9	4,828.3	4,807.3	4,807.3	17.5	94.4	-101.37	1,488.7	-6,374.1	6,695.3	6,583.8	111.44	60.078	
4,921.2	4,844.3	4,823.3	4,823.3	17.5	94.7	-101.41	1,488.7	-6,374.1	6,696.0	6,584.1	111.83	59.877	
5,000.0	4,921.6	4,900.6	4,900.6	17.8	96.3	-101.59	1,488.7	-6,374.1	6,699.0	6,585.3	113.68	58.926	
5,019.7	4,941.0	4,920.0	4,920.0	17.9	96.6	-101.64	1,488.7	-6,374.1	6,699.7	6,585.5	114.13	58.700	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,999.4	4,999.4	18.1	98.2	-101.79	1,488.7	-6,374.1	6,702.2	6,586.2	115.97	57.791	
5,118.1	5,038.3	5,017.3	5,017.3	18.2	98.6	-101.82	1,488.7	-6,374.1	6,702.7	6,586.3	116.38	57.593	
5,200.0	5,119.6	5,098.6	5,098.6	18.4	100.2	-101.94	1,488.7	-6,374.1	6,704.8	6,586.5	118.23	56.709	
5,216.5	5,136.0	5,115.0	5,115.0	18.4	100.6	-101.96	1,488.7	-6,374.1	6,705.1	6,586.5	118.60	56.536	
5,300.0	5,219.2	5,198.2	5,198.2	18.6	102.2	-102.05	1,488.7	-6,374.1	6,706.6	6,586.2	120.46	55.677	
5,314.9	5,234.1	5,213.1	5,213.1	18.6	102.5	-102.06	1,488.7	-6,374.1	6,706.8	6,586.1	120.78	55.527	
5,400.0	5,319.1	5,298.1	5,298.1	18.8	104.2	-102.12	1,488.7	-6,374.1	6,707.8	6,585.1	122.65	54.692	
5,413.4	5,332.4	5,311.4	5,311.4	18.8	104.5	-102.12	1,488.7	-6,374.1	6,707.9	6,584.9	122.93	54.565	
5,504.9	5,423.9	5,402.9	5,402.9	18.9	106.4	-83.72	1,488.7	-6,374.1	6,708.2	6,588.3	119.87	55.960	
5,511.8	5,430.8	5,409.8	5,409.8	18.9	106.5	-83.72	1,488.7	-6,374.1	6,708.2	6,588.1	120.03	55.889	
5,600.0	5,519.0	5,498.0	5,498.0	19.0	108.3	-83.72	1,488.7	-6,374.1	6,708.2	6,586.2	121.95	55.007	
5,610.2	5,529.3	5,508.3	5,508.3	19.0	108.5	-83.72	1,488.7	-6,374.1	6,708.2	6,586.0	122.18	54.905	
5,700.0	5,619.0	5,598.0	5,598.0	19.2	110.3	-83.72	1,488.7	-6,374.1	6,708.2	6,584.0	124.16	54.030	
5,708.6	5,627.7	5,606.7	5,606.7	19.2	110.5	-83.72	1,488.7	-6,374.1	6,708.2	6,583.8	124.35	53.948	
5,800.0	5,719.0	5,698.0	5,698.0	19.3	112.3	-83.72	1,488.7	-6,374.1	6,708.2	6,581.8	126.36	53.088	
5,807.1	5,726.1	5,705.1	5,705.1	19.3	112.4	-83.72	1,488.7	-6,374.1	6,708.2	6,581.6	126.52	53.022	
5,900.0	5,819.0	5,798.0	5,798.0	19.4	114.3	-83.72	1,488.7	-6,374.1	6,708.2	6,579.6	128.57	52.177	
5,905.5	5,824.5	5,803.5	5,803.5	19.4	114.4	-83.72	1,488.7	-6,374.1	6,708.2	6,579.5	128.69	52.128	
6,003.9	5,923.0	5,902.0	5,902.0	19.6	116.4	-83.72	1,488.7	-6,374.1	6,708.2	6,577.3	130.86	51.263	
6,009.8	5,928.8	5,907.8	5,907.8	19.6	116.5	-83.72	1,488.7	-6,374.1	6,708.2	6,577.2	130.99	51.212	
6,050.0	5,969.0	5,948.0	5,948.0	19.6	117.3	6.29	1,488.7	-6,374.1	6,707.0	6,570.7	136.39	49.177	
6,100.0	6,018.8	5,997.8	5,997.8	19.7	118.3	6.33	1,488.7	-6,374.1	6,702.5	6,565.9	136.58	49.075	
6,102.3	6,021.1	6,000.1	6,000.1	19.7	118.4	6.33	1,488.7	-6,374.1	6,702.2	6,565.7	136.57	49.076	
6,150.0	6,068.1	6,047.1	6,047.1	19.7	119.3	6.41	1,488.7	-6,374.1	6,694.6	6,558.5	136.09	49.191	
6,200.0	6,116.8	6,095.8	6,095.8	19.7	120.3	6.53	1,488.7	-6,374.1	6,683.2	6,548.3	134.93	49.532	
6,200.8	6,117.5	6,096.5	6,096.5	19.7	120.3	6.53	1,488.7	-6,374.1	6,683.0	6,548.1	134.90	49.539	
6,250.0	6,164.5	6,143.5	6,143.5	19.7	121.2	6.68	1,488.7	-6,374.1	6,668.5	6,535.4	133.08	50.110	
6,299.2	6,210.4	6,189.4	6,189.4	19.7	122.2	6.88	1,488.7	-6,374.1	6,650.8	6,520.2	130.59	50.929	
6,300.0	6,211.1	6,190.1	6,190.1	19.7	122.2	6.88	1,488.7	-6,374.1	6,650.5	6,520.0	130.54	50.945	
6,350.0	6,256.4	6,235.4	6,235.4	19.7	123.1	7.13	1,488.7	-6,374.1	6,629.3	6,502.0	127.34	52.061	
6,397.6	6,298.0	6,277.0	6,277.0	19.7	123.9	7.43	1,488.7	-6,374.1	6,606.3	6,482.6	123.68	53.416	
6,400.0	6,300.0	6,279.0	6,279.0	19.7	124.0	7.44	1,488.7	-6,374.1	6,605.1	6,481.6	123.48	53.492	
6,450.0	6,341.8	6,320.8	6,320.8	19.7	124.8	7.82	1,488.7	-6,374.1	6,577.9	6,458.9	118.99	55.279	
6,496.0	6,378.6	6,357.6	6,357.6	19.7	125.6	8.24	1,488.7	-6,374.1	6,550.3	6,436.0	114.34	57.286	
6,500.0	6,381.6	6,360.6	6,360.6	19.7	125.6	8.28	1,488.7	-6,374.1	6,547.8	6,433.9	113.92	57.476	
6,550.0	6,419.2	6,398.2	6,398.2	19.6	126.4	8.84	1,488.7	-6,374.1	6,515.1	6,406.8	108.33	60.143	
6,594.5	6,450.7	6,429.7	6,429.7	19.6	127.0	9.44	1,488.7	-6,374.1	6,483.9	6,380.9	102.97	62.967	
6,600.0	6,454.4	6,433.4	6,433.4	19.6	127.1	9.52	1,488.7	-6,374.1	6,479.8	6,377.6	102.29	63.350	
6,650.0	6,487.1	6,466.1	6,466.1	19.6	127.7	10.37	1,488.7	-6,374.1	6,442.2	6,346.3	95.92	67.160	
6,692.9	6,513.0	6,492.0	6,492.0	19.6	128.3	11.26	1,488.7	-6,374.1	6,408.2	6,317.9	90.34	70.932	
6,700.0	6,517.0	6,496.0	6,496.0	19.6	128.3	11.43	1,488.7	-6,374.1	6,402.5	6,313.0	89.42	71.598	
6,750.0	6,544.1	6,523.1	6,523.1	19.6	128.9	12.78	1,488.7	-6,374.1	6,360.7	6,277.6	83.08	76.564	
6,791.3	6,564.2	6,543.2	6,543.2	19.7	129.3	14.20	1,488.7	-6,374.1	6,324.9	6,246.6	78.31	80.772	
6,800.0	6,568.2	6,547.2	6,547.2	19.7	129.4	14.54	1,488.7	-6,374.1	6,317.2	6,239.8	77.38	81.640	
6,850.0	6,589.1	6,568.1	6,568.1	19.8	129.8	16.91	1,488.7	-6,374.1	6,272.1	6,198.9	73.17	85.721	
6,889.7	6,603.5	6,582.5	6,582.5	19.9	130.1	19.44	1,488.7	-6,374.1	6,235.3	6,163.5	71.81	86.826	
6,900.0	6,606.9	6,585.9	6,585.9	19.9	130.1	20.22	1,488.7	-6,374.1	6,225.7	6,153.8	71.88	86.610	
6,950.0	6,621.3	6,600.3	6,600.3	20.2	130.4	25.10	1,488.7	-6,374.1	6,178.2	6,102.4	75.77	81.535	
6,988.2	6,630.0	6,609.0	6,609.0	20.6	130.6	30.61	1,488.7	-6,374.1	6,141.3	6,057.2	84.13	73.000	
7,000.0	6,632.4	6,611.4	6,611.4	20.7	130.7	32.79	1,488.7	-6,374.1	6,129.8	6,041.8	87.93	69.714	
7,050.0	6,640.0	6,619.0	6,619.0	21.4	130.8	45.81	1,488.7	-6,374.1	6,080.7	5,969.3	111.44	54.564	
7,086.6	6,643.4	6,622.4	6,622.4	21.9	130.9	61.19	1,488.7	-6,374.1	6,044.6	5,910.0	134.52	44.934	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,623.2	6,623.2	22.1	130.9	68.38	1,488.7	-6,374.1	6,031.3	5,888.9	142.39	42.358	
7,135.7	6,645.0	6,624.0	6,624.0	22.7	130.9	90.57	1,488.7	-6,374.1	5,995.9	5,843.2	152.65	39.278	
7,185.0	6,644.9	6,623.9	6,623.9	23.6	130.9	90.56	1,488.7	-6,374.1	5,946.9	5,793.3	153.61	38.714	
7,200.0	6,644.9	6,623.9	6,623.9	23.9	130.9	90.56	1,488.7	-6,374.1	5,932.0	5,778.1	153.90	38.544	
7,283.4	6,644.8	6,623.8	6,623.8	25.6	130.9	90.55	1,488.7	-6,374.1	5,849.2	5,693.6	155.63	37.584	
7,300.0	6,644.8	6,623.8	6,623.8	25.9	130.9	90.55	1,488.7	-6,374.1	5,832.8	5,676.8	155.97	37.396	
7,381.9	6,644.7	6,623.7	6,623.7	27.7	130.9	90.54	1,488.7	-6,374.1	5,751.6	5,593.8	157.78	36.454	
7,400.0	6,644.7	6,623.7	6,623.7	28.1	130.9	90.54	1,488.7	-6,374.1	5,733.6	5,575.5	158.18	36.248	
7,480.3	6,644.6	6,623.6	6,623.6	29.9	130.9	90.54	1,488.7	-6,374.1	5,654.0	5,494.0	160.03	35.330	
7,500.0	6,644.6	6,623.6	6,623.6	30.3	130.9	90.53	1,488.7	-6,374.1	5,634.5	5,474.0	160.49	35.108	
7,578.7	6,644.5	6,623.5	6,623.5	32.2	130.9	90.53	1,488.7	-6,374.1	5,556.4	5,394.0	162.37	34.220	
7,600.0	6,644.4	6,623.4	6,623.4	32.7	130.9	90.53	1,488.7	-6,374.1	5,535.3	5,372.5	162.88	33.984	
7,677.1	6,644.3	6,623.3	6,623.3	34.6	130.9	90.52	1,488.7	-6,374.1	5,458.9	5,294.1	164.77	33.129	
7,700.0	6,644.3	6,623.3	6,623.3	35.1	130.9	90.52	1,488.7	-6,374.1	5,436.2	5,270.9	165.34	32.880	
7,775.6	6,644.2	6,623.2	6,623.2	37.0	130.9	90.51	1,488.7	-6,374.1	5,361.4	5,194.1	167.23	32.060	
7,800.0	6,644.2	6,623.2	6,623.2	37.6	130.9	90.51	1,488.7	-6,374.1	5,337.2	5,169.3	167.84	31.799	
7,874.0	6,644.1	6,623.1	6,623.1	39.5	130.9	90.50	1,488.7	-6,374.1	5,263.9	5,094.1	169.73	31.014	
7,900.0	6,644.1	6,623.1	6,623.1	40.1	130.9	90.50	1,488.7	-6,374.1	5,238.1	5,067.7	170.39	30.743	
7,972.4	6,644.0	6,623.0	6,623.0	42.0	130.9	90.49	1,488.7	-6,374.1	5,166.4	4,994.2	172.26	29.993	
8,000.0	6,643.9	6,622.9	6,622.9	42.7	130.9	90.49	1,488.7	-6,374.1	5,139.1	4,966.2	172.97	29.712	
8,070.8	6,643.9	6,622.9	6,622.9	44.5	130.9	90.48	1,488.7	-6,374.1	5,069.0	4,894.2	174.81	28.997	
8,100.0	6,643.8	6,622.8	6,622.8	45.2	130.9	90.48	1,488.7	-6,374.1	5,040.2	4,864.6	175.57	28.707	
8,169.3	6,643.7	6,622.7	6,622.7	47.0	130.9	90.47	1,488.7	-6,374.1	4,971.6	4,794.2	177.40	28.026	
8,200.0	6,643.7	6,622.7	6,622.7	47.9	130.9	90.47	1,488.7	-6,374.1	4,941.3	4,763.1	178.20	27.728	
8,267.7	6,643.6	6,622.6	6,622.6	49.6	130.9	90.46	1,488.7	-6,374.1	4,874.3	4,694.3	180.00	27.080	
8,300.0	6,643.6	6,622.6	6,622.6	50.5	130.9	90.46	1,488.7	-6,374.1	4,842.4	4,661.5	180.85	26.775	
8,366.1	6,643.5	6,622.5	6,622.5	52.2	130.9	90.45	1,488.7	-6,374.1	4,777.0	4,594.4	182.62	26.159	
8,400.0	6,643.4	6,622.4	6,622.4	53.1	130.9	90.45	1,488.7	-6,374.1	4,743.6	4,560.0	183.52	25.848	
8,464.5	6,643.4	6,622.4	6,622.4	54.8	130.9	90.45	1,488.7	-6,374.1	4,679.8	4,494.6	185.25	25.262	
8,500.0	6,643.3	6,622.3	6,622.3	55.8	130.9	90.44	1,488.7	-6,374.1	4,644.8	4,458.6	186.20	24.945	
8,563.0	6,643.2	6,622.2	6,622.2	57.5	130.9	90.44	1,488.7	-6,374.1	4,582.6	4,394.7	187.90	24.389	
8,600.0	6,643.2	6,622.2	6,622.2	58.5	130.9	90.43	1,488.7	-6,374.1	4,546.1	4,357.2	188.89	24.067	
8,661.4	6,643.1	6,622.1	6,622.1	60.1	130.9	90.43	1,488.7	-6,374.1	4,485.5	4,294.9	190.55	23.539	
8,700.0	6,643.1	6,622.1	6,622.1	61.2	130.9	90.42	1,488.7	-6,374.1	4,447.4	4,255.8	191.60	23.212	
8,759.8	6,643.0	6,622.0	6,622.0	62.8	130.9	90.42	1,488.7	-6,374.1	4,388.4	4,195.2	193.22	22.712	
8,800.0	6,643.0	6,622.0	6,622.0	63.9	130.9	90.42	1,488.7	-6,374.1	4,348.8	4,154.5	194.31	22.381	
8,858.2	6,642.9	6,621.9	6,621.9	65.4	130.9	90.41	1,488.7	-6,374.1	4,291.4	4,095.5	195.90	21.907	
8,900.0	6,642.8	6,621.8	6,621.8	66.6	130.9	90.41	1,488.7	-6,374.1	4,250.3	4,053.3	197.03	21.572	
8,956.7	6,642.8	6,621.8	6,621.8	68.1	130.9	90.40	1,488.7	-6,374.1	4,194.5	3,995.9	198.58	21.123	
9,000.0	6,642.7	6,621.7	6,621.7	69.3	130.9	90.40	1,488.7	-6,374.1	4,151.8	3,952.1	199.76	20.784	
9,055.1	6,642.6	6,621.6	6,621.6	70.8	130.9	90.39	1,488.7	-6,374.1	4,097.6	3,896.3	201.26	20.359	
9,100.0	6,642.6	6,621.6	6,621.6	72.0	130.9	90.39	1,488.7	-6,374.1	4,053.4	3,850.9	202.49	20.018	
9,153.5	6,642.5	6,621.5	6,621.5	73.5	130.9	90.38	1,488.7	-6,374.1	4,000.8	3,796.8	203.96	19.616	
9,200.0	6,642.5	6,621.5	6,621.5	74.7	130.9	90.38	1,488.7	-6,374.1	3,955.1	3,749.9	205.23	19.271	
9,251.9	6,642.4	6,621.4	6,621.4	76.2	130.9	90.37	1,488.7	-6,374.1	3,904.1	3,697.4	206.66	18.892	
9,300.0	6,642.3	6,621.3	6,621.3	77.5	130.9	90.37	1,488.7	-6,374.1	3,856.9	3,648.9	207.98	18.545	
9,350.4	6,642.3	6,621.3	6,621.3	78.9	130.9	90.36	1,488.7	-6,374.1	3,807.5	3,598.1	209.36	18.186	
9,400.0	6,642.2	6,621.2	6,621.2	80.2	130.9	90.36	1,488.7	-6,374.1	3,758.8	3,548.0	210.73	17.837	
9,448.8	6,642.1	6,621.1	6,621.1	81.6	130.9	90.35	1,488.7	-6,374.1	3,710.9	3,498.9	212.07	17.499	
9,500.0	6,642.1	6,621.1	6,621.1	83.0	130.9	90.35	1,488.7	-6,374.1	3,660.7	3,447.3	213.48	17.148	
9,547.2	6,642.0	6,621.0	6,621.0	84.3	130.9	90.34	1,488.7	-6,374.1	3,614.5	3,399.7	214.78	16.829	
9,600.0	6,642.0	6,621.0	6,621.0	85.7	130.8	90.34	1,488.7	-6,374.1	3,562.8	3,346.6	216.23	16.477	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,620.9	6,620.9	87.0	130.8	90.34	1,488.7	-6,374.1	3,518.2	3,300.7	217.49	16.176	
9,700.0	6,641.8	6,620.8	6,620.8	88.5	130.8	90.33	1,488.7	-6,374.1	3,465.0	3,246.0	218.99	15.822	
9,744.1	6,641.8	6,620.8	6,620.8	89.7	130.8	90.33	1,488.7	-6,374.1	3,422.0	3,201.8	220.21	15.539	
9,800.0	6,641.7	6,620.7	6,620.7	91.2	130.8	90.32	1,488.7	-6,374.1	3,367.4	3,145.6	221.76	15.185	
9,842.5	6,641.7	6,620.7	6,620.7	92.4	130.8	90.32	1,488.7	-6,374.1	3,325.9	3,103.0	222.93	14.919	
9,900.0	6,641.6	6,620.6	6,620.6	94.0	130.8	90.31	1,488.7	-6,374.1	3,269.8	3,045.3	224.52	14.563	
9,940.9	6,641.5	6,620.5	6,620.5	95.1	130.8	90.31	1,488.7	-6,374.1	3,230.0	3,004.3	225.66	14.314	
10,000.0	6,641.5	6,620.5	6,620.5	96.7	130.8	90.30	1,488.7	-6,374.1	3,172.5	2,945.2	227.29	13.958	
10,039.3	6,641.4	6,620.4	6,620.4	97.8	130.8	90.30	1,488.7	-6,374.1	3,134.2	2,905.8	228.38	13.724	
10,100.0	6,641.3	6,620.3	6,620.3	99.5	130.8	90.29	1,488.7	-6,374.1	3,075.3	2,845.2	230.06	13.367	
10,137.8	6,641.3	6,620.3	6,620.3	100.6	130.8	90.29	1,488.7	-6,374.1	3,038.6	2,807.5	231.11	13.148	
10,200.0	6,641.2	6,620.2	6,620.2	102.3	130.8	90.28	1,488.7	-6,374.1	2,978.2	2,745.4	232.83	12.791	
10,236.2	6,641.2	6,620.2	6,620.2	103.3	130.8	90.28	1,488.7	-6,374.1	2,943.2	2,709.3	233.84	12.586	
10,300.0	6,641.1	6,620.1	6,620.1	105.0	130.8	90.27	1,488.7	-6,374.1	2,881.4	2,645.8	235.61	12.230	
10,334.6	6,641.0	6,620.0	6,620.0	106.0	130.8	90.27	1,488.7	-6,374.1	2,848.0	2,611.4	236.57	12.039	
10,400.0	6,641.0	6,620.0	6,620.0	107.8	130.8	90.26	1,488.7	-6,374.1	2,784.8	2,546.5	238.39	11.682	
10,433.0	6,640.9	6,619.9	6,619.9	108.7	130.8	90.26	1,488.7	-6,374.1	2,753.0	2,513.7	239.30	11.504	
10,500.0	6,640.8	6,619.8	6,619.8	110.6	130.8	90.25	1,488.7	-6,374.1	2,688.5	2,447.3	241.16	11.148	
10,531.5	6,640.8	6,619.8	6,619.8	111.5	130.8	90.25	1,488.7	-6,374.1	2,658.2	2,416.2	242.04	10.983	
10,600.0	6,640.7	6,619.7	6,619.7	113.4	130.8	90.24	1,488.7	-6,374.1	2,592.4	2,348.5	243.94	10.627	
10,629.9	6,640.7	6,619.7	6,619.7	114.2	130.8	90.24	1,488.7	-6,374.1	2,563.8	2,319.0	244.77	10.474	
10,700.0	6,640.6	6,619.6	6,619.6	116.1	130.8	90.24	1,488.7	-6,374.1	2,496.7	2,250.0	246.72	10.119	
10,728.3	6,640.5	6,619.5	6,619.5	116.9	130.8	90.23	1,488.7	-6,374.1	2,469.6	2,222.1	247.51	9.978	
10,800.0	6,640.5	6,619.5	6,619.5	118.9	130.8	90.23	1,488.7	-6,374.1	2,401.3	2,151.8	249.51	9.624	
10,826.7	6,640.4	6,619.4	6,619.4	119.7	130.8	90.22	1,488.7	-6,374.1	2,375.8	2,125.6	250.25	9.494	
10,900.0	6,640.3	6,619.3	6,619.3	121.7	130.8	90.22	1,488.7	-6,374.1	2,306.3	2,054.0	252.29	9.141	
10,925.2	6,640.3	6,619.3	6,619.3	122.4	130.8	90.21	1,488.7	-6,374.1	2,282.4	2,029.4	252.99	9.022	
11,000.0	6,640.2	6,619.2	6,619.2	124.5	130.8	90.21	1,488.7	-6,374.1	2,211.7	1,956.6	255.07	8.671	
11,023.6	6,640.2	6,619.2	6,619.2	125.1	130.8	90.20	1,488.7	-6,374.1	2,189.4	1,933.7	255.73	8.561	
11,100.0	6,640.1	6,619.1	6,619.1	127.3	130.8	90.20	1,488.7	-6,374.1	2,117.6	1,859.7	257.86	8.212	
11,122.0	6,640.0	6,619.0	6,619.0	127.9	130.8	90.19	1,488.7	-6,374.1	2,096.9	1,838.5	258.47	8.113	
11,200.0	6,639.9	6,618.9	6,618.9	130.1	130.8	90.19	1,488.7	-6,374.1	2,024.1	1,763.4	260.65	7.766	
11,220.4	6,639.9	6,618.9	6,618.9	130.6	130.8	90.18	1,488.7	-6,374.1	2,005.0	1,743.8	261.22	7.676	
11,300.0	6,639.8	6,618.8	6,618.8	132.8	130.8	90.18	1,488.7	-6,374.1	1,931.2	1,667.8	263.43	7.331	
11,318.9	6,639.8	6,618.8	6,618.8	133.4	130.8	90.18	1,488.7	-6,374.1	1,913.8	1,649.8	263.96	7.250	
11,400.0	6,639.7	6,618.7	6,618.7	135.6	130.8	90.17	1,488.7	-6,374.1	1,839.1	1,572.9	266.22	6.908	
11,417.3	6,639.7	6,618.7	6,618.7	136.1	130.8	90.17	1,488.7	-6,374.1	1,823.2	1,556.5	266.70	6.836	
11,500.0	6,639.6	6,618.6	6,618.6	138.4	130.8	90.16	1,488.7	-6,374.1	1,747.8	1,478.8	269.01	6.497	
11,515.7	6,639.5	6,618.5	6,618.5	138.9	130.8	90.16	1,488.7	-6,374.1	1,733.6	1,464.1	269.45	6.434	
11,600.0	6,639.4	6,618.4	6,618.4	141.2	130.8	90.15	1,488.7	-6,374.1	1,657.6	1,385.8	271.80	6.099	
11,614.1	6,639.4	6,618.4	6,618.4	141.6	130.8	90.15	1,488.7	-6,374.1	1,644.9	1,372.7	272.20	6.043	
11,700.0	6,639.3	6,618.3	6,618.3	144.0	130.8	90.14	1,488.7	-6,374.1	1,568.6	1,294.0	274.59	5.712	
11,712.6	6,639.3	6,618.3	6,618.3	144.3	130.8	90.14	1,488.7	-6,374.1	1,557.5	1,282.5	274.94	5.665	
11,800.0	6,639.2	6,618.2	6,618.2	146.8	130.8	90.13	1,488.7	-6,374.1	1,480.9	1,203.5	277.38	5.339	
11,811.0	6,639.2	6,618.2	6,618.2	147.1	130.8	90.13	1,488.7	-6,374.1	1,471.4	1,193.7	277.69	5.299	
11,900.0	6,639.1	6,618.1	6,618.1	149.6	130.8	90.12	1,488.7	-6,374.1	1,394.9	1,114.7	280.17	4.979	
11,909.4	6,639.0	6,618.0	6,618.0	149.8	130.8	90.12	1,488.7	-6,374.1	1,386.9	1,106.5	280.44	4.945	
12,000.0	6,638.9	6,617.9	6,617.9	152.4	130.8	90.11	1,488.7	-6,374.1	1,310.9	1,027.9	282.97	4.633	
12,007.8	6,638.9	6,617.9	6,617.9	152.6	130.8	90.11	1,488.7	-6,374.1	1,304.4	1,021.2	283.19	4.606	
12,100.0	6,638.8	6,617.8	6,617.8	155.2	130.8	90.10	1,488.7	-6,374.1	1,229.3	943.5	285.76	4.302	
12,106.3	6,638.8	6,617.8	6,617.8	155.3	130.8	90.10	1,488.7	-6,374.1	1,224.3	938.3	285.94	4.282	
12,200.0	6,638.7	6,617.7	6,617.7	157.9	130.8	90.09	1,488.7	-6,374.1	1,150.6	862.0	288.55	3.987	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,204.7	6,638.7	6,617.7	6,617.7	158.1	130.8	90.09	1,488.7	-6,374.1	1,147.0	858.3	288.69	3.973	
12,300.0	6,638.5	6,617.5	6,617.5	160.7	130.8	90.08	1,488.7	-6,374.1	1,075.4	784.1	291.35	3.691	
12,303.1	6,638.5	6,617.5	6,617.5	160.8	130.8	90.08	1,488.7	-6,374.1	1,073.1	781.7	291.44	3.682	
12,400.0	6,638.4	6,617.4	6,617.4	163.5	130.8	90.07	1,488.7	-6,374.1	1,004.6	710.5	294.14	3.415	
12,401.5	6,638.4	6,617.4	6,617.4	163.6	130.8	90.07	1,488.7	-6,374.1	1,003.6	709.4	294.19	3.411	
12,500.0	6,638.3	6,617.3	6,617.3	166.3	130.8	90.06	1,488.7	-6,374.1	939.1	642.2	296.94	3.163	
12,598.4	6,638.2	6,617.2	6,617.2	169.1	130.8	90.05	1,488.7	-6,374.1	881.0	581.3	299.69	2.940	
12,600.0	6,638.2	6,617.2	6,617.2	169.1	130.8	90.05	1,488.7	-6,374.1	880.1	580.4	299.73	2.936	
12,696.8	6,638.0	6,617.0	6,617.0	171.8	130.8	90.04	1,488.7	-6,374.1	830.5	528.1	302.44	2.746	
12,700.0	6,638.0	6,617.0	6,617.0	171.9	130.8	90.04	1,488.7	-6,374.1	829.1	526.5	302.53	2.740	
12,795.2	6,637.9	6,616.9	6,616.9	174.6	130.8	90.03	1,488.7	-6,374.1	789.2	484.0	305.19	2.586	
12,800.0	6,637.9	6,616.9	6,616.9	174.7	130.8	90.03	1,488.7	-6,374.1	787.4	482.1	305.33	2.579	
12,893.7	6,637.8	6,616.8	6,616.8	177.3	130.8	90.02	1,488.7	-6,374.1	758.4	450.4	307.95	2.463	
12,900.0	6,637.8	6,616.8	6,616.8	177.5	130.8	90.02	1,488.7	-6,374.1	756.8	448.7	308.12	2.456	
12,992.1	6,637.7	6,616.7	6,616.7	180.1	130.8	90.01	1,488.7	-6,374.1	739.5	428.8	310.70	2.380	
13,000.0	6,637.6	6,616.6	6,616.6	180.3	130.8	90.01	1,488.7	-6,374.1	738.5	427.6	310.92	2.375	
13,086.5	6,637.5	6,616.5	6,616.5	182.7	130.8	90.00	1,488.7	-6,374.1	733.5	420.1	313.34	2.341	CC
13,090.5	6,637.5	6,616.5	6,616.5	182.8	130.8	90.00	1,488.7	-6,374.1	733.5	420.0	313.45	2.340	
13,100.0	6,637.5	6,616.5	6,616.5	183.1	130.8	90.00	1,488.7	-6,374.1	733.6	419.9	313.72	2.338	ES, SF
13,188.9	6,637.4	6,616.4	6,616.4	185.6	130.8	89.99	1,488.7	-6,374.1	740.6	424.4	316.21	2.342	
13,200.0	6,637.4	6,616.4	6,616.4	185.9	130.8	89.99	1,488.7	-6,374.1	742.2	425.7	316.52	2.345	
13,287.4	6,637.3	6,616.3	6,616.3	188.4	130.8	89.98	1,488.7	-6,374.1	760.5	441.5	318.96	2.384	
13,300.0	6,637.3	6,616.3	6,616.3	188.7	130.8	89.98	1,488.7	-6,374.1	763.9	444.6	319.32	2.392	
13,385.8	6,637.1	6,616.1	6,616.1	191.1	130.8	89.97	1,488.7	-6,374.1	792.2	470.4	321.72	2.462	
13,400.0	6,637.1	6,616.1	6,616.1	191.5	130.8	89.97	1,488.7	-6,374.1	797.6	475.5	322.11	2.476	
13,484.2	6,637.0	6,616.0	6,616.0	193.9	130.7	89.96	1,488.7	-6,374.1	834.3	509.9	324.47	2.571	
13,500.0	6,637.0	6,616.0	6,616.0	194.3	130.7	89.96	1,488.7	-6,374.1	842.0	517.1	324.91	2.591	
13,582.6	6,636.9	6,615.9	6,615.9	196.6	130.7	89.95	1,488.7	-6,374.1	885.5	558.3	327.23	2.706	
13,600.0	6,636.9	6,615.9	6,615.9	197.1	130.7	89.95	1,488.7	-6,374.1	895.3	567.6	327.71	2.732	
13,681.1	6,636.8	6,615.8	6,615.8	199.4	130.7	89.94	1,488.7	-6,374.1	944.2	614.2	329.98	2.861	
13,700.0	6,636.7	6,615.7	6,615.7	199.9	130.7	89.94	1,488.7	-6,374.1	956.2	625.7	330.51	2.893	
13,779.5	6,636.6	6,615.6	6,615.6	202.1	130.7	89.93	1,488.7	-6,374.1	1,009.1	676.3	332.74	3.033	
13,800.0	6,636.6	6,615.6	6,615.6	202.7	130.7	89.93	1,488.7	-6,374.1	1,023.2	689.9	333.31	3.070	
13,877.9	6,636.5	6,615.5	6,615.5	204.9	130.7	89.92	1,488.7	-6,374.1	1,079.0	743.5	335.49	3.216	
13,900.0	6,636.5	6,615.5	6,615.5	205.5	130.7	89.92	1,488.7	-6,374.1	1,095.3	759.2	336.11	3.259	
13,976.3	6,636.4	6,615.4	6,615.4	207.6	130.7	89.91	1,488.7	-6,374.1	1,153.2	814.9	338.25	3.409	
14,000.0	6,636.3	6,615.3	6,615.3	208.3	130.7	89.91	1,488.7	-6,374.1	1,171.5	832.6	338.91	3.457	
14,074.8	6,636.3	6,615.3	6,615.3	210.4	130.7	89.90	1,488.7	-6,374.1	1,230.7	889.7	341.00	3.609	
14,100.0	6,636.2	6,615.2	6,615.2	211.1	130.7	89.90	1,488.7	-6,374.1	1,251.0	909.3	341.71	3.661	
14,173.2	6,636.1	6,615.1	6,615.1	213.2	130.7	89.89	1,488.7	-6,374.1	1,311.0	967.3	343.76	3.814	
14,200.0	6,636.1	6,615.1	6,615.1	213.9	130.7	89.89	1,488.7	-6,374.1	1,333.3	988.8	344.51	3.870	
14,271.6	6,636.0	6,615.0	6,615.0	215.9	130.7	89.88	1,488.7	-6,374.1	1,393.7	1,047.2	346.52	4.022	
14,300.0	6,636.0	6,615.0	6,615.0	216.7	130.7	89.88	1,488.7	-6,374.1	1,417.9	1,070.6	347.31	4.083	
14,370.0	6,635.9	6,614.9	6,614.9	218.7	130.7	89.87	1,488.7	-6,374.1	1,478.3	1,129.0	349.27	4.233	
14,400.0	6,635.8	6,614.8	6,614.8	219.5	130.7	89.87	1,488.7	-6,374.1	1,504.4	1,154.3	350.11	4.297	
14,468.5	6,635.7	6,614.7	6,614.7	221.4	130.7	89.86	1,488.7	-6,374.1	1,564.5	1,212.5	352.03	4.444	
14,500.0	6,635.7	6,614.7	6,614.7	222.3	130.7	89.86	1,488.7	-6,374.1	1,592.5	1,239.5	352.91	4.512	
14,566.9	6,635.6	6,614.6	6,614.6	224.2	130.7	89.85	1,488.7	-6,374.1	1,652.1	1,297.3	354.79	4.657	
14,600.0	6,635.6	6,614.6	6,614.6	225.1	130.7	89.85	1,488.7	-6,374.1	1,681.8	1,326.1	355.72	4.728	
14,665.3	6,635.5	6,614.5	6,614.5	226.9	130.7	89.84	1,488.7	-6,374.1	1,740.9	1,383.3	357.55	4.869	
14,700.0	6,635.4	6,614.4	6,614.4	227.9	130.7	89.84	1,488.7	-6,374.1	1,772.4	1,413.9	358.52	4.944	
14,763.7	6,635.4	6,614.4	6,614.4	229.7	130.7	89.83	1,488.7	-6,374.1	1,830.6	1,470.3	360.30	5.081	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT HECKENDORF #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	
14,800.0	6,635.3	6,614.3	6,614.3	230.7	130.7	89.82	1,488.7	-6,374.1	1,863.9	1,502.5	361.32	5.159	
14,862.2	6,635.2	6,614.2	6,614.2	232.5	130.7	89.82	1,488.7	-6,374.1	1,921.2	1,558.1	363.06	5.292	
14,900.0	6,635.2	6,614.2	6,614.2	233.5	130.7	89.81	1,488.7	-6,374.1	1,956.2	1,592.1	364.12	5.372	
14,960.6	6,635.1	6,614.1	6,614.1	235.2	130.7	89.81	1,488.7	-6,374.1	2,012.5	1,646.7	365.82	5.501	
15,000.0	6,635.0	6,614.0	6,614.0	236.3	130.7	89.80	1,488.7	-6,374.1	2,049.2	1,682.3	366.92	5.585	
15,033.1	6,635.0	6,614.0	6,614.0	237.3	130.7	89.80	1,488.7	-6,374.1	2,080.2	1,712.3	367.85	5.655	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-36.17	1,353.8	-989.6	1,676.9				
98.4	98.4	102.4	102.4	0.1	0.0	-36.17	1,353.8	-989.6	1,676.9	1,676.8	0.12	N/A	
100.0	100.0	104.0	104.0	0.1	0.0	-36.17	1,353.8	-989.6	1,676.9	1,676.8	0.14	N/A	
196.8	196.8	200.8	200.8	0.3	1.0	-36.17	1,353.8	-989.6	1,676.9	1,675.6	1.29	1,295.945	
200.0	200.0	204.0	204.0	0.3	1.1	-36.17	1,353.8	-989.6	1,676.9	1,675.5	1.37	1,219.618	
295.3	295.3	299.3	299.3	0.5	3.3	-36.17	1,353.8	-989.6	1,676.9	1,673.1	3.82	438.493	
300.0	300.0	304.0	304.0	0.5	3.4	-36.17	1,353.8	-989.6	1,676.9	1,673.0	3.94	426.137	
393.7	393.7	397.7	397.7	0.8	5.3	-36.17	1,353.8	-989.6	1,676.9	1,670.8	6.10	275.081	
400.0	400.0	404.0	404.0	0.8	5.5	-36.17	1,353.8	-989.6	1,676.9	1,670.7	6.24	268.744	
492.1	492.1	496.1	496.1	1.0	7.3	-36.17	1,353.8	-989.6	1,676.9	1,668.6	8.33	201.341	
500.0	500.0	504.0	504.0	1.0	7.5	-36.17	1,353.8	-989.6	1,676.9	1,668.4	8.51	197.128	
590.5	590.5	594.5	594.5	1.2	9.3	-36.17	1,353.8	-989.6	1,676.9	1,666.4	10.55	158.985	
600.0	600.0	604.0	604.0	1.2	9.5	-36.17	1,353.8	-989.6	1,676.9	1,666.2	10.76	155.842	
689.0	689.0	693.0	693.0	1.4	11.3	-36.17	1,353.8	-989.6	1,676.9	1,664.2	12.76	131.419	
700.0	700.0	704.0	704.0	1.4	11.6	-36.17	1,353.8	-989.6	1,676.9	1,663.9	13.01	128.917	
787.4	787.4	791.4	791.4	1.6	13.3	-36.17	1,353.8	-989.6	1,676.9	1,662.0	14.97	112.027	
800.0	800.0	804.0	804.0	1.7	13.6	-36.17	1,353.8	-989.6	1,676.9	1,661.7	15.25	109.951	
885.8	885.8	889.8	889.8	1.9	15.3	-36.17	1,353.8	-989.6	1,676.9	1,659.7	17.18	97.634	
900.0	900.0	904.0	904.0	1.9	15.6	-36.17	1,353.8	-989.6	1,676.9	1,659.4	17.49	95.861	
984.2	984.2	988.2	988.2	2.1	17.3	-36.17	1,353.8	-989.6	1,676.9	1,657.5	19.38	86.525	
1,000.0	1,000.0	1,004.0	1,004.0	2.1	17.6	-36.17	1,353.8	-989.6	1,676.9	1,657.2	19.73	84.978	
1,082.7	1,082.7	1,086.7	1,086.7	2.3	19.3	-63.21	1,353.8	-989.6	1,676.4	1,654.8	21.58	77.676	
1,100.0	1,100.0	1,104.0	1,104.0	2.3	19.6	-63.23	1,353.8	-989.6	1,676.1	1,654.2	21.97	76.297	
1,181.1	1,181.0	1,185.0	1,185.0	2.5	21.3	-63.39	1,353.8	-989.6	1,674.3	1,650.6	23.77	70.426	
1,200.0	1,199.8	1,203.8	1,203.8	2.6	21.6	-63.43	1,353.8	-989.6	1,673.8	1,649.6	24.19	69.181	
1,279.5	1,279.1	1,283.1	1,283.1	2.8	23.2	-63.69	1,353.8	-989.6	1,670.8	1,644.9	25.96	64.360	
1,300.0	1,299.5	1,303.5	1,303.5	2.8	23.6	-63.77	1,353.8	-989.6	1,669.9	1,643.5	26.41	63.220	
1,377.9	1,376.9	1,380.9	1,380.9	3.0	25.2	-64.13	1,353.8	-989.6	1,665.8	1,637.7	28.14	59.190	
1,400.0	1,398.7	1,402.7	1,402.7	3.0	25.6	-64.24	1,353.8	-989.6	1,664.5	1,635.9	28.63	58.135	
1,476.4	1,474.2	1,478.2	1,478.2	3.2	27.2	-64.69	1,353.8	-989.6	1,659.5	1,629.1	30.33	54.712	
1,500.0	1,497.5	1,501.5	1,501.5	3.3	27.6	-64.85	1,353.8	-989.6	1,657.7	1,626.9	30.86	53.726	
1,574.8	1,571.0	1,575.0	1,575.0	3.5	29.1	-65.39	1,353.8	-989.6	1,651.8	1,619.2	32.53	50.780	
1,600.0	1,595.6	1,599.6	1,599.6	3.6	29.6	-65.59	1,353.8	-989.6	1,649.6	1,616.5	33.09	49.852	
1,673.2	1,667.2	1,671.2	1,671.2	3.9	31.0	-66.06	1,353.8	-989.6	1,643.3	1,608.5	34.77	47.263	
1,700.0	1,693.4	1,697.4	1,697.4	4.0	31.6	-66.23	1,353.8	-989.6	1,641.0	1,605.6	35.38	46.377	
1,771.6	1,763.5	1,767.5	1,767.5	4.2	33.0	-66.70	1,353.8	-989.6	1,634.9	1,597.9	37.04	44.140	
1,800.0	1,791.3	1,795.3	1,795.3	4.3	33.5	-66.89	1,353.8	-989.6	1,632.5	1,594.8	37.70	43.309	
1,870.1	1,859.8	1,863.8	1,863.8	4.6	34.9	-67.35	1,353.8	-989.6	1,626.8	1,587.4	39.33	41.367	
1,900.0	1,889.1	1,893.1	1,893.1	4.7	35.5	-67.55	1,353.8	-989.6	1,624.3	1,584.3	40.02	40.584	
1,968.5	1,956.1	1,960.1	1,960.1	4.9	36.9	-68.01	1,353.8	-989.6	1,618.9	1,577.2	41.63	38.889	
2,000.0	1,986.9	1,990.9	1,990.9	5.1	37.5	-68.22	1,353.8	-989.6	1,616.4	1,574.0	42.37	38.153	
2,066.9	2,052.3	2,056.3	2,056.3	5.3	38.8	-68.67	1,353.8	-989.6	1,611.2	1,567.2	43.94	36.668	
2,100.0	2,084.7	2,088.7	2,088.7	5.5	39.4	-68.90	1,353.8	-989.6	1,608.6	1,563.9	44.72	35.973	
2,165.3	2,148.6	2,152.6	2,152.6	5.7	40.7	-69.34	1,353.8	-989.6	1,603.7	1,557.4	46.26	34.666	
2,200.0	2,182.5	2,186.5	2,186.5	5.9	41.4	-69.58	1,353.8	-989.6	1,601.1	1,554.0	47.08	34.009	
2,263.8	2,244.9	2,248.9	2,248.9	6.1	42.7	-70.01	1,353.8	-989.6	1,596.4	1,547.8	48.59	32.855	
2,300.0	2,280.3	2,284.3	2,284.3	6.3	43.4	-70.26	1,353.8	-989.6	1,593.8	1,544.4	49.45	32.232	
2,362.2	2,341.2	2,345.2	2,345.2	6.5	44.6	-70.69	1,353.8	-989.6	1,589.4	1,538.5	50.93	31.210	
2,400.0	2,378.1	2,382.1	2,382.1	6.7	45.3	-70.96	1,353.8	-989.6	1,586.8	1,535.0	51.83	30.618	
2,460.6	2,437.4	2,441.4	2,441.4	6.9	46.5	-71.38	1,353.8	-989.6	1,582.6	1,529.4	53.27	29.710	
2,500.0	2,476.0	2,480.0	2,480.0	7.1	47.3	-71.65	1,353.8	-989.6	1,580.0	1,525.8	54.21	29.146	
2,550.0	2,524.9	2,528.9	2,528.9	7.3	48.3	-72.01	1,353.8	-989.6	1,576.7	1,521.3	55.40	28.459	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,537.7	2,537.7	7.3	48.5	-71.22	1,353.8	-989.6	1,576.1	1,520.5	55.61	28.344	
2,600.0	2,573.8	2,577.8	2,577.8	7.5	49.3	-67.63	1,353.8	-989.6	1,573.0	1,516.5	56.52	27.829	
2,639.4	2,612.3	2,616.3	2,616.3	7.7	50.1	-64.18	1,353.8	-989.6	1,569.6	1,512.2	57.39	27.351	
2,657.5	2,630.0	2,634.0	2,634.0	7.7	50.4	-64.30	1,353.8	-989.6	1,568.0	1,510.1	57.81	27.121	
2,700.0	2,671.6	2,675.6	2,675.6	7.9	51.3	-64.58	1,353.8	-989.6	1,564.1	1,505.3	58.82	26.593	
2,755.9	2,726.3	2,730.3	2,730.3	8.1	52.4	-64.96	1,353.8	-989.6	1,559.0	1,498.9	60.15	25.921	
2,800.0	2,769.4	2,773.4	2,773.4	8.3	53.2	-65.26	1,353.8	-989.6	1,555.1	1,493.9	61.20	25.411	
2,854.3	2,822.5	2,826.5	2,826.5	8.5	54.3	-65.64	1,353.8	-989.6	1,550.3	1,487.8	62.49	24.808	
2,900.0	2,867.2	2,871.2	2,871.2	8.7	55.2	-65.95	1,353.8	-989.6	1,546.4	1,482.8	63.58	24.320	
2,952.7	2,918.8	2,922.8	2,922.8	9.0	56.2	-66.32	1,353.8	-989.6	1,541.8	1,477.0	64.84	23.778	
3,000.0	2,965.0	2,969.0	2,969.0	9.2	57.2	-66.65	1,353.8	-989.6	1,537.8	1,471.9	65.97	23.310	
3,051.2	3,015.1	3,019.1	3,019.1	9.4	58.2	-67.00	1,353.8	-989.6	1,533.6	1,466.4	67.20	22.821	
3,100.0	3,062.8	3,066.8	3,066.8	9.6	59.1	-67.35	1,353.8	-989.6	1,529.6	1,461.2	68.37	22.372	
3,149.6	3,111.4	3,115.4	3,115.4	9.8	60.1	-67.70	1,353.8	-989.6	1,525.5	1,456.0	69.56	21.932	
3,200.0	3,160.7	3,164.7	3,164.7	10.0	61.1	-68.06	1,353.8	-989.6	1,521.5	1,450.8	70.77	21.500	
3,248.0	3,207.6	3,211.6	3,211.6	10.2	62.0	-68.40	1,353.8	-989.6	1,517.8	1,445.8	71.92	21.103	
3,300.0	3,258.5	3,262.5	3,262.5	10.5	63.1	-68.77	1,353.8	-989.6	1,513.7	1,440.6	73.17	20.688	
3,346.4	3,303.9	3,307.9	3,307.9	10.7	64.0	-69.11	1,353.8	-989.6	1,510.2	1,435.9	74.29	20.329	
3,400.0	3,356.3	3,360.3	3,360.3	10.9	65.0	-69.50	1,353.8	-989.6	1,506.2	1,430.6	75.57	19.930	
3,444.9	3,400.2	3,404.2	3,404.2	11.1	65.9	-69.82	1,353.8	-989.6	1,502.9	1,426.2	76.65	19.606	
3,500.0	3,454.1	3,458.1	3,458.1	11.3	67.0	-70.23	1,353.8	-989.6	1,498.9	1,420.9	77.98	19.221	
3,543.3	3,496.5	3,500.5	3,500.5	11.5	67.8	-70.54	1,353.8	-989.6	1,495.8	1,416.8	79.03	18.928	
3,600.0	3,551.9	3,555.9	3,555.9	11.7	69.0	-70.96	1,353.8	-989.6	1,491.8	1,411.4	80.39	18.557	
3,641.7	3,592.7	3,596.7	3,596.7	11.9	69.8	-71.27	1,353.8	-989.6	1,489.0	1,407.6	81.40	18.292	
3,700.0	3,649.7	3,653.7	3,653.7	12.2	70.9	-71.71	1,353.8	-989.6	1,485.0	1,402.2	82.81	17.934	
3,740.1	3,689.0	3,693.0	3,693.0	12.4	71.7	-72.01	1,353.8	-989.6	1,482.4	1,398.6	83.78	17.695	
3,800.0	3,747.5	3,751.5	3,751.5	12.6	72.9	-72.46	1,353.8	-989.6	1,478.5	1,393.3	85.22	17.349	
3,838.6	3,785.3	3,789.3	3,789.3	12.8	73.7	-72.75	1,353.8	-989.6	1,476.1	1,389.9	86.15	17.133	
3,900.0	3,845.4	3,849.4	3,849.4	13.1	74.9	-73.21	1,353.8	-989.6	1,472.3	1,384.6	87.64	16.799	
3,937.0	3,881.6	3,885.6	3,885.6	13.2	75.6	-73.49	1,353.8	-989.6	1,470.0	1,381.5	88.54	16.604	
4,000.0	3,943.2	3,947.2	3,947.2	13.5	76.8	-73.97	1,353.8	-989.6	1,466.3	1,376.2	90.06	16.281	
4,035.4	3,977.8	3,981.8	3,981.8	13.6	77.5	-74.24	1,353.8	-989.6	1,464.2	1,373.3	90.92	16.105	
4,100.0	4,041.0	4,045.0	4,045.0	13.9	78.8	-74.74	1,353.8	-989.6	1,460.5	1,368.1	92.48	15.793	
4,133.8	4,074.1	4,078.1	4,078.1	14.1	79.5	-75.00	1,353.8	-989.6	1,458.7	1,365.4	93.30	15.634	
4,200.0	4,138.8	4,142.8	4,142.8	14.4	80.8	-75.51	1,353.8	-989.6	1,455.1	1,360.2	94.90	15.332	
4,232.3	4,170.4	4,174.4	4,174.4	14.5	81.4	-75.77	1,353.8	-989.6	1,453.4	1,357.7	95.69	15.189	
4,300.0	4,236.6	4,240.6	4,240.6	14.8	82.7	-76.29	1,353.8	-989.6	1,449.9	1,352.6	97.33	14.897	
4,330.7	4,266.7	4,270.7	4,270.7	14.9	83.3	-76.53	1,353.8	-989.6	1,448.4	1,350.3	98.07	14.769	
4,400.0	4,334.4	4,338.4	4,338.4	15.2	84.7	-77.08	1,353.8	-989.6	1,445.0	1,345.3	99.75	14.486	
4,429.1	4,362.9	4,366.9	4,366.9	15.4	85.3	-77.31	1,353.8	-989.6	1,443.7	1,343.2	100.46	14.371	
4,500.0	4,432.3	4,436.3	4,436.3	15.7	86.7	-77.87	1,353.8	-989.6	1,440.4	1,338.3	102.18	14.097	
4,527.5	4,459.2	4,463.2	4,463.2	15.8	87.2	-78.09	1,353.8	-989.6	1,439.2	1,336.4	102.85	13.994	
4,600.0	4,530.1	4,534.1	4,534.1	16.1	88.6	-78.66	1,353.8	-989.6	1,436.1	1,331.5	104.60	13.729	
4,626.0	4,555.5	4,559.5	4,559.5	16.2	89.1	-78.87	1,353.8	-989.6	1,435.0	1,329.8	105.23	13.637	
4,700.0	4,627.9	4,631.9	4,631.9	16.6	90.6	-79.46	1,353.8	-989.6	1,432.1	1,325.1	107.03	13.380	
4,724.4	4,651.7	4,655.7	4,655.7	16.7	91.1	-79.66	1,353.8	-989.6	1,431.1	1,323.5	107.62	13.298	
4,800.0	4,725.7	4,729.7	4,729.7	17.0	92.6	-80.26	1,353.8	-989.6	1,428.3	1,318.9	109.45	13.050	
4,822.8	4,748.0	4,752.0	4,752.0	17.1	93.0	-80.45	1,353.8	-989.6	1,427.5	1,317.5	110.01	12.977	
4,904.9	4,828.3	4,832.3	4,832.3	17.5	94.6	-81.11	1,353.8	-989.6	1,424.7	1,312.7	112.00	12.721	
4,921.2	4,844.3	4,848.3	4,848.3	17.5	94.9	-81.23	1,353.8	-989.6	1,424.2	1,311.8	112.39	12.673	
5,000.0	4,921.6	4,925.6	4,925.6	17.8	96.5	-81.77	1,353.8	-989.6	1,422.0	1,307.7	114.26	12.445	
5,019.7	4,941.0	4,945.0	4,945.0	17.9	96.9	-81.89	1,353.8	-989.6	1,421.5	1,306.8	114.71	12.392	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT HEINRICH #41-9 - 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	5,020.4	5,024.4	5,024.4	18.1	98.5	-82.35	1,353.8	-989.6	1,419.8	1,303.2	116.56	12.181	
5,118.1	5,038.3	5,042.3	5,042.3	18.2	98.9	-82.44	1,353.8	-989.6	1,419.4	1,302.5	116.97	12.135	
5,200.0	5,119.6	5,123.6	5,123.6	18.4	100.5	-82.80	1,353.8	-989.6	1,418.2	1,299.3	118.82	11.935	
5,216.5	5,136.0	5,140.0	5,140.0	18.4	100.8	-82.87	1,353.8	-989.6	1,417.9	1,298.7	119.19	11.896	
5,300.0	5,219.2	5,223.2	5,223.2	18.6	102.5	-83.14	1,353.8	-989.6	1,417.1	1,296.0	121.05	11.706	
5,314.9	5,234.1	5,238.1	5,238.1	18.6	102.8	-83.18	1,353.8	-989.6	1,416.9	1,295.6	121.38	11.674	
5,400.0	5,319.1	5,323.1	5,323.1	18.8	104.5	-83.34	1,353.8	-989.6	1,416.4	1,293.2	123.24	11.493	
5,413.4	5,332.4	5,336.4	5,336.4	18.8	104.8	-83.36	1,353.8	-989.6	1,416.4	1,292.8	123.53	11.466	
5,504.9	5,423.9	5,427.9	5,427.9	18.9	106.6	-64.99	1,353.8	-989.6	1,416.2	1,296.6	119.65	11.837	
5,511.8	5,430.8	5,434.8	5,434.8	18.9	106.7	-64.99	1,353.8	-989.6	1,416.2	1,296.4	119.80	11.822	
5,600.0	5,519.0	5,523.0	5,523.0	19.0	108.5	-64.99	1,353.8	-989.6	1,416.2	1,294.5	121.73	11.634	
5,610.2	5,529.3	5,533.3	5,533.3	19.0	108.7	-64.99	1,353.8	-989.6	1,416.2	1,294.2	121.95	11.613	
5,700.0	5,619.0	5,623.0	5,623.0	19.2	110.5	-64.99	1,353.8	-989.6	1,416.2	1,292.3	123.94	11.427	
5,708.6	5,627.7	5,631.7	5,631.7	19.2	110.7	-64.99	1,353.8	-989.6	1,416.2	1,292.1	124.13	11.409	
5,800.0	5,719.0	5,723.0	5,723.0	19.3	112.5	-64.99	1,353.8	-989.6	1,416.2	1,290.1	126.15	11.226	
5,807.1	5,726.1	5,730.1	5,730.1	19.3	112.7	-64.99	1,353.8	-989.6	1,416.2	1,289.9	126.30	11.213	
5,900.0	5,819.0	5,823.0	5,823.0	19.4	114.6	-64.99	1,353.8	-989.6	1,416.2	1,287.8	128.36	11.033	
5,905.5	5,824.5	5,828.5	5,828.5	19.4	114.7	-64.99	1,353.8	-989.6	1,416.2	1,287.7	128.48	11.023	
6,003.9	5,923.0	5,927.0	5,927.0	19.6	116.6	-64.99	1,353.8	-989.6	1,416.2	1,285.5	130.66	10.839	
6,009.8	5,928.8	5,932.8	5,932.8	19.6	116.8	-64.99	1,353.8	-989.6	1,416.2	1,285.4	130.79	10.828	
6,050.0	5,969.0	5,973.0	5,973.0	19.6	117.6	25.06	1,353.8	-989.6	1,415.2	1,278.2	137.02	10.328	
6,100.0	6,018.8	6,022.8	6,022.8	19.7	118.6	25.28	1,353.8	-989.6	1,411.1	1,273.7	137.36	10.272	
6,102.3	6,021.1	6,025.1	6,025.1	19.7	118.6	25.29	1,353.8	-989.6	1,410.8	1,273.4	137.37	10.270	
6,150.0	6,068.1	6,072.1	6,072.1	19.7	119.6	25.67	1,353.8	-989.6	1,403.8	1,266.7	137.14	10.236	
6,200.0	6,116.8	6,120.8	6,120.8	19.7	120.5	26.24	1,353.8	-989.6	1,393.5	1,257.1	136.38	10.218	
6,200.8	6,117.5	6,121.5	6,121.5	19.7	120.6	26.25	1,353.8	-989.6	1,393.3	1,256.9	136.36	10.218	
6,250.0	6,164.5	6,168.5	6,168.5	19.7	121.5	27.01	1,353.8	-989.6	1,380.1	1,245.0	135.10	10.216	
6,299.2	6,210.4	6,214.4	6,214.4	19.7	122.4	27.97	1,353.8	-989.6	1,364.1	1,230.7	133.40	10.226	
6,300.0	6,211.1	6,215.1	6,215.1	19.7	122.4	27.99	1,353.8	-989.6	1,363.9	1,230.5	133.37	10.226	
6,350.0	6,256.4	6,260.4	6,260.4	19.7	123.3	29.20	1,353.8	-989.6	1,344.7	1,213.5	131.27	10.244	
6,397.6	6,298.0	6,302.0	6,302.0	19.7	124.2	30.60	1,353.8	-989.6	1,324.0	1,195.0	129.04	10.261	
6,400.0	6,300.0	6,304.0	6,304.0	19.7	124.2	30.68	1,353.8	-989.6	1,322.9	1,194.0	128.92	10.262	
6,450.0	6,341.8	6,345.8	6,345.8	19.7	125.1	32.45	1,353.8	-989.6	1,298.6	1,172.1	126.50	10.266	
6,496.0	6,378.6	6,382.6	6,382.6	19.7	125.8	34.37	1,353.8	-989.6	1,274.0	1,149.6	124.38	10.243	
6,500.0	6,381.6	6,385.6	6,385.6	19.7	125.9	34.55	1,353.8	-989.6	1,271.8	1,147.6	124.21	10.239	
6,550.0	6,419.2	6,423.2	6,423.2	19.6	126.6	37.02	1,353.8	-989.6	1,242.9	1,120.5	122.33	10.160	
6,594.5	6,450.7	6,454.7	6,454.7	19.6	127.3	39.57	1,353.8	-989.6	1,215.4	1,094.1	121.25	10.024	
6,600.0	6,454.4	6,458.4	6,458.4	19.6	127.3	39.91	1,353.8	-989.6	1,211.9	1,090.7	121.16	10.002	
6,650.0	6,487.1	6,491.1	6,491.1	19.6	128.0	43.25	1,353.8	-989.6	1,179.1	1,058.1	121.03	9.742	
6,692.9	6,513.0	6,517.0	6,517.0	19.6	128.5	46.50	1,353.8	-989.6	1,149.8	1,027.8	121.94	9.429	
6,700.0	6,517.0	6,521.0	6,521.0	19.6	128.6	47.08	1,353.8	-989.6	1,144.8	1,022.6	122.19	9.369	
6,750.0	6,544.1	6,548.1	6,548.1	19.6	129.1	51.40	1,353.8	-989.6	1,109.2	984.4	124.76	8.891	
6,791.3	6,564.2	6,568.2	6,568.2	19.7	129.5	55.32	1,353.8	-989.6	1,079.0	951.1	127.90	8.436	
6,800.0	6,568.2	6,572.2	6,572.2	19.7	129.6	56.18	1,353.8	-989.6	1,072.6	943.9	128.62	8.339	
6,850.0	6,589.1	6,593.1	6,593.1	19.8	130.0	61.35	1,353.8	-989.6	1,035.2	901.8	133.40	7.760	
6,889.7	6,603.5	6,607.5	6,607.5	19.9	130.3	65.65	1,353.8	-989.6	1,005.2	867.7	137.49	7.311	
6,900.0	6,606.9	6,610.9	6,610.9	19.9	130.4	66.77	1,353.8	-989.6	997.5	858.9	138.53	7.200	
6,950.0	6,621.3	6,625.3	6,625.3	20.2	130.7	72.27	1,353.8	-989.6	959.6	816.2	143.38	6.693	
6,988.2	6,630.0	6,634.0	6,634.0	20.6	130.9	76.39	1,353.8	-989.6	930.8	784.3	146.55	6.352	
7,000.0	6,632.4	6,636.4	6,636.4	20.7	130.9	77.64	1,353.8	-989.6	922.0	774.6	147.41	6.255	
7,050.0	6,640.0	6,644.0	6,644.0	21.4	131.1	82.67	1,353.8	-989.6	885.0	734.7	150.35	5.886	
7,086.6	6,643.4	6,647.4	6,647.4	21.9	131.1	86.05	1,353.8	-989.6	858.5	706.7	151.80	5.656	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,648.2	6,648.2	22.1	131.1	87.21	1,353.8	-989.6	849.0	696.8	152.18	5.579	
7,135.7	6,645.0	6,649.0	6,649.0	22.7	131.2	90.07	1,353.8	-989.6	824.1	671.2	152.93	5.389	
7,185.0	6,644.9	6,648.9	6,648.9	23.6	131.2	90.06	1,353.8	-989.6	791.0	637.1	153.89	5.140	
7,200.0	6,644.9	6,648.9	6,648.9	23.9	131.2	90.06	1,353.8	-989.6	781.3	627.1	154.18	5.067	
7,283.4	6,644.8	6,648.8	6,648.8	25.6	131.2	90.05	1,353.8	-989.6	730.4	574.5	155.91	4.685	
7,300.0	6,644.8	6,648.8	6,648.8	25.9	131.2	90.05	1,353.8	-989.6	721.1	564.8	156.25	4.615	
7,381.9	6,644.7	6,648.7	6,648.7	27.7	131.2	90.04	1,353.8	-989.6	678.8	520.8	158.06	4.295	
7,400.0	6,644.7	6,648.7	6,648.7	28.1	131.2	90.04	1,353.8	-989.6	670.5	512.0	158.45	4.231	
7,480.3	6,644.6	6,648.6	6,648.6	29.9	131.2	90.03	1,353.8	-989.6	638.3	478.0	160.31	3.982	
7,500.0	6,644.6	6,648.6	6,648.6	30.3	131.2	90.02	1,353.8	-989.6	631.8	471.0	160.77	3.930	
7,578.7	6,644.5	6,648.5	6,648.5	32.2	131.2	90.01	1,353.8	-989.6	611.2	448.5	162.65	3.758	
7,600.0	6,644.4	6,648.4	6,648.4	32.7	131.2	90.01	1,353.8	-989.6	607.2	444.1	163.16	3.722	
7,677.1	6,644.3	6,648.3	6,648.3	34.6	131.1	90.00	1,353.8	-989.6	599.1	434.1	165.05	3.630	
7,700.0	6,644.3	6,648.3	6,648.3	35.1	131.1	90.00	1,353.8	-989.6	598.6	433.0	165.61	3.614	
7,702.1	6,644.3	6,648.3	6,648.3	35.2	131.1	90.00	1,353.8	-989.6	598.6	432.9	165.66	3.613 CC, ES	
7,775.6	6,644.2	6,648.2	6,648.2	37.0	131.1	89.99	1,353.8	-989.6	603.1	435.6	167.51	3.600 SF	
7,800.0	6,644.2	6,648.2	6,648.2	37.6	131.1	89.99	1,353.8	-989.6	606.6	438.4	168.12	3.608	
7,874.0	6,644.1	6,648.1	6,648.1	39.5	131.1	89.98	1,353.8	-989.6	622.8	452.8	170.00	3.663	
7,900.0	6,644.1	6,648.1	6,648.1	40.1	131.1	89.98	1,353.8	-989.6	630.5	459.8	170.66	3.694	
7,972.4	6,644.0	6,648.0	6,648.0	42.0	131.1	89.97	1,353.8	-989.6	656.8	484.3	172.53	3.807	
8,000.0	6,643.9	6,647.9	6,647.9	42.7	131.1	89.96	1,353.8	-989.6	668.6	495.4	173.24	3.860	
8,070.8	6,643.9	6,647.9	6,647.9	44.5	131.1	89.96	1,353.8	-989.6	703.1	528.0	175.09	4.016	
8,100.0	6,643.8	6,647.8	6,647.8	45.2	131.1	89.95	1,353.8	-989.6	718.8	543.0	175.85	4.088	
8,169.3	6,643.7	6,647.7	6,647.7	47.0	131.1	89.94	1,353.8	-989.6	759.4	581.7	177.67	4.274	
8,200.0	6,643.7	6,647.7	6,647.7	47.9	131.1	89.94	1,353.8	-989.6	778.6	600.2	178.48	4.363	
8,267.7	6,643.6	6,647.6	6,647.6	49.6	131.1	89.93	1,353.8	-989.6	823.6	643.3	180.28	4.568	
8,300.0	6,643.6	6,647.6	6,647.6	50.5	131.1	89.93	1,353.8	-989.6	846.1	665.0	181.13	4.671	
8,366.1	6,643.5	6,647.5	6,647.5	52.2	131.1	89.92	1,353.8	-989.6	894.0	711.1	182.89	4.888	
8,400.0	6,643.4	6,647.4	6,647.4	53.1	131.1	89.92	1,353.8	-989.6	919.5	735.7	183.80	5.003	
8,464.5	6,643.4	6,647.4	6,647.4	54.8	131.1	89.91	1,353.8	-989.6	969.4	783.9	185.53	5.225	
8,500.0	6,643.3	6,647.3	6,647.3	55.8	131.1	89.91	1,353.8	-989.6	997.5	811.0	186.48	5.349	
8,563.0	6,643.2	6,647.2	6,647.2	57.5	131.1	89.90	1,353.8	-989.6	1,048.6	860.4	188.17	5.572	
8,600.0	6,643.2	6,647.2	6,647.2	58.5	131.1	89.89	1,353.8	-989.6	1,079.2	890.0	189.17	5.705	
8,661.4	6,643.1	6,647.1	6,647.1	60.1	131.1	89.89	1,353.8	-989.6	1,130.8	940.0	190.83	5.926	
8,700.0	6,643.1	6,647.1	6,647.1	61.2	131.1	89.88	1,353.8	-989.6	1,163.7	971.8	191.87	6.065	
8,759.8	6,643.0	6,647.0	6,647.0	62.8	131.1	89.87	1,353.8	-989.6	1,215.4	1,021.9	193.50	6.281	
8,800.0	6,643.0	6,647.0	6,647.0	63.9	131.1	89.87	1,353.8	-989.6	1,250.5	1,055.9	194.59	6.427	
8,858.2	6,642.9	6,646.9	6,646.9	65.4	131.1	89.86	1,353.8	-989.6	1,302.0	1,105.8	196.17	6.637	
8,900.0	6,642.8	6,646.8	6,646.8	66.6	131.1	89.86	1,353.8	-989.6	1,339.2	1,141.9	197.31	6.787	
8,956.7	6,642.8	6,646.8	6,646.8	68.1	131.1	89.85	1,353.8	-989.6	1,390.1	1,191.3	198.85	6.991	
9,000.0	6,642.7	6,646.7	6,646.7	69.3	131.1	89.85	1,353.8	-989.6	1,429.3	1,229.3	200.03	7.145	
9,055.1	6,642.6	6,646.6	6,646.6	70.8	131.1	89.84	1,353.8	-989.6	1,479.5	1,278.0	201.54	7.341	
9,100.0	6,642.6	6,646.6	6,646.6	72.0	131.1	89.83	1,353.8	-989.6	1,520.7	1,318.0	202.77	7.500	
9,153.5	6,642.5	6,646.5	6,646.5	73.5	131.1	89.83	1,353.8	-989.6	1,570.1	1,365.8	204.23	7.688	
9,200.0	6,642.5	6,646.5	6,646.5	74.7	131.1	89.82	1,353.8	-989.6	1,613.1	1,407.6	205.51	7.850	
9,251.9	6,642.4	6,646.4	6,646.4	76.2	131.1	89.82	1,353.8	-989.6	1,661.5	1,454.5	206.93	8.029	
9,300.0	6,642.3	6,646.3	6,646.3	77.5	131.1	89.81	1,353.8	-989.6	1,706.4	1,498.1	208.25	8.194	
9,350.4	6,642.3	6,646.3	6,646.3	78.9	131.1	89.80	1,353.8	-989.6	1,753.7	1,544.0	209.63	8.365	
9,400.0	6,642.2	6,646.2	6,646.2	80.2	131.1	89.80	1,353.8	-989.6	1,800.4	1,589.4	211.00	8.533	
9,448.8	6,642.1	6,646.1	6,646.1	81.6	131.1	89.79	1,353.8	-989.6	1,846.5	1,634.1	212.34	8.696	
9,500.0	6,642.1	6,646.1	6,646.1	83.0	131.1	89.79	1,353.8	-989.6	1,895.0	1,681.2	213.75	8.865	
9,547.2	6,642.0	6,646.0	6,646.0	84.3	131.1	89.78	1,353.8	-989.6	1,939.8	1,724.8	215.05	9.020	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,642.0	6,646.0	6,646.0	85.7	131.1	89.77	1,353.8	-989.6	1,990.1	1,773.6	216.51	9.192	
9,645.6	6,641.9	6,645.9	6,645.9	87.0	131.1	89.77	1,353.8	-989.6	2,033.7	1,815.9	217.77	9.339	
9,700.0	6,641.8	6,645.8	6,645.8	88.5	131.1	89.76	1,353.8	-989.6	2,085.7	1,866.4	219.27	9.512	
9,744.1	6,641.8	6,645.8	6,645.8	89.7	131.1	89.76	1,353.8	-989.6	2,128.0	1,907.5	220.48	9.651	
9,800.0	6,641.7	6,645.7	6,645.7	91.2	131.1	89.75	1,353.8	-989.6	2,181.7	1,959.6	222.03	9.826	
9,842.5	6,641.7	6,645.7	6,645.7	92.4	131.1	89.74	1,353.8	-989.6	2,222.6	1,999.4	223.20	9.958	
9,900.0	6,641.6	6,645.6	6,645.6	94.0	131.1	89.74	1,353.8	-989.6	2,278.0	2,053.2	224.79	10.134	
9,940.9	6,641.5	6,645.5	6,645.5	95.1	131.1	89.73	1,353.8	-989.6	2,317.5	2,091.6	225.93	10.258	
10,000.0	6,641.5	6,645.5	6,645.5	96.7	131.1	89.72	1,353.8	-989.6	2,374.6	2,147.1	227.56	10.435	
10,039.3	6,641.4	6,645.4	6,645.4	97.8	131.1	89.72	1,353.8	-989.6	2,412.7	2,184.1	228.65	10.552	
10,100.0	6,641.3	6,645.3	6,645.3	99.5	131.1	89.71	1,353.8	-989.6	2,471.5	2,241.2	230.33	10.730	
10,137.8	6,641.3	6,645.3	6,645.3	100.6	131.1	89.71	1,353.8	-989.6	2,508.2	2,276.8	231.38	10.840	
10,200.0	6,641.2	6,645.2	6,645.2	102.3	131.1	89.70	1,353.8	-989.6	2,568.7	2,335.6	233.10	11.019	
10,236.2	6,641.2	6,645.2	6,645.2	103.3	131.1	89.70	1,353.8	-989.6	2,603.9	2,369.8	234.11	11.123	
10,300.0	6,641.1	6,645.1	6,645.1	105.0	131.1	89.69	1,353.8	-989.6	2,666.0	2,430.1	235.88	11.302	
10,334.6	6,641.0	6,645.0	6,645.0	106.0	131.1	89.68	1,353.8	-989.6	2,699.8	2,462.9	236.84	11.399	
10,400.0	6,641.0	6,645.0	6,645.0	107.8	131.1	89.68	1,353.8	-989.6	2,763.6	2,524.9	238.65	11.580	
10,433.0	6,640.9	6,644.9	6,644.9	108.7	131.1	89.67	1,353.8	-989.6	2,795.8	2,556.3	239.57	11.670	
10,500.0	6,640.8	6,644.8	6,644.8	110.6	131.1	89.66	1,353.8	-989.6	2,861.3	2,619.8	241.43	11.851	
10,531.5	6,640.8	6,644.8	6,644.8	111.5	131.1	89.66	1,353.8	-989.6	2,892.1	2,649.7	242.31	11.935	
10,600.0	6,640.7	6,644.7	6,644.7	113.4	131.1	89.65	1,353.8	-989.6	2,959.1	2,714.9	244.21	12.117	
10,629.9	6,640.7	6,644.7	6,644.7	114.2	131.1	89.65	1,353.8	-989.6	2,988.4	2,743.4	245.04	12.195	
10,700.0	6,640.6	6,644.6	6,644.6	116.1	131.1	89.64	1,353.8	-989.6	3,057.1	2,810.1	246.99	12.377	
10,728.3	6,640.5	6,644.5	6,644.5	116.9	131.1	89.63	1,353.8	-989.6	3,084.9	2,837.1	247.78	12.450	
10,800.0	6,640.5	6,644.5	6,644.5	118.9	131.1	89.63	1,353.8	-989.6	3,155.3	2,905.5	249.77	12.632	
10,826.7	6,640.4	6,644.4	6,644.4	119.7	131.1	89.62	1,353.8	-989.6	3,181.5	2,931.0	250.52	12.700	
10,900.0	6,640.3	6,644.3	6,644.3	121.7	131.1	89.61	1,353.8	-989.6	3,253.5	3,000.9	252.56	12.882	
10,925.2	6,640.3	6,644.3	6,644.3	122.4	131.1	89.61	1,353.8	-989.6	3,278.2	3,025.0	253.26	12.944	
11,000.0	6,640.2	6,644.2	6,644.2	124.5	131.1	89.60	1,353.8	-989.6	3,351.8	3,096.5	255.34	13.127	
11,023.6	6,640.2	6,644.2	6,644.2	125.1	131.1	89.60	1,353.8	-989.6	3,375.1	3,119.1	256.00	13.184	
11,100.0	6,640.1	6,644.1	6,644.1	127.3	131.1	89.59	1,353.8	-989.6	3,450.3	3,192.2	258.13	13.367	
11,122.0	6,640.0	6,644.0	6,644.0	127.9	131.1	89.59	1,353.8	-989.6	3,472.0	3,213.2	258.74	13.419	
11,200.0	6,639.9	6,643.9	6,643.9	130.1	131.1	89.58	1,353.8	-989.6	3,548.8	3,287.9	260.91	13.602	
11,220.4	6,639.9	6,643.9	6,643.9	130.6	131.1	89.57	1,353.8	-989.6	3,569.0	3,307.5	261.48	13.649	
11,300.0	6,639.8	6,643.8	6,643.8	132.8	131.1	89.56	1,353.8	-989.6	3,647.4	3,383.7	263.70	13.832	
11,318.9	6,639.8	6,643.8	6,643.8	133.4	131.1	89.56	1,353.8	-989.6	3,666.0	3,401.8	264.23	13.875	
11,400.0	6,639.7	6,643.7	6,643.7	135.6	131.1	89.55	1,353.8	-989.6	3,746.1	3,479.6	266.49	14.057	
11,417.3	6,639.7	6,643.7	6,643.7	136.1	131.1	89.55	1,353.8	-989.6	3,763.2	3,496.2	266.97	14.096	
11,500.0	6,639.6	6,643.6	6,643.6	138.4	131.1	89.54	1,353.8	-989.6	3,844.8	3,575.6	269.28	14.278	
11,515.7	6,639.5	6,643.5	6,643.5	138.9	131.1	89.54	1,353.8	-989.6	3,860.4	3,590.7	269.71	14.313	
11,600.0	6,639.4	6,643.4	6,643.4	141.2	131.0	89.53	1,353.8	-989.6	3,943.6	3,671.6	272.07	14.495	
11,614.1	6,639.4	6,643.4	6,643.4	141.6	131.0	89.52	1,353.8	-989.6	3,957.6	3,685.2	272.46	14.526	
11,700.0	6,639.3	6,643.3	6,643.3	144.0	131.0	89.51	1,353.8	-989.6	4,042.5	3,767.7	274.86	14.708	
11,712.6	6,639.3	6,643.3	6,643.3	144.3	131.0	89.51	1,353.8	-989.6	4,055.0	3,779.7	275.21	14.734	
11,800.0	6,639.2	6,643.2	6,643.2	146.8	131.0	89.50	1,353.8	-989.6	4,141.4	3,863.8	277.65	14.916	
11,811.0	6,639.2	6,643.2	6,643.2	147.1	131.0	89.50	1,353.8	-989.6	4,152.3	3,874.4	277.95	14.939	
11,900.0	6,639.1	6,643.1	6,643.1	149.6	131.0	89.49	1,353.8	-989.6	4,240.4	3,960.0	280.44	15.121	
11,909.4	6,639.0	6,643.0	6,643.0	149.8	131.0	89.49	1,353.8	-989.6	4,249.7	3,969.0	280.70	15.140	
12,000.0	6,638.9	6,642.9	6,642.9	152.4	131.0	89.47	1,353.8	-989.6	4,339.4	4,056.2	283.23	15.321	
12,007.8	6,638.9	6,642.9	6,642.9	152.6	131.0	89.47	1,353.8	-989.6	4,347.2	4,063.8	283.45	15.337	
12,100.0	6,638.8	6,642.8	6,642.8	155.2	131.0	89.46	1,353.8	-989.6	4,438.5	4,152.5	286.02	15.518	
12,106.3	6,638.8	6,642.8	6,642.8	155.3	131.0	89.46	1,353.8	-989.6	4,444.7	4,158.5	286.20	15.530	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,200.0	6,638.7	6,642.7	6,642.7	157.9	131.0	89.45	1,353.8	-989.6	4,537.6	4,248.8	288.82	15.711	
12,204.7	6,638.7	6,642.7	6,642.7	158.1	131.0	89.45	1,353.8	-989.6	4,542.3	4,253.3	288.95	15.720	
12,300.0	6,638.5	6,642.5	6,642.5	160.7	131.0	89.44	1,353.8	-989.6	4,636.8	4,345.1	291.61	15.901	
12,303.1	6,638.5	6,642.5	6,642.5	160.8	131.0	89.44	1,353.8	-989.6	4,639.9	4,348.2	291.70	15.906	
12,400.0	6,638.4	6,642.4	6,642.4	163.5	131.0	89.42	1,353.8	-989.6	4,735.9	4,441.5	294.40	16.087	
12,401.5	6,638.4	6,642.4	6,642.4	163.6	131.0	89.42	1,353.8	-989.6	4,737.5	4,443.0	294.45	16.089	
12,500.0	6,638.3	6,642.3	6,642.3	166.3	131.0	89.41	1,353.8	-989.6	4,835.2	4,538.0	297.20	16.269	
12,598.4	6,638.2	6,642.2	6,642.2	169.1	131.0	89.40	1,353.8	-989.6	4,932.8	4,632.9	299.95	16.446	
12,600.0	6,638.2	6,642.2	6,642.2	169.1	131.0	89.40	1,353.8	-989.6	4,934.4	4,634.4	299.99	16.448	
12,696.8	6,638.0	6,642.0	6,642.0	171.8	131.0	89.39	1,353.8	-989.6	5,030.5	4,727.8	302.70	16.619	
12,700.0	6,638.0	6,642.0	6,642.0	171.9	131.0	89.39	1,353.8	-989.6	5,033.7	4,730.9	302.79	16.624	
12,795.2	6,637.9	6,641.9	6,641.9	174.6	131.0	89.37	1,353.8	-989.6	5,128.3	4,822.8	305.45	16.789	
12,800.0	6,637.9	6,641.9	6,641.9	174.7	131.0	89.37	1,353.8	-989.6	5,133.0	4,827.4	305.58	16.797	
12,893.7	6,637.8	6,641.8	6,641.8	177.3	131.0	89.36	1,353.8	-989.6	5,226.0	4,917.8	308.20	16.956	
12,900.0	6,637.8	6,641.8	6,641.8	177.5	131.0	89.36	1,353.8	-989.6	5,232.3	4,923.9	308.38	16.967	
12,992.1	6,637.7	6,641.7	6,641.7	180.1	131.0	89.35	1,353.8	-989.6	5,323.8	5,012.9	310.96	17.121	
13,000.0	6,637.6	6,641.6	6,641.6	180.3	131.0	89.35	1,353.8	-989.6	5,331.7	5,020.5	311.18	17.134	
13,090.5	6,637.5	6,641.5	6,641.5	182.8	131.0	89.34	1,353.8	-989.6	5,421.6	5,107.9	313.71	17.282	
13,100.0	6,637.5	6,641.5	6,641.5	183.1	131.0	89.33	1,353.8	-989.6	5,431.0	5,117.1	313.97	17.298	
13,188.9	6,637.4	6,641.4	6,641.4	185.6	131.0	89.32	1,353.8	-989.6	5,519.5	5,203.0	316.46	17.441	
13,200.0	6,637.4	6,641.4	6,641.4	185.9	131.0	89.32	1,353.8	-989.6	5,530.4	5,213.7	316.77	17.459	
13,287.4	6,637.3	6,641.3	6,641.3	188.4	131.0	89.31	1,353.8	-989.6	5,617.3	5,298.1	319.21	17.597	
13,300.0	6,637.3	6,641.3	6,641.3	188.7	131.0	89.31	1,353.8	-989.6	5,629.9	5,310.3	319.57	17.617	
13,385.8	6,637.1	6,641.1	6,641.1	191.1	131.0	89.30	1,353.8	-989.6	5,715.2	5,393.2	321.97	17.751	
13,400.0	6,637.1	6,641.1	6,641.1	191.5	131.0	89.29	1,353.8	-989.6	5,729.3	5,406.9	322.37	17.773	
13,484.2	6,637.0	6,641.0	6,641.0	193.9	131.0	89.28	1,353.8	-989.6	5,813.1	5,488.4	324.72	17.902	
13,500.0	6,637.0	6,641.0	6,641.0	194.3	131.0	89.28	1,353.8	-989.6	5,828.8	5,503.6	325.16	17.926	
13,582.6	6,636.9	6,640.9	6,640.9	196.6	131.0	89.27	1,353.8	-989.6	5,911.0	5,583.5	327.48	18.050	
13,600.0	6,636.9	6,640.9	6,640.9	197.1	131.0	89.27	1,353.8	-989.6	5,928.3	5,600.3	327.96	18.076	
13,681.1	6,636.8	6,640.8	6,640.8	199.4	131.0	89.26	1,353.8	-989.6	6,008.9	5,678.7	330.23	18.196	
13,700.0	6,636.7	6,640.7	6,640.7	199.9	131.0	89.26	1,353.8	-989.6	6,027.8	5,697.0	330.76	18.224	
13,779.5	6,636.6	6,640.6	6,640.6	202.1	131.0	89.25	1,353.8	-989.6	6,106.9	5,773.9	332.98	18.340	
13,800.0	6,636.6	6,640.6	6,640.6	202.7	131.0	89.24	1,353.8	-989.6	6,127.3	5,793.7	333.56	18.369	
13,877.9	6,636.5	6,640.5	6,640.5	204.9	131.0	89.23	1,353.8	-989.6	6,204.8	5,869.1	335.74	18.481	
13,900.0	6,636.5	6,640.5	6,640.5	205.5	131.0	89.23	1,353.8	-989.6	6,226.8	5,890.4	336.36	18.512	
13,976.3	6,636.4	6,640.4	6,640.4	207.6	131.0	89.22	1,353.8	-989.6	6,302.8	5,964.3	338.49	18.620	
14,000.0	6,636.3	6,640.3	6,640.3	208.3	131.0	89.22	1,353.8	-989.6	6,326.3	5,987.2	339.16	18.653	
14,074.8	6,636.3	6,640.3	6,640.3	210.4	131.0	89.21	1,353.8	-989.6	6,400.8	6,059.5	341.25	18.757	
14,100.0	6,636.2	6,640.2	6,640.2	211.1	131.0	89.20	1,353.8	-989.6	6,425.9	6,083.9	341.96	18.792	
14,173.2	6,636.1	6,640.1	6,640.1	213.2	131.0	89.19	1,353.8	-989.6	6,498.8	6,154.8	344.00	18.892	
14,200.0	6,636.1	6,640.1	6,640.1	213.9	131.0	89.19	1,353.8	-989.6	6,525.5	6,180.7	344.75	18.928	
14,271.6	6,636.0	6,640.0	6,640.0	215.9	131.0	89.18	1,353.8	-989.6	6,596.8	6,250.0	346.76	19.024	
14,300.0	6,636.0	6,640.0	6,640.0	216.7	131.0	89.18	1,353.8	-989.6	6,625.1	6,277.5	347.55	19.062	
14,370.0	6,635.9	6,639.9	6,639.9	218.7	131.0	89.17	1,353.8	-989.6	6,694.8	6,345.3	349.52	19.155	
14,400.0	6,635.8	6,639.8	6,639.8	219.5	131.0	89.16	1,353.8	-989.6	6,724.7	6,374.3	350.35	19.194	
14,468.5	6,635.7	6,639.7	6,639.7	221.4	131.0	89.15	1,353.8	-989.6	6,792.9	6,440.6	352.27	19.283	
14,500.0	6,635.7	6,639.7	6,639.7	222.3	131.0	89.15	1,353.8	-989.6	6,824.3	6,471.1	353.15	19.324	
14,566.9	6,635.6	6,639.6	6,639.6	224.2	131.0	89.14	1,353.8	-989.6	6,890.9	6,535.9	355.03	19.410	
14,600.0	6,635.6	6,639.6	6,639.6	225.1	131.0	89.14	1,353.8	-989.6	6,923.9	6,567.9	355.95	19.512	
14,665.3	6,635.5	6,639.5	6,639.5	226.9	131.0	89.13	1,353.8	-989.6	6,989.0	6,631.2	357.78	19.534	
14,700.0	6,635.4	6,639.4	6,639.4	227.9	131.0	89.12	1,353.8	-989.6	7,023.5	6,664.8	358.75	19.578	
14,763.7	6,635.4	6,639.4	6,639.4	229.7	131.0	89.12	1,353.8	-989.6	7,087.0	6,726.5	360.54	19.657	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT HEINRICH #41-9 - 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
14,800.0	6,635.3	6,639.3	6,639.3	230.7	131.0	89.11	1,353.8	-989.6	7,123.2	6,761.6	361.55	19.701	
14,862.2	6,635.2	6,639.2	6,639.2	232.5	131.0	89.10	1,353.8	-989.6	7,185.1	6,821.8	363.30	19.778	
14,900.0	6,635.2	6,639.2	6,639.2	233.5	131.0	89.10	1,353.8	-989.6	7,222.8	6,858.5	364.36	19.824	
14,960.6	6,635.1	6,639.1	6,639.1	235.2	131.0	89.09	1,353.8	-989.6	7,283.2	6,917.1	366.05	19.897	
15,000.0	6,635.0	6,639.0	6,639.0	236.3	131.0	89.08	1,353.8	-989.6	7,322.5	6,955.3	367.16	19.944	
15,033.1	6,635.0	6,639.0	6,639.0	237.3	131.0	89.08	1,353.8	-989.6	7,355.4	6,987.4	368.08	19.983	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-102.33	-1,373.4	-6,282.6	6,431.1				
98.4	98.4	79.3	79.3	0.1	0.0	-102.33	-1,373.3	-6,282.6	6,430.9	6,430.8	0.11	N/A	
100.0	100.0	81.3	81.3	0.1	0.0	-102.33	-1,373.3	-6,282.6	6,430.9	6,430.8	0.11	N/A	
196.8	196.8	198.1	198.1	0.3	0.2	-102.33	-1,372.8	-6,282.2	6,430.5	6,430.0	0.52	N/A	
200.0	200.0	201.6	201.6	0.3	0.2	-102.33	-1,372.7	-6,282.2	6,430.5	6,430.0	0.54	N/A	
295.3	295.3	299.5	299.5	0.5	0.3	-102.32	-1,372.3	-6,281.7	6,429.9	6,429.1	0.84	7,668.814	
300.0	300.0	300.0	300.0	0.5	0.3	-102.32	-1,372.3	-6,281.7	6,429.9	6,429.1	0.85	7,569.168	
393.7	393.7	373.8	373.8	0.8	0.3	-102.32	-1,372.0	-6,281.4	6,429.5	6,428.4	1.11	5,817.261	
400.0	400.0	378.6	378.6	0.8	0.4	-102.32	-1,372.0	-6,281.4	6,429.5	6,428.4	1.12	5,728.780	
492.1	492.1	489.1	489.1	1.0	0.4	-102.32	-1,371.5	-6,281.2	6,429.3	6,427.9	1.40	4,606.566	
500.0	500.0	500.1	500.1	1.0	0.4	-102.32	-1,371.4	-6,281.1	6,429.2	6,427.8	1.42	4,527.815	
590.5	590.5	592.7	592.7	1.2	0.5	-102.31	-1,371.0	-6,280.7	6,428.7	6,427.0	1.68	3,834.437	
600.0	600.0	600.0	600.0	1.2	0.5	-102.31	-1,371.0	-6,280.7	6,428.7	6,427.0	1.70	3,777.165	
689.0	689.0	674.6	674.6	1.4	0.5	-102.31	-1,370.7	-6,280.4	6,428.3	6,426.3	1.94	3,309.973	
700.0	700.0	683.6	683.6	1.4	0.5	-102.31	-1,370.7	-6,280.4	6,428.2	6,426.3	1.97	3,260.212	
787.4	787.4	759.8	759.8	1.6	0.6	-102.31	-1,370.6	-6,280.2	6,428.1	6,425.9	2.20	2,918.420	
800.0	800.0	771.0	771.0	1.7	0.6	-102.31	-1,370.5	-6,280.2	6,428.0	6,425.8	2.24	2,875.191	
885.8	885.8	852.3	852.3	1.9	0.6	-102.31	-1,370.4	-6,280.2	6,428.0	6,425.5	2.46	2,608.790	
900.0	900.0	866.3	866.2	1.9	0.6	-102.31	-1,370.3	-6,280.2	6,428.0	6,425.5	2.50	2,569.184	
984.2	984.2	970.9	970.9	2.1	0.6	-102.31	-1,370.3	-6,280.1	6,427.9	6,425.2	2.73	2,357.992	
1,000.0	1,000.0	993.2	993.2	2.1	0.7	-102.31	-1,370.2	-6,280.0	6,427.9	6,425.1	2.77	2,322.460	
1,023.0	1,023.0	1,013.4	1,013.4	2.2	0.7	-129.31	-1,370.2	-6,280.0	6,427.8	6,425.0	2.80	2,296.480	
1,082.7	1,082.7	1,057.2	1,057.2	2.3	0.7	-129.31	-1,370.3	-6,279.8	6,428.3	6,425.4	2.94	2,187.007	
1,100.0	1,100.0	1,069.9	1,069.9	2.3	0.7	-129.31	-1,370.3	-6,279.8	6,428.7	6,425.7	2.98	2,157.100	
1,181.1	1,181.0	1,136.2	1,136.2	2.5	0.7	-129.29	-1,370.4	-6,279.8	6,431.2	6,428.1	3.17	2,026.789	
1,200.0	1,199.8	1,153.2	1,153.2	2.6	0.7	-129.28	-1,370.4	-6,279.8	6,432.1	6,428.9	3.22	1,998.639	
1,279.5	1,279.1	1,248.7	1,248.7	2.8	0.7	-129.27	-1,370.5	-6,280.0	6,436.4	6,433.0	3.41	1,887.839	
1,300.0	1,299.5	1,284.7	1,284.7	2.8	0.7	-129.28	-1,370.5	-6,279.9	6,437.7	6,434.2	3.46	1,862.223	
1,377.9	1,376.9	1,364.0	1,364.0	3.0	0.7	-129.26	-1,370.5	-6,279.6	6,443.3	6,439.6	3.67	1,755.788	
1,400.0	1,398.7	1,384.3	1,384.3	3.0	0.7	-129.25	-1,370.5	-6,279.5	6,445.1	6,441.4	3.73	1,727.778	
1,476.4	1,474.2	1,456.5	1,456.5	3.2	0.7	-129.21	-1,370.6	-6,279.3	6,452.3	6,448.3	3.96	1,630.789	
1,500.0	1,497.5	1,479.0	1,479.0	3.3	0.7	-129.20	-1,370.7	-6,279.2	6,454.8	6,450.7	4.03	1,603.112	
1,574.8	1,571.0	1,550.2	1,550.2	3.5	0.8	-129.16	-1,370.8	-6,279.0	6,463.5	6,459.2	4.26	1,515.749	
1,600.0	1,595.6	1,574.2	1,574.1	3.6	0.8	-129.14	-1,370.9	-6,279.0	6,466.7	6,462.4	4.34	1,488.801	
1,673.2	1,667.2	1,643.9	1,643.9	3.9	0.8	-129.25	-1,371.0	-6,278.8	6,476.3	6,471.8	4.57	1,416.342	
1,700.0	1,693.4	1,669.4	1,669.4	4.0	0.8	-129.28	-1,371.0	-6,278.7	6,479.9	6,475.2	4.65	1,392.475	
1,771.6	1,763.5	1,735.4	1,735.4	4.2	0.8	-129.37	-1,370.6	-6,278.7	6,489.3	6,484.4	4.89	1,327.298	
1,800.0	1,791.3	1,760.8	1,760.8	4.3	0.8	-129.41	-1,370.4	-6,278.8	6,493.1	6,488.1	4.98	1,302.963	
1,870.1	1,859.8	1,826.5	1,826.5	4.6	0.8	-129.50	-1,369.8	-6,278.9	6,502.4	6,497.2	5.23	1,244.028	
1,900.0	1,889.1	1,856.8	1,856.8	4.7	0.8	-129.54	-1,369.5	-6,278.9	6,506.4	6,501.1	5.33	1,220.636	
1,968.5	1,956.1	1,928.2	1,928.1	4.9	0.9	-129.63	-1,368.8	-6,279.1	6,515.6	6,510.0	5.57	1,168.812	
2,000.0	1,986.9	1,962.4	1,962.4	5.1	0.9	-129.68	-1,368.4	-6,279.1	6,519.8	6,514.1	5.69	1,146.392	
2,066.9	2,052.3	2,029.7	2,029.6	5.3	0.9	-129.77	-1,367.6	-6,279.2	6,528.7	6,522.7	5.93	1,101.047	
2,100.0	2,084.7	2,060.0	2,060.0	5.5	0.9	-129.80	-1,367.1	-6,279.2	6,533.1	6,527.0	6.05	1,080.122	
2,165.3	2,148.6	2,136.3	2,136.3	5.7	0.9	-129.90	-1,365.4	-6,279.5	6,541.8	6,535.5	6.29	1,039.952	
2,200.0	2,182.5	2,194.1	2,194.0	5.9	0.9	-129.97	-1,364.2	-6,279.4	6,546.3	6,539.8	6.42	1,019.323	
2,263.8	2,244.9	2,240.8	2,240.7	6.1	1.0	-130.03	-1,363.3	-6,279.4	6,554.5	6,547.8	6.65	984.930	
2,300.0	2,280.3	2,265.4	2,265.3	6.3	1.0	-130.06	-1,362.9	-6,279.4	6,559.3	6,552.5	6.79	966.539	
2,362.2	2,341.2	2,316.6	2,316.5	6.5	1.0	-130.12	-1,361.8	-6,279.5	6,567.6	6,560.6	7.02	935.978	
2,400.0	2,378.1	2,373.2	2,373.1	6.7	1.0	-130.19	-1,360.9	-6,279.6	6,572.6	6,565.4	7.16	917.642	
2,460.6	2,437.4	2,500.0	2,499.9	6.9	1.1	-130.35	-1,359.0	-6,278.7	6,580.1	6,572.7	7.40	888.806	
2,500.0	2,476.0	2,538.9	2,538.7	7.1	1.1	-130.40	-1,358.3	-6,278.2	6,584.8	6,577.3	7.55	871.943	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-1 - 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				
2,550.0	2,524.9	2,569.1	2,569.0	7.3	1.1	-130.44	-1,357.6	-6,277.9	6,591.0	6,583.3	7.74	851.867				
2,559.0	2,533.7	2,574.6	2,574.5	7.3	1.1	-129.58	-1,357.5	-6,277.9	6,592.1	6,584.3	7.77	848.527				
2,600.0	2,573.8	2,600.0	2,599.9	7.5	1.1	-125.71	-1,357.0	-6,277.7	6,597.0	6,589.0	7.91	833.728				
2,639.4	2,612.3	2,632.8	2,632.6	7.7	1.1	-122.01	-1,356.2	-6,277.6	6,601.2	6,593.2	8.05	820.030				
2,657.5	2,630.0	2,648.3	2,648.1	7.7	1.1	-122.03	-1,355.9	-6,277.6	6,603.1	6,595.0	8.12	813.306				
2,700.0	2,671.6	2,684.6	2,684.4	7.9	1.1	-122.08	-1,355.3	-6,277.5	6,607.6	6,599.3	8.28	797.973				
2,755.9	2,726.3	2,761.9	2,761.7	8.1	1.1	-122.19	-1,353.9	-6,277.1	6,613.4	6,604.9	8.51	777.281				
2,800.0	2,769.4	2,832.9	2,832.7	8.3	1.2	-122.28	-1,352.2	-6,276.6	6,617.8	6,609.1	8.69	761.567				
2,854.3	2,822.5	2,911.9	2,911.7	8.5	1.2	-122.39	-1,350.3	-6,275.7	6,623.0	6,614.1	8.91	743.129				
2,900.0	2,867.2	2,957.6	2,957.4	8.7	1.2	-122.45	-1,349.4	-6,275.1	6,627.3	6,618.2	9.10	728.605				
2,952.7	2,918.8	3,011.0	3,010.7	9.0	1.2	-122.53	-1,348.7	-6,274.2	6,632.2	6,622.9	9.31	712.444				
3,000.0	2,965.0	3,061.4	3,061.1	9.2	1.2	-122.61	-1,348.3	-6,273.3	6,636.7	6,627.2	9.50	698.467				
3,051.2	3,015.1	3,100.0	3,099.7	9.4	1.3	-122.66	-1,348.1	-6,272.5	6,641.5	6,631.8	9.71	684.196				
3,100.0	3,062.8	3,144.2	3,143.9	9.6	1.3	-122.73	-1,348.0	-6,271.7	6,646.1	6,636.2	9.91	670.939				
3,149.6	3,111.4	3,178.6	3,178.3	9.8	1.3	-122.78	-1,347.8	-6,271.2	6,651.0	6,640.9	10.11	658.163				
3,200.0	3,160.7	3,200.0	3,199.7	10.0	1.3	-122.82	-1,347.7	-6,270.9	6,656.0	6,645.7	10.30	645.941				
3,248.0	3,207.6	3,240.0	3,239.7	10.2	1.3	-122.88	-1,347.5	-6,270.4	6,661.0	6,650.5	10.50	634.295				
3,300.0	3,258.5	3,270.7	3,270.4	10.5	1.3	-122.92	-1,347.4	-6,270.2	6,666.5	6,655.8	10.71	622.428				
3,346.4	3,303.9	3,300.0	3,299.7	10.7	1.3	-122.97	-1,347.4	-6,270.0	6,671.6	6,660.7	10.90	612.167				
3,400.0	3,356.3	3,326.4	3,326.1	10.9	1.3	-123.01	-1,347.3	-6,270.0	6,677.6	6,666.5	11.11	601.206				
3,444.9	3,400.2	3,349.9	3,349.6	11.1	1.3	-123.04	-1,347.3	-6,270.0	6,682.8	6,671.5	11.28	592.365				
3,500.0	3,454.1	3,400.0	3,399.7	11.3	1.3	-123.12	-1,347.2	-6,270.3	6,689.4	6,677.9	11.49	581.962				
3,543.3	3,496.5	3,400.0	3,399.7	11.5	1.3	-123.12	-1,347.2	-6,270.3	6,694.7	6,683.0	11.66	574.044				
3,600.0	3,551.9	3,436.9	3,436.6	11.7	1.3	-123.17	-1,347.2	-6,270.7	6,701.8	6,689.9	11.88	563.998				
3,641.7	3,592.7	3,462.8	3,462.5	11.9	1.3	-123.21	-1,347.3	-6,271.0	6,707.2	6,695.2	12.05	556.820				
3,700.0	3,649.7	3,500.0	3,499.7	12.2	1.3	-123.26	-1,347.5	-6,271.6	6,714.9	6,702.6	12.27	547.108				
3,740.1	3,689.0	3,540.2	3,539.9	12.4	1.3	-123.33	-1,347.9	-6,272.2	6,720.2	6,707.8	12.43	540.638				
3,800.0	3,747.5	3,600.0	3,599.7	12.6	1.3	-123.42	-1,348.5	-6,273.1	6,728.2	6,715.5	12.66	531.288				
3,838.6	3,785.3	3,625.9	3,625.6	12.8	1.3	-123.46	-1,348.7	-6,273.5	6,733.3	6,720.5	12.81	525.450				
3,900.0	3,845.4	3,664.5	3,664.2	13.1	1.3	-123.52	-1,349.0	-6,274.2	6,741.7	6,728.7	13.05	516.449				
3,937.0	3,881.6	3,700.0	3,699.7	13.2	1.3	-123.57	-1,349.2	-6,275.0	6,746.9	6,733.7	13.20	511.174				
4,000.0	3,943.2	3,761.9	3,761.5	13.5	1.3	-123.66	-1,349.5	-6,276.4	6,755.7	6,742.3	13.45	502.465				
4,035.4	3,977.8	3,808.6	3,808.3	13.6	1.3	-123.73	-1,349.6	-6,277.4	6,760.6	6,747.0	13.58	497.689				
4,100.0	4,041.0	3,872.5	3,872.1	13.9	1.3	-123.82	-1,349.6	-6,278.7	6,769.5	6,755.7	13.84	489.267				
4,133.8	4,074.1	3,908.6	3,908.2	14.1	1.3	-123.87	-1,349.5	-6,279.5	6,774.1	6,760.2	13.97	484.966				
4,200.0	4,138.8	4,004.3	4,003.9	14.4	1.4	-124.00	-1,349.1	-6,281.3	6,783.1	6,768.9	14.23	476.746				
4,232.3	4,170.4	4,082.0	4,081.6	14.5	1.4	-124.11	-1,348.7	-6,282.3	6,787.3	6,772.9	14.35	472.825				
4,300.0	4,236.6	4,175.9	4,175.4	14.8	1.4	-124.24	-1,348.4	-6,283.0	6,795.7	6,781.0	14.62	464.933				
4,330.7	4,266.7	4,211.1	4,210.7	14.9	1.4	-124.30	-1,348.4	-6,283.1	6,799.4	6,784.7	14.74	461.434				
4,400.0	4,334.4	4,277.9	4,277.5	15.2	1.4	-124.39	-1,348.4	-6,283.3	6,807.9	6,792.9	15.01	453.698				
4,429.1	4,362.9	4,306.1	4,305.7	15.4	1.4	-124.43	-1,348.4	-6,283.4	6,811.5	6,796.3	15.12	450.517				
4,500.0	4,432.3	4,376.4	4,376.0	15.7	1.4	-124.53	-1,348.2	-6,283.7	6,820.1	6,804.7	15.40	442.898				
4,527.5	4,459.2	4,400.0	4,399.6	15.8	1.4	-124.57	-1,348.2	-6,283.8	6,823.5	6,808.0	15.51	440.014				
4,600.0	4,530.1	4,457.0	4,456.6	16.1	1.4	-124.65	-1,348.1	-6,284.0	6,832.5	6,816.7	15.79	432.629				
4,626.0	4,555.5	4,476.4	4,476.0	16.2	1.4	-124.68	-1,348.0	-6,284.2	6,835.8	6,819.9	15.90	430.048				
4,700.0	4,627.9	4,543.1	4,542.7	16.6	1.4	-124.77	-1,347.9	-6,284.7	6,845.3	6,829.1	16.19	422.865				
4,724.4	4,651.7	4,567.9	4,567.4	16.7	1.4	-124.80	-1,347.8	-6,284.9	6,848.4	6,832.1	16.28	420.547				
4,800.0	4,725.7	4,600.0	4,599.6	17.0	1.5	-124.85	-1,347.8	-6,285.2	6,858.2	6,841.6	16.58	413.611				
4,822.8	4,748.0	4,634.4	4,633.9	17.1	1.5	-124.90	-1,347.7	-6,285.6	6,861.1	6,844.4	16.67	411.519				
4,904.9	4,828.3	4,700.0	4,699.6	17.5	1.5	-124.99	-1,347.8	-6,286.6	6,872.3	6,855.3	17.00	404.307				
4,921.2	4,844.3	4,700.0	4,699.6	17.5	1.5	-125.03	-1,347.8	-6,286.6	6,874.5	6,857.4	17.05	403.307				
5,000.0	4,921.6	4,761.9	4,761.4	17.8	1.5	-125.27	-1,348.1	-6,287.8	6,884.6	6,867.3	17.28	398.435				

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,019.7	4,941.0	4,786.6	4,786.1	17.9	1.5	-125.34	-1,348.3	-6,288.2	6,886.9	6,869.6	17.32	397.514		
5,100.0	5,020.4	4,938.0	4,937.5	18.1	1.5	-125.64	-1,349.6	-6,289.3	6,894.8	6,877.3	17.51	393.747		
5,118.1	5,038.3	4,950.1	4,949.7	18.2	1.5	-125.68	-1,349.7	-6,289.4	6,896.4	6,878.9	17.55	393.022		
5,200.0	5,119.6	5,011.3	5,010.8	18.4	1.5	-125.84	-1,350.2	-6,289.9	6,903.0	6,885.3	17.71	389.692		
5,216.5	5,136.0	5,035.1	5,034.6	18.4	1.5	-125.87	-1,350.4	-6,290.1	6,904.2	6,886.5	17.74	389.094		
5,300.0	5,219.2	5,171.1	5,170.6	18.6	1.5	-126.03	-1,351.3	-6,290.6	6,909.0	6,891.1	17.90	386.007		
5,314.9	5,234.1	5,198.7	5,198.2	18.6	1.5	-126.06	-1,351.5	-6,290.6	6,909.6	6,891.7	17.92	385.539		
5,400.0	5,319.1	5,335.2	5,334.7	18.8	1.5	-126.15	-1,352.0	-6,289.9	6,911.8	6,893.8	18.06	382.728		
5,413.4	5,332.4	5,353.3	5,352.9	18.8	1.5	-126.16	-1,352.1	-6,289.7	6,912.0	6,893.9	18.08	382.342		
5,504.9	5,423.9	5,500.0	5,499.5	18.9	1.5	-107.75	-1,352.3	-6,287.9	6,911.8	6,894.6	17.18	402.298		
5,511.8	5,430.8	5,507.1	5,506.7	18.9	1.5	-107.75	-1,352.2	-6,287.8	6,911.7	6,894.5	17.19	402.036		
5,600.0	5,519.0	5,594.1	5,593.6	19.0	1.5	-107.76	-1,352.1	-6,286.4	6,910.3	6,892.9	17.33	398.640		
5,610.2	5,529.3	5,604.6	5,604.1	19.0	1.5	-107.76	-1,352.1	-6,286.2	6,910.1	6,892.8	17.35	398.210		
5,700.0	5,619.0	5,700.0	5,699.5	19.2	1.5	-107.77	-1,352.6	-6,284.4	6,908.6	6,891.1	17.51	394.506		
5,708.6	5,627.7	5,709.2	5,708.6	19.2	1.5	-107.77	-1,352.7	-6,284.2	6,908.5	6,891.0	17.53	394.151		
5,800.0	5,719.0	5,791.6	5,791.1	19.3	1.6	-107.78	-1,353.7	-6,282.5	6,907.0	6,889.3	17.69	390.475		
5,807.1	5,726.1	5,800.0	5,799.5	19.3	1.6	-107.78	-1,353.8	-6,282.3	6,906.9	6,889.2	17.70	390.188		
5,900.0	5,819.0	5,865.8	5,865.3	19.4	1.6	-107.79	-1,354.7	-6,281.1	6,905.6	6,887.8	17.86	386.554		
5,905.5	5,824.5	5,869.8	5,869.3	19.4	1.6	-107.79	-1,354.8	-6,281.0	6,905.6	6,887.7	17.87	386.340		
6,003.9	5,923.0	5,942.6	5,942.0	19.6	1.6	-107.80	-1,355.9	-6,279.9	6,904.6	6,886.6	18.05	382.560		
6,009.8	5,928.8	5,947.0	5,946.4	19.6	1.6	-107.80	-1,356.0	-6,279.8	6,904.6	6,886.5	18.06	382.338		
6,050.0	5,969.0	5,977.0	5,976.5	19.6	1.6	-17.85	-1,356.4	-6,279.5	6,903.2	6,884.2	19.08	361.797		
6,100.0	6,018.8	6,019.0	6,018.4	19.7	1.6	-17.97	-1,356.9	-6,279.1	6,898.6	6,879.5	19.12	360.761		
6,102.3	6,021.1	6,021.3	6,020.7	19.7	1.6	-17.98	-1,356.9	-6,279.1	6,898.3	6,879.2	19.12	360.701		
6,150.0	6,068.1	6,067.9	6,067.3	19.7	1.6	-18.20	-1,357.4	-6,278.7	6,890.8	6,871.6	19.17	359.535		
6,200.0	6,116.8	6,114.9	6,114.3	19.7	1.6	-18.52	-1,357.8	-6,278.3	6,879.7	6,860.5	19.19	358.511		
6,200.8	6,117.5	6,115.6	6,114.9	19.7	1.6	-18.52	-1,357.8	-6,278.3	6,879.5	6,860.3	19.19	358.497		
6,250.0	6,164.5	6,158.5	6,157.9	19.7	1.6	-18.94	-1,358.3	-6,277.9	6,865.4	6,846.2	19.18	358.000		
6,299.2	6,210.4	6,200.5	6,199.8	19.7	1.6	-19.47	-1,358.9	-6,277.6	6,848.3	6,829.2	19.12	358.181		
6,300.0	6,211.1	6,201.5	6,200.8	19.7	1.6	-19.48	-1,358.9	-6,277.6	6,848.0	6,828.9	19.12	358.188		
6,350.0	6,256.4	6,263.0	6,262.4	19.7	1.6	-20.18	-1,359.7	-6,277.0	6,827.5	6,808.5	19.02	358.966		
6,397.6	6,298.0	6,318.0	6,317.4	19.7	1.6	-20.99	-1,360.4	-6,276.4	6,805.2	6,786.3	18.88	360.451		
6,400.0	6,300.0	6,320.6	6,319.9	19.7	1.6	-21.04	-1,360.4	-6,276.3	6,804.0	6,785.1	18.87	360.551		
6,450.0	6,341.8	6,372.8	6,372.2	19.7	1.6	-22.06	-1,361.0	-6,275.7	6,777.6	6,758.9	18.67	362.940		
6,496.0	6,378.6	6,421.9	6,421.3	19.7	1.6	-23.20	-1,361.5	-6,275.0	6,750.9	6,732.4	18.46	365.692		
6,500.0	6,381.6	6,426.4	6,425.8	19.7	1.6	-23.31	-1,361.5	-6,274.9	6,748.5	6,730.0	18.44	365.963		
6,550.0	6,419.2	6,481.4	6,480.7	19.6	1.6	-24.82	-1,362.1	-6,273.9	6,716.7	6,698.5	18.18	369.391		
6,594.5	6,450.7	6,514.4	6,513.7	19.6	1.6	-26.37	-1,362.5	-6,273.3	6,686.4	6,668.5	17.94	372.753		
6,600.0	6,454.4	6,517.3	6,516.6	19.6	1.6	-26.58	-1,362.5	-6,273.2	6,682.5	6,664.6	17.90	373.228		
6,650.0	6,487.1	6,542.4	6,541.7	19.6	1.6	-28.66	-1,362.9	-6,272.7	6,646.2	6,628.5	17.64	376.775		
6,692.9	6,513.0	6,562.2	6,561.6	19.6	1.6	-30.78	-1,363.2	-6,272.4	6,613.4	6,596.0	17.47	378.650		
6,700.0	6,517.0	6,565.4	6,564.7	19.6	1.6	-31.17	-1,363.2	-6,272.3	6,607.9	6,590.4	17.44	378.943		
6,750.0	6,544.1	6,586.1	6,585.4	19.6	1.6	-34.22	-1,363.5	-6,271.9	6,567.7	6,550.4	17.35	378.466		
6,791.3	6,564.2	6,600.0	6,599.3	19.7	1.6	-37.23	-1,363.8	-6,271.7	6,533.4	6,516.0	17.39	375.647		
6,800.0	6,568.2	6,600.0	6,599.3	19.7	1.6	-37.90	-1,363.8	-6,271.7	6,526.0	6,508.6	17.45	374.072		
6,850.0	6,589.1	6,619.2	6,618.5	19.8	1.6	-42.50	-1,364.2	-6,271.3	6,482.9	6,465.1	17.80	364.298		
6,889.7	6,603.5	6,629.4	6,628.7	19.9	1.6	-46.86	-1,364.4	-6,271.2	6,447.8	6,429.5	18.27	352.822		
6,900.0	6,606.9	6,631.8	6,631.1	19.9	1.6	-48.11	-1,364.4	-6,271.1	6,438.6	6,420.2	18.42	349.474		
6,950.0	6,621.3	6,641.9	6,641.2	20.2	1.6	-54.98	-1,364.6	-6,271.0	6,393.3	6,374.0	19.32	330.897		
6,988.2	6,630.0	6,648.0	6,647.3	20.6	1.6	-61.16	-1,364.8	-6,270.9	6,358.2	6,338.0	20.14	315.723		
7,000.0	6,632.4	6,649.6	6,648.9	20.7	1.6	-63.25	-1,364.8	-6,270.8	6,347.2	6,326.8	20.40	311.212		
7,050.0	6,640.0	6,654.7	6,654.0	21.4	1.6	-72.91	-1,364.9	-6,270.8	6,300.6	6,279.1	21.49	293.169		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,643.4	6,656.8	6,656.1	21.9	1.6	-80.66	-1,365.0	-6,270.7	6,266.3	6,244.0	22.26	281.467		
7,100.0	6,644.2	6,657.2	6,656.5	22.1	1.6	-83.59	-1,365.0	-6,270.7	6,253.7	6,231.2	22.55	277.335		
7,135.7	6,645.0	6,657.4	6,656.7	22.7	1.6	-91.45	-1,365.0	-6,270.7	6,220.2	6,196.7	23.46	265.106		
7,185.0	6,644.9	6,656.7	6,656.0	23.6	1.6	-91.44	-1,365.0	-6,270.7	6,173.8	6,149.4	24.42	252.798		
7,200.0	6,644.9	6,656.5	6,655.8	23.9	1.6	-91.43	-1,364.9	-6,270.7	6,159.7	6,135.0	24.71	249.254		
7,283.4	6,644.8	6,655.5	6,654.7	25.6	1.6	-91.40	-1,364.9	-6,270.7	6,081.4	6,055.0	26.44	230.017		
7,300.0	6,644.8	6,655.2	6,654.5	25.9	1.6	-91.40	-1,364.9	-6,270.7	6,065.9	6,039.2	26.78	226.496		
7,381.9	6,644.7	6,654.2	6,653.5	27.7	1.6	-91.37	-1,364.9	-6,270.8	5,989.3	5,960.7	28.58	209.534		
7,400.0	6,644.7	6,653.9	6,653.2	28.1	1.6	-91.36	-1,364.9	-6,270.8	5,972.4	5,943.4	28.98	206.065		
7,480.3	6,644.6	6,652.9	6,652.2	29.9	1.6	-91.33	-1,364.9	-6,270.8	5,897.4	5,866.5	30.84	191.233		
7,500.0	6,644.6	6,652.6	6,651.9	30.3	1.6	-91.33	-1,364.9	-6,270.8	5,879.0	5,847.7	31.29	187.863		
7,578.7	6,644.5	6,651.6	6,650.9	32.2	1.6	-91.30	-1,364.8	-6,270.8	5,805.6	5,772.4	33.18	174.994		
7,600.0	6,644.4	6,651.3	6,650.6	32.7	1.6	-91.29	-1,364.8	-6,270.8	5,785.8	5,752.1	33.68	171.764		
7,677.1	6,644.3	6,650.3	6,649.6	34.6	1.6	-91.26	-1,364.8	-6,270.8	5,714.1	5,678.5	35.58	160.608		
7,700.0	6,644.3	6,650.0	6,649.2	35.1	1.6	-91.25	-1,364.8	-6,270.8	5,692.9	5,656.8	36.14	157.529		
7,775.6	6,644.2	6,648.9	6,648.2	37.0	1.6	-91.23	-1,364.8	-6,270.8	5,622.8	5,584.8	38.03	147.847		
7,800.0	6,644.2	6,648.6	6,647.9	37.6	1.6	-91.22	-1,364.8	-6,270.9	5,600.2	5,561.6	38.64	144.921		
7,874.0	6,644.1	6,647.6	6,646.9	39.5	1.6	-91.19	-1,364.8	-6,270.9	5,531.8	5,491.3	40.53	136.497		
7,900.0	6,644.1	6,647.3	6,646.6	40.1	1.6	-91.18	-1,364.7	-6,270.9	5,507.8	5,466.6	41.19	133.720		
7,972.4	6,644.0	6,646.3	6,645.6	42.0	1.6	-91.16	-1,364.7	-6,270.9	5,441.0	5,398.0	43.06	126.368		
8,000.0	6,643.9	6,645.9	6,645.2	42.7	1.6	-91.15	-1,364.7	-6,270.9	5,415.6	5,371.9	43.77	123.735		
8,070.8	6,643.9	6,645.0	6,644.3	44.5	1.6	-91.12	-1,364.7	-6,270.9	5,350.5	5,304.9	45.62	117.297		
8,100.0	6,643.8	6,644.6	6,643.9	45.2	1.6	-91.11	-1,364.7	-6,270.9	5,323.8	5,277.4	46.38	114.798		
8,169.3	6,643.7	6,643.6	6,642.9	47.0	1.6	-91.08	-1,364.7	-6,270.9	5,260.3	5,212.1	48.20	109.141		
8,200.0	6,643.7	6,643.2	6,642.5	47.9	1.6	-91.07	-1,364.7	-6,270.9	5,232.2	5,183.2	49.01	106.768		
8,267.7	6,643.6	6,642.3	6,641.6	49.6	1.6	-91.05	-1,364.6	-6,271.0	5,170.4	5,119.6	50.80	101.781		
8,300.0	6,643.6	6,641.8	6,641.1	50.5	1.6	-91.04	-1,364.6	-6,271.0	5,140.9	5,089.3	51.66	99.524		
8,366.1	6,643.5	6,640.9	6,640.2	52.2	1.6	-91.01	-1,364.6	-6,271.0	5,080.8	5,027.4	53.42	95.113		
8,400.0	6,643.4	6,640.5	6,639.7	53.1	1.6	-91.00	-1,364.6	-6,271.0	5,050.0	4,995.7	54.32	92.965		
8,464.5	6,643.4	6,639.6	6,638.9	54.8	1.6	-90.97	-1,364.6	-6,271.0	4,991.5	4,935.4	56.05	89.052		
8,500.0	6,643.3	6,639.1	6,638.4	55.8	1.6	-90.96	-1,364.6	-6,271.0	4,959.4	4,902.4	57.00	87.004		
8,563.0	6,643.2	6,638.2	6,637.5	57.5	1.6	-90.94	-1,364.6	-6,271.0	4,902.6	4,843.9	58.70	83.522		
8,600.0	6,643.2	6,637.7	6,637.0	58.5	1.6	-90.92	-1,364.5	-6,271.0	4,869.2	4,809.5	59.69	81.568		
8,661.4	6,643.1	6,636.8	6,636.1	60.1	1.6	-90.90	-1,364.5	-6,271.0	4,814.0	4,752.7	61.35	78.462		
8,700.0	6,643.1	6,636.3	6,635.6	61.2	1.6	-90.89	-1,364.5	-6,271.1	4,779.4	4,717.0	62.40	76.595		
8,759.8	6,643.0	6,635.4	6,634.7	62.8	1.6	-90.86	-1,364.5	-6,271.1	4,725.8	4,661.8	64.02	73.817		
8,800.0	6,643.0	6,634.9	6,634.2	63.9	1.6	-90.85	-1,364.5	-6,271.1	4,690.0	4,624.9	65.11	72.030		
8,858.2	6,642.9	6,634.1	6,633.4	65.4	1.6	-90.83	-1,364.5	-6,271.1	4,638.1	4,571.4	66.70	69.541		
8,900.0	6,642.8	6,633.5	6,632.8	66.6	1.6	-90.81	-1,364.5	-6,271.1	4,601.0	4,533.2	67.83	67.829		
8,956.7	6,642.8	6,632.7	6,632.0	68.1	1.6	-90.79	-1,364.4	-6,271.1	4,550.8	4,481.4	69.38	65.594		
9,000.0	6,642.7	6,632.0	6,631.3	69.3	1.6	-90.77	-1,364.4	-6,271.1	4,512.5	4,441.9	70.56	63.953		
9,055.1	6,642.6	6,631.3	6,630.6	70.8	1.6	-90.75	-1,364.4	-6,271.1	4,463.9	4,391.8	72.07	61.942		
9,100.0	6,642.6	6,630.6	6,629.9	72.0	1.6	-90.73	-1,364.4	-6,271.2	4,424.4	4,351.2	73.29	60.366		
9,153.5	6,642.5	6,629.9	6,629.2	73.5	1.6	-90.71	-1,364.4	-6,271.2	4,377.5	4,302.8	74.76	58.554		
9,200.0	6,642.5	6,629.2	6,628.5	74.7	1.6	-90.70	-1,364.4	-6,271.2	4,336.9	4,260.9	76.03	57.039		
9,251.9	6,642.4	6,628.4	6,627.7	76.2	1.6	-90.68	-1,364.3	-6,271.2	4,291.7	4,214.2	77.46	55.405		
9,300.0	6,642.3	6,627.7	6,627.0	77.5	1.6	-90.66	-1,364.3	-6,271.2	4,250.0	4,171.2	78.78	53.948		
9,350.4	6,642.3	6,627.0	6,626.3	78.9	1.6	-90.64	-1,364.3	-6,271.2	4,206.4	4,126.2	80.16	52.472		
9,400.0	6,642.2	6,626.3	6,625.6	80.2	1.6	-90.62	-1,364.3	-6,271.2	4,163.6	4,082.1	81.53	51.069		
9,448.8	6,642.1	6,625.6	6,624.9	81.6	1.6	-90.60	-1,364.3	-6,271.2	4,121.7	4,038.8	82.87	49.735		
9,500.0	6,642.1	6,624.8	6,624.1	83.0	1.6	-90.58	-1,364.3	-6,271.2	4,077.8	3,993.6	84.28	48.383		
9,547.2	6,642.0	6,624.2	6,623.5	84.3	1.6	-90.56	-1,364.3	-6,271.3	4,037.6	3,952.0	85.58	47.177		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
9,600.0	6,642.0	6,623.4	6,622.7	85.7	1.6	-90.54	-1,364.2	-6,271.3	3,992.8	3,905.7	87.04	45.873		
9,645.6	6,641.9	6,622.7	6,622.0	87.0	1.6	-90.52	-1,364.2	-6,271.3	3,954.1	3,865.8	88.30	44.781		
9,700.0	6,641.8	6,621.9	6,621.2	88.5	1.6	-90.50	-1,364.2	-6,271.3	3,908.4	3,818.6	89.80	43.523		
9,744.1	6,641.8	6,621.3	6,620.6	89.7	1.6	-90.48	-1,364.2	-6,271.3	3,871.4	3,780.4	91.02	42.535		
9,800.0	6,641.7	6,620.4	6,619.7	91.2	1.6	-90.46	-1,364.2	-6,271.3	3,824.7	3,732.2	92.56	41.320		
9,842.5	6,641.7	6,619.8	6,619.1	92.4	1.6	-90.44	-1,364.2	-6,271.3	3,789.4	3,695.7	93.74	40.425		
9,900.0	6,641.6	6,619.0	6,618.3	94.0	1.6	-90.42	-1,364.2	-6,271.4	3,741.9	3,646.6	95.33	39.252		
9,940.9	6,641.5	6,618.3	6,617.6	95.1	1.6	-90.40	-1,364.1	-6,271.4	3,708.3	3,611.8	96.46	38.442		
10,000.0	6,641.5	6,617.5	6,616.8	96.7	1.6	-90.38	-1,364.1	-6,271.4	3,659.9	3,561.8	98.10	37.309		
10,039.3	6,641.4	6,616.9	6,616.2	97.8	1.6	-90.36	-1,364.1	-6,271.4	3,627.9	3,528.7	99.19	36.576		
10,100.0	6,641.3	6,616.0	6,615.3	99.5	1.6	-90.34	-1,364.1	-6,271.4	3,578.9	3,478.0	100.87	35.480		
10,137.8	6,641.3	6,615.4	6,614.7	100.6	1.6	-90.32	-1,364.1	-6,271.4	3,548.5	3,446.6	101.92	34.817		
10,200.0	6,641.2	6,614.5	6,613.8	102.3	1.6	-90.30	-1,364.1	-6,271.4	3,498.8	3,395.2	103.64	33.758		
10,236.2	6,641.2	6,613.9	6,613.2	103.3	1.6	-90.28	-1,364.1	-6,271.4	3,470.1	3,365.4	104.65	33.159		
10,300.0	6,641.1	6,612.9	6,612.2	105.0	1.6	-90.26	-1,364.0	-6,271.5	3,419.8	3,313.3	106.42	32.135		
10,334.6	6,641.0	6,612.4	6,611.7	106.0	1.6	-90.24	-1,364.0	-6,271.5	3,392.7	3,285.3	107.38	31.595		
10,400.0	6,641.0	6,611.4	6,610.7	107.8	1.6	-90.22	-1,364.0	-6,271.5	3,341.9	3,232.7	109.20	30.604		
10,433.0	6,640.9	6,610.9	6,610.2	108.7	1.6	-90.20	-1,364.0	-6,271.5	3,316.4	3,206.3	110.11	30.118		
10,500.0	6,640.8	6,609.9	6,609.2	110.6	1.6	-90.18	-1,364.0	-6,271.5	3,265.2	3,153.2	111.97	29.160		
10,531.5	6,640.8	6,609.4	6,608.7	111.5	1.6	-90.16	-1,364.0	-6,271.5	3,241.3	3,128.4	112.85	28.722		
10,600.0	6,640.7	6,600.0	6,599.3	113.4	1.6	-89.91	-1,363.8	-6,271.7	3,189.8	3,075.0	114.75	27.799		
10,629.9	6,640.7	6,600.0	6,599.3	114.2	1.6	-89.91	-1,363.8	-6,271.7	3,167.5	3,051.9	115.58	27.406		
10,700.0	6,640.6	6,600.0	6,599.3	116.1	1.6	-89.91	-1,363.8	-6,271.7	3,115.7	2,998.2	117.53	26.510		
10,728.3	6,640.5	6,600.0	6,599.3	116.9	1.6	-89.91	-1,363.8	-6,271.7	3,095.0	2,976.7	118.32	26.159		
10,800.0	6,640.5	6,600.0	6,599.3	118.9	1.6	-89.91	-1,363.8	-6,271.7	3,043.2	2,922.9	120.31	25.294		
10,826.7	6,640.4	6,600.0	6,599.3	119.7	1.6	-89.91	-1,363.8	-6,271.7	3,024.0	2,903.0	121.06	24.980		
10,900.0	6,640.3	6,600.0	6,599.3	121.7	1.6	-89.91	-1,363.8	-6,271.7	2,972.2	2,849.1	123.10	24.145		
10,925.2	6,640.3	6,600.0	6,599.3	122.4	1.6	-89.91	-1,363.8	-6,271.7	2,954.6	2,830.8	123.80	23.866		
11,000.0	6,640.2	6,600.0	6,599.3	124.5	1.6	-89.91	-1,363.8	-6,271.7	2,903.0	2,777.1	125.88	23.061		
11,023.6	6,640.2	6,600.0	6,599.3	125.1	1.6	-89.91	-1,363.8	-6,271.7	2,886.9	2,760.3	126.54	22.814		
11,100.0	6,640.1	6,600.0	6,599.3	127.3	1.6	-89.91	-1,363.8	-6,271.7	2,835.6	2,706.9	128.67	22.037		
11,122.0	6,640.0	6,600.0	6,599.3	127.9	1.6	-89.91	-1,363.8	-6,271.7	2,821.0	2,691.7	129.29	21.819		
11,200.0	6,639.9	6,600.0	6,599.3	130.1	1.6	-89.91	-1,363.8	-6,271.7	2,770.1	2,638.7	131.46	21.072		
11,220.4	6,639.9	6,600.0	6,599.3	130.6	1.6	-89.91	-1,363.8	-6,271.7	2,757.0	2,625.0	132.03	20.881		
11,300.0	6,639.8	6,600.0	6,599.3	132.8	1.6	-89.91	-1,363.8	-6,271.7	2,706.8	2,572.5	134.25	20.162		
11,318.9	6,639.8	6,600.0	6,599.3	133.4	1.6	-89.91	-1,363.8	-6,271.7	2,695.1	2,560.3	134.78	19.997		
11,400.0	6,639.7	6,600.0	6,599.3	135.6	1.6	-89.91	-1,363.8	-6,271.7	2,645.7	2,508.7	137.04	19.306		
11,417.3	6,639.7	6,600.0	6,599.3	136.1	1.6	-89.91	-1,363.8	-6,271.7	2,635.4	2,497.9	137.52	19.163		
11,500.0	6,639.6	6,600.0	6,599.3	138.4	1.6	-89.91	-1,363.8	-6,271.7	2,587.1	2,447.3	139.83	18.501		
11,515.7	6,639.5	6,600.0	6,599.3	138.9	1.6	-89.91	-1,363.8	-6,271.7	2,578.1	2,437.8	140.27	18.379		
11,600.0	6,639.4	6,592.4	6,591.7	141.2	1.6	-89.70	-1,363.7	-6,271.8	2,531.0	2,388.4	142.62	17.747		
11,614.1	6,639.4	6,592.2	6,591.5	141.6	1.6	-89.70	-1,363.7	-6,271.8	2,523.3	2,380.3	143.01	17.644		
11,700.0	6,639.3	6,590.7	6,590.0	144.0	1.6	-89.66	-1,363.6	-6,271.9	2,477.8	2,332.4	145.41	17.040		
11,712.6	6,639.3	6,590.5	6,589.8	144.3	1.6	-89.65	-1,363.6	-6,271.9	2,471.3	2,325.5	145.76	16.955		
11,800.0	6,639.2	6,589.1	6,588.4	146.8	1.6	-89.61	-1,363.6	-6,271.9	2,427.4	2,279.2	148.20	16.380		
11,811.0	6,639.2	6,588.9	6,588.2	147.1	1.6	-89.61	-1,363.6	-6,271.9	2,422.1	2,273.6	148.50	16.310		
11,900.0	6,639.1	6,587.4	6,586.7	149.6	1.6	-89.57	-1,363.6	-6,271.9	2,380.2	2,229.3	150.99	15.764		
11,909.4	6,639.0	6,587.3	6,586.6	149.8	1.6	-89.56	-1,363.6	-6,271.9	2,376.0	2,224.7	151.25	15.709		
12,000.0	6,638.9	6,585.8	6,585.1	152.4	1.6	-89.52	-1,363.5	-6,271.9	2,336.4	2,182.6	153.78	15.193		
12,007.8	6,638.9	6,585.6	6,584.9	152.6	1.6	-89.52	-1,363.5	-6,271.9	2,333.1	2,179.1	154.00	15.150		
12,100.0	6,638.8	6,584.1	6,583.4	155.2	1.6	-89.48	-1,363.5	-6,272.0	2,296.0	2,139.5	156.57	14.664		
12,106.3	6,638.8	6,584.0	6,583.3	155.3	1.6	-89.48	-1,363.5	-6,272.0	2,293.6	2,136.9	156.75	14.632		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
12,200.0	6,638.7	6,582.4	6,581.7	157.9	1.6	-89.43	-1,363.5	-6,272.0	2,259.4	2,100.0	159.37	14.177		
12,204.7	6,638.7	6,582.3	6,581.6	158.1	1.6	-89.43	-1,363.5	-6,272.0	2,257.8	2,098.3	159.50	14.155		
12,300.0	6,638.5	6,580.7	6,580.0	160.7	1.6	-89.39	-1,363.5	-6,272.0	2,226.6	2,064.5	162.16	13.731		
12,303.1	6,638.5	6,580.7	6,580.0	160.8	1.6	-89.39	-1,363.5	-6,272.0	2,225.7	2,063.4	162.25	13.718		
12,400.0	6,638.4	6,579.0	6,578.4	163.5	1.6	-89.34	-1,363.4	-6,272.1	2,198.0	2,033.0	164.96	13.325		
12,401.5	6,638.4	6,579.0	6,578.3	163.6	1.6	-89.34	-1,363.4	-6,272.1	2,197.6	2,032.6	165.00	13.319		
12,500.0	6,638.3	6,577.3	6,576.7	166.3	1.6	-89.30	-1,363.4	-6,272.1	2,173.5	2,005.8	167.75	12.957		
12,598.4	6,638.2	6,575.7	6,575.0	169.1	1.6	-89.25	-1,363.4	-6,272.1	2,153.7	1,983.2	170.50	12.632		
12,600.0	6,638.2	6,575.6	6,575.0	169.1	1.6	-89.25	-1,363.4	-6,272.1	2,153.4	1,982.9	170.54	12.627		
12,696.8	6,638.0	6,574.0	6,573.3	171.8	1.6	-89.21	-1,363.3	-6,272.2	2,138.2	1,965.0	173.25	12.342		
12,700.0	6,638.0	6,573.9	6,573.3	171.9	1.6	-89.20	-1,363.3	-6,272.2	2,137.8	1,964.5	173.34	12.333		
12,795.2	6,637.9	6,572.3	6,571.6	174.6	1.6	-89.16	-1,363.3	-6,272.2	2,127.2	1,951.2	176.00	12.086		
12,800.0	6,637.9	6,572.2	6,571.5	174.7	1.6	-89.16	-1,363.3	-6,272.2	2,126.8	1,950.7	176.13	12.075		
12,893.7	6,637.8	6,570.6	6,569.9	177.3	1.6	-89.12	-1,363.3	-6,272.2	2,120.7	1,942.0	178.75	11.864		
12,900.0	6,637.8	6,570.5	6,569.8	177.5	1.6	-89.11	-1,363.3	-6,272.2	2,120.5	1,941.5	178.93	11.851		
12,984.8	6,637.7	6,569.1	6,568.4	179.9	1.6	-89.07	-1,363.3	-6,272.2	2,118.8	1,937.5	181.30	11.687 CC		
12,992.1	6,637.7	6,568.9	6,568.2	180.1	1.6	-89.07	-1,363.3	-6,272.3	2,118.8	1,937.3	181.50	11.673		
13,000.0	6,637.6	6,568.8	6,568.1	180.3	1.6	-89.07	-1,363.3	-6,272.3	2,118.8	1,937.1	181.73	11.660 ES		
13,090.5	6,637.5	6,567.2	6,566.5	182.8	1.6	-89.02	-1,363.2	-6,272.3	2,121.4	1,937.2	184.26	11.513		
13,100.0	6,637.5	6,567.1	6,566.4	183.1	1.6	-89.02	-1,363.2	-6,272.3	2,121.9	1,937.4	184.52	11.500		
13,188.9	6,637.4	6,565.5	6,564.8	185.6	1.6	-88.98	-1,363.2	-6,272.3	2,128.6	1,941.6	187.01	11.382		
13,200.0	6,637.4	6,565.3	6,564.6	185.9	1.6	-88.97	-1,363.2	-6,272.3	2,129.7	1,942.4	187.32	11.369		
13,287.4	6,637.3	6,563.8	6,563.1	188.4	1.6	-88.93	-1,363.2	-6,272.3	2,140.3	1,950.5	189.76	11.279		
13,300.0	6,637.3	6,563.6	6,562.9	188.7	1.6	-88.92	-1,363.2	-6,272.4	2,142.1	1,952.0	190.11	11.267		
13,385.8	6,637.1	6,562.1	6,561.4	191.1	1.6	-88.88	-1,363.2	-6,272.4	2,156.4	1,963.9	192.51	11.201		
13,400.0	6,637.1	6,561.8	6,561.2	191.5	1.6	-88.88	-1,363.1	-6,272.4	2,159.1	1,966.1	192.91	11.192		
13,484.2	6,637.0	6,560.4	6,559.7	193.9	1.6	-88.84	-1,363.1	-6,272.4	2,176.8	1,981.6	195.26	11.148		
13,500.0	6,637.0	6,560.1	6,559.4	194.3	1.6	-88.83	-1,363.1	-6,272.4	2,180.5	1,984.8	195.70	11.142		
13,582.6	6,636.9	6,558.6	6,558.0	196.6	1.6	-88.79	-1,363.1	-6,272.4	2,201.5	2,003.5	198.02	11.118		
13,600.0	6,636.9	6,558.3	6,557.7	197.1	1.6	-88.78	-1,363.1	-6,272.4	2,206.2	2,007.7	198.50	11.115		
13,681.1	6,636.8	6,556.9	6,556.2	199.4	1.6	-88.74	-1,363.1	-6,272.5	2,230.2	2,029.4	200.77	11.108 SF		
13,700.0	6,636.7	6,556.6	6,555.9	199.9	1.6	-88.73	-1,363.1	-6,272.5	2,236.2	2,034.9	201.30	11.109		
13,779.5	6,636.6	6,555.2	6,554.5	202.1	1.6	-88.70	-1,363.0	-6,272.5	2,262.9	2,059.3	203.52	11.119		
13,800.0	6,636.6	6,554.8	6,554.1	202.7	1.6	-88.69	-1,363.0	-6,272.5	2,270.1	2,066.0	204.09	11.123		
13,877.9	6,636.5	6,553.4	6,552.7	204.9	1.6	-88.65	-1,363.0	-6,272.5	2,299.3	2,093.0	206.27	11.147		
13,900.0	6,636.5	6,553.0	6,552.3	205.5	1.6	-88.64	-1,363.0	-6,272.5	2,307.9	2,101.0	206.89	11.155		
13,976.3	6,636.4	6,551.7	6,551.0	207.6	1.6	-88.60	-1,363.0	-6,272.6	2,339.2	2,130.2	209.03	11.191		
14,000.0	6,636.3	6,551.2	6,550.6	208.3	1.6	-88.59	-1,363.0	-6,272.6	2,349.4	2,139.7	209.69	11.204		
14,074.8	6,636.3	6,549.9	6,549.2	210.4	1.6	-88.55	-1,363.0	-6,272.6	2,382.6	2,170.8	211.78	11.251		
14,100.0	6,636.2	6,549.4	6,548.8	211.1	1.6	-88.54	-1,363.0	-6,272.6	2,394.2	2,181.8	212.48	11.268		
14,173.2	6,636.1	6,548.1	6,547.5	213.2	1.6	-88.51	-1,362.9	-6,272.6	2,429.2	2,214.7	214.53	11.323		
14,200.0	6,636.1	6,547.6	6,547.0	213.9	1.6	-88.49	-1,362.9	-6,272.7	2,442.4	2,227.1	215.28	11.345		
14,271.6	6,636.0	6,546.4	6,545.7	215.9	1.6	-88.46	-1,362.9	-6,272.7	2,478.8	2,261.5	217.28	11.408		
14,300.0	6,636.0	6,545.8	6,545.2	216.7	1.6	-88.45	-1,362.9	-6,272.7	2,493.7	2,275.6	218.08	11.435		
14,370.0	6,635.9	6,544.6	6,543.9	218.7	1.6	-88.41	-1,362.9	-6,272.7	2,531.3	2,311.3	220.03	11.504		
14,400.0	6,635.8	6,544.0	6,543.4	219.5	1.6	-88.40	-1,362.9	-6,272.7	2,547.8	2,326.9	220.87	11.535		
14,468.5	6,635.7	6,542.8	6,542.1	221.4	1.6	-88.36	-1,362.9	-6,272.7	2,586.4	2,363.7	222.79	11.610		
14,500.0	6,635.7	6,542.2	6,541.6	222.3	1.6	-88.35	-1,362.9	-6,272.8	2,604.7	2,381.0	223.67	11.645		
14,566.9	6,635.6	6,541.0	6,540.3	224.2	1.6	-88.31	-1,362.8	-6,272.8	2,644.1	2,418.6	225.54	11.724		
14,600.0	6,635.6	6,540.4	6,539.7	225.1	1.6	-88.30	-1,362.8	-6,272.8	2,664.0	2,437.6	226.46	11.764		
14,665.3	6,635.5	6,539.2	6,538.5	226.9	1.6	-88.27	-1,362.8	-6,272.8	2,704.1	2,475.8	228.29	11.845		
14,700.0	6,635.4	6,538.6	6,537.9	227.9	1.6	-88.25	-1,362.8	-6,272.8	2,725.8	2,496.6	229.26	11.890		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-1 - 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	
14,763.7	6,635.4	6,537.4	6,536.7	229.7	1.6	-88.22	-1,362.8	-6,272.8	2,766.4	2,535.3	231.04	11.973	
14,800.0	6,635.3	6,536.7	6,536.1	230.7	1.6	-88.20	-1,362.8	-6,272.9	2,789.8	2,557.7	232.05	12.022	
14,862.2	6,635.2	6,535.6	6,534.9	232.5	1.6	-88.17	-1,362.8	-6,272.9	2,830.6	2,596.8	233.79	12.107	
14,900.0	6,635.2	6,534.9	6,534.2	233.5	1.6	-88.15	-1,362.8	-6,272.9	2,855.8	2,621.0	234.85	12.160	
14,960.6	6,635.1	6,533.8	6,533.1	235.2	1.6	-88.12	-1,362.7	-6,272.9	2,896.8	2,660.3	236.54	12.246	
15,000.0	6,635.0	6,533.1	6,532.4	236.3	1.6	-88.10	-1,362.7	-6,272.9	2,923.8	2,686.2	237.65	12.303	
15,033.1	6,635.0	6,532.4	6,531.8	237.3	1.6	-88.08	-1,362.7	-6,272.9	2,946.7	2,708.1	238.57	12.352	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-89.53	62.0	-7,599.1	7,599.4				
98.4	98.4	46.0	46.0	0.1	0.0	-89.53	61.9	-7,599.1	7,599.4	7,599.3	0.11	N/A	
100.0	100.0	47.2	47.2	0.1	0.0	-89.53	61.9	-7,599.1	7,599.4	7,599.3	0.11	N/A	
196.8	196.8	136.5	136.5	0.3	0.1	-89.54	61.4	-7,599.5	7,599.8	7,599.4	0.40	N/A	
200.0	200.0	141.3	141.3	0.3	0.1	-89.54	61.4	-7,599.5	7,599.8	7,599.4	0.42	N/A	
295.3	295.3	557.2	557.1	0.5	0.5	-89.57	57.5	-7,591.7	7,597.7	7,596.7	0.98	7,774.556	
300.0	300.0	562.6	562.5	0.5	0.5	-89.57	57.5	-7,591.5	7,597.5	7,596.5	0.99	7,668.003	
393.7	393.7	661.6	661.3	0.8	0.5	-89.57	56.4	-7,587.5	7,593.8	7,592.5	1.25	6,067.605	
400.0	400.0	667.9	667.7	0.8	0.5	-89.57	56.3	-7,587.3	7,593.5	7,592.3	1.27	5,984.966	
492.1	492.1	759.2	758.9	1.0	0.6	-89.58	55.2	-7,583.7	7,589.9	7,588.3	1.52	5,000.223	
500.0	500.0	766.9	766.6	1.0	0.6	-89.58	55.1	-7,583.4	7,589.6	7,588.0	1.54	4,931.269	
590.5	590.5	880.0	879.5	1.2	0.6	-89.59	53.6	-7,578.8	7,585.9	7,584.1	1.79	4,233.411	
600.0	600.0	893.2	892.8	1.2	0.6	-89.60	53.5	-7,578.2	7,585.5	7,583.7	1.82	4,170.409	
689.0	689.0	973.9	973.4	1.4	0.7	-89.60	52.6	-7,574.7	7,581.7	7,579.6	2.05	3,694.255	
700.0	700.0	983.5	983.0	1.4	0.7	-89.60	52.4	-7,574.3	7,581.2	7,579.1	2.08	3,642.952	
787.4	787.4	1,075.6	1,075.0	1.6	0.7	-89.61	51.1	-7,570.5	7,577.5	7,575.2	2.31	3,275.211	
800.0	800.0	1,089.5	1,088.8	1.7	0.7	-89.61	50.9	-7,569.9	7,577.0	7,574.6	2.35	3,227.971	
885.8	885.8	1,164.2	1,163.5	1.9	0.8	-89.62	49.8	-7,566.7	7,573.4	7,570.8	2.57	2,948.478	
900.0	900.0	1,176.1	1,175.4	1.9	0.8	-89.62	49.7	-7,566.3	7,572.8	7,570.2	2.60	2,907.082	
984.2	984.2	1,248.0	1,247.2	2.1	0.8	-89.63	48.9	-7,563.4	7,569.4	7,566.6	2.82	2,683.156	
1,000.0	1,000.0	1,261.6	1,260.8	2.1	0.8	-89.63	48.7	-7,562.8	7,568.8	7,565.9	2.86	2,645.058	
1,082.7	1,082.7	1,324.2	1,323.4	2.3	0.8	-116.69	48.1	-7,560.5	7,566.2	7,563.1	3.10	2,438.217	
1,100.0	1,100.0	1,335.3	1,334.5	2.3	0.8	-116.70	48.0	-7,560.1	7,565.8	7,562.6	3.15	2,405.244	
1,181.1	1,181.0	1,400.0	1,399.1	2.5	0.8	-116.74	47.1	-7,557.9	7,564.9	7,561.5	3.35	2,258.685	
1,198.5	1,198.4	1,400.0	1,399.1	2.6	0.8	-116.74	47.1	-7,557.9	7,564.8	7,561.4	3.39	2,233.117	
1,200.0	1,199.8	1,400.0	1,399.1	2.6	0.8	-116.74	47.1	-7,557.9	7,564.8	7,561.4	3.39	2,231.001	
1,279.5	1,279.1	1,453.6	1,452.7	2.8	0.9	-116.77	46.4	-7,556.4	7,565.5	7,561.9	3.59	2,106.260	
1,300.0	1,299.5	1,467.6	1,466.7	2.8	0.9	-116.77	46.2	-7,556.0	7,565.9	7,562.2	3.64	2,076.319	
1,377.9	1,376.9	1,524.8	1,523.9	3.0	0.9	-116.79	45.4	-7,554.5	7,568.1	7,564.2	3.85	1,964.007	
1,400.0	1,398.7	1,542.7	1,541.7	3.0	0.9	-116.79	45.1	-7,554.1	7,568.9	7,565.0	3.91	1,934.170	
1,476.4	1,474.2	1,600.0	1,599.0	3.2	0.9	-116.79	44.3	-7,552.8	7,572.4	7,568.3	4.14	1,831.298	
1,500.0	1,497.5	1,619.7	1,618.8	3.3	0.9	-116.79	44.0	-7,552.4	7,573.8	7,569.6	4.20	1,801.567	
1,574.8	1,571.0	1,670.5	1,669.5	3.5	1.0	-116.77	43.2	-7,551.4	7,578.7	7,574.3	4.44	1,706.891	
1,600.0	1,595.6	1,700.0	1,699.0	3.6	1.0	-116.78	42.6	-7,550.9	7,580.6	7,576.1	4.52	1,675.601	
1,673.2	1,667.2	1,747.6	1,746.6	3.9	1.0	-116.86	41.7	-7,550.2	7,586.4	7,581.7	4.77	1,590.129	
1,700.0	1,693.4	1,770.9	1,769.9	4.0	1.0	-116.90	41.2	-7,549.8	7,588.6	7,583.7	4.86	1,560.458	
1,771.6	1,763.5	1,826.0	1,824.9	4.2	1.0	-116.98	39.9	-7,549.1	7,594.5	7,589.3	5.12	1,483.634	
1,800.0	1,791.3	1,845.3	1,844.2	4.3	1.0	-117.01	39.4	-7,548.8	7,596.8	7,591.6	5.22	1,455.678	
1,870.1	1,859.8	1,900.0	1,898.9	4.6	1.0	-117.10	38.2	-7,548.3	7,602.9	7,597.4	5.48	1,387.937	
1,900.0	1,889.1	1,914.7	1,913.6	4.7	1.0	-117.12	37.8	-7,548.2	7,605.5	7,599.9	5.58	1,361.771	
1,968.5	1,956.1	1,966.2	1,965.1	4.9	1.1	-117.20	36.8	-7,547.8	7,611.6	7,605.8	5.84	1,302.681	
2,000.0	1,986.9	2,000.0	1,998.9	5.1	1.1	-117.25	36.1	-7,547.6	7,614.5	7,608.5	5.96	1,276.614	
2,066.9	2,052.3	2,054.5	2,053.4	5.3	1.1	-117.34	35.1	-7,547.3	7,620.7	7,614.5	6.22	1,224.810	
2,100.0	2,084.7	2,088.2	2,087.1	5.5	1.1	-117.39	34.5	-7,547.2	7,623.7	7,617.4	6.35	1,200.455	
2,165.3	2,148.6	2,142.9	2,141.8	5.7	1.1	-117.47	33.5	-7,546.9	7,629.8	7,623.2	6.61	1,155.020	
2,200.0	2,182.5	2,170.6	2,169.5	5.9	1.1	-117.51	33.1	-7,546.8	7,633.1	7,626.3	6.74	1,132.405	
2,263.8	2,244.9	2,225.3	2,224.1	6.1	1.1	-117.60	32.2	-7,546.7	7,639.2	7,632.2	6.99	1,092.473	
2,300.0	2,280.3	2,259.2	2,258.1	6.3	1.2	-117.65	31.7	-7,546.6	7,642.7	7,635.5	7.14	1,071.001	
2,362.2	2,341.2	2,315.3	2,314.1	6.5	1.2	-117.73	31.0	-7,546.5	7,648.7	7,641.3	7.38	1,035.830	
2,400.0	2,378.1	2,346.3	2,345.1	6.7	1.2	-117.78	30.6	-7,546.5	7,652.4	7,644.8	7.53	1,015.754	
2,460.6	2,437.4	2,400.0	2,398.9	6.9	1.2	-117.85	30.0	-7,546.5	7,658.4	7,650.6	7.78	984.824	
2,500.0	2,476.0	2,434.8	2,433.7	7.1	1.2	-117.91	29.6	-7,546.5	7,662.3	7,654.4	7.93	965.830	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
2,550.0	2,524.9	2,485.5	2,484.3	7.3	1.2	-117.98	29.1	-7,546.5	7,667.3	7,659.2	8.13	942.526		
2,559.0	2,533.7	2,494.6	2,493.5	7.3	1.2	-117.14	29.0	-7,546.6	7,668.2	7,660.0	8.17	938.664		
2,600.0	2,573.8	2,534.4	2,533.2	7.5	1.2	-113.32	28.6	-7,546.6	7,671.9	7,663.6	8.32	921.645		
2,639.4	2,612.3	2,572.4	2,571.2	7.7	1.3	-109.65	28.2	-7,546.6	7,675.0	7,666.6	8.47	906.431		
2,657.5	2,630.0	2,589.8	2,588.6	7.7	1.3	-109.68	28.0	-7,546.6	7,676.3	7,667.8	8.54	898.966		
2,700.0	2,671.6	2,632.5	2,631.3	7.9	1.3	-109.75	27.4	-7,546.6	7,679.4	7,670.7	8.71	881.892		
2,755.9	2,726.3	2,689.3	2,688.1	8.1	1.3	-109.84	26.7	-7,546.6	7,683.4	7,674.5	8.94	859.309		
2,800.0	2,769.4	2,731.8	2,730.6	8.3	1.3	-109.90	26.1	-7,546.6	7,686.6	7,677.5	9.13	842.354		
2,854.3	2,822.5	2,783.3	2,782.1	8.5	1.3	-109.98	25.4	-7,546.6	7,690.6	7,681.3	9.35	822.295		
2,900.0	2,867.2	2,825.2	2,824.0	8.7	1.3	-110.05	24.8	-7,546.6	7,694.0	7,684.4	9.54	806.211		
2,952.7	2,918.8	2,872.6	2,871.4	9.0	1.3	-110.12	24.1	-7,546.7	7,697.9	7,688.1	9.76	788.362		
3,000.0	2,965.0	2,919.2	2,918.0	9.2	1.4	-110.20	23.4	-7,546.7	7,701.4	7,691.4	9.96	773.022		
3,051.2	3,015.1	2,978.0	2,976.8	9.4	1.4	-110.29	22.5	-7,546.8	7,705.2	7,695.0	10.18	756.948		
3,100.0	3,062.8	3,033.8	3,032.6	9.6	1.4	-110.38	21.6	-7,546.7	7,708.8	7,698.4	10.39	742.222		
3,149.6	3,111.4	3,090.5	3,089.3	9.8	1.4	-110.46	20.8	-7,546.6	7,712.4	7,701.8	10.60	727.788		
3,200.0	3,160.7	3,135.0	3,133.8	10.0	1.4	-110.53	20.2	-7,546.5	7,716.1	7,705.3	10.81	713.821		
3,248.0	3,207.6	3,175.0	3,173.8	10.2	1.4	-110.59	19.8	-7,546.5	7,719.6	7,708.6	11.01	701.000		
3,300.0	3,258.5	3,227.1	3,225.9	10.5	1.5	-110.67	19.5	-7,546.5	7,723.5	7,712.3	11.23	687.858		
3,346.4	3,303.9	3,284.7	3,283.5	10.7	1.5	-110.75	19.5	-7,546.4	7,726.9	7,715.5	11.42	676.735		
3,400.0	3,356.3	3,365.7	3,364.5	10.9	1.5	-110.87	20.3	-7,546.2	7,730.8	7,719.1	11.65	663.676		
3,444.9	3,400.2	3,428.9	3,427.7	11.1	1.5	-110.95	21.3	-7,545.8	7,733.9	7,722.0	11.84	652.983		
3,500.0	3,454.1	3,497.3	3,496.0	11.3	1.5	-111.04	22.6	-7,545.2	7,737.5	7,725.4	12.08	640.373		
3,543.3	3,496.5	3,531.0	3,529.8	11.5	1.5	-111.08	23.3	-7,544.9	7,740.4	7,728.1	12.27	630.967		
3,600.0	3,551.9	3,573.8	3,572.5	11.7	1.5	-111.14	24.2	-7,544.6	7,744.3	7,731.8	12.51	619.094		
3,641.7	3,592.7	3,610.9	3,609.7	11.9	1.5	-111.19	25.1	-7,544.4	7,747.2	7,734.5	12.69	610.593		
3,700.0	3,649.7	3,700.0	3,698.7	12.2	1.5	-111.30	27.1	-7,543.8	7,751.1	7,738.2	12.94	598.851		
3,740.1	3,689.0	3,728.3	3,726.9	12.4	1.5	-111.33	27.8	-7,543.5	7,753.8	7,740.7	13.11	591.245		
3,800.0	3,747.5	3,769.0	3,767.7	12.6	1.5	-111.39	28.6	-7,543.2	7,757.9	7,744.6	13.37	580.291		
3,838.6	3,785.3	3,800.0	3,798.7	12.8	1.5	-111.43	29.2	-7,543.1	7,760.7	7,747.1	13.53	573.416		
3,900.0	3,845.4	3,858.9	3,857.6	13.1	1.5	-111.50	30.3	-7,542.8	7,765.1	7,751.3	13.80	562.764		
3,937.0	3,881.6	3,899.0	3,897.7	13.2	1.5	-111.56	31.1	-7,542.6	7,767.7	7,753.8	13.96	556.508		
4,000.0	3,943.2	3,940.6	3,939.3	13.5	1.5	-111.61	31.8	-7,542.4	7,772.3	7,758.1	14.23	546.373		
4,035.4	3,977.8	3,963.8	3,962.5	13.6	1.5	-111.64	32.1	-7,542.3	7,774.9	7,760.6	14.38	540.842		
4,100.0	4,041.0	4,000.0	3,998.6	13.9	1.5	-111.69	32.6	-7,542.3	7,779.9	7,765.3	14.65	531.094		
4,133.8	4,074.1	4,000.0	3,998.6	14.1	1.5	-111.69	32.6	-7,542.3	7,782.7	7,767.9	14.79	526.214		
4,200.0	4,138.8	4,049.1	4,047.7	14.4	1.5	-111.76	33.0	-7,542.5	7,788.1	7,773.1	15.07	516.920		
4,232.3	4,170.4	4,063.6	4,062.2	14.5	1.5	-111.78	33.1	-7,542.7	7,790.9	7,775.7	15.20	512.523		
4,300.0	4,236.6	4,100.0	4,098.6	14.8	1.5	-111.83	33.3	-7,543.1	7,797.1	7,781.6	15.48	503.570		
4,330.7	4,266.7	4,100.0	4,098.6	14.9	1.5	-111.83	33.3	-7,543.1	7,800.0	7,784.4	15.61	499.621		
4,400.0	4,334.4	4,144.5	4,143.2	15.2	1.5	-111.89	33.4	-7,543.9	7,806.7	7,790.8	15.90	490.957		
4,429.1	4,362.9	4,159.5	4,158.1	15.4	1.5	-111.91	33.4	-7,544.2	7,809.6	7,793.6	16.02	487.406		
4,500.0	4,432.3	4,200.0	4,198.6	15.7	1.5	-111.97	33.5	-7,545.2	7,816.9	7,800.6	16.32	478.959		
4,527.5	4,459.2	4,200.0	4,198.6	15.8	1.5	-111.97	33.5	-7,545.2	7,819.9	7,803.5	16.44	475.782		
4,600.0	4,530.1	4,240.3	4,238.9	16.1	1.5	-112.02	33.4	-7,546.4	7,827.8	7,811.1	16.74	467.623		
4,626.0	4,555.5	4,251.6	4,250.2	16.2	1.5	-112.04	33.4	-7,546.8	7,830.8	7,814.0	16.85	464.774		
4,700.0	4,627.9	4,300.0	4,298.6	16.6	1.5	-112.11	33.1	-7,548.6	7,839.5	7,822.4	17.16	456.857		
4,724.4	4,651.7	4,300.0	4,298.6	16.7	1.5	-112.11	33.1	-7,548.6	7,842.4	7,825.2	17.26	454.323		
4,800.0	4,725.7	4,340.5	4,339.0	17.0	1.5	-112.17	32.8	-7,550.3	7,851.8	7,834.2	17.58	446.653		
4,822.8	4,748.0	4,355.1	4,353.6	17.1	1.5	-112.19	32.7	-7,551.0	7,854.6	7,837.0	17.68	444.391		
4,904.9	4,828.3	4,400.0	4,398.5	17.5	1.5	-112.25	32.3	-7,553.1	7,865.2	7,847.1	18.02	436.475		
4,921.2	4,844.3	4,400.0	4,398.5	17.5	1.5	-112.29	32.3	-7,553.1	7,867.3	7,849.2	18.07	435.284		
5,000.0	4,921.6	4,451.2	4,449.6	17.8	1.5	-112.55	31.7	-7,555.7	7,877.3	7,858.9	18.34	429.601		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,019.7	4,941.0	4,460.6	4,459.0	17.9	1.5	-112.61	31.6	-7,556.2	7,879.7	7,861.3	18.39	428.550		
5,100.0	5,020.4	4,500.0	4,498.3	18.1	1.5	-112.83	31.0	-7,558.5	7,889.3	7,870.7	18.59	424.300		
5,118.1	5,038.3	4,515.2	4,513.4	18.2	1.5	-112.88	30.7	-7,559.4	7,891.4	7,872.8	18.63	423.489		
5,200.0	5,119.6	4,726.1	4,724.0	18.4	1.5	-113.23	27.1	-7,571.1	7,900.4	7,881.5	18.82	419.790		
5,216.5	5,136.0	4,748.3	4,746.2	18.4	1.5	-113.27	26.9	-7,572.1	7,901.8	7,882.9	18.85	419.169		
5,300.0	5,219.2	4,852.3	4,850.1	18.6	1.5	-113.45	26.0	-7,576.6	7,908.3	7,889.3	19.01	415.948		
5,314.9	5,234.1	4,869.7	4,867.4	18.6	1.5	-113.48	25.9	-7,577.3	7,909.3	7,890.3	19.04	415.476		
5,400.0	5,319.1	4,980.0	4,977.7	18.8	1.6	-113.62	25.0	-7,581.7	7,914.5	7,895.3	19.18	412.708		
5,413.4	5,332.4	4,998.2	4,995.9	18.8	1.6	-113.63	24.9	-7,582.4	7,915.2	7,896.0	19.19	412.366		
5,504.9	5,423.9	5,171.1	5,168.7	18.9	1.6	-95.30	24.0	-7,587.9	7,918.7	7,902.7	16.01	494.724		
5,511.8	5,430.8	5,181.0	5,178.5	18.9	1.6	-95.30	24.0	-7,588.2	7,918.9	7,902.9	16.02	494.346		
5,600.0	5,519.0	5,282.8	5,280.3	19.0	1.6	-95.30	23.8	-7,590.9	7,921.2	7,905.0	16.18	489.698		
5,610.2	5,529.3	5,294.1	5,291.6	19.0	1.6	-95.30	23.8	-7,591.1	7,921.5	7,905.3	16.20	489.107		
5,700.0	5,619.0	5,460.2	5,457.7	19.2	1.6	-95.29	25.2	-7,594.6	7,923.2	7,906.9	16.37	483.984		
5,708.6	5,627.7	5,472.2	5,469.7	19.2	1.6	-95.29	25.3	-7,594.9	7,923.4	7,907.0	16.39	483.508		
5,800.0	5,719.0	5,580.0	5,577.5	19.3	1.6	-95.27	27.2	-7,596.6	7,924.7	7,908.1	16.56	478.582		
5,807.1	5,726.1	5,588.0	5,585.4	19.3	1.6	-95.27	27.3	-7,596.7	7,924.8	7,908.2	16.57	478.204		
5,900.0	5,819.0	5,689.9	5,687.4	19.4	1.6	-95.26	29.2	-7,598.2	7,925.9	7,909.2	16.75	473.284		
5,905.5	5,824.5	5,696.0	5,693.4	19.4	1.6	-95.26	29.3	-7,598.2	7,926.0	7,909.3	16.76	472.994		
6,003.9	5,923.0	5,796.8	5,794.2	19.6	1.6	-95.24	31.0	-7,599.6	7,927.2	7,910.2	16.94	467.861		
6,009.8	5,928.8	5,800.0	5,797.4	19.6	1.6	-95.24	31.1	-7,599.7	7,927.3	7,910.3	16.95	467.562		
6,050.0	5,969.0	5,837.8	5,835.2	19.6	1.6	-5.24	31.8	-7,600.2	7,926.6	7,906.5	20.16	393.269		
6,100.0	6,018.8	5,881.7	5,879.1	19.7	1.6	-5.27	32.5	-7,600.8	7,922.7	7,902.5	20.19	392.410		
6,102.3	6,021.1	5,883.8	5,881.2	19.7	1.6	-5.27	32.5	-7,600.8	7,922.5	7,902.3	20.19	392.363		
6,150.0	6,068.1	5,900.0	5,897.4	19.7	1.6	-5.32	32.8	-7,601.1	7,915.5	7,895.3	20.22	391.562		
6,200.0	6,116.8	5,946.9	5,944.3	19.7	1.6	-5.40	33.5	-7,601.9	7,904.9	7,884.6	20.22	390.868		
6,200.8	6,117.5	5,947.4	5,944.8	19.7	1.6	-5.41	33.5	-7,601.9	7,904.7	7,884.4	20.22	390.863		
6,250.0	6,164.5	5,976.0	5,973.4	19.7	1.6	-5.52	33.8	-7,602.5	7,891.0	7,870.8	20.19	390.870		
6,299.2	6,210.4	6,013.9	6,011.2	19.7	1.6	-5.66	34.3	-7,603.3	7,874.3	7,854.2	20.11	391.589		
6,300.0	6,211.1	6,015.4	6,012.8	19.7	1.6	-5.67	34.3	-7,603.3	7,874.0	7,853.9	20.11	391.598		
6,350.0	6,256.4	6,105.0	6,102.3	19.7	1.6	-5.86	35.7	-7,605.1	7,853.6	7,833.6	20.00	392.618		
6,397.6	6,298.0	6,146.9	6,144.2	19.7	1.7	-6.09	36.4	-7,605.8	7,831.1	7,811.3	19.83	394.950		
6,400.0	6,300.0	6,148.9	6,146.2	19.7	1.7	-6.10	36.4	-7,605.8	7,829.9	7,810.1	19.82	395.094		
6,450.0	6,341.8	6,191.1	6,188.4	19.7	1.7	-6.39	37.0	-7,606.5	7,803.3	7,783.7	19.57	398.681		
6,496.0	6,378.6	6,222.7	6,220.0	19.7	1.7	-6.71	37.5	-7,607.0	7,776.2	7,756.9	19.29	403.124		
6,500.0	6,381.6	6,225.2	6,222.5	19.7	1.7	-6.74	37.5	-7,607.1	7,773.8	7,754.5	19.26	403.562		
6,550.0	6,419.2	6,255.8	6,253.1	19.6	1.7	-7.17	38.0	-7,607.6	7,741.6	7,722.7	18.90	409.697		
6,594.5	6,450.7	6,281.5	6,278.8	19.6	1.7	-7.62	38.3	-7,608.1	7,710.9	7,692.3	18.53	416.164		
6,600.0	6,454.4	6,284.6	6,281.9	19.6	1.7	-7.69	38.3	-7,608.2	7,706.9	7,688.4	18.48	417.049		
6,650.0	6,487.1	6,318.7	6,316.0	19.6	1.7	-8.34	38.8	-7,608.8	7,669.8	7,651.8	18.03	425.354		
6,692.9	6,513.0	6,353.6	6,350.9	19.6	1.7	-9.04	39.2	-7,609.5	7,636.2	7,618.6	17.64	432.989		
6,700.0	6,517.0	6,359.1	6,356.4	19.6	1.7	-9.17	39.3	-7,609.6	7,630.5	7,612.9	17.57	434.361		
6,750.0	6,544.1	6,395.7	6,392.9	19.6	1.7	-10.23	39.8	-7,610.2	7,589.1	7,572.0	17.09	444.023		
6,791.3	6,564.2	6,413.3	6,410.5	19.7	1.7	-11.32	40.0	-7,610.5	7,553.5	7,536.8	16.68	452.746		
6,800.0	6,568.2	6,416.4	6,413.7	19.7	1.7	-11.58	40.0	-7,610.5	7,545.8	7,529.2	16.61	454.159		
6,850.0	6,589.1	6,433.1	6,430.3	19.8	1.7	-13.39	40.3	-7,610.8	7,501.0	7,484.8	16.19	463.276		
6,889.7	6,603.5	6,444.7	6,441.9	19.9	1.7	-15.31	40.4	-7,611.0	7,464.4	7,448.4	15.94	468.322		
6,900.0	6,606.9	6,447.4	6,444.6	19.9	1.7	-15.90	40.5	-7,611.1	7,454.8	7,438.9	15.89	469.102		
6,950.0	6,621.3	6,459.2	6,456.4	20.2	1.7	-19.61	40.7	-7,611.3	7,407.4	7,391.6	15.85	467.449		
6,988.2	6,630.0	6,466.5	6,463.7	20.6	1.7	-23.81	40.8	-7,611.4	7,370.6	7,354.4	16.14	456.584		
7,000.0	6,632.4	6,468.4	6,465.6	20.7	1.7	-25.48	40.8	-7,611.5	7,359.1	7,342.8	16.32	450.834		
7,050.0	6,640.0	6,475.0	6,472.3	21.4	1.7	-35.80	40.9	-7,611.6	7,310.1	7,292.2	17.86	409.348		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,086.6	6,643.4	6,478.2	6,475.4	21.9	1.7	-49.09	41.0	-7,611.7	7,273.9	7,253.8	20.04	363.026		
7,100.0	6,644.2	6,479.0	6,476.2	22.1	1.7	-55.92	41.0	-7,611.7	7,260.6	7,239.6	21.01	345.630		
7,135.7	6,645.0	6,480.2	6,477.5	22.7	1.7	-80.17	41.0	-7,611.7	7,225.1	7,202.0	23.14	312.201		
7,185.0	6,644.9	6,481.0	6,478.2	23.6	1.7	-80.23	41.0	-7,611.7	7,176.0	7,151.9	24.09	297.854		
7,200.0	6,644.9	6,481.2	6,478.4	23.9	1.7	-80.24	41.0	-7,611.7	7,161.1	7,136.7	24.38	293.723		
7,283.4	6,644.8	6,482.4	6,479.6	25.6	1.7	-80.34	41.0	-7,611.8	7,078.1	7,052.0	26.09	271.267		
7,300.0	6,644.8	6,482.7	6,479.9	25.9	1.7	-80.36	41.0	-7,611.8	7,061.6	7,035.2	26.43	267.160		
7,381.9	6,644.7	6,483.9	6,481.1	27.7	1.7	-80.45	41.1	-7,611.8	6,980.2	6,952.0	28.22	247.339		
7,400.0	6,644.7	6,484.1	6,481.4	28.1	1.7	-80.47	41.1	-7,611.8	6,962.2	6,933.5	28.62	243.287		
7,480.3	6,644.6	6,485.3	6,482.6	29.9	1.7	-80.57	41.1	-7,611.8	6,882.3	6,851.8	30.46	225.946		
7,500.0	6,644.6	6,485.6	6,482.8	30.3	1.7	-80.59	41.1	-7,611.8	6,862.7	6,831.8	30.91	222.008		
7,578.7	6,644.5	6,486.8	6,484.0	32.2	1.7	-80.68	41.1	-7,611.9	6,784.4	6,751.6	32.78	206.957		
7,600.0	6,644.4	6,487.1	6,484.4	32.7	1.7	-80.71	41.1	-7,611.9	6,763.3	6,730.0	33.29	203.180		
7,677.1	6,644.3	6,488.3	6,485.5	34.6	1.7	-80.80	41.1	-7,611.9	6,686.6	6,651.4	35.17	190.130		
7,700.0	6,644.3	6,488.7	6,485.9	35.1	1.7	-80.83	41.1	-7,611.9	6,663.9	6,628.1	35.73	186.528		
7,775.6	6,644.2	6,500.0	6,497.2	37.0	1.7	-81.71	41.3	-7,612.1	6,588.7	6,551.1	37.66	174.955		
7,800.0	6,644.2	6,500.0	6,497.2	37.6	1.7	-81.72	41.3	-7,612.1	6,564.5	6,526.2	38.27	171.544		
7,874.0	6,644.1	6,500.0	6,497.2	39.5	1.7	-81.72	41.3	-7,612.1	6,490.9	6,450.8	40.14	161.720		
7,900.0	6,644.1	6,500.0	6,497.2	40.1	1.7	-81.72	41.3	-7,612.1	6,465.1	6,424.3	40.79	158.483		
7,972.4	6,644.0	6,500.0	6,497.2	42.0	1.7	-81.72	41.3	-7,612.1	6,393.1	6,350.5	42.65	149.906		
8,000.0	6,643.9	6,500.0	6,497.2	42.7	1.7	-81.72	41.3	-7,612.1	6,365.7	6,322.4	43.35	146.834		
8,070.8	6,643.9	6,500.0	6,497.2	44.5	1.7	-81.72	41.3	-7,612.1	6,295.3	6,250.1	45.19	139.320		
8,100.0	6,643.8	6,500.0	6,497.2	45.2	1.7	-81.72	41.3	-7,612.1	6,266.4	6,220.4	45.94	136.403		
8,169.3	6,643.7	6,500.0	6,497.2	47.0	1.7	-81.72	41.3	-7,612.1	6,197.6	6,149.8	47.75	129.798		
8,200.0	6,643.7	6,500.0	6,497.2	47.9	1.7	-81.72	41.3	-7,612.1	6,167.1	6,118.5	48.55	127.026		
8,267.7	6,643.6	6,500.0	6,497.2	49.6	1.7	-81.72	41.3	-7,612.1	6,099.8	6,049.5	50.33	121.199		
8,300.0	6,643.6	6,500.0	6,497.2	50.5	1.7	-81.72	41.3	-7,612.1	6,067.7	6,016.6	51.18	118.562		
8,366.1	6,643.5	6,500.0	6,497.2	52.2	1.7	-81.72	41.3	-7,612.1	6,002.1	5,949.2	52.93	113.404		
8,400.0	6,643.4	6,500.0	6,497.2	53.1	1.7	-81.72	41.3	-7,612.1	5,968.5	5,914.6	53.82	110.892		
8,464.5	6,643.4	6,501.2	6,498.4	54.8	1.7	-81.81	41.4	-7,612.2	5,904.4	5,848.9	55.55	106.294		
8,500.0	6,643.3	6,502.3	6,499.5	55.8	1.7	-81.90	41.4	-7,612.2	5,869.2	5,812.7	56.50	103.881		
8,563.0	6,643.2	6,504.2	6,501.4	57.5	1.7	-82.04	41.4	-7,612.2	5,806.7	5,748.5	58.20	99.777		
8,600.0	6,643.2	6,505.3	6,502.5	58.5	1.7	-82.13	41.4	-7,612.2	5,770.0	5,710.8	59.20	97.473		
8,661.4	6,643.1	6,507.1	6,504.3	60.1	1.7	-82.27	41.5	-7,612.3	5,709.1	5,648.2	60.86	93.808		
8,700.0	6,643.1	6,508.2	6,505.4	61.2	1.7	-82.36	41.5	-7,612.3	5,670.8	5,608.9	61.90	91.605		
8,759.8	6,643.0	6,509.9	6,507.1	62.8	1.7	-82.50	41.5	-7,612.3	5,611.4	5,547.9	63.53	88.326		
8,800.0	6,643.0	6,511.0	6,508.2	63.9	1.7	-82.59	41.5	-7,612.4	5,571.6	5,507.0	64.62	86.216		
8,858.2	6,642.9	6,512.7	6,509.9	65.4	1.7	-82.72	41.6	-7,612.4	5,513.8	5,447.6	66.21	83.275		
8,900.0	6,642.8	6,513.9	6,511.1	66.6	1.7	-82.81	41.6	-7,612.4	5,472.5	5,405.1	67.35	81.252		
8,956.7	6,642.8	6,515.4	6,512.6	68.1	1.7	-82.93	41.6	-7,612.4	5,416.3	5,347.4	68.90	78.608		
9,000.0	6,642.7	6,516.6	6,513.8	69.3	1.7	-83.03	41.6	-7,612.5	5,373.3	5,303.3	70.09	76.665		
9,055.1	6,642.6	6,518.1	6,515.3	70.8	1.7	-83.14	41.7	-7,612.5	5,318.7	5,247.1	71.60	74.284		
9,100.0	6,642.6	6,519.3	6,516.5	72.0	1.7	-83.24	41.7	-7,612.5	5,274.3	5,201.4	72.83	72.416		
9,153.5	6,642.5	6,520.7	6,517.9	73.5	1.7	-83.35	41.7	-7,612.5	5,221.2	5,146.9	74.30	70.268		
9,200.0	6,642.5	6,521.9	6,519.1	74.7	1.7	-83.45	41.7	-7,612.6	5,175.2	5,099.6	75.58	68.471		
9,251.9	6,642.4	6,523.3	6,520.5	76.2	1.7	-83.56	41.7	-7,612.6	5,123.8	5,046.8	77.01	66.530		
9,300.0	6,642.3	6,524.5	6,521.7	77.5	1.7	-83.66	41.8	-7,612.6	5,076.2	4,997.9	78.34	64.798		
9,350.4	6,642.3	6,525.8	6,523.0	78.9	1.7	-83.76	41.8	-7,612.6	5,026.3	4,946.6	79.73	63.042		
9,400.0	6,642.2	6,527.1	6,524.3	80.2	1.7	-83.86	41.8	-7,612.7	4,977.2	4,896.1	81.10	61.371		
9,448.8	6,642.1	6,528.3	6,525.5	81.6	1.7	-83.95	41.8	-7,612.7	4,928.9	4,846.5	82.45	59.781		
9,500.0	6,642.1	6,529.6	6,526.8	83.0	1.7	-84.05	41.8	-7,612.7	4,878.3	4,794.4	83.87	58.167		
9,547.2	6,642.0	6,530.7	6,527.9	84.3	1.7	-84.15	41.9	-7,612.7	4,831.6	4,746.4	85.17	56.725		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,600.0	6,642.0	6,532.0	6,529.2	85.7	1.7	-84.25	41.9	-7,612.8	4,779.4	4,692.8	86.64	55.166	
9,645.6	6,641.9	6,533.1	6,530.3	87.0	1.7	-84.34	41.9	-7,612.8	4,734.3	4,646.4	87.90	53.858	
9,700.0	6,641.8	6,534.4	6,531.6	88.5	1.7	-84.44	41.9	-7,612.8	4,680.5	4,591.1	89.41	52.349	
9,744.1	6,641.8	6,535.4	6,532.6	89.7	1.7	-84.52	41.9	-7,612.8	4,637.0	4,546.4	90.64	51.161	
9,800.0	6,641.7	6,536.8	6,533.9	91.2	1.7	-84.63	41.9	-7,612.9	4,581.8	4,489.6	92.19	49.700	
9,842.5	6,641.7	6,537.7	6,534.9	92.4	1.7	-84.70	42.0	-7,612.9	4,539.8	4,446.4	93.37	48.621	
9,900.0	6,641.6	6,539.1	6,536.3	94.0	1.7	-84.81	42.0	-7,612.9	4,483.0	4,388.0	94.97	47.205	
9,940.9	6,641.5	6,540.0	6,537.2	95.1	1.7	-84.88	42.0	-7,612.9	4,442.6	4,346.5	96.11	46.225	
10,000.0	6,641.5	6,541.3	6,538.5	96.7	1.7	-84.99	42.0	-7,612.9	4,384.3	4,286.6	97.75	44.851	
10,039.3	6,641.4	6,542.2	6,539.4	97.8	1.7	-85.06	42.0	-7,613.0	4,345.5	4,246.7	98.85	43.961	
10,100.0	6,641.3	6,543.5	6,540.7	99.5	1.7	-85.17	42.1	-7,613.0	4,285.7	4,185.2	100.54	42.627	
10,137.8	6,641.3	6,544.4	6,541.6	100.6	1.7	-85.23	42.1	-7,613.0	4,248.5	4,146.9	101.59	41.818	
10,200.0	6,641.2	6,545.7	6,542.9	102.3	1.7	-85.34	42.1	-7,613.0	4,187.1	4,083.8	103.33	40.523	
10,236.2	6,641.2	6,546.5	6,543.7	103.3	1.7	-85.40	42.1	-7,613.0	4,151.5	4,047.1	104.34	39.788	
10,300.0	6,641.1	6,547.9	6,545.1	105.0	1.7	-85.51	42.1	-7,613.1	4,088.6	3,982.5	106.12	38.529	
10,334.6	6,641.0	6,548.6	6,545.8	106.0	1.7	-85.57	42.1	-7,613.1	4,054.6	3,947.5	107.09	37.863	
10,400.0	6,641.0	6,550.0	6,547.2	107.8	1.7	-85.68	42.1	-7,613.1	3,990.2	3,881.3	108.91	36.637	
10,433.0	6,640.9	6,550.7	6,547.9	108.7	1.7	-85.74	42.2	-7,613.1	3,957.7	3,847.9	109.84	36.033	
10,500.0	6,640.8	6,552.0	6,549.2	110.6	1.7	-85.85	42.2	-7,613.1	3,891.9	3,780.2	111.71	34.840	
10,531.5	6,640.8	6,552.7	6,549.9	111.5	1.7	-85.90	42.2	-7,613.1	3,860.9	3,748.4	112.59	34.293	
10,600.0	6,640.7	6,554.1	6,551.3	113.4	1.7	-86.01	42.2	-7,613.2	3,793.6	3,679.1	114.50	33.132	
10,629.9	6,640.7	6,554.7	6,551.9	114.2	1.7	-86.06	42.2	-7,613.2	3,764.3	3,648.9	115.34	32.637	
10,700.0	6,640.6	6,556.1	6,553.3	116.1	1.7	-86.17	42.2	-7,613.2	3,695.5	3,578.2	117.30	31.505	
10,728.3	6,640.5	6,556.6	6,553.8	116.9	1.7	-86.21	42.2	-7,613.2	3,667.7	3,549.6	118.09	31.058	
10,800.0	6,640.5	6,558.0	6,555.2	118.9	1.7	-86.33	42.3	-7,613.2	3,597.4	3,477.3	120.10	29.954	
10,826.7	6,640.4	6,558.6	6,555.7	119.7	1.7	-86.37	42.3	-7,613.2	3,571.2	3,450.3	120.85	29.551	
10,900.0	6,640.3	6,560.0	6,557.2	121.7	1.7	-86.48	42.3	-7,613.3	3,499.5	3,376.6	122.90	28.474	
10,925.2	6,640.3	6,560.4	6,557.6	122.4	1.7	-86.52	42.3	-7,613.3	3,474.8	3,351.2	123.60	28.113	
11,000.0	6,640.2	6,561.9	6,559.0	124.5	1.7	-86.63	42.3	-7,613.3	3,401.6	3,275.9	125.70	27.062	
11,023.6	6,640.2	6,562.3	6,559.5	125.1	1.7	-86.67	42.3	-7,613.3	3,378.5	3,252.2	126.36	26.738	
11,100.0	6,640.1	6,563.7	6,560.9	127.3	1.7	-86.78	42.3	-7,613.3	3,303.9	3,175.4	128.50	25.711	
11,122.0	6,640.0	6,564.1	6,561.3	127.9	1.7	-86.81	42.3	-7,613.3	3,282.4	3,153.3	129.12	25.422	
11,200.0	6,639.9	6,565.6	6,562.7	130.1	1.7	-86.93	42.4	-7,613.4	3,206.4	3,075.0	131.30	24.419	
11,220.4	6,639.9	6,565.9	6,563.1	130.6	1.7	-86.96	42.4	-7,613.4	3,186.4	3,054.5	131.88	24.162	
11,300.0	6,639.8	6,567.4	6,564.5	132.8	1.7	-87.07	42.4	-7,613.4	3,108.9	2,974.8	134.11	23.183	
11,318.9	6,639.8	6,567.7	6,564.9	133.4	1.7	-87.10	42.4	-7,613.4	3,090.6	2,955.9	134.64	22.955	
11,400.0	6,639.7	6,569.1	6,566.3	135.6	1.7	-87.22	42.4	-7,613.4	3,011.7	2,874.8	136.91	21.998	
11,417.3	6,639.7	6,569.4	6,566.6	136.1	1.7	-87.24	42.4	-7,613.4	2,994.9	2,857.5	137.40	21.798	
11,500.0	6,639.6	6,570.9	6,568.1	138.4	1.7	-87.36	42.4	-7,613.4	2,914.6	2,774.9	139.71	20.861	
11,515.7	6,639.5	6,571.1	6,568.3	138.9	1.7	-87.38	42.4	-7,613.4	2,899.4	2,759.2	140.16	20.687	
11,600.0	6,639.4	6,572.6	6,569.8	141.2	1.7	-87.49	42.4	-7,613.5	2,817.8	2,675.3	142.52	19.771	
11,614.1	6,639.4	6,572.8	6,570.0	141.6	1.7	-87.51	42.4	-7,613.5	2,804.1	2,661.2	142.92	19.621	
11,700.0	6,639.3	6,574.3	6,571.5	144.0	1.7	-87.63	42.5	-7,613.5	2,721.2	2,575.8	145.33	18.725	
11,712.6	6,639.3	6,574.5	6,571.7	144.3	1.7	-87.65	42.5	-7,613.5	2,709.0	2,563.4	145.68	18.596	
11,800.0	6,639.2	6,575.9	6,573.1	146.8	1.7	-87.76	42.5	-7,613.5	2,624.8	2,476.7	148.13	17.719	
11,811.0	6,639.2	6,576.1	6,573.3	147.1	1.7	-87.78	42.5	-7,613.5	2,614.2	2,465.8	148.44	17.611	
11,900.0	6,639.1	6,577.6	6,574.8	149.6	1.7	-87.89	42.5	-7,613.5	2,528.7	2,377.8	150.94	16.753	
11,909.4	6,639.0	6,577.7	6,574.9	149.8	1.7	-87.91	42.5	-7,613.5	2,519.7	2,368.5	151.20	16.664	
12,000.0	6,638.9	6,579.2	6,576.4	152.4	1.7	-88.02	42.5	-7,613.6	2,432.9	2,279.2	153.74	15.825	
12,007.8	6,638.9	6,579.3	6,576.5	152.6	1.7	-88.03	42.5	-7,613.6	2,425.4	2,271.5	153.96	15.753	
12,100.0	6,638.8	6,580.8	6,578.0	155.2	1.7	-88.15	42.5	-7,613.6	2,337.5	2,181.0	156.55	14.931	
12,106.3	6,638.8	6,580.9	6,578.0	155.3	1.7	-88.16	42.5	-7,613.6	2,331.5	2,174.8	156.73	14.876	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
12,200.0	6,638.7	6,582.3	6,579.5	157.9	1.7	-88.28	42.6	-7,613.6	2,242.5	2,083.1	159.36	14.072		
12,204.7	6,638.7	6,582.4	6,579.6	158.1	1.7	-88.28	42.6	-7,613.6	2,238.0	2,078.5	159.49	14.032		
12,300.0	6,638.5	6,583.9	6,581.0	160.7	1.7	-88.40	42.6	-7,613.6	2,147.9	1,985.7	162.16	13.245		
12,303.1	6,638.5	6,583.9	6,581.1	160.8	1.7	-88.40	42.6	-7,613.6	2,145.0	1,982.7	162.25	13.220		
12,400.0	6,638.4	6,585.4	6,582.6	163.5	1.7	-88.52	42.6	-7,613.7	2,053.8	1,888.9	164.97	12.450		
12,401.5	6,638.4	6,585.4	6,582.6	163.6	1.7	-88.52	42.6	-7,613.7	2,052.4	1,887.4	165.02	12.438		
12,500.0	6,638.3	6,586.9	6,584.0	166.3	1.7	-88.64	42.6	-7,613.7	1,960.4	1,792.6	167.78	11.684		
12,598.4	6,638.2	6,588.3	6,585.5	169.1	1.7	-88.76	42.6	-7,613.7	1,869.0	1,698.5	170.54	10.959		
12,600.0	6,638.2	6,588.3	6,585.5	169.1	1.7	-88.76	42.6	-7,613.7	1,867.6	1,697.0	170.59	10.948		
12,696.8	6,638.0	6,589.7	6,586.9	171.8	1.7	-88.87	42.6	-7,613.7	1,778.4	1,605.1	173.30	10.262		
12,700.0	6,638.0	6,589.8	6,587.0	171.9	1.7	-88.88	42.6	-7,613.7	1,775.5	1,602.1	173.39	10.240		
12,795.2	6,637.9	6,591.1	6,588.3	174.6	1.7	-88.99	42.7	-7,613.8	1,688.7	1,512.7	176.07	9.591		
12,800.0	6,637.9	6,591.2	6,588.4	174.7	1.7	-88.99	42.7	-7,613.8	1,684.4	1,508.2	176.20	9.560		
12,893.7	6,637.8	6,592.5	6,589.7	177.3	1.7	-89.10	42.7	-7,613.8	1,600.0	1,421.2	178.83	8.947		
12,900.0	6,637.8	6,592.6	6,589.8	177.5	1.7	-89.10	42.7	-7,613.8	1,594.4	1,415.4	179.01	8.907		
12,992.1	6,637.7	6,593.9	6,591.1	180.1	1.7	-89.21	42.7	-7,613.8	1,512.5	1,331.0	181.59	8.329		
13,000.0	6,637.6	6,594.0	6,591.2	180.3	1.7	-89.22	42.7	-7,613.8	1,505.6	1,323.8	181.81	8.281		
13,090.5	6,637.5	6,595.2	6,592.4	182.8	1.7	-89.31	42.7	-7,613.8	1,426.5	1,242.1	184.35	7.738		
13,100.0	6,637.5	6,595.4	6,592.5	183.1	1.7	-89.32	42.7	-7,613.8	1,418.3	1,233.7	184.62	7.682		
13,188.9	6,637.4	6,596.6	6,593.7	185.6	1.7	-89.42	42.7	-7,613.8	1,342.1	1,155.0	187.12	7.173		
13,200.0	6,637.4	6,596.7	6,593.9	185.9	1.7	-89.43	42.7	-7,613.8	1,332.8	1,145.3	187.43	7.111		
13,287.4	6,637.3	6,597.9	6,595.0	188.4	1.7	-89.53	42.7	-7,613.8	1,259.8	1,069.9	189.88	6.635		
13,300.0	6,637.3	6,598.0	6,595.2	188.7	1.7	-89.54	42.7	-7,613.9	1,249.4	1,059.2	190.23	6.568		
13,385.8	6,637.1	6,599.1	6,596.3	191.1	1.7	-89.63	42.7	-7,613.9	1,179.9	987.3	192.64	6.125		
13,400.0	6,637.1	6,599.3	6,596.5	191.5	1.7	-89.64	42.7	-7,613.9	1,168.6	975.6	193.04	6.054		
13,484.2	6,637.0	6,600.5	6,597.6	193.9	1.7	-89.74	42.8	-7,613.9	1,103.1	907.7	195.40	5.645		
13,500.0	6,637.0	6,600.7	6,597.9	194.3	1.7	-89.75	42.8	-7,613.9	1,091.1	895.2	195.85	5.571		
13,582.6	6,636.9	6,601.9	6,599.1	196.6	1.7	-89.85	42.8	-7,613.9	1,029.9	831.7	198.17	5.197		
13,600.0	6,636.9	6,602.1	6,599.3	197.1	1.7	-89.87	42.8	-7,613.9	1,017.4	818.8	198.65	5.122		
13,681.1	6,636.8	6,603.2	6,600.4	199.4	1.7	-89.96	42.8	-7,613.9	961.2	760.3	200.93	4.784		
13,700.0	6,636.7	6,603.5	6,600.7	199.9	1.7	-89.98	42.8	-7,613.9	948.6	747.2	201.46	4.709		
13,779.5	6,636.6	6,604.6	6,601.7	202.1	1.7	-90.07	42.8	-7,613.9	898.1	694.4	203.69	4.409		
13,800.0	6,636.6	6,604.8	6,602.0	202.7	1.7	-90.09	42.8	-7,613.9	885.8	681.5	204.26	4.337		
13,877.9	6,636.5	6,605.8	6,603.0	204.9	1.7	-90.17	42.8	-7,614.0	841.8	635.4	206.45	4.078		
13,900.0	6,636.5	6,606.1	6,603.3	205.5	1.7	-90.19	42.8	-7,614.0	830.3	623.2	207.07	4.010		
13,976.3	6,636.4	6,607.1	6,604.3	207.6	1.7	-90.27	42.8	-7,614.0	793.8	584.5	209.21	3.794		
14,000.0	6,636.3	6,607.4	6,604.6	208.3	1.7	-90.29	42.8	-7,614.0	783.6	573.7	209.87	3.734		
14,074.8	6,636.3	6,608.3	6,605.5	210.4	1.7	-90.37	42.8	-7,614.0	755.5	543.6	211.97	3.564		
14,100.0	6,636.2	6,608.6	6,605.8	211.1	1.7	-90.39	42.8	-7,614.0	747.5	534.8	212.68	3.515		
14,173.2	6,636.1	6,609.5	6,606.7	213.2	1.7	-90.46	42.9	-7,614.0	728.7	513.9	214.73	3.393		
14,200.0	6,636.1	6,609.8	6,607.0	213.9	1.7	-90.49	42.9	-7,614.0	723.5	508.0	215.48	3.358		
14,271.6	6,636.0	6,610.7	6,607.8	215.9	1.7	-90.56	42.9	-7,614.0	714.5	497.0	217.49	3.285		
14,300.0	6,636.0	6,611.0	6,608.2	216.7	1.7	-90.58	42.9	-7,614.0	712.9	494.6	218.28	3.266		
14,326.5	6,635.9	6,611.3	6,608.5	217.5	1.7	-90.61	42.9	-7,614.0	712.4	493.3	219.03	3.252 CC, ES		
14,370.0	6,635.9	6,611.8	6,609.0	218.7	1.7	-90.65	42.9	-7,614.0	713.7	493.4	220.25	3.240		
14,400.0	6,635.8	6,612.1	6,609.3	219.5	1.7	-90.67	42.9	-7,614.0	716.1	495.1	221.09	3.239 SF		
14,468.5	6,635.7	6,612.9	6,610.1	221.4	1.7	-90.74	42.9	-7,614.0	726.4	503.4	223.01	3.257		
14,500.0	6,635.7	6,613.2	6,610.4	222.3	1.7	-90.76	42.9	-7,614.1	733.2	509.3	223.89	3.275		
14,566.9	6,635.6	6,614.0	6,611.1	224.2	1.7	-90.82	42.9	-7,614.1	751.8	526.1	225.77	3.330		
14,600.0	6,635.6	6,614.3	6,611.5	225.1	1.7	-90.85	42.9	-7,614.1	763.1	536.4	226.69	3.366		
14,665.3	6,635.5	6,615.0	6,612.2	226.9	1.7	-90.91	42.9	-7,614.1	788.8	560.3	228.52	3.452		
14,700.0	6,635.4	6,615.4	6,612.6	227.9	1.7	-90.94	42.9	-7,614.1	804.3	574.8	229.50	3.505		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-13 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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
14,763.7	6,635.4	6,616.0	6,613.2	229.7	1.7	-90.99	42.9	-7,614.1	835.8	604.6	231.28	3.614	
14,800.0	6,635.3	6,616.4	6,613.6	230.7	1.7	-91.02	42.9	-7,614.1	855.4	623.1	232.30	3.682	
14,862.2	6,635.2	6,617.0	6,614.2	232.5	1.7	-91.07	42.9	-7,614.1	891.3	657.2	234.04	3.808	
14,900.0	6,635.2	6,617.4	6,614.6	233.5	1.7	-91.10	42.9	-7,614.1	914.5	679.4	235.10	3.890	
14,960.6	6,635.1	6,618.0	6,615.2	235.2	1.7	-91.15	42.9	-7,614.1	953.7	716.9	236.80	4.027	
15,000.0	6,635.0	6,618.4	6,615.6	236.3	1.7	-91.18	43.0	-7,614.1	980.3	742.4	237.90	4.121	
15,033.1	6,635.0	6,618.7	6,615.9	237.3	1.7	-91.20	43.0	-7,614.1	1,003.3	764.5	238.83	4.201	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-14 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-91.35	-154.0	-6,520.4	6,522.3				
98.4	98.4	69.0	69.0	0.1	0.0	-91.35	-154.0	-6,520.4	6,522.2	6,522.1	0.10	N/A	
100.0	100.0	70.7	70.7	0.1	0.0	-91.35	-154.0	-6,520.4	6,522.2	6,522.1	0.11	N/A	
168.1	168.1	129.4	129.4	0.3	0.0	-91.35	-154.1	-6,520.3	6,522.1	6,521.8	0.30	N/A	
196.8	196.8	149.7	149.7	0.3	0.1	-91.35	-154.1	-6,520.3	6,522.2	6,521.8	0.39	N/A	
200.0	200.0	151.9	151.9	0.3	0.1	-91.35	-154.1	-6,520.3	6,522.2	6,521.8	0.39	N/A	
295.3	295.3	219.2	219.2	0.5	0.1	-91.36	-154.4	-6,520.6	6,522.6	6,521.9	0.69	9,514.305	
300.0	300.0	222.5	222.5	0.5	0.2	-91.36	-154.4	-6,520.6	6,522.6	6,521.9	0.70	9,318.290	
393.7	393.7	300.0	300.0	0.8	0.2	-91.36	-155.0	-6,521.3	6,523.4	6,522.4	1.00	6,530.768	
400.0	400.0	300.0	300.0	0.8	0.2	-91.36	-155.0	-6,521.3	6,523.4	6,522.4	1.01	6,439.538	
492.1	492.1	400.0	400.0	1.0	0.3	-91.37	-155.8	-6,522.2	6,524.3	6,523.0	1.30	5,011.240	
500.0	500.0	400.0	400.0	1.0	0.3	-91.37	-155.8	-6,522.2	6,524.4	6,523.0	1.32	4,944.079	
590.5	590.5	471.4	471.3	1.2	0.4	-91.37	-156.5	-6,522.9	6,525.3	6,523.7	1.57	4,152.380	
600.0	600.0	477.6	477.6	1.2	0.4	-91.38	-156.6	-6,523.0	6,525.4	6,523.8	1.60	4,086.224	
689.0	689.0	556.8	556.8	1.4	0.4	-91.39	-157.8	-6,524.1	6,526.7	6,524.9	1.85	3,534.671	
700.0	700.0	568.2	568.2	1.4	0.4	-91.39	-157.9	-6,524.3	6,526.9	6,525.0	1.88	3,475.137	
787.4	787.4	655.0	654.9	1.6	0.5	-91.40	-159.3	-6,525.5	6,528.2	6,526.0	2.12	3,073.978	
800.0	800.0	667.2	667.1	1.7	0.5	-91.40	-159.5	-6,525.7	6,528.3	6,526.2	2.16	3,024.283	
885.8	885.8	748.1	748.0	1.9	0.5	-91.41	-160.7	-6,526.9	6,529.6	6,527.2	2.39	2,727.659	
900.0	900.0	761.2	761.1	1.9	0.5	-91.41	-160.8	-6,527.1	6,529.9	6,527.4	2.43	2,684.530	
984.2	984.2	843.7	843.6	2.1	0.6	-91.42	-162.0	-6,528.4	6,531.2	6,528.6	2.66	2,452.821	
1,000.0	1,000.0	860.0	859.9	2.1	0.6	-91.42	-162.2	-6,528.6	6,531.5	6,528.8	2.71	2,413.672	
1,082.7	1,082.7	941.4	941.3	2.3	0.6	-118.41	-163.4	-6,529.9	6,533.4	6,530.4	2.92	2,235.239	
1,100.0	1,100.0	957.7	957.6	2.3	0.7	-118.41	-163.6	-6,530.1	6,533.9	6,530.9	2.97	2,197.074	
1,181.1	1,181.0	1,034.0	1,033.9	2.5	0.7	-118.39	-164.8	-6,531.4	6,537.1	6,533.9	3.21	2,035.008	
1,200.0	1,199.8	1,051.8	1,051.6	2.6	0.7	-118.38	-165.1	-6,531.7	6,538.1	6,534.8	3.27	2,000.736	
1,279.5	1,279.1	1,132.1	1,132.0	2.8	0.8	-118.37	-166.5	-6,533.0	6,542.6	6,539.1	3.50	1,870.270	
1,300.0	1,299.5	1,155.6	1,155.4	2.8	0.8	-118.36	-166.9	-6,533.4	6,543.9	6,540.4	3.55	1,841.361	
1,377.9	1,376.9	1,236.3	1,236.1	3.0	0.8	-118.35	-168.3	-6,534.7	6,549.6	6,545.8	3.78	1,732.168	
1,400.0	1,398.7	1,256.8	1,256.6	3.0	0.8	-118.34	-168.6	-6,535.0	6,551.4	6,547.5	3.85	1,703.013	
1,476.4	1,474.2	1,327.6	1,327.4	3.2	0.9	-118.32	-169.8	-6,536.1	6,558.2	6,554.1	4.09	1,603.459	
1,500.0	1,497.5	1,349.5	1,349.2	3.3	0.9	-118.31	-170.2	-6,536.5	6,560.5	6,556.4	4.17	1,575.132	
1,574.8	1,571.0	1,417.0	1,416.8	3.5	0.9	-118.27	-171.4	-6,537.6	6,568.6	6,564.1	4.42	1,486.602	
1,600.0	1,595.6	1,438.5	1,438.3	3.6	0.9	-118.26	-171.8	-6,538.0	6,571.5	6,567.0	4.50	1,460.644	
1,673.2	1,667.2	1,501.4	1,501.1	3.9	1.0	-118.37	-172.9	-6,539.2	6,580.3	6,575.5	4.75	1,385.668	
1,700.0	1,693.4	1,535.2	1,534.9	4.0	1.0	-118.43	-173.5	-6,539.8	6,583.5	6,578.6	4.84	1,359.518	
1,771.6	1,763.5	1,647.9	1,647.6	4.2	1.0	-118.63	-175.8	-6,541.5	6,591.9	6,586.8	5.11	1,290.228	
1,800.0	1,791.3	1,710.3	1,709.9	4.3	1.0	-118.74	-177.0	-6,542.1	6,595.0	6,589.8	5.22	1,264.267	
1,870.1	1,859.8	1,892.7	1,892.3	4.6	1.1	-119.05	-180.0	-6,541.9	6,602.4	6,596.9	5.49	1,203.575	
1,900.0	1,889.1	1,946.0	1,945.6	4.7	1.1	-119.14	-180.9	-6,541.2	6,605.1	6,599.5	5.59	1,180.948	
1,968.5	1,956.1	2,040.2	2,039.8	4.9	1.1	-119.31	-182.4	-6,539.6	6,611.0	6,605.1	5.84	1,131.169	
2,000.0	1,986.9	2,076.7	2,076.3	5.1	1.1	-119.37	-183.0	-6,538.9	6,613.6	6,607.7	5.96	1,109.681	
2,066.9	2,052.3	2,145.4	2,144.9	5.3	1.2	-119.49	-184.2	-6,537.5	6,619.3	6,613.1	6.23	1,062.965	
2,100.0	2,084.7	2,177.4	2,177.0	5.5	1.2	-119.54	-184.8	-6,536.8	6,622.1	6,615.7	6.36	1,040.746	
2,165.3	2,148.6	2,240.7	2,240.2	5.7	1.2	-119.65	-186.0	-6,535.5	6,627.6	6,621.0	6.63	998.917	
2,200.0	2,182.5	2,274.3	2,273.8	5.9	1.3	-119.71	-186.7	-6,534.9	6,630.6	6,623.8	6.78	978.118	
2,263.8	2,244.9	2,335.9	2,335.4	6.1	1.3	-119.82	-188.2	-6,533.6	6,636.0	6,629.0	7.05	941.638	
2,300.0	2,280.3	2,371.0	2,370.4	6.3	1.3	-119.88	-189.0	-6,532.9	6,639.1	6,631.9	7.20	922.147	
2,362.2	2,341.2	2,428.8	2,428.2	6.5	1.3	-119.99	-190.5	-6,531.7	6,644.5	6,637.1	7.45	891.651	
2,400.0	2,378.1	2,462.6	2,462.0	6.7	1.3	-120.05	-191.3	-6,531.0	6,647.8	6,640.2	7.60	874.897	
2,460.6	2,437.4	2,518.6	2,518.0	6.9	1.4	-120.14	-192.5	-6,530.0	6,653.2	6,645.3	7.84	849.095	
2,500.0	2,476.0	2,557.4	2,556.8	7.1	1.4	-120.21	-193.3	-6,529.2	6,656.6	6,648.7	7.99	833.143	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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
2,550.0	2,524.9	2,600.0	2,599.4	7.3	1.4	-120.29	-194.2	-6,528.4	6,661.1	6,652.9	8.19	813.733	
2,559.0	2,533.7	2,600.0	2,599.4	7.3	1.4	-119.43	-194.2	-6,528.4	6,661.9	6,653.7	8.22	810.568	
2,600.0	2,573.8	2,646.3	2,645.6	7.5	1.4	-115.63	-195.1	-6,527.6	6,665.2	6,656.8	8.38	795.262	
2,639.4	2,612.3	2,678.3	2,677.7	7.7	1.4	-111.97	-195.8	-6,527.1	6,667.9	6,659.4	8.53	781.868	
2,657.5	2,630.0	2,693.1	2,692.4	7.7	1.4	-112.00	-196.0	-6,526.8	6,669.1	6,660.5	8.60	775.389	
2,700.0	2,671.6	2,727.7	2,727.0	7.9	1.4	-112.06	-196.7	-6,526.3	6,671.8	6,663.1	8.77	760.601	
2,755.9	2,726.3	2,773.2	2,772.5	8.1	1.4	-112.15	-197.6	-6,525.6	6,675.6	6,666.6	9.01	741.094	
2,800.0	2,769.4	2,809.7	2,809.0	8.3	1.5	-112.21	-198.3	-6,525.1	6,678.6	6,669.4	9.19	726.539	
2,854.3	2,822.5	2,856.8	2,856.0	8.5	1.5	-112.30	-199.2	-6,524.6	6,682.3	6,672.9	9.42	709.687	
2,900.0	2,867.2	2,900.0	2,899.3	8.7	1.5	-112.38	-200.0	-6,524.1	6,685.5	6,675.9	9.60	696.113	
2,952.7	2,918.8	2,936.7	2,935.9	9.0	1.5	-112.44	-200.7	-6,523.7	6,689.3	6,679.5	9.82	681.124	
3,000.0	2,965.0	2,972.4	2,971.7	9.2	1.5	-112.51	-201.5	-6,523.4	6,692.8	6,682.8	10.02	668.244	
3,051.2	3,015.1	3,000.0	2,999.2	9.4	1.5	-112.56	-202.0	-6,523.2	6,696.7	6,686.5	10.23	654.886	
3,100.0	3,062.8	3,037.0	3,036.2	9.6	1.5	-112.63	-202.7	-6,523.0	6,700.5	6,690.1	10.43	642.553	
3,149.6	3,111.4	3,065.9	3,065.1	9.8	1.5	-112.68	-203.1	-6,523.0	6,704.6	6,693.9	10.63	630.552	
3,200.0	3,160.7	3,100.0	3,099.2	10.0	1.5	-112.74	-203.6	-6,523.0	6,708.8	6,698.0	10.84	618.817	
3,248.0	3,207.6	3,138.5	3,137.7	10.2	1.6	-112.80	-204.0	-6,523.2	6,713.0	6,702.0	11.05	607.635	
3,300.0	3,258.5	3,188.7	3,188.0	10.5	1.6	-112.89	-204.5	-6,523.4	6,717.6	6,706.3	11.27	595.895	
3,346.4	3,303.9	3,233.6	3,232.9	10.7	1.6	-112.97	-204.8	-6,523.6	6,721.6	6,710.2	11.47	585.773	
3,400.0	3,356.3	3,285.5	3,284.7	10.9	1.6	-113.05	-205.1	-6,523.9	6,726.4	6,714.7	11.71	574.522	
3,444.9	3,400.2	3,328.6	3,327.9	11.1	1.6	-113.13	-205.4	-6,524.1	6,730.3	6,718.4	11.90	565.412	
3,500.0	3,454.1	3,381.6	3,380.8	11.3	1.7	-113.21	-205.6	-6,524.3	6,735.2	6,723.1	12.14	554.634	
3,543.3	3,496.5	3,423.1	3,422.3	11.5	1.7	-113.28	-205.8	-6,524.6	6,739.1	6,726.8	12.33	546.449	
3,600.0	3,551.9	3,477.5	3,476.7	11.7	1.7	-113.37	-206.1	-6,524.8	6,744.2	6,731.6	12.58	536.111	
3,641.7	3,592.7	3,519.0	3,518.2	11.9	1.7	-113.44	-206.2	-6,525.1	6,747.9	6,735.2	12.76	528.846	
3,700.0	3,649.7	3,579.4	3,578.6	12.2	1.7	-113.54	-206.4	-6,525.4	6,753.2	6,740.2	13.01	519.208	
3,740.1	3,689.0	3,617.5	3,616.7	12.4	1.7	-113.60	-206.5	-6,525.6	6,756.8	6,743.6	13.18	512.778	
3,800.0	3,747.5	3,669.2	3,668.4	12.6	1.7	-113.69	-206.6	-6,525.9	6,762.2	6,748.8	13.43	503.520	
3,838.6	3,785.3	3,702.9	3,702.1	12.8	1.7	-113.74	-206.6	-6,526.1	6,765.8	6,752.2	13.59	497.729	
3,900.0	3,845.4	3,763.8	3,763.0	13.1	1.8	-113.84	-206.7	-6,526.5	6,771.5	6,757.6	13.85	488.749	
3,937.0	3,881.6	3,800.0	3,799.2	13.2	1.8	-113.90	-206.7	-6,526.7	6,774.9	6,760.9	14.01	483.499	
4,000.0	3,943.2	3,855.6	3,854.9	13.5	1.8	-113.99	-206.9	-6,527.1	6,780.8	6,766.5	14.28	474.855	
4,035.4	3,977.8	3,886.7	3,885.9	13.6	1.8	-114.04	-207.0	-6,527.4	6,784.1	6,769.7	14.43	470.135	
4,100.0	4,041.0	3,948.0	3,947.2	13.9	1.8	-114.14	-207.2	-6,527.9	6,790.2	6,775.5	14.71	461.759	
4,133.8	4,074.1	3,980.9	3,980.1	14.1	1.8	-114.20	-207.3	-6,528.2	6,793.5	6,778.6	14.85	457.485	
4,200.0	4,138.8	4,052.6	4,051.8	14.4	1.8	-114.31	-207.5	-6,528.7	6,799.8	6,784.6	15.13	449.374	
4,232.3	4,170.4	4,089.1	4,088.3	14.5	1.8	-114.37	-207.7	-6,529.0	6,802.8	6,787.6	15.27	445.522	
4,300.0	4,236.6	4,149.4	4,148.6	14.8	1.8	-114.47	-208.1	-6,529.3	6,809.2	6,793.7	15.56	437.723	
4,330.7	4,266.7	4,175.5	4,174.7	14.9	1.9	-114.51	-208.3	-6,529.5	6,812.2	6,796.5	15.69	434.286	
4,400.0	4,334.4	4,225.2	4,224.3	15.2	1.9	-114.60	-208.8	-6,529.9	6,818.9	6,803.0	15.98	426.762	
4,429.1	4,362.9	4,243.3	4,242.5	15.4	1.9	-114.63	-209.0	-6,530.1	6,821.8	6,805.7	16.10	423.689	
4,500.0	4,432.3	4,300.0	4,299.2	15.7	1.9	-114.72	-209.6	-6,530.9	6,829.1	6,812.7	16.40	416.371	
4,527.5	4,459.2	4,307.1	4,306.3	15.8	1.9	-114.73	-209.6	-6,531.0	6,832.0	6,815.5	16.52	413.652	
4,600.0	4,530.1	4,378.1	4,377.2	16.1	1.9	-114.85	-210.4	-6,532.1	6,839.7	6,822.9	16.83	406.495	
4,626.0	4,555.5	4,409.2	4,408.3	16.2	1.9	-114.90	-210.7	-6,532.6	6,842.5	6,825.5	16.94	403.978	
4,700.0	4,627.9	4,540.7	4,539.8	16.6	2.0	-115.12	-211.9	-6,533.9	6,849.9	6,832.6	17.26	396.905	
4,724.4	4,651.7	4,566.6	4,565.7	16.7	2.0	-115.16	-212.1	-6,534.1	6,852.2	6,834.9	17.36	394.678	
4,800.0	4,725.7	4,643.4	4,642.5	17.0	2.0	-115.29	-212.8	-6,534.5	6,859.6	6,841.9	17.68	387.947	
4,822.8	4,748.0	4,665.8	4,664.9	17.1	2.0	-115.33	-213.0	-6,534.7	6,861.8	6,844.0	17.78	385.963	
4,904.9	4,828.3	4,743.0	4,742.2	17.5	2.0	-115.45	-213.6	-6,535.1	6,869.8	6,851.7	18.13	378.910	
4,921.2	4,844.3	4,757.9	4,757.1	17.5	2.0	-115.51	-213.8	-6,535.2	6,871.4	6,853.2	18.19	377.793	
5,000.0	4,921.6	4,829.9	4,829.0	17.8	2.1	-115.74	-214.5	-6,535.7	6,878.6	6,860.1	18.47	372.482	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,019.7	4,941.0	4,847.9	4,847.0	17.9	2.1	-115.80	-214.7	-6,535.8	6,880.2	6,861.7	18.52	371.459		
5,100.0	5,020.4	4,921.7	4,920.8	18.1	2.1	-116.00	-215.6	-6,536.3	6,886.4	6,867.7	18.75	367.295		
5,118.1	5,038.3	4,938.4	4,937.5	18.2	2.1	-116.04	-215.8	-6,536.5	6,887.7	6,868.9	18.79	366.479		
5,200.0	5,119.6	5,013.9	5,013.0	18.4	2.1	-116.21	-216.6	-6,537.1	6,892.9	6,873.9	19.00	362.784		
5,216.5	5,136.0	5,029.2	5,028.3	18.4	2.1	-116.24	-216.8	-6,537.2	6,893.8	6,874.8	19.04	362.147		
5,300.0	5,219.2	5,108.2	5,107.3	18.6	2.2	-116.37	-217.6	-6,538.0	6,897.9	6,878.7	19.22	358.913		
5,314.9	5,234.1	5,125.5	5,124.6	18.6	2.2	-116.39	-217.7	-6,538.1	6,898.5	6,879.3	19.25	358.441		
5,400.0	5,319.1	5,220.1	5,219.2	18.8	2.2	-116.48	-218.4	-6,539.0	6,901.3	6,881.9	19.40	355.715		
5,413.4	5,332.4	5,233.0	5,232.1	18.8	2.2	-116.49	-218.5	-6,539.1	6,901.6	6,882.2	19.42	355.372		
5,504.9	5,423.9	5,321.1	5,320.1	18.9	2.2	-98.11	-219.0	-6,539.9	6,903.2	6,886.4	16.78	411.357		
5,511.8	5,430.8	5,327.7	5,326.7	18.9	2.2	-98.11	-219.0	-6,539.9	6,903.2	6,886.4	16.79	411.071		
5,600.0	5,519.0	5,413.7	5,412.8	19.0	2.2	-98.11	-219.1	-6,540.8	6,904.1	6,887.2	16.94	407.463		
5,610.2	5,529.3	5,425.2	5,424.3	19.0	2.2	-98.11	-219.1	-6,540.9	6,904.2	6,887.3	16.96	406.994		
5,700.0	5,619.0	5,525.8	5,524.9	19.2	2.3	-98.11	-219.0	-6,541.9	6,905.1	6,887.9	17.14	402.922		
5,708.6	5,627.7	5,535.5	5,534.6	19.2	2.3	-98.11	-219.0	-6,542.0	6,905.1	6,888.0	17.15	402.531		
5,800.0	5,719.0	5,623.2	5,622.2	19.3	2.3	-98.11	-218.7	-6,542.7	6,905.8	6,888.5	17.33	398.572		
5,807.1	5,726.1	5,628.0	5,627.1	19.3	2.3	-98.11	-218.6	-6,542.7	6,905.9	6,888.6	17.34	398.284		
5,900.0	5,819.0	5,700.0	5,699.1	19.4	2.3	-98.10	-217.9	-6,543.7	6,907.0	6,889.5	17.51	394.555		
5,905.5	5,824.5	5,700.0	5,699.1	19.4	2.3	-98.10	-217.9	-6,543.7	6,907.0	6,889.5	17.52	394.334		
6,003.9	5,923.0	5,751.1	5,750.2	19.6	2.3	-98.09	-217.1	-6,544.7	6,908.7	6,891.0	17.69	390.475		
6,009.8	5,928.8	5,754.4	5,753.4	19.6	2.3	-98.09	-217.0	-6,544.7	6,908.8	6,891.1	17.70	390.249		
6,050.0	5,969.0	5,776.7	5,775.8	19.6	2.3	-8.09	-216.5	-6,545.3	6,908.5	6,888.1	20.43	338.221		
6,100.0	6,018.8	5,800.0	5,799.0	19.7	2.3	-8.13	-216.0	-6,545.9	6,905.2	6,884.8	20.43	338.051		
6,102.3	6,021.1	5,800.0	5,799.0	19.7	2.3	-8.13	-216.0	-6,545.9	6,905.0	6,884.6	20.43	338.050		
6,150.0	6,068.1	5,841.3	5,840.3	19.7	2.3	-8.20	-214.9	-6,547.2	6,898.6	6,878.2	20.41	338.010		
6,200.0	6,116.8	5,876.5	5,875.4	19.7	2.3	-8.31	-213.9	-6,548.4	6,888.7	6,868.4	20.36	338.336		
6,200.8	6,117.5	5,877.0	5,876.0	19.7	2.3	-8.32	-213.8	-6,548.4	6,888.5	6,868.2	20.36	338.344		
6,250.0	6,164.5	6,003.7	6,002.5	19.7	2.3	-8.48	-209.3	-6,552.3	6,875.4	6,855.1	20.32	338.438		
6,299.2	6,210.4	6,073.8	6,072.5	19.7	2.3	-8.70	-206.3	-6,553.9	6,858.6	6,838.4	20.22	339.278		
6,300.0	6,211.1	6,074.9	6,073.6	19.7	2.3	-8.71	-206.3	-6,553.9	6,858.3	6,838.1	20.21	339.296		
6,350.0	6,256.4	6,128.0	6,126.7	19.7	2.3	-8.99	-203.9	-6,555.0	6,837.8	6,817.8	20.05	340.964		
6,397.6	6,298.0	6,168.6	6,167.2	19.7	2.3	-9.33	-202.2	-6,555.8	6,815.5	6,795.6	19.85	343.384		
6,400.0	6,300.0	6,170.6	6,169.2	19.7	2.3	-9.35	-202.1	-6,555.9	6,814.3	6,794.4	19.84	343.527		
6,450.0	6,341.8	6,211.5	6,210.1	19.7	2.3	-9.78	-200.6	-6,556.7	6,787.8	6,768.2	19.56	346.958		
6,496.0	6,378.6	6,247.9	6,246.4	19.7	2.3	-10.27	-199.4	-6,557.3	6,760.8	6,741.5	19.27	350.916		
6,500.0	6,381.6	6,250.9	6,249.4	19.7	2.3	-10.32	-199.3	-6,557.4	6,758.4	6,739.2	19.24	351.300		
6,550.0	6,419.2	6,288.1	6,286.7	19.6	2.3	-10.97	-198.2	-6,558.1	6,726.3	6,707.5	18.86	356.568		
6,594.5	6,450.7	6,318.1	6,316.6	19.6	2.3	-11.68	-197.4	-6,558.7	6,695.7	6,677.2	18.50	362.010		
6,600.0	6,454.4	6,321.6	6,320.1	19.6	2.3	-11.77	-197.3	-6,558.7	6,691.7	6,673.3	18.45	362.754		
6,650.0	6,487.1	6,351.9	6,350.4	19.6	2.3	-12.76	-196.6	-6,559.3	6,654.7	6,636.7	18.00	369.731		
6,692.9	6,513.0	6,376.0	6,374.5	19.6	2.3	-13.80	-196.0	-6,559.7	6,621.3	6,603.7	17.61	376.092		
6,700.0	6,517.0	6,379.8	6,378.3	19.6	2.3	-13.99	-195.9	-6,559.8	6,615.6	6,598.0	17.54	377.227		
6,750.0	6,544.1	6,406.2	6,404.6	19.6	2.3	-15.55	-195.4	-6,560.3	6,574.4	6,557.3	17.09	384.685		
6,791.3	6,564.2	6,428.6	6,427.1	19.7	2.3	-17.18	-194.9	-6,560.7	6,539.0	6,522.3	16.75	390.462		
6,800.0	6,568.2	6,433.1	6,431.5	19.7	2.3	-17.57	-194.8	-6,560.8	6,531.4	6,514.7	16.70	391.023		
6,850.0	6,589.1	6,456.6	6,455.0	19.8	2.3	-20.25	-194.4	-6,561.2	6,486.9	6,470.4	16.44	394.583		
6,889.7	6,603.5	6,472.8	6,471.2	19.9	2.3	-23.05	-194.0	-6,561.5	6,450.4	6,434.0	16.39	393.515		
6,900.0	6,606.9	6,476.6	6,475.1	19.9	2.3	-23.91	-194.0	-6,561.6	6,440.9	6,424.5	16.41	392.452		
6,950.0	6,621.3	6,493.1	6,491.5	20.2	2.3	-29.12	-193.6	-6,561.9	6,393.8	6,377.0	16.80	380.576		
6,988.2	6,630.0	6,503.8	6,502.3	20.6	2.3	-34.75	-193.4	-6,562.1	6,357.2	6,339.7	17.54	362.467		
7,000.0	6,632.4	6,507.0	6,505.5	20.7	2.3	-36.91	-193.4	-6,562.1	6,345.8	6,327.9	17.86	355.249		
7,050.0	6,640.0	6,517.8	6,516.3	21.4	2.3	-49.08	-193.2	-6,562.3	6,297.0	6,277.2	19.82	317.780		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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)	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	6,643.4	6,522.9	6,521.4	21.9	2.3	-62.12	-193.1	-6,562.4	6,261.1	6,239.4	21.65	289.144		
7,100.0	6,644.2	6,524.2	6,522.6	22.1	2.3	-67.90	-193.1	-6,562.4	6,247.8	6,225.5	22.30	280.196		
7,135.7	6,645.0	6,526.0	6,524.5	22.7	2.3	-85.35	-193.0	-6,562.5	6,212.6	6,188.9	23.75	261.573		
7,185.0	6,644.9	6,527.0	6,525.4	23.6	2.3	-85.41	-193.0	-6,562.5	6,163.9	6,139.1	24.71	249.437		
7,200.0	6,644.9	6,527.3	6,525.7	23.9	2.3	-85.43	-193.0	-6,562.5	6,149.1	6,124.1	25.00	245.940		
7,283.4	6,644.8	6,528.9	6,527.3	25.6	2.3	-85.53	-193.0	-6,562.5	6,066.6	6,039.9	26.73	226.947		
7,300.0	6,644.8	6,529.2	6,527.6	25.9	2.3	-85.55	-193.0	-6,562.5	6,050.3	6,023.2	27.07	223.468		
7,381.9	6,644.7	6,530.8	6,529.2	27.7	2.3	-85.64	-192.9	-6,562.5	5,969.4	5,940.6	28.88	206.698		
7,400.0	6,644.7	6,531.1	6,529.5	28.1	2.3	-85.66	-192.9	-6,562.6	5,951.5	5,922.3	29.28	203.265		
7,480.3	6,644.6	6,532.6	6,531.1	29.9	2.3	-85.75	-192.9	-6,562.6	5,872.3	5,841.2	31.14	188.583		
7,500.0	6,644.6	6,533.0	6,531.4	30.3	2.3	-85.77	-192.9	-6,562.6	5,852.9	5,821.3	31.60	185.246		
7,578.7	6,644.5	6,534.5	6,532.9	32.2	2.3	-85.86	-192.9	-6,562.6	5,775.2	5,741.7	33.48	172.493		
7,600.0	6,644.4	6,534.9	6,533.3	32.7	2.3	-85.89	-192.9	-6,562.6	5,754.2	5,720.2	33.99	169.289		
7,677.1	6,644.3	6,536.3	6,534.7	34.6	2.3	-85.97	-192.8	-6,562.6	5,678.1	5,642.2	35.89	158.222		
7,700.0	6,644.3	6,536.7	6,535.1	35.1	2.3	-86.00	-192.8	-6,562.6	5,655.6	5,619.2	36.45	155.165		
7,775.6	6,644.2	6,538.1	6,536.5	37.0	2.3	-86.08	-192.8	-6,562.7	5,581.1	5,542.8	38.35	145.549		
7,800.0	6,644.2	6,538.6	6,537.0	37.6	2.3	-86.11	-192.8	-6,562.7	5,557.0	5,518.1	38.96	142.641		
7,874.0	6,644.1	6,539.9	6,538.3	39.5	2.3	-86.19	-192.8	-6,562.7	5,484.2	5,443.3	40.85	134.266		
7,900.0	6,644.1	6,540.4	6,538.8	40.1	2.3	-86.22	-192.8	-6,562.7	5,458.5	5,417.0	41.51	131.504		
7,972.4	6,644.0	6,541.7	6,540.1	42.0	2.3	-86.30	-192.7	-6,562.7	5,387.2	5,343.9	43.38	124.187		
8,000.0	6,643.9	6,542.2	6,540.6	42.7	2.3	-86.33	-192.7	-6,562.7	5,360.1	5,316.0	44.09	121.565		
8,070.8	6,643.9	6,543.4	6,541.9	44.5	2.3	-86.40	-192.7	-6,562.8	5,290.4	5,244.4	45.94	115.151		
8,100.0	6,643.8	6,544.0	6,542.4	45.2	2.3	-86.43	-192.7	-6,562.8	5,261.7	5,215.0	46.70	112.660		
8,169.3	6,643.7	6,545.2	6,543.6	47.0	2.3	-86.51	-192.7	-6,562.8	5,193.6	5,145.1	48.53	107.019		
8,200.0	6,643.7	6,545.7	6,544.1	47.9	2.3	-86.54	-192.7	-6,562.8	5,163.4	5,114.1	49.34	104.650		
8,267.7	6,643.6	6,546.9	6,545.3	49.6	2.3	-86.61	-192.6	-6,562.8	5,096.9	5,045.7	51.14	99.671		
8,300.0	6,643.6	6,547.5	6,545.9	50.5	2.3	-86.65	-192.6	-6,562.8	5,065.1	5,013.1	51.99	97.417		
8,366.1	6,643.5	6,548.6	6,547.0	52.2	2.3	-86.72	-192.6	-6,562.8	5,000.2	4,946.4	53.76	93.008		
8,400.0	6,643.4	6,549.2	6,547.6	53.1	2.3	-86.75	-192.6	-6,562.8	4,966.9	4,912.3	54.67	90.860		
8,464.5	6,643.4	6,550.3	6,548.7	54.8	2.3	-86.82	-192.6	-6,562.9	4,903.6	4,847.2	56.40	86.944		
8,500.0	6,643.3	6,550.9	6,549.3	55.8	2.3	-86.85	-192.6	-6,562.9	4,868.8	4,811.5	57.35	84.894		
8,563.0	6,643.2	6,552.0	6,550.4	57.5	2.3	-86.92	-192.5	-6,562.9	4,807.1	4,748.0	59.05	81.406		
8,600.0	6,643.2	6,552.6	6,551.0	58.5	2.3	-86.96	-192.5	-6,562.9	4,770.8	4,710.7	60.05	79.447		
8,661.4	6,643.1	6,553.6	6,552.1	60.1	2.3	-87.02	-192.5	-6,562.9	4,710.6	4,648.9	61.71	76.331		
8,700.0	6,643.1	6,554.3	6,552.7	61.2	2.3	-87.06	-192.5	-6,562.9	4,672.8	4,610.1	62.76	74.457		
8,759.8	6,643.0	6,555.3	6,553.7	62.8	2.3	-87.12	-192.5	-6,562.9	4,614.3	4,549.9	64.38	71.667		
8,800.0	6,643.0	6,556.0	6,554.4	63.9	2.3	-87.16	-192.5	-6,562.9	4,574.9	4,509.5	65.48	69.871		
8,858.2	6,642.9	6,556.9	6,555.3	65.4	2.3	-87.22	-192.5	-6,563.0	4,518.0	4,450.9	67.07	67.367		
8,900.0	6,642.8	6,557.6	6,556.0	66.6	2.3	-87.26	-192.5	-6,563.0	4,477.2	4,409.0	68.20	65.644		
8,956.7	6,642.8	6,558.5	6,557.0	68.1	2.3	-87.32	-192.4	-6,563.0	4,421.8	4,352.0	69.75	63.392		
9,000.0	6,642.7	6,559.2	6,557.7	69.3	2.3	-87.36	-192.4	-6,563.0	4,379.5	4,308.6	70.94	61.738		
9,055.1	6,642.6	6,560.1	6,558.6	70.8	2.3	-87.41	-192.4	-6,563.0	4,325.7	4,253.3	72.45	59.709		
9,100.0	6,642.6	6,560.9	6,559.3	72.0	2.3	-87.46	-192.4	-6,563.0	4,281.9	4,208.2	73.68	58.117		
9,153.5	6,642.5	6,561.7	6,560.1	73.5	2.3	-87.51	-192.4	-6,563.0	4,229.7	4,154.6	75.15	56.286		
9,200.0	6,642.5	6,562.5	6,560.9	74.7	2.3	-87.55	-192.4	-6,563.0	4,184.5	4,108.0	76.42	54.754		
9,251.9	6,642.4	6,563.3	6,561.7	76.2	2.3	-87.60	-192.4	-6,563.1	4,133.9	4,056.0	77.85	53.099		
9,300.0	6,642.3	6,564.1	6,562.5	77.5	2.3	-87.65	-192.3	-6,563.1	4,087.1	4,008.0	79.17	51.622		
9,350.4	6,642.3	6,564.9	6,563.3	78.9	2.3	-87.70	-192.3	-6,563.1	4,038.1	3,957.6	80.56	50.124		
9,400.0	6,642.2	6,565.6	6,564.1	80.2	2.3	-87.74	-192.3	-6,563.1	3,989.9	3,908.0	81.93	48.699		
9,448.8	6,642.1	6,566.4	6,564.8	81.6	2.3	-87.79	-192.3	-6,563.1	3,942.5	3,859.3	83.28	47.343		
9,500.0	6,642.1	6,567.2	6,565.6	83.0	2.3	-87.84	-192.3	-6,563.1	3,892.9	3,808.2	84.69	45.966		
9,547.2	6,642.0	6,567.9	6,566.3	84.3	2.3	-87.88	-192.3	-6,563.1	3,847.1	3,761.1	85.99	44.736		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,600.0	6,642.0	6,568.7	6,567.2	85.7	2.3	-87.93	-192.3	-6,563.1	3,796.0	3,708.5	87.45	43.405		
9,645.6	6,641.9	6,569.5	6,567.9	87.0	2.3	-87.98	-192.2	-6,563.2	3,751.8	3,663.1	88.72	42.289		
9,700.0	6,641.8	6,570.3	6,568.7	88.5	2.3	-88.03	-192.2	-6,563.2	3,699.2	3,609.0	90.22	41.002		
9,744.1	6,641.8	6,571.0	6,569.4	89.7	2.3	-88.07	-192.2	-6,563.2	3,656.6	3,565.2	91.44	39.989		
9,800.0	6,641.7	6,571.8	6,570.2	91.2	2.3	-88.12	-192.2	-6,563.2	3,602.6	3,509.7	92.99	38.742		
9,842.5	6,641.7	6,572.4	6,570.9	92.4	2.3	-88.16	-192.2	-6,563.2	3,561.7	3,467.5	94.17	37.822		
9,900.0	6,641.6	6,573.3	6,571.7	94.0	2.3	-88.21	-192.2	-6,563.2	3,506.3	3,410.5	95.76	36.614		
9,940.9	6,641.5	6,573.9	6,572.3	95.1	2.3	-88.25	-192.2	-6,563.2	3,466.9	3,370.0	96.90	35.778		
10,000.0	6,641.5	6,574.8	6,573.2	96.7	2.3	-88.30	-192.2	-6,563.2	3,410.1	3,311.6	98.54	34.607		
10,039.3	6,641.4	6,575.4	6,573.8	97.8	2.3	-88.33	-192.1	-6,563.2	3,372.3	3,272.7	99.63	33.848		
10,100.0	6,641.3	6,576.3	6,574.7	99.5	2.3	-88.39	-192.1	-6,563.3	3,314.2	3,212.8	101.32	32.711		
10,137.8	6,641.3	6,576.8	6,575.3	100.6	2.3	-88.42	-192.1	-6,563.3	3,278.0	3,175.6	102.37	32.022		
10,200.0	6,641.2	6,577.8	6,576.2	102.3	2.3	-88.48	-192.1	-6,563.3	3,218.5	3,114.4	104.10	30.918		
10,236.2	6,641.2	6,578.3	6,576.7	103.3	2.3	-88.51	-192.1	-6,563.3	3,183.9	3,078.8	105.10	30.293		
10,300.0	6,641.1	6,579.2	6,577.6	105.0	2.3	-88.57	-192.1	-6,563.3	3,123.0	3,016.1	106.88	29.221		
10,334.6	6,641.0	6,579.7	6,578.1	106.0	2.3	-88.60	-192.1	-6,563.3	3,090.1	2,982.2	107.84	28.654		
10,400.0	6,641.0	6,580.6	6,579.1	107.8	2.3	-88.65	-192.1	-6,563.3	3,027.9	2,918.2	109.66	27.612		
10,433.0	6,640.9	6,581.1	6,579.5	108.7	2.3	-88.68	-192.1	-6,563.3	2,996.5	2,885.9	110.58	27.098		
10,500.0	6,640.8	6,582.1	6,580.5	110.6	2.3	-88.74	-192.0	-6,563.3	2,933.1	2,820.6	112.44	26.085		
10,531.5	6,640.8	6,582.5	6,580.9	111.5	2.3	-88.77	-192.0	-6,563.3	2,903.3	2,790.0	113.32	25.620		
10,600.0	6,640.7	6,583.5	6,581.9	113.4	2.3	-88.83	-192.0	-6,563.4	2,838.6	2,723.4	115.23	24.634		
10,629.9	6,640.7	6,583.9	6,582.3	114.2	2.3	-88.85	-192.0	-6,563.4	2,810.5	2,694.4	116.06	24.215		
10,700.0	6,640.6	6,584.9	6,583.3	116.1	2.3	-88.91	-192.0	-6,563.4	2,744.6	2,626.5	118.02	23.255		
10,728.3	6,640.5	6,585.3	6,583.7	116.9	2.3	-88.93	-192.0	-6,563.4	2,718.0	2,599.2	118.81	22.877		
10,800.0	6,640.5	6,586.3	6,584.7	118.9	2.3	-88.99	-192.0	-6,563.4	2,650.9	2,530.1	120.81	21.943		
10,826.7	6,640.4	6,586.7	6,585.1	119.7	2.3	-89.02	-192.0	-6,563.4	2,626.0	2,504.4	121.55	21.603		
10,900.0	6,640.3	6,587.7	6,586.1	121.7	2.3	-89.08	-191.9	-6,563.4	2,557.8	2,434.2	123.60	20.695		
10,925.2	6,640.3	6,588.0	6,586.4	122.4	2.3	-89.10	-191.9	-6,563.4	2,534.4	2,410.1	124.30	20.390		
11,000.0	6,640.2	6,589.0	6,587.5	124.5	2.3	-89.16	-191.9	-6,563.4	2,465.2	2,338.8	126.39	19.505		
11,023.6	6,640.2	6,589.4	6,587.8	125.1	2.3	-89.18	-191.9	-6,563.4	2,443.4	2,316.4	127.05	19.232		
11,100.0	6,640.1	6,590.4	6,588.8	127.3	2.3	-89.24	-191.9	-6,563.5	2,373.2	2,244.0	129.18	18.371		
11,122.0	6,640.0	6,590.7	6,589.1	127.9	2.3	-89.26	-191.9	-6,563.5	2,353.0	2,223.2	129.80	18.128		
11,200.0	6,639.9	6,591.7	6,590.2	130.1	2.3	-89.32	-191.9	-6,563.5	2,281.8	2,149.9	131.97	17.290		
11,220.4	6,639.9	6,592.0	6,590.4	130.6	2.3	-89.34	-191.9	-6,563.5	2,263.2	2,130.7	132.54	17.075		
11,300.0	6,639.8	6,593.1	6,591.5	132.8	2.3	-89.41	-191.9	-6,563.5	2,191.2	2,056.5	134.77	16.260		
11,318.9	6,639.8	6,593.3	6,591.7	133.4	2.3	-89.42	-191.9	-6,563.5	2,174.2	2,038.9	135.29	16.070		
11,400.0	6,639.7	6,594.4	6,592.8	135.6	2.3	-89.49	-191.8	-6,563.5	2,101.5	1,963.9	137.56	15.277		
11,417.3	6,639.7	6,594.6	6,593.0	136.1	2.3	-89.50	-191.8	-6,563.5	2,086.1	1,948.0	138.04	15.112		
11,500.0	6,639.6	6,595.7	6,594.1	138.4	2.3	-89.57	-191.8	-6,563.5	2,012.7	1,872.4	140.36	14.340		
11,515.7	6,639.5	6,595.9	6,594.3	138.9	2.3	-89.58	-191.8	-6,563.5	1,998.9	1,858.1	140.80	14.197		
11,600.0	6,639.4	6,597.0	6,595.4	141.2	2.3	-89.64	-191.8	-6,563.5	1,925.1	1,781.9	143.15	13.448		
11,614.1	6,639.4	6,597.2	6,595.6	141.6	2.3	-89.66	-191.8	-6,563.6	1,912.8	1,769.2	143.55	13.325		
11,700.0	6,639.3	6,598.3	6,596.7	144.0	2.3	-89.72	-191.8	-6,563.6	1,838.7	1,692.7	145.95	12.598		
11,712.6	6,639.3	6,598.5	6,596.9	144.3	2.3	-89.73	-191.8	-6,563.6	1,827.9	1,681.6	146.30	12.494		
11,800.0	6,639.2	6,599.6	6,598.0	146.8	2.3	-89.80	-191.8	-6,563.6	1,753.7	1,605.0	148.74	11.790		
11,811.0	6,639.2	6,599.7	6,598.1	147.1	2.3	-89.81	-191.8	-6,563.6	1,744.5	1,595.4	149.05	11.704		
11,900.0	6,639.1	6,600.9	6,599.3	149.6	2.3	-89.88	-191.7	-6,563.6	1,670.4	1,518.9	151.54	11.023		
11,909.4	6,639.0	6,601.0	6,599.4	149.8	2.3	-89.88	-191.7	-6,563.6	1,662.7	1,510.9	151.81	10.953		
12,000.0	6,638.9	6,600.0	6,598.4	152.4	2.3	-89.83	-191.7	-6,563.6	1,589.1	1,434.7	154.33	10.296		
12,007.8	6,638.9	6,600.0	6,598.4	152.6	2.3	-89.83	-191.7	-6,563.6	1,582.8	1,428.2	154.55	10.241		
12,100.0	6,638.8	6,600.0	6,598.4	155.2	2.3	-89.83	-191.7	-6,563.6	1,509.9	1,352.8	157.13	9.609		
12,106.3	6,638.8	6,600.0	6,598.4	155.3	2.3	-89.83	-191.7	-6,563.6	1,505.0	1,347.7	157.31	9.568		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,200.0	6,638.7	6,600.0	6,598.4	157.9	2.3	-89.83	-191.7	-6,563.6	1,433.4	1,273.5	159.93	8.963	
12,204.7	6,638.7	6,600.0	6,598.4	158.1	2.3	-89.83	-191.7	-6,563.6	1,429.9	1,269.8	160.06	8.934	
12,300.0	6,638.5	6,600.0	6,598.4	160.7	2.3	-89.83	-191.7	-6,563.6	1,360.0	1,197.2	162.72	8.357	
12,303.1	6,638.5	6,600.0	6,598.4	160.8	2.3	-89.83	-191.7	-6,563.6	1,357.7	1,194.9	162.81	8.339	
12,400.0	6,638.4	6,600.0	6,598.4	163.5	2.3	-89.83	-191.7	-6,563.6	1,290.1	1,124.5	165.52	7.794	
12,401.5	6,638.4	6,600.0	6,598.4	163.6	2.3	-89.83	-191.7	-6,563.6	1,289.0	1,123.4	165.56	7.786	
12,500.0	6,638.3	6,600.0	6,598.4	166.3	2.3	-89.83	-191.7	-6,563.6	1,224.4	1,056.0	168.32	7.274	
12,598.4	6,638.2	6,600.0	6,598.4	169.1	2.3	-89.83	-191.7	-6,563.6	1,164.5	993.4	171.07	6.807	
12,600.0	6,638.2	6,600.0	6,598.4	169.1	2.3	-89.83	-191.7	-6,563.6	1,163.5	992.4	171.11	6.800	
12,696.8	6,638.0	6,600.0	6,598.4	171.8	2.3	-89.83	-191.7	-6,563.6	1,110.1	936.3	173.82	6.386	
12,700.0	6,638.0	6,600.0	6,598.4	171.9	2.3	-89.83	-191.7	-6,563.6	1,108.4	934.5	173.91	6.373	
12,795.2	6,637.9	6,600.0	6,598.4	174.6	2.3	-89.83	-191.7	-6,563.6	1,062.1	885.5	176.58	6.015	
12,800.0	6,637.9	6,600.0	6,598.4	174.7	2.3	-89.83	-191.7	-6,563.6	1,059.9	883.2	176.71	5.998	
12,893.7	6,637.8	6,600.0	6,598.4	177.3	2.3	-89.83	-191.7	-6,563.6	1,021.3	841.9	179.33	5.695	
12,900.0	6,637.8	6,600.0	6,598.4	177.5	2.3	-89.83	-191.7	-6,563.6	1,018.9	839.4	179.51	5.676	
12,992.1	6,637.7	6,600.0	6,598.4	180.1	2.3	-89.83	-191.7	-6,563.6	988.6	806.5	182.09	5.429	
13,000.0	6,637.6	6,600.0	6,598.4	180.3	2.3	-89.83	-191.7	-6,563.6	986.4	804.1	182.31	5.411	
13,090.5	6,637.5	6,600.0	6,598.4	182.8	2.3	-89.83	-191.7	-6,563.6	965.0	780.1	184.84	5.221	
13,100.0	6,637.5	6,600.0	6,598.4	183.1	2.3	-89.83	-191.7	-6,563.6	963.2	778.1	185.11	5.203	
13,188.9	6,637.4	6,600.0	6,598.4	185.6	2.3	-89.83	-191.7	-6,563.6	951.0	763.4	187.60	5.069	
13,200.0	6,637.4	6,600.0	6,598.4	185.9	2.3	-89.83	-191.7	-6,563.6	950.0	762.1	187.91	5.056	
13,276.1	6,637.3	6,600.0	6,598.4	188.0	2.3	-89.83	-191.7	-6,563.6	947.0	756.9	190.04	4.983 CC	
13,287.4	6,637.3	6,600.0	6,598.4	188.4	2.3	-89.83	-191.7	-6,563.6	947.0	756.7	190.36	4.975	
13,300.0	6,637.3	6,600.0	6,598.4	188.7	2.3	-89.83	-191.7	-6,563.6	947.3	756.6	190.71	4.967 ES	
13,385.8	6,637.1	6,600.0	6,598.4	191.1	2.3	-89.83	-191.7	-6,563.6	953.3	760.2	193.11	4.937	
13,400.0	6,637.1	6,600.0	6,598.4	191.5	2.3	-89.83	-191.7	-6,563.6	955.1	761.5	193.51	4.935 SF	
13,484.2	6,637.0	6,600.0	6,598.4	193.9	2.3	-89.83	-191.7	-6,563.6	969.6	773.7	195.87	4.950	
13,500.0	6,637.0	6,600.0	6,598.4	194.3	2.3	-89.83	-191.7	-6,563.6	973.1	776.8	196.31	4.957	
13,582.6	6,636.9	6,600.0	6,598.4	196.6	2.3	-89.83	-191.7	-6,563.6	995.4	796.7	198.63	5.011	
13,600.0	6,636.9	6,600.0	6,598.4	197.1	2.3	-89.83	-191.7	-6,563.6	1,000.8	801.7	199.11	5.027	
13,681.1	6,636.8	6,600.0	6,598.4	199.4	2.3	-89.83	-191.7	-6,563.6	1,029.9	828.6	201.39	5.114	
13,700.0	6,636.7	6,600.0	6,598.4	199.9	2.3	-89.83	-191.7	-6,563.6	1,037.5	835.6	201.92	5.138	
13,779.5	6,636.6	6,600.0	6,598.4	202.1	2.3	-89.83	-191.7	-6,563.6	1,072.5	868.3	204.14	5.254	
13,800.0	6,636.6	6,600.0	6,598.4	202.7	2.3	-89.83	-191.7	-6,563.6	1,082.3	877.5	204.72	5.287	
13,877.9	6,636.5	6,600.0	6,598.4	204.9	2.3	-89.83	-191.7	-6,563.6	1,122.0	915.1	206.90	5.423	
13,900.0	6,636.5	6,600.0	6,598.4	205.5	2.3	-89.83	-191.7	-6,563.6	1,134.0	926.5	207.52	5.465	
13,976.3	6,636.4	6,600.0	6,598.4	207.6	2.3	-89.83	-191.7	-6,563.6	1,177.8	968.1	209.66	5.618	
14,000.0	6,636.3	6,600.0	6,598.4	208.3	2.3	-89.83	-191.7	-6,563.6	1,192.0	981.7	210.32	5.667	
14,074.8	6,636.3	6,600.0	6,598.4	210.4	2.3	-89.83	-191.7	-6,563.6	1,238.8	1,026.4	212.42	5.832	
14,100.0	6,636.2	6,600.0	6,598.4	211.1	2.3	-89.83	-191.7	-6,563.6	1,255.2	1,042.1	213.12	5.890	
14,173.2	6,636.1	6,600.0	6,598.4	213.2	2.3	-89.83	-191.7	-6,563.6	1,304.5	1,089.3	215.18	6.062	
14,200.0	6,636.1	6,600.0	6,598.4	213.9	2.3	-89.83	-191.7	-6,563.6	1,323.0	1,107.1	215.93	6.127	
14,271.6	6,636.0	6,600.0	6,598.4	215.9	2.3	-89.83	-191.7	-6,563.6	1,374.0	1,156.1	217.94	6.305	
14,300.0	6,636.0	6,600.0	6,598.4	216.7	2.3	-89.83	-191.7	-6,563.6	1,394.7	1,176.0	218.73	6.376	
14,370.0	6,635.9	6,600.0	6,598.4	218.7	2.3	-89.83	-191.7	-6,563.6	1,446.9	1,226.2	220.69	6.556	
14,400.0	6,635.8	6,600.0	6,598.4	219.5	2.3	-89.83	-191.7	-6,563.6	1,469.7	1,248.2	221.53	6.634	
14,468.5	6,635.7	6,600.0	6,598.4	221.4	2.3	-89.83	-191.7	-6,563.6	1,522.7	1,299.2	223.45	6.814	
14,500.0	6,635.7	6,600.0	6,598.4	222.3	2.3	-89.83	-191.7	-6,563.6	1,547.5	1,323.2	224.34	6.898	
14,566.9	6,635.6	6,600.0	6,598.4	224.2	2.3	-89.83	-191.7	-6,563.6	1,600.9	1,374.7	226.21	7.077	
14,600.0	6,635.6	6,600.0	6,598.4	225.1	2.3	-89.83	-191.7	-6,563.6	1,627.7	1,400.6	227.14	7.166	
14,665.3	6,635.5	6,600.0	6,598.4	226.9	2.3	-89.83	-191.7	-6,563.6	1,681.3	1,452.3	228.97	7.343	
14,700.0	6,635.4	6,600.0	6,598.4	227.9	2.3	-89.83	-191.7	-6,563.6	1,710.1	1,480.1	229.94	7.437	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS #8-14 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,763.7	6,635.4	6,600.0	6,598.4	229.7	2.3	-89.83	-191.7	-6,563.6	1,763.5	1,531.8	231.73	7.610	
14,800.0	6,635.3	6,600.0	6,598.4	230.7	2.3	-89.82	-191.7	-6,563.6	1,794.2	1,561.4	232.75	7.709	
14,862.2	6,635.2	6,600.0	6,598.4	232.5	2.3	-89.82	-191.7	-6,563.6	1,847.3	1,612.8	234.49	7.878	
14,900.0	6,635.2	6,600.0	6,598.4	233.5	2.3	-89.82	-191.7	-6,563.6	1,879.9	1,644.3	235.55	7.981	
14,960.6	6,635.1	6,600.0	6,598.4	235.2	2.3	-89.82	-191.7	-6,563.6	1,932.5	1,695.2	237.25	8.145	
15,000.0	6,635.0	6,600.0	6,598.4	236.3	2.3	-89.82	-191.7	-6,563.6	1,966.9	1,728.5	238.36	8.252	
15,033.1	6,635.0	6,600.0	6,598.4	237.3	2.3	-89.82	-191.7	-6,563.6	1,996.0	1,756.7	239.28	8.341	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-105.47	-1,963.0	-7,092.9	7,359.6				
98.4	98.4	56.7	56.7	0.1	0.0	-105.47	-1,962.9	-7,092.9	7,359.5	7,359.4	0.10	N/A	
100.0	100.0	58.1	58.1	0.1	0.0	-105.47	-1,962.9	-7,092.9	7,359.5	7,359.4	0.10	N/A	
196.8	196.8	166.4	166.4	0.3	0.1	-105.46	-1,962.2	-7,093.3	7,359.7	7,359.2	0.46	N/A	
200.0	200.0	170.8	170.7	0.3	0.2	-105.46	-1,962.2	-7,093.3	7,359.7	7,359.2	0.47	N/A	
295.3	295.3	264.8	264.8	0.5	0.3	-105.46	-1,961.6	-7,093.3	7,359.6	7,358.8	0.80	9,229.168	
300.0	300.0	269.0	269.0	0.5	0.3	-105.46	-1,961.6	-7,093.3	7,359.6	7,358.8	0.81	9,066.733	
315.9	315.9	282.9	282.9	0.6	0.3	-105.46	-1,961.5	-7,093.4	7,359.6	7,358.7	0.86	8,559.638	
393.7	393.7	360.0	359.9	0.8	0.3	-105.45	-1,961.0	-7,093.5	7,359.6	7,358.5	1.09	6,745.140	
400.0	400.0	366.4	366.4	0.8	0.3	-105.45	-1,961.0	-7,093.5	7,359.6	7,358.5	1.11	6,631.967	
492.1	492.1	446.7	446.7	1.0	0.4	-105.45	-1,960.4	-7,093.7	7,359.6	7,358.3	1.37	5,388.910	
500.0	500.0	452.9	452.9	1.0	0.4	-105.45	-1,960.3	-7,093.8	7,359.6	7,358.3	1.39	5,306.881	
590.5	590.5	529.1	529.1	1.2	0.4	-105.44	-1,959.8	-7,094.1	7,359.9	7,358.3	1.63	4,513.175	
600.0	600.0	538.1	538.0	1.2	0.5	-105.44	-1,959.7	-7,094.2	7,360.0	7,358.3	1.66	4,443.154	
689.0	689.0	621.5	621.5	1.4	0.5	-105.44	-1,959.2	-7,094.7	7,360.3	7,358.4	1.90	3,881.306	
700.0	700.0	631.6	631.5	1.4	0.5	-105.44	-1,959.1	-7,094.8	7,360.4	7,358.5	1.93	3,822.805	
787.4	787.4	713.4	713.4	1.6	0.5	-105.43	-1,958.8	-7,095.3	7,360.9	7,358.7	2.16	3,413.873	
800.0	800.0	727.3	727.3	1.7	0.6	-105.43	-1,958.8	-7,095.4	7,360.9	7,358.7	2.19	3,360.999	
885.8	885.8	821.3	821.3	1.9	0.6	-105.43	-1,958.7	-7,095.9	7,361.3	7,358.9	2.42	3,041.716	
900.0	900.0	836.2	836.2	1.9	0.6	-105.43	-1,958.7	-7,096.0	7,361.4	7,358.9	2.46	2,995.410	
984.2	984.2	923.9	923.9	2.1	0.6	-105.43	-1,958.6	-7,096.3	7,361.7	7,359.1	2.68	2,748.307	
1,000.0	1,000.0	939.7	939.7	2.1	0.6	-105.43	-1,958.6	-7,096.4	7,361.8	7,359.1	2.72	2,707.217	
1,082.7	1,082.7	1,023.6	1,023.6	2.3	0.7	-132.42	-1,958.5	-7,096.8	7,362.9	7,360.0	2.94	2,500.203	
1,100.0	1,100.0	1,041.6	1,041.6	2.3	0.7	-132.41	-1,958.4	-7,096.8	7,363.3	7,360.3	2.99	2,463.436	
1,181.1	1,181.0	1,123.6	1,123.6	2.5	0.7	-132.39	-1,958.5	-7,097.1	7,366.3	7,363.1	3.20	2,303.196	
1,200.0	1,199.8	1,141.6	1,141.6	2.6	0.7	-132.39	-1,958.6	-7,097.1	7,367.2	7,363.9	3.25	2,268.043	
1,279.5	1,279.1	1,218.7	1,218.7	2.8	0.7	-132.36	-1,958.8	-7,097.4	7,372.0	7,368.5	3.46	2,128.431	
1,300.0	1,299.5	1,239.9	1,239.9	2.8	0.7	-132.35	-1,958.8	-7,097.4	7,373.4	7,369.9	3.52	2,095.165	
1,377.9	1,376.9	1,319.7	1,319.6	3.0	0.8	-132.30	-1,959.0	-7,097.7	7,379.9	7,376.2	3.74	1,973.907	
1,400.0	1,398.7	1,341.4	1,341.4	3.0	0.8	-132.29	-1,959.0	-7,097.8	7,382.0	7,378.2	3.80	1,942.827	
1,476.4	1,474.2	1,417.1	1,417.0	3.2	0.8	-132.24	-1,959.2	-7,097.9	7,390.1	7,386.1	4.02	1,836.619	
1,500.0	1,497.5	1,440.8	1,440.8	3.3	0.8	-132.22	-1,959.3	-7,098.0	7,392.9	7,388.8	4.09	1,806.428	
1,574.8	1,571.0	1,500.0	1,500.0	3.5	0.8	-132.14	-1,959.6	-7,098.1	7,402.6	7,398.3	4.32	1,712.397	
1,600.0	1,595.6	1,530.5	1,530.5	3.6	0.8	-132.12	-1,959.8	-7,098.2	7,406.2	7,401.8	4.40	1,681.829	
1,673.2	1,667.2	1,584.8	1,584.8	3.9	0.9	-132.19	-1,960.1	-7,098.4	7,417.0	7,412.3	4.64	1,600.149	
1,700.0	1,693.4	1,600.0	1,600.0	4.0	0.9	-132.21	-1,960.1	-7,098.5	7,420.9	7,416.2	4.72	1,573.039	
1,771.6	1,763.5	1,661.6	1,661.6	4.2	0.9	-132.28	-1,960.6	-7,098.9	7,431.7	7,426.7	4.96	1,498.705	
1,800.0	1,791.3	1,684.0	1,684.0	4.3	0.9	-132.31	-1,960.8	-7,099.1	7,436.0	7,430.9	5.05	1,471.735	
1,870.1	1,859.8	1,736.5	1,736.4	4.6	0.9	-132.38	-1,961.3	-7,099.5	7,446.7	7,441.4	5.29	1,406.941	
1,900.0	1,889.1	1,758.4	1,758.3	4.7	0.9	-132.41	-1,961.5	-7,099.7	7,451.3	7,445.9	5.39	1,381.341	
1,968.5	1,956.1	1,810.9	1,810.8	4.9	0.9	-132.47	-1,962.2	-7,100.3	7,462.0	7,456.4	5.63	1,324.397	
2,000.0	1,986.9	1,840.2	1,840.2	5.1	0.9	-132.51	-1,962.6	-7,100.7	7,466.9	7,461.2	5.75	1,299.376	
2,066.9	2,052.3	1,902.7	1,902.6	5.3	1.0	-132.59	-1,963.5	-7,101.4	7,477.5	7,471.5	5.99	1,248.756	
2,100.0	2,084.7	1,934.0	1,933.9	5.5	1.0	-132.63	-1,964.0	-7,101.8	7,482.7	7,476.6	6.11	1,225.332	
2,165.3	2,148.6	1,995.9	1,995.8	5.7	1.0	-132.71	-1,965.0	-7,102.5	7,493.1	7,486.7	6.35	1,180.855	
2,200.0	2,182.5	2,026.7	2,026.6	5.9	1.0	-132.75	-1,965.5	-7,102.9	7,498.6	7,492.1	6.47	1,158.752	
2,263.8	2,244.9	2,082.8	2,082.7	6.1	1.0	-132.82	-1,966.3	-7,103.6	7,508.8	7,502.1	6.71	1,119.759	
2,300.0	2,280.3	2,123.8	2,123.7	6.3	1.0	-132.87	-1,966.9	-7,104.2	7,514.6	7,507.7	6.84	1,098.412	
2,362.2	2,341.2	2,207.9	2,207.8	6.5	1.1	-132.97	-1,967.7	-7,105.2	7,524.4	7,517.3	7.08	1,062.698	
2,400.0	2,378.1	2,241.7	2,241.6	6.7	1.1	-133.01	-1,968.0	-7,105.6	7,530.3	7,523.1	7.22	1,042.900	
2,460.6	2,437.4	2,300.0	2,299.9	6.9	1.1	-133.08	-1,968.5	-7,106.3	7,539.9	7,532.4	7.45	1,012.268	
2,500.0	2,476.0	2,328.0	2,327.9	7.1	1.1	-133.12	-1,968.7	-7,106.7	7,546.1	7,538.5	7.59	993.687	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
2,550.0	2,524.9	2,368.2	2,368.1	7.3	1.1	-133.16	-1,969.0	-7,107.3	7,554.1	7,546.3	7.78	970.780		
2,559.0	2,533.7	2,375.5	2,375.4	7.3	1.1	-132.30	-1,969.1	-7,107.4	7,555.6	7,547.7	7.81	966.939		
2,600.0	2,573.8	2,412.0	2,411.9	7.5	1.1	-128.42	-1,969.3	-7,108.0	7,561.8	7,553.9	7.96	949.835		
2,639.4	2,612.3	2,457.0	2,456.9	7.7	1.1	-124.71	-1,969.6	-7,108.7	7,567.4	7,559.3	8.10	934.039		
2,657.5	2,630.0	2,477.7	2,477.6	7.7	1.1	-124.74	-1,969.7	-7,109.0	7,569.9	7,561.7	8.17	926.334		
2,700.0	2,671.6	2,526.3	2,526.1	7.9	1.2	-124.81	-1,970.2	-7,109.6	7,575.7	7,567.3	8.34	908.808		
2,755.9	2,726.3	2,590.0	2,589.8	8.1	1.2	-124.89	-1,970.8	-7,110.4	7,583.2	7,574.7	8.56	885.816		
2,800.0	2,769.4	2,634.3	2,634.1	8.3	1.2	-124.95	-1,971.2	-7,110.9	7,589.1	7,580.4	8.74	868.715		
2,854.3	2,822.5	2,686.9	2,686.7	8.5	1.2	-125.02	-1,971.8	-7,111.4	7,596.5	7,587.5	8.95	848.510		
2,900.0	2,867.2	2,735.3	2,735.1	8.7	1.2	-125.09	-1,972.4	-7,111.9	7,602.6	7,593.5	9.14	832.227		
2,952.7	2,918.8	2,793.1	2,793.0	9.0	1.2	-125.17	-1,973.2	-7,112.4	7,609.7	7,600.3	9.35	814.099		
3,000.0	2,965.0	2,841.4	2,841.2	9.2	1.3	-125.23	-1,973.9	-7,112.8	7,616.0	7,606.5	9.54	798.675		
3,051.2	3,015.1	2,893.0	2,892.8	9.4	1.3	-125.30	-1,974.6	-7,113.2	7,622.8	7,613.1	9.74	782.592		
3,100.0	3,062.8	2,937.8	2,937.6	9.6	1.3	-125.37	-1,975.2	-7,113.6	7,629.4	7,619.4	9.94	767.925		
3,149.6	3,111.4	2,982.6	2,982.4	9.8	1.3	-125.43	-1,975.8	-7,114.0	7,636.1	7,625.9	10.13	753.561		
3,200.0	3,160.7	3,060.2	3,060.0	10.0	1.3	-125.53	-1,976.7	-7,114.6	7,642.8	7,632.5	10.34	739.088		
3,248.0	3,207.6	3,248.4	3,248.1	10.2	1.4	-125.78	-1,978.3	-7,113.9	7,648.6	7,638.1	10.53	726.192		
3,300.0	3,258.5	3,320.1	3,319.8	10.5	1.4	-125.88	-1,979.0	-7,112.8	7,654.4	7,643.7	10.73	713.596		
3,346.4	3,303.9	3,369.2	3,369.0	10.7	1.4	-125.95	-1,979.6	-7,112.0	7,659.6	7,648.7	10.90	702.561		
3,400.0	3,356.3	3,436.8	3,436.5	10.9	1.4	-126.05	-1,980.6	-7,110.7	7,665.5	7,654.4	11.11	690.266		
3,444.9	3,400.2	3,500.0	3,499.7	11.1	1.4	-126.14	-1,981.7	-7,109.3	7,670.4	7,659.1	11.28	680.261		
3,500.0	3,454.1	3,548.9	3,548.6	11.3	1.4	-126.21	-1,982.6	-7,108.1	7,676.3	7,664.8	11.49	668.365		
3,543.3	3,496.5	3,585.4	3,585.1	11.5	1.4	-126.26	-1,983.3	-7,107.2	7,681.0	7,669.3	11.65	659.310		
3,600.0	3,551.9	3,649.2	3,648.8	11.7	1.4	-126.35	-1,984.7	-7,105.7	7,687.1	7,675.3	11.87	647.800		
3,641.7	3,592.7	3,700.0	3,699.6	11.9	1.4	-126.43	-1,985.8	-7,104.4	7,691.6	7,679.6	12.03	639.566		
3,700.0	3,649.7	3,755.3	3,754.9	12.2	1.4	-126.51	-1,987.1	-7,102.9	7,697.8	7,685.6	12.25	628.464		
3,740.1	3,689.0	3,792.8	3,792.3	12.4	1.4	-126.57	-1,987.9	-7,101.9	7,702.2	7,689.8	12.40	621.039		
3,800.0	3,747.5	3,831.7	3,831.2	12.6	1.4	-126.62	-1,988.8	-7,101.0	7,708.7	7,696.1	12.63	610.282		
3,838.6	3,785.3	3,855.2	3,854.7	12.8	1.4	-126.66	-1,989.3	-7,100.4	7,713.0	7,700.2	12.78	603.547		
3,900.0	3,845.4	3,900.0	3,899.5	13.1	1.4	-126.72	-1,990.4	-7,099.5	7,720.0	7,707.0	13.02	593.141		
3,937.0	3,881.6	3,916.6	3,916.0	13.2	1.4	-126.75	-1,990.9	-7,099.2	7,724.3	7,711.1	13.16	587.046		
4,000.0	3,943.2	3,958.7	3,958.2	13.5	1.4	-126.81	-1,992.0	-7,098.5	7,731.8	7,718.4	13.40	576.927		
4,035.4	3,977.8	3,982.4	3,981.8	13.6	1.4	-126.84	-1,992.6	-7,098.1	7,736.1	7,722.5	13.54	571.399		
4,100.0	4,041.0	4,033.7	4,033.1	13.9	1.5	-126.92	-1,994.0	-7,097.4	7,744.0	7,730.2	13.79	561.585		
4,133.8	4,074.1	4,063.5	4,062.9	14.1	1.5	-126.96	-1,994.8	-7,097.1	7,748.2	7,734.3	13.92	556.568		
4,200.0	4,138.8	4,134.0	4,133.3	14.4	1.5	-127.06	-1,996.4	-7,096.3	7,756.4	7,742.2	14.18	547.043		
4,232.3	4,170.4	4,178.3	4,177.6	14.5	1.5	-127.12	-1,997.3	-7,095.8	7,760.4	7,746.1	14.30	542.514		
4,300.0	4,236.6	4,249.6	4,249.0	14.8	1.5	-127.22	-1,998.5	-7,094.9	7,768.6	7,754.0	14.57	533.334		
4,330.7	4,266.7	4,279.0	4,278.3	14.9	1.5	-127.26	-1,998.9	-7,094.6	7,772.3	7,757.6	14.68	529.288		
4,400.0	4,334.4	4,342.3	4,341.6	15.2	1.5	-127.35	-1,999.8	-7,093.9	7,780.8	7,765.8	14.95	520.387		
4,429.1	4,362.9	4,368.3	4,367.7	15.4	1.5	-127.38	-2,000.2	-7,093.7	7,784.4	7,769.3	15.06	516.737		
4,500.0	4,432.3	4,422.8	4,422.1	15.7	1.5	-127.46	-2,000.9	-7,093.2	7,793.2	7,777.8	15.34	508.076		
4,527.5	4,459.2	4,440.5	4,439.8	15.8	1.5	-127.48	-2,001.1	-7,093.0	7,796.6	7,781.2	15.45	504.790		
4,600.0	4,530.1	4,500.0	4,499.3	16.1	1.6	-127.56	-2,001.8	-7,092.8	7,805.9	7,790.2	15.73	496.342		
4,626.0	4,555.5	4,500.0	4,499.3	16.2	1.6	-127.56	-2,001.8	-7,092.8	7,809.3	7,793.5	15.83	493.444		
4,700.0	4,627.9	4,560.2	4,559.5	16.6	1.6	-127.64	-2,002.6	-7,092.7	7,819.1	7,803.0	16.12	485.142		
4,724.4	4,651.7	4,578.6	4,578.0	16.7	1.6	-127.66	-2,002.8	-7,092.7	7,822.3	7,806.1	16.21	482.480		
4,800.0	4,725.7	4,641.7	4,641.0	17.0	1.6	-127.74	-2,003.7	-7,092.8	7,832.5	7,816.0	16.51	474.396		
4,822.8	4,748.0	4,661.8	4,661.1	17.1	1.6	-127.77	-2,003.9	-7,092.9	7,835.6	7,819.0	16.60	472.005		
4,904.9	4,828.3	4,734.3	4,733.6	17.5	1.6	-127.86	-2,004.8	-7,093.1	7,846.8	7,829.9	16.93	463.620		
4,921.2	4,844.3	4,748.9	4,748.2	17.5	1.6	-127.92	-2,005.0	-7,093.2	7,849.1	7,832.1	16.97	462.408		
5,000.0	4,921.6	4,800.0	4,799.3	17.8	1.6	-128.13	-2,005.6	-7,093.4	7,859.0	7,841.8	17.21	456.703		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,019.7	4,941.0	4,828.1	4,827.4	17.9	1.6	-128.20	-2,006.0	-7,093.6	7,861.3	7,844.1	17.26	455.532		
5,100.0	5,020.4	4,883.1	4,882.4	18.1	1.7	-128.39	-2,006.7	-7,094.0	7,870.0	7,852.6	17.45	451.086		
5,118.1	5,038.3	4,900.0	4,899.3	18.2	1.7	-128.43	-2,006.9	-7,094.2	7,871.8	7,854.4	17.49	450.198		
5,200.0	5,119.6	5,013.8	5,013.1	18.4	1.7	-128.63	-2,008.3	-7,095.0	7,878.9	7,861.3	17.67	445.938		
5,216.5	5,136.0	5,028.8	5,028.1	18.4	1.7	-128.66	-2,008.5	-7,095.1	7,880.2	7,862.5	17.70	445.231		
5,300.0	5,219.2	5,100.0	5,099.3	18.6	1.7	-128.78	-2,009.1	-7,095.7	7,885.5	7,867.6	17.86	441.618		
5,314.9	5,234.1	5,117.1	5,116.4	18.6	1.7	-128.80	-2,009.2	-7,095.8	7,886.3	7,868.4	17.88	441.035		
5,400.0	5,319.1	5,188.9	5,188.2	18.8	1.8	-128.88	-2,009.7	-7,096.5	7,890.0	7,872.0	18.02	437.794		
5,413.4	5,332.4	5,200.3	5,199.6	18.8	1.8	-128.89	-2,009.7	-7,096.6	7,890.5	7,872.5	18.04	437.370		
5,504.9	5,423.9	5,303.0	5,302.2	18.9	1.8	-110.51	-2,010.3	-7,097.7	7,892.5	7,874.9	17.56	449.372		
5,511.8	5,430.8	5,311.0	5,310.2	18.9	1.8	-110.51	-2,010.4	-7,097.8	7,892.6	7,875.0	17.57	449.089		
5,600.0	5,519.0	5,409.7	5,408.9	19.0	1.8	-110.51	-2,010.7	-7,098.8	7,893.5	7,875.8	17.72	445.524		
5,610.2	5,529.3	5,418.6	5,417.8	19.0	1.8	-110.51	-2,010.7	-7,098.8	7,893.6	7,875.9	17.74	445.079		
5,700.0	5,619.0	5,500.0	5,499.2	19.2	1.8	-110.51	-2,011.2	-7,099.6	7,894.5	7,876.7	17.89	441.196		
5,708.6	5,627.7	5,500.0	5,499.2	19.2	1.8	-110.51	-2,011.2	-7,099.6	7,894.6	7,876.7	17.91	440.850		
5,800.0	5,719.0	5,586.2	5,585.4	19.3	1.9	-110.52	-2,012.0	-7,100.4	7,895.8	7,877.7	18.08	436.831		
5,807.1	5,726.1	5,592.5	5,591.7	19.3	1.9	-110.52	-2,012.0	-7,100.5	7,895.8	7,877.8	18.09	436.523		
5,900.0	5,819.0	5,680.4	5,679.7	19.4	1.9	-110.52	-2,013.0	-7,101.4	7,897.1	7,878.8	18.26	432.467		
5,905.5	5,824.5	5,685.7	5,684.9	19.4	1.9	-110.52	-2,013.1	-7,101.4	7,897.1	7,878.9	18.27	432.227		
6,003.9	5,923.0	5,769.7	5,768.9	19.6	1.9	-110.53	-2,014.3	-7,102.2	7,898.6	7,880.1	18.45	428.011		
6,009.8	5,928.8	5,774.6	5,773.8	19.6	1.9	-110.53	-2,014.4	-7,102.3	7,898.6	7,880.2	18.46	427.763		
6,050.0	5,969.0	5,800.0	5,799.2	19.6	1.9	-20.55	-2,014.8	-7,102.6	7,898.2	7,879.1	19.10	413.600		
6,100.0	6,018.8	5,847.3	5,846.5	19.7	1.9	-20.66	-2,015.6	-7,103.1	7,894.8	7,875.7	19.11	413.175		
6,102.3	6,021.1	5,849.2	5,848.4	19.7	1.9	-20.66	-2,015.6	-7,103.1	7,894.6	7,875.5	19.11	413.153		
6,150.0	6,068.1	5,886.6	5,885.8	19.7	2.0	-20.86	-2,016.2	-7,103.7	7,888.2	7,869.1	19.10	412.890		
6,200.0	6,116.8	5,933.3	5,932.5	19.7	2.0	-21.18	-2,016.8	-7,104.4	7,878.5	7,859.4	19.08	412.860		
6,200.8	6,117.5	5,934.1	5,933.2	19.7	2.0	-21.19	-2,016.8	-7,104.4	7,878.3	7,859.2	19.08	412.870		
6,250.0	6,164.5	5,983.2	5,982.4	19.7	2.0	-21.62	-2,017.5	-7,105.1	7,865.5	7,846.5	19.03	413.352		
6,299.2	6,210.4	6,020.3	6,019.5	19.7	2.0	-22.15	-2,018.0	-7,105.7	7,849.8	7,830.8	18.93	414.631		
6,300.0	6,211.1	6,020.8	6,020.0	19.7	2.0	-22.16	-2,018.0	-7,105.7	7,849.5	7,830.6	18.93	414.661		
6,350.0	6,256.4	6,051.8	6,051.0	19.7	2.0	-22.83	-2,018.4	-7,106.3	7,830.5	7,811.7	18.78	416.887		
6,397.6	6,298.0	6,080.4	6,079.6	19.7	2.0	-23.60	-2,018.8	-7,106.8	7,809.8	7,791.2	18.60	419.843		
6,400.0	6,300.0	6,081.8	6,081.0	19.7	2.0	-23.64	-2,018.8	-7,106.9	7,808.7	7,790.1	18.59	420.020		
6,450.0	6,341.8	6,112.8	6,111.9	19.7	2.0	-24.62	-2,019.1	-7,107.5	7,784.2	7,765.8	18.36	423.989		
6,496.0	6,378.6	6,143.1	6,142.2	19.7	2.0	-25.70	-2,019.4	-7,108.3	7,759.2	7,741.1	18.12	428.210		
6,500.0	6,381.6	6,145.6	6,144.7	19.7	2.0	-25.81	-2,019.5	-7,108.3	7,757.0	7,738.9	18.10	428.619		
6,550.0	6,419.2	6,176.8	6,175.9	19.6	2.0	-27.21	-2,019.8	-7,109.1	7,727.2	7,709.4	17.82	433.676		
6,594.5	6,450.7	6,204.1	6,203.2	19.6	2.0	-28.69	-2,020.1	-7,109.8	7,698.8	7,681.2	17.57	438.061		
6,600.0	6,454.4	6,208.4	6,207.5	19.6	2.0	-28.89	-2,020.1	-7,109.9	7,695.1	7,677.6	17.54	438.614		
6,650.0	6,487.1	6,246.1	6,245.2	19.6	2.1	-30.93	-2,020.5	-7,110.9	7,660.7	7,643.4	17.31	442.494		
6,692.9	6,513.0	6,276.0	6,275.1	19.6	2.1	-32.99	-2,020.8	-7,111.6	7,629.6	7,612.4	17.18	444.164		
6,700.0	6,517.0	6,280.7	6,279.8	19.6	2.1	-33.36	-2,020.9	-7,111.7	7,624.3	7,607.1	17.16	444.409		
6,750.0	6,544.1	6,312.1	6,311.1	19.6	2.1	-36.28	-2,021.2	-7,112.5	7,585.9	7,568.7	17.13	442.967		
6,791.3	6,564.2	6,335.4	6,334.5	19.7	2.1	-39.12	-2,021.4	-7,113.1	7,552.8	7,535.6	17.21	438.864		
6,800.0	6,568.2	6,340.0	6,339.1	19.7	2.1	-39.78	-2,021.4	-7,113.2	7,545.8	7,528.5	17.28	436.765		
6,850.0	6,589.1	6,364.5	6,363.6	19.8	2.1	-44.00	-2,021.6	-7,113.8	7,504.1	7,486.5	17.66	424.903		
6,889.7	6,603.5	6,381.5	6,380.5	19.9	2.1	-47.95	-2,021.8	-7,114.2	7,470.1	7,451.9	18.16	411.422		
6,900.0	6,606.9	6,385.5	6,384.5	19.9	2.1	-49.07	-2,021.8	-7,114.3	7,461.2	7,442.9	18.31	407.550		
6,950.0	6,621.3	6,404.2	6,403.2	20.2	2.1	-55.16	-2,021.9	-7,114.8	7,417.2	7,398.0	19.21	386.134		
6,988.2	6,630.0	6,420.2	6,419.2	20.6	2.1	-60.61	-2,022.1	-7,115.1	7,383.0	7,362.9	20.04	368.340		
7,000.0	6,632.4	6,424.5	6,423.5	20.7	2.1	-62.43	-2,022.1	-7,115.2	7,372.3	7,352.0	20.31	362.975		
7,050.0	6,640.0	6,439.0	6,438.0	21.4	2.1	-70.78	-2,022.2	-7,115.6	7,326.7	7,305.2	21.50	340.849		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,643.4	6,445.9	6,445.0	21.9	2.1	-77.45	-2,022.2	-7,115.7	7,293.1	7,270.7	22.37	325.964		
7,100.0	6,644.2	6,447.7	6,446.7	22.1	2.1	-79.98	-2,022.2	-7,115.8	7,280.8	7,258.1	22.69	320.850		
7,135.7	6,645.0	6,450.4	6,449.4	22.7	2.1	-86.82	-2,022.2	-7,115.8	7,247.9	7,224.3	23.59	307.212		
7,185.0	6,644.9	6,452.1	6,451.1	23.6	2.1	-86.85	-2,022.2	-7,115.9	7,202.3	7,177.8	24.55	293.334		
7,200.0	6,644.9	6,452.6	6,451.6	23.9	2.1	-86.86	-2,022.2	-7,115.9	7,188.5	7,163.7	24.84	289.337		
7,283.4	6,644.8	6,455.4	6,454.4	25.6	2.1	-86.92	-2,022.3	-7,115.9	7,111.6	7,085.0	26.58	267.604		
7,300.0	6,644.8	6,456.0	6,455.0	25.9	2.1	-86.93	-2,022.3	-7,115.9	7,096.4	7,069.5	26.92	263.626		
7,381.9	6,644.7	6,458.7	6,457.7	27.7	2.1	-86.99	-2,022.3	-7,116.0	7,021.1	6,992.4	28.72	244.427		
7,400.0	6,644.7	6,459.3	6,458.3	28.1	2.1	-87.00	-2,022.3	-7,116.0	7,004.5	6,975.4	29.12	240.499		
7,480.3	6,644.6	6,461.9	6,461.0	29.9	2.1	-87.06	-2,022.3	-7,116.1	6,930.9	6,899.9	30.98	223.686		
7,500.0	6,644.6	6,462.6	6,461.6	30.3	2.1	-87.07	-2,022.3	-7,116.1	6,912.8	6,881.4	31.44	219.866		
7,578.7	6,644.5	6,465.1	6,464.2	32.2	2.1	-87.12	-2,022.3	-7,116.1	6,840.8	6,807.5	33.33	205.261		
7,600.0	6,644.4	6,465.8	6,464.8	32.7	2.1	-87.14	-2,022.3	-7,116.2	6,821.4	6,787.6	33.84	201.595		
7,677.1	6,644.3	6,468.3	6,467.3	34.6	2.1	-87.19	-2,022.3	-7,116.2	6,751.0	6,715.3	35.73	188.922		
7,700.0	6,644.3	6,469.0	6,468.0	35.1	2.1	-87.20	-2,022.3	-7,116.2	6,730.2	6,693.9	36.30	185.424		
7,775.6	6,644.2	6,471.4	6,470.4	37.0	2.1	-87.25	-2,022.3	-7,116.3	6,661.5	6,623.3	38.19	174.416		
7,800.0	6,644.2	6,472.2	6,471.2	37.6	2.1	-87.27	-2,022.3	-7,116.3	6,639.3	6,600.5	38.81	171.089		
7,874.0	6,644.1	6,474.5	6,473.5	39.5	2.1	-87.31	-2,022.3	-7,116.3	6,572.2	6,531.5	40.69	161.505		
7,900.0	6,644.1	6,475.3	6,474.3	40.1	2.1	-87.33	-2,022.3	-7,116.4	6,548.6	6,507.3	41.36	158.346		
7,972.4	6,644.0	6,477.5	6,476.5	42.0	2.1	-87.38	-2,022.4	-7,116.4	6,483.1	6,439.9	43.23	149.975		
8,000.0	6,643.9	6,478.3	6,477.3	42.7	2.1	-87.39	-2,022.4	-7,116.4	6,458.2	6,414.3	43.94	146.977		
8,070.8	6,643.9	6,480.5	6,479.5	44.5	2.1	-87.44	-2,022.4	-7,116.5	6,394.3	6,348.6	45.79	139.643		
8,100.0	6,643.8	6,481.4	6,480.4	45.2	2.1	-87.46	-2,022.4	-7,116.5	6,368.1	6,321.6	46.55	136.796		
8,169.3	6,643.7	6,483.4	6,482.4	47.0	2.1	-87.50	-2,022.4	-7,116.5	6,305.9	6,257.5	48.38	130.348		
8,200.0	6,643.7	6,484.3	6,483.3	47.9	2.1	-87.52	-2,022.4	-7,116.5	6,278.3	6,229.1	49.19	127.642		
8,267.7	6,643.6	6,486.3	6,485.3	49.6	2.1	-87.56	-2,022.4	-7,116.6	6,217.7	6,166.7	50.98	121.954		
8,300.0	6,643.6	6,487.3	6,486.3	50.5	2.1	-87.58	-2,022.4	-7,116.6	6,188.8	6,137.0	51.84	119.380		
8,366.1	6,643.5	6,489.2	6,488.2	52.2	2.1	-87.62	-2,022.4	-7,116.6	6,129.8	6,076.2	53.61	114.347		
8,400.0	6,643.4	6,490.2	6,489.2	53.1	2.1	-87.64	-2,022.4	-7,116.7	6,099.6	6,045.1	54.51	111.896		
8,464.5	6,643.4	6,492.0	6,491.0	54.8	2.1	-87.68	-2,022.4	-7,116.7	6,042.2	5,986.0	56.24	107.428		
8,500.0	6,643.3	6,493.0	6,492.1	55.8	2.1	-87.70	-2,022.4	-7,116.7	6,010.8	5,953.6	57.20	105.090		
8,563.0	6,643.2	6,494.8	6,493.8	57.5	2.1	-87.73	-2,022.4	-7,116.8	5,955.0	5,896.1	58.89	101.112		
8,600.0	6,643.2	6,495.9	6,494.9	58.5	2.1	-87.76	-2,022.4	-7,116.8	5,922.3	5,862.4	59.89	98.880		
8,661.4	6,643.1	6,497.6	6,496.6	60.1	2.1	-87.79	-2,022.4	-7,116.8	5,868.2	5,806.6	61.56	95.330		
8,700.0	6,643.1	6,498.7	6,497.7	61.2	2.1	-87.81	-2,022.4	-7,116.8	5,834.2	5,771.6	62.60	93.196		
8,759.8	6,643.0	6,500.3	6,499.3	62.8	2.1	-87.85	-2,022.4	-7,116.9	5,781.7	5,717.4	64.23	90.020		
8,800.0	6,643.0	6,501.1	6,500.1	63.9	2.1	-87.86	-2,022.5	-7,116.9	5,746.5	5,681.1	65.32	87.977		
8,858.2	6,642.9	6,502.4	6,501.4	65.4	2.1	-87.89	-2,022.5	-7,116.9	5,695.6	5,628.6	66.90	85.130		
8,900.0	6,642.8	6,503.3	6,502.3	66.6	2.1	-87.91	-2,022.5	-7,116.9	5,659.1	5,591.1	68.04	83.172		
8,956.7	6,642.8	6,504.5	6,503.5	68.1	2.1	-87.93	-2,022.5	-7,116.9	5,609.8	5,540.3	69.59	80.613		
9,000.0	6,642.7	6,505.4	6,504.4	69.3	2.1	-87.95	-2,022.5	-7,117.0	5,572.3	5,501.5	70.77	78.734		
9,055.1	6,642.6	6,506.5	6,505.5	70.8	2.1	-87.98	-2,022.5	-7,117.0	5,524.6	5,452.3	72.28	76.431		
9,100.0	6,642.6	6,507.4	6,506.4	72.0	2.1	-87.99	-2,022.5	-7,117.0	5,485.8	5,412.3	73.51	74.626		
9,153.5	6,642.5	6,508.5	6,507.5	73.5	2.1	-88.02	-2,022.5	-7,117.0	5,439.7	5,364.8	74.98	72.550		
9,200.0	6,642.5	6,509.5	6,508.5	74.7	2.1	-88.04	-2,022.5	-7,117.0	5,399.8	5,323.6	76.25	70.814		
9,251.9	6,642.4	6,510.5	6,509.5	76.2	2.1	-88.06	-2,022.5	-7,117.1	5,355.4	5,277.7	77.68	68.940		
9,300.0	6,642.3	6,511.5	6,510.5	77.5	2.1	-88.08	-2,022.5	-7,117.1	5,314.3	5,235.3	79.00	67.268		
9,350.4	6,642.3	6,512.4	6,511.5	78.9	2.1	-88.10	-2,022.5	-7,117.1	5,271.5	5,191.1	80.39	65.575		
9,400.0	6,642.2	6,513.4	6,512.4	80.2	2.1	-88.12	-2,022.5	-7,117.1	5,229.4	5,147.6	81.75	63.964		
9,448.8	6,642.1	6,514.4	6,513.4	81.6	2.1	-88.14	-2,022.5	-7,117.1	5,188.1	5,105.0	83.10	62.432		
9,500.0	6,642.1	6,515.3	6,514.3	83.0	2.1	-88.16	-2,022.5	-7,117.2	5,144.9	5,060.4	84.51	60.878		
9,547.2	6,642.0	6,516.2	6,515.2	84.3	2.1	-88.18	-2,022.5	-7,117.2	5,105.3	5,019.5	85.82	59.491		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
9,600.0	6,642.0	6,517.2	6,516.2	85.7	2.1	-88.20	-2,022.5	-7,117.2	5,061.1	4,973.8	87.27	57.992		
9,645.6	6,641.9	6,518.1	6,517.1	87.0	2.1	-88.21	-2,022.5	-7,117.2	5,023.0	4,934.5	88.53	56.735		
9,700.0	6,641.8	6,519.1	6,518.1	88.5	2.1	-88.24	-2,022.5	-7,117.2	4,977.8	4,887.8	90.04	55.287		
9,744.1	6,641.8	6,519.9	6,518.9	89.7	2.1	-88.25	-2,022.5	-7,117.2	4,941.3	4,850.0	91.26	54.148		
9,800.0	6,641.7	6,520.9	6,519.9	91.2	2.1	-88.27	-2,022.5	-7,117.3	4,895.2	4,802.4	92.80	52.748		
9,842.5	6,641.7	6,521.7	6,520.7	92.4	2.1	-88.29	-2,022.5	-7,117.3	4,860.2	4,766.3	93.98	51.716		
9,900.0	6,641.6	6,522.7	6,521.7	94.0	2.1	-88.31	-2,022.5	-7,117.3	4,813.2	4,717.6	95.57	50.362		
9,940.9	6,641.5	6,523.5	6,522.5	95.1	2.1	-88.33	-2,022.6	-7,117.3	4,779.8	4,683.1	96.71	49.426		
10,000.0	6,641.5	6,524.5	6,523.5	96.7	2.1	-88.35	-2,022.6	-7,117.3	4,731.9	4,633.5	98.34	48.115		
10,039.3	6,641.4	6,525.2	6,524.2	97.8	2.1	-88.36	-2,022.6	-7,117.3	4,700.1	4,600.6	99.44	47.267		
10,100.0	6,641.3	6,526.3	6,525.3	99.5	2.1	-88.38	-2,022.6	-7,117.4	4,651.3	4,550.2	101.12	45.999		
10,137.8	6,641.3	6,526.9	6,525.9	100.6	2.1	-88.40	-2,022.6	-7,117.4	4,621.1	4,518.9	102.17	45.230		
10,200.0	6,641.2	6,528.0	6,527.0	102.3	2.1	-88.42	-2,022.6	-7,117.4	4,571.5	4,467.6	103.90	44.001		
10,236.2	6,641.2	6,528.6	6,527.6	103.3	2.1	-88.43	-2,022.6	-7,117.4	4,542.8	4,437.9	104.90	43.306		
10,300.0	6,641.1	6,529.7	6,528.7	105.0	2.1	-88.45	-2,022.6	-7,117.4	4,492.5	4,385.8	106.67	42.115		
10,334.6	6,641.0	6,530.3	6,529.3	106.0	2.1	-88.47	-2,022.6	-7,117.4	4,465.4	4,357.7	107.64	41.486		
10,400.0	6,641.0	6,531.3	6,530.3	107.8	2.1	-88.49	-2,022.6	-7,117.4	4,414.4	4,304.9	109.45	40.331		
10,433.0	6,640.9	6,531.9	6,530.9	108.7	2.1	-88.50	-2,022.6	-7,117.5	4,388.7	4,278.4	110.37	39.763		
10,500.0	6,640.8	6,533.0	6,532.0	110.6	2.1	-88.52	-2,022.6	-7,117.5	4,337.1	4,224.9	112.24	38.643		
10,531.5	6,640.8	6,533.5	6,532.5	111.5	2.1	-88.53	-2,022.6	-7,117.5	4,313.0	4,199.9	113.11	38.131		
10,600.0	6,640.7	6,534.6	6,533.6	113.4	2.1	-88.56	-2,022.6	-7,117.5	4,260.8	4,145.8	115.02	37.045		
10,629.9	6,640.7	6,535.1	6,534.1	114.2	2.1	-88.57	-2,022.6	-7,117.5	4,238.2	4,122.4	115.85	36.583		
10,700.0	6,640.6	6,536.2	6,535.2	116.1	2.1	-88.59	-2,022.6	-7,117.5	4,185.5	4,067.7	117.80	35.530		
10,728.3	6,640.5	6,536.6	6,535.6	116.9	2.1	-88.60	-2,022.6	-7,117.5	4,164.4	4,045.8	118.59	35.115		
10,800.0	6,640.5	6,537.8	6,536.8	118.9	2.1	-88.62	-2,022.6	-7,117.6	4,111.3	3,990.7	120.59	34.093		
10,826.7	6,640.4	6,538.2	6,537.2	119.7	2.1	-88.63	-2,022.6	-7,117.6	4,091.6	3,970.3	121.34	33.721		
10,900.0	6,640.3	6,539.3	6,538.3	121.7	2.1	-88.65	-2,022.7	-7,117.6	4,038.1	3,914.8	123.38	32.730		
10,925.2	6,640.3	6,539.7	6,538.7	122.4	2.1	-88.66	-2,022.7	-7,117.6	4,019.9	3,895.8	124.08	32.398		
11,000.0	6,640.2	6,540.8	6,539.8	124.5	2.1	-88.68	-2,022.7	-7,117.6	3,966.2	3,840.0	126.17	31.436		
11,023.6	6,640.2	6,541.2	6,540.2	125.1	2.1	-88.69	-2,022.7	-7,117.6	3,949.4	3,822.6	126.82	31.141		
11,100.0	6,640.1	6,542.3	6,541.3	127.3	2.1	-88.72	-2,022.7	-7,117.6	3,895.5	3,766.5	128.96	30.208		
11,122.0	6,640.0	6,542.6	6,541.6	127.9	2.1	-88.72	-2,022.7	-7,117.6	3,880.1	3,750.5	129.57	29.946		
11,200.0	6,639.9	6,543.8	6,542.8	130.1	2.1	-88.75	-2,022.7	-7,117.7	3,826.0	3,694.3	131.75	29.041		
11,220.4	6,639.9	6,544.1	6,543.1	130.6	2.1	-88.75	-2,022.7	-7,117.7	3,812.0	3,679.7	132.32	28.810		
11,300.0	6,639.8	6,545.2	6,544.2	132.8	2.1	-88.78	-2,022.7	-7,117.7	3,758.0	3,623.5	134.54	27.933		
11,318.9	6,639.8	6,545.5	6,544.5	133.4	2.1	-88.78	-2,022.7	-7,117.7	3,745.3	3,610.2	135.06	27.730		
11,400.0	6,639.7	6,546.7	6,545.7	135.6	2.1	-88.81	-2,022.7	-7,117.7	3,691.4	3,554.1	137.33	26.880		
11,417.3	6,639.7	6,546.9	6,545.9	136.1	2.1	-88.81	-2,022.7	-7,117.7	3,680.0	3,542.2	137.81	26.703		
11,500.0	6,639.6	6,548.1	6,547.1	138.4	2.1	-88.83	-2,022.7	-7,117.7	3,626.3	3,486.2	140.12	25.880		
11,515.7	6,639.5	6,548.3	6,547.3	138.9	2.1	-88.84	-2,022.7	-7,117.7	3,616.3	3,475.7	140.56	25.727		
11,600.0	6,639.4	6,549.5	6,548.5	141.2	2.1	-88.86	-2,022.7	-7,117.8	3,562.9	3,420.0	142.92	24.930		
11,614.1	6,639.4	6,549.7	6,548.7	141.6	2.1	-88.87	-2,022.7	-7,117.8	3,554.1	3,410.8	143.31	24.799		
11,700.0	6,639.3	6,550.9	6,549.9	144.0	2.1	-88.89	-2,022.7	-7,117.8	3,501.2	3,355.5	145.71	24.028		
11,712.6	6,639.3	6,551.0	6,550.0	144.3	2.1	-88.90	-2,022.7	-7,117.8	3,493.5	3,347.5	146.06	23.918		
11,800.0	6,639.2	6,552.2	6,551.2	146.8	2.1	-88.92	-2,022.7	-7,117.8	3,441.3	3,292.7	148.51	23.172		
11,811.0	6,639.2	6,552.4	6,551.4	147.1	2.1	-88.92	-2,022.8	-7,117.8	3,434.8	3,286.0	148.81	23.081		
11,900.0	6,639.1	6,553.5	6,552.5	149.6	2.1	-88.95	-2,022.8	-7,117.8	3,383.2	3,231.9	151.30	22.361		
11,909.4	6,639.0	6,553.7	6,552.7	149.8	2.1	-88.95	-2,022.8	-7,117.8	3,377.8	3,226.3	151.57	22.286		
12,000.0	6,638.9	6,554.9	6,553.9	152.4	2.1	-88.97	-2,022.8	-7,117.8	3,327.2	3,173.1	154.10	21.591		
12,007.8	6,638.9	6,555.0	6,554.0	152.6	2.1	-88.98	-2,022.8	-7,117.8	3,322.9	3,168.5	154.32	21.532		
12,100.0	6,638.8	6,556.2	6,555.2	155.2	2.1	-89.00	-2,022.8	-7,117.9	3,273.2	3,116.3	156.90	20.862		
12,106.3	6,638.8	6,556.2	6,555.2	155.3	2.1	-89.00	-2,022.8	-7,117.9	3,269.9	3,112.8	157.07	20.818		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,200.0	6,638.7	6,557.4	6,556.4	157.9	2.1	-89.03	-2,022.8	-7,117.9	3,221.5	3,061.8	159.69	20.173	
12,204.7	6,638.7	6,557.5	6,556.5	158.1	2.1	-89.03	-2,022.8	-7,117.9	3,219.1	3,059.3	159.83	20.141	
12,300.0	6,638.5	6,558.7	6,557.7	160.7	2.1	-89.05	-2,022.8	-7,117.9	3,172.0	3,009.5	162.49	19.521	
12,303.1	6,638.5	6,558.7	6,557.7	160.8	2.1	-89.05	-2,022.8	-7,117.9	3,170.5	3,007.9	162.58	19.501	
12,400.0	6,638.4	6,559.9	6,558.9	163.5	2.1	-89.08	-2,022.8	-7,117.9	3,125.0	2,959.7	165.29	18.906	
12,401.5	6,638.4	6,560.0	6,559.0	163.6	2.1	-89.08	-2,022.8	-7,117.9	3,124.3	2,959.0	165.33	18.897	
12,500.0	6,638.3	6,561.2	6,560.2	166.3	2.1	-89.10	-2,022.8	-7,117.9	3,080.5	2,912.4	168.09	18.327	
12,598.4	6,638.2	6,562.4	6,561.4	169.1	2.1	-89.13	-2,022.8	-7,118.0	3,039.3	2,868.5	170.85	17.790	
12,600.0	6,638.2	6,562.4	6,561.4	169.1	2.1	-89.13	-2,022.8	-7,118.0	3,038.7	2,867.8	170.89	17.781	
12,696.8	6,638.0	6,563.5	6,562.5	171.8	2.1	-89.15	-2,022.8	-7,118.0	3,000.8	2,827.2	173.60	17.285	
12,700.0	6,638.0	6,563.6	6,562.6	171.9	2.1	-89.15	-2,022.8	-7,118.0	2,999.6	2,825.9	173.69	17.270	
12,795.2	6,637.9	6,564.7	6,563.7	174.6	2.1	-89.18	-2,022.9	-7,118.0	2,965.0	2,788.6	176.36	16.812	
12,800.0	6,637.9	6,564.8	6,563.8	174.7	2.1	-89.18	-2,022.9	-7,118.0	2,963.3	2,786.8	176.49	16.790	
12,893.7	6,637.8	6,565.8	6,564.8	177.3	2.1	-89.20	-2,022.9	-7,118.0	2,932.1	2,753.0	179.11	16.370	
12,900.0	6,637.8	6,565.9	6,564.9	177.5	2.1	-89.20	-2,022.9	-7,118.0	2,930.1	2,750.8	179.29	16.342	
12,992.1	6,637.7	6,567.0	6,566.0	180.1	2.1	-89.22	-2,022.9	-7,118.0	2,902.1	2,720.2	181.87	15.957	
13,000.0	6,637.6	6,567.1	6,566.1	180.3	2.1	-89.23	-2,022.9	-7,118.0	2,899.8	2,717.8	182.09	15.925	
13,090.5	6,637.5	6,568.1	6,567.1	182.8	2.1	-89.25	-2,022.9	-7,118.0	2,875.2	2,690.6	184.63	15.573	
13,100.0	6,637.5	6,568.2	6,567.2	183.1	2.1	-89.25	-2,022.9	-7,118.0	2,872.8	2,687.9	184.89	15.538	
13,188.9	6,637.4	6,569.2	6,568.2	185.6	2.1	-89.27	-2,022.9	-7,118.1	2,851.5	2,664.1	187.39	15.217	
13,200.0	6,637.4	6,569.3	6,568.3	185.9	2.1	-89.27	-2,022.9	-7,118.1	2,849.0	2,661.3	187.70	15.179	
13,287.4	6,637.3	6,570.3	6,569.3	188.4	2.1	-89.29	-2,022.9	-7,118.1	2,831.0	2,640.8	190.14	14.888	
13,300.0	6,637.3	6,570.4	6,569.4	188.7	2.1	-89.30	-2,022.9	-7,118.1	2,828.6	2,638.1	190.50	14.848	
13,385.8	6,637.1	6,571.4	6,570.4	191.1	2.1	-89.32	-2,022.9	-7,118.1	2,813.7	2,620.8	192.90	14.586	
13,400.0	6,637.1	6,571.5	6,570.5	191.5	2.1	-89.32	-2,022.9	-7,118.1	2,811.5	2,618.2	193.30	14.545	
13,484.2	6,637.0	6,572.4	6,571.4	193.9	2.1	-89.34	-2,022.9	-7,118.1	2,799.8	2,604.2	195.66	14.310	
13,500.0	6,637.0	6,572.6	6,571.6	194.3	2.1	-89.34	-2,022.9	-7,118.1	2,797.9	2,601.8	196.10	14.268	
13,582.6	6,636.9	6,573.5	6,572.5	196.6	2.1	-89.36	-2,022.9	-7,118.1	2,789.4	2,591.0	198.42	14.058	
13,600.0	6,636.9	6,573.7	6,572.7	197.1	2.1	-89.36	-2,022.9	-7,118.1	2,787.9	2,589.0	198.91	14.016	
13,681.1	6,636.8	6,574.5	6,573.5	199.4	2.1	-89.38	-2,023.0	-7,118.1	2,782.4	2,581.2	201.18	13.830	
13,700.0	6,636.7	6,574.7	6,573.7	199.9	2.1	-89.38	-2,023.0	-7,118.1	2,781.4	2,579.7	201.71	13.789	
13,779.5	6,636.6	6,575.5	6,574.5	202.1	2.1	-89.40	-2,023.0	-7,118.1	2,778.8	2,574.9	203.94	13.626	
13,800.0	6,636.6	6,575.8	6,574.7	202.7	2.1	-89.41	-2,023.0	-7,118.2	2,778.5	2,574.0	204.51	13.586	
13,830.7	6,636.6	6,576.1	6,575.1	203.6	2.1	-89.41	-2,023.0	-7,118.2	2,778.3	2,573.0	205.37	13.528 CC	
13,877.9	6,636.5	6,576.6	6,575.5	204.9	2.1	-89.42	-2,023.0	-7,118.2	2,778.7	2,572.0	206.70	13.443	
13,900.0	6,636.5	6,576.8	6,575.8	205.5	2.1	-89.43	-2,023.0	-7,118.2	2,779.2	2,571.9	207.32	13.406 ES	
13,976.3	6,636.4	6,577.5	6,576.5	207.6	2.1	-89.44	-2,023.0	-7,118.2	2,782.1	2,572.7	209.46	13.283	
14,000.0	6,636.3	6,577.8	6,576.8	208.3	2.1	-89.45	-2,023.0	-7,118.2	2,783.5	2,573.4	210.12	13.247	
14,074.8	6,636.3	6,578.5	6,577.5	210.4	2.1	-89.46	-2,023.0	-7,118.2	2,789.0	2,576.8	212.22	13.142	
14,100.0	6,636.2	6,578.8	6,577.8	211.1	2.1	-89.47	-2,023.0	-7,118.2	2,791.3	2,578.4	212.92	13.110	
14,173.2	6,636.1	6,579.5	6,578.5	213.2	2.1	-89.48	-2,023.0	-7,118.2	2,799.4	2,584.4	214.98	13.022	
14,200.0	6,636.1	6,579.8	6,578.8	213.9	2.1	-89.49	-2,023.0	-7,118.2	2,802.8	2,587.0	215.73	12.992	
14,271.6	6,636.0	6,580.5	6,579.5	215.9	2.1	-89.50	-2,023.0	-7,118.2	2,813.1	2,595.4	217.74	12.920	
14,300.0	6,636.0	6,580.8	6,579.7	216.7	2.1	-89.51	-2,023.0	-7,118.2	2,817.7	2,599.1	218.53	12.894	
14,370.0	6,635.9	6,581.4	6,580.4	218.7	2.1	-89.52	-2,023.0	-7,118.2	2,830.2	2,609.7	220.50	12.835	
14,400.0	6,635.8	6,581.7	6,580.7	219.5	2.1	-89.53	-2,023.0	-7,118.2	2,836.0	2,614.7	221.34	12.813	
14,468.5	6,635.7	6,582.4	6,581.4	221.4	2.1	-89.54	-2,023.0	-7,118.2	2,850.6	2,627.3	223.26	12.768	
14,500.0	6,635.7	6,582.7	6,581.7	222.3	2.1	-89.55	-2,023.0	-7,118.2	2,857.8	2,633.6	224.14	12.750	
14,566.9	6,635.6	6,583.3	6,582.3	224.2	2.2	-89.56	-2,023.0	-7,118.3	2,874.2	2,648.2	226.02	12.717	
14,600.0	6,635.6	6,583.6	6,582.6	225.1	2.2	-89.57	-2,023.0	-7,118.3	2,882.8	2,655.9	226.95	12.703	
14,665.3	6,635.5	6,584.2	6,583.2	226.9	2.2	-89.58	-2,023.1	-7,118.3	2,901.0	2,672.2	228.78	12.680	
14,700.0	6,635.4	6,584.5	6,583.5	227.9	2.2	-89.59	-2,023.1	-7,118.3	2,911.1	2,681.4	229.75	12.671	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS PC #B8-23 - 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
14,763.7	6,635.4	6,585.1	6,584.1	229.7	2.2	-89.60	-2,023.1	-7,118.3	2,930.8	2,699.2	231.54	12.658	
14,800.0	6,635.3	6,585.5	6,584.5	230.7	2.2	-89.61	-2,023.1	-7,118.3	2,942.5	2,710.0	232.56	12.653	
14,862.2	6,635.2	6,586.0	6,585.0	232.5	2.2	-89.62	-2,023.1	-7,118.3	2,963.6	2,729.3	234.30	12.649	
14,900.0	6,635.2	6,586.4	6,585.4	233.5	2.2	-89.62	-2,023.1	-7,118.3	2,977.0	2,741.6	235.36	12.648 SF	
14,960.6	6,635.1	6,586.9	6,585.9	235.2	2.2	-89.64	-2,023.1	-7,118.3	2,999.3	2,762.2	237.06	12.652	
15,000.0	6,635.0	6,587.3	6,586.3	236.3	2.2	-89.64	-2,023.1	-7,118.3	3,014.3	2,776.2	238.17	12.656	
15,033.1	6,635.0	6,600.0	6,599.0	237.3	2.2	-89.91	-2,023.2	-7,118.5	3,027.3	2,788.2	239.11	12.661	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-99.35	-1,226.6	-7,448.3	7,548.6				
98.4	98.4	87.4	87.4	0.1	0.0	-99.35	-1,226.6	-7,448.3	7,548.6	7,548.5	0.10	N/A	
100.0	100.0	89.0	89.0	0.1	0.0	-99.35	-1,226.6	-7,448.3	7,548.6	7,548.5	0.10	N/A	
196.8	196.8	185.8	185.8	0.3	1.0	-99.35	-1,226.6	-7,448.3	7,548.6	7,547.3	1.31	5,762.979	
200.0	200.0	189.0	189.0	0.3	1.0	-99.35	-1,226.6	-7,448.3	7,548.6	7,547.2	1.35	5,577.470	
295.3	295.3	284.3	284.3	0.5	3.1	-99.35	-1,226.6	-7,448.3	7,548.6	7,545.0	3.63	2,078.310	
300.0	300.0	289.0	289.0	0.5	3.2	-99.35	-1,226.6	-7,448.3	7,548.6	7,544.9	3.75	2,012.256	
393.7	393.7	382.7	382.7	0.8	5.2	-99.35	-1,226.6	-7,448.3	7,548.6	7,542.7	5.93	1,272.071	
400.0	400.0	389.0	389.0	0.8	5.3	-99.35	-1,226.6	-7,448.3	7,548.6	7,542.5	6.08	1,241.701	
492.1	492.1	481.1	481.1	1.0	7.2	-99.35	-1,226.6	-7,448.3	7,548.6	7,540.4	8.17	923.731	
500.0	500.0	489.0	489.0	1.0	7.4	-99.35	-1,226.6	-7,448.3	7,548.6	7,540.3	8.35	903.981	
590.5	590.5	579.5	579.5	1.2	9.2	-99.35	-1,226.6	-7,448.3	7,548.6	7,538.2	10.39	726.334	
600.0	600.0	589.0	589.0	1.2	9.4	-99.35	-1,226.6	-7,448.3	7,548.6	7,538.0	10.61	711.747	
689.0	689.0	678.0	678.0	1.4	11.2	-99.35	-1,226.6	-7,448.3	7,548.6	7,536.0	12.61	598.801	
700.0	700.0	689.0	689.0	1.4	11.4	-99.35	-1,226.6	-7,448.3	7,548.6	7,535.7	12.85	587.257	
787.4	787.4	776.4	776.4	1.6	13.2	-99.35	-1,226.6	-7,448.3	7,548.6	7,533.8	14.82	509.501	
800.0	800.0	789.0	789.0	1.7	13.4	-99.35	-1,226.6	-7,448.3	7,548.6	7,533.5	15.10	499.959	
885.8	885.8	874.8	874.8	1.9	15.2	-99.35	-1,226.6	-7,448.3	7,548.6	7,531.6	17.02	443.441	
900.0	900.0	889.0	889.0	1.9	15.4	-99.35	-1,226.6	-7,448.3	7,548.6	7,531.3	17.34	435.314	
984.2	984.2	973.2	973.2	2.1	17.1	-99.35	-1,226.6	-7,448.3	7,548.6	7,529.4	19.23	392.577	
1,000.0	1,000.0	989.0	989.0	2.1	17.5	-99.35	-1,226.6	-7,448.3	7,548.6	7,529.0	19.58	385.502	
1,082.7	1,082.7	1,071.7	1,071.7	2.3	19.1	-126.35	-1,226.6	-7,448.3	7,549.3	7,527.9	21.43	352.313	
1,100.0	1,100.0	1,089.0	1,089.0	2.3	19.5	-126.35	-1,226.6	-7,448.3	7,549.6	7,527.8	21.81	346.096	
1,181.1	1,181.0	1,170.0	1,170.0	2.5	21.1	-126.33	-1,226.6	-7,448.3	7,552.0	7,528.4	23.61	319.818	
1,200.0	1,199.8	1,188.8	1,188.8	2.6	21.5	-126.33	-1,226.6	-7,448.3	7,552.7	7,528.7	24.03	314.290	
1,279.5	1,279.1	1,268.1	1,268.1	2.8	23.1	-126.30	-1,226.6	-7,448.3	7,556.7	7,530.9	25.78	293.067	
1,300.0	1,299.5	1,288.5	1,288.5	2.8	23.5	-126.30	-1,226.6	-7,448.3	7,557.9	7,531.7	26.23	288.096	
1,377.9	1,376.9	1,365.9	1,365.9	3.0	25.1	-126.26	-1,226.6	-7,448.3	7,563.4	7,535.4	27.94	270.668	
1,400.0	1,398.7	1,387.7	1,387.7	3.0	25.5	-126.25	-1,226.6	-7,448.3	7,565.2	7,536.7	28.42	266.156	
1,476.4	1,474.2	1,463.2	1,463.2	3.2	27.0	-126.21	-1,226.6	-7,448.3	7,572.1	7,542.0	30.09	251.640	
1,500.0	1,497.5	1,486.5	1,486.5	3.3	27.5	-126.20	-1,226.6	-7,448.3	7,574.5	7,543.9	30.60	247.510	
1,574.8	1,571.0	1,560.0	1,560.0	3.5	29.0	-126.15	-1,226.6	-7,448.3	7,582.8	7,550.6	32.23	235.271	
1,600.0	1,595.6	1,584.6	1,584.6	3.6	29.5	-126.13	-1,226.6	-7,448.3	7,585.9	7,553.1	32.77	231.462	
1,673.2	1,667.2	1,656.2	1,656.2	3.9	30.9	-126.22	-1,226.6	-7,448.3	7,595.0	7,560.6	34.42	220.633	
1,700.0	1,693.4	1,682.4	1,682.4	4.0	31.4	-126.25	-1,226.6	-7,448.3	7,598.3	7,563.3	35.03	216.931	
1,771.6	1,763.5	1,752.5	1,752.5	4.2	32.8	-126.34	-1,226.6	-7,448.3	7,607.3	7,570.6	36.65	207.557	
1,800.0	1,791.3	1,780.3	1,780.3	4.3	33.4	-126.38	-1,226.6	-7,448.3	7,610.8	7,573.5	37.29	204.077	
1,870.1	1,859.8	1,848.8	1,848.8	4.6	34.8	-126.46	-1,226.6	-7,448.3	7,619.6	7,580.7	38.89	195.921	
1,900.0	1,889.1	1,878.1	1,878.1	4.7	35.4	-126.50	-1,226.6	-7,448.3	7,623.3	7,583.8	39.57	192.644	
1,968.5	1,956.1	1,945.1	1,945.1	4.9	36.7	-126.59	-1,226.6	-7,448.3	7,631.9	7,590.8	41.14	185.517	
2,000.0	1,986.9	1,975.9	1,975.9	5.1	37.3	-126.62	-1,226.6	-7,448.3	7,635.9	7,594.0	41.86	182.418	
2,066.9	2,052.3	2,041.3	2,041.3	5.3	38.6	-126.71	-1,226.6	-7,448.3	7,644.3	7,600.9	43.39	176.158	
2,100.0	2,084.7	2,073.7	2,073.7	5.5	39.3	-126.75	-1,226.6	-7,448.3	7,648.5	7,604.4	44.15	173.225	
2,165.3	2,148.6	2,137.6	2,137.6	5.7	40.6	-126.83	-1,226.6	-7,448.3	7,656.8	7,611.1	45.66	167.704	
2,200.0	2,182.5	2,171.5	2,171.5	5.9	41.3	-126.87	-1,226.6	-7,448.3	7,661.1	7,614.7	46.45	164.923	
2,263.8	2,244.9	2,233.9	2,233.9	6.1	42.5	-126.95	-1,226.6	-7,448.3	7,669.2	7,621.3	47.92	160.035	
2,300.0	2,280.3	2,269.3	2,269.3	6.3	43.2	-126.99	-1,226.6	-7,448.3	7,673.8	7,625.1	48.76	157.390	
2,362.2	2,341.2	2,330.2	2,330.2	6.5	44.5	-127.07	-1,226.6	-7,448.3	7,681.7	7,631.5	50.19	153.048	
2,400.0	2,378.1	2,367.1	2,367.1	6.7	45.2	-127.12	-1,226.6	-7,448.3	7,686.5	7,635.4	51.06	150.528	
2,460.6	2,437.4	2,426.4	2,426.4	6.9	46.4	-127.19	-1,226.6	-7,448.3	7,694.2	7,641.8	52.46	146.658	
2,500.0	2,476.0	2,465.0	2,465.0	7.1	47.2	-127.24	-1,226.6	-7,448.3	7,699.3	7,645.9	53.37	144.253	
2,550.0	2,524.9	2,513.9	2,513.9	7.3	48.1	-127.30	-1,226.6	-7,448.3	7,705.6	7,651.1	54.53	141.313	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - 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	2,533.7	2,522.7	2,522.7	7.3	48.3	-126.45	-1,226.6	-7,448.3	7,706.8	7,652.0	54.75	140.754		
2,600.0	2,573.8	2,562.8	2,562.8	7.5	49.1	-122.60	-1,226.6	-7,448.3	7,711.7	7,655.9	55.77	138.284		
2,639.4	2,612.3	2,601.3	2,601.3	7.7	49.9	-118.91	-1,226.6	-7,448.3	7,715.9	7,659.2	56.73	136.000		
2,657.5	2,630.0	2,619.0	2,619.0	7.7	50.3	-118.93	-1,226.6	-7,448.3	7,717.8	7,660.6	57.15	135.035		
2,700.0	2,671.6	2,660.6	2,660.6	7.9	51.1	-118.99	-1,226.6	-7,448.3	7,722.1	7,664.0	58.14	132.821		
2,755.9	2,726.3	2,715.3	2,715.3	8.1	52.2	-119.06	-1,226.6	-7,448.3	7,727.9	7,668.4	59.44	130.001		
2,800.0	2,769.4	2,758.4	2,758.4	8.3	53.1	-119.12	-1,226.6	-7,448.3	7,732.4	7,671.9	60.47	127.862		
2,854.3	2,822.5	2,811.5	2,811.5	8.5	54.1	-119.19	-1,226.6	-7,448.3	7,738.0	7,676.3	61.74	125.323		
2,900.0	2,867.2	2,856.2	2,856.2	8.7	55.0	-119.25	-1,226.6	-7,448.3	7,742.7	7,679.9	62.81	123.269		
2,952.7	2,918.8	2,907.8	2,907.8	9.0	56.1	-119.32	-1,226.6	-7,448.3	7,748.2	7,684.1	64.05	120.980		
3,000.0	2,965.0	2,954.0	2,954.0	9.2	57.0	-119.38	-1,226.6	-7,448.3	7,753.1	7,687.9	65.15	119.003		
3,051.2	3,015.1	3,004.1	3,004.1	9.4	58.0	-119.45	-1,226.6	-7,448.3	7,758.4	7,692.0	66.35	116.936		
3,100.0	3,062.8	3,051.8	3,051.8	9.6	59.0	-119.51	-1,226.6	-7,448.3	7,763.5	7,696.0	67.49	115.032		
3,149.6	3,111.4	3,100.4	3,100.4	9.8	59.9	-119.58	-1,226.6	-7,448.3	7,768.6	7,700.0	68.65	113.162		
3,200.0	3,160.7	3,149.7	3,149.7	10.0	60.9	-119.65	-1,226.6	-7,448.3	7,773.9	7,704.1	69.83	111.326		
3,248.0	3,207.6	3,196.6	3,196.6	10.2	61.9	-119.71	-1,226.6	-7,448.3	7,778.9	7,708.0	70.95	109.633		
3,300.0	3,258.5	3,247.5	3,247.5	10.5	62.9	-119.78	-1,226.6	-7,448.3	7,784.4	7,712.2	72.17	107.860		
3,346.4	3,303.9	3,292.9	3,292.9	10.7	63.8	-119.84	-1,226.6	-7,448.3	7,789.2	7,716.0	73.26	106.325		
3,400.0	3,356.3	3,345.3	3,345.3	10.9	64.9	-119.91	-1,226.6	-7,448.3	7,794.9	7,720.4	74.51	104.612		
3,444.9	3,400.2	3,389.2	3,389.2	11.1	65.8	-119.97	-1,226.6	-7,448.3	7,799.6	7,724.1	75.56	103.219		
3,500.0	3,454.1	3,443.1	3,443.1	11.3	66.8	-120.04	-1,226.6	-7,448.3	7,805.4	7,728.6	76.85	101.561		
3,543.3	3,496.5	3,485.5	3,485.5	11.5	67.7	-120.09	-1,226.6	-7,448.3	7,810.0	7,732.2	77.87	100.297		
3,600.0	3,551.9	3,540.9	3,540.9	11.7	68.8	-120.17	-1,226.6	-7,448.3	7,816.0	7,736.8	79.20	98.692		
3,641.7	3,592.7	3,581.7	3,581.7	11.9	69.6	-120.22	-1,226.6	-7,448.3	7,820.5	7,740.3	80.17	97.544		
3,700.0	3,649.7	3,638.7	3,638.7	12.2	70.8	-120.30	-1,226.6	-7,448.3	7,826.7	7,745.1	81.54	95.987		
3,740.1	3,689.0	3,678.0	3,678.0	12.4	71.6	-120.35	-1,226.6	-7,448.3	7,831.0	7,748.5	82.48	94.945		
3,800.0	3,747.5	3,736.5	3,736.5	12.6	72.7	-120.43	-1,226.6	-7,448.3	7,837.4	7,753.5	83.88	93.434		
3,838.6	3,785.3	3,774.3	3,774.3	12.8	73.5	-120.47	-1,226.6	-7,448.3	7,841.5	7,756.7	84.78	92.487		
3,900.0	3,845.4	3,834.4	3,834.4	13.1	74.7	-120.55	-1,226.6	-7,448.3	7,848.1	7,761.9	86.22	91.021		
3,937.0	3,881.6	3,870.6	3,870.6	13.2	75.4	-120.60	-1,226.6	-7,448.3	7,852.1	7,765.0	87.09	90.161		
4,000.0	3,943.2	3,932.2	3,932.2	13.5	76.7	-120.68	-1,226.6	-7,448.3	7,858.9	7,770.3	88.57	88.735		
4,035.4	3,977.8	3,966.8	3,966.8	13.6	77.4	-120.73	-1,226.6	-7,448.3	7,862.7	7,773.3	89.39	87.954		
4,100.0	4,041.0	4,030.0	4,030.0	13.9	78.6	-120.81	-1,226.6	-7,448.3	7,869.7	7,778.7	90.91	86.568		
4,133.8	4,074.1	4,063.1	4,063.1	14.1	79.3	-120.85	-1,226.6	-7,448.3	7,873.3	7,781.6	91.70	85.860		
4,200.0	4,138.8	4,127.8	4,127.8	14.4	80.6	-120.94	-1,226.6	-7,448.3	7,880.5	7,787.3	93.25	84.511		
4,232.3	4,170.4	4,159.4	4,159.4	14.5	81.2	-120.98	-1,226.6	-7,448.3	7,884.0	7,790.0	94.00	83.868		
4,300.0	4,236.6	4,225.6	4,225.6	14.8	82.6	-121.07	-1,226.6	-7,448.3	7,891.4	7,795.8	95.59	82.554		
4,330.7	4,266.7	4,255.7	4,255.7	14.9	83.2	-121.10	-1,226.6	-7,448.3	7,894.7	7,798.4	96.31	81.973		
4,400.0	4,334.4	4,323.4	4,323.4	15.2	84.5	-121.19	-1,226.6	-7,448.3	7,902.3	7,804.4	97.93	80.693		
4,429.1	4,362.9	4,351.9	4,351.9	15.4	85.1	-121.23	-1,226.6	-7,448.3	7,905.5	7,806.9	98.61	80.167		
4,500.0	4,432.3	4,421.3	4,421.3	15.7	86.5	-121.32	-1,226.6	-7,448.3	7,913.3	7,813.0	100.27	78.918		
4,527.5	4,459.2	4,448.2	4,448.2	15.8	87.1	-121.35	-1,226.6	-7,448.3	7,916.3	7,815.4	100.92	78.444		
4,600.0	4,530.1	4,519.1	4,519.1	16.1	88.5	-121.45	-1,226.6	-7,448.3	7,924.3	7,821.7	102.61	77.226		
4,626.0	4,555.5	4,544.5	4,544.5	16.2	89.0	-121.48	-1,226.6	-7,448.3	7,927.1	7,823.9	103.22	76.799		
4,700.0	4,627.9	4,616.9	4,616.9	16.6	90.4	-121.57	-1,226.6	-7,448.3	7,935.3	7,830.4	104.95	75.609		
4,724.4	4,651.7	4,640.7	4,640.7	16.7	90.9	-121.60	-1,226.6	-7,448.3	7,938.0	7,832.5	105.52	75.226		
4,800.0	4,725.7	4,714.7	4,714.7	17.0	92.4	-121.70	-1,226.6	-7,448.3	7,946.4	7,839.1	107.29	74.064		
4,822.8	4,748.0	4,737.0	4,737.0	17.1	92.9	-121.73	-1,226.6	-7,448.3	7,948.9	7,841.1	107.82	73.721		
4,904.9	4,828.3	4,817.3	4,817.3	17.5	94.5	-121.83	-1,226.6	-7,448.3	7,958.1	7,848.3	109.74	72.515		
4,921.2	4,844.3	4,833.3	4,833.3	17.5	94.8	-121.88	-1,226.6	-7,448.3	7,959.9	7,849.7	110.15	72.267		
5,000.0	4,921.6	4,910.6	4,910.6	17.8	96.4	-122.11	-1,226.6	-7,448.3	7,967.8	7,855.8	112.07	71.094		
5,019.7	4,941.0	4,930.0	4,930.0	17.9	96.7	-122.16	-1,226.6	-7,448.3	7,969.7	7,857.1	112.54	70.815		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	5,009.4	5,009.4	18.1	98.3	-122.35	-1,226.6	-7,448.3	7,976.3	7,861.9	114.45	69.693	
5,118.1	5,038.3	5,027.3	5,027.3	18.2	98.7	-122.38	-1,226.6	-7,448.3	7,977.7	7,862.8	114.87	69.448	
5,200.0	5,119.6	5,108.6	5,108.6	18.4	100.3	-122.53	-1,226.6	-7,448.3	7,983.0	7,866.2	116.78	68.359	
5,216.5	5,136.0	5,125.0	5,125.0	18.4	100.7	-122.56	-1,226.6	-7,448.3	7,983.9	7,866.8	117.16	68.146	
5,300.0	5,219.2	5,208.2	5,208.2	18.6	102.3	-122.67	-1,226.6	-7,448.3	7,987.8	7,868.7	119.06	67.091	
5,314.9	5,234.1	5,223.1	5,223.1	18.6	102.6	-122.68	-1,226.6	-7,448.3	7,988.4	7,869.0	119.39	66.908	
5,400.0	5,319.1	5,308.1	5,308.1	18.8	104.3	-122.75	-1,226.6	-7,448.3	7,990.7	7,869.4	121.28	65.886	
5,413.4	5,332.4	5,321.4	5,321.4	18.8	104.6	-122.76	-1,226.6	-7,448.3	7,991.0	7,869.4	121.57	65.730	
5,504.9	5,423.9	5,412.9	5,412.9	18.9	106.5	-104.36	-1,226.6	-7,448.3	7,991.8	7,870.0	121.77	65.628	
5,511.8	5,430.8	5,419.8	5,419.8	18.9	106.6	-104.36	-1,226.6	-7,448.3	7,991.8	7,869.8	121.92	65.547	
5,600.0	5,519.0	5,508.0	5,508.0	19.0	108.4	-104.36	-1,226.6	-7,448.3	7,991.8	7,867.9	123.83	64.537	
5,610.2	5,529.3	5,518.3	5,518.3	19.0	108.6	-104.36	-1,226.6	-7,448.3	7,991.8	7,867.7	124.06	64.421	
5,700.0	5,619.0	5,608.0	5,608.0	19.2	110.4	-104.36	-1,226.6	-7,448.3	7,991.8	7,865.8	126.01	63.420	
5,708.6	5,627.7	5,616.7	5,616.7	19.2	110.6	-104.36	-1,226.6	-7,448.3	7,991.8	7,865.6	126.20	63.325	
5,800.0	5,719.0	5,708.0	5,708.0	19.3	112.4	-104.36	-1,226.6	-7,448.3	7,991.8	7,863.6	128.20	62.340	
5,807.1	5,726.1	5,715.1	5,715.1	19.3	112.5	-104.36	-1,226.6	-7,448.3	7,991.8	7,863.4	128.35	62.265	
5,900.0	5,819.0	5,808.0	5,808.0	19.4	114.4	-104.36	-1,226.6	-7,448.3	7,991.8	7,861.4	130.38	61.295	
5,905.5	5,824.5	5,813.5	5,813.5	19.4	114.5	-104.36	-1,226.6	-7,448.3	7,991.8	7,861.3	130.50	61.239	
6,003.9	5,923.0	5,912.0	5,912.0	19.6	116.5	-104.36	-1,226.6	-7,448.3	7,991.8	7,859.1	132.65	60.246	
6,009.8	5,928.8	5,917.8	5,917.8	19.6	116.6	-104.36	-1,226.6	-7,448.3	7,991.8	7,859.0	132.78	60.188	
6,050.0	5,969.0	5,958.0	5,958.0	19.6	117.4	-14.38	-1,226.6	-7,448.3	7,990.7	7,855.6	135.08	59.156	
6,100.0	6,018.8	6,007.8	6,007.8	19.7	118.4	-14.48	-1,226.6	-7,448.3	7,986.3	7,851.0	135.29	59.032	
6,102.3	6,021.1	6,010.1	6,010.1	19.7	118.5	-14.49	-1,226.6	-7,448.3	7,986.0	7,850.7	135.28	59.033	
6,150.0	6,068.1	6,057.1	6,057.1	19.7	119.4	-14.65	-1,226.6	-7,448.3	7,978.5	7,843.7	134.86	59.161	
6,200.0	6,116.8	6,105.8	6,105.8	19.7	120.4	-14.90	-1,226.6	-7,448.3	7,967.4	7,833.6	133.80	59.549	
6,200.8	6,117.5	6,106.5	6,106.5	19.7	120.4	-14.91	-1,226.6	-7,448.3	7,967.2	7,833.5	133.78	59.557	
6,250.0	6,164.5	6,153.5	6,153.5	19.7	121.3	-15.24	-1,226.6	-7,448.3	7,953.1	7,821.0	132.10	60.205	
6,299.2	6,210.4	6,199.4	6,199.4	19.7	122.3	-15.67	-1,226.6	-7,448.3	7,935.9	7,806.1	129.83	61.125	
6,300.0	6,211.1	6,200.1	6,200.1	19.7	122.3	-15.68	-1,226.6	-7,448.3	7,935.6	7,805.8	129.79	61.143	
6,350.0	6,256.4	6,245.4	6,245.4	19.7	123.2	-16.22	-1,226.6	-7,448.3	7,915.0	7,788.1	126.89	62.377	
6,397.6	6,298.0	6,287.0	6,287.0	19.7	124.0	-16.84	-1,226.6	-7,448.3	7,892.5	7,768.9	123.62	63.844	
6,400.0	6,300.0	6,289.0	6,289.0	19.7	124.1	-16.88	-1,226.6	-7,448.3	7,891.3	7,767.9	123.45	63.925	
6,450.0	6,341.8	6,330.8	6,330.8	19.7	124.9	-17.68	-1,226.6	-7,448.3	7,864.8	7,745.3	119.53	65.797	
6,496.0	6,378.6	6,367.6	6,367.6	19.7	125.7	-18.56	-1,226.6	-7,448.3	7,838.0	7,722.4	115.59	67.808	
6,500.0	6,381.6	6,370.6	6,370.6	19.7	125.7	-18.65	-1,226.6	-7,448.3	7,835.6	7,720.3	115.24	67.993	
6,550.0	6,419.2	6,408.2	6,408.2	19.6	126.5	-19.82	-1,226.6	-7,448.3	7,803.7	7,693.0	110.71	70.487	
6,594.5	6,450.7	6,439.7	6,439.7	19.6	127.1	-21.06	-1,226.6	-7,448.3	7,773.3	7,666.7	106.65	72.889	
6,600.0	6,454.4	6,443.4	6,443.4	19.6	127.2	-21.23	-1,226.6	-7,448.3	7,769.4	7,663.3	106.14	73.196	
6,650.0	6,487.1	6,476.1	6,476.1	19.6	127.8	-22.95	-1,226.6	-7,448.3	7,732.8	7,631.0	101.82	75.944	
6,692.9	6,513.0	6,502.0	6,502.0	19.6	128.4	-24.72	-1,226.6	-7,448.3	7,699.7	7,601.1	98.62	78.078	
6,700.0	6,517.0	6,506.0	6,506.0	19.6	128.4	-25.05	-1,226.6	-7,448.3	7,694.1	7,596.0	98.15	78.393	
6,750.0	6,544.1	6,533.1	6,533.1	19.6	129.0	-27.65	-1,226.6	-7,448.3	7,653.5	7,557.8	95.67	80.000	
6,791.3	6,564.2	6,553.2	6,553.2	19.7	129.4	-30.28	-1,226.6	-7,448.3	7,618.7	7,523.7	95.00	80.196	
6,800.0	6,568.2	6,557.2	6,557.2	19.7	129.5	-30.90	-1,226.6	-7,448.3	7,611.2	7,516.1	95.10	80.036	
6,850.0	6,589.1	6,578.1	6,578.1	19.8	129.9	-35.02	-1,226.6	-7,448.3	7,567.4	7,470.1	97.25	77.815	
6,889.7	6,603.5	6,592.5	6,592.5	19.9	130.2	-39.11	-1,226.6	-7,448.3	7,531.6	7,430.2	101.41	74.267	
6,900.0	6,606.9	6,595.9	6,595.9	19.9	130.2	-40.31	-1,226.6	-7,448.3	7,522.3	7,419.4	102.87	73.122	
6,950.0	6,621.3	6,610.3	6,610.3	20.2	130.5	-47.14	-1,226.6	-7,448.3	7,476.1	7,363.8	112.33	66.554	
6,988.2	6,630.0	6,619.0	6,619.0	20.6	130.7	-53.67	-1,226.6	-7,448.3	7,440.3	7,318.5	121.85	61.063	
7,000.0	6,632.4	6,621.4	6,621.4	20.7	130.8	-55.95	-1,226.6	-7,448.3	7,429.1	7,304.1	125.06	59.402	
7,050.0	6,640.0	6,629.0	6,629.0	21.4	130.9	-67.04	-1,226.6	-7,448.3	7,381.5	7,242.7	138.87	53.155	
7,086.6	6,643.4	6,632.4	6,632.4	21.9	131.0	-76.51	-1,226.6	-7,448.3	7,346.5	7,199.2	147.29	49.877	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,633.2	6,633.2	22.1	131.0	-80.19	-1,226.6	-7,448.3	7,333.6	7,184.0	149.57	49.030	
7,135.7	6,645.0	6,634.0	6,634.0	22.7	131.0	-90.25	-1,226.6	-7,448.3	7,299.3	7,146.5	152.79	47.772	
7,185.0	6,644.9	6,633.9	6,633.9	23.6	131.0	-90.25	-1,226.6	-7,448.3	7,251.8	7,098.0	153.75	47.166	
7,200.0	6,644.9	6,633.9	6,633.9	23.9	131.0	-90.25	-1,226.6	-7,448.3	7,237.4	7,083.3	154.04	46.983	
7,283.4	6,644.8	6,633.8	6,633.8	25.6	131.0	-90.24	-1,226.6	-7,448.3	7,157.1	7,001.4	155.77	45.947	
7,300.0	6,644.8	6,633.8	6,633.8	25.9	131.0	-90.24	-1,226.6	-7,448.3	7,141.2	6,985.1	156.11	45.745	
7,381.9	6,644.7	6,633.7	6,633.7	27.7	131.0	-90.24	-1,226.6	-7,448.3	7,062.6	6,904.7	157.91	44.724	
7,400.0	6,644.7	6,633.7	6,633.7	28.1	131.0	-90.24	-1,226.6	-7,448.3	7,045.2	6,886.9	158.31	44.502	
7,480.3	6,644.6	6,633.6	6,633.6	29.9	131.0	-90.24	-1,226.6	-7,448.3	6,968.2	6,808.0	160.17	43.505	
7,500.0	6,644.6	6,633.6	6,633.6	30.3	131.0	-90.24	-1,226.6	-7,448.3	6,949.3	6,788.7	160.62	43.264	
7,578.7	6,644.5	6,633.5	6,633.5	32.2	131.0	-90.23	-1,226.6	-7,448.3	6,873.9	6,711.4	162.51	42.299	
7,600.0	6,644.4	6,633.4	6,633.4	32.7	131.0	-90.23	-1,226.6	-7,448.3	6,853.5	6,690.5	163.02	42.042	
7,677.1	6,644.3	6,633.3	6,633.3	34.6	131.0	-90.23	-1,226.6	-7,448.3	6,779.7	6,614.8	164.91	41.112	
7,700.0	6,644.3	6,633.3	6,633.3	35.1	131.0	-90.23	-1,226.6	-7,448.3	6,757.9	6,592.4	165.47	40.841	
7,775.6	6,644.2	6,633.2	6,633.2	37.0	131.0	-90.23	-1,226.6	-7,448.3	6,685.6	6,518.3	167.36	39.947	
7,800.0	6,644.2	6,633.2	6,633.2	37.6	131.0	-90.23	-1,226.6	-7,448.3	6,662.3	6,494.3	167.97	39.663	
7,874.0	6,644.1	6,633.1	6,633.1	39.5	131.0	-90.22	-1,226.6	-7,448.3	6,591.7	6,421.8	169.86	38.807	
7,900.0	6,644.1	6,633.1	6,633.1	40.1	131.0	-90.22	-1,226.6	-7,448.3	6,566.9	6,396.4	170.52	38.511	
7,972.4	6,644.0	6,633.0	6,633.0	42.0	131.0	-90.22	-1,226.6	-7,448.3	6,497.9	6,325.5	172.39	37.694	
8,000.0	6,643.9	6,632.9	6,632.9	42.7	131.0	-90.22	-1,226.6	-7,448.3	6,471.6	6,298.6	173.10	37.387	
8,070.8	6,643.9	6,632.9	6,632.9	44.5	131.0	-90.22	-1,226.6	-7,448.3	6,404.2	6,229.3	174.94	36.607	
8,100.0	6,643.8	6,632.8	6,632.8	45.2	131.0	-90.22	-1,226.6	-7,448.3	6,376.5	6,200.8	175.70	36.291	
8,169.3	6,643.7	6,632.7	6,632.7	47.0	131.0	-90.21	-1,226.6	-7,448.3	6,310.7	6,133.2	177.53	35.548	
8,200.0	6,643.7	6,632.7	6,632.7	47.9	131.0	-90.21	-1,226.6	-7,448.3	6,281.6	6,103.2	178.33	35.223	
8,267.7	6,643.6	6,632.6	6,632.6	49.6	131.0	-90.21	-1,226.6	-7,448.3	6,217.4	6,037.2	180.13	34.516	
8,300.0	6,643.6	6,632.6	6,632.6	50.5	131.0	-90.21	-1,226.6	-7,448.3	6,186.7	6,005.8	180.98	34.184	
8,366.1	6,643.5	6,632.5	6,632.5	52.2	131.0	-90.21	-1,226.6	-7,448.3	6,124.1	5,941.4	182.75	33.512	
8,400.0	6,643.4	6,632.4	6,632.4	53.1	131.0	-90.21	-1,226.6	-7,448.3	6,092.1	5,908.5	183.65	33.172	
8,464.5	6,643.4	6,632.4	6,632.4	54.8	131.0	-90.20	-1,226.6	-7,448.3	6,031.1	5,845.7	185.38	32.534	
8,500.0	6,643.3	6,632.3	6,632.3	55.8	131.0	-90.20	-1,226.6	-7,448.3	5,997.6	5,811.3	186.33	32.188	
8,563.0	6,643.2	6,632.2	6,632.2	57.5	131.0	-90.20	-1,226.6	-7,448.3	5,938.2	5,750.2	188.02	31.582	
8,600.0	6,643.2	6,632.2	6,632.2	58.5	131.0	-90.20	-1,226.6	-7,448.3	5,903.3	5,714.3	189.02	31.231	
8,661.4	6,643.1	6,632.1	6,632.1	60.1	131.0	-90.20	-1,226.6	-7,448.3	5,845.5	5,654.9	190.68	30.656	
8,700.0	6,643.1	6,632.1	6,632.1	61.2	131.0	-90.20	-1,226.6	-7,448.3	5,809.2	5,617.5	191.72	30.300	
8,759.8	6,643.0	6,632.0	6,632.0	62.8	131.0	-90.19	-1,226.6	-7,448.3	5,753.0	5,559.7	193.35	29.755	
8,800.0	6,643.0	6,632.0	6,632.0	63.9	131.0	-90.19	-1,226.6	-7,448.3	5,715.3	5,520.9	194.44	29.395	
8,858.2	6,642.9	6,631.9	6,631.9	65.4	131.0	-90.19	-1,226.6	-7,448.3	5,660.7	5,464.7	196.02	28.878	
8,900.0	6,642.8	6,631.8	6,631.8	66.6	131.0	-90.19	-1,226.6	-7,448.3	5,621.7	5,424.5	197.16	28.514	
8,956.7	6,642.8	6,631.8	6,631.8	68.1	131.0	-90.19	-1,226.6	-7,448.3	5,568.7	5,370.0	198.70	28.025	
9,000.0	6,642.7	6,631.7	6,631.7	69.3	131.0	-90.19	-1,226.6	-7,448.3	5,528.2	5,328.3	199.88	27.657	
9,055.1	6,642.6	6,631.6	6,631.6	70.8	131.0	-90.18	-1,226.6	-7,448.3	5,476.8	5,275.4	201.39	27.195	
9,100.0	6,642.6	6,631.6	6,631.6	72.0	131.0	-90.18	-1,226.6	-7,448.3	5,435.0	5,232.3	202.62	26.824	
9,153.5	6,642.5	6,631.5	6,631.5	73.5	131.0	-90.18	-1,226.6	-7,448.3	5,385.1	5,181.1	204.08	26.387	
9,200.0	6,642.5	6,631.5	6,631.5	74.7	131.0	-90.18	-1,226.6	-7,448.3	5,342.0	5,136.6	205.35	26.013	
9,251.9	6,642.4	6,631.4	6,631.4	76.2	131.0	-90.18	-1,226.6	-7,448.3	5,293.8	5,087.0	206.78	25.601	
9,300.0	6,642.3	6,631.3	6,631.3	77.5	131.0	-90.17	-1,226.6	-7,448.3	5,249.2	5,041.1	208.10	25.225	
9,350.4	6,642.3	6,631.3	6,631.3	78.9	131.0	-90.17	-1,226.6	-7,448.3	5,202.6	4,993.1	209.48	24.836	
9,400.0	6,642.2	6,631.2	6,631.2	80.2	131.0	-90.17	-1,226.6	-7,448.3	5,156.8	4,945.9	210.85	24.457	
9,448.8	6,642.1	6,631.1	6,631.1	81.6	131.0	-90.17	-1,226.6	-7,448.3	5,111.8	4,899.6	212.19	24.090	
9,500.0	6,642.1	6,631.1	6,631.1	83.0	131.0	-90.17	-1,226.6	-7,448.3	5,064.6	4,851.0	213.60	23.711	
9,547.2	6,642.0	6,631.0	6,631.0	84.3	131.0	-90.17	-1,226.6	-7,448.3	5,021.2	4,806.3	214.90	23.365	
9,600.0	6,642.0	6,631.0	6,631.0	85.7	130.9	-90.16	-1,226.6	-7,448.3	4,972.7	4,756.4	216.36	22.984	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,630.9	6,630.9	87.0	130.9	-90.16	-1,226.6	-7,448.3	4,930.9	4,713.3	217.61	22.659	
9,700.0	6,641.8	6,630.8	6,630.8	88.5	130.9	-90.16	-1,226.6	-7,448.3	4,881.2	4,662.1	219.11	22.277	
9,744.1	6,641.8	6,630.8	6,630.8	89.7	130.9	-90.16	-1,226.6	-7,448.3	4,840.9	4,620.6	220.33	21.971	
9,800.0	6,641.7	6,630.7	6,630.7	91.2	130.9	-90.16	-1,226.6	-7,448.3	4,790.0	4,568.1	221.88	21.588	
9,842.5	6,641.7	6,630.7	6,630.7	92.4	130.9	-90.16	-1,226.6	-7,448.3	4,751.3	4,528.2	223.05	21.301	
9,900.0	6,641.6	6,630.6	6,630.6	94.0	130.9	-90.15	-1,226.6	-7,448.3	4,699.1	4,474.5	224.64	20.918	
9,940.9	6,641.5	6,630.5	6,630.5	95.1	130.9	-90.15	-1,226.6	-7,448.3	4,662.0	4,436.3	225.77	20.649	
10,000.0	6,641.5	6,630.5	6,630.5	96.7	130.9	-90.15	-1,226.6	-7,448.3	4,608.6	4,381.2	227.41	20.266	
10,039.3	6,641.4	6,630.4	6,630.4	97.8	130.9	-90.15	-1,226.6	-7,448.3	4,573.1	4,344.6	228.50	20.014	
10,100.0	6,641.3	6,630.3	6,630.3	99.5	130.9	-90.15	-1,226.6	-7,448.3	4,518.5	4,288.4	230.18	19.631	
10,137.8	6,641.3	6,630.3	6,630.3	100.6	130.9	-90.15	-1,226.6	-7,448.3	4,484.6	4,253.4	231.23	19.395	
10,200.0	6,641.2	6,630.2	6,630.2	102.3	130.9	-90.14	-1,226.6	-7,448.3	4,428.9	4,195.9	232.95	19.012	
10,236.2	6,641.2	6,630.2	6,630.2	103.3	130.9	-90.14	-1,226.6	-7,448.3	4,396.6	4,162.6	233.96	18.792	
10,300.0	6,641.1	6,630.1	6,630.1	105.0	130.9	-90.14	-1,226.6	-7,448.3	4,339.7	4,104.0	235.73	18.410	
10,334.6	6,641.0	6,630.0	6,630.0	106.0	130.9	-90.14	-1,226.6	-7,448.3	4,308.9	4,072.2	236.69	18.205	
10,400.0	6,641.0	6,630.0	6,630.0	107.8	130.9	-90.14	-1,226.6	-7,448.3	4,251.0	4,012.5	238.50	17.824	
10,433.0	6,640.9	6,629.9	6,629.9	108.7	130.9	-90.14	-1,226.6	-7,448.3	4,221.8	3,982.4	239.42	17.633	
10,500.0	6,640.8	6,629.8	6,629.8	110.6	130.9	-90.13	-1,226.6	-7,448.3	4,162.8	3,921.5	241.28	17.253	
10,531.5	6,640.8	6,629.8	6,629.8	111.5	130.9	-90.13	-1,226.6	-7,448.3	4,135.1	3,893.0	242.15	17.077	
10,600.0	6,640.7	6,629.7	6,629.7	113.4	130.9	-90.13	-1,226.6	-7,448.3	4,075.1	3,831.1	244.06	16.697	
10,629.9	6,640.7	6,629.7	6,629.7	114.2	130.9	-90.13	-1,226.6	-7,448.3	4,049.0	3,804.1	244.89	16.534	
10,700.0	6,640.6	6,629.6	6,629.6	116.1	130.9	-90.13	-1,226.6	-7,448.3	3,988.0	3,741.2	246.84	16.157	
10,728.3	6,640.5	6,629.5	6,629.5	116.9	130.9	-90.13	-1,226.6	-7,448.3	3,963.5	3,715.9	247.63	16.006	
10,800.0	6,640.5	6,629.5	6,629.5	118.9	130.9	-90.12	-1,226.6	-7,448.3	3,901.6	3,652.0	249.62	15.630	
10,826.7	6,640.4	6,629.4	6,629.4	119.7	130.9	-90.12	-1,226.6	-7,448.3	3,878.6	3,628.2	250.36	15.492	
10,900.0	6,640.3	6,629.3	6,629.3	121.7	130.9	-90.12	-1,226.6	-7,448.3	3,815.8	3,563.4	252.40	15.118	
10,925.2	6,640.3	6,629.3	6,629.3	122.4	130.9	-90.12	-1,226.6	-7,448.3	3,794.3	3,541.2	253.10	14.991	
11,000.0	6,640.2	6,629.2	6,629.2	124.5	130.9	-90.12	-1,226.6	-7,448.3	3,730.7	3,475.5	255.19	14.619	
11,023.6	6,640.2	6,629.2	6,629.2	125.1	130.9	-90.11	-1,226.6	-7,448.3	3,710.7	3,454.9	255.84	14.504	
11,100.0	6,640.1	6,629.1	6,629.1	127.3	130.9	-90.11	-1,226.6	-7,448.3	3,646.3	3,388.4	257.97	14.135	
11,122.0	6,640.0	6,629.0	6,629.0	127.9	130.9	-90.11	-1,226.6	-7,448.3	3,627.9	3,369.3	258.58	14.030	
11,200.0	6,639.9	6,628.9	6,628.9	130.1	130.9	-90.11	-1,226.6	-7,448.3	3,562.8	3,302.1	260.76	13.663	
11,220.4	6,639.9	6,628.9	6,628.9	130.6	130.9	-90.11	-1,226.6	-7,448.3	3,545.8	3,284.5	261.33	13.569	
11,300.0	6,639.8	6,628.8	6,628.8	132.8	130.9	-90.10	-1,226.6	-7,448.3	3,480.2	3,216.6	263.54	13.205	
11,318.9	6,639.8	6,628.8	6,628.8	133.4	130.9	-90.10	-1,226.6	-7,448.3	3,464.7	3,200.6	264.07	13.120	
11,400.0	6,639.7	6,628.7	6,628.7	135.6	130.9	-90.10	-1,226.6	-7,448.3	3,398.4	3,132.1	266.33	12.760	
11,417.3	6,639.7	6,628.7	6,628.7	136.1	130.9	-90.10	-1,226.6	-7,448.3	3,384.4	3,117.6	266.81	12.684	
11,500.0	6,639.6	6,628.6	6,628.6	138.4	130.9	-90.10	-1,226.6	-7,448.3	3,317.7	3,048.6	269.12	12.328	
11,515.7	6,639.5	6,628.5	6,628.5	138.9	130.9	-90.10	-1,226.6	-7,448.3	3,305.1	3,035.6	269.56	12.261	
11,600.0	6,639.4	6,628.4	6,628.4	141.2	130.9	-90.09	-1,226.6	-7,448.3	3,238.1	2,966.2	271.91	11.909	
11,614.1	6,639.4	6,628.4	6,628.4	141.6	130.9	-90.09	-1,226.6	-7,448.3	3,226.9	2,954.6	272.30	11.850	
11,700.0	6,639.3	6,628.3	6,628.3	144.0	130.9	-90.09	-1,226.6	-7,448.3	3,159.6	2,884.9	274.70	11.502	
11,712.6	6,639.3	6,628.3	6,628.3	144.3	130.9	-90.09	-1,226.6	-7,448.3	3,149.8	2,874.7	275.05	11.452	
11,800.0	6,639.2	6,628.2	6,628.2	146.8	130.9	-90.09	-1,226.6	-7,448.3	3,082.3	2,804.8	277.49	11.108	
11,811.0	6,639.2	6,628.2	6,628.2	147.1	130.9	-90.09	-1,226.6	-7,448.3	3,073.9	2,796.1	277.80	11.065	
11,900.0	6,639.1	6,628.1	6,628.1	149.6	130.9	-90.08	-1,226.6	-7,448.3	3,006.4	2,726.2	280.28	10.726	
11,909.4	6,639.0	6,628.0	6,628.0	149.8	130.9	-90.08	-1,226.6	-7,448.3	2,999.4	2,718.8	280.55	10.691	
12,000.0	6,638.9	6,627.9	6,627.9	152.4	130.9	-90.08	-1,226.6	-7,448.3	2,932.0	2,648.9	283.07	10.358	
12,007.8	6,638.9	6,627.9	6,627.9	152.6	130.9	-90.08	-1,226.6	-7,448.3	2,926.2	2,642.9	283.29	10.329	
12,100.0	6,638.8	6,627.8	6,627.8	155.2	130.9	-90.08	-1,226.6	-7,448.3	2,859.1	2,573.2	285.87	10.001	
12,106.3	6,638.8	6,627.8	6,627.8	155.3	130.9	-90.08	-1,226.6	-7,448.3	2,854.6	2,568.5	286.04	9.979	
12,200.0	6,638.7	6,627.7	6,627.7	157.9	130.9	-90.07	-1,226.6	-7,448.3	2,787.9	2,499.2	288.66	9.658	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,204.7	6,638.7	6,627.7	6,627.7	158.1	130.9	-90.07	-1,226.6	-7,448.3	2,784.6	2,495.8	288.79	9.642	
12,300.0	6,638.5	6,627.5	6,627.5	160.7	130.9	-90.07	-1,226.6	-7,448.3	2,718.5	2,427.0	291.45	9.327	
12,303.1	6,638.5	6,627.5	6,627.5	160.8	130.9	-90.07	-1,226.6	-7,448.3	2,716.3	2,424.8	291.54	9.317	
12,400.0	6,638.4	6,627.4	6,627.4	163.5	130.9	-90.07	-1,226.6	-7,448.3	2,651.0	2,356.8	294.25	9.009	
12,401.5	6,638.4	6,627.4	6,627.4	163.6	130.9	-90.07	-1,226.6	-7,448.3	2,650.0	2,355.7	294.29	9.005	
12,500.0	6,638.3	6,627.3	6,627.3	166.3	130.9	-90.06	-1,226.6	-7,448.3	2,585.7	2,288.6	297.04	8.705	
12,598.4	6,638.2	6,627.2	6,627.2	169.1	130.9	-90.06	-1,226.6	-7,448.3	2,523.6	2,223.8	299.79	8.418	
12,600.0	6,638.2	6,627.2	6,627.2	169.1	130.9	-90.06	-1,226.6	-7,448.3	2,522.6	2,222.8	299.84	8.413	
12,696.8	6,638.0	6,627.0	6,627.0	171.8	130.9	-90.05	-1,226.6	-7,448.3	2,463.9	2,161.3	302.55	8.144	
12,700.0	6,638.0	6,627.0	6,627.0	171.9	130.9	-90.05	-1,226.6	-7,448.3	2,462.0	2,159.4	302.63	8.135	
12,795.2	6,637.9	6,626.9	6,626.9	174.6	130.9	-90.05	-1,226.6	-7,448.3	2,406.7	2,101.4	305.30	7.883	
12,800.0	6,637.9	6,626.9	6,626.9	174.7	130.9	-90.05	-1,226.6	-7,448.3	2,404.0	2,098.6	305.43	7.871	
12,893.7	6,637.8	6,626.8	6,626.8	177.3	130.9	-90.05	-1,226.6	-7,448.3	2,352.3	2,044.2	308.05	7.636	
12,900.0	6,637.8	6,626.8	6,626.8	177.5	130.9	-90.05	-1,226.6	-7,448.3	2,348.9	2,040.6	308.23	7.621	
12,992.1	6,637.7	6,626.7	6,626.7	180.1	130.9	-90.04	-1,226.6	-7,448.3	2,300.7	1,989.9	310.80	7.403	
13,000.0	6,637.6	6,626.6	6,626.6	180.3	130.9	-90.04	-1,226.6	-7,448.3	2,296.7	1,985.7	311.02	7.384	
13,090.5	6,637.5	6,626.5	6,626.5	182.8	130.9	-90.04	-1,226.6	-7,448.3	2,252.3	1,938.8	313.56	7.183	
13,100.0	6,637.5	6,626.5	6,626.5	183.1	130.9	-90.04	-1,226.6	-7,448.3	2,247.8	1,934.0	313.82	7.163	
13,188.9	6,637.4	6,626.4	6,626.4	185.6	130.9	-90.04	-1,226.6	-7,448.3	2,207.3	1,891.0	316.31	6.978	
13,200.0	6,637.4	6,626.4	6,626.4	185.9	130.9	-90.04	-1,226.6	-7,448.3	2,202.4	1,885.8	316.62	6.956	
13,287.4	6,637.3	6,626.3	6,626.3	188.4	130.9	-90.03	-1,226.6	-7,448.3	2,165.7	1,846.7	319.06	6.788	
13,300.0	6,637.3	6,626.3	6,626.3	188.7	130.9	-90.03	-1,226.6	-7,448.3	2,160.7	1,841.3	319.42	6.764	
13,385.8	6,637.1	6,626.1	6,626.1	191.1	130.9	-90.03	-1,226.6	-7,448.3	2,127.9	1,806.1	321.82	6.612	
13,400.0	6,637.1	6,626.1	6,626.1	191.5	130.9	-90.03	-1,226.6	-7,448.3	2,122.8	1,800.6	322.21	6.588	
13,484.2	6,637.0	6,626.0	6,626.0	193.9	130.9	-90.03	-1,226.6	-7,448.3	2,094.1	1,769.5	324.57	6.452	
13,500.0	6,637.0	6,626.0	6,626.0	194.3	130.8	-90.02	-1,226.6	-7,448.3	2,089.1	1,764.1	325.01	6.428	
13,582.6	6,636.9	6,625.9	6,625.9	196.6	130.8	-90.02	-1,226.6	-7,448.3	2,064.4	1,737.1	327.33	6.307	
13,600.0	6,636.9	6,625.9	6,625.9	197.1	130.8	-90.02	-1,226.6	-7,448.3	2,059.6	1,731.8	327.81	6.283	
13,681.1	6,636.8	6,625.8	6,625.8	199.4	130.8	-90.02	-1,226.6	-7,448.3	2,039.0	1,709.0	330.08	6.177	
13,700.0	6,636.7	6,625.7	6,625.7	199.9	130.8	-90.02	-1,226.6	-7,448.3	2,034.7	1,704.1	330.61	6.154	
13,779.5	6,636.6	6,625.6	6,625.6	202.1	130.8	-90.01	-1,226.6	-7,448.3	2,018.2	1,685.3	332.84	6.064	
13,800.0	6,636.6	6,625.6	6,625.6	202.7	130.8	-90.01	-1,226.6	-7,448.3	2,014.4	1,681.0	333.41	6.042	
13,877.9	6,636.5	6,625.5	6,625.5	204.9	130.8	-90.01	-1,226.6	-7,448.3	2,001.9	1,666.3	335.59	5.965	
13,900.0	6,636.5	6,625.5	6,625.5	205.5	130.8	-90.01	-1,226.6	-7,448.3	1,998.9	1,662.7	336.21	5.945	
13,976.3	6,636.4	6,625.4	6,625.4	207.6	130.8	-90.01	-1,226.6	-7,448.3	1,990.4	1,652.0	338.35	5.883	
14,000.0	6,636.3	6,625.3	6,625.3	208.3	130.8	-90.01	-1,226.6	-7,448.3	1,988.3	1,649.3	339.01	5.865	
14,074.8	6,636.3	6,625.3	6,625.3	210.4	130.8	-90.00	-1,226.6	-7,448.3	1,983.7	1,642.6	341.10	5.815	
14,100.0	6,636.2	6,625.2	6,625.2	211.1	130.8	-90.00	-1,226.6	-7,448.3	1,982.7	1,640.9	341.81	5.801	
14,160.8	6,636.1	6,625.1	6,625.1	212.8	130.8	-90.00	-1,226.6	-7,448.3	1,981.8	1,638.3	343.51	5.769 CC	
14,173.2	6,636.1	6,625.1	6,625.1	213.2	130.8	-90.00	-1,226.6	-7,448.3	1,981.8	1,638.0	343.86	5.764	
14,200.0	6,636.1	6,625.1	6,625.1	213.9	130.8	-90.00	-1,226.6	-7,448.3	1,982.2	1,637.6	344.61	5.752 ES	
14,271.6	6,636.0	6,625.0	6,625.0	215.9	130.8	-90.00	-1,226.6	-7,448.3	1,984.9	1,638.3	346.61	5.727	
14,300.0	6,636.0	6,625.0	6,625.0	216.7	130.8	-89.99	-1,226.6	-7,448.3	1,986.7	1,639.3	347.41	5.719	
14,370.0	6,635.9	6,624.9	6,624.9	218.7	130.8	-89.99	-1,226.6	-7,448.3	1,992.8	1,643.5	349.37	5.704	
14,400.0	6,635.8	6,624.8	6,624.8	219.5	130.8	-89.99	-1,226.6	-7,448.3	1,996.2	1,646.0	350.21	5.700	
14,468.5	6,635.7	6,624.7	6,624.7	221.4	130.8	-89.99	-1,226.6	-7,448.3	2,005.6	1,653.4	352.13	5.696 SF	
14,500.0	6,635.7	6,624.7	6,624.7	222.3	130.8	-89.99	-1,226.6	-7,448.3	2,010.6	1,657.6	353.01	5.696	
14,566.9	6,635.6	6,624.6	6,624.6	224.2	130.8	-89.98	-1,226.6	-7,448.3	2,023.0	1,668.1	354.88	5.700	
14,600.0	6,635.6	6,624.6	6,624.6	225.1	130.8	-89.98	-1,226.6	-7,448.3	2,029.9	1,674.1	355.81	5.705	
14,665.3	6,635.5	6,624.5	6,624.5	226.9	130.8	-89.98	-1,226.6	-7,448.3	2,045.0	1,687.4	357.64	5.718	
14,700.0	6,635.4	6,624.4	6,624.4	227.9	130.8	-89.98	-1,226.6	-7,448.3	2,053.9	1,695.2	358.61	5.727	
14,763.7	6,635.4	6,624.4	6,624.4	229.7	130.8	-89.98	-1,226.6	-7,448.3	2,071.5	1,711.1	360.40	5.748	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT JURGENS PM B #B8-10 - Wellbore #1 - Design #												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
14,800.0	6,635.3	6,624.3	6,624.3	230.7	130.8	-89.98	-1,226.6	-7,448.3	2,082.3	1,720.9	361.41	5.762	
14,862.2	6,635.2	6,624.2	6,624.2	232.5	130.8	-89.97	-1,226.6	-7,448.3	2,102.3	1,739.1	363.15	5.789	
14,900.0	6,635.2	6,624.2	6,624.2	233.5	130.8	-89.97	-1,226.6	-7,448.3	2,115.2	1,751.0	364.21	5.808	
14,960.6	6,635.1	6,624.1	6,624.1	235.2	130.8	-89.97	-1,226.6	-7,448.3	2,137.1	1,771.2	365.91	5.841	
15,000.0	6,635.0	6,624.0	6,624.0	236.3	130.8	-89.97	-1,226.6	-7,448.3	2,152.2	1,785.2	367.02	5.864	
15,033.1	6,635.0	6,624.0	6,624.0	237.3	130.8	-89.97	-1,226.6	-7,448.3	2,165.3	1,797.3	367.94	5.885	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-86.84	386.1	-7,002.3	7,013.0				
98.4	98.4	34.0	34.0	0.1	0.0	-86.84	386.0	-7,002.3	7,013.0	7,012.9	0.11	N/A	
100.0	100.0	34.8	34.8	0.1	0.0	-86.84	386.0	-7,002.3	7,013.0	7,012.9	0.11	N/A	
196.8	196.8	100.0	100.0	0.3	0.0	-86.85	385.7	-7,002.9	7,013.8	7,013.5	0.35	N/A	
200.0	200.0	100.0	100.0	0.3	0.0	-86.85	385.7	-7,002.9	7,013.9	7,013.5	0.36	N/A	
295.3	295.3	182.8	182.8	0.5	0.2	-86.85	385.1	-7,004.0	7,015.0	7,014.3	0.72	9,743.778	
300.0	300.0	188.3	188.3	0.5	0.2	-86.85	385.1	-7,004.0	7,015.0	7,014.3	0.74	9,473.616	
393.7	393.7	277.1	277.0	0.8	0.3	-86.86	384.8	-7,005.0	7,016.1	7,015.0	1.04	6,756.616	
400.0	400.0	282.9	282.8	0.8	0.3	-86.86	384.8	-7,005.1	7,016.2	7,015.1	1.06	6,634.411	
492.1	492.1	373.2	373.2	1.0	0.4	-86.86	384.9	-7,006.2	7,017.3	7,015.9	1.33	5,268.419	
500.0	500.0	381.0	381.0	1.0	0.4	-86.86	384.9	-7,006.3	7,017.4	7,016.0	1.36	5,177.752	
590.5	590.5	457.7	457.7	1.2	0.4	-86.86	385.0	-7,007.3	7,018.5	7,016.9	1.61	4,363.508	
600.0	600.0	465.3	465.3	1.2	0.4	-86.86	385.0	-7,007.4	7,018.7	7,017.0	1.63	4,294.186	
689.0	689.0	538.6	538.5	1.4	0.5	-86.86	384.9	-7,008.5	7,020.0	7,018.2	1.88	3,737.601	
700.0	700.0	547.8	547.8	1.4	0.5	-86.86	384.9	-7,008.7	7,020.2	7,018.3	1.91	3,678.763	
787.4	787.4	622.9	622.8	1.6	0.5	-86.86	384.7	-7,010.0	7,021.8	7,019.6	2.15	3,270.469	
800.0	800.0	634.4	634.3	1.7	0.5	-86.86	384.7	-7,010.2	7,022.0	7,019.8	2.18	3,218.892	
885.8	885.8	713.8	713.7	1.9	0.6	-86.86	384.3	-7,011.8	7,023.7	7,021.3	2.42	2,906.473	
900.0	900.0	727.9	727.8	1.9	0.6	-86.86	384.2	-7,012.1	7,024.0	7,021.5	2.46	2,860.433	
984.2	984.2	812.2	812.1	2.1	0.6	-86.87	383.8	-7,013.8	7,025.6	7,022.9	2.69	2,614.491	
1,000.0	1,000.0	828.3	828.2	2.1	0.6	-86.87	383.7	-7,014.1	7,025.9	7,023.2	2.73	2,573.328	
1,082.7	1,082.7	913.5	913.4	2.3	0.7	-113.84	383.2	-7,015.8	7,028.0	7,025.1	2.96	2,376.627	
1,100.0	1,100.0	932.7	932.6	2.3	0.7	-113.84	383.1	-7,016.1	7,028.6	7,025.6	3.00	2,339.143	
1,181.1	1,181.0	1,018.3	1,018.1	2.5	0.7	-113.82	382.4	-7,017.8	7,031.7	7,028.5	3.23	2,180.300	
1,200.0	1,199.8	1,035.3	1,035.2	2.6	0.7	-113.81	382.2	-7,018.1	7,032.5	7,029.3	3.27	2,147.414	
1,279.5	1,279.1	1,108.0	1,107.8	2.8	0.7	-113.79	381.5	-7,019.5	7,036.7	7,033.3	3.49	2,016.485	
1,300.0	1,299.5	1,129.1	1,128.9	2.8	0.8	-113.79	381.2	-7,019.9	7,038.0	7,034.4	3.55	1,984.972	
1,377.9	1,376.9	1,207.9	1,207.7	3.0	0.8	-113.77	380.3	-7,021.5	7,043.2	7,039.5	3.77	1,868.984	
1,400.0	1,398.7	1,227.4	1,227.2	3.0	0.8	-113.76	380.1	-7,021.9	7,044.9	7,041.0	3.83	1,839.256	
1,476.4	1,474.2	1,300.0	1,299.8	3.2	0.8	-113.73	379.3	-7,023.4	7,051.1	7,047.1	4.06	1,735.686	
1,500.0	1,497.5	1,315.1	1,314.8	3.3	0.8	-113.71	379.1	-7,023.7	7,053.3	7,049.1	4.13	1,707.218	
1,574.8	1,571.0	1,378.5	1,378.3	3.5	0.9	-113.67	378.7	-7,025.1	7,060.6	7,056.2	4.38	1,612.604	
1,600.0	1,595.6	1,400.0	1,399.8	3.6	0.9	-113.66	378.6	-7,025.6	7,063.3	7,058.8	4.46	1,583.074	
1,673.2	1,667.2	1,528.5	1,528.2	3.9	0.9	-113.86	378.1	-7,028.0	7,070.8	7,066.1	4.74	1,490.826	
1,700.0	1,693.4	1,557.6	1,557.3	4.0	0.9	-113.91	378.0	-7,028.4	7,073.5	7,068.7	4.84	1,461.834	
1,771.6	1,763.5	1,629.6	1,629.4	4.2	1.0	-114.02	378.0	-7,029.4	7,080.7	7,075.6	5.11	1,386.469	
1,800.0	1,791.3	1,655.3	1,655.0	4.3	1.0	-114.06	378.0	-7,029.8	7,083.6	7,078.4	5.21	1,358.947	
1,870.1	1,859.8	1,722.9	1,722.6	4.6	1.0	-114.16	378.1	-7,030.8	7,090.7	7,085.2	5.48	1,292.855	
1,900.0	1,889.1	1,755.8	1,755.5	4.7	1.0	-114.21	378.0	-7,031.3	7,093.7	7,088.1	5.60	1,266.455	
1,968.5	1,956.1	1,822.7	1,822.4	4.9	1.0	-114.32	377.7	-7,032.2	7,100.6	7,094.8	5.87	1,209.027	
2,000.0	1,986.9	1,848.0	1,847.7	5.1	1.0	-114.36	377.5	-7,032.6	7,103.8	7,097.8	6.00	1,184.736	
2,066.9	2,052.3	1,904.1	1,903.8	5.3	1.1	-114.45	377.0	-7,033.5	7,110.7	7,104.5	6.26	1,135.278	
2,100.0	2,084.7	1,967.2	1,966.9	5.5	1.1	-114.55	376.4	-7,034.4	7,114.1	7,107.7	6.41	1,110.682	
2,165.3	2,148.6	2,115.9	2,115.5	5.7	1.1	-114.79	374.4	-7,035.3	7,120.3	7,113.6	6.68	1,065.597	
2,200.0	2,182.5	2,174.5	2,174.2	5.9	1.1	-114.89	373.6	-7,035.2	7,123.3	7,116.5	6.82	1,044.563	
2,263.8	2,244.9	2,255.0	2,254.7	6.1	1.2	-115.02	372.6	-7,034.8	7,128.7	7,121.6	7.07	1,008.199	
2,300.0	2,280.3	2,296.0	2,295.6	6.3	1.2	-115.09	372.2	-7,034.6	7,131.7	7,124.5	7.21	988.826	
2,362.2	2,341.2	2,357.2	2,356.8	6.5	1.2	-115.18	371.5	-7,034.1	7,136.8	7,129.4	7.46	956.973	
2,400.0	2,378.1	2,394.0	2,393.6	6.7	1.2	-115.24	371.1	-7,033.9	7,140.0	7,132.4	7.61	938.631	
2,460.6	2,437.4	2,457.9	2,457.5	6.9	1.2	-115.35	370.3	-7,033.5	7,145.0	7,137.2	7.85	910.377	
2,500.0	2,476.0	2,499.7	2,499.3	7.1	1.2	-115.41	369.9	-7,033.1	7,148.3	7,140.3	8.01	892.946	
2,550.0	2,524.9	2,542.4	2,542.0	7.3	1.2	-115.48	369.4	-7,032.8	7,152.4	7,144.2	8.21	871.708	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,550.1	2,549.7	7.3	1.2	-114.64	369.3	-7,032.8	7,153.2	7,144.9	8.24	868.170	
2,600.0	2,573.8	2,585.0	2,584.6	7.5	1.2	-110.82	368.9	-7,032.5	7,156.2	7,147.9	8.39	852.529	
2,639.4	2,612.3	2,616.6	2,616.2	7.7	1.2	-107.16	368.5	-7,032.4	7,158.7	7,150.2	8.54	838.510	
2,657.5	2,630.0	2,630.4	2,630.0	7.7	1.2	-107.19	368.4	-7,032.3	7,159.8	7,151.2	8.61	831.666	
2,700.0	2,671.6	2,662.8	2,662.4	7.9	1.2	-107.24	368.0	-7,032.2	7,162.3	7,153.5	8.78	816.036	
2,755.9	2,726.3	2,708.6	2,708.3	8.1	1.2	-107.32	367.5	-7,032.1	7,165.6	7,156.6	9.01	795.313	
2,800.0	2,769.4	2,762.7	2,762.3	8.3	1.3	-107.41	366.8	-7,031.9	7,168.3	7,159.1	9.20	779.530	
2,854.3	2,822.5	2,821.8	2,821.4	8.5	1.3	-107.51	366.1	-7,031.7	7,171.5	7,162.1	9.42	760.930	
2,900.0	2,867.2	2,863.5	2,863.1	8.7	1.3	-107.58	365.6	-7,031.5	7,174.2	7,164.6	9.62	746.078	
2,952.7	2,918.8	2,900.0	2,899.6	9.0	1.3	-107.64	365.1	-7,031.3	7,177.4	7,167.6	9.84	729.662	
3,000.0	2,965.0	2,945.5	2,945.1	9.2	1.3	-107.72	364.5	-7,031.2	7,180.3	7,170.3	10.04	715.385	
3,051.2	3,015.1	2,984.3	2,983.9	9.4	1.3	-107.78	364.0	-7,031.2	7,183.6	7,173.3	10.25	700.609	
3,100.0	3,062.8	3,038.1	3,037.7	9.6	1.3	-107.87	363.3	-7,031.1	7,186.7	7,176.3	10.46	686.963	
3,149.6	3,111.4	3,131.0	3,130.6	9.8	1.3	-108.03	361.9	-7,030.8	7,189.8	7,179.1	10.68	673.392	
3,200.0	3,160.7	3,340.4	3,339.9	10.0	1.4	-108.40	357.1	-7,026.8	7,192.0	7,181.1	10.89	660.218	
3,248.0	3,207.6	3,422.9	3,422.3	10.2	1.4	-108.55	354.9	-7,024.1	7,193.6	7,182.6	11.10	648.363	
3,300.0	3,258.5	3,485.2	3,484.5	10.5	1.4	-108.66	353.2	-7,021.9	7,195.3	7,184.0	11.31	636.034	
3,346.4	3,303.9	3,542.7	3,542.0	10.7	1.4	-108.76	351.5	-7,019.8	7,196.7	7,185.2	11.51	625.368	
3,400.0	3,356.3	3,610.3	3,609.5	10.9	1.4	-108.88	349.6	-7,017.1	7,198.2	7,186.5	11.73	613.509	
3,444.9	3,400.2	3,668.7	3,667.9	11.1	1.4	-108.98	348.1	-7,014.7	7,199.5	7,187.5	11.92	603.889	
3,500.0	3,454.1	3,746.6	3,745.6	11.3	1.5	-109.12	346.2	-7,011.3	7,200.8	7,188.7	12.15	592.466	
3,543.3	3,496.5	3,800.0	3,799.0	11.5	1.5	-109.22	344.9	-7,008.8	7,201.8	7,189.5	12.34	583.785	
3,600.0	3,551.9	3,847.2	3,846.0	11.7	1.5	-109.30	343.6	-7,006.6	7,203.1	7,190.5	12.57	572.817	
3,641.7	3,592.7	3,877.7	3,876.6	11.9	1.5	-109.35	342.7	-7,005.2	7,204.1	7,191.3	12.75	565.011	
3,700.0	3,649.7	3,923.8	3,922.6	12.2	1.5	-109.44	341.1	-7,003.2	7,205.6	7,192.6	13.00	554.458	
3,740.1	3,689.0	3,958.1	3,956.9	12.4	1.5	-109.50	340.0	-7,001.7	7,206.7	7,193.6	13.17	547.397	
3,800.0	3,747.5	4,000.0	3,998.7	12.6	1.5	-109.58	338.7	-7,000.0	7,208.5	7,195.1	13.42	537.232	
3,838.6	3,785.3	4,031.9	4,030.6	12.8	1.5	-109.63	337.8	-6,998.7	7,209.7	7,196.1	13.58	530.860	
3,900.0	3,845.4	4,071.6	4,070.2	13.1	1.5	-109.70	336.7	-6,997.2	7,211.7	7,197.9	13.84	521.064	
3,937.0	3,881.6	4,100.0	4,098.6	13.2	1.5	-109.75	335.9	-6,996.2	7,213.0	7,199.0	14.00	515.331	
4,000.0	3,943.2	4,142.0	4,140.5	13.5	1.5	-109.83	334.9	-6,994.8	7,215.4	7,201.2	14.26	505.873	
4,035.4	3,977.8	4,168.6	4,167.1	13.6	1.5	-109.87	334.4	-6,993.9	7,216.8	7,202.4	14.41	500.702	
4,100.0	4,041.0	4,200.0	4,198.5	13.9	1.5	-109.93	333.7	-6,993.0	7,219.6	7,204.9	14.69	491.594	
4,133.8	4,074.1	4,237.9	4,236.4	14.1	1.5	-109.99	333.0	-6,991.9	7,221.0	7,206.2	14.83	486.907	
4,200.0	4,138.8	4,282.2	4,280.7	14.4	1.6	-110.07	332.2	-6,990.7	7,224.1	7,209.0	15.11	478.080	
4,232.3	4,170.4	4,300.0	4,298.4	14.5	1.6	-110.10	331.9	-6,990.3	7,225.7	7,210.4	15.25	473.899	
4,300.0	4,236.6	4,359.2	4,357.6	14.8	1.6	-110.20	330.9	-6,988.9	7,229.1	7,213.6	15.54	465.332	
4,330.7	4,266.7	4,383.9	4,382.3	14.9	1.6	-110.24	330.5	-6,988.4	7,230.7	7,215.0	15.67	461.556	
4,400.0	4,334.4	4,438.1	4,436.5	15.2	1.6	-110.33	329.8	-6,987.3	7,234.4	7,218.4	15.96	453.274	
4,429.1	4,362.9	4,460.6	4,459.0	15.4	1.6	-110.37	329.5	-6,986.8	7,236.0	7,219.9	16.08	449.885	
4,500.0	4,432.3	4,517.4	4,515.8	15.7	1.6	-110.46	328.9	-6,985.9	7,240.0	7,223.6	16.39	441.857	
4,527.5	4,459.2	4,541.4	4,539.7	15.8	1.6	-110.50	328.7	-6,985.5	7,241.6	7,225.1	16.50	438.813	
4,600.0	4,530.1	4,600.0	4,598.3	16.1	1.6	-110.59	328.2	-6,984.5	7,245.9	7,229.0	16.81	431.024	
4,626.0	4,555.5	4,620.8	4,619.1	16.2	1.6	-110.63	328.0	-6,984.2	7,247.4	7,230.5	16.92	428.301	
4,700.0	4,627.9	4,670.3	4,668.7	16.6	1.6	-110.71	327.5	-6,983.6	7,252.1	7,234.8	17.24	420.759	
4,724.4	4,651.7	4,700.0	4,698.3	16.7	1.6	-110.76	327.1	-6,983.3	7,253.7	7,236.3	17.34	418.319	
4,800.0	4,725.7	4,737.6	4,735.9	17.0	1.7	-110.82	326.6	-6,983.0	7,258.7	7,241.1	17.66	411.006	
4,822.8	4,748.0	4,753.0	4,751.3	17.1	1.7	-110.84	326.4	-6,982.9	7,260.3	7,242.6	17.76	408.845	
4,904.9	4,828.3	4,800.0	4,798.3	17.5	1.7	-110.92	325.7	-6,982.7	7,266.3	7,248.2	18.11	401.299	
4,921.2	4,844.3	4,819.6	4,817.9	17.5	1.7	-110.97	325.4	-6,982.7	7,267.5	7,249.3	18.16	400.089	
5,000.0	4,921.6	4,873.6	4,871.9	17.8	1.7	-111.16	324.6	-6,982.7	7,272.9	7,254.5	18.44	394.420	
5,019.7	4,941.0	4,900.0	4,898.3	17.9	1.7	-111.22	324.2	-6,982.7	7,274.2	7,255.7	18.49	393.318	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,020.4	4,953.9	4,952.2	18.1	1.7	-111.38	323.5	-6,982.9	7,279.1	7,260.4	18.72	388.935	
5,118.1	5,038.3	4,969.8	4,968.1	18.2	1.7	-111.41	323.2	-6,983.0	7,280.1	7,261.3	18.76	388.078	
5,200.0	5,119.6	5,042.9	5,041.2	18.4	1.7	-111.56	322.3	-6,983.3	7,284.2	7,265.2	18.96	384.202	
5,216.5	5,136.0	5,057.9	5,056.2	18.4	1.7	-111.59	322.1	-6,983.4	7,284.9	7,265.9	18.99	383.541	
5,300.0	5,219.2	5,124.5	5,122.7	18.6	1.8	-111.69	321.4	-6,983.8	7,288.2	7,269.0	19.17	380.202	
5,314.9	5,234.1	5,134.3	5,132.6	18.6	1.8	-111.71	321.3	-6,983.9	7,288.7	7,269.5	19.20	379.715	
5,400.0	5,319.1	5,200.0	5,198.3	18.8	1.8	-111.79	320.7	-6,984.7	7,291.3	7,271.9	19.35	376.898	
5,413.4	5,332.4	5,200.0	5,198.3	18.8	1.8	-111.79	320.7	-6,984.7	7,291.6	7,272.3	19.36	376.579	
5,504.9	5,423.9	5,321.2	5,319.5	18.9	1.8	-93.42	319.7	-6,985.9	7,293.1	7,277.1	16.07	453.904	
5,511.8	5,430.8	5,326.1	5,324.4	18.9	1.8	-93.42	319.6	-6,985.9	7,293.2	7,277.1	16.08	453.562	
5,600.0	5,519.0	5,400.0	5,398.3	19.0	1.8	-93.43	319.3	-6,986.8	7,294.2	7,278.0	16.24	449.193	
5,610.2	5,529.3	5,400.0	5,398.3	19.0	1.8	-93.43	319.3	-6,986.8	7,294.4	7,278.1	16.26	448.683	
5,700.0	5,619.0	5,479.7	5,478.0	19.2	1.9	-93.43	318.9	-6,987.9	7,295.7	7,279.2	16.44	443.907	
5,708.6	5,627.7	5,488.0	5,486.2	19.2	1.9	-93.43	318.9	-6,988.1	7,295.8	7,279.3	16.45	443.448	
5,800.0	5,719.0	5,587.1	5,585.3	19.3	1.9	-93.43	318.2	-6,989.4	7,297.1	7,280.5	16.64	438.533	
5,807.1	5,726.1	5,594.9	5,593.1	19.3	1.9	-93.43	318.1	-6,989.5	7,297.2	7,280.5	16.65	438.153	
5,900.0	5,819.0	5,685.6	5,683.9	19.4	1.9	-93.44	317.4	-6,990.7	7,298.5	7,281.6	16.85	433.263	
5,905.5	5,824.5	5,691.0	5,689.2	19.4	1.9	-93.44	317.4	-6,990.8	7,298.5	7,281.7	16.86	432.976	
6,003.9	5,923.0	5,799.5	5,797.8	19.6	1.9	-93.44	317.1	-6,992.2	7,299.8	7,282.8	17.05	428.056	
6,009.8	5,928.8	5,806.2	5,804.4	19.6	1.9	-93.44	317.2	-6,992.3	7,299.9	7,282.9	17.06	427.779	
6,050.0	5,969.0	5,852.3	5,850.5	19.6	1.9	-3.44	317.3	-6,992.9	7,299.3	7,278.9	20.35	358.654	
6,100.0	6,018.8	5,908.5	5,906.8	19.7	1.9	-3.46	317.7	-6,993.5	7,295.3	7,274.9	20.41	357.521	
6,102.3	6,021.1	5,911.0	5,909.2	19.7	1.9	-3.46	317.7	-6,993.6	7,295.0	7,274.6	20.41	357.465	
6,150.0	6,068.1	5,960.5	5,958.7	19.7	1.9	-3.50	318.1	-6,994.1	7,287.8	7,267.4	20.45	356.354	
6,200.0	6,116.8	6,011.2	6,009.4	19.7	1.9	-3.56	318.6	-6,994.7	7,276.9	7,256.4	20.47	355.446	
6,200.8	6,117.5	6,012.0	6,010.2	19.7	1.9	-3.56	318.6	-6,994.7	7,276.7	7,256.2	20.47	355.435	
6,250.0	6,164.5	6,058.9	6,057.1	19.7	1.9	-3.63	319.1	-6,995.2	7,262.6	7,242.2	20.45	355.074	
6,299.2	6,210.4	6,100.0	6,098.2	19.7	1.9	-3.73	319.7	-6,995.6	7,245.3	7,224.9	20.38	355.451	
6,300.0	6,211.1	6,100.0	6,098.2	19.7	1.9	-3.73	319.7	-6,995.6	7,245.0	7,224.6	20.38	355.471	
6,350.0	6,256.4	6,142.3	6,140.5	19.7	1.9	-3.86	320.3	-6,996.1	7,224.3	7,204.0	20.25	356.705	
6,397.6	6,298.0	6,177.1	6,175.3	19.7	1.9	-4.00	320.9	-6,996.6	7,201.6	7,181.5	20.07	358.812	
6,400.0	6,300.0	6,178.8	6,177.0	19.7	1.9	-4.01	321.0	-6,996.6	7,200.4	7,180.4	20.06	358.942	
6,450.0	6,341.8	6,219.3	6,217.4	19.7	1.9	-4.20	321.7	-6,997.2	7,173.6	7,153.8	19.81	362.111	
6,496.0	6,378.6	6,262.0	6,260.1	19.7	1.9	-4.42	322.6	-6,997.7	7,146.4	7,126.8	19.54	365.819	
6,500.0	6,381.6	6,265.6	6,263.7	19.7	1.9	-4.44	322.7	-6,997.8	7,143.9	7,124.4	19.51	366.182	
6,550.0	6,419.2	6,308.3	6,306.4	19.6	1.9	-4.72	323.6	-6,998.3	7,111.5	7,092.3	19.15	371.324	
6,594.5	6,450.7	6,340.8	6,338.9	19.6	1.9	-5.03	324.4	-6,998.7	7,080.4	7,061.6	18.79	376.844	
6,600.0	6,454.4	6,344.7	6,342.8	19.6	1.9	-5.07	324.5	-6,998.8	7,076.4	7,057.7	18.74	377.600	
6,650.0	6,487.1	6,378.5	6,376.6	19.6	1.9	-5.51	325.3	-6,999.2	7,039.0	7,020.7	18.29	384.931	
6,692.9	6,513.0	6,405.7	6,403.8	19.6	1.9	-5.97	326.0	-6,999.5	7,005.1	6,987.3	17.87	391.962	
6,700.0	6,517.0	6,410.1	6,408.2	19.6	1.9	-6.05	326.2	-6,999.6	6,999.4	6,981.6	17.80	393.215	
6,750.0	6,544.1	6,439.8	6,437.9	19.6	1.9	-6.76	327.0	-7,000.0	6,957.7	6,940.4	17.30	402.246	
6,791.3	6,564.2	6,461.9	6,460.0	19.7	1.9	-7.50	327.7	-7,000.2	6,921.9	6,905.0	16.87	410.259	
6,800.0	6,568.2	6,466.3	6,464.4	19.7	1.9	-7.68	327.8	-7,000.3	6,914.2	6,897.4	16.79	411.723	
6,850.0	6,589.1	6,489.4	6,487.5	19.8	1.9	-8.93	328.5	-7,000.5	6,869.2	6,852.8	16.32	421.023	
6,889.7	6,603.5	6,500.0	6,498.0	19.9	1.9	-10.27	328.8	-7,000.7	6,832.3	6,816.3	15.97	427.755	
6,900.0	6,606.9	6,507.6	6,505.7	19.9	1.9	-10.70	329.1	-7,000.8	6,822.7	6,806.8	15.90	429.046	
6,950.0	6,621.3	6,521.1	6,519.1	20.2	1.9	-13.38	329.5	-7,000.9	6,775.1	6,759.4	15.63	433.468	
6,988.2	6,630.0	6,529.4	6,527.4	20.6	1.9	-16.53	329.8	-7,001.0	6,738.1	6,722.4	15.63	431.226	
7,000.0	6,632.4	6,531.6	6,529.6	20.7	1.9	-17.83	329.8	-7,001.0	6,726.5	6,710.8	15.68	428.853	
7,050.0	6,640.0	6,539.0	6,537.0	21.4	1.9	-26.44	330.1	-7,001.1	6,677.3	6,660.7	16.63	401.591	
7,086.6	6,643.4	6,542.5	6,540.5	21.9	1.9	-39.59	330.2	-7,001.2	6,641.0	6,622.2	18.78	353.653	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
7,100.0	6,644.2	6,543.3	6,541.4	22.1	1.9	-47.49	330.2	-7,001.2	6,627.6	6,607.6	20.06	330.471	
7,135.7	6,645.0	6,544.5	6,542.5	22.7	1.9	-81.91	330.2	-7,001.2	6,592.1	6,568.7	23.37	282.116	
7,185.0	6,644.9	6,545.0	6,543.0	23.6	1.9	-81.97	330.2	-7,001.2	6,542.8	6,518.5	24.32	269.020	
7,200.0	6,644.9	6,545.1	6,543.2	23.9	1.9	-81.99	330.3	-7,001.2	6,527.9	6,503.3	24.61	265.249	
7,283.4	6,644.8	6,546.0	6,544.0	25.6	1.9	-82.10	330.3	-7,001.2	6,444.6	6,418.3	26.33	244.758	
7,300.0	6,644.8	6,546.2	6,544.2	25.9	1.9	-82.13	330.3	-7,001.2	6,428.1	6,401.4	26.67	241.008	
7,381.9	6,644.7	6,547.0	6,545.0	27.7	1.9	-82.24	330.3	-7,001.2	6,346.4	6,317.9	28.47	222.927	
7,400.0	6,644.7	6,547.2	6,545.2	28.1	1.9	-82.26	330.3	-7,001.2	6,328.3	6,299.4	28.87	219.229	
7,480.3	6,644.6	6,548.0	6,546.0	29.9	1.9	-82.37	330.3	-7,001.3	6,248.2	6,217.5	30.72	203.411	
7,500.0	6,644.6	6,548.2	6,546.2	30.3	1.9	-82.40	330.3	-7,001.3	6,228.5	6,197.4	31.17	199.817	
7,578.7	6,644.5	6,549.0	6,547.0	32.2	1.9	-82.50	330.4	-7,001.3	6,150.0	6,117.0	33.05	186.087	
7,600.0	6,644.4	6,549.2	6,547.2	32.7	1.9	-82.53	330.4	-7,001.3	6,128.8	6,095.2	33.56	182.641	
7,677.1	6,644.3	6,550.0	6,548.0	34.6	1.9	-82.64	330.4	-7,001.3	6,051.8	6,016.4	35.45	170.734	
7,700.0	6,644.3	6,550.2	6,548.3	35.1	1.9	-82.67	330.4	-7,001.3	6,029.0	5,993.0	36.01	167.448	
7,775.6	6,644.2	6,551.0	6,549.0	37.0	1.9	-82.77	330.4	-7,001.3	5,953.7	5,915.8	37.89	157.110	
7,800.0	6,644.2	6,551.3	6,549.3	37.6	1.9	-82.80	330.4	-7,001.3	5,929.3	5,890.8	38.51	153.985	
7,874.0	6,644.1	6,552.0	6,550.0	39.5	1.9	-82.91	330.5	-7,001.3	5,855.5	5,815.1	40.39	144.987	
7,900.0	6,644.1	6,552.3	6,550.3	40.1	1.9	-82.94	330.5	-7,001.3	5,829.6	5,788.5	41.05	142.021	
7,972.4	6,644.0	6,553.0	6,551.1	42.0	1.9	-83.04	330.5	-7,001.3	5,757.3	5,714.4	42.91	134.163	
8,000.0	6,643.9	6,553.3	6,551.3	42.7	1.9	-83.08	330.5	-7,001.3	5,729.8	5,686.2	43.62	131.348	
8,070.8	6,643.9	6,554.1	6,552.1	44.5	1.9	-83.18	330.5	-7,001.3	5,659.2	5,613.7	45.47	124.464	
8,100.0	6,643.8	6,554.4	6,552.4	45.2	1.9	-83.22	330.5	-7,001.3	5,630.1	5,583.9	46.23	121.791	
8,169.3	6,643.7	6,555.1	6,553.1	47.0	1.9	-83.31	330.6	-7,001.3	5,561.0	5,513.0	48.05	115.739	
8,200.0	6,643.7	6,555.4	6,553.4	47.9	1.9	-83.36	330.6	-7,001.3	5,530.4	5,481.6	48.86	113.198	
8,267.7	6,643.6	6,556.1	6,554.1	49.6	1.9	-83.45	330.6	-7,001.4	5,462.9	5,412.3	50.65	107.859	
8,300.0	6,643.6	6,556.4	6,554.4	50.5	1.9	-83.49	330.6	-7,001.4	5,430.7	5,379.2	51.50	105.442	
8,366.1	6,643.5	6,557.1	6,555.1	52.2	1.9	-83.59	330.6	-7,001.4	5,364.8	5,311.5	53.27	100.715	
8,400.0	6,643.4	6,557.5	6,555.5	53.1	1.9	-83.63	330.6	-7,001.4	5,331.0	5,276.9	54.17	98.412	
8,464.5	6,643.4	6,558.2	6,556.2	54.8	1.9	-83.72	330.7	-7,001.4	5,266.7	5,210.8	55.90	94.215	
8,500.0	6,643.3	6,558.5	6,556.5	55.8	1.9	-83.77	330.7	-7,001.4	5,231.4	5,174.5	56.85	92.018	
8,563.0	6,643.2	6,559.2	6,557.2	57.5	1.9	-83.86	330.7	-7,001.4	5,168.6	5,110.0	58.55	88.279	
8,600.0	6,643.2	6,559.6	6,557.6	58.5	1.9	-83.91	330.7	-7,001.4	5,131.7	5,072.2	59.55	86.181	
8,661.4	6,643.1	6,560.2	6,558.2	60.1	1.9	-84.00	330.7	-7,001.4	5,070.5	5,009.3	61.21	82.842	
8,700.0	6,643.1	6,560.6	6,558.6	61.2	1.9	-84.05	330.7	-7,001.4	5,032.1	4,969.8	62.25	80.834	
8,759.8	6,643.0	6,561.3	6,559.3	62.8	1.9	-84.14	330.7	-7,001.4	4,972.4	4,908.6	63.88	77.845	
8,800.0	6,643.0	6,561.7	6,559.7	63.9	1.9	-84.19	330.8	-7,001.4	4,932.4	4,867.5	64.97	75.922	
8,858.2	6,642.9	6,562.3	6,560.3	65.4	1.9	-84.28	330.8	-7,001.4	4,874.4	4,807.8	66.55	73.240	
8,900.0	6,642.8	6,562.7	6,560.8	66.6	1.9	-84.34	330.8	-7,001.4	4,832.8	4,765.1	67.69	71.394	
8,956.7	6,642.8	6,563.3	6,561.4	68.1	1.9	-84.42	330.8	-7,001.4	4,776.4	4,707.1	69.24	68.982	
9,000.0	6,642.7	6,563.8	6,561.8	69.3	1.9	-84.48	330.8	-7,001.4	4,733.2	4,662.8	70.42	67.210	
9,055.1	6,642.6	6,564.4	6,562.4	70.8	1.9	-84.56	330.8	-7,001.5	4,678.3	4,606.4	71.93	65.037	
9,100.0	6,642.6	6,564.9	6,562.9	72.0	1.9	-84.62	330.9	-7,001.5	4,633.6	4,560.5	73.16	63.332	
9,153.5	6,642.5	6,565.4	6,563.4	73.5	1.9	-84.70	330.9	-7,001.5	4,580.3	4,505.7	74.63	61.371	
9,200.0	6,642.5	6,565.9	6,563.9	74.7	1.9	-84.76	330.9	-7,001.5	4,534.1	4,458.1	75.91	59.729	
9,251.9	6,642.4	6,566.5	6,564.5	76.2	1.9	-84.84	330.9	-7,001.5	4,482.3	4,405.0	77.34	57.956	
9,300.0	6,642.3	6,567.0	6,565.0	77.5	1.9	-84.91	330.9	-7,001.5	4,434.5	4,355.8	78.66	56.374	
9,350.4	6,642.3	6,567.5	6,565.5	78.9	1.9	-84.98	330.9	-7,001.5	4,384.4	4,304.3	80.05	54.770	
9,400.0	6,642.2	6,568.1	6,566.1	80.2	1.9	-85.05	331.0	-7,001.5	4,335.0	4,253.6	81.42	53.242	
9,448.8	6,642.1	6,568.6	6,566.6	81.6	1.9	-85.12	331.0	-7,001.5	4,286.4	4,203.6	82.77	51.789	
9,500.0	6,642.1	6,569.1	6,567.2	83.0	1.9	-85.19	331.0	-7,001.5	4,235.5	4,151.3	84.18	50.314	
9,547.2	6,642.0	6,569.7	6,567.7	84.3	1.9	-85.26	331.0	-7,001.5	4,188.5	4,103.0	85.49	48.995	
9,600.0	6,642.0	6,570.2	6,568.2	85.7	1.9	-85.34	331.0	-7,001.5	4,136.0	4,049.0	86.95	47.569	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,570.7	6,568.7	87.0	1.9	-85.40	331.0	-7,001.5	4,090.6	4,002.4	88.21	46.372	
9,700.0	6,641.8	6,571.3	6,569.3	88.5	1.9	-85.48	331.1	-7,001.5	4,036.5	3,946.8	89.72	44.991	
9,744.1	6,641.8	6,571.8	6,569.8	89.7	1.9	-85.55	331.1	-7,001.6	3,992.7	3,901.8	90.94	43.904	
9,800.0	6,641.7	6,572.4	6,570.4	91.2	1.9	-85.63	331.1	-7,001.6	3,937.1	3,844.6	92.49	42.567	
9,842.5	6,641.7	6,572.8	6,570.9	92.4	1.9	-85.69	331.1	-7,001.6	3,894.9	3,801.2	93.67	41.579	
9,900.0	6,641.6	6,573.5	6,571.5	94.0	1.9	-85.78	331.1	-7,001.6	3,837.7	3,742.4	95.27	40.282	
9,940.9	6,641.5	6,573.9	6,571.9	95.1	1.9	-85.84	331.1	-7,001.6	3,797.0	3,700.6	96.41	39.385	
10,000.0	6,641.5	6,574.6	6,572.6	96.7	1.9	-85.92	331.2	-7,001.6	3,738.3	3,640.3	98.05	38.127	
10,039.3	6,641.4	6,575.0	6,573.0	97.8	1.9	-85.98	331.2	-7,001.6	3,699.2	3,600.1	99.15	37.311	
10,100.0	6,641.3	6,575.7	6,573.7	99.5	1.9	-86.07	331.2	-7,001.6	3,639.0	3,538.2	100.83	36.089	
10,137.8	6,641.3	6,576.1	6,574.1	100.6	1.9	-86.12	331.2	-7,001.6	3,601.5	3,499.6	101.89	35.348	
10,200.0	6,641.2	6,576.7	6,574.8	102.3	1.9	-86.22	331.2	-7,001.6	3,539.7	3,436.1	103.62	34.161	
10,236.2	6,641.2	6,577.1	6,575.1	103.3	1.9	-86.27	331.2	-7,001.6	3,503.8	3,399.1	104.63	33.488	
10,300.0	6,641.1	6,577.8	6,575.8	105.0	1.9	-86.36	331.3	-7,001.6	3,440.5	3,334.0	106.41	32.333	
10,334.6	6,641.0	6,578.2	6,576.2	106.0	1.9	-86.42	331.3	-7,001.6	3,406.1	3,298.7	107.37	31.722	
10,400.0	6,641.0	6,578.9	6,576.9	107.8	1.9	-86.51	331.3	-7,001.6	3,341.2	3,232.0	109.20	30.598	
10,433.0	6,640.9	6,579.3	6,577.3	108.7	1.9	-86.56	331.3	-7,001.6	3,308.5	3,198.3	110.12	30.044	
10,500.0	6,640.8	6,580.1	6,578.1	110.6	1.9	-86.66	331.3	-7,001.7	3,242.1	3,130.1	111.99	28.950	
10,531.5	6,640.8	6,580.4	6,578.4	111.5	1.9	-86.71	331.3	-7,001.7	3,210.9	3,098.0	112.87	28.448	
10,600.0	6,640.7	6,581.2	6,579.2	113.4	1.9	-86.81	331.4	-7,001.7	3,143.0	3,028.2	114.78	27.381	
10,629.9	6,640.7	6,581.5	6,579.5	114.2	1.9	-86.86	331.4	-7,001.7	3,113.3	2,997.7	115.62	26.927	
10,700.0	6,640.6	6,582.3	6,580.3	116.1	1.9	-86.96	331.4	-7,001.7	3,043.9	2,926.3	117.58	25.888	
10,728.3	6,640.5	6,582.6	6,580.6	116.9	1.9	-87.00	331.4	-7,001.7	3,015.9	2,897.5	118.37	25.478	
10,800.0	6,640.5	6,583.4	6,581.4	118.9	1.9	-87.11	331.4	-7,001.7	2,944.9	2,824.5	120.38	24.464	
10,826.7	6,640.4	6,583.7	6,581.7	119.7	1.9	-87.15	331.4	-7,001.7	2,918.5	2,797.3	121.13	24.094	
10,900.0	6,640.3	6,584.5	6,582.5	121.7	1.9	-87.26	331.5	-7,001.7	2,846.0	2,722.8	123.18	23.105	
10,925.2	6,640.3	6,584.8	6,582.8	122.4	1.9	-87.30	331.5	-7,001.7	2,821.1	2,697.2	123.88	22.773	
11,000.0	6,640.2	6,585.6	6,583.6	124.5	1.9	-87.41	331.5	-7,001.7	2,747.2	2,621.2	125.98	21.807	
11,023.6	6,640.2	6,585.9	6,583.9	125.1	1.9	-87.45	331.5	-7,001.7	2,723.8	2,597.2	126.64	21.509	
11,100.0	6,640.1	6,586.7	6,584.7	127.3	1.9	-87.56	331.5	-7,001.7	2,648.4	2,519.6	128.78	20.566	
11,122.0	6,640.0	6,587.0	6,585.0	127.9	1.9	-87.60	331.5	-7,001.7	2,626.7	2,497.3	129.39	20.300	
11,200.0	6,639.9	6,587.9	6,585.9	130.1	1.9	-87.72	331.6	-7,001.8	2,549.7	2,418.2	131.58	19.378	
11,220.4	6,639.9	6,588.1	6,586.1	130.6	1.9	-87.75	331.6	-7,001.8	2,529.6	2,397.4	132.15	19.141	
11,300.0	6,639.8	6,589.0	6,587.0	132.8	1.9	-87.87	331.6	-7,001.8	2,451.2	2,316.8	134.38	18.241	
11,318.9	6,639.8	6,589.2	6,587.2	133.4	1.9	-87.90	331.6	-7,001.8	2,432.6	2,297.7	134.91	18.031	
11,400.0	6,639.7	6,590.1	6,588.1	135.6	1.9	-88.02	331.6	-7,001.8	2,352.8	2,215.6	137.19	17.150	
11,417.3	6,639.7	6,590.3	6,588.3	136.1	1.9	-88.05	331.6	-7,001.8	2,335.7	2,198.1	137.67	16.966	
11,500.0	6,639.6	6,591.3	6,589.3	138.4	1.9	-88.17	331.7	-7,001.8	2,254.5	2,114.5	139.99	16.105	
11,515.7	6,639.5	6,591.4	6,589.4	138.9	1.9	-88.20	331.7	-7,001.8	2,239.0	2,098.6	140.43	15.944	
11,600.0	6,639.4	6,592.4	6,590.4	141.2	1.9	-88.33	331.7	-7,001.8	2,156.3	2,013.5	142.79	15.101	
11,614.1	6,639.4	6,592.6	6,590.5	141.6	1.9	-88.35	331.7	-7,001.8	2,142.5	1,999.3	143.19	14.962	
11,700.0	6,639.3	6,593.5	6,591.5	144.0	1.9	-88.48	331.7	-7,001.8	2,058.4	1,912.8	145.60	14.137	
11,712.6	6,639.3	6,593.7	6,591.7	144.3	1.9	-88.50	331.7	-7,001.8	2,046.1	1,900.1	145.95	14.019	
11,800.0	6,639.2	6,594.7	6,592.7	146.8	1.9	-88.64	331.8	-7,001.8	1,960.6	1,812.2	148.40	13.211	
11,811.0	6,639.2	6,594.8	6,592.8	147.1	1.9	-88.65	331.8	-7,001.9	1,949.9	1,801.2	148.71	13.112	
11,900.0	6,639.1	6,595.8	6,593.8	149.6	1.9	-88.79	331.8	-7,001.9	1,863.1	1,711.9	151.21	12.321	
11,909.4	6,639.0	6,595.9	6,593.9	149.8	1.9	-88.81	331.8	-7,001.9	1,853.9	1,702.5	151.47	12.239	
12,000.0	6,638.9	6,597.0	6,595.0	152.4	1.9	-88.95	331.8	-7,001.9	1,765.9	1,611.9	154.02	11.466	
12,007.8	6,638.9	6,597.1	6,595.1	152.6	1.9	-88.96	331.8	-7,001.9	1,758.3	1,604.0	154.24	11.400	
12,100.0	6,638.8	6,598.1	6,596.1	155.2	1.9	-89.10	331.9	-7,001.9	1,669.0	1,512.1	156.82	10.642	
12,106.3	6,638.8	6,598.2	6,596.2	155.3	1.9	-89.11	331.9	-7,001.9	1,662.9	1,505.9	157.00	10.592	
12,200.0	6,638.7	6,600.0	6,598.0	157.9	1.9	-89.36	331.9	-7,001.9	1,572.4	1,412.8	159.63	9.850	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,204.7	6,638.7	6,600.0	6,598.0	158.1	1.9	-89.36	331.9	-7,001.9	1,567.9	1,408.2	159.76	9.814	
12,300.0	6,638.5	6,600.0	6,598.0	160.7	1.9	-89.36	331.9	-7,001.9	1,476.4	1,314.0	162.43	9.089	
12,303.1	6,638.5	6,600.0	6,598.0	160.8	1.9	-89.36	331.9	-7,001.9	1,473.4	1,310.9	162.52	9.066	
12,400.0	6,638.4	6,600.0	6,598.0	163.5	1.9	-89.36	331.9	-7,001.9	1,380.9	1,215.7	165.23	8.357	
12,401.5	6,638.4	6,600.0	6,598.0	163.6	1.9	-89.36	331.9	-7,001.9	1,379.4	1,214.1	165.27	8.346	
12,500.0	6,638.3	6,600.0	6,598.0	166.3	1.9	-89.36	331.9	-7,001.9	1,286.1	1,118.0	168.02	7.654	
12,598.4	6,638.2	6,600.0	6,598.0	169.1	1.9	-89.36	331.9	-7,001.9	1,193.6	1,022.8	170.78	6.989	
12,600.0	6,638.2	6,600.0	6,598.0	169.1	1.9	-89.36	331.9	-7,001.9	1,192.1	1,021.3	170.82	6.979	
12,696.8	6,638.0	6,600.0	6,598.0	171.8	1.9	-89.36	331.9	-7,001.9	1,102.1	928.6	173.53	6.351	
12,700.0	6,638.0	6,600.0	6,598.0	171.9	1.9	-89.36	331.9	-7,001.9	1,099.2	925.6	173.62	6.331	
12,795.2	6,637.9	6,600.0	6,598.0	174.6	1.9	-89.36	331.9	-7,001.9	1,011.9	835.7	176.28	5.740	
12,800.0	6,637.9	6,600.0	6,598.0	174.7	1.9	-89.36	331.9	-7,001.9	1,007.6	831.2	176.42	5.712	
12,893.7	6,637.8	6,606.7	6,604.7	177.3	1.9	-90.26	332.1	-7,002.0	923.4	744.4	179.08	5.157	
12,900.0	6,637.8	6,606.8	6,604.7	177.5	1.9	-90.27	332.1	-7,002.0	917.8	738.6	179.26	5.120	
12,992.1	6,637.7	6,607.8	6,605.8	180.1	1.9	-90.41	332.1	-7,002.0	837.2	655.3	181.84	4.604	
13,000.0	6,637.6	6,607.9	6,605.9	180.3	1.9	-90.43	332.2	-7,002.0	830.4	648.3	182.06	4.561	
13,090.5	6,637.5	6,608.9	6,606.9	182.8	1.9	-90.56	332.2	-7,002.0	753.9	569.3	184.59	4.084	
13,100.0	6,637.5	6,609.0	6,607.0	183.1	1.9	-90.58	332.2	-7,002.0	746.0	561.2	184.86	4.036	
13,188.9	6,637.4	6,610.0	6,608.0	185.6	1.9	-90.72	332.2	-7,002.1	674.7	487.3	187.35	3.601	
13,200.0	6,637.4	6,610.2	6,608.1	185.9	1.9	-90.73	332.2	-7,002.1	666.1	478.4	187.66	3.549	
13,287.4	6,637.3	6,611.2	6,609.2	188.4	1.9	-90.87	332.2	-7,002.1	601.2	411.1	190.11	3.162	
13,300.0	6,637.3	6,611.3	6,609.3	188.7	1.9	-90.89	332.2	-7,002.1	592.3	401.8	190.46	3.110	
13,385.8	6,637.1	6,612.3	6,610.3	191.1	1.9	-91.03	332.3	-7,002.1	535.7	342.9	192.86	2.778	
13,400.0	6,637.1	6,612.5	6,610.5	191.5	1.9	-91.05	332.3	-7,002.1	527.1	333.9	193.26	2.728	
13,484.2	6,637.0	6,613.5	6,611.5	193.9	1.9	-91.19	332.3	-7,002.1	481.6	286.0	195.62	2.462	
13,500.0	6,637.0	6,613.7	6,611.7	194.3	1.9	-91.21	332.3	-7,002.1	474.3	278.2	196.06	2.419	
13,582.6	6,636.9	6,614.7	6,612.7	196.6	1.9	-91.35	332.3	-7,002.1	443.1	244.7	198.37	2.234	
13,600.0	6,636.9	6,614.9	6,612.9	197.1	1.9	-91.38	332.3	-7,002.1	438.2	239.4	198.85	2.204	
13,681.1	6,636.8	6,615.9	6,613.9	199.4	1.9	-91.51	332.4	-7,002.1	424.3	223.2	201.12	2.110	
13,700.0	6,636.7	6,616.1	6,614.1	199.9	1.9	-91.54	332.4	-7,002.1	423.2	221.6	201.65	2.099	
13,714.6	6,636.7	6,616.3	6,614.3	200.3	1.9	-91.57	332.4	-7,002.1	423.0	220.9	202.06	2.093 CC, ES, SF	
13,779.5	6,636.6	6,617.1	6,615.1	202.1	1.9	-91.68	332.4	-7,002.2	427.9	224.1	203.87	2.099	
13,800.0	6,636.6	6,617.4	6,615.4	202.7	1.9	-91.71	332.4	-7,002.2	431.5	227.1	204.44	2.111	
13,877.9	6,636.5	6,618.4	6,616.3	204.9	1.9	-91.85	332.4	-7,002.2	453.4	246.8	206.62	2.194	
13,900.0	6,636.5	6,618.6	6,616.6	205.5	1.9	-91.88	332.4	-7,002.2	461.8	254.6	207.23	2.229	
13,976.3	6,636.4	6,619.6	6,617.6	207.6	1.9	-92.02	332.5	-7,002.2	497.4	288.1	209.36	2.376	
14,000.0	6,636.3	6,619.9	6,617.9	208.3	1.9	-92.06	332.5	-7,002.2	510.3	300.2	210.02	2.430	
14,074.8	6,636.3	6,620.9	6,618.9	210.4	1.9	-92.19	332.5	-7,002.2	555.5	343.4	212.11	2.619	
14,100.0	6,636.2	6,621.2	6,619.2	211.1	1.9	-92.24	332.5	-7,002.2	572.2	359.4	212.81	2.689	
14,173.2	6,636.1	6,622.2	6,620.2	213.2	1.9	-92.37	332.5	-7,002.2	623.9	409.0	214.85	2.904	
14,200.0	6,636.1	6,622.6	6,620.5	213.9	1.9	-92.41	332.6	-7,002.2	643.8	428.2	215.60	2.986	
14,271.6	6,636.0	6,623.5	6,621.5	215.9	1.9	-92.55	332.6	-7,002.3	699.4	481.8	217.59	3.214	
14,300.0	6,636.0	6,623.9	6,621.9	216.7	1.9	-92.60	332.6	-7,002.3	722.2	503.8	218.38	3.307	
14,370.0	6,635.9	6,624.9	6,622.8	218.7	1.9	-92.73	332.6	-7,002.3	780.0	559.7	220.33	3.540	
14,400.0	6,635.8	6,625.3	6,623.3	219.5	1.9	-92.78	332.6	-7,002.3	805.4	584.2	221.16	3.642	
14,468.5	6,635.7	6,626.2	6,624.2	221.4	1.9	-92.91	332.7	-7,002.3	864.4	641.3	223.06	3.875	
14,500.0	6,635.7	6,626.7	6,624.6	222.3	1.9	-92.97	332.7	-7,002.3	892.0	668.1	223.94	3.983	
14,566.9	6,635.6	6,627.6	6,625.6	224.2	1.9	-93.10	332.7	-7,002.3	951.4	725.6	225.79	4.214	
14,600.0	6,635.6	6,628.1	6,626.1	225.1	1.9	-93.16	332.7	-7,002.3	981.2	754.5	226.71	4.328	
14,665.3	6,635.5	6,629.0	6,627.0	226.9	1.9	-93.29	332.7	-7,002.3	1,040.5	812.0	228.52	4.553	
14,700.0	6,635.4	6,629.5	6,627.5	227.9	1.9	-93.35	332.7	-7,002.3	1,072.3	842.8	229.48	4.673	
14,763.7	6,635.4	6,630.4	6,628.4	229.7	1.9	-93.48	332.8	-7,002.4	1,131.1	899.9	231.25	4.891	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT LOWER LATHAM #8-15 - 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
14,800.0	6,635.3	6,631.0	6,628.9	230.7	1.9	-93.55	332.8	-7,002.4	1,164.8	932.6	232.25	5.015	
14,862.2	6,635.2	6,631.9	6,629.9	232.5	1.9	-93.68	332.8	-7,002.4	1,223.0	989.0	233.97	5.227	
14,900.0	6,635.2	6,632.5	6,630.4	233.5	1.9	-93.75	332.8	-7,002.4	1,258.5	1,023.5	235.01	5.355	
14,960.6	6,635.1	6,633.4	6,631.3	235.2	1.9	-93.87	332.8	-7,002.4	1,315.7	1,079.0	236.69	5.559	
15,000.0	6,635.0	6,634.0	6,631.9	236.3	1.9	-93.95	332.8	-7,002.4	1,353.1	1,115.3	237.77	5.691	
15,033.1	6,635.0	6,634.5	6,632.4	237.3	1.9	-94.02	332.9	-7,002.4	1,384.6	1,145.9	238.68	5.801	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5.66	1,689.0	167.3	1,697.2				
98.4	98.4	93.4	93.4	0.1	1.1	5.66	1,689.0	167.3	1,697.2	1,696.0	1.24	1,368.380	
100.0	100.0	95.0	95.0	0.1	1.2	5.66	1,689.0	167.3	1,697.2	1,696.0	1.26	1,345.532	
196.8	196.8	191.8	191.8	0.3	3.3	5.66	1,689.0	167.3	1,697.2	1,693.6	3.64	466.530	
200.0	200.0	195.0	195.0	0.3	3.4	5.66	1,689.0	167.3	1,697.2	1,693.5	3.72	456.612	
295.3	295.3	290.3	290.3	0.5	5.4	5.66	1,689.0	167.3	1,697.2	1,691.3	5.92	286.641	
300.0	300.0	295.0	295.0	0.5	5.5	5.66	1,689.0	167.3	1,697.2	1,691.2	6.03	281.469	
393.7	393.7	388.7	388.7	0.8	7.4	5.66	1,689.0	167.3	1,697.2	1,689.1	8.16	208.103	
400.0	400.0	395.0	395.0	0.8	7.5	5.66	1,689.0	167.3	1,697.2	1,688.9	8.30	204.522	
492.1	492.1	487.1	487.1	1.0	9.4	5.66	1,689.0	167.3	1,697.2	1,686.9	10.38	163.581	
500.0	500.0	495.0	495.0	1.0	9.6	5.66	1,689.0	167.3	1,697.2	1,686.7	10.55	160.830	
590.5	590.5	585.5	585.5	1.2	11.4	5.66	1,689.0	167.3	1,697.2	1,684.6	12.59	134.825	
600.0	600.0	595.0	595.0	1.2	11.6	5.66	1,689.0	167.3	1,697.2	1,684.4	12.80	132.588	
689.0	689.0	684.0	684.0	1.4	13.4	5.66	1,689.0	167.3	1,697.2	1,682.4	14.80	114.696	
700.0	700.0	695.0	695.0	1.4	13.6	5.66	1,689.0	167.3	1,697.2	1,682.2	15.04	112.810	
787.4	787.4	782.4	782.4	1.6	15.4	5.66	1,689.0	167.3	1,697.2	1,680.2	17.00	99.810	
800.0	800.0	795.0	795.0	1.7	15.6	5.66	1,689.0	167.3	1,697.2	1,679.9	17.29	98.179	
885.8	885.8	880.8	880.8	1.9	17.3	5.66	1,689.0	167.3	1,697.2	1,678.0	19.21	88.351	
900.0	900.0	895.0	895.0	1.9	17.6	5.66	1,689.0	167.3	1,697.2	1,677.7	19.53	86.914	
984.2	984.2	979.2	979.2	2.1	19.3	5.66	1,689.0	167.3	1,697.2	1,675.8	21.41	79.256	
1,000.0	1,000.0	995.0	995.0	2.1	19.6	5.66	1,689.0	167.3	1,697.2	1,675.5	21.77	77.972	
1,082.7	1,082.7	1,077.7	1,077.7	2.3	21.3	-21.36	1,689.0	167.3	1,696.1	1,672.5	23.61	71.842	
1,100.0	1,100.0	1,095.0	1,095.0	2.3	21.7	-21.37	1,689.0	167.3	1,695.6	1,671.6	23.99	70.673	
1,181.1	1,181.0	1,176.0	1,176.0	2.5	23.3	-21.45	1,689.0	167.3	1,691.9	1,666.1	25.77	65.643	
1,200.0	1,199.8	1,194.8	1,194.8	2.6	23.7	-21.48	1,689.0	167.3	1,690.7	1,664.5	26.19	64.567	
1,279.5	1,279.1	1,274.1	1,274.1	2.8	25.3	-21.60	1,689.0	167.3	1,684.5	1,656.6	27.90	60.371	
1,300.0	1,299.5	1,294.5	1,294.5	2.8	25.7	-21.64	1,689.0	167.3	1,682.6	1,654.3	28.34	59.371	
1,377.9	1,376.9	1,371.9	1,371.9	3.0	27.2	-21.82	1,689.0	167.3	1,674.1	1,644.1	29.99	55.820	
1,400.0	1,398.7	1,393.7	1,393.7	3.0	27.7	-21.88	1,689.0	167.3	1,671.3	1,640.8	30.45	54.884	
1,476.4	1,474.2	1,469.2	1,469.2	3.2	29.2	-22.11	1,689.0	167.3	1,660.5	1,628.5	32.03	51.840	
1,500.0	1,497.5	1,492.5	1,492.5	3.3	29.7	-22.19	1,689.0	167.3	1,656.8	1,624.3	32.51	50.958	
1,574.8	1,571.0	1,566.0	1,566.0	3.5	31.1	-22.48	1,689.0	167.3	1,643.8	1,609.8	34.02	48.318	
1,600.0	1,595.6	1,590.6	1,590.6	3.6	31.6	-22.58	1,689.0	167.3	1,639.1	1,604.6	34.52	47.482	
1,673.2	1,667.2	1,662.2	1,662.2	3.9	33.1	-22.79	1,689.0	167.3	1,625.0	1,588.9	36.13	44.981	
1,700.0	1,693.4	1,688.4	1,688.4	4.0	33.6	-22.86	1,689.0	167.3	1,619.8	1,583.1	36.71	44.122	
1,771.6	1,763.5	1,758.5	1,758.5	4.2	35.0	-23.07	1,689.0	167.3	1,606.1	1,567.8	38.29	41.946	
1,800.0	1,791.3	1,786.3	1,786.3	4.3	35.6	-23.15	1,689.0	167.3	1,600.6	1,561.7	38.91	41.134	
1,870.1	1,859.8	1,854.8	1,854.8	4.6	37.0	-23.36	1,689.0	167.3	1,587.2	1,546.7	40.46	39.232	
1,900.0	1,889.1	1,884.1	1,884.1	4.7	37.5	-23.45	1,689.0	167.3	1,581.5	1,540.4	41.12	38.461	
1,968.5	1,956.1	1,951.1	1,951.1	4.9	38.9	-23.65	1,689.0	167.3	1,568.4	1,525.7	42.63	36.787	
2,000.0	1,986.9	1,981.9	1,981.9	5.1	39.5	-23.75	1,689.0	167.3	1,562.4	1,519.0	43.33	36.056	
2,066.9	2,052.3	2,047.3	2,047.3	5.3	40.8	-23.96	1,689.0	167.3	1,549.6	1,504.8	44.82	34.577	
2,100.0	2,084.7	2,079.7	2,079.7	5.5	41.5	-24.06	1,689.0	167.3	1,543.3	1,497.7	45.55	33.881	
2,165.3	2,148.6	2,143.6	2,143.6	5.7	42.8	-24.27	1,689.0	167.3	1,530.8	1,483.8	47.00	32.569	
2,200.0	2,182.5	2,177.5	2,177.5	5.9	43.4	-24.38	1,689.0	167.3	1,524.3	1,476.5	47.77	31.906	
2,263.8	2,244.9	2,239.9	2,239.9	6.1	44.7	-24.58	1,689.0	167.3	1,512.1	1,462.9	49.19	30.738	
2,300.0	2,280.3	2,275.3	2,275.3	6.3	45.4	-24.70	1,689.0	167.3	1,505.3	1,455.3	50.00	30.105	
2,362.2	2,341.2	2,336.2	2,336.2	6.5	46.6	-24.91	1,689.0	167.3	1,493.5	1,442.1	51.39	29.062	
2,400.0	2,378.1	2,373.1	2,373.1	6.7	47.4	-25.04	1,689.0	167.3	1,486.3	1,434.1	52.23	28.455	
2,460.6	2,437.4	2,432.4	2,432.4	6.9	48.6	-25.24	1,689.0	167.3	1,474.9	1,421.3	53.59	27.522	
2,500.0	2,476.0	2,471.0	2,471.0	7.1	49.3	-25.38	1,689.0	167.3	1,467.4	1,413.0	54.47	26.940	
2,550.0	2,524.9	2,519.9	2,519.9	7.3	50.3	-25.55	1,689.0	167.3	1,458.0	1,402.4	55.59	26.228	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,528.7	2,528.7	7.3	50.5	-24.70	1,689.0	167.3	1,456.3	1,400.5	55.78	26.109	
2,600.0	2,573.8	2,568.8	2,568.8	7.5	51.3	-20.84	1,689.0	167.3	1,448.4	1,391.8	56.62	25.580	
2,639.4	2,612.3	2,607.3	2,607.3	7.7	52.1	-17.10	1,689.0	167.3	1,440.7	1,383.2	57.43	25.084	
2,657.5	2,630.0	2,625.0	2,625.0	7.7	52.4	-17.14	1,689.0	167.3	1,437.1	1,379.2	57.83	24.849	
2,700.0	2,671.6	2,666.6	2,666.6	7.9	53.3	-17.25	1,689.0	167.3	1,428.6	1,369.8	58.77	24.309	
2,755.9	2,726.3	2,721.3	2,721.3	8.1	54.4	-17.39	1,689.0	167.3	1,417.5	1,357.5	60.01	23.621	
2,800.0	2,769.4	2,764.4	2,764.4	8.3	55.2	-17.50	1,689.0	167.3	1,408.7	1,347.7	60.99	23.099	
2,854.3	2,822.5	2,817.5	2,817.5	8.5	56.3	-17.64	1,689.0	167.3	1,397.9	1,335.7	62.19	22.477	
2,900.0	2,867.2	2,862.2	2,862.2	8.7	57.2	-17.75	1,689.0	167.3	1,388.9	1,325.7	63.21	21.973	
2,952.7	2,918.8	2,913.8	2,913.8	9.0	58.3	-17.89	1,689.0	167.3	1,378.4	1,314.0	64.38	21.410	
3,000.0	2,965.0	2,960.0	2,960.0	9.2	59.2	-18.02	1,689.0	167.3	1,369.1	1,303.6	65.43	20.923	
3,051.2	3,015.1	3,010.1	3,010.1	9.4	60.2	-18.16	1,689.0	167.3	1,358.9	1,292.3	66.57	20.413	
3,100.0	3,062.8	3,057.8	3,057.8	9.6	61.2	-18.29	1,689.0	167.3	1,349.3	1,281.6	67.66	19.942	
3,149.6	3,111.4	3,106.4	3,106.4	9.8	62.1	-18.43	1,689.0	167.3	1,339.4	1,270.7	68.76	19.479	
3,200.0	3,160.7	3,155.7	3,155.7	10.0	63.1	-18.57	1,689.0	167.3	1,329.5	1,259.6	69.89	19.023	
3,248.0	3,207.6	3,202.6	3,202.6	10.2	64.1	-18.71	1,689.0	167.3	1,320.0	1,249.0	70.96	18.603	
3,300.0	3,258.5	3,253.5	3,253.5	10.5	65.1	-18.86	1,689.0	167.3	1,309.8	1,237.6	72.12	18.161	
3,346.4	3,303.9	3,298.9	3,298.9	10.7	66.0	-19.00	1,689.0	167.3	1,300.6	1,227.4	73.15	17.779	
3,400.0	3,356.3	3,351.3	3,351.3	10.9	67.1	-19.16	1,689.0	167.3	1,290.0	1,215.7	74.35	17.351	
3,444.9	3,400.2	3,395.2	3,395.2	11.1	67.9	-19.30	1,689.0	167.3	1,281.2	1,205.9	75.35	17.003	
3,500.0	3,454.1	3,449.1	3,449.1	11.3	69.0	-19.47	1,689.0	167.3	1,270.4	1,193.8	76.59	16.587	
3,543.3	3,496.5	3,491.5	3,491.5	11.5	69.9	-19.60	1,689.0	167.3	1,261.9	1,184.3	77.56	16.270	
3,600.0	3,551.9	3,546.9	3,546.9	11.7	71.0	-19.78	1,689.0	167.3	1,250.7	1,171.9	78.83	15.867	
3,641.7	3,592.7	3,587.7	3,587.7	11.9	71.8	-19.92	1,689.0	167.3	1,242.6	1,162.8	79.76	15.579	
3,700.0	3,649.7	3,644.7	3,644.7	12.2	73.0	-20.11	1,689.0	167.3	1,231.2	1,150.1	81.07	15.187	
3,740.1	3,689.0	3,684.0	3,684.0	12.4	73.7	-20.24	1,689.0	167.3	1,223.3	1,141.3	81.97	14.924	
3,800.0	3,747.5	3,742.5	3,742.5	12.6	74.9	-20.45	1,689.0	167.3	1,211.6	1,128.3	83.31	14.543	
3,838.6	3,785.3	3,780.3	3,780.3	12.8	75.7	-20.58	1,689.0	167.3	1,204.1	1,119.9	84.18	14.303	
3,900.0	3,845.4	3,840.4	3,840.4	13.1	76.9	-20.79	1,689.0	167.3	1,192.1	1,106.5	85.56	13.932	
3,937.0	3,881.6	3,876.6	3,876.6	13.2	77.6	-20.93	1,689.0	167.3	1,184.9	1,098.5	86.40	13.715	
4,000.0	3,943.2	3,938.2	3,938.2	13.5	78.9	-21.15	1,689.0	167.3	1,172.6	1,084.8	87.81	13.353	
4,035.4	3,977.8	3,972.8	3,972.8	13.6	79.6	-21.28	1,689.0	167.3	1,165.7	1,077.1	88.61	13.155	
4,100.0	4,041.0	4,036.0	4,036.0	13.9	80.8	-21.53	1,689.0	167.3	1,153.2	1,063.1	90.07	12.803	
4,133.8	4,074.1	4,069.1	4,069.1	14.1	81.5	-21.65	1,689.0	167.3	1,146.6	1,055.8	90.83	12.623	
4,200.0	4,138.8	4,133.8	4,133.8	14.4	82.8	-21.91	1,689.0	167.3	1,133.8	1,041.5	92.33	12.280	
4,232.3	4,170.4	4,165.4	4,165.4	14.5	83.4	-22.04	1,689.0	167.3	1,127.6	1,034.5	93.06	12.117	
4,300.0	4,236.6	4,231.6	4,231.6	14.8	84.8	-22.31	1,689.0	167.3	1,114.5	1,019.9	94.59	11.782	
4,330.7	4,266.7	4,261.7	4,261.7	14.9	85.4	-22.43	1,689.0	167.3	1,108.6	1,013.3	95.29	11.634	
4,400.0	4,334.4	4,329.4	4,329.4	15.2	86.7	-22.72	1,689.0	167.3	1,095.2	998.4	96.86	11.307	
4,429.1	4,362.9	4,357.9	4,357.9	15.4	87.3	-22.84	1,689.0	167.3	1,089.6	992.1	97.52	11.173	
4,500.0	4,432.3	4,427.3	4,427.3	15.7	88.7	-23.15	1,689.0	167.3	1,076.0	976.9	99.13	10.854	
4,527.5	4,459.2	4,454.2	4,454.2	15.8	89.2	-23.27	1,689.0	167.3	1,070.7	971.0	99.76	10.733	
4,600.0	4,530.1	4,525.1	4,525.1	16.1	90.7	-23.59	1,689.0	167.3	1,056.9	955.5	101.41	10.422	
4,626.0	4,555.5	4,550.5	4,550.5	16.2	91.2	-23.70	1,689.0	167.3	1,051.9	949.9	102.00	10.313	
4,700.0	4,627.9	4,622.9	4,622.9	16.6	92.6	-24.05	1,689.0	167.3	1,037.8	934.1	103.69	10.008	
4,724.4	4,651.7	4,646.7	4,646.7	16.7	93.1	-24.16	1,689.0	167.3	1,033.1	928.9	104.25	9.910	
4,800.0	4,725.7	4,720.7	4,720.7	17.0	94.6	-24.52	1,689.0	167.3	1,018.8	912.8	105.98	9.613	
4,822.8	4,748.0	4,743.0	4,743.0	17.1	95.0	-24.63	1,689.0	167.3	1,014.4	907.9	106.50	9.525	
4,904.9	4,828.3	4,823.3	4,823.3	17.5	96.7	-25.04	1,689.0	167.3	998.9	890.5	108.38	9.216	
4,921.2	4,844.3	4,839.3	4,839.3	17.5	97.0	-25.09	1,689.0	167.3	995.8	887.0	108.85	9.149	
5,000.0	4,921.6	4,916.6	4,916.6	17.8	98.5	-25.34	1,689.0	167.3	982.3	871.3	111.04	8.847	
5,019.7	4,941.0	4,936.0	4,936.0	17.9	98.9	-25.40	1,689.0	167.3	979.3	867.7	111.57	8.777	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT MILLAGE #11-10 - 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	5,020.4	5,015.4	5,015.4	18.1	100.5	-25.62	1,689.0	167.3	968.0	854.3	113.70	8.514	
5,118.1	5,038.3	5,033.3	5,033.3	18.2	100.9	-25.66	1,689.0	167.3	965.8	851.6	114.17	8.459	
5,200.0	5,119.6	5,114.6	5,114.6	18.4	102.5	-25.84	1,689.0	167.3	956.9	840.6	116.25	8.231	
5,216.5	5,136.0	5,131.0	5,131.0	18.4	102.8	-25.87	1,689.0	167.3	955.4	838.7	116.66	8.189	
5,300.0	5,219.2	5,214.2	5,214.2	18.6	104.5	-26.00	1,689.0	167.3	948.9	830.2	118.69	7.994	
5,314.9	5,234.1	5,229.1	5,229.1	18.6	104.8	-26.02	1,689.0	167.3	948.0	828.9	119.05	7.963	
5,400.0	5,319.1	5,314.1	5,314.1	18.8	106.5	-26.10	1,689.0	167.3	944.0	823.0	121.01	7.801	
5,413.4	5,332.4	5,327.4	5,327.4	18.8	106.8	-26.11	1,689.0	167.3	943.6	822.3	121.31	7.779	
5,504.9	5,423.9	5,418.9	5,418.9	18.9	108.6	-7.72	1,689.0	167.3	942.3	816.0	126.30	7.461	
5,511.8	5,430.8	5,425.8	5,425.8	18.9	108.8	-7.72	1,689.0	167.3	942.3	815.9	126.44	7.452	
5,600.0	5,519.0	5,514.0	5,514.0	19.0	110.5	-7.72	1,689.0	167.3	942.3	814.0	128.34	7.343	
5,610.2	5,529.3	5,524.3	5,524.3	19.0	110.8	-7.72	1,689.0	167.3	942.3	813.8	128.56	7.330	
5,700.0	5,619.0	5,614.0	5,614.0	19.2	112.6	-7.72	1,689.0	167.3	942.3	811.8	130.49	7.221	
5,708.6	5,627.7	5,622.7	5,622.7	19.2	112.7	-7.72	1,689.0	167.3	942.3	811.6	130.68	7.211	
5,800.0	5,719.0	5,714.0	5,714.0	19.3	114.6	-7.72	1,689.0	167.3	942.3	809.7	132.65	7.104	
5,807.1	5,726.1	5,721.1	5,721.1	19.3	114.7	-7.72	1,689.0	167.3	942.3	809.5	132.80	7.096	
5,900.0	5,819.0	5,814.0	5,814.0	19.4	116.6	-7.72	1,689.0	167.3	942.3	807.5	134.81	6.990	
5,905.5	5,824.5	5,819.5	5,819.5	19.4	116.7	-7.72	1,689.0	167.3	942.3	807.4	134.93	6.984	
6,003.9	5,923.0	5,918.0	5,918.0	19.6	118.7	-7.72	1,689.0	167.3	942.3	805.3	137.05	6.876	
6,009.8	5,928.8	5,923.8	5,923.8	19.6	118.8	-7.72	1,689.0	167.3	942.3	805.1	137.18	6.869	
6,050.0	5,969.0	5,964.0	5,964.0	19.6	119.6	82.36	1,689.0	167.3	942.2	807.0	135.21	6.968	
6,100.0	6,018.8	6,013.8	6,013.8	19.7	120.6	82.68	1,689.0	167.3	941.6	805.3	136.23	6.912	
6,102.3	6,021.1	6,016.1	6,016.1	19.7	120.6	82.70	1,689.0	167.3	941.5	805.3	136.27	6.909	
6,150.0	6,068.1	6,063.1	6,063.1	19.7	121.6	83.24	1,689.0	167.3	940.6	803.4	137.19	6.856	
6,200.0	6,116.8	6,111.8	6,111.8	19.7	122.6	84.02	1,689.0	167.3	939.3	801.2	138.11	6.801	
6,200.8	6,117.5	6,112.5	6,112.5	19.7	122.6	84.03	1,689.0	167.3	939.2	801.1	138.12	6.800	
6,250.0	6,164.5	6,159.5	6,159.5	19.7	123.5	84.99	1,689.0	167.3	937.8	798.8	138.98	6.747	
6,299.2	6,210.4	6,205.4	6,205.4	19.7	124.5	86.12	1,689.0	167.3	936.3	796.5	139.82	6.696	
6,300.0	6,211.1	6,206.1	6,206.1	19.7	124.5	86.14	1,689.0	167.3	936.3	796.5	139.84	6.696	
6,350.0	6,256.4	6,251.4	6,251.4	19.7	125.4	87.42	1,689.0	167.3	935.0	794.3	140.67	6.646	
6,397.6	6,298.0	6,293.0	6,293.0	19.7	126.2	88.73	1,689.0	167.3	934.1	792.6	141.45	6.603	
6,400.0	6,300.0	6,295.0	6,295.0	19.7	126.3	88.80	1,689.0	167.3	934.1	792.6	141.49	6.601	
6,442.1	6,335.3	6,330.3	6,330.3	19.7	127.0	90.00	1,689.0	167.3	933.8	791.6	142.17	6.568 CC	
6,450.0	6,341.8	6,336.8	6,336.8	19.7	127.1	90.23	1,689.0	167.3	933.8	791.5	142.29	6.563	
6,496.0	6,378.6	6,373.6	6,373.6	19.7	127.8	91.54	1,689.0	167.3	934.3	791.3	143.00	6.534 ES	
6,500.0	6,381.6	6,376.6	6,376.6	19.7	127.9	91.65	1,689.0	167.3	934.4	791.4	143.06	6.532	
6,550.0	6,419.2	6,414.2	6,414.2	19.6	128.7	93.02	1,689.0	167.3	936.2	792.4	143.79	6.511	
6,594.5	6,450.7	6,445.7	6,445.7	19.6	129.3	94.16	1,689.0	167.3	939.0	794.6	144.42	6.502	
6,600.0	6,454.4	6,449.4	6,449.4	19.6	129.4	94.29	1,689.0	167.3	939.5	795.0	144.49	6.502 SF	
6,650.0	6,487.1	6,482.1	6,482.1	19.6	130.0	95.40	1,689.0	167.3	944.4	799.2	145.17	6.505	
6,692.9	6,513.0	6,508.0	6,508.0	19.6	130.5	96.20	1,689.0	167.3	950.1	804.3	145.74	6.519	
6,700.0	6,517.0	6,512.0	6,512.0	19.6	130.6	96.31	1,689.0	167.3	951.2	805.3	145.83	6.522	
6,750.0	6,544.1	6,539.1	6,539.1	19.6	131.2	96.97	1,689.0	167.3	960.1	813.5	146.53	6.552	
6,791.3	6,564.2	6,559.2	6,559.2	19.7	131.6	97.30	1,689.0	167.3	969.1	821.9	147.15	6.586	
6,800.0	6,568.2	6,563.2	6,563.2	19.7	131.6	97.34	1,689.0	167.3	971.2	823.9	147.29	6.594	
6,850.0	6,589.1	6,584.1	6,584.1	19.8	132.1	97.38	1,689.0	167.3	984.6	836.5	148.16	6.646	
6,889.7	6,603.5	6,598.5	6,598.5	19.9	132.4	97.15	1,689.0	167.3	997.0	848.0	148.95	6.693	
6,900.0	6,606.9	6,601.9	6,601.9	19.9	132.4	97.06	1,689.0	167.3	1,000.4	851.3	149.16	6.707	
6,950.0	6,621.3	6,616.3	6,616.3	20.2	132.7	96.34	1,689.0	167.3	1,018.6	868.3	150.31	6.777	
6,988.2	6,630.0	6,625.0	6,625.0	20.6	132.9	95.52	1,689.0	167.3	1,034.0	882.7	151.27	6.835	
7,000.0	6,632.4	6,627.4	6,627.4	20.7	132.9	95.22	1,689.0	167.3	1,039.0	887.4	151.57	6.855	
7,050.0	6,640.0	6,635.0	6,635.0	21.4	133.1	93.65	1,689.0	167.3	1,061.6	908.7	152.89	6.944	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
7,086.6	6,643.4	6,638.4	6,638.4	21.9	133.2	92.23	1,689.0	167.3	1,079.4	925.6	153.84	7.017	
7,100.0	6,644.2	6,639.2	6,639.2	22.1	133.2	91.65	1,689.0	167.3	1,086.2	932.0	154.16	7.046	
7,135.7	6,645.0	6,640.0	6,640.0	22.7	133.2	89.96	1,689.0	167.3	1,104.8	949.9	154.97	7.129	
7,185.0	6,644.9	6,639.9	6,639.9	23.6	133.2	89.95	1,689.0	167.3	1,132.0	976.1	155.93	7.260	
7,200.0	6,644.9	6,639.9	6,639.9	23.9	133.2	89.95	1,689.0	167.3	1,140.5	984.3	156.22	7.301	
7,283.4	6,644.8	6,639.8	6,639.8	25.6	133.2	89.94	1,689.0	167.3	1,190.4	1,032.5	157.94	7.537	
7,300.0	6,644.8	6,639.8	6,639.8	25.9	133.2	89.94	1,689.0	167.3	1,200.7	1,042.4	158.29	7.586	
7,381.9	6,644.7	6,639.7	6,639.7	27.7	133.2	89.94	1,689.0	167.3	1,253.8	1,093.7	160.09	7.832	
7,400.0	6,644.7	6,639.7	6,639.7	28.1	133.2	89.94	1,689.0	167.3	1,266.0	1,105.5	160.49	7.888	
7,480.3	6,644.6	6,639.6	6,639.6	29.9	133.2	89.93	1,689.0	167.3	1,321.5	1,159.2	162.35	8.140	
7,500.0	6,644.6	6,639.6	6,639.6	30.3	133.2	89.93	1,689.0	167.3	1,335.6	1,172.8	162.80	8.204	
7,578.7	6,644.5	6,639.5	6,639.5	32.2	133.2	89.92	1,689.0	167.3	1,392.9	1,228.2	164.68	8.458	
7,600.0	6,644.4	6,639.4	6,639.4	32.7	133.2	89.92	1,689.0	167.3	1,408.8	1,243.6	165.19	8.528	
7,677.1	6,644.3	6,639.3	6,639.3	34.6	133.2	89.91	1,689.0	167.3	1,467.4	1,300.4	167.09	8.783	
7,700.0	6,644.3	6,639.3	6,639.3	35.1	133.2	89.91	1,689.0	167.3	1,485.1	1,317.5	167.65	8.859	
7,775.6	6,644.2	6,639.2	6,639.2	37.0	133.2	89.91	1,689.0	167.3	1,544.6	1,375.1	169.54	9.111	
7,800.0	6,644.2	6,639.2	6,639.2	37.6	133.2	89.91	1,689.0	167.3	1,564.2	1,394.0	170.15	9.193	
7,874.0	6,644.1	6,639.1	6,639.1	39.5	133.2	89.90	1,689.0	167.3	1,624.1	1,452.1	172.04	9.441	
7,900.0	6,644.1	6,639.1	6,639.1	40.1	133.2	89.90	1,689.0	167.3	1,645.5	1,472.8	172.70	9.528	
7,972.4	6,644.0	6,639.0	6,639.0	42.0	133.2	89.89	1,689.0	167.3	1,705.6	1,531.0	174.57	9.771	
8,000.0	6,643.9	6,638.9	6,638.9	42.7	133.2	89.89	1,689.0	167.3	1,728.7	1,553.5	175.28	9.863	
8,070.8	6,643.9	6,638.9	6,638.9	44.5	133.2	89.88	1,689.0	167.3	1,788.8	1,611.7	177.12	10.099	
8,100.0	6,643.8	6,638.8	6,638.8	45.2	133.2	89.88	1,689.0	167.3	1,813.7	1,635.8	177.88	10.196	
8,169.3	6,643.7	6,638.7	6,638.7	47.0	133.2	89.88	1,689.0	167.3	1,873.4	1,693.7	179.71	10.425	
8,200.0	6,643.7	6,638.7	6,638.7	47.9	133.2	89.87	1,689.0	167.3	1,900.1	1,719.6	180.51	10.526	
8,267.7	6,643.6	6,638.6	6,638.6	49.6	133.2	89.87	1,689.0	167.3	1,959.4	1,777.1	182.31	10.748	
8,300.0	6,643.6	6,638.6	6,638.6	50.5	133.2	89.87	1,689.0	167.3	1,987.8	1,804.7	183.16	10.853	
8,366.1	6,643.5	6,638.5	6,638.5	52.2	133.2	89.86	1,689.0	167.3	2,046.4	1,861.5	184.93	11.066	
8,400.0	6,643.4	6,638.4	6,638.4	53.1	133.2	89.86	1,689.0	167.3	2,076.6	1,890.8	185.83	11.175	
8,464.5	6,643.4	6,638.4	6,638.4	54.8	133.2	89.85	1,689.0	167.3	2,134.5	1,946.9	187.56	11.380	
8,500.0	6,643.3	6,638.3	6,638.3	55.8	133.2	89.85	1,689.0	167.3	2,166.4	1,977.9	188.51	11.492	
8,563.0	6,643.2	6,638.2	6,638.2	57.5	133.2	89.85	1,689.0	167.3	2,223.4	2,033.2	190.21	11.690	
8,600.0	6,643.2	6,638.2	6,638.2	58.5	133.2	89.84	1,689.0	167.3	2,257.1	2,065.9	191.20	11.805	
8,661.4	6,643.1	6,638.1	6,638.1	60.1	133.2	89.84	1,689.0	167.3	2,313.1	2,120.3	192.86	11.994	
8,700.0	6,643.1	6,638.1	6,638.1	61.2	133.2	89.84	1,689.0	167.3	2,348.5	2,154.6	193.90	12.112	
8,759.8	6,643.0	6,638.0	6,638.0	62.8	133.2	89.83	1,689.0	167.3	2,403.5	2,208.0	195.53	12.292	
8,800.0	6,643.0	6,638.0	6,638.0	63.9	133.2	89.83	1,689.0	167.3	2,440.6	2,243.9	196.62	12.413	
8,858.2	6,642.9	6,637.9	6,637.9	65.4	133.2	89.82	1,689.0	167.3	2,494.5	2,296.3	198.20	12.586	
8,900.0	6,642.8	6,637.8	6,637.8	66.6	133.1	89.82	1,689.0	167.3	2,533.2	2,333.9	199.34	12.708	
8,956.7	6,642.8	6,637.8	6,637.8	68.1	133.1	89.82	1,689.0	167.3	2,586.0	2,385.1	200.88	12.873	
9,000.0	6,642.7	6,637.7	6,637.7	69.3	133.1	89.81	1,689.0	167.3	2,626.5	2,424.4	202.06	12.998	
9,055.1	6,642.6	6,637.6	6,637.6	70.8	133.1	89.81	1,689.0	167.3	2,678.0	2,474.5	203.57	13.155	
9,100.0	6,642.6	6,637.6	6,637.6	72.0	133.1	89.81	1,689.0	167.3	2,720.2	2,515.4	204.80	13.282	
9,153.5	6,642.5	6,637.5	6,637.5	73.5	133.1	89.80	1,689.0	167.3	2,770.5	2,564.2	206.26	13.432	
9,200.0	6,642.5	6,637.5	6,637.5	74.7	133.1	89.80	1,689.0	167.3	2,814.3	2,606.8	207.54	13.560	
9,251.9	6,642.4	6,637.4	6,637.4	76.2	133.1	89.79	1,689.0	167.3	2,863.4	2,654.4	208.96	13.703	
9,300.0	6,642.3	6,637.3	6,637.3	77.5	133.1	89.79	1,689.0	167.3	2,908.8	2,698.5	210.28	13.833	
9,350.4	6,642.3	6,637.3	6,637.3	78.9	133.1	89.79	1,689.0	167.3	2,956.6	2,744.9	211.67	13.968	
9,400.0	6,642.2	6,637.2	6,637.2	80.2	133.1	89.78	1,689.0	167.3	3,003.7	2,790.7	213.03	14.100	
9,448.8	6,642.1	6,637.1	6,637.1	81.6	133.1	89.78	1,689.0	167.3	3,050.1	2,835.7	214.37	14.228	
9,500.0	6,642.1	6,637.1	6,637.1	83.0	133.1	89.77	1,689.0	167.3	3,098.9	2,883.1	215.78	14.361	
9,547.2	6,642.0	6,637.0	6,637.0	84.3	133.1	89.77	1,689.0	167.3	3,144.0	2,926.9	217.08	14.483	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,642.0	6,637.0	6,637.0	85.7	133.1	89.77	1,689.0	167.3	3,194.4	2,975.9	218.54	14.617	
9,645.6	6,641.9	6,636.9	6,636.9	87.0	133.1	89.76	1,689.0	167.3	3,238.1	3,018.3	219.80	14.732	
9,700.0	6,641.8	6,636.8	6,636.8	88.5	133.1	89.76	1,689.0	167.3	3,290.2	3,068.9	221.30	14.868	
9,744.1	6,641.8	6,636.8	6,636.8	89.7	133.1	89.75	1,689.0	167.3	3,332.4	3,109.9	222.52	14.976	
9,800.0	6,641.7	6,636.7	6,636.7	91.2	133.1	89.75	1,689.0	167.3	3,386.2	3,162.1	224.06	15.113	
9,842.5	6,641.7	6,636.7	6,636.7	92.4	133.1	89.75	1,689.0	167.3	3,427.0	3,201.8	225.24	15.215	
9,900.0	6,641.6	6,636.6	6,636.6	94.0	133.1	89.74	1,689.0	167.3	3,482.4	3,255.6	226.83	15.353	
9,940.9	6,641.5	6,636.5	6,636.5	95.1	133.1	89.74	1,689.0	167.3	3,521.8	3,293.9	227.96	15.449	
10,000.0	6,641.5	6,636.5	6,636.5	96.7	133.1	89.73	1,689.0	167.3	3,578.8	3,349.2	229.59	15.588	
10,039.3	6,641.4	6,636.4	6,636.4	97.8	133.1	89.73	1,689.0	167.3	3,616.8	3,386.2	230.68	15.679	
10,100.0	6,641.3	6,636.3	6,636.3	99.5	133.1	89.73	1,689.0	167.3	3,675.5	3,443.1	232.36	15.818	
10,137.8	6,641.3	6,636.3	6,636.3	100.6	133.1	89.72	1,689.0	167.3	3,712.0	3,478.6	233.41	15.903	
10,200.0	6,641.2	6,636.2	6,636.2	102.3	133.1	89.72	1,689.0	167.3	3,772.3	3,537.1	235.14	16.043	
10,236.2	6,641.2	6,636.2	6,636.2	103.3	133.1	89.72	1,689.0	167.3	3,807.4	3,571.2	236.14	16.123	
10,300.0	6,641.1	6,636.1	6,636.1	105.0	133.1	89.71	1,689.0	167.3	3,869.2	3,631.3	237.91	16.263	
10,334.6	6,641.0	6,636.0	6,636.0	106.0	133.1	89.71	1,689.0	167.3	3,902.8	3,664.0	238.87	16.339	
10,400.0	6,641.0	6,636.0	6,636.0	107.8	133.1	89.70	1,689.0	167.3	3,966.4	3,725.7	240.69	16.479	
10,433.0	6,640.9	6,635.9	6,635.9	108.7	133.1	89.70	1,689.0	167.3	3,998.5	3,756.9	241.60	16.550	
10,500.0	6,640.8	6,635.8	6,635.8	110.6	133.1	89.69	1,689.0	167.3	4,063.6	3,820.1	243.46	16.691	
10,531.5	6,640.8	6,635.8	6,635.8	111.5	133.1	89.69	1,689.0	167.3	4,094.3	3,849.9	244.34	16.757	
10,600.0	6,640.7	6,635.7	6,635.7	113.4	133.1	89.69	1,689.0	167.3	4,161.0	3,914.8	246.24	16.898	
10,629.9	6,640.7	6,635.7	6,635.7	114.2	133.1	89.68	1,689.0	167.3	4,190.1	3,943.1	247.07	16.959	
10,700.0	6,640.6	6,635.6	6,635.6	116.1	133.1	89.68	1,689.0	167.3	4,258.5	4,009.5	249.02	17.101	
10,728.3	6,640.5	6,635.5	6,635.5	116.9	133.1	89.68	1,689.0	167.3	4,286.1	4,036.3	249.81	17.158	
10,800.0	6,640.5	6,635.5	6,635.5	118.9	133.1	89.67	1,689.0	167.3	4,356.1	4,104.3	251.80	17.300	
10,826.7	6,640.4	6,635.4	6,635.4	119.7	133.1	89.67	1,689.0	167.3	4,382.3	4,129.7	252.55	17.352	
10,900.0	6,640.3	6,635.3	6,635.3	121.7	133.1	89.66	1,689.0	167.3	4,453.9	4,199.3	254.59	17.494	
10,925.2	6,640.3	6,635.3	6,635.3	122.4	133.1	89.66	1,689.0	167.3	4,478.5	4,223.2	255.29	17.543	
11,000.0	6,640.2	6,635.2	6,635.2	124.5	133.1	89.65	1,689.0	167.3	4,551.7	4,294.3	257.37	17.685	
11,023.6	6,640.2	6,635.2	6,635.2	125.1	133.1	89.65	1,689.0	167.3	4,574.8	4,316.8	258.03	17.730	
11,100.0	6,640.1	6,635.1	6,635.1	127.3	133.1	89.65	1,689.0	167.3	4,649.6	4,389.4	260.16	17.872	
11,122.0	6,640.0	6,635.0	6,635.0	127.9	133.1	89.64	1,689.0	167.3	4,671.2	4,410.4	260.77	17.913	
11,200.0	6,639.9	6,634.9	6,634.9	130.1	133.1	89.64	1,689.0	167.3	4,747.6	4,484.7	262.94	18.056	
11,220.4	6,639.9	6,634.9	6,634.9	130.6	133.1	89.64	1,689.0	167.3	4,767.7	4,504.1	263.51	18.093	
11,300.0	6,639.8	6,634.8	6,634.8	132.8	133.1	89.63	1,689.0	167.3	4,845.7	4,580.0	265.73	18.235	
11,318.9	6,639.8	6,634.8	6,634.8	133.4	133.1	89.63	1,689.0	167.3	4,864.2	4,598.0	266.26	18.269	
11,400.0	6,639.7	6,634.7	6,634.7	135.6	133.1	89.62	1,689.0	167.3	4,943.9	4,675.3	268.52	18.412	
11,417.3	6,639.7	6,634.7	6,634.7	136.1	133.1	89.62	1,689.0	167.3	4,960.8	4,691.8	269.00	18.442	
11,500.0	6,639.6	6,634.6	6,634.6	138.4	133.1	89.61	1,689.0	167.3	5,042.1	4,770.8	271.31	18.584	
11,515.7	6,639.5	6,634.5	6,634.5	138.9	133.1	89.61	1,689.0	167.3	5,057.5	4,785.8	271.75	18.611	
11,600.0	6,639.4	6,634.4	6,634.4	141.2	133.1	89.61	1,689.0	167.3	5,140.4	4,866.3	274.10	18.754	
11,614.1	6,639.4	6,634.4	6,634.4	141.6	133.1	89.60	1,689.0	167.3	5,154.3	4,879.8	274.49	18.778	
11,700.0	6,639.3	6,634.3	6,634.3	144.0	133.1	89.60	1,689.0	167.3	5,238.8	4,961.9	276.89	18.920	
11,712.6	6,639.3	6,634.3	6,634.3	144.3	133.1	89.60	1,689.0	167.3	5,251.1	4,973.9	277.24	18.941	
11,800.0	6,639.2	6,634.2	6,634.2	146.8	133.1	89.59	1,689.0	167.3	5,337.2	5,057.5	279.68	19.083	
11,811.0	6,639.2	6,634.2	6,634.2	147.1	133.1	89.59	1,689.0	167.3	5,348.0	5,068.0	279.98	19.101	
11,900.0	6,639.1	6,634.1	6,634.1	149.6	133.1	89.58	1,689.0	167.3	5,435.7	5,153.2	282.47	19.243	
11,909.4	6,639.0	6,634.0	6,634.0	149.8	133.1	89.58	1,689.0	167.3	5,445.0	5,162.2	282.73	19.258	
12,000.0	6,638.9	6,633.9	6,633.9	152.4	133.1	89.57	1,689.0	167.3	5,534.2	5,249.0	285.26	19.401	
12,007.8	6,638.9	6,633.9	6,633.9	152.6	133.1	89.57	1,689.0	167.3	5,542.0	5,256.5	285.48	19.413	
12,100.0	6,638.8	6,633.8	6,633.8	155.2	133.1	89.56	1,689.0	167.3	5,632.8	5,344.8	288.05	19.555	
12,106.3	6,638.8	6,633.8	6,633.8	155.3	133.1	89.56	1,689.0	167.3	5,639.0	5,350.8	288.23	19.564	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,200.0	6,638.7	6,633.7	6,633.7	157.9	133.1	89.56	1,689.0	167.3	5,731.5	5,440.6	290.85	19.706	
12,204.7	6,638.7	6,633.7	6,633.7	158.1	133.1	89.56	1,689.0	167.3	5,736.1	5,445.1	290.98	19.713	
12,300.0	6,638.5	6,633.5	6,633.5	160.7	133.1	89.55	1,689.0	167.3	5,830.1	5,536.5	293.64	19.855	
12,303.1	6,638.5	6,633.5	6,633.5	160.8	133.1	89.55	1,689.0	167.3	5,833.2	5,539.5	293.73	19.859	
12,400.0	6,638.4	6,633.4	6,633.4	163.5	133.1	89.54	1,689.0	167.3	5,928.9	5,632.4	296.44	20.001	
12,401.5	6,638.4	6,633.4	6,633.4	163.6	133.1	89.54	1,689.0	167.3	5,930.4	5,633.9	296.48	20.003	
12,500.0	6,638.3	6,633.3	6,633.3	166.3	133.1	89.53	1,689.0	167.3	6,027.6	5,728.4	299.23	20.144	
12,598.4	6,638.2	6,633.2	6,633.2	169.1	133.1	89.52	1,689.0	167.3	6,124.9	5,822.9	301.98	20.282	
12,600.0	6,638.2	6,633.2	6,633.2	169.1	133.1	89.52	1,689.0	167.3	6,126.5	5,824.4	302.03	20.285	
12,696.8	6,638.0	6,633.0	6,633.0	171.8	133.1	89.52	1,689.0	167.3	6,222.2	5,917.4	304.73	20.418	
12,700.0	6,638.0	6,633.0	6,633.0	171.9	133.1	89.51	1,689.0	167.3	6,225.3	5,920.5	304.82	20.423	
12,795.2	6,637.9	6,632.9	6,632.9	174.6	133.1	89.51	1,689.0	167.3	6,319.5	6,012.0	307.48	20.552	
12,800.0	6,637.9	6,632.9	6,632.9	174.7	133.0	89.51	1,689.0	167.3	6,324.2	6,016.6	307.62	20.559	
12,893.7	6,637.8	6,632.8	6,632.8	177.3	133.0	89.50	1,689.0	167.3	6,416.9	6,106.6	310.24	20.684	
12,900.0	6,637.8	6,632.8	6,632.8	177.5	133.0	89.50	1,689.0	167.3	6,423.1	6,112.7	310.41	20.692	
12,992.1	6,637.7	6,632.7	6,632.7	180.1	133.0	89.49	1,689.0	167.3	6,514.3	6,201.3	312.99	20.813	
13,000.0	6,637.6	6,632.6	6,632.6	180.3	133.0	89.49	1,689.0	167.3	6,522.1	6,208.9	313.21	20.823	
13,090.5	6,637.5	6,632.5	6,632.5	182.8	133.0	89.48	1,689.0	167.3	6,611.7	6,295.9	315.74	20.940	
13,100.0	6,637.5	6,632.5	6,632.5	183.1	133.0	89.48	1,689.0	167.3	6,621.1	6,305.0	316.01	20.952	
13,188.9	6,637.4	6,632.4	6,632.4	185.6	133.0	89.47	1,689.0	167.3	6,709.1	6,390.6	318.50	21.065	
13,200.0	6,637.4	6,632.4	6,632.4	185.9	133.0	89.47	1,689.0	167.3	6,720.1	6,401.3	318.80	21.079	
13,287.4	6,637.3	6,632.3	6,632.3	188.4	133.0	89.47	1,689.0	167.3	6,806.6	6,485.4	321.25	21.188	
13,300.0	6,637.3	6,632.3	6,632.3	188.7	133.0	89.46	1,689.0	167.3	6,819.1	6,497.5	321.60	21.204	
13,385.8	6,637.1	6,632.1	6,632.1	191.1	133.0	89.46	1,689.0	167.3	6,904.1	6,580.1	324.00	21.309	
13,400.0	6,637.1	6,632.1	6,632.1	191.5	133.0	89.46	1,689.0	167.3	6,918.2	6,593.8	324.40	21.326	
13,484.2	6,637.0	6,632.0	6,632.0	193.9	133.0	89.45	1,689.0	167.3	7,001.7	6,674.9	326.76	21.428	
13,500.0	6,637.0	6,632.0	6,632.0	194.3	133.0	89.45	1,689.0	167.3	7,017.3	6,690.1	327.20	21.447	
13,582.6	6,636.9	6,631.9	6,631.9	196.6	133.0	89.44	1,689.0	167.3	7,099.2	6,769.7	329.51	21.545	
13,600.0	6,636.9	6,631.9	6,631.9	197.1	133.0	89.44	1,689.0	167.3	7,116.4	6,786.4	330.00	21.565	
13,681.1	6,636.8	6,631.8	6,631.8	199.4	133.0	89.43	1,689.0	167.3	7,196.8	6,864.5	332.27	21.660	
13,700.0	6,636.7	6,631.7	6,631.7	199.9	133.0	89.43	1,689.0	167.3	7,215.6	6,882.8	332.80	21.682	
13,779.5	6,636.6	6,631.6	6,631.6	202.1	133.0	89.42	1,689.0	167.3	7,294.4	6,959.4	335.02	21.773	
13,800.0	6,636.6	6,631.6	6,631.6	202.7	133.0	89.42	1,689.0	167.3	7,314.7	6,979.1	335.59	21.796	
13,877.9	6,636.5	6,631.5	6,631.5	204.9	133.0	89.42	1,689.0	167.3	7,392.0	7,054.2	337.78	21.884	
13,900.0	6,636.5	6,631.5	6,631.5	205.5	133.0	89.41	1,689.0	167.3	7,413.9	7,075.5	338.39	21.909	
13,976.3	6,636.4	6,631.4	6,631.4	207.6	133.0	89.41	1,689.0	167.3	7,489.7	7,149.1	340.53	21.994	
14,000.0	6,636.3	6,631.3	6,631.3	208.3	133.0	89.40	1,689.0	167.3	7,513.1	7,171.9	341.19	22.020	
14,074.8	6,636.3	6,631.3	6,631.3	210.4	133.0	89.40	1,689.0	167.3	7,587.3	7,244.0	343.29	22.102	
14,100.0	6,636.2	6,631.2	6,631.2	211.1	133.0	89.40	1,689.0	167.3	7,612.4	7,268.4	343.99	22.129	
14,173.2	6,636.1	6,631.1	6,631.1	213.2	133.0	89.39	1,689.0	167.3	7,685.0	7,339.0	346.04	22.208	
14,200.0	6,636.1	6,631.1	6,631.1	213.9	133.0	89.39	1,689.0	167.3	7,711.6	7,364.8	346.79	22.237	
14,271.6	6,636.0	6,631.0	6,631.0	215.9	133.0	89.38	1,689.0	167.3	7,782.7	7,433.9	348.80	22.313	
14,300.0	6,636.0	6,631.0	6,631.0	216.7	133.0	89.38	1,689.0	167.3	7,810.9	7,461.3	349.59	22.343	
14,370.0	6,635.9	6,630.9	6,630.9	218.7	133.0	89.37	1,689.0	167.3	7,880.5	7,528.9	351.55	22.416	
14,400.0	6,635.8	6,630.8	6,630.8	219.5	133.0	89.37	1,689.0	167.3	7,910.2	7,557.8	352.39	22.447	
14,468.5	6,635.7	6,630.7	6,630.7	221.4	133.0	89.37	1,689.0	167.3	7,978.2	7,623.9	354.31	22.517	
14,500.0	6,635.7	6,630.7	6,630.7	222.3	133.0	89.36	1,689.0	167.3	8,009.5	7,654.3	355.19	22.550	
14,566.9	6,635.6	6,630.6	6,630.6	224.2	133.0	89.36	1,689.0	167.3	8,075.9	7,718.9	357.07	22.617	
14,600.0	6,635.6	6,630.6	6,630.6	225.1	133.0	89.35	1,689.0	167.3	8,108.8	7,750.8	357.99	22.651	
14,665.3	6,635.5	6,630.5	6,630.5	226.9	133.0	89.35	1,689.0	167.3	8,173.7	7,813.9	359.82	22.716	
14,700.0	6,635.4	6,630.4	6,630.4	227.9	133.0	89.34	1,689.0	167.3	8,208.2	7,847.4	360.80	22.750	
14,763.7	6,635.4	6,630.4	6,630.4	229.7	133.0	89.34	1,689.0	167.3	8,271.5	7,908.9	362.58	22.813	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT MILLAGE #11-10 - 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
14,800.0	6,635.3	6,630.3	6,630.3	230.7	133.0	89.34	1,689.0	167.3	8,307.5	7,943.9	363.60	22.848	
14,862.2	6,635.2	6,630.2	6,630.2	232.5	133.0	89.33	1,689.0	167.3	8,369.3	8,004.0	365.34	22.908	
14,900.0	6,635.2	6,630.2	6,630.2	233.5	133.0	89.33	1,689.0	167.3	8,406.9	8,040.5	366.40	22.945	
14,960.6	6,635.1	6,630.1	6,630.1	235.2	133.0	89.32	1,689.0	167.3	8,467.1	8,099.0	368.09	23.003	
15,000.0	6,635.0	6,630.0	6,630.0	236.3	133.0	89.32	1,689.0	167.3	8,506.3	8,137.1	369.20	23.040	
15,033.1	6,635.0	6,630.0	6,630.0	237.3	133.0	89.32	1,689.0	167.3	8,539.2	8,169.0	370.12	23.071	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-54.79	1,542.2	-2,185.2	2,674.6				
98.4	98.4	94.4	94.4	0.1	0.0	-54.79	1,542.2	-2,185.2	2,674.6	2,674.5	0.10	N/A	
100.0	100.0	96.0	96.0	0.1	0.0	-54.79	1,542.2	-2,185.2	2,674.6	2,674.5	0.10	N/A	
196.8	196.8	192.8	192.8	0.3	1.0	-54.79	1,542.2	-2,185.2	2,674.6	2,673.3	1.30	2,050.472	
200.0	200.0	196.0	196.0	0.3	1.0	-54.79	1,542.2	-2,185.2	2,674.6	2,673.3	1.35	1,988.531	
295.3	295.3	291.3	291.3	0.5	3.2	-54.79	1,542.2	-2,185.2	2,674.6	2,670.9	3.72	719.090	
300.0	300.0	296.0	296.0	0.5	3.3	-54.79	1,542.2	-2,185.2	2,674.6	2,670.8	3.84	696.571	
393.7	393.7	389.7	389.7	0.8	5.3	-54.79	1,542.2	-2,185.2	2,674.6	2,668.6	6.01	445.087	
400.0	400.0	396.0	396.0	0.8	5.4	-54.79	1,542.2	-2,185.2	2,674.6	2,668.5	6.15	434.585	
492.1	492.1	488.1	488.1	1.0	7.3	-54.79	1,542.2	-2,185.2	2,674.6	2,666.4	8.24	324.402	
500.0	500.0	496.0	496.0	1.0	7.4	-54.79	1,542.2	-2,185.2	2,674.6	2,666.2	8.42	317.525	
590.5	590.5	586.5	586.5	1.2	9.3	-54.79	1,542.2	-2,185.2	2,674.6	2,664.2	10.46	255.582	
600.0	600.0	596.0	596.0	1.2	9.5	-54.79	1,542.2	-2,185.2	2,674.6	2,663.9	10.68	250.484	
689.0	689.0	685.0	685.0	1.4	11.3	-54.79	1,542.2	-2,185.2	2,674.6	2,661.9	12.68	210.968	
700.0	700.0	696.0	696.0	1.4	11.5	-54.79	1,542.2	-2,185.2	2,674.6	2,661.7	12.93	206.924	
787.4	787.4	783.4	783.4	1.6	13.2	-54.79	1,542.2	-2,185.2	2,674.6	2,659.7	14.89	179.661	
800.0	800.0	796.0	796.0	1.7	13.5	-54.79	1,542.2	-2,185.2	2,674.6	2,659.4	15.17	176.312	
885.8	885.8	881.8	881.8	1.9	15.2	-54.79	1,542.2	-2,185.2	2,674.6	2,657.5	17.09	156.465	
900.0	900.0	896.0	896.0	1.9	15.5	-54.79	1,542.2	-2,185.2	2,674.6	2,657.2	17.41	153.610	
984.2	984.2	980.2	980.2	2.1	17.2	-54.79	1,542.2	-2,185.2	2,674.6	2,655.3	19.30	138.585	
1,000.0	1,000.0	996.0	996.0	2.1	17.5	-54.79	1,542.2	-2,185.2	2,674.6	2,655.0	19.65	136.097	
1,082.7	1,082.7	1,078.7	1,078.7	2.3	19.2	-81.82	1,542.2	-2,185.2	2,674.4	2,652.9	21.50	124.383	
1,100.0	1,100.0	1,096.0	1,096.0	2.3	19.5	-81.83	1,542.2	-2,185.2	2,674.4	2,652.5	21.89	122.178	
1,181.1	1,181.0	1,177.0	1,177.0	2.5	21.2	-81.92	1,542.2	-2,185.2	2,673.8	2,650.1	23.70	112.817	
1,200.0	1,199.8	1,195.8	1,195.8	2.6	21.6	-81.95	1,542.2	-2,185.2	2,673.6	2,649.5	24.12	110.838	
1,279.5	1,279.1	1,275.1	1,275.1	2.8	23.2	-82.11	1,542.2	-2,185.2	2,672.7	2,646.8	25.90	103.196	
1,300.0	1,299.5	1,295.5	1,295.5	2.8	23.6	-82.16	1,542.2	-2,185.2	2,672.4	2,646.1	26.36	101.396	
1,377.9	1,376.9	1,372.9	1,372.9	3.0	25.1	-82.38	1,542.2	-2,185.2	2,671.2	2,643.1	28.10	95.047	
1,400.0	1,398.7	1,394.7	1,394.7	3.0	25.6	-82.45	1,542.2	-2,185.2	2,670.8	2,642.2	28.60	93.391	
1,476.4	1,474.2	1,470.2	1,470.2	3.2	27.1	-82.73	1,542.2	-2,185.2	2,669.3	2,638.9	30.32	88.033	
1,500.0	1,497.5	1,493.5	1,493.5	3.3	27.5	-82.82	1,542.2	-2,185.2	2,668.7	2,637.9	30.85	86.497	
1,574.8	1,571.0	1,567.0	1,567.0	3.5	29.0	-83.15	1,542.2	-2,185.2	2,667.0	2,634.5	32.56	81.916	
1,600.0	1,595.6	1,591.6	1,591.6	3.6	29.5	-83.27	1,542.2	-2,185.2	2,666.4	2,633.3	33.13	80.479	
1,673.2	1,667.2	1,663.2	1,663.2	3.9	31.0	-83.59	1,542.2	-2,185.2	2,664.6	2,629.8	34.82	76.527	
1,700.0	1,693.4	1,689.4	1,689.4	4.0	31.5	-83.70	1,542.2	-2,185.2	2,664.0	2,628.5	35.44	75.174	
1,771.6	1,763.5	1,759.5	1,759.5	4.2	32.9	-84.01	1,542.2	-2,185.2	2,662.4	2,625.3	37.10	71.755	
1,800.0	1,791.3	1,787.3	1,787.3	4.3	33.5	-84.14	1,542.2	-2,185.2	2,661.7	2,624.0	37.76	70.484	
1,870.1	1,859.8	1,855.8	1,855.8	4.6	34.8	-84.44	1,542.2	-2,185.2	2,660.3	2,620.8	39.40	67.513	
1,900.0	1,889.1	1,885.1	1,885.1	4.7	35.4	-84.57	1,542.2	-2,185.2	2,659.6	2,619.5	40.10	66.318	
1,968.5	1,956.1	1,952.1	1,952.1	4.9	36.8	-84.87	1,542.2	-2,185.2	2,658.3	2,616.6	41.72	63.723	
2,000.0	1,986.9	1,982.9	1,982.9	5.1	37.4	-85.01	1,542.2	-2,185.2	2,657.7	2,615.3	42.46	62.596	
2,066.9	2,052.3	2,048.3	2,048.3	5.3	38.7	-85.30	1,542.2	-2,185.2	2,656.5	2,612.5	44.04	60.322	
2,100.0	2,084.7	2,080.7	2,080.7	5.5	39.4	-85.45	1,542.2	-2,185.2	2,655.9	2,611.1	44.82	59.257	
2,165.3	2,148.6	2,144.6	2,144.6	5.7	40.7	-85.73	1,542.2	-2,185.2	2,654.9	2,608.5	46.37	57.255	
2,200.0	2,182.5	2,178.5	2,178.5	5.9	41.3	-85.88	1,542.2	-2,185.2	2,654.3	2,607.1	47.19	56.247	
2,263.8	2,244.9	2,240.9	2,240.9	6.1	42.6	-86.16	1,542.2	-2,185.2	2,653.4	2,604.7	48.71	54.478	
2,300.0	2,280.3	2,276.3	2,276.3	6.3	43.3	-86.32	1,542.2	-2,185.2	2,652.9	2,603.3	49.57	53.521	
2,362.2	2,341.2	2,337.2	2,337.2	6.5	44.5	-86.60	1,542.2	-2,185.2	2,652.1	2,601.0	51.05	51.952	
2,400.0	2,378.1	2,374.1	2,374.1	6.7	45.3	-86.76	1,542.2	-2,185.2	2,651.6	2,599.7	51.95	51.043	
2,460.6	2,437.4	2,433.4	2,433.4	6.9	46.5	-87.03	1,542.2	-2,185.2	2,650.9	2,597.5	53.39	49.648	
2,500.0	2,476.0	2,472.0	2,472.0	7.1	47.2	-87.20	1,542.2	-2,185.2	2,650.5	2,596.2	54.33	48.782	
2,550.0	2,524.9	2,520.9	2,520.9	7.3	48.2	-87.42	1,542.2	-2,185.2	2,650.0	2,594.5	55.53	47.724	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,529.7	2,529.7	7.3	48.4	-86.61	1,542.2	-2,185.2	2,649.9	2,594.2	55.74	47.540	
2,600.0	2,573.8	2,569.8	2,569.8	7.5	49.2	-82.94	1,542.2	-2,185.2	2,649.1	2,592.4	56.70	46.725	
2,639.4	2,612.3	2,608.3	2,608.3	7.7	50.0	-79.41	1,542.2	-2,185.2	2,647.8	2,590.2	57.59	45.974	
2,657.5	2,630.0	2,626.0	2,626.0	7.7	50.3	-79.49	1,542.2	-2,185.2	2,647.1	2,589.1	58.02	45.622	
2,700.0	2,671.6	2,667.6	2,667.6	7.9	51.2	-79.67	1,542.2	-2,185.2	2,645.5	2,586.5	59.03	44.817	
2,755.9	2,726.3	2,722.3	2,722.3	8.1	52.3	-79.92	1,542.2	-2,185.2	2,643.4	2,583.0	60.36	43.791	
2,800.0	2,769.4	2,765.4	2,765.4	8.3	53.1	-80.11	1,542.2	-2,185.2	2,641.8	2,580.3	61.42	43.013	
2,854.3	2,822.5	2,818.5	2,818.5	8.5	54.2	-80.35	1,542.2	-2,185.2	2,639.8	2,577.1	62.72	42.090	
2,900.0	2,867.2	2,863.2	2,863.2	8.7	55.1	-80.54	1,542.2	-2,185.2	2,638.2	2,574.4	63.81	41.344	
2,952.7	2,918.8	2,914.8	2,914.8	9.0	56.1	-80.77	1,542.2	-2,185.2	2,636.4	2,571.3	65.07	40.514	
3,000.0	2,965.0	2,961.0	2,961.0	9.2	57.1	-80.98	1,542.2	-2,185.2	2,634.8	2,568.6	66.21	39.797	
3,051.2	3,015.1	3,011.1	3,011.1	9.4	58.1	-81.20	1,542.2	-2,185.2	2,633.1	2,565.7	67.43	39.048	
3,100.0	3,062.8	3,058.8	3,058.8	9.6	59.0	-81.42	1,542.2	-2,185.2	2,631.5	2,562.9	68.60	38.360	
3,149.6	3,111.4	3,107.4	3,107.4	9.8	60.0	-81.64	1,542.2	-2,185.2	2,630.0	2,560.2	69.79	37.684	
3,200.0	3,160.7	3,156.7	3,156.7	10.0	61.0	-81.86	1,542.2	-2,185.2	2,628.4	2,557.4	71.00	37.020	
3,248.0	3,207.6	3,203.6	3,203.6	10.2	62.0	-82.07	1,542.2	-2,185.2	2,627.0	2,554.9	72.15	36.409	
3,300.0	3,258.5	3,254.5	3,254.5	10.5	63.0	-82.30	1,542.2	-2,185.2	2,625.5	2,552.1	73.40	35.770	
3,346.4	3,303.9	3,299.9	3,299.9	10.7	63.9	-82.50	1,542.2	-2,185.2	2,624.2	2,549.7	74.51	35.217	
3,400.0	3,356.3	3,352.3	3,352.3	10.9	64.9	-82.74	1,542.2	-2,185.2	2,622.7	2,546.9	75.80	34.601	
3,444.9	3,400.2	3,396.2	3,396.2	11.1	65.8	-82.93	1,542.2	-2,185.2	2,621.5	2,544.7	76.88	34.100	
3,500.0	3,454.1	3,450.1	3,450.1	11.3	66.9	-83.18	1,542.2	-2,185.2	2,620.1	2,541.9	78.20	33.505	
3,543.3	3,496.5	3,492.5	3,492.5	11.5	67.8	-83.37	1,542.2	-2,185.2	2,619.1	2,539.8	79.24	33.051	
3,600.0	3,551.9	3,547.9	3,547.9	11.7	68.9	-83.62	1,542.2	-2,185.2	2,617.7	2,537.1	80.61	32.475	
3,641.7	3,592.7	3,588.7	3,588.7	11.9	69.7	-83.80	1,542.2	-2,185.2	2,616.7	2,535.1	81.61	32.064	
3,700.0	3,649.7	3,645.7	3,645.7	12.2	70.8	-84.06	1,542.2	-2,185.2	2,615.4	2,532.4	83.01	31.507	
3,740.1	3,689.0	3,685.0	3,685.0	12.4	71.6	-84.24	1,542.2	-2,185.2	2,614.5	2,530.6	83.97	31.135	
3,800.0	3,747.5	3,743.5	3,743.5	12.6	72.8	-84.51	1,542.2	-2,185.2	2,613.3	2,527.9	85.41	30.596	
3,838.6	3,785.3	3,781.3	3,781.3	12.8	73.6	-84.68	1,542.2	-2,185.2	2,612.5	2,526.2	86.34	30.258	
3,900.0	3,845.4	3,841.4	3,841.4	13.1	74.8	-84.95	1,542.2	-2,185.2	2,611.3	2,523.5	87.82	29.736	
3,937.0	3,881.6	3,877.6	3,877.6	13.2	75.5	-85.12	1,542.2	-2,185.2	2,610.7	2,522.0	88.71	29.430	
4,000.0	3,943.2	3,939.2	3,939.2	13.5	76.7	-85.40	1,542.2	-2,185.2	2,609.6	2,519.3	90.22	28.923	
4,035.4	3,977.8	3,973.8	3,973.8	13.6	77.4	-85.55	1,542.2	-2,185.2	2,609.0	2,517.9	91.08	28.646	
4,100.0	4,041.0	4,037.0	4,037.0	13.9	78.7	-85.84	1,542.2	-2,185.2	2,607.9	2,515.3	92.63	28.154	
4,133.8	4,074.1	4,070.1	4,070.1	14.1	79.4	-85.99	1,542.2	-2,185.2	2,607.4	2,514.0	93.44	27.904	
4,200.0	4,138.8	4,134.8	4,134.8	14.4	80.7	-86.29	1,542.2	-2,185.2	2,606.5	2,511.4	95.04	27.426	
4,232.3	4,170.4	4,166.4	4,166.4	14.5	81.3	-86.43	1,542.2	-2,185.2	2,606.0	2,510.2	95.81	27.199	
4,300.0	4,236.6	4,232.6	4,232.6	14.8	82.6	-86.73	1,542.2	-2,185.2	2,605.2	2,507.7	97.44	26.736	
4,330.7	4,266.7	4,262.7	4,262.7	14.9	83.3	-86.87	1,542.2	-2,185.2	2,604.8	2,506.6	98.18	26.531	
4,400.0	4,334.4	4,330.4	4,330.4	15.2	84.6	-87.18	1,542.2	-2,185.2	2,604.0	2,504.2	99.85	26.080	
4,429.1	4,362.9	4,358.9	4,358.9	15.4	85.2	-87.31	1,542.2	-2,185.2	2,603.8	2,503.2	100.55	25.896	
4,500.0	4,432.3	4,428.3	4,428.3	15.7	86.6	-87.63	1,542.2	-2,185.2	2,603.1	2,500.8	102.25	25.457	
4,527.5	4,459.2	4,455.2	4,455.2	15.8	87.1	-87.75	1,542.2	-2,185.2	2,602.9	2,499.9	102.92	25.291	
4,600.0	4,530.1	4,526.1	4,526.1	16.1	88.5	-88.07	1,542.2	-2,185.2	2,602.3	2,497.6	104.66	24.865	
4,626.0	4,555.5	4,551.5	4,551.5	16.2	89.1	-88.19	1,542.2	-2,185.2	2,602.1	2,496.8	105.28	24.715	
4,700.0	4,627.9	4,623.9	4,623.9	16.6	90.5	-88.52	1,542.2	-2,185.2	2,601.7	2,494.6	107.06	24.300	
4,724.4	4,651.7	4,647.7	4,647.7	16.7	91.0	-88.63	1,542.2	-2,185.2	2,601.5	2,493.9	107.65	24.166	
4,800.0	4,725.7	4,721.7	4,721.7	17.0	92.5	-88.97	1,542.2	-2,185.2	2,601.2	2,491.7	109.47	23.762	
4,822.8	4,748.0	4,744.0	4,744.0	17.1	92.9	-89.07	1,542.2	-2,185.2	2,601.1	2,491.1	110.02	23.643	
4,904.9	4,828.3	4,824.3	4,824.3	17.5	94.5	-89.44	1,542.2	-2,185.2	2,600.9	2,488.9	111.99	23.224	
4,921.2	4,844.3	4,840.3	4,840.3	17.5	94.9	-89.51	1,542.2	-2,185.2	2,600.9	2,488.5	112.37	23.145	
5,000.0	4,921.6	4,917.6	4,917.6	17.8	96.4	-89.83	1,542.2	-2,185.2	2,600.8	2,486.5	114.22	22.769	
5,019.7	4,941.0	4,937.0	4,937.0	17.9	96.8	-89.90	1,542.2	-2,185.2	2,600.8	2,486.1	114.67	22.680	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
5,046.4	4,967.4	4,963.4	4,963.4	18.0	97.3	-90.00	1,542.2	-2,185.2	2,600.8	2,485.5	115.28	22.561		
5,100.0	5,020.4	5,016.4	5,016.4	18.1	98.4	-90.18	1,542.2	-2,185.2	2,600.8	2,484.3	116.50	22.324		
5,118.1	5,038.3	5,034.3	5,034.3	18.2	98.8	-90.23	1,542.2	-2,185.2	2,600.8	2,483.9	116.91	22.247		
5,200.0	5,119.6	5,115.6	5,115.6	18.4	100.4	-90.45	1,542.2	-2,185.2	2,600.8	2,482.1	118.75	21.902		
5,216.5	5,136.0	5,132.0	5,132.0	18.4	100.7	-90.48	1,542.2	-2,185.2	2,600.8	2,481.7	119.11	21.835		
5,300.0	5,219.2	5,215.2	5,215.2	18.6	102.4	-90.64	1,542.2	-2,185.2	2,600.9	2,480.0	120.97	21.501		
5,314.9	5,234.1	5,230.1	5,230.1	18.6	102.7	-90.67	1,542.2	-2,185.2	2,600.9	2,479.6	121.29	21.443		
5,400.0	5,319.1	5,315.1	5,315.1	18.8	104.4	-90.76	1,542.2	-2,185.2	2,601.0	2,477.8	123.15	21.120		
5,413.4	5,332.4	5,328.4	5,328.4	18.8	104.7	-90.77	1,542.2	-2,185.2	2,601.0	2,477.6	123.44	21.071		
5,504.9	5,423.9	5,419.9	5,419.9	18.9	106.5	-72.39	1,542.2	-2,185.2	2,601.0	2,481.4	119.58	21.751		
5,511.8	5,430.8	5,426.8	5,426.8	18.9	106.7	-72.39	1,542.2	-2,185.2	2,601.0	2,481.3	119.73	21.724		
5,600.0	5,519.0	5,515.0	5,515.0	19.0	108.4	-72.39	1,542.2	-2,185.2	2,601.0	2,479.4	121.66	21.379		
5,610.2	5,529.3	5,525.3	5,525.3	19.0	108.6	-72.39	1,542.2	-2,185.2	2,601.0	2,479.1	121.89	21.339		
5,700.0	5,619.0	5,615.0	5,615.0	19.2	110.4	-72.39	1,542.2	-2,185.2	2,601.0	2,477.1	123.87	20.998		
5,708.6	5,627.7	5,623.7	5,623.7	19.2	110.6	-72.39	1,542.2	-2,185.2	2,601.0	2,476.9	124.06	20.965		
5,800.0	5,719.0	5,715.0	5,715.0	19.3	112.5	-72.39	1,542.2	-2,185.2	2,601.0	2,474.9	126.08	20.629		
5,807.1	5,726.1	5,722.1	5,722.1	19.3	112.6	-72.39	1,542.2	-2,185.2	2,601.0	2,474.8	126.24	20.604		
5,900.0	5,819.0	5,815.0	5,815.0	19.4	114.5	-72.39	1,542.2	-2,185.2	2,601.0	2,472.7	128.29	20.274		
5,905.5	5,824.5	5,820.5	5,820.5	19.4	114.6	-72.39	1,542.2	-2,185.2	2,601.0	2,472.6	128.42	20.255		
6,003.9	5,923.0	5,919.0	5,919.0	19.6	116.6	-72.39	1,542.2	-2,185.2	2,601.0	2,470.4	130.59	19.917		
6,009.8	5,928.8	5,924.8	5,924.8	19.6	116.7	-72.39	1,542.2	-2,185.2	2,601.0	2,470.3	130.72	19.897		
6,050.0	5,969.0	5,965.0	5,965.0	19.6	117.5	17.65	1,542.2	-2,185.2	2,599.9	2,463.0	136.91	18.991		
6,100.0	6,018.8	6,014.8	6,014.8	19.7	118.5	17.78	1,542.2	-2,185.2	2,595.6	2,458.4	137.17	18.922		
6,102.3	6,021.1	6,017.1	6,017.1	19.7	118.5	17.79	1,542.2	-2,185.2	2,595.3	2,458.1	137.17	18.921		
6,150.0	6,068.1	6,064.1	6,064.1	19.7	119.5	18.03	1,542.2	-2,185.2	2,588.0	2,451.2	136.82	18.916		
6,200.0	6,116.8	6,112.8	6,112.8	19.7	120.5	18.38	1,542.2	-2,185.2	2,577.1	2,441.2	135.84	18.971		
6,200.8	6,117.5	6,113.5	6,113.5	19.7	120.5	18.39	1,542.2	-2,185.2	2,576.9	2,441.1	135.82	18.973		
6,250.0	6,164.5	6,160.5	6,160.5	19.7	121.4	18.86	1,542.2	-2,185.2	2,563.0	2,428.7	134.26	19.089		
6,299.2	6,210.4	6,206.4	6,206.4	19.7	122.3	19.47	1,542.2	-2,185.2	2,546.1	2,413.9	132.15	19.267		
6,300.0	6,211.1	6,207.1	6,207.1	19.7	122.4	19.48	1,542.2	-2,185.2	2,545.8	2,413.7	132.11	19.270		
6,350.0	6,256.4	6,252.4	6,252.4	19.7	123.3	20.24	1,542.2	-2,185.2	2,525.5	2,396.1	129.43	19.513		
6,397.6	6,298.0	6,294.0	6,294.0	19.7	124.1	21.13	1,542.2	-2,185.2	2,503.5	2,377.1	126.44	19.800		
6,400.0	6,300.0	6,296.0	6,296.0	19.7	124.1	21.18	1,542.2	-2,185.2	2,502.4	2,376.1	126.28	19.815		
6,450.0	6,341.8	6,337.8	6,337.8	19.7	125.0	22.31	1,542.2	-2,185.2	2,476.4	2,353.6	122.79	20.168		
6,496.0	6,378.6	6,374.6	6,374.6	19.7	125.7	23.55	1,542.2	-2,185.2	2,450.1	2,330.7	119.37	20.525		
6,500.0	6,381.6	6,377.6	6,377.6	19.7	125.8	23.67	1,542.2	-2,185.2	2,447.7	2,328.7	119.08	20.556		
6,550.0	6,419.2	6,415.2	6,415.2	19.6	126.5	25.30	1,542.2	-2,185.2	2,416.6	2,301.2	115.35	20.949		
6,594.5	6,450.7	6,446.7	6,446.7	19.6	127.2	27.02	1,542.2	-2,185.2	2,386.9	2,274.6	112.26	21.263		
6,600.0	6,454.4	6,450.4	6,450.4	19.6	127.2	27.25	1,542.2	-2,185.2	2,383.0	2,271.1	111.90	21.297		
6,650.0	6,487.1	6,483.1	6,483.1	19.6	127.9	29.60	1,542.2	-2,185.2	2,347.4	2,238.3	109.07	21.521		
6,692.9	6,513.0	6,509.0	6,509.0	19.6	128.4	31.99	1,542.2	-2,185.2	2,315.1	2,207.6	107.49	21.537		
6,700.0	6,517.0	6,513.0	6,513.0	19.6	128.5	32.43	1,542.2	-2,185.2	2,309.7	2,202.3	107.34	21.518		
6,750.0	6,544.1	6,540.1	6,540.1	19.6	129.1	35.83	1,542.2	-2,185.2	2,270.2	2,163.0	107.22	21.173		
6,791.3	6,564.2	6,560.2	6,560.2	19.7	129.5	39.17	1,542.2	-2,185.2	2,236.4	2,127.6	108.74	20.567		
6,800.0	6,568.2	6,564.2	6,564.2	19.7	129.5	39.94	1,542.2	-2,185.2	2,229.2	2,119.9	109.23	20.408		
6,850.0	6,589.1	6,585.1	6,585.1	19.8	130.0	44.89	1,542.2	-2,185.2	2,186.8	2,073.0	113.71	19.231		
6,889.7	6,603.5	6,599.5	6,599.5	19.9	130.2	49.50	1,542.2	-2,185.2	2,152.2	2,033.2	119.02	18.083		
6,900.0	6,606.9	6,602.9	6,602.9	19.9	130.3	50.80	1,542.2	-2,185.2	2,143.2	2,022.6	120.60	17.771		
6,950.0	6,621.3	6,617.3	6,617.3	20.2	130.6	57.76	1,542.2	-2,185.2	2,098.8	1,969.5	129.29	16.234		
6,988.2	6,630.0	6,626.0	6,626.0	20.6	130.8	63.76	1,542.2	-2,185.2	2,064.4	1,928.0	136.35	15.140		
7,000.0	6,632.4	6,628.4	6,628.4	20.7	130.8	65.73	1,542.2	-2,185.2	2,053.7	1,915.2	138.48	14.830		
7,050.0	6,640.0	6,636.0	6,636.0	21.4	131.0	74.50	1,542.2	-2,185.2	2,008.1	1,861.7	146.44	13.713		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
7,086.6	6,643.4	6,639.4	6,639.4	21.9	131.0	81.21	1,542.2	-2,185.2	1,974.6	1,824.1	150.51	13.120	
7,100.0	6,644.2	6,640.2	6,640.2	22.1	131.1	83.67	1,542.2	-2,185.2	1,962.4	1,810.9	151.51	12.952	
7,135.7	6,645.0	6,641.0	6,641.0	22.7	131.1	90.16	1,542.2	-2,185.2	1,929.8	1,776.9	152.85	12.626	
7,185.0	6,644.9	6,640.9	6,640.9	23.6	131.1	90.15	1,542.2	-2,185.2	1,884.8	1,731.0	153.81	12.254	
7,200.0	6,644.9	6,640.9	6,640.9	23.9	131.1	90.15	1,542.2	-2,185.2	1,871.2	1,717.1	154.10	12.143	
7,283.4	6,644.8	6,640.8	6,640.8	25.6	131.1	90.14	1,542.2	-2,185.2	1,795.8	1,640.0	155.82	11.525	
7,300.0	6,644.8	6,640.8	6,640.8	25.9	131.1	90.14	1,542.2	-2,185.2	1,781.0	1,624.8	156.17	11.404	
7,381.9	6,644.7	6,640.7	6,640.7	27.7	131.1	90.13	1,542.2	-2,185.2	1,707.9	1,550.0	157.97	10.812	
7,400.0	6,644.7	6,640.7	6,640.7	28.1	131.1	90.13	1,542.2	-2,185.2	1,691.9	1,533.5	158.37	10.683	
7,480.3	6,644.6	6,640.6	6,640.6	29.9	131.1	90.13	1,542.2	-2,185.2	1,621.2	1,461.0	160.23	10.118	
7,500.0	6,644.6	6,640.6	6,640.6	30.3	131.1	90.12	1,542.2	-2,185.2	1,604.0	1,443.3	160.68	9.983	
7,578.7	6,644.5	6,640.5	6,640.5	32.2	131.1	90.12	1,542.2	-2,185.2	1,535.9	1,373.3	162.56	9.448	
7,600.0	6,644.4	6,640.4	6,640.4	32.7	131.1	90.12	1,542.2	-2,185.2	1,517.7	1,354.6	163.07	9.307	
7,677.1	6,644.3	6,640.3	6,640.3	34.6	131.1	90.11	1,542.2	-2,185.2	1,452.2	1,287.3	164.97	8.803	
7,700.0	6,644.3	6,640.3	6,640.3	35.1	131.1	90.11	1,542.2	-2,185.2	1,433.1	1,267.6	165.53	8.658	
7,775.6	6,644.2	6,640.2	6,640.2	37.0	131.1	90.10	1,542.2	-2,185.2	1,370.6	1,203.1	167.42	8.186	
7,800.0	6,644.2	6,640.2	6,640.2	37.6	131.1	90.10	1,542.2	-2,185.2	1,350.6	1,182.6	168.03	8.038	
7,874.0	6,644.1	6,640.1	6,640.1	39.5	131.1	90.09	1,542.2	-2,185.2	1,291.2	1,121.3	169.92	7.599	
7,900.0	6,644.1	6,640.1	6,640.1	40.1	131.1	90.09	1,542.2	-2,185.2	1,270.7	1,100.1	170.58	7.449	
7,972.4	6,644.0	6,640.0	6,640.0	42.0	131.1	90.08	1,542.2	-2,185.2	1,214.7	1,042.2	172.45	7.044	
8,000.0	6,643.9	6,639.9	6,639.9	42.7	131.1	90.08	1,542.2	-2,185.2	1,193.8	1,020.6	173.16	6.894	
8,070.8	6,643.9	6,639.9	6,639.9	44.5	131.1	90.07	1,542.2	-2,185.2	1,141.5	966.5	175.01	6.523	
8,100.0	6,643.8	6,639.8	6,639.8	45.2	131.1	90.07	1,542.2	-2,185.2	1,120.6	944.8	175.77	6.375	
8,169.3	6,643.7	6,639.7	6,639.7	47.0	131.1	90.07	1,542.2	-2,185.2	1,072.3	894.8	177.59	6.038	
8,200.0	6,643.7	6,639.7	6,639.7	47.9	131.1	90.06	1,542.2	-2,185.2	1,051.7	873.3	178.40	5.895	
8,267.7	6,643.6	6,639.6	6,639.6	49.6	131.1	90.06	1,542.2	-2,185.2	1,008.1	827.9	180.19	5.595	
8,300.0	6,643.6	6,639.6	6,639.6	50.5	131.1	90.05	1,542.2	-2,185.2	988.2	807.2	181.05	5.458	
8,366.1	6,643.5	6,639.5	6,639.5	52.2	131.1	90.05	1,542.2	-2,185.2	949.7	766.9	182.81	5.195	
8,400.0	6,643.4	6,639.4	6,639.4	53.1	131.1	90.04	1,542.2	-2,185.2	931.1	747.4	183.71	5.069	
8,464.5	6,643.4	6,639.4	6,639.4	54.8	131.0	90.04	1,542.2	-2,185.2	898.3	712.9	185.44	4.844	
8,500.0	6,643.3	6,639.3	6,639.3	55.8	131.0	90.04	1,542.2	-2,185.2	881.8	695.4	186.39	4.731	
8,563.0	6,643.2	6,639.2	6,639.2	57.5	131.0	90.03	1,542.2	-2,185.2	855.2	667.1	188.09	4.547	
8,600.0	6,643.2	6,639.2	6,639.2	58.5	131.0	90.03	1,542.2	-2,185.2	841.4	652.3	189.09	4.450	
8,661.4	6,643.1	6,639.1	6,639.1	60.1	131.0	90.02	1,542.2	-2,185.2	821.7	631.0	190.74	4.308	
8,700.0	6,643.1	6,639.1	6,639.1	61.2	131.0	90.02	1,542.2	-2,185.2	811.4	619.7	191.79	4.231	
8,759.8	6,643.0	6,639.0	6,639.0	62.8	131.0	90.01	1,542.2	-2,185.2	799.0	605.6	193.41	4.131	
8,800.0	6,643.0	6,639.0	6,639.0	63.9	131.0	90.01	1,542.2	-2,185.2	793.0	598.5	194.50	4.077	
8,858.2	6,642.9	6,638.9	6,638.9	65.4	131.0	90.00	1,542.2	-2,185.2	788.0	591.9	196.08	4.019	
8,897.7	6,642.8	6,638.8	6,638.8	66.5	131.0	90.00	1,542.2	-2,185.2	787.0	589.8	197.16	3.992 CC	
8,900.0	6,642.8	6,638.8	6,638.8	66.6	131.0	90.00	1,542.2	-2,185.2	787.0	589.8	197.22	3.990 ES	
8,956.7	6,642.8	6,638.8	6,638.8	68.1	131.0	89.99	1,542.2	-2,185.2	789.2	590.4	198.77	3.971	
9,000.0	6,642.7	6,638.7	6,638.7	69.3	131.0	89.99	1,542.2	-2,185.2	793.6	593.7	199.95	3.969 SF	
9,055.1	6,642.6	6,638.6	6,638.6	70.8	131.0	89.99	1,542.2	-2,185.2	802.6	601.1	201.45	3.984	
9,100.0	6,642.6	6,638.6	6,638.6	72.0	131.0	89.98	1,542.2	-2,185.2	812.6	609.9	202.68	4.009	
9,153.5	6,642.5	6,638.5	6,638.5	73.5	131.0	89.98	1,542.2	-2,185.2	827.5	623.4	204.15	4.054	
9,200.0	6,642.5	6,638.5	6,638.5	74.7	131.0	89.97	1,542.2	-2,185.2	843.1	637.7	205.42	4.104	
9,251.9	6,642.4	6,638.4	6,638.4	76.2	131.0	89.97	1,542.2	-2,185.2	863.1	656.2	206.85	4.173	
9,300.0	6,642.3	6,638.3	6,638.3	77.5	131.0	89.96	1,542.2	-2,185.2	883.9	675.7	208.16	4.246	
9,350.4	6,642.3	6,638.3	6,638.3	78.9	131.0	89.96	1,542.2	-2,185.2	907.9	698.4	209.55	4.333	
9,400.0	6,642.2	6,638.2	6,638.2	80.2	131.0	89.95	1,542.2	-2,185.2	933.7	722.7	210.91	4.427	
9,448.8	6,642.1	6,638.1	6,638.1	81.6	131.0	89.95	1,542.2	-2,185.2	960.8	748.5	212.26	4.527	
9,500.0	6,642.1	6,638.1	6,638.1	83.0	131.0	89.95	1,542.2	-2,185.2	991.0	777.4	213.67	4.638	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,642.0	6,638.0	6,638.0	84.3	131.0	89.94	1,542.2	-2,185.2	1,020.4	805.5	214.97	4.747	
9,600.0	6,642.0	6,638.0	6,638.0	85.7	131.0	89.94	1,542.2	-2,185.2	1,054.8	838.4	216.42	4.874	
9,645.6	6,641.9	6,637.9	6,637.9	87.0	131.0	89.93	1,542.2	-2,185.2	1,085.7	868.1	217.68	4.988	
9,700.0	6,641.8	6,637.8	6,637.8	88.5	131.0	89.93	1,542.2	-2,185.2	1,123.9	904.7	219.18	5.128	
9,744.1	6,641.8	6,637.8	6,637.8	89.7	131.0	89.92	1,542.2	-2,185.2	1,155.8	935.4	220.40	5.244	
9,800.0	6,641.7	6,637.7	6,637.7	91.2	131.0	89.92	1,542.2	-2,185.2	1,197.3	975.4	221.95	5.395	
9,842.5	6,641.7	6,637.7	6,637.7	92.4	131.0	89.91	1,542.2	-2,185.2	1,229.7	1,006.5	223.12	5.511	
9,900.0	6,641.6	6,637.6	6,637.6	94.0	131.0	89.91	1,542.2	-2,185.2	1,274.4	1,049.7	224.71	5.671	
9,940.9	6,641.5	6,637.5	6,637.5	95.1	131.0	89.90	1,542.2	-2,185.2	1,306.8	1,081.0	225.84	5.786	
10,000.0	6,641.5	6,637.5	6,637.5	96.7	131.0	89.90	1,542.2	-2,185.2	1,354.4	1,127.0	227.48	5.954	
10,039.3	6,641.4	6,637.4	6,637.4	97.8	131.0	89.90	1,542.2	-2,185.2	1,386.7	1,158.1	228.57	6.067	
10,100.0	6,641.3	6,637.3	6,637.3	99.5	131.0	89.89	1,542.2	-2,185.2	1,437.0	1,206.8	230.25	6.241	
10,137.8	6,641.3	6,637.3	6,637.3	100.6	131.0	89.89	1,542.2	-2,185.2	1,468.8	1,237.5	231.30	6.350	
10,200.0	6,641.2	6,637.2	6,637.2	102.3	131.0	89.88	1,542.2	-2,185.2	1,521.7	1,288.6	233.02	6.530	
10,236.2	6,641.2	6,637.2	6,637.2	103.3	131.0	89.88	1,542.2	-2,185.2	1,552.8	1,318.7	234.03	6.635	
10,300.0	6,641.1	6,637.1	6,637.1	105.0	131.0	89.87	1,542.2	-2,185.2	1,608.1	1,372.3	235.80	6.820	
10,334.6	6,641.0	6,637.0	6,637.0	106.0	131.0	89.87	1,542.2	-2,185.2	1,638.4	1,401.6	236.76	6.920	
10,400.0	6,641.0	6,637.0	6,637.0	107.8	131.0	89.86	1,542.2	-2,185.2	1,696.0	1,457.4	238.57	7.109	
10,433.0	6,640.9	6,636.9	6,636.9	108.7	131.0	89.86	1,542.2	-2,185.2	1,725.3	1,485.8	239.49	7.204	
10,500.0	6,640.8	6,636.8	6,636.8	110.6	131.0	89.85	1,542.2	-2,185.2	1,785.2	1,543.8	241.35	7.397	
10,531.5	6,640.8	6,636.8	6,636.8	111.5	131.0	89.85	1,542.2	-2,185.2	1,813.5	1,571.3	242.22	7.487	
10,600.0	6,640.7	6,636.7	6,636.7	113.4	131.0	89.84	1,542.2	-2,185.2	1,875.5	1,631.3	244.13	7.682	
10,629.9	6,640.7	6,636.7	6,636.7	114.2	131.0	89.84	1,542.2	-2,185.2	1,902.6	1,657.7	244.96	7.767	
10,700.0	6,640.6	6,636.6	6,636.6	116.1	131.0	89.83	1,542.2	-2,185.2	1,966.7	1,719.8	246.91	7.965	
10,728.3	6,640.5	6,636.5	6,636.5	116.9	131.0	89.83	1,542.2	-2,185.2	1,992.7	1,745.0	247.70	8.045	
10,800.0	6,640.5	6,636.5	6,636.5	118.9	131.0	89.83	1,542.2	-2,185.2	2,058.7	1,809.0	249.69	8.245	
10,826.7	6,640.4	6,636.4	6,636.4	119.7	131.0	89.82	1,542.2	-2,185.2	2,083.4	1,833.0	250.44	8.319	
10,900.0	6,640.3	6,636.3	6,636.3	121.7	131.0	89.82	1,542.2	-2,185.2	2,151.4	1,899.0	252.47	8.521	
10,925.2	6,640.3	6,636.3	6,636.3	122.4	131.0	89.81	1,542.2	-2,185.2	2,174.9	1,921.7	253.17	8.591	
11,000.0	6,640.2	6,636.2	6,636.2	124.5	131.0	89.81	1,542.2	-2,185.2	2,244.8	1,989.6	255.26	8.794	
11,023.6	6,640.2	6,636.2	6,636.2	125.1	131.0	89.80	1,542.2	-2,185.2	2,266.9	2,011.0	255.92	8.858	
11,100.0	6,640.1	6,636.1	6,636.1	127.3	131.0	89.80	1,542.2	-2,185.2	2,338.7	2,080.7	258.04	9.063	
11,122.0	6,640.0	6,636.0	6,636.0	127.9	131.0	89.79	1,542.2	-2,185.2	2,359.5	2,100.8	258.66	9.122	
11,200.0	6,639.9	6,635.9	6,635.9	130.1	131.0	89.79	1,542.2	-2,185.2	2,433.1	2,172.3	260.83	9.328	
11,220.4	6,639.9	6,635.9	6,635.9	130.6	131.0	89.79	1,542.2	-2,185.2	2,452.5	2,191.1	261.40	9.382	
11,300.0	6,639.8	6,635.8	6,635.8	132.8	131.0	89.78	1,542.2	-2,185.2	2,528.0	2,264.3	263.62	9.590	
11,318.9	6,639.8	6,635.8	6,635.8	133.4	131.0	89.78	1,542.2	-2,185.2	2,545.9	2,281.8	264.14	9.638	
11,400.0	6,639.7	6,635.7	6,635.7	135.6	131.0	89.77	1,542.2	-2,185.2	2,623.2	2,356.8	266.40	9.847	
11,417.3	6,639.7	6,635.7	6,635.7	136.1	131.0	89.77	1,542.2	-2,185.2	2,639.7	2,372.8	266.89	9.891	
11,500.0	6,639.6	6,635.6	6,635.6	138.4	131.0	89.76	1,542.2	-2,185.2	2,718.7	2,449.5	269.19	10.100	
11,515.7	6,639.5	6,635.5	6,635.5	138.9	131.0	89.76	1,542.2	-2,185.2	2,733.8	2,464.2	269.63	10.139	
11,600.0	6,639.4	6,635.4	6,635.4	141.2	131.0	89.75	1,542.2	-2,185.2	2,814.6	2,542.6	271.98	10.348	
11,614.1	6,639.4	6,635.4	6,635.4	141.6	131.0	89.75	1,542.2	-2,185.2	2,828.2	2,555.8	272.38	10.383	
11,700.0	6,639.3	6,635.3	6,635.3	144.0	131.0	89.74	1,542.2	-2,185.2	2,910.8	2,636.0	274.77	10.593	
11,712.6	6,639.3	6,635.3	6,635.3	144.3	131.0	89.74	1,542.2	-2,185.2	2,922.9	2,647.7	275.12	10.624	
11,800.0	6,639.2	6,635.2	6,635.2	146.8	131.0	89.73	1,542.2	-2,185.2	3,007.2	2,729.6	277.56	10.834	
11,811.0	6,639.2	6,635.2	6,635.2	147.1	131.0	89.73	1,542.2	-2,185.2	3,017.8	2,739.9	277.87	10.860	
11,900.0	6,639.1	6,635.1	6,635.1	149.6	131.0	89.72	1,542.2	-2,185.2	3,103.8	2,823.4	280.36	11.071	
11,909.4	6,639.0	6,635.0	6,635.0	149.8	131.0	89.72	1,542.2	-2,185.2	3,112.9	2,832.3	280.62	11.093	
12,000.0	6,638.9	6,634.9	6,634.9	152.4	131.0	89.71	1,542.2	-2,185.2	3,200.6	2,917.5	283.15	11.304	
12,007.8	6,638.9	6,634.9	6,634.9	152.6	131.0	89.71	1,542.2	-2,185.2	3,208.2	2,924.9	283.37	11.322	
12,100.0	6,638.8	6,634.8	6,634.8	155.2	131.0	89.70	1,542.2	-2,185.2	3,297.6	3,011.7	285.94	11.533	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,106.3	6,638.8	6,634.8	6,634.8	155.3	131.0	89.70	1,542.2	-2,185.2	3,303.7	3,017.6	286.12	11.547	
12,200.0	6,638.7	6,634.7	6,634.7	157.9	131.0	89.69	1,542.2	-2,185.2	3,394.8	3,106.1	288.74	11.758	
12,204.7	6,638.7	6,634.7	6,634.7	158.1	131.0	89.69	1,542.2	-2,185.2	3,399.4	3,110.5	288.87	11.768	
12,300.0	6,638.5	6,634.5	6,634.5	160.7	131.0	89.68	1,542.2	-2,185.2	3,492.2	3,200.6	291.53	11.979	
12,303.1	6,638.5	6,634.5	6,634.5	160.8	131.0	89.68	1,542.2	-2,185.2	3,495.2	3,203.6	291.62	11.986	
12,400.0	6,638.4	6,634.4	6,634.4	163.5	130.9	89.67	1,542.2	-2,185.2	3,589.7	3,295.4	294.32	12.196	
12,401.5	6,638.4	6,634.4	6,634.4	163.6	130.9	89.67	1,542.2	-2,185.2	3,591.2	3,296.8	294.37	12.200	
12,500.0	6,638.3	6,634.3	6,634.3	166.3	130.9	89.66	1,542.2	-2,185.2	3,687.3	3,390.2	297.12	12.410	
12,598.4	6,638.2	6,634.2	6,634.2	169.1	130.9	89.65	1,542.2	-2,185.2	3,783.5	3,483.6	299.87	12.617	
12,600.0	6,638.2	6,634.2	6,634.2	169.1	130.9	89.65	1,542.2	-2,185.2	3,785.1	3,485.2	299.91	12.621	
12,696.8	6,638.0	6,634.0	6,634.0	171.8	130.9	89.64	1,542.2	-2,185.2	3,879.8	3,577.2	302.62	12.821	
12,700.0	6,638.0	6,634.0	6,634.0	171.9	130.9	89.64	1,542.2	-2,185.2	3,882.9	3,580.2	302.71	12.827	
12,795.2	6,637.9	6,633.9	6,633.9	174.6	130.9	89.64	1,542.2	-2,185.2	3,976.3	3,670.9	305.37	13.021	
12,800.0	6,637.9	6,633.9	6,633.9	174.7	130.9	89.63	1,542.2	-2,185.2	3,980.9	3,675.4	305.51	13.031	
12,893.7	6,637.8	6,633.8	6,633.8	177.3	130.9	89.63	1,542.2	-2,185.2	4,072.8	3,764.7	308.13	13.218	
12,900.0	6,637.8	6,633.8	6,633.8	177.5	130.9	89.62	1,542.2	-2,185.2	4,079.0	3,770.7	308.30	13.230	
12,992.1	6,637.7	6,633.7	6,633.7	180.1	130.9	89.62	1,542.2	-2,185.2	4,169.4	3,858.5	310.88	13.412	
13,000.0	6,637.6	6,633.6	6,633.6	180.3	130.9	89.62	1,542.2	-2,185.2	4,177.2	3,866.1	311.10	13.427	
13,090.5	6,637.5	6,633.5	6,633.5	182.8	130.9	89.61	1,542.2	-2,185.2	4,266.1	3,952.5	313.63	13.602	
13,100.0	6,637.5	6,633.5	6,633.5	183.1	130.9	89.61	1,542.2	-2,185.2	4,275.4	3,961.5	313.90	13.620	
13,188.9	6,637.4	6,633.4	6,633.4	185.6	130.9	89.60	1,542.2	-2,185.2	4,362.9	4,046.5	316.38	13.790	
13,200.0	6,637.4	6,633.4	6,633.4	185.9	130.9	89.60	1,542.2	-2,185.2	4,373.7	4,057.0	316.69	13.811	
13,287.4	6,637.3	6,633.3	6,633.3	188.4	130.9	89.59	1,542.2	-2,185.2	4,459.7	4,140.6	319.14	13.974	
13,300.0	6,637.3	6,633.3	6,633.3	188.7	130.9	89.59	1,542.2	-2,185.2	4,472.1	4,152.6	319.49	13.998	
13,385.8	6,637.1	6,633.1	6,633.1	191.1	130.9	89.58	1,542.2	-2,185.2	4,556.6	4,234.7	321.89	14.156	
13,400.0	6,637.1	6,633.1	6,633.1	191.5	130.9	89.58	1,542.2	-2,185.2	4,570.6	4,248.3	322.29	14.182	
13,484.2	6,637.0	6,633.0	6,633.0	193.9	130.9	89.57	1,542.2	-2,185.2	4,653.6	4,329.0	324.65	14.334	
13,500.0	6,637.0	6,633.0	6,633.0	194.3	130.9	89.57	1,542.2	-2,185.2	4,669.1	4,344.1	325.09	14.363	
13,582.6	6,636.9	6,632.9	6,632.9	196.6	130.9	89.56	1,542.2	-2,185.2	4,750.6	4,423.2	327.40	14.510	
13,600.0	6,636.9	6,632.9	6,632.9	197.1	130.9	89.56	1,542.2	-2,185.2	4,767.7	4,439.9	327.89	14.541	
13,681.1	6,636.8	6,632.8	6,632.8	199.4	130.9	89.55	1,542.2	-2,185.2	4,847.7	4,517.6	330.16	14.683	
13,700.0	6,636.7	6,632.7	6,632.7	199.9	130.9	89.55	1,542.2	-2,185.2	4,866.4	4,535.7	330.69	14.716	
13,779.5	6,636.6	6,632.6	6,632.6	202.1	130.9	89.54	1,542.2	-2,185.2	4,944.9	4,612.0	332.91	14.853	
13,800.0	6,636.6	6,632.6	6,632.6	202.7	130.9	89.54	1,542.2	-2,185.2	4,965.1	4,631.6	333.49	14.889	
13,877.9	6,636.5	6,632.5	6,632.5	204.9	130.9	89.53	1,542.2	-2,185.2	5,042.1	4,706.4	335.67	15.021	
13,900.0	6,636.5	6,632.5	6,632.5	205.5	130.9	89.53	1,542.2	-2,185.2	5,063.9	4,727.6	336.28	15.058	
13,976.3	6,636.4	6,632.4	6,632.4	207.6	130.9	89.52	1,542.2	-2,185.2	5,139.3	4,800.9	338.42	15.186	
14,000.0	6,636.3	6,632.3	6,632.3	208.3	130.9	89.52	1,542.2	-2,185.2	5,162.7	4,823.6	339.08	15.225	
14,074.8	6,636.3	6,632.3	6,632.3	210.4	130.9	89.51	1,542.2	-2,185.2	5,236.6	4,895.4	341.18	15.349	
14,100.0	6,636.2	6,632.2	6,632.2	211.1	130.9	89.51	1,542.2	-2,185.2	5,261.5	4,919.7	341.88	15.390	
14,173.2	6,636.1	6,632.1	6,632.1	213.2	130.9	89.50	1,542.2	-2,185.2	5,333.9	4,990.0	343.93	15.509	
14,200.0	6,636.1	6,632.1	6,632.1	213.9	130.9	89.50	1,542.2	-2,185.2	5,360.4	5,015.8	344.68	15.552	
14,271.6	6,636.0	6,632.0	6,632.0	215.9	130.9	89.49	1,542.2	-2,185.2	5,431.3	5,084.6	346.69	15.666	
14,300.0	6,636.0	6,632.0	6,632.0	216.7	130.9	89.49	1,542.2	-2,185.2	5,459.4	5,111.9	347.48	15.711	
14,370.0	6,635.9	6,631.9	6,631.9	218.7	130.9	89.48	1,542.2	-2,185.2	5,528.7	5,179.3	349.45	15.821	
14,400.0	6,635.8	6,631.8	6,631.8	219.5	130.9	89.48	1,542.2	-2,185.2	5,558.3	5,208.1	350.28	15.868	
14,468.5	6,635.7	6,631.7	6,631.7	221.4	130.9	89.47	1,542.2	-2,185.2	5,626.1	5,273.9	352.20	15.974	
14,500.0	6,635.7	6,631.7	6,631.7	222.3	130.9	89.47	1,542.2	-2,185.2	5,657.4	5,304.3	353.08	16.023	
14,566.9	6,635.6	6,631.6	6,631.6	224.2	130.9	89.46	1,542.2	-2,185.2	5,723.6	5,368.7	354.96	16.125	
14,600.0	6,635.6	6,631.6	6,631.6	225.1	130.9	89.46	1,542.2	-2,185.2	5,756.4	5,400.5	355.89	16.175	
14,665.3	6,635.5	6,631.5	6,631.5	226.9	130.9	89.45	1,542.2	-2,185.2	5,821.1	5,463.4	357.72	16.273	
14,700.0	6,635.4	6,631.4	6,631.4	227.9	130.9	89.45	1,542.2	-2,185.2	5,855.5	5,496.8	358.69	16.325	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT OGRADY #31-9 - 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	
14,763.7	6,635.4	6,631.4	6,631.4	229.7	130.9	89.44	1,542.2	-2,185.2	5,918.7	5,558.2	360.47	16.419	
14,800.0	6,635.3	6,631.3	6,631.3	230.7	130.9	89.44	1,542.2	-2,185.2	5,954.6	5,593.1	361.49	16.472	
14,862.2	6,635.2	6,631.2	6,631.2	232.5	130.9	89.43	1,542.2	-2,185.2	6,016.2	5,653.0	363.23	16.563	
14,900.0	6,635.2	6,631.2	6,631.2	233.5	130.9	89.43	1,542.2	-2,185.2	6,053.7	5,689.4	364.29	16.618	
14,960.6	6,635.1	6,631.1	6,631.1	235.2	130.9	89.42	1,542.2	-2,185.2	6,113.8	5,747.8	365.99	16.705	
15,000.0	6,635.0	6,631.0	6,631.0	236.3	130.9	89.42	1,542.2	-2,185.2	6,152.9	5,785.8	367.09	16.761	
15,033.1	6,635.0	6,631.0	6,631.0	237.3	130.9	89.41	1,542.2	-2,185.2	6,185.7	5,817.7	368.02	16.808	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-91.01	-160.8	-9,147.1	9,148.6				
98.4	98.4	73.4	73.4	0.1	0.0	-91.01	-160.8	-9,147.1	9,148.5	9,148.4	0.11	N/A	
100.0	100.0	75.0	75.0	0.1	0.0	-91.01	-160.8	-9,147.1	9,148.5	9,148.4	0.11	N/A	
196.8	196.8	171.8	171.8	0.3	1.9	-91.01	-160.8	-9,147.1	9,148.5	9,146.3	2.24	4,088.109	
200.0	200.0	175.0	175.0	0.3	2.0	-91.01	-160.8	-9,147.1	9,148.5	9,146.2	2.33	3,928.742	
295.3	295.3	270.3	270.3	0.5	4.1	-91.01	-160.8	-9,147.1	9,148.5	9,143.9	4.65	1,966.300	
300.0	300.0	275.0	275.0	0.5	4.2	-91.01	-160.8	-9,147.1	9,148.5	9,143.8	4.76	1,921.765	
393.7	393.7	368.7	368.7	0.8	6.1	-91.01	-160.8	-9,147.1	9,148.5	9,141.6	6.88	1,329.815	
400.0	400.0	375.0	375.0	0.8	6.2	-91.01	-160.8	-9,147.1	9,148.5	9,141.5	7.02	1,302.919	
492.1	492.1	467.1	467.1	1.0	8.1	-91.01	-160.8	-9,147.1	9,148.5	9,139.4	9.09	1,006.163	
500.0	500.0	475.0	475.0	1.0	8.3	-91.01	-160.8	-9,147.1	9,148.5	9,139.3	9.27	986.967	
590.5	590.5	565.5	565.5	1.2	10.1	-91.01	-160.8	-9,147.1	9,148.5	9,137.2	11.30	809.579	
600.0	600.0	575.0	575.0	1.2	10.3	-91.01	-160.8	-9,147.1	9,148.5	9,137.0	11.51	794.680	
689.0	689.0	664.0	664.0	1.4	12.1	-91.01	-160.8	-9,147.1	9,148.5	9,135.0	13.51	677.382	
700.0	700.0	675.0	675.0	1.4	12.3	-91.01	-160.8	-9,147.1	9,148.5	9,134.8	13.75	665.218	
787.4	787.4	762.4	762.4	1.6	14.1	-91.01	-160.8	-9,147.1	9,148.5	9,132.8	15.71	582.349	
800.0	800.0	775.0	775.0	1.7	14.3	-91.01	-160.8	-9,147.1	9,148.5	9,132.5	15.99	572.077	
885.8	885.8	860.8	860.8	1.9	16.0	-91.01	-160.8	-9,147.1	9,148.5	9,130.6	17.91	510.726	
900.0	900.0	875.0	875.0	1.9	16.3	-91.01	-160.8	-9,147.1	9,148.5	9,130.3	18.23	501.838	
984.2	984.2	959.2	959.2	2.1	18.0	-91.01	-160.8	-9,147.1	9,148.5	9,128.4	20.12	454.804	
1,000.0	1,000.0	975.0	975.0	2.1	18.3	-91.01	-160.8	-9,147.1	9,148.5	9,128.1	20.47	446.973	
1,082.7	1,082.7	1,057.7	1,057.7	2.3	20.0	-118.00	-160.8	-9,147.1	9,149.1	9,126.8	22.31	410.028	
1,100.0	1,100.0	1,075.0	1,075.0	2.3	20.4	-118.00	-160.8	-9,147.1	9,149.3	9,126.6	22.70	403.066	
1,181.1	1,181.0	1,156.0	1,156.0	2.5	22.0	-117.99	-160.8	-9,147.1	9,151.2	9,126.7	24.50	373.496	
1,200.0	1,199.8	1,174.8	1,174.8	2.6	22.4	-117.99	-160.8	-9,147.1	9,151.8	9,126.9	24.92	367.244	
1,279.5	1,279.1	1,254.1	1,254.1	2.8	24.0	-117.97	-160.8	-9,147.1	9,154.9	9,128.3	26.68	343.125	
1,300.0	1,299.5	1,274.5	1,274.5	2.8	24.4	-117.96	-160.8	-9,147.1	9,155.9	9,128.8	27.13	337.449	
1,377.9	1,376.9	1,351.9	1,351.9	3.0	25.9	-117.94	-160.8	-9,147.1	9,160.2	9,131.4	28.85	317.459	
1,400.0	1,398.7	1,373.7	1,373.7	3.0	26.4	-117.93	-160.8	-9,147.1	9,161.7	9,132.3	29.34	312.261	
1,476.4	1,474.2	1,449.2	1,449.2	3.2	27.9	-117.89	-160.8	-9,147.1	9,167.2	9,136.1	31.03	295.462	
1,500.0	1,497.5	1,472.5	1,472.5	3.3	28.4	-117.88	-160.8	-9,147.1	9,169.0	9,137.5	31.55	290.661	
1,574.8	1,571.0	1,546.0	1,546.0	3.5	29.8	-117.84	-160.8	-9,147.1	9,175.7	9,142.5	33.20	276.371	
1,600.0	1,595.6	1,570.6	1,570.6	3.6	30.3	-117.83	-160.8	-9,147.1	9,178.1	9,144.3	33.75	271.905	
1,673.2	1,667.2	1,642.2	1,642.2	3.9	31.8	-117.91	-160.8	-9,147.1	9,185.3	9,149.9	35.42	259.343	
1,700.0	1,693.4	1,668.4	1,668.4	4.0	32.3	-117.94	-160.8	-9,147.1	9,188.0	9,152.0	36.03	255.040	
1,771.6	1,763.5	1,738.5	1,738.5	4.2	33.7	-118.02	-160.8	-9,147.1	9,195.1	9,157.4	37.66	244.130	
1,800.0	1,791.3	1,766.3	1,766.3	4.3	34.3	-118.05	-160.8	-9,147.1	9,197.9	9,159.6	38.31	240.072	
1,870.1	1,859.8	1,834.8	1,834.8	4.6	35.6	-118.13	-160.8	-9,147.1	9,204.9	9,165.0	39.93	230.552	
1,900.0	1,889.1	1,864.1	1,864.1	4.7	36.2	-118.16	-160.8	-9,147.1	9,207.9	9,167.3	40.61	226.721	
1,968.5	1,956.1	1,931.1	1,931.1	4.9	37.6	-118.24	-160.8	-9,147.1	9,214.7	9,172.5	42.20	218.381	
2,000.0	1,986.9	1,961.9	1,961.9	5.1	38.2	-118.28	-160.8	-9,147.1	9,217.9	9,175.0	42.92	214.751	
2,066.9	2,052.3	2,027.3	2,027.3	5.3	39.5	-118.35	-160.8	-9,147.1	9,224.6	9,180.1	44.47	207.411	
2,100.0	2,084.7	2,059.7	2,059.7	5.5	40.2	-118.39	-160.8	-9,147.1	9,227.9	9,182.7	45.24	203.970	
2,165.3	2,148.6	2,123.6	2,123.6	5.7	41.5	-118.46	-160.8	-9,147.1	9,234.5	9,187.7	46.76	197.485	
2,200.0	2,182.5	2,157.5	2,157.5	5.9	42.1	-118.50	-160.8	-9,147.1	9,238.0	9,190.4	47.57	194.215	
2,263.8	2,244.9	2,219.9	2,219.9	6.1	43.4	-118.57	-160.8	-9,147.1	9,244.4	9,195.4	49.05	188.465	
2,300.0	2,280.3	2,255.3	2,255.3	6.3	44.1	-118.61	-160.8	-9,147.1	9,248.1	9,198.2	49.89	185.352	
2,362.2	2,341.2	2,316.2	2,316.2	6.5	45.3	-118.68	-160.8	-9,147.1	9,254.4	9,203.1	51.35	180.237	
2,400.0	2,378.1	2,353.1	2,353.1	6.7	46.1	-118.72	-160.8	-9,147.1	9,258.2	9,206.0	52.23	177.267	
2,460.6	2,437.4	2,412.4	2,412.4	6.9	47.3	-118.79	-160.8	-9,147.1	9,264.4	9,210.8	53.64	172.702	
2,500.0	2,476.0	2,451.0	2,451.0	7.1	48.0	-118.83	-160.8	-9,147.1	9,268.4	9,213.9	54.56	169.864	
2,550.0	2,524.9	2,499.9	2,499.9	7.3	49.0	-118.89	-160.8	-9,147.1	9,273.5	9,217.8	55.73	166.393	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - 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	2,533.7	2,508.7	2,508.7	7.3	49.2	-118.04	-160.8	-9,147.1	9,274.4	9,218.5	55.96	165.741			
2,600.0	2,573.8	2,548.8	2,548.8	7.5	50.0	-114.21	-160.8	-9,147.1	9,278.2	9,221.3	56.97	162.863			
2,639.4	2,612.3	2,587.3	2,587.3	7.7	50.8	-110.53	-160.8	-9,147.1	9,281.4	9,223.5	57.93	160.211			
2,657.5	2,630.0	2,605.0	2,605.0	7.7	51.1	-110.55	-160.8	-9,147.1	9,282.8	9,224.4	58.36	159.072			
2,700.0	2,671.6	2,646.6	2,646.6	7.9	52.0	-110.60	-160.8	-9,147.1	9,285.9	9,226.6	59.35	156.460			
2,755.9	2,726.3	2,701.3	2,701.3	8.1	53.1	-110.67	-160.8	-9,147.1	9,290.1	9,229.4	60.67	153.127			
2,800.0	2,769.4	2,744.4	2,744.4	8.3	53.9	-110.72	-160.8	-9,147.1	9,293.4	9,231.7	61.71	150.600			
2,854.3	2,822.5	2,797.5	2,797.5	8.5	55.0	-110.78	-160.8	-9,147.1	9,297.5	9,234.5	62.99	147.598			
2,900.0	2,867.2	2,842.2	2,842.2	8.7	55.9	-110.84	-160.8	-9,147.1	9,300.9	9,236.9	64.07	145.168			
2,952.7	2,918.8	2,893.8	2,893.8	9.0	56.9	-110.90	-160.8	-9,147.1	9,304.9	9,239.6	65.32	142.459			
3,000.0	2,965.0	2,940.0	2,940.0	9.2	57.9	-110.95	-160.8	-9,147.1	9,308.5	9,242.1	66.43	140.119			
3,051.2	3,015.1	2,990.1	2,990.1	9.4	58.9	-111.01	-160.8	-9,147.1	9,312.4	9,244.7	67.64	137.670			
3,100.0	3,062.8	3,037.8	3,037.8	9.6	59.8	-111.07	-160.8	-9,147.1	9,316.1	9,247.3	68.80	135.415			
3,149.6	3,111.4	3,086.4	3,086.4	9.8	60.8	-111.13	-160.8	-9,147.1	9,319.9	9,249.9	69.97	133.199			
3,200.0	3,160.7	3,135.7	3,135.7	10.0	61.8	-111.19	-160.8	-9,147.1	9,323.7	9,252.6	71.16	131.022			
3,248.0	3,207.6	3,182.6	3,182.6	10.2	62.8	-111.24	-160.8	-9,147.1	9,327.4	9,255.1	72.30	129.014			
3,300.0	3,258.5	3,233.5	3,233.5	10.5	63.8	-111.31	-160.8	-9,147.1	9,331.4	9,257.9	73.53	126.911			
3,346.4	3,303.9	3,278.9	3,278.9	10.7	64.7	-111.36	-160.8	-9,147.1	9,335.0	9,260.4	74.63	125.089			
3,400.0	3,356.3	3,331.3	3,331.3	10.9	65.7	-111.42	-160.8	-9,147.1	9,339.1	9,263.2	75.89	123.055			
3,444.9	3,400.2	3,375.2	3,375.2	11.1	66.6	-111.47	-160.8	-9,147.1	9,342.6	9,265.7	76.96	121.402			
3,500.0	3,454.1	3,429.1	3,429.1	11.3	67.7	-111.54	-160.8	-9,147.1	9,346.9	9,268.6	78.26	119.433			
3,543.3	3,496.5	3,471.5	3,471.5	11.5	68.6	-111.59	-160.8	-9,147.1	9,350.3	9,271.0	79.29	117.931			
3,600.0	3,551.9	3,526.9	3,526.9	11.7	69.7	-111.65	-160.8	-9,147.1	9,354.7	9,274.1	80.63	116.023			
3,641.7	3,592.7	3,567.7	3,567.7	11.9	70.5	-111.70	-160.8	-9,147.1	9,358.0	9,276.3	81.62	114.658			
3,700.0	3,649.7	3,624.7	3,624.7	12.2	71.6	-111.77	-160.8	-9,147.1	9,362.5	9,279.5	83.00	112.807			
3,740.1	3,689.0	3,664.0	3,664.0	12.4	72.4	-111.82	-160.8	-9,147.1	9,365.7	9,281.7	83.95	111.567			
3,800.0	3,747.5	3,722.5	3,722.5	12.6	73.6	-111.89	-160.8	-9,147.1	9,370.4	9,285.0	85.36	109.770			
3,838.6	3,785.3	3,760.3	3,760.3	12.8	74.4	-111.93	-160.8	-9,147.1	9,373.5	9,287.2	86.28	108.643			
3,900.0	3,845.4	3,820.4	3,820.4	13.1	75.6	-112.00	-160.8	-9,147.1	9,378.3	9,290.6	87.73	106.897			
3,937.0	3,881.6	3,856.6	3,856.6	13.2	76.3	-112.04	-160.8	-9,147.1	9,381.3	9,292.7	88.61	105.873			
4,000.0	3,943.2	3,918.2	3,918.2	13.5	77.5	-112.12	-160.8	-9,147.1	9,386.3	9,296.2	90.10	104.176			
4,035.4	3,977.8	3,952.8	3,952.8	13.6	78.2	-112.16	-160.8	-9,147.1	9,389.1	9,298.2	90.94	103.246			
4,100.0	4,041.0	4,016.0	4,016.0	13.9	79.5	-112.23	-160.8	-9,147.1	9,394.3	9,301.8	92.47	101.594			
4,133.8	4,074.1	4,049.1	4,049.1	14.1	80.2	-112.27	-160.8	-9,147.1	9,397.0	9,303.7	93.27	100.750			
4,200.0	4,138.8	4,113.8	4,113.8	14.4	81.5	-112.35	-160.8	-9,147.1	9,402.3	9,307.5	94.84	99.142			
4,232.3	4,170.4	4,145.4	4,145.4	14.5	82.1	-112.39	-160.8	-9,147.1	9,404.9	9,309.3	95.60	98.377			
4,300.0	4,236.6	4,211.6	4,211.6	14.8	83.4	-112.46	-160.8	-9,147.1	9,410.4	9,313.2	97.20	96.810			
4,330.7	4,266.7	4,241.7	4,241.7	14.9	84.0	-112.50	-160.8	-9,147.1	9,412.9	9,315.0	97.93	96.117			
4,400.0	4,334.4	4,309.4	4,309.4	15.2	85.4	-112.58	-160.8	-9,147.1	9,418.5	9,318.9	99.57	94.589			
4,429.1	4,362.9	4,337.9	4,337.9	15.4	86.0	-112.61	-160.8	-9,147.1	9,420.9	9,320.6	100.26	93.962			
4,500.0	4,432.3	4,407.3	4,407.3	15.7	87.4	-112.69	-160.8	-9,147.1	9,426.7	9,324.7	101.94	92.472			
4,527.5	4,459.2	4,434.2	4,434.2	15.8	87.9	-112.72	-160.8	-9,147.1	9,428.9	9,326.3	102.59	91.906			
4,600.0	4,530.1	4,505.1	4,505.1	16.1	89.3	-112.81	-160.8	-9,147.1	9,434.9	9,330.5	104.31	90.452			
4,626.0	4,555.5	4,530.5	4,530.5	16.2	89.9	-112.84	-160.8	-9,147.1	9,437.0	9,332.1	104.92	89.942			
4,700.0	4,627.9	4,602.9	4,602.9	16.6	91.3	-112.92	-160.8	-9,147.1	9,443.1	9,336.4	106.68	88.521			
4,724.4	4,651.7	4,626.7	4,626.7	16.7	91.8	-112.95	-160.8	-9,147.1	9,445.1	9,337.8	107.25	88.063			
4,800.0	4,725.7	4,700.7	4,700.7	17.0	93.3	-113.03	-160.8	-9,147.1	9,451.4	9,342.3	109.04	86.676			
4,822.8	4,748.0	4,723.0	4,723.0	17.1	93.7	-113.06	-160.8	-9,147.1	9,453.2	9,343.7	109.58	86.265			
4,904.9	4,828.3	4,803.3	4,803.3	17.5	95.3	-113.15	-160.8	-9,147.1	9,460.1	9,348.5	111.53	84.825			
4,921.2	4,844.3	4,819.3	4,819.3	17.5	95.7	-113.20	-160.8	-9,147.1	9,461.4	9,349.5	111.92	84.539			
5,000.0	4,921.6	4,896.6	4,896.6	17.8	97.2	-113.39	-160.8	-9,147.1	9,467.4	9,353.6	113.81	83.186			
5,019.7	4,941.0	4,916.0	4,916.0	17.9	97.6	-113.43	-160.8	-9,147.1	9,468.7	9,354.5	114.27	82.864			

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,995.4	4,995.4	18.1	99.2	-113.59	-160.8	-9,147.1	9,473.8	9,357.6	116.14	81.572	
5,118.1	5,038.3	5,013.3	5,013.3	18.2	99.6	-113.62	-160.8	-9,147.1	9,474.8	9,358.2	116.56	81.290	
5,200.0	5,119.6	5,094.6	5,094.6	18.4	101.2	-113.75	-160.8	-9,147.1	9,478.7	9,360.3	118.43	80.034	
5,216.5	5,136.0	5,111.0	5,111.0	18.4	101.5	-113.77	-160.8	-9,147.1	9,479.4	9,360.6	118.81	79.788	
5,300.0	5,219.2	5,194.2	5,194.2	18.6	103.2	-113.87	-160.8	-9,147.1	9,482.3	9,361.7	120.69	78.570	
5,314.9	5,234.1	5,209.1	5,209.1	18.6	103.5	-113.88	-160.8	-9,147.1	9,482.8	9,361.7	121.02	78.359	
5,400.0	5,319.1	5,294.1	5,294.1	18.8	105.2	-113.94	-160.8	-9,147.1	9,484.5	9,361.6	122.89	77.178	
5,413.4	5,332.4	5,307.4	5,307.4	18.8	105.5	-113.94	-160.8	-9,147.1	9,484.7	9,361.5	123.18	76.998	
5,504.9	5,423.9	5,398.9	5,398.9	18.9	107.3	-95.54	-160.8	-9,147.1	9,485.3	9,363.5	121.78	77.891	
5,511.8	5,430.8	5,405.8	5,405.8	18.9	107.5	-95.54	-160.8	-9,147.1	9,485.3	9,363.4	121.93	77.795	
5,600.0	5,519.0	5,494.0	5,494.0	19.0	109.2	-95.54	-160.8	-9,147.1	9,485.3	9,361.5	123.84	76.591	
5,610.2	5,529.3	5,504.3	5,504.3	19.0	109.4	-95.54	-160.8	-9,147.1	9,485.3	9,361.3	124.07	76.453	
5,700.0	5,619.0	5,594.0	5,594.0	19.2	111.2	-95.54	-160.8	-9,147.1	9,485.3	9,359.3	126.04	75.259	
5,708.6	5,627.7	5,602.7	5,602.7	19.2	111.4	-95.54	-160.8	-9,147.1	9,485.3	9,359.1	126.23	75.146	
5,800.0	5,719.0	5,694.0	5,694.0	19.3	113.3	-95.54	-160.8	-9,147.1	9,485.3	9,357.1	128.23	73.972	
5,807.1	5,726.1	5,701.1	5,701.1	19.3	113.4	-95.54	-160.8	-9,147.1	9,485.3	9,356.9	128.38	73.882	
5,900.0	5,819.0	5,794.0	5,794.0	19.4	115.3	-95.54	-160.8	-9,147.1	9,485.3	9,354.9	130.42	72.727	
5,905.5	5,824.5	5,799.5	5,799.5	19.4	115.4	-95.54	-160.8	-9,147.1	9,485.3	9,354.8	130.54	72.660	
6,003.9	5,923.0	5,898.0	5,898.0	19.6	117.4	-95.54	-160.8	-9,147.1	9,485.3	9,352.6	132.70	71.477	
6,009.8	5,928.8	5,903.8	5,903.8	19.6	117.5	-95.54	-160.8	-9,147.1	9,485.3	9,352.5	132.83	71.408	
6,050.0	5,969.0	5,944.0	5,944.0	19.6	118.3	-5.55	-160.8	-9,147.1	9,484.2	9,347.5	136.65	69.406	
6,100.0	6,018.8	5,993.8	5,993.8	19.7	119.3	-5.59	-160.8	-9,147.1	9,479.7	9,342.9	136.82	69.287	
6,102.3	6,021.1	5,996.1	5,996.1	19.7	119.3	-5.59	-160.8	-9,147.1	9,479.4	9,342.6	136.81	69.289	
6,150.0	6,068.1	6,043.1	6,043.1	19.7	120.3	-5.66	-160.8	-9,147.1	9,471.7	9,335.4	136.31	69.487	
6,200.0	6,116.8	6,091.8	6,091.8	19.7	121.3	-5.76	-160.8	-9,147.1	9,460.3	9,325.2	135.11	70.018	
6,200.8	6,117.5	6,092.5	6,092.5	19.7	121.3	-5.76	-160.8	-9,147.1	9,460.1	9,325.0	135.09	70.029	
6,250.0	6,164.5	6,139.5	6,139.5	19.7	122.2	-5.89	-160.8	-9,147.1	9,445.6	9,312.4	133.23	70.899	
6,299.2	6,210.4	6,185.4	6,185.4	19.7	123.1	-6.06	-160.8	-9,147.1	9,427.9	9,297.2	130.70	72.135	
6,300.0	6,211.1	6,186.1	6,186.1	19.7	123.2	-6.07	-160.8	-9,147.1	9,427.6	9,296.9	130.65	72.158	
6,350.0	6,256.4	6,231.4	6,231.4	19.7	124.1	-6.28	-160.8	-9,147.1	9,406.4	9,279.0	127.39	73.837	
6,397.6	6,298.0	6,273.0	6,273.0	19.7	124.9	-6.53	-160.8	-9,147.1	9,383.3	9,259.7	123.67	75.872	
6,400.0	6,300.0	6,275.0	6,275.0	19.7	124.9	-6.55	-160.8	-9,147.1	9,382.1	9,258.6	123.47	75.985	
6,450.0	6,341.8	6,316.8	6,316.8	19.7	125.8	-6.87	-160.8	-9,147.1	9,354.9	9,235.9	118.91	78.672	
6,496.0	6,378.6	6,353.6	6,353.6	19.7	126.5	-7.23	-160.8	-9,147.1	9,327.2	9,213.1	114.17	81.696	
6,500.0	6,381.6	6,356.6	6,356.6	19.7	126.6	-7.26	-160.8	-9,147.1	9,324.8	9,211.0	113.74	81.983	
6,550.0	6,419.2	6,394.2	6,394.2	19.6	127.3	-7.74	-160.8	-9,147.1	9,292.0	9,184.0	108.01	86.026	
6,594.5	6,450.7	6,425.7	6,425.7	19.6	128.0	-8.26	-160.8	-9,147.1	9,260.7	9,158.2	102.51	90.341	
6,600.0	6,454.4	6,429.4	6,429.4	19.6	128.0	-8.33	-160.8	-9,147.1	9,256.7	9,154.9	101.80	90.930	
6,650.0	6,487.1	6,462.1	6,462.1	19.6	128.7	-9.06	-160.8	-9,147.1	9,219.0	9,123.8	95.20	96.842	
6,692.9	6,513.0	6,488.0	6,488.0	19.6	129.2	-9.83	-160.8	-9,147.1	9,184.9	9,095.6	89.33	102.817	
6,700.0	6,517.0	6,492.0	6,492.0	19.6	129.3	-9.97	-160.8	-9,147.1	9,179.2	9,090.8	88.35	103.894	
6,750.0	6,544.1	6,519.1	6,519.1	19.6	129.8	-11.14	-160.8	-9,147.1	9,137.4	9,055.9	81.50	112.115	
6,791.3	6,564.2	6,539.2	6,539.2	19.7	130.3	-12.37	-160.8	-9,147.1	9,101.4	9,025.3	76.09	119.610	
6,800.0	6,568.2	6,543.2	6,543.2	19.7	130.3	-12.67	-160.8	-9,147.1	9,093.8	9,018.7	75.04	121.190	
6,850.0	6,589.1	6,564.1	6,564.1	19.8	130.8	-14.73	-160.8	-9,147.1	9,048.6	8,978.9	69.67	129.871	
6,889.7	6,603.5	6,578.5	6,578.5	19.9	131.0	-16.94	-160.8	-9,147.1	9,011.7	8,944.7	67.02	134.458	
6,900.0	6,606.9	6,581.9	6,581.9	19.9	131.1	-17.63	-160.8	-9,147.1	9,002.1	8,935.4	66.70	134.964	
6,950.0	6,621.3	6,596.3	6,596.3	20.2	131.4	-21.96	-160.8	-9,147.1	8,954.5	8,886.1	68.38	130.943	
6,988.2	6,630.0	6,605.0	6,605.0	20.6	131.6	-26.94	-160.8	-9,147.1	8,917.5	8,842.6	74.98	118.924	
7,000.0	6,632.4	6,607.4	6,607.4	20.7	131.6	-28.94	-160.8	-9,147.1	8,906.0	8,827.7	78.32	113.707	
7,050.0	6,640.0	6,615.0	6,615.0	21.4	131.8	-41.37	-160.8	-9,147.1	8,856.9	8,755.4	101.47	87.283	
7,086.6	6,643.4	6,618.4	6,618.4	21.9	131.8	-57.23	-160.8	-9,147.1	8,820.6	8,692.6	128.05	68.882	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - 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	6,644.2	6,619.2	6,619.2	22.1	131.9	-65.11	-160.8	-9,147.1	8,807.3	8,669.1	138.25	63.706	
7,135.7	6,645.0	6,620.0	6,620.0	22.7	131.9	-90.67	-160.8	-9,147.1	8,771.9	8,618.2	153.67	57.083	
7,185.0	6,644.9	6,619.9	6,619.9	23.6	131.9	-90.66	-160.8	-9,147.1	8,722.8	8,568.1	154.63	56.412	
7,200.0	6,644.9	6,619.9	6,619.9	23.9	131.9	-90.66	-160.8	-9,147.1	8,707.9	8,553.0	154.92	56.210	
7,283.4	6,644.8	6,619.8	6,619.8	25.6	131.9	-90.65	-160.8	-9,147.1	8,624.9	8,468.3	156.64	55.060	
7,300.0	6,644.8	6,619.8	6,619.8	25.9	131.9	-90.65	-160.8	-9,147.1	8,608.4	8,451.5	156.99	54.836	
7,381.9	6,644.7	6,619.7	6,619.7	27.7	131.9	-90.65	-160.8	-9,147.1	8,527.0	8,368.2	158.79	53.700	
7,400.0	6,644.7	6,619.7	6,619.7	28.1	131.9	-90.65	-160.8	-9,147.1	8,509.0	8,349.8	159.19	53.453	
7,480.3	6,644.6	6,619.6	6,619.6	29.9	131.9	-90.64	-160.8	-9,147.1	8,429.2	8,268.1	161.04	52.341	
7,500.0	6,644.6	6,619.6	6,619.6	30.3	131.9	-90.64	-160.8	-9,147.1	8,409.6	8,248.1	161.50	52.072	
7,578.7	6,644.5	6,619.5	6,619.5	32.2	131.9	-90.63	-160.8	-9,147.1	8,331.4	8,168.0	163.38	50.993	
7,600.0	6,644.4	6,619.4	6,619.4	32.7	131.9	-90.63	-160.8	-9,147.1	8,310.2	8,146.3	163.89	50.706	
7,677.1	6,644.3	6,619.3	6,619.3	34.6	131.9	-90.63	-160.8	-9,147.1	8,233.5	8,067.7	165.78	49.665	
7,700.0	6,644.3	6,619.3	6,619.3	35.1	131.9	-90.63	-160.8	-9,147.1	8,210.8	8,044.5	166.34	49.361	
7,775.6	6,644.2	6,619.2	6,619.2	37.0	131.9	-90.62	-160.8	-9,147.1	8,135.7	7,967.5	168.24	48.359	
7,800.0	6,644.2	6,619.2	6,619.2	37.6	131.9	-90.62	-160.8	-9,147.1	8,111.5	7,942.6	168.85	48.040	
7,874.0	6,644.1	6,619.1	6,619.1	39.5	131.9	-90.61	-160.8	-9,147.1	8,037.9	7,867.2	170.73	47.080	
7,900.0	6,644.1	6,619.1	6,619.1	40.1	131.9	-90.61	-160.8	-9,147.1	8,012.1	7,840.7	171.39	46.747	
7,972.4	6,644.0	6,619.0	6,619.0	42.0	131.9	-90.61	-160.8	-9,147.1	7,940.2	7,766.9	173.26	45.828	
8,000.0	6,643.9	6,618.9	6,618.9	42.7	131.9	-90.60	-160.8	-9,147.1	7,912.8	7,738.8	173.97	45.483	
8,070.8	6,643.9	6,618.9	6,618.9	44.5	131.9	-90.60	-160.8	-9,147.1	7,842.4	7,666.6	175.82	44.605	
8,100.0	6,643.8	6,618.8	6,618.8	45.2	131.9	-90.60	-160.8	-9,147.1	7,813.4	7,636.9	176.58	44.249	
8,169.3	6,643.7	6,618.7	6,618.7	47.0	131.9	-90.59	-160.8	-9,147.1	7,744.7	7,566.3	178.40	43.412	
8,200.0	6,643.7	6,618.7	6,618.7	47.9	131.9	-90.59	-160.8	-9,147.1	7,714.1	7,534.9	179.21	43.046	
8,267.7	6,643.6	6,618.6	6,618.6	49.6	131.9	-90.59	-160.8	-9,147.1	7,646.9	7,465.9	181.00	42.248	
8,300.0	6,643.6	6,618.6	6,618.6	50.5	131.8	-90.58	-160.8	-9,147.1	7,614.9	7,433.0	181.86	41.873	
8,366.1	6,643.5	6,618.5	6,618.5	52.2	131.8	-90.58	-160.8	-9,147.1	7,549.2	7,365.6	183.62	41.113	
8,400.0	6,643.4	6,618.4	6,618.4	53.1	131.8	-90.58	-160.8	-9,147.1	7,515.6	7,331.1	184.52	40.730	
8,464.5	6,643.4	6,618.4	6,618.4	54.8	131.8	-90.57	-160.8	-9,147.1	7,451.5	7,265.3	186.25	40.008	
8,500.0	6,643.3	6,618.3	6,618.3	55.8	131.8	-90.57	-160.8	-9,147.1	7,416.4	7,229.2	187.20	39.617	
8,563.0	6,643.2	6,618.2	6,618.2	57.5	131.8	-90.56	-160.8	-9,147.1	7,353.9	7,165.0	188.90	38.931	
8,600.0	6,643.2	6,618.2	6,618.2	58.5	131.8	-90.56	-160.8	-9,147.1	7,317.1	7,127.2	189.89	38.533	
8,661.4	6,643.1	6,618.1	6,618.1	60.1	131.8	-90.56	-160.8	-9,147.1	7,256.2	7,064.7	191.55	37.881	
8,700.0	6,643.1	6,618.1	6,618.1	61.2	131.8	-90.55	-160.8	-9,147.1	7,217.9	7,025.3	192.60	37.477	
8,759.8	6,643.0	6,618.0	6,618.0	62.8	131.8	-90.55	-160.8	-9,147.1	7,158.6	6,964.4	194.22	36.858	
8,800.0	6,643.0	6,618.0	6,618.0	63.9	131.8	-90.55	-160.8	-9,147.1	7,118.8	6,923.4	195.31	36.449	
8,858.2	6,642.9	6,617.9	6,617.9	65.4	131.8	-90.54	-160.8	-9,147.1	7,061.0	6,864.1	196.89	35.862	
8,900.0	6,642.8	6,617.8	6,617.8	66.6	131.8	-90.54	-160.8	-9,147.1	7,019.6	6,821.6	198.03	35.448	
8,956.7	6,642.8	6,617.8	6,617.8	68.1	131.8	-90.54	-160.8	-9,147.1	6,963.4	6,763.8	199.57	34.892	
9,000.0	6,642.7	6,617.7	6,617.7	69.3	131.8	-90.53	-160.8	-9,147.1	6,920.5	6,719.7	200.75	34.472	
9,055.1	6,642.6	6,617.6	6,617.6	70.8	131.8	-90.53	-160.8	-9,147.1	6,865.9	6,663.6	202.26	33.946	
9,100.0	6,642.6	6,617.6	6,617.6	72.0	131.8	-90.53	-160.8	-9,147.1	6,821.4	6,617.9	203.49	33.522	
9,153.5	6,642.5	6,617.5	6,617.5	73.5	131.8	-90.52	-160.8	-9,147.1	6,768.3	6,563.4	204.95	33.024	
9,200.0	6,642.5	6,617.5	6,617.5	74.7	131.8	-90.52	-160.8	-9,147.1	6,722.3	6,516.0	206.23	32.597	
9,251.9	6,642.4	6,617.4	6,617.4	76.2	131.8	-90.51	-160.8	-9,147.1	6,670.8	6,463.2	207.65	32.125	
9,300.0	6,642.3	6,617.3	6,617.3	77.5	131.8	-90.51	-160.8	-9,147.1	6,623.2	6,414.3	208.97	31.695	
9,350.4	6,642.3	6,617.3	6,617.3	78.9	131.8	-90.51	-160.8	-9,147.1	6,573.3	6,363.0	210.35	31.249	
9,400.0	6,642.2	6,617.2	6,617.2	80.2	131.8	-90.50	-160.8	-9,147.1	6,524.2	6,312.5	211.72	30.815	
9,448.8	6,642.1	6,617.1	6,617.1	81.6	131.8	-90.50	-160.8	-9,147.1	6,475.9	6,262.8	213.06	30.394	
9,500.0	6,642.1	6,617.1	6,617.1	83.0	131.8	-90.50	-160.8	-9,147.1	6,425.2	6,210.7	214.47	29.958	
9,547.2	6,642.0	6,617.0	6,617.0	84.3	131.8	-90.49	-160.8	-9,147.1	6,378.5	6,162.7	215.77	29.561	
9,600.0	6,642.0	6,617.0	6,617.0	85.7	131.8	-90.49	-160.8	-9,147.1	6,326.2	6,109.0	217.23	29.123	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,616.9	6,616.9	87.0	131.8	-90.49	-160.8	-9,147.1	6,281.1	6,062.6	218.49	28.748	
9,700.0	6,641.8	6,616.8	6,616.8	88.5	131.8	-90.48	-160.8	-9,147.1	6,227.3	6,007.3	219.99	28.308	
9,744.1	6,641.8	6,616.8	6,616.8	89.7	131.8	-90.48	-160.8	-9,147.1	6,183.7	5,962.5	221.20	27.955	
9,800.0	6,641.7	6,616.7	6,616.7	91.2	131.8	-90.47	-160.8	-9,147.1	6,128.4	5,905.7	222.75	27.513	
9,842.5	6,641.7	6,616.7	6,616.7	92.4	131.8	-90.47	-160.8	-9,147.1	6,086.4	5,862.5	223.92	27.181	
9,900.0	6,641.6	6,616.6	6,616.6	94.0	131.8	-90.47	-160.8	-9,147.1	6,029.6	5,804.0	225.51	26.737	
9,940.9	6,641.5	6,616.5	6,616.5	95.1	131.8	-90.46	-160.8	-9,147.1	5,989.1	5,762.5	226.65	26.425	
10,000.0	6,641.5	6,616.5	6,616.5	96.7	131.8	-90.46	-160.8	-9,147.1	5,930.7	5,702.5	228.28	25.980	
10,039.3	6,641.4	6,616.4	6,616.4	97.8	131.8	-90.46	-160.8	-9,147.1	5,891.9	5,662.5	229.37	25.687	
10,100.0	6,641.3	6,616.3	6,616.3	99.5	131.8	-90.45	-160.8	-9,147.1	5,832.0	5,600.9	231.05	25.241	
10,137.8	6,641.3	6,616.3	6,616.3	100.6	131.8	-90.45	-160.8	-9,147.1	5,794.7	5,562.6	232.10	24.966	
10,200.0	6,641.2	6,616.2	6,616.2	102.3	131.8	-90.44	-160.8	-9,147.1	5,733.2	5,499.4	233.82	24.520	
10,236.2	6,641.2	6,616.2	6,616.2	103.3	131.8	-90.44	-160.8	-9,147.1	5,697.5	5,462.7	234.83	24.263	
10,300.0	6,641.1	6,616.1	6,616.1	105.0	131.8	-90.44	-160.8	-9,147.1	5,634.5	5,397.9	236.60	23.815	
10,334.6	6,641.0	6,616.0	6,616.0	106.0	131.8	-90.43	-160.8	-9,147.1	5,600.4	5,362.8	237.56	23.575	
10,400.0	6,641.0	6,616.0	6,616.0	107.8	131.8	-90.43	-160.8	-9,147.1	5,535.9	5,296.5	239.37	23.127	
10,433.0	6,640.9	6,615.9	6,615.9	108.7	131.8	-90.43	-160.8	-9,147.1	5,503.3	5,263.0	240.29	22.903	
10,500.0	6,640.8	6,615.8	6,615.8	110.6	131.8	-90.42	-160.8	-9,147.1	5,437.3	5,195.1	242.15	22.454	
10,531.5	6,640.8	6,615.8	6,615.8	111.5	131.8	-90.42	-160.8	-9,147.1	5,406.3	5,163.2	243.02	22.246	
10,600.0	6,640.7	6,615.7	6,615.7	113.4	131.8	-90.41	-160.8	-9,147.1	5,338.7	5,093.8	244.93	21.797	
10,629.9	6,640.7	6,615.7	6,615.7	114.2	131.8	-90.41	-160.8	-9,147.1	5,309.3	5,063.5	245.76	21.604	
10,700.0	6,640.6	6,615.6	6,615.6	116.1	131.8	-90.41	-160.8	-9,147.1	5,240.3	4,992.5	247.71	21.155	
10,728.3	6,640.5	6,615.5	6,615.5	116.9	131.8	-90.40	-160.8	-9,147.1	5,212.4	4,963.9	248.50	20.976	
10,800.0	6,640.5	6,615.5	6,615.5	118.9	131.8	-90.40	-160.8	-9,147.1	5,141.8	4,891.3	250.49	20.527	
10,826.7	6,640.4	6,615.4	6,615.4	119.7	131.8	-90.40	-160.8	-9,147.1	5,115.5	4,864.3	251.23	20.361	
10,900.0	6,640.3	6,615.3	6,615.3	121.7	131.8	-90.39	-160.8	-9,147.1	5,043.5	4,790.2	253.27	19.913	
10,925.2	6,640.3	6,615.3	6,615.3	122.4	131.8	-90.39	-160.8	-9,147.1	5,018.7	4,764.7	253.97	19.761	
11,000.0	6,640.2	6,615.2	6,615.2	124.5	131.8	-90.38	-160.8	-9,147.1	4,945.2	4,689.1	256.06	19.313	
11,023.6	6,640.2	6,615.2	6,615.2	125.1	131.8	-90.38	-160.8	-9,147.1	4,922.0	4,665.3	256.71	19.173	
11,100.0	6,640.1	6,615.1	6,615.1	127.3	131.8	-90.38	-160.8	-9,147.1	4,846.9	4,588.1	258.84	18.725	
11,122.0	6,640.0	6,615.0	6,615.0	127.9	131.8	-90.38	-160.8	-9,147.1	4,825.3	4,565.8	259.46	18.598	
11,200.0	6,639.9	6,614.9	6,614.9	130.1	131.8	-90.37	-160.8	-9,147.1	4,748.8	4,487.1	261.63	18.151	
11,220.4	6,639.9	6,614.9	6,614.9	130.6	131.8	-90.37	-160.8	-9,147.1	4,728.7	4,466.5	262.20	18.035	
11,300.0	6,639.8	6,614.8	6,614.8	132.8	131.8	-90.36	-160.8	-9,147.1	4,650.7	4,386.3	264.42	17.589	
11,318.9	6,639.8	6,614.8	6,614.8	133.4	131.8	-90.36	-160.8	-9,147.1	4,632.2	4,367.2	264.94	17.484	
11,400.0	6,639.7	6,614.7	6,614.7	135.6	131.8	-90.35	-160.8	-9,147.1	4,552.7	4,285.5	267.20	17.038	
11,417.3	6,639.7	6,614.7	6,614.7	136.1	131.8	-90.35	-160.8	-9,147.1	4,535.7	4,268.0	267.69	16.944	
11,500.0	6,639.6	6,614.6	6,614.6	138.4	131.8	-90.35	-160.8	-9,147.1	4,454.8	4,184.8	269.99	16.500	
11,515.7	6,639.5	6,614.5	6,614.5	138.9	131.8	-90.35	-160.8	-9,147.1	4,439.4	4,169.0	270.43	16.416	
11,600.0	6,639.4	6,614.4	6,614.4	141.2	131.8	-90.34	-160.8	-9,147.1	4,357.0	4,084.2	272.78	15.972	
11,614.1	6,639.4	6,614.4	6,614.4	141.6	131.8	-90.34	-160.8	-9,147.1	4,343.1	4,069.9	273.18	15.899	
11,700.0	6,639.3	6,614.3	6,614.3	144.0	131.8	-90.33	-160.8	-9,147.1	4,259.2	3,983.7	275.57	15.456	
11,712.6	6,639.3	6,614.3	6,614.3	144.3	131.8	-90.33	-160.8	-9,147.1	4,247.0	3,971.0	275.92	15.392	
11,800.0	6,639.2	6,614.2	6,614.2	146.8	131.8	-90.32	-160.8	-9,147.1	4,161.6	3,883.3	278.36	14.950	
11,811.0	6,639.2	6,614.2	6,614.2	147.1	131.8	-90.32	-160.8	-9,147.1	4,150.9	3,872.2	278.67	14.895	
11,900.0	6,639.1	6,614.1	6,614.1	149.6	131.8	-90.32	-160.8	-9,147.1	4,064.2	3,783.0	281.15	14.455	
11,909.4	6,639.0	6,614.0	6,614.0	149.8	131.8	-90.32	-160.8	-9,147.1	4,055.0	3,773.6	281.42	14.409	
12,000.0	6,638.9	6,613.9	6,613.9	152.4	131.8	-90.31	-160.8	-9,147.1	3,966.8	3,682.8	283.95	13.970	
12,007.8	6,638.9	6,613.9	6,613.9	152.6	131.8	-90.31	-160.8	-9,147.1	3,959.2	3,675.0	284.17	13.933	
12,100.0	6,638.8	6,613.8	6,613.8	155.2	131.8	-90.30	-160.8	-9,147.1	3,869.6	3,582.8	286.74	13.495	
12,106.3	6,638.8	6,613.8	6,613.8	155.3	131.8	-90.30	-160.8	-9,147.1	3,863.5	3,576.5	286.91	13.466	
12,200.0	6,638.7	6,613.7	6,613.7	157.9	131.8	-90.29	-160.8	-9,147.1	3,772.5	3,482.9	289.53	13.030	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,204.7	6,638.7	6,613.7	6,613.7	158.1	131.8	-90.29	-160.8	-9,147.1	3,767.9	3,478.3	289.66	13.008		
12,300.0	6,638.5	6,613.5	6,613.5	160.7	131.7	-90.29	-160.8	-9,147.1	3,675.5	3,383.2	292.33	12.573		
12,303.1	6,638.5	6,613.5	6,613.5	160.8	131.7	-90.28	-160.8	-9,147.1	3,672.5	3,380.1	292.41	12.559		
12,400.0	6,638.4	6,613.4	6,613.4	163.5	131.7	-90.28	-160.8	-9,147.1	3,578.8	3,283.7	295.12	12.127		
12,401.5	6,638.4	6,613.4	6,613.4	163.6	131.7	-90.28	-160.8	-9,147.1	3,577.3	3,282.1	295.16	12.120		
12,500.0	6,638.3	6,613.3	6,613.3	166.3	131.7	-90.27	-160.8	-9,147.1	3,482.2	3,184.3	297.92	11.689		
12,598.4	6,638.2	6,613.2	6,613.2	169.1	131.7	-90.26	-160.8	-9,147.1	3,387.4	3,086.7	300.67	11.266		
12,600.0	6,638.2	6,613.2	6,613.2	169.1	131.7	-90.26	-160.8	-9,147.1	3,385.8	3,085.1	300.71	11.259		
12,696.8	6,638.0	6,613.0	6,613.0	171.8	131.7	-90.25	-160.8	-9,147.1	3,292.7	2,989.3	303.42	10.852		
12,700.0	6,638.0	6,613.0	6,613.0	171.9	131.7	-90.25	-160.8	-9,147.1	3,289.7	2,986.2	303.51	10.839		
12,795.2	6,637.9	6,612.9	6,612.9	174.6	131.7	-90.25	-160.8	-9,147.1	3,198.3	2,892.1	306.17	10.446		
12,800.0	6,637.9	6,612.9	6,612.9	174.7	131.7	-90.25	-160.8	-9,147.1	3,193.8	2,887.5	306.30	10.427		
12,893.7	6,637.8	6,612.8	6,612.8	177.3	131.7	-90.24	-160.8	-9,147.1	3,104.1	2,795.2	308.92	10.048		
12,900.0	6,637.8	6,612.8	6,612.8	177.5	131.7	-90.24	-160.8	-9,147.1	3,098.1	2,789.0	309.10	10.023		
12,992.1	6,637.7	6,612.7	6,612.7	180.1	131.7	-90.23	-160.8	-9,147.1	3,010.2	2,698.6	311.67	9.658		
13,000.0	6,637.6	6,612.6	6,612.6	180.3	131.7	-90.23	-160.8	-9,147.1	3,002.7	2,690.8	311.90	9.627		
13,090.5	6,637.5	6,612.5	6,612.5	182.8	131.7	-90.22	-160.8	-9,147.1	2,916.6	2,602.2	314.43	9.276		
13,100.0	6,637.5	6,612.5	6,612.5	183.1	131.7	-90.22	-160.8	-9,147.1	2,907.6	2,592.9	314.69	9.240		
13,188.9	6,637.4	6,612.4	6,612.4	185.6	131.7	-90.22	-160.8	-9,147.1	2,823.4	2,506.2	317.18	8.901		
13,200.0	6,637.4	6,612.4	6,612.4	185.9	131.7	-90.21	-160.8	-9,147.1	2,812.9	2,495.4	317.49	8.860		
13,287.4	6,637.3	6,612.3	6,612.3	188.4	131.7	-90.21	-160.8	-9,147.1	2,730.4	2,410.5	319.93	8.534		
13,300.0	6,637.3	6,612.3	6,612.3	188.7	131.7	-90.21	-160.8	-9,147.1	2,718.5	2,398.3	320.29	8.488		
13,385.8	6,637.1	6,612.1	6,612.1	191.1	131.7	-90.20	-160.8	-9,147.1	2,637.9	2,315.2	322.69	8.175		
13,400.0	6,637.1	6,612.1	6,612.1	191.5	131.7	-90.20	-160.8	-9,147.1	2,624.6	2,301.5	323.09	8.124		
13,484.2	6,637.0	6,612.0	6,612.0	193.9	131.7	-90.19	-160.8	-9,147.1	2,545.8	2,220.4	325.44	7.823		
13,500.0	6,637.0	6,612.0	6,612.0	194.3	131.7	-90.19	-160.8	-9,147.1	2,531.1	2,205.3	325.88	7.767		
13,582.6	6,636.9	6,611.9	6,611.9	196.6	131.7	-90.18	-160.8	-9,147.1	2,454.3	2,126.1	328.20	7.478		
13,600.0	6,636.9	6,611.9	6,611.9	197.1	131.7	-90.18	-160.8	-9,147.1	2,438.2	2,109.5	328.68	7.418		
13,681.1	6,636.8	6,611.8	6,611.8	199.4	131.7	-90.18	-160.8	-9,147.1	2,363.2	2,032.3	330.95	7.141		
13,700.0	6,636.7	6,611.7	6,611.7	199.9	131.7	-90.18	-160.8	-9,147.1	2,345.8	2,014.3	331.48	7.077		
13,779.5	6,636.6	6,611.6	6,611.6	202.1	131.7	-90.17	-160.8	-9,147.1	2,272.8	1,939.1	333.71	6.811		
13,800.0	6,636.6	6,611.6	6,611.6	202.7	131.7	-90.17	-160.8	-9,147.1	2,254.1	1,919.8	334.28	6.743		
13,877.9	6,636.5	6,611.5	6,611.5	204.9	131.7	-90.16	-160.8	-9,147.1	2,183.1	1,846.7	336.46	6.488		
13,900.0	6,636.5	6,611.5	6,611.5	205.5	131.7	-90.16	-160.8	-9,147.1	2,163.1	1,826.0	337.08	6.417		
13,976.3	6,636.4	6,611.4	6,611.4	207.6	131.7	-90.15	-160.8	-9,147.1	2,094.2	1,755.0	339.22	6.174		
14,000.0	6,636.3	6,611.3	6,611.3	208.3	131.7	-90.15	-160.8	-9,147.1	2,072.9	1,733.1	339.88	6.099		
14,074.8	6,636.3	6,611.3	6,611.3	210.4	131.7	-90.15	-160.8	-9,147.1	2,006.1	1,664.2	341.97	5.866		
14,100.0	6,636.2	6,611.2	6,611.2	211.1	131.7	-90.14	-160.8	-9,147.1	1,983.7	1,641.0	342.68	5.789		
14,173.2	6,636.1	6,611.1	6,611.1	213.2	131.7	-90.14	-160.8	-9,147.1	1,919.1	1,574.4	344.73	5.567		
14,200.0	6,636.1	6,611.1	6,611.1	213.9	131.7	-90.14	-160.8	-9,147.1	1,895.6	1,550.1	345.48	5.487		
14,271.6	6,636.0	6,611.0	6,611.0	215.9	131.7	-90.13	-160.8	-9,147.1	1,833.2	1,485.7	347.49	5.276		
14,300.0	6,636.0	6,611.0	6,611.0	216.7	131.7	-90.13	-160.8	-9,147.1	1,808.7	1,460.4	348.28	5.193		
14,370.0	6,635.9	6,610.9	6,610.9	218.7	131.7	-90.12	-160.8	-9,147.1	1,748.6	1,398.4	350.24	4.993		
14,400.0	6,635.8	6,610.8	6,610.8	219.5	131.7	-90.12	-160.8	-9,147.1	1,723.2	1,372.1	351.08	4.908		
14,468.5	6,635.7	6,610.7	6,610.7	221.4	131.7	-90.11	-160.8	-9,147.1	1,665.6	1,312.6	353.00	4.718		
14,500.0	6,635.7	6,610.7	6,610.7	222.3	131.7	-90.11	-160.8	-9,147.1	1,639.3	1,285.5	353.88	4.632		
14,566.9	6,635.6	6,610.6	6,610.6	224.2	131.7	-90.11	-160.8	-9,147.1	1,584.3	1,228.5	355.76	4.453		
14,600.0	6,635.6	6,610.6	6,610.6	225.1	131.7	-90.10	-160.8	-9,147.1	1,557.4	1,200.7	356.68	4.366		
14,665.3	6,635.5	6,610.5	6,610.5	226.9	131.7	-90.10	-160.8	-9,147.1	1,505.1	1,146.6	358.51	4.198		
14,700.0	6,635.4	6,610.4	6,610.4	227.9	131.7	-90.09	-160.8	-9,147.1	1,477.7	1,118.2	359.48	4.111		
14,763.7	6,635.4	6,610.4	6,610.4	229.7	131.7	-90.09	-160.8	-9,147.1	1,428.2	1,067.0	361.27	3.953		
14,800.0	6,635.3	6,610.3	6,610.3	230.7	131.7	-90.09	-160.8	-9,147.1	1,400.6	1,038.3	362.28	3.866		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT PAULINE #5 - 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
14,862.2	6,635.2	6,610.2	6,610.2	232.5	131.7	-90.08	-160.8	-9,147.1	1,354.2	990.2	364.03	3.720	
14,900.0	6,635.2	6,610.2	6,610.2	233.5	131.7	-90.08	-160.8	-9,147.1	1,326.6	961.5	365.09	3.634	
14,960.6	6,635.1	6,610.1	6,610.1	235.2	131.7	-90.07	-160.8	-9,147.1	1,283.4	916.6	366.78	3.499	
15,000.0	6,635.0	6,610.0	6,610.0	236.3	131.7	-90.07	-160.8	-9,147.1	1,256.1	888.2	367.89	3.414	
15,033.1	6,635.0	6,610.0	6,610.0	237.3	131.7	-90.07	-160.8	-9,147.1	1,233.7	864.9	368.81	3.345 CC, ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-97.19	-1,105.9	-8,767.6	8,837.2					
98.4	98.4	108.4	108.4	0.1	0.0	-97.19	-1,105.8	-8,767.4	8,836.9	8,836.8	0.12	N/A		
100.0	100.0	109.9	109.9	0.1	0.0	-97.19	-1,105.8	-8,767.4	8,836.9	8,836.8	0.13	N/A		
196.8	196.8	200.0	200.0	0.3	0.2	-97.19	-1,105.9	-8,766.9	8,836.5	8,836.0	0.50	N/A		
200.0	200.0	200.0	200.0	0.3	0.2	-97.19	-1,105.9	-8,766.9	8,836.5	8,835.9	0.51	N/A		
295.3	295.3	282.9	282.9	0.5	0.2	-97.19	-1,105.8	-8,766.6	8,836.1	8,835.4	0.75	N/A		
300.0	300.0	286.8	286.8	0.5	0.2	-97.19	-1,105.8	-8,766.6	8,836.1	8,835.4	0.77	N/A		
367.2	367.2	334.2	334.2	0.7	0.2	-97.19	-1,105.5	-8,766.6	8,836.0	8,835.1	0.94	9,394.499		
393.7	393.7	352.0	352.0	0.8	0.3	-97.19	-1,105.4	-8,766.6	8,836.1	8,835.0	1.01	8,749.056		
400.0	400.0	356.2	356.2	0.8	0.3	-97.19	-1,105.4	-8,766.6	8,836.1	8,835.0	1.03	8,608.677		
492.1	492.1	508.0	508.0	1.0	0.3	-97.18	-1,105.1	-8,766.7	8,836.2	8,834.9	1.28	6,928.576		
500.0	500.0	515.5	515.5	1.0	0.3	-97.18	-1,105.1	-8,766.6	8,836.1	8,834.8	1.30	6,805.343		
590.5	590.5	602.6	602.6	1.2	0.4	-97.18	-1,104.7	-8,766.2	8,835.6	8,834.1	1.56	5,649.743		
600.0	600.0	611.7	611.6	1.2	0.4	-97.18	-1,104.7	-8,766.1	8,835.6	8,834.0	1.59	5,553.793		
689.0	689.0	696.9	696.9	1.4	0.4	-97.18	-1,104.3	-8,765.8	8,835.2	8,833.3	1.85	4,787.761		
700.0	700.0	707.8	707.8	1.4	0.4	-97.18	-1,104.2	-8,765.7	8,835.1	8,833.2	1.88	4,707.995		
787.4	787.4	795.5	795.5	1.6	0.5	-97.18	-1,103.8	-8,765.4	8,834.7	8,832.6	2.12	4,160.359		
800.0	800.0	800.0	800.0	1.7	0.5	-97.18	-1,103.8	-8,765.4	8,834.6	8,832.5	2.15	4,100.614		
885.8	885.8	876.2	876.2	1.9	0.5	-97.18	-1,103.7	-8,765.1	8,834.3	8,832.0	2.37	3,735.021		
900.0	900.0	887.7	887.7	1.9	0.5	-97.18	-1,103.7	-8,765.1	8,834.3	8,831.9	2.40	3,681.212		
975.7	975.7	942.7	942.7	2.1	0.5	-97.18	-1,103.8	-8,765.0	8,834.2	8,831.6	2.58	3,424.345		
984.2	984.2	948.7	948.7	2.1	0.5	-97.18	-1,103.8	-8,765.0	8,834.2	8,831.6	2.60	3,397.824		
1,000.0	1,000.0	959.9	959.8	2.1	0.5	-97.18	-1,103.9	-8,765.0	8,834.2	8,831.6	2.64	3,349.879		
1,082.7	1,082.7	1,100.0	1,100.0	2.3	0.5	-124.18	-1,104.0	-8,764.9	8,834.9	8,832.1	2.83	3,123.582		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	0.5	-124.18	-1,104.0	-8,764.9	8,835.2	8,832.3	2.87	3,081.229		
1,181.1	1,181.0	1,162.7	1,162.7	2.5	0.5	-124.16	-1,104.0	-8,764.7	8,837.1	8,834.1	3.06	2,886.170		
1,200.0	1,199.8	1,174.7	1,174.7	2.6	0.5	-124.15	-1,103.9	-8,764.6	8,837.8	8,834.7	3.11	2,844.652		
1,279.5	1,279.1	1,261.6	1,261.6	2.8	0.6	-124.13	-1,103.7	-8,764.6	8,841.5	8,838.2	3.30	2,677.892		
1,300.0	1,299.5	1,293.4	1,293.4	2.8	0.6	-124.13	-1,103.7	-8,764.6	8,842.6	8,839.3	3.35	2,637.911		
1,377.9	1,376.9	1,371.1	1,371.1	3.0	0.6	-124.10	-1,103.7	-8,764.3	8,847.6	8,844.0	3.56	2,486.110		
1,400.0	1,398.7	1,392.4	1,392.4	3.0	0.6	-124.09	-1,103.6	-8,764.3	8,849.2	8,845.6	3.62	2,446.460		
1,476.4	1,474.2	1,494.3	1,494.3	3.2	0.6	-124.06	-1,103.3	-8,763.8	8,855.4	8,851.6	3.85	2,302.827		
1,500.0	1,497.5	1,524.0	1,523.9	3.3	0.6	-124.06	-1,103.3	-8,763.7	8,857.6	8,853.6	3.92	2,260.657		
1,574.8	1,571.0	1,600.0	1,600.0	3.5	0.6	-124.01	-1,103.1	-8,763.1	8,864.9	8,860.7	4.16	2,129.256		
1,600.0	1,595.6	1,625.5	1,625.5	3.6	0.7	-123.99	-1,103.0	-8,762.9	8,867.6	8,863.4	4.25	2,087.908		
1,673.2	1,667.2	1,674.6	1,674.5	3.9	0.7	-124.04	-1,102.8	-8,762.7	8,875.8	8,871.3	4.49	1,976.468		
1,700.0	1,693.4	1,700.0	1,700.0	4.0	0.7	-124.07	-1,102.7	-8,762.6	8,878.9	8,874.3	4.58	1,937.549		
1,771.6	1,763.5	1,826.3	1,826.3	4.2	0.7	-124.21	-1,102.1	-8,761.6	8,886.7	8,881.9	4.86	1,829.119		
1,800.0	1,791.3	1,847.5	1,847.5	4.3	0.8	-124.23	-1,101.9	-8,761.4	8,889.8	8,884.8	4.96	1,793.721		
1,870.1	1,859.8	1,900.0	1,900.0	4.6	0.8	-124.29	-1,101.4	-8,761.0	8,897.5	8,892.3	5.21	1,708.642		
1,900.0	1,889.1	1,925.0	1,924.9	4.7	0.8	-124.31	-1,101.1	-8,760.8	8,900.8	8,895.5	5.32	1,674.593		
1,968.5	1,956.1	1,982.6	1,982.6	4.9	0.8	-124.38	-1,100.7	-8,760.5	8,908.5	8,902.9	5.57	1,599.427		
2,000.0	1,986.9	2,022.6	2,022.5	5.1	0.8	-124.42	-1,100.6	-8,760.2	8,912.0	8,906.3	5.69	1,565.628		
2,066.9	2,052.3	2,100.0	2,100.0	5.3	0.9	-124.51	-1,100.6	-8,759.4	8,919.3	8,913.3	5.95	1,497.819		
2,100.0	2,084.7	2,130.4	2,130.4	5.5	0.9	-124.54	-1,100.6	-8,759.1	8,922.9	8,916.8	6.08	1,467.876		
2,165.3	2,148.6	2,162.0	2,162.0	5.7	0.9	-124.58	-1,100.6	-8,758.9	8,930.3	8,923.9	6.32	1,413.057		
2,200.0	2,182.5	2,200.0	2,200.0	5.9	0.9	-124.62	-1,100.7	-8,758.7	8,934.3	8,927.9	6.45	1,384.471		
2,263.8	2,244.9	2,228.1	2,228.1	6.1	0.9	-124.65	-1,100.8	-8,758.7	8,941.8	8,935.1	6.69	1,336.192		
2,300.0	2,280.3	2,279.3	2,279.3	6.3	0.9	-124.71	-1,101.2	-8,758.5	8,946.1	8,939.2	6.84	1,308.256		
2,362.2	2,341.2	2,337.1	2,337.0	6.5	0.9	-124.78	-1,101.7	-8,758.2	8,953.3	8,946.2	7.08	1,264.263		
2,400.0	2,378.1	2,366.6	2,366.5	6.7	0.9	-124.81	-1,101.8	-8,758.1	8,957.7	8,950.5	7.23	1,239.306		
2,460.6	2,437.4	2,400.0	2,399.9	6.9	0.9	-124.85	-1,101.9	-8,758.0	8,965.0	8,957.5	7.46	1,201.617		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,476.0	2,431.7	2,431.7	7.1	0.9	-124.88	-1,101.9	-8,758.0	8,969.7	8,962.1	7.61	1,178.992	
2,550.0	2,524.9	2,459.5	2,459.4	7.3	0.9	-124.91	-1,101.9	-8,758.1	8,975.9	8,968.1	7.79	1,151.661	
2,559.0	2,533.7	2,464.5	2,464.4	7.3	0.9	-124.06	-1,102.0	-8,758.1	8,977.0	8,969.2	7.83	1,147.183	
2,600.0	2,573.8	2,500.0	2,499.9	7.5	0.9	-120.20	-1,102.0	-8,758.3	8,981.8	8,973.8	7.97	1,127.221	
2,639.4	2,612.3	2,541.1	2,541.0	7.7	0.9	-116.51	-1,102.1	-8,758.5	8,986.0	8,977.9	8.10	1,109.103	
2,657.5	2,630.0	2,587.0	2,587.0	7.7	0.9	-116.57	-1,102.2	-8,758.6	8,987.7	8,979.6	8.17	1,099.857	
2,700.0	2,671.6	2,632.8	2,632.8	7.9	0.9	-116.62	-1,102.2	-8,758.6	8,991.8	8,983.5	8.33	1,079.705	
2,755.9	2,726.3	2,681.9	2,681.8	8.1	0.9	-116.68	-1,102.1	-8,758.7	8,997.2	8,988.6	8.54	1,053.131	
2,800.0	2,769.4	2,717.9	2,717.9	8.3	0.9	-116.72	-1,102.0	-8,758.8	9,001.4	8,992.7	8.72	1,032.626	
2,854.3	2,822.5	2,759.4	2,759.4	8.5	0.9	-116.77	-1,101.6	-8,758.9	9,006.7	8,997.8	8.94	1,007.814	
2,900.0	2,867.2	2,800.0	2,799.9	8.7	1.0	-116.81	-1,101.0	-8,759.2	9,011.3	9,002.2	9.12	987.765	
2,952.7	2,918.8	2,833.7	2,833.7	9.0	1.0	-116.85	-1,100.5	-8,759.5	9,016.6	9,007.2	9.34	965.754	
3,000.0	2,965.0	2,868.8	2,868.7	9.2	1.0	-116.89	-1,099.9	-8,759.8	9,021.4	9,011.9	9.53	946.801	
3,051.2	3,015.1	3,029.3	3,029.2	9.4	1.0	-117.06	-1,097.1	-8,760.6	9,026.6	9,016.8	9.75	925.404	
3,100.0	3,062.8	3,100.0	3,099.9	9.6	1.0	-117.13	-1,095.6	-8,760.3	9,030.9	9,020.9	9.96	906.651	
3,149.6	3,111.4	3,128.6	3,128.5	9.8	1.0	-117.16	-1,095.1	-8,760.2	9,035.3	9,025.2	10.16	889.163	
3,200.0	3,160.7	3,152.4	3,152.3	10.0	1.0	-117.19	-1,094.8	-8,760.1	9,040.0	9,029.6	10.36	872.177	
3,248.0	3,207.6	3,200.0	3,199.9	10.2	1.0	-117.24	-1,094.4	-8,760.2	9,044.6	9,034.1	10.56	856.294	
3,300.0	3,258.5	3,200.0	3,199.9	10.5	1.0	-117.24	-1,094.4	-8,760.2	9,049.7	9,038.9	10.77	840.317	
3,346.4	3,303.9	3,253.1	3,252.9	10.7	1.1	-117.30	-1,094.2	-8,760.4	9,054.3	9,043.3	10.96	825.938	
3,400.0	3,356.3	3,310.8	3,310.7	10.9	1.1	-117.37	-1,094.0	-8,760.5	9,059.6	9,048.4	11.18	809.996	
3,444.9	3,400.2	3,346.3	3,346.2	11.1	1.1	-117.41	-1,093.7	-8,760.6	9,064.0	9,052.7	11.37	797.222	
3,500.0	3,454.1	3,390.1	3,389.9	11.3	1.1	-117.46	-1,093.1	-8,760.8	9,069.6	9,058.0	11.60	782.094	
3,543.3	3,496.5	3,426.6	3,426.4	11.5	1.1	-117.50	-1,092.4	-8,761.1	9,074.0	9,062.2	11.78	770.569	
3,600.0	3,551.9	3,475.5	3,475.4	11.7	1.1	-117.55	-1,091.6	-8,761.4	9,079.7	9,067.7	12.01	755.989	
3,641.7	3,592.7	3,568.3	3,568.1	11.9	1.1	-117.64	-1,089.9	-8,762.0	9,084.0	9,071.8	12.19	745.155	
3,700.0	3,649.7	3,641.9	3,641.7	12.2	1.2	-117.72	-1,088.4	-8,762.0	9,089.5	9,077.1	12.44	730.944	
3,740.1	3,689.0	3,674.1	3,673.9	12.4	1.2	-117.76	-1,087.9	-8,762.1	9,093.4	9,080.8	12.60	721.589	
3,800.0	3,747.5	3,728.6	3,728.4	12.6	1.2	-117.81	-1,087.2	-8,762.1	9,099.2	9,086.4	12.85	708.017	
3,838.6	3,785.3	3,768.6	3,768.4	12.8	1.2	-117.86	-1,086.9	-8,762.1	9,103.0	9,089.9	13.01	699.479	
3,900.0	3,845.4	3,841.3	3,841.1	13.1	1.2	-117.94	-1,086.3	-8,762.0	9,108.9	9,095.6	13.27	686.225	
3,937.0	3,881.6	3,890.4	3,890.2	13.2	1.2	-118.00	-1,086.0	-8,761.9	9,112.4	9,099.0	13.43	678.435	
4,000.0	3,943.2	3,900.0	3,899.8	13.5	1.2	-118.01	-1,085.9	-8,761.8	9,118.5	9,104.9	13.69	666.223	
4,035.4	3,977.8	3,939.3	3,939.1	13.6	1.2	-118.05	-1,085.8	-8,761.8	9,122.0	9,108.1	13.83	659.576	
4,100.0	4,041.0	3,967.1	3,967.0	13.9	1.2	-118.08	-1,085.7	-8,761.9	9,128.6	9,114.5	14.09	647.874	
4,133.8	4,074.1	4,000.0	3,999.8	14.1	1.2	-118.12	-1,085.7	-8,762.1	9,132.2	9,117.9	14.23	641.896	
4,200.0	4,138.8	4,000.0	3,999.8	14.4	1.2	-118.12	-1,085.7	-8,762.1	9,139.3	9,124.8	14.49	630.563	
4,232.3	4,170.4	4,000.0	3,999.8	14.5	1.2	-118.12	-1,085.7	-8,762.1	9,143.0	9,128.3	14.62	625.189	
4,300.0	4,236.6	4,057.5	4,057.3	14.8	1.2	-118.19	-1,086.0	-8,762.8	9,150.6	9,135.7	14.90	613.990	
4,330.7	4,266.7	4,071.7	4,071.5	14.9	1.3	-118.20	-1,086.2	-8,763.0	9,154.2	9,139.2	15.03	609.098	
4,400.0	4,334.4	4,100.0	4,099.8	15.2	1.3	-118.24	-1,086.5	-8,763.5	9,162.5	9,147.2	15.31	598.372	
4,429.1	4,362.9	4,129.5	4,129.3	15.4	1.3	-118.28	-1,086.9	-8,764.0	9,166.1	9,150.6	15.43	593.929	
4,500.0	4,432.3	4,185.5	4,185.3	15.7	1.3	-118.34	-1,087.8	-8,765.2	9,174.8	9,159.1	15.72	583.455	
4,527.5	4,459.2	4,207.7	4,207.4	15.8	1.3	-118.37	-1,088.1	-8,765.6	9,178.2	9,162.4	15.84	579.492	
4,600.0	4,530.1	4,268.0	4,267.7	16.1	1.3	-118.44	-1,088.9	-8,767.0	9,187.3	9,171.1	16.14	569.380	
4,626.0	4,555.5	4,289.6	4,289.4	16.2	1.3	-118.47	-1,089.1	-8,767.5	9,190.6	9,174.3	16.24	565.842	
4,700.0	4,627.9	4,343.6	4,343.3	16.6	1.3	-118.53	-1,089.6	-8,768.9	9,200.0	9,183.5	16.55	556.023	
4,724.4	4,651.7	4,360.9	4,360.6	16.7	1.3	-118.55	-1,089.7	-8,769.3	9,203.1	9,186.5	16.65	552.865	
4,800.0	4,725.7	4,400.0	4,399.7	17.0	1.3	-118.60	-1,090.0	-8,770.4	9,213.0	9,196.1	16.96	543.362	
4,822.8	4,748.0	4,430.1	4,429.8	17.1	1.3	-118.63	-1,090.2	-8,771.3	9,216.0	9,199.0	17.05	540.502	
4,904.9	4,828.3	4,500.0	4,499.6	17.5	1.3	-118.71	-1,090.7	-8,773.5	9,227.0	9,209.7	17.39	530.601	
4,921.2	4,844.3	4,500.0	4,499.6	17.5	1.3	-118.75	-1,090.7	-8,773.5	9,229.2	9,211.8	17.44	529.182	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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
5,000.0	4,921.6	4,640.8	4,640.4	17.8	1.3	-119.07	-1,091.8	-8,777.4	9,238.7	9,221.0	17.69	522.122	
5,019.7	4,941.0	4,655.6	4,655.1	17.9	1.3	-119.12	-1,091.8	-8,777.8	9,240.9	9,223.2	17.74	520.825	
5,100.0	5,020.4	4,716.9	4,716.5	18.1	1.3	-119.32	-1,092.0	-8,779.6	9,249.3	9,231.4	17.94	515.528	
5,118.1	5,038.3	4,731.4	4,731.0	18.2	1.3	-119.36	-1,092.0	-8,780.0	9,251.1	9,233.1	17.98	514.497	
5,200.0	5,119.6	4,800.0	4,799.5	18.4	1.3	-119.53	-1,092.3	-8,782.1	9,258.5	9,240.3	18.16	509.814	
5,216.5	5,136.0	4,852.6	4,852.0	18.4	1.3	-119.59	-1,092.7	-8,783.6	9,259.8	9,241.6	18.20	508.918	
5,300.0	5,219.2	4,993.9	4,993.4	18.6	1.3	-119.75	-1,093.4	-8,786.8	9,265.2	9,246.9	18.36	504.636	
5,314.9	5,234.1	5,000.0	4,999.4	18.6	1.3	-119.77	-1,093.4	-8,786.9	9,266.1	9,247.7	18.38	504.058	
5,400.0	5,319.1	5,066.4	5,065.9	18.8	1.4	-119.85	-1,093.1	-8,788.4	9,270.1	9,251.6	18.52	500.532	
5,413.4	5,332.4	5,075.8	5,075.2	18.8	1.4	-119.86	-1,093.1	-8,788.7	9,270.7	9,252.2	18.54	500.097	
5,504.9	5,423.9	5,144.6	5,144.0	18.9	1.4	-101.50	-1,092.7	-8,790.6	9,273.8	9,257.3	16.41	565.211	
5,511.8	5,430.8	5,150.0	5,149.4	18.9	1.4	-101.50	-1,092.6	-8,790.7	9,273.9	9,257.5	16.42	564.815	
5,600.0	5,519.0	5,348.7	5,348.0	19.0	1.4	-101.48	-1,090.3	-8,795.5	9,275.9	9,259.3	16.60	558.849	
5,610.2	5,529.3	5,358.8	5,358.1	19.0	1.4	-101.48	-1,090.1	-8,795.7	9,276.0	9,259.4	16.62	558.180	
5,700.0	5,619.0	5,454.3	5,453.5	19.2	1.4	-101.46	-1,088.2	-8,797.5	9,277.4	9,260.6	16.80	552.335	
5,708.6	5,627.7	5,464.0	5,463.3	19.2	1.5	-101.46	-1,088.1	-8,797.7	9,277.5	9,260.7	16.81	551.771	
5,800.0	5,719.0	5,598.9	5,598.2	19.3	1.5	-101.44	-1,085.7	-8,799.9	9,278.6	9,261.6	17.01	545.623	
5,807.1	5,726.1	5,600.0	5,599.2	19.3	1.5	-101.44	-1,085.7	-8,799.9	9,278.7	9,261.7	17.02	545.219	
5,900.0	5,819.0	5,655.6	5,654.8	19.4	1.5	-101.44	-1,084.5	-8,800.8	9,279.8	9,262.6	17.20	539.672	
5,905.5	5,824.5	5,658.7	5,657.9	19.4	1.5	-101.44	-1,084.5	-8,800.8	9,279.9	9,262.7	17.21	539.348	
6,003.9	5,923.0	5,751.5	5,750.7	19.6	1.5	-101.42	-1,082.8	-8,802.7	9,281.5	9,264.1	17.40	533.343	
6,009.8	5,928.8	5,763.7	5,762.9	19.6	1.5	-101.42	-1,082.6	-8,803.0	9,281.6	9,264.1	17.42	532.942	
6,050.0	5,969.0	5,927.1	5,926.2	19.6	1.6	-11.41	-1,077.8	-8,805.1	9,280.7	9,261.1	19.56	474.575	
6,100.0	6,018.8	5,970.5	5,969.6	19.7	1.6	-11.48	-1,076.7	-8,805.4	9,276.3	9,256.7	19.60	473.264	
6,102.3	6,021.1	5,972.6	5,971.6	19.7	1.6	-11.48	-1,076.6	-8,805.4	9,276.0	9,256.4	19.60	473.188	
6,150.0	6,068.1	6,000.0	5,999.1	19.7	1.6	-11.60	-1,076.0	-8,805.6	9,268.5	9,248.9	19.65	471.767	
6,200.0	6,116.8	6,036.7	6,035.8	19.7	1.6	-11.79	-1,075.3	-8,805.9	9,257.5	9,237.8	19.67	470.588	
6,200.8	6,117.5	6,037.1	6,036.2	19.7	1.6	-11.80	-1,075.3	-8,805.9	9,257.3	9,237.6	19.67	470.575	
6,250.0	6,164.5	6,064.0	6,063.1	19.7	1.6	-12.04	-1,074.7	-8,806.1	9,243.3	9,223.7	19.66	470.261	
6,299.2	6,210.4	6,100.0	6,099.0	19.7	1.6	-12.36	-1,073.9	-8,806.6	9,226.3	9,206.7	19.59	470.883	
6,300.0	6,211.1	6,100.0	6,099.0	19.7	1.6	-12.37	-1,073.9	-8,806.6	9,226.0	9,206.4	19.59	470.911	
6,350.0	6,256.4	6,124.8	6,123.8	19.7	1.6	-12.77	-1,073.4	-8,807.0	9,205.6	9,186.1	19.47	472.925	
6,397.6	6,298.0	6,160.2	6,159.3	19.7	1.6	-13.25	-1,072.5	-8,807.6	9,183.3	9,164.0	19.30	475.898	
6,400.0	6,300.0	6,162.0	6,161.0	19.7	1.6	-13.27	-1,072.5	-8,807.6	9,182.1	9,162.9	19.29	476.084	
6,450.0	6,341.8	6,200.0	6,199.0	19.7	1.6	-13.88	-1,071.6	-8,808.3	9,155.8	9,136.8	19.05	480.565	
6,496.0	6,378.6	6,283.3	6,282.3	19.7	1.7	-14.61	-1,069.4	-8,809.5	9,129.0	9,110.1	18.84	484.667	
6,500.0	6,381.6	6,290.8	6,289.7	19.7	1.7	-14.68	-1,069.2	-8,809.6	9,126.6	9,107.7	18.82	485.065	
6,550.0	6,419.2	6,324.1	6,323.0	19.6	1.7	-15.59	-1,068.2	-8,810.0	9,094.5	9,076.0	18.48	491.996	
6,594.5	6,450.7	6,346.5	6,345.5	19.6	1.7	-16.55	-1,067.5	-8,810.4	9,064.0	9,045.8	18.16	499.225	
6,600.0	6,454.4	6,349.2	6,348.2	19.6	1.7	-16.69	-1,067.4	-8,810.4	9,060.0	9,041.9	18.11	500.214	
6,650.0	6,487.1	6,372.7	6,371.6	19.6	1.7	-18.02	-1,066.6	-8,810.8	9,023.2	9,005.5	17.72	509.207	
6,692.9	6,513.0	6,400.0	6,398.9	19.6	1.7	-19.44	-1,065.5	-8,811.3	8,990.0	8,972.6	17.40	516.618	
6,700.0	6,517.0	6,400.0	6,398.9	19.6	1.7	-19.69	-1,065.5	-8,811.3	8,984.3	8,967.0	17.34	518.082	
6,750.0	6,544.1	6,400.0	6,398.9	19.6	1.7	-21.69	-1,065.5	-8,811.3	8,943.5	8,926.5	16.98	526.815	
6,791.3	6,564.2	6,400.0	6,398.9	19.7	1.7	-23.74	-1,065.5	-8,811.3	8,908.4	8,891.7	16.73	532.560	
6,800.0	6,568.2	6,400.0	6,398.9	19.7	1.7	-24.23	-1,065.5	-8,811.3	8,900.9	8,884.2	16.71	532.526	
6,850.0	6,589.1	6,400.0	6,398.9	19.8	1.7	-27.48	-1,065.5	-8,811.3	8,856.9	8,840.2	16.64	532.267	
6,889.7	6,603.5	6,400.0	6,398.9	19.9	1.7	-30.78	-1,065.5	-8,811.3	8,820.9	8,804.1	16.79	525.348	
6,900.0	6,606.9	6,400.0	6,398.9	19.9	1.7	-31.77	-1,065.5	-8,811.3	8,811.5	8,794.6	16.87	522.434	
6,950.0	6,621.3	6,400.0	6,398.9	20.2	1.7	-37.53	-1,065.5	-8,811.3	8,765.0	8,747.4	17.53	500.133	
6,988.2	6,630.0	6,400.0	6,398.9	20.6	1.7	-43.35	-1,065.5	-8,811.3	8,728.8	8,710.4	18.39	474.599	
7,000.0	6,632.4	6,400.0	6,398.9	20.7	1.7	-45.47	-1,065.5	-8,811.3	8,717.5	8,698.8	18.72	465.659	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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
7,050.0	6,640.0	6,400.0	6,398.9	21.4	1.7	-56.46	-1,065.5	-8,811.3	8,669.4	8,649.0	20.41	424.785	
7,086.6	6,643.4	6,400.0	6,398.9	21.9	1.7	-66.86	-1,065.5	-8,811.3	8,633.9	8,612.1	21.75	396.935	
7,100.0	6,644.2	6,400.0	6,398.9	22.1	1.7	-71.17	-1,065.5	-8,811.3	8,620.8	8,598.6	22.20	388.332	
7,135.7	6,645.0	6,400.0	6,398.9	22.7	1.7	-83.64	-1,065.5	-8,811.3	8,586.0	8,562.8	23.25	369.257	
7,185.0	6,644.9	6,400.0	6,398.9	23.6	1.7	-83.64	-1,065.5	-8,811.3	8,537.8	8,513.6	24.21	352.693	
7,200.0	6,644.9	6,400.0	6,398.9	23.9	1.7	-83.64	-1,065.5	-8,811.3	8,523.2	8,498.7	24.50	347.926	
7,283.4	6,644.8	6,400.0	6,398.9	25.6	1.7	-83.64	-1,065.5	-8,811.3	8,441.7	8,415.5	26.22	321.981	
7,300.0	6,644.8	6,400.0	6,398.9	25.9	1.7	-83.64	-1,065.5	-8,811.3	8,425.5	8,399.0	26.56	317.236	
7,381.9	6,644.7	6,400.0	6,398.9	27.7	1.7	-83.64	-1,065.5	-8,811.3	8,345.6	8,317.3	28.36	294.317	
7,400.0	6,644.7	6,400.0	6,398.9	28.1	1.7	-83.64	-1,065.5	-8,811.3	8,328.0	8,299.2	28.75	289.631	
7,480.3	6,644.6	6,400.0	6,398.9	29.9	1.7	-83.64	-1,065.5	-8,811.3	8,249.7	8,219.1	30.60	269.563	
7,500.0	6,644.6	6,400.0	6,398.9	30.3	1.7	-83.64	-1,065.5	-8,811.3	8,230.4	8,199.4	31.06	265.006	
7,578.7	6,644.5	6,400.0	6,398.9	32.2	1.7	-83.64	-1,065.5	-8,811.3	8,153.7	8,120.8	32.93	247.579	
7,600.0	6,644.4	6,400.0	6,398.9	32.7	1.7	-83.64	-1,065.5	-8,811.3	8,133.0	8,099.5	33.44	243.206	
7,677.1	6,644.3	6,400.0	6,398.9	34.6	1.7	-83.64	-1,065.5	-8,811.3	8,057.8	8,022.5	35.33	228.088	
7,700.0	6,644.3	6,400.0	6,398.9	35.1	1.7	-83.64	-1,065.5	-8,811.3	8,035.6	7,999.7	35.89	223.917	
7,775.6	6,644.2	6,400.0	6,398.9	37.0	1.7	-83.64	-1,065.5	-8,811.3	7,962.0	7,924.3	37.77	210.787	
7,800.0	6,644.2	6,400.0	6,398.9	37.6	1.7	-83.64	-1,065.5	-8,811.3	7,938.3	7,899.9	38.38	206.821	
7,874.0	6,644.1	6,400.0	6,398.9	39.5	1.7	-83.64	-1,065.5	-8,811.3	7,866.3	7,826.0	40.26	195.391	
7,900.0	6,644.1	6,400.0	6,398.9	40.1	1.7	-83.64	-1,065.5	-8,811.3	7,841.0	7,800.1	40.92	191.625	
7,972.4	6,644.0	6,400.0	6,398.9	42.0	1.7	-83.64	-1,065.5	-8,811.3	7,770.6	7,727.8	42.78	181.643	
8,000.0	6,643.9	6,400.0	6,398.9	42.7	1.7	-83.64	-1,065.5	-8,811.3	7,743.8	7,700.3	43.49	178.068	
8,070.8	6,643.9	6,400.0	6,398.9	44.5	1.7	-83.64	-1,065.5	-8,811.3	7,675.0	7,629.6	45.33	169.323	
8,100.0	6,643.8	6,400.0	6,398.9	45.2	1.7	-83.65	-1,065.5	-8,811.3	7,646.7	7,600.6	46.08	165.928	
8,169.3	6,643.7	6,400.0	6,398.9	47.0	1.7	-83.65	-1,065.5	-8,811.3	7,579.4	7,531.5	47.90	158.238	
8,200.0	6,643.7	6,400.0	6,398.9	47.9	1.7	-83.65	-1,065.5	-8,811.3	7,549.6	7,500.9	48.70	155.011	
8,267.7	6,643.6	6,400.0	6,398.9	49.6	1.7	-83.65	-1,065.5	-8,811.3	7,484.0	7,433.5	50.49	148.227	
8,300.0	6,643.6	6,400.0	6,398.9	50.5	1.7	-83.65	-1,065.5	-8,811.3	7,452.6	7,401.3	51.34	145.157	
8,366.1	6,643.5	6,400.0	6,398.9	52.2	1.7	-83.65	-1,065.5	-8,811.3	7,388.6	7,335.5	53.10	139.151	
8,400.0	6,643.4	6,400.0	6,398.9	53.1	1.7	-83.65	-1,065.5	-8,811.3	7,355.8	7,301.8	54.00	136.226	
8,464.5	6,643.4	6,400.0	6,398.9	54.8	1.7	-83.65	-1,065.5	-8,811.3	7,293.3	7,237.5	55.72	130.893	
8,500.0	6,643.3	6,400.0	6,398.9	55.8	1.7	-83.65	-1,065.5	-8,811.3	7,259.0	7,202.3	56.67	128.102	
8,563.0	6,643.2	6,400.0	6,398.9	57.5	1.7	-83.65	-1,065.5	-8,811.3	7,198.0	7,139.7	58.35	123.352	
8,600.0	6,643.2	6,400.0	6,398.9	58.5	1.7	-83.65	-1,065.5	-8,811.3	7,162.2	7,102.9	59.35	120.686	
8,661.4	6,643.1	6,400.0	6,398.9	60.1	1.7	-83.65	-1,065.5	-8,811.3	7,102.9	7,041.9	61.00	116.444	
8,700.0	6,643.1	6,400.0	6,398.9	61.2	1.7	-83.65	-1,065.5	-8,811.3	7,065.6	7,003.6	62.04	113.894	
8,759.8	6,643.0	6,400.0	6,398.9	62.8	1.7	-83.65	-1,065.5	-8,811.3	7,007.8	6,944.2	63.65	110.096	
8,800.0	6,643.0	6,400.0	6,398.9	63.9	1.7	-83.65	-1,065.5	-8,811.3	6,969.1	6,904.3	64.74	107.653	
8,858.2	6,642.9	6,400.0	6,398.9	65.4	1.7	-83.65	-1,065.5	-8,811.3	6,912.9	6,846.6	66.31	104.245	
8,900.0	6,642.8	6,400.0	6,398.9	66.6	1.7	-83.65	-1,065.5	-8,811.3	6,872.6	6,805.2	67.44	101.901	
8,956.7	6,642.8	6,400.0	6,398.9	68.1	1.7	-83.65	-1,065.5	-8,811.3	6,818.0	6,749.1	68.98	98.836	
9,000.0	6,642.7	6,400.0	6,398.9	69.3	1.7	-83.65	-1,065.5	-8,811.3	6,776.3	6,706.2	70.16	96.585	
9,055.1	6,642.6	6,400.0	6,398.9	70.8	1.7	-83.65	-1,065.5	-8,811.3	6,723.3	6,651.6	71.66	93.824	
9,100.0	6,642.6	6,400.0	6,398.9	72.0	1.7	-83.65	-1,065.5	-8,811.3	6,680.1	6,607.2	72.88	91.659	
9,153.5	6,642.5	6,400.0	6,398.9	73.5	1.7	-83.65	-1,065.5	-8,811.3	6,628.6	6,554.3	74.34	89.167	
9,200.0	6,642.5	6,400.0	6,398.9	74.7	1.7	-83.65	-1,065.5	-8,811.3	6,584.0	6,508.4	75.61	87.082	
9,251.9	6,642.4	6,400.0	6,398.9	76.2	1.7	-83.65	-1,065.5	-8,811.3	6,534.1	6,457.1	77.03	84.830	
9,300.0	6,642.3	6,400.0	6,398.9	77.5	1.7	-83.65	-1,065.5	-8,811.3	6,488.0	6,409.7	78.34	82.821	
9,350.4	6,642.3	6,400.0	6,398.9	78.9	1.7	-83.65	-1,065.5	-8,811.3	6,439.7	6,360.0	79.72	80.783	
9,400.0	6,642.2	6,400.0	6,398.9	80.2	1.7	-83.65	-1,065.5	-8,811.3	6,392.1	6,311.1	81.07	78.843	
9,448.8	6,642.1	6,400.0	6,398.9	81.6	1.7	-83.65	-1,065.5	-8,811.3	6,345.4	6,263.0	82.41	76.997	
9,500.0	6,642.1	6,400.0	6,398.9	83.0	1.7	-83.65	-1,065.5	-8,811.3	6,296.4	6,212.6	83.81	75.124	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT PJ #2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,547.2	6,642.0	6,400.0	6,398.9	84.3	1.7	-83.65	-1,065.5	-8,811.3	6,251.2	6,166.1	85.11	73.450	
9,600.0	6,642.0	6,400.0	6,398.9	85.7	1.7	-83.65	-1,065.5	-8,811.3	6,200.8	6,114.2	86.56	71.638	
9,645.6	6,641.9	6,400.0	6,398.9	87.0	1.7	-83.65	-1,065.5	-8,811.3	6,157.2	6,069.4	87.81	70.119	
9,700.0	6,641.8	6,400.0	6,398.9	88.5	1.7	-83.65	-1,065.5	-8,811.3	6,105.3	6,016.0	89.30	68.366	
9,744.1	6,641.8	6,400.0	6,398.9	89.7	1.7	-83.65	-1,065.5	-8,811.3	6,063.3	5,972.8	90.52	66.987	
9,800.0	6,641.7	6,400.0	6,398.9	91.2	1.7	-83.65	-1,065.5	-8,811.3	6,010.0	5,918.0	92.05	65.289	
9,842.5	6,641.7	6,400.0	6,398.9	92.4	1.7	-83.65	-1,065.5	-8,811.3	5,969.5	5,876.3	93.22	64.036	
9,900.0	6,641.6	6,400.0	6,398.9	94.0	1.7	-83.65	-1,065.5	-8,811.3	5,914.8	5,820.0	94.80	62.390	
9,940.9	6,641.5	6,400.0	6,398.9	95.1	1.7	-83.65	-1,065.5	-8,811.3	5,875.9	5,780.0	95.93	61.251	
10,000.0	6,641.5	6,400.0	6,398.9	96.7	1.7	-83.65	-1,065.5	-8,811.3	5,819.8	5,722.3	97.56	59.654	
10,039.3	6,641.4	6,400.0	6,398.9	97.8	1.7	-83.65	-1,065.5	-8,811.3	5,782.5	5,683.9	98.64	58.620	
10,100.0	6,641.3	6,400.0	6,398.9	99.5	1.7	-83.65	-1,065.5	-8,811.3	5,725.0	5,624.7	100.32	57.070	
10,137.8	6,641.3	6,400.0	6,398.9	100.6	1.7	-83.65	-1,065.5	-8,811.3	5,689.2	5,587.9	101.36	56.130	
10,200.0	6,641.2	6,400.0	6,398.9	102.3	1.7	-83.65	-1,065.5	-8,811.3	5,630.4	5,527.3	103.07	54.624	
10,236.2	6,641.2	6,400.0	6,398.9	103.3	1.7	-83.65	-1,065.5	-8,811.3	5,596.1	5,492.1	104.07	53.771	
10,300.0	6,641.1	6,400.0	6,398.9	105.0	1.7	-83.65	-1,065.5	-8,811.3	5,535.9	5,430.1	105.84	52.307	
10,334.6	6,641.0	6,400.0	6,398.9	106.0	1.7	-83.65	-1,065.5	-8,811.3	5,503.2	5,396.4	106.79	51.532	
10,400.0	6,641.0	6,400.0	6,398.9	107.8	1.7	-83.65	-1,065.5	-8,811.3	5,441.6	5,333.0	108.60	50.108	
10,433.0	6,640.9	6,400.0	6,398.9	108.7	1.7	-83.65	-1,065.5	-8,811.3	5,410.5	5,301.0	109.51	49.406	
10,500.0	6,640.8	6,400.0	6,398.9	110.6	1.7	-83.65	-1,065.5	-8,811.3	5,347.6	5,236.2	111.36	48.020	
10,531.5	6,640.8	6,400.0	6,398.9	111.5	1.7	-83.65	-1,065.5	-8,811.3	5,318.0	5,205.8	112.23	47.384	
10,600.0	6,640.7	6,400.0	6,398.9	113.4	1.7	-83.65	-1,065.5	-8,811.3	5,253.7	5,139.6	114.13	46.034	
10,629.9	6,640.7	6,400.0	6,398.9	114.2	1.7	-83.65	-1,065.5	-8,811.3	5,225.7	5,110.8	114.96	45.459	
10,700.0	6,640.6	6,400.0	6,398.9	116.1	1.7	-83.65	-1,065.5	-8,811.3	5,160.1	5,043.2	116.89	44.143	
10,728.3	6,640.5	6,400.0	6,398.9	116.9	1.7	-83.65	-1,065.5	-8,811.3	5,133.7	5,016.0	117.68	43.624	
10,800.0	6,640.5	6,400.0	6,398.9	118.9	1.7	-83.65	-1,065.5	-8,811.3	5,066.8	4,947.1	119.66	42.342	
10,826.7	6,640.4	6,400.0	6,398.9	119.7	1.7	-83.65	-1,065.5	-8,811.3	5,041.8	4,921.4	120.40	41.874	
10,900.0	6,640.3	6,400.0	6,398.9	121.7	1.7	-83.65	-1,065.5	-8,811.3	4,973.7	4,851.2	122.43	40.624	
10,925.2	6,640.3	6,400.0	6,398.9	122.4	1.7	-83.65	-1,065.5	-8,811.3	4,950.3	4,827.1	123.13	40.204	
11,000.0	6,640.2	6,400.0	6,398.9	124.5	1.7	-83.65	-1,065.5	-8,811.3	4,880.8	4,755.6	125.20	38.983	
11,023.6	6,640.2	6,400.0	6,398.9	125.1	1.7	-83.65	-1,065.5	-8,811.3	4,859.0	4,733.1	125.86	38.607	
11,100.0	6,640.1	6,400.0	6,398.9	127.3	1.7	-83.65	-1,065.5	-8,811.3	4,788.3	4,660.3	127.98	37.416	
11,122.0	6,640.0	6,400.0	6,398.9	127.9	1.7	-83.65	-1,065.5	-8,811.3	4,768.0	4,639.4	128.59	37.080	
11,200.0	6,639.9	6,400.0	6,398.9	130.1	1.7	-83.65	-1,065.5	-8,811.3	4,696.1	4,565.3	130.75	35.917	
11,220.4	6,639.9	6,400.0	6,398.9	130.6	1.7	-83.65	-1,065.5	-8,811.3	4,677.2	4,545.9	131.31	35.619	
11,300.0	6,639.8	6,400.0	6,398.9	132.8	1.7	-83.65	-1,065.5	-8,811.3	4,604.2	4,470.6	133.52	34.483	
11,318.9	6,639.8	6,400.0	6,398.9	133.4	1.7	-83.65	-1,065.5	-8,811.3	4,586.8	4,452.8	134.04	34.219	
11,400.0	6,639.7	6,400.0	6,398.9	135.6	1.7	-83.65	-1,065.5	-8,811.3	4,512.6	4,376.3	136.30	33.109	
11,417.3	6,639.7	6,400.0	6,398.9	136.1	1.7	-83.65	-1,065.5	-8,811.3	4,496.8	4,360.0	136.78	32.877	
11,500.0	6,639.6	6,400.0	6,398.9	138.4	1.7	-83.65	-1,065.5	-8,811.3	4,421.4	4,282.3	139.07	31.792	
11,515.7	6,639.5	6,400.0	6,398.9	138.9	1.7	-83.65	-1,065.5	-8,811.3	4,407.1	4,267.6	139.51	31.590	
11,600.0	6,639.4	6,400.0	6,398.9	141.2	1.7	-83.65	-1,065.5	-8,811.3	4,330.6	4,188.7	141.85	30.530	
11,614.1	6,639.4	6,400.0	6,398.9	141.6	1.7	-83.65	-1,065.5	-8,811.3	4,317.8	4,175.5	142.24	30.355	
11,700.0	6,639.3	6,400.0	6,398.9	144.0	1.7	-83.65	-1,065.5	-8,811.3	4,240.2	4,095.5	144.62	29.319	
11,712.6	6,639.3	6,400.0	6,398.9	144.3	1.7	-83.65	-1,065.5	-8,811.3	4,228.8	4,083.9	144.97	29.170	
11,800.0	6,639.2	6,400.0	6,398.9	146.8	1.7	-83.65	-1,065.5	-8,811.3	4,150.2	4,002.8	147.40	28.156	
11,811.0	6,639.2	6,400.0	6,398.9	147.1	1.7	-83.65	-1,065.5	-8,811.3	4,140.3	3,992.6	147.71	28.031	
11,900.0	6,639.1	6,400.0	6,398.9	149.6	1.7	-83.65	-1,065.5	-8,811.3	4,060.7	3,910.5	150.18	27.039	
11,909.4	6,639.0	6,400.0	6,398.9	149.8	1.7	-83.65	-1,065.5	-8,811.3	4,052.3	3,901.9	150.44	26.936	
12,000.0	6,638.9	6,400.0	6,398.9	152.4	1.7	-83.65	-1,065.5	-8,811.3	3,971.7	3,818.8	152.96	25.966	
12,007.8	6,638.9	6,400.0	6,398.9	152.6	1.7	-83.65	-1,065.5	-8,811.3	3,964.8	3,811.6	153.18	25.884	
12,100.0	6,638.8	6,400.0	6,398.9	155.2	1.7	-83.65	-1,065.5	-8,811.3	3,883.3	3,727.5	155.74	24.935	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,106.3	6,638.8	6,400.0	6,398.9	155.3	1.7	-83.65	-1,065.5	-8,811.3	3,877.8	3,721.8	155.91	24.872	
12,200.0	6,638.7	6,400.0	6,398.9	157.9	1.7	-83.65	-1,065.5	-8,811.3	3,795.4	3,636.9	158.52	23.943	
12,204.7	6,638.7	6,400.0	6,398.9	158.1	1.7	-83.65	-1,065.5	-8,811.3	3,791.3	3,632.6	158.65	23.898	
12,300.0	6,638.5	6,400.0	6,398.9	160.7	1.7	-83.65	-1,065.5	-8,811.3	3,708.1	3,546.8	161.30	22.990	
12,303.1	6,638.5	6,400.0	6,398.9	160.8	1.7	-83.65	-1,065.5	-8,811.3	3,705.4	3,544.0	161.38	22.960	
12,400.0	6,638.4	6,400.0	6,398.9	163.5	1.7	-83.65	-1,065.5	-8,811.3	3,621.5	3,457.5	164.08	22.072	
12,401.5	6,638.4	6,400.0	6,398.9	163.6	1.7	-83.65	-1,065.5	-8,811.3	3,620.2	3,456.1	164.12	22.058	
12,500.0	6,638.3	6,400.0	6,398.9	166.3	1.7	-83.65	-1,065.5	-8,811.3	3,535.6	3,368.8	166.86	21.189	
12,598.4	6,638.2	6,400.0	6,398.9	169.1	1.7	-83.65	-1,065.5	-8,811.3	3,451.8	3,282.2	169.60	20.353	
12,600.0	6,638.2	6,400.0	6,398.9	169.1	1.7	-83.65	-1,065.5	-8,811.3	3,450.5	3,280.8	169.64	20.340	
12,696.8	6,638.0	6,400.0	6,398.9	171.8	1.7	-83.65	-1,065.5	-8,811.3	3,368.8	3,196.5	172.33	19.548	
12,700.0	6,638.0	6,400.0	6,398.9	171.9	1.7	-83.65	-1,065.5	-8,811.3	3,366.2	3,193.7	172.42	19.523	
12,795.2	6,637.9	6,400.0	6,398.9	174.6	1.7	-83.65	-1,065.5	-8,811.3	3,286.7	3,111.6	175.07	18.773	
12,800.0	6,637.9	6,400.0	6,398.9	174.7	1.7	-83.65	-1,065.5	-8,811.3	3,282.7	3,107.5	175.20	18.736	
12,893.7	6,637.8	6,400.0	6,398.9	177.3	1.7	-83.65	-1,065.5	-8,811.3	3,205.4	3,027.6	177.81	18.027	
12,900.0	6,637.8	6,400.0	6,398.9	177.5	1.7	-83.65	-1,065.5	-8,811.3	3,200.2	3,022.2	177.99	17.980	
12,992.1	6,637.7	6,400.0	6,398.9	180.1	1.7	-83.65	-1,065.5	-8,811.3	3,125.2	2,944.6	180.55	17.309	
13,000.0	6,637.6	6,400.0	6,398.9	180.3	1.7	-83.65	-1,065.5	-8,811.3	3,118.8	2,938.0	180.77	17.253	
13,090.5	6,637.5	6,400.0	6,398.9	182.8	1.7	-83.65	-1,065.5	-8,811.3	3,046.0	2,862.7	183.29	16.618	
13,100.0	6,637.5	6,400.0	6,398.9	183.1	1.7	-83.65	-1,065.5	-8,811.3	3,038.4	2,854.8	183.55	16.553	
13,188.9	6,637.4	6,400.0	6,398.9	185.6	1.7	-83.65	-1,065.5	-8,811.3	2,967.9	2,781.9	186.03	15.954	
13,200.0	6,637.4	6,400.0	6,398.9	185.9	1.7	-83.65	-1,065.5	-8,811.3	2,959.2	2,772.9	186.34	15.881	
13,287.4	6,637.3	6,400.0	6,398.9	188.4	1.7	-83.65	-1,065.5	-8,811.3	2,891.1	2,702.4	188.77	15.316	
13,300.0	6,637.3	6,400.0	6,398.9	188.7	1.7	-83.65	-1,065.5	-8,811.3	2,881.4	2,692.2	189.12	15.235	
13,385.8	6,637.1	6,400.0	6,398.9	191.1	1.7	-83.65	-1,065.5	-8,811.3	2,815.7	2,624.2	191.51	14.702	
13,400.0	6,637.1	6,400.0	6,398.9	191.5	1.7	-83.65	-1,065.5	-8,811.3	2,804.9	2,613.0	191.91	14.616	
13,484.2	6,637.0	6,400.0	6,398.9	193.9	1.7	-83.65	-1,065.5	-8,811.3	2,741.7	2,547.4	194.25	14.114	
13,500.0	6,637.0	6,400.0	6,398.9	194.3	1.7	-83.65	-1,065.5	-8,811.3	2,730.0	2,535.3	194.69	14.022	
13,582.6	6,636.9	6,400.0	6,398.9	196.6	1.7	-83.65	-1,065.5	-8,811.3	2,669.3	2,472.3	196.99	13.550	
13,600.0	6,636.9	6,400.0	6,398.9	197.1	1.7	-83.65	-1,065.5	-8,811.3	2,656.7	2,459.2	197.48	13.453	
13,681.1	6,636.8	6,400.0	6,398.9	199.4	1.7	-83.65	-1,065.5	-8,811.3	2,598.5	2,398.8	199.73	13.010	
13,700.0	6,636.7	6,400.0	6,398.9	199.9	1.7	-83.65	-1,065.5	-8,811.3	2,585.2	2,384.9	200.26	12.909	
13,779.5	6,636.6	6,400.0	6,398.9	202.1	1.7	-83.65	-1,065.5	-8,811.3	2,529.7	2,327.2	202.48	12.494	
13,800.0	6,636.6	6,400.0	6,398.9	202.7	1.7	-83.65	-1,065.5	-8,811.3	2,515.6	2,312.6	203.05	12.389	
13,877.9	6,636.5	6,400.0	6,398.9	204.9	1.7	-83.65	-1,065.5	-8,811.3	2,462.8	2,257.6	205.22	12.001	
13,900.0	6,636.5	6,400.0	6,398.9	205.5	1.7	-83.65	-1,065.5	-8,811.3	2,448.2	2,242.3	205.83	11.894	
13,976.3	6,636.4	6,400.0	6,398.9	207.6	1.7	-83.65	-1,065.5	-8,811.3	2,398.2	2,190.2	207.96	11.532	
14,000.0	6,636.3	6,400.0	6,398.9	208.3	1.7	-83.65	-1,065.5	-8,811.3	2,383.0	2,174.4	208.62	11.423	
14,074.8	6,636.3	6,400.0	6,398.9	210.4	1.7	-83.65	-1,065.5	-8,811.3	2,335.9	2,125.2	210.70	11.086	
14,100.0	6,636.2	6,400.0	6,398.9	211.1	1.7	-83.65	-1,065.5	-8,811.3	2,320.3	2,108.9	211.41	10.976	
14,173.2	6,636.1	6,400.0	6,398.9	213.2	1.7	-83.65	-1,065.5	-8,811.3	2,276.1	2,062.7	213.44	10.664	
14,200.0	6,636.1	6,400.0	6,398.9	213.9	1.7	-83.65	-1,065.5	-8,811.3	2,260.3	2,046.1	214.19	10.553	
14,271.6	6,636.0	6,400.0	6,398.9	215.9	1.7	-83.65	-1,065.5	-8,811.3	2,219.1	2,002.9	216.19	10.265	
14,300.0	6,636.0	6,400.0	6,398.9	216.7	1.7	-83.65	-1,065.5	-8,811.3	2,203.2	1,986.3	216.98	10.154	
14,370.0	6,635.9	6,400.0	6,398.9	218.7	1.7	-83.65	-1,065.5	-8,811.3	2,165.1	1,946.2	218.93	9.889	
14,400.0	6,635.8	6,400.0	6,398.9	219.5	1.7	-83.65	-1,065.5	-8,811.3	2,149.3	1,929.5	219.77	9.780	
14,468.5	6,635.7	6,400.0	6,398.9	221.4	1.7	-83.65	-1,065.5	-8,811.3	2,114.3	1,892.6	221.67	9.538	
14,500.0	6,635.7	6,400.0	6,398.9	222.3	1.7	-83.65	-1,065.5	-8,811.3	2,098.7	1,876.2	222.55	9.430	
14,566.9	6,635.6	6,400.0	6,398.9	224.2	1.7	-83.65	-1,065.5	-8,811.3	2,066.9	1,842.5	224.42	9.210	
14,600.0	6,635.6	6,400.0	6,398.9	225.1	1.7	-83.65	-1,065.5	-8,811.3	2,051.8	1,826.4	225.34	9.105	
14,665.3	6,635.5	6,400.0	6,398.9	226.9	1.7	-83.65	-1,065.5	-8,811.3	2,023.2	1,796.0	227.16	8.906	
14,700.0	6,635.4	6,400.0	6,398.9	227.9	1.7	-83.65	-1,065.5	-8,811.3	2,008.7	1,780.6	228.13	8.805	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT PJ #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
14,763.7	6,635.4	6,400.0	6,398.9	229.7	1.7	-83.65	-1,065.5	-8,811.3	1,983.4	1,753.5	229.90	8.627	
14,800.0	6,635.3	6,400.0	6,398.9	230.7	1.7	-83.65	-1,065.5	-8,811.3	1,969.8	1,738.9	230.91	8.531	
14,862.2	6,635.2	6,400.0	6,398.9	232.5	1.7	-83.65	-1,065.5	-8,811.3	1,947.8	1,715.2	232.65	8.372	
14,900.0	6,635.2	6,400.0	6,398.9	233.5	1.7	-83.65	-1,065.5	-8,811.3	1,935.3	1,701.6	233.70	8.281	
14,960.6	6,635.1	6,400.0	6,398.9	235.2	1.7	-83.65	-1,065.5	-8,811.3	1,916.6	1,681.2	235.39	8.142	
15,000.0	6,635.0	6,400.0	6,398.9	236.3	1.7	-83.65	-1,065.5	-8,811.3	1,905.4	1,668.9	236.49	8.057	
15,033.1	6,635.0	6,400.0	6,398.9	237.3	1.7	-83.65	-1,065.5	-8,811.3	1,896.6	1,659.2	237.41	7.989 CC, ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT PJ #5 - 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	-86.64	567.3	-9,674.8	9,691.4				
98.4	98.4	81.4	81.4	0.1	0.0	-86.64	567.3	-9,674.8	9,691.4				
100.0	100.0	83.0	83.0	0.1	0.0	-86.64	567.3	-9,674.8	9,691.4	9,691.3	0.10	N/A	
196.8	196.8	179.8	179.8	0.3	1.0	-86.64	567.3	-9,674.8	9,691.4	9,690.1	1.30	7,431.309	
200.0	200.0	183.0	183.0	0.3	1.0	-86.64	567.3	-9,674.8	9,691.4	9,690.1	1.35	7,177.681	
295.3	295.3	278.3	278.3	0.5	3.0	-86.64	567.3	-9,674.8	9,691.4	9,687.8	3.56	2,722.129	
300.0	300.0	283.0	283.0	0.5	3.1	-86.64	567.3	-9,674.8	9,691.4	9,687.7	3.68	2,634.520	
393.7	393.7	376.7	376.7	0.8	5.1	-86.64	567.3	-9,674.8	9,691.4	9,685.5	5.87	1,650.871	
400.0	400.0	383.0	383.0	0.8	5.2	-86.64	567.3	-9,674.8	9,691.4	9,685.4	6.02	1,611.065	
492.1	492.1	475.1	475.1	1.0	7.1	-86.64	567.3	-9,674.8	9,691.4	9,683.3	8.11	1,195.020	
500.0	500.0	483.0	483.0	1.0	7.3	-86.64	567.3	-9,674.8	9,691.4	9,683.1	8.29	1,169.283	
590.5	590.5	573.5	573.5	1.2	9.1	-86.64	567.3	-9,674.8	9,691.4	9,681.1	10.33	938.062	
600.0	600.0	583.0	583.0	1.2	9.3	-86.64	567.3	-9,674.8	9,691.4	9,680.9	10.54	919.114	
689.0	689.0	672.0	672.0	1.4	11.1	-86.64	567.3	-9,674.8	9,691.4	9,678.9	12.55	772.527	
700.0	700.0	683.0	683.0	1.4	11.3	-86.64	567.3	-9,674.8	9,691.4	9,678.6	12.79	757.564	
787.4	787.4	770.4	770.4	1.6	13.1	-86.64	567.3	-9,674.8	9,691.4	9,676.7	14.75	656.833	
800.0	800.0	783.0	783.0	1.7	13.4	-86.64	567.3	-9,674.8	9,691.4	9,676.4	15.04	644.483	
885.8	885.8	868.8	868.8	1.9	15.1	-86.64	567.3	-9,674.8	9,691.4	9,674.4	16.96	571.361	
900.0	900.0	883.0	883.0	1.9	15.4	-86.64	567.3	-9,674.8	9,691.4	9,674.1	17.28	560.853	
984.2	984.2	967.2	967.2	2.1	17.1	-86.64	567.3	-9,674.8	9,691.4	9,672.2	19.17	505.614	
1,000.0	1,000.0	983.0	983.0	2.1	17.4	-86.64	567.3	-9,674.8	9,691.4	9,671.9	19.52	496.474	
1,082.7	1,082.7	1,065.7	1,065.7	2.3	19.1	-113.64	567.3	-9,674.8	9,691.9	9,670.5	21.37	453.556	
1,100.0	1,100.0	1,083.0	1,083.0	2.3	19.4	-113.64	567.3	-9,674.8	9,692.1	9,670.4	21.76	445.504	
1,181.1	1,181.0	1,164.0	1,164.0	2.5	21.0	-113.63	567.3	-9,674.8	9,693.7	9,670.1	23.56	411.424	
1,200.0	1,199.8	1,182.8	1,182.8	2.6	21.4	-113.63	567.3	-9,674.8	9,694.2	9,670.2	23.98	404.242	
1,279.5	1,279.1	1,262.1	1,262.1	2.8	23.0	-113.62	567.3	-9,674.8	9,696.9	9,671.1	25.75	376.610	
1,300.0	1,299.5	1,282.5	1,282.5	2.8	23.4	-113.61	567.3	-9,674.8	9,697.7	9,671.5	26.20	370.124	
1,377.9	1,376.9	1,359.9	1,359.9	3.0	25.0	-113.59	567.3	-9,674.8	9,701.4	9,673.5	27.93	347.327	
1,400.0	1,398.7	1,381.7	1,381.7	3.0	25.4	-113.59	567.3	-9,674.8	9,702.6	9,674.2	28.42	341.410	
1,476.4	1,474.2	1,457.2	1,457.2	3.2	26.9	-113.56	567.3	-9,674.8	9,707.3	9,677.2	30.12	322.315	
1,500.0	1,497.5	1,480.5	1,480.5	3.3	27.4	-113.56	567.3	-9,674.8	9,708.9	9,678.3	30.64	316.867	
1,574.8	1,571.0	1,554.0	1,554.0	3.5	28.9	-113.53	567.3	-9,674.8	9,714.6	9,682.3	32.31	300.665	
1,600.0	1,595.6	1,578.6	1,578.6	3.6	29.4	-113.52	567.3	-9,674.8	9,716.7	9,683.8	32.87	295.608	
1,673.2	1,667.2	1,650.2	1,650.2	3.9	30.8	-113.60	567.3	-9,674.8	9,722.9	9,688.3	34.54	281.497	
1,700.0	1,693.4	1,676.4	1,676.4	4.0	31.4	-113.63	567.3	-9,674.8	9,725.2	9,690.0	35.15	276.671	
1,771.6	1,763.5	1,746.5	1,746.5	4.2	32.8	-113.70	567.3	-9,674.8	9,731.2	9,694.4	36.80	264.458	
1,800.0	1,791.3	1,774.3	1,774.3	4.3	33.3	-113.74	567.3	-9,674.8	9,733.7	9,696.2	37.45	259.923	
1,870.1	1,859.8	1,842.8	1,842.8	4.6	34.7	-113.81	567.3	-9,674.8	9,739.6	9,700.6	39.07	249.299	
1,900.0	1,889.1	1,872.1	1,872.1	4.7	35.3	-113.85	567.3	-9,674.8	9,742.2	9,702.4	39.76	245.029	
1,968.5	1,956.1	1,939.1	1,939.1	4.9	36.6	-113.92	567.3	-9,674.8	9,748.1	9,706.7	41.35	235.749	
2,000.0	1,986.9	1,969.9	1,969.9	5.1	37.3	-113.96	567.3	-9,674.8	9,750.8	9,708.7	42.08	231.716	
2,066.9	2,052.3	2,035.3	2,035.3	5.3	38.6	-114.03	567.3	-9,674.8	9,756.5	9,712.9	43.64	223.570	
2,100.0	2,084.7	2,067.7	2,067.7	5.5	39.2	-114.07	567.3	-9,674.8	9,759.4	9,715.0	44.41	219.755	
2,165.3	2,148.6	2,131.6	2,131.6	5.7	40.5	-114.14	567.3	-9,674.8	9,765.1	9,719.1	45.94	212.575	
2,200.0	2,182.5	2,165.5	2,165.5	5.9	41.2	-114.17	567.3	-9,674.8	9,768.1	9,721.3	46.75	208.959	
2,263.8	2,244.9	2,227.9	2,227.9	6.1	42.5	-114.24	567.3	-9,674.8	9,773.6	9,725.4	48.24	202.606	
2,300.0	2,280.3	2,263.3	2,263.3	6.3	43.2	-114.28	567.3	-9,674.8	9,776.7	9,727.7	49.09	199.170	
2,362.2	2,341.2	2,324.2	2,324.2	6.5	44.4	-114.35	567.3	-9,674.8	9,782.2	9,731.6	50.55	193.530	
2,400.0	2,378.1	2,361.1	2,361.1	6.7	45.1	-114.39	567.3	-9,674.8	9,785.5	9,734.0	51.43	190.258	
2,460.6	2,437.4	2,420.4	2,420.4	6.9	46.3	-114.46	567.3	-9,674.8	9,790.8	9,737.9	52.86	185.234	
2,500.0	2,476.0	2,459.0	2,459.0	7.1	47.1	-114.50	567.3	-9,674.8	9,794.2	9,740.5	53.78	182.113	
2,550.0	2,524.9	2,507.9	2,507.9	7.3	48.1	-114.56	567.3	-9,674.8	9,798.6	9,743.7	54.96	178.299	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,516.7	2,516.7	7.3	48.3	-113.71	567.3	-9,674.8	9,799.4	9,744.2	55.18	177.590	
2,600.0	2,573.8	2,556.8	2,556.8	7.5	49.1	-109.89	567.3	-9,674.8	9,802.6	9,746.4	56.19	174.462	
2,639.4	2,612.3	2,595.3	2,595.3	7.7	49.8	-106.22	567.3	-9,674.8	9,805.2	9,748.1	57.14	171.587	
2,657.5	2,630.0	2,613.0	2,613.0	7.7	50.2	-106.24	567.3	-9,674.8	9,806.3	9,748.7	57.57	170.338	
2,700.0	2,671.6	2,654.6	2,654.6	7.9	51.0	-106.29	567.3	-9,674.8	9,808.8	9,750.3	58.57	167.478	
2,755.9	2,726.3	2,709.3	2,709.3	8.1	52.1	-106.35	567.3	-9,674.8	9,812.2	9,752.3	59.89	163.830	
2,800.0	2,769.4	2,752.4	2,752.4	8.3	53.0	-106.40	567.3	-9,674.8	9,814.8	9,753.9	60.94	161.064	
2,854.3	2,822.5	2,805.5	2,805.5	8.5	54.1	-106.46	567.3	-9,674.8	9,818.1	9,755.8	62.23	157.782	
2,900.0	2,867.2	2,850.2	2,850.2	8.7	55.0	-106.51	567.3	-9,674.8	9,820.8	9,757.5	63.31	155.127	
2,952.7	2,918.8	2,901.8	2,901.8	9.0	56.0	-106.57	567.3	-9,674.8	9,824.0	9,759.4	64.56	152.169	
3,000.0	2,965.0	2,948.0	2,948.0	9.2	56.9	-106.63	567.3	-9,674.8	9,826.9	9,761.2	65.68	149.615	
3,051.2	3,015.1	2,998.1	2,998.1	9.4	57.9	-106.69	567.3	-9,674.8	9,830.0	9,763.1	66.90	146.944	
3,100.0	3,062.8	3,045.8	3,045.8	9.6	58.9	-106.74	567.3	-9,674.8	9,832.9	9,764.9	68.06	144.485	
3,149.6	3,111.4	3,094.4	3,094.4	9.8	59.9	-106.80	567.3	-9,674.8	9,836.0	9,766.7	69.23	142.070	
3,200.0	3,160.7	3,143.7	3,143.7	10.0	60.9	-106.86	567.3	-9,674.8	9,839.1	9,768.6	70.43	139.699	
3,248.0	3,207.6	3,190.6	3,190.6	10.2	61.8	-106.91	567.3	-9,674.8	9,842.0	9,770.5	71.57	137.513	
3,300.0	3,258.5	3,241.5	3,241.5	10.5	62.8	-106.97	567.3	-9,674.8	9,845.2	9,772.4	72.81	135.225	
3,346.4	3,303.9	3,286.9	3,286.9	10.7	63.8	-107.02	567.3	-9,674.8	9,848.1	9,774.2	73.91	133.244	
3,400.0	3,356.3	3,339.3	3,339.3	10.9	64.8	-107.08	567.3	-9,674.8	9,851.5	9,776.3	75.18	131.032	
3,444.9	3,400.2	3,383.2	3,383.2	11.1	65.7	-107.13	567.3	-9,674.8	9,854.3	9,778.0	76.25	129.235	
3,500.0	3,454.1	3,437.1	3,437.1	11.3	66.8	-107.20	567.3	-9,674.8	9,857.7	9,780.1	77.56	127.096	
3,543.3	3,496.5	3,479.5	3,479.5	11.5	67.6	-107.24	567.3	-9,674.8	9,860.4	9,781.8	78.59	125.465	
3,600.0	3,551.9	3,534.9	3,534.9	11.7	68.7	-107.31	567.3	-9,674.8	9,864.0	9,784.1	79.94	123.394	
3,641.7	3,592.7	3,575.7	3,575.7	11.9	69.6	-107.36	567.3	-9,674.8	9,866.6	9,785.7	80.93	121.913	
3,700.0	3,649.7	3,632.7	3,632.7	12.2	70.7	-107.42	567.3	-9,674.8	9,870.3	9,788.0	82.32	119.905	
3,740.1	3,689.0	3,672.0	3,672.0	12.4	71.5	-107.47	567.3	-9,674.8	9,872.9	9,789.6	83.27	118.561	
3,800.0	3,747.5	3,730.5	3,730.5	12.6	72.7	-107.53	567.3	-9,674.8	9,876.7	9,792.0	84.70	116.613	
3,838.6	3,785.3	3,768.3	3,768.3	12.8	73.4	-107.58	567.3	-9,674.8	9,879.2	9,793.6	85.61	115.392	
3,900.0	3,845.4	3,828.4	3,828.4	13.1	74.6	-107.65	567.3	-9,674.8	9,883.1	9,796.0	87.08	113.501	
3,937.0	3,881.6	3,864.6	3,864.6	13.2	75.4	-107.69	567.3	-9,674.8	9,885.5	9,797.5	87.96	112.392	
4,000.0	3,943.2	3,926.2	3,926.2	13.5	76.6	-107.76	567.3	-9,674.8	9,889.6	9,800.1	89.45	110.554	
4,035.4	3,977.8	3,960.8	3,960.8	13.6	77.3	-107.80	567.3	-9,674.8	9,891.9	9,801.6	90.30	109.547	
4,100.0	4,041.0	4,024.0	4,024.0	13.9	78.6	-107.87	567.3	-9,674.8	9,896.1	9,804.2	91.83	107.760	
4,133.8	4,074.1	4,057.1	4,057.1	14.1	79.2	-107.91	567.3	-9,674.8	9,898.3	9,805.6	92.64	106.847	
4,200.0	4,138.8	4,121.8	4,121.8	14.4	80.5	-107.98	567.3	-9,674.8	9,902.6	9,808.4	94.21	105.108	
4,232.3	4,170.4	4,153.4	4,153.4	14.5	81.2	-108.02	567.3	-9,674.8	9,904.7	9,809.7	94.98	104.281	
4,300.0	4,236.6	4,219.6	4,219.6	14.8	82.5	-108.10	567.3	-9,674.8	9,909.1	9,812.6	96.59	102.587	
4,330.7	4,266.7	4,249.7	4,249.7	14.9	83.1	-108.13	567.3	-9,674.8	9,911.2	9,813.9	97.32	101.838	
4,400.0	4,334.4	4,317.4	4,317.4	15.2	84.5	-108.21	567.3	-9,674.8	9,915.8	9,816.8	98.97	100.188	
4,429.1	4,362.9	4,345.9	4,345.9	15.4	85.1	-108.24	567.3	-9,674.8	9,917.7	9,818.0	99.66	99.510	
4,500.0	4,432.3	4,415.3	4,415.3	15.7	86.5	-108.32	567.3	-9,674.8	9,922.4	9,821.1	101.35	97.901	
4,527.5	4,459.2	4,442.2	4,442.2	15.8	87.0	-108.35	567.3	-9,674.8	9,924.2	9,822.2	102.01	97.290	
4,600.0	4,530.1	4,513.1	4,513.1	16.1	88.4	-108.43	567.3	-9,674.8	9,929.1	9,825.4	103.73	95.720	
4,626.0	4,555.5	4,538.5	4,538.5	16.2	88.9	-108.46	567.3	-9,674.8	9,930.8	9,826.5	104.35	95.170	
4,700.0	4,627.9	4,610.9	4,610.9	16.6	90.4	-108.54	567.3	-9,674.8	9,935.8	9,829.7	106.11	93.638	
4,724.4	4,651.7	4,634.7	4,634.7	16.7	90.9	-108.57	567.3	-9,674.8	9,937.5	9,830.8	106.69	93.144	
4,800.0	4,725.7	4,708.7	4,708.7	17.0	92.4	-108.65	567.3	-9,674.8	9,942.6	9,834.1	108.49	91.647	
4,822.8	4,748.0	4,731.0	4,731.0	17.1	92.8	-108.68	567.3	-9,674.8	9,944.1	9,835.1	109.03	91.205	
4,904.9	4,828.3	4,811.3	4,811.3	17.5	94.4	-108.77	567.3	-9,674.8	9,949.7	9,838.7	110.98	89.651	
4,921.2	4,844.3	4,827.3	4,827.3	17.5	94.7	-108.81	567.3	-9,674.8	9,950.8	9,839.4	111.37	89.348	
5,000.0	4,921.6	4,904.6	4,904.6	17.8	96.3	-108.98	567.3	-9,674.8	9,955.7	9,842.5	113.25	87.911	
5,019.7	4,941.0	4,924.0	4,924.0	17.9	96.7	-109.02	567.3	-9,674.8	9,956.8	9,843.1	113.70	87.569	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	5,003.4	5,003.4	18.1	98.3	-109.17	567.3	-9,674.8	9,960.9	9,845.4	115.56	86.197	
5,118.1	5,038.3	5,021.3	5,021.3	18.2	98.6	-109.20	567.3	-9,674.8	9,961.8	9,845.8	115.97	85.898	
5,200.0	5,119.6	5,102.6	5,102.6	18.4	100.3	-109.31	567.3	-9,674.8	9,965.0	9,847.2	117.84	84.565	
5,216.5	5,136.0	5,119.0	5,119.0	18.4	100.6	-109.33	567.3	-9,674.8	9,965.6	9,847.4	118.21	84.305	
5,300.0	5,219.2	5,202.2	5,202.2	18.6	102.3	-109.41	567.3	-9,674.8	9,968.0	9,847.9	120.08	83.012	
5,314.9	5,234.1	5,217.1	5,217.1	18.6	102.6	-109.43	567.3	-9,674.8	9,968.3	9,847.9	120.41	82.788	
5,400.0	5,319.1	5,302.1	5,302.1	18.8	104.3	-109.48	567.3	-9,674.8	9,969.8	9,847.5	122.28	81.534	
5,413.4	5,332.4	5,315.4	5,315.4	18.8	104.6	-109.48	567.3	-9,674.8	9,969.9	9,847.4	122.57	81.344	
5,504.9	5,423.9	5,406.9	5,406.9	18.9	106.4	-91.08	567.3	-9,674.8	9,970.4	9,850.0	120.46	82.773	
5,511.8	5,430.8	5,413.8	5,413.8	18.9	106.5	-91.08	567.3	-9,674.8	9,970.4	9,849.8	120.61	82.669	
5,600.0	5,519.0	5,502.0	5,502.0	19.0	108.3	-91.08	567.3	-9,674.8	9,970.4	9,847.9	122.53	81.374	
5,610.2	5,529.3	5,512.3	5,512.3	19.0	108.5	-91.08	567.3	-9,674.8	9,970.4	9,847.7	122.75	81.225	
5,700.0	5,619.0	5,602.0	5,602.0	19.2	110.3	-91.08	567.3	-9,674.8	9,970.4	9,845.7	124.72	79.941	
5,708.6	5,627.7	5,610.7	5,610.7	19.2	110.5	-91.08	567.3	-9,674.8	9,970.4	9,845.5	124.91	79.819	
5,800.0	5,719.0	5,702.0	5,702.0	19.3	112.3	-91.08	567.3	-9,674.8	9,970.4	9,843.5	126.92	78.556	
5,807.1	5,726.1	5,709.1	5,709.1	19.3	112.5	-91.08	567.3	-9,674.8	9,970.4	9,843.4	127.08	78.460	
5,900.0	5,819.0	5,802.0	5,802.0	19.4	114.3	-91.08	567.3	-9,674.8	9,970.4	9,841.3	129.12	77.218	
5,905.5	5,824.5	5,807.5	5,807.5	19.4	114.5	-91.08	567.3	-9,674.8	9,970.4	9,841.2	129.24	77.146	
6,003.9	5,923.0	5,906.0	5,906.0	19.6	116.4	-91.08	567.3	-9,674.8	9,970.4	9,839.0	131.41	75.875	
6,009.8	5,928.8	5,911.8	5,911.8	19.6	116.5	-91.08	567.3	-9,674.8	9,970.4	9,838.9	131.53	75.801	
6,050.0	5,969.0	5,952.0	5,952.0	19.6	117.4	-1.08	567.3	-9,674.8	9,969.3	9,833.3	136.02	73.291	
6,100.0	6,018.8	6,001.8	6,001.8	19.7	118.4	-1.09	567.3	-9,674.8	9,964.8	9,828.6	136.20	73.165	
6,102.3	6,021.1	6,004.1	6,004.1	19.7	118.4	-1.09	567.3	-9,674.8	9,964.5	9,828.3	136.19	73.167	
6,150.0	6,068.1	6,051.1	6,051.1	19.7	119.3	-1.10	567.3	-9,674.8	9,956.8	9,821.1	135.69	73.379	
6,200.0	6,116.8	6,099.8	6,099.8	19.7	120.3	-1.12	567.3	-9,674.8	9,945.3	9,810.8	134.49	73.948	
6,200.8	6,117.5	6,100.5	6,100.5	19.7	120.3	-1.12	567.3	-9,674.8	9,945.1	9,810.7	134.47	73.960	
6,250.0	6,164.5	6,147.5	6,147.5	19.7	121.3	-1.15	567.3	-9,674.8	9,930.5	9,797.9	132.59	74.894	
6,299.2	6,210.4	6,193.4	6,193.4	19.7	122.2	-1.18	567.3	-9,674.8	9,912.8	9,782.7	130.05	76.223	
6,300.0	6,211.1	6,194.1	6,194.1	19.7	122.2	-1.18	567.3	-9,674.8	9,912.4	9,782.4	130.00	76.248	
6,350.0	6,256.4	6,239.4	6,239.4	19.7	123.1	-1.23	567.3	-9,674.8	9,891.1	9,764.4	126.72	78.058	
6,397.6	6,298.0	6,281.0	6,281.0	19.7	124.0	-1.27	567.3	-9,674.8	9,868.0	9,745.0	122.95	80.260	
6,400.0	6,300.0	6,283.0	6,283.0	19.7	124.0	-1.28	567.3	-9,674.8	9,866.7	9,744.0	122.75	80.383	
6,450.0	6,341.8	6,324.8	6,324.8	19.7	124.9	-1.34	567.3	-9,674.8	9,839.4	9,721.3	118.11	83.307	
6,496.0	6,378.6	6,361.6	6,361.6	19.7	125.6	-1.41	567.3	-9,674.8	9,811.6	9,698.4	113.27	86.625	
6,500.0	6,381.6	6,364.6	6,364.6	19.7	125.7	-1.42	567.3	-9,674.8	9,809.1	9,696.3	112.83	86.941	
6,550.0	6,419.2	6,402.2	6,402.2	19.6	126.4	-1.51	567.3	-9,674.8	9,776.2	9,669.3	106.92	91.431	
6,594.5	6,450.7	6,433.7	6,433.7	19.6	127.0	-1.62	567.3	-9,674.8	9,744.8	9,643.6	101.18	96.307	
6,600.0	6,454.4	6,437.4	6,437.4	19.6	127.1	-1.63	567.3	-9,674.8	9,740.7	9,640.3	100.44	96.981	
6,650.0	6,487.1	6,470.1	6,470.1	19.6	127.8	-1.77	567.3	-9,674.8	9,702.9	9,609.5	93.42	103.868	
6,692.9	6,513.0	6,496.0	6,496.0	19.6	128.3	-1.93	567.3	-9,674.8	9,668.7	9,581.7	87.00	111.135	
6,700.0	6,517.0	6,500.0	6,500.0	19.6	128.4	-1.96	567.3	-9,674.8	9,662.9	9,576.9	85.90	112.484	
6,750.0	6,544.1	6,527.1	6,527.1	19.6	128.9	-2.19	567.3	-9,674.8	9,620.8	9,542.9	77.97	123.394	
6,791.3	6,564.2	6,547.2	6,547.2	19.7	129.3	-2.44	567.3	-9,674.8	9,584.7	9,513.6	71.14	134.726	
6,800.0	6,568.2	6,551.2	6,551.2	19.7	129.4	-2.50	567.3	-9,674.8	9,577.0	9,507.3	69.69	137.428	
6,850.0	6,589.1	6,572.1	6,572.1	19.8	129.8	-2.92	567.3	-9,674.8	9,531.6	9,470.5	61.17	155.821	
6,889.7	6,603.5	6,586.5	6,586.5	19.9	130.1	-3.38	567.3	-9,674.8	9,494.6	9,440.3	54.34	174.716	
6,900.0	6,606.9	6,589.9	6,589.9	19.9	130.2	-3.53	567.3	-9,674.8	9,484.9	9,432.3	52.59	180.352	
6,950.0	6,621.3	6,604.3	6,604.3	20.2	130.5	-4.47	567.3	-9,674.8	9,437.1	9,392.8	44.31	212.981	
6,988.2	6,630.0	6,613.0	6,613.0	20.6	130.6	-5.63	567.3	-9,674.8	9,399.9	9,361.1	38.78	242.399	
7,000.0	6,632.4	6,615.4	6,615.4	20.7	130.7	-6.12	567.3	-9,674.8	9,388.3	9,350.9	37.39	251.119	
7,050.0	6,640.0	6,623.0	6,623.0	21.4	130.8	-9.68	567.3	-9,674.8	9,338.9	9,302.9	36.01	259.346	
7,086.6	6,643.4	6,626.4	6,626.4	21.9	130.9	-16.75	567.3	-9,674.8	9,302.5	9,254.4	48.15	193.216	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,627.2	6,627.2	22.1	130.9	-22.65	567.3	-9,674.8	9,289.1	9,228.1	61.01	152.258		
7,135.7	6,645.0	6,628.0	6,628.0	22.7	131.0	-93.43	567.3	-9,674.8	9,253.5	9,100.9	152.59	60.641		
7,185.0	6,644.9	6,627.9	6,627.9	23.6	130.9	-93.41	567.3	-9,674.8	9,204.1	9,050.6	153.55	59.941		
7,200.0	6,644.9	6,627.9	6,627.9	23.9	130.9	-93.41	567.3	-9,674.8	9,189.2	9,035.3	153.84	59.730		
7,283.4	6,644.8	6,627.8	6,627.8	25.6	130.9	-93.38	567.3	-9,674.8	9,105.7	8,950.2	155.57	58.531		
7,300.0	6,644.8	6,627.8	6,627.8	25.9	130.9	-93.38	567.3	-9,674.8	9,089.2	8,933.3	155.91	58.297		
7,381.9	6,644.7	6,627.7	6,627.7	27.7	130.9	-93.35	567.3	-9,674.8	9,007.3	8,849.6	157.71	57.112		
7,400.0	6,644.7	6,627.7	6,627.7	28.1	130.9	-93.34	567.3	-9,674.8	8,989.2	8,831.1	158.11	56.853		
7,480.3	6,644.6	6,627.6	6,627.6	29.9	130.9	-93.31	567.3	-9,674.8	8,908.9	8,749.0	159.97	55.692		
7,500.0	6,644.6	6,627.6	6,627.6	30.3	130.9	-93.31	567.3	-9,674.8	8,889.2	8,728.8	160.42	55.411		
7,578.7	6,644.5	6,627.5	6,627.5	32.2	130.9	-93.28	567.3	-9,674.8	8,810.5	8,648.2	162.30	54.284		
7,600.0	6,644.4	6,627.4	6,627.4	32.7	130.9	-93.28	567.3	-9,674.8	8,789.3	8,626.4	162.81	53.984		
7,677.1	6,644.3	6,627.3	6,627.3	34.6	130.9	-93.25	567.3	-9,674.8	8,712.1	8,547.4	164.71	52.895		
7,700.0	6,644.3	6,627.3	6,627.3	35.1	130.9	-93.24	567.3	-9,674.8	8,689.3	8,524.0	165.27	52.578		
7,775.6	6,644.2	6,627.2	6,627.2	37.0	130.9	-93.21	567.3	-9,674.8	8,613.7	8,446.6	167.16	51.530		
7,800.0	6,644.2	6,627.2	6,627.2	37.6	130.9	-93.21	567.3	-9,674.8	8,589.3	8,421.5	167.77	51.197		
7,874.0	6,644.1	6,627.1	6,627.1	39.5	130.9	-93.18	567.3	-9,674.8	8,515.3	8,345.7	169.65	50.193		
7,900.0	6,644.1	6,627.1	6,627.1	40.1	130.9	-93.17	567.3	-9,674.8	8,489.3	8,319.0	170.31	49.845		
7,972.4	6,644.0	6,627.0	6,627.0	42.0	130.9	-93.15	567.3	-9,674.8	8,416.9	8,244.7	172.18	48.884		
8,000.0	6,643.9	6,626.9	6,626.9	42.7	130.9	-93.14	567.3	-9,674.8	8,389.3	8,216.5	172.89	48.523		
8,070.8	6,643.9	6,626.9	6,626.9	44.5	130.9	-93.11	567.3	-9,674.8	8,318.5	8,143.8	174.74	47.605		
8,100.0	6,643.8	6,626.8	6,626.8	45.2	130.9	-93.10	567.3	-9,674.8	8,289.4	8,113.9	175.50	47.233		
8,169.3	6,643.7	6,626.7	6,626.7	47.0	130.9	-93.08	567.3	-9,674.8	8,220.1	8,042.8	177.32	46.357		
8,200.0	6,643.7	6,626.7	6,626.7	47.9	130.9	-93.07	567.3	-9,674.8	8,189.4	8,011.3	178.13	45.975		
8,267.7	6,643.6	6,626.6	6,626.6	49.6	130.9	-93.04	567.3	-9,674.8	8,121.7	7,941.8	179.92	45.140		
8,300.0	6,643.6	6,626.6	6,626.6	50.5	130.9	-93.04	567.3	-9,674.8	8,089.4	7,908.6	180.78	44.748		
8,366.1	6,643.5	6,626.5	6,626.5	52.2	130.9	-93.01	567.3	-9,674.8	8,023.3	7,840.8	182.54	43.954		
8,400.0	6,643.4	6,626.4	6,626.4	53.1	130.9	-93.00	567.3	-9,674.8	7,989.5	7,806.0	183.44	43.553		
8,464.5	6,643.4	6,626.4	6,626.4	54.8	130.9	-92.98	567.3	-9,674.8	7,924.9	7,739.7	185.17	42.797		
8,500.0	6,643.3	6,626.3	6,626.3	55.8	130.9	-92.97	567.3	-9,674.8	7,889.5	7,703.4	186.12	42.388		
8,563.0	6,643.2	6,626.2	6,626.2	57.5	130.9	-92.94	567.3	-9,674.8	7,826.5	7,638.7	187.82	41.670		
8,600.0	6,643.2	6,626.2	6,626.2	58.5	130.9	-92.93	567.3	-9,674.8	7,789.5	7,600.7	188.82	41.254		
8,661.4	6,643.1	6,626.1	6,626.1	60.1	130.9	-92.91	567.3	-9,674.8	7,728.1	7,537.7	190.48	40.573		
8,700.0	6,643.1	6,626.1	6,626.1	61.2	130.9	-92.90	567.3	-9,674.8	7,689.5	7,498.0	191.52	40.150		
8,759.8	6,643.0	6,626.0	6,626.0	62.8	130.9	-92.87	567.3	-9,674.8	7,629.7	7,436.6	193.14	39.503		
8,800.0	6,643.0	6,626.0	6,626.0	63.9	130.9	-92.86	567.3	-9,674.8	7,589.6	7,395.3	194.23	39.075		
8,858.2	6,642.9	6,625.9	6,625.9	65.4	130.9	-92.84	567.3	-9,674.8	7,531.3	7,335.5	195.82	38.461		
8,900.0	6,642.8	6,625.8	6,625.8	66.6	130.9	-92.83	567.3	-9,674.8	7,489.6	7,292.6	196.95	38.027		
8,956.7	6,642.8	6,625.8	6,625.8	68.1	130.9	-92.81	567.3	-9,674.8	7,432.9	7,234.4	198.50	37.446		
9,000.0	6,642.7	6,625.7	6,625.7	69.3	130.9	-92.79	567.3	-9,674.8	7,389.6	7,190.0	199.68	37.007		
9,055.1	6,642.6	6,625.6	6,625.6	70.8	130.9	-92.77	567.3	-9,674.8	7,334.6	7,133.4	201.19	36.456		
9,100.0	6,642.6	6,625.6	6,625.6	72.0	130.9	-92.76	567.3	-9,674.8	7,289.7	7,087.3	202.42	36.013		
9,153.5	6,642.5	6,625.5	6,625.5	73.5	130.9	-92.74	567.3	-9,674.8	7,236.2	7,032.3	203.88	35.492		
9,200.0	6,642.5	6,625.5	6,625.5	74.7	130.9	-92.72	567.3	-9,674.8	7,189.7	6,984.5	205.16	35.045		
9,251.9	6,642.4	6,625.4	6,625.4	76.2	130.9	-92.70	567.3	-9,674.8	7,137.8	6,931.2	206.58	34.552		
9,300.0	6,642.3	6,625.3	6,625.3	77.5	130.9	-92.69	567.3	-9,674.8	7,089.7	6,881.8	207.90	34.101		
9,350.4	6,642.3	6,625.3	6,625.3	78.9	130.9	-92.67	567.3	-9,674.8	7,039.4	6,830.1	209.29	33.635		
9,400.0	6,642.2	6,625.2	6,625.2	80.2	130.9	-92.65	567.3	-9,674.8	6,989.8	6,779.1	210.65	33.182		
9,448.8	6,642.1	6,625.1	6,625.1	81.6	130.9	-92.63	567.3	-9,674.8	6,941.0	6,729.0	212.00	32.741		
9,500.0	6,642.1	6,625.1	6,625.1	83.0	130.9	-92.62	567.3	-9,674.8	6,889.8	6,676.4	213.41	32.285		
9,547.2	6,642.0	6,625.0	6,625.0	84.3	130.9	-92.60	567.3	-9,674.8	6,842.6	6,627.9	214.71	31.869		
9,600.0	6,642.0	6,625.0	6,625.0	85.7	130.9	-92.58	567.3	-9,674.8	6,789.8	6,573.7	216.16	31.411		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,624.9	6,624.9	87.0	130.9	-92.56	567.3	-9,674.8	6,744.2	6,526.8	217.42	31.019	
9,700.0	6,641.8	6,624.8	6,624.8	88.5	130.9	-92.55	567.3	-9,674.8	6,689.9	6,471.0	218.93	30.558	
9,744.1	6,641.8	6,624.8	6,624.8	89.7	130.9	-92.53	567.3	-9,674.8	6,645.8	6,425.7	220.14	30.189	
9,800.0	6,641.7	6,624.7	6,624.7	91.2	130.9	-92.51	567.3	-9,674.8	6,589.9	6,368.2	221.69	29.726	
9,842.5	6,641.7	6,624.7	6,624.7	92.4	130.9	-92.49	567.3	-9,674.8	6,547.4	6,324.6	222.87	29.378	
9,900.0	6,641.6	6,624.6	6,624.6	94.0	130.9	-92.47	567.3	-9,674.8	6,490.0	6,265.5	224.46	28.914	
9,940.9	6,641.5	6,624.5	6,624.5	95.1	130.9	-92.46	567.3	-9,674.8	6,449.1	6,223.5	225.59	28.587	
10,000.0	6,641.5	6,624.5	6,624.5	96.7	130.9	-92.44	567.3	-9,674.8	6,390.0	6,162.8	227.23	28.122	
10,039.3	6,641.4	6,624.4	6,624.4	97.8	130.9	-92.42	567.3	-9,674.8	6,350.7	6,122.4	228.32	27.815	
10,100.0	6,641.3	6,624.3	6,624.3	99.5	130.9	-92.40	567.3	-9,674.8	6,290.1	6,060.1	230.00	27.348	
10,137.8	6,641.3	6,624.3	6,624.3	100.6	130.9	-92.39	567.3	-9,674.8	6,252.3	6,021.2	231.05	27.061	
10,200.0	6,641.2	6,624.2	6,624.2	102.3	130.9	-92.37	567.3	-9,674.8	6,190.1	5,957.3	232.77	26.593	
10,236.2	6,641.2	6,624.2	6,624.2	103.3	130.9	-92.35	567.3	-9,674.8	6,153.9	5,920.1	233.78	26.324	
10,300.0	6,641.1	6,624.1	6,624.1	105.0	130.9	-92.33	567.3	-9,674.8	6,090.1	5,854.6	235.55	25.855	
10,334.6	6,641.0	6,624.0	6,624.0	106.0	130.9	-92.32	567.3	-9,674.8	6,055.5	5,819.0	236.51	25.603	
10,400.0	6,641.0	6,624.0	6,624.0	107.8	130.9	-92.30	567.3	-9,674.8	5,990.2	5,751.9	238.33	25.134	
10,433.0	6,640.9	6,623.9	6,623.9	108.7	130.9	-92.28	567.3	-9,674.8	5,957.2	5,717.9	239.25	24.900	
10,500.0	6,640.8	6,623.8	6,623.8	110.6	130.9	-92.26	567.3	-9,674.8	5,890.2	5,649.1	241.11	24.430	
10,531.5	6,640.8	6,623.8	6,623.8	111.5	130.9	-92.25	567.3	-9,674.8	5,858.8	5,616.8	241.98	24.211	
10,600.0	6,640.7	6,623.7	6,623.7	113.4	130.9	-92.22	567.3	-9,674.8	5,790.3	5,546.4	243.89	23.741	
10,629.9	6,640.7	6,623.7	6,623.7	114.2	130.9	-92.21	567.3	-9,674.8	5,760.4	5,515.7	244.72	23.539	
10,700.0	6,640.6	6,623.6	6,623.6	116.1	130.9	-92.19	567.3	-9,674.8	5,690.3	5,443.7	246.67	23.068	
10,728.3	6,640.5	6,623.5	6,623.5	116.9	130.9	-92.18	567.3	-9,674.8	5,662.0	5,414.6	247.46	22.880	
10,800.0	6,640.5	6,623.5	6,623.5	118.9	130.9	-92.15	567.3	-9,674.8	5,590.4	5,340.9	249.46	22.410	
10,826.7	6,640.4	6,623.4	6,623.4	119.7	130.9	-92.14	567.3	-9,674.8	5,563.7	5,313.5	250.20	22.237	
10,900.0	6,640.3	6,623.3	6,623.3	121.7	130.9	-92.11	567.3	-9,674.8	5,490.5	5,238.2	252.24	21.767	
10,925.2	6,640.3	6,623.3	6,623.3	122.4	130.9	-92.10	567.3	-9,674.8	5,465.3	5,212.4	252.94	21.607	
11,000.0	6,640.2	6,623.2	6,623.2	124.5	130.9	-92.08	567.3	-9,674.8	5,390.5	5,135.5	255.03	21.137	
11,023.6	6,640.2	6,623.2	6,623.2	125.1	130.9	-92.07	567.3	-9,674.8	5,366.9	5,111.2	255.69	20.990	
11,100.0	6,640.1	6,623.1	6,623.1	127.3	130.9	-92.04	567.3	-9,674.8	5,290.6	5,032.8	257.82	20.521	
11,122.0	6,640.0	6,623.0	6,623.0	127.9	130.9	-92.03	567.3	-9,674.8	5,268.6	5,010.1	258.43	20.387	
11,200.0	6,639.9	6,622.9	6,622.9	130.1	130.8	-92.00	567.3	-9,674.8	5,190.6	4,930.0	260.61	19.918	
11,220.4	6,639.9	6,622.9	6,622.9	130.6	130.8	-92.00	567.3	-9,674.8	5,170.2	4,909.0	261.18	19.796	
11,300.0	6,639.8	6,622.8	6,622.8	132.8	130.8	-91.97	567.3	-9,674.8	5,090.7	4,827.3	263.40	19.327	
11,318.9	6,639.8	6,622.8	6,622.8	133.4	130.8	-91.96	567.3	-9,674.8	5,071.9	4,807.9	263.92	19.217	
11,400.0	6,639.7	6,622.7	6,622.7	135.6	130.8	-91.93	567.3	-9,674.8	4,990.8	4,724.6	266.19	18.749	
11,417.3	6,639.7	6,622.7	6,622.7	136.1	130.8	-91.92	567.3	-9,674.8	4,973.5	4,706.8	266.67	18.650	
11,500.0	6,639.6	6,622.6	6,622.6	138.4	130.8	-91.89	567.3	-9,674.8	4,890.9	4,621.9	268.98	18.183	
11,515.7	6,639.5	6,622.5	6,622.5	138.9	130.8	-91.89	567.3	-9,674.8	4,875.1	4,605.7	269.42	18.095	
11,600.0	6,639.4	6,622.4	6,622.4	141.2	130.8	-91.86	567.3	-9,674.8	4,790.9	4,519.2	271.77	17.629	
11,614.1	6,639.4	6,622.4	6,622.4	141.6	130.8	-91.85	567.3	-9,674.8	4,776.8	4,504.6	272.17	17.551	
11,700.0	6,639.3	6,622.3	6,622.3	144.0	130.8	-91.82	567.3	-9,674.8	4,691.0	4,416.4	274.56	17.085	
11,712.6	6,639.3	6,622.3	6,622.3	144.3	130.8	-91.81	567.3	-9,674.8	4,678.4	4,403.5	274.92	17.018	
11,800.0	6,639.2	6,622.2	6,622.2	146.8	130.8	-91.78	567.3	-9,674.8	4,591.1	4,313.7	277.36	16.553	
11,811.0	6,639.2	6,622.2	6,622.2	147.1	130.8	-91.78	567.3	-9,674.8	4,580.1	4,302.4	277.67	16.495	
11,900.0	6,639.1	6,622.1	6,622.1	149.6	130.8	-91.75	567.3	-9,674.8	4,491.2	4,211.0	280.15	16.031	
11,909.4	6,639.0	6,622.0	6,622.0	149.8	130.8	-91.74	567.3	-9,674.8	4,481.8	4,201.3	280.42	15.983	
12,000.0	6,638.9	6,621.9	6,621.9	152.4	130.8	-91.71	567.3	-9,674.8	4,391.3	4,108.3	282.95	15.520	
12,007.8	6,638.9	6,621.9	6,621.9	152.6	130.8	-91.70	567.3	-9,674.8	4,383.4	4,100.3	283.17	15.480	
12,100.0	6,638.8	6,621.8	6,621.8	155.2	130.8	-91.67	567.3	-9,674.8	4,291.4	4,005.6	285.74	15.018	
12,106.3	6,638.8	6,621.8	6,621.8	155.3	130.8	-91.67	567.3	-9,674.8	4,285.1	3,999.2	285.92	14.987	
12,200.0	6,638.7	6,621.7	6,621.7	157.9	130.8	-91.63	567.3	-9,674.8	4,191.5	3,902.9	288.54	14.526	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,204.7	6,638.7	6,621.7	6,621.7	158.1	130.8	-91.63	567.3	-9,674.8	4,186.8	3,898.1	288.67	14.504	
12,300.0	6,638.5	6,621.5	6,621.5	160.7	130.8	-91.60	567.3	-9,674.8	4,091.6	3,800.2	291.34	14.044	
12,303.1	6,638.5	6,621.5	6,621.5	160.8	130.8	-91.59	567.3	-9,674.8	4,088.4	3,797.0	291.42	14.029	
12,400.0	6,638.4	6,621.4	6,621.4	163.5	130.8	-91.56	567.3	-9,674.8	3,991.7	3,697.5	294.13	13.571	
12,401.5	6,638.4	6,621.4	6,621.4	163.6	130.8	-91.56	567.3	-9,674.8	3,990.1	3,695.9	294.18	13.564	
12,500.0	6,638.3	6,621.3	6,621.3	166.3	130.8	-91.52	567.3	-9,674.8	3,891.8	3,594.9	296.93	13.107	
12,598.4	6,638.2	6,621.2	6,621.2	169.1	130.8	-91.48	567.3	-9,674.8	3,793.5	3,493.8	299.69	12.658	
12,600.0	6,638.2	6,621.2	6,621.2	169.1	130.8	-91.48	567.3	-9,674.8	3,791.9	3,492.2	299.73	12.651	
12,696.8	6,638.0	6,621.0	6,621.0	171.8	130.8	-91.44	567.3	-9,674.8	3,695.2	3,392.8	302.44	12.218	
12,700.0	6,638.0	6,621.0	6,621.0	171.9	130.8	-91.45	567.3	-9,674.8	3,692.0	3,389.5	302.53	12.204	
12,795.2	6,637.9	6,620.9	6,620.9	174.6	130.8	-91.41	567.3	-9,674.8	3,596.9	3,291.7	305.20	11.786	
12,800.0	6,637.9	6,620.9	6,620.9	174.7	130.8	-91.41	567.3	-9,674.8	3,592.2	3,286.8	305.33	11.765	
12,893.7	6,637.8	6,620.8	6,620.8	177.3	130.8	-91.37	567.3	-9,674.8	3,498.6	3,190.7	307.95	11.361	
12,900.0	6,637.8	6,620.8	6,620.8	177.5	130.8	-91.37	567.3	-9,674.8	3,492.3	3,184.2	308.13	11.334	
12,992.1	6,637.7	6,620.7	6,620.7	180.1	130.8	-91.33	567.3	-9,674.8	3,400.3	3,089.6	310.71	10.944	
13,000.0	6,637.6	6,620.6	6,620.6	180.3	130.8	-91.33	567.3	-9,674.8	3,392.5	3,081.5	310.93	10.911	
13,090.5	6,637.5	6,620.5	6,620.5	182.8	130.8	-91.30	567.3	-9,674.8	3,302.1	2,988.6	313.46	10.534	
13,100.0	6,637.5	6,620.5	6,620.5	183.1	130.8	-91.29	567.3	-9,674.8	3,292.6	2,978.9	313.73	10.495	
13,188.9	6,637.4	6,620.4	6,620.4	185.6	130.8	-91.26	567.3	-9,674.8	3,203.8	2,887.6	316.22	10.132	
13,200.0	6,637.4	6,620.4	6,620.4	185.9	130.8	-91.26	567.3	-9,674.8	3,192.8	2,876.3	316.53	10.087	
13,287.4	6,637.3	6,620.3	6,620.3	188.4	130.8	-91.22	567.3	-9,674.8	3,105.6	2,786.6	318.97	9.736	
13,300.0	6,637.3	6,620.3	6,620.3	188.7	130.8	-91.22	567.3	-9,674.8	3,093.0	2,773.6	319.33	9.686	
13,385.8	6,637.1	6,620.1	6,620.1	191.1	130.8	-91.18	567.3	-9,674.8	3,007.3	2,685.6	321.73	9.347	
13,400.0	6,637.1	6,620.1	6,620.1	191.5	130.8	-91.18	567.3	-9,674.8	2,993.2	2,671.0	322.13	9.292	
13,484.2	6,637.0	6,620.0	6,620.0	193.9	130.8	-91.15	567.3	-9,674.8	2,909.1	2,584.6	324.49	8.965	
13,500.0	6,637.0	6,620.0	6,620.0	194.3	130.8	-91.14	567.3	-9,674.8	2,893.4	2,568.4	324.93	8.905	
13,582.6	6,636.9	6,619.9	6,619.9	196.6	130.8	-91.11	567.3	-9,674.8	2,810.9	2,483.6	327.24	8.590	
13,600.0	6,636.9	6,619.9	6,619.9	197.1	130.8	-91.10	567.3	-9,674.8	2,793.6	2,465.8	327.73	8.524	
13,681.1	6,636.8	6,619.8	6,619.8	199.4	130.8	-91.07	567.3	-9,674.8	2,712.7	2,382.7	330.00	8.220	
13,700.0	6,636.7	6,619.7	6,619.7	199.9	130.8	-91.06	567.3	-9,674.8	2,693.8	2,363.3	330.53	8.150	
13,779.5	6,636.6	6,619.6	6,619.6	202.1	130.8	-91.03	567.3	-9,674.8	2,614.5	2,281.7	332.76	7.857	
13,800.0	6,636.6	6,619.6	6,619.6	202.7	130.8	-91.02	567.3	-9,674.8	2,594.1	2,260.7	333.33	7.782	
13,877.9	6,636.5	6,619.5	6,619.5	204.9	130.8	-90.99	567.3	-9,674.8	2,516.3	2,180.8	335.52	7.500	
13,900.0	6,636.5	6,619.5	6,619.5	205.5	130.8	-90.99	567.3	-9,674.8	2,494.3	2,158.2	336.13	7.421	
13,976.3	6,636.4	6,619.4	6,619.4	207.6	130.8	-90.96	567.3	-9,674.8	2,418.2	2,079.9	338.27	7.149	
14,000.0	6,636.3	6,619.3	6,619.3	208.3	130.8	-90.95	567.3	-9,674.8	2,394.6	2,055.7	338.94	7.065	
14,074.8	6,636.3	6,619.3	6,619.3	210.4	130.8	-90.92	567.3	-9,674.8	2,320.1	1,979.1	341.03	6.803	
14,100.0	6,636.2	6,619.2	6,619.2	211.1	130.8	-90.91	567.3	-9,674.8	2,295.0	1,953.2	341.74	6.716	
14,173.2	6,636.1	6,619.1	6,619.1	213.2	130.8	-90.88	567.3	-9,674.8	2,222.0	1,878.2	343.79	6.463	
14,200.0	6,636.1	6,619.1	6,619.1	213.9	130.8	-90.87	567.3	-9,674.8	2,195.3	1,850.8	344.54	6.372	
14,271.6	6,636.0	6,619.0	6,619.0	215.9	130.8	-90.84	567.3	-9,674.8	2,123.9	1,777.4	346.55	6.129	
14,300.0	6,636.0	6,619.0	6,619.0	216.7	130.8	-90.83	567.3	-9,674.8	2,095.7	1,748.3	347.34	6.033	
14,370.0	6,635.9	6,618.9	6,618.9	218.7	130.8	-90.80	567.3	-9,674.8	2,025.9	1,676.6	349.31	5.800	
14,400.0	6,635.8	6,618.8	6,618.8	219.5	130.8	-90.79	567.3	-9,674.8	1,996.1	1,646.0	350.15	5.701	
14,468.5	6,635.7	6,618.7	6,618.7	221.4	130.8	-90.76	567.3	-9,674.8	1,927.9	1,575.9	352.06	5.476	
14,500.0	6,635.7	6,618.7	6,618.7	222.3	130.8	-90.75	567.3	-9,674.8	1,896.6	1,543.6	352.95	5.374	
14,566.9	6,635.6	6,618.6	6,618.6	224.2	130.8	-90.73	567.3	-9,674.8	1,830.0	1,475.2	354.82	5.158	
14,600.0	6,635.6	6,618.6	6,618.6	225.1	130.8	-90.71	567.3	-9,674.8	1,797.1	1,441.3	355.75	5.052	
14,665.3	6,635.5	6,618.5	6,618.5	226.9	130.8	-90.69	567.3	-9,674.8	1,732.1	1,374.6	357.58	4.844	
14,700.0	6,635.4	6,618.4	6,618.4	227.9	130.8	-90.67	567.3	-9,674.8	1,697.7	1,339.1	358.55	4.735	
14,763.7	6,635.4	6,618.4	6,618.4	229.7	130.8	-90.65	567.3	-9,674.8	1,634.3	1,274.0	360.34	4.536	
14,800.0	6,635.3	6,618.3	6,618.3	230.7	130.8	-90.63	567.3	-9,674.8	1,598.3	1,237.0	361.35	4.423	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT PJ #5 - 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
14,862.2	6,635.2	6,618.2	6,618.2	232.5	130.8	-90.61	567.3	-9,674.8	1,536.6	1,173.5	363.10	4.232	
14,900.0	6,635.2	6,618.2	6,618.2	233.5	130.8	-90.59	567.3	-9,674.8	1,499.1	1,134.9	364.16	4.117	
14,960.6	6,635.1	6,618.1	6,618.1	235.2	130.8	-90.57	567.3	-9,674.8	1,439.0	1,073.1	365.86	3.933	
15,000.0	6,635.0	6,618.0	6,618.0	236.3	130.8	-90.56	567.3	-9,674.8	1,399.9	1,033.0	366.96	3.815	
15,033.1	6,635.0	6,618.0	6,618.0	237.3	130.7	-90.54	567.3	-9,674.8	1,367.1	999.3	367.89	3.716 CC, ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	102.22	-882.0	4,071.5	4,165.9				
98.4	98.4	88.9	88.9	0.1	0.0	102.22	-882.0	4,071.4	4,165.9	4,165.8	0.10	N/A	
100.0	100.0	90.5	90.5	0.1	0.0	102.22	-882.0	4,071.4	4,165.9	4,165.8	0.10	N/A	
181.1	181.1	167.1	167.1	0.3	0.1	102.22	-882.0	4,071.4	4,165.8	4,165.5	0.34	N/A	
196.8	196.8	181.8	181.8	0.3	0.1	102.22	-882.0	4,071.4	4,165.8	4,165.4	0.39	N/A	
200.0	200.0	184.7	184.7	0.3	0.1	102.22	-882.0	4,071.4	4,165.8	4,165.4	0.40	N/A	
295.3	295.3	283.2	283.2	0.5	0.2	102.23	-882.1	4,071.4	4,165.8	4,165.1	0.69	6,004.351	
300.0	300.0	288.2	288.2	0.5	0.2	102.23	-882.1	4,071.4	4,165.8	4,165.1	0.71	5,882.155	
345.1	345.1	331.1	331.1	0.6	0.2	102.23	-882.1	4,071.3	4,165.8	4,165.0	0.82	5,069.297	
393.7	393.7	375.7	375.7	0.8	0.2	102.22	-882.1	4,071.4	4,165.8	4,164.9	0.94	4,452.534	
400.0	400.0	381.5	381.5	0.8	0.2	102.22	-882.1	4,071.4	4,165.8	4,164.9	0.95	4,383.412	
492.1	492.1	477.1	477.1	1.0	0.2	102.22	-881.9	4,071.5	4,165.9	4,164.7	1.22	3,401.832	
500.0	500.0	485.6	485.6	1.0	0.3	102.22	-881.8	4,071.5	4,165.9	4,164.7	1.25	3,334.121	
590.5	590.5	567.9	567.9	1.2	0.3	102.22	-881.5	4,071.7	4,166.0	4,164.5	1.51	2,763.669	
600.0	600.0	576.2	576.2	1.2	0.3	102.22	-881.5	4,071.7	4,166.0	4,164.5	1.53	2,716.082	
689.0	689.0	663.1	663.1	1.4	0.4	102.21	-881.4	4,072.0	4,166.3	4,164.5	1.79	2,329.077	
700.0	700.0	674.4	674.4	1.4	0.4	102.21	-881.4	4,072.0	4,166.3	4,164.5	1.82	2,288.235	
787.4	787.4	760.9	760.9	1.6	0.4	102.21	-881.3	4,072.3	4,166.6	4,164.5	2.07	2,014.092	
800.0	800.0	773.3	773.3	1.7	0.4	102.21	-881.3	4,072.3	4,166.6	4,164.5	2.10	1,980.187	
885.8	885.8	860.9	860.9	1.9	0.5	102.21	-881.3	4,072.6	4,166.9	4,164.5	2.34	1,777.844	
900.0	900.0	875.7	875.7	1.9	0.5	102.21	-881.2	4,072.6	4,166.9	4,164.5	2.38	1,748.435	
984.2	984.2	960.4	960.4	2.1	0.5	102.21	-881.2	4,072.8	4,167.1	4,164.5	2.61	1,595.378	
1,000.0	1,000.0	976.0	976.0	2.1	0.5	102.21	-881.2	4,072.9	4,167.1	4,164.5	2.65	1,569.932	
1,082.7	1,082.7	1,061.9	1,061.9	2.3	0.6	75.23	-881.2	4,073.1	4,167.0	4,164.1	2.86	1,455.103	
1,100.0	1,100.0	1,080.2	1,080.2	2.3	0.6	75.24	-881.1	4,073.1	4,166.9	4,164.0	2.91	1,432.618	
1,181.1	1,181.0	1,159.1	1,159.1	2.5	0.6	75.30	-881.1	4,073.2	4,166.0	4,162.9	3.11	1,341.524	
1,200.0	1,199.8	1,177.0	1,177.0	2.6	0.6	75.32	-881.1	4,073.3	4,165.7	4,162.6	3.15	1,322.289	
1,279.5	1,279.1	1,266.1	1,266.0	2.8	0.6	75.46	-881.3	4,073.4	4,164.1	4,160.8	3.34	1,248.054	
1,300.0	1,299.5	1,290.5	1,290.5	2.8	0.6	75.50	-881.3	4,073.3	4,163.6	4,160.2	3.38	1,230.538	
1,377.9	1,376.9	1,366.0	1,366.0	3.0	0.6	75.66	-881.2	4,073.3	4,161.2	4,157.6	3.59	1,160.127	
1,400.0	1,398.7	1,386.8	1,386.8	3.0	0.6	75.72	-881.2	4,073.3	4,160.4	4,156.8	3.65	1,141.351	
1,476.4	1,474.2	1,456.9	1,456.9	3.2	0.6	75.92	-881.2	4,073.3	4,157.6	4,153.7	3.86	1,077.616	
1,500.0	1,497.5	1,478.5	1,478.5	3.3	0.6	75.98	-881.2	4,073.3	4,156.6	4,152.7	3.92	1,059.280	
1,574.8	1,571.0	1,559.3	1,559.3	3.5	0.6	76.25	-881.4	4,073.3	4,153.3	4,149.1	4.16	997.653	
1,600.0	1,595.6	1,588.4	1,588.4	3.6	0.6	76.36	-881.5	4,073.2	4,152.0	4,147.8	4.25	978.037	
1,673.2	1,667.2	1,673.3	1,673.3	3.9	0.7	76.60	-881.6	4,072.9	4,148.1	4,143.6	4.51	919.784	
1,700.0	1,693.4	1,703.8	1,703.8	4.0	0.7	76.68	-881.6	4,072.8	4,146.7	4,142.1	4.61	899.986	
1,771.6	1,763.5	1,777.5	1,777.5	4.2	0.7	76.89	-881.5	4,072.3	4,142.7	4,137.8	4.88	849.382	
1,800.0	1,791.3	1,806.8	1,806.8	4.3	0.7	76.97	-881.4	4,072.1	4,141.2	4,136.2	4.98	830.751	
1,870.1	1,859.8	1,880.4	1,880.4	4.6	0.7	77.18	-881.1	4,071.6	4,137.3	4,132.0	5.26	786.302	
1,900.0	1,889.1	1,909.7	1,909.7	4.7	0.7	77.26	-881.1	4,071.4	4,135.6	4,130.2	5.38	768.815	
1,968.5	1,956.1	1,968.9	1,968.9	4.9	0.7	77.43	-881.0	4,070.9	4,131.9	4,126.3	5.65	730.865	
2,000.0	1,986.9	2,000.0	2,000.0	5.1	0.7	77.51	-880.8	4,070.8	4,130.3	4,124.5	5.78	714.449	
2,066.9	2,052.3	2,070.6	2,070.5	5.3	0.8	77.71	-880.5	4,070.4	4,126.8	4,120.7	6.06	680.852	
2,100.0	2,084.7	2,100.0	2,100.0	5.5	0.8	77.79	-880.4	4,070.2	4,125.0	4,118.8	6.20	665.518	
2,165.3	2,148.6	2,158.8	2,158.8	5.7	0.8	77.96	-880.1	4,069.8	4,121.6	4,115.1	6.47	636.748	
2,200.0	2,182.5	2,187.0	2,187.0	5.9	0.8	78.03	-880.0	4,069.7	4,119.9	4,113.3	6.62	622.521	
2,263.8	2,244.9	2,243.7	2,243.7	6.1	0.8	78.19	-879.7	4,069.5	4,116.9	4,110.0	6.89	597.573	
2,300.0	2,280.3	2,276.8	2,276.8	6.3	0.8	78.28	-879.5	4,069.5	4,115.2	4,108.1	7.04	584.232	
2,362.2	2,341.2	2,336.0	2,336.0	6.5	0.8	78.45	-879.1	4,069.5	4,112.4	4,105.1	7.31	562.326	
2,400.0	2,378.1	2,373.0	2,372.9	6.7	0.9	78.55	-878.8	4,069.5	4,110.7	4,103.2	7.48	549.737	
2,460.6	2,437.4	2,430.6	2,430.5	6.9	0.9	78.71	-878.4	4,069.4	4,108.0	4,100.3	7.74	530.557	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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
2,500.0	2,476.0	2,467.1	2,467.1	7.1	0.9	78.81	-878.1	4,069.5	4,106.3	4,098.4	7.91	518.807	
2,550.0	2,524.9	2,515.0	2,515.0	7.3	0.9	78.94	-877.8	4,069.5	4,104.2	4,096.1	8.14	504.505	
2,559.0	2,533.7	2,524.3	2,524.3	7.3	0.9	79.81	-877.7	4,069.5	4,103.9	4,095.7	8.17	502.139	
2,600.0	2,573.8	2,566.4	2,566.4	7.5	0.9	83.78	-877.4	4,069.5	4,102.6	4,094.2	8.34	491.735	
2,639.4	2,612.3	2,606.8	2,606.8	7.7	0.9	87.59	-877.1	4,069.6	4,101.9	4,093.4	8.50	482.609	
2,657.5	2,630.0	2,625.4	2,625.4	7.7	0.9	87.64	-877.0	4,069.5	4,101.7	4,093.1	8.58	478.234	
2,700.0	2,671.6	2,669.1	2,669.0	7.9	0.9	87.77	-876.6	4,069.5	4,101.2	4,092.4	8.76	468.256	
2,755.9	2,726.3	2,724.4	2,724.4	8.1	1.0	87.92	-876.2	4,069.5	4,100.6	4,091.6	9.01	455.125	
2,800.0	2,769.4	2,766.2	2,766.2	8.3	1.0	88.04	-875.9	4,069.4	4,100.1	4,090.9	9.21	445.302	
2,854.3	2,822.5	2,818.1	2,818.1	8.5	1.0	88.19	-875.6	4,069.4	4,099.6	4,090.2	9.45	433.713	
2,900.0	2,867.2	2,862.4	2,862.4	8.7	1.0	88.31	-875.3	4,069.4	4,099.2	4,089.6	9.66	424.425	
2,952.7	2,918.8	2,913.0	2,912.9	9.0	1.0	88.45	-874.9	4,069.4	4,098.8	4,088.9	9.90	414.152	
3,000.0	2,965.0	2,956.6	2,956.6	9.2	1.0	88.58	-874.7	4,069.4	4,098.4	4,088.3	10.11	405.394	
3,051.2	3,015.1	3,004.2	3,004.2	9.4	1.1	88.71	-874.4	4,069.4	4,098.1	4,087.8	10.34	396.283	
3,100.0	3,062.8	3,053.9	3,053.9	9.6	1.1	88.85	-874.2	4,069.4	4,097.9	4,087.3	10.56	387.931	
3,149.6	3,111.4	3,104.0	3,103.9	9.8	1.1	89.00	-874.0	4,069.4	4,097.6	4,086.8	10.79	379.778	
3,200.0	3,160.7	3,150.1	3,150.0	10.0	1.1	89.13	-873.8	4,069.4	4,097.3	4,086.3	11.02	371.901	
3,248.0	3,207.6	3,194.0	3,194.0	10.2	1.1	89.25	-873.6	4,069.5	4,097.2	4,085.9	11.24	364.677	
3,300.0	3,258.5	3,267.6	3,267.5	10.5	1.1	89.46	-873.2	4,069.4	4,096.9	4,085.5	11.47	357.037	
3,346.4	3,303.9	3,300.0	3,300.0	10.7	1.1	89.55	-872.9	4,069.2	4,096.6	4,084.9	11.68	350.660	
3,400.0	3,356.3	3,347.3	3,347.2	10.9	1.1	89.69	-872.7	4,069.1	4,096.2	4,084.3	11.92	343.709	
3,424.1	3,379.8	3,361.8	3,361.8	11.0	1.2	89.73	-872.6	4,069.1	4,096.2	4,084.2	12.02	340.690	
3,444.9	3,400.2	3,374.4	3,374.4	11.1	1.2	89.76	-872.6	4,069.1	4,096.2	4,084.1	12.11	338.128	
3,500.0	3,454.1	3,416.0	3,416.0	11.3	1.2	89.88	-872.5	4,069.4	4,096.5	4,084.1	12.36	331.483	
3,543.3	3,496.5	3,470.2	3,470.2	11.5	1.2	90.04	-872.3	4,069.7	4,096.7	4,084.1	12.56	326.285	
3,600.0	3,551.9	3,525.9	3,525.8	11.7	1.2	90.19	-872.0	4,069.9	4,096.8	4,084.0	12.81	319.754	
3,641.7	3,592.7	3,558.7	3,558.7	11.9	1.2	90.29	-871.9	4,070.1	4,097.0	4,084.0	13.00	315.134	
3,700.0	3,649.7	3,605.9	3,605.9	12.2	1.2	90.42	-871.7	4,070.5	4,097.5	4,084.2	13.26	308.951	
3,740.1	3,689.0	3,647.1	3,647.1	12.4	1.2	90.54	-871.5	4,070.9	4,097.8	4,084.4	13.44	304.792	
3,800.0	3,747.5	3,709.2	3,709.1	12.6	1.2	90.71	-871.6	4,071.3	4,098.4	4,084.7	13.72	298.808	
3,838.6	3,785.3	3,752.3	3,752.3	12.8	1.2	90.84	-871.5	4,071.5	4,098.7	4,084.8	13.89	295.066	
3,900.0	3,845.4	3,819.6	3,819.6	13.1	1.2	91.03	-871.3	4,071.9	4,099.1	4,085.0	14.17	289.306	
3,937.0	3,881.6	3,858.1	3,858.0	13.2	1.3	91.14	-871.2	4,072.0	4,099.4	4,085.0	14.34	285.949	
4,000.0	3,943.2	3,923.7	3,923.6	13.5	1.3	91.33	-871.2	4,072.2	4,099.8	4,085.2	14.62	280.426	
4,035.4	3,977.8	3,960.8	3,960.8	13.6	1.3	91.44	-871.3	4,072.2	4,100.0	4,085.2	14.78	277.423	
4,100.0	4,041.0	4,021.7	4,021.7	13.9	1.3	91.62	-871.6	4,072.1	4,100.4	4,085.3	15.07	272.093	
4,133.8	4,074.1	4,048.8	4,048.7	14.1	1.3	91.70	-871.8	4,072.1	4,100.7	4,085.5	15.22	269.369	
4,200.0	4,138.8	4,102.3	4,102.3	14.4	1.3	91.86	-872.3	4,072.1	4,101.4	4,085.9	15.52	264.211	
4,232.3	4,170.4	4,138.8	4,138.7	14.5	1.3	91.97	-872.7	4,072.2	4,101.8	4,086.1	15.67	261.733	
4,300.0	4,236.6	4,217.3	4,217.3	14.8	1.3	92.22	-873.9	4,072.0	4,102.5	4,086.6	15.98	256.670	
4,330.7	4,266.7	4,256.9	4,256.8	14.9	1.3	92.34	-874.6	4,071.7	4,102.8	4,086.7	16.13	254.419	
4,400.0	4,334.4	4,328.0	4,327.9	15.2	1.3	92.57	-875.8	4,071.0	4,103.3	4,086.8	16.44	249.530	
4,429.1	4,362.9	4,350.8	4,350.7	15.4	1.3	92.64	-876.3	4,070.9	4,103.5	4,086.9	16.58	247.554	
4,500.0	4,432.3	4,409.9	4,409.8	15.7	1.3	92.83	-877.4	4,070.5	4,104.3	4,087.4	16.90	242.879	
4,527.5	4,459.2	4,444.6	4,444.5	15.8	1.3	92.94	-878.1	4,070.3	4,104.6	4,087.6	17.03	241.078	
4,600.0	4,530.1	4,527.9	4,527.8	16.1	1.3	93.20	-879.6	4,069.5	4,105.3	4,088.0	17.36	236.481	
4,626.0	4,555.5	4,553.4	4,553.3	16.2	1.3	93.28	-880.0	4,069.3	4,105.6	4,088.1	17.48	234.886	
4,700.0	4,627.9	4,633.6	4,633.4	16.6	1.3	93.54	-881.3	4,068.5	4,106.3	4,088.4	17.82	230.444	
4,724.4	4,651.7	4,664.4	4,664.3	16.7	1.3	93.63	-881.7	4,068.1	4,106.4	4,088.5	17.93	229.005	
4,800.0	4,725.7	4,748.7	4,748.5	17.0	1.3	93.89	-882.5	4,067.1	4,106.9	4,088.6	18.28	224.671	
4,822.8	4,748.0	4,772.1	4,771.9	17.1	1.3	93.96	-882.7	4,066.7	4,107.0	4,088.6	18.38	223.399	
4,904.9	4,828.3	4,856.5	4,856.3	17.5	1.3	94.22	-883.5	4,065.5	4,107.4	4,088.6	18.76	218.946	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	4,844.3	4,873.4	4,873.2	17.5	1.3	94.28	-883.6	4,065.3	4,107.5	4,088.7	18.82	218.200	
5,000.0	4,921.6	4,954.9	4,954.7	17.8	1.3	94.51	-884.1	4,064.1	4,107.8	4,088.6	19.14	214.666	
5,019.7	4,941.0	4,975.4	4,975.2	17.9	1.3	94.56	-884.2	4,063.8	4,107.8	4,088.6	19.20	213.979	
5,100.0	5,020.4	5,058.1	5,057.9	18.1	1.4	94.75	-884.5	4,062.6	4,107.8	4,088.4	19.45	211.213	
5,118.1	5,038.3	5,076.7	5,076.4	18.2	1.4	94.79	-884.6	4,062.3	4,107.8	4,088.3	19.50	210.673	
5,200.0	5,119.6	5,162.7	5,162.5	18.4	1.4	94.94	-884.9	4,060.9	4,107.6	4,087.8	19.72	208.249	
5,216.5	5,136.0	5,180.2	5,180.0	18.4	1.4	94.96	-885.0	4,060.6	4,107.5	4,087.7	19.76	207.832	
5,300.0	5,219.2	5,346.4	5,346.1	18.6	1.4	95.15	-884.5	4,056.6	4,106.2	4,086.2	19.98	205.532	
5,314.9	5,234.1	5,375.6	5,375.3	18.6	1.4	95.17	-884.3	4,055.5	4,105.8	4,085.8	20.01	205.171	
5,400.0	5,319.1	5,493.0	5,492.6	18.8	1.4	95.21	-883.5	4,050.4	4,102.5	4,082.3	20.19	203.206	
5,413.4	5,332.4	5,510.9	5,510.4	18.8	1.4	95.21	-883.3	4,049.6	4,102.0	4,081.7	20.21	202.952	
5,504.9	5,423.9	5,628.5	5,627.9	18.9	1.5	113.59	-882.1	4,043.7	4,097.4	4,083.0	14.45	283.476	
5,511.8	5,430.8	5,635.9	5,635.3	18.9	1.5	113.59	-882.0	4,043.3	4,097.1	4,082.6	14.47	283.186	
5,600.0	5,519.0	5,725.1	5,724.4	19.0	1.5	113.60	-880.9	4,038.5	4,092.3	4,077.7	14.64	279.547	
5,610.2	5,529.3	5,734.2	5,733.5	19.0	1.5	113.60	-880.8	4,038.0	4,091.8	4,077.1	14.66	279.095	
5,700.0	5,619.0	5,800.0	5,799.2	19.2	1.5	113.61	-879.7	4,034.7	4,087.1	4,072.3	14.85	275.235	
5,708.6	5,627.7	5,800.0	5,799.2	19.2	1.5	113.61	-879.7	4,034.7	4,086.7	4,071.9	14.87	274.888	
5,800.0	5,719.0	5,872.5	5,871.6	19.3	1.5	113.61	-878.6	4,031.6	4,082.6	4,067.5	15.06	271.080	
5,807.1	5,726.1	5,877.0	5,876.0	19.3	1.5	113.61	-878.5	4,031.4	4,082.3	4,067.2	15.08	270.794	
5,900.0	5,819.0	5,938.9	5,937.9	19.4	1.5	113.61	-877.8	4,029.3	4,078.9	4,063.7	15.27	267.106	
5,905.5	5,824.5	5,942.7	5,941.7	19.4	1.5	113.61	-877.8	4,029.2	4,078.7	4,063.5	15.28	266.890	
6,003.9	5,923.0	6,013.0	6,012.0	19.6	1.6	113.62	-877.1	4,027.3	4,075.9	4,060.4	15.49	263.116	
6,009.8	5,928.8	6,017.8	6,016.8	19.6	1.6	113.62	-877.1	4,027.2	4,075.8	4,060.3	15.50	262.895	
6,028.7	5,947.7	6,033.3	6,032.3	19.6	1.6	-156.39	-876.9	4,026.8	4,075.6	4,054.4	21.16	192.571 CC, ES	
6,050.0	5,969.0	6,050.8	6,049.8	19.6	1.6	-156.39	-876.7	4,026.4	4,075.9	4,054.7	21.19	192.322	
6,100.0	6,018.8	6,100.0	6,099.0	19.7	1.6	-156.32	-876.2	4,025.5	4,078.9	4,057.7	21.26	191.872	
6,102.3	6,021.1	6,100.0	6,099.0	19.7	1.6	-156.31	-876.2	4,025.5	4,079.1	4,057.9	21.26	191.865	
6,150.0	6,068.1	6,130.5	6,129.5	19.7	1.6	-156.14	-875.9	4,025.0	4,085.3	4,064.0	21.31	191.712	
6,200.0	6,116.8	6,168.3	6,167.3	19.7	1.6	-155.88	-875.5	4,024.4	4,094.9	4,073.6	21.34	191.924	
6,200.8	6,117.5	6,168.9	6,167.9	19.7	1.6	-155.87	-875.5	4,024.4	4,095.1	4,073.8	21.34	191.932	
6,250.0	6,164.5	6,207.2	6,206.2	19.7	1.6	-155.51	-875.2	4,024.0	4,107.8	4,086.5	21.32	192.652	
6,299.2	6,210.4	6,255.0	6,254.0	19.7	1.6	-155.06	-874.8	4,023.4	4,123.5	4,102.2	21.27	193.902	
6,300.0	6,211.1	6,255.8	6,254.8	19.7	1.6	-155.05	-874.8	4,023.4	4,123.8	4,102.5	21.26	193.926	
6,350.0	6,256.4	6,300.0	6,299.0	19.7	1.6	-154.48	-874.4	4,022.9	4,142.7	4,121.6	21.15	195.854	
6,397.6	6,298.0	6,339.3	6,338.3	19.7	1.6	-153.80	-874.2	4,022.4	4,163.5	4,142.5	20.99	198.311	
6,400.0	6,300.0	6,341.1	6,340.1	19.7	1.6	-153.76	-874.1	4,022.4	4,164.6	4,143.6	20.99	198.447	
6,450.0	6,341.8	6,378.1	6,377.0	19.7	1.6	-152.89	-873.9	4,022.0	4,189.3	4,168.5	20.77	201.699	
6,496.0	6,378.6	6,410.3	6,409.2	19.7	1.7	-151.92	-873.7	4,021.7	4,214.4	4,193.9	20.54	205.209	
6,500.0	6,381.6	6,412.9	6,411.9	19.7	1.7	-151.83	-873.6	4,021.7	4,216.7	4,196.2	20.52	205.527	
6,550.0	6,419.2	6,445.3	6,444.3	19.6	1.7	-150.55	-873.4	4,021.4	4,246.7	4,226.5	20.24	209.803	
6,594.5	6,450.7	6,472.4	6,471.3	19.6	1.7	-149.21	-873.3	4,021.2	4,275.5	4,255.5	20.00	213.817	
6,600.0	6,454.4	6,475.6	6,474.6	19.6	1.7	-149.03	-873.3	4,021.2	4,279.2	4,259.2	19.97	214.314	
6,650.0	6,487.1	6,500.0	6,498.9	19.6	1.7	-147.16	-873.2	4,021.1	4,314.0	4,294.3	19.72	218.762	
6,692.9	6,513.0	6,527.2	6,526.1	19.6	1.7	-145.32	-873.1	4,020.9	4,345.5	4,326.0	19.57	222.046	
6,700.0	6,517.0	6,530.9	6,529.8	19.6	1.7	-144.98	-873.1	4,020.9	4,350.9	4,331.3	19.55	222.513	
6,750.0	6,544.1	6,555.2	6,554.2	19.6	1.7	-142.31	-873.0	4,020.8	4,389.7	4,370.2	19.50	225.113	
6,791.3	6,564.2	6,573.3	6,572.3	19.7	1.7	-139.66	-872.9	4,020.7	4,423.2	4,403.6	19.61	225.587	
6,800.0	6,568.2	6,576.9	6,575.8	19.7	1.7	-139.05	-872.9	4,020.7	4,430.3	4,410.7	19.61	225.882	
6,850.0	6,589.1	6,600.0	6,598.9	19.8	1.7	-135.12	-872.9	4,020.6	4,472.5	4,452.5	19.94	224.347	
6,889.7	6,603.5	6,609.7	6,608.6	19.9	1.7	-131.26	-872.8	4,020.5	4,507.0	4,486.6	20.35	221.449	
6,900.0	6,606.9	6,613.0	6,612.0	19.9	1.7	-130.17	-872.8	4,020.5	4,516.0	4,495.5	20.47	220.573	
6,950.0	6,621.3	6,627.5	6,626.5	20.2	1.7	-124.18	-872.8	4,020.5	4,560.6	4,539.4	21.20	215.166	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
6,988.2	6,630.0	6,636.4	6,635.3	20.6	1.7	-118.73	-872.8	4,020.4	4,595.3	4,573.5	21.81	210.695	
7,000.0	6,632.4	6,638.7	6,637.6	20.7	1.7	-116.88	-872.8	4,020.4	4,606.1	4,584.1	21.99	209.462	
7,050.0	6,640.0	6,646.4	6,645.4	21.4	1.7	-108.16	-872.7	4,020.4	4,652.3	4,629.6	22.68	205.121	
7,086.6	6,643.4	6,649.9	6,648.9	21.9	1.7	-100.95	-872.7	4,020.4	4,686.5	4,663.4	23.04	203.434	
7,100.0	6,644.2	6,650.7	6,649.7	22.1	1.7	-98.16	-872.7	4,020.4	4,699.0	4,675.9	23.13	203.132	
7,135.7	6,645.0	6,651.7	6,650.6	22.7	1.7	-90.50	-872.7	4,020.4	4,732.4	4,709.0	23.42	202.060	
7,185.0	6,644.9	6,651.8	6,650.7	23.6	1.7	-90.50	-872.7	4,020.4	4,778.8	4,754.5	24.38	196.004	
7,200.0	6,644.9	6,651.8	6,650.8	23.9	1.7	-90.51	-872.7	4,020.4	4,792.9	4,768.2	24.67	194.261	
7,283.4	6,644.8	6,652.0	6,651.0	25.6	1.7	-90.51	-872.7	4,020.4	4,871.5	4,845.1	26.40	184.515	
7,300.0	6,644.8	6,652.1	6,651.0	25.9	1.7	-90.51	-872.7	4,020.4	4,887.1	4,860.3	26.74	182.733	
7,381.9	6,644.7	6,652.2	6,651.2	27.7	1.7	-90.52	-872.7	4,020.4	4,964.4	4,935.8	28.55	173.888	
7,400.0	6,644.7	6,652.3	6,651.2	28.1	1.7	-90.52	-872.7	4,020.4	4,981.5	4,952.5	28.95	172.080	
7,480.3	6,644.6	6,652.4	6,651.4	29.9	1.7	-90.53	-872.7	4,020.4	5,057.5	5,026.6	30.81	164.167	
7,500.0	6,644.6	6,652.5	6,651.4	30.3	1.7	-90.53	-872.7	4,020.4	5,076.1	5,044.8	31.26	162.370	
7,578.7	6,644.5	6,652.7	6,651.6	32.2	1.7	-90.53	-872.7	4,020.4	5,150.7	5,117.6	33.15	155.390	
7,600.0	6,644.4	6,652.7	6,651.7	32.7	1.7	-90.54	-872.7	4,020.4	5,170.9	5,137.3	33.66	153.639	
7,677.1	6,644.3	6,652.9	6,651.8	34.6	1.7	-90.54	-872.7	4,020.4	5,244.2	5,208.7	35.55	147.510	
7,700.0	6,644.3	6,652.9	6,651.9	35.1	1.7	-90.54	-872.7	4,020.4	5,265.9	5,229.8	36.11	145.818	
7,775.6	6,644.2	6,653.1	6,652.0	37.0	1.7	-90.55	-872.7	4,020.4	5,337.9	5,299.9	38.01	140.441	
7,800.0	6,644.2	6,653.1	6,652.1	37.6	1.7	-90.55	-872.7	4,020.4	5,361.1	5,322.5	38.62	138.817	
7,874.0	6,644.1	6,653.3	6,652.3	39.5	1.7	-90.56	-872.7	4,020.4	5,431.7	5,391.2	40.51	134.096	
7,900.0	6,644.1	6,653.4	6,652.3	40.1	1.7	-90.56	-872.7	4,020.4	5,456.5	5,415.3	41.17	132.541	
7,972.4	6,644.0	6,653.5	6,652.5	42.0	1.7	-90.56	-872.7	4,020.4	5,525.7	5,482.6	43.04	128.390	
8,000.0	6,643.9	6,653.6	6,652.5	42.7	1.7	-90.57	-872.7	4,020.4	5,552.0	5,508.3	43.75	126.904	
8,070.8	6,643.9	6,653.7	6,652.7	44.5	1.7	-90.57	-872.7	4,020.4	5,619.8	5,574.2	45.60	123.245	
8,100.0	6,643.8	6,653.8	6,652.7	45.2	1.7	-90.57	-872.7	4,020.4	5,647.7	5,601.3	46.36	121.825	
8,169.3	6,643.7	6,654.0	6,652.9	47.0	1.7	-90.58	-872.7	4,020.4	5,714.1	5,665.9	48.18	118.592	
8,200.0	6,643.7	6,654.0	6,653.0	47.9	1.7	-90.58	-872.7	4,020.4	5,743.5	5,694.5	48.99	117.235	
8,267.7	6,643.6	6,654.2	6,653.1	49.6	1.7	-90.59	-872.7	4,020.4	5,808.5	5,757.7	50.79	114.370	
8,300.0	6,643.6	6,654.2	6,653.2	50.5	1.7	-90.59	-872.7	4,020.4	5,839.5	5,787.8	51.64	113.074	
8,366.1	6,643.5	6,654.4	6,653.3	52.2	1.7	-90.59	-872.7	4,020.4	5,903.0	5,849.6	53.41	110.527	
8,400.0	6,643.4	6,654.5	6,653.4	53.1	1.7	-90.59	-872.7	4,020.4	5,935.6	5,881.3	54.31	109.288	
8,464.5	6,643.4	6,654.6	6,653.5	54.8	1.7	-90.60	-872.7	4,020.4	5,997.7	5,941.7	56.04	107.019	
8,500.0	6,643.3	6,654.7	6,653.6	55.8	1.7	-90.60	-872.7	4,020.4	6,031.8	5,974.8	56.99	105.832	
8,563.0	6,643.2	6,654.8	6,653.8	57.5	1.7	-90.61	-872.7	4,020.4	6,092.5	6,033.8	58.69	103.806	
8,600.0	6,643.2	6,654.9	6,653.8	58.5	1.7	-90.61	-872.7	4,020.4	6,128.2	6,068.5	59.69	102.669	
8,661.4	6,643.1	6,655.0	6,654.0	60.1	1.7	-90.61	-872.7	4,020.4	6,187.4	6,126.0	61.35	100.854	
8,700.0	6,643.1	6,655.1	6,654.0	61.2	1.7	-90.62	-872.7	4,020.4	6,224.6	6,162.2	62.39	99.764	
8,759.8	6,643.0	6,655.2	6,654.2	62.8	1.7	-90.62	-872.7	4,020.4	6,282.4	6,218.4	64.02	98.135	
8,800.0	6,643.0	6,655.3	6,654.3	63.9	1.7	-90.62	-872.7	4,020.4	6,321.2	6,256.1	65.11	97.088	
8,858.2	6,642.9	6,655.4	6,654.4	65.4	1.7	-90.63	-872.7	4,020.4	6,377.5	6,310.8	66.69	95.623	
8,900.0	6,642.8	6,655.5	6,654.5	66.6	1.7	-90.63	-872.7	4,020.4	6,417.9	6,350.1	67.83	94.616	
8,956.7	6,642.8	6,655.7	6,654.6	68.1	1.7	-90.64	-872.7	4,020.4	6,472.7	6,403.3	69.38	93.297	
9,000.0	6,642.7	6,655.8	6,654.7	69.3	1.7	-90.64	-872.7	4,020.4	6,514.7	6,444.1	70.56	92.328	
9,055.1	6,642.6	6,655.9	6,654.8	70.8	1.7	-90.64	-872.7	4,020.4	6,568.0	6,496.0	72.07	91.137	
9,100.0	6,642.6	6,656.0	6,654.9	72.0	1.7	-90.65	-872.7	4,020.4	6,611.5	6,538.2	73.30	90.203	
9,153.5	6,642.5	6,656.1	6,655.0	73.5	1.7	-90.65	-872.7	4,020.4	6,663.4	6,588.7	74.76	89.127	
9,200.0	6,642.5	6,656.2	6,655.1	74.7	1.7	-90.65	-872.7	4,020.4	6,708.5	6,632.5	76.04	88.226	
9,251.9	6,642.4	6,656.3	6,655.2	76.2	1.7	-90.66	-872.7	4,020.4	6,758.9	6,681.4	77.46	87.252	
9,300.0	6,642.3	6,656.4	6,655.3	77.5	1.7	-90.66	-872.7	4,020.4	6,805.6	6,726.8	78.78	86.383	
9,350.4	6,642.3	6,656.5	6,655.4	78.9	1.7	-90.66	-872.7	4,020.4	6,854.5	6,774.3	80.17	85.500	
9,400.0	6,642.2	6,656.6	6,655.6	80.2	1.7	-90.67	-872.7	4,020.4	6,902.7	6,821.2	81.53	84.659	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,642.1	6,656.7	6,655.7	81.6	1.7	-90.67	-872.7	4,020.4	6,950.1	6,867.3	82.88	83.858	
9,500.0	6,642.1	6,656.8	6,655.8	83.0	1.7	-90.68	-872.7	4,020.4	6,999.9	6,915.6	84.29	83.046	
9,547.2	6,642.0	6,656.9	6,655.9	84.3	1.7	-90.68	-872.7	4,020.4	7,045.9	6,960.3	85.59	82.319	
9,600.0	6,642.0	6,657.0	6,656.0	85.7	1.7	-90.68	-872.7	4,020.4	7,097.2	7,010.2	87.05	81.532	
9,645.6	6,641.9	6,657.1	6,656.1	87.0	1.7	-90.69	-872.7	4,020.4	7,141.7	7,053.3	88.31	80.871	
9,700.0	6,641.8	6,657.3	6,656.2	88.5	1.7	-90.69	-872.7	4,020.4	7,194.6	7,104.8	89.81	80.109	
9,744.1	6,641.8	6,657.3	6,656.3	89.7	1.7	-90.69	-872.7	4,020.4	7,237.5	7,146.5	91.03	79.508	
9,800.0	6,641.7	6,657.5	6,656.4	91.2	1.7	-90.70	-872.7	4,020.4	7,292.0	7,199.4	92.58	78.769	
9,842.5	6,641.7	6,657.6	6,656.5	92.4	1.7	-90.70	-872.7	4,020.4	7,333.5	7,239.7	93.75	78.222	
9,900.0	6,641.6	6,657.7	6,656.6	94.0	1.7	-90.70	-872.7	4,020.4	7,389.5	7,294.2	95.34	77.505	
9,940.9	6,641.5	6,657.8	6,656.7	95.1	1.7	-90.71	-872.7	4,020.4	7,429.5	7,333.0	96.48	77.008	
10,000.0	6,641.5	6,657.9	6,656.8	96.7	1.7	-90.71	-872.7	4,020.4	7,487.1	7,389.0	98.11	76.311	
10,039.3	6,641.4	6,658.0	6,656.9	97.8	1.7	-90.71	-872.7	4,020.4	7,525.5	7,426.3	99.20	75.859	
10,100.0	6,641.3	6,658.1	6,657.0	99.5	1.7	-90.72	-872.7	4,020.4	7,584.7	7,483.9	100.89	75.182	
10,137.8	6,641.3	6,658.2	6,657.1	100.6	1.7	-90.72	-872.7	4,020.4	7,621.6	7,519.7	101.93	74.771	
10,200.0	6,641.2	6,658.3	6,657.3	102.3	1.7	-90.73	-872.7	4,020.4	7,682.4	7,578.8	103.66	74.112	
10,236.2	6,641.2	6,658.4	6,657.3	103.3	1.7	-90.73	-872.7	4,020.4	7,717.8	7,613.2	104.67	73.738	
10,300.0	6,641.1	6,658.5	6,657.5	105.0	1.7	-90.73	-872.7	4,020.4	7,780.2	7,673.8	106.44	73.097	
10,334.6	6,641.0	6,658.6	6,657.5	106.0	1.7	-90.74	-872.7	4,020.4	7,814.1	7,706.7	107.40	72.758	
10,400.0	6,641.0	6,658.7	6,657.7	107.8	1.7	-90.74	-872.7	4,020.4	7,878.0	7,768.8	109.21	72.133	
10,433.0	6,640.9	6,658.8	6,657.8	108.7	1.7	-90.74	-872.7	4,020.4	7,910.4	7,800.2	110.13	71.825	
10,500.0	6,640.8	6,659.0	6,657.9	110.6	1.7	-90.75	-872.7	4,020.4	7,975.9	7,863.9	111.99	71.217	
10,531.5	6,640.8	6,659.0	6,658.0	111.5	1.7	-90.75	-872.7	4,020.4	8,006.7	7,893.8	112.87	70.937	
10,600.0	6,640.7	6,659.2	6,658.1	113.4	1.7	-90.75	-872.7	4,020.4	8,073.8	7,959.0	114.78	70.344	
10,629.9	6,640.7	6,659.2	6,658.2	114.2	1.7	-90.76	-872.7	4,020.4	8,103.1	7,987.5	115.61	70.091	
10,700.0	6,640.6	6,659.4	6,658.3	116.1	1.7	-90.76	-872.7	4,020.4	8,171.8	8,054.2	117.56	69.512	
10,728.3	6,640.5	6,659.4	6,658.4	116.9	1.7	-90.76	-872.7	4,020.4	8,199.5	8,081.2	118.35	69.284	
10,800.0	6,640.5	6,659.6	6,658.5	118.9	1.7	-90.77	-872.7	4,020.4	8,269.8	8,149.5	120.34	68.718	
10,826.7	6,640.4	6,659.6	6,658.6	119.7	1.7	-90.77	-872.7	4,020.4	8,296.0	8,174.9	121.09	68.512	
10,900.0	6,640.3	6,659.8	6,658.7	121.7	1.7	-90.78	-872.7	4,020.4	8,367.9	8,244.7	123.13	67.960	
10,925.2	6,640.3	6,659.8	6,658.8	122.4	1.7	-90.78	-872.7	4,020.4	8,392.6	8,268.7	123.83	67.775	
11,000.0	6,640.2	6,660.0	6,658.9	124.5	1.7	-90.78	-872.7	4,020.4	8,466.0	8,340.1	125.91	67.236	
11,023.6	6,640.2	6,660.1	6,659.0	125.1	1.7	-90.78	-872.7	4,020.4	8,489.1	8,362.6	126.57	67.069	
11,100.0	6,640.1	6,660.2	6,659.2	127.3	1.7	-90.79	-872.7	4,020.4	8,564.1	8,435.4	128.70	66.542	
11,122.0	6,640.0	6,660.3	6,659.2	127.9	1.7	-90.79	-872.7	4,020.4	8,585.8	8,456.4	129.32	66.393	
11,200.0	6,639.9	6,660.4	6,659.4	130.1	1.7	-90.80	-872.7	4,020.4	8,662.3	8,530.8	131.49	65.878	
11,220.4	6,639.9	6,660.5	6,659.4	130.6	1.7	-90.80	-872.7	4,020.4	8,682.4	8,550.3	132.06	65.745	
11,300.0	6,639.8	6,660.6	6,659.6	132.8	1.7	-90.80	-872.7	4,020.4	8,760.6	8,626.3	134.28	65.241	
11,318.9	6,639.8	6,660.7	6,659.6	133.4	1.7	-90.81	-872.7	4,020.4	8,779.1	8,644.3	134.81	65.123	
11,400.0	6,639.7	6,660.8	6,659.8	135.6	1.7	-90.81	-872.7	4,020.4	8,858.8	8,721.8	137.07	64.630	
11,417.3	6,639.7	6,660.9	6,659.8	136.1	1.7	-90.81	-872.7	4,020.4	8,875.8	8,738.3	137.55	64.526	
11,500.0	6,639.6	6,661.1	6,660.0	138.4	1.7	-90.82	-872.7	4,020.4	8,957.2	8,817.3	139.86	64.043	
11,515.7	6,639.5	6,661.1	6,660.0	138.9	1.7	-90.82	-872.7	4,020.4	8,972.6	8,832.3	140.30	63.952	
11,600.0	6,639.4	6,661.3	6,660.2	141.2	1.7	-90.82	-872.7	4,020.4	9,055.5	8,912.9	142.65	63.479	
11,614.1	6,639.4	6,661.3	6,660.2	141.6	1.7	-90.83	-872.7	4,020.4	9,069.4	8,926.4	143.05	63.401	
11,700.0	6,639.3	6,661.5	6,660.4	144.0	1.7	-90.83	-872.7	4,020.4	9,153.9	9,008.4	145.45	62.936	
11,712.6	6,639.3	6,661.5	6,660.4	144.3	1.7	-90.83	-872.7	4,020.4	9,166.3	9,020.5	145.80	62.870	
11,800.0	6,639.2	6,661.7	6,660.6	146.8	1.7	-90.84	-872.7	4,020.4	9,252.3	9,104.1	148.24	62.414	
11,811.0	6,639.2	6,661.7	6,660.6	147.1	1.7	-90.84	-872.7	4,020.4	9,263.1	9,114.6	148.55	62.358	
11,900.0	6,639.1	6,661.9	6,660.8	149.6	1.7	-90.85	-872.7	4,020.4	9,350.8	9,199.7	151.03	61.912	
11,909.4	6,639.0	6,661.9	6,660.8	149.8	1.7	-90.85	-872.7	4,020.4	9,360.1	9,208.8	151.30	61.865	
12,000.0	6,638.9	6,662.1	6,661.0	152.4	1.7	-90.85	-872.7	4,020.4	9,449.3	9,295.4	153.83	61.427	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT SLW RANCH #1-10 - 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	6,638.9	6,662.1	6,661.1	152.6	1.7	-90.85	-872.7	4,020.4	9,457.0	9,302.9	154.05	61.390	
12,100.0	6,638.8	6,662.3	6,661.2	155.2	1.7	-90.86	-872.7	4,020.4	9,547.8	9,391.2	156.62	60.960	
12,106.3	6,638.8	6,662.3	6,661.3	155.3	1.7	-90.86	-872.7	4,020.4	9,554.0	9,397.2	156.80	60.931	
12,200.0	6,638.7	6,662.5	6,661.5	157.9	1.7	-90.87	-872.7	4,020.4	9,646.3	9,486.9	159.42	60.509	
12,204.7	6,638.7	6,662.5	6,661.5	158.1	1.7	-90.87	-872.7	4,020.4	9,651.0	9,491.4	159.55	60.488	
12,300.0	6,638.5	6,662.7	6,661.7	160.7	1.7	-90.87	-872.7	4,020.4	9,744.9	9,582.7	162.22	60.074	
12,303.1	6,638.5	6,662.7	6,661.7	160.8	1.7	-90.87	-872.7	4,020.4	9,748.0	9,585.7	162.30	60.060	
12,400.0	6,638.4	6,662.9	6,661.9	163.5	1.7	-90.88	-872.7	4,020.4	9,843.5	9,678.5	165.01	59.653	
12,401.5	6,638.4	6,662.9	6,661.9	163.6	1.7	-90.88	-872.7	4,020.4	9,845.0	9,680.0	165.06	59.647	
12,500.0	6,638.3	6,663.1	6,662.1	166.3	1.7	-90.89	-872.7	4,020.4	9,942.2	9,774.3	167.81	59.246 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	126.55	-1,240.1	1,672.8	2,082.4				
98.4	98.4	77.3	77.3	0.1	0.0	126.55	-1,240.1	1,672.7	2,082.3	2,082.2	0.10	N/A	
100.0	100.0	78.9	78.9	0.1	0.0	126.55	-1,240.1	1,672.7	2,082.3	2,082.2	0.10	N/A	
161.5	161.5	139.5	139.5	0.2	0.0	126.56	-1,240.2	1,672.6	2,082.3	2,082.0	0.28	7,514.655 CC	
196.8	196.8	173.8	173.8	0.3	0.1	126.56	-1,240.3	1,672.6	2,082.3	2,081.9	0.39	5,311.326	
200.0	200.0	176.9	176.9	0.3	0.1	126.56	-1,240.3	1,672.6	2,082.3	2,081.9	0.40	5,175.962	
295.3	295.3	261.1	261.1	0.5	0.2	126.56	-1,240.5	1,672.7	2,082.5	2,081.8	0.72	2,902.464 ES	
300.0	300.0	265.1	265.1	0.5	0.2	126.56	-1,240.5	1,672.7	2,082.5	2,081.8	0.73	2,840.284	
393.7	393.7	356.0	356.0	0.8	0.3	126.57	-1,241.2	1,673.1	2,083.3	2,082.3	1.03	2,013.272	
400.0	400.0	362.7	362.6	0.8	0.3	126.57	-1,241.3	1,673.1	2,083.3	2,082.3	1.05	1,975.608	
492.1	492.1	454.2	454.2	1.0	0.4	126.58	-1,242.0	1,673.4	2,084.0	2,082.7	1.33	1,568.616	
500.0	500.0	461.7	461.7	1.0	0.4	126.58	-1,242.0	1,673.4	2,084.0	2,082.7	1.35	1,542.378	
590.5	590.5	548.0	548.0	1.2	0.4	126.59	-1,242.7	1,673.9	2,084.8	2,083.2	1.61	1,296.405	
600.0	600.0	557.0	557.0	1.2	0.4	126.59	-1,242.8	1,673.9	2,084.9	2,083.3	1.63	1,275.412	
689.0	689.0	645.6	645.6	1.4	0.5	126.60	-1,243.6	1,674.5	2,085.9	2,084.0	1.88	1,107.118	
700.0	700.0	657.0	657.0	1.4	0.5	126.60	-1,243.7	1,674.6	2,086.0	2,084.1	1.91	1,089.354	
787.4	787.4	746.6	746.5	1.6	0.5	126.61	-1,244.4	1,675.1	2,086.8	2,084.7	2.16	967.465	
800.0	800.0	759.3	759.3	1.7	0.5	126.61	-1,244.4	1,675.2	2,086.9	2,084.7	2.19	952.239	
885.8	885.8	845.8	845.8	1.9	0.6	126.61	-1,244.9	1,675.8	2,087.7	2,085.3	2.43	860.749	
900.0	900.0	860.1	860.0	1.9	0.6	126.61	-1,245.0	1,675.9	2,087.8	2,085.3	2.46	847.405	
984.2	984.2	944.2	944.2	2.1	0.6	126.62	-1,245.7	1,676.3	2,088.5	2,085.8	2.69	776.278	
1,000.0	1,000.0	959.8	959.8	2.1	0.6	126.62	-1,245.8	1,676.4	2,088.7	2,085.9	2.73	764.347	
1,082.7	1,082.7	1,046.0	1,045.9	2.3	0.7	99.64	-1,246.4	1,676.8	2,089.6	2,086.6	2.98	701.668	
1,100.0	1,100.0	1,064.8	1,064.8	2.3	0.7	99.65	-1,246.5	1,676.9	2,089.8	2,086.7	3.02	690.866	
1,181.1	1,181.0	1,153.0	1,153.0	2.5	0.7	99.76	-1,247.0	1,677.0	2,090.8	2,087.6	3.24	644.801	
1,200.0	1,199.8	1,173.6	1,173.5	2.6	0.7	99.79	-1,247.1	1,677.0	2,091.1	2,087.8	3.29	635.009	
1,279.5	1,279.1	1,255.1	1,255.1	2.8	0.8	99.95	-1,247.2	1,677.0	2,092.3	2,088.8	3.51	596.909	
1,300.0	1,299.5	1,275.5	1,275.5	2.8	0.8	100.00	-1,247.3	1,677.0	2,092.7	2,089.1	3.56	587.929	
1,377.9	1,376.9	1,355.6	1,355.6	3.0	0.8	100.24	-1,247.6	1,676.8	2,094.3	2,090.6	3.77	555.391	
1,400.0	1,398.7	1,378.6	1,378.6	3.0	0.8	100.31	-1,247.6	1,676.8	2,094.9	2,091.0	3.83	546.848	
1,476.4	1,474.2	1,454.7	1,454.6	3.2	0.8	100.59	-1,247.7	1,676.6	2,096.9	2,092.9	4.05	517.319	
1,500.0	1,497.5	1,477.8	1,477.7	3.3	0.8	100.68	-1,247.7	1,676.5	2,097.6	2,093.5	4.12	508.758	
1,574.8	1,571.0	1,551.0	1,550.9	3.5	0.9	101.00	-1,247.9	1,676.3	2,100.2	2,095.9	4.37	480.934	
1,600.0	1,595.6	1,575.6	1,575.5	3.6	0.9	101.12	-1,248.0	1,676.3	2,101.2	2,096.8	4.45	472.143	
1,673.2	1,667.2	1,646.9	1,646.9	3.9	0.9	101.52	-1,248.1	1,676.1	2,104.2	2,099.5	4.71	446.575	
1,700.0	1,693.4	1,673.0	1,672.9	4.0	0.9	101.67	-1,248.2	1,676.0	2,105.3	2,100.5	4.81	437.829	
1,771.6	1,763.5	1,746.3	1,746.2	4.2	0.9	102.09	-1,248.5	1,675.6	2,108.4	2,103.3	5.08	415.195	
1,800.0	1,791.3	1,776.2	1,776.1	4.3	0.9	102.26	-1,248.7	1,675.3	2,109.6	2,104.4	5.19	406.822	
1,870.1	1,859.8	1,849.3	1,849.3	4.6	0.9	102.68	-1,249.0	1,674.6	2,112.5	2,107.0	5.46	387.169	
1,900.0	1,889.1	1,880.5	1,880.4	4.7	1.0	102.86	-1,249.1	1,674.3	2,113.7	2,108.1	5.57	379.294	
1,968.5	1,956.1	1,943.3	1,943.3	4.9	1.0	103.22	-1,249.3	1,673.7	2,116.6	2,110.7	5.84	362.291	
2,000.0	1,986.9	1,970.7	1,970.7	5.1	1.0	103.38	-1,249.4	1,673.5	2,118.0	2,112.0	5.97	354.886	
2,066.9	2,052.3	2,028.2	2,028.1	5.3	1.0	103.71	-1,249.8	1,673.1	2,121.2	2,115.0	6.24	339.968	
2,100.0	2,084.7	2,056.2	2,056.1	5.5	1.0	103.87	-1,250.0	1,672.9	2,123.0	2,116.6	6.37	333.028	
2,165.3	2,148.6	2,112.6	2,112.6	5.7	1.0	104.19	-1,250.6	1,672.8	2,126.7	2,120.0	6.65	319.979	
2,200.0	2,182.5	2,144.9	2,144.8	5.9	1.0	104.37	-1,251.0	1,672.7	2,128.7	2,122.0	6.79	313.402	
2,263.8	2,244.9	2,204.2	2,204.1	6.1	1.1	104.71	-1,251.8	1,672.6	2,132.7	2,125.6	7.06	301.910	
2,300.0	2,280.3	2,238.3	2,238.2	6.3	1.1	104.91	-1,252.4	1,672.6	2,135.0	2,127.8	7.22	295.777	
2,362.2	2,341.2	2,296.9	2,296.8	6.5	1.1	105.24	-1,253.3	1,672.6	2,139.0	2,131.6	7.49	285.769	
2,400.0	2,378.1	2,334.1	2,334.0	6.7	1.1	105.45	-1,253.8	1,672.6	2,141.6	2,133.9	7.65	280.013	
2,460.6	2,437.4	2,394.1	2,394.0	6.9	1.1	105.79	-1,254.6	1,672.7	2,145.7	2,137.7	7.91	271.225	
2,500.0	2,476.0	2,433.0	2,432.9	7.1	1.1	106.00	-1,255.0	1,672.8	2,148.3	2,140.3	8.08	265.823	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
2,550.0	2,524.9	2,482.3	2,482.2	7.3	1.2	106.27	-1,255.6	1,672.9	2,151.8	2,143.5	8.30	259.265	
2,559.0	2,533.7	2,491.2	2,491.1	7.3	1.2	107.18	-1,255.7	1,672.9	2,152.4	2,144.1	8.34	258.167	
2,600.0	2,573.8	2,533.4	2,533.3	7.5	1.2	111.27	-1,256.2	1,673.0	2,155.7	2,147.2	8.51	253.386	
2,639.4	2,612.3	2,574.3	2,574.2	7.7	1.2	115.22	-1,256.7	1,673.0	2,159.3	2,150.6	8.66	249.354	
2,657.5	2,630.0	2,593.2	2,593.1	7.7	1.2	115.31	-1,256.9	1,673.0	2,161.0	2,152.3	8.73	247.481	
2,700.0	2,671.6	2,635.3	2,635.2	7.9	1.2	115.54	-1,257.4	1,672.9	2,165.2	2,156.3	8.90	243.241	
2,755.9	2,726.3	2,690.1	2,690.0	8.1	1.2	115.82	-1,258.1	1,672.7	2,170.7	2,161.6	9.14	237.599	
2,800.0	2,769.4	2,734.7	2,734.6	8.3	1.2	116.06	-1,258.6	1,672.6	2,175.1	2,165.7	9.32	233.355	
2,854.3	2,822.5	2,790.2	2,790.1	8.5	1.3	116.35	-1,259.2	1,672.4	2,180.4	2,170.9	9.55	228.342	
2,900.0	2,867.2	2,834.4	2,834.3	8.7	1.3	116.57	-1,259.6	1,672.3	2,185.0	2,175.2	9.74	224.315	
2,952.7	2,918.8	2,884.7	2,884.6	9.0	1.3	116.82	-1,259.9	1,672.4	2,190.3	2,180.3	9.96	219.863	
3,000.0	2,965.0	2,935.1	2,934.9	9.2	1.3	117.07	-1,260.1	1,672.5	2,195.0	2,184.9	10.15	216.154	
3,051.2	3,015.1	2,992.6	2,992.4	9.4	1.3	117.35	-1,260.2	1,672.5	2,200.1	2,189.7	10.36	212.340	
3,100.0	3,062.8	3,041.1	3,041.0	9.6	1.3	117.58	-1,260.2	1,672.5	2,204.8	2,194.3	10.55	208.931	
3,149.6	3,111.4	3,089.4	3,089.3	9.8	1.3	117.82	-1,260.3	1,672.5	2,209.7	2,199.0	10.75	205.606	
3,200.0	3,160.7	3,137.8	3,137.7	10.0	1.3	118.05	-1,260.4	1,672.4	2,214.7	2,203.8	10.95	202.210	
3,248.0	3,207.6	3,183.8	3,183.6	10.2	1.3	118.27	-1,260.4	1,672.4	2,219.5	2,208.4	11.15	199.056	
3,300.0	3,258.5	3,232.6	3,232.5	10.5	1.3	118.50	-1,260.5	1,672.4	2,224.8	2,213.5	11.37	195.736	
3,346.4	3,303.9	3,275.8	3,275.7	10.7	1.4	118.71	-1,260.7	1,672.4	2,229.6	2,218.1	11.56	192.863	
3,400.0	3,356.3	3,327.8	3,327.7	10.9	1.4	118.96	-1,260.9	1,672.3	2,235.3	2,223.5	11.78	189.691	
3,444.9	3,400.2	3,373.3	3,373.1	11.1	1.4	119.18	-1,261.1	1,672.3	2,240.0	2,228.0	11.97	187.132	
3,500.0	3,454.1	3,430.2	3,430.1	11.3	1.4	119.45	-1,261.3	1,672.2	2,245.8	2,233.6	12.20	184.140	
3,543.3	3,496.5	3,475.8	3,475.7	11.5	1.4	119.66	-1,261.5	1,672.0	2,250.3	2,238.0	12.37	181.896	
3,600.0	3,551.9	3,530.6	3,530.5	11.7	1.4	119.93	-1,261.7	1,671.7	2,256.2	2,243.6	12.60	179.061	
3,641.7	3,592.7	3,568.6	3,568.4	11.9	1.4	120.11	-1,261.9	1,671.5	2,260.7	2,247.9	12.77	177.048	
3,700.0	3,649.7	3,623.8	3,623.7	12.2	1.5	120.37	-1,262.2	1,671.3	2,267.0	2,254.0	13.00	174.328	
3,740.1	3,689.0	3,664.2	3,664.1	12.4	1.5	120.56	-1,262.4	1,671.1	2,271.3	2,258.2	13.17	172.502	
3,800.0	3,747.5	3,723.9	3,723.7	12.6	1.5	120.84	-1,262.7	1,670.9	2,277.8	2,264.4	13.41	169.878	
3,838.6	3,785.3	3,761.8	3,761.7	12.8	1.5	121.01	-1,262.8	1,670.8	2,282.1	2,268.5	13.56	168.247	
3,900.0	3,845.4	3,821.3	3,821.2	13.1	1.5	121.29	-1,263.1	1,670.6	2,288.8	2,275.0	13.81	165.733	
3,937.0	3,881.6	3,856.2	3,856.1	13.2	1.5	121.45	-1,263.2	1,670.4	2,292.9	2,279.0	13.96	164.265	
4,000.0	3,943.2	3,915.0	3,914.9	13.5	1.6	121.72	-1,263.6	1,670.2	2,300.0	2,285.8	14.21	161.843	
4,035.4	3,977.8	3,947.1	3,947.0	13.6	1.6	121.87	-1,263.9	1,670.0	2,304.1	2,289.7	14.35	160.516	
4,100.0	4,041.0	4,005.8	4,005.6	13.9	1.6	122.14	-1,264.4	1,669.9	2,311.6	2,297.0	14.61	158.176	
4,133.8	4,074.1	4,036.9	4,036.8	14.1	1.6	122.28	-1,264.6	1,669.8	2,315.7	2,300.9	14.75	156.976	
4,200.0	4,138.8	4,100.0	4,099.9	14.4	1.6	122.57	-1,265.3	1,669.8	2,323.7	2,308.6	15.02	154.708	
4,232.3	4,170.4	4,126.9	4,126.8	14.5	1.6	122.69	-1,265.6	1,669.8	2,327.6	2,312.5	15.15	153.633	
4,300.0	4,236.6	4,188.1	4,187.9	14.8	1.6	122.97	-1,266.4	1,669.8	2,336.1	2,320.6	15.42	151.449	
4,330.7	4,266.7	4,218.1	4,218.0	14.9	1.7	123.10	-1,266.8	1,669.9	2,340.0	2,324.4	15.55	150.489	
4,400.0	4,334.4	4,290.1	4,290.0	15.2	1.7	123.42	-1,267.7	1,669.9	2,348.7	2,332.9	15.83	148.382	
4,429.1	4,362.9	4,320.3	4,320.2	15.4	1.7	123.56	-1,268.0	1,669.9	2,352.4	2,336.4	15.95	147.524	
4,500.0	4,432.3	4,393.8	4,393.7	15.7	1.7	123.88	-1,268.8	1,669.9	2,361.3	2,345.0	16.23	145.498	
4,527.5	4,459.2	4,419.7	4,419.5	15.8	1.7	123.99	-1,269.1	1,669.8	2,364.7	2,348.4	16.34	144.730	
4,600.0	4,530.1	4,485.5	4,485.4	16.1	1.7	124.28	-1,269.8	1,669.8	2,373.9	2,357.3	16.63	142.772	
4,626.0	4,555.5	4,511.3	4,511.1	16.2	1.8	124.39	-1,270.1	1,669.8	2,377.3	2,360.5	16.73	142.091	
4,700.0	4,627.9	4,594.5	4,594.3	16.6	1.8	124.75	-1,270.9	1,669.7	2,386.6	2,369.6	17.02	140.196	
4,724.4	4,651.7	4,619.7	4,619.5	16.7	1.8	124.86	-1,271.1	1,669.6	2,389.7	2,372.6	17.12	139.585	
4,800.0	4,725.7	4,696.2	4,696.0	17.0	1.8	125.18	-1,271.5	1,669.6	2,399.1	2,381.7	17.42	137.739	
4,822.8	4,748.0	4,719.6	4,719.5	17.1	1.8	125.28	-1,271.5	1,669.6	2,402.0	2,384.5	17.51	137.203	
4,904.9	4,828.3	4,800.0	4,799.8	17.5	1.8	125.61	-1,271.9	1,669.4	2,412.2	2,394.4	17.82	135.329	
4,921.2	4,844.3	4,817.8	4,817.7	17.5	1.9	125.72	-1,271.9	1,669.4	2,414.2	2,396.3	17.87	135.070	
5,000.0	4,921.6	4,887.0	4,886.8	17.8	1.9	126.12	-1,272.2	1,669.4	2,423.3	2,405.2	18.11	133.803	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,941.0	4,904.7	4,904.5	17.9	1.9	126.22	-1,272.3	1,669.4	2,425.4	2,407.3	18.16	133.578	
5,100.0	5,020.4	4,981.6	4,981.4	18.1	1.9	126.57	-1,272.7	1,669.7	2,433.4	2,415.0	18.35	132.577	
5,118.1	5,038.3	5,000.0	4,999.8	18.2	1.9	126.64	-1,272.8	1,669.8	2,435.0	2,416.6	18.39	132.380	
5,200.0	5,119.6	5,067.2	5,067.0	18.4	1.9	126.90	-1,273.3	1,670.3	2,441.7	2,423.2	18.57	131.471	
5,216.5	5,136.0	5,081.0	5,080.8	18.4	1.9	126.95	-1,273.4	1,670.4	2,443.0	2,424.4	18.60	131.318	
5,300.0	5,219.2	5,155.7	5,155.5	18.6	1.9	127.15	-1,274.3	1,671.2	2,448.6	2,429.9	18.76	130.490	
5,314.9	5,234.1	5,169.4	5,169.2	18.6	1.9	127.19	-1,274.5	1,671.4	2,449.5	2,430.7	18.79	130.365	
5,400.0	5,319.1	5,247.4	5,247.2	18.8	2.0	127.32	-1,275.6	1,672.4	2,453.8	2,434.8	18.93	129.603	
5,413.4	5,332.4	5,259.6	5,259.4	18.8	2.0	127.34	-1,275.8	1,672.6	2,454.3	2,435.4	18.95	129.505	
5,504.9	5,423.9	5,344.0	5,343.7	18.9	2.0	145.83	-1,277.2	1,673.7	2,457.2	2,440.5	16.78	146.417	
5,511.8	5,430.8	5,350.4	5,350.2	18.9	2.0	145.83	-1,277.3	1,673.8	2,457.4	2,440.6	16.79	146.326	
5,600.0	5,519.0	5,431.5	5,431.2	19.0	2.0	145.82	-1,279.0	1,675.1	2,459.6	2,442.7	16.94	145.193	
5,610.2	5,529.3	5,440.7	5,440.5	19.0	2.0	145.82	-1,279.2	1,675.2	2,459.9	2,443.0	16.96	145.051	
5,700.0	5,619.0	5,520.7	5,520.4	19.2	2.0	145.82	-1,281.1	1,676.5	2,462.5	2,445.4	17.12	143.826	
5,708.6	5,627.7	5,528.0	5,527.7	19.2	2.0	145.82	-1,281.3	1,676.7	2,462.8	2,445.6	17.14	143.710	
5,800.0	5,719.0	5,600.0	5,599.7	19.3	2.1	145.82	-1,283.3	1,678.1	2,465.9	2,448.6	17.30	142.518	
5,807.1	5,726.1	5,611.4	5,611.0	19.3	2.1	145.82	-1,283.6	1,678.4	2,466.2	2,448.9	17.32	142.421	
5,900.0	5,819.0	5,687.9	5,687.5	19.4	2.1	145.83	-1,286.3	1,679.9	2,470.0	2,452.5	17.49	141.243	
5,905.5	5,824.5	5,700.0	5,699.6	19.4	2.1	145.83	-1,286.8	1,680.1	2,470.3	2,452.8	17.50	141.163	
6,003.9	5,923.0	5,788.4	5,787.9	19.6	2.1	145.84	-1,290.4	1,682.0	2,474.7	2,457.0	17.68	139.934	
6,009.8	5,928.8	5,794.2	5,793.7	19.6	2.1	145.84	-1,290.6	1,682.2	2,475.0	2,457.3	17.70	139.865	
6,050.0	5,969.0	5,831.6	5,831.1	19.6	2.1	-124.02	-1,292.1	1,683.2	2,477.5	2,457.4	20.07	123.452	
6,100.0	6,018.8	5,877.4	5,876.7	19.7	2.1	-123.77	-1,293.8	1,684.4	2,482.4	2,462.3	20.13	123.328	
6,102.3	6,021.1	5,879.5	5,878.9	19.7	2.2	-123.76	-1,293.9	1,684.5	2,482.7	2,462.6	20.13	123.335	
6,150.0	6,068.1	5,925.5	5,924.9	19.7	2.2	-123.46	-1,295.7	1,685.9	2,489.3	2,469.2	20.15	123.548	
6,200.0	6,116.8	5,975.9	5,975.1	19.7	2.2	-123.09	-1,297.5	1,687.5	2,498.2	2,478.0	20.13	124.093	
6,200.8	6,117.5	5,976.6	5,975.9	19.7	2.2	-123.08	-1,297.6	1,687.5	2,498.3	2,478.2	20.13	124.105	
6,250.0	6,164.5	6,025.8	6,025.0	19.7	2.2	-122.65	-1,299.3	1,689.1	2,508.9	2,488.8	20.08	124.961	
6,299.2	6,210.4	6,074.3	6,073.4	19.7	2.2	-122.15	-1,300.9	1,690.8	2,521.2	2,501.2	19.99	126.114	
6,300.0	6,211.1	6,075.1	6,074.2	19.7	2.2	-122.14	-1,300.9	1,690.8	2,521.4	2,501.4	19.99	126.134	
6,350.0	6,256.4	6,118.7	6,117.8	19.7	2.2	-121.50	-1,302.3	1,692.3	2,535.8	2,515.9	19.87	127.616	
6,397.6	6,298.0	6,154.6	6,153.7	19.7	2.2	-120.74	-1,303.4	1,693.5	2,551.3	2,531.6	19.73	129.291	
6,400.0	6,300.0	6,156.4	6,155.4	19.7	2.2	-120.70	-1,303.5	1,693.6	2,552.2	2,532.4	19.73	129.378	
6,450.0	6,341.8	6,192.3	6,191.3	19.7	2.2	-119.76	-1,304.7	1,695.0	2,570.4	2,550.9	19.57	131.324	
6,496.0	6,378.6	6,226.2	6,225.1	19.7	2.2	-118.79	-1,305.8	1,696.3	2,588.9	2,569.5	19.44	133.161	
6,500.0	6,381.6	6,229.1	6,228.0	19.7	2.2	-118.70	-1,305.9	1,696.4	2,590.6	2,571.1	19.43	133.320	
6,550.0	6,419.2	6,264.4	6,263.3	19.6	2.3	-117.49	-1,307.1	1,697.8	2,612.5	2,593.2	19.32	135.253	
6,594.5	6,450.7	6,293.7	6,292.6	19.6	2.3	-116.26	-1,308.1	1,699.0	2,633.5	2,614.2	19.25	136.793	
6,600.0	6,454.4	6,297.3	6,296.1	19.6	2.3	-116.09	-1,308.2	1,699.1	2,636.2	2,616.9	19.25	136.976	
6,650.0	6,487.1	6,326.0	6,324.9	19.6	2.3	-114.47	-1,309.2	1,700.3	2,661.5	2,642.3	19.24	138.337	
6,692.9	6,513.0	6,348.5	6,347.3	19.6	2.3	-112.89	-1,310.0	1,701.2	2,684.6	2,665.3	19.30	139.070	
6,700.0	6,517.0	6,352.1	6,350.9	19.6	2.3	-112.61	-1,310.1	1,701.4	2,688.5	2,669.2	19.32	139.161	
6,750.0	6,544.1	6,375.4	6,374.1	19.6	2.3	-110.50	-1,311.0	1,702.3	2,717.0	2,697.5	19.50	139.331	
6,791.3	6,564.2	6,392.5	6,391.2	19.7	2.3	-108.57	-1,311.6	1,703.1	2,741.6	2,721.8	19.75	138.812	
6,800.0	6,568.2	6,395.8	6,394.5	19.7	2.3	-108.14	-1,311.7	1,703.2	2,746.8	2,727.0	19.79	138.802	
6,850.0	6,589.1	6,412.3	6,411.0	19.8	2.3	-105.47	-1,312.3	1,703.9	2,778.0	2,757.8	20.19	137.616	
6,889.7	6,603.5	6,423.1	6,421.8	19.9	2.3	-103.13	-1,312.7	1,704.3	2,803.6	2,783.0	20.58	136.225	
6,900.0	6,606.9	6,425.7	6,424.3	19.9	2.3	-102.50	-1,312.8	1,704.5	2,810.3	2,789.6	20.68	135.878	
6,950.0	6,621.3	6,436.1	6,434.8	20.2	2.3	-99.26	-1,313.2	1,704.9	2,843.7	2,822.4	21.26	133.738	
6,988.2	6,630.0	6,442.2	6,440.9	20.6	2.3	-96.60	-1,313.5	1,705.2	2,869.7	2,848.0	21.76	131.893	
7,000.0	6,632.4	6,443.7	6,442.4	20.7	2.3	-95.74	-1,313.5	1,705.2	2,877.9	2,856.0	21.91	131.353	
7,050.0	6,640.0	6,448.4	6,447.0	21.4	2.3	-91.98	-1,313.7	1,705.4	2,912.8	2,890.2	22.60	128.858	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,086.6	6,643.4	6,449.9	6,448.6	21.9	2.3	-89.10	-1,313.8	1,705.5	2,938.6	2,915.5	23.14	127.007	
7,100.0	6,644.2	6,450.1	6,448.7	22.1	2.3	-88.02	-1,313.8	1,705.5	2,948.2	2,924.8	23.33	126.378	
7,135.7	6,645.0	6,449.5	6,448.1	22.7	2.3	-85.10	-1,313.8	1,705.5	2,973.6	2,949.8	23.85	124.694	
7,185.0	6,644.9	6,447.6	6,446.3	23.6	2.3	-85.05	-1,313.7	1,705.4	3,009.2	2,984.4	24.80	121.329	
7,200.0	6,644.9	6,447.1	6,445.7	23.9	2.3	-85.03	-1,313.7	1,705.4	3,020.0	2,994.9	25.09	120.362	
7,283.4	6,644.8	6,444.0	6,442.6	25.6	2.3	-84.95	-1,313.5	1,705.2	3,081.1	3,054.3	26.81	114.924	
7,300.0	6,644.8	6,443.4	6,442.0	25.9	2.3	-84.93	-1,313.5	1,705.2	3,093.4	3,066.2	27.15	113.932	
7,381.9	6,644.7	6,440.3	6,439.0	27.7	2.3	-84.84	-1,313.4	1,705.1	3,154.5	3,125.6	28.95	108.981	
7,400.0	6,644.7	6,439.6	6,438.3	28.1	2.3	-84.83	-1,313.4	1,705.0	3,168.2	3,138.9	29.34	107.971	
7,480.3	6,644.6	6,436.7	6,435.3	29.9	2.3	-84.74	-1,313.2	1,704.9	3,229.3	3,198.1	31.19	103.533	
7,500.0	6,644.6	6,435.9	6,434.6	30.3	2.3	-84.72	-1,313.2	1,704.9	3,244.4	3,212.7	31.64	102.527	
7,578.7	6,644.5	6,433.0	6,431.7	32.2	2.3	-84.64	-1,313.1	1,704.8	3,305.2	3,271.7	33.52	98.612	
7,600.0	6,644.4	6,432.3	6,430.9	32.7	2.3	-84.62	-1,313.1	1,704.7	3,321.8	3,287.8	34.02	97.632	
7,677.1	6,644.3	6,429.4	6,428.1	34.6	2.3	-84.54	-1,313.0	1,704.6	3,382.4	3,346.4	35.91	94.196	
7,700.0	6,644.3	6,428.6	6,427.3	35.1	2.3	-84.52	-1,312.9	1,704.6	3,400.4	3,363.9	36.47	93.250	
7,775.6	6,644.2	6,425.8	6,424.5	37.0	2.3	-84.45	-1,312.8	1,704.5	3,460.5	3,422.2	38.35	90.240	
7,800.0	6,644.2	6,424.9	6,423.6	37.6	2.3	-84.42	-1,312.8	1,704.4	3,480.1	3,441.2	38.96	89.333	
7,874.0	6,644.1	6,422.2	6,420.9	39.5	2.3	-84.35	-1,312.7	1,704.3	3,539.8	3,498.9	40.83	86.696	
7,900.0	6,644.1	6,421.3	6,420.0	40.1	2.3	-84.32	-1,312.7	1,704.3	3,560.8	3,519.3	41.49	85.829	
7,972.4	6,644.0	6,418.7	6,417.4	42.0	2.3	-84.25	-1,312.6	1,704.2	3,619.9	3,576.5	43.34	83.515	
8,000.0	6,643.9	6,417.7	6,416.4	42.7	2.3	-84.22	-1,312.5	1,704.1	3,642.5	3,598.5	44.05	82.689	
8,070.8	6,643.9	6,415.1	6,413.8	44.5	2.3	-84.15	-1,312.4	1,704.0	3,700.9	3,655.0	45.89	80.655	
8,100.0	6,643.8	6,414.1	6,412.8	45.2	2.3	-84.12	-1,312.4	1,704.0	3,725.1	3,678.4	46.64	79.868	
8,169.3	6,643.7	6,411.6	6,410.3	47.0	2.3	-84.05	-1,312.3	1,703.9	3,782.7	3,734.3	48.45	78.075	
8,200.0	6,643.7	6,410.5	6,409.2	47.9	2.3	-84.02	-1,312.2	1,703.8	3,808.5	3,759.2	49.25	77.326	
8,267.7	6,643.6	6,400.0	6,398.7	49.6	2.3	-83.74	-1,311.9	1,703.4	3,865.4	3,814.4	51.01	75.776	
8,300.0	6,643.6	6,400.0	6,398.7	50.5	2.3	-83.74	-1,311.9	1,703.4	3,892.6	3,840.8	51.86	75.057	
8,366.1	6,643.5	6,400.0	6,398.7	52.2	2.3	-83.74	-1,311.9	1,703.4	3,948.7	3,895.1	53.62	73.644	
8,400.0	6,643.4	6,400.0	6,398.7	53.1	2.3	-83.74	-1,311.9	1,703.4	3,977.5	3,923.0	54.52	72.958	
8,464.5	6,643.4	6,400.0	6,398.7	54.8	2.3	-83.74	-1,311.9	1,703.4	4,032.7	3,976.5	56.24	71.704	
8,500.0	6,643.3	6,400.0	6,398.7	55.8	2.3	-83.74	-1,311.9	1,703.4	4,063.1	4,005.9	57.19	71.050	
8,563.0	6,643.2	6,400.0	6,398.7	57.5	2.3	-83.74	-1,311.9	1,703.4	4,117.3	4,058.5	58.88	69.934	
8,600.0	6,643.2	6,400.0	6,398.7	58.5	2.3	-83.74	-1,311.9	1,703.4	4,149.3	4,089.5	59.87	69.309	
8,661.4	6,643.1	6,393.5	6,392.2	60.1	2.3	-83.56	-1,311.6	1,703.1	4,202.6	4,141.1	61.50	68.337	
8,700.0	6,643.1	6,392.0	6,390.7	61.2	2.3	-83.52	-1,311.6	1,703.0	4,236.2	4,173.6	62.53	67.744	
8,759.8	6,643.0	6,389.7	6,388.4	62.8	2.3	-83.45	-1,311.5	1,702.9	4,288.4	4,224.2	64.14	66.861	
8,800.0	6,643.0	6,388.1	6,386.9	63.9	2.3	-83.41	-1,311.4	1,702.9	4,323.6	4,258.3	65.22	66.295	
8,858.2	6,642.9	6,385.9	6,384.6	65.4	2.3	-83.35	-1,311.3	1,702.8	4,374.7	4,307.9	66.79	65.504	
8,900.0	6,642.8	6,384.3	6,383.0	66.6	2.3	-83.30	-1,311.3	1,702.7	4,411.5	4,343.6	67.91	64.962	
8,956.7	6,642.8	6,382.1	6,380.8	68.1	2.3	-83.24	-1,311.2	1,702.6	4,461.5	4,392.1	69.44	64.252	
9,000.0	6,642.7	6,380.4	6,379.2	69.3	2.3	-83.20	-1,311.1	1,702.5	4,499.9	4,429.3	70.61	63.732	
9,055.1	6,642.6	6,378.3	6,377.1	70.8	2.3	-83.14	-1,311.1	1,702.5	4,548.8	4,476.7	72.10	63.094	
9,100.0	6,642.6	6,376.6	6,375.3	72.0	2.3	-83.09	-1,311.0	1,702.4	4,588.8	4,515.5	73.31	62.595	
9,153.5	6,642.5	6,374.5	6,373.3	73.5	2.3	-83.04	-1,310.9	1,702.3	4,636.6	4,561.8	74.76	62.020	
9,200.0	6,642.5	6,372.7	6,371.5	74.7	2.3	-82.99	-1,310.9	1,702.2	4,678.1	4,602.1	76.02	61.541	
9,251.9	6,642.4	6,370.8	6,369.5	76.2	2.3	-82.93	-1,310.8	1,702.1	4,724.7	4,647.3	77.42	61.023	
9,300.0	6,642.3	6,368.9	6,367.7	77.5	2.3	-82.88	-1,310.7	1,702.1	4,767.9	4,689.2	78.73	60.562	
9,350.4	6,642.3	6,367.0	6,365.8	78.9	2.3	-82.83	-1,310.7	1,702.0	4,813.3	4,733.2	80.09	60.095	
9,400.0	6,642.2	6,365.1	6,363.9	80.2	2.3	-82.78	-1,310.6	1,701.9	4,858.1	4,776.6	81.44	59.651	
9,448.8	6,642.1	6,363.2	6,362.0	81.6	2.3	-82.73	-1,310.5	1,701.8	4,902.2	4,819.4	82.77	59.229	
9,500.0	6,642.1	6,361.3	6,360.1	83.0	2.3	-82.67	-1,310.4	1,701.8	4,948.6	4,864.4	84.16	58.802	
9,547.2	6,642.0	6,359.5	6,358.3	84.3	2.3	-82.62	-1,310.4	1,701.7	4,991.5	4,906.0	85.44	58.420	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,600.0	6,642.0	6,357.5	6,356.3	85.7	2.3	-82.57	-1,310.3	1,701.6	5,039.5	4,952.6	86.88	58.008	
9,645.6	6,641.9	6,355.8	6,354.5	87.0	2.3	-82.52	-1,310.3	1,701.5	5,081.1	4,993.0	88.12	57.662	
9,700.0	6,641.8	6,353.7	6,352.5	88.5	2.3	-82.46	-1,310.2	1,701.4	5,130.7	5,041.1	89.60	57.265	
9,744.1	6,641.8	6,352.0	6,350.8	89.7	2.3	-82.42	-1,310.1	1,701.4	5,171.0	5,080.2	90.80	56.952	
9,800.0	6,641.7	6,349.9	6,348.7	91.2	2.3	-82.36	-1,310.0	1,701.3	5,222.2	5,129.9	92.32	56.568	
9,842.5	6,641.7	6,348.3	6,347.1	92.4	2.3	-82.32	-1,310.0	1,701.2	5,261.2	5,167.8	93.48	56.285	
9,900.0	6,641.6	6,346.1	6,344.9	94.0	2.3	-82.26	-1,309.9	1,701.1	5,314.1	5,219.0	95.04	55.914	
9,940.9	6,641.5	6,344.6	6,343.4	95.1	2.3	-82.22	-1,309.9	1,701.1	5,351.8	5,255.6	96.16	55.657	
10,000.0	6,641.5	6,342.4	6,341.2	96.7	2.3	-82.15	-1,309.8	1,701.0	5,406.2	5,308.4	97.77	55.298	
10,039.3	6,641.4	6,340.9	6,339.7	97.8	2.3	-82.11	-1,309.7	1,700.9	5,442.5	5,343.7	98.84	55.065	
10,100.0	6,641.3	6,338.6	6,337.4	99.5	2.3	-82.05	-1,309.6	1,700.8	5,498.6	5,398.1	100.49	54.718	
10,137.8	6,641.3	6,337.2	6,336.0	100.6	2.3	-82.01	-1,309.6	1,700.8	5,533.6	5,432.1	101.52	54.507	
10,200.0	6,641.2	6,334.9	6,333.7	102.3	2.3	-81.95	-1,309.5	1,700.7	5,591.3	5,488.1	103.22	54.171	
10,236.2	6,641.2	6,333.5	6,332.3	103.3	2.3	-81.91	-1,309.5	1,700.6	5,624.9	5,520.7	104.20	53.980	
10,300.0	6,641.1	6,331.1	6,330.0	105.0	2.3	-81.85	-1,309.4	1,700.5	5,684.2	5,578.2	105.94	53.654	
10,334.6	6,641.0	6,329.8	6,328.7	106.0	2.3	-81.81	-1,309.3	1,700.5	5,716.4	5,609.5	106.89	53.481	
10,400.0	6,641.0	6,327.4	6,326.2	107.8	2.3	-81.75	-1,309.3	1,700.4	5,777.3	5,668.7	108.67	53.165	
10,433.0	6,640.9	6,326.2	6,325.0	108.7	2.3	-81.71	-1,309.2	1,700.3	5,808.2	5,698.6	109.57	53.009	
10,500.0	6,640.8	6,323.7	6,322.5	110.6	2.3	-81.64	-1,309.1	1,700.2	5,870.7	5,759.3	111.39	52.702	
10,531.5	6,640.8	6,322.5	6,321.3	111.5	2.3	-81.61	-1,309.1	1,700.2	5,900.1	5,787.9	112.25	52.561	
10,600.0	6,640.7	6,320.0	6,318.8	113.4	2.3	-81.54	-1,309.0	1,700.1	5,964.3	5,850.1	114.12	52.263	
10,629.9	6,640.7	6,318.8	6,317.7	114.2	2.3	-81.51	-1,309.0	1,700.0	5,992.3	5,877.3	114.94	52.136	
10,700.0	6,640.6	6,316.3	6,315.1	116.1	2.3	-81.44	-1,308.9	1,699.9	6,058.0	5,941.2	116.85	51.846	
10,728.3	6,640.5	6,315.2	6,314.0	116.9	2.3	-81.41	-1,308.8	1,699.9	6,084.6	5,967.0	117.62	51.732	
10,800.0	6,640.5	6,312.6	6,311.4	118.9	2.3	-81.34	-1,308.7	1,699.8	6,152.0	6,032.4	119.57	51.450	
10,826.7	6,640.4	6,311.6	6,310.4	119.7	2.3	-81.31	-1,308.7	1,699.7	6,177.2	6,056.9	120.30	51.348	
10,900.0	6,640.3	6,308.9	6,307.7	121.7	2.3	-81.24	-1,308.6	1,699.6	6,246.2	6,123.9	122.30	51.074	
10,925.2	6,640.3	6,307.9	6,306.8	122.4	2.3	-81.21	-1,308.6	1,699.6	6,269.9	6,146.9	122.98	50.982	
11,000.0	6,640.2	6,300.0	6,298.9	124.5	2.3	-81.00	-1,308.3	1,699.2	6,340.5	6,215.5	124.98	50.733	
11,023.6	6,640.2	6,300.0	6,298.9	125.1	2.3	-81.00	-1,308.3	1,699.2	6,362.8	6,237.2	125.63	50.648	
11,100.0	6,640.1	6,300.0	6,298.9	127.3	2.3	-81.00	-1,308.3	1,699.2	6,435.0	6,307.3	127.73	50.379	
11,122.0	6,640.0	6,300.0	6,298.9	127.9	2.3	-81.00	-1,308.3	1,699.2	6,455.8	6,327.5	128.34	50.303	
11,200.0	6,639.9	6,300.0	6,298.9	130.1	2.3	-81.00	-1,308.3	1,699.2	6,529.7	6,399.2	130.49	50.040	
11,220.4	6,639.9	6,300.0	6,298.9	130.6	2.3	-81.00	-1,308.3	1,699.2	6,549.0	6,418.0	131.05	49.973	
11,300.0	6,639.8	6,293.9	6,292.8	132.8	2.3	-80.83	-1,308.1	1,699.0	6,624.5	6,491.3	133.19	49.737	
11,318.9	6,639.8	6,293.2	6,292.1	133.4	2.3	-80.81	-1,308.1	1,699.0	6,642.4	6,508.7	133.70	49.680	
11,400.0	6,639.7	6,290.1	6,289.0	135.6	2.3	-80.73	-1,308.0	1,698.8	6,719.4	6,583.5	135.91	49.440	
11,417.3	6,639.7	6,289.5	6,288.4	136.1	2.3	-80.71	-1,308.0	1,698.8	6,735.9	6,599.5	136.38	49.390	
11,500.0	6,639.6	6,286.4	6,285.2	138.4	2.3	-80.63	-1,307.9	1,698.7	6,814.5	6,675.9	138.63	49.157	
11,515.7	6,639.5	6,285.8	6,284.7	138.9	2.3	-80.61	-1,307.8	1,698.7	6,829.5	6,690.5	139.06	49.113	
11,600.0	6,639.4	6,282.6	6,281.5	141.2	2.3	-80.52	-1,307.7	1,698.5	6,909.8	6,768.4	141.35	48.885	
11,614.1	6,639.4	6,282.1	6,280.9	141.6	2.3	-80.51	-1,307.7	1,698.5	6,923.3	6,781.5	141.73	48.848	
11,700.0	6,639.3	6,278.8	6,277.7	144.0	2.3	-80.42	-1,307.6	1,698.4	7,005.2	6,861.1	144.06	48.625	
11,712.6	6,639.3	6,278.3	6,277.2	144.3	2.3	-80.41	-1,307.6	1,698.4	7,017.2	6,872.8	144.41	48.593	
11,800.0	6,639.2	6,275.1	6,274.0	146.8	2.3	-80.32	-1,307.5	1,698.2	7,100.7	6,953.9	146.78	48.376	
11,811.0	6,639.2	6,274.7	6,273.6	147.1	2.3	-80.31	-1,307.5	1,698.2	7,111.2	6,964.1	147.08	48.349	
11,900.0	6,639.1	6,271.3	6,270.2	149.6	2.3	-80.22	-1,307.3	1,698.1	7,196.3	7,046.8	149.50	48.137	
11,909.4	6,639.0	6,271.0	6,269.9	149.8	2.3	-80.21	-1,307.3	1,698.1	7,205.3	7,055.5	149.75	48.115	
12,000.0	6,638.9	6,267.6	6,266.5	152.4	2.3	-80.12	-1,307.2	1,697.9	7,292.0	7,139.8	152.21	47.908	
12,007.8	6,638.9	6,267.3	6,266.2	152.6	2.3	-80.11	-1,307.2	1,697.9	7,299.5	7,147.1	152.42	47.890	
12,100.0	6,638.8	6,263.9	6,262.8	155.2	2.3	-80.02	-1,307.1	1,697.8	7,387.9	7,232.9	154.92	47.688	
12,106.3	6,638.8	6,263.6	6,262.6	155.3	2.3	-80.01	-1,307.1	1,697.8	7,393.9	7,238.8	155.09	47.674	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,200.0	6,638.7	6,260.2	6,259.1	157.9	2.3	-79.92	-1,307.0	1,697.6	7,483.8	7,326.2	157.63	47.476	
12,204.7	6,638.7	6,260.0	6,258.9	158.1	2.3	-79.91	-1,307.0	1,697.6	7,488.3	7,330.6	157.76	47.467	
12,300.0	6,638.5	6,256.5	6,255.4	160.7	2.3	-79.81	-1,306.8	1,697.5	7,579.9	7,419.5	160.34	47.273	
12,303.1	6,638.5	6,256.3	6,255.3	160.8	2.3	-79.81	-1,306.8	1,697.5	7,582.9	7,422.4	160.43	47.267	
12,400.0	6,638.4	6,252.8	6,251.7	163.5	2.3	-79.71	-1,306.7	1,697.3	7,676.0	7,513.0	163.05	47.078	
12,401.5	6,638.4	6,252.7	6,251.6	163.6	2.3	-79.71	-1,306.7	1,697.3	7,677.5	7,514.4	163.09	47.075	
12,500.0	6,638.3	6,249.1	6,248.0	166.3	2.3	-79.62	-1,306.6	1,697.2	7,772.3	7,606.5	165.76	46.889	
12,598.4	6,638.2	6,245.5	6,244.4	169.1	2.3	-79.52	-1,306.5	1,697.0	7,867.1	7,698.6	168.42	46.711	
12,600.0	6,638.2	6,245.4	6,244.3	169.1	2.3	-79.52	-1,306.5	1,697.0	7,868.6	7,700.1	168.46	46.708	
12,696.8	6,638.0	6,241.9	6,240.8	171.8	2.3	-79.42	-1,306.4	1,696.9	7,962.0	7,790.9	171.08	46.539	
12,700.0	6,638.0	6,241.7	6,240.7	171.9	2.3	-79.42	-1,306.3	1,696.9	7,965.0	7,793.9	171.17	46.534	
12,795.2	6,637.9	6,238.3	6,237.2	174.6	2.2	-79.32	-1,306.2	1,696.8	8,057.0	7,883.2	173.74	46.374	
12,800.0	6,637.9	6,238.1	6,237.0	174.7	2.2	-79.32	-1,306.2	1,696.8	8,061.5	7,887.7	173.87	46.366	
12,893.7	6,637.8	6,234.7	6,233.6	177.3	2.2	-79.23	-1,306.1	1,696.6	8,152.0	7,975.6	176.40	46.214	
12,900.0	6,637.8	6,234.4	6,233.4	177.5	2.2	-79.22	-1,306.1	1,696.6	8,158.1	7,981.6	176.57	46.204	
12,992.1	6,637.7	6,231.1	6,230.1	180.1	2.2	-79.13	-1,306.0	1,696.5	8,247.2	8,068.1	179.05	46.059	
13,000.0	6,637.6	6,230.8	6,229.8	180.3	2.2	-79.12	-1,306.0	1,696.5	8,254.8	8,075.5	179.27	46.047	
13,090.5	6,637.5	6,227.5	6,226.5	182.8	2.2	-79.03	-1,305.9	1,696.3	8,342.4	8,160.7	181.71	45.910	
13,100.0	6,637.5	6,227.2	6,226.2	183.1	2.2	-79.02	-1,305.9	1,696.3	8,351.6	8,169.6	181.97	45.896	
13,188.9	6,637.4	6,224.0	6,223.0	185.6	2.2	-78.94	-1,305.7	1,696.2	8,437.7	8,253.3	184.36	45.767	
13,200.0	6,637.4	6,223.6	6,222.6	185.9	2.2	-78.93	-1,305.7	1,696.2	8,448.4	8,263.7	184.66	45.751	
13,287.4	6,637.3	6,220.4	6,219.4	188.4	2.2	-78.84	-1,305.6	1,696.1	8,533.0	8,346.0	187.02	45.628	
13,300.0	6,637.3	6,220.0	6,219.0	188.7	2.2	-78.83	-1,305.6	1,696.0	8,545.3	8,357.9	187.35	45.610	
13,385.8	6,637.1	6,216.9	6,215.9	191.1	2.2	-78.75	-1,305.5	1,695.9	8,628.5	8,438.8	189.67	45.493	
13,400.0	6,637.1	6,216.4	6,215.4	191.5	2.2	-78.73	-1,305.5	1,695.9	8,642.2	8,452.2	190.05	45.474	
13,484.2	6,637.0	6,213.4	6,212.4	193.9	2.2	-78.65	-1,305.4	1,695.8	8,724.0	8,531.7	192.31	45.363	
13,500.0	6,637.0	6,212.8	6,211.8	194.3	2.2	-78.64	-1,305.4	1,695.8	8,739.3	8,546.5	192.74	45.343	
13,582.6	6,636.9	6,209.9	6,208.8	196.6	2.2	-78.56	-1,305.3	1,695.6	8,819.5	8,624.6	194.96	45.238	
13,600.0	6,636.9	6,209.2	6,208.2	197.1	2.2	-78.54	-1,305.3	1,695.6	8,836.4	8,641.0	195.43	45.216	
13,681.1	6,636.8	6,206.3	6,205.3	199.4	2.2	-78.46	-1,305.2	1,695.5	8,915.1	8,717.5	197.61	45.116	
13,700.0	6,636.7	6,200.0	6,199.0	199.9	2.2	-78.29	-1,304.9	1,695.3	8,933.5	8,735.5	198.01	45.116	
13,779.5	6,636.6	6,200.0	6,199.0	202.1	2.2	-78.29	-1,304.9	1,695.3	9,010.8	8,810.6	200.20	45.009	
13,800.0	6,636.6	6,200.0	6,199.0	202.7	2.2	-78.29	-1,304.9	1,695.3	9,030.8	8,830.0	200.76	44.983	
13,877.9	6,636.5	6,200.0	6,199.0	204.9	2.2	-78.29	-1,304.9	1,695.3	9,106.6	8,903.7	202.90	44.882	
13,900.0	6,636.5	6,200.0	6,199.0	205.5	2.2	-78.29	-1,304.9	1,695.3	9,128.0	8,924.5	203.51	44.853	
13,976.3	6,636.4	6,200.0	6,199.0	207.6	2.2	-78.29	-1,304.9	1,695.3	9,202.3	8,996.7	205.61	44.757	
14,000.0	6,636.3	6,200.0	6,199.0	208.3	2.2	-78.29	-1,304.9	1,695.3	9,225.4	9,019.1	206.26	44.728	
14,074.8	6,636.3	6,200.0	6,199.0	210.4	2.2	-78.29	-1,304.9	1,695.3	9,298.2	9,089.9	208.31	44.636	
14,100.0	6,636.2	6,200.0	6,199.0	211.1	2.2	-78.29	-1,304.9	1,695.3	9,322.8	9,113.8	209.00	44.606	
14,173.2	6,636.1	6,200.0	6,199.0	213.2	2.2	-78.29	-1,304.9	1,695.3	9,394.1	9,183.1	211.01	44.519	
14,200.0	6,636.1	6,200.0	6,199.0	213.9	2.2	-78.29	-1,304.9	1,695.3	9,420.2	9,208.5	211.75	44.487	
14,271.6	6,636.0	6,200.0	6,199.0	215.9	2.2	-78.29	-1,304.9	1,695.3	9,490.0	9,276.3	213.72	44.404	
14,300.0	6,636.0	6,200.0	6,199.0	216.7	2.2	-78.29	-1,304.9	1,695.3	9,517.7	9,303.2	214.50	44.372	
14,370.0	6,635.9	6,200.0	6,199.0	218.7	2.2	-78.29	-1,304.9	1,695.3	9,586.0	9,369.6	216.42	44.293	
14,400.0	6,635.8	6,200.0	6,199.0	219.5	2.2	-78.29	-1,304.9	1,695.3	9,615.3	9,398.0	217.25	44.260	
14,468.5	6,635.7	6,200.0	6,199.0	221.4	2.2	-78.29	-1,304.9	1,695.3	9,682.1	9,463.0	219.13	44.185	
14,500.0	6,635.7	6,200.0	6,199.0	222.3	2.2	-78.29	-1,304.9	1,695.3	9,712.9	9,492.9	219.99	44.151	
14,566.9	6,635.6	6,200.0	6,199.0	224.2	2.2	-78.29	-1,304.9	1,695.3	9,778.2	9,556.3	221.83	44.079	
14,600.0	6,635.6	6,181.0	6,180.1	225.1	2.2	-77.78	-1,304.3	1,694.5	9,810.5	9,588.1	222.36	44.120	
14,665.3	6,635.5	6,179.4	6,178.4	226.9	2.2	-77.74	-1,304.2	1,694.5	9,874.3	9,650.2	224.12	44.059	
14,700.0	6,635.4	6,178.5	6,177.6	227.9	2.2	-77.71	-1,304.2	1,694.4	9,908.2	9,683.1	225.05	44.026	
14,763.7	6,635.4	6,177.0	6,176.0	229.7	2.2	-77.67	-1,304.2	1,694.4	9,970.5	9,743.7	226.77	43.968 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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are 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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	113.30	-1,207.9	2,805.3	3,054.4				
98.4	98.4	86.0	86.0	0.1	0.0	113.29	-1,207.7	2,805.3	3,054.2	3,054.1	0.10	N/A	
100.0	100.0	87.6	87.6	0.1	0.0	113.29	-1,207.7	2,805.3	3,054.2	3,054.1	0.10	N/A	
196.8	196.8	181.2	181.2	0.3	0.1	113.29	-1,207.5	2,805.3	3,054.1	3,053.7	0.40	7,723.165	
200.0	200.0	184.2	184.2	0.3	0.1	113.29	-1,207.4	2,805.3	3,054.1	3,053.7	0.41	7,532.038	
295.3	295.3	294.5	294.5	0.5	0.2	113.28	-1,207.2	2,805.1	3,053.8	3,053.1	0.74	4,136.780	
300.0	300.0	300.0	300.0	0.5	0.2	113.28	-1,207.2	2,805.0	3,053.8	3,053.1	0.75	4,045.551	
364.9	364.9	346.9	346.9	0.7	0.2	113.28	-1,207.0	2,805.0	3,053.6	3,052.7	0.91	3,344.486	CC
393.7	393.7	367.7	367.7	0.8	0.2	113.28	-1,206.9	2,805.0	3,053.7	3,052.7	0.98	3,106.144	
400.0	400.0	372.2	372.2	0.8	0.2	113.28	-1,206.9	2,805.0	3,053.7	3,052.7	1.00	3,058.426	
492.1	492.1	461.0	461.0	1.0	0.3	113.27	-1,206.4	2,805.8	3,054.2	3,052.9	1.26	2,425.005	
500.0	500.0	470.0	470.0	1.0	0.3	113.26	-1,206.3	2,805.9	3,054.2	3,052.9	1.28	2,378.609	
590.5	590.5	552.0	552.0	1.2	0.4	113.24	-1,205.4	2,806.6	3,054.6	3,053.0	1.54	1,979.477	
600.0	600.0	559.7	559.7	1.2	0.4	113.24	-1,205.3	2,806.7	3,054.7	3,053.1	1.57	1,946.694	
689.0	689.0	647.5	647.5	1.4	0.4	113.22	-1,204.7	2,807.8	3,055.4	3,053.6	1.82	1,677.452	
700.0	700.0	660.8	660.8	1.4	0.4	113.22	-1,204.6	2,808.0	3,055.5	3,053.7	1.85	1,648.165	
787.4	787.4	757.4	757.3	1.6	0.5	113.20	-1,203.8	2,808.8	3,056.0	3,053.9	2.10	1,453.196	
800.0	800.0	770.5	770.5	1.7	0.5	113.20	-1,203.7	2,808.9	3,056.0	3,053.9	2.14	1,429.277	
885.8	885.8	864.3	864.3	1.9	0.5	113.18	-1,203.1	2,809.5	3,056.2	3,053.9	2.38	1,286.191	
900.0	900.0	880.1	880.1	1.9	0.5	113.18	-1,203.0	2,809.5	3,056.2	3,053.8	2.42	1,265.341	
984.2	984.2	952.1	952.0	2.1	0.6	113.17	-1,202.5	2,809.9	3,056.4	3,053.8	2.64	1,159.602	
1,000.0	1,000.0	964.4	964.3	2.1	0.6	113.17	-1,202.4	2,810.0	3,056.5	3,053.8	2.68	1,142.049	
1,082.7	1,082.7	1,040.5	1,040.5	2.3	0.6	86.16	-1,201.7	2,810.9	3,057.1	3,054.2	2.87	1,063.420	
1,100.0	1,100.0	1,059.4	1,059.3	2.3	0.6	86.16	-1,201.5	2,811.2	3,057.2	3,054.2	2.92	1,046.705	
1,181.1	1,181.0	1,146.6	1,146.6	2.5	0.7	86.22	-1,200.8	2,812.1	3,057.4	3,054.3	3.13	975.495	
1,200.0	1,199.8	1,166.8	1,166.7	2.6	0.7	86.24	-1,200.7	2,812.3	3,057.4	3,054.2	3.18	960.366	
1,279.5	1,279.1	1,249.2	1,249.2	2.8	0.7	86.36	-1,200.4	2,812.8	3,057.3	3,053.9	3.40	900.364	
1,300.0	1,299.5	1,270.1	1,270.0	2.8	0.7	86.40	-1,200.3	2,812.9	3,057.3	3,053.8	3.45	886.129	
1,377.9	1,376.9	1,348.2	1,348.1	3.0	0.8	86.57	-1,199.9	2,813.4	3,057.0	3,053.3	3.67	833.483	
1,400.0	1,398.7	1,370.0	1,370.0	3.0	0.8	86.62	-1,199.8	2,813.5	3,056.9	3,053.2	3.73	819.623	
1,476.4	1,474.2	1,443.6	1,443.5	3.2	0.8	86.83	-1,199.6	2,813.9	3,056.5	3,052.5	3.96	771.892	
1,500.0	1,497.5	1,465.9	1,465.8	3.3	0.8	86.90	-1,199.5	2,814.0	3,056.4	3,052.4	4.03	758.167	
1,574.8	1,571.0	1,538.2	1,538.1	3.5	0.8	87.16	-1,199.4	2,814.5	3,056.0	3,051.7	4.28	713.587	
1,600.0	1,595.6	1,563.0	1,563.0	3.6	0.8	87.25	-1,199.4	2,814.6	3,055.9	3,051.5	4.37	699.540	
1,673.2	1,667.2	1,639.0	1,638.9	3.9	0.9	87.55	-1,199.3	2,815.0	3,055.5	3,050.9	4.64	658.814	
1,700.0	1,693.4	1,668.2	1,668.1	4.0	0.9	87.66	-1,199.3	2,815.1	3,055.3	3,050.6	4.74	645.019	
1,771.6	1,763.5	1,737.8	1,737.8	4.2	0.9	87.92	-1,199.0	2,815.4	3,054.9	3,049.9	5.01	609.517	
1,800.0	1,791.3	1,763.1	1,763.0	4.3	0.9	88.02	-1,198.9	2,815.5	3,054.8	3,049.7	5.12	596.503	
1,870.1	1,859.8	1,831.1	1,831.0	4.6	0.9	88.28	-1,198.6	2,815.9	3,054.6	3,049.2	5.40	565.518	
1,900.0	1,889.1	1,863.6	1,863.5	4.7	1.0	88.40	-1,198.5	2,816.1	3,054.5	3,049.0	5.52	553.117	
1,968.5	1,956.1	1,928.9	1,928.8	4.9	1.0	88.65	-1,198.2	2,816.4	3,054.2	3,048.4	5.80	526.346	
1,999.5	1,986.4	1,954.5	1,954.4	5.1	1.0	88.74	-1,198.1	2,816.5	3,054.2	3,048.3	5.93	515.185	
2,000.0	1,986.9	1,955.0	1,954.9	5.1	1.0	88.75	-1,198.1	2,816.5	3,054.2	3,048.3	5.93	514.997	
2,066.9	2,052.3	2,012.2	2,012.1	5.3	1.0	88.97	-1,198.1	2,816.9	3,054.4	3,048.1	6.21	491.928	
2,100.0	2,084.7	2,044.5	2,044.4	5.5	1.0	89.09	-1,198.1	2,817.2	3,054.5	3,048.1	6.35	481.037	ES
2,165.3	2,148.6	2,109.0	2,108.9	5.7	1.0	89.34	-1,198.1	2,817.7	3,054.8	3,048.1	6.63	460.578	
2,200.0	2,182.5	2,145.4	2,145.3	5.9	1.1	89.48	-1,198.2	2,818.0	3,054.9	3,048.2	6.78	450.381	
2,263.8	2,244.9	2,210.7	2,210.6	6.1	1.1	89.73	-1,198.3	2,818.3	3,055.2	3,048.1	7.06	432.580	
2,300.0	2,280.3	2,243.4	2,243.3	6.3	1.1	89.86	-1,198.4	2,818.5	3,055.4	3,048.2	7.22	423.172	
2,362.2	2,341.2	2,300.0	2,299.9	6.5	1.1	90.08	-1,198.8	2,818.7	3,055.8	3,048.3	7.49	407.807	
2,400.0	2,378.1	2,332.9	2,332.8	6.7	1.1	90.21	-1,199.0	2,818.9	3,056.2	3,048.5	7.66	399.024	
2,460.6	2,437.4	2,386.3	2,386.2	6.9	1.1	90.43	-1,199.4	2,819.3	3,056.9	3,048.9	7.93	385.608	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,476.0	2,428.1	2,428.0	7.1	1.1	90.59	-1,199.6	2,819.7	3,057.4	3,049.3	8.10	377.292	
2,550.0	2,524.9	2,486.7	2,486.6	7.3	1.1	90.82	-1,200.0	2,820.1	3,057.9	3,049.6	8.33	367.117	
2,559.0	2,533.7	2,497.3	2,497.2	7.3	1.1	91.71	-1,200.1	2,820.1	3,058.0	3,049.7	8.37	365.409	
2,600.0	2,573.8	2,540.0	2,539.9	7.5	1.1	95.73	-1,200.4	2,820.2	3,058.8	3,050.3	8.54	357.999	
2,639.4	2,612.3	2,580.7	2,580.6	7.7	1.1	99.59	-1,200.7	2,820.3	3,060.1	3,051.4	8.70	351.615	
2,657.5	2,630.0	2,599.4	2,599.3	7.7	1.2	99.66	-1,200.8	2,820.3	3,060.9	3,052.1	8.78	348.628	
2,700.0	2,671.6	2,641.8	2,641.7	7.9	1.2	99.83	-1,201.1	2,820.3	3,062.6	3,053.6	8.96	341.834	
2,755.9	2,726.3	2,697.6	2,697.5	8.1	1.2	100.05	-1,201.5	2,820.3	3,064.8	3,055.6	9.21	332.837	
2,800.0	2,769.4	2,737.9	2,737.8	8.3	1.2	100.21	-1,201.8	2,820.4	3,066.6	3,057.2	9.40	326.097	
2,854.3	2,822.5	2,787.3	2,787.2	8.5	1.2	100.40	-1,202.1	2,820.4	3,069.0	3,059.3	9.65	318.157	
2,900.0	2,867.2	2,830.5	2,830.4	8.7	1.2	100.57	-1,202.5	2,820.5	3,071.0	3,061.2	9.85	311.776	
2,952.7	2,918.8	2,881.2	2,881.0	9.0	1.2	100.77	-1,202.9	2,820.6	3,073.4	3,063.4	10.09	304.708	
3,000.0	2,965.0	2,929.1	2,929.0	9.2	1.2	100.96	-1,203.4	2,820.7	3,075.6	3,065.3	10.30	298.648	
3,051.2	3,015.1	2,983.1	2,983.0	9.4	1.2	101.18	-1,203.9	2,820.8	3,078.0	3,067.5	10.53	292.339	
3,100.0	3,062.8	3,029.0	3,028.9	9.6	1.2	101.35	-1,204.2	2,820.8	3,080.3	3,069.5	10.75	286.602	
3,149.6	3,111.4	3,072.9	3,072.8	9.8	1.2	101.53	-1,204.6	2,820.9	3,082.6	3,071.7	10.97	281.023	
3,200.0	3,160.7	3,121.8	3,121.7	10.0	1.2	101.72	-1,205.1	2,821.0	3,085.2	3,074.0	11.20	275.575	
3,248.0	3,207.6	3,175.0	3,174.9	10.2	1.2	101.93	-1,205.6	2,821.1	3,087.5	3,076.1	11.41	270.553	
3,300.0	3,258.5	3,226.1	3,226.0	10.5	1.3	102.13	-1,206.0	2,821.1	3,090.1	3,078.4	11.64	265.361	
3,346.4	3,303.9	3,267.3	3,267.2	10.7	1.3	102.29	-1,206.4	2,821.1	3,092.4	3,080.6	11.85	260.920	
3,400.0	3,356.3	3,315.3	3,315.1	10.9	1.3	102.48	-1,207.0	2,821.2	3,095.2	3,083.1	12.09	255.984	
3,444.9	3,400.2	3,356.4	3,356.2	11.1	1.3	102.64	-1,207.5	2,821.2	3,097.7	3,085.4	12.29	252.004	
3,500.0	3,454.1	3,407.9	3,407.8	11.3	1.3	102.84	-1,208.1	2,821.4	3,100.7	3,088.2	12.54	247.283	
3,543.3	3,496.5	3,453.8	3,453.7	11.5	1.3	103.02	-1,208.7	2,821.5	3,103.2	3,090.4	12.73	243.692	
3,600.0	3,551.9	3,510.9	3,510.8	11.7	1.3	103.24	-1,209.4	2,821.6	3,106.3	3,093.3	12.99	239.150	
3,641.7	3,592.7	3,545.6	3,545.5	11.9	1.3	103.38	-1,209.8	2,821.6	3,108.7	3,095.6	13.18	235.955	
3,700.0	3,649.7	3,600.0	3,599.8	12.2	1.3	103.59	-1,210.6	2,821.8	3,112.3	3,098.8	13.44	231.631	
3,740.1	3,689.0	3,633.8	3,633.6	12.4	1.3	103.72	-1,211.1	2,822.0	3,114.8	3,101.2	13.62	228.759	
3,800.0	3,747.5	3,695.2	3,695.0	12.6	1.3	103.96	-1,211.9	2,822.3	3,118.5	3,104.6	13.89	224.577	
3,838.6	3,785.3	3,731.0	3,730.9	12.8	1.4	104.10	-1,212.4	2,822.5	3,120.9	3,106.9	14.06	221.983	
3,900.0	3,845.4	3,787.4	3,787.2	13.1	1.4	104.32	-1,213.2	2,822.8	3,124.9	3,110.6	14.33	217.994	
3,937.0	3,881.6	3,824.5	3,824.3	13.2	1.4	104.46	-1,213.8	2,823.0	3,127.3	3,112.8	14.50	215.657	
4,000.0	3,943.2	3,891.1	3,890.9	13.5	1.4	104.72	-1,214.7	2,823.3	3,131.5	3,116.7	14.79	211.791	
4,035.4	3,977.8	3,927.3	3,927.2	13.6	1.4	104.86	-1,215.1	2,823.5	3,133.8	3,118.8	14.95	209.685	
4,100.0	4,041.0	3,992.8	3,992.6	13.9	1.4	105.10	-1,215.8	2,823.8	3,138.0	3,122.7	15.24	205.966	
4,133.8	4,074.1	4,031.0	4,030.8	14.1	1.4	105.25	-1,216.2	2,824.0	3,140.2	3,124.8	15.39	204.073	
4,200.0	4,138.8	4,106.9	4,106.7	14.4	1.4	105.53	-1,216.8	2,824.1	3,144.3	3,128.6	15.68	200.479	
4,232.3	4,170.4	4,139.7	4,139.5	14.5	1.5	105.66	-1,217.1	2,824.1	3,146.3	3,130.5	15.83	198.798	
4,300.0	4,236.6	4,200.0	4,199.8	14.8	1.5	105.89	-1,217.6	2,824.0	3,150.5	3,134.3	16.12	195.383	
4,330.7	4,266.7	4,232.0	4,231.8	14.9	1.5	106.01	-1,217.9	2,824.0	3,152.4	3,136.1	16.26	193.867	
4,400.0	4,334.4	4,289.0	4,288.8	15.2	1.5	106.22	-1,218.5	2,824.1	3,157.0	3,140.4	16.57	190.575	
4,429.1	4,362.9	4,316.2	4,316.0	15.4	1.5	106.32	-1,218.7	2,824.2	3,159.0	3,142.3	16.70	189.215	
4,500.0	4,432.3	4,389.2	4,389.0	15.7	1.5	106.59	-1,219.2	2,824.6	3,163.9	3,146.8	17.01	185.960	
4,527.5	4,459.2	4,418.0	4,417.8	15.8	1.5	106.70	-1,219.4	2,824.7	3,165.7	3,148.6	17.14	184.736	
4,600.0	4,530.1	4,494.2	4,494.0	16.1	1.5	106.98	-1,220.1	2,824.9	3,170.7	3,153.2	17.46	181.618	
4,626.0	4,555.5	4,519.1	4,518.9	16.2	1.5	107.07	-1,220.3	2,824.9	3,172.4	3,154.9	17.57	180.531	
4,700.0	4,627.9	4,588.2	4,588.0	16.6	1.6	107.33	-1,220.9	2,825.0	3,177.6	3,159.7	17.90	177.522	
4,724.4	4,651.7	4,613.3	4,613.1	16.7	1.6	107.42	-1,221.1	2,825.1	3,179.3	3,161.3	18.01	176.553	
4,800.0	4,725.7	4,698.5	4,698.3	17.0	1.6	107.73	-1,221.6	2,825.2	3,184.5	3,166.2	18.34	173.613	
4,822.8	4,748.0	4,717.0	4,716.8	17.1	1.6	107.80	-1,221.7	2,825.2	3,186.1	3,167.6	18.44	172.756	
4,904.9	4,828.3	4,781.7	4,781.5	17.5	1.6	108.04	-1,222.3	2,825.3	3,192.0	3,173.2	18.80	169.772	
4,921.2	4,844.3	4,800.0	4,799.8	17.5	1.6	108.13	-1,222.6	2,825.3	3,193.2	3,174.3	18.86	169.294	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	4,921.6	4,874.0	4,873.8	17.8	1.6	108.48	-1,223.6	2,825.5	3,198.7	3,179.6	19.15	167.029		
5,019.7	4,941.0	4,894.4	4,894.1	17.9	1.6	108.57	-1,223.9	2,825.5	3,200.0	3,180.8	19.21	166.600		
5,100.0	5,020.4	4,973.6	4,973.4	18.1	1.7	108.88	-1,225.0	2,825.5	3,204.7	3,185.3	19.44	164.863		
5,118.1	5,038.3	4,991.4	4,991.2	18.2	1.7	108.95	-1,225.2	2,825.5	3,205.7	3,186.2	19.48	164.526		
5,200.0	5,119.6	5,092.6	5,092.3	18.4	1.7	109.24	-1,226.4	2,825.4	3,209.5	3,189.8	19.69	162.987		
5,216.5	5,136.0	5,112.8	5,112.5	18.4	1.7	109.29	-1,226.6	2,825.4	3,210.1	3,190.4	19.73	162.739		
5,300.0	5,219.2	5,210.6	5,210.4	18.6	1.7	109.49	-1,226.9	2,825.0	3,212.4	3,192.5	19.89	161.497		
5,314.9	5,234.1	5,225.4	5,225.1	18.6	1.7	109.51	-1,226.9	2,824.9	3,212.7	3,192.8	19.92	161.317		
5,400.0	5,319.1	5,309.7	5,309.4	18.8	1.7	109.61	-1,226.9	2,824.7	3,214.0	3,193.9	20.05	160.268		
5,413.4	5,332.4	5,323.2	5,323.0	18.8	1.7	109.62	-1,226.9	2,824.6	3,214.1	3,194.0	20.07	160.143		
5,504.9	5,423.9	5,414.5	5,414.2	18.9	1.7	128.07	-1,226.7	2,824.5	3,214.3	3,199.3	15.04	213.702		
5,511.8	5,430.8	5,420.9	5,420.7	18.9	1.7	128.07	-1,226.6	2,824.5	3,214.3	3,199.2	15.05	213.521		
5,600.0	5,519.0	5,503.6	5,503.4	19.0	1.7	128.06	-1,226.3	2,824.6	3,214.2	3,198.9	15.22	211.249		
5,610.2	5,529.3	5,515.6	5,515.3	19.0	1.7	128.06	-1,226.2	2,824.6	3,214.2	3,198.9	15.24	210.957		
5,700.0	5,619.0	5,617.7	5,617.4	19.2	1.7	128.05	-1,225.4	2,824.8	3,213.8	3,198.4	15.42	208.418		
5,708.6	5,627.7	5,626.4	5,626.1	19.2	1.7	128.04	-1,225.3	2,824.8	3,213.8	3,198.4	15.44	208.175		
5,800.0	5,719.0	5,721.1	5,720.8	19.3	1.7	128.03	-1,224.5	2,824.8	3,213.3	3,197.7	15.63	205.647		
5,807.1	5,726.1	5,729.2	5,729.0	19.3	1.7	128.03	-1,224.4	2,824.8	3,213.3	3,197.6	15.64	205.452		
5,900.0	5,819.0	5,828.1	5,827.9	19.4	1.7	128.03	-1,223.7	2,824.4	3,212.5	3,196.7	15.83	202.929		
5,905.5	5,824.5	5,833.1	5,832.8	19.4	1.7	128.03	-1,223.6	2,824.4	3,212.5	3,196.6	15.84	202.783		
6,003.9	5,923.0	5,928.3	5,928.0	19.6	1.7	128.01	-1,222.6	2,824.3	3,211.8	3,195.7	16.04	200.191		
6,009.8	5,928.8	5,935.1	5,934.9	19.6	1.7	128.01	-1,222.6	2,824.3	3,211.7	3,195.7	16.06	200.036		
6,016.9	5,936.0	5,943.5	5,943.2	19.6	1.7	-141.99	-1,222.5	2,824.3	3,211.7	3,190.8	20.92	153.518		
6,050.0	5,969.0	5,982.1	5,981.8	19.6	1.7	-141.99	-1,222.0	2,824.2	3,212.3	3,191.3	20.98	153.131		
6,100.0	6,018.8	6,025.5	6,025.2	19.7	1.7	-141.88	-1,221.5	2,824.1	3,215.4	3,194.4	21.04	152.849		
6,102.3	6,021.1	6,027.2	6,027.0	19.7	1.7	-141.87	-1,221.5	2,824.1	3,215.6	3,194.6	21.04	152.848		
6,150.0	6,068.1	6,062.0	6,061.7	19.7	1.7	-141.65	-1,221.2	2,824.1	3,221.4	3,200.4	21.06	152.932		
6,200.0	6,116.8	6,100.0	6,099.7	19.7	1.7	-141.30	-1,220.9	2,824.3	3,230.4	3,209.3	21.06	153.420		
6,200.8	6,117.5	6,100.0	6,099.7	19.7	1.7	-141.29	-1,220.9	2,824.3	3,230.6	3,209.5	21.06	153.434		
6,250.0	6,164.5	6,134.5	6,134.2	19.7	1.7	-140.81	-1,220.8	2,824.4	3,242.2	3,221.2	21.01	154.353		
6,299.2	6,210.4	6,169.7	6,169.4	19.7	1.7	-140.19	-1,220.9	2,824.6	3,256.6	3,235.7	20.91	155.739		
6,300.0	6,211.1	6,170.3	6,170.0	19.7	1.7	-140.18	-1,220.9	2,824.6	3,256.8	3,235.9	20.91	155.765		
6,350.0	6,256.4	6,206.0	6,205.7	19.7	1.7	-139.41	-1,221.2	2,824.8	3,274.2	3,253.4	20.77	157.664		
6,397.6	6,298.0	6,244.5	6,244.2	19.7	1.7	-138.55	-1,221.7	2,824.9	3,293.1	3,272.5	20.60	159.863		
6,400.0	6,300.0	6,246.4	6,246.1	19.7	1.7	-138.50	-1,221.7	2,824.9	3,294.1	3,273.5	20.59	159.981		
6,450.0	6,341.8	6,285.1	6,284.8	19.7	1.7	-137.43	-1,222.2	2,825.1	3,316.5	3,296.2	20.38	162.710		
6,496.0	6,378.6	6,320.0	6,319.7	19.7	1.7	-136.28	-1,222.7	2,825.2	3,339.3	3,319.1	20.18	165.502		
6,500.0	6,381.6	6,323.0	6,322.7	19.7	1.7	-136.17	-1,222.8	2,825.2	3,341.3	3,321.2	20.16	165.748		
6,550.0	6,419.2	6,359.5	6,359.2	19.6	1.8	-134.70	-1,223.3	2,825.4	3,368.4	3,348.5	19.94	168.944		
6,594.5	6,450.7	6,390.0	6,389.7	19.6	1.8	-133.18	-1,223.8	2,825.5	3,394.3	3,374.5	19.76	171.744		
6,600.0	6,454.4	6,393.7	6,393.4	19.6	1.8	-132.98	-1,223.9	2,825.5	3,397.6	3,377.9	19.74	172.082		
6,650.0	6,487.1	6,424.7	6,424.4	19.6	1.8	-130.97	-1,224.3	2,825.7	3,428.9	3,409.3	19.61	174.886		
6,692.9	6,513.0	6,449.1	6,448.8	19.6	1.8	-128.98	-1,224.7	2,825.8	3,457.2	3,437.7	19.56	176.781		
6,700.0	6,517.0	6,452.9	6,452.6	19.6	1.8	-128.62	-1,224.7	2,825.9	3,462.0	3,442.5	19.56	177.033		
6,750.0	6,544.1	6,478.4	6,478.1	19.6	1.8	-125.90	-1,225.1	2,826.0	3,497.0	3,477.3	19.62	178.220		
6,791.3	6,564.2	6,497.2	6,496.9	19.7	1.8	-123.33	-1,225.4	2,826.1	3,527.0	3,507.2	19.80	178.103		
6,800.0	6,568.2	6,501.1	6,500.8	19.7	1.8	-122.76	-1,225.5	2,826.2	3,533.5	3,513.7	19.82	178.248		
6,850.0	6,589.1	6,524.4	6,524.0	19.8	1.8	-119.20	-1,225.8	2,826.3	3,571.4	3,551.3	20.17	177.079		
6,889.7	6,603.5	6,540.4	6,540.1	19.9	1.8	-116.01	-1,226.1	2,826.4	3,602.5	3,582.0	20.54	175.400		
6,900.0	6,606.9	6,544.1	6,543.8	19.9	1.8	-115.12	-1,226.1	2,826.4	3,610.6	3,590.0	20.64	174.967		
6,950.0	6,621.3	6,560.3	6,559.9	20.2	1.8	-110.49	-1,226.4	2,826.5	3,650.9	3,629.7	21.19	172.309		
6,988.2	6,630.0	6,570.1	6,569.7	20.6	1.8	-106.56	-1,226.5	2,826.5	3,682.3	3,660.6	21.64	170.150		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,632.4	6,572.7	6,572.3	20.7	1.8	-105.28	-1,226.6	2,826.5	3,692.1	3,670.3	21.77	169.562	
7,050.0	6,640.0	6,581.2	6,580.9	21.4	1.8	-99.53	-1,226.7	2,826.5	3,733.9	3,711.6	22.35	167.041	
7,086.6	6,643.4	6,585.0	6,584.7	21.9	1.8	-95.03	-1,226.8	2,826.5	3,764.9	3,742.1	22.78	165.263	
7,100.0	6,644.2	6,585.9	6,585.5	22.1	1.8	-93.33	-1,226.8	2,826.5	3,776.3	3,753.4	22.94	164.636	
7,135.7	6,645.0	6,586.7	6,586.4	22.7	1.8	-88.71	-1,226.8	2,826.6	3,806.7	3,783.3	23.40	162.710	
7,185.0	6,644.9	6,586.5	6,586.2	23.6	1.8	-88.71	-1,226.8	2,826.6	3,848.9	3,824.6	24.36	158.032	
7,200.0	6,644.9	6,586.5	6,586.2	23.9	1.8	-88.70	-1,226.8	2,826.6	3,861.8	3,837.1	24.65	156.687	
7,283.4	6,644.8	6,586.2	6,585.8	25.6	1.8	-88.70	-1,226.8	2,826.6	3,933.6	3,907.2	26.37	149.142	
7,300.0	6,644.8	6,586.1	6,585.8	25.9	1.8	-88.69	-1,226.8	2,826.6	3,947.9	3,921.2	26.72	147.764	
7,381.9	6,644.7	6,585.8	6,585.4	27.7	1.8	-88.68	-1,226.8	2,826.5	4,018.9	3,990.4	28.52	140.906	
7,400.0	6,644.7	6,585.7	6,585.4	28.1	1.8	-88.68	-1,226.8	2,826.5	4,034.7	4,005.8	28.92	139.505	
7,480.3	6,644.6	6,585.4	6,585.1	29.9	1.8	-88.67	-1,226.8	2,826.5	4,104.8	4,074.1	30.78	133.363	
7,500.0	6,644.6	6,585.3	6,585.0	30.3	1.8	-88.67	-1,226.8	2,826.5	4,122.1	4,090.9	31.24	131.970	
7,578.7	6,644.5	6,585.0	6,584.7	32.2	1.8	-88.66	-1,226.8	2,826.5	4,191.3	4,158.2	33.12	126.552	
7,600.0	6,644.4	6,584.9	6,584.6	32.7	1.8	-88.66	-1,226.8	2,826.5	4,210.1	4,176.4	33.63	125.194	
7,677.1	6,644.3	6,584.6	6,584.3	34.6	1.8	-88.65	-1,226.8	2,826.5	4,278.3	4,242.7	35.52	120.435	
7,700.0	6,644.3	6,584.5	6,584.2	35.1	1.8	-88.65	-1,226.8	2,826.5	4,298.5	4,262.4	36.08	119.124	
7,775.6	6,644.2	6,584.2	6,583.9	37.0	1.8	-88.64	-1,226.8	2,826.5	4,365.7	4,327.7	37.98	114.951	
7,800.0	6,644.2	6,584.1	6,583.7	37.6	1.8	-88.63	-1,226.8	2,826.5	4,387.5	4,348.9	38.59	113.692	
7,874.0	6,644.1	6,583.8	6,583.4	39.5	1.8	-88.63	-1,226.8	2,826.5	4,453.6	4,413.2	40.48	110.031	
7,900.0	6,644.1	6,583.7	6,583.3	40.1	1.8	-88.62	-1,226.8	2,826.5	4,476.9	4,435.8	41.14	108.825	
7,972.4	6,644.0	6,583.4	6,583.0	42.0	1.8	-88.61	-1,226.8	2,826.5	4,542.0	4,499.0	43.01	105.608	
8,000.0	6,643.9	6,583.2	6,582.9	42.7	1.8	-88.61	-1,226.8	2,826.5	4,566.8	4,523.1	43.72	104.457	
8,070.8	6,643.9	6,582.9	6,582.6	44.5	1.8	-88.60	-1,226.7	2,826.5	4,630.7	4,585.2	45.57	101.623	
8,100.0	6,643.8	6,582.8	6,582.5	45.2	1.8	-88.60	-1,226.7	2,826.5	4,657.1	4,610.8	46.33	100.525	
8,169.3	6,643.7	6,582.5	6,582.2	47.0	1.8	-88.59	-1,226.7	2,826.5	4,719.9	4,671.7	48.15	98.023	
8,200.0	6,643.7	6,582.4	6,582.0	47.9	1.8	-88.58	-1,226.7	2,826.5	4,747.8	4,698.8	48.96	96.974	
8,267.7	6,643.6	6,582.1	6,581.7	49.6	1.8	-88.58	-1,226.7	2,826.5	4,809.4	4,758.6	50.75	94.758	
8,300.0	6,643.6	6,581.9	6,581.6	50.5	1.8	-88.57	-1,226.7	2,826.5	4,838.8	4,787.2	51.61	93.757	
8,366.1	6,643.5	6,581.6	6,581.3	52.2	1.8	-88.56	-1,226.7	2,826.5	4,899.2	4,845.8	53.37	91.790	
8,400.0	6,643.4	6,581.5	6,581.1	53.1	1.8	-88.56	-1,226.7	2,826.5	4,930.2	4,875.9	54.28	90.833	
8,464.5	6,643.4	6,581.2	6,580.8	54.8	1.8	-88.55	-1,226.7	2,826.5	4,989.4	4,933.4	56.01	89.083	
8,500.0	6,643.3	6,581.0	6,580.7	55.8	1.8	-88.54	-1,226.7	2,826.5	5,021.9	4,965.0	56.96	88.168	
8,563.0	6,643.2	6,580.7	6,580.4	57.5	1.8	-88.54	-1,226.7	2,826.5	5,079.9	5,021.2	58.66	86.606	
8,600.0	6,643.2	6,580.5	6,580.2	58.5	1.8	-88.53	-1,226.7	2,826.5	5,114.0	5,054.3	59.65	85.730	
8,661.4	6,643.1	6,580.3	6,579.9	60.1	1.8	-88.52	-1,226.7	2,826.5	5,170.6	5,109.3	61.31	84.332	
8,700.0	6,643.1	6,580.1	6,579.7	61.2	1.8	-88.52	-1,226.7	2,826.5	5,206.3	5,143.9	62.36	83.493	
8,759.8	6,643.0	6,579.8	6,579.5	62.8	1.8	-88.51	-1,226.7	2,826.5	5,261.7	5,197.7	63.98	82.240	
8,800.0	6,643.0	6,579.6	6,579.3	63.9	1.8	-88.50	-1,226.7	2,826.5	5,298.9	5,233.8	65.07	81.435	
8,858.2	6,642.9	6,579.3	6,579.0	65.4	1.8	-88.50	-1,226.7	2,826.5	5,353.0	5,286.3	66.65	80.310	
8,900.0	6,642.8	6,579.1	6,578.8	66.6	1.8	-88.49	-1,226.7	2,826.5	5,391.8	5,324.0	67.79	79.536	
8,956.7	6,642.8	6,578.8	6,578.5	68.1	1.8	-88.48	-1,226.7	2,826.5	5,444.5	5,375.2	69.34	78.523	
9,000.0	6,642.7	6,578.6	6,578.3	69.3	1.8	-88.47	-1,226.7	2,826.5	5,484.9	5,414.4	70.52	77.780	
9,055.1	6,642.6	6,578.3	6,578.0	70.8	1.8	-88.47	-1,226.7	2,826.5	5,536.3	5,464.3	72.02	76.867	
9,100.0	6,642.6	6,578.1	6,577.8	72.0	1.8	-88.46	-1,226.7	2,826.5	5,578.2	5,505.0	73.25	76.151	
9,153.5	6,642.5	6,577.8	6,577.5	73.5	1.8	-88.45	-1,226.7	2,826.5	5,628.3	5,553.6	74.72	75.326	
9,200.0	6,642.5	6,577.6	6,577.3	74.7	1.8	-88.45	-1,226.7	2,826.5	5,671.8	5,595.8	75.99	74.637	
9,251.9	6,642.4	6,577.3	6,577.0	76.2	1.8	-88.44	-1,226.7	2,826.5	5,720.5	5,643.1	77.42	73.891	
9,300.0	6,642.3	6,577.1	6,576.8	77.5	1.8	-88.43	-1,226.6	2,826.5	5,765.6	5,686.9	78.74	73.227	
9,350.4	6,642.3	6,576.8	6,576.5	78.9	1.8	-88.42	-1,226.6	2,826.5	5,812.9	5,732.8	80.12	72.552	
9,400.0	6,642.2	6,576.6	6,576.2	80.2	1.8	-88.41	-1,226.6	2,826.5	5,859.6	5,778.1	81.49	71.910	
9,448.8	6,642.1	6,576.3	6,576.0	81.6	1.8	-88.41	-1,226.6	2,826.5	5,905.6	5,822.7	82.83	71.298	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,500.0	6,642.1	6,576.0	6,575.7	83.0	1.8	-88.40	-1,226.6	2,826.5	5,953.8	5,869.6	84.24	70.678	
9,547.2	6,642.0	6,575.8	6,575.4	84.3	1.8	-88.39	-1,226.6	2,826.5	5,998.4	5,912.8	85.54	70.123	
9,600.0	6,642.0	6,575.5	6,575.2	85.7	1.8	-88.38	-1,226.6	2,826.5	6,048.2	5,961.2	87.00	69.523	
9,645.6	6,641.9	6,575.2	6,574.9	87.0	1.8	-88.38	-1,226.6	2,826.5	6,091.4	6,003.1	88.26	69.019	
9,700.0	6,641.8	6,574.9	6,574.6	88.5	1.8	-88.37	-1,226.6	2,826.5	6,142.8	6,053.0	89.76	68.439	
9,744.1	6,641.8	6,574.7	6,574.4	89.7	1.8	-88.36	-1,226.6	2,826.5	6,184.5	6,093.5	90.97	67.982	
9,800.0	6,641.7	6,574.4	6,574.0	91.2	1.8	-88.35	-1,226.6	2,826.5	6,237.5	6,145.0	92.52	67.419	
9,842.5	6,641.7	6,574.1	6,573.8	92.4	1.8	-88.34	-1,226.6	2,826.5	6,277.8	6,184.1	93.69	67.004	
9,900.0	6,641.6	6,573.8	6,573.5	94.0	1.8	-88.33	-1,226.6	2,826.5	6,332.4	6,237.1	95.28	66.458	
9,940.9	6,641.5	6,573.6	6,573.2	95.1	1.8	-88.33	-1,226.6	2,826.5	6,371.3	6,274.9	96.42	66.081	
10,000.0	6,641.5	6,573.2	6,572.9	96.7	1.8	-88.32	-1,226.6	2,826.5	6,427.4	6,329.4	98.05	65.552	
10,039.3	6,641.4	6,573.0	6,572.7	97.8	1.8	-88.31	-1,226.6	2,826.5	6,464.9	6,365.7	99.14	65.208	
10,100.0	6,641.3	6,572.6	6,572.3	99.5	1.8	-88.30	-1,226.6	2,826.5	6,522.6	6,421.8	100.82	64.695	
10,137.8	6,641.3	6,572.4	6,572.1	100.6	1.8	-88.29	-1,226.6	2,826.5	6,558.6	6,456.8	101.87	64.383	
10,200.0	6,641.2	6,572.1	6,571.7	102.3	1.8	-88.28	-1,226.6	2,826.5	6,618.0	6,514.4	103.59	63.884	
10,236.2	6,641.2	6,571.8	6,571.5	103.3	1.8	-88.28	-1,226.6	2,826.5	6,652.5	6,547.9	104.60	63.601	
10,300.0	6,641.1	6,571.4	6,571.1	105.0	1.8	-88.27	-1,226.6	2,826.5	6,713.4	6,607.1	106.37	63.115	
10,334.6	6,641.0	6,571.2	6,570.9	106.0	1.8	-88.26	-1,226.6	2,826.5	6,746.5	6,639.2	107.33	62.858	
10,400.0	6,641.0	6,570.8	6,570.5	107.8	1.8	-88.25	-1,226.5	2,826.5	6,809.1	6,699.9	109.14	62.386	
10,433.0	6,640.9	6,570.6	6,570.3	108.7	1.8	-88.24	-1,226.5	2,826.5	6,840.7	6,730.6	110.06	62.153	
10,500.0	6,640.8	6,570.2	6,569.9	110.6	1.8	-88.23	-1,226.5	2,826.5	6,904.8	6,792.9	111.92	61.693	
10,531.5	6,640.8	6,570.0	6,569.7	111.5	1.8	-88.22	-1,226.5	2,826.5	6,934.9	6,822.1	112.80	61.482	
10,600.0	6,640.7	6,569.6	6,569.2	113.4	1.8	-88.21	-1,226.5	2,826.5	7,000.6	6,885.9	114.70	61.034	
10,629.9	6,640.7	6,569.4	6,569.0	114.2	1.8	-88.20	-1,226.5	2,826.5	7,029.3	6,913.8	115.53	60.844	
10,700.0	6,640.6	6,568.9	6,568.6	116.1	1.8	-88.19	-1,226.5	2,826.5	7,096.6	6,979.1	117.48	60.407	
10,728.3	6,640.5	6,568.7	6,568.4	116.9	1.8	-88.19	-1,226.5	2,826.5	7,123.8	7,005.5	118.27	60.235	
10,800.0	6,640.5	6,568.3	6,567.9	118.9	1.8	-88.17	-1,226.5	2,826.5	7,192.7	7,072.4	120.26	59.809	
10,826.7	6,640.4	6,568.1	6,567.7	119.7	1.8	-88.17	-1,226.5	2,826.5	7,218.4	7,097.4	121.01	59.654	
10,900.0	6,640.3	6,567.6	6,567.3	121.7	1.8	-88.15	-1,226.5	2,826.5	7,288.8	7,165.8	123.04	59.238	
10,925.2	6,640.3	6,567.4	6,567.1	122.4	1.8	-88.15	-1,226.5	2,826.5	7,313.1	7,189.3	123.74	59.098	
11,000.0	6,640.2	6,566.9	6,566.6	124.5	1.8	-88.13	-1,226.5	2,826.5	7,385.1	7,259.3	125.83	58.693	
11,023.6	6,640.2	6,566.7	6,566.4	125.1	1.8	-88.13	-1,226.5	2,826.5	7,407.9	7,281.4	126.48	58.568	
11,100.0	6,640.1	6,566.2	6,565.9	127.3	1.8	-88.11	-1,226.5	2,826.5	7,481.5	7,352.9	128.61	58.172	
11,122.0	6,640.0	6,566.1	6,565.7	127.9	1.8	-88.11	-1,226.5	2,826.5	7,502.7	7,373.5	129.22	58.060	
11,200.0	6,639.9	6,565.5	6,565.2	130.1	1.8	-88.09	-1,226.5	2,826.5	7,578.0	7,446.6	131.40	57.673	
11,220.4	6,639.9	6,565.4	6,565.0	130.6	1.8	-88.09	-1,226.5	2,826.5	7,597.7	7,465.7	131.97	57.573	
11,300.0	6,639.8	6,564.8	6,564.5	132.8	1.8	-88.07	-1,226.4	2,826.5	7,674.5	7,540.3	134.18	57.195	
11,318.9	6,639.8	6,564.6	6,564.3	133.4	1.8	-88.07	-1,226.4	2,826.5	7,692.8	7,558.1	134.71	57.107	
11,400.0	6,639.7	6,564.0	6,563.7	135.6	1.8	-88.05	-1,226.4	2,826.5	7,771.2	7,634.2	136.97	56.737	
11,417.3	6,639.7	6,563.9	6,563.6	136.1	1.8	-88.05	-1,226.4	2,826.5	7,787.9	7,650.5	137.45	56.659	
11,500.0	6,639.6	6,563.3	6,563.0	138.4	1.8	-88.03	-1,226.4	2,826.5	7,867.9	7,728.1	139.76	56.297	
11,515.7	6,639.5	6,563.2	6,562.9	138.9	1.8	-88.02	-1,226.4	2,826.5	7,883.1	7,742.9	140.20	56.230	
11,600.0	6,639.4	6,562.5	6,562.2	141.2	1.8	-88.00	-1,226.4	2,826.5	7,964.7	7,822.2	142.54	55.875	
11,614.1	6,639.4	6,562.4	6,562.1	141.6	1.8	-88.00	-1,226.4	2,826.5	7,978.4	7,835.5	142.94	55.817	
11,700.0	6,639.3	6,561.8	6,561.4	144.0	1.8	-87.98	-1,226.4	2,826.5	8,061.6	7,916.3	145.33	55.470	
11,712.6	6,639.3	6,561.7	6,561.3	144.3	1.8	-87.98	-1,226.4	2,826.5	8,073.8	7,928.1	145.68	55.420	
11,800.0	6,639.2	6,561.0	6,560.6	146.8	1.8	-87.96	-1,226.4	2,826.5	8,158.6	8,010.4	148.12	55.080	
11,811.0	6,639.2	6,560.9	6,560.6	147.1	1.8	-87.96	-1,226.4	2,826.5	8,169.2	8,020.8	148.43	55.038	
11,900.0	6,639.1	6,560.2	6,559.8	149.6	1.8	-87.94	-1,226.4	2,826.5	8,255.6	8,104.7	150.91	54.705	
11,909.4	6,639.0	6,560.1	6,559.8	149.8	1.8	-87.93	-1,226.4	2,826.5	8,264.8	8,113.6	151.18	54.670	
12,000.0	6,638.9	6,559.3	6,559.0	152.4	1.8	-87.91	-1,226.4	2,826.5	8,352.7	8,199.0	153.70	54.343	
12,007.8	6,638.9	6,559.3	6,559.0	152.6	1.8	-87.91	-1,226.4	2,826.5	8,360.3	8,206.4	153.92	54.315	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT TREBOR B #10-10 - 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	6,638.8	6,558.5	6,558.2	155.2	1.8	-87.89	-1,226.3	2,826.5	8,449.9	8,293.4	156.49	53.995						
12,106.3	6,638.8	6,558.5	6,558.1	155.3	1.8	-87.89	-1,226.3	2,826.5	8,456.0	8,299.3	156.67	53.974						
12,200.0	6,638.7	6,557.7	6,557.3	157.9	1.8	-87.86	-1,226.3	2,826.5	8,547.1	8,387.8	159.28	53.659						
12,204.7	6,638.7	6,557.6	6,557.3	158.1	1.8	-87.86	-1,226.3	2,826.5	8,551.7	8,392.3	159.42	53.644						
12,300.0	6,638.5	6,556.8	6,556.5	160.7	1.8	-87.84	-1,226.3	2,826.5	8,644.4	8,482.4	162.08	53.336						
12,303.1	6,638.5	6,556.8	6,556.4	160.8	1.8	-87.84	-1,226.3	2,826.5	8,647.5	8,485.3	162.16	53.326						
12,400.0	6,638.4	6,555.9	6,555.6	163.5	1.8	-87.81	-1,226.3	2,826.5	8,741.8	8,576.9	164.87	53.023						
12,401.5	6,638.4	6,555.9	6,555.6	163.6	1.8	-87.81	-1,226.3	2,826.5	8,743.3	8,578.4	164.91	53.018						
12,500.0	6,638.3	6,555.0	6,554.7	166.3	1.8	-87.78	-1,226.3	2,826.5	8,839.2	8,671.6	167.66	52.721						
12,598.4	6,638.2	6,554.1	6,553.8	169.1	1.8	-87.76	-1,226.3	2,826.5	8,935.1	8,764.7	170.41	52.434						
12,600.0	6,638.2	6,554.1	6,553.7	169.1	1.8	-87.76	-1,226.3	2,826.5	8,936.7	8,766.2	170.45	52.429						
12,696.8	6,638.0	6,553.2	6,552.8	171.8	1.8	-87.73	-1,226.3	2,826.4	9,031.1	8,858.0	173.16	52.156						
12,700.0	6,638.0	6,553.1	6,552.8	171.9	1.8	-87.73	-1,226.3	2,826.4	9,034.2	8,861.0	173.24	52.147						
12,795.2	6,637.9	6,552.2	6,551.9	174.6	1.8	-87.70	-1,226.2	2,826.4	9,127.2	8,951.3	175.90	51.887						
12,800.0	6,637.9	6,552.2	6,551.8	174.7	1.8	-87.70	-1,226.2	2,826.4	9,131.8	8,955.8	176.04	51.874						
12,893.7	6,637.8	6,551.2	6,550.9	177.3	1.8	-87.68	-1,226.2	2,826.4	9,223.3	9,044.6	178.65	51.627						
12,900.0	6,637.8	6,551.2	6,550.9	177.5	1.8	-87.67	-1,226.2	2,826.4	9,229.5	9,050.6	178.83	51.610						
12,992.1	6,637.7	6,550.3	6,549.9	180.1	1.8	-87.65	-1,226.2	2,826.4	9,319.4	9,138.0	181.40	51.374						
13,000.0	6,637.6	6,550.2	6,549.9	180.3	1.8	-87.64	-1,226.2	2,826.4	9,327.1	9,145.5	181.62	51.354						
13,090.5	6,637.5	6,549.3	6,548.9	182.8	1.8	-87.62	-1,226.2	2,826.4	9,415.6	9,231.5	184.15	51.130						
13,100.0	6,637.5	6,549.2	6,548.8	183.1	1.8	-87.61	-1,226.2	2,826.4	9,424.9	9,240.5	184.42	51.106						
13,188.9	6,637.4	6,548.2	6,547.9	185.6	1.8	-87.59	-1,226.2	2,826.4	9,511.9	9,325.0	186.90	50.892						
13,200.0	6,637.4	6,548.1	6,547.8	185.9	1.8	-87.58	-1,226.2	2,826.4	9,522.7	9,335.5	187.21	50.866						
13,287.4	6,637.3	6,547.2	6,546.8	188.4	1.8	-87.56	-1,226.2	2,826.4	9,608.1	9,418.5	189.65	50.662						
13,300.0	6,637.3	6,547.0	6,546.7	188.7	1.8	-87.55	-1,226.2	2,826.4	9,620.5	9,430.5	190.00	50.633						
13,385.8	6,637.1	6,546.1	6,545.8	191.1	1.8	-87.53	-1,226.1	2,826.4	9,704.5	9,512.1	192.40	50.439						
13,400.0	6,637.1	6,545.9	6,545.6	191.5	1.8	-87.52	-1,226.1	2,826.4	9,718.4	9,525.6	192.80	50.407						
13,484.2	6,637.0	6,545.0	6,544.7	193.9	1.8	-87.49	-1,226.1	2,826.4	9,800.8	9,605.7	195.15	50.222						
13,500.0	6,637.0	6,544.8	6,544.5	194.3	1.8	-87.49	-1,226.1	2,826.4	9,816.3	9,620.7	195.59	50.188						
13,582.6	6,636.9	6,543.9	6,543.6	196.6	1.8	-87.46	-1,226.1	2,826.4	9,897.2	9,699.3	197.90	50.012						
13,600.0	6,636.9	6,543.7	6,543.4	197.1	1.8	-87.45	-1,226.1	2,826.4	9,914.2	9,715.9	198.38	49.975						
13,681.1	6,636.8	6,542.7	6,542.4	199.4	1.8	-87.43	-1,226.1	2,826.4	9,993.7	9,793.0	200.65	49.807 SF						

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #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	13.71	241.9	59.0	249.3				
98.4	98.4	86.2	86.2	0.1	0.0	13.70	241.8	59.0	248.9	248.8	0.10	2,592.253	
100.0	100.0	87.8	87.8	0.1	0.0	13.70	241.8	59.0	248.9	248.8	0.10	2,545.270	
196.8	196.8	184.9	184.9	0.3	0.1	13.67	241.4	58.7	248.5	248.1	0.40	628.845	
200.0	200.0	188.1	188.1	0.3	0.1	13.67	241.4	58.7	248.5	248.1	0.41	613.231	
295.3	295.3	283.2	283.2	0.5	0.2	13.62	241.1	58.4	248.1	247.3	0.74	333.134	
300.0	300.0	287.9	287.9	0.5	0.2	13.62	241.1	58.4	248.1	247.3	0.76	325.636	
393.7	393.7	381.2	381.2	0.8	0.3	13.56	240.9	58.1	247.8	246.7	1.05	236.217	
400.0	400.0	387.5	387.5	0.8	0.3	13.55	240.9	58.0	247.8	246.7	1.07	232.048	
492.1	492.1	479.8	479.8	1.0	0.4	13.45	240.8	57.6	247.6	246.2	1.34	185.343	
500.0	500.0	487.6	487.6	1.0	0.4	13.44	240.8	57.5	247.5	246.2	1.36	182.215	
590.5	590.5	578.3	578.3	1.2	0.4	13.35	240.6	57.1	247.3	245.7	1.61	153.295	
600.0	600.0	587.8	587.8	1.2	0.4	13.34	240.6	57.0	247.2	245.6	1.64	150.805	
689.0	689.0	676.5	676.5	1.4	0.5	13.26	240.4	56.7	247.0	245.1	1.88	131.137	
700.0	700.0	687.5	687.5	1.4	0.5	13.25	240.4	56.6	247.0	245.1	1.91	129.059	
787.4	787.4	775.1	775.1	1.6	0.5	13.18	240.3	56.3	246.8	244.6	2.15	114.809	
800.0	800.0	787.7	787.7	1.7	0.5	13.17	240.3	56.2	246.7	244.6	2.18	113.009	
885.8	885.8	873.4	873.4	1.9	0.6	13.09	240.1	55.8	246.5	244.1	2.41	102.228	
900.0	900.0	887.6	887.5	1.9	0.6	13.07	240.1	55.8	246.5	244.0	2.45	100.647	
984.2	984.2	972.1	972.0	2.1	0.6	12.99	240.0	55.3	246.3	243.6	2.67	92.225	
1,000.0	1,000.0	987.9	987.9	2.1	0.6	12.97	239.9	55.3	246.2	243.5	2.71	90.800	
1,082.7	1,082.7	1,070.5	1,070.5	2.3	0.7	-14.17	239.7	54.9	244.8	241.8	2.95	82.854	
1,100.0	1,100.0	1,087.8	1,087.8	2.3	0.7	-14.22	239.7	54.8	244.2	241.2	3.00	81.360	
1,181.1	1,181.0	1,168.7	1,168.6	2.5	0.7	-14.53	239.5	54.5	240.0	236.8	3.22	74.536	
1,200.0	1,199.8	1,187.5	1,187.5	2.6	0.7	-14.63	239.4	54.5	238.8	235.5	3.27	72.986	
1,279.5	1,279.1	1,266.8	1,266.8	2.8	0.8	-15.16	239.3	54.1	232.1	228.7	3.49	66.525	
1,300.0	1,299.5	1,287.2	1,287.2	2.8	0.8	-15.33	239.2	54.0	230.1	226.5	3.55	64.896	
1,377.9	1,376.9	1,364.7	1,364.7	3.0	0.8	-16.09	239.0	53.7	221.0	217.2	3.76	58.713	
1,400.0	1,398.7	1,386.6	1,386.6	3.0	0.8	-16.34	239.0	53.6	218.0	214.2	3.82	57.000	
1,476.4	1,474.2	1,461.8	1,461.8	3.2	0.8	-17.36	238.7	53.4	206.6	202.5	4.04	51.139	
1,500.0	1,497.5	1,485.0	1,484.9	3.3	0.9	-17.72	238.7	53.3	202.7	198.6	4.11	49.373	
1,574.8	1,571.0	1,557.9	1,557.9	3.5	0.9	-19.05	238.6	53.4	189.3	185.0	4.31	43.913	
1,600.0	1,595.6	1,582.4	1,582.3	3.6	0.9	-19.56	238.6	53.5	184.5	180.1	4.38	42.120	
1,673.2	1,667.2	1,653.6	1,653.6	3.9	0.9	-21.12	238.7	54.0	170.4	165.8	4.58	37.208	
1,700.0	1,693.4	1,679.7	1,679.7	4.0	0.9	-21.75	238.8	54.2	165.3	160.7	4.65	35.531	
1,771.6	1,763.5	1,749.7	1,749.7	4.2	0.9	-23.61	239.1	54.7	151.9	147.0	4.86	31.264	
1,800.0	1,791.3	1,777.4	1,777.4	4.3	0.9	-24.42	239.3	55.0	146.6	141.7	4.94	29.684	
1,870.1	1,859.8	1,845.7	1,845.7	4.6	0.9	-26.64	239.7	55.8	133.9	128.8	5.15	25.992	
1,900.0	1,889.1	1,874.9	1,874.9	4.7	0.9	-27.69	240.0	56.2	128.6	123.4	5.25	24.510	
1,968.5	1,956.1	1,941.9	1,941.9	4.9	0.9	-30.38	240.7	57.3	116.8	111.3	5.47	21.334	
2,000.0	1,986.9	1,972.8	1,972.7	5.1	0.9	-31.79	241.0	57.8	111.5	105.9	5.58	19.963	
2,066.9	2,052.3	2,038.4	2,038.3	5.3	0.9	-35.23	241.9	59.0	100.5	94.7	5.83	17.227	
2,100.0	2,084.7	2,070.9	2,070.8	5.5	0.9	-37.16	242.3	59.7	95.2	89.3	5.96	15.965	
2,165.3	2,148.6	2,135.1	2,135.0	5.7	0.9	-41.53	243.2	61.2	85.2	78.9	6.24	13.641	
2,200.0	2,182.5	2,169.2	2,169.1	5.9	0.9	-44.23	243.6	62.1	80.1	73.7	6.40	12.501	
2,263.8	2,244.9	2,232.0	2,231.9	6.1	0.9	-50.13	244.5	63.8	71.1	64.4	6.73	10.575	
2,300.0	2,280.3	2,267.7	2,267.6	6.3	1.0	-54.14	244.9	64.9	66.4	59.5	6.93	9.584	
2,362.2	2,341.2	2,329.0	2,328.8	6.5	1.0	-62.44	245.4	66.7	59.0	51.7	7.30	8.086	
2,400.0	2,378.1	2,366.1	2,365.9	6.7	1.0	-68.52	245.7	67.8	55.2	47.7	7.53	7.332	
2,460.6	2,437.4	2,425.6	2,425.4	6.9	1.0	-79.99	246.0	69.4	50.7	42.8	7.89	6.425	
2,500.0	2,476.0	2,464.1	2,463.9	7.1	1.0	-88.40	246.2	70.4	49.1	41.0	8.08	6.073	
2,531.2	2,506.5	2,494.7	2,494.4	7.2	1.0	-95.37	246.3	71.1	48.7	40.5	8.20	5.937 CC, ES	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
2,550.0	2,524.9	2,513.1	2,512.8	7.3	1.0	-99.61	246.4	71.5	48.8	40.6	8.25	5.917 SF	
2,559.0	2,533.7	2,521.9	2,521.7	7.3	1.0	-100.78	246.4	71.7	49.0	40.7	8.27	5.923	
2,600.0	2,573.8	2,562.0	2,561.7	7.5	1.0	-105.94	246.6	72.5	50.2	41.9	8.32	6.035	
2,639.4	2,612.3	2,600.5	2,600.2	7.7	1.0	-110.52	246.8	73.2	52.1	43.8	8.31	6.268	
2,657.5	2,630.0	2,618.2	2,618.0	7.7	1.0	-114.16	246.9	73.5	53.2	44.9	8.30	6.411	
2,700.0	2,671.6	2,659.9	2,659.6	7.9	1.0	-122.07	247.1	74.3	56.7	48.4	8.26	6.859	
2,755.9	2,726.3	2,714.6	2,714.3	8.1	1.0	-130.96	247.4	75.2	62.7	54.5	8.23	7.624	
2,800.0	2,769.4	2,757.7	2,757.4	8.3	1.0	-136.75	247.6	75.9	68.4	60.2	8.22	8.331	
2,854.3	2,822.5	2,810.8	2,810.5	8.5	1.1	-142.58	247.8	76.5	76.4	68.2	8.24	9.279	
2,900.0	2,867.2	2,855.4	2,855.1	8.7	1.1	-146.59	248.0	77.0	83.7	75.4	8.28	10.114	
2,952.7	2,918.8	2,906.9	2,906.6	9.0	1.1	-150.44	248.1	77.6	92.6	84.3	8.35	11.101	
3,000.0	2,965.0	2,953.2	2,952.8	9.2	1.1	-153.33	248.2	78.0	101.0	92.6	8.42	11.989	
3,051.2	3,015.1	3,003.3	3,002.9	9.4	1.1	-155.98	248.2	78.5	110.2	101.7	8.52	12.938	
3,100.0	3,062.8	3,050.8	3,050.5	9.6	1.1	-158.12	248.2	79.0	119.3	110.7	8.62	13.835	
3,149.6	3,111.4	3,099.0	3,098.7	9.8	1.1	-159.98	248.1	79.4	128.8	120.0	8.73	14.740	
3,200.0	3,160.7	3,148.3	3,148.0	10.0	1.1	-161.63	248.0	79.8	138.5	129.7	8.86	15.645	
3,248.0	3,207.6	3,195.3	3,195.0	10.2	1.1	-163.00	247.9	80.2	148.0	139.0	8.97	16.486	
3,300.0	3,258.5	3,246.1	3,245.8	10.5	1.2	-164.30	247.7	80.6	158.2	149.1	9.11	17.375	
3,346.4	3,303.9	3,291.5	3,291.2	10.7	1.2	-165.32	247.6	81.0	167.5	158.3	9.23	18.149	
3,400.0	3,356.3	3,343.8	3,343.5	10.9	1.2	-166.36	247.4	81.4	178.2	168.9	9.37	19.020	
3,444.9	3,400.2	3,387.6	3,387.3	11.1	1.2	-167.15	247.3	81.7	187.3	177.8	9.49	19.731	
3,500.0	3,454.1	3,441.6	3,441.3	11.3	1.2	-168.02	247.0	82.1	198.5	188.8	9.64	20.584	
3,543.3	3,496.5	3,484.1	3,483.7	11.5	1.2	-168.65	246.9	82.5	207.2	197.5	9.76	21.233	
3,600.0	3,551.9	3,539.7	3,539.4	11.7	1.2	-169.40	246.7	83.0	218.7	208.8	9.92	22.057	
3,641.7	3,592.7	3,580.8	3,580.4	11.9	1.2	-169.89	246.6	83.3	227.2	217.1	10.03	22.644	
3,700.0	3,649.7	3,638.0	3,637.6	12.2	1.2	-170.50	246.6	83.8	238.9	228.7	10.19	23.434	
3,740.1	3,689.0	3,677.4	3,677.0	12.4	1.3	-170.89	246.6	84.1	247.0	236.7	10.31	23.962	
3,800.0	3,747.5	3,735.9	3,735.6	12.6	1.3	-171.44	246.6	84.7	259.0	248.6	10.48	24.727	
3,838.6	3,785.3	3,773.6	3,773.3	12.8	1.3	-171.76	246.6	85.0	266.8	256.2	10.59	25.208	
3,900.0	3,845.4	3,833.8	3,833.5	13.1	1.3	-172.24	246.6	85.6	279.3	268.5	10.76	25.954	
3,937.0	3,881.6	3,870.2	3,869.8	13.2	1.3	-172.51	246.6	85.9	286.7	275.9	10.87	26.390	
4,000.0	3,943.2	3,932.1	3,931.7	13.5	1.3	-172.93	246.7	86.5	299.4	288.4	11.05	27.111	
4,035.4	3,977.8	3,966.9	3,966.5	13.6	1.3	-173.16	246.7	86.8	306.6	295.4	11.15	27.504	
4,100.0	4,041.0	4,030.1	4,029.8	13.9	1.3	-173.55	246.8	87.5	319.5	308.2	11.33	28.201	
4,133.8	4,074.1	4,063.1	4,062.8	14.1	1.4	-173.75	246.8	87.9	326.4	314.9	11.43	28.557	
4,200.0	4,138.8	4,127.6	4,127.2	14.4	1.4	-174.11	246.8	88.6	339.7	328.1	11.62	29.240	
4,232.3	4,170.4	4,159.0	4,158.6	14.5	1.4	-174.27	246.8	88.9	346.3	334.6	11.71	29.567	
4,300.0	4,236.6	4,224.9	4,224.6	14.8	1.4	-174.60	246.7	89.6	360.1	348.2	11.91	30.240	
4,330.7	4,266.7	4,254.9	4,254.5	14.9	1.4	-174.74	246.7	89.9	366.4	354.4	12.00	30.540	
4,400.0	4,334.4	4,322.6	4,322.2	15.2	1.4	-175.04	246.6	90.5	380.6	368.4	12.20	31.202	
4,429.1	4,362.9	4,351.2	4,350.8	15.4	1.4	-175.16	246.5	90.8	386.6	374.3	12.28	31.474	
4,500.0	4,432.3	4,420.7	4,420.3	15.7	1.5	-175.46	246.3	91.6	401.1	388.6	12.49	32.119	
4,527.5	4,459.2	4,447.6	4,447.3	15.8	1.5	-175.56	246.3	91.9	406.7	394.2	12.57	32.364	
4,600.0	4,530.1	4,518.9	4,518.5	16.1	1.5	-175.81	246.2	92.6	421.6	408.8	12.78	32.992	
4,626.0	4,555.5	4,544.8	4,544.4	16.2	1.5	-175.90	246.2	92.9	426.8	414.0	12.85	33.210	
4,700.0	4,627.9	4,618.4	4,618.0	16.6	1.5	-176.11	246.5	93.5	441.8	428.7	13.07	33.806	
4,724.4	4,651.7	4,642.4	4,642.0	16.7	1.5	-176.17	246.6	93.7	446.6	433.5	13.14	33.996	
4,800.0	4,725.7	4,716.9	4,716.6	17.0	1.5	-176.34	247.0	94.2	461.8	448.4	13.36	34.566	
4,822.8	4,748.0	4,739.6	4,739.2	17.1	1.5	-176.38	247.2	94.3	466.3	452.9	13.43	34.733	
4,904.9	4,828.3	4,820.8	4,820.4	17.5	1.6	-176.54	247.8	94.8	482.5	468.9	13.67	35.310	
4,921.2	4,844.3	4,837.0	4,836.6	17.5	1.6	-176.58	247.9	94.9	485.7	472.0	13.70	35.456	
5,000.0	4,921.6	4,915.1	4,914.7	17.8	1.6	-176.71	248.7	95.4	499.7	485.8	13.86	36.059	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,941.0	4,934.6	4,934.2	17.9	1.6	-176.74	248.9	95.5	502.8	488.9	13.89	36.201	
5,100.0	5,020.4	5,014.7	5,014.3	18.1	1.6	-176.84	249.9	96.0	514.2	500.2	14.02	36.679	
5,118.1	5,038.3	5,032.9	5,032.5	18.2	1.6	-176.86	250.1	96.1	516.5	502.4	14.05	36.767	
5,200.0	5,119.6	5,115.1	5,114.6	18.4	1.6	-176.95	251.1	96.7	525.1	510.9	14.17	37.069	
5,216.5	5,136.0	5,131.6	5,131.2	18.4	1.6	-176.97	251.4	96.8	526.6	512.4	14.19	37.113	
5,300.0	5,219.2	5,215.2	5,214.8	18.6	1.6	-177.04	252.5	97.5	532.4	518.1	14.30	37.224	
5,314.9	5,234.1	5,229.9	5,229.5	18.6	1.6	-177.05	252.7	97.6	533.2	518.9	14.32	37.230	
5,400.0	5,319.1	5,313.7	5,313.3	18.8	1.7	-177.10	253.8	98.3	536.3	521.9	14.43	37.166	
5,413.4	5,332.4	5,327.1	5,326.6	18.8	1.7	-177.10	253.9	98.4	536.6	522.2	14.45	37.143	
5,504.9	5,423.9	5,418.6	5,418.2	18.9	1.7	-158.70	255.1	98.9	536.8	516.3	20.54	26.138	
5,511.8	5,430.8	5,425.6	5,425.2	18.9	1.7	-158.70	255.2	98.9	536.7	516.2	20.55	26.121	
5,600.0	5,519.0	5,514.5	5,514.1	19.0	1.7	-158.70	256.3	99.3	535.5	514.8	20.67	25.906	
5,610.2	5,529.3	5,524.8	5,524.3	19.0	1.7	-158.70	256.5	99.4	535.3	514.6	20.69	25.879	
5,700.0	5,619.0	5,614.7	5,614.2	19.2	1.7	-158.69	257.8	99.9	533.9	513.1	20.82	25.646	
5,708.6	5,627.7	5,623.2	5,622.7	19.2	1.7	-158.69	257.9	99.9	533.8	513.0	20.83	25.624	
5,800.0	5,719.0	5,713.1	5,712.6	19.3	1.7	-158.68	259.1	100.3	532.6	511.6	20.97	25.398	
5,807.1	5,726.1	5,720.1	5,719.6	19.3	1.7	-158.68	259.2	100.3	532.5	511.5	20.98	25.381	
5,900.0	5,819.0	5,812.7	5,812.2	19.4	1.8	-158.68	260.2	100.7	531.4	510.2	21.12	25.158	
5,905.5	5,824.5	5,818.1	5,817.6	19.4	1.8	-158.68	260.3	100.7	531.3	510.2	21.13	25.145	
6,003.9	5,923.0	5,914.6	5,914.1	19.6	1.8	-158.67	261.2	101.0	530.4	509.1	21.28	24.925	
6,009.8	5,928.8	5,920.4	5,919.9	19.6	1.8	-158.67	261.2	101.0	530.3	509.0	21.29	24.913	
6,050.0	5,969.0	5,960.4	5,959.9	19.6	1.8	-68.83	261.5	101.0	529.6	513.9	15.72	33.693	
6,100.0	6,018.8	6,009.9	6,009.3	19.7	1.8	-69.42	261.9	101.0	527.6	511.8	15.78	33.431	
6,102.3	6,021.1	6,012.2	6,011.7	19.7	1.8	-69.45	261.9	101.0	527.5	511.7	15.79	33.416	
6,150.0	6,068.1	6,058.9	6,058.4	19.7	1.8	-70.45	262.2	101.0	524.5	508.7	15.86	33.082	
6,200.0	6,116.8	6,107.3	6,106.8	19.7	1.8	-71.90	262.5	101.1	520.4	504.5	15.94	32.652	
6,200.8	6,117.5	6,108.0	6,107.5	19.7	1.8	-71.93	262.5	101.1	520.4	504.4	15.94	32.644	
6,250.0	6,164.5	6,154.5	6,153.9	19.7	1.8	-73.74	262.8	101.1	515.6	499.6	16.04	32.153	
6,299.2	6,210.4	6,200.0	6,199.5	19.7	1.8	-75.92	263.0	101.0	510.4	494.3	16.15	31.606	
6,300.0	6,211.1	6,200.6	6,200.1	19.7	1.8	-75.95	263.0	101.0	510.3	494.2	16.15	31.598	
6,350.0	6,256.4	6,245.7	6,245.2	19.7	1.8	-78.49	263.2	100.9	505.0	488.7	16.29	31.005	
6,397.6	6,298.0	6,287.2	6,286.7	19.7	1.8	-81.14	263.3	100.9	500.1	483.7	16.43	30.429	
6,400.0	6,300.0	6,289.2	6,288.7	19.7	1.8	-81.28	263.3	100.9	499.9	483.4	16.44	30.402	
6,450.0	6,341.8	6,330.4	6,329.9	19.7	1.8	-84.21	263.5	100.9	495.6	479.0	16.61	29.829	
6,496.0	6,378.6	6,366.5	6,366.0	19.7	1.8	-86.94	263.5	100.9	492.8	476.1	16.79	29.346	
6,500.0	6,381.6	6,369.5	6,369.0	19.7	1.8	-87.18	263.5	100.9	492.7	475.9	16.81	29.309	
6,547.6	6,417.5	6,404.8	6,404.3	19.7	1.8	-89.96	263.5	101.0	491.7	474.6	17.03	28.875	
6,550.0	6,419.2	6,406.5	6,406.0	19.6	1.8	-90.09	263.5	101.0	491.7	474.6	17.04	28.857	
6,594.5	6,450.7	6,437.4	6,436.9	19.6	1.8	-92.55	263.5	101.0	492.8	475.5	17.28	28.520	
6,600.0	6,454.4	6,441.1	6,440.5	19.6	1.8	-92.84	263.5	101.0	493.1	475.8	17.31	28.488	
6,650.0	6,487.1	6,473.0	6,472.5	19.6	1.9	-95.30	263.4	101.1	497.4	479.8	17.63	28.220	
6,692.9	6,513.0	6,498.1	6,497.6	19.6	1.9	-97.10	263.3	101.2	503.8	485.9	17.95	28.076	
6,700.0	6,517.0	6,502.1	6,501.6	19.6	1.9	-97.37	263.3	101.2	505.1	487.1	18.00	28.067	
6,750.0	6,544.1	6,528.9	6,528.4	19.6	1.9	-99.02	263.2	101.4	516.5	498.0	18.42	28.031	
6,791.3	6,564.2	6,548.7	6,548.2	19.7	1.9	-99.98	263.2	101.5	528.7	509.9	18.83	28.073	
6,800.0	6,568.2	6,552.6	6,552.1	19.7	1.9	-100.13	263.1	101.5	531.6	512.7	18.91	28.115	
6,850.0	6,589.1	6,573.3	6,572.8	19.8	1.9	-100.63	263.1	101.6	550.5	531.0	19.45	28.305	
6,889.7	6,603.5	6,587.4	6,586.9	19.9	1.9	-100.56	263.0	101.7	568.2	548.2	19.93	28.512	
6,900.0	6,606.9	6,590.7	6,590.2	19.9	1.9	-100.48	263.0	101.7	573.1	553.0	20.05	28.586	
6,950.0	6,621.3	6,604.9	6,604.4	20.2	1.9	-99.61	262.9	101.8	599.1	578.4	20.70	28.940	
6,988.2	6,630.0	6,613.5	6,613.0	20.6	1.9	-98.44	262.9	101.9	621.1	599.8	21.24	29.244	
7,000.0	6,632.4	6,615.8	6,615.3	20.7	1.9	-97.98	262.9	101.9	628.2	606.8	21.40	29.357	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,640.0	6,623.3	6,622.7	21.4	1.9	-95.53	262.8	101.9	660.1	638.0	22.13	29.829	
7,086.6	6,643.4	6,626.5	6,626.0	21.9	1.9	-93.21	262.8	101.9	684.9	662.2	22.68	30.197	
7,100.0	6,644.2	6,627.2	6,626.7	22.1	1.9	-92.25	262.8	101.9	694.3	671.4	22.88	30.345	
7,135.7	6,645.0	6,627.9	6,627.4	22.7	1.9	-89.39	262.8	101.9	719.9	696.4	23.43	30.724	
7,185.0	6,644.9	6,627.6	6,627.1	23.6	1.9	-89.35	262.8	101.9	756.6	732.3	24.39	31.024	
7,200.0	6,644.9	6,627.5	6,627.0	23.9	1.9	-89.34	262.8	101.9	768.1	743.4	24.68	31.122	
7,283.4	6,644.8	6,627.0	6,626.4	25.6	1.9	-89.28	262.8	101.9	833.8	807.4	26.41	31.577	
7,300.0	6,644.8	6,626.8	6,626.3	25.9	1.9	-89.27	262.8	101.9	847.3	820.5	26.75	31.674	
7,381.9	6,644.7	6,626.3	6,625.8	27.7	1.9	-89.21	262.8	101.9	915.1	886.6	28.55	32.052	
7,400.0	6,644.7	6,626.2	6,625.7	28.1	1.9	-89.19	262.8	101.9	930.5	901.5	28.95	32.139	
7,480.3	6,644.6	6,625.7	6,625.2	29.9	1.9	-89.13	262.8	101.9	999.5	968.7	30.81	32.444	
7,500.0	6,644.6	6,625.6	6,625.1	30.3	1.9	-89.12	262.8	101.9	1,016.7	985.4	31.26	32.521	
7,578.7	6,644.5	6,625.1	6,624.6	32.2	1.9	-89.06	262.8	101.9	1,086.2	1,053.1	33.14	32.772	
7,600.0	6,644.4	6,624.9	6,624.4	32.7	1.9	-89.04	262.8	101.9	1,105.2	1,071.6	33.65	32.842	
7,677.1	6,644.3	6,624.4	6,623.9	34.6	1.9	-88.98	262.8	101.9	1,174.8	1,139.3	35.55	33.050	
7,700.0	6,644.3	6,624.3	6,623.8	35.1	1.9	-88.97	262.8	101.9	1,195.6	1,159.5	36.11	33.112	
7,775.6	6,644.2	6,623.8	6,623.3	37.0	1.9	-88.91	262.8	101.9	1,264.8	1,226.8	38.00	33.285	
7,800.0	6,644.2	6,623.6	6,623.1	37.6	1.9	-88.89	262.8	101.9	1,287.4	1,248.8	38.61	33.341	
7,874.0	6,644.1	6,623.2	6,622.6	39.5	1.9	-88.84	262.8	101.9	1,356.0	1,315.5	40.50	33.486	
7,900.0	6,644.1	6,623.0	6,622.5	40.1	1.9	-88.82	262.8	101.9	1,380.3	1,339.1	41.16	33.537	
7,972.4	6,644.0	6,622.5	6,622.0	42.0	1.9	-88.76	262.8	101.9	1,448.2	1,405.2	43.02	33.659	
8,000.0	6,643.9	6,622.3	6,621.8	42.7	1.9	-88.74	262.9	101.9	1,474.1	1,430.4	43.74	33.706	
8,070.8	6,643.9	6,621.9	6,621.4	44.5	1.9	-88.69	262.9	101.9	1,541.1	1,495.5	45.58	33.809	
8,100.0	6,643.8	6,621.7	6,621.2	45.2	1.9	-88.66	262.9	101.9	1,568.8	1,522.4	46.34	33.852	
8,169.3	6,643.7	6,621.2	6,620.7	47.0	1.9	-88.61	262.9	101.9	1,634.7	1,586.5	48.16	33.940	
8,200.0	6,643.7	6,621.0	6,620.5	47.9	1.9	-88.59	262.9	101.9	1,664.0	1,615.0	48.97	33.979	
8,267.7	6,643.6	6,620.6	6,620.1	49.6	1.9	-88.54	262.9	101.9	1,728.8	1,678.0	50.76	34.055	
8,300.0	6,643.6	6,620.4	6,619.8	50.5	1.9	-88.51	262.9	101.9	1,759.8	1,708.1	51.62	34.091	
8,366.1	6,643.5	6,619.9	6,619.4	52.2	1.9	-88.46	262.9	101.9	1,823.3	1,770.0	53.38	34.157	
8,400.0	6,643.4	6,619.7	6,619.2	53.1	1.9	-88.43	262.9	101.9	1,856.0	1,801.7	54.28	34.190	
8,464.5	6,643.4	6,619.3	6,618.8	54.8	1.9	-88.38	262.9	101.9	1,918.3	1,862.3	56.01	34.248	
8,500.0	6,643.3	6,619.0	6,618.5	55.8	1.9	-88.35	262.9	101.9	1,952.6	1,895.6	56.96	34.279	
8,563.0	6,643.2	6,618.6	6,618.1	57.5	1.9	-88.31	262.9	101.9	2,013.6	1,954.9	58.66	34.328	
8,600.0	6,643.2	6,618.4	6,617.8	58.5	1.9	-88.28	262.9	101.9	2,049.5	1,989.8	59.65	34.357	
8,661.4	6,643.1	6,618.0	6,617.4	60.1	1.9	-88.23	262.9	101.9	2,109.1	2,047.8	61.31	34.401	
8,700.0	6,643.1	6,617.7	6,617.2	61.2	1.9	-88.20	262.9	101.9	2,146.7	2,084.3	62.35	34.428	
8,759.8	6,643.0	6,617.3	6,616.8	62.8	1.9	-88.15	262.9	101.9	2,205.0	2,141.0	63.97	34.467	
8,800.0	6,643.0	6,617.0	6,616.5	63.9	1.9	-88.12	262.9	101.9	2,244.1	2,179.1	65.06	34.492	
8,858.2	6,642.9	6,616.6	6,616.1	65.4	1.9	-88.07	262.9	101.9	2,301.0	2,234.4	66.65	34.526	
8,900.0	6,642.8	6,616.3	6,615.8	66.6	1.9	-88.04	262.9	101.9	2,341.8	2,274.0	67.78	34.550	
8,956.7	6,642.8	6,616.0	6,615.4	68.1	1.9	-88.00	262.9	101.9	2,397.2	2,327.9	69.32	34.581	
9,000.0	6,642.7	6,615.7	6,615.1	69.3	1.9	-87.96	262.9	101.9	2,439.7	2,369.2	70.50	34.603	
9,055.1	6,642.6	6,615.3	6,614.8	70.8	1.9	-87.92	262.9	101.9	2,493.7	2,421.6	72.01	34.630	
9,100.0	6,642.6	6,615.0	6,614.5	72.0	1.9	-87.88	262.9	101.9	2,537.7	2,464.5	73.23	34.652	
9,153.5	6,642.5	6,614.6	6,614.1	73.5	1.9	-87.84	262.9	101.9	2,590.2	2,515.5	74.70	34.676	
9,200.0	6,642.5	6,614.3	6,613.8	74.7	1.9	-87.80	262.9	101.9	2,635.9	2,559.9	75.97	34.697	
9,251.9	6,642.4	6,613.9	6,613.4	76.2	1.9	-87.76	262.9	101.9	2,686.9	2,609.5	77.39	34.718	
9,300.0	6,642.3	6,613.6	6,613.1	77.5	1.9	-87.72	262.9	101.9	2,734.2	2,655.4	78.71	34.738	
9,350.4	6,642.3	6,613.3	6,612.7	78.9	1.9	-87.68	262.9	101.9	2,783.7	2,703.6	80.09	34.757	
9,400.0	6,642.2	6,612.9	6,612.4	80.2	1.9	-87.64	262.9	101.9	2,832.6	2,751.1	81.45	34.776	
9,448.8	6,642.1	6,612.6	6,612.1	81.6	1.9	-87.60	262.9	101.9	2,880.6	2,797.9	82.79	34.793	
9,500.0	6,642.1	6,612.2	6,611.7	83.0	1.9	-87.56	262.9	101.9	2,931.1	2,846.9	84.20	34.811	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,642.0	6,611.9	6,611.4	84.3	1.9	-87.52	262.9	101.9	2,977.7	2,892.2	85.50	34.827	
9,600.0	6,642.0	6,611.5	6,611.0	85.7	1.9	-87.48	262.9	101.9	3,029.7	2,942.8	86.95	34.844	
9,645.6	6,641.9	6,611.2	6,610.7	87.0	1.9	-87.44	262.9	101.9	3,074.8	2,986.6	88.21	34.859	
9,700.0	6,641.8	6,610.8	6,610.3	88.5	1.9	-87.40	262.9	101.8	3,128.4	3,038.7	89.70	34.875	
9,744.1	6,641.8	6,610.5	6,610.0	89.7	1.9	-87.36	262.9	101.8	3,172.0	3,081.1	90.92	34.888	
9,800.0	6,641.7	6,610.1	6,609.6	91.2	1.9	-87.31	262.9	101.8	3,227.2	3,134.8	92.46	34.904	
9,842.5	6,641.7	6,609.8	6,609.3	92.4	1.9	-87.28	262.9	101.8	3,269.2	3,175.6	93.63	34.916	
9,900.0	6,641.6	6,609.4	6,608.9	94.0	1.9	-87.23	262.9	101.8	3,326.1	3,230.9	95.22	34.931	
9,940.9	6,641.5	6,609.1	6,608.6	95.1	1.9	-87.20	262.9	101.8	3,366.6	3,270.2	96.35	34.942	
10,000.0	6,641.5	6,608.7	6,608.2	96.7	1.9	-87.15	262.9	101.8	3,425.0	3,327.0	97.98	34.957	
10,039.3	6,641.4	6,608.4	6,607.9	97.8	1.9	-87.12	262.9	101.8	3,464.0	3,364.9	99.07	34.966	
10,100.0	6,641.3	6,608.0	6,607.5	99.5	1.9	-87.07	262.9	101.8	3,524.0	3,423.3	100.74	34.981	
10,137.8	6,641.3	6,607.7	6,607.2	100.6	1.9	-87.03	262.9	101.8	3,561.4	3,459.6	101.78	34.990	
10,200.0	6,641.2	6,607.3	6,606.8	102.3	1.9	-86.98	262.9	101.8	3,623.0	3,519.5	103.50	35.004	
10,236.2	6,641.2	6,607.0	6,606.5	103.3	1.9	-86.95	262.9	101.8	3,658.9	3,554.4	104.50	35.012	
10,300.0	6,641.1	6,606.5	6,606.0	105.0	1.9	-86.90	262.9	101.8	3,722.1	3,615.9	106.27	35.026	
10,334.6	6,641.0	6,606.3	6,605.8	106.0	1.9	-86.87	262.9	101.8	3,756.5	3,649.2	107.23	35.033	
10,400.0	6,641.0	6,605.8	6,605.3	107.8	1.9	-86.81	262.9	101.8	3,821.3	3,712.3	109.03	35.047	
10,433.0	6,640.9	6,605.6	6,605.1	108.7	1.9	-86.79	262.9	101.8	3,854.1	3,744.1	109.95	35.053	
10,500.0	6,640.8	6,605.1	6,604.6	110.6	1.9	-86.73	262.9	101.8	3,920.5	3,808.7	111.80	35.066	
10,531.5	6,640.8	6,604.9	6,604.4	111.5	1.9	-86.70	262.9	101.8	3,951.7	3,839.0	112.67	35.072	
10,600.0	6,640.7	6,604.4	6,603.9	113.4	1.9	-86.64	262.9	101.8	4,019.7	3,905.1	114.57	35.085	
10,629.9	6,640.7	6,604.2	6,603.6	114.2	1.9	-86.62	262.9	101.8	4,049.4	3,934.0	115.40	35.091	
10,700.0	6,640.6	6,603.6	6,603.1	116.1	1.9	-86.56	262.9	101.8	4,119.0	4,001.6	117.34	35.103	
10,728.3	6,640.5	6,603.4	6,602.9	116.9	1.9	-86.53	262.9	101.8	4,147.1	4,029.0	118.12	35.108	
10,800.0	6,640.5	6,602.9	6,602.4	118.9	1.9	-86.47	262.9	101.8	4,218.3	4,098.1	120.11	35.121	
10,826.7	6,640.4	6,602.7	6,602.2	119.7	1.9	-86.45	262.9	101.8	4,244.8	4,124.0	120.85	35.125	
10,900.0	6,640.3	6,602.2	6,601.7	121.7	1.9	-86.39	262.9	101.8	4,317.6	4,194.7	122.88	35.137	
10,925.2	6,640.3	6,602.0	6,601.5	122.4	1.9	-86.37	262.9	101.8	4,342.6	4,219.0	123.57	35.142	
11,000.0	6,640.2	6,601.4	6,600.9	124.5	1.9	-86.30	262.9	101.8	4,416.9	4,291.3	125.65	35.154	
11,023.6	6,640.2	6,601.3	6,600.7	125.1	1.9	-86.28	262.9	101.8	4,440.4	4,314.1	126.30	35.157	
11,100.0	6,640.1	6,600.7	6,600.2	127.3	1.9	-86.21	262.9	101.8	4,516.3	4,387.9	128.42	35.169	
11,122.0	6,640.0	6,600.5	6,600.0	127.9	1.9	-86.19	262.9	101.8	4,538.2	4,409.2	129.03	35.172	
11,200.0	6,639.9	6,599.9	6,599.4	130.1	1.9	-86.13	262.9	101.8	4,615.7	4,484.6	131.19	35.184	
11,220.4	6,639.9	6,599.8	6,599.3	130.6	1.9	-86.11	262.9	101.8	4,636.1	4,504.3	131.76	35.187	
11,300.0	6,639.8	6,599.3	6,598.8	132.8	1.9	-86.05	262.9	101.8	4,715.2	4,581.2	133.96	35.198	
11,318.9	6,639.8	6,599.1	6,598.6	133.4	1.9	-86.03	262.9	101.8	4,734.0	4,599.5	134.48	35.201	
11,400.0	6,639.7	6,598.6	6,598.1	135.6	1.9	-85.97	262.9	101.8	4,814.6	4,677.9	136.73	35.212	
11,417.3	6,639.7	6,598.5	6,598.0	136.1	1.9	-85.95	263.0	101.8	4,831.9	4,694.6	137.21	35.215	
11,500.0	6,639.6	6,597.9	6,597.4	138.4	1.9	-85.89	263.0	101.8	4,914.1	4,774.6	139.50	35.226	
11,515.7	6,639.5	6,597.8	6,597.3	138.9	1.9	-85.88	263.0	101.8	4,929.8	4,789.8	139.94	35.228	
11,600.0	6,639.4	6,597.2	6,596.7	141.2	1.9	-85.81	263.0	101.8	5,013.6	4,871.4	142.28	35.239	
11,614.1	6,639.4	6,597.1	6,596.6	141.6	1.9	-85.80	263.0	101.8	5,027.7	4,885.0	142.67	35.240	
11,700.0	6,639.3	6,596.5	6,596.0	144.0	1.9	-85.73	263.0	101.8	5,113.2	4,968.1	145.05	35.251	
11,712.6	6,639.3	6,596.5	6,595.9	144.3	1.9	-85.72	263.0	101.8	5,125.7	4,980.3	145.40	35.253	
11,800.0	6,639.2	6,595.9	6,595.3	146.8	1.9	-85.65	263.0	101.8	5,212.7	5,064.9	147.82	35.264	
11,811.0	6,639.2	6,595.8	6,595.3	147.1	1.9	-85.64	263.0	101.8	5,223.7	5,075.5	148.13	35.265	
11,900.0	6,639.1	6,595.2	6,594.7	149.6	1.9	-85.57	263.0	101.8	5,312.3	5,161.7	150.59	35.276	
11,909.4	6,639.0	6,595.1	6,594.6	149.8	1.9	-85.56	263.0	101.8	5,321.6	5,170.8	150.85	35.277	
12,000.0	6,638.9	6,594.5	6,594.0	152.4	1.9	-85.49	263.0	101.8	5,411.8	5,258.5	153.36	35.287	
12,007.8	6,638.9	6,594.4	6,593.9	152.6	1.9	-85.48	263.0	101.8	5,419.7	5,266.1	153.58	35.288	
12,100.0	6,638.8	6,593.8	6,593.3	155.2	1.9	-85.41	263.0	101.8	5,511.4	5,355.3	156.14	35.299	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
12,106.3	6,638.8	6,593.8	6,593.3	155.3	1.9	-85.41	263.0	101.8	5,517.7	5,361.4	156.31	35.299		
12,200.0	6,638.7	6,593.1	6,592.6	157.9	1.9	-85.33	263.0	101.8	5,611.0	5,452.1	158.91	35.310		
12,204.7	6,638.7	6,593.1	6,592.6	158.1	1.9	-85.33	263.0	101.8	5,615.7	5,456.7	159.04	35.310		
12,300.0	6,638.5	6,592.4	6,591.9	160.7	1.9	-85.25	263.0	101.7	5,710.6	5,549.0	161.68	35.321		
12,303.1	6,638.5	6,592.4	6,591.9	160.8	1.9	-85.25	263.0	101.7	5,713.8	5,552.0	161.77	35.321		
12,400.0	6,638.4	6,591.8	6,591.3	163.5	1.9	-85.17	263.0	101.7	5,810.3	5,645.8	164.45	35.332		
12,401.5	6,638.4	6,591.8	6,591.2	163.6	1.9	-85.17	263.0	101.7	5,811.8	5,647.3	164.49	35.332		
12,500.0	6,638.3	6,591.1	6,590.6	166.3	1.9	-85.09	263.0	101.7	5,909.9	5,742.7	167.22	35.342		
12,598.4	6,638.2	6,590.4	6,589.9	169.1	1.9	-85.01	263.0	101.7	6,008.0	5,838.0	169.95	35.352		
12,600.0	6,638.2	6,590.4	6,589.9	169.1	1.9	-85.01	263.0	101.7	6,009.6	5,839.6	169.99	35.353		
12,696.8	6,638.0	6,589.7	6,589.2	171.8	1.9	-84.94	263.0	101.7	6,106.1	5,933.4	172.67	35.362		
12,700.0	6,638.0	6,589.7	6,589.2	171.9	1.9	-84.93	263.0	101.7	6,109.2	5,936.5	172.76	35.363		
12,795.2	6,637.9	6,589.1	6,588.6	174.6	1.9	-84.86	263.0	101.7	6,204.2	6,028.8	175.40	35.372		
12,800.0	6,637.9	6,589.0	6,588.5	174.7	1.9	-84.85	263.0	101.7	6,208.9	6,033.4	175.53	35.373		
12,893.7	6,637.8	6,588.4	6,587.9	177.3	1.9	-84.78	263.0	101.7	6,302.3	6,124.2	178.12	35.382		
12,900.0	6,637.8	6,588.3	6,587.8	177.5	1.9	-84.77	263.0	101.7	6,308.6	6,130.3	178.30	35.383		
12,992.1	6,637.7	6,587.7	6,587.2	180.1	1.9	-84.70	263.0	101.7	6,400.4	6,219.6	180.85	35.392		
13,000.0	6,637.6	6,587.7	6,587.2	180.3	1.9	-84.69	263.0	101.7	6,408.3	6,227.2	181.06	35.393		
13,090.5	6,637.5	6,587.0	6,586.5	182.8	1.9	-84.62	263.0	101.7	6,498.6	6,315.0	183.57	35.401		
13,100.0	6,637.5	6,587.0	6,586.5	183.1	1.9	-84.61	263.0	101.7	6,508.0	6,324.2	183.83	35.402		
13,188.9	6,637.4	6,586.4	6,585.9	185.6	1.9	-84.54	263.0	101.7	6,596.7	6,410.4	186.29	35.411		
13,200.0	6,637.4	6,586.3	6,585.8	185.9	1.9	-84.53	263.0	101.7	6,607.7	6,421.1	186.60	35.412		
13,287.4	6,637.3	6,585.7	6,585.2	188.4	1.9	-84.47	263.0	101.7	6,694.9	6,505.8	189.01	35.420		
13,300.0	6,637.3	6,585.6	6,585.1	188.7	1.9	-84.45	263.0	101.7	6,707.5	6,518.1	189.36	35.421		
13,385.8	6,637.1	6,585.0	6,584.5	191.1	1.9	-84.39	263.0	101.7	6,793.0	6,601.3	191.74	35.429		
13,400.0	6,637.1	6,584.9	6,584.4	191.5	1.9	-84.37	263.0	101.7	6,807.2	6,615.1	192.13	35.431		
13,484.2	6,637.0	6,584.3	6,583.8	193.9	1.9	-84.31	263.0	101.7	6,891.2	6,696.7	194.46	35.438		
13,500.0	6,637.0	6,584.2	6,583.7	194.3	1.9	-84.29	263.0	101.7	6,906.9	6,712.0	194.89	35.440		
13,582.6	6,636.9	6,583.7	6,583.2	196.6	1.9	-84.23	263.0	101.7	6,989.4	6,792.2	197.18	35.447		
13,600.0	6,636.9	6,583.6	6,583.0	197.1	1.9	-84.21	263.0	101.7	7,006.7	6,809.0	197.66	35.449		
13,681.1	6,636.8	6,583.0	6,582.5	199.4	1.9	-84.15	263.0	101.7	7,087.5	6,887.7	199.90	35.456		
13,700.0	6,636.7	6,582.9	6,582.4	199.9	1.9	-84.14	263.0	101.7	7,106.4	6,906.0	200.42	35.458		
13,779.5	6,636.6	6,582.3	6,581.8	202.1	1.9	-84.07	263.0	101.7	7,185.7	6,983.1	202.61	35.465		
13,800.0	6,636.6	6,582.2	6,581.7	202.7	1.9	-84.06	263.0	101.7	7,206.2	7,003.0	203.18	35.467		
13,877.9	6,636.5	6,581.7	6,581.1	204.9	1.9	-83.99	263.0	101.7	7,283.9	7,078.6	205.33	35.474		
13,900.0	6,636.5	6,581.5	6,581.0	205.5	1.9	-83.98	263.0	101.7	7,306.0	7,100.0	205.94	35.476		
13,976.3	6,636.4	6,581.0	6,580.5	207.6	1.9	-83.92	263.0	101.7	7,382.1	7,174.1	208.05	35.483		
14,000.0	6,636.3	6,580.8	6,580.3	208.3	1.9	-83.90	263.0	101.7	7,405.7	7,197.0	208.70	35.485		
14,074.8	6,636.3	6,580.3	6,579.8	210.4	1.9	-83.84	263.0	101.7	7,480.3	7,269.6	210.76	35.491		
14,100.0	6,636.2	6,580.1	6,579.6	211.1	1.9	-83.82	263.0	101.7	7,505.5	7,294.0	211.46	35.494		
14,173.2	6,636.1	6,579.6	6,579.1	213.2	1.9	-83.76	263.0	101.7	7,578.5	7,365.1	213.48	35.500		
14,200.0	6,636.1	6,579.4	6,578.9	213.9	1.9	-83.74	263.0	101.7	7,605.3	7,391.1	214.22	35.503		
14,271.6	6,636.0	6,578.9	6,578.4	215.9	1.9	-83.68	263.0	101.7	7,676.8	7,460.6	216.19	35.509		
14,300.0	6,636.0	6,578.8	6,578.2	216.7	1.9	-83.66	263.0	101.7	7,705.1	7,488.1	216.98	35.511		
14,370.0	6,635.9	6,578.3	6,577.8	218.7	1.9	-83.60	263.0	101.7	7,775.0	7,556.1	218.91	35.517		
14,400.0	6,635.8	6,578.1	6,577.6	219.5	1.9	-83.58	263.0	101.7	7,804.9	7,585.1	219.73	35.520		
14,468.5	6,635.7	6,577.6	6,577.1	221.4	1.9	-83.52	263.0	101.7	7,873.2	7,651.6	221.62	35.526		
14,500.0	6,635.7	6,577.4	6,576.9	222.3	1.9	-83.50	263.0	101.7	7,904.7	7,682.2	222.49	35.529		
14,566.9	6,635.6	6,576.9	6,576.4	224.2	1.9	-83.44	263.0	101.7	7,971.4	7,747.1	224.33	35.534		
14,600.0	6,635.6	6,576.7	6,576.2	225.1	1.9	-83.42	263.0	101.7	8,004.5	7,779.2	225.24	35.537		
14,665.3	6,635.5	6,576.2	6,575.7	226.9	1.9	-83.36	263.0	101.7	8,069.7	7,842.6	227.04	35.543		
14,700.0	6,635.4	6,576.0	6,575.5	227.9	1.9	-83.34	263.0	101.7	8,104.3	7,876.3	227.99	35.546		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #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	
14,763.7	6,635.4	6,575.6	6,575.1	229.7	1.9	-83.29	263.0	101.7	8,167.9	7,938.2	229.75	35.551	
14,800.0	6,635.3	6,575.3	6,574.8	230.7	1.9	-83.26	263.0	101.7	8,204.1	7,973.4	230.75	35.555	
14,862.2	6,635.2	6,574.9	6,574.4	232.5	1.9	-83.21	263.0	101.7	8,266.2	8,033.7	232.46	35.560	
14,900.0	6,635.2	6,574.6	6,574.1	233.5	1.9	-83.18	263.0	101.7	8,303.9	8,070.4	233.50	35.563	
14,960.6	6,635.1	6,574.2	6,573.7	235.2	1.9	-83.13	263.1	101.6	8,364.4	8,129.3	235.17	35.568	
15,000.0	6,635.0	6,573.9	6,573.4	236.3	1.9	-83.10	263.1	101.6	8,403.8	8,167.5	236.25	35.572	
15,033.1	6,635.0	6,573.7	6,573.2	237.3	1.9	-83.07	263.1	101.6	8,436.8	8,199.6	237.16	35.575	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	52.24	694.4	896.6	1,134.1				
98.4	98.4	87.8	87.8	0.1	0.0	52.24	694.3	896.5	1,134.0	1,133.9	0.10	N/A	
100.0	100.0	89.5	89.5	0.1	0.0	52.24	694.3	896.5	1,134.0	1,133.9	0.10	N/A	
196.8	196.8	186.1	186.1	0.3	0.1	52.25	694.2	896.4	1,133.8	1,133.4	0.40	2,858.102	
200.0	200.0	189.2	189.2	0.3	0.1	52.25	694.2	896.4	1,133.7	1,133.3	0.41	2,787.573	
295.3	295.3	284.7	284.7	0.5	0.2	52.25	694.0	896.3	1,133.6	1,132.8	0.75	1,513.254	
300.0	300.0	289.5	289.4	0.5	0.2	52.25	694.0	896.2	1,133.5	1,132.8	0.77	1,479.218	
393.7	393.7	387.3	387.3	0.8	0.3	52.25	693.7	896.0	1,133.2	1,132.1	1.07	1,061.788	
400.0	400.0	394.0	394.0	0.8	0.3	52.25	693.7	896.0	1,133.2	1,132.1	1.09	1,042.324	
492.1	492.1	486.1	486.1	1.0	0.4	52.27	693.1	895.7	1,132.6	1,131.2	1.36	832.573	
500.0	500.0	494.0	494.0	1.0	0.4	52.27	693.1	895.7	1,132.5	1,131.1	1.38	818.542	
590.5	590.5	584.7	584.7	1.2	0.4	52.28	692.6	895.3	1,132.0	1,130.3	1.64	688.581	
600.0	600.0	594.2	594.2	1.2	0.5	52.28	692.5	895.3	1,131.9	1,130.2	1.67	677.370	
689.0	689.0	683.3	683.3	1.4	0.5	52.29	692.0	895.0	1,131.3	1,129.4	1.92	588.711	
700.0	700.0	694.4	694.3	1.4	0.5	52.29	691.9	894.9	1,131.3	1,129.3	1.95	579.319	
787.4	787.4	781.8	781.8	1.6	0.6	52.30	691.4	894.6	1,130.7	1,128.5	2.20	515.003	
800.0	800.0	794.4	794.4	1.7	0.6	52.30	691.4	894.5	1,130.6	1,128.4	2.23	506.891	
885.8	885.8	880.6	880.6	1.9	0.6	52.31	690.9	894.2	1,130.0	1,127.6	2.47	458.276	
900.0	900.0	894.9	894.9	1.9	0.6	52.31	690.9	894.1	1,129.9	1,127.4	2.50	451.128	
984.2	984.2	979.9	979.9	2.1	0.7	52.31	690.5	893.6	1,129.3	1,126.6	2.73	413.079	
1,000.0	1,000.0	995.8	995.8	2.1	0.7	52.31	690.4	893.5	1,129.2	1,126.4	2.78	406.662	
1,082.7	1,082.7	1,078.5	1,078.4	2.3	0.7	25.35	690.0	893.0	1,127.5	1,124.5	3.00	375.617	
1,100.0	1,100.0	1,095.7	1,095.7	2.3	0.7	25.37	689.9	892.9	1,126.8	1,123.8	3.05	369.544	
1,181.1	1,181.0	1,175.4	1,175.4	2.5	0.7	25.50	689.4	892.5	1,122.7	1,119.4	3.27	343.195	
1,200.0	1,199.8	1,194.0	1,193.9	2.6	0.7	25.54	689.3	892.5	1,121.4	1,118.1	3.32	337.475	
1,279.5	1,279.1	1,271.7	1,271.7	2.8	0.8	25.74	689.0	892.2	1,115.0	1,111.4	3.54	314.778	
1,300.0	1,299.5	1,291.6	1,291.6	2.8	0.8	25.80	688.9	892.1	1,113.0	1,109.4	3.60	309.322	
1,377.9	1,376.9	1,369.4	1,369.4	3.0	0.8	26.09	688.7	891.8	1,104.3	1,100.5	3.82	289.246	
1,400.0	1,398.7	1,391.4	1,391.4	3.0	0.8	26.18	688.6	891.7	1,101.5	1,097.7	3.88	283.954	
1,476.4	1,474.2	1,467.2	1,467.2	3.2	0.9	26.55	688.3	891.4	1,090.7	1,086.6	4.10	266.028	
1,500.0	1,497.5	1,490.5	1,490.5	3.3	0.9	26.68	688.2	891.4	1,087.0	1,082.8	4.17	260.845	
1,574.8	1,571.0	1,564.2	1,564.2	3.5	0.9	27.14	687.9	891.1	1,074.1	1,069.7	4.39	244.603	
1,600.0	1,595.6	1,588.9	1,588.9	3.6	0.9	27.32	687.8	891.0	1,069.3	1,064.9	4.47	239.481	
1,673.2	1,667.2	1,663.6	1,663.6	3.9	0.9	27.71	687.4	890.6	1,055.3	1,050.6	4.68	225.263	
1,700.0	1,693.4	1,691.1	1,691.1	4.0	1.0	27.87	687.2	890.4	1,050.1	1,045.3	4.76	220.423	
1,771.6	1,763.5	1,763.7	1,763.7	4.2	1.0	28.27	686.6	889.9	1,036.0	1,031.1	4.99	207.770	
1,800.0	1,791.3	1,792.4	1,792.4	4.3	1.0	28.44	686.3	889.6	1,030.5	1,025.4	5.07	203.118	
1,870.1	1,859.8	1,863.8	1,863.7	4.6	1.0	28.86	685.4	888.9	1,016.6	1,011.3	5.30	191.954	
1,900.0	1,889.1	1,894.2	1,894.2	4.7	1.0	29.05	685.0	888.5	1,010.6	1,005.2	5.39	187.469	
1,968.5	1,956.1	1,962.4	1,962.3	4.9	1.1	29.49	683.7	887.8	996.8	991.2	5.61	177.656	
2,000.0	1,986.9	1,993.7	1,993.6	5.1	1.1	29.70	683.1	887.6	990.5	984.8	5.71	173.371	
2,066.9	2,052.3	2,059.8	2,059.7	5.3	1.1	30.16	681.6	886.9	977.0	971.1	5.93	164.689	
2,100.0	2,084.7	2,092.5	2,092.4	5.5	1.1	30.39	680.8	886.6	970.4	964.3	6.04	160.621	
2,165.3	2,148.6	2,155.1	2,155.0	5.7	1.1	30.84	679.4	885.9	957.3	951.0	6.26	152.946	
2,200.0	2,182.5	2,188.2	2,188.1	5.9	1.2	31.08	678.8	885.6	950.4	944.0	6.37	149.090	
2,263.8	2,244.9	2,252.0	2,251.9	6.1	1.2	31.53	677.8	884.7	937.7	931.1	6.59	142.227	
2,300.0	2,280.3	2,288.6	2,288.5	6.3	1.2	31.79	677.2	884.1	930.5	923.7	6.72	138.504	
2,362.2	2,341.2	2,349.4	2,349.2	6.5	1.2	32.22	676.4	882.9	918.0	911.1	6.94	132.364	
2,400.0	2,378.1	2,386.0	2,385.8	6.7	1.2	32.48	676.0	882.2	910.5	903.4	7.07	128.811	
2,460.6	2,437.4	2,445.7	2,445.5	6.9	1.2	32.91	675.3	881.0	898.4	891.1	7.28	123.336	
2,500.0	2,476.0	2,484.7	2,484.5	7.1	1.3	33.20	674.8	880.2	890.6	883.2	7.43	119.937	
2,550.0	2,524.9	2,532.9	2,532.7	7.3	1.3	33.57	674.3	879.2	880.7	873.1	7.61	115.789	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,541.6	2,541.4	7.3	1.3	34.51	674.2	879.0	878.9	871.2	7.64	115.073	
2,600.0	2,573.8	2,580.7	2,580.5	7.5	1.3	38.80	673.8	878.2	871.1	863.3	7.78	111.928	
2,639.4	2,612.3	2,618.8	2,618.6	7.7	1.3	42.95	673.5	877.4	863.9	856.0	7.92	109.078	
2,657.5	2,630.0	2,636.5	2,636.3	7.7	1.3	43.12	673.3	877.0	860.8	852.8	7.99	107.750	
2,700.0	2,671.6	2,678.2	2,677.9	7.9	1.3	43.51	673.0	876.1	853.3	845.1	8.15	104.711	
2,755.9	2,726.3	2,732.9	2,732.6	8.1	1.3	44.03	672.6	874.9	843.5	835.2	8.37	100.771	
2,800.0	2,769.4	2,776.0	2,775.7	8.3	1.4	44.46	672.3	874.0	835.9	827.3	8.55	97.794	
2,854.3	2,822.5	2,829.2	2,828.9	8.5	1.4	44.99	671.8	872.9	826.5	817.8	8.77	94.261	
2,900.0	2,867.2	2,873.9	2,873.6	8.7	1.4	45.46	671.3	871.9	818.7	809.7	8.96	91.413	
2,952.7	2,918.8	2,925.0	2,924.6	9.0	1.4	46.00	670.8	870.8	809.7	800.5	9.17	88.253	
3,000.0	2,965.0	2,970.0	2,969.7	9.2	1.4	46.50	670.2	870.0	801.8	792.4	9.37	85.549	
3,051.2	3,015.1	3,018.6	3,018.3	9.4	1.4	47.06	669.5	869.2	793.3	783.7	9.59	82.740	
3,100.0	3,062.8	3,064.6	3,064.3	9.6	1.5	47.60	668.8	868.5	785.4	775.6	9.79	80.184	
3,149.6	3,111.4	3,111.6	3,111.2	9.8	1.5	48.17	668.1	867.9	777.5	767.5	10.01	77.690	
3,200.0	3,160.7	3,159.7	3,159.4	10.0	1.5	48.77	667.4	867.4	769.7	759.5	10.23	75.264	
3,248.0	3,207.6	3,205.6	3,205.2	10.2	1.5	49.35	666.7	867.0	762.4	751.9	10.44	73.043	
3,300.0	3,258.5	3,254.8	3,254.4	10.5	1.5	49.98	665.9	866.6	754.6	743.9	10.67	70.750	
3,346.4	3,303.9	3,300.0	3,299.6	10.7	1.5	50.59	665.2	866.4	747.9	737.0	10.87	68.775	
3,400.0	3,356.3	3,349.9	3,349.5	10.9	1.6	51.26	664.4	866.2	740.3	729.1	11.11	66.615	
3,444.9	3,400.2	3,392.7	3,392.3	11.1	1.6	51.85	663.7	866.1	734.0	722.7	11.32	64.870	
3,500.0	3,454.1	3,446.5	3,446.1	11.3	1.6	52.61	663.0	866.0	726.5	715.0	11.57	62.806	
3,543.3	3,496.5	3,488.9	3,488.5	11.5	1.6	53.21	662.4	865.9	720.7	709.0	11.77	61.242	
3,600.0	3,551.9	3,544.4	3,544.0	11.7	1.6	54.01	661.7	865.7	713.2	701.2	12.03	59.268	
3,641.7	3,592.7	3,585.3	3,584.9	11.9	1.6	54.61	661.1	865.6	707.8	695.6	12.23	57.866	
3,700.0	3,649.7	3,642.1	3,641.6	12.2	1.7	55.47	660.3	865.4	700.3	687.8	12.51	55.983	
3,740.1	3,689.0	3,681.1	3,680.7	12.4	1.7	56.06	659.8	865.3	695.3	682.6	12.70	54.734	
3,800.0	3,747.5	3,740.1	3,739.7	12.6	1.7	56.96	659.0	865.1	687.9	674.9	12.99	52.938	
3,838.6	3,785.3	3,778.4	3,777.9	12.8	1.7	57.56	658.6	864.9	683.2	670.0	13.18	51.818	
3,900.0	3,845.4	3,838.4	3,837.9	13.1	1.7	58.51	657.8	864.6	675.8	662.3	13.49	50.102	
3,937.0	3,881.6	3,874.2	3,873.8	13.2	1.7	59.09	657.4	864.4	671.4	657.8	13.67	49.109	
4,000.0	3,943.2	3,935.5	3,935.0	13.5	1.8	60.10	656.6	864.1	664.2	650.2	13.99	47.483	
4,035.4	3,977.8	3,970.1	3,969.6	13.6	1.8	60.67	656.2	863.9	660.3	646.1	14.17	46.604	
4,100.0	4,041.0	4,033.6	4,033.2	13.9	1.8	61.73	655.6	863.5	653.2	638.7	14.50	45.058	
4,133.8	4,074.1	4,067.2	4,066.7	14.1	1.8	62.30	655.4	863.3	649.6	634.9	14.67	44.273	
4,200.0	4,138.8	4,133.1	4,132.7	14.4	1.8	63.43	654.8	862.8	642.5	627.5	15.02	42.792	
4,232.3	4,170.4	4,165.5	4,165.1	14.5	1.8	63.99	654.5	862.4	639.1	624.0	15.18	42.091	
4,300.0	4,236.6	4,233.9	4,233.4	14.8	1.9	65.21	653.7	861.6	632.1	616.5	15.54	40.665	
4,330.7	4,266.7	4,265.0	4,264.5	14.9	1.9	65.77	653.4	861.1	628.9	613.1	15.71	40.037	
4,400.0	4,334.4	4,334.2	4,333.6	15.2	1.9	67.03	652.8	859.9	621.6	605.6	16.08	38.670	
4,429.1	4,362.9	4,362.7	4,362.2	15.4	1.9	67.55	652.6	859.3	618.7	602.5	16.23	38.118	
4,500.0	4,432.3	4,432.1	4,431.6	15.7	1.9	68.83	652.2	858.0	611.7	595.1	16.61	36.828	
4,527.5	4,459.2	4,459.0	4,458.5	15.8	1.9	69.34	652.1	857.4	609.0	592.3	16.76	36.347	
4,600.0	4,530.1	4,527.8	4,527.2	16.1	2.0	70.63	651.9	856.1	602.3	585.2	17.14	35.143	
4,626.0	4,555.5	4,551.4	4,550.8	16.2	2.0	71.08	651.8	855.7	600.1	582.8	17.28	34.737	
4,700.0	4,627.9	4,618.6	4,618.0	16.6	2.0	72.37	651.6	855.1	594.4	576.8	17.66	33.662	
4,724.4	4,651.7	4,640.6	4,640.0	16.7	2.0	72.80	651.5	855.0	592.8	575.0	17.78	33.338	
4,800.0	4,725.7	4,709.5	4,709.0	17.0	2.0	74.17	651.1	855.1	588.4	570.3	18.16	32.399	
4,822.8	4,748.0	4,731.8	4,731.2	17.1	2.0	74.62	651.0	855.3	587.3	569.0	18.28	32.132	
4,904.9	4,828.3	4,812.1	4,811.6	17.5	2.0	76.26	650.4	855.8	583.5	564.8	18.69	31.216	
4,921.2	4,844.3	4,828.5	4,828.0	17.5	2.0	76.58	650.3	855.9	582.8	564.0	18.76	31.059	
5,000.0	4,921.6	4,907.5	4,906.9	17.8	2.0	78.02	649.6	856.1	579.8	560.7	19.10	30.347	
5,019.7	4,941.0	4,926.9	4,926.4	17.9	2.0	78.35	649.4	856.2	579.1	560.0	19.17	30.205	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,020.4	5,006.5	5,005.9	18.1	2.1	79.56	648.8	856.3	576.9	557.5	19.45	29.663	
5,118.1	5,038.3	5,024.4	5,023.8	18.2	2.1	79.81	648.6	856.3	576.5	557.0	19.50	29.559	
5,200.0	5,119.6	5,105.7	5,105.2	18.4	2.1	80.81	647.9	856.4	575.1	555.3	19.75	29.123	
5,216.5	5,136.0	5,122.1	5,121.5	18.4	2.1	80.98	647.8	856.5	574.8	555.1	19.79	29.050	
5,300.0	5,219.2	5,204.9	5,204.3	18.6	2.1	81.75	646.9	856.6	574.0	554.0	19.99	28.708	
5,314.9	5,234.1	5,220.2	5,219.6	18.6	2.1	81.87	646.7	856.6	573.9	553.9	20.03	28.659	
5,400.0	5,319.1	5,307.3	5,306.7	18.8	2.1	82.40	645.8	856.4	573.4	553.2	20.20	28.386	
5,413.4	5,332.4	5,320.6	5,320.1	18.8	2.1	82.46	645.6	856.4	573.3	553.1	20.22	28.352	
5,504.9	5,423.9	5,412.4	5,411.8	18.9	2.2	101.12	644.7	856.1	573.0	557.7	15.34	37.352	
5,511.8	5,430.8	5,419.5	5,418.9	18.9	2.2	101.13	644.6	856.1	573.0	557.6	15.35	37.317	
5,600.0	5,519.0	5,509.8	5,509.2	19.0	2.2	101.21	643.8	855.6	572.6	557.1	15.53	36.864	
5,610.2	5,529.3	5,520.1	5,519.5	19.0	2.2	101.22	643.7	855.5	572.6	557.0	15.56	36.806	
5,700.0	5,619.0	5,610.8	5,610.2	19.2	2.2	101.31	643.0	854.8	572.0	556.2	15.76	36.302	
5,708.6	5,627.7	5,619.4	5,618.8	19.2	2.2	101.32	642.9	854.7	571.9	556.2	15.78	36.254	
5,800.0	5,719.0	5,711.2	5,710.6	19.3	2.3	101.39	642.3	853.8	571.2	555.3	15.98	35.752	
5,807.1	5,726.1	5,718.3	5,717.7	19.3	2.3	101.40	642.3	853.8	571.2	555.2	15.99	35.713	
5,900.0	5,819.0	5,811.8	5,811.2	19.4	2.3	101.46	641.9	852.9	570.4	554.2	16.20	35.211	
5,905.5	5,824.5	5,817.2	5,816.6	19.4	2.3	101.46	641.8	852.8	570.3	554.1	16.21	35.182	
6,003.9	5,923.0	5,914.6	5,914.0	19.6	2.3	101.54	641.2	851.9	569.6	553.1	16.43	34.666	
6,009.8	5,928.8	5,920.4	5,919.8	19.6	2.3	101.55	641.2	851.8	569.5	553.1	16.44	34.636	
6,014.9	5,934.0	5,925.6	5,925.0	19.6	2.3	-168.45	641.1	851.8	569.5	548.3	21.18	26.894 CC, ES	
6,050.0	5,969.0	5,960.7	5,960.1	19.6	2.4	-168.42	640.8	851.5	570.3	549.1	21.22	26.882 SF	
6,100.0	6,018.8	6,010.7	6,010.1	19.7	2.4	-168.40	640.4	851.0	574.4	553.2	21.27	27.009	
6,102.3	6,021.1	6,013.1	6,012.5	19.7	2.4	-168.40	640.4	851.0	574.7	553.4	21.27	27.019	
6,150.0	6,068.1	6,060.9	6,060.3	19.7	2.4	-168.39	640.0	850.5	581.9	560.6	21.31	27.309	
6,200.0	6,116.8	6,110.2	6,109.6	19.7	2.4	-168.38	639.5	850.0	592.6	571.3	21.32	27.798	
6,200.8	6,117.5	6,111.0	6,110.3	19.7	2.4	-168.38	639.5	850.0	592.8	571.5	21.32	27.807	
6,250.0	6,164.5	6,157.9	6,157.2	19.7	2.4	-168.37	639.0	849.4	606.7	585.4	21.29	28.496	
6,299.2	6,210.4	6,203.7	6,203.0	19.7	2.4	-168.33	638.4	848.9	623.7	602.5	21.21	29.402	
6,300.0	6,211.1	6,204.4	6,203.8	19.7	2.4	-168.33	638.4	848.8	624.0	602.8	21.21	29.418	
6,350.0	6,256.4	6,249.4	6,248.8	19.7	2.5	-168.28	637.7	848.3	644.6	623.5	21.08	30.578	
6,397.6	6,298.0	6,290.8	6,290.2	19.7	2.5	-168.20	637.1	847.9	667.0	646.1	20.90	31.916	
6,400.0	6,300.0	6,292.9	6,292.2	19.7	2.5	-168.19	637.0	847.8	668.2	647.3	20.89	31.989	
6,450.0	6,341.8	6,334.6	6,333.9	19.7	2.5	-168.07	636.3	847.4	694.9	674.2	20.64	33.661	
6,496.0	6,378.6	6,371.3	6,370.6	19.7	2.5	-167.90	635.7	847.0	722.0	701.6	20.37	35.442	
6,500.0	6,381.6	6,374.4	6,373.7	19.7	2.5	-167.88	635.6	847.0	724.4	704.0	20.35	35.605	
6,550.0	6,419.2	6,412.1	6,411.4	19.6	2.5	-167.62	634.9	846.6	756.6	736.6	20.00	37.829	
6,594.5	6,450.7	6,443.8	6,443.1	19.6	2.5	-167.30	634.2	846.3	787.5	767.8	19.67	40.042	
6,600.0	6,454.4	6,447.6	6,446.9	19.6	2.5	-167.26	634.1	846.2	791.4	771.8	19.62	40.331	
6,650.0	6,487.1	6,480.6	6,479.9	19.6	2.5	-166.76	633.4	845.9	828.6	809.4	19.23	43.100	
6,692.9	6,513.0	6,507.1	6,506.4	19.6	2.5	-166.22	632.7	845.6	862.3	843.4	18.88	45.665	
6,700.0	6,517.0	6,511.5	6,510.8	19.6	2.5	-166.11	632.6	845.6	868.0	849.2	18.83	46.100	
6,750.0	6,544.1	6,540.7	6,540.0	19.6	2.5	-165.26	631.8	845.2	909.4	891.0	18.47	49.250	
6,791.3	6,564.2	6,562.6	6,561.9	19.7	2.6	-164.33	631.2	844.9	945.0	926.8	18.23	51.826	
6,800.0	6,568.2	6,566.9	6,566.2	19.7	2.6	-164.10	631.1	844.8	952.6	934.4	18.17	52.414	
6,850.0	6,589.1	6,590.0	6,589.3	19.8	2.6	-162.49	630.5	844.4	997.3	979.3	18.02	55.354	
6,889.7	6,603.5	6,605.1	6,604.4	19.9	2.6	-160.70	630.0	844.2	1,033.9	1,015.9	18.05	57.275	
6,900.0	6,606.9	6,608.3	6,607.6	19.9	2.6	-160.13	629.9	844.1	1,043.5	1,025.4	18.09	57.687	
6,950.0	6,621.3	6,622.0	6,621.2	20.2	2.6	-156.50	629.5	843.9	1,090.8	1,072.3	18.53	58.863	
6,988.2	6,630.0	6,630.4	6,629.6	20.6	2.6	-152.33	629.3	843.8	1,127.6	1,108.4	19.25	58.576	
7,000.0	6,632.4	6,632.6	6,631.8	20.7	2.6	-150.65	629.2	843.7	1,139.1	1,119.6	19.56	58.244	
7,050.0	6,640.0	6,640.0	6,639.2	21.4	2.6	-140.24	629.0	843.6	1,188.2	1,166.7	21.45	55.392	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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)	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	6,643.4	6,643.4	6,642.6	21.9	2.6	-126.70	628.9	843.6	1,224.4	1,201.0	23.33	52.485	
7,100.0	6,644.2	6,644.3	6,643.5	22.1	2.6	-119.71	628.9	843.6	1,237.7	1,213.7	23.93	51.715	
7,135.7	6,645.0	6,645.4	6,644.6	22.7	2.6	-95.01	628.9	843.6	1,273.1	1,248.8	24.30	52.385	
7,185.0	6,644.9	6,645.9	6,645.1	23.6	2.6	-95.24	628.9	843.6	1,322.3	1,297.0	25.27	52.327	
7,200.0	6,644.9	6,646.1	6,645.3	23.9	2.6	-95.30	628.8	843.6	1,337.2	1,311.6	25.56	52.310	
7,283.4	6,644.8	6,646.9	6,646.1	25.6	2.6	-95.68	628.8	843.6	1,420.3	1,393.0	27.30	52.030	
7,300.0	6,644.8	6,647.1	6,646.3	25.9	2.6	-95.75	628.8	843.6	1,436.7	1,409.1	27.64	51.979	
7,381.9	6,644.7	6,647.9	6,647.1	27.7	2.6	-96.10	628.8	843.5	1,518.3	1,488.9	29.45	51.561	
7,400.0	6,644.7	6,648.0	6,647.2	28.1	2.6	-96.18	628.8	843.5	1,536.4	1,506.5	29.85	51.476	
7,480.3	6,644.6	6,648.8	6,648.0	29.9	2.6	-96.52	628.8	843.5	1,616.4	1,584.7	31.70	50.988	
7,500.0	6,644.6	6,649.0	6,648.2	30.3	2.6	-96.61	628.8	843.5	1,636.1	1,603.9	32.16	50.878	
7,578.7	6,644.5	6,649.7	6,648.9	32.2	2.6	-96.94	628.7	843.5	1,714.6	1,680.5	34.03	50.378	
7,600.0	6,644.4	6,649.9	6,649.1	32.7	2.6	-97.02	628.7	843.5	1,735.8	1,701.2	34.54	50.253	
7,677.1	6,644.3	6,650.6	6,649.8	34.6	2.6	-97.34	628.7	843.5	1,812.7	1,776.3	36.42	49.766	
7,700.0	6,644.3	6,650.8	6,650.1	35.1	2.6	-97.43	628.7	843.5	1,835.5	1,798.5	36.98	49.632	
7,775.6	6,644.2	6,651.5	6,650.7	37.0	2.6	-97.74	628.7	843.5	1,910.9	1,872.1	38.86	49.172	
7,800.0	6,644.2	6,651.8	6,651.0	37.6	2.6	-97.83	628.7	843.5	1,935.3	1,895.8	39.47	49.033	
7,874.0	6,644.1	6,652.4	6,651.6	39.5	2.6	-98.12	628.7	843.5	2,009.1	1,967.8	41.34	48.606	
7,900.0	6,644.1	6,652.6	6,651.8	40.1	2.6	-98.22	628.7	843.5	2,035.1	1,993.1	41.99	48.466	
7,972.4	6,644.0	6,653.3	6,652.5	42.0	2.6	-98.50	628.6	843.5	2,107.4	2,063.5	43.84	48.073	
8,000.0	6,643.9	6,653.5	6,652.7	42.7	2.6	-98.61	628.6	843.5	2,134.9	2,090.4	44.54	47.933	
8,070.8	6,643.9	6,654.1	6,653.3	44.5	2.6	-98.88	628.6	843.5	2,205.6	2,159.3	46.36	47.575	
8,100.0	6,643.8	6,654.4	6,653.6	45.2	2.6	-98.98	628.6	843.5	2,234.7	2,187.6	47.11	47.436	
8,169.3	6,643.7	6,655.0	6,654.2	47.0	2.6	-99.24	628.6	843.5	2,303.9	2,255.0	48.90	47.111	
8,200.0	6,643.7	6,655.2	6,654.4	47.9	2.6	-99.35	628.6	843.5	2,334.6	2,284.9	49.70	46.976	
8,267.7	6,643.6	6,655.8	6,655.0	49.6	2.6	-99.60	628.6	843.4	2,402.2	2,350.7	51.46	46.681	
8,300.0	6,643.6	6,656.0	6,655.2	50.5	2.6	-99.71	628.6	843.4	2,434.4	2,382.1	52.30	46.549	
8,366.1	6,643.5	6,656.6	6,655.8	52.2	2.6	-99.95	628.6	843.4	2,500.5	2,446.4	54.03	46.283	
8,400.0	6,643.4	6,656.9	6,656.1	53.1	2.6	-100.07	628.6	843.4	2,534.3	2,479.4	54.91	46.154	
8,464.5	6,643.4	6,657.4	6,656.6	54.8	2.6	-100.29	628.5	843.4	2,598.8	2,542.2	56.60	45.914	
8,500.0	6,643.3	6,657.7	6,656.9	55.8	2.6	-100.41	628.5	843.4	2,634.2	2,576.6	57.53	45.789	
8,563.0	6,643.2	6,658.1	6,657.3	57.5	2.6	-100.63	628.5	843.4	2,697.1	2,637.9	59.18	45.573	
8,600.0	6,643.2	6,658.4	6,657.6	58.5	2.6	-100.75	628.5	843.4	2,734.0	2,673.9	60.15	45.452	
8,661.4	6,643.1	6,658.9	6,658.1	60.1	2.6	-100.96	628.5	843.4	2,795.4	2,733.6	61.77	45.257	
8,700.0	6,643.1	6,659.2	6,658.4	61.2	2.6	-101.09	628.5	843.4	2,833.9	2,771.2	62.78	45.140	
8,759.8	6,643.0	6,659.7	6,658.9	62.8	2.6	-101.28	628.5	843.4	2,893.7	2,829.3	64.36	44.964	
8,800.0	6,643.0	6,660.0	6,659.2	63.9	2.6	-101.41	628.5	843.4	2,933.8	2,868.4	65.41	44.851	
8,858.2	6,642.9	6,660.4	6,659.6	65.4	2.6	-101.60	628.5	843.4	2,992.0	2,925.1	66.95	44.693	
8,900.0	6,642.8	6,660.7	6,659.9	66.6	2.6	-101.73	628.4	843.4	3,033.7	2,965.7	68.05	44.584	
8,956.7	6,642.8	6,661.1	6,660.3	68.1	2.6	-101.91	628.4	843.4	3,090.4	3,020.8	69.54	44.441	
9,000.0	6,642.7	6,661.4	6,660.6	69.3	2.6	-102.05	628.4	843.4	3,133.7	3,063.0	70.68	44.336	
9,055.1	6,642.6	6,661.8	6,661.0	70.8	2.6	-102.22	628.4	843.4	3,188.7	3,116.6	72.13	44.207	
9,100.0	6,642.6	6,662.2	6,661.4	72.0	2.6	-102.36	628.4	843.4	3,233.6	3,160.3	73.31	44.107	
9,153.5	6,642.5	6,662.6	6,661.8	73.5	2.6	-102.52	628.4	843.4	3,287.1	3,212.3	74.72	43.990	
9,200.0	6,642.5	6,662.9	6,662.1	74.7	2.6	-102.66	628.4	843.4	3,333.5	3,257.5	75.94	43.894	
9,251.9	6,642.4	6,663.2	6,662.4	76.2	2.6	-102.81	628.4	843.4	3,385.4	3,308.1	77.31	43.789	
9,300.0	6,642.3	6,663.6	6,662.8	77.5	2.6	-102.95	628.4	843.4	3,433.4	3,354.8	78.58	43.696	
9,350.4	6,642.3	6,663.9	6,663.1	78.9	2.6	-103.10	628.4	843.4	3,483.8	3,403.9	79.90	43.601	
9,400.0	6,642.2	6,664.3	6,663.5	80.2	2.6	-103.25	628.4	843.4	3,533.3	3,452.1	81.20	43.512	
9,448.8	6,642.1	6,664.6	6,663.8	81.6	2.6	-103.39	628.3	843.4	3,582.1	3,499.6	82.49	43.426	
9,500.0	6,642.1	6,664.9	6,664.1	83.0	2.6	-103.53	628.3	843.3	3,633.3	3,549.4	83.83	43.340	
9,547.2	6,642.0	6,665.3	6,664.5	84.3	2.6	-103.66	628.3	843.3	3,680.5	3,595.4	85.07	43.264	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,600.0	6,642.0	6,665.6	6,664.8	85.7	2.6	-103.81	628.3	843.3	3,733.2	3,646.8	86.46	43.181		
9,645.6	6,641.9	6,665.9	6,665.1	87.0	2.6	-103.94	628.3	843.3	3,778.8	3,691.2	87.65	43.112		
9,700.0	6,641.8	6,666.3	6,665.5	88.5	2.6	-104.09	628.3	843.3	3,833.2	3,744.1	89.08	43.032		
9,744.1	6,641.8	6,666.6	6,665.8	89.7	2.6	-104.21	628.3	843.3	3,877.2	3,787.0	90.23	42.970		
9,800.0	6,641.7	6,666.9	6,666.1	91.2	2.6	-104.36	628.3	843.3	3,933.1	3,841.4	91.69	42.894		
9,842.5	6,641.7	6,667.2	6,666.4	92.4	2.6	-104.47	628.3	843.3	3,975.6	3,882.8	92.80	42.838		
9,900.0	6,641.6	6,667.6	6,666.8	94.0	2.6	-104.62	628.3	843.3	4,033.0	3,938.7	94.31	42.765		
9,940.9	6,641.5	6,667.8	6,667.0	95.1	2.6	-104.73	628.3	843.3	4,074.0	3,978.6	95.38	42.715		
10,000.0	6,641.5	6,668.2	6,667.4	96.7	2.6	-104.88	628.2	843.3	4,133.0	4,036.1	96.92	42.644		
10,039.3	6,641.4	6,668.4	6,667.6	97.8	2.6	-104.98	628.2	843.3	4,172.3	4,074.4	97.94	42.599		
10,100.0	6,641.3	6,668.8	6,668.0	99.5	2.6	-105.14	628.2	843.3	4,232.9	4,133.4	99.52	42.532		
10,137.8	6,641.3	6,669.0	6,668.2	100.6	2.6	-105.23	628.2	843.3	4,270.7	4,170.2	100.51	42.491		
10,200.0	6,641.2	6,669.4	6,668.6	102.3	2.6	-105.39	628.2	843.3	4,332.9	4,230.8	102.13	42.427		
10,236.2	6,641.2	6,669.6	6,668.8	103.3	2.6	-105.48	628.2	843.3	4,369.1	4,266.0	103.07	42.390		
10,300.0	6,641.1	6,670.0	6,669.2	105.0	2.6	-105.63	628.2	843.3	4,432.9	4,328.1	104.73	42.328		
10,334.6	6,641.0	6,670.2	6,669.4	106.0	2.6	-105.72	628.2	843.3	4,467.5	4,361.8	105.62	42.296		
10,400.0	6,641.0	6,670.6	6,669.8	107.8	2.6	-105.88	628.2	843.3	4,532.8	4,425.5	107.32	42.237		
10,433.0	6,640.9	6,670.8	6,670.0	108.7	2.6	-105.96	628.2	843.3	4,565.8	4,457.7	108.18	42.208		
10,500.0	6,640.8	6,671.2	6,670.4	110.6	2.6	-106.11	628.2	843.3	4,632.8	4,522.9	109.91	42.151		
10,531.5	6,640.8	6,671.4	6,670.6	111.5	2.6	-106.19	628.2	843.3	4,664.2	4,553.5	110.72	42.125		
10,600.0	6,640.7	6,671.7	6,670.9	113.4	2.6	-106.35	628.2	843.3	4,732.7	4,620.2	112.50	42.070		
10,629.9	6,640.7	6,671.9	6,671.1	114.2	2.6	-106.42	628.1	843.3	4,762.6	4,649.3	113.27	42.047		
10,700.0	6,640.6	6,672.3	6,671.5	116.1	2.6	-106.58	628.1	843.3	4,832.7	4,717.6	115.08	41.995		
10,728.3	6,640.5	6,672.5	6,671.7	116.9	2.6	-106.64	628.1	843.3	4,861.0	4,745.2	115.81	41.975		
10,800.0	6,640.5	6,672.9	6,672.1	118.9	2.6	-106.80	628.1	843.3	4,932.7	4,815.0	117.65	41.925		
10,826.7	6,640.4	6,673.0	6,672.2	119.7	2.6	-106.86	628.1	843.3	4,959.4	4,841.1	118.34	41.907		
10,900.0	6,640.3	6,673.4	6,672.6	121.7	2.6	-107.02	628.1	843.3	5,032.6	4,912.4	120.23	41.859		
10,925.2	6,640.3	6,673.6	6,672.8	122.4	2.6	-107.08	628.1	843.3	5,057.8	4,936.9	120.87	41.843		
11,000.0	6,640.2	6,674.0	6,673.2	124.5	2.6	-107.24	628.1	843.3	5,132.6	5,009.8	122.80	41.798		
11,023.6	6,640.2	6,674.1	6,673.3	125.1	2.6	-107.29	628.1	843.3	5,156.2	5,032.8	123.40	41.784		
11,100.0	6,640.1	6,674.5	6,673.7	127.3	2.6	-107.45	628.1	843.3	5,232.5	5,107.2	125.36	41.740		
11,122.0	6,640.0	6,674.6	6,673.8	127.9	2.6	-107.50	628.1	843.3	5,254.6	5,128.6	125.92	41.728		
11,200.0	6,639.9	6,675.0	6,674.2	130.1	2.6	-107.66	628.1	843.2	5,332.5	5,204.6	127.92	41.686		
11,220.4	6,639.9	6,675.1	6,674.3	130.6	2.6	-107.71	628.1	843.2	5,353.0	5,224.5	128.44	41.676		
11,300.0	6,639.8	6,675.5	6,674.7	132.8	2.6	-107.87	628.1	843.2	5,432.5	5,302.0	130.48	41.636		
11,318.9	6,639.8	6,675.6	6,674.8	133.4	2.6	-107.91	628.0	843.2	5,451.4	5,320.4	130.96	41.627		
11,400.0	6,639.7	6,676.0	6,675.2	135.6	2.6	-108.07	628.0	843.2	5,532.5	5,399.4	133.03	41.589		
11,417.3	6,639.7	6,676.1	6,675.3	136.1	2.6	-108.11	628.0	843.2	5,549.8	5,416.3	133.47	41.581		
11,500.0	6,639.6	6,676.6	6,675.7	138.4	2.6	-108.27	628.0	843.2	5,632.4	5,496.9	135.57	41.545		
11,515.7	6,639.5	6,676.6	6,675.8	138.9	2.6	-108.31	628.0	843.2	5,648.1	5,512.2	135.97	41.539		
11,600.0	6,639.4	6,677.0	6,676.2	141.2	2.6	-108.47	628.0	843.2	5,732.4	5,594.3	138.12	41.504		
11,614.1	6,639.4	6,677.1	6,676.3	141.6	2.6	-108.50	628.0	843.2	5,746.5	5,608.1	138.48	41.499		
11,700.0	6,639.3	6,677.5	6,676.7	144.0	2.6	-108.66	628.0	843.2	5,832.4	5,691.7	140.65	41.466		
11,712.6	6,639.3	6,677.6	6,676.8	144.3	2.6	-108.69	628.0	843.2	5,844.9	5,704.0	140.97	41.461		
11,800.0	6,639.2	6,678.0	6,677.2	146.8	2.6	-108.85	628.0	843.2	5,932.3	5,789.2	143.19	41.430		
11,811.0	6,639.2	6,678.1	6,677.3	147.1	2.6	-108.88	628.0	843.2	5,943.3	5,799.9	143.47	41.426		
11,900.0	6,639.1	6,678.5	6,677.7	149.6	2.6	-109.04	628.0	843.2	6,032.3	5,886.6	145.72	41.397		
11,909.4	6,639.0	6,678.5	6,677.7	149.8	2.6	-109.06	628.0	843.2	6,041.7	5,895.8	145.96	41.394		
12,000.0	6,638.9	6,679.0	6,678.2	152.4	2.6	-109.23	628.0	843.2	6,132.3	5,984.1	148.25	41.366		
12,007.8	6,638.9	6,679.0	6,678.2	152.6	2.6	-109.24	628.0	843.2	6,140.1	5,991.7	148.44	41.364		
12,100.0	6,638.8	6,679.4	6,678.6	155.2	2.6	-109.41	627.9	843.2	6,232.3	6,081.5	150.77	41.337		
12,106.3	6,638.8	6,679.5	6,678.7	155.3	2.6	-109.42	627.9	843.2	6,238.5	6,087.6	150.93	41.335		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,200.0	6,638.7	6,700.0	6,699.2	157.9	2.6	-117.09	627.4	843.0	6,332.3	6,185.7	146.63	43.186	
12,204.7	6,638.7	6,700.0	6,699.2	158.1	2.6	-117.09	627.4	843.0	6,337.0	6,190.3	146.75	43.183	
12,300.0	6,638.5	6,700.0	6,699.2	160.7	2.6	-117.08	627.4	843.0	6,432.3	6,283.1	149.14	43.128	
12,303.1	6,638.5	6,700.0	6,699.2	160.8	2.6	-117.08	627.4	843.0	6,435.4	6,286.2	149.22	43.126	
12,400.0	6,638.4	6,700.0	6,699.2	163.5	2.6	-117.08	627.4	843.0	6,532.3	6,380.6	151.66	43.071	
12,401.5	6,638.4	6,700.0	6,699.2	163.6	2.6	-117.08	627.4	843.0	6,533.8	6,382.1	151.70	43.070	
12,500.0	6,638.3	6,700.0	6,699.2	166.3	2.6	-117.08	627.4	843.0	6,632.2	6,478.1	154.18	43.016	
12,598.4	6,638.2	6,700.0	6,699.2	169.1	2.6	-117.08	627.4	843.0	6,730.6	6,574.0	156.65	42.965	
12,600.0	6,638.2	6,700.0	6,699.2	169.1	2.6	-117.07	627.4	843.0	6,732.2	6,575.5	156.70	42.963	
12,696.8	6,638.0	6,700.0	6,699.2	171.8	2.6	-117.07	627.4	843.0	6,829.0	6,669.9	159.13	42.914	
12,700.0	6,638.0	6,700.0	6,699.2	171.9	2.6	-117.07	627.4	843.0	6,832.2	6,673.0	159.22	42.911	
12,795.2	6,637.9	6,700.0	6,699.2	174.6	2.6	-117.07	627.4	843.0	6,927.4	6,765.8	161.61	42.864	
12,800.0	6,637.9	6,700.0	6,699.2	174.7	2.6	-117.07	627.4	843.0	6,932.2	6,770.4	161.74	42.861	
12,893.7	6,637.8	6,700.0	6,699.2	177.3	2.6	-117.07	627.4	843.0	7,025.8	6,861.7	164.09	42.816	
12,900.0	6,637.8	6,700.0	6,699.2	177.5	2.6	-117.06	627.4	843.0	7,032.1	6,867.9	164.26	42.812	
12,992.1	6,637.7	6,700.0	6,699.2	180.1	2.6	-117.06	627.4	843.0	7,124.2	6,957.6	166.57	42.769	
13,000.0	6,637.6	6,700.0	6,699.2	180.3	2.6	-117.06	627.4	843.0	7,132.1	6,965.3	166.78	42.764	
13,090.5	6,637.5	6,700.0	6,699.2	182.8	2.6	-117.06	627.4	843.0	7,222.6	7,053.6	169.06	42.723	
13,100.0	6,637.5	6,700.0	6,699.2	183.1	2.6	-117.05	627.4	843.0	7,232.1	7,062.8	169.30	42.718	
13,188.9	6,637.4	6,700.0	6,699.2	185.6	2.6	-117.05	627.4	843.0	7,321.0	7,149.5	171.54	42.679	
13,200.0	6,637.4	6,700.0	6,699.2	185.9	2.6	-117.05	627.4	843.0	7,332.1	7,160.3	171.82	42.673	
13,287.4	6,637.3	6,700.0	6,699.2	188.4	2.6	-117.05	627.4	843.0	7,419.4	7,245.4	174.02	42.635	
13,300.0	6,637.3	6,700.0	6,699.2	188.7	2.6	-117.04	627.4	843.0	7,432.1	7,257.7	174.34	42.629	
13,385.8	6,637.1	6,700.0	6,699.2	191.1	2.6	-117.04	627.4	843.0	7,517.8	7,341.3	176.51	42.593	
13,400.0	6,637.1	6,700.0	6,699.2	191.5	2.6	-117.04	627.4	843.0	7,532.0	7,355.2	176.87	42.586	
13,484.2	6,637.0	6,700.0	6,699.2	193.9	2.6	-117.04	627.4	843.0	7,616.3	7,437.3	178.99	42.551	
13,500.0	6,637.0	6,700.0	6,699.2	194.3	2.6	-117.04	627.4	843.0	7,632.0	7,452.6	179.39	42.544	
13,582.6	6,636.9	6,700.0	6,699.2	196.6	2.6	-117.04	627.4	843.0	7,714.7	7,533.2	181.47	42.511	
13,600.0	6,636.9	6,700.0	6,699.2	197.1	2.6	-117.03	627.4	843.0	7,732.0	7,550.1	181.92	42.503	
13,681.1	6,636.8	6,700.0	6,699.2	199.4	2.6	-117.03	627.4	843.0	7,813.1	7,629.1	183.96	42.472	
13,700.0	6,636.7	6,700.0	6,699.2	199.9	2.6	-117.03	627.4	843.0	7,832.0	7,647.6	184.44	42.463	
13,779.5	6,636.6	6,700.0	6,699.2	202.1	2.6	-117.03	627.4	843.0	7,911.5	7,725.0	186.44	42.434	
13,800.0	6,636.6	6,700.0	6,699.2	202.7	2.6	-117.02	627.4	843.0	7,932.0	7,745.0	186.97	42.425	
13,877.9	6,636.5	6,700.0	6,699.2	204.9	2.6	-117.02	627.4	843.0	8,009.9	7,821.0	188.93	42.396	
13,900.0	6,636.5	6,700.0	6,699.2	205.5	2.6	-117.02	627.4	843.0	8,032.0	7,842.5	189.49	42.387	
13,976.3	6,636.4	6,700.0	6,699.2	207.6	2.6	-117.02	627.4	843.0	8,108.3	7,916.9	191.42	42.359	
14,000.0	6,636.3	6,700.0	6,699.2	208.3	2.6	-117.01	627.4	843.0	8,131.9	7,939.9	192.02	42.350	
14,074.8	6,636.3	6,700.0	6,699.2	210.4	2.6	-117.01	627.4	843.0	8,206.7	8,012.8	193.90	42.324	
14,100.0	6,636.2	6,700.0	6,699.2	211.1	2.6	-117.01	627.4	843.0	8,231.9	8,037.4	194.55	42.314	
14,173.2	6,636.1	6,700.0	6,699.2	213.2	2.6	-117.01	627.4	843.0	8,305.1	8,108.7	196.39	42.289	
14,200.0	6,636.1	6,700.0	6,699.2	213.9	2.6	-117.00	627.4	843.0	8,331.9	8,134.8	197.07	42.278	
14,271.6	6,636.0	6,700.0	6,699.2	215.9	2.6	-117.00	627.4	843.0	8,403.5	8,204.6	198.88	42.254	
14,300.0	6,636.0	6,700.0	6,699.2	216.7	2.6	-117.00	627.4	843.0	8,431.9	8,232.3	199.60	42.244	
14,370.0	6,635.9	6,700.0	6,699.2	218.7	2.6	-117.00	627.4	843.0	8,501.9	8,300.6	201.37	42.221	
14,400.0	6,635.8	6,700.0	6,699.2	219.5	2.6	-117.00	627.4	843.0	8,531.9	8,329.8	202.13	42.210	
14,468.5	6,635.7	6,700.0	6,699.2	221.4	2.6	-117.00	627.4	843.0	8,600.3	8,396.5	203.86	42.188	
14,500.0	6,635.7	6,700.0	6,699.2	222.3	2.6	-116.99	627.4	843.0	8,631.9	8,427.2	204.66	42.177	
14,566.9	6,635.6	6,700.0	6,699.2	224.2	2.6	-116.99	627.4	843.0	8,698.8	8,492.4	206.35	42.156	
14,600.0	6,635.6	6,700.0	6,699.2	225.1	2.6	-116.99	627.4	843.0	8,731.9	8,524.7	207.19	42.145	
14,665.3	6,635.5	6,700.0	6,699.2	226.9	2.6	-116.99	627.4	843.0	8,797.2	8,588.3	208.84	42.125	
14,700.0	6,635.4	6,700.0	6,699.2	227.9	2.6	-116.98	627.4	843.0	8,831.8	8,622.1	209.72	42.113	
14,763.7	6,635.4	6,700.0	6,699.2	229.7	2.6	-116.98	627.4	843.0	8,895.6	8,684.3	211.33	42.094	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #10D - 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	
14,800.0	6,635.3	6,700.0	6,699.2	230.7	2.6	-116.98	627.4	843.0	8,931.8	8,719.6	212.25	42.082	
14,862.2	6,635.2	6,700.0	6,699.2	232.5	2.6	-116.98	627.4	843.0	8,994.0	8,780.2	213.82	42.064	
14,900.0	6,635.2	6,700.0	6,699.2	233.5	2.6	-116.97	627.4	843.0	9,031.8	8,817.0	214.78	42.052	
14,960.6	6,635.1	6,700.0	6,699.2	235.2	2.6	-116.97	627.4	843.0	9,092.4	8,876.1	216.31	42.035	
15,000.0	6,635.0	6,700.0	6,699.2	236.3	2.6	-116.97	627.4	843.0	9,131.8	8,914.5	217.31	42.022	
15,033.1	6,635.0	6,700.0	6,699.2	237.3	2.6	-116.96	627.4	843.0	9,164.9	8,946.7	218.15	42.012	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	56.49	1,156.8	1,747.0	2,095.2				
98.4	98.4	90.4	90.4	0.1	1.1	56.49	1,156.8	1,747.0	2,095.2	2,094.0	1.24	1,690.120	
100.0	100.0	92.0	92.0	0.1	1.2	56.49	1,156.8	1,747.0	2,095.2	2,094.0	1.26	1,661.057	
196.8	196.8	188.8	188.8	0.3	3.3	56.49	1,156.8	1,747.0	2,095.2	2,091.6	3.60	581.724	
200.0	200.0	192.0	192.0	0.3	3.4	56.49	1,156.8	1,747.0	2,095.2	2,091.5	3.68	569.277	
295.3	295.3	287.3	287.3	0.5	5.4	56.49	1,156.8	1,747.0	2,095.2	2,089.3	5.89	355.762	
300.0	300.0	292.0	292.0	0.5	5.5	56.49	1,156.8	1,747.0	2,095.2	2,089.2	6.00	349.311	
393.7	393.7	385.7	385.7	0.8	7.4	56.49	1,156.8	1,747.0	2,095.2	2,087.1	8.12	257.881	
400.0	400.0	392.0	392.0	0.8	7.5	56.49	1,156.8	1,747.0	2,095.2	2,087.0	8.27	253.427	
492.1	492.1	484.1	484.1	1.0	9.4	56.49	1,156.8	1,747.0	2,095.2	2,084.9	10.34	202.539	
500.0	500.0	492.0	492.0	1.0	9.5	56.49	1,156.8	1,747.0	2,095.2	2,084.7	10.52	199.122	
590.5	590.5	582.5	582.5	1.2	11.4	56.49	1,156.8	1,747.0	2,095.2	2,082.7	12.56	166.845	
600.0	600.0	592.0	592.0	1.2	11.5	56.49	1,156.8	1,747.0	2,095.2	2,082.5	12.77	164.070	
689.0	689.0	681.0	681.0	1.4	13.3	56.49	1,156.8	1,747.0	2,095.2	2,080.5	14.77	141.884	
700.0	700.0	692.0	692.0	1.4	13.6	56.49	1,156.8	1,747.0	2,095.2	2,080.2	15.01	139.546	
787.4	787.4	779.4	779.4	1.6	15.3	56.49	1,156.8	1,747.0	2,095.2	2,078.2	16.97	123.436	
800.0	800.0	792.0	792.0	1.7	15.6	56.49	1,156.8	1,747.0	2,095.2	2,078.0	17.26	121.416	
885.8	885.8	877.8	877.8	1.9	17.3	56.49	1,156.8	1,747.0	2,095.2	2,076.0	19.18	109.242	
900.0	900.0	892.0	892.0	1.9	17.6	56.49	1,156.8	1,747.0	2,095.2	2,075.7	19.50	107.463	
984.2	984.2	976.2	976.2	2.1	19.3	56.49	1,156.8	1,747.0	2,095.2	2,073.8	21.38	97.980	
1,000.0	1,000.0	992.0	992.0	2.1	19.6	56.49	1,156.8	1,747.0	2,095.2	2,073.5	21.74	96.390	
1,082.7	1,082.7	1,074.7	1,074.7	2.3	21.3	29.52	1,156.8	1,747.0	2,094.2	2,070.6	23.58	88.815	
1,100.0	1,100.0	1,092.0	1,092.0	2.3	21.6	29.53	1,156.8	1,747.0	2,093.7	2,069.7	23.96	87.373	
1,181.1	1,181.0	1,173.0	1,173.0	2.5	23.3	29.62	1,156.8	1,747.0	2,090.2	2,064.5	25.75	81.184	
1,200.0	1,199.8	1,191.8	1,191.8	2.6	23.6	29.64	1,156.8	1,747.0	2,089.2	2,063.0	26.16	79.862	
1,279.5	1,279.1	1,271.1	1,271.1	2.8	25.2	29.79	1,156.8	1,747.0	2,083.4	2,055.5	27.88	74.719	
1,300.0	1,299.5	1,291.5	1,291.5	2.8	25.6	29.84	1,156.8	1,747.0	2,081.6	2,053.3	28.32	73.496	
1,377.9	1,376.9	1,368.9	1,368.9	3.0	27.2	30.04	1,156.8	1,747.0	2,073.6	2,043.6	29.98	69.159	
1,400.0	1,398.7	1,390.7	1,390.7	3.0	27.6	30.11	1,156.8	1,747.0	2,071.0	2,040.6	30.45	68.020	
1,476.4	1,474.2	1,466.2	1,466.2	3.2	29.2	30.38	1,156.8	1,747.0	2,060.9	2,028.9	32.04	64.316	
1,500.0	1,497.5	1,489.5	1,489.5	3.3	29.6	30.47	1,156.8	1,747.0	2,057.5	2,024.9	32.53	63.247	
1,574.8	1,571.0	1,563.0	1,563.0	3.5	31.1	30.79	1,156.8	1,747.0	2,045.4	2,011.3	34.06	60.045	
1,600.0	1,595.6	1,587.6	1,587.6	3.6	31.6	30.91	1,156.8	1,747.0	2,041.0	2,006.4	34.57	59.034	
1,673.2	1,667.2	1,659.2	1,659.2	3.9	33.0	31.13	1,156.8	1,747.0	2,027.8	1,991.7	36.19	56.037	
1,700.0	1,693.4	1,685.4	1,685.4	4.0	33.6	31.21	1,156.8	1,747.0	2,023.1	1,986.3	36.78	55.009	
1,771.6	1,763.5	1,755.5	1,755.5	4.2	35.0	31.43	1,156.8	1,747.0	2,010.2	1,971.9	38.36	52.398	
1,800.0	1,791.3	1,783.3	1,783.3	4.3	35.5	31.52	1,156.8	1,747.0	2,005.2	1,966.2	38.99	51.426	
1,870.1	1,859.8	1,851.8	1,851.8	4.6	36.9	31.73	1,156.8	1,747.0	1,992.7	1,952.2	40.55	49.142	
1,900.0	1,889.1	1,881.1	1,881.1	4.7	37.5	31.83	1,156.8	1,747.0	1,987.4	1,946.2	41.22	48.220	
1,968.5	1,956.1	1,948.1	1,948.1	4.9	38.9	32.04	1,156.8	1,747.0	1,975.2	1,932.5	42.74	46.211	
2,000.0	1,986.9	1,978.9	1,978.9	5.1	39.5	32.14	1,156.8	1,747.0	1,969.6	1,926.2	43.45	45.335	
2,066.9	2,052.3	2,044.3	2,044.3	5.3	40.8	32.36	1,156.8	1,747.0	1,957.8	1,912.9	44.94	43.560	
2,100.0	2,084.7	2,076.7	2,076.7	5.5	41.4	32.47	1,156.8	1,747.0	1,952.0	1,906.3	45.69	42.726	
2,165.3	2,148.6	2,140.6	2,140.6	5.7	42.7	32.68	1,156.8	1,747.0	1,940.4	1,893.3	47.15	41.153	
2,200.0	2,182.5	2,174.5	2,174.5	5.9	43.4	32.80	1,156.8	1,747.0	1,934.3	1,886.4	47.93	40.357	
2,263.8	2,244.9	2,236.9	2,236.9	6.1	44.7	33.01	1,156.8	1,747.0	1,923.1	1,873.8	49.37	38.957	
2,300.0	2,280.3	2,272.3	2,272.3	6.3	45.4	33.13	1,156.8	1,747.0	1,916.8	1,866.6	50.18	38.197	
2,362.2	2,341.2	2,333.2	2,333.2	6.5	46.6	33.34	1,156.8	1,747.0	1,905.9	1,854.3	51.58	36.947	
2,400.0	2,378.1	2,370.1	2,370.1	6.7	47.3	33.47	1,156.8	1,747.0	1,899.3	1,846.9	52.44	36.220	
2,460.6	2,437.4	2,429.4	2,429.4	6.9	48.5	33.68	1,156.8	1,747.0	1,888.7	1,834.9	53.81	35.101	
2,500.0	2,476.0	2,468.0	2,468.0	7.1	49.3	33.82	1,156.8	1,747.0	1,881.9	1,827.2	54.70	34.404	
2,550.0	2,524.9	2,516.9	2,516.9	7.3	50.3	33.99	1,156.8	1,747.0	1,873.2	1,817.4	55.83	33.551	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,525.7	2,525.7	7.3	50.5	34.90	1,156.8	1,747.0	1,871.6	1,815.6	56.05	33.390	
2,600.0	2,573.8	2,565.8	2,565.8	7.5	51.3	39.01	1,156.8	1,747.0	1,864.8	1,807.7	57.06	32.681	
2,639.4	2,612.3	2,604.3	2,604.3	7.7	52.1	42.97	1,156.8	1,747.0	1,858.5	1,800.5	58.03	32.027	
2,657.5	2,630.0	2,622.0	2,622.0	7.7	52.4	43.05	1,156.8	1,747.0	1,855.8	1,797.3	58.44	31.753	
2,700.0	2,671.6	2,663.6	2,663.6	7.9	53.3	43.23	1,156.8	1,747.0	1,849.2	1,789.8	59.42	31.124	
2,755.9	2,726.3	2,718.3	2,718.3	8.1	54.4	43.48	1,156.8	1,747.0	1,840.7	1,780.0	60.70	30.323	
2,800.0	2,769.4	2,761.4	2,761.4	8.3	55.2	43.67	1,156.8	1,747.0	1,834.0	1,772.3	61.72	29.715	
2,854.3	2,822.5	2,814.5	2,814.5	8.5	56.3	43.92	1,156.8	1,747.0	1,825.7	1,762.8	62.97	28.992	
2,900.0	2,867.2	2,859.2	2,859.2	8.7	57.2	44.12	1,156.8	1,747.0	1,818.8	1,754.8	64.03	28.406	
2,952.7	2,918.8	2,910.8	2,910.8	9.0	58.2	44.36	1,156.8	1,747.0	1,810.9	1,745.7	65.25	27.753	
3,000.0	2,965.0	2,957.0	2,957.0	9.2	59.2	44.58	1,156.8	1,747.0	1,803.8	1,737.5	66.35	27.188	
3,051.2	3,015.1	3,007.1	3,007.1	9.4	60.2	44.81	1,156.8	1,747.0	1,796.2	1,728.6	67.53	26.597	
3,100.0	3,062.8	3,054.8	3,054.8	9.6	61.1	45.04	1,156.8	1,747.0	1,788.9	1,720.2	68.67	26.052	
3,149.6	3,111.4	3,103.4	3,103.4	9.8	62.1	45.27	1,156.8	1,747.0	1,781.6	1,711.7	69.82	25.516	
3,200.0	3,160.7	3,152.7	3,152.7	10.0	63.1	45.51	1,156.8	1,747.0	1,774.1	1,703.1	70.99	24.989	
3,248.0	3,207.6	3,199.6	3,199.6	10.2	64.0	45.74	1,156.8	1,747.0	1,767.0	1,694.9	72.11	24.504	
3,300.0	3,258.5	3,250.5	3,250.5	10.5	65.1	45.99	1,156.8	1,747.0	1,759.4	1,686.1	73.33	23.994	
3,346.4	3,303.9	3,295.9	3,295.9	10.7	66.0	46.21	1,156.8	1,747.0	1,752.7	1,678.3	74.41	23.553	
3,400.0	3,356.3	3,348.3	3,348.3	10.9	67.0	46.47	1,156.8	1,747.0	1,744.9	1,669.2	75.67	23.061	
3,444.9	3,400.2	3,392.2	3,392.2	11.1	67.9	46.69	1,156.8	1,747.0	1,738.4	1,661.7	76.72	22.660	
3,500.0	3,454.1	3,446.1	3,446.1	11.3	69.0	46.96	1,156.8	1,747.0	1,730.5	1,652.5	78.01	22.183	
3,543.3	3,496.5	3,488.5	3,488.5	11.5	69.8	47.18	1,156.8	1,747.0	1,724.3	1,645.2	79.03	21.819	
3,600.0	3,551.9	3,543.9	3,543.9	11.7	71.0	47.47	1,156.8	1,747.0	1,716.2	1,635.8	80.36	21.357	
3,641.7	3,592.7	3,584.7	3,584.7	11.9	71.8	47.68	1,156.8	1,747.0	1,710.3	1,628.9	81.34	21.026	
3,700.0	3,649.7	3,641.7	3,641.7	12.2	72.9	47.98	1,156.8	1,747.0	1,702.0	1,619.3	82.71	20.578	
3,740.1	3,689.0	3,681.0	3,681.0	12.4	73.7	48.18	1,156.8	1,747.0	1,696.4	1,612.7	83.66	20.278	
3,800.0	3,747.5	3,739.5	3,739.5	12.6	74.9	48.49	1,156.8	1,747.0	1,688.0	1,602.9	85.07	19.842	
3,838.6	3,785.3	3,777.3	3,777.3	12.8	75.7	48.70	1,156.8	1,747.0	1,682.6	1,596.7	85.98	19.570	
3,900.0	3,845.4	3,837.4	3,837.4	13.1	76.9	49.02	1,156.8	1,747.0	1,674.1	1,586.7	87.43	19.147	
3,937.0	3,881.6	3,873.6	3,873.6	13.2	77.6	49.22	1,156.8	1,747.0	1,669.0	1,580.7	88.31	18.899	
4,000.0	3,943.2	3,935.2	3,935.2	13.5	78.8	49.55	1,156.8	1,747.0	1,660.4	1,570.6	89.80	18.489	
4,035.4	3,977.8	3,969.8	3,969.8	13.6	79.5	49.75	1,156.8	1,747.0	1,655.6	1,564.9	90.65	18.264	
4,100.0	4,041.0	4,033.0	4,033.0	13.9	80.8	50.10	1,156.8	1,747.0	1,646.8	1,554.6	92.18	17.865	
4,133.8	4,074.1	4,066.1	4,066.1	14.1	81.5	50.28	1,156.8	1,747.0	1,642.2	1,549.3	92.98	17.662	
4,200.0	4,138.8	4,130.8	4,130.8	14.4	82.8	50.65	1,156.8	1,747.0	1,633.4	1,538.8	94.56	17.274	
4,232.3	4,170.4	4,162.4	4,162.4	14.5	83.4	50.83	1,156.8	1,747.0	1,629.1	1,533.7	95.33	17.089	
4,300.0	4,236.6	4,228.6	4,228.6	14.8	84.7	51.21	1,156.8	1,747.0	1,620.1	1,523.2	96.94	16.712	
4,330.7	4,266.7	4,258.7	4,258.7	14.9	85.3	51.38	1,156.8	1,747.0	1,616.1	1,518.4	97.68	16.545	
4,400.0	4,334.4	4,326.4	4,326.4	15.2	86.7	51.78	1,156.8	1,747.0	1,607.0	1,507.6	99.33	16.177	
4,429.1	4,362.9	4,354.9	4,354.9	15.4	87.3	51.95	1,156.8	1,747.0	1,603.2	1,503.2	100.03	16.027	
4,500.0	4,432.3	4,424.3	4,424.3	15.7	88.7	52.36	1,156.8	1,747.0	1,594.0	1,492.3	101.73	15.669	
4,527.5	4,459.2	4,451.2	4,451.2	15.8	89.2	52.52	1,156.8	1,747.0	1,590.5	1,488.1	102.39	15.534	
4,600.0	4,530.1	4,522.1	4,522.1	16.1	90.6	52.95	1,156.8	1,747.0	1,581.2	1,477.1	104.13	15.185	
4,626.0	4,555.5	4,547.5	4,547.5	16.2	91.1	53.10	1,156.8	1,747.0	1,577.9	1,473.2	104.75	15.063	
4,700.0	4,627.9	4,619.9	4,619.9	16.6	92.6	53.55	1,156.8	1,747.0	1,568.6	1,462.1	106.54	14.724	
4,724.4	4,651.7	4,643.7	4,643.7	16.7	93.1	53.69	1,156.8	1,747.0	1,565.6	1,458.4	107.12	14.615	
4,800.0	4,725.7	4,717.7	4,717.7	17.0	94.6	54.15	1,156.8	1,747.0	1,556.2	1,447.2	108.95	14.284	
4,822.8	4,748.0	4,740.0	4,740.0	17.1	95.0	54.29	1,156.8	1,747.0	1,553.4	1,443.9	109.50	14.186	
4,904.9	4,828.3	4,820.3	4,820.3	17.5	96.6	54.80	1,156.8	1,747.0	1,543.3	1,431.8	111.48	13.844	
4,921.2	4,844.3	4,836.3	4,836.3	17.5	96.9	54.87	1,156.8	1,747.0	1,541.4	1,429.5	111.90	13.774	
5,000.0	4,921.6	4,913.6	4,913.6	17.8	98.5	55.17	1,156.8	1,747.0	1,532.7	1,418.8	113.91	13.455	
5,019.7	4,941.0	4,933.0	4,933.0	17.9	98.9	55.24	1,156.8	1,747.0	1,530.8	1,416.4	114.40	13.381	

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 @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	5,012.4	5,012.4	18.1	100.5	55.51	1,156.8	1,747.0	1,523.7	1,407.3	116.37	13.093	
5,118.1	5,038.3	5,030.3	5,030.3	18.2	100.9	55.56	1,156.8	1,747.0	1,522.2	1,405.4	116.80	13.032	
5,200.0	5,119.6	5,111.6	5,111.6	18.4	102.5	55.77	1,156.8	1,747.0	1,516.6	1,397.9	118.76	12.771	
5,216.5	5,136.0	5,128.0	5,128.0	18.4	102.8	55.81	1,156.8	1,747.0	1,515.7	1,396.5	119.15	12.721	
5,300.0	5,219.2	5,211.2	5,211.2	18.6	104.5	55.97	1,156.8	1,747.0	1,511.7	1,390.6	121.08	12.485	
5,314.9	5,234.1	5,226.1	5,226.1	18.6	104.8	55.99	1,156.8	1,747.0	1,511.1	1,389.7	121.42	12.445	
5,400.0	5,319.1	5,311.1	5,311.1	18.8	106.5	56.09	1,156.8	1,747.0	1,508.6	1,385.3	123.33	12.233	
5,413.4	5,332.4	5,324.4	5,324.4	18.8	106.8	56.10	1,156.8	1,747.0	1,508.4	1,384.8	123.62	12.202	
5,504.9	5,423.9	5,415.9	5,415.9	18.9	108.6	74.55	1,156.8	1,747.0	1,507.6	1,383.5	124.04	12.154	
5,511.8	5,430.8	5,422.8	5,422.8	18.9	108.7	74.55	1,156.8	1,747.0	1,507.6	1,383.4	124.19	12.139	
5,600.0	5,519.0	5,511.0	5,511.0	19.0	110.5	74.55	1,156.8	1,747.0	1,507.6	1,381.5	126.09	11.956	
5,610.2	5,529.3	5,521.3	5,521.3	19.0	110.7	74.55	1,156.8	1,747.0	1,507.6	1,381.2	126.32	11.935	
5,700.0	5,619.0	5,611.0	5,611.0	19.2	112.5	74.55	1,156.8	1,747.0	1,507.6	1,379.3	128.27	11.753	
5,708.6	5,627.7	5,619.7	5,619.7	19.2	112.7	74.55	1,156.8	1,747.0	1,507.6	1,379.1	128.46	11.735	
5,800.0	5,719.0	5,711.0	5,711.0	19.3	114.5	74.55	1,156.8	1,747.0	1,507.6	1,377.1	130.46	11.556	
5,807.1	5,726.1	5,718.1	5,718.1	19.3	114.7	74.55	1,156.8	1,747.0	1,507.6	1,376.9	130.61	11.542	
5,900.0	5,819.0	5,811.0	5,811.0	19.4	116.6	74.55	1,156.8	1,747.0	1,507.6	1,374.9	132.64	11.366	
5,905.5	5,824.5	5,816.5	5,816.5	19.4	116.7	74.55	1,156.8	1,747.0	1,507.6	1,374.8	132.76	11.356	
6,003.9	5,923.0	5,915.0	5,915.0	19.6	118.6	74.55	1,156.8	1,747.0	1,507.6	1,372.6	134.91	11.175	
6,009.8	5,928.8	5,920.8	5,920.8	19.6	118.8	74.55	1,156.8	1,747.0	1,507.6	1,372.5	135.04	11.164 CC	
6,050.0	5,969.0	5,961.0	5,961.0	19.6	119.6	164.54	1,156.8	1,747.0	1,508.6	1,371.5	137.13	11.001 ES, SF	
6,100.0	6,018.8	6,010.8	6,010.8	19.7	120.6	164.49	1,156.8	1,747.0	1,513.0	1,375.7	137.34	11.017	
6,102.3	6,021.1	6,013.1	6,013.1	19.7	120.6	164.49	1,156.8	1,747.0	1,513.3	1,376.0	137.33	11.019	
6,150.0	6,068.1	6,060.1	6,060.1	19.7	121.6	164.40	1,156.8	1,747.0	1,520.8	1,383.8	136.91	11.108	
6,200.0	6,116.8	6,108.8	6,108.8	19.7	122.5	164.27	1,156.8	1,747.0	1,531.8	1,395.9	135.84	11.276	
6,200.8	6,117.5	6,109.5	6,109.5	19.7	122.6	164.27	1,156.8	1,747.0	1,532.0	1,396.2	135.82	11.280	
6,250.0	6,164.5	6,156.5	6,156.5	19.7	123.5	164.10	1,156.8	1,747.0	1,546.1	1,411.9	134.13	11.527	
6,299.2	6,210.4	6,202.4	6,202.4	19.7	124.4	163.87	1,156.8	1,747.0	1,563.2	1,431.4	131.83	11.858	
6,300.0	6,211.1	6,203.1	6,203.1	19.7	124.4	163.87	1,156.8	1,747.0	1,563.5	1,431.8	131.79	11.864	
6,350.0	6,256.4	6,248.4	6,248.4	19.7	125.3	163.58	1,156.8	1,747.0	1,584.1	1,455.3	128.83	12.296	
6,397.6	6,298.0	6,290.0	6,290.0	19.7	126.2	163.23	1,156.8	1,747.0	1,606.6	1,481.1	125.48	12.803	
6,400.0	6,300.0	6,292.0	6,292.0	19.7	126.2	163.21	1,156.8	1,747.0	1,607.8	1,482.4	125.30	12.831	
6,450.0	6,341.8	6,333.8	6,333.8	19.7	127.1	162.76	1,156.8	1,747.0	1,634.3	1,513.0	121.24	13.479	
6,496.0	6,378.6	6,370.6	6,370.6	19.7	127.8	162.25	1,156.8	1,747.0	1,661.2	1,544.1	117.09	14.187	
6,500.0	6,381.6	6,373.6	6,373.6	19.7	127.9	162.20	1,156.8	1,747.0	1,663.6	1,546.9	116.72	14.253	
6,550.0	6,419.2	6,411.2	6,411.2	19.6	128.6	161.50	1,156.8	1,747.0	1,695.6	1,583.8	111.84	15.161	
6,594.5	6,450.7	6,442.7	6,442.7	19.6	129.3	160.74	1,156.8	1,747.0	1,726.2	1,618.9	107.30	16.087	
6,600.0	6,454.4	6,446.4	6,446.4	19.6	129.3	160.64	1,156.8	1,747.0	1,730.1	1,623.4	106.73	16.210	
6,650.0	6,487.1	6,479.1	6,479.1	19.6	130.0	159.56	1,156.8	1,747.0	1,766.9	1,665.3	101.61	17.390	
6,692.9	6,513.0	6,505.0	6,505.0	19.6	130.5	158.42	1,156.8	1,747.0	1,800.3	1,702.9	97.41	18.481	
6,700.0	6,517.0	6,509.0	6,509.0	19.6	130.6	158.21	1,156.8	1,747.0	1,805.9	1,709.2	96.75	18.666	
6,750.0	6,544.1	6,536.1	6,536.1	19.6	131.1	156.48	1,156.8	1,747.0	1,846.9	1,754.3	92.60	19.946	
6,791.3	6,564.2	6,556.2	6,556.2	19.7	131.5	154.67	1,156.8	1,747.0	1,882.2	1,792.1	90.10	20.889	
6,800.0	6,568.2	6,560.2	6,560.2	19.7	131.6	154.23	1,156.8	1,747.0	1,889.7	1,800.0	89.76	21.052	
6,850.0	6,589.1	6,581.1	6,581.1	19.8	132.0	151.27	1,156.8	1,747.0	1,934.1	1,845.0	89.12	21.701	
6,889.7	6,603.5	6,595.5	6,595.5	19.9	132.3	148.18	1,156.8	1,747.0	1,970.4	1,879.4	90.93	21.669	
6,900.0	6,606.9	6,598.9	6,598.9	19.9	132.4	147.24	1,156.8	1,747.0	1,979.8	1,888.0	91.82	21.563	
6,950.0	6,621.3	6,613.3	6,613.3	20.2	132.7	141.61	1,156.8	1,747.0	2,026.7	1,927.6	99.14	20.443	
6,988.2	6,630.0	6,622.0	6,622.0	20.6	132.9	135.69	1,156.8	1,747.0	2,063.2	1,954.6	108.56	19.004	
7,000.0	6,632.4	6,624.4	6,624.4	20.7	132.9	133.47	1,156.8	1,747.0	2,074.5	1,962.4	112.19	18.491	
7,050.0	6,640.0	6,632.0	6,632.0	21.4	133.1	121.51	1,156.8	1,747.0	2,123.0	1,992.4	130.59	16.257	
7,086.6	6,643.4	6,635.4	6,635.4	21.9	133.1	109.55	1,156.8	1,747.0	2,158.8	2,014.1	144.69	14.921	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,636.2	6,636.2	22.1	133.1	104.47	1,156.8	1,747.0	2,172.0	2,023.0	148.96	14.581	
7,135.7	6,645.0	6,637.0	6,637.0	22.7	133.2	89.62	1,156.8	1,747.0	2,207.0	2,052.1	154.95	14.244	
7,185.0	6,644.9	6,636.9	6,636.9	23.6	133.2	89.61	1,156.8	1,747.0	2,255.6	2,099.7	155.91	14.467	
7,200.0	6,644.9	6,636.9	6,636.9	23.9	133.2	89.61	1,156.8	1,747.0	2,270.3	2,114.1	156.20	14.535	
7,283.4	6,644.8	6,636.8	6,636.8	25.6	133.2	89.60	1,156.8	1,747.0	2,352.5	2,194.6	157.92	14.896	
7,300.0	6,644.8	6,636.8	6,636.8	25.9	133.2	89.59	1,156.8	1,747.0	2,368.8	2,210.5	158.27	14.967	
7,381.9	6,644.7	6,636.7	6,636.7	27.7	133.2	89.58	1,156.8	1,747.0	2,449.5	2,289.5	160.07	15.303	
7,400.0	6,644.7	6,636.7	6,636.7	28.1	133.2	89.58	1,156.8	1,747.0	2,467.4	2,306.9	160.47	15.376	
7,480.3	6,644.6	6,636.6	6,636.6	29.9	133.2	89.56	1,156.8	1,747.0	2,546.7	2,384.3	162.33	15.689	
7,500.0	6,644.6	6,636.6	6,636.6	30.3	133.2	89.56	1,156.8	1,747.0	2,566.1	2,403.3	162.78	15.764	
7,578.7	6,644.5	6,636.5	6,636.5	32.2	133.2	89.54	1,156.8	1,747.0	2,643.9	2,479.2	164.66	16.056	
7,600.0	6,644.4	6,636.4	6,636.4	32.7	133.2	89.54	1,156.8	1,747.0	2,664.9	2,499.8	165.17	16.134	
7,677.1	6,644.3	6,636.3	6,636.3	34.6	133.1	89.53	1,156.8	1,747.0	2,741.2	2,574.2	167.07	16.408	
7,700.0	6,644.3	6,636.3	6,636.3	35.1	133.1	89.52	1,156.8	1,747.0	2,763.8	2,596.2	167.63	16.488	
7,775.6	6,644.2	6,636.2	6,636.2	37.0	133.1	89.51	1,156.8	1,747.0	2,838.6	2,669.1	169.52	16.745	
7,800.0	6,644.2	6,636.2	6,636.2	37.6	133.1	89.50	1,156.8	1,747.0	2,862.8	2,692.7	170.13	16.827	
7,874.0	6,644.1	6,636.1	6,636.1	39.5	133.1	89.49	1,156.8	1,747.0	2,936.1	2,764.1	172.01	17.069	
7,900.0	6,644.1	6,636.1	6,636.1	40.1	133.1	89.49	1,156.8	1,747.0	2,961.9	2,789.2	172.68	17.153	
7,972.4	6,644.0	6,636.0	6,636.0	42.0	133.1	89.47	1,156.8	1,747.0	3,033.6	2,859.1	174.54	17.380	
8,000.0	6,643.9	6,635.9	6,635.9	42.7	133.1	89.47	1,156.8	1,747.0	3,061.0	2,885.7	175.26	17.466	
8,070.8	6,643.9	6,635.9	6,635.9	44.5	133.1	89.46	1,156.8	1,747.0	3,131.2	2,954.1	177.10	17.680	
8,100.0	6,643.8	6,635.8	6,635.8	45.2	133.1	89.45	1,156.8	1,747.0	3,160.1	2,982.3	177.86	17.767	
8,169.3	6,643.7	6,635.7	6,635.7	47.0	133.1	89.44	1,156.8	1,747.0	3,228.8	3,049.2	179.68	17.970	
8,200.0	6,643.7	6,635.7	6,635.7	47.9	133.1	89.43	1,156.8	1,747.0	3,259.3	3,078.8	180.49	18.058	
8,267.7	6,643.6	6,635.6	6,635.6	49.6	133.1	89.42	1,156.8	1,747.0	3,326.5	3,144.2	182.29	18.249	
8,300.0	6,643.6	6,635.6	6,635.6	50.5	133.1	89.41	1,156.8	1,747.0	3,358.6	3,175.5	183.14	18.339	
8,366.1	6,643.5	6,635.5	6,635.5	52.2	133.1	89.40	1,156.8	1,747.0	3,424.3	3,239.4	184.90	18.519	
8,400.0	6,643.4	6,635.4	6,635.4	53.1	133.1	89.40	1,156.8	1,747.0	3,457.9	3,272.1	185.81	18.610	
8,464.5	6,643.4	6,635.4	6,635.4	54.8	133.1	89.38	1,156.8	1,747.0	3,522.0	3,334.5	187.54	18.781	
8,500.0	6,643.3	6,635.3	6,635.3	55.8	133.1	89.38	1,156.8	1,747.0	3,557.2	3,368.8	188.49	18.873	
8,563.0	6,643.2	6,635.2	6,635.2	57.5	133.1	89.37	1,156.8	1,747.0	3,619.8	3,429.6	190.18	19.034	
8,600.0	6,643.2	6,635.2	6,635.2	58.5	133.1	89.36	1,156.8	1,747.0	3,656.6	3,465.4	191.18	19.127	
8,661.4	6,643.1	6,635.1	6,635.1	60.1	133.1	89.35	1,156.8	1,747.0	3,717.7	3,524.8	192.84	19.279	
8,700.0	6,643.1	6,635.1	6,635.1	61.2	133.1	89.34	1,156.8	1,747.0	3,756.0	3,562.2	193.88	19.373	
8,759.8	6,643.0	6,635.0	6,635.0	62.8	133.1	89.33	1,156.8	1,747.0	3,815.5	3,620.0	195.50	19.516	
8,800.0	6,643.0	6,635.0	6,635.0	63.9	133.1	89.32	1,156.8	1,747.0	3,855.5	3,658.9	196.59	19.612	
8,858.2	6,642.9	6,634.9	6,634.9	65.4	133.1	89.31	1,156.8	1,747.0	3,913.4	3,715.2	198.18	19.747	
8,900.0	6,642.8	6,634.8	6,634.8	66.6	133.1	89.30	1,156.8	1,747.0	3,954.9	3,755.6	199.31	19.843	
8,956.7	6,642.8	6,634.8	6,634.8	68.1	133.1	89.29	1,156.8	1,747.0	4,011.3	3,810.5	200.86	19.971	
9,000.0	6,642.7	6,634.7	6,634.7	69.3	133.1	89.29	1,156.8	1,747.0	4,054.4	3,852.4	202.04	20.068	
9,055.1	6,642.6	6,634.6	6,634.6	70.8	133.1	89.28	1,156.8	1,747.0	4,109.3	3,905.7	203.54	20.189	
9,100.0	6,642.6	6,634.6	6,634.6	72.0	133.1	89.27	1,156.8	1,747.0	4,154.0	3,949.2	204.77	20.286	
9,153.5	6,642.5	6,634.5	6,634.5	73.5	133.1	89.26	1,156.8	1,747.0	4,207.2	4,001.0	206.24	20.400	
9,200.0	6,642.5	6,634.5	6,634.5	74.7	133.1	89.25	1,156.8	1,747.0	4,253.5	4,046.0	207.51	20.498	
9,251.9	6,642.4	6,634.4	6,634.4	76.2	133.1	89.24	1,156.8	1,747.0	4,305.2	4,096.3	208.93	20.606	
9,300.0	6,642.3	6,634.3	6,634.3	77.5	133.1	89.23	1,156.8	1,747.0	4,353.1	4,142.8	210.25	20.704	
9,350.4	6,642.3	6,634.3	6,634.3	78.9	133.1	89.22	1,156.8	1,747.0	4,403.2	4,191.6	211.64	20.806	
9,400.0	6,642.2	6,634.2	6,634.2	80.2	133.1	89.21	1,156.8	1,747.0	4,452.6	4,239.6	213.00	20.904	
9,448.8	6,642.1	6,634.1	6,634.1	81.6	133.1	89.20	1,156.8	1,747.0	4,501.3	4,286.9	214.34	21.000	
9,500.0	6,642.1	6,634.1	6,634.1	83.0	133.1	89.19	1,156.8	1,747.0	4,552.2	4,336.5	215.75	21.099	
9,547.2	6,642.0	6,634.0	6,634.0	84.3	133.1	89.18	1,156.8	1,747.0	4,599.3	4,382.2	217.05	21.190	
9,600.0	6,642.0	6,634.0	6,634.0	85.7	133.1	89.17	1,156.8	1,747.0	4,651.9	4,433.4	218.51	21.289	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,633.9	6,633.9	87.0	133.1	89.17	1,156.8	1,747.0	4,697.3	4,477.6	219.77	21.374	
9,700.0	6,641.8	6,633.8	6,633.8	88.5	133.1	89.16	1,156.8	1,747.0	4,751.5	4,530.2	221.27	21.474	
9,744.1	6,641.8	6,633.8	6,633.8	89.7	133.1	89.15	1,156.8	1,747.0	4,795.4	4,572.9	222.48	21.554	
9,800.0	6,641.7	6,633.7	6,633.7	91.2	133.1	89.14	1,156.8	1,747.0	4,851.2	4,627.1	224.03	21.654	
9,842.5	6,641.7	6,633.7	6,633.7	92.4	133.1	89.13	1,156.8	1,747.0	4,893.5	4,668.3	225.20	21.729	
9,900.0	6,641.6	6,633.6	6,633.6	94.0	133.1	89.12	1,156.8	1,747.0	4,950.8	4,724.0	226.79	21.830	
9,940.9	6,641.5	6,633.5	6,633.5	95.1	133.1	89.11	1,156.8	1,747.0	4,991.6	4,763.7	227.92	21.900	
10,000.0	6,641.5	6,633.5	6,633.5	96.7	133.1	89.10	1,156.8	1,747.0	5,050.5	4,820.9	229.56	22.001	
10,039.3	6,641.4	6,633.4	6,633.4	97.8	133.1	89.09	1,156.8	1,747.0	5,089.7	4,859.1	230.65	22.067	
10,100.0	6,641.3	6,633.3	6,633.3	99.5	133.1	89.08	1,156.8	1,747.0	5,150.2	4,917.9	232.33	22.168	
10,137.8	6,641.3	6,633.3	6,633.3	100.6	133.1	89.07	1,156.8	1,747.0	5,187.8	4,954.5	233.38	22.230	
10,200.0	6,641.2	6,633.2	6,633.2	102.3	133.1	89.06	1,156.8	1,747.0	5,249.9	5,014.8	235.10	22.330	
10,236.2	6,641.2	6,633.2	6,633.2	103.3	133.1	89.06	1,156.8	1,747.0	5,286.0	5,049.9	236.10	22.388	
10,300.0	6,641.1	6,633.1	6,633.1	105.0	133.1	89.04	1,156.8	1,747.0	5,349.6	5,111.7	237.87	22.489	
10,334.6	6,641.0	6,633.0	6,633.0	106.0	133.1	89.04	1,156.8	1,747.0	5,384.1	5,145.3	238.83	22.543	
10,400.0	6,641.0	6,633.0	6,633.0	107.8	133.1	89.02	1,156.8	1,747.0	5,449.3	5,208.7	240.65	22.644	
10,433.0	6,640.9	6,632.9	6,632.9	108.7	133.1	89.02	1,156.8	1,747.0	5,482.3	5,240.7	241.56	22.695	
10,500.0	6,640.8	6,632.8	6,632.8	110.6	133.1	89.01	1,156.8	1,747.0	5,549.1	5,305.6	243.42	22.796	
10,531.5	6,640.8	6,632.8	6,632.8	111.5	133.1	89.00	1,156.8	1,747.0	5,580.4	5,336.1	244.30	22.843	
10,600.0	6,640.7	6,632.7	6,632.7	113.4	133.1	88.99	1,156.8	1,747.0	5,648.8	5,402.6	246.20	22.944	
10,629.9	6,640.7	6,632.7	6,632.7	114.2	133.1	88.98	1,156.8	1,747.0	5,678.6	5,431.6	247.03	22.987	
10,700.0	6,640.6	6,632.6	6,632.6	116.1	133.1	88.97	1,156.8	1,747.0	5,748.5	5,499.6	248.98	23.088	
10,728.3	6,640.5	6,632.5	6,632.5	116.9	133.1	88.96	1,156.8	1,747.0	5,776.8	5,527.0	249.77	23.129	
10,800.0	6,640.5	6,632.5	6,632.5	118.9	133.1	88.95	1,156.8	1,747.0	5,848.3	5,596.5	251.76	23.230	
10,826.7	6,640.4	6,632.4	6,632.4	119.7	133.1	88.94	1,156.8	1,747.0	5,875.0	5,622.5	252.51	23.267	
10,900.0	6,640.3	6,632.3	6,632.3	121.7	133.1	88.93	1,156.8	1,747.0	5,948.1	5,693.5	254.54	23.368	
10,925.2	6,640.3	6,632.3	6,632.3	122.4	133.1	88.93	1,156.8	1,747.0	5,973.2	5,717.9	255.24	23.402	
11,000.0	6,640.2	6,632.2	6,632.2	124.5	133.1	88.91	1,156.8	1,747.0	6,047.8	5,790.5	257.33	23.503	
11,023.6	6,640.2	6,632.2	6,632.2	125.1	133.1	88.91	1,156.8	1,747.0	6,071.4	5,813.4	257.98	23.534	
11,100.0	6,640.1	6,632.1	6,632.1	127.3	133.1	88.89	1,156.8	1,747.0	6,147.6	5,887.5	260.11	23.635	
11,122.0	6,640.0	6,632.0	6,632.0	127.9	133.1	88.89	1,156.8	1,747.0	6,169.6	5,908.9	260.72	23.664	
11,200.0	6,639.9	6,631.9	6,631.9	130.1	133.1	88.87	1,156.8	1,747.0	6,247.4	5,984.5	262.89	23.764	
11,220.4	6,639.9	6,631.9	6,631.9	130.6	133.1	88.87	1,156.8	1,747.0	6,267.8	6,004.4	263.46	23.790	
11,300.0	6,639.8	6,631.8	6,631.8	132.8	133.1	88.85	1,156.8	1,747.0	6,347.2	6,081.5	265.68	23.891	
11,318.9	6,639.8	6,631.8	6,631.8	133.4	133.1	88.85	1,156.8	1,747.0	6,366.1	6,099.9	266.21	23.914	
11,400.0	6,639.7	6,631.7	6,631.7	135.6	133.1	88.83	1,156.8	1,747.0	6,447.0	6,178.6	268.47	24.014	
11,417.3	6,639.7	6,631.7	6,631.7	136.1	133.1	88.83	1,156.8	1,747.0	6,464.3	6,195.3	268.95	24.035	
11,500.0	6,639.6	6,631.6	6,631.6	138.4	133.1	88.81	1,156.8	1,747.0	6,546.8	6,275.6	271.25	24.136	
11,515.7	6,639.5	6,631.5	6,631.5	138.9	133.1	88.81	1,156.8	1,747.0	6,562.5	6,290.8	271.69	24.154	
11,600.0	6,639.4	6,631.4	6,631.4	141.2	133.1	88.80	1,156.8	1,747.0	6,646.6	6,372.6	274.04	24.254	
11,614.1	6,639.4	6,631.4	6,631.4	141.6	133.1	88.79	1,156.8	1,747.0	6,660.8	6,386.3	274.44	24.271	
11,700.0	6,639.3	6,631.3	6,631.3	144.0	133.0	88.78	1,156.8	1,747.0	6,746.5	6,469.6	276.83	24.370	
11,712.6	6,639.3	6,631.3	6,631.3	144.3	133.0	88.77	1,156.8	1,747.0	6,759.0	6,481.8	277.18	24.385	
11,800.0	6,639.2	6,631.2	6,631.2	146.8	133.0	88.76	1,156.8	1,747.0	6,846.3	6,566.7	279.62	24.484	
11,811.0	6,639.2	6,631.2	6,631.2	147.1	133.0	88.75	1,156.8	1,747.0	6,857.3	6,577.3	279.93	24.497	
11,900.0	6,639.1	6,631.1	6,631.1	149.6	133.0	88.74	1,156.8	1,747.0	6,946.1	6,663.7	282.41	24.596	
11,909.4	6,639.0	6,631.0	6,631.0	149.8	133.0	88.74	1,156.8	1,747.0	6,955.5	6,672.9	282.67	24.606	
12,000.0	6,638.9	6,630.9	6,630.9	152.4	133.0	88.72	1,156.8	1,747.0	7,046.0	6,760.8	285.20	24.705	
12,007.8	6,638.9	6,630.9	6,630.9	152.6	133.0	88.72	1,156.8	1,747.0	7,053.8	6,768.4	285.42	24.714	
12,100.0	6,638.8	6,630.8	6,630.8	155.2	133.0	88.70	1,156.8	1,747.0	7,145.8	6,857.8	287.99	24.813	
12,106.3	6,638.8	6,630.8	6,630.8	155.3	133.0	88.70	1,156.8	1,747.0	7,152.1	6,863.9	288.16	24.819	
12,200.0	6,638.7	6,630.7	6,630.7	157.9	133.0	88.68	1,156.8	1,747.0	7,245.6	6,954.9	290.78	24.918	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,204.7	6,638.7	6,630.7	6,630.7	158.1	133.0	88.68	1,156.8	1,747.0	7,250.3	6,959.4	290.91	24.923	
12,300.0	6,638.5	6,630.5	6,630.5	160.7	133.0	88.66	1,156.8	1,747.0	7,345.5	7,051.9	293.57	25.021	
12,303.1	6,638.5	6,630.5	6,630.5	160.8	133.0	88.66	1,156.8	1,747.0	7,348.6	7,054.9	293.66	25.024	
12,400.0	6,638.4	6,630.4	6,630.4	163.5	133.0	88.64	1,156.8	1,747.0	7,445.3	7,149.0	296.36	25.122	
12,401.5	6,638.4	6,630.4	6,630.4	163.6	133.0	88.64	1,156.8	1,747.0	7,446.9	7,150.5	296.41	25.124	
12,500.0	6,638.3	6,630.3	6,630.3	166.3	133.0	88.62	1,156.8	1,747.0	7,545.2	7,246.0	299.16	25.222	
12,598.4	6,638.2	6,630.2	6,630.2	169.1	133.0	88.60	1,156.8	1,747.0	7,643.5	7,341.6	301.91	25.317	
12,600.0	6,638.2	6,630.2	6,630.2	169.1	133.0	88.60	1,156.8	1,747.0	7,645.1	7,343.1	301.95	25.319	
12,696.8	6,638.0	6,630.0	6,630.0	171.8	133.0	88.58	1,156.8	1,747.0	7,741.7	7,437.1	304.65	25.412	
12,700.0	6,638.0	6,630.0	6,630.0	171.9	133.0	88.58	1,156.8	1,747.0	7,744.9	7,440.2	304.74	25.415	
12,795.2	6,637.9	6,629.9	6,629.9	174.6	133.0	88.56	1,156.8	1,747.0	7,840.0	7,532.6	307.40	25.504	
12,800.0	6,637.9	6,629.9	6,629.9	174.7	133.0	88.56	1,156.8	1,747.0	7,844.8	7,537.3	307.54	25.508	
12,893.7	6,637.8	6,629.8	6,629.8	177.3	133.0	88.54	1,156.8	1,747.0	7,938.3	7,628.2	310.15	25.595	
12,900.0	6,637.8	6,629.8	6,629.8	177.5	133.0	88.54	1,156.8	1,747.0	7,944.7	7,634.3	310.33	25.601	
12,992.1	6,637.7	6,629.7	6,629.7	180.1	133.0	88.52	1,156.8	1,747.0	8,036.6	7,723.7	312.90	25.684	
13,000.0	6,637.6	6,629.6	6,629.6	180.3	133.0	88.52	1,156.8	1,747.0	8,044.5	7,731.4	313.12	25.691	
13,090.5	6,637.5	6,629.5	6,629.5	182.8	133.0	88.51	1,156.8	1,747.0	8,134.9	7,819.3	315.65	25.772	
13,100.0	6,637.5	6,629.5	6,629.5	183.1	133.0	88.50	1,156.8	1,747.0	8,144.4	7,828.5	315.92	25.780	
13,188.9	6,637.4	6,629.4	6,629.4	185.6	133.0	88.49	1,156.8	1,747.0	8,233.3	7,914.8	318.41	25.858	
13,200.0	6,637.4	6,629.4	6,629.4	185.9	133.0	88.48	1,156.8	1,747.0	8,244.3	7,925.6	318.71	25.867	
13,287.4	6,637.3	6,629.3	6,629.3	188.4	133.0	88.47	1,156.8	1,747.0	8,331.6	8,010.4	321.16	25.942	
13,300.0	6,637.3	6,629.3	6,629.3	188.7	133.0	88.46	1,156.8	1,747.0	8,344.2	8,022.7	321.51	25.953	
13,385.8	6,637.1	6,629.1	6,629.1	191.1	133.0	88.45	1,156.8	1,747.0	8,429.9	8,106.0	323.91	26.026	
13,400.0	6,637.1	6,629.1	6,629.1	191.5	133.0	88.44	1,156.8	1,747.0	8,444.1	8,119.8	324.30	26.037	
13,484.2	6,637.0	6,629.0	6,629.0	193.9	133.0	88.43	1,156.8	1,747.0	8,528.2	8,201.5	326.66	26.107	
13,500.0	6,637.0	6,629.0	6,629.0	194.3	133.0	88.42	1,156.8	1,747.0	8,543.9	8,216.8	327.10	26.120	
13,582.6	6,636.9	6,628.9	6,628.9	196.6	133.0	88.41	1,156.8	1,747.0	8,626.5	8,297.1	329.41	26.188	
13,600.0	6,636.9	6,628.9	6,628.9	197.1	133.0	88.40	1,156.8	1,747.0	8,643.8	8,313.9	329.89	26.202	
13,681.1	6,636.8	6,628.8	6,628.8	199.4	133.0	88.39	1,156.8	1,747.0	8,724.8	8,392.7	332.16	26.267	
13,700.0	6,636.7	6,628.7	6,628.7	199.9	133.0	88.38	1,156.8	1,747.0	8,743.7	8,411.0	332.69	26.282	
13,779.5	6,636.6	6,628.6	6,628.6	202.1	133.0	88.37	1,156.8	1,747.0	8,823.1	8,488.2	334.91	26.345	
13,800.0	6,636.6	6,628.6	6,628.6	202.7	133.0	88.36	1,156.8	1,747.0	8,843.6	8,508.1	335.49	26.361	
13,877.9	6,636.5	6,628.5	6,628.5	204.9	133.0	88.35	1,156.8	1,747.0	8,921.5	8,583.8	337.67	26.421	
13,900.0	6,636.5	6,628.5	6,628.5	205.5	133.0	88.34	1,156.8	1,747.0	8,943.5	8,605.2	338.28	26.438	
13,976.3	6,636.4	6,628.4	6,628.4	207.6	133.0	88.33	1,156.8	1,747.0	9,019.8	8,679.4	340.42	26.496	
14,000.0	6,636.3	6,628.3	6,628.3	208.3	133.0	88.32	1,156.8	1,747.0	9,043.4	8,702.3	341.08	26.514	
14,074.8	6,636.3	6,628.3	6,628.3	210.4	133.0	88.31	1,156.8	1,747.0	9,118.1	8,775.0	343.17	26.570	
14,100.0	6,636.2	6,628.2	6,628.2	211.1	133.0	88.30	1,156.8	1,747.0	9,143.3	8,799.5	343.87	26.589	
14,173.2	6,636.1	6,628.1	6,628.1	213.2	133.0	88.29	1,156.8	1,747.0	9,216.5	8,870.5	345.92	26.643	
14,200.0	6,636.1	6,628.1	6,628.1	213.9	133.0	88.28	1,156.8	1,747.0	9,243.2	8,896.6	346.67	26.663	
14,271.6	6,636.0	6,628.0	6,628.0	215.9	133.0	88.27	1,156.8	1,747.0	9,314.8	8,966.1	348.67	26.715	
14,300.0	6,636.0	6,628.0	6,628.0	216.7	133.0	88.26	1,156.8	1,747.0	9,343.1	8,993.7	349.47	26.735	
14,370.0	6,635.9	6,627.9	6,627.9	218.7	133.0	88.25	1,156.8	1,747.0	9,413.1	9,061.7	351.43	26.785	
14,400.0	6,635.8	6,627.8	6,627.8	219.5	133.0	88.24	1,156.8	1,747.0	9,443.0	9,090.8	352.26	26.807	
14,468.5	6,635.7	6,627.7	6,627.7	221.4	133.0	88.23	1,156.8	1,747.0	9,511.5	9,157.3	354.18	26.855	
14,500.0	6,635.7	6,627.7	6,627.7	222.3	133.0	88.22	1,156.8	1,747.0	9,543.0	9,187.9	355.06	26.877	
14,566.9	6,635.6	6,627.6	6,627.6	224.2	133.0	88.21	1,156.8	1,747.0	9,609.8	9,252.9	356.93	26.923	
14,600.0	6,635.6	6,627.6	6,627.6	225.1	133.0	88.20	1,156.8	1,747.0	9,642.9	9,285.0	357.86	26.946	
14,665.3	6,635.5	6,627.5	6,627.5	226.9	133.0	88.19	1,156.8	1,747.0	9,708.1	9,348.5	359.69	26.991	
14,700.0	6,635.4	6,627.4	6,627.4	227.9	133.0	88.18	1,156.8	1,747.0	9,742.8	9,382.1	360.65	27.014	
14,763.7	6,635.4	6,627.4	6,627.4	229.7	133.0	88.17	1,156.8	1,747.0	9,806.5	9,444.0	362.44	27.057	
14,800.0	6,635.3	6,627.3	6,627.3	230.7	133.0	88.16	1,156.8	1,747.0	9,842.7	9,479.2	363.45	27.081	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,862.2	6,635.2	6,627.2	6,627.2	232.5	133.0	88.15	1,156.8	1,747.0	9,904.8	9,539.6	365.19	27.122	
14,900.0	6,635.2	6,627.2	6,627.2	233.5	133.0	88.14	1,156.8	1,747.0	9,942.6	9,576.4	366.25	27.147	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	92.76	-81.2	1,683.3	1,685.3				
98.4	98.4	85.8	85.8	0.1	0.0	92.77	-81.3	1,683.4	1,685.3	1,685.2	0.10	N/A	
100.0	100.0	87.3	87.3	0.1	0.0	92.77	-81.3	1,683.4	1,685.3	1,685.2	0.10	N/A	
196.8	196.8	183.5	183.5	0.3	0.1	92.78	-81.6	1,683.6	1,685.6	1,685.2	0.39	4,322.760	
200.0	200.0	186.6	186.6	0.3	0.1	92.78	-81.7	1,683.6	1,685.6	1,685.2	0.40	4,215.893	
295.3	295.3	282.0	282.0	0.5	0.2	92.78	-81.9	1,683.8	1,685.8	1,685.1	0.74	2,278.653	
300.0	300.0	286.7	286.7	0.5	0.2	92.78	-81.9	1,683.9	1,685.9	1,685.1	0.76	2,226.913	
393.7	393.7	376.4	376.4	0.8	0.3	92.80	-82.4	1,684.2	1,686.2	1,685.1	1.05	1,609.949	
400.0	400.0	382.4	382.4	0.8	0.3	92.80	-82.4	1,684.2	1,686.2	1,685.1	1.07	1,581.365	
492.1	492.1	473.2	473.2	1.0	0.4	92.83	-83.4	1,684.6	1,686.7	1,685.4	1.33	1,263.692	
500.0	500.0	481.0	481.0	1.0	0.4	92.84	-83.5	1,684.7	1,686.8	1,685.4	1.36	1,242.542	
590.5	590.5	572.4	572.3	1.2	0.4	92.88	-84.6	1,685.2	1,687.3	1,685.7	1.61	1,046.203	
600.0	600.0	581.9	581.9	1.2	0.4	92.88	-84.8	1,685.2	1,687.4	1,685.7	1.64	1,029.349	
689.0	689.0	669.3	669.3	1.4	0.5	92.92	-86.1	1,685.6	1,687.9	1,686.0	1.88	896.489	
700.0	700.0	680.0	680.0	1.4	0.5	92.93	-86.3	1,685.7	1,687.9	1,686.0	1.91	882.468	
787.4	787.4	767.3	767.2	1.6	0.5	92.98	-87.7	1,686.2	1,688.5	1,686.4	2.15	785.875	
800.0	800.0	779.9	779.9	1.7	0.6	92.98	-87.9	1,686.3	1,688.6	1,686.4	2.18	773.702	
885.8	885.8	865.2	865.1	1.9	0.6	93.03	-89.3	1,686.8	1,689.2	1,686.8	2.41	700.672	
900.0	900.0	879.2	879.2	1.9	0.6	93.04	-89.5	1,686.9	1,689.3	1,686.8	2.45	689.961	
984.2	984.2	962.8	962.7	2.1	0.6	93.08	-90.9	1,687.4	1,689.9	1,687.2	2.67	632.910	
1,000.0	1,000.0	978.4	978.3	2.1	0.6	93.09	-91.2	1,687.5	1,690.0	1,687.3	2.71	623.305	
1,082.7	1,082.7	1,061.2	1,061.1	2.3	0.7	66.17	-92.5	1,688.1	1,690.1	1,687.2	2.94	574.507	
1,100.0	1,100.0	1,078.6	1,078.5	2.3	0.7	66.20	-92.8	1,688.2	1,690.1	1,687.1	2.99	565.780	
1,181.1	1,181.0	1,158.2	1,158.1	2.5	0.7	66.38	-94.0	1,688.7	1,689.1	1,685.9	3.20	528.320	
1,200.0	1,199.8	1,176.5	1,176.4	2.6	0.7	66.43	-94.3	1,688.8	1,688.7	1,685.5	3.25	520.269	
1,279.5	1,279.1	1,252.4	1,252.2	2.8	0.8	66.70	-95.4	1,689.5	1,686.8	1,683.4	3.46	488.173	
1,300.0	1,299.5	1,271.7	1,271.6	2.8	0.8	66.78	-95.6	1,689.7	1,686.2	1,682.7	3.51	480.512	
1,377.9	1,376.9	1,346.7	1,346.6	3.0	0.8	67.14	-96.7	1,690.5	1,683.6	1,679.8	3.73	451.937	
1,400.0	1,398.7	1,368.2	1,368.0	3.0	0.8	67.26	-97.0	1,690.8	1,682.7	1,678.9	3.79	444.385	
1,476.4	1,474.2	1,443.0	1,442.8	3.2	0.9	67.72	-98.1	1,691.7	1,679.2	1,675.2	4.02	418.173	
1,500.0	1,497.5	1,466.3	1,466.1	3.3	0.9	67.87	-98.4	1,692.0	1,678.0	1,673.9	4.09	410.599	
1,574.8	1,571.0	1,540.1	1,539.9	3.5	0.9	68.42	-99.5	1,692.9	1,673.7	1,669.4	4.33	386.119	
1,600.0	1,595.6	1,564.9	1,564.8	3.6	0.9	68.63	-99.9	1,693.2	1,672.1	1,667.7	4.42	378.426	
1,673.2	1,667.2	1,639.8	1,639.6	3.9	0.9	69.16	-100.9	1,694.0	1,667.5	1,662.8	4.68	356.118	
1,700.0	1,693.4	1,668.1	1,667.9	4.0	0.9	69.36	-101.3	1,694.2	1,665.8	1,661.0	4.78	348.519	
1,771.6	1,763.5	1,741.9	1,741.7	4.2	1.0	69.89	-102.3	1,694.8	1,661.1	1,656.0	5.05	328.819	
1,800.0	1,791.3	1,770.6	1,770.4	4.3	1.0	70.09	-102.7	1,695.0	1,659.3	1,654.1	5.16	321.593	
1,870.1	1,859.8	1,841.6	1,841.4	4.6	1.0	70.60	-103.5	1,695.3	1,654.7	1,649.3	5.44	304.420	
1,900.0	1,889.1	1,871.9	1,871.7	4.7	1.0	70.82	-103.8	1,695.4	1,652.8	1,647.2	5.55	297.626	
1,968.5	1,956.1	1,942.2	1,942.0	4.9	1.1	71.33	-104.7	1,695.6	1,648.4	1,642.5	5.83	282.721	
2,000.0	1,986.9	1,974.8	1,974.5	5.1	1.1	71.56	-105.0	1,695.7	1,646.3	1,640.4	5.96	276.313	
2,066.9	2,052.3	2,045.8	2,045.6	5.3	1.1	72.07	-105.5	1,695.6	1,641.9	1,635.7	6.23	263.456	
2,100.0	2,084.7	2,081.5	2,081.2	5.5	1.1	72.33	-105.8	1,695.5	1,639.7	1,633.3	6.37	257.522	
2,165.3	2,148.6	2,153.3	2,153.1	5.7	1.1	72.84	-106.1	1,695.0	1,635.2	1,628.5	6.64	246.402	
2,200.0	2,182.5	2,191.8	2,191.5	5.9	1.1	73.11	-106.1	1,694.6	1,632.7	1,625.9	6.78	240.855	
2,263.8	2,244.9	2,262.1	2,261.8	6.1	1.1	73.60	-105.9	1,693.7	1,627.9	1,620.9	7.05	231.046	
2,300.0	2,280.3	2,301.8	2,301.6	6.3	1.1	73.88	-105.8	1,693.0	1,625.1	1,617.9	7.20	225.769	
2,362.2	2,341.2	2,364.1	2,363.9	6.5	1.1	74.32	-105.4	1,691.9	1,620.3	1,612.8	7.46	217.157	
2,400.0	2,378.1	2,402.0	2,401.7	6.7	1.1	74.59	-105.2	1,691.2	1,617.4	1,609.8	7.62	212.205	
2,460.6	2,437.4	2,460.7	2,460.4	6.9	1.1	75.00	-104.8	1,690.0	1,612.8	1,604.9	7.88	204.648	
2,500.0	2,476.0	2,498.8	2,498.5	7.1	1.1	75.27	-104.6	1,689.3	1,609.9	1,601.8	8.05	199.997	
2,550.0	2,524.9	2,546.1	2,545.9	7.3	1.2	75.60	-104.2	1,688.5	1,606.2	1,597.9	8.26	194.345	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,554.7	2,554.4	7.3	1.2	76.52	-104.2	1,688.3	1,605.6	1,597.3	8.30	193.416	
2,600.0	2,573.8	2,593.5	2,593.2	7.5	1.2	80.65	-103.9	1,687.7	1,603.1	1,594.6	8.47	189.355	
2,639.4	2,612.3	2,631.9	2,631.6	7.7	1.2	84.63	-103.6	1,687.0	1,601.3	1,592.7	8.62	185.811	
2,657.5	2,630.0	2,649.7	2,649.4	7.7	1.2	84.76	-103.5	1,686.7	1,600.6	1,591.9	8.69	184.104	
2,700.0	2,671.6	2,691.6	2,691.3	7.9	1.2	85.07	-103.2	1,686.1	1,599.1	1,590.2	8.87	180.212	
2,755.9	2,726.3	2,744.2	2,743.9	8.1	1.2	85.45	-102.7	1,685.2	1,597.1	1,588.0	9.12	175.099	
2,800.0	2,769.4	2,785.4	2,785.1	8.3	1.2	85.75	-102.4	1,684.6	1,595.6	1,586.3	9.32	171.267	
2,854.3	2,822.5	2,836.0	2,835.6	8.5	1.2	86.12	-102.0	1,683.9	1,594.0	1,584.4	9.56	166.755	
2,900.0	2,867.2	2,878.4	2,878.1	8.7	1.2	86.43	-101.7	1,683.4	1,592.8	1,583.0	9.76	163.145	
2,952.7	2,918.8	2,926.5	2,926.2	9.0	1.2	86.78	-101.4	1,683.0	1,591.5	1,581.5	10.00	159.169	
3,000.0	2,965.0	2,968.9	2,968.6	9.2	1.2	87.09	-101.1	1,682.6	1,590.5	1,580.3	10.21	155.772	
3,051.2	3,015.1	3,014.4	3,014.1	9.4	1.2	87.43	-100.8	1,682.4	1,589.6	1,579.2	10.44	152.256	
3,100.0	3,062.8	3,057.1	3,056.7	9.6	1.2	87.74	-100.6	1,682.3	1,589.0	1,578.4	10.66	149.093	
3,149.6	3,111.4	3,100.0	3,099.7	9.8	1.2	88.06	-100.4	1,682.4	1,588.6	1,577.8	10.88	146.021	
3,200.0	3,160.7	3,142.6	3,142.3	10.0	1.2	88.36	-100.1	1,682.6	1,588.5	1,577.4	11.11	143.006	
3,200.4	3,161.0	3,143.0	3,142.6	10.0	1.2	88.37	-100.1	1,682.6	1,588.5	1,577.4	11.11	142.983 CC	
3,248.0	3,207.6	3,183.0	3,182.6	10.2	1.2	88.65	-99.8	1,683.0	1,588.6	1,577.3	11.33	140.261 ES	
3,300.0	3,258.5	3,228.5	3,228.1	10.5	1.2	88.97	-99.4	1,683.8	1,589.0	1,577.5	11.56	137.414	
3,346.4	3,303.9	3,270.2	3,269.9	10.7	1.2	89.26	-98.9	1,684.5	1,589.6	1,577.8	11.78	134.970	
3,400.0	3,356.3	3,318.1	3,317.7	10.9	1.2	89.59	-98.4	1,685.6	1,590.4	1,578.4	12.02	132.277	
3,444.9	3,400.2	3,357.8	3,357.4	11.1	1.2	89.86	-97.9	1,686.6	1,591.3	1,579.0	12.23	130.116	
3,500.0	3,454.1	3,407.1	3,406.7	11.3	1.2	90.19	-97.2	1,688.0	1,592.5	1,580.1	12.48	127.575	
3,543.3	3,496.5	3,448.6	3,448.2	11.5	1.2	90.47	-96.6	1,689.2	1,593.7	1,581.0	12.68	125.649	
3,600.0	3,551.9	3,503.0	3,502.6	11.7	1.3	90.83	-95.8	1,691.0	1,595.3	1,582.3	12.95	123.226	
3,641.7	3,592.7	3,544.2	3,543.7	11.9	1.3	91.10	-95.2	1,692.3	1,596.5	1,583.3	13.14	121.506	
3,700.0	3,649.7	3,601.8	3,601.2	12.2	1.3	91.47	-94.3	1,694.2	1,598.2	1,584.8	13.41	119.192	
3,740.1	3,689.0	3,640.5	3,640.0	12.4	1.3	91.72	-93.6	1,695.4	1,599.5	1,585.9	13.59	117.657	
3,800.0	3,747.5	3,698.3	3,697.7	12.6	1.3	92.10	-92.6	1,697.4	1,601.5	1,587.6	13.87	115.452	
3,838.6	3,785.3	3,738.4	3,737.8	12.8	1.3	92.36	-92.0	1,698.7	1,602.8	1,588.7	14.05	114.073	
3,900.0	3,845.4	3,802.9	3,802.2	13.1	1.3	92.78	-90.9	1,700.7	1,604.8	1,590.4	14.34	111.946	
3,937.0	3,881.6	3,846.8	3,846.1	13.2	1.3	93.06	-90.2	1,701.8	1,605.9	1,591.4	14.51	110.693	
4,000.0	3,943.2	3,919.2	3,918.5	13.5	1.3	93.55	-89.2	1,703.2	1,607.5	1,592.7	14.80	108.615	
4,035.4	3,977.8	3,956.6	3,955.8	13.6	1.3	93.81	-88.8	1,703.8	1,608.3	1,593.3	14.96	107.484	
4,100.0	4,041.0	4,023.6	4,022.8	13.9	1.3	94.27	-88.0	1,704.6	1,609.7	1,594.4	15.26	105.487	
4,133.8	4,074.1	4,057.7	4,056.9	14.1	1.3	94.50	-87.7	1,704.9	1,610.4	1,595.0	15.41	104.473	
4,200.0	4,138.8	4,123.7	4,123.0	14.4	1.4	94.96	-87.0	1,705.5	1,611.9	1,596.2	15.72	102.557	
4,232.3	4,170.4	4,155.5	4,154.8	14.5	1.4	95.18	-86.7	1,705.8	1,612.6	1,596.8	15.86	101.652	
4,300.0	4,236.6	4,222.8	4,222.0	14.8	1.4	95.64	-86.1	1,706.4	1,614.3	1,598.1	16.17	99.815	
4,330.7	4,266.7	4,253.8	4,253.1	14.9	1.4	95.86	-85.8	1,706.6	1,615.0	1,598.7	16.31	99.007	
4,400.0	4,334.4	4,322.8	4,322.1	15.2	1.4	96.34	-85.2	1,707.1	1,616.7	1,600.1	16.63	97.241	
4,429.1	4,362.9	4,351.0	4,350.2	15.4	1.4	96.54	-84.9	1,707.2	1,617.5	1,600.7	16.76	96.522	
4,500.0	4,432.3	4,419.4	4,418.7	15.7	1.4	97.01	-84.4	1,707.7	1,619.5	1,602.4	17.08	94.829	
4,527.5	4,459.2	4,446.0	4,445.3	15.8	1.4	97.20	-84.2	1,707.9	1,620.3	1,603.1	17.20	94.190	
4,600.0	4,530.1	4,515.1	4,514.4	16.1	1.4	97.68	-83.7	1,708.4	1,622.5	1,605.0	17.53	92.564	
4,626.0	4,555.5	4,538.8	4,538.0	16.2	1.4	97.85	-83.6	1,708.6	1,623.4	1,605.7	17.65	92.000	
4,700.0	4,627.9	4,600.0	4,599.2	16.6	1.4	98.27	-83.3	1,709.2	1,626.1	1,608.1	17.98	90.453	
4,724.4	4,651.7	4,626.6	4,625.9	16.7	1.4	98.46	-83.2	1,709.5	1,627.1	1,609.0	18.09	89.952	
4,800.0	4,725.7	4,691.0	4,690.3	17.0	1.5	98.90	-83.1	1,710.5	1,630.5	1,612.1	18.43	88.477	
4,822.8	4,748.0	4,711.2	4,710.4	17.1	1.5	99.04	-83.1	1,710.9	1,631.7	1,613.2	18.53	88.047	
4,904.9	4,828.3	4,785.6	4,784.8	17.5	1.5	99.56	-83.2	1,712.5	1,636.1	1,617.2	18.90	86.556	
4,921.2	4,844.3	4,800.5	4,799.7	17.5	1.5	99.68	-83.2	1,712.8	1,637.1	1,618.1	18.97	86.318	
5,000.0	4,921.6	4,878.4	4,877.6	17.8	1.5	100.25	-83.5	1,714.6	1,641.4	1,622.1	19.27	85.189	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,019.7	4,941.0	4,897.9	4,897.1	17.9	1.5	100.38	-83.6	1,715.0	1,642.4	1,623.1	19.33	84.981	
5,100.0	5,020.4	4,980.0	4,979.2	18.1	1.5	100.88	-84.2	1,716.6	1,646.4	1,626.9	19.57	84.129	
5,118.1	5,038.3	4,998.6	4,997.7	18.2	1.5	100.99	-84.3	1,716.9	1,647.3	1,627.6	19.62	83.965	
5,200.0	5,119.6	5,082.7	5,081.8	18.4	1.6	101.40	-85.2	1,718.2	1,650.7	1,630.9	19.84	83.219	
5,216.5	5,136.0	5,099.7	5,098.8	18.4	1.6	101.48	-85.4	1,718.4	1,651.3	1,631.4	19.87	83.093	
5,300.0	5,219.2	5,181.7	5,180.9	18.6	1.6	101.79	-86.6	1,719.4	1,654.2	1,634.2	20.06	82.450	
5,314.9	5,234.1	5,196.5	5,195.6	18.6	1.6	101.84	-86.8	1,719.6	1,654.7	1,634.6	20.09	82.358	
5,400.0	5,319.1	5,278.7	5,277.8	18.8	1.6	102.06	-88.2	1,720.5	1,657.2	1,636.9	20.25	81.820	
5,413.4	5,332.4	5,291.6	5,290.7	18.8	1.6	102.09	-88.5	1,720.6	1,657.6	1,637.3	20.27	81.756	
5,504.9	5,423.9	5,385.0	5,384.1	18.9	1.6	120.63	-90.3	1,721.7	1,659.6	1,644.9	14.69	112.973	
5,511.8	5,430.8	5,392.1	5,391.2	18.9	1.6	120.63	-90.4	1,721.8	1,659.8	1,645.1	14.70	112.880	
5,600.0	5,519.0	5,481.8	5,480.9	19.0	1.7	120.66	-92.0	1,722.7	1,661.3	1,646.5	14.87	111.704	
5,610.2	5,529.3	5,492.2	5,491.3	19.0	1.7	120.67	-92.1	1,722.8	1,661.5	1,646.6	14.89	111.554	
5,700.0	5,619.0	5,579.2	5,578.3	19.2	1.7	120.68	-93.3	1,724.0	1,663.2	1,648.1	15.08	110.270	
5,708.6	5,627.7	5,587.6	5,586.6	19.2	1.7	120.68	-93.4	1,724.1	1,663.3	1,648.2	15.10	110.148	
5,800.0	5,719.0	5,675.2	5,674.2	19.3	1.7	120.68	-94.3	1,725.7	1,665.2	1,649.9	15.29	108.885	
5,807.1	5,726.1	5,682.0	5,681.0	19.3	1.7	120.68	-94.3	1,725.8	1,665.3	1,650.0	15.31	108.788	
5,900.0	5,819.0	5,771.2	5,770.2	19.4	1.7	120.67	-95.1	1,727.7	1,667.4	1,651.9	15.50	107.550	
5,905.5	5,824.5	5,776.5	5,775.5	19.4	1.7	120.67	-95.1	1,727.8	1,667.6	1,652.1	15.52	107.478	
6,003.9	5,923.0	5,877.1	5,876.1	19.6	1.8	120.63	-95.4	1,730.4	1,669.9	1,654.2	15.72	106.198	
6,009.8	5,928.8	5,883.2	5,882.2	19.6	1.8	120.63	-95.4	1,730.6	1,670.1	1,654.3	15.74	106.123	
6,050.0	5,969.0	5,924.2	5,923.1	19.6	1.8	-149.33	-95.5	1,731.6	1,671.9	1,650.6	21.32	78.424	
6,100.0	6,018.8	5,974.0	5,972.9	19.7	1.8	-149.23	-95.5	1,732.8	1,676.9	1,655.5	21.39	78.390	
6,102.3	6,021.1	5,976.3	5,975.2	19.7	1.8	-149.22	-95.6	1,732.9	1,677.2	1,655.8	21.39	78.395	
6,150.0	6,068.1	6,021.6	6,020.5	19.7	1.8	-149.05	-95.7	1,734.0	1,684.9	1,663.5	21.44	78.603	
6,200.0	6,116.8	6,066.5	6,065.4	19.7	1.8	-148.77	-96.0	1,735.0	1,696.0	1,674.5	21.44	79.097	
6,200.8	6,117.5	6,067.2	6,066.1	19.7	1.8	-148.77	-96.0	1,735.1	1,696.2	1,674.7	21.44	79.108	
6,250.0	6,164.5	6,110.1	6,108.9	19.7	1.8	-148.39	-96.6	1,736.0	1,710.0	1,688.6	21.40	79.901	
6,299.2	6,210.4	6,150.2	6,149.1	19.7	1.8	-147.91	-97.3	1,736.9	1,726.8	1,705.5	21.31	81.016	
6,300.0	6,211.1	6,150.8	6,149.7	19.7	1.8	-147.90	-97.3	1,736.9	1,727.1	1,705.7	21.31	81.036	
6,350.0	6,256.4	6,190.3	6,189.2	19.7	1.8	-147.27	-98.3	1,737.8	1,747.0	1,725.9	21.17	82.517	
6,397.6	6,298.0	6,224.7	6,223.5	19.7	1.9	-146.52	-99.3	1,738.6	1,768.7	1,747.7	20.99	84.257	
6,400.0	6,300.0	6,226.3	6,225.1	19.7	1.9	-146.48	-99.4	1,738.7	1,769.9	1,748.9	20.98	84.351	
6,450.0	6,341.8	6,260.0	6,258.8	19.7	1.9	-145.51	-100.6	1,739.5	1,795.5	1,774.8	20.75	86.523	
6,496.0	6,378.6	6,289.4	6,288.1	19.7	1.9	-144.43	-101.7	1,740.3	1,821.5	1,801.0	20.51	88.793	
6,500.0	6,381.6	6,300.0	6,298.7	19.7	1.9	-144.44	-102.2	1,740.6	1,823.9	1,803.4	20.50	88.953	
6,550.0	6,419.2	6,318.4	6,317.2	19.6	1.9	-142.85	-103.0	1,741.2	1,854.7	1,834.5	20.22	91.718	
6,594.5	6,450.7	6,339.5	6,338.2	19.6	1.9	-141.26	-104.1	1,741.9	1,884.3	1,864.3	19.99	94.252	
6,600.0	6,454.4	6,342.0	6,340.7	19.6	1.9	-141.04	-104.3	1,742.0	1,888.1	1,868.1	19.97	94.567	
6,650.0	6,487.1	6,363.5	6,362.2	19.6	1.9	-138.85	-105.5	1,742.7	1,923.7	1,903.9	19.76	97.363	
6,692.9	6,513.0	6,380.4	6,378.9	19.6	1.9	-136.60	-106.5	1,743.4	1,955.9	1,936.2	19.65	99.549	
6,700.0	6,517.0	6,383.0	6,381.6	19.6	1.9	-136.20	-106.7	1,743.5	1,961.3	1,941.7	19.64	99.874	
6,750.0	6,544.1	6,400.0	6,398.5	19.6	1.9	-132.97	-107.8	1,744.2	2,000.9	1,981.2	19.65	101.836	
6,791.3	6,564.2	6,414.2	6,412.7	19.7	1.9	-129.84	-108.9	1,744.8	2,034.8	2,015.0	19.81	102.728	
6,800.0	6,568.2	6,416.9	6,415.4	19.7	1.9	-129.12	-109.1	1,744.9	2,042.0	2,022.2	19.82	103.010	
6,850.0	6,589.1	6,431.1	6,429.5	19.8	1.9	-124.43	-110.1	1,745.5	2,084.6	2,064.4	20.17	103.335	
6,889.7	6,603.5	6,440.5	6,438.8	19.9	1.9	-120.01	-110.8	1,746.0	2,119.3	2,098.7	20.57	103.049	
6,900.0	6,606.9	6,442.7	6,441.0	19.9	1.9	-118.76	-111.0	1,746.1	2,128.4	2,107.7	20.67	102.969	
6,950.0	6,621.3	6,451.7	6,450.0	20.2	1.9	-111.98	-111.7	1,746.5	2,173.1	2,151.9	21.23	102.336	
6,988.2	6,630.0	6,456.9	6,455.1	20.6	1.9	-106.01	-112.1	1,746.7	2,207.8	2,186.1	21.65	101.991	
7,000.0	6,632.4	6,458.1	6,456.4	20.7	1.9	-104.03	-112.2	1,746.8	2,218.6	2,196.8	21.75	101.988	
7,050.0	6,640.0	6,462.0	6,460.3	21.4	1.9	-95.05	-112.5	1,747.0	2,264.5	2,242.4	22.17	102.134	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,086.6	6,643.4	6,463.2	6,461.5	21.9	1.9	-88.03	-112.6	1,747.0	2,298.4	2,275.9	22.51	102.096	
7,100.0	6,644.2	6,463.3	6,461.6	22.1	1.9	-85.41	-112.6	1,747.0	2,310.8	2,288.1	22.65	102.011	
7,135.7	6,645.0	6,462.7	6,461.0	22.7	1.9	-78.43	-112.6	1,747.0	2,343.8	2,320.8	23.05	101.695	
7,185.0	6,644.9	6,460.9	6,459.2	23.6	1.9	-78.31	-112.4	1,746.9	2,389.6	2,365.6	23.99	99.628	
7,200.0	6,644.9	6,460.4	6,458.7	23.9	1.9	-78.28	-112.4	1,746.9	2,403.5	2,379.2	24.27	99.035	
7,283.4	6,644.8	6,457.5	6,455.7	25.6	1.9	-78.09	-112.2	1,746.8	2,481.3	2,455.3	25.96	95.588	
7,300.0	6,644.8	6,456.9	6,455.2	25.9	1.9	-78.05	-112.1	1,746.7	2,496.7	2,470.4	26.29	94.961	
7,381.9	6,644.7	6,454.0	6,452.3	27.7	1.9	-77.87	-111.9	1,746.6	2,573.4	2,545.4	28.05	91.732	
7,400.0	6,644.7	6,453.4	6,451.7	28.1	1.9	-77.83	-111.8	1,746.6	2,590.5	2,562.0	28.44	91.075	
7,480.3	6,644.6	6,450.6	6,448.9	29.9	1.9	-77.65	-111.6	1,746.4	2,666.1	2,635.8	30.26	88.119	
7,500.0	6,644.6	6,449.9	6,448.3	30.3	1.9	-77.61	-111.6	1,746.4	2,684.6	2,653.9	30.70	87.450	
7,578.7	6,644.5	6,447.3	6,445.6	32.2	1.9	-77.44	-111.3	1,746.3	2,759.1	2,726.5	32.53	84.805	
7,600.0	6,644.4	6,446.5	6,444.9	32.7	1.9	-77.39	-111.3	1,746.2	2,779.2	2,746.2	33.03	84.144	
7,677.1	6,644.3	6,444.0	6,442.3	34.6	1.9	-77.23	-111.1	1,746.1	2,852.4	2,817.6	34.87	81.796	
7,700.0	6,644.3	6,443.2	6,441.5	35.1	1.9	-77.18	-111.0	1,746.1	2,874.1	2,838.7	35.42	81.150	
7,775.6	6,644.2	6,440.7	6,439.1	37.0	1.9	-77.02	-110.8	1,746.0	2,946.1	2,908.9	37.26	79.075	
7,800.0	6,644.2	6,439.9	6,438.2	37.6	1.9	-76.97	-110.8	1,745.9	2,969.4	2,931.6	37.85	78.450	
7,874.0	6,644.1	6,437.5	6,435.8	39.5	1.9	-76.81	-110.6	1,745.8	3,040.1	3,000.4	39.68	76.617	
7,900.0	6,644.1	6,436.6	6,435.0	40.1	1.9	-76.76	-110.5	1,745.8	3,065.0	3,024.6	40.32	76.015	
7,972.4	6,644.0	6,434.3	6,432.7	42.0	1.9	-76.61	-110.3	1,745.7	3,134.3	3,092.2	42.13	74.397	
8,000.0	6,643.9	6,433.4	6,431.8	42.7	1.9	-76.55	-110.3	1,745.6	3,160.8	3,118.0	42.82	73.819	
8,070.8	6,643.9	6,431.1	6,429.5	44.5	1.9	-76.41	-110.1	1,745.5	3,228.8	3,184.2	44.60	72.389	
8,100.0	6,643.8	6,430.2	6,428.6	45.2	1.9	-76.35	-110.0	1,745.5	3,256.9	3,211.5	45.34	71.835	
8,169.3	6,643.7	6,428.0	6,426.4	47.0	1.9	-76.21	-109.9	1,745.4	3,323.6	3,276.5	47.10	70.568	
8,200.0	6,643.7	6,427.0	6,425.5	47.9	1.9	-76.15	-109.8	1,745.4	3,353.2	3,305.3	47.88	70.038	
8,267.7	6,643.6	6,424.9	6,423.4	49.6	1.9	-76.02	-109.6	1,745.3	3,418.5	3,368.9	49.61	68.913	
8,300.0	6,643.6	6,423.9	6,422.4	50.5	1.9	-75.96	-109.6	1,745.2	3,449.7	3,399.2	50.43	68.406	
8,366.1	6,643.5	6,421.9	6,420.3	52.2	1.9	-75.83	-109.4	1,745.1	3,513.6	3,461.5	52.13	67.406	
8,400.0	6,643.4	6,420.9	6,419.3	53.1	1.9	-75.76	-109.3	1,745.1	3,546.4	3,493.4	52.99	66.920	
8,464.5	6,643.4	6,418.9	6,417.3	54.8	1.9	-75.64	-109.2	1,745.0	3,608.9	3,554.2	54.66	66.029	
8,500.0	6,643.3	6,417.8	6,416.3	55.8	1.9	-75.57	-109.1	1,745.0	3,643.2	3,587.7	55.57	65.564	
8,563.0	6,643.2	6,400.0	6,398.5	57.5	1.9	-74.45	-107.8	1,744.2	3,704.4	3,647.4	57.00	64.993	
8,600.0	6,643.2	6,400.0	6,398.5	58.5	1.9	-74.45	-107.8	1,744.2	3,740.3	3,682.4	57.96	64.531	
8,661.4	6,643.1	6,400.0	6,398.5	60.1	1.9	-74.45	-107.8	1,744.2	3,800.0	3,740.4	59.57	63.792	
8,700.0	6,643.1	6,400.0	6,398.5	61.2	1.9	-74.45	-107.8	1,744.2	3,837.5	3,776.9	60.58	63.349	
8,759.8	6,643.0	6,400.0	6,398.5	62.8	1.9	-74.45	-107.8	1,744.2	3,895.7	3,833.5	62.15	62.685	
8,800.0	6,643.0	6,400.0	6,398.5	63.9	1.9	-74.45	-107.8	1,744.2	3,934.8	3,871.6	63.20	62.258	
8,858.2	6,642.9	6,400.0	6,398.5	65.4	1.9	-74.45	-107.8	1,744.2	3,991.5	3,926.8	64.73	61.661	
8,900.0	6,642.8	6,400.0	6,398.5	66.6	1.9	-74.45	-107.8	1,744.2	4,032.2	3,966.4	65.83	61.250	
8,956.7	6,642.8	6,400.0	6,398.5	68.1	1.9	-74.45	-107.8	1,744.2	4,087.5	4,020.2	67.33	60.711	
9,000.0	6,642.7	6,400.0	6,398.5	69.3	1.9	-74.45	-107.8	1,744.2	4,129.8	4,061.3	68.47	60.315	
9,055.1	6,642.6	6,400.0	6,398.5	70.8	1.9	-74.45	-107.8	1,744.2	4,183.6	4,113.7	69.93	59.828	
9,100.0	6,642.6	6,400.0	6,398.5	72.0	1.9	-74.45	-107.8	1,744.2	4,227.5	4,156.4	71.11	59.446	
9,153.5	6,642.5	6,400.0	6,398.5	73.5	1.9	-74.45	-107.8	1,744.2	4,279.8	4,207.3	72.53	59.005	
9,200.0	6,642.5	6,400.0	6,398.5	74.7	1.9	-74.45	-107.8	1,744.2	4,325.2	4,251.5	73.76	58.636	
9,251.9	6,642.4	6,400.0	6,398.5	76.2	1.9	-74.45	-107.8	1,744.2	4,376.1	4,300.9	75.14	58.237	
9,300.0	6,642.3	6,400.0	6,398.5	77.5	1.9	-74.45	-107.8	1,744.2	4,423.1	4,346.7	76.42	57.881	
9,350.4	6,642.3	6,400.0	6,398.5	78.9	1.9	-74.45	-107.8	1,744.2	4,472.5	4,394.7	77.76	57.519	
9,400.0	6,642.2	6,400.0	6,398.5	80.2	1.9	-74.45	-107.8	1,744.2	4,521.1	4,442.0	79.08	57.174	
9,448.8	6,642.1	6,400.0	6,398.5	81.6	1.9	-74.45	-107.8	1,744.2	4,568.9	4,488.6	80.37	56.846	
9,500.0	6,642.1	6,400.0	6,398.5	83.0	1.9	-74.45	-107.8	1,744.2	4,619.2	4,537.4	81.74	56.512	
9,547.2	6,642.0	6,400.0	6,398.5	84.3	1.9	-74.45	-107.8	1,744.2	4,665.5	4,582.5	83.00	56.213	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,600.0	6,642.0	6,400.0	6,398.5	85.7	1.9	-74.45	-107.8	1,744.2	4,717.3	4,632.9	84.40	55.890	
9,645.6	6,641.9	6,400.0	6,398.5	87.0	1.9	-74.45	-107.8	1,744.2	4,762.1	4,676.5	85.62	55.619	
9,700.0	6,641.8	6,400.0	6,398.5	88.5	1.9	-74.45	-107.8	1,744.2	4,815.5	4,728.4	87.07	55.306	
9,744.1	6,641.8	6,400.0	6,398.5	89.7	1.9	-74.45	-107.8	1,744.2	4,858.8	4,770.6	88.25	55.059	
9,800.0	6,641.7	6,400.0	6,398.5	91.2	1.9	-74.44	-107.8	1,744.2	4,913.8	4,824.1	89.74	54.755	
9,842.5	6,641.7	6,400.0	6,398.5	92.4	1.9	-74.44	-107.8	1,744.2	4,955.6	4,864.7	90.88	54.530	
9,900.0	6,641.6	6,400.0	6,398.5	94.0	1.9	-74.44	-107.8	1,744.2	5,012.2	4,919.7	92.42	54.235	
9,940.9	6,641.5	6,400.0	6,398.5	95.1	1.9	-74.44	-107.8	1,744.2	5,052.4	4,958.9	93.51	54.031	
10,000.0	6,641.5	6,400.0	6,398.5	96.7	1.9	-74.44	-107.8	1,744.2	5,110.6	5,015.5	95.09	53.744	
10,039.3	6,641.4	6,400.0	6,398.5	97.8	1.9	-74.44	-107.8	1,744.2	5,149.3	5,053.2	96.15	53.558	
10,100.0	6,641.3	6,400.0	6,398.5	99.5	1.9	-74.44	-107.8	1,744.2	5,209.1	5,111.3	97.77	53.279	
10,137.8	6,641.3	6,400.0	6,398.5	100.6	1.9	-74.44	-107.8	1,744.2	5,246.3	5,147.5	98.78	53.110	
10,200.0	6,641.2	6,375.4	6,374.0	102.3	1.9	-72.91	-106.2	1,743.2	5,307.5	5,207.7	99.81	53.176	
10,236.2	6,641.2	6,374.6	6,373.2	103.3	1.9	-72.87	-106.2	1,743.2	5,343.2	5,242.4	100.75	53.033	
10,300.0	6,641.1	6,373.3	6,371.9	105.0	1.9	-72.78	-106.1	1,743.1	5,406.1	5,303.7	102.41	52.787	
10,334.6	6,641.0	6,372.6	6,371.2	106.0	1.9	-72.74	-106.0	1,743.1	5,440.2	5,336.9	103.32	52.656	
10,400.0	6,641.0	6,371.2	6,369.8	107.8	1.9	-72.66	-106.0	1,743.0	5,504.7	5,399.7	105.02	52.417	
10,433.0	6,640.9	6,370.6	6,369.2	108.7	1.9	-72.62	-105.9	1,743.0	5,537.3	5,431.4	105.88	52.300	
10,500.0	6,640.8	6,369.2	6,367.8	110.6	1.9	-72.53	-105.8	1,743.0	5,603.4	5,495.7	107.62	52.067	
10,531.5	6,640.8	6,368.6	6,367.2	111.5	1.9	-72.49	-105.8	1,742.9	5,634.4	5,526.0	108.44	51.961	
10,600.0	6,640.7	6,367.2	6,365.8	113.4	1.9	-72.41	-105.7	1,742.9	5,702.1	5,591.9	110.22	51.735	
10,629.9	6,640.7	6,366.6	6,365.2	114.2	1.9	-72.37	-105.7	1,742.9	5,731.6	5,620.6	110.99	51.639	
10,700.0	6,640.6	6,365.2	6,363.9	116.1	1.9	-72.29	-105.6	1,742.8	5,800.8	5,688.0	112.82	51.419	
10,728.3	6,640.5	6,364.7	6,363.3	116.9	1.9	-72.25	-105.6	1,742.8	5,828.8	5,715.3	113.55	51.332	
10,800.0	6,640.5	6,363.3	6,361.9	118.9	1.9	-72.17	-105.5	1,742.7	5,899.6	5,784.2	115.41	51.118	
10,826.7	6,640.4	6,362.8	6,361.4	119.7	1.9	-72.14	-105.4	1,742.7	5,926.1	5,810.0	116.11	51.040	
10,900.0	6,640.3	6,361.4	6,360.0	121.7	1.9	-72.05	-105.4	1,742.7	5,998.5	5,880.5	118.01	50.831	
10,925.2	6,640.3	6,360.9	6,359.5	122.4	1.9	-72.02	-105.3	1,742.6	6,023.4	5,904.7	118.66	50.761	
11,000.0	6,640.2	6,359.5	6,358.1	124.5	1.9	-71.93	-105.2	1,742.6	6,097.3	5,976.7	120.60	50.558	
11,023.6	6,640.2	6,359.0	6,357.7	125.1	1.9	-71.91	-105.2	1,742.6	6,120.7	5,999.5	121.21	50.496	
11,100.0	6,640.1	6,357.6	6,356.2	127.3	1.9	-71.82	-105.1	1,742.5	6,196.3	6,073.1	123.19	50.298	
11,122.0	6,640.0	6,357.2	6,355.8	127.9	1.9	-71.79	-105.1	1,742.5	6,218.0	6,094.3	123.76	50.242	
11,200.0	6,639.9	6,355.8	6,354.4	130.1	1.9	-71.70	-105.0	1,742.5	6,295.2	6,169.4	125.78	50.049	
11,220.4	6,639.9	6,355.4	6,354.0	130.6	1.9	-71.68	-105.0	1,742.4	6,315.4	6,189.1	126.31	49.999	
11,300.0	6,639.8	6,353.9	6,352.6	132.8	1.9	-71.59	-104.9	1,742.4	6,394.2	6,265.8	128.37	49.811	
11,318.9	6,639.8	6,353.6	6,352.2	133.4	1.9	-71.57	-104.9	1,742.4	6,412.9	6,284.0	128.86	49.767	
11,400.0	6,639.7	6,352.1	6,350.8	135.6	1.9	-71.48	-104.8	1,742.3	6,493.2	6,362.2	130.95	49.583	
11,417.3	6,639.7	6,351.8	6,350.5	136.1	1.9	-71.46	-104.8	1,742.3	6,510.3	6,378.9	131.40	49.545	
11,500.0	6,639.6	6,350.3	6,349.0	138.4	1.9	-71.37	-104.7	1,742.3	6,592.2	6,458.7	133.54	49.366	
11,515.7	6,639.5	6,350.1	6,348.7	138.9	1.9	-71.36	-104.7	1,742.3	6,607.8	6,473.8	133.94	49.332	
11,600.0	6,639.4	6,348.6	6,347.2	141.2	1.9	-71.27	-104.6	1,742.2	6,691.3	6,555.2	136.12	49.157	
11,614.1	6,639.4	6,348.3	6,347.0	141.6	1.9	-71.25	-104.6	1,742.2	6,705.3	6,568.8	136.49	49.128	
11,700.0	6,639.3	6,346.9	6,345.5	144.0	1.9	-71.16	-104.5	1,742.1	6,790.4	6,651.7	138.70	48.957	
11,712.6	6,639.3	6,346.6	6,345.3	144.3	1.9	-71.15	-104.5	1,742.1	6,802.8	6,663.8	139.03	48.932	
11,800.0	6,639.2	6,345.1	6,343.8	146.8	1.9	-71.06	-104.4	1,742.1	6,889.5	6,748.2	141.28	48.765	
11,811.0	6,639.2	6,345.0	6,343.6	147.1	1.9	-71.04	-104.4	1,742.1	6,900.4	6,758.8	141.56	48.744	
11,900.0	6,639.1	6,343.4	6,342.1	149.6	1.9	-70.95	-104.3	1,742.0	6,988.6	6,844.8	143.86	48.581	
11,909.4	6,639.0	6,343.3	6,341.9	149.8	1.9	-70.94	-104.3	1,742.0	6,998.0	6,853.9	144.10	48.564	
12,000.0	6,638.9	6,341.8	6,340.4	152.4	1.9	-70.85	-104.2	1,742.0	7,087.8	6,941.3	146.43	48.404	
12,007.8	6,638.9	6,341.6	6,340.3	152.6	1.9	-70.84	-104.2	1,742.0	7,095.6	6,948.9	146.63	48.390	
12,100.0	6,638.8	6,340.1	6,338.8	155.2	1.9	-70.75	-104.2	1,741.9	7,187.0	7,038.0	149.00	48.233	
12,106.3	6,638.8	6,340.0	6,338.7	155.3	1.9	-70.74	-104.1	1,741.9	7,193.2	7,044.0	149.16	48.223	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
12,200.0	6,638.7	6,338.5	6,337.2	157.9	1.9	-70.65	-104.1	1,741.9	7,286.2	7,134.6	151.57	48.070		
12,204.7	6,638.7	6,338.4	6,337.1	158.1	1.9	-70.65	-104.1	1,741.9	7,290.8	7,139.1	151.70	48.062		
12,300.0	6,638.5	6,336.9	6,335.5	160.7	1.9	-70.55	-104.0	1,741.8	7,385.4	7,231.2	154.14	47.912		
12,303.1	6,638.5	6,336.8	6,335.5	160.8	1.9	-70.55	-104.0	1,741.8	7,388.5	7,234.3	154.22	47.908		
12,400.0	6,638.4	6,335.3	6,334.0	163.5	1.9	-70.46	-103.9	1,741.7	7,484.6	7,327.9	156.71	47.761		
12,401.5	6,638.4	6,335.2	6,333.9	163.6	1.9	-70.46	-103.9	1,741.7	7,486.2	7,329.4	156.75	47.759		
12,500.0	6,638.3	6,333.7	6,332.4	166.3	1.9	-70.36	-103.8	1,741.7	7,583.9	7,424.6	159.28	47.615		
12,598.4	6,638.2	6,332.2	6,330.8	169.1	1.9	-70.27	-103.7	1,741.6	7,681.6	7,519.8	161.80	47.476		
12,600.0	6,638.2	6,332.1	6,330.8	169.1	1.9	-70.27	-103.7	1,741.6	7,683.2	7,521.3	161.84	47.474		
12,696.8	6,638.0	6,330.6	6,329.3	171.8	1.9	-70.18	-103.7	1,741.6	7,779.3	7,615.0	164.32	47.343		
12,700.0	6,638.0	6,330.6	6,329.3	171.9	1.9	-70.18	-103.7	1,741.6	7,782.5	7,618.1	164.40	47.338		
12,795.2	6,637.9	6,329.1	6,327.8	174.6	1.9	-70.09	-103.6	1,741.5	7,877.1	7,710.2	166.84	47.214		
12,800.0	6,637.9	6,329.1	6,327.8	174.7	1.9	-70.08	-103.6	1,741.5	7,881.8	7,714.8	166.96	47.208		
12,893.7	6,637.8	6,300.0	6,298.7	177.3	1.9	-68.36	-102.2	1,740.6	7,975.0	7,807.2	167.77	47.535		
12,900.0	6,637.8	6,300.0	6,298.7	177.5	1.9	-68.36	-102.2	1,740.6	7,981.2	7,813.3	167.93	47.526		
12,992.1	6,637.7	6,300.0	6,298.7	180.1	1.9	-68.36	-102.2	1,740.6	8,072.7	7,902.4	170.34	47.391		
13,000.0	6,637.6	6,300.0	6,298.7	180.3	1.9	-68.36	-102.2	1,740.6	8,080.6	7,910.0	170.55	47.380		
13,090.5	6,637.5	6,300.0	6,298.7	182.8	1.9	-68.36	-102.2	1,740.6	8,170.5	7,997.6	172.92	47.252		
13,100.0	6,637.5	6,300.0	6,298.7	183.1	1.9	-68.36	-102.2	1,740.6	8,179.9	8,006.8	173.16	47.238		
13,188.9	6,637.4	6,300.0	6,298.7	185.6	1.9	-68.36	-102.2	1,740.6	8,268.3	8,092.8	175.49	47.116		
13,200.0	6,637.4	6,300.0	6,298.7	185.9	1.9	-68.36	-102.2	1,740.6	8,279.3	8,103.5	175.78	47.101		
13,287.4	6,637.3	6,300.0	6,298.7	188.4	1.9	-68.36	-102.2	1,740.6	8,366.1	8,188.1	178.06	46.984		
13,300.0	6,637.3	6,300.0	6,298.7	188.7	1.9	-68.36	-102.2	1,740.6	8,378.7	8,200.3	178.39	46.968		
13,385.8	6,637.1	6,300.0	6,298.7	191.1	1.9	-68.36	-102.2	1,740.6	8,464.0	8,283.3	180.64	46.856		
13,400.0	6,637.1	6,300.0	6,298.7	191.5	1.9	-68.36	-102.2	1,740.6	8,478.1	8,297.1	181.01	46.838		
13,484.2	6,637.0	6,300.0	6,298.7	193.9	1.9	-68.36	-102.2	1,740.6	8,561.8	8,378.6	183.21	46.732		
13,500.0	6,637.0	6,300.0	6,298.7	194.3	1.9	-68.36	-102.2	1,740.6	8,577.5	8,393.9	183.62	46.712		
13,582.6	6,636.9	6,300.0	6,298.7	196.6	1.9	-68.36	-102.2	1,740.6	8,659.7	8,473.9	185.79	46.611		
13,600.0	6,636.9	6,300.0	6,298.7	197.1	1.9	-68.36	-102.2	1,740.6	8,676.9	8,490.7	186.24	46.590		
13,681.1	6,636.8	6,300.0	6,298.7	199.4	1.9	-68.36	-102.2	1,740.6	8,757.5	8,569.2	188.36	46.493		
13,700.0	6,636.7	6,300.0	6,298.7	199.9	1.9	-68.36	-102.2	1,740.6	8,776.4	8,587.5	188.86	46.471		
13,779.5	6,636.6	6,300.0	6,298.7	202.1	1.9	-68.36	-102.2	1,740.6	8,855.4	8,664.5	190.94	46.379		
13,800.0	6,636.6	6,300.0	6,298.7	202.7	1.9	-68.36	-102.2	1,740.6	8,875.8	8,684.3	191.47	46.356		
13,877.9	6,636.5	6,300.0	6,298.7	204.9	1.9	-68.36	-102.2	1,740.6	8,953.3	8,759.8	193.51	46.268		
13,900.0	6,636.5	6,300.0	6,298.7	205.5	1.9	-68.36	-102.2	1,740.6	8,975.3	8,781.2	194.09	46.243		
13,976.3	6,636.4	6,300.0	6,298.7	207.6	1.9	-68.36	-102.2	1,740.6	9,051.2	8,855.1	196.09	46.159		
14,000.0	6,636.3	6,300.0	6,298.7	208.3	1.9	-68.35	-102.2	1,740.6	9,074.8	8,878.1	196.71	46.134		
14,074.8	6,636.3	6,300.0	6,298.7	210.4	1.9	-68.35	-102.2	1,740.6	9,149.1	8,950.5	198.66	46.054		
14,100.0	6,636.2	6,300.0	6,298.7	211.1	1.9	-68.35	-102.2	1,740.6	9,174.2	8,974.9	199.32	46.027		
14,173.2	6,636.1	6,300.0	6,298.7	213.2	1.9	-68.35	-102.2	1,740.6	9,247.1	9,045.8	201.24	45.951		
14,200.0	6,636.1	6,300.0	6,298.7	213.9	1.9	-68.35	-102.2	1,740.6	9,273.7	9,071.8	201.94	45.924		
14,271.6	6,636.0	6,300.0	6,298.7	215.9	1.9	-68.35	-102.2	1,740.6	9,345.0	9,141.2	203.81	45.851		
14,300.0	6,636.0	6,300.0	6,298.7	216.7	1.9	-68.35	-102.2	1,740.6	9,373.3	9,168.7	204.56	45.822		
14,370.0	6,635.9	6,300.0	6,298.7	218.7	1.9	-68.35	-102.2	1,740.6	9,443.0	9,236.6	206.39	45.753		
14,400.0	6,635.8	6,300.0	6,298.7	219.5	1.9	-68.35	-102.2	1,740.6	9,472.8	9,265.6	207.17	45.724		
14,468.5	6,635.7	6,300.0	6,298.7	221.4	1.9	-68.35	-102.2	1,740.6	9,540.9	9,332.0	208.97	45.658		
14,500.0	6,635.7	6,300.0	6,298.7	222.3	1.9	-68.35	-102.2	1,740.6	9,572.3	9,362.5	209.79	45.628		
14,566.9	6,635.6	6,300.0	6,298.7	224.2	1.9	-68.35	-102.2	1,740.6	9,638.9	9,427.3	211.54	45.565		
14,600.0	6,635.6	6,300.0	6,298.7	225.1	1.9	-68.35	-102.2	1,740.6	9,671.8	9,459.4	212.41	45.534		
14,665.3	6,635.5	6,300.0	6,298.7	226.9	1.9	-68.35	-102.2	1,740.6	9,736.9	9,522.8	214.12	45.474		
14,700.0	6,635.4	6,300.0	6,298.7	227.9	1.9	-68.35	-102.2	1,740.6	9,771.4	9,556.4	215.03	45.443		
14,763.7	6,635.4	6,300.0	6,298.7	229.7	1.9	-68.35	-102.2	1,740.6	9,834.9	9,618.2	216.70	45.386		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #22-10 - 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
14,800.0	6,635.3	6,300.0	6,298.7	230.7	1.9	-68.35	-102.2	1,740.6	9,870.9	9,653.3	217.64	45.354	
14,862.2	6,635.2	6,300.0	6,298.7	232.5	1.9	-68.35	-102.2	1,740.6	9,932.9	9,713.6	219.27	45.299	
14,900.0	6,635.2	6,300.0	6,298.7	233.5	1.9	-68.35	-102.2	1,740.6	9,970.5	9,750.3	220.26	45.267 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	61.53	1,443.2	2,661.1	3,027.5				
98.4	98.4	54.4	54.4	0.1	0.1	61.53	1,443.2	2,661.1	3,027.2	3,027.0	0.24	N/A	
100.0	100.0	56.0	56.0	0.1	0.1	61.53	1,443.2	2,661.1	3,027.2	3,027.0	0.25	N/A	
196.8	196.8	152.8	152.8	0.3	1.6	61.53	1,443.2	2,661.1	3,027.2	3,025.3	1.93	1,566.074	
200.0	200.0	156.0	156.0	0.3	1.7	61.53	1,443.2	2,661.1	3,027.2	3,025.2	2.02	1,498.165	
295.3	295.3	251.3	251.3	0.5	3.9	61.53	1,443.2	2,661.1	3,027.2	3,022.8	4.42	684.599	
300.0	300.0	256.0	256.0	0.5	4.0	61.53	1,443.2	2,661.1	3,027.2	3,022.7	4.53	668.204	
393.7	393.7	349.7	349.7	0.8	5.9	61.53	1,443.2	2,661.1	3,027.2	3,020.6	6.66	454.247	
400.0	400.0	356.0	356.0	0.8	6.0	61.53	1,443.2	2,661.1	3,027.2	3,020.4	6.81	444.742	
492.1	492.1	448.1	448.1	1.0	7.9	61.53	1,443.2	2,661.1	3,027.2	3,018.3	8.88	340.754	
500.0	500.0	456.0	456.0	1.0	8.1	61.53	1,443.2	2,661.1	3,027.2	3,018.2	9.06	334.092	
590.5	590.5	546.5	546.5	1.2	9.9	61.53	1,443.2	2,661.1	3,027.2	3,016.1	11.10	272.833	
600.0	600.0	556.0	556.0	1.2	10.1	61.53	1,443.2	2,661.1	3,027.2	3,015.9	11.31	267.715	
689.0	689.0	645.0	645.0	1.4	11.9	61.53	1,443.2	2,661.1	3,027.2	3,013.9	13.30	227.554	
700.0	700.0	656.0	656.0	1.4	12.1	61.53	1,443.2	2,661.1	3,027.2	3,013.7	13.55	223.404	
787.4	787.4	743.4	743.4	1.6	13.9	61.53	1,443.2	2,661.1	3,027.2	3,011.7	15.51	195.191	
800.0	800.0	756.0	756.0	1.7	14.1	61.53	1,443.2	2,661.1	3,027.2	3,011.4	15.79	191.703	
885.8	885.8	841.8	841.8	1.9	15.8	61.53	1,443.2	2,661.1	3,027.2	3,009.5	17.71	170.901	
900.0	900.0	856.0	856.0	1.9	16.1	61.53	1,443.2	2,661.1	3,027.2	3,009.2	18.03	167.892	
984.2	984.2	940.2	940.2	2.1	17.8	61.53	1,443.2	2,661.1	3,027.2	3,007.3	19.92	151.993	
1,000.0	1,000.0	956.0	956.0	2.1	18.1	61.53	1,443.2	2,661.1	3,027.2	3,007.0	20.27	149.350	
1,082.7	1,082.7	1,038.7	1,038.7	2.3	19.8	34.55	1,443.2	2,661.1	3,026.2	3,004.1	22.11	136.859	
1,100.0	1,100.0	1,056.0	1,056.0	2.3	20.2	34.56	1,443.2	2,661.1	3,025.8	3,003.3	22.50	134.502	
1,181.1	1,181.0	1,137.0	1,137.0	2.5	21.8	34.64	1,443.2	2,661.1	3,022.5	2,998.2	24.28	124.465	
1,200.0	1,199.8	1,155.8	1,155.8	2.6	22.2	34.67	1,443.2	2,661.1	3,021.5	2,996.8	24.70	122.339	
1,279.5	1,279.1	1,235.1	1,235.1	2.8	23.8	34.80	1,443.2	2,661.1	3,016.0	2,989.6	26.43	114.120	
1,300.0	1,299.5	1,255.5	1,255.5	2.8	24.2	34.84	1,443.2	2,661.1	3,014.3	2,987.4	26.87	112.181	
1,377.9	1,376.9	1,332.9	1,332.9	3.0	25.7	35.03	1,443.2	2,661.1	3,006.7	2,978.2	28.54	105.343	
1,400.0	1,398.7	1,354.7	1,354.7	3.0	26.2	35.09	1,443.2	2,661.1	3,004.3	2,975.3	29.01	103.560	
1,476.4	1,474.2	1,430.2	1,430.2	3.2	27.7	35.33	1,443.2	2,661.1	2,994.7	2,964.1	30.62	97.790	
1,500.0	1,497.5	1,453.5	1,453.5	3.3	28.2	35.41	1,443.2	2,661.1	2,991.5	2,960.3	31.12	96.135	
1,574.8	1,571.0	1,527.0	1,527.0	3.5	29.6	35.70	1,443.2	2,661.1	2,980.0	2,947.4	32.67	91.207	
1,600.0	1,595.6	1,551.6	1,551.6	3.6	30.1	35.81	1,443.2	2,661.1	2,975.9	2,942.7	33.19	89.660	
1,673.2	1,667.2	1,623.2	1,623.2	3.9	31.6	35.98	1,443.2	2,661.1	2,963.4	2,928.6	34.81	85.125	
1,700.0	1,693.4	1,649.4	1,649.4	4.0	32.1	36.04	1,443.2	2,661.1	2,958.9	2,923.5	35.40	83.574	
1,771.6	1,763.5	1,719.5	1,719.5	4.2	33.5	36.21	1,443.2	2,661.1	2,946.8	2,909.8	37.00	79.642	
1,800.0	1,791.3	1,747.3	1,747.3	4.3	34.1	36.28	1,443.2	2,661.1	2,942.0	2,904.3	37.63	78.181	
1,870.1	1,859.8	1,815.8	1,815.8	4.6	35.5	36.45	1,443.2	2,661.1	2,930.2	2,891.0	39.20	74.754	
1,900.0	1,889.1	1,845.1	1,845.1	4.7	36.0	36.52	1,443.2	2,661.1	2,925.1	2,885.2	39.87	73.374	
1,968.5	1,956.1	1,912.1	1,912.1	4.9	37.4	36.68	1,443.2	2,661.1	2,913.6	2,872.2	41.40	70.373	
2,000.0	1,986.9	1,942.9	1,942.9	5.1	38.0	36.76	1,443.2	2,661.1	2,908.3	2,866.2	42.11	69.066	
2,066.9	2,052.3	2,008.3	2,008.3	5.3	39.3	36.92	1,443.2	2,661.1	2,897.1	2,853.5	43.62	66.423	
2,100.0	2,084.7	2,040.7	2,040.7	5.5	40.0	37.01	1,443.2	2,661.1	2,891.5	2,847.2	44.36	65.183	
2,165.3	2,148.6	2,104.6	2,104.6	5.7	41.3	37.17	1,443.2	2,661.1	2,880.6	2,834.8	45.83	62.848	
2,200.0	2,182.5	2,138.5	2,138.5	5.9	41.9	37.25	1,443.2	2,661.1	2,874.8	2,828.2	46.62	61.669	
2,263.8	2,244.9	2,200.9	2,200.9	6.1	43.2	37.41	1,443.2	2,661.1	2,864.2	2,816.1	48.06	59.596	
2,300.0	2,280.3	2,236.3	2,236.3	6.3	43.9	37.50	1,443.2	2,661.1	2,858.2	2,809.3	48.88	58.473	
2,362.2	2,341.2	2,297.2	2,297.2	6.5	45.1	37.66	1,443.2	2,661.1	2,847.8	2,797.6	50.29	56.628	
2,400.0	2,378.1	2,334.1	2,334.1	6.7	45.9	37.76	1,443.2	2,661.1	2,841.6	2,790.4	51.15	55.556	
2,460.6	2,437.4	2,393.4	2,393.4	6.9	47.1	37.91	1,443.2	2,661.1	2,831.5	2,779.0	52.53	53.908	
2,500.0	2,476.0	2,432.0	2,432.0	7.1	47.8	38.01	1,443.2	2,661.1	2,825.0	2,771.6	53.42	52.883	
2,550.0	2,524.9	2,480.9	2,480.9	7.3	48.8	38.14	1,443.2	2,661.1	2,816.8	2,762.2	54.56	51.629	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,489.7	2,489.7	7.3	49.0	39.04	1,443.2	2,661.1	2,815.3	2,760.5	54.78	51.391	
2,600.0	2,573.8	2,529.8	2,529.8	7.5	49.8	43.09	1,443.2	2,661.1	2,808.8	2,753.0	55.79	50.346	
2,639.4	2,612.3	2,568.3	2,568.3	7.7	50.6	46.99	1,443.2	2,661.1	2,803.0	2,746.2	56.76	49.381	
2,657.5	2,630.0	2,586.0	2,586.0	7.7	50.9	47.05	1,443.2	2,661.1	2,800.4	2,743.2	57.18	48.978	
2,700.0	2,671.6	2,627.6	2,627.6	7.9	51.8	47.18	1,443.2	2,661.1	2,794.3	2,736.1	58.15	48.051	
2,755.9	2,726.3	2,682.3	2,682.3	8.1	52.9	47.35	1,443.2	2,661.1	2,786.3	2,726.9	59.44	46.873	
2,800.0	2,769.4	2,725.4	2,725.4	8.3	53.7	47.49	1,443.2	2,661.1	2,780.0	2,719.6	60.46	45.979	
2,854.3	2,822.5	2,778.5	2,778.5	8.5	54.8	47.66	1,443.2	2,661.1	2,772.3	2,710.6	61.72	44.917	
2,900.0	2,867.2	2,823.2	2,823.2	8.7	55.7	47.80	1,443.2	2,661.1	2,765.9	2,703.1	62.78	44.056	
2,952.7	2,918.8	2,874.8	2,874.8	9.0	56.8	47.97	1,443.2	2,661.1	2,758.4	2,694.4	64.00	43.098	
3,000.0	2,965.0	2,921.0	2,921.0	9.2	57.7	48.12	1,443.2	2,661.1	2,751.8	2,686.7	65.10	42.269	
3,051.2	3,015.1	2,971.1	2,971.1	9.4	58.7	48.28	1,443.2	2,661.1	2,744.6	2,678.3	66.29	41.402	
3,100.0	3,062.8	3,018.8	3,018.8	9.6	59.6	48.44	1,443.2	2,661.1	2,737.8	2,670.3	67.43	40.604	
3,149.6	3,111.4	3,067.4	3,067.4	9.8	60.6	48.60	1,443.2	2,661.1	2,730.8	2,662.3	68.58	39.819	
3,200.0	3,160.7	3,116.7	3,116.7	10.0	61.6	48.76	1,443.2	2,661.1	2,723.8	2,654.1	69.76	39.048	
3,248.0	3,207.6	3,163.6	3,163.6	10.2	62.6	48.92	1,443.2	2,661.1	2,717.2	2,646.3	70.88	38.337	
3,300.0	3,258.5	3,214.5	3,214.5	10.5	63.6	49.09	1,443.2	2,661.1	2,710.0	2,637.9	72.09	37.592	
3,346.4	3,303.9	3,259.9	3,259.9	10.7	64.5	49.24	1,443.2	2,661.1	2,703.6	2,630.4	73.17	36.948	
3,400.0	3,356.3	3,312.3	3,312.3	10.9	65.5	49.42	1,443.2	2,661.1	2,696.3	2,621.8	74.43	36.227	
3,444.9	3,400.2	3,356.2	3,356.2	11.1	66.4	49.57	1,443.2	2,661.1	2,690.1	2,614.7	75.48	35.642	
3,500.0	3,454.1	3,410.1	3,410.1	11.3	67.5	49.75	1,443.2	2,661.1	2,682.6	2,605.8	76.77	34.945	
3,543.3	3,496.5	3,452.5	3,452.5	11.5	68.4	49.90	1,443.2	2,661.1	2,676.7	2,599.0	77.78	34.413	
3,600.0	3,551.9	3,507.9	3,507.9	11.7	69.5	50.09	1,443.2	2,661.1	2,669.1	2,589.9	79.11	33.738	
3,641.7	3,592.7	3,548.7	3,548.7	11.9	70.3	50.23	1,443.2	2,661.1	2,663.4	2,583.3	80.09	33.255	
3,700.0	3,649.7	3,605.7	3,605.7	12.2	71.5	50.43	1,443.2	2,661.1	2,655.6	2,574.1	81.46	32.600	
3,740.1	3,689.0	3,645.0	3,645.0	12.4	72.2	50.57	1,443.2	2,661.1	2,650.2	2,567.8	82.40	32.161	
3,800.0	3,747.5	3,703.5	3,703.5	12.6	73.4	50.77	1,443.2	2,661.1	2,642.2	2,558.4	83.81	31.526	
3,838.6	3,785.3	3,741.3	3,741.3	12.8	74.2	50.91	1,443.2	2,661.1	2,637.1	2,552.4	84.72	31.127	
3,900.0	3,845.4	3,801.4	3,801.4	13.1	75.4	51.12	1,443.2	2,661.1	2,628.9	2,542.8	86.17	30.510	
3,937.0	3,881.6	3,837.6	3,837.6	13.2	76.1	51.25	1,443.2	2,661.1	2,624.1	2,537.0	87.04	30.148	
4,000.0	3,943.2	3,899.2	3,899.2	13.5	77.4	51.47	1,443.2	2,661.1	2,615.8	2,527.2	88.53	29.548	
4,035.4	3,977.8	3,933.8	3,933.8	13.6	78.0	51.59	1,443.2	2,661.1	2,611.1	2,521.8	89.36	29.220	
4,100.0	4,041.0	3,997.0	3,997.0	13.9	79.3	51.82	1,443.2	2,661.1	2,602.7	2,511.8	90.89	28.636	
4,133.8	4,074.1	4,030.1	4,030.1	14.1	80.0	51.94	1,443.2	2,661.1	2,598.3	2,506.6	91.69	28.338	
4,200.0	4,138.8	4,094.8	4,094.8	14.4	81.3	52.18	1,443.2	2,661.1	2,589.7	2,496.5	93.25	27.771	
4,232.3	4,170.4	4,126.4	4,126.4	14.5	81.9	52.29	1,443.2	2,661.1	2,585.6	2,491.5	94.02	27.501	
4,300.0	4,236.6	4,192.6	4,192.6	14.8	83.3	52.54	1,443.2	2,661.1	2,576.8	2,481.2	95.62	26.949	
4,330.7	4,266.7	4,222.7	4,222.7	14.9	83.9	52.65	1,443.2	2,661.1	2,572.9	2,476.6	96.35	26.704	
4,400.0	4,334.4	4,290.4	4,290.4	15.2	85.2	52.90	1,443.2	2,661.1	2,564.1	2,466.1	97.99	26.166	
4,429.1	4,362.9	4,318.9	4,318.9	15.4	85.8	53.01	1,443.2	2,661.1	2,560.4	2,461.7	98.68	25.945	
4,500.0	4,432.3	4,388.3	4,388.3	15.7	87.2	53.27	1,443.2	2,661.1	2,551.4	2,451.0	100.37	25.421	
4,527.5	4,459.2	4,415.2	4,415.2	15.8	87.7	53.37	1,443.2	2,661.1	2,547.9	2,446.9	101.02	25.222	
4,600.0	4,530.1	4,486.1	4,486.1	16.1	89.2	53.64	1,443.2	2,661.1	2,538.9	2,436.1	102.74	24.710	
4,626.0	4,555.5	4,511.5	4,511.5	16.2	89.7	53.74	1,443.2	2,661.1	2,535.6	2,432.2	103.36	24.531	
4,700.0	4,627.9	4,583.9	4,583.9	16.6	91.1	54.01	1,443.2	2,661.1	2,526.4	2,421.3	105.13	24.032	
4,724.4	4,651.7	4,607.7	4,607.7	16.7	91.6	54.11	1,443.2	2,661.1	2,523.4	2,417.7	105.71	23.871	
4,800.0	4,725.7	4,681.7	4,681.7	17.0	93.1	54.39	1,443.2	2,661.1	2,514.1	2,406.6	107.51	23.385	
4,822.8	4,748.0	4,704.0	4,704.0	17.1	93.5	54.48	1,443.2	2,661.1	2,511.3	2,403.2	108.05	23.241	
4,904.9	4,828.3	4,784.3	4,784.3	17.5	95.2	54.79	1,443.2	2,661.1	2,501.2	2,391.2	110.01	22.736	
4,921.2	4,844.3	4,800.3	4,800.3	17.5	95.5	54.82	1,443.2	2,661.1	2,499.3	2,388.9	110.43	22.633	
5,000.0	4,921.6	4,877.6	4,877.6	17.8	97.0	54.96	1,443.2	2,661.1	2,490.6	2,378.2	112.42	22.155	
5,019.7	4,941.0	4,897.0	4,897.0	17.9	97.4	54.99	1,443.2	2,661.1	2,488.7	2,375.8	112.90	22.043	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,976.4	4,976.4	18.1	99.0	55.10	1,443.2	2,661.1	2,481.5	2,366.6	114.85	21.605	
5,118.1	5,038.3	4,994.3	4,994.3	18.2	99.4	55.12	1,443.2	2,661.1	2,480.1	2,364.8	115.29	21.512	
5,200.0	5,119.6	5,075.6	5,075.6	18.4	101.0	55.22	1,443.2	2,661.1	2,474.4	2,357.2	117.23	21.107	
5,216.5	5,136.0	5,092.0	5,092.0	18.4	101.3	55.23	1,443.2	2,661.1	2,473.4	2,355.8	117.61	21.030	
5,300.0	5,219.2	5,175.2	5,175.2	18.6	103.0	55.30	1,443.2	2,661.1	2,469.3	2,349.8	119.54	20.657	
5,314.9	5,234.1	5,190.1	5,190.1	18.6	103.3	55.31	1,443.2	2,661.1	2,468.7	2,348.8	119.88	20.594	
5,400.0	5,319.1	5,275.1	5,275.1	18.8	105.0	55.36	1,443.2	2,661.1	2,466.2	2,344.5	121.78	20.251	
5,413.4	5,332.4	5,288.4	5,288.4	18.8	105.3	55.36	1,443.2	2,661.1	2,466.0	2,343.9	122.07	20.201	
5,504.9	5,423.9	5,379.9	5,379.9	18.9	107.1	73.79	1,443.2	2,661.1	2,465.1	2,342.5	122.64	20.101	
5,511.8	5,430.8	5,386.8	5,386.8	18.9	107.3	73.79	1,443.2	2,661.1	2,465.1	2,342.4	122.79	20.076	
5,600.0	5,519.0	5,475.0	5,475.0	19.0	109.0	73.79	1,443.2	2,661.1	2,465.1	2,340.5	124.70	19.769	
5,610.2	5,529.3	5,485.3	5,485.3	19.0	109.2	73.79	1,443.2	2,661.1	2,465.1	2,340.2	124.92	19.734	
5,700.0	5,619.0	5,575.0	5,575.0	19.2	111.1	73.79	1,443.2	2,661.1	2,465.1	2,338.3	126.87	19.430	
5,708.6	5,627.7	5,583.7	5,583.7	19.2	111.2	73.79	1,443.2	2,661.1	2,465.1	2,338.1	127.06	19.401	
5,800.0	5,719.0	5,675.0	5,675.0	19.3	113.1	73.79	1,443.2	2,661.1	2,465.1	2,336.1	129.06	19.101	
5,807.1	5,726.1	5,682.1	5,682.1	19.3	113.2	73.79	1,443.2	2,661.1	2,465.1	2,335.9	129.21	19.079	
5,900.0	5,819.0	5,775.0	5,775.0	19.4	115.1	73.79	1,443.2	2,661.1	2,465.1	2,333.9	131.24	18.784	
5,905.5	5,824.5	5,780.5	5,780.5	19.4	115.2	73.79	1,443.2	2,661.1	2,465.1	2,333.8	131.36	18.767	
6,003.9	5,923.0	5,879.0	5,879.0	19.6	117.2	73.79	1,443.2	2,661.1	2,465.1	2,331.6	133.51	18.464	
6,009.8	5,928.8	5,884.8	5,884.8	19.6	117.3	73.79	1,443.2	2,661.1	2,465.1	2,331.5	133.64	18.447 CC	
6,050.0	5,969.0	5,925.0	5,925.0	19.6	118.1	163.78	1,443.2	2,661.1	2,466.2	2,330.6	135.59	18.189 ES, SF	
6,100.0	6,018.8	5,974.8	5,974.8	19.7	119.1	163.71	1,443.2	2,661.1	2,470.6	2,334.8	135.81	18.191	
6,102.3	6,021.1	5,977.1	5,977.1	19.7	119.1	163.70	1,443.2	2,661.1	2,470.9	2,335.1	135.81	18.194	
6,150.0	6,068.1	6,024.1	6,024.1	19.7	120.1	163.58	1,443.2	2,661.1	2,478.3	2,342.9	135.41	18.303	
6,200.0	6,116.8	6,072.8	6,072.8	19.7	121.1	163.40	1,443.2	2,661.1	2,489.3	2,354.9	134.37	18.525	
6,200.8	6,117.5	6,073.5	6,073.5	19.7	121.1	163.40	1,443.2	2,661.1	2,489.5	2,355.1	134.35	18.530	
6,250.0	6,164.5	6,120.5	6,120.5	19.7	122.0	163.16	1,443.2	2,661.1	2,503.5	2,370.8	132.71	18.864	
6,299.2	6,210.4	6,166.4	6,166.4	19.7	122.9	162.85	1,443.2	2,661.1	2,520.6	2,390.1	130.48	19.317	
6,300.0	6,211.1	6,167.1	6,167.1	19.7	123.0	162.84	1,443.2	2,661.1	2,520.9	2,390.5	130.44	19.326	
6,350.0	6,256.4	6,212.4	6,212.4	19.7	123.9	162.45	1,443.2	2,661.1	2,541.4	2,413.8	127.59	19.919	
6,397.6	6,298.0	6,254.0	6,254.0	19.7	124.7	161.99	1,443.2	2,661.1	2,563.7	2,439.4	124.35	20.616	
6,400.0	6,300.0	6,256.0	6,256.0	19.7	124.7	161.96	1,443.2	2,661.1	2,564.9	2,440.7	124.18	20.654	
6,450.0	6,341.8	6,297.8	6,297.8	19.7	125.6	161.37	1,443.2	2,661.1	2,591.3	2,471.0	120.29	21.542	
6,496.0	6,378.6	6,334.6	6,334.6	19.7	126.3	160.71	1,443.2	2,661.1	2,618.0	2,501.7	116.34	22.503	
6,500.0	6,381.6	6,337.6	6,337.6	19.7	126.4	160.65	1,443.2	2,661.1	2,620.4	2,504.5	115.99	22.593	
6,550.0	6,419.2	6,375.2	6,375.2	19.6	127.1	159.77	1,443.2	2,661.1	2,652.2	2,540.9	111.40	23.809	
6,594.5	6,450.7	6,406.7	6,406.7	19.6	127.8	158.82	1,443.2	2,661.1	2,682.6	2,575.4	107.20	25.024	
6,600.0	6,454.4	6,410.4	6,410.4	19.6	127.9	158.69	1,443.2	2,661.1	2,686.5	2,579.9	106.68	25.183	
6,650.0	6,487.1	6,443.1	6,443.1	19.6	128.5	157.37	1,443.2	2,661.1	2,723.1	2,621.1	102.07	26.679	
6,692.9	6,513.0	6,469.0	6,469.0	19.6	129.0	155.98	1,443.2	2,661.1	2,756.3	2,657.8	98.46	27.994	
6,700.0	6,517.0	6,473.0	6,473.0	19.6	129.1	155.73	1,443.2	2,661.1	2,761.9	2,664.0	97.91	28.209	
6,750.0	6,544.1	6,500.1	6,500.1	19.6	129.7	153.67	1,443.2	2,661.1	2,802.6	2,708.0	94.66	29.608	
6,791.3	6,564.2	6,520.2	6,520.2	19.7	130.1	151.55	1,443.2	2,661.1	2,837.6	2,744.5	93.09	30.484	
6,800.0	6,568.2	6,524.2	6,524.2	19.7	130.1	151.05	1,443.2	2,661.1	2,845.1	2,752.1	92.96	30.605	
6,850.0	6,589.1	6,545.1	6,545.1	19.8	130.6	147.66	1,443.2	2,661.1	2,889.2	2,795.5	93.66	30.848	
6,889.7	6,603.5	6,559.5	6,559.5	19.9	130.9	144.19	1,443.2	2,661.1	2,925.2	2,828.6	96.55	30.297	
6,900.0	6,606.9	6,562.9	6,562.9	19.9	130.9	143.16	1,443.2	2,661.1	2,934.6	2,836.9	97.70	30.038	
6,950.0	6,621.3	6,577.3	6,577.3	20.2	131.2	137.09	1,443.2	2,661.1	2,981.1	2,875.2	105.95	28.136	
6,988.2	6,630.0	6,586.0	6,586.0	20.6	131.4	130.95	1,443.2	2,661.1	3,017.3	2,901.9	115.35	26.157	
7,000.0	6,632.4	6,588.4	6,588.4	20.7	131.4	128.73	1,443.2	2,661.1	3,028.6	2,909.8	118.76	25.502	
7,050.0	6,640.0	6,596.0	6,596.0	21.4	131.6	117.23	1,443.2	2,661.1	3,076.7	2,942.0	134.76	22.831	
7,086.6	6,643.4	6,599.4	6,599.4	21.9	131.7	106.52	1,443.2	2,661.1	3,112.2	2,966.4	145.82	21.343	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #31-10 - 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	6,644.2	6,600.2	6,600.2	22.1	131.7	102.14	1,443.2	2,661.1	3,125.3	2,976.3	149.00	20.975	
7,135.7	6,645.0	6,601.0	6,601.0	22.7	131.7	89.69	1,443.2	2,661.1	3,160.1	3,006.6	153.47	20.591	
7,185.0	6,644.9	6,600.9	6,600.9	23.6	131.7	89.68	1,443.2	2,661.1	3,208.3	3,053.8	154.43	20.775	
7,200.0	6,644.9	6,600.9	6,600.9	23.9	131.7	89.68	1,443.2	2,661.1	3,222.9	3,068.2	154.72	20.831	
7,283.4	6,644.8	6,600.8	6,600.8	25.6	131.7	89.67	1,443.2	2,661.1	3,304.5	3,148.0	156.45	21.122	
7,300.0	6,644.8	6,600.8	6,600.8	25.9	131.7	89.67	1,443.2	2,661.1	3,320.7	3,163.9	156.79	21.179	
7,381.9	6,644.7	6,600.7	6,600.7	27.7	131.7	89.66	1,443.2	2,661.1	3,400.8	3,242.2	158.59	21.444	
7,400.0	6,644.7	6,600.7	6,600.7	28.1	131.7	89.66	1,443.2	2,661.1	3,418.6	3,259.6	158.99	21.502	
7,480.3	6,644.6	6,600.6	6,600.6	29.9	131.7	89.65	1,443.2	2,661.1	3,497.2	3,336.4	160.85	21.743	
7,500.0	6,644.6	6,600.6	6,600.6	30.3	131.7	89.65	1,443.2	2,661.1	3,516.6	3,355.3	161.30	21.801	
7,578.7	6,644.5	6,600.5	6,600.5	32.2	131.7	89.64	1,443.2	2,661.1	3,593.8	3,430.6	163.18	22.023	
7,600.0	6,644.4	6,600.4	6,600.4	32.7	131.7	89.64	1,443.2	2,661.1	3,614.7	3,451.0	163.69	22.082	
7,677.1	6,644.3	6,600.3	6,600.3	34.6	131.7	89.63	1,443.2	2,661.1	3,690.5	3,524.9	165.59	22.287	
7,700.0	6,644.3	6,600.3	6,600.3	35.1	131.7	89.63	1,443.2	2,661.1	3,712.9	3,546.8	166.15	22.347	
7,775.6	6,644.2	6,600.2	6,600.2	37.0	131.7	89.62	1,443.2	2,661.1	3,787.2	3,619.2	168.04	22.537	
7,800.0	6,644.2	6,600.2	6,600.2	37.6	131.7	89.62	1,443.2	2,661.1	3,811.2	3,642.6	168.65	22.598	
7,874.0	6,644.1	6,600.1	6,600.1	39.5	131.7	89.61	1,443.2	2,661.1	3,884.0	3,713.5	170.54	22.775	
7,900.0	6,644.1	6,600.1	6,600.1	40.1	131.7	89.61	1,443.2	2,661.1	3,909.6	3,738.4	171.20	22.837	
7,972.4	6,644.0	6,600.0	6,600.0	42.0	131.7	89.60	1,443.2	2,661.1	3,980.9	3,807.9	173.07	23.002	
8,000.0	6,643.9	6,599.9	6,599.9	42.7	131.7	89.60	1,443.2	2,661.1	4,008.1	3,834.3	173.78	23.065	
8,070.8	6,643.9	6,599.9	6,599.9	44.5	131.7	89.59	1,443.2	2,661.1	4,077.9	3,902.3	175.62	23.220	
8,100.0	6,643.8	6,599.8	6,599.8	45.2	131.7	89.58	1,443.2	2,661.1	4,106.6	3,930.3	176.38	23.282	
8,169.3	6,643.7	6,599.7	6,599.7	47.0	131.7	89.58	1,443.2	2,661.1	4,175.0	3,996.8	178.21	23.428	
8,200.0	6,643.7	6,599.7	6,599.7	47.9	131.7	89.57	1,443.2	2,661.1	4,205.3	4,026.3	179.01	23.491	
8,267.7	6,643.6	6,599.6	6,599.6	49.6	131.7	89.57	1,443.2	2,661.1	4,272.1	4,091.3	180.81	23.628	
8,300.0	6,643.6	6,599.6	6,599.6	50.5	131.7	89.56	1,443.2	2,661.1	4,304.0	4,122.3	181.66	23.692	
8,366.1	6,643.5	6,599.5	6,599.5	52.2	131.7	89.56	1,443.2	2,661.1	4,369.2	4,185.8	183.43	23.820	
8,400.0	6,643.4	6,599.4	6,599.4	53.1	131.7	89.55	1,443.2	2,661.1	4,402.7	4,218.4	184.33	23.885	
8,464.5	6,643.4	6,599.4	6,599.4	54.8	131.7	89.55	1,443.2	2,661.1	4,466.5	4,280.4	186.06	24.006	
8,500.0	6,643.3	6,599.3	6,599.3	55.8	131.7	89.54	1,443.2	2,661.1	4,501.5	4,314.5	187.01	24.071	
8,563.0	6,643.2	6,599.2	6,599.2	57.5	131.7	89.54	1,443.2	2,661.1	4,563.7	4,375.0	188.70	24.185	
8,600.0	6,643.2	6,599.2	6,599.2	58.5	131.7	89.53	1,443.2	2,661.1	4,600.3	4,410.6	189.70	24.250	
8,661.4	6,643.1	6,599.1	6,599.1	60.1	131.6	89.53	1,443.2	2,661.1	4,661.1	4,469.7	191.36	24.357	
8,700.0	6,643.1	6,599.1	6,599.1	61.2	131.6	89.52	1,443.2	2,661.1	4,699.2	4,506.8	192.40	24.424	
8,759.8	6,643.0	6,599.0	6,599.0	62.8	131.6	89.51	1,443.2	2,661.1	4,758.4	4,564.4	194.03	24.525	
8,800.0	6,643.0	6,599.0	6,599.0	63.9	131.6	89.51	1,443.2	2,661.1	4,798.2	4,603.1	195.12	24.592	
8,858.2	6,642.9	6,598.9	6,598.9	65.4	131.6	89.50	1,443.2	2,661.1	4,855.8	4,659.1	196.70	24.687	
8,900.0	6,642.8	6,598.8	6,598.8	66.6	131.6	89.50	1,443.2	2,661.1	4,897.2	4,699.3	197.84	24.754	
8,956.7	6,642.8	6,598.8	6,598.8	68.1	131.6	89.49	1,443.2	2,661.1	4,953.3	4,753.9	199.38	24.843	
9,000.0	6,642.7	6,598.7	6,598.7	69.3	131.6	89.49	1,443.2	2,661.1	4,996.2	4,795.6	200.56	24.911	
9,055.1	6,642.6	6,598.6	6,598.6	70.8	131.6	89.48	1,443.2	2,661.1	5,050.8	4,848.7	202.07	24.995	
9,100.0	6,642.6	6,598.6	6,598.6	72.0	131.6	89.48	1,443.2	2,661.1	5,095.3	4,892.0	203.30	25.063	
9,153.5	6,642.5	6,598.5	6,598.5	73.5	131.6	89.47	1,443.2	2,661.1	5,148.3	4,943.5	204.76	25.143	
9,200.0	6,642.5	6,598.5	6,598.5	74.7	131.6	89.47	1,443.2	2,661.1	5,194.4	4,988.3	206.03	25.211	
9,251.9	6,642.4	6,598.4	6,598.4	76.2	131.6	89.46	1,443.2	2,661.1	5,245.9	5,038.4	207.46	25.286	
9,300.0	6,642.3	6,598.3	6,598.3	77.5	131.6	89.46	1,443.2	2,661.1	5,293.5	5,084.7	208.78	25.355	
9,350.4	6,642.3	6,598.3	6,598.3	78.9	131.6	89.45	1,443.2	2,661.1	5,343.5	5,133.3	210.16	25.425	
9,400.0	6,642.2	6,598.2	6,598.2	80.2	131.6	89.44	1,443.2	2,661.1	5,392.7	5,181.1	211.53	25.494	
9,448.8	6,642.1	6,598.1	6,598.1	81.6	131.6	89.44	1,443.2	2,661.1	5,441.1	5,228.2	212.87	25.561	
9,500.0	6,642.1	6,598.1	6,598.1	83.0	131.6	89.43	1,443.2	2,661.1	5,491.9	5,277.6	214.28	25.630	
9,547.2	6,642.0	6,598.0	6,598.0	84.3	131.6	89.43	1,443.2	2,661.1	5,538.7	5,323.1	215.58	25.692	
9,600.0	6,642.0	6,598.0	6,598.0	85.7	131.6	89.42	1,443.2	2,661.1	5,591.1	5,374.1	217.03	25.761	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
9,645.6	6,641.9	6,597.9	6,597.9	87.0	131.6	89.42	1,443.2	2,661.1	5,636.4	5,418.1	218.29	25.820		
9,700.0	6,641.8	6,597.8	6,597.8	88.5	131.6	89.41	1,443.2	2,661.1	5,690.3	5,470.6	219.79	25.889		
9,744.1	6,641.8	6,597.8	6,597.8	89.7	131.6	89.41	1,443.2	2,661.1	5,734.1	5,513.1	221.01	25.945		
9,800.0	6,641.7	6,597.7	6,597.7	91.2	131.6	89.40	1,443.2	2,661.1	5,789.6	5,567.1	222.56	26.014		
9,842.5	6,641.7	6,597.7	6,597.7	92.4	131.6	89.40	1,443.2	2,661.1	5,831.8	5,608.1	223.73	26.066		
9,900.0	6,641.6	6,597.6	6,597.6	94.0	131.6	89.39	1,443.2	2,661.1	5,888.9	5,663.6	225.32	26.136		
9,940.9	6,641.5	6,597.5	6,597.5	95.1	131.6	89.39	1,443.2	2,661.1	5,929.6	5,703.1	226.45	26.185		
10,000.0	6,641.5	6,597.5	6,597.5	96.7	131.6	89.38	1,443.2	2,661.1	5,988.3	5,760.2	228.09	26.254		
10,039.3	6,641.4	6,597.4	6,597.4	97.8	131.6	89.37	1,443.2	2,661.1	6,027.3	5,798.2	229.18	26.300		
10,100.0	6,641.3	6,597.3	6,597.3	99.5	131.6	89.37	1,443.2	2,661.1	6,087.6	5,856.7	230.86	26.369		
10,137.8	6,641.3	6,597.3	6,597.3	100.6	131.6	89.36	1,443.2	2,661.1	6,125.1	5,893.2	231.90	26.412		
10,200.0	6,641.2	6,597.2	6,597.2	102.3	131.6	89.36	1,443.2	2,661.1	6,187.0	5,953.3	233.63	26.482		
10,236.2	6,641.2	6,597.2	6,597.2	103.3	131.6	89.35	1,443.2	2,661.1	6,223.0	5,988.3	234.63	26.522		
10,300.0	6,641.1	6,597.1	6,597.1	105.0	131.6	89.35	1,443.2	2,661.1	6,286.4	6,050.0	236.40	26.592		
10,334.6	6,641.0	6,597.0	6,597.0	106.0	131.6	89.34	1,443.2	2,661.1	6,320.8	6,083.4	237.36	26.629		
10,400.0	6,641.0	6,597.0	6,597.0	107.8	131.6	89.33	1,443.2	2,661.1	6,385.8	6,146.6	239.18	26.699		
10,433.0	6,640.9	6,596.9	6,596.9	108.7	131.6	89.33	1,443.2	2,661.1	6,418.6	6,178.5	240.10	26.734		
10,500.0	6,640.8	6,596.8	6,596.8	110.6	131.6	89.32	1,443.2	2,661.1	6,485.2	6,243.2	241.96	26.803		
10,531.5	6,640.8	6,596.8	6,596.8	111.5	131.6	89.32	1,443.2	2,661.1	6,516.5	6,273.7	242.83	26.836		
10,600.0	6,640.7	6,596.7	6,596.7	113.4	131.6	89.31	1,443.2	2,661.1	6,584.6	6,339.9	244.73	26.905		
10,629.9	6,640.7	6,596.7	6,596.7	114.2	131.6	89.31	1,443.2	2,661.1	6,614.4	6,368.8	245.57	26.935		
10,700.0	6,640.6	6,596.6	6,596.6	116.1	131.6	89.30	1,443.2	2,661.1	6,684.1	6,436.6	247.51	27.005		
10,728.3	6,640.5	6,596.5	6,596.5	116.9	131.6	89.30	1,443.2	2,661.1	6,712.3	6,464.0	248.30	27.033		
10,800.0	6,640.5	6,596.5	6,596.5	118.9	131.6	89.29	1,443.2	2,661.1	6,783.6	6,533.3	250.30	27.102		
10,826.7	6,640.4	6,596.4	6,596.4	119.7	131.6	89.29	1,443.2	2,661.1	6,810.2	6,559.2	251.04	27.128		
10,900.0	6,640.3	6,596.3	6,596.3	121.7	131.6	89.28	1,443.2	2,661.1	6,883.1	6,630.0	253.08	27.197		
10,925.2	6,640.3	6,596.3	6,596.3	122.4	131.6	89.28	1,443.2	2,661.1	6,908.1	6,654.3	253.78	27.221		
11,000.0	6,640.2	6,596.2	6,596.2	124.5	131.6	89.27	1,443.2	2,661.1	6,982.6	6,726.7	255.86	27.290		
11,023.6	6,640.2	6,596.2	6,596.2	125.1	131.6	89.27	1,443.2	2,661.1	7,006.1	6,749.5	256.52	27.312		
11,100.0	6,640.1	6,596.1	6,596.1	127.3	131.6	89.26	1,443.2	2,661.1	7,082.1	6,823.5	258.65	27.381		
11,122.0	6,640.0	6,596.0	6,596.0	127.9	131.6	89.25	1,443.2	2,661.1	7,104.0	6,844.8	259.26	27.401		
11,200.0	6,639.9	6,595.9	6,595.9	130.1	131.6	89.25	1,443.2	2,661.1	7,181.6	6,920.2	261.43	27.470		
11,220.4	6,639.9	6,595.9	6,595.9	130.6	131.6	89.24	1,443.2	2,661.1	7,202.0	6,940.0	262.00	27.488		
11,300.0	6,639.8	6,595.8	6,595.8	132.8	131.6	89.23	1,443.2	2,661.1	7,281.2	7,017.0	264.22	27.557		
11,318.9	6,639.8	6,595.8	6,595.8	133.4	131.6	89.23	1,443.2	2,661.1	7,300.0	7,035.2	264.75	27.574		
11,400.0	6,639.7	6,595.7	6,595.7	135.6	131.6	89.22	1,443.2	2,661.1	7,380.7	7,113.7	267.01	27.643		
11,417.3	6,639.7	6,595.7	6,595.7	136.1	131.6	89.22	1,443.2	2,661.1	7,398.0	7,130.5	267.49	27.657		
11,500.0	6,639.6	6,595.6	6,595.6	138.4	131.6	89.21	1,443.2	2,661.1	7,480.3	7,210.5	269.79	27.726		
11,515.7	6,639.5	6,595.5	6,595.5	138.9	131.6	89.21	1,443.2	2,661.1	7,496.0	7,225.7	270.23	27.739		
11,600.0	6,639.4	6,595.4	6,595.4	141.2	131.6	89.20	1,443.2	2,661.1	7,579.9	7,307.3	272.58	27.808		
11,614.1	6,639.4	6,595.4	6,595.4	141.6	131.6	89.20	1,443.2	2,661.1	7,594.0	7,321.0	272.98	27.819		
11,700.0	6,639.3	6,595.3	6,595.3	144.0	131.6	89.19	1,443.2	2,661.1	7,679.5	7,404.1	275.37	27.888		
11,712.6	6,639.3	6,595.3	6,595.3	144.3	131.6	89.19	1,443.2	2,661.1	7,692.0	7,416.3	275.72	27.897		
11,800.0	6,639.2	6,595.2	6,595.2	146.8	131.6	89.18	1,443.2	2,661.1	7,779.1	7,500.9	278.16	27.966		
11,811.0	6,639.2	6,595.2	6,595.2	147.1	131.6	89.18	1,443.2	2,661.1	7,790.0	7,511.6	278.47	27.974		
11,900.0	6,639.1	6,595.1	6,595.1	149.6	131.6	89.17	1,443.2	2,661.1	7,878.7	7,597.7	280.95	28.043		
11,909.4	6,639.0	6,595.0	6,595.0	149.8	131.6	89.16	1,443.2	2,661.1	7,888.1	7,606.9	281.22	28.050		
12,000.0	6,638.9	6,594.9	6,594.9	152.4	131.6	89.15	1,443.2	2,661.1	7,978.3	7,694.6	283.75	28.118		
12,007.8	6,638.9	6,594.9	6,594.9	152.6	131.6	89.15	1,443.2	2,661.1	7,986.1	7,702.2	283.97	28.124		
12,100.0	6,638.8	6,594.8	6,594.8	155.2	131.6	89.14	1,443.2	2,661.1	8,078.0	7,791.4	286.54	28.192		
12,106.3	6,638.8	6,594.8	6,594.8	155.3	131.6	89.14	1,443.2	2,661.1	8,084.2	7,797.5	286.71	28.196		
12,200.0	6,638.7	6,594.7	6,594.7	157.9	131.6	89.13	1,443.2	2,661.1	8,177.6	7,888.3	289.33	28.264		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #31-10 - 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
12,204.7	6,638.7	6,594.7	6,594.7	158.1	131.6	89.13	1,443.2	2,661.1	8,182.3	7,892.8	289.46	28.267	
12,300.0	6,638.5	6,594.5	6,594.5	160.7	131.6	89.12	1,443.2	2,661.1	8,277.2	7,985.1	292.12	28.335	
12,303.1	6,638.5	6,594.5	6,594.5	160.8	131.6	89.12	1,443.2	2,661.1	8,280.4	7,988.1	292.21	28.337	
12,400.0	6,638.4	6,594.4	6,594.4	163.5	131.6	89.11	1,443.2	2,661.1	8,376.9	8,082.0	294.92	28.404	
12,401.5	6,638.4	6,594.4	6,594.4	163.6	131.6	89.11	1,443.2	2,661.1	8,378.4	8,083.5	294.96	28.405	
12,500.0	6,638.3	6,594.3	6,594.3	166.3	131.6	89.10	1,443.2	2,661.1	8,476.6	8,178.9	297.71	28.472	
12,598.4	6,638.2	6,594.2	6,594.2	169.1	131.5	89.09	1,443.2	2,661.1	8,574.7	8,274.2	300.46	28.538	
12,600.0	6,638.2	6,594.2	6,594.2	169.1	131.5	89.09	1,443.2	2,661.1	8,576.2	8,275.7	300.51	28.539	
12,696.8	6,638.0	6,594.0	6,594.0	171.8	131.5	89.08	1,443.2	2,661.1	8,672.8	8,369.5	303.21	28.603	
12,700.0	6,638.0	6,594.0	6,594.0	171.9	131.5	89.07	1,443.2	2,661.1	8,675.9	8,372.6	303.30	28.605	
12,795.2	6,637.9	6,593.9	6,593.9	174.6	131.5	89.06	1,443.2	2,661.1	8,770.9	8,464.9	305.96	28.666	
12,800.0	6,637.9	6,593.9	6,593.9	174.7	131.5	89.06	1,443.2	2,661.1	8,775.6	8,469.5	306.10	28.669	
12,893.7	6,637.8	6,593.8	6,593.8	177.3	131.5	89.05	1,443.2	2,661.1	8,869.0	8,560.3	308.72	28.729	
12,900.0	6,637.8	6,593.8	6,593.8	177.5	131.5	89.05	1,443.2	2,661.1	8,875.3	8,566.4	308.89	28.733	
12,992.1	6,637.7	6,593.7	6,593.7	180.1	131.5	89.04	1,443.2	2,661.1	8,967.1	8,655.7	311.47	28.790	
13,000.0	6,637.6	6,593.6	6,593.6	180.3	131.5	89.04	1,443.2	2,661.1	8,975.0	8,663.3	311.69	28.795	
13,090.5	6,637.5	6,593.5	6,593.5	182.8	131.5	89.03	1,443.2	2,661.1	9,065.3	8,751.1	314.22	28.850	
13,100.0	6,637.5	6,593.5	6,593.5	183.1	131.5	89.03	1,443.2	2,661.1	9,074.7	8,760.2	314.48	28.856	
13,188.9	6,637.4	6,593.4	6,593.4	185.6	131.5	89.02	1,443.2	2,661.1	9,163.4	8,846.4	316.97	28.909	
13,200.0	6,637.4	6,593.4	6,593.4	185.9	131.5	89.02	1,443.2	2,661.1	9,174.4	8,857.2	317.28	28.916	
13,287.4	6,637.3	6,593.3	6,593.3	188.4	131.5	89.01	1,443.2	2,661.1	9,261.6	8,941.8	319.73	28.967	
13,300.0	6,637.3	6,593.3	6,593.3	188.7	131.5	89.00	1,443.2	2,661.1	9,274.2	8,954.1	320.08	28.975	
13,385.8	6,637.1	6,593.1	6,593.1	191.1	131.5	89.00	1,443.2	2,661.1	9,359.7	9,037.2	322.48	29.024	
13,400.0	6,637.1	6,593.1	6,593.1	191.5	131.5	88.99	1,443.2	2,661.1	9,373.9	9,051.0	322.88	29.032	
13,484.2	6,637.0	6,593.0	6,593.0	193.9	131.5	88.98	1,443.2	2,661.1	9,457.9	9,132.7	325.23	29.080	
13,500.0	6,637.0	6,593.0	6,593.0	194.3	131.5	88.98	1,443.2	2,661.1	9,473.6	9,147.9	325.67	29.089	
13,582.6	6,636.9	6,592.9	6,592.9	196.6	131.5	88.97	1,443.2	2,661.1	9,556.1	9,228.1	327.99	29.136	
13,600.0	6,636.9	6,592.9	6,592.9	197.1	131.5	88.97	1,443.2	2,661.1	9,573.4	9,244.9	328.47	29.145	
13,681.1	6,636.8	6,592.8	6,592.8	199.4	131.5	88.96	1,443.2	2,661.1	9,654.2	9,323.5	330.74	29.190	
13,700.0	6,636.7	6,592.7	6,592.7	199.9	131.5	88.96	1,443.2	2,661.1	9,673.1	9,341.8	331.27	29.200	
13,779.5	6,636.6	6,592.6	6,592.6	202.1	131.5	88.95	1,443.2	2,661.1	9,752.4	9,418.9	333.49	29.243	
13,800.0	6,636.6	6,592.6	6,592.6	202.7	131.5	88.95	1,443.2	2,661.1	9,772.9	9,438.8	334.07	29.254	
13,877.9	6,636.5	6,592.5	6,592.5	204.9	131.5	88.94	1,443.2	2,661.1	9,850.6	9,514.3	336.25	29.296	
13,900.0	6,636.5	6,592.5	6,592.5	205.5	131.5	88.93	1,443.2	2,661.1	9,872.6	9,535.7	336.87	29.307	
13,976.3	6,636.4	6,592.4	6,592.4	207.6	131.5	88.93	1,443.2	2,661.1	9,948.8	9,609.8	339.00	29.347	
14,000.0	6,636.3	6,592.3	6,592.3	208.3	131.5	88.92	1,443.2	2,661.1	9,972.4	9,632.7	339.66	29.360	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	84.71	245.3	2,650.3	2,661.7				
98.4	98.4	94.4	94.4	0.1	0.0	84.71	245.3	2,650.3	2,661.7	2,661.6	0.10	N/A	
100.0	100.0	96.0	96.0	0.1	0.0	84.71	245.3	2,650.3	2,661.7	2,661.6	0.10	N/A	
196.8	196.8	192.8	192.8	0.3	1.0	84.71	245.3	2,650.3	2,661.7	2,660.4	1.30	2,040.540	
200.0	200.0	196.0	196.0	0.3	1.0	84.71	245.3	2,650.3	2,661.7	2,660.3	1.35	1,978.900	
295.3	295.3	291.3	291.3	0.5	3.2	84.71	245.3	2,650.3	2,661.7	2,657.9	3.72	715.607	
300.0	300.0	296.0	296.0	0.5	3.3	84.71	245.3	2,650.3	2,661.7	2,657.8	3.84	693.197	
393.7	393.7	389.7	389.7	0.8	5.3	84.71	245.3	2,650.3	2,661.7	2,655.7	6.01	442.932	
400.0	400.0	396.0	396.0	0.8	5.4	84.71	245.3	2,650.3	2,661.7	2,655.5	6.15	432.480	
492.1	492.1	488.1	488.1	1.0	7.3	84.71	245.3	2,650.3	2,661.7	2,653.4	8.24	322.831	
500.0	500.0	496.0	496.0	1.0	7.4	84.71	245.3	2,650.3	2,661.7	2,653.2	8.42	315.987	
590.5	590.5	586.5	586.5	1.2	9.3	84.71	245.3	2,650.3	2,661.7	2,651.2	10.46	254.344	
600.0	600.0	596.0	596.0	1.2	9.5	84.71	245.3	2,650.3	2,661.7	2,651.0	10.68	249.271	
689.0	689.0	685.0	685.0	1.4	11.3	84.71	245.3	2,650.3	2,661.7	2,649.0	12.68	209.946	
700.0	700.0	696.0	696.0	1.4	11.5	84.71	245.3	2,650.3	2,661.7	2,648.7	12.93	205.922	
787.4	787.4	783.4	783.4	1.6	13.2	84.71	245.3	2,650.3	2,661.7	2,646.8	14.89	178.791	
800.0	800.0	796.0	796.0	1.7	13.5	84.71	245.3	2,650.3	2,661.7	2,646.5	15.17	175.458	
885.8	885.8	881.8	881.8	1.9	15.2	84.71	245.3	2,650.3	2,661.7	2,644.6	17.09	155.708	
900.0	900.0	896.0	896.0	1.9	15.5	84.71	245.3	2,650.3	2,661.7	2,644.3	17.41	152.866	
984.2	984.2	980.2	980.2	2.1	17.2	84.71	245.3	2,650.3	2,661.7	2,642.4	19.30	137.914	
1,000.0	1,000.0	996.0	996.0	2.1	17.5	84.71	245.3	2,650.3	2,661.7	2,642.0	19.65	135.438	
1,082.7	1,082.7	1,078.7	1,078.7	2.3	19.2	57.74	245.3	2,650.3	2,661.0	2,639.5	21.50	123.773	
1,100.0	1,100.0	1,096.0	1,096.0	2.3	19.5	57.76	245.3	2,650.3	2,660.7	2,638.8	21.89	121.575	
1,181.1	1,181.0	1,177.0	1,177.0	2.5	21.2	57.87	245.3	2,650.3	2,658.6	2,634.9	23.69	112.238	
1,200.0	1,199.8	1,195.8	1,195.8	2.6	21.6	57.90	245.3	2,650.3	2,657.9	2,633.8	24.11	110.262	
1,279.5	1,279.1	1,275.1	1,275.1	2.8	23.2	58.08	245.3	2,650.3	2,654.4	2,628.5	25.86	102.628	
1,300.0	1,299.5	1,295.5	1,295.5	2.8	23.6	58.14	245.3	2,650.3	2,653.3	2,627.0	26.32	100.828	
1,377.9	1,376.9	1,372.9	1,372.9	3.0	25.1	58.39	245.3	2,650.3	2,648.4	2,620.4	28.03	94.475	
1,400.0	1,398.7	1,394.7	1,394.7	3.0	25.6	58.47	245.3	2,650.3	2,646.9	2,618.4	28.52	92.818	
1,476.4	1,474.2	1,470.2	1,470.2	3.2	27.1	58.79	245.3	2,650.3	2,640.8	2,610.6	30.20	87.448	
1,500.0	1,497.5	1,493.5	1,493.5	3.3	27.5	58.90	245.3	2,650.3	2,638.7	2,608.0	30.72	85.907	
1,574.8	1,571.0	1,567.0	1,567.0	3.5	29.0	59.28	245.3	2,650.3	2,631.4	2,599.0	32.37	81.304	
1,600.0	1,595.6	1,591.6	1,591.6	3.6	29.5	59.42	245.3	2,650.3	2,628.8	2,595.8	32.92	79.858	
1,673.2	1,667.2	1,663.2	1,663.2	3.9	31.0	59.70	245.3	2,650.3	2,620.9	2,586.3	34.58	75.788	
1,700.0	1,693.4	1,689.4	1,689.4	4.0	31.5	59.81	245.3	2,650.3	2,618.1	2,582.9	35.19	74.396	
1,771.6	1,763.5	1,759.5	1,759.5	4.2	32.9	60.09	245.3	2,650.3	2,610.5	2,573.6	36.83	70.874	
1,800.0	1,791.3	1,787.3	1,787.3	4.3	33.5	60.20	245.3	2,650.3	2,607.5	2,570.0	37.48	69.566	
1,870.1	1,859.8	1,855.8	1,855.8	4.6	34.8	60.47	245.3	2,650.3	2,600.2	2,561.1	39.10	66.502	
1,900.0	1,889.1	1,885.1	1,885.1	4.7	35.4	60.59	245.3	2,650.3	2,597.1	2,557.3	39.79	65.271	
1,968.5	1,956.1	1,952.1	1,952.1	4.9	36.8	60.86	245.3	2,650.3	2,590.0	2,548.6	41.38	62.595	
2,000.0	1,986.9	1,982.9	1,982.9	5.1	37.4	60.98	245.3	2,650.3	2,586.7	2,544.6	42.11	61.432	
2,066.9	2,052.3	2,048.3	2,048.3	5.3	38.7	61.25	245.3	2,650.3	2,579.9	2,536.2	43.67	59.083	
2,100.0	2,084.7	2,080.7	2,080.7	5.5	39.4	61.38	245.3	2,650.3	2,576.5	2,532.1	44.44	57.983	
2,165.3	2,148.6	2,144.6	2,144.6	5.7	40.7	61.64	245.3	2,650.3	2,569.9	2,524.0	45.96	55.913	
2,200.0	2,182.5	2,178.5	2,178.5	5.9	41.3	61.78	245.3	2,650.3	2,566.5	2,519.7	46.77	54.870	
2,263.8	2,244.9	2,240.9	2,240.9	6.1	42.6	62.04	245.3	2,650.3	2,560.1	2,511.9	48.27	53.038	
2,300.0	2,280.3	2,276.3	2,276.3	6.3	43.3	62.18	245.3	2,650.3	2,556.5	2,507.4	49.12	52.047	
2,362.2	2,341.2	2,337.2	2,337.2	6.5	44.5	62.44	245.3	2,650.3	2,550.4	2,499.8	50.58	50.422	
2,400.0	2,378.1	2,374.1	2,374.1	6.7	45.3	62.59	245.3	2,650.3	2,546.7	2,495.3	51.47	49.479	
2,460.6	2,437.4	2,433.4	2,433.4	6.9	46.5	62.84	245.3	2,650.3	2,540.9	2,488.0	52.90	48.031	
2,500.0	2,476.0	2,472.0	2,472.0	7.1	47.2	63.00	245.3	2,650.3	2,537.1	2,483.2	53.83	47.132	
2,550.0	2,524.9	2,520.9	2,520.9	7.3	48.2	63.21	245.3	2,650.3	2,532.3	2,477.3	55.01	46.033	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,529.7	2,529.7	7.3	48.4	64.10	245.3	2,650.3	2,531.4	2,476.2	55.24	45.829	
2,600.0	2,573.8	2,569.8	2,569.8	7.5	49.2	68.15	245.3	2,650.3	2,527.9	2,471.7	56.25	44.938	
2,639.4	2,612.3	2,608.3	2,608.3	7.7	50.0	72.04	245.3	2,650.3	2,525.1	2,467.9	57.22	44.129	
2,657.5	2,630.0	2,626.0	2,626.0	7.7	50.3	72.12	245.3	2,650.3	2,523.9	2,466.2	57.65	43.781	
2,700.0	2,671.6	2,667.6	2,667.6	7.9	51.2	72.30	245.3	2,650.3	2,521.1	2,462.5	58.65	42.984	
2,755.9	2,726.3	2,722.3	2,722.3	8.1	52.3	72.55	245.3	2,650.3	2,517.6	2,457.6	59.99	41.969	
2,800.0	2,769.4	2,765.4	2,765.4	8.3	53.1	72.75	245.3	2,650.3	2,514.8	2,453.7	61.04	41.200	
2,854.3	2,822.5	2,818.5	2,818.5	8.5	54.2	72.99	245.3	2,650.3	2,511.4	2,449.0	62.34	40.287	
2,900.0	2,867.2	2,863.2	2,863.2	8.7	55.1	73.19	245.3	2,650.3	2,508.6	2,445.1	63.43	39.549	
2,952.7	2,918.8	2,914.8	2,914.8	9.0	56.1	73.42	245.3	2,650.3	2,505.3	2,440.7	64.69	38.728	
3,000.0	2,965.0	2,961.0	2,961.0	9.2	57.1	73.64	245.3	2,650.3	2,502.5	2,436.7	65.82	38.019	
3,051.2	3,015.1	3,011.1	3,011.1	9.4	58.1	73.87	245.3	2,650.3	2,499.5	2,432.4	67.05	37.279	
3,100.0	3,062.8	3,058.8	3,058.8	9.6	59.0	74.08	245.3	2,650.3	2,496.6	2,428.4	68.22	36.597	
3,149.6	3,111.4	3,107.4	3,107.4	9.8	60.0	74.31	245.3	2,650.3	2,493.7	2,424.3	69.41	35.929	
3,200.0	3,160.7	3,156.7	3,156.7	10.0	61.0	74.54	245.3	2,650.3	2,490.9	2,420.2	70.62	35.272	
3,248.0	3,207.6	3,203.6	3,203.6	10.2	62.0	74.75	245.3	2,650.3	2,488.2	2,416.4	71.77	34.668	
3,300.0	3,258.5	3,254.5	3,254.5	10.5	63.0	74.99	245.3	2,650.3	2,485.3	2,412.3	73.02	34.036	
3,346.4	3,303.9	3,299.9	3,299.9	10.7	63.9	75.20	245.3	2,650.3	2,482.7	2,408.6	74.14	33.489	
3,400.0	3,356.3	3,352.3	3,352.3	10.9	64.9	75.44	245.3	2,650.3	2,479.9	2,404.4	75.42	32.879	
3,444.9	3,400.2	3,396.2	3,396.2	11.1	65.8	75.65	245.3	2,650.3	2,477.5	2,401.0	76.50	32.383	
3,500.0	3,454.1	3,450.1	3,450.1	11.3	66.9	75.90	245.3	2,650.3	2,474.6	2,396.8	77.83	31.794	
3,543.3	3,496.5	3,492.5	3,492.5	11.5	67.8	76.10	245.3	2,650.3	2,472.4	2,393.5	78.87	31.346	
3,600.0	3,551.9	3,547.9	3,547.9	11.7	68.9	76.36	245.3	2,650.3	2,469.5	2,389.3	80.24	30.776	
3,641.7	3,592.7	3,588.7	3,588.7	11.9	69.7	76.55	245.3	2,650.3	2,467.4	2,386.2	81.25	30.370	
3,700.0	3,649.7	3,645.7	3,645.7	12.2	70.8	76.82	245.3	2,650.3	2,464.6	2,381.9	82.65	29.819	
3,740.1	3,689.0	3,685.0	3,685.0	12.4	71.6	77.00	245.3	2,650.3	2,462.7	2,379.0	83.62	29.451	
3,800.0	3,747.5	3,743.5	3,743.5	12.6	72.8	77.28	245.3	2,650.3	2,459.8	2,374.8	85.06	28.917	
3,838.6	3,785.3	3,781.3	3,781.3	12.8	73.6	77.46	245.3	2,650.3	2,458.0	2,372.1	86.00	28.583	
3,900.0	3,845.4	3,841.4	3,841.4	13.1	74.8	77.74	245.3	2,650.3	2,455.2	2,367.8	87.48	28.067	
3,937.0	3,881.6	3,877.6	3,877.6	13.2	75.5	77.91	245.3	2,650.3	2,453.6	2,365.2	88.37	27.764	
4,000.0	3,943.2	3,939.2	3,939.2	13.5	76.7	78.21	245.3	2,650.3	2,450.8	2,360.9	89.89	27.263	
4,035.4	3,977.8	3,973.8	3,973.8	13.6	77.4	78.37	245.3	2,650.3	2,449.3	2,358.5	90.75	26.989	
4,100.0	4,041.0	4,037.0	4,037.0	13.9	78.7	78.67	245.3	2,650.3	2,446.6	2,354.3	92.31	26.503	
4,133.8	4,074.1	4,070.1	4,070.1	14.1	79.4	78.83	245.3	2,650.3	2,445.2	2,352.0	93.13	26.255	
4,200.0	4,138.8	4,134.8	4,134.8	14.4	80.7	79.14	245.3	2,650.3	2,442.5	2,347.8	94.73	25.784	
4,232.3	4,170.4	4,166.4	4,166.4	14.5	81.3	79.29	245.3	2,650.3	2,441.2	2,345.7	95.51	25.560	
4,300.0	4,236.6	4,232.6	4,232.6	14.8	82.6	79.61	245.3	2,650.3	2,438.6	2,341.4	97.15	25.101	
4,330.7	4,266.7	4,262.7	4,262.7	14.9	83.3	79.76	245.3	2,650.3	2,437.4	2,339.5	97.89	24.899	
4,400.0	4,334.4	4,330.4	4,330.4	15.2	84.6	80.08	245.3	2,650.3	2,434.8	2,335.3	99.57	24.454	
4,429.1	4,362.9	4,358.9	4,358.9	15.4	85.2	80.22	245.3	2,650.3	2,433.8	2,333.5	100.27	24.271	
4,500.0	4,432.3	4,428.3	4,428.3	15.7	86.6	80.55	245.3	2,650.3	2,431.2	2,329.3	101.99	23.838	
4,527.5	4,459.2	4,455.2	4,455.2	15.8	87.1	80.69	245.3	2,650.3	2,430.3	2,327.6	102.66	23.674	
4,600.0	4,530.1	4,526.1	4,526.1	16.1	88.5	81.03	245.3	2,650.3	2,427.9	2,323.4	104.41	23.253	
4,626.0	4,555.5	4,551.5	4,551.5	16.2	89.1	81.15	245.3	2,650.3	2,427.0	2,322.0	105.04	23.105	
4,700.0	4,627.9	4,623.9	4,623.9	16.6	90.5	81.50	245.3	2,650.3	2,424.6	2,317.8	106.83	22.695	
4,724.4	4,651.7	4,647.7	4,647.7	16.7	91.0	81.62	245.3	2,650.3	2,423.9	2,316.4	107.42	22.563	
4,800.0	4,725.7	4,721.7	4,721.7	17.0	92.5	81.98	245.3	2,650.3	2,421.6	2,312.3	109.26	22.164	
4,822.8	4,748.0	4,744.0	4,744.0	17.1	92.9	82.09	245.3	2,650.3	2,420.9	2,311.1	109.81	22.046	
4,904.9	4,828.3	4,824.3	4,824.3	17.5	94.5	82.48	245.3	2,650.3	2,418.6	2,306.8	111.80	21.634	
4,921.2	4,844.3	4,840.3	4,840.3	17.5	94.9	82.55	245.3	2,650.3	2,418.1	2,305.9	112.18	21.555	
5,000.0	4,921.6	4,917.6	4,917.6	17.8	96.4	82.85	245.3	2,650.3	2,416.2	2,302.1	114.05	21.185	
5,019.7	4,941.0	4,937.0	4,937.0	17.9	96.8	82.92	245.3	2,650.3	2,415.8	2,301.3	114.51	21.097	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	5,016.4	5,016.4	18.1	98.4	83.18	245.3	2,650.3	2,414.2	2,297.9	116.35	20.750	
5,118.1	5,038.3	5,034.3	5,034.3	18.2	98.8	83.23	245.3	2,650.3	2,413.9	2,297.2	116.76	20.674	
5,200.0	5,119.6	5,115.6	5,115.6	18.4	100.4	83.44	245.3	2,650.3	2,412.8	2,294.2	118.62	20.341	
5,216.5	5,136.0	5,132.0	5,132.0	18.4	100.7	83.48	245.3	2,650.3	2,412.6	2,293.6	118.98	20.276	
5,300.0	5,219.2	5,215.2	5,215.2	18.6	102.4	83.63	245.3	2,650.3	2,411.8	2,290.9	120.85	19.958	
5,314.9	5,234.1	5,230.1	5,230.1	18.6	102.7	83.65	245.3	2,650.3	2,411.7	2,290.5	121.17	19.903	
5,400.0	5,319.1	5,315.1	5,315.1	18.8	104.4	83.75	245.3	2,650.3	2,411.2	2,288.2	123.04	19.597	
5,413.4	5,332.4	5,328.4	5,328.4	18.8	104.7	83.76	245.3	2,650.3	2,411.1	2,287.8	123.32	19.551	
5,504.9	5,423.9	5,419.9	5,419.9	18.9	106.5	102.21	245.3	2,650.3	2,411.0	2,291.2	119.74	20.135	
5,511.8	5,430.8	5,426.8	5,426.8	18.9	106.7	102.21	245.3	2,650.3	2,411.0	2,291.1	119.89	20.110	
5,600.0	5,519.0	5,515.0	5,515.0	19.0	108.4	102.21	245.3	2,650.3	2,411.0	2,289.2	121.82	19.792	
5,610.2	5,529.3	5,525.3	5,525.3	19.0	108.6	102.21	245.3	2,650.3	2,411.0	2,288.9	122.04	19.755	
5,700.0	5,619.0	5,615.0	5,615.0	19.2	110.4	102.21	245.3	2,650.3	2,411.0	2,287.0	124.03	19.439	
5,708.6	5,627.7	5,623.7	5,623.7	19.2	110.6	102.21	245.3	2,650.3	2,411.0	2,286.8	124.22	19.409	
5,800.0	5,719.0	5,715.0	5,715.0	19.3	112.5	102.21	245.3	2,650.3	2,411.0	2,284.7	126.24	19.099	
5,807.1	5,726.1	5,722.1	5,722.1	19.3	112.6	102.21	245.3	2,650.3	2,411.0	2,284.6	126.39	19.075	
5,900.0	5,819.0	5,815.0	5,815.0	19.4	114.5	102.21	245.3	2,650.3	2,411.0	2,282.5	128.45	18.771	
5,905.5	5,824.5	5,820.5	5,820.5	19.4	114.6	102.21	245.3	2,650.3	2,411.0	2,282.4	128.57	18.753	
6,003.9	5,923.0	5,919.0	5,919.0	19.6	116.6	102.21	245.3	2,650.3	2,411.0	2,280.2	130.74	18.441	
6,009.8	5,928.8	5,924.8	5,924.8	19.6	116.7	102.21	245.3	2,650.3	2,411.0	2,280.1	130.87	18.422 CC	
6,050.0	5,969.0	5,965.0	5,965.0	19.6	117.5	-167.78	245.3	2,650.3	2,412.1	2,275.3	136.78	17.635 ES, SF	
6,100.0	6,018.8	6,014.8	6,014.8	19.7	118.5	-167.73	245.3	2,650.3	2,416.5	2,279.5	137.00	17.639	
6,102.3	6,021.1	6,017.1	6,017.1	19.7	118.5	-167.72	245.3	2,650.3	2,416.8	2,279.8	137.00	17.641	
6,150.0	6,068.1	6,064.1	6,064.1	19.7	119.5	-167.63	245.3	2,650.3	2,424.4	2,287.8	136.57	17.752	
6,200.0	6,116.8	6,112.8	6,112.8	19.7	120.5	-167.49	245.3	2,650.3	2,435.5	2,300.1	135.47	17.978	
6,200.8	6,117.5	6,113.5	6,113.5	19.7	120.5	-167.49	245.3	2,650.3	2,435.7	2,300.3	135.45	17.982	
6,250.0	6,164.5	6,160.5	6,160.5	19.7	121.4	-167.30	245.3	2,650.3	2,450.0	2,316.3	133.72	18.322	
6,299.2	6,210.4	6,206.4	6,206.4	19.7	122.3	-167.07	245.3	2,650.3	2,467.4	2,336.0	131.36	18.784	
6,300.0	6,211.1	6,207.1	6,207.1	19.7	122.4	-167.06	245.3	2,650.3	2,467.7	2,336.4	131.31	18.793	
6,350.0	6,256.4	6,252.4	6,252.4	19.7	123.3	-166.76	245.3	2,650.3	2,488.6	2,360.3	128.27	19.401	
6,397.6	6,298.0	6,294.0	6,294.0	19.7	124.1	-166.40	245.3	2,650.3	2,511.2	2,386.4	124.81	20.120	
6,400.0	6,300.0	6,296.0	6,296.0	19.7	124.1	-166.38	245.3	2,650.3	2,512.4	2,387.8	124.63	20.160	
6,450.0	6,341.8	6,337.8	6,337.8	19.7	125.0	-165.92	245.3	2,650.3	2,539.3	2,418.8	120.42	21.086	
6,496.0	6,378.6	6,374.6	6,374.6	19.7	125.7	-165.40	245.3	2,650.3	2,566.5	2,450.3	116.11	22.105	
6,500.0	6,381.6	6,377.6	6,377.6	19.7	125.8	-165.35	245.3	2,650.3	2,568.9	2,453.2	115.72	22.200	
6,550.0	6,419.2	6,415.2	6,415.2	19.6	126.5	-164.66	245.3	2,650.3	2,601.2	2,490.6	110.60	23.518	
6,594.5	6,450.7	6,446.7	6,446.7	19.6	127.2	-163.92	245.3	2,650.3	2,632.0	2,526.2	105.81	24.874	
6,600.0	6,454.4	6,450.4	6,450.4	19.6	127.2	-163.82	245.3	2,650.3	2,636.0	2,530.8	105.21	25.055	
6,650.0	6,487.1	6,483.1	6,483.1	19.6	127.9	-162.77	245.3	2,650.3	2,673.1	2,573.4	99.71	26.808	
6,692.9	6,513.0	6,509.0	6,509.0	19.6	128.4	-161.66	245.3	2,650.3	2,706.7	2,611.6	95.12	28.456	
6,700.0	6,517.0	6,513.0	6,513.0	19.6	128.5	-161.46	245.3	2,650.3	2,712.4	2,618.1	94.39	28.737	
6,750.0	6,544.1	6,540.1	6,540.1	19.6	129.1	-159.79	245.3	2,650.3	2,753.7	2,664.1	89.65	30.717	
6,791.3	6,564.2	6,560.2	6,560.2	19.7	129.5	-158.05	245.3	2,650.3	2,789.2	2,702.6	86.62	32.199	
6,800.0	6,568.2	6,564.2	6,564.2	19.7	129.5	-157.64	245.3	2,650.3	2,796.8	2,710.7	86.11	32.480	
6,850.0	6,589.1	6,585.1	6,585.1	19.8	130.0	-154.78	245.3	2,650.3	2,841.4	2,756.8	84.68	33.557	
6,889.7	6,603.5	6,599.5	6,599.5	19.9	130.2	-151.79	245.3	2,650.3	2,877.9	2,792.0	85.87	33.515	
6,900.0	6,606.9	6,602.9	6,602.9	19.9	130.3	-150.88	245.3	2,650.3	2,887.4	2,800.8	86.61	33.339	
6,950.0	6,621.3	6,617.3	6,617.3	20.2	130.6	-145.34	245.3	2,650.3	2,934.6	2,841.1	93.46	31.401	
6,988.2	6,630.0	6,626.0	6,626.0	20.6	130.8	-139.41	245.3	2,650.3	2,971.2	2,868.2	102.95	28.861	
7,000.0	6,632.4	6,628.4	6,628.4	20.7	130.8	-137.16	245.3	2,650.3	2,982.6	2,875.9	106.71	27.950	
7,050.0	6,640.0	6,636.0	6,636.0	21.4	131.0	-124.69	245.3	2,650.3	3,031.3	2,904.8	126.50	23.962	
7,086.6	6,643.4	6,639.4	6,639.4	21.9	131.0	-111.74	245.3	2,650.3	3,067.2	2,925.0	142.20	21.570	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	6,640.2	6,640.2	22.1	131.1	-106.13	245.3	2,650.3	3,080.4	2,933.4	146.94	20.964	
7,135.7	6,645.0	6,641.0	6,641.0	22.7	131.1	-89.58	245.3	2,650.3	3,115.5	2,962.7	152.83	20.385	
7,185.0	6,644.9	6,640.9	6,640.9	23.6	131.1	-89.57	245.3	2,650.3	3,164.3	3,010.5	153.79	20.575	
7,200.0	6,644.9	6,640.9	6,640.9	23.9	131.1	-89.57	245.3	2,650.3	3,179.0	3,025.0	154.08	20.632	
7,283.4	6,644.8	6,640.8	6,640.8	25.6	131.1	-89.56	245.3	2,650.3	3,261.4	3,105.6	155.81	20.932	
7,300.0	6,644.8	6,640.8	6,640.8	25.9	131.1	-89.56	245.3	2,650.3	3,277.8	3,121.6	156.15	20.991	
7,381.9	6,644.7	6,640.7	6,640.7	27.7	131.1	-89.54	245.3	2,650.3	3,358.7	3,200.7	157.95	21.264	
7,400.0	6,644.7	6,640.7	6,640.7	28.1	131.1	-89.54	245.3	2,650.3	3,376.6	3,218.2	158.35	21.323	
7,480.3	6,644.6	6,640.6	6,640.6	29.9	131.1	-89.53	245.3	2,650.3	3,456.0	3,295.8	160.21	21.572	
7,500.0	6,644.6	6,640.6	6,640.6	30.3	131.1	-89.53	245.3	2,650.3	3,475.5	3,314.8	160.66	21.632	
7,578.7	6,644.5	6,640.5	6,640.5	32.2	131.1	-89.52	245.3	2,650.3	3,553.4	3,390.8	162.54	21.861	
7,600.0	6,644.4	6,640.4	6,640.4	32.7	131.1	-89.51	245.3	2,650.3	3,574.4	3,411.4	163.05	21.922	
7,677.1	6,644.3	6,640.3	6,640.3	34.6	131.1	-89.50	245.3	2,650.3	3,650.8	3,485.9	164.95	22.133	
7,700.0	6,644.3	6,640.3	6,640.3	35.1	131.1	-89.50	245.3	2,650.3	3,673.4	3,507.9	165.51	22.195	
7,775.6	6,644.2	6,640.2	6,640.2	37.0	131.1	-89.49	245.3	2,650.3	3,748.3	3,580.9	167.40	22.391	
7,800.0	6,644.2	6,640.2	6,640.2	37.6	131.1	-89.48	245.3	2,650.3	3,772.5	3,604.5	168.01	22.454	
7,874.0	6,644.1	6,640.1	6,640.1	39.5	131.1	-89.47	245.3	2,650.3	3,845.8	3,675.9	169.89	22.637	
7,900.0	6,644.1	6,640.1	6,640.1	40.1	131.1	-89.47	245.3	2,650.3	3,871.6	3,701.0	170.56	22.700	
7,972.4	6,644.0	6,640.0	6,640.0	42.0	131.1	-89.46	245.3	2,650.3	3,943.4	3,771.0	172.42	22.870	
8,000.0	6,643.9	6,639.9	6,639.9	42.7	131.1	-89.46	245.3	2,650.3	3,970.8	3,797.6	173.13	22.935	
8,070.8	6,643.9	6,639.9	6,639.9	44.5	131.1	-89.45	245.3	2,650.3	4,041.0	3,866.0	174.98	23.094	
8,100.0	6,643.8	6,639.8	6,639.8	45.2	131.1	-89.44	245.3	2,650.3	4,069.9	3,894.2	175.74	23.159	
8,169.3	6,643.7	6,639.7	6,639.7	47.0	131.1	-89.43	245.3	2,650.3	4,138.7	3,961.1	177.56	23.308	
8,200.0	6,643.7	6,639.7	6,639.7	47.9	131.1	-89.43	245.3	2,650.3	4,169.2	3,990.8	178.37	23.374	
8,267.7	6,643.6	6,639.6	6,639.6	49.6	131.1	-89.42	245.3	2,650.3	4,236.4	4,056.2	180.16	23.514	
8,300.0	6,643.6	6,639.6	6,639.6	50.5	131.1	-89.41	245.3	2,650.3	4,268.4	4,087.4	181.02	23.580	
8,366.1	6,643.5	6,639.5	6,639.5	52.2	131.1	-89.40	245.3	2,650.3	4,334.1	4,151.3	182.78	23.712	
8,400.0	6,643.4	6,639.4	6,639.4	53.1	131.1	-89.40	245.3	2,650.3	4,367.7	4,184.1	183.68	23.779	
8,464.5	6,643.4	6,639.4	6,639.4	54.8	131.0	-89.39	245.3	2,650.3	4,431.9	4,246.4	185.41	23.903	
8,500.0	6,643.3	6,639.3	6,639.3	55.8	131.0	-89.38	245.3	2,650.3	4,467.1	4,280.7	186.36	23.970	
8,563.0	6,643.2	6,639.2	6,639.2	57.5	131.0	-89.37	245.3	2,650.3	4,529.6	4,341.6	188.06	24.087	
8,600.0	6,643.2	6,639.2	6,639.2	58.5	131.0	-89.37	245.3	2,650.3	4,566.4	4,377.4	189.05	24.154	
8,661.4	6,643.1	6,639.1	6,639.1	60.1	131.0	-89.36	245.3	2,650.3	4,627.5	4,436.7	190.71	24.264	
8,700.0	6,643.1	6,639.1	6,639.1	61.2	131.0	-89.35	245.3	2,650.3	4,665.8	4,474.1	191.75	24.332	
8,759.8	6,643.0	6,639.0	6,639.0	62.8	131.0	-89.35	245.3	2,650.3	4,725.3	4,531.9	193.38	24.436	
8,800.0	6,643.0	6,639.0	6,639.0	63.9	131.0	-89.34	245.3	2,650.3	4,765.2	4,570.8	194.47	24.504	
8,858.2	6,642.9	6,638.9	6,638.9	65.4	131.0	-89.33	245.3	2,650.3	4,823.2	4,627.1	196.05	24.602	
8,900.0	6,642.8	6,638.8	6,638.8	66.6	131.0	-89.33	245.3	2,650.3	4,864.7	4,667.5	197.18	24.671	
8,956.7	6,642.8	6,638.8	6,638.8	68.1	131.0	-89.32	245.3	2,650.3	4,921.0	4,722.3	198.73	24.763	
9,000.0	6,642.7	6,638.7	6,638.7	69.3	131.0	-89.31	245.3	2,650.3	4,964.1	4,764.2	199.91	24.832	
9,055.1	6,642.6	6,638.6	6,638.6	70.8	131.0	-89.30	245.3	2,650.3	5,019.0	4,817.5	201.42	24.918	
9,100.0	6,642.6	6,638.6	6,638.6	72.0	131.0	-89.30	245.3	2,650.3	5,063.6	4,861.0	202.64	24.988	
9,153.5	6,642.5	6,638.5	6,638.5	73.5	131.0	-89.29	245.3	2,650.3	5,116.9	4,912.8	204.11	25.069	
9,200.0	6,642.5	6,638.5	6,638.5	74.7	131.0	-89.28	245.3	2,650.3	5,163.1	4,957.7	205.38	25.139	
9,251.9	6,642.4	6,638.4	6,638.4	76.2	131.0	-89.27	245.3	2,650.3	5,214.8	5,008.0	206.80	25.216	
9,300.0	6,642.3	6,638.3	6,638.3	77.5	131.0	-89.27	245.3	2,650.3	5,262.6	5,054.5	208.12	25.286	
9,350.4	6,642.3	6,638.3	6,638.3	78.9	131.0	-89.26	245.3	2,650.3	5,312.8	5,103.3	209.51	25.359	
9,400.0	6,642.2	6,638.2	6,638.2	80.2	131.0	-89.25	245.3	2,650.3	5,362.2	5,151.3	210.87	25.429	
9,448.8	6,642.1	6,638.1	6,638.1	81.6	131.0	-89.25	245.3	2,650.3	5,410.8	5,198.5	212.21	25.497	
9,500.0	6,642.1	6,638.1	6,638.1	83.0	131.0	-89.24	245.3	2,650.3	5,461.7	5,248.1	213.62	25.567	
9,547.2	6,642.0	6,638.0	6,638.0	84.3	131.0	-89.23	245.3	2,650.3	5,508.8	5,293.8	214.92	25.631	
9,600.0	6,642.0	6,638.0	6,638.0	85.7	131.0	-89.22	245.3	2,650.3	5,561.3	5,344.9	216.38	25.702	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	6,637.9	6,637.9	87.0	131.0	-89.22	245.3	2,650.3	5,606.8	5,389.1	217.63	25.762	
9,700.0	6,641.8	6,637.8	6,637.8	88.5	131.0	-89.21	245.3	2,650.3	5,660.9	5,441.8	219.13	25.833	
9,744.1	6,641.8	6,637.8	6,637.8	89.7	131.0	-89.20	245.3	2,650.3	5,704.8	5,484.4	220.35	25.890	
9,800.0	6,641.7	6,637.7	6,637.7	91.2	131.0	-89.19	245.3	2,650.3	5,760.5	5,538.6	221.89	25.960	
9,842.5	6,641.7	6,637.7	6,637.7	92.4	131.0	-89.19	245.3	2,650.3	5,802.8	5,579.8	223.07	26.014	
9,900.0	6,641.6	6,637.6	6,637.6	94.0	131.0	-89.18	245.3	2,650.3	5,860.1	5,635.4	224.66	26.085	
9,940.9	6,641.5	6,637.5	6,637.5	95.1	131.0	-89.17	245.3	2,650.3	5,900.9	5,675.1	225.79	26.134	
10,000.0	6,641.5	6,637.5	6,637.5	96.7	131.0	-89.16	245.3	2,650.3	5,959.7	5,732.3	227.42	26.205	
10,039.3	6,641.4	6,637.4	6,637.4	97.8	131.0	-89.16	245.3	2,650.3	5,998.9	5,770.4	228.51	26.252	
10,100.0	6,641.3	6,637.3	6,637.3	99.5	131.0	-89.15	245.3	2,650.3	6,059.4	5,829.2	230.19	26.323	
10,137.8	6,641.3	6,637.3	6,637.3	100.6	131.0	-89.14	245.3	2,650.3	6,097.0	5,865.8	231.24	26.367	
10,200.0	6,641.2	6,637.2	6,637.2	102.3	131.0	-89.13	245.3	2,650.3	6,159.0	5,926.1	232.96	26.438	
10,236.2	6,641.2	6,637.2	6,637.2	103.3	131.0	-89.13	245.3	2,650.3	6,195.1	5,961.1	233.97	26.479	
10,300.0	6,641.1	6,637.1	6,637.1	105.0	131.0	-89.12	245.3	2,650.3	6,258.7	6,023.0	235.74	26.550	
10,334.6	6,641.0	6,637.0	6,637.0	106.0	131.0	-89.11	245.3	2,650.3	6,293.2	6,056.5	236.70	26.588	
10,400.0	6,641.0	6,637.0	6,637.0	107.8	131.0	-89.10	245.3	2,650.3	6,358.4	6,119.9	238.51	26.659	
10,433.0	6,640.9	6,636.9	6,636.9	108.7	131.0	-89.10	245.3	2,650.3	6,391.3	6,151.9	239.43	26.694	
10,500.0	6,640.8	6,636.8	6,636.8	110.6	131.0	-89.09	245.3	2,650.3	6,458.0	6,216.8	241.29	26.765	
10,531.5	6,640.8	6,636.8	6,636.8	111.5	131.0	-89.08	245.3	2,650.3	6,489.4	6,247.3	242.16	26.798	
10,600.0	6,640.7	6,636.7	6,636.7	113.4	131.0	-89.07	245.3	2,650.3	6,557.7	6,313.7	244.06	26.869	
10,629.9	6,640.7	6,636.7	6,636.7	114.2	131.0	-89.07	245.3	2,650.3	6,587.5	6,342.7	244.89	26.900	
10,700.0	6,640.6	6,636.6	6,636.6	116.1	131.0	-89.06	245.3	2,650.3	6,657.4	6,410.6	246.84	26.971	
10,728.3	6,640.5	6,636.5	6,636.5	116.9	131.0	-89.06	245.3	2,650.3	6,685.7	6,438.1	247.63	26.999	
10,800.0	6,640.5	6,636.5	6,636.5	118.9	131.0	-89.04	245.3	2,650.3	6,757.1	6,507.5	249.62	27.070	
10,826.7	6,640.4	6,636.4	6,636.4	119.7	131.0	-89.04	245.3	2,650.3	6,783.8	6,533.5	250.36	27.096	
10,900.0	6,640.3	6,636.3	6,636.3	121.7	131.0	-89.03	245.3	2,650.3	6,856.9	6,604.5	252.40	27.166	
10,925.2	6,640.3	6,636.3	6,636.3	122.4	131.0	-89.03	245.3	2,650.3	6,882.0	6,628.9	253.10	27.190	
11,000.0	6,640.2	6,636.2	6,636.2	124.5	131.0	-89.01	245.3	2,650.3	6,956.6	6,701.4	255.18	27.261	
11,023.6	6,640.2	6,636.2	6,636.2	125.1	131.0	-89.01	245.3	2,650.3	6,980.1	6,724.3	255.84	27.283	
11,100.0	6,640.1	6,636.1	6,636.1	127.3	131.0	-89.00	245.3	2,650.3	7,056.3	6,798.4	257.97	27.354	
11,122.0	6,640.0	6,636.0	6,636.0	127.9	131.0	-89.00	245.3	2,650.3	7,078.3	6,819.7	258.58	27.374	
11,200.0	6,639.9	6,635.9	6,635.9	130.1	131.0	-88.98	245.3	2,650.3	7,156.1	6,895.3	260.75	27.444	
11,220.4	6,639.9	6,635.9	6,635.9	130.6	131.0	-88.98	245.3	2,650.3	7,176.5	6,915.1	261.32	27.462	
11,300.0	6,639.8	6,635.8	6,635.8	132.8	131.0	-88.97	245.3	2,650.3	7,255.8	6,992.3	263.54	27.533	
11,318.9	6,639.8	6,635.8	6,635.8	133.4	131.0	-88.97	245.3	2,650.3	7,274.6	7,010.6	264.06	27.549	
11,400.0	6,639.7	6,635.7	6,635.7	135.6	131.0	-88.95	245.3	2,650.3	7,355.6	7,089.3	266.32	27.619	
11,417.3	6,639.7	6,635.7	6,635.7	136.1	131.0	-88.95	245.3	2,650.3	7,372.8	7,106.0	266.80	27.634	
11,500.0	6,639.6	6,635.6	6,635.6	138.4	131.0	-88.94	245.3	2,650.3	7,455.3	7,186.2	269.11	27.704	
11,515.7	6,639.5	6,635.5	6,635.5	138.9	131.0	-88.94	245.3	2,650.3	7,471.0	7,201.5	269.55	27.717	
11,600.0	6,639.4	6,635.4	6,635.4	141.2	131.0	-88.92	245.3	2,650.3	7,555.1	7,283.2	271.90	27.787	
11,614.1	6,639.4	6,635.4	6,635.4	141.6	131.0	-88.92	245.3	2,650.3	7,569.2	7,296.9	272.29	27.798	
11,700.0	6,639.3	6,635.3	6,635.3	144.0	131.0	-88.91	245.3	2,650.3	7,654.9	7,380.2	274.68	27.868	
11,712.6	6,639.3	6,635.3	6,635.3	144.3	131.0	-88.91	245.3	2,650.3	7,667.4	7,392.4	275.03	27.878	
11,800.0	6,639.2	6,635.2	6,635.2	146.8	131.0	-88.89	245.3	2,650.3	7,754.7	7,477.2	277.47	27.948	
11,811.0	6,639.2	6,635.2	6,635.2	147.1	131.0	-88.89	245.3	2,650.3	7,765.6	7,487.9	277.78	27.956	
11,900.0	6,639.1	6,635.1	6,635.1	149.6	131.0	-88.88	245.3	2,650.3	7,854.4	7,574.2	280.26	28.025	
11,909.4	6,639.0	6,635.0	6,635.0	149.8	131.0	-88.88	245.3	2,650.3	7,863.9	7,583.3	280.52	28.033	
12,000.0	6,638.9	6,634.9	6,634.9	152.4	131.0	-88.86	245.3	2,650.3	7,954.2	7,671.2	283.05	28.102	
12,007.8	6,638.9	6,634.9	6,634.9	152.6	131.0	-88.86	245.3	2,650.3	7,962.1	7,678.8	283.27	28.108	
12,100.0	6,638.8	6,634.8	6,634.8	155.2	131.0	-88.85	245.3	2,650.3	8,054.0	7,768.2	285.84	28.177	
12,106.3	6,638.8	6,634.8	6,634.8	155.3	131.0	-88.85	245.3	2,650.3	8,060.3	7,774.3	286.02	28.181	
12,200.0	6,638.7	6,634.7	6,634.7	157.9	131.0	-88.83	245.3	2,650.3	8,153.8	7,865.2	288.63	28.250	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #32-10 - 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
12,204.7	6,638.7	6,634.7	6,634.7	158.1	131.0	-88.83	245.3	2,650.3	8,158.5	7,869.8	288.76	28.253	
12,300.0	6,638.5	6,634.5	6,634.5	160.7	131.0	-88.82	245.3	2,650.3	8,253.6	7,962.2	291.42	28.322	
12,303.1	6,638.5	6,634.5	6,634.5	160.8	131.0	-88.81	245.3	2,650.3	8,256.8	7,965.3	291.51	28.324	
12,400.0	6,638.4	6,634.4	6,634.4	163.5	130.9	-88.80	245.3	2,650.3	8,353.5	8,059.2	294.22	28.392	
12,401.5	6,638.4	6,634.4	6,634.4	163.6	130.9	-88.80	245.3	2,650.3	8,355.0	8,060.7	294.26	28.393	
12,500.0	6,638.3	6,634.3	6,634.3	166.3	130.9	-88.78	245.3	2,650.3	8,453.3	8,156.3	297.01	28.461	
12,598.4	6,638.2	6,634.2	6,634.2	169.1	130.9	-88.77	245.3	2,650.3	8,551.5	8,251.7	299.76	28.528	
12,600.0	6,638.2	6,634.2	6,634.2	169.1	130.9	-88.77	245.3	2,650.3	8,553.1	8,253.3	299.80	28.529	
12,696.8	6,638.0	6,634.0	6,634.0	171.8	130.9	-88.75	245.3	2,650.3	8,649.7	8,347.2	302.50	28.594	
12,700.0	6,638.0	6,634.0	6,634.0	171.9	130.9	-88.75	245.3	2,650.3	8,652.9	8,350.3	302.59	28.596	
12,795.2	6,637.9	6,633.9	6,633.9	174.6	130.9	-88.74	245.3	2,650.3	8,748.0	8,442.7	305.25	28.658	
12,800.0	6,637.9	6,633.9	6,633.9	174.7	130.9	-88.74	245.3	2,650.3	8,752.7	8,447.4	305.39	28.661	
12,893.7	6,637.8	6,633.8	6,633.8	177.3	130.9	-88.72	245.3	2,650.3	8,846.3	8,538.3	308.00	28.721	
12,900.0	6,637.8	6,633.8	6,633.8	177.5	130.9	-88.72	245.3	2,650.3	8,852.6	8,544.4	308.18	28.725	
12,992.1	6,637.7	6,633.7	6,633.7	180.1	130.9	-88.71	245.3	2,650.3	8,944.5	8,633.8	310.75	28.783	
13,000.0	6,637.6	6,633.6	6,633.6	180.3	130.9	-88.71	245.3	2,650.3	8,952.4	8,641.4	310.97	28.788	
13,090.5	6,637.5	6,633.5	6,633.5	182.8	130.9	-88.69	245.3	2,650.3	9,042.8	8,729.3	313.50	28.844	
13,100.0	6,637.5	6,633.5	6,633.5	183.1	130.9	-88.69	245.3	2,650.3	9,052.2	8,738.5	313.77	28.850	
13,188.9	6,637.4	6,633.4	6,633.4	185.6	130.9	-88.68	245.3	2,650.3	9,141.1	8,824.8	316.25	28.904	
13,200.0	6,637.4	6,633.4	6,633.4	185.9	130.9	-88.67	245.3	2,650.3	9,152.1	8,835.5	316.56	28.911	
13,287.4	6,637.3	6,633.3	6,633.3	188.4	130.9	-88.66	245.3	2,650.3	9,239.3	8,920.3	319.00	28.963	
13,300.0	6,637.3	6,633.3	6,633.3	188.7	130.9	-88.66	245.3	2,650.3	9,251.9	8,932.6	319.36	28.971	
13,385.8	6,637.1	6,633.1	6,633.1	191.1	130.9	-88.65	245.3	2,650.3	9,337.6	9,015.9	321.75	29.021	
13,400.0	6,637.1	6,633.1	6,633.1	191.5	130.9	-88.64	245.3	2,650.3	9,351.8	9,029.6	322.15	29.029	
13,484.2	6,637.0	6,633.0	6,633.0	193.9	130.9	-88.63	245.3	2,650.3	9,435.9	9,111.4	324.51	29.078	
13,500.0	6,637.0	6,633.0	6,633.0	194.3	130.9	-88.63	245.3	2,650.3	9,451.6	9,126.7	324.95	29.087	
13,582.6	6,636.9	6,632.9	6,632.9	196.6	130.9	-88.62	245.3	2,650.3	9,534.2	9,206.9	327.26	29.134	
13,600.0	6,636.9	6,632.9	6,632.9	197.1	130.9	-88.61	245.3	2,650.3	9,551.5	9,223.8	327.74	29.143	
13,681.1	6,636.8	6,632.8	6,632.8	199.4	130.9	-88.60	245.3	2,650.3	9,632.5	9,302.4	330.01	29.189	
13,700.0	6,636.7	6,632.7	6,632.7	199.9	130.9	-88.60	245.3	2,650.3	9,651.4	9,320.8	330.54	29.199	
13,779.5	6,636.6	6,632.6	6,632.6	202.1	130.9	-88.58	245.3	2,650.3	9,730.7	9,398.0	332.76	29.243	
13,800.0	6,636.6	6,632.6	6,632.6	202.7	130.9	-88.58	245.3	2,650.3	9,751.2	9,417.9	333.33	29.254	
13,877.9	6,636.5	6,632.5	6,632.5	204.9	130.9	-88.57	245.3	2,650.3	9,829.0	9,493.5	335.51	29.296	
13,900.0	6,636.5	6,632.5	6,632.5	205.5	130.9	-88.56	245.3	2,650.3	9,851.1	9,515.0	336.13	29.307	
13,976.3	6,636.4	6,632.4	6,632.4	207.6	130.9	-88.55	245.3	2,650.3	9,927.3	9,589.1	338.26	29.348	
14,000.0	6,636.3	6,632.3	6,632.3	208.3	130.9	-88.55	245.3	2,650.3	9,950.9	9,612.0	338.92	29.360	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	72.33	1,374.9	4,316.4	4,530.1				
98.4	98.4	78.2	78.2	0.1	0.0	72.33	1,375.2	4,316.3	4,530.1	4,530.0	0.10	N/A	
100.0	100.0	79.8	79.8	0.1	0.0	72.33	1,375.2	4,316.3	4,530.1	4,530.0	0.10	N/A	
196.8	196.8	182.7	182.7	0.3	0.1	72.32	1,376.0	4,316.0	4,530.1	4,529.7	0.40	N/A	
200.0	200.0	186.1	186.1	0.3	0.1	72.32	1,376.0	4,316.0	4,530.1	4,529.6	0.41	N/A	
295.3	295.3	291.9	291.9	0.5	0.2	72.31	1,376.5	4,315.6	4,529.8	4,529.1	0.76	5,982.481	
300.0	300.0	297.2	297.2	0.5	0.2	72.31	1,376.5	4,315.6	4,529.8	4,529.0	0.77	5,847.358	
370.9	370.9	350.9	350.9	0.7	0.3	72.30	1,376.8	4,315.3	4,529.7	4,528.7	0.97	4,662.912	
393.7	393.7	367.9	367.9	0.8	0.3	72.30	1,376.9	4,315.3	4,529.7	4,528.6	1.03	4,380.522	
400.0	400.0	372.6	372.6	0.8	0.3	72.30	1,377.0	4,315.3	4,529.7	4,528.6	1.05	4,308.555	
492.1	492.1	459.8	459.8	1.0	0.3	72.29	1,377.8	4,315.3	4,530.0	4,528.6	1.32	3,438.769	
500.0	500.0	468.3	468.3	1.0	0.4	72.29	1,377.9	4,315.3	4,530.0	4,528.6	1.34	3,378.508	
590.5	590.5	558.2	558.2	1.2	0.4	72.28	1,378.5	4,315.4	4,530.2	4,528.6	1.59	2,845.301	
600.0	600.0	567.1	567.1	1.2	0.4	72.28	1,378.5	4,315.4	4,530.2	4,528.6	1.62	2,800.849	
689.0	689.0	690.9	690.9	1.4	0.4	72.28	1,378.8	4,315.3	4,530.3	4,528.4	1.84	2,456.319	
700.0	700.0	700.0	700.0	1.4	0.4	72.28	1,378.9	4,315.2	4,530.2	4,528.4	1.87	2,422.143	
787.4	787.4	769.9	769.9	1.6	0.5	72.27	1,379.2	4,314.9	4,530.0	4,527.9	2.09	2,164.206	
797.4	797.4	777.4	777.4	1.7	0.5	72.27	1,379.2	4,314.9	4,530.0	4,527.8	2.12	2,138.486	
800.0	800.0	779.4	779.3	1.7	0.5	72.27	1,379.2	4,314.9	4,530.0	4,527.8	2.13	2,131.746	
885.8	885.8	863.2	863.1	1.9	0.5	72.27	1,379.8	4,314.8	4,530.1	4,527.7	2.36	1,922.851	
900.0	900.0	878.5	878.5	1.9	0.5	72.27	1,379.8	4,314.8	4,530.1	4,527.7	2.40	1,891.374	
984.2	984.2	983.3	983.2	2.1	0.6	72.26	1,380.1	4,314.5	4,529.9	4,527.3	2.62	1,729.300	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	0.6	72.26	1,380.2	4,314.4	4,529.9	4,527.2	2.66	1,703.058	
1,082.7	1,082.7	1,066.7	1,066.7	2.3	0.6	45.28	1,380.3	4,314.2	4,528.8	4,525.9	2.85	1,587.192	
1,100.0	1,100.0	1,080.2	1,080.2	2.3	0.6	45.29	1,380.3	4,314.2	4,528.4	4,525.5	2.90	1,563.761	
1,181.1	1,181.0	1,148.6	1,148.6	2.5	0.6	45.36	1,380.6	4,314.2	4,525.7	4,522.6	3.10	1,459.936	
1,200.0	1,199.8	1,165.1	1,165.1	2.6	0.6	45.38	1,380.7	4,314.2	4,524.9	4,521.7	3.15	1,437.267	
1,279.5	1,279.1	1,239.5	1,239.5	2.8	0.7	45.49	1,380.9	4,314.5	4,520.5	4,517.2	3.36	1,345.896	
1,300.0	1,299.5	1,259.9	1,259.9	2.8	0.7	45.53	1,381.0	4,314.5	4,519.2	4,515.8	3.41	1,323.778	
1,377.9	1,376.9	1,335.2	1,335.2	3.0	0.7	45.70	1,381.2	4,314.8	4,513.1	4,509.4	3.63	1,243.142	
1,400.0	1,398.7	1,355.7	1,355.7	3.0	0.7	45.75	1,381.3	4,314.9	4,511.1	4,507.4	3.69	1,222.265	
1,476.4	1,474.2	1,430.1	1,430.1	3.2	0.7	45.97	1,381.5	4,315.3	4,503.3	4,499.4	3.91	1,150.530	
1,500.0	1,497.5	1,454.9	1,454.9	3.3	0.7	46.04	1,381.6	4,315.4	4,500.7	4,496.7	3.98	1,129.895	
1,574.8	1,571.0	1,526.0	1,526.0	3.5	0.8	46.30	1,381.8	4,315.7	4,491.3	4,487.1	4.22	1,065.332	
1,600.0	1,595.6	1,546.5	1,546.5	3.6	0.8	46.39	1,381.9	4,315.8	4,487.8	4,483.5	4.29	1,045.569	
1,673.2	1,667.2	1,607.3	1,607.3	3.9	0.8	46.51	1,382.1	4,316.2	4,477.8	4,473.3	4.52	990.000	
1,700.0	1,693.4	1,632.9	1,632.8	4.0	0.8	46.56	1,382.2	4,316.4	4,474.2	4,469.6	4.61	971.099	
1,771.6	1,763.5	1,701.7	1,701.6	4.2	0.8	46.69	1,382.7	4,316.9	4,464.5	4,459.6	4.85	921.416	
1,800.0	1,791.3	1,736.5	1,736.5	4.3	0.8	46.75	1,383.0	4,317.2	4,460.6	4,455.7	4.94	902.718	
1,870.1	1,859.8	1,815.9	1,815.9	4.6	0.9	46.90	1,383.8	4,317.4	4,451.0	4,445.8	5.19	858.211	
1,900.0	1,889.1	1,841.6	1,841.6	4.7	0.9	46.95	1,384.1	4,317.5	4,446.8	4,441.6	5.29	841.001	
1,968.5	1,956.1	1,900.6	1,900.5	4.9	0.9	47.05	1,384.9	4,317.7	4,437.5	4,432.0	5.53	802.952	
2,000.0	1,986.9	1,934.4	1,934.4	5.1	0.9	47.11	1,385.4	4,317.8	4,433.2	4,427.6	5.64	786.284	
2,066.9	2,052.3	2,007.0	2,006.9	5.3	0.9	47.24	1,386.7	4,317.9	4,424.1	4,418.2	5.88	752.344	
2,100.0	2,084.7	2,045.8	2,045.7	5.5	1.0	47.31	1,387.5	4,317.9	4,419.6	4,413.6	6.00	736.383	
2,165.3	2,148.6	2,100.0	2,099.9	5.7	1.0	47.41	1,388.4	4,317.8	4,410.5	4,404.2	6.24	707.107	
2,200.0	2,182.5	2,137.7	2,137.6	5.9	1.0	47.48	1,389.0	4,317.8	4,405.7	4,399.3	6.36	692.307	
2,263.8	2,244.9	2,182.5	2,182.4	6.1	1.0	47.56	1,389.8	4,317.9	4,397.1	4,390.5	6.59	666.905	
2,300.0	2,280.3	2,211.5	2,211.4	6.3	1.0	47.61	1,390.4	4,318.1	4,392.4	4,385.6	6.72	653.202	
2,362.2	2,341.2	2,274.2	2,274.1	6.5	1.0	47.72	1,391.7	4,318.4	4,384.2	4,377.3	6.96	630.236	
2,400.0	2,378.1	2,309.7	2,309.6	6.7	1.1	47.78	1,392.5	4,318.6	4,379.3	4,372.2	7.10	617.068	
2,460.6	2,437.4	2,357.8	2,357.6	6.9	1.1	47.87	1,393.7	4,318.9	4,371.5	4,364.1	7.32	596.984	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,476.0	2,389.0	2,388.9	7.1	1.1	47.92	1,394.4	4,319.1	4,366.5	4,359.0	7.47	584.596	
2,550.0	2,524.9	2,432.4	2,432.2	7.3	1.1	48.00	1,395.4	4,319.6	4,360.3	4,352.6	7.66	569.385	
2,559.0	2,533.7	2,440.5	2,440.3	7.3	1.1	48.88	1,395.6	4,319.7	4,359.1	4,351.5	7.69	566.832	
2,600.0	2,573.8	2,477.2	2,477.0	7.5	1.1	52.85	1,396.5	4,320.1	4,354.4	4,346.6	7.84	555.577	
2,639.4	2,612.3	2,512.1	2,511.9	7.7	1.1	56.66	1,397.5	4,320.4	4,350.3	4,342.4	7.98	545.434	
2,657.5	2,630.0	2,527.8	2,527.6	7.7	1.1	56.70	1,398.0	4,320.6	4,348.6	4,340.5	8.05	540.522	
2,700.0	2,671.6	2,564.9	2,564.7	7.9	1.2	56.77	1,399.0	4,321.1	4,344.5	4,336.3	8.21	529.306	
2,755.9	2,726.3	2,617.5	2,617.3	8.1	1.2	56.88	1,400.5	4,321.8	4,339.2	4,330.8	8.43	514.504	
2,800.0	2,769.4	2,667.2	2,666.9	8.3	1.2	56.97	1,401.9	4,322.5	4,335.0	4,326.4	8.62	503.190	
2,854.3	2,822.5	2,700.0	2,699.7	8.5	1.2	57.04	1,402.8	4,322.8	4,329.8	4,321.0	8.83	490.321	
2,900.0	2,867.2	2,745.8	2,745.5	8.7	1.2	57.13	1,404.2	4,323.4	4,325.5	4,316.5	9.02	479.703	
2,952.7	2,918.8	2,779.9	2,779.6	9.0	1.2	57.20	1,405.3	4,324.1	4,320.9	4,311.6	9.23	468.233	
3,000.0	2,965.0	2,800.0	2,799.7	9.2	1.2	57.24	1,406.0	4,324.5	4,316.9	4,307.5	9.41	458.573	
3,051.2	3,015.1	2,850.3	2,849.9	9.4	1.3	57.34	1,407.8	4,325.7	4,312.7	4,303.1	9.62	448.088	
3,100.0	3,062.8	2,886.9	2,886.4	9.6	1.3	57.40	1,409.4	4,326.6	4,308.9	4,299.0	9.82	438.679	
3,149.6	3,111.4	2,934.7	2,934.2	9.8	1.3	57.49	1,411.7	4,327.8	4,305.1	4,295.0	10.03	429.293	
3,200.0	3,160.7	2,989.2	2,988.6	10.0	1.3	57.59	1,414.2	4,329.2	4,301.2	4,290.9	10.24	420.034	
3,248.0	3,207.6	3,052.8	3,052.1	10.2	1.3	57.71	1,417.0	4,330.7	4,297.4	4,287.0	10.45	411.316	
3,300.0	3,258.5	3,136.5	3,135.8	10.5	1.4	57.87	1,420.4	4,332.3	4,293.1	4,282.4	10.68	401.991	
3,346.4	3,303.9	3,217.3	3,216.5	10.7	1.4	58.03	1,422.6	4,333.3	4,288.7	4,277.8	10.89	393.805	
3,400.0	3,356.3	3,278.3	3,277.5	10.9	1.4	58.17	1,423.7	4,334.0	4,283.5	4,272.4	11.12	385.140	
3,444.9	3,400.2	3,331.4	3,330.6	11.1	1.4	58.29	1,424.3	4,334.5	4,279.1	4,267.8	11.32	378.093	
3,500.0	3,454.1	3,398.5	3,397.7	11.3	1.5	58.44	1,424.7	4,335.1	4,273.6	4,262.0	11.56	369.717	
3,543.3	3,496.5	3,453.3	3,452.5	11.5	1.5	58.57	1,424.9	4,335.5	4,269.1	4,257.4	11.75	363.280	
3,600.0	3,551.9	3,524.4	3,523.6	11.7	1.5	58.74	1,425.0	4,335.7	4,263.1	4,251.1	12.00	355.306	
3,641.7	3,592.7	3,575.4	3,574.6	11.9	1.5	58.87	1,425.0	4,335.8	4,258.6	4,246.4	12.17	349.840	
3,700.0	3,649.7	3,633.9	3,633.1	12.2	1.5	59.01	1,424.8	4,335.7	4,252.1	4,239.7	12.42	342.453	
3,740.1	3,689.0	3,669.6	3,668.7	12.4	1.5	59.10	1,424.7	4,335.8	4,247.8	4,235.2	12.59	337.522	
3,800.0	3,747.5	3,727.6	3,726.8	12.6	1.5	59.24	1,424.6	4,335.8	4,241.3	4,228.5	12.83	330.469	
3,838.6	3,785.3	3,769.1	3,768.3	12.8	1.5	59.34	1,424.5	4,335.8	4,237.1	4,224.1	12.99	326.103	
3,900.0	3,845.4	3,832.9	3,832.1	13.1	1.5	59.50	1,424.5	4,335.7	4,230.5	4,217.2	13.25	319.336	
3,937.0	3,881.6	3,870.0	3,869.1	13.2	1.5	59.59	1,424.4	4,335.7	4,226.4	4,213.0	13.40	315.362	
4,000.0	3,943.2	3,933.1	3,932.3	13.5	1.5	59.74	1,424.2	4,335.6	4,219.6	4,205.9	13.67	308.756	
4,035.4	3,977.8	3,968.6	3,967.8	13.6	1.5	59.83	1,424.1	4,335.5	4,215.7	4,201.9	13.82	305.124	
4,100.0	4,041.0	4,024.0	4,023.2	13.9	1.5	59.97	1,424.0	4,335.4	4,208.8	4,194.7	14.09	298.774	
4,133.8	4,074.1	4,048.5	4,047.7	14.1	1.5	60.03	1,423.9	4,335.5	4,205.2	4,191.0	14.23	295.580	
4,200.0	4,138.8	4,100.0	4,099.2	14.4	1.5	60.16	1,423.8	4,335.7	4,198.5	4,184.0	14.50	289.511	
4,232.3	4,170.4	4,135.7	4,134.9	14.5	1.5	60.25	1,423.8	4,335.9	4,195.2	4,180.6	14.64	286.569	
4,300.0	4,236.6	4,219.4	4,218.6	14.8	1.5	60.46	1,423.8	4,336.0	4,188.2	4,173.3	14.93	280.496	
4,330.7	4,266.7	4,250.7	4,249.9	14.9	1.5	60.54	1,423.9	4,335.9	4,185.0	4,170.0	15.06	277.819	
4,400.0	4,334.4	4,315.7	4,314.9	15.2	1.5	60.70	1,424.0	4,335.9	4,177.8	4,162.4	15.36	271.992	
4,429.1	4,362.9	4,337.5	4,336.7	15.4	1.5	60.75	1,424.0	4,335.9	4,174.8	4,159.3	15.48	269.659	
4,500.0	4,432.3	4,400.0	4,399.2	15.7	1.5	60.91	1,424.1	4,336.1	4,167.7	4,151.9	15.78	264.110	
4,527.5	4,459.2	4,428.6	4,427.8	15.8	1.5	60.98	1,424.2	4,336.2	4,165.0	4,149.1	15.90	261.987	
4,600.0	4,530.1	4,563.3	4,562.4	16.1	1.5	61.31	1,424.6	4,335.4	4,157.3	4,141.0	16.23	256.193	
4,626.0	4,555.5	4,600.0	4,599.2	16.2	1.5	61.40	1,424.9	4,334.8	4,154.2	4,137.9	16.34	254.181	
4,700.0	4,627.9	4,662.1	4,661.3	16.6	1.5	61.55	1,425.2	4,333.8	4,145.7	4,129.0	16.66	248.846	
4,724.4	4,651.7	4,681.1	4,680.2	16.7	1.5	61.60	1,425.2	4,333.6	4,142.9	4,126.1	16.76	247.137	
4,800.0	4,725.7	4,755.5	4,754.6	17.0	1.5	61.79	1,424.9	4,332.8	4,134.5	4,117.4	17.09	241.907	
4,822.8	4,748.0	4,780.2	4,779.3	17.1	1.5	61.85	1,424.8	4,332.5	4,131.9	4,114.7	17.19	240.354	
4,904.9	4,828.3	4,862.9	4,862.1	17.5	1.5	62.06	1,424.6	4,331.5	4,122.7	4,105.1	17.55	234.914	
4,921.2	4,844.3	4,879.1	4,878.3	17.5	1.6	62.07	1,424.6	4,331.3	4,120.9	4,103.2	17.61	234.052	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	4,921.6	4,950.9	4,950.1	17.8	1.6	62.10	1,424.3	4,330.4	4,112.8	4,094.9	17.88	230.051	
5,019.7	4,941.0	4,968.4	4,967.5	17.9	1.6	62.10	1,424.2	4,330.2	4,111.0	4,093.0	17.93	229.263	
5,100.0	5,020.4	5,043.2	5,042.3	18.1	1.6	62.13	1,423.9	4,329.5	4,104.2	4,086.1	18.15	226.121	
5,118.1	5,038.3	5,060.6	5,059.8	18.2	1.6	62.14	1,423.8	4,329.3	4,102.9	4,084.7	18.19	225.504	
5,200.0	5,119.6	5,134.3	5,133.4	18.4	1.6	62.16	1,423.3	4,328.7	4,097.5	4,079.1	18.39	222.800	
5,216.5	5,136.0	5,148.1	5,147.2	18.4	1.6	62.16	1,423.2	4,328.6	4,096.5	4,078.1	18.42	222.340	
5,300.0	5,219.2	5,230.2	5,229.3	18.6	1.6	62.18	1,422.6	4,328.1	4,092.6	4,074.0	18.60	220.046	
5,314.9	5,234.1	5,251.5	5,250.6	18.6	1.6	62.19	1,422.4	4,328.0	4,092.0	4,073.4	18.63	219.691	
5,400.0	5,319.1	5,385.9	5,385.0	18.8	1.6	62.23	1,421.4	4,326.2	4,088.8	4,070.0	18.78	217.662	
5,413.4	5,332.4	5,404.7	5,403.8	18.8	1.6	62.23	1,421.1	4,325.8	4,088.3	4,069.5	18.80	217.404	
5,504.9	5,423.9	5,489.5	5,488.6	18.9	1.6	80.63	1,420.3	4,324.1	4,085.6	4,069.2	16.39	249.218	
5,511.8	5,430.8	5,496.0	5,495.0	18.9	1.6	80.63	1,420.2	4,324.0	4,085.5	4,069.1	16.41	249.035	
5,600.0	5,519.0	5,593.6	5,592.6	19.0	1.6	80.64	1,419.3	4,322.0	4,083.6	4,067.0	16.55	246.693	
5,610.2	5,529.3	5,604.2	5,603.3	19.0	1.6	80.64	1,419.1	4,321.8	4,083.3	4,066.7	16.57	246.396	
5,700.0	5,619.0	5,689.1	5,688.2	19.2	1.6	80.64	1,418.4	4,319.9	4,081.3	4,064.6	16.74	243.815	
5,708.6	5,627.7	5,700.0	5,699.0	19.2	1.6	80.65	1,418.4	4,319.7	4,081.1	4,064.4	16.76	243.563	
5,800.0	5,719.0	5,793.6	5,792.6	19.3	1.6	80.65	1,417.9	4,317.7	4,079.1	4,062.2	16.93	240.937	
5,807.1	5,726.1	5,801.2	5,800.2	19.3	1.6	80.65	1,417.9	4,317.5	4,078.9	4,062.0	16.94	240.734	
5,900.0	5,819.0	5,908.1	5,907.0	19.4	1.6	80.64	1,417.6	4,314.9	4,076.6	4,059.5	17.13	238.035	
5,905.5	5,824.5	5,916.5	5,915.4	19.4	1.6	80.64	1,417.7	4,314.6	4,076.5	4,059.4	17.14	237.867	
6,003.9	5,923.0	6,042.3	6,041.2	19.6	1.7	80.62	1,418.9	4,310.4	4,073.3	4,056.0	17.34	234.871	
6,009.8	5,928.8	6,048.0	6,046.9	19.6	1.7	80.61	1,419.1	4,310.2	4,073.1	4,055.8	17.35	234.696	
6,034.3	5,953.3	6,071.8	6,070.7	19.6	1.7	170.61	1,419.6	4,309.3	4,072.7	4,052.9	19.77	206.045 CC, ES	
6,050.0	5,969.0	6,087.1	6,086.0	19.6	1.7	170.60	1,420.0	4,308.7	4,072.9	4,053.1	19.78	205.921	
6,100.0	6,018.8	6,238.1	6,236.5	19.7	1.7	170.47	1,428.0	4,300.1	4,074.8	4,055.0	19.84	205.343	
6,102.3	6,021.1	6,240.7	6,239.0	19.7	1.7	170.47	1,428.2	4,299.9	4,075.0	4,055.1	19.85	205.320	
6,150.0	6,068.1	6,292.6	6,290.6	19.7	1.7	170.36	1,432.1	4,296.1	4,079.8	4,059.9	19.91	204.936	
6,200.0	6,116.8	6,333.7	6,331.5	19.7	1.7	170.22	1,435.3	4,293.1	4,088.2	4,068.2	19.96	204.844	
6,200.8	6,117.5	6,334.3	6,332.1	19.7	1.7	170.21	1,435.4	4,293.1	4,088.4	4,068.4	19.96	204.846	
6,250.0	6,164.5	6,372.2	6,369.8	19.7	1.8	170.03	1,438.1	4,290.5	4,100.1	4,080.1	19.97	205.275	
6,299.2	6,210.4	6,409.8	6,407.3	19.7	1.8	169.80	1,440.6	4,288.0	4,115.1	4,095.2	19.94	206.341	
6,300.0	6,211.1	6,410.5	6,407.9	19.7	1.8	169.80	1,440.6	4,288.0	4,115.4	4,095.4	19.94	206.364	
6,350.0	6,256.4	6,449.3	6,446.6	19.7	1.8	169.51	1,443.0	4,285.5	4,134.0	4,114.2	19.86	208.180	
6,397.6	6,298.0	6,485.2	6,482.4	19.7	1.8	169.19	1,445.0	4,283.4	4,154.8	4,135.0	19.72	210.656	
6,400.0	6,300.0	6,486.9	6,484.1	19.7	1.8	169.17	1,445.1	4,283.3	4,155.9	4,136.2	19.71	210.801	
6,450.0	6,341.8	6,500.0	6,497.1	19.7	1.8	168.73	1,445.8	4,282.5	4,180.9	4,161.4	19.49	214.515	
6,496.0	6,378.6	6,541.9	6,538.9	19.7	1.8	168.28	1,447.9	4,280.2	4,206.5	4,187.3	19.26	218.369	
6,500.0	6,381.6	6,543.9	6,540.9	19.7	1.8	168.23	1,448.0	4,280.1	4,208.9	4,189.6	19.24	218.758	
6,550.0	6,419.2	6,568.7	6,565.7	19.6	1.8	167.61	1,449.1	4,278.9	4,239.8	4,220.9	18.92	224.113	
6,594.5	6,450.7	6,600.0	6,596.9	19.6	1.8	166.97	1,450.3	4,277.5	4,269.6	4,251.0	18.61	229.452	
6,600.0	6,454.4	6,600.0	6,596.9	19.6	1.8	166.87	1,450.3	4,277.5	4,273.5	4,254.9	18.56	230.235	
6,650.0	6,487.1	6,615.4	6,612.3	19.6	1.8	165.93	1,450.9	4,276.9	4,309.6	4,291.5	18.15	237.405	
6,692.9	6,513.0	6,634.9	6,631.8	19.6	1.8	164.96	1,451.6	4,276.1	4,342.6	4,324.7	17.80	243.924	
6,700.0	6,517.0	6,638.0	6,634.9	19.6	1.8	164.78	1,451.7	4,276.0	4,348.2	4,330.4	17.74	245.083	
6,750.0	6,544.1	6,658.5	6,655.3	19.6	1.8	163.33	1,452.4	4,275.3	4,388.8	4,371.4	17.34	253.096	
6,791.3	6,564.2	6,673.8	6,670.6	19.7	1.8	161.83	1,453.0	4,274.7	4,423.8	4,406.8	17.03	259.816	
6,800.0	6,568.2	6,676.8	6,673.6	19.7	1.8	161.47	1,453.1	4,274.6	4,431.3	4,414.3	16.99	260.820	
6,850.0	6,589.1	6,700.0	6,696.8	19.8	1.8	159.09	1,453.9	4,273.9	4,475.6	4,458.8	16.76	267.010	
6,889.7	6,603.5	6,704.4	6,701.2	19.9	1.8	156.48	1,454.1	4,273.7	4,511.8	4,495.1	16.71	269.963	
6,900.0	6,606.9	6,707.4	6,704.2	19.9	1.8	155.71	1,454.2	4,273.6	4,521.2	4,504.5	16.73	270.231	
6,950.0	6,621.3	6,720.5	6,717.3	20.2	1.8	151.03	1,454.6	4,273.2	4,568.2	4,551.1	17.08	267.527	
6,988.2	6,630.0	6,730.0	6,726.8	20.6	1.8	146.04	1,454.9	4,272.9	4,604.6	4,586.9	17.72	259.869	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,632.4	6,730.0	6,726.8	20.7	1.8	144.07	1,454.9	4,272.9	4,616.0	4,598.0	18.00	256.385	
7,050.0	6,640.0	6,730.0	6,726.8	21.4	1.8	132.91	1,454.9	4,272.9	4,664.7	4,644.9	19.76	236.057	
7,086.6	6,643.4	6,730.0	6,726.8	21.9	1.8	120.70	1,454.9	4,272.9	4,700.6	4,679.1	21.48	218.848	
7,100.0	6,644.2	6,730.0	6,726.8	22.1	1.8	115.16	1,454.9	4,272.9	4,713.8	4,691.7	22.09	213.363	
7,135.7	6,645.0	6,730.0	6,726.8	22.7	1.8	97.81	1,454.9	4,272.9	4,749.1	4,725.7	23.38	203.135	
7,185.0	6,644.9	6,730.0	6,726.8	23.6	1.8	97.81	1,454.9	4,272.9	4,797.9	4,773.6	24.33	197.190	
7,200.0	6,644.9	6,730.0	6,726.8	23.9	1.8	97.81	1,454.9	4,272.9	4,812.7	4,788.1	24.62	195.478	
7,283.4	6,644.8	6,730.0	6,726.8	25.6	1.8	97.81	1,454.9	4,272.9	4,895.3	4,868.9	26.34	185.875	
7,300.0	6,644.8	6,730.0	6,726.8	25.9	1.8	97.81	1,454.9	4,272.9	4,911.6	4,885.0	26.68	184.118	
7,381.9	6,644.7	6,730.0	6,726.8	27.7	1.8	97.81	1,454.9	4,272.9	4,992.7	4,964.2	28.47	175.375	
7,400.0	6,644.7	6,730.0	6,726.8	28.1	1.8	97.81	1,454.9	4,272.9	5,010.6	4,981.7	28.87	173.587	
7,480.3	6,644.6	6,730.0	6,726.8	29.9	1.8	97.81	1,454.9	4,272.9	5,090.1	5,059.4	30.71	165.746	
7,500.0	6,644.6	6,730.0	6,726.8	30.3	1.8	97.81	1,454.9	4,272.9	5,109.6	5,078.5	31.16	163.965	
7,578.7	6,644.5	6,730.0	6,726.8	32.2	1.8	97.81	1,454.9	4,272.9	5,187.6	5,154.6	33.03	157.038	
7,600.0	6,644.4	6,730.0	6,726.8	32.7	1.8	97.81	1,454.9	4,272.9	5,208.7	5,175.2	33.54	155.299	
7,677.1	6,644.3	6,730.0	6,726.8	34.6	1.8	97.81	1,454.9	4,272.9	5,285.1	5,249.7	35.42	149.206	
7,700.0	6,644.3	6,730.0	6,726.8	35.1	1.8	97.81	1,454.9	4,272.9	5,307.8	5,271.8	35.98	147.525	
7,775.6	6,644.2	6,730.0	6,726.8	37.0	1.8	97.81	1,454.9	4,272.9	5,382.7	5,344.8	37.86	142.173	
7,800.0	6,644.2	6,730.0	6,726.8	37.6	1.8	97.81	1,454.9	4,272.9	5,406.9	5,368.4	38.47	140.556	
7,874.0	6,644.1	6,730.0	6,726.8	39.5	1.8	97.81	1,454.9	4,272.9	5,480.3	5,439.9	40.34	135.853	
7,900.0	6,644.1	6,730.0	6,726.8	40.1	1.8	97.81	1,454.9	4,272.9	5,506.1	5,465.1	41.00	134.303	
7,972.4	6,644.0	6,730.0	6,726.8	42.0	1.8	97.81	1,454.9	4,272.9	5,577.9	5,535.1	42.85	130.163	
8,000.0	6,643.9	6,730.0	6,726.8	42.7	1.8	97.81	1,454.9	4,272.9	5,605.3	5,561.7	43.56	128.680	
8,070.8	6,643.9	6,730.0	6,726.8	44.5	1.8	97.81	1,454.9	4,272.9	5,675.6	5,630.2	45.39	125.028	
8,100.0	6,643.8	6,730.0	6,726.8	45.2	1.8	97.81	1,454.9	4,272.9	5,704.5	5,658.3	46.15	123.610	
8,169.3	6,643.7	6,730.0	6,726.8	47.0	1.8	97.81	1,454.9	4,272.9	5,773.2	5,725.3	47.96	120.379	
8,200.0	6,643.7	6,730.0	6,726.8	47.9	1.8	97.81	1,454.9	4,272.9	5,803.7	5,755.0	48.76	119.024	
8,267.7	6,643.6	6,730.0	6,726.8	49.6	1.8	97.81	1,454.9	4,272.9	5,870.9	5,820.4	50.54	116.158	
8,300.0	6,643.6	6,730.0	6,726.8	50.5	1.8	97.81	1,454.9	4,272.9	5,903.0	5,851.6	51.39	114.861	
8,366.1	6,643.5	6,730.0	6,726.8	52.2	1.8	97.81	1,454.9	4,272.9	5,968.6	5,915.5	53.14	112.313	
8,400.0	6,643.4	6,730.0	6,726.8	53.1	1.8	97.81	1,454.9	4,272.9	6,002.3	5,948.2	54.04	111.072	
8,464.5	6,643.4	6,730.0	6,726.8	54.8	1.8	97.81	1,454.9	4,272.9	6,066.4	6,010.6	55.76	108.800	
8,500.0	6,643.3	6,730.0	6,726.8	55.8	1.8	97.81	1,454.9	4,272.9	6,101.6	6,044.9	56.70	107.611	
8,563.0	6,643.2	6,730.0	6,726.8	57.5	1.8	97.81	1,454.9	4,272.9	6,164.2	6,105.8	58.38	105.580	
8,600.0	6,643.2	6,730.0	6,726.8	58.5	1.8	97.81	1,454.9	4,272.9	6,200.9	6,141.6	59.37	104.439	
8,661.4	6,643.1	6,730.0	6,726.8	60.1	1.8	97.81	1,454.9	4,272.9	6,261.9	6,200.9	61.02	102.619	
8,700.0	6,643.1	6,730.0	6,726.8	61.2	1.8	97.81	1,454.9	4,272.9	6,300.3	6,238.2	62.06	101.525	
8,759.8	6,643.0	6,730.0	6,726.8	62.8	1.8	97.81	1,454.9	4,272.9	6,359.7	6,296.1	63.67	99.890	
8,800.0	6,643.0	6,730.0	6,726.8	63.9	1.8	97.80	1,454.9	4,272.9	6,399.7	6,334.9	64.75	98.838	
8,858.2	6,642.9	6,730.0	6,726.8	65.4	1.8	97.80	1,454.9	4,272.9	6,457.6	6,391.3	66.32	97.367	
8,900.0	6,642.8	6,730.0	6,726.8	66.6	1.8	97.80	1,454.9	4,272.9	6,499.1	6,431.6	67.45	96.355	
8,956.7	6,642.8	6,730.0	6,726.8	68.1	1.8	97.80	1,454.9	4,272.9	6,555.4	6,486.4	68.98	95.029	
9,000.0	6,642.7	6,730.0	6,726.8	69.3	1.8	97.80	1,454.9	4,272.9	6,598.5	6,528.3	70.16	94.054	
9,055.1	6,642.6	6,730.0	6,726.8	70.8	1.8	97.80	1,454.9	4,272.9	6,653.3	6,581.6	71.65	92.856	
9,100.0	6,642.6	6,730.0	6,726.8	72.0	1.8	97.80	1,454.9	4,272.9	6,697.9	6,625.1	72.87	91.917	
9,153.5	6,642.5	6,730.0	6,726.8	73.5	1.8	97.80	1,454.9	4,272.9	6,751.2	6,676.8	74.32	90.833	
9,200.0	6,642.5	6,730.0	6,726.8	74.7	1.8	97.80	1,454.9	4,272.9	6,797.4	6,721.8	75.59	89.926	
9,251.9	6,642.4	6,730.0	6,726.8	76.2	1.8	97.80	1,454.9	4,272.9	6,849.0	6,772.0	77.00	88.945	
9,300.0	6,642.3	6,730.0	6,726.8	77.5	1.8	97.80	1,454.9	4,272.9	6,896.8	6,818.5	78.31	88.069	
9,350.4	6,642.3	6,730.0	6,726.8	78.9	1.8	97.80	1,454.9	4,272.9	6,947.0	6,867.3	79.69	87.179	
9,400.0	6,642.2	6,730.0	6,726.8	80.2	1.8	97.80	1,454.9	4,272.9	6,996.3	6,915.3	81.04	86.332	
9,448.8	6,642.1	6,730.0	6,726.8	81.6	1.8	97.80	1,454.9	4,272.9	7,044.9	6,962.5	82.37	85.524	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,642.1	6,730.0	6,726.8	83.0	1.8	97.80	1,454.9	4,272.9	7,095.8	7,012.1	83.77	84.705	
9,547.2	6,642.0	6,730.0	6,726.8	84.3	1.8	97.80	1,454.9	4,272.9	7,142.8	7,057.8	85.06	83.971	
9,600.0	6,642.0	6,730.0	6,726.8	85.7	1.8	97.80	1,454.9	4,272.9	7,195.3	7,108.8	86.51	83.176	
9,645.6	6,641.9	6,730.0	6,726.8	87.0	1.8	97.80	1,454.9	4,272.9	7,240.8	7,153.0	87.76	82.509	
9,700.0	6,641.8	6,730.0	6,726.8	88.5	1.8	97.80	1,454.9	4,272.9	7,294.9	7,205.6	89.25	81.739	
9,744.1	6,641.8	6,730.0	6,726.8	89.7	1.8	97.80	1,454.9	4,272.9	7,338.7	7,248.3	90.45	81.132	
9,800.0	6,641.7	6,730.0	6,726.8	91.2	1.8	97.80	1,454.9	4,272.9	7,394.4	7,302.4	91.99	80.385	
9,842.5	6,641.7	6,730.0	6,726.8	92.4	1.8	97.80	1,454.9	4,272.9	7,436.7	7,343.5	93.15	79.833	
9,900.0	6,641.6	6,730.0	6,726.8	94.0	1.8	97.80	1,454.9	4,272.9	7,493.9	7,399.2	94.73	79.107	
9,940.9	6,641.5	6,730.0	6,726.8	95.1	1.8	97.80	1,454.9	4,272.9	7,534.7	7,438.8	95.86	78.605	
10,000.0	6,641.5	6,730.0	6,726.8	96.7	1.8	97.80	1,454.9	4,272.9	7,593.5	7,496.0	97.48	77.900	
10,039.3	6,641.4	6,730.0	6,726.8	97.8	1.8	97.80	1,454.9	4,272.9	7,632.7	7,534.1	98.56	77.442	
10,100.0	6,641.3	6,730.0	6,726.8	99.5	1.8	97.80	1,454.9	4,272.9	7,693.1	7,592.8	100.23	76.757	
10,137.8	6,641.3	6,730.0	6,726.8	100.6	1.8	97.80	1,454.9	4,272.9	7,730.7	7,629.4	101.27	76.341	
10,200.0	6,641.2	6,730.0	6,726.8	102.3	1.8	97.80	1,454.9	4,272.9	7,792.7	7,689.7	102.98	75.673	
10,236.2	6,641.2	6,730.0	6,726.8	103.3	1.8	97.80	1,454.9	4,272.9	7,828.7	7,724.7	103.97	75.295	
10,300.0	6,641.1	6,730.0	6,726.8	105.0	1.8	97.80	1,454.9	4,272.9	7,892.3	7,786.5	105.73	74.645	
10,334.6	6,641.0	6,730.0	6,726.8	106.0	1.8	97.80	1,454.9	4,272.9	7,926.7	7,820.1	106.68	74.301	
10,400.0	6,641.0	6,730.0	6,726.8	107.8	1.8	97.79	1,454.9	4,272.9	7,991.9	7,883.4	108.49	73.668	
10,433.0	6,640.9	6,730.0	6,726.8	108.7	1.8	97.79	1,454.9	4,272.9	8,024.8	7,915.4	109.40	73.355	
10,500.0	6,640.8	6,730.0	6,726.8	110.6	1.8	97.79	1,454.9	4,272.9	8,091.5	7,980.2	111.24	72.738	
10,531.5	6,640.8	6,730.0	6,726.8	111.5	1.8	97.79	1,454.9	4,272.9	8,122.8	8,010.7	112.11	72.455	
10,600.0	6,640.7	6,730.0	6,726.8	113.4	1.8	97.79	1,454.9	4,272.9	8,191.1	8,077.1	114.00	71.852	
10,629.9	6,640.7	6,730.0	6,726.8	114.2	1.8	97.79	1,454.9	4,272.9	8,220.9	8,106.1	114.82	71.596	
10,700.0	6,640.6	6,730.0	6,726.8	116.1	1.8	97.79	1,454.9	4,272.9	8,290.7	8,174.0	116.76	71.008	
10,728.3	6,640.5	6,730.0	6,726.8	116.9	1.8	97.79	1,454.9	4,272.9	8,318.9	8,201.4	117.54	70.776	
10,800.0	6,640.5	6,730.0	6,726.8	118.9	1.8	97.79	1,454.9	4,272.9	8,390.4	8,270.8	119.52	70.201	
10,826.7	6,640.4	6,730.0	6,726.8	119.7	1.8	97.79	1,454.9	4,272.9	8,417.0	8,296.8	120.26	69.992	
10,900.0	6,640.3	6,730.0	6,726.8	121.7	1.8	97.79	1,454.9	4,272.9	8,490.0	8,367.7	122.28	69.431	
10,925.2	6,640.3	6,730.0	6,726.8	122.4	1.8	97.79	1,454.9	4,272.9	8,515.1	8,392.1	122.98	69.242	
11,000.0	6,640.2	6,730.0	6,726.8	124.5	1.8	97.79	1,454.9	4,272.9	8,589.7	8,464.6	125.04	68.694	
11,023.6	6,640.2	6,730.0	6,726.8	125.1	1.8	97.79	1,454.9	4,272.9	8,613.2	8,487.5	125.69	68.525	
11,100.0	6,640.1	6,730.0	6,726.8	127.3	1.8	97.79	1,454.9	4,272.9	8,689.3	8,561.5	127.81	67.988	
11,122.0	6,640.0	6,730.0	6,726.8	127.9	1.8	97.79	1,454.9	4,272.9	8,711.3	8,582.9	128.42	67.837	
11,200.0	6,639.9	6,730.0	6,726.8	130.1	1.8	97.79	1,454.9	4,272.9	8,789.0	8,658.4	130.57	67.312	
11,220.4	6,639.9	6,730.0	6,726.8	130.6	1.8	97.79	1,454.9	4,272.9	8,809.4	8,678.3	131.14	67.177	
11,300.0	6,639.8	6,730.0	6,726.8	132.8	1.8	97.79	1,454.9	4,272.9	8,888.7	8,755.4	133.34	66.663	
11,318.9	6,639.8	6,730.0	6,726.8	133.4	1.8	97.79	1,454.9	4,272.9	8,907.5	8,773.6	133.86	66.544	
11,400.0	6,639.7	6,730.0	6,726.8	135.6	1.8	97.79	1,454.9	4,272.9	8,988.4	8,852.3	136.10	66.041	
11,417.3	6,639.7	6,730.0	6,726.8	136.1	1.8	97.79	1,454.9	4,272.9	9,005.6	8,869.0	136.58	65.936	
11,500.0	6,639.6	6,730.0	6,726.8	138.4	1.8	97.79	1,454.9	4,272.9	9,088.1	8,949.2	138.87	65.443	
11,515.7	6,639.5	6,730.0	6,726.8	138.9	1.8	97.79	1,454.9	4,272.9	9,103.7	8,964.4	139.31	65.351	
11,600.0	6,639.4	6,730.0	6,726.8	141.2	1.8	97.79	1,454.9	4,272.9	9,187.8	9,046.1	141.64	64.868	
11,614.1	6,639.4	6,730.0	6,726.8	141.6	1.8	97.79	1,454.9	4,272.9	9,201.9	9,059.9	142.03	64.788	
11,700.0	6,639.3	6,730.0	6,726.8	144.0	1.8	97.79	1,454.9	4,272.9	9,287.5	9,143.1	144.41	64.314	
11,712.6	6,639.3	6,730.0	6,726.8	144.3	1.8	97.79	1,454.9	4,272.9	9,300.0	9,155.3	144.76	64.246	
11,800.0	6,639.2	6,730.0	6,726.8	146.8	1.8	97.78	1,454.9	4,272.9	9,387.2	9,240.0	147.18	63.782	
11,811.0	6,639.2	6,730.0	6,726.8	147.1	1.8	97.78	1,454.9	4,272.9	9,398.2	9,250.7	147.48	63.724	
11,900.0	6,639.1	6,730.0	6,726.8	149.6	1.8	97.78	1,454.9	4,272.9	9,486.9	9,337.0	149.95	63.268	
11,909.4	6,639.0	6,730.0	6,726.8	149.8	1.8	97.78	1,454.9	4,272.9	9,496.3	9,346.1	150.21	63.221	
12,000.0	6,638.9	6,730.0	6,726.8	152.4	1.8	97.78	1,454.9	4,272.9	9,586.6	9,433.9	152.72	62.774	
12,007.8	6,638.9	6,730.0	6,726.8	152.6	1.8	97.78	1,454.9	4,272.9	9,594.5	9,441.5	152.94	62.735	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #41-10 - 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	6,638.8	6,730.0	6,726.8	155.2	1.8	97.78	1,454.9	4,272.9	9,686.4	9,530.9	155.49	62.296	
12,106.3	6,638.8	6,730.0	6,726.8	155.3	1.8	97.78	1,454.9	4,272.9	9,692.6	9,537.0	155.66	62.267	
12,200.0	6,638.7	6,730.0	6,726.8	157.9	1.8	97.78	1,454.9	4,272.9	9,786.1	9,627.8	158.26	61.835	
12,204.7	6,638.7	6,730.0	6,726.8	158.1	1.8	97.78	1,454.9	4,272.9	9,790.8	9,632.4	158.39	61.814	
12,300.0	6,638.5	6,730.0	6,726.8	160.7	1.8	97.78	1,454.9	4,272.9	9,885.8	9,724.8	161.03	61.390	
12,303.1	6,638.5	6,730.0	6,726.8	160.8	1.8	97.78	1,454.9	4,272.9	9,889.0	9,727.8	161.12	61.376	
12,400.0	6,638.4	6,730.0	6,726.8	163.5	1.8	97.78	1,454.9	4,272.9	9,985.6	9,821.8	163.81	60.960	
12,401.5	6,638.4	6,730.0	6,726.8	163.6	1.8	97.78	1,454.9	4,272.9	9,987.1	9,823.3	163.85	60.953 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WACKER #42-10 - 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	87.79	159.9	4,150.9	4,154.1				
98.4	98.4	80.4	80.4	0.1	0.0	87.79	159.9	4,150.9	4,154.0	4,153.9	0.10	N/A	
100.0	100.0	81.9	81.9	0.1	0.0	87.79	159.9	4,150.9	4,154.0	4,153.9	0.10	N/A	
196.8	196.8	178.0	178.0	0.3	0.1	87.80	159.7	4,151.0	4,154.0	4,153.6	0.39	N/A	
200.0	200.0	181.2	181.2	0.3	0.1	87.80	159.7	4,151.0	4,154.0	4,153.6	0.40	N/A	
295.3	295.3	275.5	275.5	0.5	0.2	87.80	159.5	4,151.0	4,154.1	4,153.3	0.73	5,653.027	
300.0	300.0	280.2	280.2	0.5	0.2	87.80	159.5	4,151.0	4,154.1	4,153.3	0.75	5,526.791	
393.7	393.7	373.8	373.8	0.8	0.3	87.80	159.3	4,151.0	4,154.1	4,153.1	1.05	3,962.898	
400.0	400.0	380.1	380.1	0.8	0.3	87.80	159.3	4,151.1	4,154.1	4,153.0	1.07	3,891.341	
492.1	492.1	471.6	471.6	1.0	0.4	87.80	159.1	4,151.1	4,154.2	4,152.8	1.34	3,107.960	
500.0	500.0	479.4	479.3	1.0	0.4	87.81	159.1	4,151.1	4,154.2	4,152.8	1.36	3,056.064	
590.5	590.5	569.6	569.6	1.2	0.4	87.81	158.8	4,151.2	4,154.2	4,152.6	1.61	2,573.191	
600.0	600.0	579.0	579.0	1.2	0.4	87.81	158.7	4,151.2	4,154.2	4,152.6	1.64	2,531.737	
689.0	689.0	671.0	671.0	1.4	0.5	87.81	158.4	4,151.2	4,154.3	4,152.4	1.89	2,201.782	
700.0	700.0	682.5	682.5	1.4	0.5	87.82	158.3	4,151.2	4,154.3	4,152.4	1.92	2,166.918	
787.4	787.4	771.8	771.8	1.6	0.5	87.82	157.9	4,151.2	4,154.2	4,152.1	2.15	1,927.853	
800.0	800.0	784.6	784.6	1.7	0.6	87.82	157.8	4,151.2	4,154.2	4,152.0	2.19	1,897.755	
885.8	885.8	878.6	878.5	1.9	0.6	87.83	157.3	4,151.1	4,154.1	4,151.7	2.42	1,714.806	
900.0	900.0	894.3	894.3	1.9	0.6	87.83	157.1	4,151.1	4,154.1	4,151.6	2.46	1,687.911	
984.2	984.2	977.7	977.6	2.1	0.6	87.84	156.5	4,150.9	4,153.8	4,151.1	2.69	1,546.980	
1,000.0	1,000.0	993.1	993.1	2.1	0.7	87.84	156.4	4,150.8	4,153.8	4,151.0	2.73	1,523.255	
1,082.7	1,082.7	1,076.8	1,076.8	2.3	0.7	60.88	155.7	4,150.6	4,153.0	4,150.0	2.93	1,416.668	
1,100.0	1,100.0	1,094.4	1,094.4	2.3	0.7	60.90	155.5	4,150.6	4,152.6	4,149.7	2.98	1,395.105	
1,181.1	1,181.0	1,168.8	1,168.8	2.5	0.7	60.99	154.9	4,150.4	4,150.5	4,147.3	3.18	1,303.926	
1,200.0	1,199.8	1,186.0	1,186.0	2.6	0.7	61.01	154.7	4,150.4	4,149.9	4,146.7	3.23	1,284.341	
1,279.5	1,279.1	1,259.2	1,259.2	2.8	0.8	61.15	154.1	4,150.4	4,146.6	4,143.2	3.44	1,206.424	
1,300.0	1,299.5	1,278.1	1,278.1	2.8	0.8	61.19	154.0	4,150.4	4,145.7	4,142.2	3.49	1,187.795	
1,377.9	1,376.9	1,347.5	1,347.5	3.0	0.8	61.37	153.6	4,150.6	4,141.3	4,137.7	3.70	1,119.579	
1,400.0	1,398.7	1,366.8	1,366.8	3.0	0.8	61.43	153.5	4,150.6	4,140.0	4,136.2	3.76	1,101.747	
1,476.4	1,474.2	1,436.9	1,436.9	3.2	0.8	61.66	153.3	4,150.9	4,134.7	4,130.7	3.98	1,039.262	
1,500.0	1,497.5	1,459.5	1,459.5	3.3	0.8	61.74	153.2	4,151.0	4,132.9	4,128.9	4.05	1,021.101	
1,574.8	1,571.0	1,542.9	1,542.8	3.5	0.9	62.05	153.0	4,151.4	4,126.6	4,122.3	4.29	962.829	
1,600.0	1,595.6	1,576.2	1,576.2	3.6	0.9	62.17	152.9	4,151.4	4,124.2	4,119.8	4.37	944.705	
1,673.2	1,667.2	1,664.4	1,664.3	3.9	0.9	62.40	152.6	4,151.3	4,116.8	4,112.2	4.62	891.497	
1,700.0	1,693.4	1,695.6	1,695.5	4.0	0.9	62.49	152.5	4,151.2	4,114.1	4,109.4	4.71	873.211	
1,771.6	1,763.5	1,768.0	1,768.0	4.2	0.9	62.68	152.1	4,150.8	4,106.7	4,101.8	4.97	826.358	
1,800.0	1,791.3	1,796.5	1,796.4	4.3	1.0	62.75	152.0	4,150.6	4,103.8	4,098.7	5.07	809.164	
1,870.1	1,859.8	1,866.2	1,866.2	4.6	1.0	62.94	151.5	4,150.2	4,096.6	4,091.3	5.33	768.122	
1,900.0	1,889.1	1,896.0	1,895.9	4.7	1.0	63.02	151.3	4,150.1	4,093.6	4,088.1	5.44	751.862	
1,968.5	1,956.1	1,962.7	1,962.7	4.9	1.0	63.21	150.6	4,149.7	4,086.6	4,080.9	5.71	716.092	
2,000.0	1,986.9	1,993.4	1,993.3	5.1	1.0	63.29	150.3	4,149.5	4,083.4	4,077.6	5.83	700.673	
2,066.9	2,052.3	2,061.4	2,061.4	5.3	1.1	63.48	149.4	4,149.0	4,076.6	4,070.6	6.09	669.254	
2,100.0	2,084.7	2,095.2	2,095.2	5.5	1.1	63.58	148.9	4,148.8	4,073.3	4,067.1	6.22	654.676	
2,165.3	2,148.6	2,157.9	2,157.9	5.7	1.1	63.76	147.9	4,148.4	4,066.7	4,060.2	6.48	627.286	
2,200.0	2,182.5	2,191.0	2,191.0	5.9	1.1	63.85	147.4	4,148.2	4,063.2	4,056.6	6.62	613.628	
2,263.8	2,244.9	2,253.1	2,253.0	6.1	1.1	64.02	146.8	4,147.8	4,056.9	4,050.0	6.88	589.906	
2,300.0	2,280.3	2,288.5	2,288.5	6.3	1.1	64.12	146.6	4,147.5	4,053.3	4,046.3	7.02	577.216	
2,362.2	2,341.2	2,359.1	2,359.0	6.5	1.1	64.30	146.9	4,147.0	4,047.1	4,039.8	7.28	556.009	
2,400.0	2,378.1	2,403.1	2,403.0	6.7	1.1	64.41	147.4	4,146.6	4,043.3	4,035.8	7.44	543.760	
2,460.6	2,437.4	2,467.5	2,467.5	6.9	1.1	64.57	148.5	4,145.9	4,037.1	4,029.4	7.69	524.921	
2,500.0	2,476.0	2,508.9	2,508.8	7.1	1.1	64.67	149.3	4,145.4	4,033.0	4,025.1	7.86	513.339	
2,550.0	2,524.9	2,559.3	2,559.2	7.3	1.1	64.79	150.4	4,144.8	4,027.8	4,019.8	8.07	499.300	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,568.4	2,568.3	7.3	1.1	65.67	150.6	4,144.6	4,026.9	4,018.8	8.10	496.986	
2,600.0	2,573.8	2,608.8	2,608.7	7.5	1.2	69.64	151.5	4,144.1	4,023.1	4,014.8	8.26	486.833	
2,639.4	2,612.3	2,645.2	2,645.0	7.7	1.2	73.45	152.4	4,143.7	4,019.9	4,011.5	8.41	477.879	
2,657.5	2,630.0	2,661.9	2,661.7	7.7	1.2	73.49	152.7	4,143.5	4,018.6	4,010.1	8.49	473.514	
2,700.0	2,671.6	2,700.0	2,699.8	7.9	1.2	73.59	153.5	4,143.0	4,015.5	4,006.8	8.66	463.570	
2,755.9	2,726.3	2,752.1	2,751.9	8.1	1.2	73.73	154.4	4,142.5	4,011.5	4,002.6	8.91	450.472	
2,800.0	2,769.4	2,792.2	2,792.1	8.3	1.2	73.83	155.1	4,142.1	4,008.4	3,999.3	9.10	440.642	
2,854.3	2,822.5	2,836.5	2,836.3	8.5	1.2	73.95	155.6	4,141.7	4,004.7	3,995.4	9.33	429.110	
2,900.0	2,867.2	2,872.9	2,872.7	8.7	1.2	74.05	156.0	4,141.4	4,001.7	3,992.2	9.53	419.872	
2,952.7	2,918.8	2,900.0	2,899.8	9.0	1.2	74.13	156.2	4,141.3	3,998.5	3,988.7	9.76	409.809	
3,000.0	2,965.0	2,946.2	2,946.0	9.2	1.2	74.26	156.5	4,141.2	3,995.6	3,985.7	9.96	401.214	
3,051.2	3,015.1	2,982.1	2,981.9	9.4	1.2	74.36	156.7	4,141.3	3,992.8	3,982.6	10.18	392.331	
3,100.0	3,062.8	3,015.7	3,015.5	9.6	1.2	74.45	156.8	4,141.5	3,990.3	3,979.9	10.39	384.171	
3,149.6	3,111.4	3,049.1	3,048.9	9.8	1.2	74.55	157.0	4,141.8	3,987.9	3,977.3	10.60	376.159	
3,200.0	3,160.7	3,083.1	3,082.9	10.0	1.2	74.64	157.2	4,142.3	3,985.8	3,975.0	10.82	368.391	
3,248.0	3,207.6	3,119.3	3,119.1	10.2	1.2	74.74	157.5	4,142.9	3,983.9	3,972.9	11.03	361.234	
3,300.0	3,258.5	3,163.0	3,162.7	10.5	1.2	74.86	157.9	4,143.7	3,982.0	3,970.7	11.26	353.738	
3,346.4	3,303.9	3,200.0	3,199.8	10.7	1.2	74.96	158.3	4,144.5	3,980.4	3,968.9	11.46	347.296	
3,400.0	3,356.3	3,245.7	3,245.5	10.9	1.2	75.08	158.9	4,145.6	3,978.7	3,967.0	11.70	340.115	
3,444.9	3,400.2	3,282.4	3,282.2	11.1	1.2	75.18	159.4	4,146.5	3,977.3	3,965.4	11.90	334.322	
3,500.0	3,454.1	3,334.3	3,334.0	11.3	1.2	75.32	160.2	4,147.9	3,975.8	3,963.7	12.14	327.416	
3,543.3	3,496.5	3,378.5	3,378.2	11.5	1.2	75.44	160.8	4,149.0	3,974.6	3,962.3	12.34	322.146	
3,600.0	3,551.9	3,429.9	3,429.6	11.7	1.2	75.57	161.6	4,150.4	3,973.1	3,960.5	12.59	315.525	
3,641.7	3,592.7	3,465.1	3,464.7	11.9	1.2	75.67	162.2	4,151.4	3,972.0	3,959.2	12.78	310.833	
3,700.0	3,649.7	3,516.4	3,516.0	12.2	1.2	75.80	163.0	4,152.9	3,970.7	3,957.6	13.04	304.494	
3,740.1	3,689.0	3,555.6	3,555.2	12.4	1.2	75.91	163.7	4,154.1	3,969.8	3,956.6	13.22	300.239	
3,800.0	3,747.5	3,616.1	3,615.7	12.6	1.2	76.07	164.7	4,156.0	3,968.5	3,955.0	13.49	294.096	
3,838.6	3,785.3	3,659.5	3,659.0	12.8	1.3	76.18	165.4	4,157.2	3,967.6	3,953.9	13.67	290.228	
3,900.0	3,845.4	3,723.5	3,723.1	13.1	1.3	76.35	166.3	4,159.0	3,966.2	3,952.2	13.95	284.280	
3,937.0	3,881.6	3,757.8	3,757.3	13.2	1.3	76.45	166.8	4,160.0	3,965.3	3,951.2	14.12	280.832	
4,000.0	3,943.2	3,826.8	3,826.2	13.5	1.3	76.64	167.5	4,161.9	3,963.9	3,949.5	14.41	275.080	
4,035.4	3,977.8	3,880.9	3,880.4	13.6	1.3	76.79	167.8	4,163.1	3,963.0	3,948.5	14.58	271.840	
4,100.0	4,041.0	3,984.6	3,984.1	13.9	1.3	77.09	167.7	4,164.7	3,960.9	3,946.0	14.89	266.087	
4,133.8	4,074.1	4,033.3	4,032.7	14.1	1.3	77.24	167.3	4,165.0	3,959.6	3,944.5	15.05	263.173	
4,200.0	4,138.8	4,120.2	4,119.7	14.4	1.3	77.51	166.4	4,165.2	3,956.7	3,941.4	15.36	257.678	
4,232.3	4,170.4	4,158.0	4,157.4	14.5	1.3	77.62	166.0	4,165.1	3,955.2	3,939.7	15.50	255.101	
4,300.0	4,236.6	4,245.3	4,244.7	14.8	1.4	77.89	165.6	4,164.8	3,951.9	3,936.1	15.82	249.827	
4,330.7	4,266.7	4,289.1	4,288.5	14.9	1.4	78.02	165.4	4,164.4	3,950.3	3,934.3	15.96	247.489	
4,400.0	4,334.4	4,356.8	4,356.2	15.2	1.4	78.22	165.2	4,163.7	3,946.5	3,930.3	16.28	242.454	
4,429.1	4,362.9	4,383.6	4,383.0	15.4	1.4	78.31	165.1	4,163.4	3,945.0	3,928.6	16.41	240.398	
4,500.0	4,432.3	4,481.1	4,480.5	15.7	1.4	78.61	164.0	4,162.0	3,941.1	3,924.3	16.74	235.386	
4,527.5	4,459.2	4,513.7	4,513.1	15.8	1.4	78.72	163.3	4,161.4	3,939.4	3,922.6	16.87	233.496	
4,600.0	4,530.1	4,579.3	4,578.6	16.1	1.4	78.94	161.7	4,160.0	3,935.2	3,917.9	17.20	228.732	
4,626.0	4,555.5	4,602.8	4,602.2	16.2	1.4	79.02	161.1	4,159.5	3,933.7	3,916.3	17.32	227.069	
4,700.0	4,627.9	4,671.8	4,671.1	16.6	1.4	79.25	159.5	4,158.2	3,929.5	3,911.8	17.66	222.462	
4,724.4	4,651.7	4,694.6	4,693.9	16.7	1.5	79.32	159.1	4,157.8	3,928.1	3,910.4	17.78	220.984	
4,800.0	4,725.7	4,748.6	4,747.9	17.0	1.5	79.50	158.6	4,157.0	3,924.2	3,906.1	18.12	216.588	
4,822.8	4,748.0	4,764.6	4,763.9	17.1	1.5	79.55	158.5	4,156.9	3,923.1	3,904.9	18.22	215.299	
4,904.9	4,828.3	4,800.0	4,799.3	17.5	1.5	79.65	158.3	4,156.6	3,919.6	3,901.0	18.59	210.871	
4,921.2	4,844.3	4,827.8	4,827.1	17.5	1.5	79.73	158.2	4,156.5	3,918.9	3,900.2	18.65	210.109	
5,000.0	4,921.6	4,873.7	4,873.0	17.8	1.5	79.81	157.9	4,156.7	3,916.5	3,897.5	18.95	206.697	
5,019.7	4,941.0	4,900.0	4,899.3	17.9	1.5	79.87	157.5	4,156.9	3,916.1	3,897.1	19.01	206.022	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,020.4	5,009.7	5,009.0	18.1	1.5	80.10	155.7	4,157.1	3,914.4	3,895.1	19.26	203.192	
5,118.1	5,038.3	5,026.5	5,025.8	18.2	1.5	80.13	155.3	4,157.0	3,913.9	3,894.6	19.31	202.646	
5,200.0	5,119.6	5,100.0	5,099.2	18.4	1.5	80.25	153.8	4,156.8	3,912.1	3,892.6	19.54	200.241	
5,216.5	5,136.0	5,114.7	5,114.0	18.4	1.5	80.27	153.5	4,156.7	3,911.9	3,892.3	19.58	199.834	
5,300.0	5,219.2	5,178.2	5,177.5	18.6	1.6	80.35	152.1	4,156.7	3,910.9	3,891.2	19.77	197.850	
5,314.9	5,234.1	5,200.0	5,199.2	18.6	1.6	80.37	151.6	4,156.8	3,910.9	3,891.1	19.80	197.541	
5,400.0	5,319.1	5,295.2	5,294.4	18.8	1.6	80.47	149.3	4,156.9	3,910.6	3,890.6	19.97	195.867	
5,413.4	5,332.4	5,313.4	5,312.6	18.8	1.6	80.48	148.8	4,156.8	3,910.5	3,890.5	19.99	195.654	
5,504.9	5,423.9	5,423.0	5,422.1	18.9	1.6	98.95	146.9	4,156.2	3,910.0	3,895.0	14.98	260.954	
5,511.8	5,430.8	5,428.6	5,427.7	18.9	1.6	98.95	146.8	4,156.2	3,910.0	3,895.0	15.00	260.718	
5,588.2	5,507.2	5,490.6	5,489.7	19.0	1.6	98.96	146.1	4,155.9	3,909.8	3,894.7	15.15	258.148	
5,600.0	5,519.0	5,500.2	5,499.4	19.0	1.6	98.96	146.0	4,155.9	3,909.8	3,894.6	15.17	257.757	
5,610.2	5,529.3	5,513.8	5,513.0	19.0	1.6	98.96	145.9	4,155.9	3,909.8	3,894.6	15.19	257.359	
5,700.0	5,619.0	5,619.8	5,618.9	19.2	1.7	98.99	144.4	4,155.3	3,909.5	3,894.1	15.39	253.956	
5,708.6	5,627.7	5,626.6	5,625.7	19.2	1.7	98.99	144.3	4,155.2	3,909.4	3,894.0	15.41	253.646	
5,783.4	5,702.4	5,685.2	5,684.4	19.3	1.7	99.00	143.5	4,155.0	3,909.3	3,893.7	15.57	251.006 CC	
5,800.0	5,719.0	5,700.0	5,699.1	19.3	1.7	99.00	143.3	4,155.0	3,909.3	3,893.7	15.61	250.421	
5,807.1	5,726.1	5,704.5	5,703.6	19.3	1.7	99.01	143.3	4,155.0	3,909.3	3,893.7	15.63	250.183	
5,900.0	5,819.0	5,789.1	5,788.3	19.4	1.7	99.01	142.6	4,155.1	3,909.5	3,893.7	15.83	247.007	
5,905.5	5,824.5	5,794.1	5,793.3	19.4	1.7	99.02	142.6	4,155.1	3,909.5	3,893.7	15.84	246.821	
6,003.9	5,923.0	5,884.3	5,883.5	19.6	1.7	99.02	142.2	4,155.4	3,909.9	3,893.9	16.05	243.546	
6,009.8	5,928.8	5,889.7	5,888.8	19.6	1.7	99.02	142.1	4,155.4	3,910.0	3,893.9	16.07	243.354	
6,050.0	5,969.0	5,947.0	5,946.1	19.6	1.7	-170.96	141.7	4,155.6	3,911.3	3,890.3	20.94	186.745 ES	
6,100.0	6,018.8	6,000.0	5,999.1	19.7	1.8	-170.91	141.2	4,155.4	3,915.7	3,894.7	21.02	186.327	
6,102.3	6,021.1	6,014.1	6,013.2	19.7	1.8	-170.91	141.1	4,155.4	3,915.9	3,894.9	21.02	186.291	
6,150.0	6,068.1	6,048.1	6,047.2	19.7	1.8	-170.82	140.7	4,155.3	3,923.5	3,902.4	21.08	186.109	
6,200.0	6,116.8	6,083.3	6,082.4	19.7	1.8	-170.68	140.2	4,155.3	3,934.9	3,913.8	21.12	186.319	
6,200.8	6,117.5	6,083.9	6,083.0	19.7	1.8	-170.68	140.2	4,155.3	3,935.1	3,914.0	21.12	186.326	
6,250.0	6,164.5	6,121.9	6,121.0	19.7	1.8	-170.49	139.6	4,155.4	3,949.8	3,928.7	21.12	187.048	
6,299.2	6,210.4	6,162.5	6,161.6	19.7	1.8	-170.27	139.0	4,155.6	3,967.7	3,946.6	21.06	188.356	
6,300.0	6,211.1	6,163.2	6,162.3	19.7	1.8	-170.26	139.0	4,155.6	3,968.0	3,946.9	21.06	188.383	
6,350.0	6,256.4	6,203.7	6,202.8	19.7	1.8	-169.98	138.4	4,155.9	3,989.4	3,968.5	20.95	190.406	
6,397.6	6,298.0	6,246.2	6,245.3	19.7	1.8	-169.65	137.8	4,156.1	4,012.7	3,991.9	20.79	192.984	
6,400.0	6,300.0	6,248.3	6,247.4	19.7	1.8	-169.63	137.7	4,156.2	4,013.9	3,993.1	20.78	193.129	
6,450.0	6,341.8	6,291.1	6,290.2	19.7	1.8	-169.21	137.1	4,156.4	4,041.3	4,020.8	20.56	196.597	
6,496.0	6,378.6	6,325.9	6,325.0	19.7	1.8	-168.74	136.5	4,156.6	4,069.1	4,048.8	20.30	200.479	
6,500.0	6,381.6	6,328.7	6,327.8	19.7	1.8	-168.70	136.5	4,156.7	4,071.6	4,051.3	20.27	200.840	
6,550.0	6,419.2	6,363.3	6,362.4	19.6	1.9	-168.07	135.9	4,156.9	4,104.5	4,084.5	19.94	205.826	
6,594.5	6,450.7	6,392.3	6,391.3	19.6	1.9	-167.39	135.4	4,157.1	4,135.8	4,116.2	19.62	210.830	
6,600.0	6,454.4	6,395.7	6,394.8	19.6	1.9	-167.30	135.3	4,157.1	4,139.9	4,120.3	19.58	211.481	
6,650.0	6,487.1	6,430.7	6,429.8	19.6	1.9	-166.36	134.7	4,157.4	4,177.6	4,158.4	19.20	217.594	
6,692.9	6,513.0	6,459.1	6,458.1	19.6	1.9	-165.38	134.2	4,157.6	4,211.7	4,192.8	18.88	223.057	
6,700.0	6,517.0	6,463.5	6,462.6	19.6	1.9	-165.20	134.1	4,157.6	4,217.5	4,198.7	18.83	223.947	
6,750.0	6,544.1	6,493.2	6,492.3	19.6	1.9	-163.72	133.6	4,157.8	4,259.3	4,240.8	18.51	230.078	
6,791.3	6,564.2	6,500.0	6,499.1	19.7	1.9	-162.05	133.5	4,157.8	4,295.2	4,276.8	18.33	234.376	
6,800.0	6,568.2	6,500.0	6,499.1	19.7	1.9	-161.64	133.5	4,157.8	4,302.9	4,284.6	18.28	235.427	
6,850.0	6,589.1	6,500.0	6,499.1	19.8	1.9	-158.77	133.5	4,157.8	4,348.1	4,329.8	18.23	238.449	
6,889.7	6,603.5	6,500.0	6,499.1	19.9	1.9	-155.67	133.5	4,157.8	4,385.0	4,366.6	18.43	237.890	
6,900.0	6,606.9	6,500.0	6,499.1	19.9	1.9	-154.71	133.5	4,157.8	4,394.7	4,376.1	18.52	237.253	
6,950.0	6,621.3	6,500.0	6,499.1	20.2	1.9	-148.67	133.5	4,157.8	4,442.3	4,423.0	19.31	230.006	
6,988.2	6,630.0	6,500.0	6,499.1	20.6	1.9	-141.83	133.5	4,157.8	4,479.3	4,459.0	20.37	219.948	
7,000.0	6,632.4	6,500.0	6,499.1	20.7	1.9	-139.14	133.5	4,157.8	4,490.9	4,470.1	20.77	216.258	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,640.0	6,500.0	6,499.1	21.4	1.9	-123.34	133.5	4,157.8	4,540.0	4,517.3	22.65	200.403	
7,086.6	6,643.4	6,500.0	6,499.1	21.9	1.9	-106.03	133.5	4,157.8	4,576.2	4,552.7	23.43	195.352	
7,100.0	6,644.2	6,500.0	6,499.1	22.1	1.9	-98.57	133.5	4,157.8	4,589.4	4,566.1	23.39	196.221	
7,135.7	6,645.0	6,500.0	6,499.1	22.7	1.9	-77.88	133.5	4,157.8	4,624.8	4,601.6	23.20	199.361	
7,185.0	6,644.9	6,500.0	6,499.1	23.6	1.9	-77.88	133.5	4,157.8	4,673.7	4,649.5	24.14	193.616	
7,200.0	6,644.9	6,500.0	6,499.1	23.9	1.9	-77.88	133.5	4,157.8	4,688.5	4,664.1	24.42	191.961	
7,283.4	6,644.8	6,500.0	6,499.1	25.6	1.9	-77.88	133.5	4,157.8	4,771.2	4,745.1	26.12	182.663	
7,300.0	6,644.8	6,500.0	6,499.1	25.9	1.9	-77.88	133.5	4,157.8	4,787.6	4,761.1	26.46	180.962	
7,381.9	6,644.7	6,500.0	6,499.1	27.7	1.9	-77.88	133.5	4,157.8	4,868.8	4,840.5	28.23	172.482	
7,400.0	6,644.7	6,500.0	6,499.1	28.1	1.9	-77.87	133.5	4,157.8	4,886.7	4,858.1	28.62	170.748	
7,480.3	6,644.6	6,500.0	6,499.1	29.9	1.9	-77.87	133.5	4,157.8	4,966.4	4,935.9	30.44	163.133	
7,500.0	6,644.6	6,500.0	6,499.1	30.3	1.9	-77.87	133.5	4,157.8	4,985.9	4,955.0	30.89	161.403	
7,578.7	6,644.5	6,500.0	6,499.1	32.2	1.9	-77.87	133.5	4,157.8	5,064.0	5,031.3	32.74	154.670	
7,600.0	6,644.4	6,500.0	6,499.1	32.7	1.9	-77.87	133.5	4,157.8	5,085.1	5,051.9	33.24	152.980	
7,677.1	6,644.3	6,500.0	6,499.1	34.6	1.9	-77.87	133.5	4,157.8	5,161.7	5,126.6	35.10	147.053	
7,700.0	6,644.3	6,500.0	6,499.1	35.1	1.9	-77.87	133.5	4,157.8	5,184.3	5,148.7	35.65	145.418	
7,775.6	6,644.2	6,500.0	6,499.1	37.0	1.9	-77.87	133.5	4,157.8	5,259.3	5,221.8	37.51	140.209	
7,800.0	6,644.2	6,500.0	6,499.1	37.6	1.9	-77.87	133.5	4,157.8	5,283.6	5,245.5	38.11	138.636	
7,874.0	6,644.1	6,500.0	6,499.1	39.5	1.9	-77.87	133.5	4,157.8	5,357.1	5,317.1	39.96	134.056	
7,900.0	6,644.1	6,500.0	6,499.1	40.1	1.9	-77.87	133.5	4,157.8	5,382.9	5,342.3	40.61	132.547	
7,972.4	6,644.0	6,500.0	6,499.1	42.0	1.9	-77.87	133.5	4,157.8	5,454.8	5,412.4	42.45	128.514	
8,000.0	6,643.9	6,500.0	6,499.1	42.7	1.9	-77.87	133.5	4,157.8	5,482.2	5,439.0	43.14	127.070	
8,070.8	6,643.9	6,500.0	6,499.1	44.5	1.9	-77.87	133.5	4,157.8	5,552.6	5,507.6	44.96	123.510	
8,100.0	6,643.8	6,500.0	6,499.1	45.2	1.9	-77.87	133.5	4,157.8	5,581.5	5,535.8	45.70	122.129	
8,169.3	6,643.7	6,500.0	6,499.1	47.0	1.9	-77.87	133.5	4,157.8	5,650.4	5,602.9	47.49	118.979	
8,200.0	6,643.7	6,500.0	6,499.1	47.9	1.9	-77.87	133.5	4,157.8	5,680.9	5,632.6	48.28	117.658	
8,267.7	6,643.6	6,500.0	6,499.1	49.6	1.9	-77.87	133.5	4,157.8	5,748.2	5,698.1	50.04	114.864	
8,300.0	6,643.6	6,500.0	6,499.1	50.5	1.9	-77.87	133.5	4,157.8	5,780.3	5,729.4	50.88	113.600	
8,366.1	6,643.5	6,500.0	6,499.1	52.2	1.9	-77.87	133.5	4,157.8	5,846.0	5,793.4	52.61	111.114	
8,400.0	6,643.4	6,500.0	6,499.1	53.1	1.9	-77.87	133.5	4,157.8	5,879.7	5,826.2	53.50	109.904	
8,464.5	6,643.4	6,500.0	6,499.1	54.8	1.9	-77.87	133.5	4,157.8	5,943.9	5,888.7	55.20	107.687	
8,500.0	6,643.3	6,500.0	6,499.1	55.8	1.9	-77.87	133.5	4,157.8	5,979.1	5,923.0	56.13	106.527	
8,563.0	6,643.2	6,500.0	6,499.1	57.5	1.9	-77.87	133.5	4,157.8	6,041.7	5,983.9	57.79	104.545	
8,600.0	6,643.2	6,500.0	6,499.1	58.5	1.9	-77.87	133.5	4,157.8	6,078.5	6,019.8	58.77	103.432	
8,661.4	6,643.1	6,500.0	6,499.1	60.1	1.9	-77.87	133.5	4,157.8	6,139.6	6,079.2	60.40	101.656	
8,700.0	6,643.1	6,500.0	6,499.1	61.2	1.9	-77.87	133.5	4,157.8	6,178.0	6,116.6	61.42	100.588	
8,759.8	6,643.0	6,500.0	6,499.1	62.8	1.9	-77.87	133.5	4,157.8	6,237.5	6,174.5	63.01	98.992	
8,800.0	6,643.0	6,500.0	6,499.1	63.9	1.9	-77.87	133.5	4,157.8	6,277.5	6,213.4	64.08	97.965	
8,858.2	6,642.9	6,500.0	6,499.1	65.4	1.9	-77.87	133.5	4,157.8	6,335.4	6,269.8	65.63	96.529	
8,900.0	6,642.8	6,500.0	6,499.1	66.6	1.9	-77.87	133.5	4,157.8	6,377.0	6,310.2	66.75	95.541	
8,956.7	6,642.8	6,500.0	6,499.1	68.1	1.9	-77.87	133.5	4,157.8	6,433.4	6,365.1	68.26	94.246	
9,000.0	6,642.7	6,500.0	6,499.1	69.3	1.9	-77.87	133.5	4,157.8	6,476.5	6,407.1	69.42	93.294	
9,055.1	6,642.6	6,500.0	6,499.1	70.8	1.9	-77.87	133.5	4,157.8	6,531.3	6,460.4	70.90	92.124	
9,100.0	6,642.6	6,500.0	6,499.1	72.0	1.9	-77.87	133.5	4,157.8	6,576.0	6,503.9	72.10	91.207	
9,153.5	6,642.5	6,500.0	6,499.1	73.5	1.9	-77.87	133.5	4,157.8	6,629.3	6,555.7	73.54	90.148	
9,200.0	6,642.5	6,500.0	6,499.1	74.7	1.9	-77.87	133.5	4,157.8	6,675.5	6,600.8	74.79	89.262	
9,251.9	6,642.4	6,500.0	6,499.1	76.2	1.9	-77.87	133.5	4,157.8	6,727.3	6,651.1	76.18	88.304	
9,300.0	6,642.3	6,500.0	6,499.1	77.5	1.9	-77.86	133.5	4,157.8	6,775.1	6,697.6	77.48	87.448	
9,350.4	6,642.3	6,500.0	6,499.1	78.9	1.9	-77.86	133.5	4,157.8	6,825.3	6,746.4	78.83	86.578	
9,400.0	6,642.2	6,500.0	6,499.1	80.2	1.9	-77.86	133.5	4,157.8	6,874.7	6,794.5	80.17	85.751	
9,448.8	6,642.1	6,500.0	6,499.1	81.6	1.9	-77.86	133.5	4,157.8	6,923.3	6,841.8	81.49	84.962	
9,500.0	6,642.1	6,500.0	6,499.1	83.0	1.9	-77.86	133.5	4,157.8	6,974.2	6,891.4	82.87	84.161	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,547.2	6,642.0	6,500.0	6,499.1	84.3	1.9	-77.86	133.5	4,157.8	7,021.3	6,937.1	84.14	83.443	
9,600.0	6,642.0	6,500.0	6,499.1	85.7	1.9	-77.86	133.5	4,157.8	7,073.8	6,988.3	85.57	82.667	
9,645.6	6,641.9	6,500.0	6,499.1	87.0	1.9	-77.86	133.5	4,157.8	7,119.3	7,032.5	86.80	82.015	
9,700.0	6,641.8	6,500.0	6,499.1	88.5	1.9	-77.86	133.5	4,157.8	7,173.4	7,085.2	88.27	81.263	
9,744.1	6,641.8	6,500.0	6,499.1	89.7	1.9	-77.86	133.5	4,157.8	7,217.3	7,127.9	89.47	80.669	
9,800.0	6,641.7	6,500.0	6,499.1	91.2	1.9	-77.86	133.5	4,157.8	7,273.0	7,182.1	90.98	79.939	
9,842.5	6,641.7	6,500.0	6,499.1	92.4	1.9	-77.86	133.5	4,157.8	7,315.4	7,223.2	92.13	79.399	
9,900.0	6,641.6	6,500.0	6,499.1	94.0	1.9	-77.86	133.5	4,157.8	7,372.7	7,279.0	93.69	78.690	
9,940.9	6,641.5	6,500.0	6,499.1	95.1	1.9	-77.86	133.5	4,157.8	7,413.4	7,318.6	94.80	78.199	
10,000.0	6,641.5	6,500.0	6,499.1	96.7	1.9	-77.86	133.5	4,157.8	7,472.3	7,375.9	96.41	77.509	
10,039.3	6,641.4	6,500.0	6,499.1	97.8	1.9	-77.86	133.5	4,157.8	7,511.5	7,414.0	97.47	77.062	
10,100.0	6,641.3	6,500.0	6,499.1	99.5	1.9	-77.86	133.5	4,157.8	7,571.9	7,472.8	99.12	76.392	
10,137.8	6,641.3	6,500.0	6,499.1	100.6	1.9	-77.86	133.5	4,157.8	7,609.6	7,509.4	100.15	75.985	
10,200.0	6,641.2	6,500.0	6,499.1	102.3	1.9	-77.86	133.5	4,157.8	7,671.6	7,569.8	101.84	75.332	
10,236.2	6,641.2	6,500.0	6,499.1	103.3	1.9	-77.86	133.5	4,157.8	7,707.7	7,604.8	102.82	74.962	
10,300.0	6,641.1	6,500.0	6,499.1	105.0	1.9	-77.86	133.5	4,157.8	7,771.2	7,666.7	104.56	74.327	
10,334.6	6,641.0	6,500.0	6,499.1	106.0	1.9	-77.86	133.5	4,157.8	7,805.8	7,700.3	105.50	73.990	
10,400.0	6,641.0	6,500.0	6,499.1	107.8	1.9	-77.86	133.5	4,157.8	7,870.9	7,763.6	107.28	73.371	
10,433.0	6,640.9	6,500.0	6,499.1	108.7	1.9	-77.86	133.5	4,157.8	7,903.9	7,795.7	108.17	73.066	
10,500.0	6,640.8	6,500.0	6,499.1	110.6	1.9	-77.86	133.5	4,157.8	7,970.6	7,860.6	110.00	72.462	
10,531.5	6,640.8	6,500.0	6,499.1	111.5	1.9	-77.86	133.5	4,157.8	8,002.0	7,891.1	110.85	72.185	
10,600.0	6,640.7	6,500.0	6,499.1	113.4	1.9	-77.86	133.5	4,157.8	8,070.3	7,957.6	112.72	71.596	
10,629.9	6,640.7	6,500.0	6,499.1	114.2	1.9	-77.86	133.5	4,157.8	8,100.1	7,986.6	113.54	71.344	
10,700.0	6,640.6	6,500.0	6,499.1	116.1	1.9	-77.86	133.5	4,157.8	8,170.0	8,054.5	115.44	70.770	
10,728.3	6,640.5	6,500.0	6,499.1	116.9	1.9	-77.86	133.5	4,157.8	8,198.2	8,082.0	116.22	70.542	
10,800.0	6,640.5	6,500.0	6,499.1	118.9	1.9	-77.85	133.5	4,157.8	8,269.7	8,151.5	118.17	69.981	
10,826.7	6,640.4	6,500.0	6,499.1	119.7	1.9	-77.85	133.5	4,157.8	8,296.3	8,177.4	118.90	69.776	
10,900.0	6,640.3	6,500.0	6,499.1	121.7	1.9	-77.85	133.5	4,157.8	8,369.4	8,248.5	120.90	69.227	
10,925.2	6,640.3	6,500.0	6,499.1	122.4	1.9	-77.85	133.5	4,157.8	8,394.5	8,272.9	121.58	69.042	
11,000.0	6,640.2	6,500.0	6,499.1	124.5	1.9	-77.85	133.5	4,157.8	8,469.1	8,345.5	123.63	68.506	
11,023.6	6,640.2	6,500.0	6,499.1	125.1	1.9	-77.85	133.5	4,157.8	8,492.6	8,368.4	124.27	68.340	
11,100.0	6,640.1	6,500.0	6,499.1	127.3	1.9	-77.85	133.5	4,157.8	8,568.8	8,442.5	126.35	67.816	
11,122.0	6,640.0	6,500.0	6,499.1	127.9	1.9	-77.85	133.5	4,157.8	8,590.8	8,463.8	126.96	67.668	
11,200.0	6,639.9	6,500.0	6,499.1	130.1	1.9	-77.85	133.5	4,157.8	8,668.5	8,539.5	129.08	67.154	
11,220.4	6,639.9	6,500.0	6,499.1	130.6	1.9	-77.85	133.5	4,157.8	8,688.9	8,559.3	129.64	67.022	
11,300.0	6,639.8	6,500.0	6,499.1	132.8	1.9	-77.85	133.5	4,157.8	8,768.3	8,636.5	131.82	66.520	
11,318.9	6,639.8	6,500.0	6,499.1	133.4	1.9	-77.85	133.5	4,157.8	8,787.1	8,654.8	132.33	66.403	
11,400.0	6,639.7	6,500.0	6,499.1	135.6	1.9	-77.85	133.5	4,157.8	8,868.0	8,733.5	134.55	65.910	
11,417.3	6,639.7	6,500.0	6,499.1	136.1	1.9	-77.85	133.5	4,157.8	8,885.3	8,750.3	135.02	65.807	
11,500.0	6,639.6	6,500.0	6,499.1	138.4	1.9	-77.85	133.5	4,157.8	8,967.8	8,830.5	137.28	65.325	
11,515.7	6,639.5	6,500.0	6,499.1	138.9	1.9	-77.85	133.5	4,157.8	8,983.4	8,845.7	137.71	65.235	
11,600.0	6,639.4	6,500.0	6,499.1	141.2	1.9	-77.85	133.5	4,157.8	9,067.5	8,927.5	140.01	64.762	
11,614.1	6,639.4	6,500.0	6,499.1	141.6	1.9	-77.85	133.5	4,157.8	9,081.6	8,941.2	140.40	64.684	
11,700.0	6,639.3	6,500.0	6,499.1	144.0	1.9	-77.85	133.5	4,157.8	9,167.3	9,024.5	142.75	64.221	
11,712.6	6,639.3	6,500.0	6,499.1	144.3	1.9	-77.85	133.5	4,157.8	9,179.8	9,036.7	143.09	64.154	
11,800.0	6,639.2	6,500.0	6,499.1	146.8	1.9	-77.85	133.5	4,157.8	9,267.0	9,121.5	145.48	63.700	
11,811.0	6,639.2	6,500.0	6,499.1	147.1	1.9	-77.85	133.5	4,157.8	9,278.0	9,132.2	145.78	63.643	
11,900.0	6,639.1	6,500.0	6,499.1	149.6	1.9	-77.85	133.5	4,157.8	9,366.8	9,218.6	148.22	63.197	
11,909.4	6,639.0	6,500.0	6,499.1	149.8	1.9	-77.85	133.5	4,157.8	9,376.2	9,227.7	148.47	63.151	
12,000.0	6,638.9	6,500.0	6,499.1	152.4	1.9	-77.85	133.5	4,157.8	9,466.6	9,315.6	150.95	62.713	
12,007.8	6,638.9	6,500.0	6,499.1	152.6	1.9	-77.85	133.5	4,157.8	9,474.4	9,323.2	151.17	62.676	
12,100.0	6,638.8	6,500.0	6,499.1	155.2	1.9	-77.84	133.5	4,157.8	9,566.3	9,412.7	153.69	62.246	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,106.3	6,638.8	6,500.0	6,499.1	155.3	1.9	-77.84	133.5	4,157.8	9,572.6	9,418.7	153.86	62.217	
12,200.0	6,638.7	6,500.0	6,499.1	157.9	1.9	-77.84	133.5	4,157.8	9,666.1	9,509.7	156.42	61.795	
12,204.7	6,638.7	6,500.0	6,499.1	158.1	1.9	-77.84	133.5	4,157.8	9,670.8	9,514.3	156.55	61.774	
12,300.0	6,638.5	6,500.0	6,499.1	160.7	1.9	-77.84	133.5	4,157.8	9,765.9	9,606.8	159.16	61.359	
12,303.1	6,638.5	6,500.0	6,499.1	160.8	1.9	-77.84	133.5	4,157.8	9,769.0	9,609.8	159.25	61.346	
12,400.0	6,638.4	6,500.0	6,499.1	163.5	1.9	-77.84	133.5	4,157.8	9,865.7	9,703.8	161.90	60.938	
12,401.5	6,638.4	6,500.0	6,499.1	163.6	1.9	-77.84	133.5	4,157.8	9,867.2	9,705.3	161.94	60.931	
12,500.0	6,638.3	6,500.0	6,499.1	166.3	1.9	-77.84	133.5	4,157.8	9,965.5	9,800.9	164.64	60.531 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WILLIAMS #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	-141.72	-1,201.1	-947.9	1,530.6				
98.4	98.4	60.4	60.4	0.1	0.0	-141.72	-1,201.1	-947.9	1,530.1	1,530.0	0.11	N/A	
100.0	100.0	62.0	62.0	0.1	0.0	-141.72	-1,201.0	-947.9	1,530.1	1,530.0	0.11	N/A	
196.4	196.4	156.4	156.4	0.3	0.0	-141.71	-1,200.8	-948.0	1,529.9	1,529.6	0.33	4,573.184	
196.8	196.8	156.8	156.8	0.3	0.0	-141.71	-1,200.8	-948.0	1,529.9	1,529.6	0.34	4,559.893	
200.0	200.0	159.8	159.8	0.3	0.0	-141.71	-1,200.8	-948.0	1,529.9	1,529.6	0.34	4,464.594	
295.3	295.3	253.7	253.7	0.5	0.1	-141.72	-1,201.1	-947.9	1,530.0	1,529.4	0.66	2,324.333	
300.0	300.0	258.5	258.5	0.5	0.1	-141.72	-1,201.1	-947.9	1,530.1	1,529.4	0.68	2,257.118	
393.7	393.7	361.2	361.2	0.8	0.3	-141.73	-1,201.2	-947.5	1,530.0	1,529.0	1.01	1,520.199	
400.0	400.0	368.5	368.4	0.8	0.3	-141.74	-1,201.2	-947.5	1,529.9	1,528.9	1.03	1,492.040	
492.1	492.1	465.7	465.7	1.0	0.3	-141.76	-1,201.0	-946.5	1,529.2	1,527.9	1.30	1,176.627	
500.0	500.0	473.6	473.6	1.0	0.3	-141.76	-1,200.9	-946.5	1,529.1	1,527.8	1.32	1,155.829	
590.5	590.5	571.8	571.8	1.2	0.4	-141.78	-1,200.4	-945.4	1,528.1	1,526.6	1.59	963.514	
600.0	600.0	582.3	582.3	1.2	0.4	-141.78	-1,200.3	-945.3	1,528.0	1,526.4	1.61	947.217	
689.0	689.0	665.8	665.8	1.4	0.5	-141.79	-1,199.5	-944.4	1,526.8	1,524.9	1.86	822.765	
700.0	700.0	675.7	675.7	1.4	0.5	-141.79	-1,199.5	-944.3	1,526.7	1,524.8	1.89	809.720	
787.4	787.4	760.2	760.2	1.6	0.5	-141.81	-1,199.2	-943.5	1,525.9	1,523.8	2.12	718.856	
800.0	800.0	772.8	772.8	1.7	0.5	-141.81	-1,199.2	-943.4	1,525.8	1,523.6	2.16	707.379	
885.8	885.8	859.1	859.1	1.9	0.6	-141.83	-1,198.9	-942.4	1,525.1	1,522.7	2.39	638.551	
900.0	900.0	873.5	873.4	1.9	0.6	-141.84	-1,198.9	-942.3	1,524.9	1,522.5	2.43	628.489	
984.2	984.2	955.0	954.9	2.1	0.6	-141.86	-1,198.9	-941.2	1,524.3	1,521.6	2.65	575.473	
1,000.0	1,000.0	969.9	969.9	2.1	0.6	-141.87	-1,198.9	-941.1	1,524.1	1,521.5	2.69	566.611	
1,017.2	1,017.2	986.2	986.2	2.2	0.6	-168.88	-1,198.9	-940.9	1,524.1	1,521.3	2.75	553.759 CC, ES	
1,082.7	1,082.7	1,051.7	1,051.7	2.3	0.6	-168.91	-1,199.0	-940.1	1,524.8	1,521.9	2.93	521.027	
1,100.0	1,100.0	1,069.3	1,069.3	2.3	0.7	-168.92	-1,199.0	-939.9	1,525.3	1,522.3	2.97	513.018	
1,181.1	1,181.0	1,145.6	1,145.6	2.5	0.7	-168.96	-1,199.2	-939.1	1,528.8	1,525.6	3.19	479.549	
1,200.0	1,199.8	1,162.6	1,162.5	2.6	0.7	-168.97	-1,199.3	-938.9	1,529.9	1,526.7	3.24	472.578	
1,279.5	1,279.1	1,237.5	1,237.4	2.8	0.7	-169.02	-1,199.8	-938.3	1,536.5	1,533.0	3.45	445.160	
1,300.0	1,299.5	1,257.8	1,257.7	2.8	0.7	-169.03	-1,199.9	-938.2	1,538.5	1,535.0	3.51	438.618	
1,377.9	1,376.9	1,335.2	1,335.1	3.0	0.8	-169.09	-1,200.4	-937.6	1,547.7	1,543.9	3.72	415.786	
1,400.0	1,398.7	1,357.1	1,357.0	3.0	0.8	-169.11	-1,200.6	-937.5	1,550.6	1,546.8	3.78	410.020	
1,476.4	1,474.2	1,430.7	1,430.7	3.2	0.8	-169.16	-1,201.0	-937.1	1,562.2	1,558.2	3.99	391.135	
1,500.0	1,497.5	1,452.6	1,452.5	3.3	0.8	-169.18	-1,201.2	-937.0	1,566.2	1,562.1	4.06	385.924	
1,574.8	1,571.0	1,522.9	1,522.8	3.5	0.8	-169.24	-1,201.8	-936.7	1,580.2	1,575.9	4.27	370.055	
1,600.0	1,595.6	1,547.5	1,547.4	3.6	0.8	-169.26	-1,202.0	-936.6	1,585.4	1,581.0	4.34	365.245	
1,673.2	1,667.2	1,619.5	1,619.4	3.9	0.9	-169.38	-1,202.6	-936.4	1,600.7	1,596.2	4.54	352.927	
1,700.0	1,693.4	1,646.5	1,646.4	4.0	0.9	-169.43	-1,202.8	-936.3	1,606.3	1,601.7	4.60	348.829	
1,771.6	1,763.5	1,717.6	1,717.5	4.2	0.9	-169.55	-1,203.4	-936.1	1,621.2	1,616.4	4.80	337.912	
1,800.0	1,791.3	1,744.5	1,744.4	4.3	0.9	-169.59	-1,203.6	-936.0	1,627.1	1,622.3	4.87	333.986	
1,870.1	1,859.8	1,812.1	1,812.0	4.6	0.9	-169.70	-1,204.1	-935.8	1,641.8	1,636.7	5.06	324.390	
1,900.0	1,889.1	1,843.3	1,843.2	4.7	0.9	-169.74	-1,204.3	-935.8	1,648.1	1,642.9	5.14	320.491	
1,968.5	1,956.1	1,914.1	1,914.0	4.9	1.0	-169.85	-1,204.7	-935.5	1,662.2	1,656.9	5.33	311.905	
2,000.0	1,986.9	1,945.6	1,945.5	5.1	1.0	-169.90	-1,204.8	-935.4	1,668.7	1,663.3	5.42	308.133	
2,066.9	2,052.3	2,012.1	2,012.0	5.3	1.0	-169.99	-1,205.1	-935.1	1,682.5	1,676.9	5.60	300.427	
2,100.0	2,084.7	2,044.5	2,044.4	5.5	1.0	-170.04	-1,205.2	-935.0	1,689.2	1,683.5	5.69	296.785	
2,165.3	2,148.6	2,109.0	2,108.9	5.7	1.0	-170.14	-1,205.5	-934.6	1,702.6	1,696.8	5.87	289.843	
2,200.0	2,182.5	2,145.2	2,145.1	5.9	1.0	-170.19	-1,205.6	-934.4	1,709.7	1,703.7	5.97	286.343	
2,263.8	2,244.9	2,211.9	2,211.9	6.1	1.1	-170.29	-1,205.8	-933.8	1,722.6	1,716.5	6.15	280.114	
2,300.0	2,280.3	2,249.8	2,249.7	6.3	1.1	-170.35	-1,205.9	-933.4	1,729.9	1,723.6	6.25	276.748	
2,362.2	2,341.2	2,313.0	2,312.9	6.5	1.1	-170.44	-1,205.9	-932.7	1,742.2	1,735.8	6.43	271.126	
2,400.0	2,378.1	2,347.5	2,347.4	6.7	1.1	-170.49	-1,205.9	-932.4	1,749.8	1,743.2	6.53	267.869	
2,460.6	2,437.4	2,403.2	2,403.1	6.9	1.1	-170.57	-1,206.0	-931.8	1,762.0	1,755.3	6.70	262.829	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,476.0	2,441.4	2,441.3	7.1	1.2	-170.63	-1,206.2	-931.4	1,769.9	1,763.1	6.82	259.658	
2,550.0	2,524.9	2,490.0	2,489.9	7.3	1.2	-170.69	-1,206.2	-931.1	1,780.1	1,773.1	6.96	255.760	
2,559.0	2,533.7	2,498.8	2,498.7	7.3	1.2	-169.82	-1,206.2	-931.0	1,781.9	1,774.9	6.98	255.103	
2,600.0	2,573.8	2,538.4	2,538.2	7.5	1.2	-165.87	-1,206.3	-930.8	1,790.1	1,783.0	7.10	252.204	
2,639.4	2,612.3	2,576.4	2,576.3	7.7	1.2	-162.10	-1,206.3	-930.5	1,797.9	1,790.7	7.20	249.613	
2,657.5	2,630.0	2,593.9	2,593.8	7.7	1.2	-162.14	-1,206.4	-930.4	1,801.4	1,794.2	7.25	248.351	
2,700.0	2,671.6	2,637.2	2,637.0	7.9	1.2	-162.24	-1,206.5	-930.1	1,809.8	1,802.4	7.37	245.458	
2,755.9	2,726.3	2,694.6	2,694.4	8.1	1.2	-162.38	-1,206.7	-929.5	1,820.7	1,813.1	7.54	241.582	
2,800.0	2,769.4	2,738.2	2,738.0	8.3	1.3	-162.48	-1,206.8	-929.0	1,829.2	1,821.6	7.66	238.652	
2,854.3	2,822.5	2,791.6	2,791.5	8.5	1.3	-162.60	-1,206.8	-928.5	1,839.8	1,831.9	7.82	235.154	
2,900.0	2,867.2	2,837.3	2,837.2	8.7	1.3	-162.70	-1,206.8	-928.0	1,848.6	1,840.7	7.96	232.308	
2,952.7	2,918.8	2,890.2	2,890.1	9.0	1.3	-162.82	-1,206.8	-927.5	1,858.8	1,850.7	8.11	229.113	
3,000.0	2,965.0	2,933.6	2,933.5	9.2	1.3	-162.91	-1,206.9	-927.0	1,868.0	1,859.7	8.25	226.385	
3,051.2	3,015.1	2,979.5	2,979.3	9.4	1.3	-163.01	-1,207.0	-926.6	1,878.0	1,869.6	8.40	223.536	
3,100.0	3,062.8	3,025.7	3,025.5	9.6	1.4	-163.11	-1,207.2	-926.2	1,887.6	1,879.1	8.54	220.912	
3,149.6	3,111.4	3,074.8	3,074.7	9.8	1.4	-163.22	-1,207.4	-925.7	1,897.4	1,888.8	8.69	218.315	
3,200.0	3,160.7	3,124.9	3,124.7	10.0	1.4	-163.33	-1,207.7	-925.2	1,907.4	1,898.6	8.84	215.780	
3,248.0	3,207.6	3,172.7	3,172.5	10.2	1.4	-163.44	-1,207.9	-924.6	1,916.9	1,907.9	8.98	213.447	
3,300.0	3,258.5	3,224.3	3,224.2	10.5	1.4	-163.55	-1,208.2	-924.0	1,927.1	1,918.0	9.13	211.004	
3,346.4	3,303.9	3,270.5	3,270.4	10.7	1.4	-163.64	-1,208.3	-923.5	1,936.3	1,927.0	9.27	208.877	
3,400.0	3,356.3	3,323.7	3,323.5	10.9	1.5	-163.75	-1,208.5	-923.0	1,946.8	1,937.3	9.43	206.502	
3,444.9	3,400.2	3,368.1	3,368.0	11.1	1.5	-163.85	-1,208.6	-922.5	1,955.6	1,946.0	9.56	204.565	
3,500.0	3,454.1	3,422.0	3,421.8	11.3	1.5	-163.96	-1,208.8	-921.8	1,966.4	1,956.7	9.72	202.261	
3,543.3	3,496.5	3,463.4	3,463.3	11.5	1.5	-164.04	-1,208.9	-921.3	1,974.9	1,965.0	9.85	200.503	
3,600.0	3,551.9	3,518.3	3,518.1	11.7	1.5	-164.15	-1,209.1	-920.8	1,986.1	1,976.1	10.02	198.272	
3,641.7	3,592.7	3,559.4	3,559.2	11.9	1.5	-164.23	-1,209.3	-920.3	1,994.3	1,984.2	10.14	196.671	
3,700.0	3,649.7	3,617.9	3,617.7	12.2	1.6	-164.35	-1,209.4	-919.7	2,005.8	1,995.5	10.31	194.502	
3,740.1	3,689.0	3,659.9	3,659.7	12.4	1.6	-164.43	-1,209.5	-919.2	2,013.7	2,003.2	10.43	193.042	
3,800.0	3,747.5	3,722.7	3,722.5	12.6	1.6	-164.55	-1,209.6	-918.4	2,025.3	2,014.7	10.61	190.921	
3,838.6	3,785.3	3,763.2	3,763.0	12.8	1.6	-164.63	-1,209.5	-917.9	2,032.7	2,022.0	10.72	189.582	
3,900.0	3,845.4	3,825.1	3,824.9	13.1	1.6	-164.74	-1,209.5	-916.9	2,044.5	2,033.6	10.90	187.501	
3,937.0	3,881.6	3,860.2	3,860.1	13.2	1.7	-164.81	-1,209.4	-916.4	2,051.6	2,040.6	11.01	186.281	
4,000.0	3,943.2	3,922.7	3,922.5	13.5	1.7	-164.93	-1,209.4	-915.4	2,063.7	2,052.5	11.20	184.260	
4,035.4	3,977.8	3,960.9	3,960.7	13.6	1.7	-165.00	-1,209.3	-914.8	2,070.5	2,059.2	11.31	183.136	
4,100.0	4,041.0	4,031.3	4,031.1	13.9	1.7	-165.13	-1,209.1	-913.6	2,082.7	2,071.2	11.50	181.123	
4,133.8	4,074.1	4,068.8	4,068.6	14.1	1.7	-165.20	-1,208.8	-912.9	2,089.0	2,077.4	11.60	180.093	
4,200.0	4,138.8	4,140.7	4,140.5	14.4	1.7	-165.33	-1,208.2	-911.5	2,101.1	2,089.3	11.80	178.119	
4,232.3	4,170.4	4,175.3	4,175.1	14.5	1.7	-165.39	-1,207.8	-910.8	2,106.9	2,095.1	11.89	177.170	
4,300.0	4,236.6	4,246.1	4,245.9	14.8	1.8	-165.51	-1,206.7	-909.5	2,119.1	2,107.0	12.09	175.206	
4,330.7	4,266.7	4,277.8	4,277.6	14.9	1.8	-165.56	-1,206.2	-909.0	2,124.6	2,112.4	12.19	174.332	
4,400.0	4,334.4	4,348.4	4,348.1	15.2	1.8	-165.67	-1,204.9	-907.7	2,136.9	2,124.5	12.40	172.395	
4,429.1	4,362.9	4,377.9	4,377.6	15.4	1.8	-165.71	-1,204.4	-907.2	2,142.0	2,129.5	12.48	171.597	
4,500.0	4,432.3	4,445.1	4,444.8	15.7	1.8	-165.81	-1,203.1	-906.0	2,154.6	2,141.9	12.70	169.704	
4,527.5	4,459.2	4,470.5	4,470.1	15.8	1.8	-165.85	-1,202.7	-905.6	2,159.5	2,146.7	12.78	168.988	
4,600.0	4,530.1	4,537.9	4,537.5	16.1	1.8	-165.95	-1,201.5	-904.5	2,172.5	2,159.5	13.00	167.148	
4,626.0	4,555.5	4,562.3	4,561.9	16.2	1.8	-165.99	-1,201.1	-904.2	2,177.2	2,164.1	13.08	166.502	
4,700.0	4,627.9	4,631.7	4,631.3	16.6	1.9	-166.08	-1,200.0	-903.3	2,190.7	2,177.4	13.30	164.709	
4,724.4	4,651.7	4,654.6	4,654.2	16.7	1.9	-166.12	-1,199.7	-903.0	2,195.1	2,181.7	13.37	164.133	
4,800.0	4,725.7	4,724.6	4,724.2	17.0	1.9	-166.22	-1,198.8	-902.0	2,209.0	2,195.4	13.60	162.397	
4,822.8	4,748.0	4,745.3	4,744.9	17.1	1.9	-166.25	-1,198.5	-901.7	2,213.3	2,199.6	13.67	161.887	
4,904.9	4,828.3	4,818.8	4,818.4	17.5	1.9	-166.35	-1,197.7	-900.8	2,228.6	2,214.7	13.92	160.105	
4,921.2	4,844.3	4,832.9	4,832.5	17.5	1.9	-166.39	-1,197.6	-900.7	2,231.7	2,217.7	13.95	159.922	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	4,921.6	4,900.0	4,899.6	17.8	1.9	-166.53	-1,197.1	-900.2	2,245.3	2,231.2	14.12	159.015	
5,019.7	4,941.0	4,918.8	4,918.3	17.9	1.9	-166.56	-1,196.9	-900.1	2,248.5	2,234.3	14.15	158.848	
5,100.0	5,020.4	4,990.9	4,990.4	18.1	1.9	-166.69	-1,196.6	-899.8	2,260.1	2,245.8	14.29	158.137	
5,118.1	5,038.3	5,007.9	5,007.5	18.2	1.9	-166.71	-1,196.6	-899.8	2,262.4	2,248.1	14.32	157.985	
5,200.0	5,119.6	5,090.0	5,089.6	18.4	2.0	-166.82	-1,196.3	-899.5	2,271.7	2,257.2	14.45	157.209	
5,216.5	5,136.0	5,106.3	5,105.8	18.4	2.0	-166.83	-1,196.3	-899.5	2,273.3	2,258.8	14.47	157.062	
5,300.0	5,219.2	5,185.5	5,185.1	18.6	2.0	-166.90	-1,196.0	-899.4	2,280.0	2,265.4	14.59	156.277	
5,314.9	5,234.1	5,200.0	5,199.6	18.6	2.0	-166.91	-1,195.9	-899.4	2,281.0	2,266.3	14.61	156.140	
5,400.0	5,319.1	5,275.0	5,274.6	18.8	2.0	-166.94	-1,195.8	-899.6	2,285.2	2,270.5	14.71	155.386	
5,413.4	5,332.4	5,286.9	5,286.5	18.8	2.0	-166.95	-1,195.8	-899.6	2,285.7	2,271.0	14.72	155.270	
5,504.9	5,423.9	5,379.4	5,379.0	18.9	2.0	-148.54	-1,196.0	-899.8	2,287.4	2,266.7	20.64	110.829	
5,511.8	5,430.8	5,386.6	5,386.2	18.9	2.0	-148.54	-1,196.0	-899.8	2,287.4	2,266.7	20.65	110.779	
5,600.0	5,519.0	5,470.2	5,469.8	19.0	2.0	-148.56	-1,196.5	-899.5	2,287.6	2,266.8	20.78	110.079	
5,610.2	5,529.3	5,479.7	5,479.3	19.0	2.0	-148.56	-1,196.6	-899.4	2,287.7	2,266.9	20.80	109.991	
5,700.0	5,619.0	5,574.1	5,573.6	19.2	2.0	-148.61	-1,197.9	-897.9	2,288.0	2,267.1	20.95	109.192	
5,708.6	5,627.7	5,583.5	5,583.0	19.2	2.0	-148.62	-1,198.1	-897.6	2,288.0	2,267.1	20.97	109.113	
5,800.0	5,719.0	5,672.9	5,672.4	19.3	2.0	-148.69	-1,199.9	-895.1	2,288.2	2,267.1	21.13	108.296	
5,807.1	5,726.1	5,679.7	5,679.1	19.3	2.0	-148.70	-1,200.1	-894.8	2,288.2	2,267.1	21.14	108.234	
5,900.0	5,819.0	5,781.4	5,780.8	19.4	2.1	-148.81	-1,202.5	-891.1	2,288.4	2,267.1	21.31	107.385	
5,905.5	5,824.5	5,787.6	5,787.0	19.4	2.1	-148.82	-1,202.7	-890.9	2,288.4	2,267.1	21.32	107.333	
6,003.9	5,923.0	5,895.3	5,894.5	19.6	2.1	-148.94	-1,204.9	-886.5	2,288.1	2,266.6	21.50	106.422	
6,009.8	5,928.8	5,900.0	5,899.3	19.6	2.1	-148.95	-1,205.0	-886.3	2,288.1	2,266.5	21.51	106.371	
6,050.0	5,969.0	5,939.8	5,939.0	19.6	2.1	-59.07	-1,205.7	-884.7	2,287.3	2,271.4	15.86	144.204	
6,100.0	6,018.8	5,987.2	5,986.3	19.7	2.1	-59.38	-1,206.5	-883.1	2,284.8	2,268.9	15.90	143.723	
6,102.3	6,021.1	5,989.4	5,988.6	19.7	2.1	-59.40	-1,206.5	-883.1	2,284.6	2,268.7	15.90	143.696	
6,150.0	6,068.1	6,034.3	6,033.4	19.7	2.2	-59.88	-1,207.2	-881.7	2,280.5	2,264.6	15.94	143.110	
6,200.0	6,116.8	6,080.8	6,079.9	19.7	2.2	-60.56	-1,207.8	-880.5	2,274.6	2,258.7	15.98	142.364	
6,200.8	6,117.5	6,081.5	6,080.6	19.7	2.2	-60.57	-1,207.8	-880.5	2,274.5	2,258.6	15.98	142.350	
6,250.0	6,164.5	6,120.5	6,119.7	19.7	2.2	-61.37	-1,208.3	-879.6	2,267.2	2,251.2	16.02	141.494	
6,299.2	6,210.4	6,154.6	6,153.8	19.7	2.2	-62.29	-1,208.9	-878.9	2,258.6	2,242.5	16.07	140.515	
6,300.0	6,211.1	6,155.2	6,154.3	19.7	2.2	-62.30	-1,208.9	-878.9	2,258.4	2,242.4	16.07	140.499	
6,350.0	6,256.4	6,200.0	6,199.1	19.7	2.2	-63.50	-1,209.8	-878.2	2,248.5	2,232.4	16.13	139.358	
6,397.6	6,298.0	6,227.2	6,226.3	19.7	2.2	-64.62	-1,210.4	-877.9	2,237.9	2,221.7	16.21	138.082	
6,400.0	6,300.0	6,229.3	6,228.4	19.7	2.2	-64.69	-1,210.5	-877.8	2,237.3	2,221.1	16.21	138.019	
6,450.0	6,341.8	6,271.8	6,270.9	19.7	2.2	-66.20	-1,211.5	-877.3	2,225.0	2,208.6	16.31	136.440	
6,496.0	6,378.6	6,308.4	6,307.4	19.7	2.2	-67.70	-1,212.3	-876.8	2,212.6	2,196.2	16.42	134.714	
6,500.0	6,381.6	6,311.2	6,310.3	19.7	2.2	-67.83	-1,212.4	-876.8	2,211.5	2,195.1	16.43	134.568	
6,550.0	6,419.2	6,346.0	6,345.0	19.6	2.2	-69.54	-1,213.2	-876.3	2,197.3	2,180.7	16.60	132.369	
6,594.5	6,450.7	6,374.9	6,374.0	19.6	2.3	-71.13	-1,213.9	-875.8	2,184.0	2,167.2	16.79	130.091	
6,600.0	6,454.4	6,378.4	6,377.4	19.6	2.3	-71.33	-1,214.0	-875.8	2,182.3	2,165.5	16.81	129.818	
6,650.0	6,487.1	6,409.4	6,408.5	19.6	2.3	-73.20	-1,214.9	-875.3	2,166.9	2,149.8	17.08	126.897	
6,692.9	6,513.0	6,436.3	6,435.3	19.6	2.3	-74.89	-1,215.6	-874.8	2,153.3	2,136.0	17.36	124.045	
6,700.0	6,517.0	6,440.5	6,439.5	19.6	2.3	-75.17	-1,215.7	-874.7	2,151.1	2,133.7	17.40	123.598	
6,750.0	6,544.1	6,468.4	6,467.4	19.6	2.3	-77.13	-1,216.4	-874.3	2,135.1	2,117.3	17.80	119.949	
6,791.3	6,564.2	6,489.0	6,488.0	19.7	2.3	-78.73	-1,216.9	-873.9	2,121.8	2,103.7	18.18	116.712	
6,800.0	6,568.2	6,493.0	6,492.0	19.7	2.3	-79.06	-1,217.0	-873.8	2,119.1	2,100.8	18.27	115.988	
6,850.0	6,589.1	6,513.1	6,512.1	19.8	2.3	-80.89	-1,217.6	-873.5	2,103.3	2,084.5	18.82	111.770	
6,889.7	6,603.5	6,526.4	6,525.4	19.9	2.3	-82.27	-1,217.9	-873.3	2,091.0	2,071.7	19.32	108.241	
6,900.0	6,606.9	6,529.5	6,528.5	19.9	2.3	-82.62	-1,218.0	-873.2	2,087.9	2,068.4	19.45	107.361	
6,950.0	6,621.3	6,542.8	6,541.8	20.2	2.3	-84.22	-1,218.3	-873.0	2,073.0	2,052.9	20.16	102.843	
6,988.2	6,630.0	6,550.8	6,549.8	20.6	2.3	-85.35	-1,218.5	-872.9	2,062.1	2,041.4	20.76	99.342	
7,000.0	6,632.4	6,552.9	6,551.9	20.7	2.3	-85.68	-1,218.5	-872.9	2,058.9	2,037.9	20.94	98.300	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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
7,050.0	6,640.0	6,559.8	6,558.7	21.4	2.3	-86.98	-1,218.7	-872.8	2,045.5	2,023.7	21.80	93.822	
7,086.6	6,643.4	6,562.6	6,561.6	21.9	2.3	-87.82	-1,218.8	-872.7	2,036.4	2,013.9	22.47	90.613	
7,100.0	6,644.2	6,563.2	6,562.2	22.1	2.3	-88.10	-1,218.8	-872.7	2,033.2	2,010.5	22.72	89.490	
7,135.7	6,645.0	6,563.6	6,562.6	22.7	2.3	-88.78	-1,218.8	-872.7	2,025.0	2,001.6	23.40	86.527	
7,185.0	6,644.9	6,562.9	6,561.9	23.6	2.3	-88.76	-1,218.8	-872.7	2,014.6	1,990.2	24.36	82.694	
7,200.0	6,644.9	6,562.7	6,561.7	23.9	2.3	-88.76	-1,218.8	-872.7	2,011.7	1,987.0	24.65	81.600	
7,283.4	6,644.8	6,561.5	6,560.5	25.6	2.3	-88.72	-1,218.8	-872.7	1,997.4	1,971.0	26.38	75.715	
7,300.0	6,644.8	6,561.3	6,560.3	25.9	2.3	-88.72	-1,218.7	-872.8	1,994.9	1,968.2	26.72	74.653	
7,381.9	6,644.7	6,560.1	6,559.1	27.7	2.3	-88.68	-1,218.7	-872.8	1,984.9	1,956.4	28.53	69.582	
7,400.0	6,644.7	6,559.9	6,558.8	28.1	2.3	-88.68	-1,218.7	-872.8	1,983.1	1,954.2	28.93	68.560	
7,480.3	6,644.6	6,558.7	6,557.6	29.9	2.3	-88.64	-1,218.7	-872.8	1,977.2	1,946.5	30.78	64.234	
7,500.0	6,644.6	6,558.4	6,557.4	30.3	2.3	-88.63	-1,218.7	-872.8	1,976.3	1,945.1	31.24	63.267	
7,578.7	6,644.5	6,557.2	6,556.2	32.2	2.3	-88.60	-1,218.6	-872.8	1,974.5	1,941.3	33.12	59.615	
7,585.3	6,644.5	6,557.1	6,556.1	32.3	2.3	-88.60	-1,218.6	-872.8	1,974.4	1,941.2	33.28	59.334	
7,600.0	6,644.4	6,556.9	6,555.9	32.7	2.3	-88.59	-1,218.6	-872.8	1,974.5	1,940.9	33.63	58.714	
7,677.1	6,644.3	6,555.8	6,554.7	34.6	2.3	-88.56	-1,218.6	-872.8	1,976.6	1,941.1	35.52	55.643	
7,700.0	6,644.3	6,555.4	6,554.4	35.1	2.3	-88.55	-1,218.6	-872.8	1,977.8	1,941.7	36.08	54.811	
7,775.6	6,644.2	6,554.3	6,553.2	37.0	2.3	-88.51	-1,218.6	-872.8	1,983.6	1,945.6	37.98	52.232	
7,800.0	6,644.2	6,553.9	6,552.8	37.6	2.3	-88.50	-1,218.6	-872.9	1,986.1	1,947.5	38.59	51.468	
7,874.0	6,644.1	6,552.7	6,551.7	39.5	2.3	-88.47	-1,218.5	-872.9	1,995.4	1,955.0	40.47	49.304	
7,900.0	6,644.1	6,552.3	6,551.3	40.1	2.3	-88.46	-1,218.5	-872.9	1,999.4	1,958.2	41.13	48.606	
7,972.4	6,644.0	6,551.2	6,550.1	42.0	2.3	-88.42	-1,218.5	-872.9	2,012.0	1,969.0	43.00	46.789	
8,000.0	6,643.9	6,550.7	6,549.7	42.7	2.3	-88.41	-1,218.5	-872.9	2,017.5	1,973.8	43.71	46.153	
8,070.8	6,643.9	6,549.6	6,548.5	44.5	2.3	-88.38	-1,218.5	-872.9	2,033.3	1,987.7	45.56	44.628	
8,100.0	6,643.8	6,549.1	6,548.1	45.2	2.3	-88.36	-1,218.4	-872.9	2,040.4	1,994.1	46.32	44.051	
8,169.3	6,643.7	6,548.0	6,546.9	47.0	2.3	-88.33	-1,218.4	-872.9	2,059.0	2,010.8	48.14	42.769	
8,200.0	6,643.7	6,547.4	6,546.4	47.9	2.3	-88.32	-1,218.4	-872.9	2,067.9	2,019.0	48.95	42.246	
8,267.7	6,643.6	6,546.3	6,545.3	49.6	2.3	-88.28	-1,218.4	-873.0	2,089.0	2,038.3	50.74	41.169	
8,300.0	6,643.6	6,545.8	6,544.7	50.5	2.3	-88.27	-1,218.4	-873.0	2,099.8	2,048.2	51.60	40.695	
8,366.1	6,643.5	6,544.6	6,543.6	52.2	2.3	-88.23	-1,218.3	-873.0	2,123.2	2,069.9	53.36	39.790	
8,400.0	6,643.4	6,544.1	6,543.0	53.1	2.3	-88.22	-1,218.3	-873.0	2,135.9	2,081.6	54.26	39.362	
8,464.5	6,643.4	6,542.9	6,541.9	54.8	2.3	-88.18	-1,218.3	-873.0	2,161.3	2,105.3	55.99	38.601	
8,500.0	6,643.3	6,542.3	6,541.3	55.8	2.3	-88.17	-1,218.3	-873.0	2,176.0	2,119.1	56.94	38.215	
8,563.0	6,643.2	6,541.2	6,540.2	57.5	2.3	-88.13	-1,218.3	-873.0	2,203.2	2,144.6	58.64	37.574	
8,600.0	6,643.2	6,540.5	6,539.5	58.5	2.3	-88.11	-1,218.2	-873.0	2,219.9	2,160.2	59.63	37.226	
8,661.4	6,643.1	6,539.4	6,538.4	60.1	2.3	-88.08	-1,218.2	-873.1	2,248.6	2,187.3	61.29	36.687	
8,700.0	6,643.1	6,538.7	6,537.7	61.2	2.3	-88.06	-1,218.2	-873.1	2,267.3	2,205.0	62.33	36.374	
8,759.8	6,643.0	6,537.6	6,536.6	62.8	2.3	-88.03	-1,218.2	-873.1	2,297.3	2,233.4	63.95	35.921	
8,800.0	6,643.0	6,536.9	6,535.8	63.9	2.3	-88.01	-1,218.1	-873.1	2,318.1	2,253.1	65.04	35.639	
8,858.2	6,642.9	6,535.8	6,534.7	65.4	2.3	-87.98	-1,218.1	-873.1	2,349.2	2,282.5	66.63	35.259	
8,900.0	6,642.8	6,535.0	6,534.0	66.6	2.3	-87.95	-1,218.1	-873.1	2,372.0	2,304.3	67.76	35.006	
8,956.7	6,642.8	6,533.9	6,532.9	68.1	2.3	-87.92	-1,218.1	-873.1	2,403.9	2,334.6	69.31	34.686	
9,000.0	6,642.7	6,533.1	6,532.0	69.3	2.3	-87.90	-1,218.1	-873.2	2,428.9	2,358.4	70.49	34.459	
9,055.1	6,642.6	6,532.0	6,531.0	70.8	2.3	-87.87	-1,218.0	-873.2	2,461.4	2,389.4	71.99	34.190	
9,100.0	6,642.6	6,531.1	6,530.1	72.0	2.3	-87.84	-1,218.0	-873.2	2,488.4	2,415.2	73.22	33.987	
9,153.5	6,642.5	6,530.1	6,529.0	73.5	2.3	-87.81	-1,218.0	-873.2	2,521.4	2,446.7	74.68	33.762	
9,200.0	6,642.5	6,529.1	6,528.1	74.7	2.3	-87.78	-1,218.0	-873.2	2,550.5	2,474.6	75.95	33.581	
9,251.9	6,642.4	6,528.1	6,527.0	76.2	2.3	-87.75	-1,217.9	-873.2	2,583.7	2,506.3	77.38	33.392	
9,300.0	6,642.3	6,527.1	6,526.1	77.5	2.3	-87.72	-1,217.9	-873.2	2,614.9	2,536.3	78.69	33.230	
9,350.4	6,642.3	6,526.0	6,525.0	78.9	2.3	-87.69	-1,217.9	-873.3	2,648.2	2,568.2	80.07	33.072	
9,400.0	6,642.2	6,525.0	6,524.0	80.2	2.3	-87.66	-1,217.9	-873.3	2,681.6	2,600.1	81.44	32.928	
9,448.8	6,642.1	6,524.0	6,522.9	81.6	2.3	-87.63	-1,217.8	-873.3	2,714.8	2,632.0	82.78	32.796	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,642.1	6,522.9	6,521.9	83.0	2.3	-87.60	-1,217.8	-873.3	2,750.2	2,666.0	84.18	32.669	
9,547.2	6,642.0	6,521.9	6,520.8	84.3	2.3	-87.57	-1,217.8	-873.3	2,783.3	2,697.8	85.48	32.559	
9,600.0	6,642.0	6,520.7	6,519.7	85.7	2.3	-87.54	-1,217.7	-873.3	2,820.7	2,733.8	86.94	32.446	
9,645.6	6,641.9	6,519.7	6,518.7	87.0	2.3	-87.51	-1,217.7	-873.4	2,853.5	2,765.3	88.19	32.355	
9,700.0	6,641.8	6,518.5	6,517.5	88.5	2.3	-87.47	-1,217.7	-873.4	2,893.0	2,803.3	89.69	32.255	
9,744.1	6,641.8	6,517.5	6,516.5	89.7	2.3	-87.45	-1,217.7	-873.4	2,925.3	2,834.4	90.91	32.180	
9,800.0	6,641.7	6,516.2	6,515.2	91.2	2.3	-87.41	-1,217.6	-873.4	2,966.8	2,874.4	92.45	32.092	
9,842.5	6,641.7	6,515.3	6,514.2	92.4	2.3	-87.38	-1,217.6	-873.4	2,998.7	2,905.1	93.62	32.030	
9,900.0	6,641.6	6,513.9	6,512.9	94.0	2.3	-87.34	-1,217.6	-873.5	3,042.2	2,947.0	95.21	31.954	
9,940.9	6,641.5	6,513.0	6,511.9	95.1	2.3	-87.31	-1,217.6	-873.5	3,073.4	2,977.1	96.34	31.903	
10,000.0	6,641.5	6,511.6	6,510.6	96.7	2.3	-87.27	-1,217.5	-873.5	3,118.9	3,021.0	97.97	31.836	
10,039.3	6,641.4	6,510.6	6,509.6	97.8	2.3	-87.25	-1,217.5	-873.5	3,149.5	3,050.4	99.05	31.795	
10,100.0	6,641.3	6,509.2	6,508.1	99.5	2.3	-87.20	-1,217.5	-873.5	3,196.9	3,096.2	100.73	31.738	
10,137.8	6,641.3	6,508.2	6,507.2	100.6	2.3	-87.18	-1,217.4	-873.6	3,226.7	3,125.0	101.77	31.705	
10,200.0	6,641.2	6,506.7	6,505.7	102.3	2.3	-87.13	-1,217.4	-873.6	3,276.2	3,172.7	103.49	31.655	
10,236.2	6,641.2	6,505.8	6,504.8	103.3	2.3	-87.11	-1,217.4	-873.6	3,305.1	3,200.6	104.50	31.629	
10,300.0	6,641.1	6,504.2	6,503.2	105.0	2.3	-87.06	-1,217.3	-873.6	3,356.5	3,250.2	106.26	31.587	
10,334.6	6,641.0	6,503.3	6,502.3	106.0	2.3	-87.03	-1,217.3	-873.6	3,384.5	3,277.3	107.22	31.567	
10,400.0	6,641.0	6,501.6	6,500.6	107.8	2.3	-86.98	-1,217.3	-873.7	3,437.8	3,328.8	109.03	31.532	
10,433.0	6,640.9	6,500.7	6,499.7	108.7	2.3	-86.96	-1,217.2	-873.7	3,464.9	3,355.0	109.94	31.516	
10,500.0	6,640.8	6,499.3	6,498.2	110.6	2.3	-86.92	-1,217.2	-873.7	3,520.2	3,408.4	111.80	31.487	
10,531.5	6,640.8	6,498.7	6,497.6	111.5	2.3	-86.90	-1,217.2	-873.7	3,546.3	3,433.6	112.67	31.475	
10,600.0	6,640.7	6,497.3	6,496.3	113.4	2.3	-86.86	-1,217.2	-873.8	3,603.4	3,488.8	114.57	31.452	
10,629.9	6,640.7	6,496.8	6,495.8	114.2	2.3	-86.84	-1,217.1	-873.8	3,628.4	3,513.0	115.40	31.443	
10,700.0	6,640.6	6,495.5	6,494.4	116.1	2.3	-86.81	-1,217.1	-873.8	3,687.4	3,570.1	117.34	31.425	
10,728.3	6,640.5	6,494.9	6,493.9	116.9	2.3	-86.79	-1,217.1	-873.8	3,711.4	3,593.2	118.13	31.419	
10,800.0	6,640.5	6,493.6	6,492.5	118.9	2.3	-86.75	-1,217.1	-873.8	3,772.2	3,652.1	120.11	31.406	
10,826.7	6,640.4	6,493.1	6,492.0	119.7	2.3	-86.74	-1,217.0	-873.8	3,795.0	3,674.2	120.85	31.402	
10,900.0	6,640.3	6,491.7	6,490.7	121.7	2.3	-86.70	-1,217.0	-873.9	3,857.8	3,734.9	122.89	31.393	
10,925.2	6,640.3	6,491.2	6,490.2	122.4	2.3	-86.68	-1,217.0	-873.9	3,879.4	3,755.8	123.59	31.390	
11,000.0	6,640.2	6,489.8	6,488.8	124.5	2.3	-86.64	-1,217.0	-873.9	3,944.0	3,818.3	125.66	31.386	
11,023.6	6,640.2	6,489.4	6,488.3	125.1	2.3	-86.63	-1,217.0	-873.9	3,964.4	3,838.1	126.32	31.385	
11,100.0	6,640.1	6,487.9	6,486.9	127.3	2.3	-86.59	-1,216.9	-873.9	4,030.9	3,902.4	128.44	31.384 SF	
11,122.0	6,640.0	6,487.5	6,486.5	127.9	2.3	-86.58	-1,216.9	-873.9	4,050.1	3,921.0	129.05	31.384	
11,200.0	6,639.9	6,486.1	6,485.0	130.1	2.3	-86.53	-1,216.9	-874.0	4,118.3	3,987.1	131.21	31.386	
11,220.4	6,639.9	6,485.7	6,484.7	130.6	2.3	-86.52	-1,216.9	-874.0	4,136.3	4,004.5	131.78	31.387	
11,300.0	6,639.8	6,484.2	6,483.2	132.8	2.3	-86.48	-1,216.8	-874.0	4,206.3	4,072.3	133.99	31.393	
11,318.9	6,639.8	6,483.9	6,482.8	133.4	2.3	-86.47	-1,216.8	-874.0	4,223.0	4,088.5	134.52	31.394	
11,400.0	6,639.7	6,482.4	6,481.3	135.6	2.3	-86.43	-1,216.8	-874.0	4,294.9	4,158.1	136.77	31.402	
11,417.3	6,639.7	6,482.0	6,481.0	136.1	2.3	-86.42	-1,216.8	-874.0	4,310.2	4,173.0	137.25	31.404	
11,500.0	6,639.6	6,480.5	6,479.5	138.4	2.3	-86.37	-1,216.7	-874.1	4,383.9	4,244.3	139.55	31.415	
11,515.7	6,639.5	6,480.2	6,479.2	138.9	2.3	-86.36	-1,216.7	-874.1	4,397.9	4,258.0	139.98	31.418	
11,600.0	6,639.4	6,478.7	6,477.7	141.2	2.3	-86.32	-1,216.7	-874.1	4,473.4	4,331.1	142.32	31.431	
11,614.1	6,639.4	6,478.4	6,477.4	141.6	2.3	-86.31	-1,216.7	-874.1	4,486.1	4,343.4	142.72	31.433	
11,700.0	6,639.3	6,476.8	6,475.8	144.0	2.3	-86.27	-1,216.6	-874.1	4,563.3	4,418.2	145.10	31.449	
11,712.6	6,639.3	6,476.6	6,475.6	144.3	2.3	-86.26	-1,216.6	-874.1	4,574.7	4,429.2	145.45	31.451	
11,800.0	6,639.2	6,475.0	6,474.0	146.8	2.3	-86.21	-1,216.6	-874.2	4,653.7	4,505.8	147.88	31.469	
11,811.0	6,639.2	6,474.8	6,473.8	147.1	2.3	-86.21	-1,216.6	-874.2	4,663.6	4,515.4	148.19	31.471	
11,900.0	6,639.1	6,473.2	6,472.2	149.6	2.3	-86.16	-1,216.5	-874.2	4,744.4	4,593.7	150.66	31.490	
11,909.4	6,639.0	6,473.0	6,472.0	149.8	2.3	-86.15	-1,216.5	-874.2	4,752.9	4,602.0	150.92	31.492	
12,000.0	6,638.9	6,471.4	6,470.4	152.4	2.3	-86.11	-1,216.5	-874.2	4,835.5	4,682.0	153.44	31.514	
12,007.8	6,638.9	6,471.2	6,470.2	152.6	2.3	-86.10	-1,216.5	-874.2	4,842.6	4,689.0	153.66	31.515	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,100.0	6,638.8	6,469.6	6,468.6	155.2	2.3	-86.05	-1,216.4	-874.2	4,926.9	4,770.7	156.22	31.538	
12,106.3	6,638.8	6,469.5	6,468.5	155.3	2.3	-86.05	-1,216.4	-874.2	4,932.7	4,776.3	156.40	31.540	
12,200.0	6,638.7	6,467.8	6,466.8	157.9	2.3	-86.00	-1,216.4	-874.3	5,018.7	4,859.7	159.00	31.564	
12,204.7	6,638.7	6,467.7	6,466.7	158.1	2.3	-86.00	-1,216.4	-874.3	5,023.0	4,863.9	159.13	31.565	
12,300.0	6,638.5	6,466.0	6,465.0	160.7	2.3	-85.95	-1,216.4	-874.3	5,110.7	4,949.0	161.78	31.591	
12,303.1	6,638.5	6,465.9	6,464.9	160.8	2.3	-85.95	-1,216.4	-874.3	5,113.6	4,951.7	161.87	31.591	
12,400.0	6,638.4	6,464.2	6,463.2	163.5	2.3	-85.90	-1,216.3	-874.3	5,203.1	5,038.5	164.56	31.618	
12,401.5	6,638.4	6,464.2	6,463.2	163.6	2.3	-85.90	-1,216.3	-874.3	5,204.5	5,039.9	164.60	31.619	
12,500.0	6,638.3	6,462.4	6,461.4	166.3	2.3	-85.85	-1,216.3	-874.4	5,295.7	5,128.4	167.34	31.647	
12,598.4	6,638.2	6,460.7	6,459.7	169.1	2.3	-85.80	-1,216.2	-874.4	5,387.1	5,217.1	170.08	31.675	
12,600.0	6,638.2	6,460.7	6,459.7	169.1	2.3	-85.80	-1,216.2	-874.4	5,388.6	5,218.5	170.12	31.675	
12,696.8	6,638.0	6,458.9	6,457.9	171.8	2.3	-85.75	-1,216.2	-874.4	5,478.8	5,306.0	172.81	31.704	
12,700.0	6,638.0	6,458.9	6,457.9	171.9	2.3	-85.74	-1,216.2	-874.4	5,481.8	5,308.9	172.90	31.705	
12,795.2	6,637.9	6,457.2	6,456.2	174.6	2.3	-85.70	-1,216.1	-874.5	5,570.7	5,395.2	175.55	31.733	
12,800.0	6,637.9	6,457.1	6,456.1	174.7	2.3	-85.69	-1,216.1	-874.5	5,575.2	5,399.5	175.68	31.735	
12,893.7	6,637.8	6,455.5	6,454.5	177.3	2.3	-85.65	-1,216.1	-874.5	5,662.9	5,484.6	178.28	31.763	
12,900.0	6,637.8	6,455.4	6,454.4	177.5	2.3	-85.64	-1,216.1	-874.5	5,668.8	5,490.3	178.46	31.765	
12,992.1	6,637.7	6,453.8	6,452.8	180.1	2.3	-85.60	-1,216.0	-874.5	5,755.2	5,574.2	181.02	31.793	
13,000.0	6,637.6	6,453.6	6,452.6	180.3	2.3	-85.59	-1,216.0	-874.5	5,762.6	5,581.4	181.24	31.795	
13,090.5	6,637.5	6,452.0	6,451.0	182.8	2.3	-85.55	-1,216.0	-874.6	5,847.7	5,664.0	183.76	31.823	
13,100.0	6,637.5	6,451.9	6,450.9	183.1	2.3	-85.54	-1,216.0	-874.6	5,856.6	5,672.6	184.02	31.826	
13,188.9	6,637.4	6,450.3	6,449.3	185.6	2.3	-85.50	-1,215.9	-874.6	5,940.4	5,754.0	186.49	31.854	
13,200.0	6,637.4	6,450.1	6,449.1	185.9	2.3	-85.49	-1,215.9	-874.6	5,950.9	5,764.1	186.80	31.857	
13,287.4	6,637.3	6,448.6	6,447.6	188.4	2.3	-85.45	-1,215.9	-874.6	6,033.3	5,844.1	189.23	31.884	
13,300.0	6,637.3	6,448.4	6,447.4	188.7	2.3	-85.44	-1,215.9	-874.6	6,045.3	5,855.7	189.58	31.888	
13,385.8	6,637.1	6,446.9	6,445.9	191.1	2.3	-85.40	-1,215.9	-874.6	6,126.4	5,934.5	191.96	31.914	
13,400.0	6,637.1	6,446.7	6,445.7	191.5	2.3	-85.39	-1,215.8	-874.6	6,139.9	5,947.5	192.36	31.919	
13,484.2	6,637.0	6,445.2	6,444.2	193.9	2.3	-85.35	-1,215.8	-874.7	6,219.7	6,025.0	194.70	31.945	
13,500.0	6,637.0	6,445.0	6,444.0	194.3	2.3	-85.34	-1,215.8	-874.7	6,234.6	6,039.5	195.14	31.950	
13,582.6	6,636.9	6,443.6	6,442.6	196.6	2.3	-85.30	-1,215.8	-874.7	6,313.0	6,115.6	197.43	31.975	
13,600.0	6,636.9	6,443.3	6,442.3	197.1	2.3	-85.29	-1,215.8	-874.7	6,329.5	6,131.6	197.92	31.981	
13,681.1	6,636.8	6,441.9	6,440.9	199.4	2.3	-85.25	-1,215.7	-874.7	6,406.6	6,206.4	200.17	32.006	
13,700.0	6,636.7	6,441.6	6,440.6	199.9	2.3	-85.24	-1,215.7	-874.7	6,424.6	6,223.9	200.70	32.012	
13,779.5	6,636.6	6,440.2	6,439.2	202.1	2.3	-85.20	-1,215.7	-874.8	6,500.3	6,297.4	202.91	32.036	
13,800.0	6,636.6	6,439.9	6,438.9	202.7	2.3	-85.19	-1,215.7	-874.8	6,519.8	6,316.3	203.47	32.042	
13,877.9	6,636.5	6,438.5	6,437.5	204.9	2.3	-85.15	-1,215.6	-874.8	6,594.1	6,388.5	205.64	32.066	
13,900.0	6,636.5	6,438.2	6,437.2	205.5	2.3	-85.14	-1,215.6	-874.8	6,615.2	6,408.9	206.25	32.073	
13,976.3	6,636.4	6,436.9	6,435.9	207.6	2.3	-85.10	-1,215.6	-874.8	6,688.1	6,479.7	208.37	32.096	
14,000.0	6,636.3	6,436.5	6,435.5	208.3	2.3	-85.09	-1,215.6	-874.8	6,710.7	6,501.6	209.03	32.104	
14,074.8	6,636.3	6,435.2	6,434.2	210.4	2.3	-85.06	-1,215.5	-874.8	6,782.1	6,571.0	211.11	32.126	
14,100.0	6,636.2	6,434.8	6,433.8	211.1	2.3	-85.04	-1,215.5	-874.8	6,806.3	6,594.5	211.81	32.134	
14,173.2	6,636.1	6,433.6	6,432.6	213.2	2.3	-85.01	-1,215.5	-874.9	6,876.3	6,662.5	213.84	32.156	
14,200.0	6,636.1	6,433.1	6,432.1	213.9	2.3	-85.00	-1,215.5	-874.9	6,902.0	6,687.4	214.59	32.164	
14,271.6	6,636.0	6,431.9	6,430.9	215.9	2.3	-84.96	-1,215.5	-874.9	6,970.7	6,754.1	216.58	32.186	
14,300.0	6,636.0	6,431.4	6,430.4	216.7	2.3	-84.95	-1,215.4	-874.9	6,997.9	6,780.5	217.36	32.194	
14,370.0	6,635.9	6,430.3	6,429.3	218.7	2.3	-84.91	-1,215.4	-874.9	7,065.1	6,845.8	219.31	32.215	
14,400.0	6,635.8	6,429.8	6,428.8	219.5	2.3	-84.90	-1,215.4	-874.9	7,093.9	6,873.7	220.14	32.224	
14,468.5	6,635.7	6,428.6	6,427.6	221.4	2.3	-84.87	-1,215.4	-874.9	7,159.6	6,937.6	222.04	32.244	
14,500.0	6,635.7	6,428.1	6,427.1	222.3	2.3	-84.85	-1,215.4	-875.0	7,189.9	6,967.0	222.92	32.254	
14,566.9	6,635.6	6,427.0	6,426.0	224.2	2.3	-84.82	-1,215.3	-875.0	7,254.3	7,029.5	224.78	32.273	
14,600.0	6,635.6	6,426.5	6,425.5	225.1	2.3	-84.80	-1,215.3	-875.0	7,286.1	7,060.4	225.70	32.283	
14,665.3	6,635.5	6,425.4	6,424.4	226.9	2.3	-84.77	-1,215.3	-875.0	7,349.0	7,121.5	227.51	32.302	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - EXIST VERT WILLIAMS #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
14,700.0	6,635.4	6,424.8	6,423.8	227.9	2.3	-84.75	-1,215.3	-875.0	7,382.4	7,154.0	228.47	32.312	
14,763.7	6,635.4	6,423.8	6,422.8	229.7	2.3	-84.72	-1,215.2	-875.0	7,443.9	7,213.6	230.24	32.331	
14,800.0	6,635.3	6,423.2	6,422.2	230.7	2.3	-84.71	-1,215.2	-875.0	7,478.8	7,247.6	231.25	32.341	
14,862.2	6,635.2	6,422.1	6,421.2	232.5	2.3	-84.68	-1,215.2	-875.1	7,538.8	7,305.8	232.97	32.359	
14,900.0	6,635.2	6,421.5	6,420.5	233.5	2.3	-84.66	-1,215.2	-875.1	7,575.3	7,341.3	234.02	32.370	
14,960.6	6,635.1	6,420.5	6,419.6	235.2	2.3	-84.63	-1,215.2	-875.1	7,633.8	7,398.1	235.71	32.387	
15,000.0	6,635.0	6,419.9	6,418.9	236.3	2.3	-84.61	-1,215.1	-875.1	7,671.9	7,435.1	236.80	32.398	
15,033.1	6,635.0	6,419.4	6,418.4	237.3	2.3	-84.60	-1,215.1	-875.1	7,703.8	7,466.1	237.72	32.408	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-179.47	-59.8	-0.6	59.8				
98.4	98.4	98.4	98.4	0.1	0.1	-179.47	-59.8	-0.6	59.8	59.6	0.19	310.877	
100.0	100.0	100.0	100.0	0.1	0.1	-179.47	-59.8	-0.6	59.8	59.6	0.20	305.615	
196.8	196.8	196.8	196.8	0.3	0.3	-179.47	-59.8	-0.6	59.8	59.1	0.63	94.722	
200.0	200.0	200.0	200.0	0.3	0.3	-179.47	-59.8	-0.6	59.8	59.1	0.65	92.643	
295.3	295.3	295.3	295.3	0.5	0.5	-179.47	-59.8	-0.6	59.8	58.7	1.07	55.677	
300.0	300.0	300.0	300.0	0.5	0.5	-179.47	-59.8	-0.6	59.8	58.7	1.09	54.597	
393.7	393.7	393.7	393.7	0.8	0.8	-179.47	-59.8	-0.6	59.8	58.2	1.52	39.426	
400.0	400.0	400.0	400.0	0.8	0.8	-179.47	-59.8	-0.6	59.8	58.2	1.54	38.702	
492.1	492.1	492.1	492.1	1.0	1.0	-179.47	-59.8	-0.6	59.8	57.8	1.96	30.518	
500.0	500.0	500.0	500.0	1.0	1.0	-179.47	-59.8	-0.6	59.8	57.8	1.99	29.976	
590.5	590.5	590.5	590.5	1.2	1.2	-179.47	-59.8	-0.6	59.8	57.4	2.40	24.893	
600.0	600.0	600.0	600.0	1.2	1.2	-179.47	-59.8	-0.6	59.8	57.3	2.44	24.460	
689.0	689.0	689.0	689.0	1.4	1.4	-179.47	-59.8	-0.6	59.8	56.9	2.84	21.019	
700.0	700.0	700.0	700.0	1.4	1.4	-179.47	-59.8	-0.6	59.8	56.9	2.89	20.659	
787.4	787.4	787.4	787.4	1.6	1.6	-179.47	-59.8	-0.6	59.8	56.5	3.29	18.189	
800.0	800.0	800.0	800.0	1.7	1.7	-179.47	-59.8	-0.6	59.8	56.4	3.34	17.881	
885.8	885.8	885.8	885.8	1.9	1.9	-179.47	-59.8	-0.6	59.8	56.0	3.73	16.030	
900.0	900.0	900.0	900.0	1.9	1.9	-179.47	-59.8	-0.6	59.8	56.0	3.79	15.761	
984.2	984.2	984.2	984.2	2.1	2.1	-179.47	-59.8	-0.6	59.8	55.6	4.17	14.330	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.47	-59.8	-0.6	59.8	55.5	4.24	14.090 CC, ES	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	154.03	-59.8	-0.6	60.8	56.2	4.61	13.191	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	154.25	-59.8	-0.6	61.3	56.6	4.69	13.079	
1,181.1	1,181.0	1,181.0	1,181.0	2.5	2.5	155.74	-59.8	-0.6	64.9	59.9	5.05	12.858	
1,200.0	1,199.8	1,199.8	1,199.8	2.6	2.6	156.18	-59.8	-0.6	66.1	60.9	5.13	12.873	
1,279.5	1,279.1	1,279.1	1,279.1	2.8	2.7	158.26	-59.8	-0.6	72.2	66.7	5.49	13.165	
1,300.0	1,299.5	1,299.5	1,299.5	2.8	2.8	158.84	-59.8	-0.6	74.1	68.6	5.57	13.299	
1,377.9	1,376.9	1,376.9	1,376.9	3.0	3.0	161.08	-59.8	-0.6	82.8	76.9	5.92	13.993	
1,400.0	1,398.7	1,398.7	1,398.7	3.0	3.0	161.71	-59.8	-0.6	85.6	79.6	6.01	14.242	
1,476.4	1,474.2	1,474.3	1,474.3	3.2	3.2	164.39	-59.5	-1.5	96.7	90.4	6.34	15.260	
1,500.0	1,497.5	1,497.6	1,497.6	3.3	3.2	165.39	-59.3	-2.2	100.5	94.1	6.43	15.625	
1,574.8	1,571.0	1,570.9	1,570.8	3.5	3.4	168.84	-58.5	-5.5	114.1	107.4	6.74	16.927	
1,600.0	1,595.6	1,595.4	1,595.3	3.6	3.4	170.06	-58.0	-7.0	119.2	112.4	6.84	17.423	
1,673.2	1,667.2	1,666.3	1,666.0	3.9	3.6	173.65	-56.6	-12.5	134.7	127.6	7.17	18.797	
1,700.0	1,693.4	1,692.1	1,691.6	4.0	3.6	174.94	-55.9	-14.9	140.6	133.3	7.28	19.295	
1,771.6	1,763.5	1,760.9	1,759.9	4.2	3.8	178.33	-53.9	-22.5	156.7	149.0	7.61	20.576	
1,800.0	1,791.3	1,787.9	1,786.7	4.3	3.9	179.64	-53.0	-25.9	163.3	155.5	7.74	21.086	
1,870.1	1,859.8	1,854.3	1,852.4	4.6	4.0	-177.20	-50.5	-35.3	180.2	172.1	8.08	22.302	
1,900.0	1,889.1	1,882.5	1,880.2	4.7	4.1	-175.89	-49.4	-39.7	187.7	179.4	8.22	22.819	
1,968.5	1,956.1	1,946.6	1,943.2	4.9	4.3	-172.98	-46.4	-50.8	205.5	196.9	8.57	23.975	
2,000.0	1,986.9	1,975.8	1,971.9	5.1	4.4	-171.69	-45.0	-56.3	214.0	205.3	8.73	24.504	
2,066.9	2,052.3	2,037.4	2,032.1	5.3	4.6	-169.03	-41.6	-68.8	232.8	223.7	9.09	25.604	
2,100.0	2,084.7	2,067.6	2,061.5	5.5	4.7	-167.77	-39.9	-75.4	242.5	233.2	9.27	26.145	
2,165.3	2,148.6	2,126.7	2,118.9	5.7	4.9	-165.36	-36.2	-89.1	262.3	252.7	9.64	27.199	
2,200.0	2,182.5	2,157.7	2,148.9	5.9	5.0	-164.14	-34.2	-96.8	273.2	263.4	9.85	27.749	
2,263.8	2,244.9	2,214.2	2,203.3	6.1	5.3	-161.98	-30.3	-111.6	294.1	283.9	10.23	28.757	
2,300.0	2,280.3	2,246.0	2,233.8	6.3	5.4	-160.80	-27.9	-120.4	306.4	296.0	10.45	29.318	
2,362.2	2,341.2	2,301.3	2,286.5	6.5	5.7	-158.83	-23.7	-136.4	328.2	317.4	10.85	30.261	
2,400.0	2,378.1	2,336.1	2,319.7	6.7	5.8	-157.70	-21.0	-146.5	341.7	330.6	11.10	30.791	
2,460.6	2,437.4	2,391.8	2,372.8	6.9	6.1	-156.05	-16.7	-162.8	363.6	352.1	11.50	31.628	
2,500.0	2,476.0	2,428.0	2,407.3	7.1	6.3	-155.08	-13.9	-173.4	377.9	366.2	11.76	32.142	
2,550.0	2,524.9	2,473.9	2,451.1	7.3	6.5	-153.95	-10.3	-186.8	396.3	384.2	12.09	32.765	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,482.3	2,459.0	7.3	6.6	-152.85	-9.6	-189.3	399.6	387.4	12.16	32.870	
2,600.0	2,573.8	2,520.0	2,495.0	7.5	6.8	-147.93	-6.7	-200.3	414.5	402.1	12.44	33.316	
2,639.4	2,612.3	2,556.5	2,529.8	7.7	7.0	-143.34	-3.9	-211.0	428.7	415.9	12.72	33.703	
2,657.5	2,630.0	2,573.3	2,545.8	7.7	7.1	-143.08	-2.6	-215.9	435.1	422.3	12.84	33.878	
2,700.0	2,671.6	2,612.8	2,583.4	7.9	7.3	-142.48	0.5	-227.4	450.3	437.2	13.14	34.277	
2,755.9	2,726.3	2,664.7	2,632.9	8.1	7.6	-141.75	4.5	-242.6	470.3	456.8	13.53	34.751	
2,800.0	2,769.4	2,705.6	2,671.9	8.3	7.8	-141.22	7.7	-254.6	486.2	472.3	13.85	35.108	
2,854.3	2,822.5	2,756.1	2,720.0	8.5	8.1	-140.61	11.6	-269.3	505.7	491.5	14.24	35.520	
2,900.0	2,867.2	2,798.5	2,760.4	8.7	8.3	-140.13	14.9	-281.7	522.2	507.6	14.56	35.853	
2,952.7	2,918.8	2,847.5	2,807.1	9.0	8.6	-139.61	18.7	-296.0	541.3	526.3	14.95	36.212	
3,000.0	2,965.0	2,891.3	2,848.9	9.2	8.9	-139.18	22.1	-308.8	558.4	543.1	15.29	36.522	
3,051.2	3,015.1	2,938.8	2,894.2	9.4	9.2	-138.74	25.8	-322.7	576.9	561.3	15.66	36.837	
3,100.0	3,062.8	2,984.2	2,937.4	9.6	9.4	-138.35	29.3	-336.0	594.7	578.7	16.02	37.126	
3,149.6	3,111.4	3,030.2	2,981.3	9.8	9.7	-137.97	32.9	-349.4	612.7	596.3	16.38	37.403	
3,200.0	3,160.7	3,077.0	3,025.9	10.0	10.0	-137.61	36.5	-363.1	631.1	614.3	16.75	37.673	
3,248.0	3,207.6	3,121.6	3,068.4	10.2	10.2	-137.28	40.0	-376.1	648.6	631.5	17.10	37.918	
3,300.0	3,258.5	3,169.9	3,114.4	10.5	10.5	-136.95	43.7	-390.2	667.6	650.1	17.49	38.172	
3,346.4	3,303.9	3,213.0	3,155.5	10.7	10.8	-136.67	47.1	-402.8	684.5	666.7	17.83	38.389	
3,400.0	3,356.3	3,262.7	3,202.9	10.9	11.1	-136.36	50.9	-417.4	704.1	685.9	18.23	38.627	
3,444.9	3,400.2	3,304.4	3,242.7	11.1	11.4	-136.11	54.2	-429.5	720.5	702.0	18.56	38.819	
3,500.0	3,454.1	3,355.6	3,291.4	11.3	11.7	-135.82	58.1	-444.5	740.7	721.8	18.97	39.044	
3,543.3	3,496.5	3,395.8	3,329.8	11.5	11.9	-135.61	61.3	-456.2	756.6	737.3	19.29	39.215	
3,600.0	3,551.9	3,448.4	3,379.9	11.7	12.2	-135.34	65.4	-471.6	777.4	757.7	19.72	39.428	
3,641.7	3,592.7	3,487.2	3,416.9	11.9	12.5	-135.15	68.4	-482.9	792.7	772.7	20.03	39.579	
3,700.0	3,649.7	3,541.3	3,468.4	12.2	12.8	-134.90	72.6	-498.8	814.1	793.6	20.46	39.781	
3,740.1	3,689.0	3,578.5	3,504.0	12.4	13.0	-134.74	75.5	-509.7	828.8	808.1	20.76	39.915	
3,800.0	3,747.5	3,634.1	3,556.9	12.6	13.4	-134.50	79.8	-525.9	850.8	829.6	21.21	40.108	
3,838.6	3,785.3	3,669.9	3,591.1	12.8	13.6	-134.36	82.5	-536.4	865.0	843.5	21.50	40.227	
3,900.0	3,845.4	3,727.0	3,645.4	13.1	14.0	-134.13	87.0	-553.0	887.6	865.6	21.96	40.411	
3,937.0	3,881.6	3,761.3	3,678.2	13.2	14.2	-134.00	89.6	-563.1	901.2	879.0	22.24	40.517	
4,000.0	3,943.2	3,819.8	3,733.9	13.5	14.5	-133.79	94.2	-580.2	924.4	901.7	22.72	40.692	
4,035.4	3,977.8	3,852.7	3,765.3	13.6	14.8	-133.68	96.7	-589.8	937.4	914.5	22.98	40.787	
4,100.0	4,041.0	3,912.6	3,822.4	13.9	15.1	-133.48	101.4	-607.3	961.2	937.8	23.47	40.954	
4,133.8	4,074.1	3,944.1	3,852.4	14.1	15.3	-133.38	103.8	-616.5	973.7	950.0	23.73	41.038	
4,200.0	4,138.8	4,005.5	3,910.9	14.4	15.7	-133.19	108.6	-634.4	998.1	973.9	24.23	41.198	
4,232.3	4,170.4	4,035.5	3,939.5	14.5	15.9	-133.10	110.9	-643.2	1,010.0	985.5	24.47	41.273	
4,300.0	4,236.6	4,098.3	3,999.4	14.8	16.3	-132.92	115.8	-661.6	1,035.0	1,010.0	24.98	41.427	
4,330.7	4,266.7	4,126.8	4,026.6	14.9	16.5	-132.84	118.0	-669.9	1,046.3	1,021.1	25.22	41.494	
4,400.0	4,334.4	4,191.2	4,087.9	15.2	16.9	-132.67	123.0	-688.7	1,071.9	1,046.1	25.74	41.641	
4,429.1	4,362.9	4,218.2	4,113.7	15.4	17.0	-132.60	125.1	-696.6	1,082.6	1,056.6	25.96	41.700	
4,500.0	4,432.3	4,284.0	4,176.4	15.7	17.5	-132.44	130.2	-715.8	1,108.8	1,082.3	26.50	41.841	
4,527.5	4,459.2	4,309.6	4,200.8	15.8	17.6	-132.37	132.2	-723.3	1,118.9	1,092.2	26.71	41.895	
4,600.0	4,530.1	4,376.9	4,264.9	16.1	18.1	-132.22	137.4	-743.0	1,145.7	1,118.4	27.26	42.030	
4,626.0	4,555.5	4,401.0	4,287.9	16.2	18.2	-132.16	139.3	-750.0	1,155.3	1,127.8	27.46	42.078	
4,700.0	4,627.9	4,469.7	4,353.4	16.6	18.6	-132.01	144.6	-770.1	1,182.6	1,154.6	28.02	42.208	
4,724.4	4,651.7	4,492.4	4,375.0	16.7	18.8	-131.96	146.4	-776.7	1,191.6	1,163.4	28.20	42.250	
4,800.0	4,725.7	4,562.6	4,441.9	17.0	19.2	-131.82	151.8	-797.2	1,219.6	1,190.8	28.78	42.376	
4,822.8	4,748.0	4,583.8	4,462.1	17.1	19.4	-131.78	153.5	-803.4	1,228.0	1,199.1	28.95	42.413	
4,904.9	4,828.3	4,659.9	4,534.8	17.5	19.8	-131.63	159.4	-825.7	1,258.3	1,228.8	29.58	42.542	
4,921.2	4,844.3	4,675.2	4,549.3	17.5	19.9	-131.69	160.6	-830.1	1,264.4	1,234.6	29.72	42.547	
5,000.0	4,921.6	4,748.6	4,619.3	17.8	20.4	-131.96	166.3	-851.6	1,292.5	1,262.1	30.38	42.548	
5,019.7	4,941.0	4,767.0	4,636.8	17.9	20.5	-132.01	167.7	-857.0	1,299.4	1,268.8	30.53	42.559	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,842.4	4,708.7	18.1	21.0	-132.16	173.6	-879.0	1,326.4	1,295.2	31.15	42.586	
5,118.1	5,038.3	4,859.5	4,724.9	18.2	21.1	-132.18	174.9	-884.0	1,332.3	1,301.0	31.28	42.595	
5,200.0	5,119.6	4,936.8	4,798.6	18.4	21.6	-132.22	180.9	-906.6	1,358.0	1,326.2	31.87	42.614	
5,216.5	5,136.0	4,952.4	4,813.5	18.4	21.7	-132.22	182.1	-911.2	1,363.1	1,331.1	31.98	42.620	
5,300.0	5,219.2	5,031.5	4,889.0	18.6	22.2	-132.15	188.2	-934.3	1,387.6	1,355.0	32.54	42.636	
5,314.9	5,234.1	5,045.7	4,902.5	18.6	22.3	-132.13	189.3	-938.4	1,391.8	1,359.2	32.64	42.642	
5,400.0	5,319.1	7,905.5	6,626.2	18.8	39.0	161.41	233.5	310.0	1,406.8	1,353.9	52.91	26.586	
5,413.4	5,332.4	7,905.5	6,626.2	18.8	39.0	161.21	233.5	310.0	1,394.6	1,341.6	52.94	26.341	
5,504.9	5,423.9	7,904.8	6,626.2	18.9	39.0	178.31	233.5	309.3	1,310.7	1,276.9	33.80	38.775	
5,511.8	5,430.8	7,904.7	6,626.2	18.9	39.0	178.32	233.5	309.2	1,304.3	1,270.5	33.81	38.577	
5,600.0	5,519.0	7,903.6	6,626.2	19.0	39.0	178.44	233.5	308.0	1,224.0	1,190.1	33.92	36.080	
5,610.2	5,529.3	7,903.5	6,626.2	19.0	39.0	178.46	233.5	307.9	1,214.8	1,180.8	33.94	35.793	
5,700.0	5,619.0	7,902.3	6,626.2	19.2	39.0	178.58	233.5	306.8	1,134.3	1,100.3	34.06	33.301	
5,708.6	5,627.7	7,902.2	6,626.2	19.2	39.0	178.60	233.5	306.7	1,126.7	1,092.6	34.08	33.064	
5,800.0	5,719.0	7,901.0	6,626.2	19.3	38.9	178.73	233.5	305.5	1,046.6	1,012.4	34.20	30.597	
5,807.1	5,726.1	7,900.9	6,626.2	19.3	38.9	178.74	233.5	305.4	1,040.4	1,006.2	34.22	30.409	
5,900.0	5,819.0	7,899.7	6,626.3	19.4	38.9	178.87	233.5	304.2	961.2	926.8	34.35	27.983	
5,905.5	5,824.5	7,899.7	6,626.3	19.4	38.9	178.87	233.5	304.1	956.6	922.2	34.36	27.842	
6,003.9	5,923.0	7,898.4	6,626.3	19.6	38.9	179.01	233.5	302.9	875.7	841.2	34.50	25.383	
6,009.8	5,928.8	7,898.3	6,626.3	19.6	38.9	179.02	233.5	302.8	871.0	836.5	34.51	25.241	
6,050.0	5,969.0	7,896.7	6,626.3	19.6	38.9	-94.96	233.5	301.2	839.2	785.2	54.02	15.535	
6,100.0	6,018.8	7,891.5	6,626.4	19.7	38.7	-99.15	233.5	296.0	800.8	746.8	54.00	14.829	
6,102.3	6,021.1	7,891.2	6,626.4	19.7	38.7	-99.33	233.5	295.6	799.1	745.1	54.00	14.798	
6,150.0	6,068.1	7,882.9	6,626.5	19.7	38.6	-102.50	233.5	287.3	764.1	710.4	53.79	14.207	
6,200.0	6,116.8	7,870.8	6,626.6	19.7	38.3	-105.04	233.5	275.3	729.4	676.0	53.42	13.654	
6,200.8	6,117.5	7,870.6	6,626.6	19.7	38.3	-105.07	233.5	275.1	728.9	675.5	53.42	13.646	
6,250.0	6,164.5	7,855.4	6,626.8	19.7	38.0	-106.83	233.5	259.9	697.0	644.1	52.97	13.160	
6,299.2	6,210.4	7,837.1	6,627.1	19.7	37.6	-107.93	233.5	241.5	667.6	615.2	52.45	12.728	
6,300.0	6,211.1	7,836.7	6,627.1	19.7	37.6	-107.94	233.5	241.2	667.2	614.7	52.44	12.722	
6,350.0	6,256.4	7,814.9	6,627.3	19.7	37.1	-108.44	233.5	219.3	640.1	588.2	51.88	12.338	
6,397.6	6,298.0	7,791.2	6,627.7	19.7	36.6	-108.40	233.5	195.6	617.1	565.8	51.34	12.021	
6,400.0	6,300.0	7,789.9	6,627.7	19.7	36.6	-108.39	233.5	194.4	616.0	564.7	51.31	12.006	
6,450.0	6,341.8	7,762.0	6,628.0	19.7	36.0	-107.86	233.5	166.4	595.0	544.3	50.75	11.725	
6,496.0	6,378.6	7,733.8	6,628.4	19.7	35.5	-106.99	233.5	138.2	578.4	528.2	50.23	11.514	
6,500.0	6,381.6	7,731.2	6,628.4	19.7	35.4	-106.90	233.5	135.7	577.1	526.9	50.19	11.498	
6,550.0	6,419.2	7,697.8	6,628.8	19.6	34.7	-105.58	233.5	102.3	562.2	512.5	49.65	11.323	
6,594.5	6,450.7	7,666.0	6,629.3	19.6	34.1	-104.17	233.5	70.4	551.4	502.1	49.23	11.200	
6,600.0	6,454.4	7,661.9	6,629.3	19.6	34.0	-103.98	233.5	66.4	550.2	501.0	49.18	11.188	
6,650.0	6,487.1	7,623.6	6,629.8	19.6	33.3	-102.16	233.5	28.1	540.8	492.1	48.74	11.096	
6,692.9	6,513.0	7,589.1	6,630.2	19.6	32.7	-100.48	233.5	-6.5	534.7	486.3	48.41	11.045	
6,700.0	6,517.0	7,583.2	6,630.3	19.6	32.6	-100.20	233.5	-12.3	533.8	485.4	48.36	11.039	
6,750.0	6,544.1	7,540.8	6,630.9	19.6	31.8	-98.19	233.5	-54.7	528.8	480.8	48.05	11.006	
6,791.3	6,564.2	7,504.5	6,631.3	19.7	31.2	-96.55	233.5	-91.0	525.9	478.1	47.83	10.997	
6,800.0	6,568.2	7,496.7	6,631.4	19.7	31.1	-96.22	233.5	-98.8	525.5	477.7	47.77	10.999	
6,850.0	6,589.1	7,451.1	6,632.0	19.8	30.3	-94.36	233.5	-144.4	523.4	475.8	47.60	10.996	
6,889.7	6,603.5	7,413.8	6,632.5	19.9	29.7	-93.01	233.5	-181.7	522.5	475.0	47.50	11.000	
6,900.0	6,606.9	7,404.1	6,632.6	19.9	29.6	-92.69	233.5	-191.4	522.3	474.8	47.46	11.004	
6,950.0	6,621.3	7,356.1	6,633.2	20.2	28.9	-91.27	233.5	-239.4	521.8	474.3	47.44	10.998	
6,988.2	6,630.0	7,318.8	6,633.7	20.6	28.4	-90.39	233.5	-276.7	521.7	474.2	47.47	10.989	
7,000.0	6,632.4	7,307.2	6,633.8	20.7	28.2	-90.16	233.5	-288.3	521.7	474.2	47.48	10.987	
7,008.2	6,633.8	7,299.1	6,633.9	20.8	28.1	-90.01	233.5	-296.4	521.7	474.2	47.49	10.983	
7,050.0	6,640.0	7,257.7	6,634.5	21.4	27.6	-89.40	233.5	-337.8	521.7	474.0	47.65	10.949	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,643.4	7,221.2	6,634.9	21.9	27.2	-89.07	233.5	-374.3	521.7	473.9	47.83	10.909	
7,100.0	6,644.2	7,207.9	6,635.1	22.1	27.0	-89.00	233.5	-387.6	521.7	473.8	47.90	10.891	
7,135.7	6,645.0	7,172.8	6,634.3	22.7	26.7	-88.82	233.5	-422.7	521.8	473.6	48.17	10.832	
7,185.0	6,644.9	7,124.4	6,630.3	23.6	26.2	-88.40	233.5	-470.9	521.9	473.3	48.61	10.735	
7,200.0	6,644.9	7,109.9	6,628.5	23.9	26.1	-88.20	233.5	-485.3	521.9	473.2	48.75	10.706	
7,283.4	6,644.8	7,030.6	6,613.5	25.6	25.5	-86.56	233.5	-563.1	522.7	473.0	49.68	10.520	
7,300.0	6,644.8	7,015.3	6,609.6	25.9	25.4	-86.14	233.5	-577.9	522.9	473.1	49.87	10.485	
7,381.9	6,644.7	6,942.5	6,586.8	27.7	25.0	-83.67	233.5	-647.1	525.3	474.4	50.94	10.313	
7,400.0	6,644.7	6,927.1	6,581.1	28.1	25.0	-83.05	233.5	-661.4	526.2	475.0	51.18	10.280	
7,480.3	6,644.6	6,862.0	6,553.7	29.9	24.8	-80.11	233.5	-720.3	531.7	479.4	52.29	10.167	
7,500.0	6,644.6	6,850.0	6,548.0	30.3	24.7	-79.51	233.5	-730.9	533.5	481.0	52.59	10.146	
7,578.7	6,644.5	6,789.9	6,517.1	32.2	24.7	-76.27	233.5	-782.5	543.5	489.9	53.60	10.139 SF	
7,600.0	6,644.4	6,775.4	6,509.0	32.7	24.7	-75.44	233.5	-794.5	546.9	493.1	53.88	10.152	
7,677.1	6,644.3	6,726.2	6,479.8	34.6	24.7	-72.48	233.5	-834.0	562.4	507.6	54.83	10.257	
7,700.0	6,644.3	6,712.5	6,471.2	35.1	24.7	-71.62	233.5	-844.6	567.9	512.8	55.10	10.308	
7,775.6	6,644.2	6,670.3	6,443.4	37.0	24.7	-68.92	233.5	-876.4	589.4	533.4	55.96	10.531	
7,800.0	6,644.2	6,657.6	6,434.6	37.6	24.8	-68.09	233.5	-885.6	597.4	541.1	56.23	10.624	
7,874.0	6,644.1	6,621.5	6,409.0	39.5	24.8	-65.71	233.5	-911.0	624.7	567.7	57.03	10.954	
7,900.0	6,644.1	6,609.7	6,400.3	40.1	24.8	-64.92	233.5	-919.0	635.4	578.1	57.30	11.089	
7,972.4	6,644.0	6,578.9	6,377.0	42.0	24.9	-62.87	233.5	-939.2	668.1	610.0	58.06	11.506	
8,000.0	6,643.9	6,567.9	6,368.5	42.7	24.9	-62.13	233.5	-946.1	681.6	623.2	58.34	11.682	
8,070.8	6,643.9	6,550.0	6,354.4	44.5	25.0	-60.94	233.5	-957.2	718.9	659.5	59.38	12.107	
8,100.0	6,643.8	6,531.4	6,339.6	45.2	25.0	-59.71	233.5	-968.3	735.2	675.8	59.39	12.378	
8,169.3	6,643.7	6,500.0	6,313.7	47.0	25.1	-57.64	233.5	-986.2	776.2	716.4	59.79	12.982	
8,200.0	6,643.7	6,500.0	6,313.7	47.9	25.1	-57.64	233.5	-986.2	795.2	734.7	60.49	13.147	
8,267.7	6,643.6	6,479.9	6,296.8	49.6	25.2	-56.33	233.5	-997.1	839.0	777.8	61.21	13.708	
8,300.0	6,643.6	6,471.2	6,289.4	50.5	25.2	-55.77	233.5	-1,001.6	860.8	799.2	61.57	13.980	
8,366.1	6,643.5	6,450.0	6,271.1	52.2	25.2	-54.42	233.5	-1,012.3	906.7	844.6	62.14	14.593	
8,400.0	6,643.4	6,450.0	6,271.1	53.1	25.2	-54.42	233.5	-1,012.3	931.0	868.1	62.89	14.805	
8,464.5	6,643.4	6,431.6	6,255.0	54.8	25.3	-53.27	233.5	-1,021.1	978.4	914.9	63.48	15.412	
8,500.0	6,643.3	6,424.0	6,248.2	55.8	25.3	-52.80	233.5	-1,024.7	1,005.1	941.2	63.91	15.727	
8,563.0	6,643.2	6,400.0	6,226.7	57.5	25.4	-51.33	233.5	-1,035.4	1,053.6	989.5	64.14	16.426	
8,600.0	6,643.2	6,400.0	6,226.7	58.5	25.4	-51.33	233.5	-1,035.4	1,082.5	1,017.6	64.94	16.669	
8,661.4	6,643.1	6,400.0	6,226.7	60.1	25.4	-51.33	233.5	-1,035.4	1,131.5	1,065.2	66.27	17.074	
8,700.0	6,643.1	6,400.0	6,226.7	61.2	25.4	-51.33	233.5	-1,035.4	1,162.8	1,095.7	67.10	17.330	
8,759.8	6,643.0	6,376.6	6,205.4	62.8	25.4	-49.93	233.5	-1,045.1	1,211.7	1,144.5	67.20	18.032	
8,800.0	6,643.0	6,370.4	6,199.7	63.9	25.4	-49.56	233.5	-1,047.5	1,245.1	1,177.4	67.73	18.383	
8,858.2	6,642.9	6,350.0	6,180.9	65.4	25.5	-48.39	233.5	-1,055.3	1,294.2	1,226.3	67.89	19.062	
8,900.0	6,642.8	6,350.0	6,180.9	66.6	25.5	-48.39	233.5	-1,055.3	1,329.5	1,260.8	68.77	19.334	
8,956.7	6,642.8	6,350.0	6,180.9	68.1	25.5	-48.39	233.5	-1,055.3	1,378.1	1,308.1	69.95	19.700	
9,000.0	6,642.7	6,350.0	6,180.9	69.3	25.5	-48.39	233.5	-1,055.3	1,415.6	1,344.8	70.86	19.978	
9,055.1	6,642.6	6,350.0	6,180.9	70.8	25.5	-48.39	233.5	-1,055.3	1,463.8	1,391.8	72.02	20.326	
9,100.0	6,642.6	6,330.6	6,162.7	72.0	25.5	-47.29	233.5	-1,062.1	1,503.1	1,431.2	71.86	20.917	
9,153.5	6,642.5	6,324.6	6,157.0	73.5	25.5	-46.96	233.5	-1,064.1	1,550.4	1,477.8	72.62	21.349	
9,200.0	6,642.5	6,319.6	6,152.3	74.7	25.5	-46.68	233.5	-1,065.8	1,591.8	1,518.5	73.29	21.719	
9,251.9	6,642.4	6,300.0	6,133.7	76.2	25.6	-45.62	233.5	-1,071.9	1,638.5	1,565.3	73.21	22.380	
9,300.0	6,642.3	6,300.0	6,133.7	77.5	25.6	-45.62	233.5	-1,071.9	1,681.7	1,607.5	74.19	22.668	
9,350.4	6,642.3	6,300.0	6,133.7	78.9	25.6	-45.62	233.5	-1,071.9	1,727.2	1,652.0	75.21	22.965	
9,400.0	6,642.2	6,300.0	6,133.7	80.2	25.6	-45.62	233.5	-1,071.9	1,772.3	1,696.1	76.22	23.254	
9,448.8	6,642.1	6,300.0	6,133.7	81.6	25.6	-45.62	233.5	-1,071.9	1,816.9	1,739.7	77.21	23.532	
9,500.0	6,642.1	6,300.0	6,133.7	83.0	25.6	-45.62	233.5	-1,071.9	1,863.9	1,785.6	78.25	23.820	
9,547.2	6,642.0	6,300.0	6,133.7	84.3	25.6	-45.62	233.5	-1,071.9	1,907.4	1,828.2	79.21	24.081	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
9,600.0	6,642.0	6,300.0	6,133.7	85.7	25.6	-45.62	233.5	-1,071.9	1,956.3	1,876.0	80.28	24.368		
9,645.6	6,641.9	6,280.1	6,114.6	87.0	25.6	-44.57	233.5	-1,077.6	1,998.3	1,918.4	79.92	25.003		
9,700.0	6,641.8	6,276.1	6,110.8	88.5	25.6	-44.36	233.5	-1,078.7	2,048.9	1,968.1	80.76	25.371		
9,744.1	6,641.8	6,273.0	6,107.8	89.7	25.6	-44.20	233.5	-1,079.5	2,090.0	2,008.5	81.43	25.664		
9,800.0	6,641.7	6,269.2	6,104.2	91.2	25.6	-44.01	233.5	-1,080.5	2,142.3	2,060.0	82.30	26.031		
9,842.5	6,641.7	6,250.0	6,085.5	92.4	25.7	-43.04	233.5	-1,085.2	2,182.4	2,100.5	81.87	26.657		
9,900.0	6,641.6	6,250.0	6,085.5	94.0	25.7	-43.04	233.5	-1,085.2	2,236.3	2,153.3	83.00	26.945		
9,940.9	6,641.5	6,250.0	6,085.5	95.1	25.7	-43.04	233.5	-1,085.2	2,274.8	2,191.0	83.80	27.146		
10,000.0	6,641.5	6,250.0	6,085.5	96.7	25.7	-43.04	233.5	-1,085.2	2,330.5	2,245.6	84.96	27.432		
10,039.3	6,641.4	6,250.0	6,085.5	97.8	25.7	-43.04	233.5	-1,085.2	2,367.7	2,282.0	85.73	27.619		
10,100.0	6,641.3	6,250.0	6,085.5	99.5	25.7	-43.04	233.5	-1,085.2	2,425.2	2,338.3	86.92	27.902		
10,137.8	6,641.3	6,250.0	6,085.5	100.6	25.7	-43.04	233.5	-1,085.2	2,461.1	2,373.4	87.66	28.075		
10,200.0	6,641.2	6,250.0	6,085.5	102.3	25.7	-43.04	233.5	-1,085.2	2,520.3	2,431.4	88.88	28.355		
10,236.2	6,641.2	6,250.0	6,085.5	103.3	25.7	-43.04	233.5	-1,085.2	2,554.8	2,465.2	89.60	28.515		
10,300.0	6,641.1	6,250.0	6,085.5	105.0	25.7	-43.04	233.5	-1,085.2	2,615.8	2,524.9	90.85	28.793		
10,334.6	6,641.0	6,250.0	6,085.5	106.0	25.7	-43.04	233.5	-1,085.2	2,648.9	2,557.4	91.53	28.940		
10,400.0	6,641.0	6,250.0	6,085.5	107.8	25.7	-43.04	233.5	-1,085.2	2,711.6	2,618.8	92.82	29.215		
10,433.0	6,640.9	6,250.0	6,085.5	108.7	25.7	-43.04	233.5	-1,085.2	2,743.3	2,649.8	93.47	29.351		
10,500.0	6,640.8	6,250.0	6,085.5	110.6	25.7	-43.04	233.5	-1,085.2	2,807.7	2,712.9	94.78	29.622		
10,531.5	6,640.8	6,250.0	6,085.5	111.5	25.7	-43.04	233.5	-1,085.2	2,838.0	2,742.6	95.40	29.747		
10,600.0	6,640.7	6,227.5	6,063.6	113.4	25.7	-41.94	233.5	-1,090.1	2,903.6	2,808.6	95.01	30.560		
10,629.9	6,640.7	6,226.3	6,062.4	114.2	25.7	-41.88	233.5	-1,090.4	2,932.4	2,836.9	95.50	30.706		
10,700.0	6,640.6	6,223.6	6,059.7	116.1	25.7	-41.75	233.5	-1,090.9	3,000.0	2,903.4	96.64	31.044		
10,728.3	6,640.5	6,222.5	6,058.6	116.9	25.7	-41.70	233.5	-1,091.1	3,027.4	2,930.3	97.10	31.178		
10,800.0	6,640.5	6,200.0	6,036.5	118.9	25.7	-40.65	233.5	-1,095.2	3,097.0	3,000.3	96.72	32.020		
10,826.7	6,640.4	6,200.0	6,036.5	119.7	25.7	-40.65	233.5	-1,095.2	3,122.8	3,025.6	97.23	32.119		
10,900.0	6,640.3	6,200.0	6,036.5	121.7	25.7	-40.65	233.5	-1,095.2	3,193.7	3,095.1	98.61	32.386		
10,925.2	6,640.3	6,200.0	6,036.5	122.4	25.7	-40.65	233.5	-1,095.2	3,218.1	3,119.0	99.09	32.476		
11,000.0	6,640.2	6,200.0	6,036.5	124.5	25.7	-40.65	233.5	-1,095.2	3,290.6	3,190.1	100.51	32.740		
11,023.6	6,640.2	6,200.0	6,036.5	125.1	25.7	-40.65	233.5	-1,095.2	3,313.5	3,212.5	100.95	32.821		
11,100.0	6,640.1	6,200.0	6,036.5	127.3	25.7	-40.65	233.5	-1,095.2	3,387.7	3,285.3	102.40	33.082		
11,122.0	6,640.0	6,200.0	6,036.5	127.9	25.7	-40.65	233.5	-1,095.2	3,409.1	3,306.2	102.82	33.156		
11,200.0	6,639.9	6,200.0	6,036.5	130.1	25.7	-40.65	233.5	-1,095.2	3,484.9	3,380.6	104.30	33.413		
11,220.4	6,639.9	6,200.0	6,036.5	130.6	25.7	-40.65	233.5	-1,095.2	3,504.8	3,400.1	104.69	33.479		
11,300.0	6,639.8	6,200.0	6,036.5	132.8	25.7	-40.65	233.5	-1,095.2	3,582.3	3,476.1	106.19	33.734		
11,318.9	6,639.8	6,200.0	6,036.5	133.4	25.7	-40.65	233.5	-1,095.2	3,600.7	3,494.1	106.55	33.793		
11,400.0	6,639.7	6,200.0	6,036.5	135.6	25.7	-40.65	233.5	-1,095.2	3,679.8	3,571.7	108.09	34.044		
11,417.3	6,639.7	6,200.0	6,036.5	136.1	25.7	-40.65	233.5	-1,095.2	3,696.7	3,588.3	108.42	34.097		
11,500.0	6,639.6	6,200.0	6,036.5	138.4	25.7	-40.65	233.5	-1,095.2	3,777.5	3,667.5	109.99	34.345		
11,515.7	6,639.5	6,200.0	6,036.5	138.9	25.7	-40.65	233.5	-1,095.2	3,792.9	3,682.6	110.29	34.391		
11,600.0	6,639.4	6,200.0	6,036.5	141.2	25.7	-40.65	233.5	-1,095.2	3,875.3	3,763.4	111.89	34.636		
11,614.1	6,639.4	6,200.0	6,036.5	141.6	25.7	-40.65	233.5	-1,095.2	3,889.1	3,777.0	112.15	34.677		
11,700.0	6,639.3	6,200.0	6,036.5	144.0	25.7	-40.65	233.5	-1,095.2	3,973.2	3,859.4	113.78	34.919		
11,712.6	6,639.3	6,200.0	6,036.5	144.3	25.7	-40.65	233.5	-1,095.2	3,985.5	3,871.5	114.02	34.954		
11,800.0	6,639.2	6,200.0	6,036.5	146.8	25.7	-40.65	233.5	-1,095.2	4,071.2	3,955.5	115.68	35.193		
11,811.0	6,639.2	6,200.0	6,036.5	147.1	25.7	-40.65	233.5	-1,095.2	4,082.0	3,966.1	115.89	35.222		
11,900.0	6,639.1	6,200.0	6,036.5	149.6	25.7	-40.65	233.5	-1,095.2	4,169.3	4,051.7	117.58	35.458		
11,909.4	6,639.0	6,200.0	6,036.5	149.8	25.7	-40.65	233.5	-1,095.2	4,178.5	4,060.8	117.76	35.483		
12,000.0	6,638.9	6,200.0	6,036.5	152.4	25.7	-40.65	233.5	-1,095.2	4,267.4	4,148.0	119.48	35.717		
12,007.8	6,638.9	6,200.0	6,036.5	152.6	25.7	-40.65	233.5	-1,095.2	4,275.2	4,155.5	119.63	35.736		
12,100.0	6,638.8	6,200.0	6,036.5	155.2	25.7	-40.65	233.5	-1,095.2	4,365.7	4,244.3	121.38	35.967		
12,106.3	6,638.8	6,200.0	6,036.5	155.3	25.7	-40.65	233.5	-1,095.2	4,371.9	4,250.4	121.50	35.982		

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,200.0	6,638.7	6,200.0	6,036.5	157.9	25.7	-40.65	233.5	-1,095.2	4,464.0	4,340.8	123.28	36.210	
12,204.7	6,638.7	6,200.0	6,036.5	158.1	25.7	-40.65	233.5	-1,095.2	4,468.7	4,345.3	123.37	36.222	
12,300.0	6,638.5	6,200.0	6,036.5	160.7	25.7	-40.65	233.5	-1,095.2	4,562.5	4,437.3	125.18	36.447	
12,303.1	6,638.5	6,200.0	6,036.5	160.8	25.7	-40.65	233.5	-1,095.2	4,565.5	4,440.3	125.24	36.454	
12,400.0	6,638.4	6,200.0	6,036.5	163.5	25.7	-40.65	233.5	-1,095.2	4,660.9	4,533.9	127.08	36.677	
12,401.5	6,638.4	6,200.0	6,036.5	163.6	25.7	-40.65	233.5	-1,095.2	4,662.5	4,535.4	127.11	36.680	
12,500.0	6,638.3	6,176.7	6,013.5	166.3	25.7	-39.60	233.5	-1,098.6	4,759.1	4,632.5	126.60	37.592	
12,598.4	6,638.2	6,175.0	6,011.8	169.1	25.7	-39.52	233.5	-1,098.8	4,856.0	4,727.7	128.26	37.860	
12,600.0	6,638.2	6,175.0	6,011.8	169.1	25.7	-39.52	233.5	-1,098.8	4,857.6	4,729.3	128.29	37.865	
12,696.8	6,638.0	6,173.4	6,010.2	171.8	25.7	-39.45	233.5	-1,099.1	4,953.0	4,823.1	129.93	38.122	
12,700.0	6,638.0	6,173.3	6,010.1	171.9	25.7	-39.45	233.5	-1,099.1	4,956.2	4,826.2	129.98	38.130	
12,795.2	6,637.9	6,150.0	5,987.0	174.6	25.7	-38.44	233.5	-1,101.6	5,050.5	4,921.2	129.34	39.047	
12,800.0	6,637.9	6,150.0	5,987.0	174.7	25.7	-38.44	233.5	-1,101.6	5,055.2	4,925.8	129.43	39.057	
12,893.7	6,637.8	6,150.0	5,987.0	177.3	25.7	-38.44	233.5	-1,101.6	5,147.6	5,016.5	131.14	39.251	
12,900.0	6,637.8	6,150.0	5,987.0	177.5	25.7	-38.44	233.5	-1,101.6	5,153.8	5,022.6	131.26	39.264	
12,992.1	6,637.7	6,150.0	5,987.0	180.1	25.7	-38.44	233.5	-1,101.6	5,244.7	5,111.8	132.94	39.451	
13,000.0	6,637.6	6,150.0	5,987.0	180.3	25.7	-38.44	233.5	-1,101.6	5,252.5	5,119.4	133.09	39.467	
13,090.5	6,637.5	6,150.0	5,987.0	182.8	25.7	-38.44	233.5	-1,101.6	5,341.9	5,207.2	134.74	39.645	
13,100.0	6,637.5	6,150.0	5,987.0	183.1	25.7	-38.44	233.5	-1,101.6	5,351.3	5,216.3	134.92	39.664	
13,188.9	6,637.4	6,150.0	5,987.0	185.6	25.7	-38.44	233.5	-1,101.6	5,439.1	5,302.6	136.54	39.834	
13,200.0	6,637.4	6,150.0	5,987.0	185.9	25.7	-38.44	233.5	-1,101.6	5,450.0	5,313.3	136.75	39.855	
13,287.4	6,637.3	6,150.0	5,987.0	188.4	25.7	-38.44	233.5	-1,101.6	5,536.4	5,398.1	138.34	40.019	
13,300.0	6,637.3	6,150.0	5,987.0	188.7	25.7	-38.44	233.5	-1,101.6	5,548.9	5,410.3	138.57	40.043	
13,385.8	6,637.1	6,150.0	5,987.0	191.1	25.7	-38.44	233.5	-1,101.6	5,633.7	5,493.6	140.14	40.199	
13,400.0	6,637.1	6,150.0	5,987.0	191.5	25.7	-38.44	233.5	-1,101.6	5,647.7	5,507.3	140.40	40.225	
13,484.2	6,637.0	6,150.0	5,987.0	193.9	25.7	-38.44	233.5	-1,101.6	5,731.1	5,589.1	141.94	40.375	
13,500.0	6,637.0	6,150.0	5,987.0	194.3	25.7	-38.44	233.5	-1,101.6	5,746.7	5,604.4	142.23	40.403	
13,582.6	6,636.9	6,150.0	5,987.0	196.6	25.7	-38.44	233.5	-1,101.6	5,828.4	5,684.7	143.75	40.547	
13,600.0	6,636.9	6,150.0	5,987.0	197.1	25.7	-38.44	233.5	-1,101.6	5,845.6	5,701.5	144.06	40.577	
13,681.1	6,636.8	6,150.0	5,987.0	199.4	25.7	-38.44	233.5	-1,101.6	5,925.8	5,780.3	145.55	40.715	
13,700.0	6,636.7	6,150.0	5,987.0	199.9	25.7	-38.44	233.5	-1,101.6	5,944.6	5,798.7	145.89	40.746	
13,779.5	6,636.6	6,150.0	5,987.0	202.1	25.7	-38.44	233.5	-1,101.6	6,023.3	5,876.0	147.35	40.878	
13,800.0	6,636.6	6,150.0	5,987.0	202.7	25.7	-38.44	233.5	-1,101.6	6,043.6	5,895.9	147.72	40.912	
13,877.9	6,636.5	6,150.0	5,987.0	204.9	25.7	-38.44	233.5	-1,101.6	6,120.8	5,971.6	149.15	41.038	
13,900.0	6,636.5	6,150.0	5,987.0	205.5	25.7	-38.44	233.5	-1,101.6	6,142.6	5,993.1	149.55	41.074	
13,976.3	6,636.4	6,150.0	5,987.0	207.6	25.7	-38.44	233.5	-1,101.6	6,218.3	6,067.3	150.95	41.194	
14,000.0	6,636.3	6,150.0	5,987.0	208.3	25.7	-38.44	233.5	-1,101.6	6,241.7	6,090.3	151.38	41.232	
14,074.8	6,636.3	6,150.0	5,987.0	210.4	25.7	-38.44	233.5	-1,101.6	6,315.8	6,163.1	152.75	41.347	
14,100.0	6,636.2	6,150.0	5,987.0	211.1	25.7	-38.44	233.5	-1,101.6	6,340.8	6,187.6	153.21	41.386	
14,173.2	6,636.1	6,150.0	5,987.0	213.2	25.7	-38.44	233.5	-1,101.6	6,413.4	6,258.8	154.55	41.497	
14,200.0	6,636.1	6,150.0	5,987.0	213.9	25.7	-38.44	233.5	-1,101.6	6,440.0	6,284.9	155.04	41.537	
14,271.6	6,636.0	6,150.0	5,987.0	215.9	25.7	-38.44	233.5	-1,101.6	6,511.0	6,354.6	156.35	41.643	
14,300.0	6,636.0	6,150.0	5,987.0	216.7	25.7	-38.44	233.5	-1,101.6	6,539.1	6,382.2	156.87	41.684	
14,370.0	6,635.9	6,150.0	5,987.0	218.7	25.7	-38.44	233.5	-1,101.6	6,608.6	6,450.4	158.16	41.785	
14,400.0	6,635.8	6,150.0	5,987.0	219.5	25.7	-38.44	233.5	-1,101.6	6,638.3	6,479.6	158.70	41.828	
14,468.5	6,635.7	6,150.0	5,987.0	221.4	25.7	-38.44	233.5	-1,101.6	6,706.2	6,546.3	159.96	41.925	
14,500.0	6,635.7	6,150.0	5,987.0	222.3	25.7	-38.44	233.5	-1,101.6	6,737.5	6,577.0	160.53	41.969	
14,566.9	6,635.6	6,150.0	5,987.0	224.2	25.7	-38.44	233.5	-1,101.6	6,803.9	6,642.1	161.76	42.062	
14,600.0	6,635.6	6,150.0	5,987.0	225.1	25.7	-38.44	233.5	-1,101.6	6,836.7	6,674.4	162.37	42.107	
14,665.3	6,635.5	6,150.0	5,987.0	226.9	25.7	-38.44	233.5	-1,101.6	6,901.6	6,738.0	163.56	42.196	
14,700.0	6,635.4	6,150.0	5,987.0	227.9	25.7	-38.44	233.5	-1,101.6	6,936.0	6,771.8	164.20	42.242	
14,763.7	6,635.4	6,150.0	5,987.0	229.7	25.7	-38.44	233.5	-1,101.6	6,999.3	6,833.9	165.36	42.327	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10F-232 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,800.0	6,635.3	6,150.0	5,987.0	230.7	25.7	-38.44	233.5	-1,101.6	7,035.3	6,869.2	166.03	42.374	
14,862.2	6,635.2	6,150.0	5,987.0	232.5	25.7	-38.44	233.5	-1,101.6	7,097.0	6,929.8	167.17	42.455	
14,900.0	6,635.2	6,150.0	5,987.0	233.5	25.7	-38.44	233.5	-1,101.6	7,134.6	6,966.7	167.86	42.503	
14,960.6	6,635.1	6,150.0	5,987.0	235.2	25.7	-38.44	233.5	-1,101.6	7,194.8	7,025.8	168.97	42.580	
15,000.0	6,635.0	6,150.0	5,987.0	236.3	25.7	-38.44	233.5	-1,101.6	7,233.9	7,064.2	169.69	42.630	
15,033.1	6,635.0	6,150.0	5,987.0	237.3	25.7	-38.44	233.5	-1,101.6	7,266.7	7,096.4	170.30	42.671	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-179.64	-44.8	-0.3	44.8				
98.4	98.4	98.4	98.4	0.1	0.1	-179.64	-44.8	-0.3	44.8	44.6	0.19	233.105	
100.0	100.0	100.0	100.0	0.1	0.1	-179.64	-44.8	-0.3	44.8	44.6	0.20	229.159	
196.8	196.8	196.8	196.8	0.3	0.3	-179.64	-44.8	-0.3	44.8	44.2	0.63	71.025	
200.0	200.0	200.0	200.0	0.3	0.3	-179.64	-44.8	-0.3	44.8	44.2	0.65	69.466	
295.3	295.3	295.3	295.3	0.5	0.5	-179.64	-44.8	-0.3	44.8	43.7	1.07	41.748	
300.0	300.0	300.0	300.0	0.5	0.5	-179.64	-44.8	-0.3	44.8	43.7	1.09	40.938	
393.7	393.7	393.7	393.7	0.8	0.8	-179.64	-44.8	-0.3	44.8	43.3	1.52	29.562	
400.0	400.0	400.0	400.0	0.8	0.8	-179.64	-44.8	-0.3	44.8	43.3	1.54	29.020	
492.1	492.1	492.1	492.1	1.0	1.0	-179.64	-44.8	-0.3	44.8	42.9	1.96	22.883	
500.0	500.0	500.0	500.0	1.0	1.0	-179.64	-44.8	-0.3	44.8	42.8	1.99	22.477	
590.5	590.5	590.5	590.5	1.2	1.2	-179.64	-44.8	-0.3	44.8	42.4	2.40	18.666	
600.0	600.0	600.0	600.0	1.2	1.2	-179.64	-44.8	-0.3	44.8	42.4	2.44	18.341	
689.0	689.0	689.0	689.0	1.4	1.4	-179.64	-44.8	-0.3	44.8	42.0	2.84	15.761	
700.0	700.0	700.0	700.0	1.4	1.4	-179.64	-44.8	-0.3	44.8	41.9	2.89	15.491	
787.4	787.4	787.4	787.4	1.6	1.6	-179.64	-44.8	-0.3	44.8	41.5	3.29	13.639	
800.0	800.0	800.0	800.0	1.7	1.7	-179.64	-44.8	-0.3	44.8	41.5	3.34	13.407	
885.8	885.8	885.8	885.8	1.9	1.9	-179.64	-44.8	-0.3	44.8	41.1	3.73	12.020	
900.0	900.0	900.0	900.0	1.9	1.9	-179.64	-44.8	-0.3	44.8	41.0	3.79	11.818	
984.2	984.2	984.2	984.2	2.1	2.1	-179.64	-44.8	-0.3	44.8	40.6	4.17	10.745	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.64	-44.8	-0.3	44.8	40.6	4.24	10.565 CC	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	154.01	-44.8	-0.3	45.9	41.3	4.61	9.949	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	154.31	-44.8	-0.3	46.4	41.7	4.69	9.891	
1,181.1	1,181.0	1,181.0	1,181.0	2.5	2.5	156.26	-44.8	-0.3	50.0	44.9	5.05	9.899	
1,200.0	1,199.8	1,199.8	1,199.8	2.6	2.6	156.81	-44.8	-0.3	51.1	46.0	5.13	9.963	
1,279.5	1,279.1	1,279.1	1,279.1	2.8	2.7	159.39	-44.8	-0.3	57.3	51.8	5.48	10.450	
1,300.0	1,299.5	1,299.5	1,299.5	2.8	2.8	160.08	-44.8	-0.3	59.3	53.7	5.57	10.630	
1,377.9	1,376.9	1,378.4	1,378.4	3.0	3.0	162.24	-44.0	0.4	67.1	61.2	5.92	11.341	
1,400.0	1,398.7	1,400.8	1,400.8	3.0	3.0	162.69	-43.5	0.9	69.4	63.3	6.01	11.539	
1,476.4	1,474.2	1,478.5	1,478.3	3.2	3.2	163.80	-40.6	3.4	77.3	71.0	6.34	12.198	
1,500.0	1,497.5	1,502.5	1,502.3	3.3	3.2	164.02	-39.4	4.4	79.8	73.4	6.44	12.397	
1,574.8	1,571.0	1,578.8	1,578.4	3.5	3.4	164.45	-34.6	8.6	87.9	81.1	6.77	12.988	
1,600.0	1,595.6	1,604.6	1,604.0	3.6	3.5	164.51	-32.6	10.4	90.6	83.8	6.88	13.182	
1,673.2	1,667.2	1,679.6	1,678.5	3.9	3.7	164.37	-25.9	16.3	97.8	90.6	7.23	13.534	
1,700.0	1,693.4	1,707.1	1,705.7	4.0	3.7	164.18	-23.1	18.7	100.0	92.6	7.36	13.596	
1,771.6	1,763.5	1,780.8	1,778.6	4.2	3.9	163.36	-14.5	26.2	104.8	97.1	7.72	13.585	
1,800.0	1,791.3	1,810.1	1,807.4	4.3	4.0	162.91	-10.7	29.5	106.3	98.4	7.86	13.523	
1,870.1	1,859.8	1,882.4	1,878.4	4.6	4.2	161.50	-0.4	38.6	108.9	100.7	8.23	13.228	
1,900.0	1,889.1	1,912.8	1,908.2	4.7	4.3	160.77	4.3	42.7	109.6	101.2	8.40	13.053	
1,968.5	1,956.1	1,981.2	1,975.1	4.9	4.5	159.15	15.0	52.1	111.2	102.5	8.78	12.663	
2,000.0	1,986.9	2,012.7	2,005.8	5.1	4.6	158.42	19.9	56.4	112.0	103.0	8.97	12.490	
2,066.9	2,052.3	2,079.5	2,071.2	5.3	4.9	156.90	30.4	65.5	113.7	104.3	9.36	12.143	
2,100.0	2,084.7	2,112.5	2,103.5	5.5	5.0	156.17	35.6	70.0	114.5	105.0	9.56	11.980	
2,165.3	2,148.6	2,177.8	2,167.4	5.7	5.2	154.75	45.8	79.0	116.3	106.3	9.97	11.669	
2,200.0	2,182.5	2,212.4	2,201.2	5.9	5.3	154.01	51.2	83.7	117.3	107.1	10.19	11.511	
2,263.8	2,244.9	2,276.1	2,263.5	6.1	5.6	152.69	61.1	92.4	119.1	108.5	10.60	11.233	
2,300.0	2,280.3	2,312.3	2,298.9	6.3	5.7	151.96	66.8	97.4	120.1	109.3	10.84	11.083	
2,362.2	2,341.2	2,374.4	2,359.7	6.5	5.9	150.73	76.5	105.9	122.0	110.7	11.26	10.835	
2,400.0	2,378.1	2,412.2	2,396.6	6.7	6.1	150.00	82.4	111.1	123.2	111.6	11.52	10.691	
2,460.6	2,437.4	2,472.7	2,455.8	6.9	6.3	148.86	91.9	119.4	125.1	113.1	11.94	10.470	
2,500.0	2,476.0	2,512.0	2,494.3	7.1	6.5	148.14	98.0	124.7	126.3	114.1	12.22	10.334	
2,550.0	2,524.9	2,562.0	2,543.1	7.3	6.7	147.25	105.9	131.6	127.9	115.4	12.58	10.166	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,571.0	2,552.0	7.3	6.7	147.94	107.3	132.8	128.2	115.6	12.65	10.141	
2,600.0	2,573.8	2,611.9	2,591.9	7.5	6.9	150.94	113.7	138.4	129.8	116.9	12.93	10.037	
2,639.4	2,612.3	2,651.1	2,630.3	7.7	7.0	153.65	119.8	143.8	131.6	118.4	13.21	9.962	
2,657.5	2,630.0	2,669.2	2,648.0	7.7	7.1	153.14	122.6	146.3	132.6	119.2	13.35	9.928	
2,700.0	2,671.6	2,711.5	2,689.4	7.9	7.3	151.97	129.3	152.1	134.7	121.1	13.68	9.849	
2,755.9	2,726.3	2,767.3	2,743.9	8.1	7.5	150.50	138.0	159.7	137.7	123.6	14.13	9.747	
2,800.0	2,769.4	2,811.2	2,786.9	8.3	7.7	149.38	144.9	165.7	140.1	125.6	14.48	9.672	
2,854.3	2,822.5	2,865.4	2,839.9	8.5	7.9	148.05	153.3	173.1	143.1	128.2	14.93	9.586	
2,900.0	2,867.2	2,910.9	2,884.4	8.7	8.1	146.98	160.4	179.3	145.7	130.4	15.30	9.519	
2,952.7	2,918.8	2,963.4	2,935.8	9.0	8.3	145.78	168.7	186.5	148.7	133.0	15.74	9.448	
3,000.0	2,965.0	3,010.5	2,981.9	9.2	8.5	144.75	176.0	193.0	151.5	135.4	16.14	9.388	
3,051.2	3,015.1	3,061.5	3,031.8	9.4	8.7	143.68	184.0	200.0	154.6	138.0	16.57	9.328	
3,100.0	3,062.8	3,110.2	3,079.4	9.6	8.9	142.70	191.6	206.6	157.6	140.6	16.99	9.276	
3,149.6	3,111.4	3,159.6	3,127.7	9.8	9.2	141.74	199.4	213.4	160.6	143.2	17.41	9.226	
3,200.0	3,160.7	3,209.9	3,176.9	10.0	9.4	140.80	207.2	220.3	163.8	146.0	17.85	9.179	
3,248.0	3,207.6	3,257.7	3,223.7	10.2	9.6	139.94	214.7	226.8	166.9	148.6	18.26	9.138	
3,300.0	3,258.5	3,309.5	3,274.4	10.5	9.8	139.04	222.8	233.9	170.2	151.5	18.71	9.096	
3,346.4	3,303.9	3,355.8	3,319.6	10.7	10.0	138.27	230.1	240.3	173.2	154.1	19.12	9.062	
3,400.0	3,356.3	3,409.2	3,371.8	10.9	10.2	137.41	238.4	247.6	176.8	157.2	19.58	9.026	
3,444.9	3,400.2	3,453.9	3,415.6	11.1	10.4	136.72	245.4	253.7	179.7	159.8	19.98	8.997	
3,500.0	3,454.1	3,508.0	3,468.5	11.3	10.6	135.97	253.7	261.0	183.5	163.1	20.43	8.983	
3,543.3	3,496.5	3,550.0	3,509.8	11.5	10.8	135.60	259.7	266.2	186.8	166.1	20.74	9.007	
3,600.0	3,551.9	3,605.1	3,564.1	11.7	10.9	135.38	266.8	272.4	191.4	170.3	21.12	9.064	
3,641.7	3,592.7	3,645.6	3,604.1	11.9	11.0	135.42	271.6	276.6	195.1	173.8	21.38	9.128	
3,700.0	3,649.7	3,702.1	3,660.0	12.2	11.2	135.72	277.5	281.7	200.7	179.0	21.71	9.242	
3,740.1	3,689.0	3,740.9	3,698.5	12.4	11.3	136.08	281.0	284.9	204.8	182.9	21.92	9.342	
3,800.0	3,747.5	3,800.0	3,757.3	12.6	11.4	136.85	285.7	289.0	211.3	189.1	22.21	9.516	
3,838.6	3,785.3	3,835.7	3,792.8	12.8	11.5	137.44	288.1	291.1	215.8	193.4	22.36	9.650	
3,900.0	3,845.4	3,894.5	3,851.5	13.1	11.7	138.59	291.3	293.9	223.5	200.9	22.59	9.891	
3,937.0	3,881.6	3,929.8	3,886.7	13.2	11.7	139.37	292.8	295.2	228.4	205.7	22.71	10.058	
4,000.0	3,943.2	3,989.6	3,946.5	13.5	11.8	140.84	294.6	296.7	237.4	214.5	22.88	10.373	
4,035.4	3,977.8	4,023.0	3,979.9	13.6	11.9	141.72	295.2	297.2	242.8	219.8	22.96	10.572	
4,100.0	4,041.0	4,084.1	4,041.0	13.9	12.0	143.44	295.5	297.5	253.3	230.2	23.09	10.969	
4,133.8	4,074.1	4,117.2	4,074.1	14.1	12.0	144.36	295.5	297.5	259.0	235.9	23.16	11.185	
4,200.0	4,138.8	4,181.9	4,138.8	14.4	12.1	146.05	295.5	297.5	270.4	247.1	23.30	11.607	
4,232.3	4,170.4	4,213.5	4,170.4	14.5	12.2	146.82	295.5	297.5	276.0	252.7	23.37	11.812	
4,300.0	4,236.6	4,279.7	4,236.6	14.8	12.3	148.35	295.5	297.5	288.0	264.5	23.53	12.241	
4,330.7	4,266.7	4,309.8	4,266.7	14.9	12.3	149.00	295.5	297.5	293.5	269.9	23.60	12.435	
4,400.0	4,334.4	4,377.6	4,334.4	15.2	12.4	150.38	295.5	297.5	306.0	282.2	23.78	12.869	
4,429.1	4,362.9	4,406.0	4,362.9	15.4	12.5	150.93	295.5	297.5	311.3	287.4	23.85	13.050	
4,500.0	4,432.3	4,475.4	4,432.3	15.7	12.6	152.19	295.5	297.5	324.3	300.3	24.05	13.487	
4,527.5	4,459.2	4,502.3	4,459.2	15.8	12.6	152.65	295.5	297.5	329.4	305.3	24.12	13.655	
4,600.0	4,530.1	4,573.2	4,530.1	16.1	12.8	153.80	295.5	297.5	342.9	318.6	24.34	14.091	
4,626.0	4,555.5	4,598.6	4,555.5	16.2	12.8	154.19	295.5	297.5	347.8	323.4	24.41	14.246	
4,700.0	4,627.9	4,671.0	4,627.9	16.6	12.9	155.25	295.5	297.5	361.8	337.1	24.64	14.681	
4,724.4	4,651.7	4,694.9	4,651.7	16.7	13.0	155.58	295.5	297.5	366.4	341.7	24.72	14.822	
4,800.0	4,725.7	4,768.8	4,725.7	17.0	13.1	156.55	295.5	297.5	380.8	355.9	24.96	15.255	
4,822.8	4,748.0	4,791.1	4,748.0	17.1	13.1	156.83	295.5	297.5	385.2	360.1	25.04	15.383	
4,904.9	4,828.3	4,871.4	4,828.3	17.5	13.3	157.79	295.5	297.5	401.0	375.7	25.32	15.839	
4,921.2	4,844.3	4,887.4	4,844.3	17.5	13.3	157.99	295.5	297.5	404.1	378.7	25.37	15.927	
5,000.0	4,921.6	4,964.8	4,921.6	17.8	13.4	158.86	295.5	297.5	418.0	392.3	25.65	16.295	
5,019.7	4,941.0	4,984.1	4,941.0	17.9	13.5	159.05	295.5	297.5	421.1	395.4	25.71	16.378	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10F-234 - ORIGINAL WELLBORE - PROPOSAL #1											Offset Site Error:		0.0 usft
Survey Program: 0-MWD													Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,100.0	5,020.4	5,063.5	5,020.4	18.1	13.6	159.72	295.5	297.5	432.8	406.8	25.97	16.662			
5,118.1	5,038.3	5,081.4	5,038.3	18.2	13.6	159.85	295.5	297.5	435.1	409.1	26.03	16.716			
5,200.0	5,119.6	5,162.7	5,119.6	18.4	13.8	160.35	295.5	297.5	444.4	418.1	26.29	16.902			
5,216.5	5,136.0	5,179.2	5,136.0	18.4	13.8	160.43	295.5	297.5	446.0	419.7	26.34	16.931			
5,300.0	5,219.2	5,262.3	5,219.2	18.6	14.0	160.78	295.5	297.5	452.8	426.2	26.60	17.021			
5,314.9	5,234.1	5,277.2	5,234.1	18.6	14.0	160.83	295.5	297.5	453.8	427.1	26.65	17.030			
5,400.0	5,319.1	5,362.2	5,319.1	18.8	14.1	161.04	295.5	297.5	457.9	431.0	26.90	17.024			
5,413.4	5,332.4	5,375.5	5,332.4	18.8	14.2	161.06	295.5	297.5	458.3	431.4	26.93	17.016			
5,504.9	5,423.9	5,467.0	5,423.9	18.9	14.3	179.55	295.5	297.5	459.7	428.2	31.49	14.600			
5,511.8	5,430.8	5,473.9	5,430.8	18.9	14.3	179.55	295.5	297.5	459.7	428.2	31.51	14.590			
5,600.0	5,519.0	5,562.1	5,519.0	19.0	14.5	179.55	295.5	297.5	459.7	427.9	31.79	14.459			
5,610.2	5,529.3	5,572.4	5,529.3	19.0	14.5	179.55	295.5	297.5	459.7	427.9	31.83	14.443			
5,700.0	5,619.0	5,662.1	5,619.0	19.2	14.7	179.55	295.5	297.5	459.7	427.6	32.13	14.308			
5,708.6	5,627.7	5,670.8	5,627.7	19.2	14.7	179.55	295.5	297.5	459.7	427.5	32.16	14.295			
5,800.0	5,719.0	5,762.1	5,719.0	19.3	14.9	179.55	295.5	297.5	459.7	427.2	32.47	14.160			
5,807.1	5,726.1	5,769.2	5,726.1	19.3	14.9	179.55	295.5	297.5	459.7	427.2	32.49	14.149			
5,900.0	5,819.0	5,862.1	5,819.0	19.4	15.0	179.55	295.5	297.5	459.7	426.9	32.81	14.013			
5,905.5	5,824.5	5,867.6	5,824.5	19.4	15.1	179.55	295.5	297.5	459.7	426.9	32.82	14.005			
6,003.9	5,923.0	5,966.1	5,923.0	19.6	15.2	179.55	295.5	297.5	459.7	426.5	33.16	13.863			
6,009.8	5,928.8	5,971.9	5,928.8	19.6	15.3	179.55	295.5	297.5	459.7	426.5	33.18	13.854			
6,050.0	5,969.0	6,012.4	5,969.2	19.6	15.3	-90.46	295.5	296.4	459.7	430.4	29.26	15.709			
6,100.0	6,018.8	6,062.6	6,019.2	19.7	15.4	-90.45	295.5	291.8	459.7	430.3	29.39	15.642			
6,102.3	6,021.1	6,065.0	6,021.6	19.7	15.4	-90.45	295.5	291.5	459.7	430.3	29.39	15.639			
6,150.0	6,068.1	6,112.9	6,068.8	19.7	15.4	-90.45	295.5	283.7	459.7	430.2	29.48	15.593			
6,200.0	6,116.8	6,163.1	6,117.7	19.7	15.4	-90.44	295.5	272.2	459.7	430.2	29.54	15.560			
6,200.8	6,117.5	6,163.9	6,118.5	19.7	15.4	-90.44	295.5	271.9	459.7	430.2	29.54	15.560			
6,250.0	6,164.5	6,213.4	6,165.7	19.7	15.5	-90.43	295.5	257.2	459.7	430.1	29.58	15.538			
6,299.2	6,210.4	6,262.8	6,211.7	19.7	15.5	-90.42	295.5	239.3	459.7	430.1	29.61	15.523			
6,300.0	6,211.1	6,263.6	6,212.5	19.7	15.5	-90.42	295.5	238.9	459.7	430.1	29.61	15.523			
6,350.0	6,256.4	6,313.8	6,257.9	19.7	15.5	-90.41	295.5	217.5	459.7	430.1	29.64	15.507			
6,397.6	6,298.0	6,361.7	6,299.6	19.7	15.5	-90.39	295.5	194.1	459.7	430.0	29.69	15.484			
6,400.0	6,300.0	6,364.0	6,301.6	19.7	15.5	-90.39	295.5	192.8	459.7	430.0	29.69	15.483			
6,450.0	6,341.8	6,414.3	6,343.5	19.7	15.4	-90.37	295.5	165.2	459.7	429.9	29.77	15.440			
6,496.0	6,378.6	6,460.5	6,380.4	19.7	15.4	-90.35	295.5	137.2	459.7	429.8	29.90	15.376			
6,500.0	6,381.6	6,464.5	6,383.4	19.7	15.4	-90.35	295.5	134.7	459.7	429.8	29.91	15.370			
6,550.0	6,419.2	6,514.7	6,421.1	19.6	15.4	-90.33	295.5	101.5	459.7	429.6	30.13	15.260			
6,567.7	6,432.0	6,532.4	6,433.8	19.6	15.4	-90.32	295.5	89.2	459.7	429.5	30.23	15.206			
6,594.5	6,450.7	6,559.3	6,452.5	19.6	15.4	-90.31	295.5	69.9	459.7	429.3	30.40	15.120			
6,600.0	6,454.4	6,564.8	6,456.3	19.6	15.4	-90.31	295.5	65.8	459.7	429.3	30.44	15.101			
6,650.0	6,487.1	6,615.0	6,488.9	19.6	15.5	-90.29	295.5	27.7	459.7	428.8	30.88	14.885			
6,692.9	6,513.0	6,658.0	6,514.7	19.6	15.5	-90.26	295.5	-6.7	459.7	428.3	31.38	14.651			
6,700.0	6,517.0	6,665.2	6,518.7	19.6	15.6	-90.26	295.5	-12.6	459.7	428.2	31.47	14.609			
6,750.0	6,544.1	6,715.3	6,545.7	19.6	15.9	-90.23	295.5	-54.8	459.7	427.5	32.21	14.271			
6,791.3	6,564.2	6,756.7	6,565.7	19.7	16.2	-90.21	295.5	-91.1	459.7	426.7	32.96	13.949			
6,800.0	6,568.2	6,765.4	6,569.6	19.7	16.3	-90.20	295.5	-98.9	459.7	426.6	33.12	13.878			
6,850.0	6,589.1	6,815.5	6,590.4	19.8	16.9	-90.18	295.5	-144.5	459.7	425.5	34.21	13.437			
6,889.7	6,603.5	6,855.3	6,604.6	19.9	17.4	-90.15	295.5	-181.6	459.7	424.5	35.20	13.060			
6,900.0	6,606.9	6,865.6	6,608.0	19.9	17.6	-90.15	295.5	-191.4	459.7	424.2	35.47	12.960			
6,950.0	6,621.3	6,915.7	6,622.2	20.2	18.3	-90.12	295.5	-239.4	459.7	422.8	36.89	12.461			
6,988.2	6,630.0	6,953.9	6,630.8	20.6	18.9	-90.09	295.5	-276.6	459.7	421.6	38.08	12.073			
7,000.0	6,632.4	6,965.7	6,633.0	20.7	19.1	-90.08	295.5	-288.2	459.7	421.2	38.46	11.953			
7,050.0	6,640.0	7,015.8	6,640.4	21.4	20.0	-90.05	295.5	-337.7	459.7	419.6	40.16	11.448			

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,643.4	7,052.4	6,643.6	21.9	20.7	-90.03	295.5	-374.2	459.7	418.2	41.47	11.085	
7,100.0	6,644.2	7,065.8	6,644.3	22.1	20.9	-90.02	295.5	-387.6	459.7	417.7	41.96	10.955	
7,135.7	6,645.0	7,101.4	6,645.0	22.7	21.6	-90.00	295.5	-423.2	459.7	416.4	43.31	10.615	
7,185.0	6,644.9	7,150.8	6,644.9	23.6	22.6	-90.00	295.5	-472.6	459.7	414.4	45.27	10.155	
7,200.0	6,644.9	7,165.8	6,644.9	23.9	22.9	-90.00	295.5	-487.5	459.7	413.8	45.86	10.023	
7,283.4	6,644.8	7,249.2	6,644.8	25.6	24.7	-90.00	295.5	-571.0	459.7	410.4	49.36	9.314	
7,300.0	6,644.8	7,265.8	6,644.8	25.9	25.1	-90.00	295.5	-587.5	459.7	409.7	50.06	9.183	
7,381.9	6,644.7	7,347.7	6,644.7	27.7	26.9	-90.00	295.5	-669.4	459.7	406.0	53.70	8.560	
7,400.0	6,644.7	7,365.8	6,644.7	28.1	27.3	-90.00	295.5	-687.5	459.7	405.2	54.52	8.432	
7,480.3	6,644.6	7,446.1	6,644.6	29.9	29.2	-90.00	295.5	-767.8	459.7	401.5	58.26	7.891	
7,500.0	6,644.6	7,465.8	6,644.5	30.3	29.7	-90.00	295.5	-787.5	459.7	400.5	59.18	7.768	
7,578.7	6,644.5	7,544.5	6,644.4	32.2	31.6	-90.00	295.5	-866.3	459.7	396.8	62.97	7.301	
7,600.0	6,644.4	7,565.8	6,644.4	32.7	32.1	-90.00	295.5	-887.5	459.7	395.7	64.00	7.183	
7,677.1	6,644.3	7,642.9	6,644.3	34.6	34.0	-90.00	295.5	-964.7	459.7	391.9	67.80	6.780	
7,700.0	6,644.3	7,665.8	6,644.3	35.1	34.6	-90.00	295.5	-987.5	459.7	390.8	68.94	6.669	
7,775.6	6,644.2	7,741.4	6,644.2	37.0	36.5	-90.00	295.5	-1,063.1	459.7	387.0	72.74	6.320	
7,800.0	6,644.2	7,765.8	6,644.2	37.6	37.1	-90.00	295.5	-1,087.5	459.7	385.8	73.97	6.215	
7,874.0	6,644.1	7,839.8	6,644.1	39.5	39.0	-90.00	295.5	-1,161.5	459.7	382.0	77.76	5.912	
7,900.0	6,644.1	7,865.8	6,644.0	40.1	39.7	-90.00	295.5	-1,187.5	459.7	380.6	79.09	5.813	
7,972.4	6,644.0	7,938.2	6,643.9	42.0	41.5	-90.00	295.5	-1,260.0	459.7	376.9	82.84	5.550	
8,000.0	6,643.9	7,965.8	6,643.9	42.7	42.3	-90.00	295.5	-1,287.5	459.7	375.5	84.27	5.455	
8,070.8	6,643.9	8,036.6	6,643.8	44.5	44.1	-90.00	295.5	-1,358.4	459.7	371.8	87.98	5.226	
8,100.0	6,643.8	8,065.8	6,643.8	45.2	44.9	-90.00	295.5	-1,387.5	459.7	370.2	89.50	5.136	
8,169.3	6,643.7	8,135.1	6,643.7	47.0	46.7	-90.00	295.5	-1,456.8	459.7	366.6	93.16	4.935	
8,200.0	6,643.7	8,165.8	6,643.7	47.9	47.5	-90.00	295.5	-1,487.5	459.7	365.0	94.78	4.850	
8,267.7	6,643.6	8,233.5	6,643.6	49.6	49.3	-90.00	295.5	-1,555.2	459.7	361.4	98.38	4.673	
8,300.0	6,643.6	8,265.8	6,643.5	50.5	50.2	-90.00	295.5	-1,587.5	459.7	359.6	100.10	4.593	
8,366.1	6,643.5	8,331.9	6,643.5	52.2	51.9	-89.99	295.5	-1,653.7	459.7	356.1	103.63	4.436	
8,400.0	6,643.4	8,365.8	6,643.4	53.1	52.9	-89.99	295.5	-1,687.5	459.7	354.3	105.45	4.360	
8,464.5	6,643.4	8,430.3	6,643.3	54.8	54.6	-89.99	295.5	-1,752.1	459.7	350.8	108.91	4.221	
8,500.0	6,643.3	8,465.8	6,643.3	55.8	55.5	-89.99	295.5	-1,787.5	459.7	348.9	110.82	4.149	
8,563.0	6,643.2	8,528.8	6,643.2	57.5	57.2	-89.99	295.5	-1,850.5	459.7	345.5	114.22	4.025	
8,600.0	6,643.2	8,565.8	6,643.2	58.5	58.2	-89.99	295.5	-1,887.5	459.7	343.5	116.22	3.956	
8,661.4	6,643.1	8,627.2	6,643.1	60.1	59.9	-89.99	295.5	-1,948.9	459.7	340.2	119.54	3.846	
8,700.0	6,643.1	8,665.8	6,643.0	61.2	61.0	-89.99	295.5	-1,987.5	459.7	338.1	121.64	3.780	
8,759.8	6,643.0	8,725.6	6,643.0	62.8	62.6	-89.99	295.5	-2,047.4	459.7	334.9	124.89	3.681	
8,800.0	6,643.0	8,765.8	6,642.9	63.9	63.7	-89.99	295.5	-2,087.5	459.7	332.7	127.07	3.618	
8,858.2	6,642.9	8,824.0	6,642.8	65.4	65.3	-89.99	295.5	-2,145.8	459.7	329.5	130.25	3.530	
8,900.0	6,642.8	8,865.8	6,642.8	66.6	66.4	-89.99	295.5	-2,187.5	459.7	327.2	132.53	3.469	
8,956.7	6,642.8	8,922.5	6,642.7	68.1	68.0	-89.99	295.5	-2,244.2	459.7	324.1	135.62	3.390	
9,000.0	6,642.7	8,965.8	6,642.7	69.3	69.1	-89.99	295.5	-2,287.5	459.8	321.8	137.99	3.332	
9,055.1	6,642.6	9,020.9	6,642.6	70.8	70.6	-89.99	295.5	-2,342.6	459.8	318.7	141.01	3.260	
9,100.0	6,642.6	9,065.8	6,642.5	72.0	71.9	-89.99	295.5	-2,387.5	459.8	316.3	143.47	3.205	
9,153.5	6,642.5	9,119.3	6,642.5	73.5	73.3	-89.99	295.5	-2,441.1	459.8	313.3	146.41	3.140	
9,200.0	6,642.5	9,165.8	6,642.4	74.7	74.6	-89.99	295.5	-2,487.5	459.8	310.8	148.96	3.086	
9,251.9	6,642.4	9,217.7	6,642.3	76.2	76.0	-89.99	295.5	-2,539.5	459.8	307.9	151.81	3.028	
9,300.0	6,642.3	9,265.8	6,642.3	77.5	77.4	-89.99	295.5	-2,587.5	459.8	305.3	154.45	2.977	
9,350.4	6,642.3	9,316.2	6,642.2	78.9	78.8	-89.99	295.5	-2,637.9	459.8	302.5	157.23	2.924	
9,400.0	6,642.2	9,365.8	6,642.2	80.2	80.1	-89.99	295.5	-2,687.5	459.8	299.8	159.96	2.874	
9,448.8	6,642.1	9,414.6	6,642.1	81.6	81.5	-89.99	295.5	-2,736.3	459.8	297.1	162.65	2.827	
9,500.0	6,642.1	9,465.8	6,642.0	83.0	82.9	-89.99	295.5	-2,787.5	459.8	294.3	165.48	2.778	
9,547.2	6,642.0	9,513.0	6,642.0	84.3	84.2	-89.99	295.5	-2,834.8	459.8	291.7	168.08	2.735	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,600.0	6,642.0	9,565.8	6,641.9	85.7	85.6	-89.99	295.5	-2,887.5	459.8	288.8	171.00	2.689	
9,645.6	6,641.9	9,611.4	6,641.8	87.0	86.9	-89.99	295.5	-2,933.2	459.8	286.2	173.52	2.650	
9,700.0	6,641.8	9,665.8	6,641.8	88.5	88.4	-89.99	295.5	-2,987.5	459.8	283.2	176.52	2.605	
9,744.1	6,641.8	9,709.9	6,641.7	89.7	89.6	-89.99	295.5	-3,031.6	459.8	280.8	178.96	2.569	
9,800.0	6,641.7	9,765.8	6,641.6	91.2	91.2	-89.99	295.5	-3,087.5	459.8	277.7	182.06	2.525	
9,842.5	6,641.7	9,808.3	6,641.6	92.4	92.4	-89.99	295.5	-3,130.0	459.8	275.3	184.41	2.493	
9,900.0	6,641.6	9,865.8	6,641.5	94.0	93.9	-89.99	295.5	-3,187.5	459.8	272.2	187.60	2.451	
9,940.9	6,641.5	9,906.7	6,641.5	95.1	95.1	-89.99	295.5	-3,228.5	459.8	269.9	189.86	2.422	
10,000.0	6,641.5	9,965.8	6,641.4	96.7	96.7	-89.99	295.5	-3,287.5	459.8	266.6	193.14	2.380	
10,039.3	6,641.4	10,005.1	6,641.3	97.8	97.8	-89.99	295.5	-3,326.9	459.8	264.4	195.32	2.354	
10,100.0	6,641.3	10,065.8	6,641.3	99.5	99.5	-89.99	295.5	-3,387.5	459.8	261.1	198.69	2.314	
10,137.8	6,641.3	10,103.6	6,641.2	100.6	100.5	-89.99	295.5	-3,425.3	459.8	259.0	200.78	2.290	
10,200.0	6,641.2	10,165.8	6,641.1	102.3	102.3	-89.99	295.5	-3,487.5	459.8	255.5	204.24	2.251	
10,236.2	6,641.2	10,202.0	6,641.1	103.3	103.3	-89.99	295.5	-3,523.7	459.8	253.5	206.25	2.229	
10,300.0	6,641.1	10,265.8	6,641.0	105.0	105.0	-89.99	295.5	-3,587.5	459.8	250.0	209.79	2.191	
10,334.6	6,641.0	10,300.4	6,641.0	106.0	106.0	-89.99	295.5	-3,622.2	459.8	248.0	211.72	2.172	
10,400.0	6,641.0	10,365.8	6,640.9	107.8	107.8	-89.99	295.5	-3,687.5	459.8	244.4	215.35	2.135	
10,433.0	6,640.9	10,398.8	6,640.9	108.7	108.7	-89.99	295.5	-3,720.6	459.8	242.6	217.19	2.117	
10,500.0	6,640.8	10,465.8	6,640.8	110.6	110.6	-89.99	295.5	-3,787.5	459.8	238.8	220.92	2.081	
10,531.5	6,640.8	10,497.3	6,640.7	111.5	111.5	-89.99	295.5	-3,819.0	459.8	237.1	222.67	2.065	
10,600.0	6,640.7	10,565.8	6,640.6	113.4	113.4	-89.99	295.5	-3,887.5	459.8	233.3	226.48	2.030	
10,629.9	6,640.7	10,595.7	6,640.6	114.2	114.2	-89.99	295.5	-3,917.4	459.8	231.6	228.15	2.015	
10,700.0	6,640.6	10,665.8	6,640.5	116.1	116.2	-89.99	295.5	-3,987.5	459.8	227.7	232.05	1.981	
10,728.3	6,640.5	10,694.1	6,640.5	116.9	117.0	-89.99	295.5	-4,015.9	459.8	226.1	233.63	1.968	
10,800.0	6,640.5	10,765.8	6,640.4	118.9	119.0	-89.99	295.5	-4,087.5	459.8	222.1	237.62	1.935	
10,826.7	6,640.4	10,792.5	6,640.4	119.7	119.7	-89.99	295.5	-4,114.3	459.8	220.7	239.11	1.923	
10,900.0	6,640.3	10,865.8	6,640.3	121.7	121.7	-89.99	295.5	-4,187.5	459.8	216.6	243.19	1.891	
10,925.2	6,640.3	10,891.0	6,640.2	122.4	122.4	-89.99	295.5	-4,212.7	459.8	215.2	244.60	1.880	
11,000.0	6,640.2	10,965.8	6,640.1	124.5	124.5	-89.99	295.5	-4,287.5	459.8	211.0	248.77	1.848	
11,023.6	6,640.2	10,989.4	6,640.1	125.1	125.2	-89.99	295.5	-4,311.1	459.8	209.7	250.08	1.838	
11,100.0	6,640.1	11,065.8	6,640.0	127.3	127.3	-89.99	295.5	-4,387.5	459.8	205.4	254.35	1.808	
11,122.0	6,640.0	11,087.8	6,640.0	127.9	127.9	-89.99	295.5	-4,409.6	459.8	204.2	255.57	1.799	
11,200.0	6,639.9	11,165.8	6,639.9	130.1	130.1	-89.99	295.5	-4,487.5	459.8	199.8	259.92	1.769	
11,220.4	6,639.9	11,186.2	6,639.9	130.6	130.7	-89.99	295.5	-4,508.0	459.8	198.7	261.07	1.761	
11,300.0	6,639.8	11,265.8	6,639.8	132.8	132.9	-89.99	295.5	-4,587.5	459.8	194.3	265.51	1.732	
11,318.9	6,639.8	11,284.7	6,639.7	133.4	133.4	-89.99	295.5	-4,606.4	459.8	193.2	266.56	1.725	
11,400.0	6,639.7	11,365.8	6,639.6	135.6	135.7	-89.99	295.5	-4,687.5	459.8	188.7	271.09	1.696	
11,417.3	6,639.7	11,383.1	6,639.6	136.1	136.2	-89.99	295.5	-4,704.8	459.8	187.7	272.05	1.690	
11,500.0	6,639.6	11,465.8	6,639.5	138.4	138.5	-89.99	295.5	-4,787.5	459.8	183.1	276.67	1.662	
11,515.7	6,639.5	11,481.5	6,639.5	138.9	138.9	-89.99	295.5	-4,803.3	459.8	182.2	277.55	1.656	
11,600.0	6,639.4	11,565.8	6,639.4	141.2	141.3	-89.99	295.5	-4,887.5	459.8	177.5	282.26	1.629	
11,614.1	6,639.4	11,579.9	6,639.4	141.6	141.7	-89.99	295.5	-4,901.7	459.8	176.7	283.05	1.624	
11,700.0	6,639.3	11,665.8	6,639.3	144.0	144.1	-89.99	295.5	-4,987.5	459.8	171.9	287.84	1.597	
11,712.6	6,639.3	11,678.4	6,639.2	144.3	144.4	-89.99	295.5	-5,000.1	459.8	171.2	288.55	1.593	
11,800.0	6,639.2	11,765.8	6,639.1	146.8	146.9	-89.99	295.5	-5,087.5	459.8	166.3	293.43	1.567	
11,811.0	6,639.2	11,776.8	6,639.1	147.1	147.2	-89.99	295.5	-5,098.5	459.8	165.7	294.05	1.564	
11,900.0	6,639.1	11,865.8	6,639.0	149.6	149.7	-89.99	295.5	-5,187.5	459.8	160.7	299.02	1.538	
11,909.4	6,639.0	11,875.2	6,639.0	149.8	149.9	-89.99	295.5	-5,197.0	459.8	160.2	299.55	1.535	
12,000.0	6,638.9	11,965.8	6,638.9	152.4	152.5	-89.99	295.5	-5,287.5	459.8	155.1	304.61	1.509	
12,007.8	6,638.9	11,973.6	6,638.9	152.6	152.7	-89.99	295.5	-5,295.4	459.8	154.7	305.05	1.507	
12,100.0	6,638.8	12,065.8	6,638.8	155.2	155.3	-90.00	295.5	-5,387.5	459.8	149.5	310.21	1.482 Level 3	
12,106.3	6,638.8	12,072.1	6,638.8	155.3	155.4	-90.00	295.5	-5,393.8	459.8	149.2	310.56	1.480 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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,200.0	6,638.7	12,165.8	6,638.6	157.9	158.1	-90.00	295.5	-5,487.5	459.8	144.0	315.80	1.456	Level 3
12,204.7	6,638.7	12,170.5	6,638.6	158.1	158.2	-90.00	295.5	-5,492.2	459.8	143.7	316.06	1.455	Level 3
12,300.0	6,638.5	12,265.8	6,638.5	160.7	160.9	-90.00	295.5	-5,587.5	459.8	138.4	321.39	1.430	Level 3
12,303.1	6,638.5	12,268.9	6,638.5	160.8	160.9	-90.00	295.5	-5,590.7	459.8	138.2	321.57	1.430	Level 3
12,400.0	6,638.4	12,365.8	6,638.4	163.5	163.6	-90.00	295.5	-5,687.5	459.8	132.8	326.99	1.406	Level 3
12,401.5	6,638.4	12,367.3	6,638.4	163.6	163.7	-90.00	295.5	-5,689.1	459.8	132.7	327.07	1.406	Level 3
12,500.0	6,638.3	12,465.8	6,638.3	166.3	166.4	-90.00	295.5	-5,787.5	459.7	127.2	332.58	1.382	Level 3
12,598.4	6,638.2	12,564.2	6,638.1	169.1	169.2	-90.00	295.5	-5,885.9	459.7	121.7	338.09	1.360	Level 3
12,600.0	6,638.2	12,565.8	6,638.1	169.1	169.2	-90.00	295.5	-5,887.5	459.7	121.6	338.18	1.359	Level 3
12,696.8	6,638.0	12,662.6	6,638.0	171.8	172.0	-90.00	295.5	-5,984.4	459.7	116.1	343.60	1.338	Level 3
12,700.0	6,638.0	12,665.8	6,638.0	171.9	172.0	-90.00	295.5	-5,987.5	459.7	116.0	343.78	1.337	Level 3
12,795.2	6,637.9	12,761.0	6,637.9	174.6	174.7	-90.00	295.5	-6,082.8	459.7	110.6	349.11	1.317	Level 3
12,800.0	6,637.9	12,765.8	6,637.9	174.7	174.8	-90.00	295.5	-6,087.5	459.7	110.4	349.38	1.316	Level 3
12,893.7	6,637.8	12,859.5	6,637.8	177.3	177.5	-90.00	295.5	-6,181.2	459.7	105.1	354.62	1.296	Level 3
12,900.0	6,637.8	12,865.8	6,637.8	177.5	177.6	-90.00	295.5	-6,187.5	459.7	104.8	354.98	1.295	Level 3
12,992.1	6,637.7	12,957.9	6,637.6	180.1	180.2	-90.00	295.5	-6,279.6	459.7	99.6	360.13	1.277	Level 3
13,000.0	6,637.6	12,965.8	6,637.6	180.3	180.4	-90.00	295.5	-6,287.5	459.7	99.2	360.58	1.275	Level 3
13,090.5	6,637.5	13,056.3	6,637.5	182.8	183.0	-90.00	295.5	-6,378.1	459.7	94.1	365.65	1.257	Level 3
13,100.0	6,637.5	13,065.8	6,637.5	183.1	183.2	-90.00	295.5	-6,387.5	459.7	93.6	366.18	1.256	Level 3
13,188.9	6,637.4	13,154.7	6,637.4	185.6	185.7	-90.00	295.5	-6,476.5	459.7	88.6	371.16	1.239	Level 2
13,200.0	6,637.4	13,165.8	6,637.4	185.9	186.0	-90.00	295.5	-6,487.5	459.7	88.0	371.78	1.237	Level 2
13,287.4	6,637.3	13,253.2	6,637.3	188.4	188.5	-90.00	295.5	-6,574.9	459.7	83.1	376.67	1.221	Level 2
13,300.0	6,637.3	13,265.8	6,637.3	188.7	188.8	-90.00	295.5	-6,587.5	459.7	82.4	377.38	1.218	Level 2
13,385.8	6,637.1	13,351.6	6,637.1	191.1	191.2	-90.00	295.5	-6,673.3	459.7	77.5	382.19	1.203	Level 2
13,400.0	6,637.1	13,365.8	6,637.1	191.5	191.6	-90.00	295.5	-6,687.5	459.7	76.8	382.98	1.200	Level 2
13,484.2	6,637.0	13,450.0	6,637.0	193.9	194.0	-90.00	295.5	-6,771.8	459.7	72.0	387.70	1.186	Level 2
13,500.0	6,637.0	13,465.8	6,637.0	194.3	194.4	-90.00	295.5	-6,787.5	459.7	71.1	388.59	1.183	Level 2
13,582.6	6,636.9	13,548.4	6,636.9	196.6	196.8	-90.00	295.5	-6,870.2	459.7	66.5	393.22	1.169	Level 2
13,600.0	6,636.9	13,565.8	6,636.9	197.1	197.2	-90.00	295.5	-6,887.5	459.7	65.5	394.19	1.166	Level 2
13,681.1	6,636.8	13,646.9	6,636.8	199.4	199.5	-90.00	295.5	-6,968.6	459.7	61.0	398.73	1.153	Level 2
13,700.0	6,636.7	13,665.8	6,636.8	199.9	200.1	-90.00	295.5	-6,987.5	459.7	59.9	399.79	1.150	Level 2
13,779.5	6,636.6	13,745.3	6,636.7	202.1	202.3	-90.00	295.5	-7,067.0	459.7	55.5	404.25	1.137	Level 2
13,800.0	6,636.6	13,765.8	6,636.6	202.7	202.9	-90.00	295.5	-7,087.5	459.7	54.3	405.40	1.134	Level 2
13,877.9	6,636.5	13,843.7	6,636.5	204.9	205.0	-90.00	295.5	-7,165.5	459.7	50.0	409.76	1.122	Level 2
13,900.0	6,636.5	13,865.8	6,636.5	205.5	205.7	-90.00	295.5	-7,187.5	459.7	48.7	411.00	1.119	Level 2
13,976.3	6,636.4	13,942.1	6,636.4	207.6	207.8	-90.00	295.5	-7,263.9	459.7	44.4	415.28	1.107	Level 2
14,000.0	6,636.3	13,965.8	6,636.4	208.3	208.5	-90.00	295.5	-7,287.5	459.7	43.1	416.61	1.103	Level 2
14,074.8	6,636.3	14,040.6	6,636.3	210.4	210.6	-90.00	295.5	-7,362.3	459.7	38.9	420.80	1.092	Level 2
14,100.0	6,636.2	14,065.8	6,636.2	211.1	211.3	-90.00	295.5	-7,387.5	459.7	37.5	422.21	1.089	Level 2
14,173.2	6,636.1	14,139.0	6,636.2	213.2	213.3	-90.00	295.5	-7,460.7	459.7	33.4	426.32	1.078	Level 2
14,200.0	6,636.1	14,165.8	6,636.1	213.9	214.1	-90.00	295.5	-7,487.5	459.7	31.9	427.82	1.075	Level 2
14,271.6	6,636.0	14,237.4	6,636.0	215.9	216.1	-90.00	295.5	-7,559.2	459.7	27.9	431.84	1.065	Level 2
14,300.0	6,636.0	14,265.8	6,636.0	216.7	216.9	-90.00	295.5	-7,587.5	459.7	26.3	433.43	1.061	Level 2
14,370.0	6,635.9	14,335.8	6,635.9	218.7	218.8	-90.01	295.5	-7,657.6	459.7	22.4	437.35	1.051	Level 2
14,400.0	6,635.8	14,365.8	6,635.9	219.5	219.7	-90.01	295.5	-7,687.5	459.7	20.7	439.03	1.047	Level 2
14,468.5	6,635.7	14,434.3	6,635.8	221.4	221.6	-90.01	295.5	-7,756.0	459.7	16.8	442.87	1.038	Level 2
14,500.0	6,635.7	14,465.8	6,635.7	222.3	222.5	-90.01	295.5	-7,787.5	459.7	15.1	444.64	1.034	Level 2
14,566.9	6,635.6	14,532.7	6,635.7	224.2	224.4	-90.01	295.5	-7,854.4	459.7	11.3	448.39	1.025	Level 2
14,600.0	6,635.6	14,565.8	6,635.6	225.1	225.3	-90.01	295.5	-7,887.5	459.7	9.5	450.25	1.021	Level 2
14,665.3	6,635.5	14,631.1	6,635.5	226.9	227.1	-90.01	295.5	-7,952.9	459.7	5.8	453.91	1.013	Level 2
14,700.0	6,635.4	14,665.8	6,635.5	227.9	228.1	-90.01	295.5	-7,987.5	459.7	3.8	455.86	1.008	Level 2
14,763.7	6,635.4	14,729.5	6,635.4	229.7	229.9	-90.01	295.5	-8,051.3	459.7	0.3	459.43	1.001	Level 2

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10F-234 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,800.0	6,635.3	14,765.8	6,635.4	230.7	230.9	-90.01	295.5	-8,087.5	459.7	-1.8	461.47	0.996	Level 1
14,862.2	6,635.2	14,828.0	6,635.3	232.5	232.6	-90.01	295.5	-8,149.7	459.7	-5.3	464.95	0.989	Level 1
14,900.0	6,635.2	14,865.8	6,635.2	233.5	233.7	-90.01	295.5	-8,187.5	459.7	-7.4	467.07	0.984	Level 1
14,960.6	6,635.1	14,926.4	6,635.1	235.2	235.4	-90.01	295.5	-8,248.1	459.7	-10.8	470.47	0.977	Level 1
15,000.0	6,635.0	14,965.8	6,635.1	236.3	236.5	-90.00	295.5	-8,287.5	459.7	-13.0	472.68	0.973	Level 1
15,025.7	6,635.0	14,991.5	6,635.0	237.0	237.2	-90.00	295.5	-8,313.3	459.7	-14.4	474.13	0.970	Level 1
15,033.1	6,635.0	14,995.1	6,635.0	237.3	237.3	-90.00	295.5	-8,316.9	459.7	-14.7	474.43	0.969	Level 1, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-179.47	-29.9	-0.3	29.9				
98.4	98.4	98.4	98.4	0.1	0.1	-179.47	-29.9	-0.3	29.9	29.7	0.19	155.386	
100.0	100.0	100.0	100.0	0.1	0.1	-179.47	-29.9	-0.3	29.9	29.7	0.20	152.756	
196.8	196.8	196.8	196.8	0.3	0.3	-179.47	-29.9	-0.3	29.9	29.2	0.63	47.345	
200.0	200.0	200.0	200.0	0.3	0.3	-179.47	-29.9	-0.3	29.9	29.2	0.65	46.306	
295.3	295.3	295.3	295.3	0.5	0.5	-179.47	-29.9	-0.3	29.9	28.8	1.07	27.829	
300.0	300.0	300.0	300.0	0.5	0.5	-179.47	-29.9	-0.3	29.9	28.8	1.09	27.289	
393.7	393.7	393.7	393.7	0.8	0.8	-179.47	-29.9	-0.3	29.9	28.4	1.52	19.706	
400.0	400.0	400.0	400.0	0.8	0.8	-179.47	-29.9	-0.3	29.9	28.3	1.54	19.345	
492.1	492.1	492.1	492.1	1.0	1.0	-179.47	-29.9	-0.3	29.9	27.9	1.96	15.254	
500.0	500.0	500.0	500.0	1.0	1.0	-179.47	-29.9	-0.3	29.9	27.9	1.99	14.983	
590.5	590.5	590.5	590.5	1.2	1.2	-179.47	-29.9	-0.3	29.9	27.5	2.40	12.442	
600.0	600.0	600.0	600.0	1.2	1.2	-179.47	-29.9	-0.3	29.9	27.4	2.44	12.226	
689.0	689.0	689.0	689.0	1.4	1.4	-179.47	-29.9	-0.3	29.9	27.0	2.84	10.506	
700.0	700.0	700.0	700.0	1.4	1.4	-179.47	-29.9	-0.3	29.9	27.0	2.89	10.326	
787.4	787.4	787.4	787.4	1.6	1.6	-179.47	-29.9	-0.3	29.9	26.6	3.29	9.091	
800.0	800.0	800.0	800.0	1.7	1.7	-179.47	-29.9	-0.3	29.9	26.5	3.34	8.937	
885.8	885.8	885.8	885.8	1.9	1.9	-179.47	-29.9	-0.3	29.9	26.1	3.73	8.012	
900.0	900.0	900.0	900.0	1.9	1.9	-179.47	-29.9	-0.3	29.9	26.1	3.79	7.878	
984.2	984.2	984.2	984.2	2.1	2.1	-179.47	-29.9	-0.3	29.9	25.7	4.17	7.162	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.47	-29.9	-0.3	29.9	25.6	4.24	7.043 CC, ES	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	154.51	-29.9	-0.3	30.9	26.3	4.61	6.710	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	154.94	-29.9	-0.3	31.4	26.8	4.69	6.706	
1,181.1	1,181.0	1,181.0	1,181.0	2.5	2.5	157.66	-29.9	-0.3	35.1	30.0	5.05	6.948	
1,200.0	1,199.8	1,199.8	1,199.8	2.6	2.6	158.41	-29.9	-0.3	36.3	31.1	5.13	7.062	
1,279.5	1,279.1	1,279.4	1,279.4	2.8	2.7	163.12	-29.4	-1.3	42.2	36.7	5.48	7.706	
1,300.0	1,299.5	1,299.8	1,299.8	2.8	2.8	164.70	-29.1	-1.9	44.1	38.5	5.57	7.915	
1,377.9	1,376.9	1,377.3	1,377.2	3.0	3.0	171.35	-27.6	-5.3	52.5	46.6	5.90	8.896	
1,400.0	1,398.7	1,399.1	1,399.0	3.0	3.0	173.29	-27.0	-6.6	55.3	49.3	5.99	9.233	
1,476.4	1,474.2	1,474.3	1,473.9	3.2	3.2	179.83	-24.4	-12.2	66.8	60.5	6.32	10.582	
1,500.0	1,497.5	1,497.5	1,496.9	3.3	3.2	-178.27	-23.5	-14.3	71.0	64.6	6.41	11.063	
1,574.8	1,571.0	1,570.1	1,569.1	3.5	3.4	-172.78	-20.0	-22.0	85.9	79.2	6.74	12.739	
1,600.0	1,595.6	1,594.4	1,593.2	3.6	3.5	-171.11	-18.6	-24.9	91.6	84.7	6.85	13.363	
1,673.2	1,667.2	1,664.6	1,662.5	3.9	3.6	-166.75	-14.3	-34.5	109.0	101.8	7.22	15.109	
1,700.0	1,693.4	1,690.1	1,687.7	4.0	3.7	-165.28	-12.5	-38.3	115.7	108.3	7.35	15.738	
1,771.6	1,763.5	1,757.9	1,754.4	4.2	3.9	-161.61	-7.4	-49.6	134.1	126.3	7.73	17.347	
1,800.0	1,791.3	1,784.6	1,780.5	4.3	4.0	-160.26	-5.2	-54.4	141.6	133.8	7.88	17.977	
1,870.1	1,859.8	1,850.0	1,844.5	4.6	4.2	-157.11	0.6	-67.1	161.1	152.8	8.28	19.466	
1,900.0	1,889.1	1,877.7	1,871.4	4.7	4.3	-155.85	3.2	-72.9	169.7	161.3	8.45	20.092	
1,968.5	1,956.1	1,940.7	1,932.5	4.9	4.6	-153.13	9.6	-86.9	190.2	181.4	8.86	21.474	
2,000.0	1,986.9	1,969.4	1,960.2	5.1	4.7	-151.95	12.7	-93.7	200.0	191.0	9.05	22.096	
2,066.9	2,052.3	2,029.9	2,018.3	5.3	4.9	-149.57	19.6	-108.9	221.6	212.1	9.47	23.386	
2,100.0	2,084.7	2,059.5	2,046.6	5.5	5.1	-148.46	23.2	-116.7	232.6	222.9	9.69	24.011	
2,165.3	2,148.6	2,120.0	2,104.4	5.7	5.4	-146.39	30.7	-133.1	254.9	244.8	10.13	25.168	
2,200.0	2,182.5	2,152.2	2,135.2	5.9	5.5	-145.42	34.7	-141.9	266.9	256.5	10.37	25.743	
2,263.8	2,244.9	2,211.6	2,191.9	6.1	5.8	-143.85	42.0	-157.9	289.0	278.2	10.80	26.756	
2,300.0	2,280.3	2,245.3	2,224.1	6.3	6.0	-143.06	46.2	-167.1	301.6	290.6	11.05	27.293	
2,362.2	2,341.2	2,303.3	2,279.4	6.5	6.3	-141.84	53.3	-182.8	323.5	312.0	11.48	28.166	
2,400.0	2,378.1	2,338.4	2,312.9	6.7	6.5	-141.18	57.7	-192.3	336.8	325.0	11.75	28.663	
2,460.6	2,437.4	2,394.9	2,366.8	6.9	6.8	-140.22	64.7	-207.6	358.2	346.0	12.18	29.419	
2,500.0	2,476.0	2,431.6	2,401.8	7.1	7.0	-139.65	69.2	-217.6	372.2	359.7	12.46	29.880	
2,550.0	2,524.9	2,478.1	2,446.3	7.3	7.3	-138.99	74.9	-230.2	390.0	377.2	12.81	30.437	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,486.5	2,454.3	7.3	7.3	-137.98	76.0	-232.5	393.2	380.3	12.88	30.529	
2,600.0	2,573.8	2,524.8	2,490.8	7.5	7.6	-133.47	80.7	-242.8	407.5	394.3	13.18	30.909	
2,639.4	2,612.3	2,561.7	2,526.1	7.7	7.8	-129.24	85.3	-252.9	420.9	407.4	13.48	31.231	
2,657.5	2,630.0	2,578.7	2,542.3	7.7	7.9	-129.10	87.4	-257.5	427.0	413.4	13.61	31.376	
2,700.0	2,671.6	2,618.7	2,580.5	7.9	8.1	-128.79	92.3	-268.3	441.3	427.4	13.92	31.703	
2,755.9	2,726.3	2,671.3	2,630.7	8.1	8.4	-128.41	98.8	-282.6	460.1	445.8	14.34	32.088	
2,800.0	2,769.4	2,712.8	2,670.3	8.3	8.6	-128.13	103.9	-293.8	475.0	460.3	14.67	32.376	
2,854.3	2,822.5	2,763.8	2,719.0	8.5	8.9	-127.80	110.2	-307.6	493.3	478.2	15.08	32.708	
2,900.0	2,867.2	2,806.8	2,760.0	8.7	9.2	-127.55	115.6	-319.3	508.7	493.3	15.43	32.974	
2,952.7	2,918.8	2,856.4	2,807.4	9.0	9.5	-127.28	121.7	-332.7	526.5	510.7	15.83	33.262	
3,000.0	2,965.0	2,900.8	2,849.8	9.2	9.7	-127.05	127.2	-344.8	542.4	526.3	16.19	33.508	
3,051.2	3,015.1	2,948.9	2,895.7	9.4	10.0	-126.81	133.1	-357.8	559.7	543.1	16.58	33.758	
3,100.0	3,062.8	2,994.9	2,939.5	9.6	10.3	-126.60	138.8	-370.3	576.2	559.3	16.95	33.987	
3,149.6	3,111.4	3,041.5	2,984.1	9.8	10.6	-126.40	144.6	-382.9	593.0	575.7	17.34	34.205	
3,200.0	3,160.7	3,088.9	3,029.3	10.0	10.9	-126.21	150.4	-395.8	610.0	592.3	17.72	34.418	
3,248.0	3,207.6	3,134.0	3,072.4	10.2	11.1	-126.03	156.0	-408.0	626.3	608.2	18.10	34.609	
3,300.0	3,258.5	3,182.9	3,119.1	10.5	11.4	-125.85	162.0	-421.3	643.9	625.4	18.50	34.808	
3,346.4	3,303.9	3,226.6	3,160.8	10.7	11.7	-125.70	167.4	-433.1	659.6	640.8	18.86	34.977	
3,400.0	3,356.3	3,276.9	3,208.8	10.9	12.0	-125.54	173.7	-446.7	677.7	658.5	19.27	35.163	
3,444.9	3,400.2	3,319.1	3,249.1	11.1	12.3	-125.40	178.9	-458.2	692.9	673.3	19.62	35.311	
3,500.0	3,454.1	3,371.0	3,298.6	11.3	12.6	-125.25	185.3	-472.2	711.6	691.6	20.05	35.486	
3,543.3	3,496.5	3,411.7	3,337.5	11.5	12.8	-125.13	190.3	-483.3	726.3	705.9	20.39	35.617	
3,600.0	3,551.9	3,465.0	3,388.3	11.7	13.2	-124.99	196.9	-497.7	745.5	724.7	20.83	35.782	
3,641.7	3,592.7	3,504.2	3,425.8	11.9	13.4	-124.88	201.7	-508.4	759.7	738.5	21.16	35.898	
3,700.0	3,649.7	3,559.0	3,478.1	12.2	13.7	-124.75	208.5	-523.2	779.4	757.8	21.62	36.054	
3,740.1	3,689.0	3,596.8	3,514.1	12.4	14.0	-124.66	213.2	-533.4	793.0	771.1	21.93	36.157	
3,800.0	3,747.5	3,653.1	3,567.9	12.6	14.3	-124.53	220.1	-548.7	813.3	790.9	22.40	36.304	
3,838.6	3,785.3	3,689.3	3,602.5	12.8	14.5	-124.45	224.6	-558.5	826.4	803.7	22.71	36.395	
3,900.0	3,845.4	3,747.1	3,657.6	13.1	14.9	-124.33	231.8	-574.2	847.3	824.1	23.19	36.535	
3,937.0	3,881.6	3,781.9	3,690.8	13.2	15.1	-124.26	236.1	-583.6	859.8	836.3	23.48	36.616	
4,000.0	3,943.2	3,841.1	3,747.4	13.5	15.5	-124.14	243.4	-599.7	881.2	857.2	23.98	36.749	
4,035.4	3,977.8	3,874.4	3,779.2	13.6	15.7	-124.08	247.5	-608.7	893.2	868.9	24.26	36.821	
4,100.0	4,041.0	3,935.2	3,837.1	13.9	16.1	-123.97	255.0	-625.2	915.1	890.4	24.77	36.948	
4,133.8	4,074.1	3,967.0	3,867.5	14.1	16.3	-123.91	258.9	-633.8	926.6	901.6	25.04	37.012	
4,200.0	4,138.8	4,029.2	3,926.9	14.4	16.6	-123.81	266.6	-650.7	949.1	923.5	25.56	37.133	
4,232.3	4,170.4	4,059.5	3,955.9	14.5	16.8	-123.76	270.4	-658.9	960.0	934.2	25.81	37.189	
4,300.0	4,236.6	4,123.2	4,016.7	14.8	17.2	-123.66	278.2	-676.1	983.0	956.7	26.35	37.305	
4,330.7	4,266.7	4,152.1	4,044.2	14.9	17.4	-123.61	281.8	-684.0	993.4	966.9	26.59	37.355	
4,400.0	4,334.4	4,217.2	4,106.4	15.2	17.8	-123.52	289.9	-701.6	1,017.0	989.8	27.14	37.466	
4,429.1	4,362.9	4,244.6	4,132.6	15.4	18.0	-123.48	293.2	-709.1	1,026.9	999.5	27.38	37.511	
4,500.0	4,432.3	4,311.3	4,196.2	15.7	18.4	-123.39	301.5	-727.1	1,050.9	1,023.0	27.94	37.617	
4,527.5	4,459.2	4,337.2	4,220.9	15.8	18.6	-123.35	304.7	-734.2	1,060.3	1,032.1	28.16	37.656	
4,600.0	4,530.1	4,405.3	4,285.9	16.1	19.0	-123.27	313.1	-752.6	1,084.9	1,056.2	28.73	37.758	
4,626.0	4,555.5	4,429.7	4,309.3	16.2	19.1	-123.24	316.1	-759.2	1,093.7	1,064.8	28.94	37.793	
4,700.0	4,627.9	4,499.3	4,375.7	16.6	19.6	-123.15	324.7	-778.1	1,118.9	1,089.4	29.53	37.891	
4,724.4	4,651.7	4,522.3	4,397.6	16.7	19.7	-123.12	327.6	-784.3	1,127.2	1,097.5	29.72	37.922	
4,800.0	4,725.7	4,593.4	4,465.5	17.0	20.2	-123.04	336.3	-803.6	1,152.9	1,122.5	30.33	38.016	
4,822.8	4,748.0	4,614.8	4,486.0	17.1	20.3	-123.02	339.0	-809.4	1,160.6	1,130.1	30.51	38.043	
4,904.9	4,828.3	4,692.0	4,559.6	17.5	20.8	-122.94	348.5	-830.3	1,188.5	1,157.3	31.16	38.139	
4,921.2	4,844.3	4,707.4	4,574.3	17.5	20.9	-123.02	350.4	-834.5	1,194.0	1,162.7	31.30	38.143	
5,000.0	4,921.6	4,781.7	4,645.2	17.8	21.3	-123.34	359.6	-854.6	1,220.0	1,188.0	31.98	38.146	
5,019.7	4,941.0	4,800.3	4,663.0	17.9	21.5	-123.40	361.9	-859.7	1,226.3	1,194.2	32.14	38.158	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,876.4	4,735.7	18.1	21.9	-123.60	371.3	-880.3	1,251.4	1,218.6	32.76	38.194	
5,118.1	5,038.3	4,893.6	4,752.1	18.2	22.0	-123.63	373.4	-885.0	1,256.9	1,224.0	32.90	38.205	
5,200.0	5,119.6	4,971.5	4,826.5	18.4	22.5	-123.70	383.1	-906.1	1,281.0	1,247.5	33.50	38.241	
5,216.5	5,136.0	4,987.3	4,841.5	18.4	22.6	-123.70	385.0	-910.4	1,285.7	1,252.1	33.61	38.252	
5,300.0	5,219.2	5,066.9	4,917.5	18.6	23.1	-123.65	394.9	-932.0	1,308.8	1,274.6	34.18	38.294	
5,314.9	5,234.1	5,081.2	4,931.1	18.6	23.2	-123.63	396.6	-935.8	1,312.8	1,278.5	34.27	38.305	
5,400.0	5,319.1	5,162.4	5,008.6	18.8	23.7	-123.47	406.7	-957.8	1,334.9	1,300.1	34.80	38.357	
5,413.4	5,332.4	5,175.2	5,020.8	18.8	23.8	-123.44	408.2	-961.3	1,338.2	1,303.3	34.88	38.369	
5,504.9	5,423.9	5,015.5	6,713.1	18.9	39.2	175.50	475.7	315.9	1,319.3	1,283.3	36.06	36.584	
5,511.8	5,430.8	8,015.4	6,713.1	18.9	39.2	175.52	475.7	315.8	1,312.6	1,276.5	36.07	36.389	
5,600.0	5,519.0	8,013.9	6,713.1	19.0	39.2	175.83	475.7	314.3	1,226.6	1,190.4	36.16	33.916	
5,610.2	5,529.3	8,013.7	6,713.2	19.0	39.2	175.87	475.7	314.1	1,216.6	1,180.4	36.18	33.629	
5,700.0	5,619.0	8,012.2	6,713.2	19.2	39.2	176.18	475.7	312.5	1,129.4	1,093.1	36.28	31.128	
5,708.6	5,627.7	8,012.0	6,713.2	19.2	39.1	176.21	475.7	312.4	1,121.0	1,084.8	36.29	30.888	
5,800.0	5,719.0	8,010.5	6,713.2	19.3	39.1	176.53	475.7	310.8	1,032.8	996.4	36.41	28.370	
5,807.1	5,726.1	8,010.4	6,713.2	19.3	39.1	176.55	475.7	310.7	1,026.0	989.6	36.41	28.177	
5,900.0	5,819.0	8,008.8	6,713.2	19.4	39.1	176.87	475.7	309.1	937.0	900.5	36.53	25.649	
5,905.5	5,824.5	8,008.7	6,713.2	19.4	39.1	176.89	475.7	309.0	931.7	895.2	36.54	25.500	
6,003.9	5,923.0	8,007.0	6,713.3	19.6	39.0	177.24	475.7	307.4	838.4	801.7	36.67	22.866	
6,009.8	5,928.8	8,006.9	6,713.3	19.6	39.0	177.26	475.7	307.3	832.9	796.2	36.67	22.711	
6,050.0	5,969.0	8,005.1	6,713.3	19.6	39.0	-101.03	475.7	305.4	795.1	741.1	54.04	14.713	
6,100.0	6,018.8	7,999.7	6,713.4	19.7	38.9	-109.51	475.7	300.0	748.8	695.3	53.46	14.008	
6,102.3	6,021.1	7,999.3	6,713.4	19.7	38.9	-109.86	475.7	299.7	746.6	693.2	53.42	13.978	
6,150.0	6,068.1	7,990.8	6,713.5	19.7	38.7	-116.01	475.7	291.2	703.4	650.9	52.52	13.393	
6,200.0	6,116.8	7,978.6	6,713.8	19.7	38.4	-120.79	475.7	278.9	659.2	607.7	51.48	12.805	
6,200.8	6,117.5	7,978.4	6,713.8	19.7	38.4	-120.85	475.7	278.7	658.5	607.1	51.47	12.796	
6,250.0	6,164.5	7,963.0	6,714.0	19.7	38.1	-124.17	475.7	263.3	616.5	566.1	50.46	12.217	
6,299.2	6,210.4	7,944.4	6,714.3	19.7	37.7	-126.40	475.7	244.8	576.3	526.8	49.53	11.635	
6,300.0	6,211.1	7,944.1	6,714.3	19.7	37.7	-126.43	475.7	244.5	575.6	526.1	49.52	11.626	
6,350.0	6,256.4	7,922.0	6,714.7	19.7	37.3	-127.78	475.7	222.4	536.9	488.2	48.64	11.037	
6,397.6	6,298.0	7,898.1	6,715.1	19.7	36.8	-128.35	475.7	198.5	502.2	454.3	47.88	10.488	
6,400.0	6,300.0	7,896.9	6,715.1	19.7	36.7	-128.37	475.7	197.2	500.5	452.6	47.85	10.460	
6,450.0	6,341.8	7,868.8	6,715.6	19.7	36.2	-128.31	475.7	169.2	466.8	419.6	47.14	9.901	
6,496.0	6,378.6	7,840.4	6,716.1	19.7	35.6	-127.76	475.7	140.8	438.2	391.7	46.56	9.412	
6,500.0	6,381.6	7,837.9	6,716.2	19.7	35.6	-127.69	475.7	138.3	435.9	389.4	46.51	9.372	
6,550.0	6,419.2	7,804.3	6,716.7	19.6	34.9	-126.58	475.7	104.7	408.2	362.2	45.98	8.878	
6,594.5	6,450.7	7,772.3	6,717.3	19.6	34.3	-125.23	475.7	72.7	386.2	340.6	45.61	8.469	
6,600.0	6,454.4	7,768.2	6,717.3	19.6	34.2	-125.04	475.7	68.6	383.7	338.1	45.57	8.421	
6,650.0	6,487.1	7,729.8	6,718.0	19.6	33.5	-123.14	475.7	30.2	362.5	317.2	45.28	8.007	
6,692.9	6,513.0	7,695.1	6,718.6	19.6	32.9	-121.28	475.7	-4.4	347.0	301.8	45.13	7.688	
6,700.0	6,517.0	7,689.3	6,718.7	19.6	32.8	-120.95	475.7	-10.3	344.6	299.5	45.12	7.638	
6,750.0	6,544.1	7,646.8	6,719.4	19.6	32.1	-118.56	475.7	-52.8	329.9	284.8	45.12	7.311	
6,791.3	6,564.2	7,610.3	6,720.0	19.7	31.5	-116.52	475.7	-89.2	320.0	274.7	45.23	7.075	
6,800.0	6,568.2	7,602.6	6,720.2	19.7	31.3	-116.09	475.7	-97.0	318.1	272.9	45.23	7.034	
6,850.0	6,589.1	7,556.8	6,720.9	19.8	30.6	-113.65	475.7	-142.7	309.0	263.5	45.47	6.795	
6,889.7	6,603.5	7,519.5	6,721.6	19.9	30.1	-111.82	475.7	-180.0	303.4	257.7	45.71	6.637	
6,900.0	6,606.9	7,509.8	6,721.7	19.9	29.9	-111.38	475.7	-189.8	302.2	256.4	45.77	6.602	
6,950.0	6,621.3	7,461.7	6,722.6	20.2	29.3	-109.39	475.7	-237.9	297.3	251.1	46.15	6.441	
6,988.2	6,630.0	7,424.4	6,723.2	20.6	28.8	-108.13	475.7	-275.2	294.6	248.1	46.46	6.341	
7,000.0	6,632.4	7,412.8	6,723.4	20.7	28.7	-107.80	475.7	-286.8	293.9	247.4	46.55	6.315	
7,050.0	6,640.0	7,363.2	6,724.2	21.4	28.1	-106.70	475.7	-336.3	291.9	244.9	47.00	6.211	
7,086.6	6,643.4	7,326.7	6,724.9	21.9	27.8	-106.24	475.7	-372.8	291.1	243.8	47.34	6.149	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	7,312.7	6,725.1	22.1	27.6	-106.14	475.7	-386.8	290.9	243.5	47.46	6.131	
7,135.7	6,645.0	7,272.6	6,724.3	22.7	27.3	-105.84	475.7	-426.9	290.5	242.7	47.82	6.076	
7,185.0	6,644.9	7,217.4	6,719.6	23.6	26.9	-104.96	475.7	-481.9	289.4	241.1	48.33	5.988	
7,200.0	6,644.9	7,200.9	6,717.3	23.9	26.8	-104.53	475.7	-498.3	288.9	240.4	48.52	5.955	
7,283.4	6,644.8	7,111.1	6,698.6	25.6	26.3	-100.90	475.7	-586.0	285.0	235.1	49.89	5.712	
7,300.0	6,644.8	7,093.9	6,693.8	25.9	26.2	-99.95	475.7	-602.5	284.1	233.9	50.19	5.661	
7,381.9	6,644.7	7,012.8	6,665.8	27.7	25.9	-94.32	475.7	-678.6	280.4	228.6	51.77	5.417	
7,400.0	6,644.7	6,995.8	6,658.8	28.1	25.9	-92.90	475.7	-694.1	279.9	227.8	52.09	5.374	
7,435.4	6,644.6	6,963.6	6,644.6	28.9	25.9	-90.00	475.7	-723.0	279.5	226.8	52.70	5.304	
7,480.3	6,644.6	6,924.9	6,625.9	29.9	25.9	-86.17	475.7	-756.8	280.3	227.0	53.32	5.257	
7,500.0	6,644.6	6,908.6	6,617.5	30.3	25.8	-84.46	475.7	-770.8	281.3	227.8	53.53	5.255 SF	
7,578.7	6,644.5	6,850.0	6,584.6	32.2	25.9	-77.89	475.7	-819.3	289.7	235.5	54.13	5.352	
7,600.0	6,644.4	6,832.9	6,574.2	32.7	25.9	-75.88	475.7	-832.9	293.3	239.2	54.12	5.419	
7,677.1	6,644.3	6,781.7	6,541.4	34.6	26.0	-69.76	475.7	-872.1	311.9	257.8	54.05	5.770	
7,700.0	6,644.3	6,767.7	6,531.9	35.1	26.0	-68.07	475.7	-882.4	319.0	265.1	53.96	5.912	
7,775.6	6,644.2	6,724.9	6,501.7	37.0	26.1	-62.96	475.7	-912.9	347.8	294.3	53.56	6.494	
7,800.0	6,644.2	6,712.0	6,492.4	37.6	26.1	-61.45	475.7	-921.6	358.8	305.4	53.40	6.718	
7,874.0	6,644.1	6,676.1	6,465.2	39.5	26.2	-57.34	475.7	-945.2	396.1	343.2	52.93	7.485	
7,900.0	6,644.1	6,664.4	6,456.2	40.1	26.2	-56.05	475.7	-952.6	410.7	357.9	52.76	7.784	
7,972.4	6,644.0	6,634.2	6,432.2	42.0	26.3	-52.80	475.7	-970.9	454.5	402.1	52.36	8.680	
8,000.0	6,643.9	6,623.6	6,423.5	42.7	26.3	-51.69	475.7	-977.1	472.3	420.0	52.23	9.043	
8,070.8	6,643.9	6,600.0	6,404.1	44.5	26.4	-49.32	475.7	-990.5	520.5	468.5	52.09	9.992	
8,100.0	6,643.8	6,588.3	6,394.3	45.2	26.4	-48.19	475.7	-996.8	541.3	489.4	51.88	10.434	
8,169.3	6,643.7	6,566.7	6,376.0	47.0	26.5	-46.17	475.7	-1,008.2	592.5	540.8	51.76	11.447	
8,200.0	6,643.7	6,550.0	6,361.5	47.9	26.5	-44.66	475.7	-1,016.6	616.1	564.9	51.20	12.034	
8,267.7	6,643.6	6,550.0	6,361.5	49.6	26.5	-44.66	475.7	-1,016.6	669.2	616.7	52.50	12.746	
8,300.0	6,643.6	6,531.2	6,345.0	50.5	26.6	-43.04	475.7	-1,025.6	695.0	643.2	51.79	13.420	
8,366.1	6,643.5	6,515.4	6,331.0	52.2	26.6	-41.74	475.7	-1,032.9	749.1	697.2	51.92	14.428	
8,400.0	6,643.4	6,500.0	6,317.1	53.1	26.7	-40.51	475.7	-1,039.7	777.4	725.9	51.47	15.105	
8,464.5	6,643.4	6,500.0	6,317.1	54.8	26.7	-40.51	475.7	-1,039.7	831.9	779.3	52.64	15.803	
8,500.0	6,643.3	6,500.0	6,317.1	55.8	26.7	-40.51	475.7	-1,039.7	862.5	809.2	53.29	16.185	
8,563.0	6,643.2	6,475.4	6,294.7	57.5	26.7	-38.65	475.7	-1,049.9	916.9	864.2	52.67	17.407	
8,600.0	6,643.2	6,468.8	6,288.7	58.5	26.7	-38.17	475.7	-1,052.4	949.3	896.4	52.86	17.957	
8,661.4	6,643.1	6,450.0	6,271.3	60.1	26.8	-36.85	475.7	-1,059.6	1,003.7	951.1	52.62	19.074	
8,700.0	6,643.1	6,450.0	6,271.3	61.2	26.8	-36.85	475.7	-1,059.6	1,038.0	984.7	53.28	19.482	
8,759.8	6,643.0	6,450.0	6,271.3	62.8	26.8	-36.85	475.7	-1,059.6	1,091.8	1,037.5	54.31	20.102	
8,800.0	6,643.0	6,450.0	6,271.3	63.9	26.8	-36.85	475.7	-1,059.6	1,128.3	1,073.3	55.00	20.513	
8,858.2	6,642.9	6,429.9	6,252.5	65.4	26.8	-35.51	475.7	-1,066.7	1,181.1	1,126.5	54.56	21.647	
8,900.0	6,642.8	6,424.6	6,247.5	66.6	26.8	-35.16	475.7	-1,068.5	1,219.3	1,164.4	54.88	22.217	
8,956.7	6,642.8	6,417.6	6,240.9	68.1	26.9	-34.72	475.7	-1,070.8	1,271.5	1,216.1	55.34	22.977	
9,000.0	6,642.7	6,400.0	6,224.2	69.3	26.9	-33.64	475.7	-1,076.3	1,311.7	1,256.9	54.82	23.929	
9,055.1	6,642.6	6,400.0	6,224.2	70.8	26.9	-33.64	475.7	-1,076.3	1,362.7	1,307.0	55.71	24.460	
9,100.0	6,642.6	6,400.0	6,224.2	72.0	26.9	-33.64	475.7	-1,076.3	1,404.5	1,348.1	56.44	24.885	
9,153.5	6,642.5	6,400.0	6,224.2	73.5	26.9	-33.64	475.7	-1,076.3	1,454.6	1,397.3	57.31	25.380	
9,200.0	6,642.5	6,400.0	6,224.2	74.7	26.9	-33.64	475.7	-1,076.3	1,498.3	1,440.2	58.07	25.802	
9,251.9	6,642.4	6,400.0	6,224.2	76.2	26.9	-33.64	475.7	-1,076.3	1,547.3	1,488.4	58.92	26.263	
9,300.0	6,642.3	6,382.6	6,207.5	77.5	26.9	-32.62	475.7	-1,081.3	1,592.5	1,534.1	58.42	27.261	
9,350.4	6,642.3	6,378.3	6,203.4	78.9	26.9	-32.38	475.7	-1,082.5	1,640.2	1,581.3	58.91	27.843	
9,400.0	6,642.2	6,374.2	6,199.5	80.2	26.9	-32.15	475.7	-1,083.6	1,687.3	1,627.9	59.40	28.406	
9,448.8	6,642.1	6,370.4	6,195.8	81.6	26.9	-31.93	475.7	-1,084.6	1,733.7	1,673.8	59.89	28.948	
9,500.0	6,642.1	6,350.0	6,176.0	83.0	27.0	-30.84	475.7	-1,089.6	1,782.8	1,723.6	59.23	30.100	
9,547.2	6,642.0	6,350.0	6,176.0	84.3	27.0	-30.84	475.7	-1,089.6	1,827.8	1,767.9	59.96	30.486	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,600.0	6,642.0	6,350.0	6,176.0	85.7	27.0	-30.84	475.7	-1,089.6	1,878.2	1,817.5	60.77	30.908	
9,645.6	6,641.9	6,350.0	6,176.0	87.0	27.0	-30.84	475.7	-1,089.6	1,922.0	1,860.5	61.47	31.266	
9,700.0	6,641.8	6,350.0	6,176.0	88.5	27.0	-30.84	475.7	-1,089.6	1,974.2	1,911.8	62.31	31.683	
9,744.1	6,641.8	6,350.0	6,176.0	89.7	27.0	-30.84	475.7	-1,089.6	2,016.6	1,953.6	62.99	32.014	
9,800.0	6,641.7	6,350.0	6,176.0	91.2	27.0	-30.84	475.7	-1,089.6	2,070.4	2,006.6	63.85	32.426	
9,842.5	6,641.7	6,350.0	6,176.0	92.4	27.0	-30.84	475.7	-1,089.6	2,111.5	2,047.0	64.51	32.732	
9,900.0	6,641.6	6,350.0	6,176.0	94.0	27.0	-30.84	475.7	-1,089.6	2,167.1	2,101.7	65.40	33.138	
9,940.9	6,641.5	6,350.0	6,176.0	95.1	27.0	-30.84	475.7	-1,089.6	2,206.7	2,140.7	66.03	33.421	
10,000.0	6,641.5	6,350.0	6,176.0	96.7	27.0	-30.84	475.7	-1,089.6	2,264.0	2,197.1	66.94	33.821	
10,039.3	6,641.4	6,350.0	6,176.0	97.8	27.0	-30.84	475.7	-1,089.6	2,302.2	2,234.7	67.55	34.082	
10,100.0	6,641.3	6,330.4	6,156.9	99.5	27.0	-29.84	475.7	-1,093.9	2,360.8	2,293.9	66.93	35.274	
10,137.8	6,641.3	6,328.6	6,155.1	100.6	27.0	-29.75	475.7	-1,094.3	2,397.5	2,330.2	67.36	35.594	
10,200.0	6,641.2	6,325.7	6,152.3	102.3	27.0	-29.61	475.7	-1,094.9	2,458.1	2,390.0	68.07	36.111	
10,236.2	6,641.2	6,324.1	6,150.7	103.3	27.0	-29.53	475.7	-1,095.2	2,493.3	2,424.8	68.49	36.406	
10,300.0	6,641.1	6,321.3	6,147.9	105.0	27.0	-29.39	475.7	-1,095.8	2,555.5	2,486.2	69.22	36.917	
10,334.6	6,641.0	6,319.8	6,146.5	106.0	27.0	-29.32	475.7	-1,096.0	2,589.2	2,519.6	69.62	37.189	
10,400.0	6,641.0	6,300.0	6,127.0	107.8	27.0	-28.39	475.7	-1,099.6	2,653.3	2,584.2	69.05	38.428	
10,433.0	6,640.9	6,300.0	6,127.0	108.7	27.0	-28.39	475.7	-1,099.6	2,685.5	2,616.0	69.53	38.624	
10,500.0	6,640.8	6,300.0	6,127.0	110.6	27.0	-28.39	475.7	-1,099.6	2,750.9	2,680.4	70.51	39.015	
10,531.5	6,640.8	6,300.0	6,127.0	111.5	27.0	-28.39	475.7	-1,099.6	2,781.6	2,710.7	70.97	39.195	
10,600.0	6,640.7	6,300.0	6,127.0	113.4	27.0	-28.39	475.7	-1,099.6	2,848.6	2,776.7	71.97	39.580	
10,629.9	6,640.7	6,300.0	6,127.0	114.2	27.0	-28.39	475.7	-1,099.6	2,877.9	2,805.5	72.41	39.744	
10,700.0	6,640.6	6,300.0	6,127.0	116.1	27.0	-28.39	475.7	-1,099.6	2,946.6	2,873.1	73.44	40.124	
10,728.3	6,640.5	6,300.0	6,127.0	116.9	27.0	-28.39	475.7	-1,099.6	2,974.3	2,900.5	73.85	40.274	
10,800.0	6,640.5	6,300.0	6,127.0	118.9	27.0	-28.39	475.7	-1,099.6	3,044.6	2,969.7	74.90	40.648	
10,826.7	6,640.4	6,300.0	6,127.0	119.7	27.0	-28.39	475.7	-1,099.6	3,070.9	2,995.6	75.29	40.785	
10,900.0	6,640.3	6,300.0	6,127.0	121.7	27.0	-28.39	475.7	-1,099.6	3,142.8	3,066.4	76.37	41.153	
10,925.2	6,640.3	6,300.0	6,127.0	122.4	27.0	-28.39	475.7	-1,099.6	3,167.5	3,090.8	76.74	41.277	
11,000.0	6,640.2	6,300.0	6,127.0	124.5	27.0	-28.39	475.7	-1,099.6	3,241.1	3,163.3	77.84	41.640	
11,023.6	6,640.2	6,300.0	6,127.0	125.1	27.0	-28.39	475.7	-1,099.6	3,264.3	3,186.1	78.18	41.753	
11,100.0	6,640.1	6,300.0	6,127.0	127.3	27.0	-28.39	475.7	-1,099.6	3,339.5	3,260.2	79.30	42.111	
11,122.0	6,640.0	6,300.0	6,127.0	127.9	27.0	-28.39	475.7	-1,099.6	3,361.2	3,281.5	79.63	42.212	
11,200.0	6,639.9	6,300.0	6,127.0	130.1	27.0	-28.39	475.7	-1,099.6	3,438.0	3,357.2	80.77	42.565	
11,220.4	6,639.9	6,300.0	6,127.0	130.6	27.0	-28.39	475.7	-1,099.6	3,458.1	3,377.0	81.07	42.656	
11,300.0	6,639.8	6,300.0	6,127.0	132.8	27.0	-28.39	475.7	-1,099.6	3,536.5	3,454.3	82.24	43.003	
11,318.9	6,639.8	6,300.0	6,127.0	133.4	27.0	-28.39	475.7	-1,099.6	3,555.1	3,472.6	82.52	43.084	
11,400.0	6,639.7	6,300.0	6,127.0	135.6	27.0	-28.39	475.7	-1,099.6	3,635.2	3,551.5	83.71	43.427	
11,417.3	6,639.7	6,300.0	6,127.0	136.1	27.0	-28.39	475.7	-1,099.6	3,652.3	3,568.3	83.96	43.499	
11,500.0	6,639.6	6,300.0	6,127.0	138.4	27.0	-28.39	475.7	-1,099.6	3,733.9	3,648.7	85.18	43.837	
11,515.7	6,639.5	6,300.0	6,127.0	138.9	27.0	-28.39	475.7	-1,099.6	3,749.4	3,664.0	85.41	43.900	
11,600.0	6,639.4	6,300.0	6,127.0	141.2	27.0	-28.39	475.7	-1,099.6	3,832.7	3,746.0	86.65	44.234	
11,614.1	6,639.4	6,300.0	6,127.0	141.6	27.0	-28.39	475.7	-1,099.6	3,846.7	3,759.8	86.85	44.289	
11,700.0	6,639.3	6,300.0	6,127.0	144.0	27.0	-28.39	475.7	-1,099.6	3,931.5	3,843.4	88.12	44.618	
11,712.6	6,639.3	6,278.7	6,106.0	144.3	27.0	-27.45	475.7	-1,102.8	3,943.6	3,857.3	86.27	45.713	
11,800.0	6,639.2	6,276.9	6,104.2	146.8	27.0	-27.37	475.7	-1,103.0	4,030.0	3,942.6	87.35	46.134	
11,811.0	6,639.2	6,276.7	6,104.0	147.1	27.0	-27.36	475.7	-1,103.0	4,040.9	3,953.4	87.49	46.186	
11,900.0	6,639.1	6,274.9	6,102.2	149.6	27.0	-27.28	475.7	-1,103.3	4,128.9	4,040.3	88.60	46.602	
11,909.4	6,639.0	6,274.8	6,102.1	149.8	27.0	-27.27	475.7	-1,103.3	4,138.2	4,049.5	88.72	46.645	
12,000.0	6,638.9	6,273.0	6,100.3	152.4	27.0	-27.20	475.7	-1,103.5	4,227.8	4,138.0	89.85	47.056	
12,007.8	6,638.9	6,272.9	6,100.2	152.6	27.0	-27.20	475.7	-1,103.5	4,235.6	4,145.6	89.95	47.091	
12,100.0	6,638.8	6,250.0	6,077.4	155.2	27.0	-26.25	475.7	-1,106.1	4,327.1	4,238.0	89.10	48.564	
12,106.3	6,638.8	6,250.0	6,077.4	155.3	27.0	-26.25	475.7	-1,106.1	4,333.3	4,244.2	89.19	48.586	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,200.0	6,638.7	6,250.0	6,077.4	157.9	27.0	-26.25	475.7	-1,106.1	4,426.1	4,335.6	90.50	48.909	
12,204.7	6,638.7	6,250.0	6,077.4	158.1	27.0	-26.25	475.7	-1,106.1	4,430.7	4,340.2	90.56	48.925	
12,300.0	6,638.5	6,250.0	6,077.4	160.7	27.0	-26.25	475.7	-1,106.1	4,525.1	4,433.2	91.89	49.244	
12,303.1	6,638.5	6,250.0	6,077.4	160.8	27.0	-26.25	475.7	-1,106.1	4,528.2	4,436.2	91.93	49.254	
12,400.0	6,638.4	6,250.0	6,077.4	163.5	27.0	-26.25	475.7	-1,106.1	4,624.1	4,530.8	93.29	49.569	
12,401.5	6,638.4	6,250.0	6,077.4	163.6	27.0	-26.25	475.7	-1,106.1	4,625.7	4,532.4	93.31	49.574	
12,500.0	6,638.3	6,250.0	6,077.4	166.3	27.0	-26.25	475.7	-1,106.1	4,723.2	4,628.5	94.68	49.885	
12,598.4	6,638.2	6,250.0	6,077.4	169.1	27.0	-26.25	475.7	-1,106.1	4,820.7	4,724.7	96.05	50.187	
12,600.0	6,638.2	6,250.0	6,077.4	169.1	27.0	-26.25	475.7	-1,106.1	4,822.3	4,726.2	96.08	50.192	
12,696.8	6,638.0	6,250.0	6,077.4	171.8	27.0	-26.25	475.7	-1,106.1	4,918.3	4,820.9	97.43	50.481	
12,700.0	6,638.0	6,250.0	6,077.4	171.9	27.0	-26.25	475.7	-1,106.1	4,921.5	4,824.0	97.47	50.491	
12,795.2	6,637.9	6,250.0	6,077.4	174.6	27.0	-26.25	475.7	-1,106.1	5,016.0	4,917.2	98.80	50.767	
12,800.0	6,637.9	6,250.0	6,077.4	174.7	27.0	-26.25	475.7	-1,106.1	5,020.7	4,921.8	98.87	50.781	
12,893.7	6,637.8	6,250.0	6,077.4	177.3	27.0	-26.25	475.7	-1,106.1	5,113.6	5,013.4	100.18	51.046	
12,900.0	6,637.8	6,250.0	6,077.4	177.5	27.0	-26.25	475.7	-1,106.1	5,119.9	5,019.6	100.27	51.063	
12,992.1	6,637.7	6,250.0	6,077.4	180.1	27.0	-26.25	475.7	-1,106.1	5,211.3	5,109.7	101.55	51.317	
13,000.0	6,637.6	6,250.0	6,077.4	180.3	27.0	-26.25	475.7	-1,106.1	5,219.1	5,117.5	101.66	51.338	
13,090.5	6,637.5	6,250.0	6,077.4	182.8	27.0	-26.25	475.7	-1,106.1	5,309.0	5,206.1	102.93	51.581	
13,100.0	6,637.5	6,250.0	6,077.4	183.1	27.0	-26.25	475.7	-1,106.1	5,318.4	5,215.4	103.06	51.606	
13,188.9	6,637.4	6,250.0	6,077.4	185.6	27.0	-26.25	475.7	-1,106.1	5,406.7	5,302.4	104.30	51.838	
13,200.0	6,637.4	6,250.0	6,077.4	185.9	27.0	-26.25	475.7	-1,106.1	5,417.7	5,313.3	104.46	51.866	
13,287.4	6,637.3	6,250.0	6,077.4	188.4	27.0	-26.25	475.7	-1,106.1	5,504.5	5,398.8	105.68	52.089	
13,300.0	6,637.3	6,250.0	6,077.4	188.7	27.0	-26.25	475.7	-1,106.1	5,517.0	5,411.2	105.85	52.120	
13,385.8	6,637.1	6,250.0	6,077.4	191.1	27.0	-26.25	475.7	-1,106.1	5,602.3	5,495.2	107.05	52.333	
13,400.0	6,637.1	6,250.0	6,077.4	191.5	27.0	-26.25	475.7	-1,106.1	5,616.4	5,509.2	107.25	52.367	
13,484.2	6,637.0	6,250.0	6,077.4	193.9	27.0	-26.25	475.7	-1,106.1	5,700.1	5,591.7	108.43	52.571	
13,500.0	6,637.0	6,250.0	6,077.4	194.3	27.0	-26.25	475.7	-1,106.1	5,715.8	5,607.1	108.65	52.609	
13,582.6	6,636.9	6,250.0	6,077.4	196.6	27.0	-26.25	475.7	-1,106.1	5,797.9	5,688.1	109.80	52.803	
13,600.0	6,636.9	6,250.0	6,077.4	197.1	27.0	-26.25	475.7	-1,106.1	5,815.2	5,705.1	110.04	52.844	
13,681.1	6,636.8	6,250.0	6,077.4	199.4	27.0	-26.25	475.7	-1,106.1	5,895.8	5,784.6	111.18	53.030	
13,700.0	6,636.7	6,250.0	6,077.4	199.9	27.0	-26.25	475.7	-1,106.1	5,914.6	5,803.1	111.44	53.073	
13,779.5	6,636.6	6,250.0	6,077.4	202.1	27.0	-26.25	475.7	-1,106.1	5,993.6	5,881.1	112.55	53.251	
13,800.0	6,636.6	6,250.0	6,077.4	202.7	27.0	-26.25	475.7	-1,106.1	6,014.0	5,901.2	112.84	53.297	
13,877.9	6,636.5	6,250.0	6,077.4	204.9	27.0	-26.25	475.7	-1,106.1	6,091.5	5,977.6	113.93	53.467	
13,900.0	6,636.5	6,250.0	6,077.4	205.5	27.0	-26.25	475.7	-1,106.1	6,113.5	5,999.2	114.24	53.515	
13,976.3	6,636.4	6,250.0	6,077.4	207.6	27.0	-26.25	475.7	-1,106.1	6,189.4	6,074.1	115.31	53.678	
14,000.0	6,636.3	6,250.0	6,077.4	208.3	27.0	-26.25	475.7	-1,106.1	6,213.0	6,097.3	115.64	53.728	
14,074.8	6,636.3	6,250.0	6,077.4	210.4	27.0	-26.25	475.7	-1,106.1	6,287.3	6,170.7	116.68	53.885	
14,100.0	6,636.2	6,250.0	6,077.4	211.1	27.0	-26.25	475.7	-1,106.1	6,312.4	6,195.4	117.03	53.936	
14,173.2	6,636.1	6,250.0	6,077.4	213.2	27.0	-26.25	475.7	-1,106.1	6,385.3	6,267.2	118.06	54.086	
14,200.0	6,636.1	6,250.0	6,077.4	213.9	27.0	-26.25	475.7	-1,106.1	6,412.0	6,293.5	118.43	54.140	
14,271.6	6,636.0	6,250.0	6,077.4	215.9	27.0	-26.25	475.7	-1,106.1	6,483.2	6,363.8	119.43	54.283	
14,300.0	6,636.0	6,250.0	6,077.4	216.7	27.0	-26.25	475.7	-1,106.1	6,511.5	6,391.6	119.83	54.338	
14,370.0	6,635.9	6,250.0	6,077.4	218.7	27.0	-26.25	475.7	-1,106.1	6,581.2	6,460.4	120.81	54.475	
14,400.0	6,635.8	6,250.0	6,077.4	219.5	27.0	-26.26	475.7	-1,106.1	6,611.0	6,489.8	121.23	54.533	
14,468.5	6,635.7	6,250.0	6,077.4	221.4	27.0	-26.26	475.7	-1,106.1	6,679.2	6,557.0	122.19	54.663	
14,500.0	6,635.7	6,250.0	6,077.4	222.3	27.0	-26.26	475.7	-1,106.1	6,710.6	6,587.9	122.63	54.722	
14,566.9	6,635.6	6,250.0	6,077.4	224.2	27.0	-26.26	475.7	-1,106.1	6,777.2	6,653.6	123.56	54.847	
14,600.0	6,635.6	6,250.0	6,077.4	225.1	27.0	-26.26	475.7	-1,106.1	6,810.1	6,686.1	124.03	54.908	
14,665.3	6,635.5	6,250.0	6,077.4	226.9	27.0	-26.26	475.7	-1,106.1	6,875.2	6,750.2	124.94	55.027	
14,700.0	6,635.4	6,250.0	6,077.4	227.9	27.0	-26.26	475.7	-1,106.1	6,909.7	6,784.3	125.43	55.089	
14,763.7	6,635.4	6,250.0	6,077.4	229.7	27.0	-26.26	475.7	-1,106.1	6,973.2	6,846.9	126.32	55.203	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10F-302 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,800.0	6,635.3	6,250.0	6,077.4	230.7	27.0	-26.26	475.7	-1,106.1	7,009.3	6,882.5	126.83	55.267	
14,862.2	6,635.2	6,250.0	6,077.4	232.5	27.0	-26.26	475.7	-1,106.1	7,071.2	6,943.5	127.70	55.375	
14,900.0	6,635.2	6,250.0	6,077.4	233.5	27.0	-26.26	475.7	-1,106.1	7,108.9	6,980.6	128.23	55.440	
14,960.6	6,635.1	6,250.0	6,077.4	235.2	27.0	-26.26	475.7	-1,106.1	7,169.2	7,040.2	129.07	55.544	
15,000.0	6,635.0	6,250.0	6,077.4	236.3	27.0	-26.26	475.7	-1,106.1	7,208.5	7,078.9	129.62	55.610	
15,033.1	6,635.0	6,250.0	6,077.4	237.3	27.0	-26.26	475.7	-1,106.1	7,241.4	7,111.3	130.09	55.666	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	180.00	-14.9	0.0	14.9				
98.4	98.4	98.4	98.4	0.1	0.1	180.00	-14.9	0.0	14.9	14.7	0.19	77.679	
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-14.9	0.0	14.9	14.7	0.20	76.364	
196.8	196.8	196.8	196.8	0.3	0.3	180.00	-14.9	0.0	14.9	14.3	0.63	23.668	
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-14.9	0.0	14.9	14.3	0.65	23.149	
295.3	295.3	295.3	295.3	0.5	0.5	180.00	-14.9	0.0	14.9	13.9	1.07	13.912	
300.0	300.0	300.0	300.0	0.5	0.5	180.00	-14.9	0.0	14.9	13.8	1.09	13.642	
393.7	393.7	393.7	393.7	0.8	0.8	180.00	-14.9	0.0	14.9	13.4	1.52	9.851	
400.0	400.0	400.0	400.0	0.8	0.8	180.00	-14.9	0.0	14.9	13.4	1.54	9.671	
492.1	492.1	492.1	492.1	1.0	1.0	180.00	-14.9	0.0	14.9	13.0	1.96	7.625	
500.0	500.0	500.0	500.0	1.0	1.0	180.00	-14.9	0.0	14.9	12.9	1.99	7.490	
590.5	590.5	590.5	590.5	1.2	1.2	180.00	-14.9	0.0	14.9	12.5	2.40	6.220	
600.0	600.0	600.0	600.0	1.2	1.2	180.00	-14.9	0.0	14.9	12.5	2.44	6.112	
689.0	689.0	689.0	689.0	1.4	1.4	180.00	-14.9	0.0	14.9	12.1	2.84	5.252	
700.0	700.0	700.0	700.0	1.4	1.4	180.00	-14.9	0.0	14.9	12.0	2.89	5.162	
787.4	787.4	787.4	787.4	1.6	1.6	180.00	-14.9	0.0	14.9	11.6	3.29	4.545	
800.0	800.0	800.0	800.0	1.7	1.7	180.00	-14.9	0.0	14.9	11.6	3.34	4.468	
885.8	885.8	885.8	885.8	1.9	1.9	180.00	-14.9	0.0	14.9	11.2	3.73	4.005	
900.0	900.0	900.0	900.0	1.9	1.9	180.00	-14.9	0.0	14.9	11.1	3.79	3.938	
984.2	984.2	984.2	984.2	2.1	2.1	180.00	-14.9	0.0	14.9	10.8	4.17	3.581	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	180.00	-14.9	0.0	14.9	10.7	4.24	3.521 CC	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	154.93	-14.9	0.0	16.0	11.4	4.61	3.470	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	155.74	-14.9	0.0	16.5	11.8	4.69	3.520	
1,181.1	1,181.0	1,181.5	1,181.5	2.5	2.5	159.12	-13.9	0.6	19.1	14.1	5.05	3.789	
1,200.0	1,199.8	1,200.5	1,200.5	2.6	2.6	159.75	-13.4	0.8	19.8	14.6	5.13	3.849	
1,279.5	1,279.1	1,280.5	1,280.4	2.8	2.8	161.91	-9.9	2.7	22.4	16.9	5.48	4.086	
1,300.0	1,299.5	1,301.1	1,301.0	2.8	2.8	162.36	-8.7	3.4	23.1	17.5	5.57	4.144	
1,377.9	1,376.9	1,379.7	1,379.2	3.0	3.0	163.75	-3.0	6.6	25.7	19.8	5.91	4.349	
1,400.0	1,398.7	1,401.9	1,401.4	3.0	3.0	164.06	-1.0	7.6	26.5	20.4	6.01	4.405	
1,476.4	1,474.2	1,479.0	1,477.9	3.2	3.2	164.95	7.0	12.0	29.0	22.7	6.34	4.579	
1,500.0	1,497.5	1,502.8	1,501.5	3.3	3.3	165.17	9.9	13.6	29.8	23.4	6.44	4.631	
1,574.8	1,571.0	1,578.3	1,576.1	3.5	3.5	165.72	20.0	19.2	32.4	25.6	6.78	4.778	
1,600.0	1,595.6	1,603.8	1,601.2	3.6	3.5	165.86	23.8	21.2	33.2	26.3	6.89	4.826	
1,673.2	1,667.2	1,677.9	1,674.0	3.9	3.8	165.81	36.0	27.9	34.8	27.6	7.25	4.804	
1,700.0	1,693.4	1,704.9	1,700.4	4.0	3.8	165.58	40.9	30.6	34.9	27.6	7.38	4.735	
1,771.6	1,763.5	1,776.6	1,770.5	4.2	4.1	164.87	53.9	37.7	35.1	27.3	7.74	4.527	
1,800.0	1,791.3	1,804.9	1,798.2	4.3	4.2	164.59	59.1	40.6	35.1	27.2	7.89	4.451	
1,870.1	1,859.8	1,875.0	1,866.8	4.6	4.4	163.90	71.9	47.6	35.2	27.0	8.25	4.269	
1,900.0	1,889.1	1,904.9	1,896.0	4.7	4.5	163.61	77.3	50.6	35.3	26.9	8.41	4.196	
1,968.5	1,956.1	1,973.4	1,963.0	4.9	4.8	162.95	89.8	57.4	35.4	26.6	8.77	4.036	
2,000.0	1,986.9	2,004.9	1,993.9	5.1	4.9	162.64	95.6	60.6	35.5	26.5	8.94	3.965	
2,066.9	2,052.3	2,071.8	2,059.3	5.3	5.2	162.00	107.8	67.3	35.6	26.3	9.31	3.823	
2,100.0	2,084.7	2,104.9	2,091.7	5.5	5.3	161.68	113.8	70.6	35.7	26.2	9.49	3.756	
2,165.3	2,148.6	2,170.2	2,155.6	5.7	5.5	161.06	125.7	77.1	35.8	25.9	9.86	3.630	
2,200.0	2,182.5	2,204.9	2,189.5	5.9	5.7	160.73	132.0	80.6	35.9	25.8	10.06	3.566	
2,263.8	2,244.9	2,268.7	2,251.9	6.1	5.9	160.13	143.7	86.9	36.0	25.6	10.42	3.454	
2,300.0	2,280.3	2,304.9	2,287.3	6.3	6.1	159.79	150.3	90.6	36.1	25.4	10.63	3.393	
2,362.2	2,341.2	2,367.1	2,348.1	6.5	6.3	159.22	161.6	96.8	36.2	25.2	11.00	3.294	
2,400.0	2,378.1	2,404.9	2,385.1	6.7	6.5	158.87	168.5	100.6	36.3	25.1	11.22	3.236	
2,460.6	2,437.4	2,465.5	2,444.4	6.9	6.7	158.31	179.6	106.6	36.4	24.9	11.58	3.146	
2,500.0	2,476.0	2,504.9	2,482.9	7.1	6.9	157.95	186.7	110.5	36.5	24.7	11.82	3.091	
2,550.0	2,524.9	2,554.9	2,531.8	7.3	7.1	157.50	195.9	115.5	36.7	24.5	12.13	3.023	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,563.9	2,540.7	7.3	7.1	158.25	197.5	116.4	36.7	24.5	12.18	3.012	
2,600.0	2,573.8	2,604.9	2,580.7	7.5	7.3	161.12	205.0	120.5	36.9	24.5	12.44	2.969	
2,639.4	2,612.3	2,644.2	2,619.2	7.7	7.5	163.11	212.2	124.5	37.4	24.7	12.73	2.937	
2,657.5	2,630.0	2,662.3	2,636.9	7.7	7.5	162.15	215.5	126.3	37.6	24.8	12.88	2.923	
2,700.0	2,671.6	2,704.8	2,678.5	7.9	7.7	159.96	223.2	130.5	38.3	25.1	13.23	2.894	
2,755.9	2,726.3	2,760.7	2,733.1	8.1	7.9	157.20	233.4	136.1	39.2	25.5	13.72	2.859	
2,800.0	2,769.4	2,804.7	2,776.2	8.3	8.1	155.11	241.4	140.5	40.0	25.9	14.11	2.836	
2,854.3	2,822.5	2,859.0	2,829.3	8.5	8.4	152.66	251.3	145.9	41.1	26.5	14.61	2.811	
2,900.0	2,867.2	2,904.7	2,874.0	8.7	8.6	150.69	259.7	150.5	42.0	27.0	15.03	2.794	
2,952.7	2,918.8	2,957.4	2,925.5	9.0	8.8	148.53	269.3	155.8	43.1	27.6	15.53	2.779	
3,000.0	2,965.0	3,004.6	2,971.7	9.2	9.0	146.69	277.9	160.5	44.2	28.2	15.97	2.768	
3,051.2	3,015.1	3,055.7	3,021.7	9.4	9.2	144.79	287.2	165.6	45.4	29.0	16.46	2.759	
3,100.0	3,062.8	3,104.5	3,069.5	9.6	9.4	143.08	296.1	170.5	46.6	29.7	16.93	2.753	
3,149.6	3,111.4	3,154.1	3,117.9	9.8	9.6	141.43	305.1	175.4	47.9	30.5	17.41	2.750	
3,200.0	3,160.7	3,204.5	3,167.2	10.0	9.8	139.84	314.3	180.5	49.2	31.3	17.90	2.748	
3,248.0	3,207.6	3,252.5	3,214.1	10.2	10.0	138.41	323.1	185.3	50.5	32.1	18.36	2.749	
3,300.0	3,258.5	3,304.4	3,264.9	10.5	10.3	136.93	332.5	190.5	51.9	33.0	18.87	2.751	
3,346.4	3,303.9	3,350.8	3,310.3	10.7	10.5	135.68	341.0	195.1	53.2	33.9	19.32	2.754	
3,400.0	3,356.3	3,404.3	3,362.7	10.9	10.7	134.32	350.8	200.5	54.7	34.9	19.84	2.760	
3,444.9	3,400.2	3,449.2	3,406.6	11.1	10.9	133.23	358.9	204.9	56.0	35.8	20.27	2.765	
3,500.0	3,454.1	3,504.3	3,460.4	11.3	11.1	131.97	369.0	210.4	57.7	36.9	20.80	2.773	
3,543.3	3,496.5	3,547.5	3,502.8	11.5	11.3	131.02	376.9	214.8	59.0	37.8	21.22	2.780	
3,600.0	3,551.9	3,604.2	3,558.2	11.7	11.6	129.84	387.2	220.4	60.7	38.9	21.76	2.790	
3,641.7	3,592.7	3,645.9	3,599.0	11.9	11.7	129.02	394.8	224.6	62.0	39.8	22.16	2.798	
3,700.0	3,649.7	3,704.1	3,655.9	12.2	12.0	127.93	405.4	230.4	63.8	41.1	22.71	2.809	
3,740.1	3,689.0	3,744.2	3,695.2	12.4	12.2	127.21	412.8	234.4	65.1	42.0	23.10	2.817	
3,800.0	3,747.5	3,804.0	3,753.7	12.6	12.4	126.19	423.7	240.4	67.0	43.3	23.66	2.830	
3,838.6	3,785.3	3,842.6	3,791.4	12.8	12.6	125.56	430.7	244.3	68.2	44.2	24.03	2.838	
3,900.0	3,845.4	3,904.0	3,851.4	13.1	12.9	124.61	441.9	250.4	70.2	45.6	24.61	2.852	
3,937.0	3,881.6	3,941.0	3,887.6	13.2	13.0	124.06	448.6	254.1	71.4	46.4	24.96	2.861	
4,000.0	3,943.2	4,003.9	3,949.2	13.5	13.3	123.17	460.1	260.4	73.5	47.9	25.55	2.875	
4,035.4	3,977.8	4,039.3	3,983.8	13.6	13.5	122.69	466.6	263.9	74.6	48.8	25.88	2.884	
4,100.0	4,041.0	4,103.4	4,046.5	13.9	13.7	122.08	478.0	270.2	76.9	50.5	26.44	2.909	
4,133.8	4,074.1	4,136.9	4,079.4	14.1	13.8	122.14	483.5	273.2	78.3	51.6	26.67	2.936	
4,200.0	4,138.8	4,202.3	4,143.8	14.4	14.0	122.99	493.2	278.5	81.4	54.4	27.04	3.012	
4,232.3	4,170.4	4,234.1	4,175.3	14.5	14.1	123.72	497.5	280.9	83.2	56.0	27.18	3.061	
4,300.0	4,236.6	4,300.8	4,241.4	14.8	14.3	125.84	505.5	285.3	87.5	60.1	27.39	3.192	
4,330.7	4,266.7	4,330.9	4,271.3	14.9	14.4	127.02	508.7	287.0	89.6	62.2	27.45	3.266	
4,400.0	4,334.4	4,398.8	4,338.8	15.2	14.5	130.09	514.8	290.4	95.3	67.8	27.49	3.467	
4,429.1	4,362.9	4,427.2	4,367.1	15.4	14.6	131.51	517.0	291.5	98.0	70.6	27.48	3.568	
4,500.0	4,432.3	4,496.0	4,435.7	15.7	14.7	135.17	521.1	293.8	105.6	78.2	27.37	3.857	
4,527.5	4,459.2	4,522.6	4,462.3	15.8	14.8	136.64	522.4	294.5	108.9	81.6	27.30	3.987	
4,600.0	4,530.1	4,592.2	4,531.9	16.1	14.9	140.53	524.6	295.7	118.6	91.6	27.09	4.380	
4,626.0	4,555.5	4,617.1	4,556.7	16.2	14.9	141.91	525.0	295.9	122.6	95.6	27.00	4.539	
4,700.0	4,627.9	4,688.2	4,627.9	16.6	15.0	145.74	525.3	296.1	134.9	108.1	26.75	5.041	
4,724.4	4,651.7	4,712.1	4,651.7	16.7	15.1	146.91	525.3	296.1	139.1	112.4	26.68	5.213	
4,800.0	4,725.7	4,786.0	4,725.7	17.0	15.2	150.12	525.3	296.1	152.6	126.1	26.54	5.750	
4,822.8	4,748.0	4,808.4	4,748.0	17.1	15.2	150.98	525.3	296.1	156.7	130.2	26.51	5.913	
4,904.9	4,828.3	4,888.6	4,828.3	17.5	15.3	153.73	525.3	296.1	171.9	145.5	26.47	6.496	
4,921.2	4,844.3	4,904.7	4,844.3	17.5	15.3	154.24	525.3	296.1	175.0	148.5	26.47	6.611	
5,000.0	4,921.6	4,982.0	4,921.6	17.8	15.5	156.31	525.3	296.1	188.5	162.0	26.51	7.110	
5,019.7	4,941.0	5,001.4	4,941.0	17.9	15.5	156.74	525.3	296.1	191.6	165.1	26.53	7.223	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	5,080.7	5,020.4	18.1	15.6	158.21	525.3	296.1	203.1	176.5	26.63	7.627	
5,118.1	5,038.3	5,098.7	5,038.3	18.2	15.6	158.48	525.3	296.1	205.4	178.8	26.66	7.706	
5,200.0	5,119.6	5,180.0	5,119.6	18.4	15.8	159.51	525.3	296.1	214.7	187.8	26.81	8.006	
5,216.5	5,136.0	5,196.4	5,136.0	18.4	15.8	159.68	525.3	296.1	216.3	189.4	26.85	8.056	
5,300.0	5,219.2	5,279.6	5,219.2	18.6	15.9	160.37	525.3	296.1	223.0	196.0	27.03	8.251	
5,314.9	5,234.1	5,294.5	5,234.1	18.6	15.9	160.46	525.3	296.1	224.0	196.9	27.06	8.276	
5,400.0	5,319.1	5,379.4	5,319.1	18.8	16.1	160.86	525.3	296.1	228.1	200.8	27.27	8.366	
5,413.4	5,332.4	5,392.8	5,332.4	18.8	16.1	160.90	525.3	296.1	228.5	201.2	27.30	8.372	
5,504.9	5,423.9	5,484.3	5,423.9	18.9	16.2	179.45	525.3	296.1	229.9	196.4	33.54	6.856	
5,511.8	5,430.8	5,491.2	5,430.8	18.9	16.2	179.45	525.3	296.1	229.9	196.4	33.56	6.852	
5,600.0	5,519.0	5,579.4	5,519.0	19.0	16.4	179.45	525.3	296.1	229.9	196.1	33.82	6.799	
5,610.2	5,529.3	5,589.6	5,529.3	19.0	16.4	179.45	525.3	296.1	229.9	196.1	33.85	6.793	
5,700.0	5,619.0	5,679.4	5,619.0	19.2	16.5	179.45	525.3	296.1	229.9	195.8	34.13	6.738	
5,708.6	5,627.7	5,688.0	5,627.7	19.2	16.6	179.45	525.3	296.1	229.9	195.8	34.15	6.732	
5,800.0	5,719.0	5,779.4	5,719.0	19.3	16.7	179.45	525.3	296.1	229.9	195.5	34.44	6.677	
5,807.1	5,726.1	5,786.5	5,726.1	19.3	16.7	179.45	525.3	296.1	229.9	195.5	34.46	6.672	
5,900.0	5,819.0	5,879.4	5,819.0	19.4	16.9	179.45	525.3	296.1	229.9	195.2	34.75	6.616	
5,905.5	5,824.5	5,884.9	5,824.5	19.4	16.9	179.45	525.3	296.1	229.9	195.2	34.77	6.613	
6,003.9	5,923.0	5,983.3	5,923.0	19.6	17.0	179.45	525.3	296.1	229.9	194.8	35.08	6.554	
6,009.8	5,928.8	5,989.2	5,928.8	19.6	17.1	179.45	525.3	296.1	229.9	194.8	35.10	6.551	
6,050.0	5,969.0	6,029.4	5,969.0	19.6	17.1	-90.84	525.3	296.1	229.9	200.3	29.62	7.762	
6,100.0	6,018.8	6,079.4	6,018.8	19.7	17.2	-91.89	525.3	295.8	230.0	200.1	29.92	7.687	
6,102.3	6,021.1	6,081.7	6,021.1	19.7	17.2	-91.95	525.3	295.7	230.0	200.1	29.94	7.684	
6,150.0	6,068.1	6,129.8	6,068.1	19.7	17.3	-93.10	525.3	292.6	230.3	200.0	30.21	7.622	
6,200.0	6,116.8	6,180.7	6,116.8	19.7	17.3	-94.29	525.3	285.8	230.6	200.1	30.45	7.572	
6,200.8	6,117.5	6,181.4	6,120.5	19.7	17.3	-94.31	525.3	285.7	230.6	200.1	30.45	7.571	
6,250.0	6,164.5	6,231.8	6,169.8	19.7	17.3	-95.46	525.3	275.4	231.0	200.3	30.65	7.537	
6,299.2	6,210.4	6,282.5	6,218.6	19.7	17.3	-96.58	525.3	261.5	231.5	200.7	30.80	7.515	
6,300.0	6,211.1	6,283.4	6,219.4	19.7	17.3	-96.60	525.3	261.3	231.5	200.7	30.80	7.515	
6,350.0	6,256.4	6,335.3	6,268.1	19.7	17.4	-97.71	525.3	243.5	232.0	201.1	30.91	7.506	
6,397.6	6,298.0	6,385.0	6,313.5	19.7	17.3	-98.73	525.3	223.2	232.6	201.6	30.99	7.506	
6,400.0	6,300.0	6,387.5	6,315.8	19.7	17.3	-98.78	525.3	222.1	232.7	201.7	30.99	7.507	
6,450.0	6,341.8	6,440.1	6,362.0	19.7	17.3	-99.81	525.3	197.1	233.3	202.3	31.06	7.513	
6,496.0	6,378.6	6,488.9	6,403.2	19.7	17.3	-100.70	525.3	171.0	234.0	202.9	31.12	7.519	
6,500.0	6,381.6	6,493.0	6,406.6	19.7	17.3	-100.78	525.3	168.6	234.1	202.9	31.13	7.520	
6,550.0	6,419.2	6,546.3	6,449.3	19.6	17.3	-101.70	525.3	136.7	234.8	203.6	31.22	7.521	
6,594.5	6,450.7	6,594.0	6,485.3	19.6	17.3	-102.46	525.3	105.5	235.5	204.1	31.35	7.511	
6,600.0	6,454.4	6,599.9	6,489.6	19.6	17.3	-102.55	525.3	101.5	235.6	204.2	31.37	7.509	
6,650.0	6,487.1	6,653.8	6,527.4	19.6	17.2	-103.34	525.3	63.1	236.3	204.7	31.61	7.475	
6,692.9	6,513.0	6,700.2	6,557.6	19.6	17.2	-103.96	525.3	27.9	236.9	205.0	31.92	7.424	
6,700.0	6,517.0	6,707.9	6,562.4	19.6	17.2	-104.06	525.3	21.8	237.0	205.1	31.98	7.413	
6,750.0	6,544.1	6,762.3	6,594.3	19.6	17.2	-104.70	525.3	-22.2	237.7	205.2	32.49	7.316	
6,791.3	6,564.2	6,807.5	6,618.2	19.7	17.2	-105.18	525.3	-60.5	238.2	205.2	33.07	7.205	
6,800.0	6,568.2	6,817.0	6,622.9	19.7	17.2	-105.27	525.3	-68.8	238.4	205.2	33.19	7.182	
6,850.0	6,589.1	6,871.8	6,648.0	19.8	17.3	-105.76	525.3	-117.6	238.9	204.8	34.09	7.008	
6,889.7	6,603.5	6,915.6	6,665.2	19.9	17.6	-106.09	525.3	-157.7	239.3	204.3	34.96	6.846	
6,900.0	6,606.9	6,926.8	6,669.3	19.9	17.7	-106.16	525.3	-168.3	239.4	204.2	35.19	6.802	
6,950.0	6,621.3	6,982.0	6,686.7	20.2	18.5	-106.49	525.3	-220.6	239.8	203.3	36.51	6.568	
6,988.2	6,630.0	7,024.2	6,697.2	20.6	19.1	-106.67	525.3	-261.5	240.0	202.4	37.66	6.374	
7,000.0	6,632.4	7,037.3	6,700.0	20.7	19.3	-106.72	525.3	-274.3	240.1	202.1	38.03	6.313	
7,050.0	6,640.0	7,092.7	6,709.2	21.4	20.2	-106.87	525.3	-328.9	240.3	200.5	39.73	6.047	
7,086.6	6,643.4	7,133.2	6,713.2	21.9	21.0	-106.93	525.3	-369.2	240.3	199.3	41.09	5.849	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	7,148.1	6,714.1	22.1	21.2	-106.94	525.3	-384.0	240.4	198.8	41.60	5.778	
7,135.7	6,645.0	7,187.4	6,715.0	22.7	22.0	-106.93	525.3	-423.3	240.4	197.3	43.01	5.588	
7,185.0	6,644.9	7,236.8	6,714.9	23.6	23.0	-106.92	525.3	-472.7	240.3	195.5	44.87	5.356	
7,200.0	6,644.9	7,251.7	6,714.9	23.9	23.3	-106.92	525.3	-487.7	240.3	194.9	45.44	5.290	
7,283.4	6,644.8	7,335.2	6,714.7	25.6	25.0	-106.91	525.3	-571.1	240.3	191.6	48.74	4.930	
7,300.0	6,644.8	7,351.7	6,714.7	25.9	25.4	-106.90	525.3	-587.7	240.3	190.9	49.41	4.864	
7,381.9	6,644.7	7,433.6	6,714.5	27.7	27.2	-106.89	525.3	-669.6	240.3	187.4	52.86	4.546	
7,400.0	6,644.7	7,451.7	6,714.5	28.1	27.6	-106.89	525.3	-687.7	240.3	186.7	53.63	4.480	
7,480.3	6,644.6	7,532.0	6,714.3	29.9	29.4	-106.87	525.3	-768.0	240.3	183.1	57.18	4.202	
7,500.0	6,644.6	7,551.7	6,714.3	30.3	29.9	-106.87	525.3	-787.7	240.3	182.2	58.06	4.139	
7,578.7	6,644.5	7,630.5	6,714.1	32.2	31.7	-106.86	525.3	-866.4	240.3	178.6	61.66	3.897	
7,600.0	6,644.4	7,651.7	6,714.1	32.7	32.3	-106.85	525.3	-887.7	240.3	177.6	62.64	3.836	
7,677.1	6,644.3	7,728.9	6,713.9	34.6	34.1	-106.84	525.3	-964.8	240.3	174.0	66.26	3.626	
7,700.0	6,644.3	7,751.7	6,713.9	35.1	34.7	-106.84	525.3	-987.7	240.2	172.9	67.34	3.568	
7,775.6	6,644.2	7,827.3	6,713.7	37.0	36.6	-106.82	525.3	-1,063.3	240.2	169.3	70.97	3.385	
7,800.0	6,644.2	7,851.7	6,713.7	37.6	37.2	-106.82	525.3	-1,087.7	240.2	168.1	72.14	3.330	
7,874.0	6,644.1	7,925.7	6,713.6	39.5	39.1	-106.81	525.3	-1,161.7	240.2	164.5	75.75	3.171	
7,900.0	6,644.1	7,951.7	6,713.5	40.1	39.7	-106.80	525.3	-1,187.7	240.2	163.2	77.03	3.118	
7,972.4	6,644.0	8,024.2	6,713.4	42.0	41.6	-106.79	525.3	-1,260.1	240.2	159.6	80.61	2.980	
8,000.0	6,643.9	8,051.7	6,713.3	42.7	42.3	-106.79	525.3	-1,287.7	240.2	158.2	81.98	2.930	
8,070.8	6,643.9	8,122.6	6,713.2	44.5	44.2	-106.78	525.3	-1,358.5	240.2	154.7	85.52	2.808	
8,100.0	6,643.8	8,151.7	6,713.1	45.2	44.9	-106.77	525.3	-1,387.7	240.2	153.2	86.98	2.761	
8,169.3	6,643.7	8,221.0	6,713.0	47.0	46.7	-106.76	525.3	-1,457.0	240.2	149.7	90.48	2.654	
8,200.0	6,643.7	8,251.7	6,712.9	47.9	47.5	-106.75	525.3	-1,487.7	240.2	148.1	92.03	2.609	
8,267.7	6,643.6	8,319.4	6,712.8	49.6	49.3	-106.74	525.3	-1,555.4	240.1	144.7	95.48	2.515	
8,300.0	6,643.6	8,351.7	6,712.7	50.5	50.2	-106.74	525.3	-1,587.7	240.1	143.0	97.12	2.472	
8,366.1	6,643.5	8,417.9	6,712.6	52.2	51.9	-106.73	525.3	-1,653.8	240.1	139.6	100.51	2.389	
8,400.0	6,643.4	8,451.7	6,712.5	53.1	52.8	-106.72	525.3	-1,687.7	240.1	137.9	102.25	2.348	
8,464.5	6,643.4	8,516.3	6,712.4	54.8	54.6	-106.71	525.3	-1,752.2	240.1	134.5	105.57	2.274	
8,500.0	6,643.3	8,551.7	6,712.3	55.8	55.5	-106.71	525.3	-1,787.7	240.1	132.7	107.40	2.236	
8,563.0	6,643.2	8,614.7	6,712.2	57.5	57.2	-106.70	525.3	-1,850.7	240.1	129.4	110.66	2.170	
8,600.0	6,643.2	8,651.7	6,712.2	58.5	58.2	-106.69	525.3	-1,887.7	240.1	127.5	112.58	2.133	
8,661.4	6,643.1	8,713.1	6,712.0	60.1	59.9	-106.68	525.3	-1,949.1	240.1	124.3	115.77	2.074	
8,700.0	6,643.1	8,751.7	6,712.0	61.2	60.9	-106.67	525.3	-1,987.7	240.1	122.3	117.78	2.038	
8,759.8	6,643.0	8,811.6	6,711.8	62.8	62.5	-106.66	525.3	-2,047.5	240.0	119.1	120.90	1.986	
8,800.0	6,643.0	8,851.7	6,711.8	63.9	63.6	-106.66	525.3	-2,087.7	240.0	117.0	123.00	1.952	
8,858.2	6,642.9	8,910.0	6,711.7	65.4	65.2	-106.65	525.3	-2,145.9	240.0	114.0	126.05	1.904	
8,900.0	6,642.8	8,951.7	6,711.6	66.6	66.3	-106.64	525.3	-2,187.7	240.0	111.8	128.23	1.872	
8,956.7	6,642.8	9,008.4	6,711.5	68.1	67.9	-106.63	525.3	-2,244.4	240.0	108.8	131.21	1.829	
9,000.0	6,642.7	9,051.7	6,711.4	69.3	69.1	-106.63	525.3	-2,287.7	240.0	106.5	133.49	1.798	
9,055.1	6,642.6	9,106.8	6,711.3	70.8	70.6	-106.62	525.3	-2,342.8	240.0	103.6	136.38	1.760	
9,100.0	6,642.6	9,151.7	6,711.2	72.0	71.8	-106.61	525.3	-2,387.7	240.0	101.2	138.75	1.730	
9,153.5	6,642.5	9,205.3	6,711.1	73.5	73.2	-106.60	525.3	-2,441.2	240.0	98.4	141.57	1.695	
9,200.0	6,642.5	9,251.7	6,711.0	74.7	74.5	-106.60	525.3	-2,487.7	240.0	95.9	144.03	1.666	
9,251.9	6,642.4	9,303.7	6,710.9	76.2	75.9	-106.59	525.3	-2,539.6	240.0	93.2	146.77	1.635	
9,300.0	6,642.3	9,351.7	6,710.8	77.5	77.3	-106.58	525.3	-2,587.7	240.0	90.6	149.31	1.607	
9,350.4	6,642.3	9,402.1	6,710.7	78.9	78.6	-106.57	525.3	-2,638.1	239.9	88.0	151.98	1.579	
9,400.0	6,642.2	9,451.7	6,710.6	80.2	80.0	-106.56	525.3	-2,687.7	239.9	85.3	154.61	1.552	
9,448.8	6,642.1	9,500.5	6,710.5	81.6	81.4	-106.56	525.3	-2,736.5	239.9	82.7	157.20	1.526	
9,500.0	6,642.1	9,551.7	6,710.4	83.0	82.8	-106.55	525.3	-2,787.7	239.9	80.0	159.92	1.500	
9,547.2	6,642.0	9,599.0	6,710.3	84.3	84.1	-106.54	525.3	-2,834.9	239.9	77.5	162.42	1.477 Level 3	
9,600.0	6,642.0	9,651.7	6,710.2	85.7	85.5	-106.53	525.3	-2,887.7	239.9	74.7	165.23	1.452 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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	9,697.4	6,710.1	87.0	86.8	-106.53	525.3	-2,933.3	239.9	72.2	167.66	1.431 Level 3	
9,700.0	6,641.8	9,751.7	6,710.0	88.5	88.3	-106.52	525.3	-2,987.7	239.9	69.3	170.55	1.406 Level 3	
9,744.1	6,641.8	9,795.8	6,709.9	89.7	89.5	-106.51	525.3	-3,031.8	239.9	67.0	172.90	1.387 Level 3	
9,800.0	6,641.7	9,851.7	6,709.8	91.2	91.0	-106.50	525.3	-3,087.7	239.9	64.0	175.88	1.364 Level 3	
9,842.5	6,641.7	9,894.2	6,709.8	92.4	92.2	-106.50	525.3	-3,130.2	239.9	61.7	178.14	1.346 Level 3	
9,900.0	6,641.6	9,951.7	6,709.6	94.0	93.8	-106.49	525.3	-3,187.7	239.8	58.6	181.21	1.324 Level 3	
9,940.9	6,641.5	9,992.7	6,709.6	95.1	94.9	-106.48	525.3	-3,228.6	239.8	56.4	183.40	1.308 Level 3	
10,000.0	6,641.5	10,051.7	6,709.5	96.7	96.6	-106.47	525.3	-3,287.7	239.8	53.3	186.55	1.286 Level 3	
10,039.3	6,641.4	10,091.1	6,709.4	97.8	97.7	-106.47	525.3	-3,327.0	239.8	51.2	188.65	1.271 Level 3	
10,100.0	6,641.3	10,151.7	6,709.3	99.5	99.3	-106.46	525.3	-3,387.7	239.8	47.9	191.90	1.250 Level 2	
10,137.8	6,641.3	10,189.5	6,709.2	100.6	100.4	-106.45	525.3	-3,425.5	239.8	45.9	193.92	1.237 Level 2	
10,200.0	6,641.2	10,251.7	6,709.1	102.3	102.1	-106.44	525.3	-3,487.7	239.8	42.5	197.25	1.216 Level 2	
10,236.2	6,641.2	10,287.9	6,709.0	103.3	103.1	-106.44	525.3	-3,523.9	239.8	40.6	199.19	1.204 Level 2	
10,300.0	6,641.1	10,351.7	6,708.9	105.0	104.9	-106.43	525.3	-3,587.7	239.8	37.2	202.60	1.183 Level 2	
10,334.6	6,641.0	10,386.4	6,708.8	106.0	105.8	-106.42	525.3	-3,622.3	239.8	35.3	204.46	1.173 Level 2	
10,400.0	6,641.0	10,451.7	6,708.7	107.8	107.7	-106.41	525.3	-3,687.7	239.7	31.8	207.96	1.153 Level 2	
10,433.0	6,640.9	10,484.8	6,708.6	108.7	108.6	-106.41	525.3	-3,720.7	239.7	30.0	209.73	1.143 Level 2	
10,500.0	6,640.8	10,551.7	6,708.5	110.6	110.4	-106.40	525.3	-3,787.7	239.7	26.4	213.32	1.124 Level 2	
10,531.5	6,640.8	10,583.2	6,708.4	111.5	111.3	-106.39	525.3	-3,819.2	239.7	24.7	215.01	1.115 Level 2	
10,600.0	6,640.7	10,651.7	6,708.3	113.4	113.2	-106.38	525.3	-3,887.7	239.7	21.0	218.69	1.096 Level 2	
10,629.9	6,640.7	10,681.6	6,708.3	114.2	114.0	-106.38	525.3	-3,917.6	239.7	19.4	220.30	1.088 Level 2	
10,700.0	6,640.6	10,751.7	6,708.1	116.1	116.0	-106.37	525.3	-3,987.7	239.7	15.6	224.06	1.070 Level 2	
10,728.3	6,640.5	10,780.1	6,708.1	116.9	116.8	-106.36	525.3	-4,016.0	239.7	14.1	225.58	1.063 Level 2	
10,800.0	6,640.5	10,851.7	6,707.9	118.9	118.8	-106.35	525.3	-4,087.7	239.7	10.2	229.44	1.045 Level 2	
10,826.7	6,640.4	10,878.5	6,707.9	119.7	119.5	-106.35	525.3	-4,114.4	239.7	8.8	230.87	1.038 Level 2	
10,900.0	6,640.3	10,951.7	6,707.7	121.7	121.6	-106.34	525.3	-4,187.7	239.7	4.8	234.81	1.021 Level 2	
10,925.2	6,640.3	10,976.9	6,707.7	122.4	122.3	-106.33	525.3	-4,212.8	239.7	3.5	236.17	1.015 Level 2	
11,000.0	6,640.2	11,051.7	6,707.6	124.5	124.3	-106.32	525.3	-4,287.7	239.6	-0.6	240.19	0.998 Level 1	
11,023.6	6,640.2	11,075.3	6,707.5	125.1	125.0	-106.32	525.3	-4,311.3	239.6	-1.8	241.46	0.992 Level 1	
11,100.0	6,640.1	11,151.7	6,707.4	127.3	127.1	-106.31	525.3	-4,387.7	239.6	-6.0	245.57	0.976 Level 1	
11,122.0	6,640.0	11,173.8	6,707.3	127.9	127.7	-106.31	525.3	-4,409.7	239.6	-7.1	246.76	0.971 Level 1	
11,200.0	6,639.9	11,251.7	6,707.2	130.1	129.9	-106.29	525.3	-4,487.7	239.6	-11.4	250.96	0.955 Level 1	
11,220.4	6,639.9	11,272.2	6,707.1	130.6	130.5	-106.29	525.3	-4,508.1	239.6	-12.5	252.06	0.951 Level 1	
11,300.0	6,639.8	11,351.7	6,707.0	132.8	132.7	-106.28	525.3	-4,587.7	239.6	-16.8	256.35	0.935 Level 1	
11,318.9	6,639.8	11,370.6	6,706.9	133.4	133.2	-106.28	525.3	-4,606.5	239.6	-17.8	257.37	0.931 Level 1	
11,400.0	6,639.7	11,451.7	6,706.8	135.6	135.5	-106.27	525.3	-4,687.7	239.6	-22.2	261.74	0.915 Level 1	
11,417.3	6,639.7	11,469.0	6,706.8	136.1	136.0	-106.26	525.3	-4,705.0	239.6	-23.1	262.67	0.912 Level 1	
11,500.0	6,639.6	11,551.7	6,706.6	138.4	138.3	-106.25	525.3	-4,787.7	239.5	-27.6	267.13	0.897 Level 1	
11,515.7	6,639.5	11,567.5	6,706.6	138.9	138.7	-106.25	525.3	-4,803.4	239.5	-28.4	267.98	0.894 Level 1	
11,600.0	6,639.4	11,651.7	6,706.4	141.2	141.1	-106.24	525.3	-4,887.7	239.5	-33.0	272.53	0.879 Level 1	
11,614.1	6,639.4	11,665.9	6,706.4	141.6	141.5	-106.24	525.3	-4,901.8	239.5	-33.8	273.29	0.876 Level 1	
11,700.0	6,639.3	11,751.7	6,706.2	144.0	143.9	-106.22	525.3	-4,987.7	239.5	-38.4	277.92	0.862 Level 1	
11,712.6	6,639.3	11,764.3	6,706.2	144.3	144.2	-106.22	525.3	-5,000.2	239.5	-39.1	278.60	0.860 Level 1	
11,800.0	6,639.2	11,851.7	6,706.0	146.8	146.7	-106.21	525.3	-5,087.7	239.5	-43.8	283.32	0.845 Level 1	
11,811.0	6,639.2	11,862.7	6,706.0	147.1	147.0	-106.21	525.3	-5,098.7	239.5	-44.4	283.92	0.844 Level 1	
11,900.0	6,639.1	11,951.7	6,705.8	149.6	149.4	-106.20	525.3	-5,187.7	239.5	-49.3	288.72	0.829 Level 1	
11,909.4	6,639.0	11,961.2	6,705.8	149.8	149.7	-106.19	525.3	-5,197.1	239.5	-49.8	289.23	0.828 Level 1	
12,000.0	6,638.9	12,051.7	6,705.7	152.4	152.2	-106.18	525.3	-5,287.7	239.5	-54.7	294.13	0.814 Level 1	
12,007.8	6,638.9	12,059.6	6,705.6	152.6	152.5	-106.18	525.3	-5,295.5	239.5	-55.1	294.55	0.813 Level 1	
12,100.0	6,638.8	12,151.7	6,705.5	155.2	155.0	-106.17	525.3	-5,387.7	239.4	-60.1	299.53	0.799 Level 1	
12,106.3	6,638.8	12,158.0	6,705.5	155.3	155.2	-106.17	525.3	-5,393.9	239.4	-60.4	299.87	0.798 Level 1	
12,200.0	6,638.7	12,251.7	6,705.3	157.9	157.8	-106.15	525.3	-5,487.7	239.4	-65.5	304.94	0.785 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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,204.7	6,638.7	12,256.4	6,705.3	158.1	158.0	-106.15	525.3	-5,492.4	239.4	-65.8	305.19	0.784	Level 1
12,300.0	6,638.5	12,351.7	6,705.1	160.7	160.6	-106.14	525.3	-5,587.7	239.4	-70.9	310.35	0.771	Level 1
12,303.1	6,638.5	12,354.9	6,705.1	160.8	160.7	-106.14	525.3	-5,590.8	239.4	-71.1	310.51	0.771	Level 1
12,400.0	6,638.4	12,451.7	6,704.9	163.5	163.4	-106.13	525.3	-5,687.7	239.4	-76.4	315.76	0.758	Level 1
12,401.5	6,638.4	12,453.3	6,704.9	163.6	163.5	-106.13	525.3	-5,689.2	239.4	-76.5	315.84	0.758	Level 1
12,500.0	6,638.3	12,551.7	6,704.7	166.3	166.2	-106.11	525.3	-5,787.7	239.4	-81.8	321.17	0.745	Level 1
12,598.4	6,638.2	12,650.1	6,704.5	169.1	169.0	-106.10	525.3	-5,886.1	239.3	-87.1	326.49	0.733	Level 1
12,600.0	6,638.2	12,651.7	6,704.5	169.1	169.0	-106.10	525.3	-5,887.7	239.3	-87.2	326.58	0.733	Level 1
12,696.8	6,638.0	12,748.6	6,704.3	171.8	171.7	-106.09	525.3	-5,984.5	239.3	-92.5	331.82	0.721	Level 1
12,700.0	6,638.0	12,751.7	6,704.3	171.9	171.8	-106.09	525.3	-5,987.7	239.3	-92.7	331.99	0.721	Level 1
12,795.2	6,637.9	12,847.0	6,704.2	174.6	174.5	-106.07	525.3	-6,082.9	239.3	-97.8	337.15	0.710	Level 1
12,800.0	6,637.9	12,851.7	6,704.2	174.7	174.6	-106.07	525.3	-6,087.7	239.3	-98.1	337.41	0.709	Level 1
12,893.7	6,637.8	12,945.4	6,704.0	177.3	177.2	-106.06	525.3	-6,181.3	239.3	-103.2	342.48	0.699	Level 1
12,900.0	6,637.8	12,951.7	6,704.0	177.5	177.4	-106.06	525.3	-6,187.7	239.3	-103.5	342.83	0.698	Level 1
12,992.1	6,637.7	13,043.8	6,703.8	180.1	180.0	-106.05	525.3	-6,279.8	239.3	-108.5	347.82	0.688	Level 1
13,000.0	6,637.6	13,051.7	6,703.8	180.3	180.2	-106.05	525.3	-6,287.7	239.3	-109.0	348.24	0.687	Level 1
13,090.5	6,637.5	13,142.3	6,703.6	182.8	182.7	-106.03	525.3	-6,378.2	239.3	-113.9	353.15	0.677	Level 1
13,100.0	6,637.5	13,151.7	6,703.6	183.1	183.0	-106.03	525.3	-6,387.7	239.3	-114.4	353.66	0.676	Level 1
13,188.9	6,637.4	13,240.7	6,703.4	185.6	185.5	-106.02	525.3	-6,476.6	239.2	-119.3	358.48	0.667	Level 1
13,200.0	6,637.4	13,251.7	6,703.4	185.9	185.8	-106.02	525.3	-6,487.7	239.2	-119.9	359.08	0.666	Level 1
13,287.4	6,637.3	13,339.1	6,703.2	188.4	188.2	-106.01	525.3	-6,575.0	239.2	-124.6	363.82	0.658	Level 1
13,300.0	6,637.3	13,351.7	6,703.2	188.7	188.6	-106.01	525.3	-6,587.7	239.2	-125.3	364.51	0.656	Level 1
13,385.8	6,637.1	13,437.5	6,703.1	191.1	191.0	-105.99	525.3	-6,673.5	239.2	-130.0	369.16	0.648	Level 1
13,400.0	6,637.1	13,451.7	6,703.0	191.5	191.4	-105.99	525.3	-6,687.7	239.2	-130.7	369.93	0.647	Level 1
13,484.2	6,637.0	13,536.0	6,702.9	193.9	193.8	-105.98	525.3	-6,771.9	239.2	-135.3	374.50	0.639	Level 1
13,500.0	6,637.0	13,551.7	6,702.8	194.3	194.2	-105.98	525.3	-6,787.7	239.2	-136.2	375.35	0.637	Level 1
13,582.6	6,636.9	13,634.4	6,702.7	196.6	196.5	-105.97	525.3	-6,870.3	239.2	-140.7	379.84	0.630	Level 1
13,600.0	6,636.9	13,651.7	6,702.7	197.1	197.0	-105.97	525.3	-6,887.7	239.2	-141.6	380.78	0.628	Level 1
13,681.1	6,636.8	13,732.8	6,702.5	199.4	199.3	-105.96	525.3	-6,968.7	239.1	-146.0	385.18	0.621	Level 1
13,700.0	6,636.7	13,751.7	6,702.5	199.9	199.8	-105.95	525.3	-6,987.7	239.1	-147.1	386.20	0.619	Level 1
13,779.5	6,636.6	13,831.2	6,702.3	202.1	202.0	-105.94	525.3	-7,067.2	239.1	-151.4	390.52	0.612	Level 1
13,800.0	6,636.6	13,851.7	6,702.3	202.7	202.6	-105.94	525.3	-7,087.7	239.1	-152.5	391.63	0.611	Level 1
13,877.9	6,636.5	13,929.7	6,702.1	204.9	204.8	-105.93	525.3	-7,165.6	239.1	-156.8	395.86	0.604	Level 1
13,900.0	6,636.5	13,951.7	6,702.1	205.5	205.4	-105.93	525.3	-7,187.7	239.1	-158.0	397.06	0.602	Level 1
13,976.3	6,636.4	14,028.1	6,702.0	207.6	207.5	-105.92	525.3	-7,264.0	239.1	-162.1	401.21	0.596	Level 1
14,000.0	6,636.3	14,051.7	6,701.9	208.3	208.2	-105.92	525.3	-7,287.7	239.1	-163.4	402.49	0.594	Level 1
14,074.8	6,636.3	14,126.5	6,701.8	210.4	210.3	-105.91	525.3	-7,362.4	239.1	-167.5	406.55	0.588	Level 1
14,100.0	6,636.2	14,151.7	6,701.7	211.1	211.0	-105.90	525.3	-7,387.7	239.1	-168.9	407.92	0.586	Level 1
14,173.2	6,636.1	14,224.9	6,701.6	213.2	213.1	-105.89	525.3	-7,460.9	239.1	-172.8	411.90	0.580	Level 1
14,200.0	6,636.1	14,251.7	6,701.5	213.9	213.8	-105.89	525.3	-7,487.7	239.0	-174.3	413.35	0.578	Level 1
14,271.6	6,636.0	14,323.4	6,701.4	215.9	215.8	-105.88	525.3	-7,559.3	239.0	-178.2	417.24	0.573	Level 1
14,300.0	6,636.0	14,351.7	6,701.4	216.7	216.6	-105.88	525.3	-7,587.7	239.0	-179.8	418.78	0.571	Level 1
14,370.0	6,635.9	14,421.8	6,701.2	218.7	218.6	-105.87	525.3	-7,657.7	239.0	-183.6	422.59	0.566	Level 1
14,400.0	6,635.8	14,451.7	6,701.2	219.5	219.4	-105.87	525.3	-7,687.7	239.0	-185.2	424.22	0.563	Level 1
14,468.5	6,635.7	14,520.2	6,701.0	221.4	221.3	-105.86	525.3	-7,756.1	239.0	-188.9	427.94	0.558	Level 1
14,500.0	6,635.7	14,551.7	6,701.0	222.3	222.2	-105.85	525.3	-7,787.7	239.0	-190.7	429.65	0.556	Level 1
14,566.9	6,635.6	14,618.6	6,700.9	224.2	224.1	-105.84	525.3	-7,854.6	239.0	-194.3	433.29	0.552	Level 1
14,600.0	6,635.6	14,651.7	6,700.8	225.1	225.0	-105.84	525.3	-7,887.7	239.0	-196.1	435.08	0.549	Level 1
14,665.3	6,635.5	14,717.1	6,700.7	226.9	226.8	-105.83	525.3	-7,953.0	239.0	-199.7	438.64	0.545	Level 1
14,700.0	6,635.4	14,751.7	6,700.6	227.9	227.8	-105.83	525.3	-7,987.7	239.0	-201.6	440.52	0.542	Level 1
14,763.7	6,635.4	14,815.5	6,700.5	229.7	229.6	-105.82	525.3	-8,051.4	238.9	-205.0	443.99	0.538	Level 1
14,800.0	6,635.3	14,851.7	6,700.4	230.7	230.6	-105.82	525.3	-8,087.7	238.9	-207.0	445.96	0.536	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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10F-304 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,862.2	6,635.2	14,913.9	6,700.3	232.5	232.4	-105.81	525.3	-8,149.8	238.9	-210.4	449.34	0.532	Level 1
14,900.0	6,635.2	14,951.7	6,700.2	233.5	233.4	-105.80	525.3	-8,187.7	238.9	-212.5	451.39	0.529	Level 1
14,960.6	6,635.1	15,012.3	6,700.1	235.2	235.1	-105.80	525.3	-8,248.3	238.9	-215.8	454.69	0.525	Level 1
15,000.0	6,635.0	15,051.7	6,700.1	236.3	236.2	-105.79	525.3	-8,287.7	238.9	-217.9	456.83	0.523	Level 1
15,026.7	6,635.0	15,078.5	6,700.0	237.1	237.0	-105.79	525.3	-8,314.4	238.9	-219.4	458.29	0.521	Level 1
15,033.1	6,635.0	15,082.8	6,700.0	237.3	237.1	-105.79	525.3	-8,318.7	238.9	-219.7	458.58	0.521	Level 1, ES, SF

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-179.47	-119.9	-1.1	119.9					
98.4	98.4	98.4	98.4	0.1	0.1	-179.47	-119.9	-1.1	119.9	119.7	0.19	623.501		
100.0	100.0	100.0	100.0	0.1	0.1	-179.47	-119.9	-1.1	119.9	119.7	0.20	612.948		
196.8	196.8	196.8	196.8	0.3	0.3	-179.47	-119.9	-1.1	119.9	119.2	0.63	189.977		
200.0	200.0	200.0	200.0	0.3	0.3	-179.47	-119.9	-1.1	119.9	119.2	0.65	185.807		
295.3	295.3	295.3	295.3	0.5	0.5	-179.47	-119.9	-1.1	119.9	118.8	1.07	111.667		
300.0	300.0	300.0	300.0	0.5	0.5	-179.47	-119.9	-1.1	119.9	118.8	1.09	109.500		
393.7	393.7	393.7	393.7	0.8	0.8	-179.47	-119.9	-1.1	119.9	118.3	1.52	79.072		
400.0	400.0	400.0	400.0	0.8	0.8	-179.47	-119.9	-1.1	119.9	118.3	1.54	77.622		
492.1	492.1	492.1	492.1	1.0	1.0	-179.47	-119.9	-1.1	119.9	117.9	1.96	61.207		
500.0	500.0	500.0	500.0	1.0	1.0	-179.47	-119.9	-1.1	119.9	117.9	1.99	60.120		
590.5	590.5	590.5	590.5	1.2	1.2	-179.47	-119.9	-1.1	119.9	117.5	2.40	49.926		
600.0	600.0	600.0	600.0	1.2	1.2	-179.47	-119.9	-1.1	119.9	117.4	2.44	49.058		
689.0	689.0	689.0	689.0	1.4	1.4	-179.47	-119.9	-1.1	119.9	117.0	2.84	42.157		
700.0	700.0	700.0	700.0	1.4	1.4	-179.47	-119.9	-1.1	119.9	117.0	2.89	41.435		
787.4	787.4	787.4	787.4	1.6	1.6	-179.47	-119.9	-1.1	119.9	116.6	3.29	36.480		
800.0	800.0	800.0	800.0	1.7	1.7	-179.47	-119.9	-1.1	119.9	116.5	3.34	35.862		
885.8	885.8	885.8	885.8	1.9	1.9	-179.47	-119.9	-1.1	119.9	116.1	3.73	32.151		
900.0	900.0	900.0	900.0	1.9	1.9	-179.47	-119.9	-1.1	119.9	116.1	3.79	31.610		
984.2	984.2	984.2	984.2	2.1	2.1	-179.47	-119.9	-1.1	119.9	115.7	4.17	28.740		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.47	-119.9	-1.1	119.9	115.6	4.24	28.260 CC, ES		
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	153.77	-119.9	-1.1	120.9	116.3	4.61	26.222		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	153.89	-119.9	-1.1	121.4	116.7	4.69	25.896		
1,181.1	1,181.0	1,181.0	1,181.0	2.5	2.5	154.66	-119.9	-1.1	125.0	120.0	5.05	24.754		
1,200.0	1,199.8	1,199.8	1,199.8	2.6	2.6	154.89	-119.9	-1.1	126.1	121.0	5.13	24.573		
1,279.5	1,279.1	1,278.5	1,278.5	2.8	2.7	156.52	-120.0	-2.2	132.4	126.9	5.47	24.181		
1,300.0	1,299.5	1,298.7	1,298.7	2.8	2.8	157.11	-120.0	-2.8	134.4	128.8	5.56	24.165		
1,377.9	1,376.9	1,375.1	1,375.0	3.0	2.9	159.90	-120.3	-6.4	143.6	137.7	5.88	24.407		
1,400.0	1,398.7	1,396.6	1,396.4	3.0	3.0	160.81	-120.5	-7.8	146.8	140.8	5.98	24.562		
1,476.4	1,474.2	1,470.3	1,469.9	3.2	3.1	164.21	-121.0	-13.8	159.5	153.2	6.30	25.324		
1,500.0	1,497.5	1,492.8	1,492.3	3.3	3.2	165.31	-121.2	-16.0	164.0	157.6	6.39	25.651		
1,574.8	1,571.0	1,563.6	1,562.6	3.5	3.3	168.83	-121.9	-24.1	180.5	173.7	6.71	26.881		
1,600.0	1,595.6	1,587.1	1,585.9	3.6	3.4	170.01	-122.2	-27.1	186.7	179.9	6.82	27.387		
1,673.2	1,667.2	1,654.8	1,652.9	3.9	3.6	173.36	-123.1	-37.0	206.1	198.9	7.16	28.801		
1,700.0	1,693.4	1,679.4	1,677.2	4.0	3.6	174.52	-123.5	-41.0	213.5	206.3	7.28	29.338		
1,771.6	1,763.5	1,744.5	1,741.2	4.2	3.8	177.50	-124.5	-52.5	234.3	226.7	7.62	30.749		
1,800.0	1,791.3	1,770.0	1,766.3	4.3	3.9	178.61	-125.0	-57.4	242.9	235.2	7.76	31.326		
1,870.1	1,859.8	1,832.4	1,827.3	4.6	4.1	-178.76	-126.1	-70.4	265.1	257.0	8.10	32.733		
1,900.0	1,889.1	1,858.8	1,853.0	4.7	4.2	-177.70	-126.7	-76.2	275.0	266.8	8.25	33.334		
1,968.5	1,956.1	1,918.5	1,911.0	4.9	4.4	-175.39	-128.0	-90.4	298.5	289.9	8.60	34.725		
2,000.0	1,986.9	1,945.7	1,937.3	5.1	4.5	-174.39	-128.6	-97.2	309.8	301.0	8.76	35.354		
2,066.9	2,052.3	2,003.5	1,993.0	5.3	4.8	-172.34	-130.0	-112.6	334.5	325.4	9.12	36.694		
2,100.0	2,084.7	2,033.6	2,022.0	5.5	4.9	-171.36	-130.7	-120.8	347.0	337.7	9.30	37.324		
2,165.3	2,148.6	2,093.1	2,079.3	5.7	5.2	-169.60	-132.2	-137.0	371.9	362.3	9.66	38.512		
2,200.0	2,182.5	2,124.7	2,109.6	5.9	5.3	-168.76	-133.0	-145.5	385.3	375.4	9.85	39.098		
2,263.8	2,244.9	2,182.8	2,165.5	6.1	5.6	-167.35	-134.4	-161.3	410.0	399.8	10.21	40.149		
2,300.0	2,280.3	2,215.8	2,197.2	6.3	5.8	-166.62	-135.2	-170.3	424.1	413.7	10.41	40.723		
2,362.2	2,341.2	2,272.4	2,251.7	6.5	6.1	-165.47	-136.6	-185.7	448.5	437.7	10.77	41.645		
2,400.0	2,378.1	2,306.8	2,284.8	6.7	6.2	-164.83	-137.5	-195.1	463.4	452.4	10.98	42.184		
2,460.6	2,437.4	2,362.1	2,337.9	6.9	6.5	-163.89	-138.8	-210.1	487.3	476.0	11.33	42.995		
2,500.0	2,476.0	2,397.9	2,372.4	7.1	6.7	-163.32	-139.7	-219.9	503.0	491.4	11.56	43.504		
2,550.0	2,524.9	2,443.5	2,416.2	7.3	6.9	-162.65	-140.9	-232.2	522.9	511.0	11.85	44.112		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,451.7	2,424.2	7.3	7.0	-161.62	-141.1	-234.5	526.5	514.6	11.91	44.217	
2,600.0	2,573.8	2,489.1	2,460.1	7.5	7.2	-156.98	-142.0	-244.6	542.7	530.5	12.15	44.674	
2,639.4	2,612.3	2,525.2	2,494.9	7.7	7.4	-152.62	-142.9	-254.5	558.1	545.7	12.38	45.072	
2,657.5	2,630.0	2,541.8	2,510.8	7.7	7.5	-152.47	-143.3	-259.0	565.1	552.6	12.49	45.246	
2,700.0	2,671.6	2,580.8	2,548.4	7.9	7.7	-152.13	-144.3	-269.6	581.7	568.9	12.74	45.644	
2,755.9	2,726.3	2,632.2	2,597.8	8.1	7.9	-151.72	-145.5	-283.6	603.5	590.4	13.09	46.114	
2,800.0	2,769.4	2,672.7	2,636.7	8.3	8.2	-151.42	-146.5	-294.6	620.7	607.3	13.36	46.467	
2,854.3	2,822.5	2,722.5	2,684.7	8.5	8.4	-151.07	-147.8	-308.1	641.9	628.2	13.69	46.877	
2,900.0	2,867.2	2,764.5	2,725.1	8.7	8.7	-150.79	-148.8	-319.6	659.8	645.8	13.98	47.205	
2,952.7	2,918.8	2,812.9	2,771.7	9.0	8.9	-150.48	-150.0	-332.7	680.4	666.1	14.30	47.564	
3,000.0	2,965.0	2,856.3	2,813.4	9.2	9.2	-150.23	-151.1	-344.5	698.9	684.3	14.60	47.869	
3,051.2	3,015.1	2,903.3	2,858.6	9.4	9.4	-149.96	-152.2	-357.3	718.9	704.0	14.92	48.184	
3,100.0	3,062.8	2,948.1	2,901.7	9.6	9.7	-149.72	-153.3	-369.5	738.1	722.8	15.23	48.469	
3,149.6	3,111.4	2,993.7	2,945.5	9.8	9.9	-149.50	-154.5	-381.9	757.5	742.0	15.54	48.746	
3,200.0	3,160.7	3,040.0	2,990.1	10.0	10.2	-149.27	-155.6	-394.5	777.3	761.4	15.86	49.013	
3,248.0	3,207.6	3,084.1	3,032.5	10.2	10.4	-149.07	-156.7	-406.5	796.1	780.0	16.16	49.256	
3,300.0	3,258.5	3,131.8	3,078.4	10.5	10.7	-148.87	-157.9	-419.4	816.6	800.1	16.49	49.507	
3,346.4	3,303.9	3,174.4	3,119.4	10.7	11.0	-148.69	-158.9	-431.0	834.8	818.0	16.79	49.722	
3,400.0	3,356.3	3,223.6	3,166.7	10.9	11.2	-148.49	-160.1	-444.4	855.8	838.7	17.13	49.959	
3,444.9	3,400.2	3,264.8	3,206.4	11.1	11.5	-148.34	-161.2	-455.6	873.5	856.1	17.42	50.148	
3,500.0	3,454.1	3,315.4	3,255.1	11.3	11.8	-148.16	-162.4	-469.4	895.2	877.4	17.77	50.372	
3,543.3	3,496.5	3,355.2	3,293.3	11.5	12.0	-148.02	-163.4	-480.2	912.2	894.2	18.05	50.540	
3,600.0	3,551.9	3,407.2	3,343.4	11.7	12.3	-147.85	-164.7	-494.4	934.5	916.1	18.41	50.752	
3,641.7	3,592.7	3,445.6	3,380.2	11.9	12.5	-147.73	-165.6	-504.8	950.9	932.3	18.68	50.900	
3,700.0	3,649.7	3,499.1	3,431.7	12.2	12.8	-147.56	-167.0	-519.3	973.9	954.8	19.06	51.101	
3,740.1	3,689.0	3,535.9	3,467.2	12.4	13.0	-147.45	-167.9	-529.4	989.7	970.4	19.32	51.233	
3,800.0	3,747.5	3,590.9	3,520.1	12.6	13.3	-147.30	-169.2	-544.3	1,013.3	993.6	19.70	51.423	
3,838.6	3,785.3	3,626.3	3,554.1	12.8	13.5	-147.20	-170.1	-553.9	1,028.5	1,008.5	19.95	51.541	
3,900.0	3,845.4	3,682.7	3,608.4	13.1	13.9	-147.06	-171.5	-569.3	1,052.7	1,032.3	20.35	51.721	
3,937.0	3,881.6	3,716.7	3,641.1	13.2	14.1	-146.97	-172.3	-578.5	1,067.2	1,046.7	20.59	51.826	
4,000.0	3,943.2	3,774.5	3,696.7	13.5	14.4	-146.83	-173.8	-594.3	1,092.1	1,071.1	21.00	51.998	
4,035.4	3,977.8	3,807.1	3,728.0	13.6	14.6	-146.75	-174.6	-603.1	1,106.0	1,084.8	21.23	52.091	
4,100.0	4,041.0	3,866.4	3,785.0	13.9	14.9	-146.62	-176.0	-619.2	1,131.5	1,109.9	21.65	52.255	
4,133.8	4,074.1	3,897.4	3,814.9	14.1	15.1	-146.55	-176.8	-627.7	1,144.9	1,123.0	21.87	52.338	
4,200.0	4,138.8	3,958.2	3,873.4	14.4	15.4	-146.42	-178.3	-644.2	1,171.0	1,148.6	22.31	52.495	
4,232.3	4,170.4	3,987.8	3,901.9	14.5	15.6	-146.36	-179.0	-652.3	1,183.7	1,161.2	22.52	52.569	
4,300.0	4,236.6	4,050.0	3,961.7	14.8	16.0	-146.24	-180.6	-669.2	1,210.4	1,187.4	22.96	52.719	
4,330.7	4,266.7	4,078.2	3,988.8	14.9	16.1	-146.19	-181.3	-676.9	1,222.5	1,199.4	23.16	52.785	
4,400.0	4,334.4	4,141.8	4,050.0	15.2	16.5	-146.07	-182.8	-694.2	1,249.9	1,226.3	23.61	52.928	
4,429.1	4,362.9	4,168.6	4,075.8	15.4	16.7	-146.02	-183.5	-701.4	1,261.4	1,237.6	23.81	52.987	
4,500.0	4,432.3	4,233.6	4,138.4	15.7	17.0	-145.91	-185.1	-719.1	1,289.3	1,265.1	24.27	53.124	
4,527.5	4,459.2	4,258.9	4,162.7	15.8	17.2	-145.87	-185.7	-726.0	1,300.2	1,275.8	24.45	53.176	
4,600.0	4,530.1	4,325.5	4,226.7	16.1	17.6	-145.76	-187.4	-744.1	1,328.8	1,303.9	24.93	53.309	
4,626.0	4,555.5	4,349.3	4,249.6	16.2	17.7	-145.72	-188.0	-750.6	1,339.1	1,314.0	25.10	53.354	
4,700.0	4,627.9	4,417.3	4,315.0	16.6	18.1	-145.61	-189.7	-769.1	1,368.3	1,342.7	25.58	53.482	
4,724.4	4,651.7	4,439.7	4,336.6	16.7	18.2	-145.58	-190.2	-775.2	1,377.9	1,352.2	25.75	53.522	
4,800.0	4,725.7	4,509.1	4,403.4	17.0	18.6	-145.48	-191.9	-794.1	1,407.8	1,381.6	26.24	53.645	
4,822.8	4,748.0	4,530.1	4,423.5	17.1	18.8	-145.45	-192.4	-799.8	1,416.8	1,390.4	26.39	53.680	
4,904.9	4,828.3	4,605.4	4,496.0	17.5	19.2	-145.35	-194.3	-820.2	1,449.2	1,422.3	26.93	53.806	
4,921.2	4,844.3	4,620.5	4,510.5	17.5	19.3	-145.40	-194.7	-824.3	1,455.7	1,428.6	27.06	53.793	
5,000.0	4,921.6	4,693.2	4,580.5	17.8	19.7	-145.64	-196.5	-844.1	1,485.6	1,457.9	27.66	53.708	
5,019.7	4,941.0	4,711.5	4,598.1	17.9	19.8	-145.69	-196.9	-849.1	1,492.8	1,465.0	27.80	53.699	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,786.5	4,670.2	18.1	20.3	-145.84	-198.8	-869.5	1,521.3	1,492.9	28.36	53.640	
5,118.1	5,038.3	4,803.4	4,686.5	18.2	20.4	-145.87	-199.2	-874.1	1,527.4	1,498.9	28.48	53.628	
5,200.0	5,119.6	4,880.6	4,760.7	18.4	20.8	-145.94	-201.1	-895.1	1,554.2	1,525.2	29.02	53.553	
5,216.5	5,136.0	4,896.2	4,775.7	18.4	20.9	-145.94	-201.5	-899.3	1,559.4	1,530.3	29.13	53.540	
5,300.0	5,219.2	4,975.4	4,852.0	18.6	21.4	-145.93	-203.5	-920.9	1,584.5	1,554.8	29.64	53.454	
5,314.9	5,234.1	4,989.7	4,865.6	18.6	21.4	-145.93	-203.8	-924.8	1,588.8	1,559.0	29.73	53.441	
5,400.0	5,319.1	5,070.9	4,943.8	18.8	21.9	-145.84	-205.8	-946.8	1,612.1	1,581.8	30.22	53.348	
5,413.4	5,332.4	5,083.7	4,956.1	18.8	22.0	-145.82	-206.1	-950.3	1,615.5	1,585.2	30.29	53.336	
5,504.9	5,423.9	7,881.9	6,626.2	18.9	38.4	179.10	-219.9	309.3	1,548.1	1,515.2	32.88	47.089	
5,511.8	5,430.8	7,881.8	6,626.2	18.9	38.4	179.10	-219.9	309.2	1,542.7	1,509.8	32.89	46.912	
5,600.0	5,519.0	7,880.7	6,626.3	19.0	38.4	179.17	-219.9	308.0	1,475.4	1,442.4	33.00	44.704	
5,610.2	5,529.3	7,880.6	6,626.3	19.0	38.4	179.18	-219.9	307.9	1,467.8	1,434.7	33.02	44.452	
5,700.0	5,619.0	7,879.4	6,626.3	19.2	38.3	179.24	-219.9	306.8	1,401.9	1,368.8	33.15	42.291	
5,708.6	5,627.7	7,879.3	6,626.3	19.2	38.3	179.25	-219.9	306.7	1,395.7	1,362.6	33.16	42.087	
5,800.0	5,719.0	7,878.1	6,626.3	19.3	38.3	179.32	-219.9	305.5	1,331.9	1,298.6	33.30	40.000	
5,807.1	5,726.1	7,878.0	6,626.3	19.3	38.3	179.32	-219.9	305.4	1,327.1	1,293.8	33.31	39.843	
5,900.0	5,819.0	7,876.8	6,626.3	19.4	38.3	179.39	-219.9	304.2	1,265.9	1,232.5	33.45	37.849	
5,905.5	5,824.5	7,876.8	6,626.3	19.4	38.3	179.40	-219.9	304.1	1,262.4	1,228.9	33.45	37.735	
6,003.9	5,923.0	7,875.5	6,626.3	19.6	38.3	179.47	-219.9	302.9	1,202.3	1,168.7	33.60	35.779	
6,009.8	5,928.8	7,875.4	6,626.3	19.6	38.3	179.48	-219.9	302.8	1,198.9	1,165.3	33.61	35.668	
6,050.0	5,969.0	7,873.8	6,626.3	19.6	38.2	-92.66	-219.9	301.2	1,175.9	1,122.6	53.38	22.029	
6,100.0	6,018.8	7,868.6	6,626.4	19.7	38.1	-94.93	-219.9	296.0	1,148.9	1,095.4	53.46	21.490	
6,102.3	6,021.1	7,868.3	6,626.4	19.7	38.1	-95.02	-219.9	295.6	1,147.7	1,094.2	53.46	21.467	
6,150.0	6,068.1	7,860.0	6,626.5	19.7	37.9	-96.77	-219.9	287.3	1,123.6	1,070.2	53.39	21.046	
6,200.0	6,116.8	7,847.9	6,626.7	19.7	37.7	-98.18	-219.9	275.3	1,100.3	1,047.1	53.18	20.689	
6,200.8	6,117.5	7,847.7	6,626.7	19.7	37.7	-98.20	-219.9	275.1	1,100.0	1,046.8	53.18	20.684	
6,250.0	6,164.5	7,832.5	6,626.9	19.7	37.3	-99.19	-219.9	259.9	1,079.1	1,026.2	52.86	20.414	
6,299.2	6,210.4	7,814.2	6,627.1	19.7	36.9	-99.82	-219.9	241.5	1,060.4	1,007.9	52.45	20.216	
6,300.0	6,211.1	7,813.8	6,627.1	19.7	36.9	-99.83	-219.9	241.2	1,060.1	1,007.6	52.44	20.214	
6,350.0	6,256.4	7,792.0	6,627.4	19.7	36.5	-100.11	-219.9	219.3	1,043.3	991.3	51.95	20.081	
6,397.6	6,298.0	7,768.2	6,627.7	19.7	36.0	-100.10	-219.9	195.6	1,029.3	977.8	51.44	20.010	
6,400.0	6,300.0	7,767.0	6,627.7	19.7	36.0	-100.09	-219.9	194.4	1,028.6	977.2	51.41	20.008	
6,450.0	6,341.8	7,739.1	6,628.1	19.7	35.4	-99.78	-219.9	166.4	1,016.2	965.4	50.83	19.993	
6,496.0	6,378.6	7,710.9	6,628.4	19.7	34.8	-99.29	-219.9	138.2	1,006.5	956.3	50.26	20.025	
6,500.0	6,381.6	7,708.3	6,628.5	19.7	34.8	-99.23	-219.9	135.7	1,005.8	955.6	50.21	20.030	
6,550.0	6,419.2	7,674.9	6,628.9	19.6	34.1	-98.49	-219.9	102.3	997.3	947.7	49.62	20.100	
6,594.5	6,450.7	7,643.1	6,629.3	19.6	33.5	-97.69	-219.9	70.4	991.3	942.2	49.11	20.186	
6,600.0	6,454.4	7,639.0	6,629.3	19.6	33.4	-97.59	-219.9	66.4	990.6	941.6	49.04	20.199	
6,650.0	6,487.1	7,600.7	6,629.8	19.6	32.7	-96.58	-219.9	28.1	985.4	936.9	48.49	20.323	
6,692.9	6,513.0	7,566.2	6,630.3	19.6	32.0	-95.66	-219.9	-6.5	982.1	934.0	48.09	20.422	
6,700.0	6,517.0	7,560.3	6,630.4	19.6	31.9	-95.50	-219.9	-12.3	981.6	933.6	48.02	20.441	
6,750.0	6,544.1	7,517.9	6,630.9	19.6	31.2	-94.41	-219.9	-54.7	978.9	931.3	47.60	20.564	
6,791.3	6,564.2	7,481.6	6,631.4	19.7	30.6	-93.52	-219.9	-91.0	977.4	930.0	47.33	20.648	
6,800.0	6,568.2	7,473.8	6,631.5	19.7	30.4	-93.34	-219.9	-98.8	977.1	929.8	47.28	20.667	
6,850.0	6,589.1	7,428.2	6,632.0	19.8	29.7	-92.34	-219.9	-144.4	976.0	928.9	47.04	20.747	
6,889.7	6,603.5	7,390.9	6,632.5	19.9	29.1	-91.61	-219.9	-181.7	975.5	928.6	46.92	20.789	
6,900.0	6,606.9	7,381.2	6,632.6	19.9	29.0	-91.44	-219.9	-191.4	975.4	928.5	46.90	20.796	
6,950.0	6,621.3	7,333.2	6,633.3	20.2	28.3	-90.68	-219.9	-239.4	975.1	928.2	46.88	20.800	
6,988.2	6,630.0	7,295.9	6,633.7	20.6	27.7	-90.21	-219.9	-276.7	975.1	928.1	46.92	20.781	
7,000.0	6,632.4	7,284.3	6,633.9	20.7	27.6	-90.09	-219.9	-288.3	975.1	928.1	46.95	20.766	
7,008.0	6,633.8	7,276.4	6,634.0	20.8	27.5	-90.01	-219.9	-296.2	975.1	928.1	46.99	20.751	
7,050.0	6,640.0	7,234.8	6,634.5	21.4	27.0	-89.68	-219.9	-337.8	975.1	927.9	47.16	20.675	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,643.4	7,198.3	6,635.0	21.9	26.5	-89.51	-219.9	-374.3	975.1	927.7	47.36	20.591	
7,100.0	6,644.2	7,185.1	6,635.1	22.1	26.4	-89.47	-219.9	-387.5	975.1	927.6	47.45	20.550	
7,135.7	6,645.0	7,150.0	6,634.1	22.7	26.0	-89.36	-219.9	-422.6	975.1	927.4	47.73	20.428	
7,185.0	6,644.9	7,101.6	6,629.9	23.6	25.6	-89.12	-219.9	-470.8	975.2	927.0	48.22	20.224	
7,200.0	6,644.9	7,087.1	6,628.0	23.9	25.5	-89.01	-219.9	-485.2	975.2	926.8	48.38	20.158	
7,283.4	6,644.8	7,007.9	6,612.7	25.6	24.8	-88.11	-219.9	-562.8	975.6	926.2	49.44	19.735	
7,300.0	6,644.8	6,992.7	6,608.7	25.9	24.7	-87.88	-219.9	-577.5	975.8	926.1	49.66	19.647	
7,381.9	6,644.7	6,920.1	6,585.7	27.7	24.4	-86.54	-219.9	-646.3	977.1	926.1	50.98	19.167	
7,400.0	6,644.7	6,904.7	6,580.0	28.1	24.3	-86.20	-219.9	-660.6	977.6	926.3	51.28	19.064	
7,480.3	6,644.6	6,839.9	6,552.4	29.9	24.1	-84.59	-219.9	-719.2	980.6	927.9	52.77	18.585	
7,500.0	6,644.6	6,824.8	6,545.2	30.3	24.1	-84.18	-219.9	-732.5	981.7	928.5	53.14	18.473	
7,578.7	6,644.5	6,768.1	6,515.8	32.2	24.0	-82.48	-219.9	-780.9	987.2	932.5	54.71	18.044	
7,600.0	6,644.4	6,750.0	6,505.6	32.7	24.0	-81.89	-219.9	-795.9	989.2	934.0	55.11	17.948	
7,677.1	6,644.3	6,700.0	6,475.5	34.6	24.0	-80.17	-219.9	-835.8	997.9	941.2	56.70	17.601	
7,700.0	6,644.3	6,691.1	6,469.9	35.1	24.0	-79.85	-219.9	-842.7	1,001.1	943.9	57.20	17.501	
7,775.6	6,644.2	6,650.0	6,442.7	37.0	24.1	-78.31	-219.9	-873.5	1,013.6	954.8	58.79	17.242	
7,800.0	6,644.2	6,636.4	6,433.4	37.6	24.1	-77.79	-219.9	-883.4	1,018.3	959.0	59.29	17.175	
7,874.0	6,644.1	6,600.0	6,407.3	39.5	24.2	-76.34	-219.9	-908.9	1,034.7	973.9	60.83	17.010	
7,900.0	6,644.1	6,588.8	6,399.1	40.1	24.2	-75.88	-219.9	-916.5	1,041.3	979.9	61.38	16.966	
7,972.4	6,644.0	6,550.0	6,369.6	42.0	24.3	-74.26	-219.9	-941.7	1,061.8	999.0	62.80	16.908	
8,000.0	6,643.9	6,550.0	6,369.6	42.7	24.3	-74.26	-219.9	-941.7	1,070.3	1,006.9	63.49	16.860	
8,070.8	6,643.9	6,521.0	6,346.7	44.5	24.3	-73.03	-219.9	-959.5	1,094.6	1,029.7	64.93	16.859 SF	
8,100.0	6,643.8	6,510.9	6,338.6	45.2	24.4	-72.59	-219.9	-965.5	1,105.5	1,040.0	65.53	16.870	
8,169.3	6,643.7	6,488.4	6,320.1	47.0	24.4	-71.61	-219.9	-978.4	1,133.3	1,066.4	66.97	16.923	
8,200.0	6,643.7	6,479.0	6,312.3	47.9	24.5	-71.20	-219.9	-983.6	1,146.6	1,079.0	67.60	16.960	
8,267.7	6,643.6	6,450.0	6,287.8	49.6	24.5	-69.92	-219.9	-999.0	1,177.6	1,108.8	68.85	17.104	
8,300.0	6,643.6	6,450.0	6,287.8	50.5	24.5	-69.92	-219.9	-999.0	1,193.2	1,123.6	69.66	17.129	
8,366.1	6,643.5	6,434.2	6,274.1	52.2	24.6	-69.21	-219.9	-1,007.0	1,226.9	1,155.9	71.05	17.269	
8,400.0	6,643.4	6,426.1	6,267.1	53.1	24.6	-68.85	-219.9	-1,011.0	1,245.1	1,173.3	71.75	17.353	
8,464.5	6,643.4	6,400.0	6,244.1	54.8	24.7	-67.68	-219.9	-1,023.2	1,281.2	1,208.3	72.87	17.583	
8,500.0	6,643.3	6,400.0	6,244.1	55.8	24.7	-67.68	-219.9	-1,023.2	1,301.7	1,227.9	73.75	17.650	
8,563.0	6,643.2	6,400.0	6,244.1	57.5	24.7	-67.68	-219.9	-1,023.2	1,339.6	1,264.3	75.33	17.783	
8,600.0	6,643.2	6,384.2	6,229.9	58.5	24.7	-66.98	-219.9	-1,030.3	1,362.6	1,286.6	75.92	17.947	
8,661.4	6,643.1	6,373.1	6,219.9	60.1	24.7	-66.48	-219.9	-1,035.0	1,401.9	1,324.7	77.21	18.157	
8,700.0	6,643.1	6,366.5	6,213.8	61.2	24.8	-66.18	-219.9	-1,037.8	1,427.3	1,349.3	78.02	18.294	
8,759.8	6,643.0	6,350.0	6,198.7	62.8	24.8	-65.45	-219.9	-1,044.4	1,467.7	1,388.6	79.12	18.552	
8,800.0	6,643.0	6,350.0	6,198.7	63.9	24.8	-65.44	-219.9	-1,044.4	1,495.4	1,415.3	80.11	18.666	
8,858.2	6,642.9	6,350.0	6,198.7	65.4	24.8	-65.44	-219.9	-1,044.4	1,536.6	1,455.0	81.57	18.838	
8,900.0	6,642.8	6,350.0	6,198.7	66.6	24.8	-65.44	-219.9	-1,044.4	1,566.8	1,484.2	82.61	18.966	
8,956.7	6,642.8	6,328.4	6,178.7	68.1	24.8	-64.48	-219.9	-1,052.5	1,608.2	1,524.7	83.45	19.272	
9,000.0	6,642.7	6,322.9	6,173.6	69.3	24.9	-64.23	-219.9	-1,054.5	1,640.5	1,556.1	84.37	19.445	
9,055.1	6,642.6	6,300.0	6,152.1	70.8	24.9	-63.22	-219.9	-1,062.3	1,682.5	1,597.4	85.08	19.777	
9,100.0	6,642.6	6,300.0	6,152.1	72.0	24.9	-63.22	-219.9	-1,062.3	1,716.9	1,630.7	86.18	19.922	
9,153.5	6,642.5	6,300.0	6,152.1	73.5	24.9	-63.22	-219.9	-1,062.3	1,758.5	1,671.0	87.50	20.096	
9,200.0	6,642.5	6,300.0	6,152.1	74.7	24.9	-63.22	-219.9	-1,062.3	1,795.2	1,706.5	88.65	20.250	
9,251.9	6,642.4	6,300.0	6,152.1	76.2	24.9	-63.22	-219.9	-1,062.3	1,836.7	1,746.7	89.94	20.422	
9,300.0	6,642.3	6,300.0	6,152.1	77.5	24.9	-63.22	-219.9	-1,062.3	1,875.5	1,784.4	91.13	20.582	
9,350.4	6,642.3	6,300.0	6,152.1	78.9	24.9	-63.22	-219.9	-1,062.3	1,916.7	1,824.3	92.37	20.749	
9,400.0	6,642.2	6,280.5	6,133.5	80.2	24.9	-62.36	-219.9	-1,068.4	1,957.4	1,864.4	92.96	21.057	
9,448.8	6,642.1	6,276.2	6,129.5	81.6	25.0	-62.17	-219.9	-1,069.7	1,997.9	1,903.9	94.01	21.251	
9,500.0	6,642.1	6,271.9	6,125.3	83.0	25.0	-61.98	-219.9	-1,070.9	2,040.8	1,945.6	95.12	21.454	
9,547.2	6,642.0	6,268.1	6,121.7	84.3	25.0	-61.81	-219.9	-1,072.0	2,080.6	1,984.5	96.15	21.639	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,600.0	6,642.0	6,250.0	6,104.3	85.7	25.0	-61.02	-219.9	-1,076.9	2,125.6	2,028.8	96.79	21.961	
9,645.6	6,641.9	6,250.0	6,104.3	87.0	25.0	-61.02	-219.9	-1,076.9	2,164.6	2,066.7	97.91	22.109	
9,700.0	6,641.8	6,250.0	6,104.3	88.5	25.0	-61.02	-219.9	-1,076.9	2,211.4	2,112.2	99.23	22.285	
9,744.1	6,641.8	6,250.0	6,104.3	89.7	25.0	-61.02	-219.9	-1,076.9	2,249.6	2,149.3	100.31	22.426	
9,800.0	6,641.7	6,250.0	6,104.3	91.2	25.0	-61.02	-219.9	-1,076.9	2,298.3	2,196.7	101.68	22.604	
9,842.5	6,641.7	6,250.0	6,104.3	92.4	25.0	-61.02	-219.9	-1,076.9	2,335.6	2,232.9	102.72	22.738	
9,900.0	6,641.6	6,250.0	6,104.3	94.0	25.0	-61.02	-219.9	-1,076.9	2,386.3	2,282.2	104.12	22.918	
9,940.9	6,641.5	6,250.0	6,104.3	95.1	25.0	-61.02	-219.9	-1,076.9	2,422.5	2,317.4	105.13	23.044	
10,000.0	6,641.5	6,250.0	6,104.3	96.7	25.0	-61.02	-219.9	-1,076.9	2,475.1	2,368.6	106.57	23.225	
10,039.3	6,641.4	6,250.0	6,104.3	97.8	25.0	-61.02	-219.9	-1,076.9	2,510.3	2,402.8	107.54	23.344	
10,100.0	6,641.3	6,250.0	6,104.3	99.5	25.0	-61.02	-219.9	-1,076.9	2,564.8	2,455.8	109.02	23.526	
10,137.8	6,641.3	6,229.6	6,084.5	100.6	25.0	-60.14	-219.9	-1,081.9	2,598.5	2,489.5	109.08	23.821	
10,200.0	6,641.2	6,226.3	6,081.3	102.3	25.0	-60.00	-219.9	-1,082.7	2,654.8	2,544.3	110.46	24.034	
10,236.2	6,641.2	6,224.5	6,079.5	103.3	25.0	-59.92	-219.9	-1,083.1	2,687.6	2,576.3	111.26	24.157	
10,300.0	6,641.1	6,221.3	6,076.4	105.0	25.0	-59.79	-219.9	-1,083.8	2,745.6	2,633.0	112.67	24.369	
10,334.6	6,641.0	6,219.7	6,074.8	106.0	25.0	-59.72	-219.9	-1,084.1	2,777.2	2,663.8	113.43	24.483	
10,400.0	6,641.0	6,200.0	6,055.6	107.8	25.1	-58.88	-219.9	-1,088.2	2,837.3	2,723.2	114.12	24.863	
10,433.0	6,640.9	6,200.0	6,055.6	108.7	25.1	-58.88	-219.9	-1,088.2	2,867.6	2,752.7	114.92	24.954	
10,500.0	6,640.8	6,200.0	6,055.6	110.6	25.1	-58.88	-219.9	-1,088.2	2,929.2	2,812.7	116.53	25.137	
10,531.5	6,640.8	6,200.0	6,055.6	111.5	25.1	-58.88	-219.9	-1,088.2	2,958.2	2,840.9	117.29	25.222	
10,600.0	6,640.7	6,200.0	6,055.6	113.4	25.1	-58.88	-219.9	-1,088.2	3,021.6	2,902.6	118.94	25.405	
10,629.9	6,640.7	6,200.0	6,055.6	114.2	25.1	-58.88	-219.9	-1,088.2	3,049.3	2,929.6	119.66	25.483	
10,700.0	6,640.6	6,200.0	6,055.6	116.1	25.1	-58.88	-219.9	-1,088.2	3,114.4	2,993.1	121.35	25.665	
10,728.3	6,640.5	6,200.0	6,055.6	116.9	25.1	-58.88	-219.9	-1,088.2	3,140.8	3,018.8	122.03	25.738	
10,800.0	6,640.5	6,200.0	6,055.6	118.9	25.1	-58.88	-219.9	-1,088.2	3,207.7	3,083.9	123.76	25.919	
10,826.7	6,640.4	6,200.0	6,055.6	119.7	25.1	-58.88	-219.9	-1,088.2	3,232.7	3,108.3	124.41	25.985	
10,900.0	6,640.3	6,200.0	6,055.6	121.7	25.1	-58.88	-219.9	-1,088.2	3,301.4	3,175.2	126.17	26.165	
10,925.2	6,640.3	6,200.0	6,055.6	122.4	25.1	-58.88	-219.9	-1,088.2	3,325.0	3,198.2	126.78	26.226	
11,000.0	6,640.2	6,200.0	6,055.6	124.5	25.1	-58.88	-219.9	-1,088.2	3,395.4	3,266.8	128.59	26.406	
11,023.6	6,640.2	6,200.0	6,055.6	125.1	25.1	-58.88	-219.9	-1,088.2	3,417.6	3,288.5	129.16	26.461	
11,100.0	6,640.1	6,200.0	6,055.6	127.3	25.1	-58.88	-219.9	-1,088.2	3,489.8	3,358.8	131.00	26.639	
11,122.0	6,640.0	6,200.0	6,055.6	127.9	25.1	-58.88	-219.9	-1,088.2	3,510.6	3,379.1	131.53	26.690	
11,200.0	6,639.9	6,200.0	6,055.6	130.1	25.1	-58.88	-219.9	-1,088.2	3,584.4	3,451.0	133.42	26.867	
11,220.4	6,639.9	6,200.0	6,055.6	130.6	25.1	-58.88	-219.9	-1,088.2	3,603.8	3,469.9	133.91	26.912	
11,300.0	6,639.8	6,200.0	6,055.6	132.8	25.1	-58.88	-219.9	-1,088.2	3,679.4	3,543.6	135.83	27.088	
11,318.9	6,639.8	6,200.0	6,055.6	133.4	25.1	-58.88	-219.9	-1,088.2	3,697.3	3,561.1	136.29	27.129	
11,400.0	6,639.7	6,200.0	6,055.6	135.6	25.1	-58.88	-219.9	-1,088.2	3,774.6	3,636.4	138.25	27.303	
11,417.3	6,639.7	6,200.0	6,055.6	136.1	25.1	-58.88	-219.9	-1,088.2	3,791.1	3,652.4	138.67	27.340	
11,500.0	6,639.6	6,178.7	6,034.6	138.4	25.1	-57.99	-219.9	-1,091.9	3,869.7	3,730.3	139.44	27.752	
11,515.7	6,639.5	6,178.3	6,034.2	138.9	25.1	-57.97	-219.9	-1,092.0	3,884.7	3,744.9	139.79	27.789	
11,600.0	6,639.4	6,176.1	6,032.1	141.2	25.1	-57.88	-219.9	-1,092.3	3,965.3	3,823.6	141.68	27.987	
11,614.1	6,639.4	6,175.8	6,031.7	141.6	25.1	-57.86	-219.9	-1,092.4	3,978.8	3,836.8	142.00	28.019	
11,700.0	6,639.3	6,173.7	6,029.7	144.0	25.1	-57.78	-219.9	-1,092.7	4,061.1	3,917.1	143.93	28.215	
11,712.6	6,639.3	6,173.4	6,029.4	144.3	25.1	-57.76	-219.9	-1,092.7	4,073.1	3,928.9	144.22	28.243	
11,800.0	6,639.2	6,171.3	6,027.3	146.8	25.1	-57.68	-219.9	-1,093.1	4,157.1	4,010.9	146.18	28.437	
11,811.0	6,639.2	6,150.0	6,006.2	147.1	25.1	-56.80	-219.9	-1,096.0	4,168.0	4,022.8	145.13	28.718	
11,900.0	6,639.1	6,150.0	6,006.2	149.6	25.1	-56.80	-219.9	-1,096.0	4,253.5	4,106.3	147.24	28.888	
11,909.4	6,639.0	6,150.0	6,006.2	149.8	25.1	-56.80	-219.9	-1,096.0	4,262.6	4,115.1	147.47	28.905	
12,000.0	6,638.9	6,150.0	6,006.2	152.4	25.1	-56.80	-219.9	-1,096.0	4,349.8	4,200.1	149.61	29.073	
12,007.8	6,638.9	6,150.0	6,006.2	152.6	25.1	-56.80	-219.9	-1,096.0	4,357.3	4,207.5	149.80	29.088	
12,100.0	6,638.8	6,150.0	6,006.2	155.2	25.1	-56.80	-219.9	-1,096.0	4,446.2	4,294.2	151.98	29.254	
12,106.3	6,638.8	6,150.0	6,006.2	155.3	25.1	-56.80	-219.9	-1,096.0	4,452.2	4,300.1	152.13	29.265	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,200.0	6,638.7	6,150.0	6,006.2	157.9	25.1	-56.80	-219.9	-1,096.0	4,542.8	4,388.4	154.36	29.430	
12,204.7	6,638.7	6,150.0	6,006.2	158.1	25.1	-56.80	-219.9	-1,096.0	4,547.3	4,392.8	154.47	29.439	
12,300.0	6,638.5	6,150.0	6,006.2	160.7	25.1	-56.80	-219.9	-1,096.0	4,639.5	4,482.8	156.73	29.602	
12,303.1	6,638.5	6,150.0	6,006.2	160.8	25.1	-56.80	-219.9	-1,096.0	4,642.5	4,485.7	156.80	29.608	
12,400.0	6,638.4	6,150.0	6,006.2	163.5	25.1	-56.80	-219.9	-1,096.0	4,736.4	4,577.3	159.10	29.770	
12,401.5	6,638.4	6,150.0	6,006.2	163.6	25.1	-56.80	-219.9	-1,096.0	4,737.9	4,578.7	159.14	29.772	
12,500.0	6,638.3	6,150.0	6,006.2	166.3	25.1	-56.80	-219.9	-1,096.0	4,833.3	4,671.9	161.47	29.933	
12,598.4	6,638.2	6,150.0	6,006.2	169.1	25.1	-56.80	-219.9	-1,096.0	4,928.9	4,765.1	163.81	30.090	
12,600.0	6,638.2	6,150.0	6,006.2	169.1	25.1	-56.80	-219.9	-1,096.0	4,930.4	4,766.6	163.85	30.092	
12,696.8	6,638.0	6,150.0	6,006.2	171.8	25.1	-56.80	-219.9	-1,096.0	5,024.6	4,858.4	166.14	30.242	
12,700.0	6,638.0	6,150.0	6,006.2	171.9	25.1	-56.80	-219.9	-1,096.0	5,027.7	4,861.5	166.22	30.247	
12,795.2	6,637.9	6,150.0	6,006.2	174.6	25.1	-56.80	-219.9	-1,096.0	5,120.4	4,951.9	168.48	30.392	
12,800.0	6,637.9	6,150.0	6,006.2	174.7	25.1	-56.80	-219.9	-1,096.0	5,125.0	4,956.4	168.59	30.399	
12,893.7	6,637.8	6,150.0	6,006.2	177.3	25.1	-56.80	-219.9	-1,096.0	5,216.3	5,045.4	170.82	30.537	
12,900.0	6,637.8	6,150.0	6,006.2	177.5	25.1	-56.80	-219.9	-1,096.0	5,222.4	5,051.5	170.97	30.547	
12,992.1	6,637.7	6,150.0	6,006.2	180.1	25.1	-56.80	-219.9	-1,096.0	5,312.2	5,139.1	173.15	30.680	
13,000.0	6,637.6	6,150.0	6,006.2	180.3	25.1	-56.80	-219.9	-1,096.0	5,320.0	5,146.6	173.34	30.691	
13,090.5	6,637.5	6,150.0	6,006.2	182.8	25.1	-56.80	-219.9	-1,096.0	5,408.3	5,232.8	175.49	30.819	
13,100.0	6,637.5	6,150.0	6,006.2	183.1	25.1	-56.80	-219.9	-1,096.0	5,417.6	5,241.9	175.71	30.832	
13,188.9	6,637.4	6,150.0	6,006.2	185.6	25.1	-56.80	-219.9	-1,096.0	5,504.5	5,326.6	177.83	30.954	
13,200.0	6,637.4	6,150.0	6,006.2	185.9	25.1	-56.80	-219.9	-1,096.0	5,515.3	5,337.2	178.09	30.969	
13,287.4	6,637.3	6,150.0	6,006.2	188.4	25.1	-56.80	-219.9	-1,096.0	5,600.7	5,420.5	180.16	31.087	
13,300.0	6,637.3	6,150.0	6,006.2	188.7	25.1	-56.80	-219.9	-1,096.0	5,613.1	5,432.6	180.46	31.104	
13,385.8	6,637.1	6,150.0	6,006.2	191.1	25.1	-56.80	-219.9	-1,096.0	5,697.0	5,514.5	182.50	31.216	
13,400.0	6,637.1	6,150.0	6,006.2	191.5	25.1	-56.80	-219.9	-1,096.0	5,710.9	5,528.1	182.84	31.235	
13,484.2	6,637.0	6,150.0	6,006.2	193.9	25.1	-56.80	-219.9	-1,096.0	5,793.4	5,608.5	184.84	31.343	
13,500.0	6,637.0	6,150.0	6,006.2	194.3	25.1	-56.80	-219.9	-1,096.0	5,808.8	5,623.6	185.21	31.363	
13,582.6	6,636.9	6,150.0	6,006.2	196.6	25.1	-56.80	-219.9	-1,096.0	5,889.8	5,702.7	187.18	31.467	
13,600.0	6,636.9	6,150.0	6,006.2	197.1	25.1	-56.80	-219.9	-1,096.0	5,906.8	5,719.3	187.59	31.488	
13,681.1	6,636.8	6,150.0	6,006.2	199.4	25.1	-56.80	-219.9	-1,096.0	5,986.3	5,796.8	189.51	31.588	
13,700.0	6,636.7	6,150.0	6,006.2	199.9	25.1	-56.80	-219.9	-1,096.0	6,004.9	5,814.9	189.96	31.611	
13,779.5	6,636.6	6,150.0	6,006.2	202.1	25.1	-56.80	-219.9	-1,096.0	6,082.9	5,891.1	191.85	31.706	
13,800.0	6,636.6	6,150.0	6,006.2	202.7	25.1	-56.80	-219.9	-1,096.0	6,103.0	5,910.7	192.34	31.730	
13,877.9	6,636.5	6,150.0	6,006.2	204.9	25.1	-56.80	-219.9	-1,096.0	6,179.5	5,985.4	194.19	31.822	
13,900.0	6,636.5	6,150.0	6,006.2	205.5	25.1	-56.80	-219.9	-1,096.0	6,201.2	6,006.5	194.72	31.848	
13,976.3	6,636.4	6,150.0	6,006.2	207.6	25.1	-56.80	-219.9	-1,096.0	6,276.2	6,079.7	196.53	31.935	
14,000.0	6,636.3	6,150.0	6,006.2	208.3	25.1	-56.80	-219.9	-1,096.0	6,299.5	6,102.4	197.09	31.962	
14,074.8	6,636.3	6,150.0	6,006.2	210.4	25.1	-56.80	-219.9	-1,096.0	6,373.0	6,174.1	198.87	32.046	
14,100.0	6,636.2	6,150.0	6,006.2	211.1	25.1	-56.80	-219.9	-1,096.0	6,397.8	6,198.3	199.47	32.074	
14,173.2	6,636.1	6,150.0	6,006.2	213.2	25.1	-56.80	-219.9	-1,096.0	6,469.8	6,268.6	201.21	32.155	
14,200.0	6,636.1	6,150.0	6,006.2	213.9	25.1	-56.80	-219.9	-1,096.0	6,496.1	6,294.3	201.84	32.184	
14,271.6	6,636.0	6,150.0	6,006.2	215.9	25.1	-56.80	-219.9	-1,096.0	6,566.6	6,363.1	203.55	32.261	
14,300.0	6,636.0	6,150.0	6,006.2	216.7	25.1	-56.80	-219.9	-1,096.0	6,594.5	6,390.3	204.22	32.291	
14,370.0	6,635.9	6,150.0	6,006.2	218.7	25.1	-56.80	-219.9	-1,096.0	6,663.5	6,457.6	205.89	32.365	
14,400.0	6,635.8	6,150.0	6,006.2	219.5	25.1	-56.80	-219.9	-1,096.0	6,693.0	6,486.4	206.60	32.396	
14,468.5	6,635.7	6,150.0	6,006.2	221.4	25.1	-56.80	-219.9	-1,096.0	6,760.4	6,552.2	208.23	32.467	
14,500.0	6,635.7	6,150.0	6,006.2	222.3	25.1	-56.80	-219.9	-1,096.0	6,791.5	6,582.5	208.98	32.499	
14,566.9	6,635.6	6,150.0	6,006.2	224.2	25.1	-56.80	-219.9	-1,096.0	6,857.4	6,646.8	210.57	32.567	
14,600.0	6,635.6	6,150.0	6,006.2	225.1	25.1	-56.80	-219.9	-1,096.0	6,890.0	6,678.7	211.35	32.600	
14,665.3	6,635.5	6,150.0	6,006.2	226.9	25.1	-56.80	-219.9	-1,096.0	6,954.4	6,741.5	212.91	32.664	
14,700.0	6,635.4	6,150.0	6,006.2	227.9	25.1	-56.80	-219.9	-1,096.0	6,988.6	6,774.9	213.73	32.698	
14,763.7	6,635.4	6,150.0	6,006.2	229.7	25.1	-56.80	-219.9	-1,096.0	7,051.5	6,836.2	215.25	32.760	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10G-212 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,800.0	6,635.3	6,150.0	6,006.2	230.7	25.1	-56.80	-219.9	-1,096.0	7,087.2	6,871.1	216.11	32.795	
14,862.2	6,635.2	6,150.0	6,006.2	232.5	25.1	-56.80	-219.9	-1,096.0	7,148.5	6,931.0	217.58	32.854	
14,900.0	6,635.2	6,150.0	6,006.2	233.5	25.1	-56.80	-219.9	-1,096.0	7,185.9	6,967.4	218.48	32.890	
14,960.6	6,635.1	6,150.0	6,006.2	235.2	25.1	-56.80	-219.9	-1,096.0	7,245.7	7,025.7	219.92	32.946	
15,000.0	6,635.0	6,127.2	5,983.5	236.3	25.1	-55.87	-219.9	-1,098.4	7,284.2	7,065.5	218.71	33.306	
15,033.1	6,635.0	6,126.9	5,983.3	237.3	25.1	-55.86	-219.9	-1,098.4	7,316.8	7,097.3	219.46	33.340	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-179.39	-104.9	-1.1	104.9				
98.4	98.4	98.4	98.4	0.1	0.1	-179.39	-104.9	-1.1	104.9	104.7	0.19	545.805	
100.0	100.0	100.0	100.0	0.1	0.1	-179.39	-104.9	-1.1	104.9	104.7	0.20	536.566	
196.8	196.8	196.8	196.8	0.3	0.3	-179.39	-104.9	-1.1	104.9	104.3	0.63	166.303	
200.0	200.0	200.0	200.0	0.3	0.3	-179.39	-104.9	-1.1	104.9	104.3	0.65	162.653	
295.3	295.3	295.3	295.3	0.5	0.5	-179.39	-104.9	-1.1	104.9	103.9	1.07	97.752	
300.0	300.0	300.0	300.0	0.5	0.5	-179.39	-104.9	-1.1	104.9	103.8	1.09	95.855	
393.7	393.7	393.7	393.7	0.8	0.8	-179.39	-104.9	-1.1	104.9	103.4	1.52	69.219	
400.0	400.0	400.0	400.0	0.8	0.8	-179.39	-104.9	-1.1	104.9	103.4	1.54	67.950	
492.1	492.1	492.1	492.1	1.0	1.0	-179.39	-104.9	-1.1	104.9	103.0	1.96	53.580	
500.0	500.0	500.0	500.0	1.0	1.0	-179.39	-104.9	-1.1	104.9	102.9	1.99	52.628	
590.5	590.5	590.5	590.5	1.2	1.2	-179.39	-104.9	-1.1	104.9	102.5	2.40	43.705	
600.0	600.0	600.0	600.0	1.2	1.2	-179.39	-104.9	-1.1	104.9	102.5	2.44	42.945	
689.0	689.0	689.0	689.0	1.4	1.4	-179.39	-104.9	-1.1	104.9	102.1	2.84	36.904	
700.0	700.0	700.0	700.0	1.4	1.4	-179.39	-104.9	-1.1	104.9	102.0	2.89	36.271	
787.4	787.4	787.4	787.4	1.6	1.6	-179.39	-104.9	-1.1	104.9	101.6	3.29	31.934	
800.0	800.0	800.0	800.0	1.7	1.7	-179.39	-104.9	-1.1	104.9	101.6	3.34	31.393	
885.8	885.8	885.8	885.8	1.9	1.9	-179.39	-104.9	-1.1	104.9	101.2	3.73	28.144	
900.0	900.0	900.0	900.0	1.9	1.9	-179.39	-104.9	-1.1	104.9	101.1	3.79	27.671	
984.2	984.2	984.2	984.2	2.1	2.1	-179.39	-104.9	-1.1	104.9	100.8	4.17	25.158	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.39	-104.9	-1.1	104.9	100.7	4.24	24.738 CC, ES	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	153.89	-104.9	-1.1	106.0	101.4	4.61	22.983	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	154.01	-104.9	-1.1	106.5	101.8	4.69	22.711	
1,181.1	1,181.0	1,181.0	1,181.0	2.5	2.5	154.89	-104.9	-1.1	110.1	105.0	5.05	21.797	
1,200.0	1,199.8	1,199.8	1,199.8	2.6	2.6	155.15	-104.9	-1.1	111.2	106.1	5.13	21.665	
1,279.5	1,279.1	1,279.1	1,279.1	2.8	2.7	156.47	-104.9	-1.1	117.3	111.8	5.49	21.380	
1,300.0	1,299.5	1,299.5	1,299.5	2.8	2.8	156.85	-104.9	-1.1	119.2	113.6	5.58	21.377	
1,377.9	1,376.9	1,375.5	1,375.5	3.0	2.9	157.97	-105.4	-0.2	128.1	122.2	5.90	21.706	
1,400.0	1,398.7	1,397.0	1,396.9	3.0	3.0	158.16	-105.7	0.3	131.1	125.1	5.99	21.881	
1,476.4	1,474.2	1,471.0	1,470.9	3.2	3.1	158.49	-107.4	3.4	143.4	137.0	6.30	22.739	
1,500.0	1,497.5	1,493.7	1,493.6	3.3	3.2	158.49	-108.1	4.6	147.7	141.3	6.40	23.074	
1,574.8	1,571.0	1,565.5	1,565.1	3.5	3.3	158.24	-110.8	9.7	163.0	156.2	6.71	24.271	
1,600.0	1,595.6	1,589.5	1,589.0	3.6	3.4	158.08	-111.9	11.7	168.7	161.8	6.82	24.735	
1,673.2	1,667.2	1,658.9	1,657.9	3.9	3.5	157.50	-115.7	18.6	186.0	178.9	7.16	25.984	
1,700.0	1,693.4	1,684.1	1,683.0	4.0	3.6	157.19	-117.2	21.5	192.5	185.3	7.28	26.434	
1,771.6	1,763.5	1,751.5	1,749.6	4.2	3.8	156.20	-121.9	30.0	210.5	202.8	7.64	27.558	
1,800.0	1,791.3	1,778.0	1,775.7	4.3	3.8	155.74	-124.0	33.8	217.8	210.0	7.78	27.998	
1,870.1	1,859.8	1,843.1	1,839.8	4.6	4.0	154.51	-129.5	43.9	236.4	228.2	8.15	29.019	
1,900.0	1,889.1	1,870.7	1,866.9	4.7	4.1	153.94	-132.1	48.6	244.6	236.3	8.31	29.438	
1,968.5	1,956.1	1,935.0	1,929.9	4.9	4.3	152.59	-138.4	60.2	263.8	255.1	8.69	30.348	
2,000.0	1,986.9	1,965.1	1,959.3	5.1	4.4	152.01	-141.4	65.7	272.7	263.8	8.87	30.729	
2,066.9	2,052.3	2,029.1	2,021.9	5.3	4.6	150.89	-147.8	77.4	291.7	282.4	9.27	31.477	
2,100.0	2,084.7	2,060.7	2,052.8	5.5	4.7	150.39	-151.0	83.1	301.1	291.7	9.46	31.817	
2,165.3	2,148.6	2,123.1	2,113.9	5.7	4.9	149.48	-157.2	94.5	319.8	310.0	9.86	32.440	
2,200.0	2,182.5	2,156.2	2,146.2	5.9	5.1	149.05	-160.5	100.6	329.8	319.7	10.07	32.743	
2,263.8	2,244.9	2,217.2	2,205.8	6.1	5.3	148.31	-166.6	111.7	348.1	337.6	10.47	33.262	
2,300.0	2,280.3	2,251.8	2,239.7	6.3	5.4	147.92	-170.0	118.0	358.6	347.9	10.69	33.530	
2,362.2	2,341.2	2,311.2	2,297.8	6.5	5.6	147.30	-175.9	128.9	376.5	365.4	11.08	33.967	
2,400.0	2,378.1	2,347.3	2,333.2	6.7	5.8	146.96	-179.5	135.5	387.4	376.1	11.33	34.209	
2,460.6	2,437.4	2,405.2	2,389.8	6.9	6.0	146.44	-185.3	146.0	405.0	393.3	11.71	34.576	
2,500.0	2,476.0	2,442.9	2,426.6	7.1	6.2	146.13	-189.1	152.9	416.4	404.4	11.97	34.795	
2,550.0	2,524.9	2,490.6	2,473.4	7.3	6.4	145.76	-193.8	161.6	430.9	418.6	12.29	35.060	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,499.3	2,481.8	7.3	6.4	146.59	-194.7	163.2	433.5	421.2	12.34	35.121	
2,600.0	2,573.8	2,538.3	2,520.0	7.5	6.6	150.32	-198.6	170.3	445.7	433.1	12.59	35.399	
2,639.4	2,612.3	2,575.8	2,556.6	7.7	6.7	153.87	-202.3	177.2	457.6	444.8	12.81	35.707	
2,657.5	2,630.0	2,592.9	2,573.4	7.7	6.8	153.70	-204.0	180.3	463.1	450.2	12.93	35.827	
2,700.0	2,671.6	2,633.3	2,612.9	7.9	7.0	153.31	-208.1	187.7	476.2	463.0	13.19	36.098	
2,755.9	2,726.3	2,686.3	2,664.8	8.1	7.2	152.82	-213.3	197.4	493.3	479.8	13.55	36.414	
2,800.0	2,769.4	2,728.2	2,705.7	8.3	7.4	152.46	-217.5	205.0	506.9	493.1	13.83	36.650	
2,854.3	2,822.5	2,779.8	2,756.1	8.5	7.6	152.04	-222.7	214.4	523.6	509.4	14.18	36.928	
2,900.0	2,867.2	2,823.1	2,798.5	8.7	7.8	151.70	-227.0	222.3	537.7	523.2	14.47	37.150	
2,952.7	2,918.8	2,873.2	2,847.5	9.0	8.0	151.34	-232.0	231.5	554.0	539.2	14.82	37.394	
3,000.0	2,965.0	2,918.0	2,891.4	9.2	8.2	151.03	-236.4	239.6	568.6	553.5	15.12	37.604	
3,051.2	3,015.1	2,968.5	2,940.8	9.4	8.4	150.71	-241.5	248.8	584.4	569.0	15.45	37.816	
3,100.0	3,062.8	3,021.9	2,993.2	9.6	8.6	150.44	-246.4	257.9	599.1	583.3	15.77	37.999	
3,149.6	3,111.4	3,076.7	3,047.1	9.8	8.7	150.26	-251.0	266.3	613.5	597.4	16.07	38.175	
3,200.0	3,160.7	3,132.8	3,102.5	10.0	8.9	150.16	-255.2	274.0	627.5	611.1	16.37	38.324	
3,248.0	3,207.6	3,186.6	3,155.8	10.2	9.0	150.15	-258.8	280.5	640.3	623.6	16.66	38.437	
3,300.0	3,258.5	3,245.3	3,214.1	10.5	9.2	150.22	-262.1	286.5	653.5	636.6	16.96	38.539	
3,346.4	3,303.9	3,298.0	3,266.5	10.7	9.3	150.34	-264.5	291.1	664.8	647.6	17.22	38.601	
3,400.0	3,356.3	3,359.0	3,327.4	10.9	9.5	150.57	-266.8	295.3	677.1	659.6	17.51	38.663	
3,444.9	3,400.2	3,410.4	3,378.7	11.1	9.6	150.82	-268.3	297.9	686.9	669.2	17.75	38.691	
3,500.0	3,454.1	3,473.8	3,442.0	11.3	9.7	151.19	-269.5	300.1	698.3	680.3	18.04	38.715	
3,543.3	3,496.5	3,523.7	3,491.9	11.5	9.8	151.54	-269.9	300.9	706.8	688.5	18.25	38.720	
3,600.0	3,551.9	3,583.7	3,551.9	11.7	9.9	152.02	-270.0	301.1	717.3	698.8	18.52	38.733	
3,641.7	3,592.7	3,624.5	3,592.7	11.9	9.9	152.34	-270.0	301.1	725.0	706.3	18.71	38.746	
3,700.0	3,649.7	3,681.5	3,649.7	12.2	10.0	152.77	-270.0	301.1	735.8	716.8	18.98	38.763	
3,740.1	3,689.0	3,720.8	3,689.0	12.4	10.1	153.07	-270.0	301.1	743.3	724.1	19.17	38.775	
3,800.0	3,747.5	3,779.3	3,747.5	12.6	10.2	153.49	-270.0	301.1	754.5	735.0	19.45	38.797	
3,838.6	3,785.3	3,817.1	3,785.3	12.8	10.3	153.76	-270.0	301.1	761.7	742.0	19.62	38.812	
3,900.0	3,845.4	3,877.2	3,845.4	13.1	10.4	154.18	-270.0	301.1	773.2	753.3	19.91	38.838	
3,937.0	3,881.6	3,913.4	3,881.6	13.2	10.4	154.42	-270.0	301.1	780.2	760.1	20.08	38.855	
4,000.0	3,943.2	3,975.0	3,943.2	13.5	10.5	154.83	-270.0	301.1	792.0	771.7	20.37	38.885	
4,035.4	3,977.8	4,009.6	3,977.8	13.6	10.6	155.05	-270.0	301.1	798.7	778.2	20.53	38.902	
4,100.0	4,041.0	4,072.8	4,041.0	13.9	10.7	155.45	-270.0	301.1	811.0	790.1	20.83	38.936	
4,133.8	4,074.1	4,105.9	4,074.1	14.1	10.7	155.66	-270.0	301.1	817.4	796.4	20.98	38.954	
4,200.0	4,138.8	4,170.6	4,138.8	14.4	10.9	156.05	-270.0	301.1	830.0	808.7	21.29	38.990	
4,232.3	4,170.4	4,202.2	4,170.4	14.5	10.9	156.23	-270.0	301.1	836.2	814.7	21.44	39.009	
4,300.0	4,236.6	4,268.4	4,236.6	14.8	11.0	156.61	-270.0	301.1	849.1	827.4	21.75	39.047	
4,330.7	4,266.7	4,298.4	4,266.7	14.9	11.1	156.78	-270.0	301.1	855.0	833.1	21.89	39.066	
4,400.0	4,334.4	4,366.2	4,334.4	15.2	11.2	157.16	-270.0	301.1	868.3	846.1	22.20	39.107	
4,429.1	4,362.9	4,394.7	4,362.9	15.4	11.3	157.31	-270.0	301.1	873.9	851.6	22.34	39.124	
4,500.0	4,432.3	4,464.0	4,432.3	15.7	11.4	157.68	-270.0	301.1	887.6	864.9	22.66	39.167	
4,527.5	4,459.2	4,491.0	4,459.2	15.8	11.4	157.82	-270.0	301.1	892.9	870.1	22.79	39.184	
4,600.0	4,530.1	4,561.9	4,530.1	16.1	11.6	158.17	-270.0	301.1	906.9	883.8	23.12	39.229	
4,626.0	4,555.5	4,587.3	4,555.5	16.2	11.6	158.30	-270.0	301.1	911.9	888.7	23.24	39.245	
4,700.0	4,627.9	4,659.7	4,627.9	16.6	11.7	158.65	-270.0	301.1	926.3	902.7	23.57	39.291	
4,724.4	4,651.7	4,683.5	4,651.7	16.7	11.8	158.76	-270.0	301.1	931.0	907.3	23.69	39.306	
4,800.0	4,725.7	4,757.5	4,725.7	17.0	11.9	159.11	-270.0	301.1	945.7	921.7	24.03	39.354	
4,822.8	4,748.0	4,779.8	4,748.0	17.1	12.0	159.21	-270.0	301.1	950.2	926.0	24.14	39.368	
4,904.9	4,828.3	4,860.1	4,828.3	17.5	12.1	159.57	-270.0	301.1	966.2	941.7	24.51	39.419	
4,921.2	4,844.3	4,876.1	4,844.3	17.5	12.1	159.66	-270.0	301.1	969.3	944.7	24.59	39.415	
5,000.0	4,921.6	4,953.4	4,921.6	17.8	12.3	160.06	-270.0	301.1	983.3	958.3	24.98	39.358	
5,019.7	4,941.0	4,972.8	4,941.0	17.9	12.3	160.15	-270.0	301.1	986.5	961.4	25.07	39.347	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	5,052.2	5,020.4	18.1	12.5	160.47	-270.0	301.1	998.2	972.8	25.43	39.261	
5,118.1	5,038.3	5,070.1	5,038.3	18.2	12.5	160.53	-270.0	301.1	1,000.6	975.1	25.50	39.237	
5,200.0	5,119.6	5,151.4	5,119.6	18.4	12.7	160.78	-270.0	301.1	1,009.9	984.1	25.84	39.086	
5,216.5	5,136.0	5,167.8	5,136.0	18.4	12.7	160.82	-270.0	301.1	1,011.5	985.6	25.90	39.051	
5,300.0	5,219.2	5,251.0	5,219.2	18.6	12.8	161.00	-270.0	301.1	1,018.3	992.1	26.22	38.836	
5,314.9	5,234.1	5,265.9	5,234.1	18.6	12.9	161.02	-270.0	301.1	1,019.3	993.0	26.27	38.794	
5,400.0	5,319.1	5,350.8	5,319.1	18.8	13.0	161.13	-270.0	301.1	1,023.4	996.8	26.57	38.516	
5,413.4	5,332.4	5,364.2	5,332.4	18.8	13.1	161.14	-270.0	301.1	1,023.8	997.2	26.61	38.469	
5,504.9	5,423.9	5,455.7	5,423.9	18.9	13.2	179.60	-270.0	301.1	1,025.2	995.0	30.24	33.907	
5,511.8	5,430.8	5,462.6	5,430.8	18.9	13.2	179.60	-270.0	301.1	1,025.2	995.0	30.26	33.880	
5,600.0	5,519.0	5,550.8	5,519.0	19.0	13.4	179.60	-270.0	301.1	1,025.2	994.7	30.56	33.549	
5,610.2	5,529.3	5,561.0	5,529.3	19.0	13.4	179.60	-270.0	301.1	1,025.2	994.6	30.59	33.510	
5,700.0	5,619.0	5,650.8	5,619.0	19.2	13.6	179.60	-270.0	301.1	1,025.2	994.3	30.91	33.170	
5,708.6	5,627.7	5,659.5	5,627.7	19.2	13.6	179.60	-270.0	301.1	1,025.2	994.3	30.94	33.137	
5,800.0	5,719.0	5,750.8	5,719.0	19.3	13.8	179.60	-270.0	301.1	1,025.2	994.0	31.26	32.796	
5,807.1	5,726.1	5,757.9	5,726.1	19.3	13.8	179.60	-270.0	301.1	1,025.2	993.9	31.29	32.770	
5,900.0	5,819.0	5,850.8	5,819.0	19.4	14.0	179.60	-270.0	301.1	1,025.2	993.6	31.61	32.429	
5,905.5	5,824.5	5,856.3	5,824.5	19.4	14.0	179.60	-270.0	301.1	1,025.2	993.6	31.63	32.409	
6,003.9	5,923.0	5,954.7	5,923.0	19.6	14.2	179.60	-270.0	301.1	1,025.2	993.2	31.98	32.054	
6,009.8	5,928.8	5,960.6	5,928.8	19.6	14.2	179.60	-270.0	301.1	1,025.2	993.2	32.01	32.033	
6,050.0	5,969.0	6,001.2	5,969.4	19.6	14.3	-90.40	-270.0	299.9	1,025.2	996.2	28.98	35.374	
6,100.0	6,018.8	6,051.7	6,019.7	19.7	14.4	-90.40	-270.0	295.3	1,025.2	996.1	29.11	35.221	
6,102.3	6,021.1	6,054.1	6,022.1	19.7	14.4	-90.40	-270.0	295.0	1,025.2	996.1	29.11	35.215	
6,150.0	6,068.1	6,102.2	6,069.5	19.7	14.4	-90.40	-270.0	287.1	1,025.2	996.0	29.20	35.109	
6,200.0	6,116.8	6,152.7	6,118.6	19.7	14.4	-90.39	-270.0	275.5	1,025.2	996.0	29.27	35.030	
6,200.8	6,117.5	6,153.5	6,119.4	19.7	14.4	-90.39	-270.0	275.3	1,025.2	996.0	29.27	35.029	
6,250.0	6,164.5	6,203.2	6,166.8	19.7	14.5	-90.38	-270.0	260.4	1,025.2	995.9	29.31	34.976	
6,299.2	6,210.4	6,252.9	6,213.1	19.7	14.5	-90.37	-270.0	242.3	1,025.2	995.9	29.35	34.934	
6,300.0	6,211.1	6,253.7	6,213.8	19.7	14.5	-90.37	-270.0	242.0	1,025.2	995.9	29.35	34.933	
6,350.0	6,256.4	6,304.2	6,259.3	19.7	14.5	-90.36	-270.0	220.3	1,025.2	995.8	29.39	34.886	
6,397.6	6,298.0	6,352.2	6,301.2	19.7	14.5	-90.35	-270.0	196.7	1,025.2	995.8	29.44	34.821	
6,400.0	6,300.0	6,354.6	6,303.2	19.7	14.5	-90.35	-270.0	195.5	1,025.2	995.8	29.45	34.817	
6,450.0	6,341.8	6,405.0	6,345.3	19.7	14.6	-90.33	-270.0	167.6	1,025.2	995.7	29.54	34.702	
6,496.0	6,378.6	6,451.5	6,382.1	19.7	14.6	-90.32	-270.0	139.4	1,025.2	995.5	29.68	34.537	
6,500.0	6,381.6	6,455.4	6,385.2	19.7	14.6	-90.32	-270.0	136.9	1,025.2	995.5	29.70	34.519	
6,550.0	6,419.2	6,505.8	6,422.9	19.6	14.7	-90.30	-270.0	103.4	1,025.2	995.3	29.94	34.245	
6,594.5	6,450.7	6,550.6	6,454.3	19.6	14.8	-90.28	-270.0	71.5	1,025.2	995.0	30.24	33.906	
6,600.0	6,454.4	6,556.2	6,458.1	19.6	14.9	-90.28	-270.0	67.4	1,025.2	994.9	30.28	33.856	
6,650.0	6,487.1	6,606.5	6,490.7	19.6	15.1	-90.25	-270.0	29.1	1,025.2	994.5	30.75	33.339	
6,692.9	6,513.0	6,649.7	6,516.4	19.6	15.3	-90.23	-270.0	-5.6	1,025.2	993.9	31.27	32.786	
6,700.0	6,517.0	6,656.8	6,520.4	19.6	15.4	-90.23	-270.0	-11.4	1,025.2	993.8	31.37	32.684	
6,750.0	6,544.1	6,707.1	6,547.3	19.6	15.8	-90.21	-270.0	-53.9	1,025.2	993.1	32.14	31.895	
6,791.3	6,564.2	6,748.6	6,567.2	19.7	16.2	-90.19	-270.0	-90.4	1,025.2	992.3	32.92	31.146	
6,800.0	6,568.2	6,757.3	6,571.1	19.7	16.3	-90.18	-270.0	-98.2	1,025.2	992.1	33.09	30.982	
6,839.0	6,584.8	6,796.5	6,587.5	19.7	16.7	-90.16	-270.0	-133.8	1,025.2	991.3	33.96	30.193	
6,850.0	6,589.1	6,807.5	6,591.7	19.8	16.9	-90.16	-270.0	-143.9	1,025.2	991.0	34.21	29.968	
6,889.7	6,603.5	6,847.4	6,605.8	19.9	17.4	-90.14	-270.0	-181.3	1,025.2	990.0	35.23	29.104	
6,900.0	6,606.9	6,857.7	6,609.1	19.9	17.6	-90.13	-270.0	-191.0	1,025.2	989.7	35.50	28.879	
6,950.0	6,621.3	6,907.9	6,623.1	20.2	18.3	-90.10	-270.0	-239.1	1,025.2	988.3	36.95	27.746	
6,988.2	6,630.0	6,946.1	6,631.5	20.6	18.9	-90.08	-270.0	-276.5	1,025.2	987.1	38.16	26.866	
7,000.0	6,632.4	6,958.0	6,633.7	20.7	19.2	-90.07	-270.0	-288.1	1,025.2	986.7	38.54	26.598	
7,050.0	6,640.0	7,008.0	6,640.8	21.4	20.0	-90.05	-270.0	-337.7	1,025.2	984.9	40.27	25.461	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,643.4	7,044.7	6,643.8	21.9	20.7	-90.03	-270.0	-374.2	1,025.2	983.6	41.60	24.645	
7,100.0	6,644.2	7,058.1	6,644.5	22.1	21.0	-90.02	-270.0	-387.5	1,025.2	983.1	42.09	24.356	
7,135.7	6,645.0	7,093.7	6,645.0	22.7	21.7	-90.00	-270.0	-423.2	1,025.2	981.8	43.45	23.597	
7,185.0	6,644.9	7,143.1	6,644.9	23.6	22.7	-90.00	-270.0	-472.6	1,025.2	979.8	45.42	22.570	
7,200.0	6,644.9	7,158.1	6,644.9	23.9	23.0	-90.00	-270.0	-487.5	1,025.2	979.2	46.02	22.276	
7,283.4	6,644.8	7,241.5	6,644.8	25.6	24.8	-90.00	-270.0	-571.0	1,025.2	975.7	49.54	20.696	
7,300.0	6,644.8	7,258.1	6,644.8	25.9	25.2	-90.00	-270.0	-587.5	1,025.2	975.0	50.25	20.404	
7,381.9	6,644.7	7,340.0	6,644.6	27.7	27.0	-90.00	-270.0	-669.4	1,025.2	971.3	53.90	19.020	
7,400.0	6,644.7	7,358.1	6,644.6	28.1	27.4	-90.00	-270.0	-687.5	1,025.2	970.5	54.72	18.736	
7,480.3	6,644.6	7,438.4	6,644.5	29.9	29.3	-90.00	-270.0	-767.8	1,025.2	966.8	58.47	17.534	
7,500.0	6,644.6	7,458.1	6,644.5	30.3	29.8	-90.00	-270.0	-787.5	1,025.2	965.8	59.40	17.260	
7,578.7	6,644.5	7,536.8	6,644.4	32.2	31.7	-90.00	-270.0	-866.3	1,025.2	962.0	63.19	16.224	
7,600.0	6,644.4	7,558.1	6,644.3	32.7	32.2	-90.00	-270.0	-887.5	1,025.2	961.0	64.23	15.963	
7,677.1	6,644.3	7,635.2	6,644.2	34.6	34.1	-89.99	-270.0	-964.7	1,025.2	957.2	68.04	15.068	
7,700.0	6,644.3	7,658.1	6,644.2	35.1	34.7	-89.99	-270.0	-987.5	1,025.2	956.1	69.18	14.821	
7,775.6	6,644.2	7,733.7	6,644.1	37.0	36.6	-89.99	-270.0	-1,063.1	1,025.2	952.3	72.98	14.047	
7,800.0	6,644.2	7,758.1	6,644.1	37.6	37.3	-89.99	-270.0	-1,087.5	1,025.2	951.0	74.22	13.813	
7,874.0	6,644.1	7,832.1	6,644.0	39.5	39.2	-89.99	-270.0	-1,161.5	1,025.2	947.2	78.01	13.143	
7,900.0	6,644.1	7,858.1	6,643.9	40.1	39.8	-89.99	-270.0	-1,187.5	1,025.2	945.9	79.34	12.922	
7,972.4	6,644.0	7,930.5	6,643.8	42.0	41.7	-89.99	-270.0	-1,260.0	1,025.2	942.1	83.10	12.338	
8,000.0	6,643.9	7,958.1	6,643.8	42.7	42.4	-89.99	-270.0	-1,287.5	1,025.2	940.7	84.53	12.129	
8,070.8	6,643.9	8,028.9	6,643.7	44.5	44.3	-89.99	-270.0	-1,358.4	1,025.2	937.0	88.24	11.619	
8,100.0	6,643.8	8,058.1	6,643.7	45.2	45.1	-89.99	-270.0	-1,387.5	1,025.2	935.5	89.77	11.421	
8,169.3	6,643.7	8,127.4	6,643.6	47.0	46.9	-89.99	-270.0	-1,456.8	1,025.2	931.8	93.43	10.974	
8,200.0	6,643.7	8,158.1	6,643.5	47.9	47.7	-89.99	-270.0	-1,487.5	1,025.2	930.2	95.05	10.786	
8,267.7	6,643.6	8,225.8	6,643.4	49.6	49.5	-89.99	-270.0	-1,555.2	1,025.2	926.6	98.65	10.393	
8,300.0	6,643.6	8,258.1	6,643.4	50.5	50.4	-89.99	-270.0	-1,587.5	1,025.2	924.9	100.37	10.215	
8,366.1	6,643.5	8,324.2	6,643.3	52.2	52.2	-89.99	-270.0	-1,653.7	1,025.2	921.3	103.91	9.867	
8,400.0	6,643.4	8,358.1	6,643.3	53.1	53.1	-89.99	-270.0	-1,687.5	1,025.2	919.5	105.72	9.698	
8,464.5	6,643.4	8,422.6	6,643.2	54.8	54.8	-89.99	-270.0	-1,752.1	1,025.2	916.1	109.19	9.389	
8,500.0	6,643.3	8,458.1	6,643.1	55.8	55.8	-89.99	-270.0	-1,787.5	1,025.2	914.1	111.10	9.228	
8,563.0	6,643.2	8,521.1	6,643.0	57.5	57.5	-89.99	-270.0	-1,850.5	1,025.3	910.8	114.50	8.954	
8,600.0	6,643.2	8,558.1	6,643.0	58.5	58.5	-89.99	-270.0	-1,887.5	1,025.3	908.8	116.50	8.800	
8,661.4	6,643.1	8,619.5	6,642.9	60.1	60.1	-89.99	-270.0	-1,948.9	1,025.3	905.4	119.83	8.556	
8,700.0	6,643.1	8,658.1	6,642.8	61.2	61.2	-89.99	-270.0	-1,987.5	1,025.3	903.3	121.92	8.409	
8,759.8	6,643.0	8,717.9	6,642.8	62.8	62.8	-89.99	-270.0	-2,047.4	1,025.3	900.1	125.17	8.191	
8,800.0	6,643.0	8,758.1	6,642.7	63.9	63.9	-89.99	-270.0	-2,087.5	1,025.3	897.9	127.36	8.050	
8,858.2	6,642.9	8,816.3	6,642.6	65.4	65.5	-89.99	-270.0	-2,145.8	1,025.3	894.7	130.53	7.854	
8,900.0	6,642.8	8,858.1	6,642.6	66.6	66.6	-89.99	-270.0	-2,187.5	1,025.3	892.4	132.81	7.720	
8,956.7	6,642.8	8,914.8	6,642.5	68.1	68.2	-89.99	-270.0	-2,244.2	1,025.3	889.3	135.91	7.544	
9,000.0	6,642.7	8,958.1	6,642.4	69.3	69.4	-89.99	-270.0	-2,287.5	1,025.3	887.0	138.28	7.414	
9,055.1	6,642.6	9,013.2	6,642.4	70.8	70.9	-89.99	-270.0	-2,342.6	1,025.3	884.0	141.30	7.256	
9,100.0	6,642.6	9,058.1	6,642.3	72.0	72.1	-89.98	-270.0	-2,387.5	1,025.3	881.5	143.76	7.132	
9,153.5	6,642.5	9,111.6	6,642.2	73.5	73.6	-89.98	-270.0	-2,441.1	1,025.3	878.6	146.70	6.989	
9,200.0	6,642.5	9,158.1	6,642.2	74.7	74.9	-89.98	-270.0	-2,487.5	1,025.3	876.0	149.25	6.869	
9,251.9	6,642.4	9,210.0	6,642.1	76.2	76.3	-89.98	-270.0	-2,539.5	1,025.3	873.2	152.10	6.740	
9,300.0	6,642.3	9,258.1	6,642.0	77.5	77.6	-89.98	-270.0	-2,587.5	1,025.3	870.5	154.75	6.625	
9,350.4	6,642.3	9,308.5	6,642.0	78.9	79.0	-89.98	-270.0	-2,637.9	1,025.3	867.7	157.52	6.509	
9,400.0	6,642.2	9,358.1	6,641.9	80.2	80.4	-89.98	-270.0	-2,687.5	1,025.3	865.0	160.26	6.398	
9,448.8	6,642.1	9,406.9	6,641.8	81.6	81.7	-89.98	-270.0	-2,736.3	1,025.3	862.3	162.95	6.292	
9,500.0	6,642.1	9,458.1	6,641.8	83.0	83.1	-89.98	-270.0	-2,787.5	1,025.3	859.5	165.77	6.185	
9,547.2	6,642.0	9,505.3	6,641.7	84.3	84.4	-89.98	-270.0	-2,834.8	1,025.3	856.9	168.38	6.089	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
9,600.0	6,642.0	9,558.1	6,641.7	85.7	85.9	-89.98	-270.0	-2,887.5	1,025.3	854.0	171.29	5.985		
9,645.6	6,641.9	9,603.7	6,641.6	87.0	87.2	-89.98	-270.0	-2,933.2	1,025.3	851.4	173.82	5.899		
9,700.0	6,641.8	9,658.1	6,641.5	88.5	88.7	-89.98	-270.0	-2,987.5	1,025.3	848.4	176.82	5.798		
9,744.1	6,641.8	9,702.2	6,641.5	89.7	89.9	-89.98	-270.0	-3,031.6	1,025.3	846.0	179.26	5.719		
9,800.0	6,641.7	9,758.1	6,641.4	91.2	91.4	-89.98	-270.0	-3,087.5	1,025.3	842.9	182.36	5.622		
9,842.5	6,641.7	9,800.6	6,641.3	92.4	92.6	-89.98	-270.0	-3,130.0	1,025.3	840.6	184.71	5.551		
9,900.0	6,641.6	9,858.1	6,641.3	94.0	94.2	-89.98	-270.0	-3,187.5	1,025.3	837.4	187.90	5.457		
9,940.9	6,641.5	9,899.0	6,641.2	95.1	95.3	-89.98	-270.0	-3,228.5	1,025.3	835.1	190.16	5.391		
10,000.0	6,641.5	9,958.1	6,641.1	96.7	97.0	-89.98	-270.0	-3,287.5	1,025.3	831.8	193.44	5.300		
10,039.3	6,641.4	9,997.4	6,641.1	97.8	98.1	-89.98	-270.0	-3,326.9	1,025.3	829.6	195.62	5.241		
10,100.0	6,641.3	10,058.1	6,641.0	99.5	99.8	-89.98	-270.0	-3,387.5	1,025.3	826.3	198.99	5.152		
10,137.8	6,641.3	10,095.9	6,640.9	100.6	100.8	-89.98	-270.0	-3,425.3	1,025.3	824.2	201.09	5.099		
10,200.0	6,641.2	10,158.1	6,640.9	102.3	102.5	-89.98	-270.0	-3,487.5	1,025.3	820.7	204.54	5.013		
10,236.2	6,641.2	10,194.3	6,640.8	103.3	103.5	-89.98	-270.0	-3,523.7	1,025.3	818.7	206.55	4.964		
10,300.0	6,641.1	10,258.1	6,640.7	105.0	105.3	-89.98	-270.0	-3,587.5	1,025.3	815.2	210.10	4.880		
10,334.6	6,641.0	10,292.7	6,640.7	106.0	106.3	-89.98	-270.0	-3,622.2	1,025.3	813.2	212.02	4.836		
10,400.0	6,641.0	10,358.1	6,640.6	107.8	108.1	-89.98	-270.0	-3,687.5	1,025.3	809.6	215.66	4.754		
10,433.0	6,640.9	10,391.1	6,640.6	108.7	109.0	-89.98	-270.0	-3,720.6	1,025.3	807.8	217.50	4.714		
10,500.0	6,640.8	10,458.1	6,640.5	110.6	110.9	-89.98	-270.0	-3,787.5	1,025.3	804.0	221.22	4.635		
10,531.5	6,640.8	10,489.6	6,640.4	111.5	111.8	-89.98	-270.0	-3,819.0	1,025.3	802.3	222.97	4.598		
10,600.0	6,640.7	10,558.1	6,640.4	113.4	113.7	-89.98	-270.0	-3,887.5	1,025.3	798.5	226.79	4.521		
10,629.9	6,640.7	10,588.0	6,640.3	114.2	114.5	-89.98	-270.0	-3,917.4	1,025.3	796.8	228.45	4.488		
10,700.0	6,640.6	10,658.1	6,640.2	116.1	116.4	-89.98	-270.0	-3,987.5	1,025.3	792.9	232.35	4.413		
10,728.3	6,640.5	10,686.4	6,640.2	116.9	117.2	-89.98	-270.0	-4,015.9	1,025.3	791.3	233.93	4.383		
10,800.0	6,640.5	10,758.1	6,640.1	118.9	119.2	-89.98	-270.0	-4,087.5	1,025.3	787.3	237.93	4.309		
10,826.7	6,640.4	10,784.8	6,640.1	119.7	120.0	-89.98	-270.0	-4,114.3	1,025.3	785.8	239.42	4.282		
10,900.0	6,640.3	10,858.1	6,640.0	121.7	122.0	-89.98	-270.0	-4,187.5	1,025.3	781.8	243.50	4.211		
10,925.2	6,640.3	10,883.3	6,639.9	122.4	122.7	-89.98	-270.0	-4,212.7	1,025.3	780.4	244.90	4.186		
11,000.0	6,640.2	10,958.1	6,639.8	124.5	124.8	-89.98	-270.0	-4,287.5	1,025.3	776.2	249.07	4.116		
11,023.6	6,640.2	10,981.7	6,639.8	125.1	125.5	-89.98	-270.0	-4,311.1	1,025.3	774.9	250.39	4.095		
11,100.0	6,640.1	11,058.1	6,639.7	127.3	127.6	-89.98	-270.0	-4,387.5	1,025.3	770.6	254.65	4.026		
11,122.0	6,640.0	11,080.1	6,639.7	127.9	128.2	-89.98	-270.0	-4,409.6	1,025.3	769.4	255.88	4.007		
11,200.0	6,639.9	11,158.1	6,639.6	130.1	130.4	-89.98	-270.0	-4,487.5	1,025.3	765.0	260.23	3.940		
11,220.4	6,639.9	11,178.5	6,639.6	130.6	131.0	-89.98	-270.0	-4,508.0	1,025.3	763.9	261.37	3.923		
11,300.0	6,639.8	11,258.1	6,639.5	132.8	133.2	-89.98	-270.0	-4,587.5	1,025.3	759.5	265.81	3.857		
11,318.9	6,639.8	11,277.0	6,639.4	133.4	133.7	-89.98	-270.0	-4,606.4	1,025.3	758.4	266.87	3.842		
11,400.0	6,639.7	11,358.1	6,639.3	135.6	136.0	-89.98	-270.0	-4,687.5	1,025.3	753.9	271.40	3.778		
11,417.3	6,639.7	11,375.4	6,639.3	136.1	136.5	-89.98	-270.0	-4,704.8	1,025.3	752.9	272.36	3.764		
11,500.0	6,639.6	11,458.1	6,639.2	138.4	138.8	-89.98	-270.0	-4,787.5	1,025.3	748.3	276.98	3.702		
11,515.7	6,639.5	11,473.8	6,639.2	138.9	139.2	-89.98	-270.0	-4,803.3	1,025.3	747.4	277.86	3.690		
11,600.0	6,639.4	11,558.1	6,639.1	141.2	141.6	-89.98	-270.0	-4,887.5	1,025.3	742.7	282.57	3.628		
11,614.1	6,639.4	11,572.2	6,639.1	141.6	142.0	-89.98	-270.0	-4,901.7	1,025.3	741.9	283.36	3.618		
11,700.0	6,639.3	11,658.1	6,639.0	144.0	144.4	-89.98	-270.0	-4,987.5	1,025.3	737.1	288.15	3.558		
11,712.6	6,639.3	11,670.7	6,638.9	144.3	144.7	-89.98	-270.0	-5,000.1	1,025.3	736.4	288.86	3.549		
11,800.0	6,639.2	11,758.1	6,638.8	146.8	147.2	-89.98	-270.0	-5,087.5	1,025.3	731.5	293.74	3.490		
11,811.0	6,639.2	11,769.1	6,638.8	147.1	147.5	-89.98	-270.0	-5,098.5	1,025.3	730.9	294.36	3.483		
11,900.0	6,639.1	11,858.1	6,638.7	149.6	149.9	-89.98	-270.0	-5,187.5	1,025.3	725.9	299.33	3.425		
11,909.4	6,639.0	11,867.5	6,638.7	149.8	150.2	-89.98	-270.0	-5,197.0	1,025.3	725.4	299.86	3.419		
12,000.0	6,638.9	11,958.1	6,638.6	152.4	152.7	-89.98	-270.0	-5,287.5	1,025.3	720.3	304.92	3.362		
12,007.8	6,638.9	11,965.9	6,638.6	152.6	153.0	-89.98	-270.0	-5,295.4	1,025.3	719.9	305.36	3.358		
12,100.0	6,638.8	12,058.1	6,638.5	155.2	155.5	-89.98	-270.0	-5,387.5	1,025.3	714.7	310.52	3.302		
12,106.3	6,638.8	12,064.4	6,638.5	155.3	155.7	-89.98	-270.0	-5,393.8	1,025.3	714.4	310.87	3.298		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,200.0	6,638.7	12,158.1	6,638.3	157.9	158.3	-89.98	-270.0	-5,487.5	1,025.3	709.1	316.11	3.243	
12,204.7	6,638.7	12,162.8	6,638.3	158.1	158.5	-89.98	-270.0	-5,492.2	1,025.3	708.9	316.37	3.241	
12,300.0	6,638.5	12,258.1	6,638.2	160.7	161.1	-89.98	-270.0	-5,587.5	1,025.3	703.5	321.70	3.187	
12,303.1	6,638.5	12,261.2	6,638.2	160.8	161.2	-89.98	-270.0	-5,590.7	1,025.3	703.4	321.88	3.185	
12,400.0	6,638.4	12,358.1	6,638.1	163.5	163.9	-89.98	-270.0	-5,687.5	1,025.3	698.0	327.30	3.132	
12,401.5	6,638.4	12,359.6	6,638.1	163.6	164.0	-89.98	-270.0	-5,689.1	1,025.3	697.9	327.39	3.132	
12,500.0	6,638.3	12,458.1	6,638.0	166.3	166.7	-89.98	-270.0	-5,787.5	1,025.2	692.4	332.89	3.080	
12,598.4	6,638.2	12,556.5	6,637.9	169.1	169.5	-89.98	-270.0	-5,885.9	1,025.2	686.8	338.40	3.030	
12,600.0	6,638.2	12,558.1	6,637.9	169.1	169.5	-89.98	-270.0	-5,887.5	1,025.2	686.8	338.49	3.029	
12,696.8	6,638.0	12,654.9	6,637.7	171.8	172.2	-89.98	-270.0	-5,984.4	1,025.2	681.3	343.91	2.981	
12,700.0	6,638.0	12,658.1	6,637.7	171.9	172.3	-89.98	-270.0	-5,987.5	1,025.2	681.2	344.09	2.980	
12,795.2	6,637.9	12,753.3	6,637.6	174.6	175.0	-89.98	-270.0	-6,082.8	1,025.2	675.8	349.42	2.934	
12,800.0	6,637.9	12,758.1	6,637.6	174.7	175.1	-89.98	-270.0	-6,087.5	1,025.2	675.6	349.69	2.932	
12,893.7	6,637.8	12,851.8	6,637.5	177.3	177.8	-89.98	-270.0	-6,181.2	1,025.2	670.3	354.93	2.889	
12,900.0	6,637.8	12,858.1	6,637.5	177.5	177.9	-89.98	-270.0	-6,187.5	1,025.2	670.0	355.29	2.886	
12,992.1	6,637.7	12,950.2	6,637.4	180.1	180.5	-89.98	-270.0	-6,279.6	1,025.2	664.8	360.45	2.844	
13,000.0	6,637.6	12,958.1	6,637.4	180.3	180.7	-89.98	-270.0	-6,287.5	1,025.2	664.4	360.89	2.841	
13,090.5	6,637.5	13,048.6	6,637.3	182.8	183.3	-89.99	-270.0	-6,378.1	1,025.2	659.3	365.96	2.802	
13,100.0	6,637.5	13,058.1	6,637.2	183.1	183.5	-89.99	-270.0	-6,387.5	1,025.2	658.7	366.49	2.797	
13,188.9	6,637.4	13,147.0	6,637.1	185.6	186.0	-89.99	-270.0	-6,476.5	1,025.2	653.8	371.47	2.760	
13,200.0	6,637.4	13,158.1	6,637.1	185.9	186.3	-89.99	-270.0	-6,487.5	1,025.2	653.1	372.09	2.755	
13,287.4	6,637.3	13,245.5	6,637.0	188.4	188.8	-89.99	-270.0	-6,574.9	1,025.2	648.2	376.98	2.720	
13,300.0	6,637.3	13,258.1	6,637.0	188.7	189.1	-89.99	-270.0	-6,587.5	1,025.2	647.5	377.69	2.714	
13,385.8	6,637.1	13,343.9	6,636.9	191.1	191.5	-89.99	-270.0	-6,673.3	1,025.2	642.7	382.50	2.680	
13,400.0	6,637.1	13,358.1	6,636.9	191.5	191.9	-89.99	-270.0	-6,687.5	1,025.2	641.9	383.29	2.675	
13,484.2	6,637.0	13,442.3	6,636.8	193.9	194.3	-89.99	-270.0	-6,771.8	1,025.2	637.2	388.01	2.642	
13,500.0	6,637.0	13,458.1	6,636.8	194.3	194.7	-89.99	-270.0	-6,787.5	1,025.2	636.3	388.90	2.636	
13,582.6	6,636.9	13,540.7	6,636.7	196.6	197.1	-89.99	-270.0	-6,870.2	1,025.2	631.7	393.53	2.605	
13,600.0	6,636.9	13,558.1	6,636.7	197.1	197.5	-89.99	-270.0	-6,887.5	1,025.2	630.7	394.50	2.599	
13,681.1	6,636.8	13,639.2	6,636.6	199.4	199.8	-89.99	-270.0	-6,968.6	1,025.2	626.2	399.04	2.569	
13,700.0	6,636.7	13,658.1	6,636.5	199.9	200.3	-89.99	-270.0	-6,987.5	1,025.2	625.1	400.11	2.562	
13,779.5	6,636.6	13,737.6	6,636.4	202.1	202.6	-89.99	-270.0	-7,067.0	1,025.2	620.7	404.56	2.534	
13,800.0	6,636.6	13,758.1	6,636.4	202.7	203.1	-89.99	-270.0	-7,087.5	1,025.2	619.5	405.71	2.527	
13,877.9	6,636.5	13,836.0	6,636.3	204.9	205.3	-89.99	-270.0	-7,165.5	1,025.2	615.1	410.08	2.500	
13,900.0	6,636.5	13,858.1	6,636.3	205.5	206.0	-89.99	-270.0	-7,187.5	1,025.2	613.9	411.32	2.493	
13,976.3	6,636.4	13,934.4	6,636.2	207.6	208.1	-89.99	-270.0	-7,263.9	1,025.2	609.6	415.60	2.467	
14,000.0	6,636.3	13,958.1	6,636.2	208.3	208.8	-89.99	-270.0	-7,287.5	1,025.2	608.3	416.92	2.459	
14,074.8	6,636.3	14,032.9	6,636.1	210.4	210.8	-89.99	-270.0	-7,362.3	1,025.2	604.1	421.11	2.435	
14,100.0	6,636.2	14,058.1	6,636.1	211.1	211.6	-89.99	-270.0	-7,387.5	1,025.2	602.7	422.53	2.426	
14,173.2	6,636.1	14,131.3	6,636.0	213.2	213.6	-89.99	-270.0	-7,460.7	1,025.2	598.6	426.63	2.403	
14,200.0	6,636.1	14,158.1	6,635.9	213.9	214.4	-89.99	-270.0	-7,487.5	1,025.2	597.1	428.13	2.395	
14,271.6	6,636.0	14,229.7	6,635.9	215.9	216.4	-89.99	-270.0	-7,559.2	1,025.2	593.1	432.15	2.372	
14,300.0	6,636.0	14,258.1	6,635.8	216.7	217.2	-89.99	-270.0	-7,587.5	1,025.2	591.5	433.74	2.364	
14,370.0	6,635.9	14,328.1	6,635.8	218.7	219.1	-89.99	-270.0	-7,657.6	1,025.2	587.5	437.67	2.342	
14,400.0	6,635.8	14,358.1	6,635.7	219.5	220.0	-89.99	-270.0	-7,687.5	1,025.2	585.9	439.35	2.333	
14,468.5	6,635.7	14,426.6	6,635.6	221.4	221.9	-89.99	-270.0	-7,756.0	1,025.2	582.0	443.19	2.313	
14,500.0	6,635.7	14,458.1	6,635.6	222.3	222.8	-89.99	-270.0	-7,787.5	1,025.2	580.2	444.96	2.304	
14,566.9	6,635.6	14,525.0	6,635.5	224.2	224.6	-90.00	-270.0	-7,854.4	1,025.2	576.5	448.71	2.285	
14,600.0	6,635.6	14,558.1	6,635.5	225.1	225.6	-90.00	-270.0	-7,887.5	1,025.2	574.6	450.56	2.275	
14,665.3	6,635.5	14,623.4	6,635.4	226.9	227.4	-90.00	-270.0	-7,952.9	1,025.2	571.0	454.23	2.257	
14,700.0	6,635.4	14,658.1	6,635.4	227.9	228.4	-90.00	-270.0	-7,987.5	1,025.2	569.0	456.17	2.247	
14,763.7	6,635.4	14,721.8	6,635.3	229.7	230.2	-90.00	-270.0	-8,051.3	1,025.2	565.4	459.75	2.230	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10G-214 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,800.0	6,635.3	14,758.1	6,635.3	230.7	231.2	-90.00	-270.0	-8,087.5	1,025.2	563.4	461.78	2.220	
14,862.2	6,635.2	14,820.3	6,635.2	232.5	232.9	-90.00	-270.0	-8,149.7	1,025.2	559.9	465.27	2.203	
14,900.0	6,635.2	14,858.1	6,635.1	233.5	234.0	-90.00	-270.0	-8,187.5	1,025.2	557.8	467.39	2.193	
14,960.6	6,635.1	14,918.7	6,635.1	235.2	235.7	-90.00	-270.0	-8,248.1	1,025.2	554.4	470.79	2.178	
15,000.0	6,635.0	14,958.1	6,635.0	236.3	236.8	-90.00	-270.0	-8,287.5	1,025.2	552.2	473.00	2.167	
15,023.5	6,635.0	14,981.6	6,635.0	237.0	237.5	-90.00	-270.0	-8,311.0	1,025.2	550.9	474.32	2.161	
15,033.1	6,635.0	14,982.9	6,635.0	237.3	237.5	-90.00	-270.0	-8,312.3	1,025.2	550.6	474.62	2.160 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-179.36	-149.7	-1.7	149.7				
98.4	98.4	98.4	98.4	0.1	0.1	-179.36	-149.7	-1.7	149.7	149.5	0.19	778.923	
100.0	100.0	100.0	100.0	0.1	0.1	-179.36	-149.7	-1.7	149.7	149.5	0.20	765.738	
196.8	196.8	196.8	196.8	0.3	0.3	-179.36	-149.7	-1.7	149.7	149.1	0.63	237.333	
200.0	200.0	200.0	200.0	0.3	0.3	-179.36	-149.7	-1.7	149.7	149.1	0.65	232.123	
295.3	295.3	295.3	295.3	0.5	0.5	-179.36	-149.7	-1.7	149.7	148.7	1.07	139.502	
300.0	300.0	300.0	300.0	0.5	0.5	-179.36	-149.7	-1.7	149.7	148.6	1.09	136.795	
393.7	393.7	393.7	393.7	0.8	0.8	-179.36	-149.7	-1.7	149.7	148.2	1.52	98.783	
400.0	400.0	400.0	400.0	0.8	0.8	-179.36	-149.7	-1.7	149.7	148.2	1.54	96.971	
492.1	492.1	492.1	492.1	1.0	1.0	-179.36	-149.7	-1.7	149.7	147.8	1.96	76.464	
500.0	500.0	500.0	500.0	1.0	1.0	-179.36	-149.7	-1.7	149.7	147.7	1.99	75.106	
590.5	590.5	590.5	590.5	1.2	1.2	-179.36	-149.7	-1.7	149.7	147.3	2.40	62.372	
600.0	600.0	600.0	600.0	1.2	1.2	-179.36	-149.7	-1.7	149.7	147.3	2.44	61.287	
689.0	689.0	689.0	689.0	1.4	1.4	-179.36	-149.7	-1.7	149.7	146.9	2.84	52.666	
700.0	700.0	700.0	700.0	1.4	1.4	-179.36	-149.7	-1.7	149.7	146.8	2.89	51.763	
787.4	787.4	787.4	787.4	1.6	1.6	-179.36	-149.7	-1.7	149.7	146.5	3.29	45.573	
800.0	800.0	800.0	800.0	1.7	1.7	-179.36	-149.7	-1.7	149.7	146.4	3.34	44.801	
885.8	885.8	885.8	885.8	1.9	1.9	-179.36	-149.7	-1.7	149.7	146.0	3.73	40.165	
900.0	900.0	900.0	900.0	1.9	1.9	-179.36	-149.7	-1.7	149.7	145.9	3.79	39.490	
984.2	984.2	984.2	984.2	2.1	2.1	-179.36	-149.7	-1.7	149.7	145.6	4.17	35.904	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.36	-149.7	-1.7	149.7	145.5	4.24	35.304 CC, ES	
1,082.7	1,082.7	1,081.2	1,081.2	2.3	2.3	154.23	-150.1	-2.8	151.2	146.6	4.59	32.912	
1,100.0	1,100.0	1,098.2	1,098.2	2.3	2.3	154.51	-150.3	-3.3	151.9	147.2	4.67	32.539	
1,181.1	1,181.0	1,177.4	1,177.3	2.5	2.5	156.38	-151.5	-6.9	156.9	151.9	5.01	31.355	
1,200.0	1,199.8	1,195.7	1,195.6	2.6	2.5	156.94	-151.9	-8.0	158.6	153.5	5.08	31.196	
1,279.5	1,279.1	1,272.5	1,272.1	2.8	2.7	159.73	-154.0	-13.9	167.4	162.0	5.42	30.883	
1,300.0	1,299.5	1,292.1	1,291.6	2.8	2.7	160.53	-154.6	-15.7	170.3	164.8	5.51	30.916	
1,377.9	1,376.9	1,366.1	1,365.1	3.0	2.9	163.78	-157.3	-23.8	183.3	177.4	5.85	31.342	
1,400.0	1,398.7	1,386.8	1,385.6	3.0	2.9	164.73	-158.2	-26.3	187.6	181.7	5.94	31.574	
1,476.4	1,474.2	1,457.6	1,455.6	3.2	3.1	168.02	-161.6	-36.1	205.0	198.7	6.28	32.630	
1,500.0	1,497.5	1,479.2	1,476.9	3.3	3.2	169.03	-162.8	-39.5	211.1	204.7	6.38	33.063	
1,574.8	1,571.0	1,546.5	1,543.2	3.5	3.4	172.09	-166.7	-50.8	232.7	226.0	6.72	34.641	
1,600.0	1,595.6	1,568.8	1,565.1	3.6	3.5	173.08	-168.1	-54.9	240.8	234.0	6.83	35.270	
1,673.2	1,667.2	1,632.9	1,627.7	3.9	3.7	175.82	-172.4	-67.5	265.7	258.5	7.17	37.031	
1,700.0	1,693.4	1,656.0	1,650.3	4.0	3.8	176.75	-174.1	-72.4	275.2	267.9	7.30	37.688	
1,771.6	1,763.5	1,717.2	1,709.7	4.2	4.0	179.08	-178.8	-86.1	301.6	294.0	7.65	39.445	
1,800.0	1,791.3	1,741.1	1,732.9	4.3	4.1	179.94	-180.8	-91.8	312.5	304.7	7.78	40.144	
1,870.1	1,859.8	1,801.7	1,791.3	4.6	4.4	-178.01	-186.0	-106.9	340.2	332.0	8.13	41.829	
1,900.0	1,889.1	1,828.7	1,817.3	4.7	4.5	-177.19	-188.4	-113.7	352.2	343.9	8.29	42.509	
1,968.5	1,956.1	1,890.5	1,876.9	4.9	4.8	-175.49	-193.8	-129.3	379.9	371.3	8.63	44.013	
2,000.0	1,986.9	1,918.9	1,904.3	5.1	4.9	-174.79	-196.2	-136.5	392.8	384.0	8.79	44.663	
2,066.9	2,052.3	1,979.3	1,962.5	5.3	5.2	-173.44	-201.5	-151.8	420.2	411.0	9.14	45.973	
2,100.0	2,084.7	2,009.2	1,991.2	5.5	5.3	-172.83	-204.1	-159.3	433.8	424.5	9.31	46.606	
2,165.3	2,148.6	2,068.2	2,048.1	5.7	5.6	-171.74	-209.2	-174.2	460.8	451.2	9.65	47.756	
2,200.0	2,182.5	2,099.4	2,078.2	5.9	5.8	-171.21	-212.0	-182.1	475.2	465.4	9.83	48.351	
2,263.8	2,244.9	2,157.0	2,133.7	6.1	6.1	-170.31	-217.0	-196.7	501.7	491.6	10.16	49.362	
2,300.0	2,280.3	2,189.7	2,165.2	6.3	6.3	-169.85	-219.8	-204.9	516.9	506.5	10.35	49.918	
2,362.2	2,341.2	2,245.8	2,219.3	6.5	6.6	-169.10	-224.7	-219.1	542.9	532.2	10.68	50.811	
2,400.0	2,378.1	2,280.0	2,252.2	6.7	6.7	-168.68	-227.7	-227.7	558.7	547.9	10.88	51.333	
2,460.6	2,437.4	2,334.7	2,304.9	6.9	7.0	-168.06	-232.4	-241.5	584.2	573.0	11.21	52.121	
2,500.0	2,476.0	2,370.2	2,339.2	7.1	7.2	-167.68	-235.5	-250.5	600.8	589.4	11.42	52.611	
2,550.0	2,524.9	2,415.4	2,382.7	7.3	7.5	-167.23	-239.5	-261.9	621.9	610.2	11.69	53.206	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,423.5	2,390.5	7.3	7.5	-166.22	-240.2	-264.0	625.7	613.9	11.74	53.314	
2,600.0	2,573.8	2,460.6	2,426.2	7.5	7.7	-161.71	-243.4	-273.3	642.9	630.9	11.95	53.781	
2,639.4	2,612.3	2,496.3	2,460.7	7.7	7.9	-157.44	-246.5	-282.4	659.2	647.1	12.16	54.195	
2,657.5	2,630.0	2,512.7	2,476.5	7.7	8.0	-157.35	-248.0	-286.5	666.7	654.5	12.26	54.366	
2,700.0	2,671.6	2,551.4	2,513.7	7.9	8.2	-157.15	-251.3	-296.3	684.3	671.8	12.50	54.754	
2,755.9	2,726.3	2,602.2	2,562.7	8.1	8.5	-156.90	-255.8	-309.1	707.5	694.7	12.81	55.217	
2,800.0	2,769.4	2,642.3	2,601.3	8.3	8.7	-156.71	-259.2	-319.2	725.8	712.7	13.06	55.559	
2,854.3	2,822.5	2,691.6	2,648.9	8.5	9.0	-156.49	-263.5	-331.7	748.3	734.9	13.37	55.962	
2,900.0	2,867.2	2,733.2	2,688.9	8.7	9.2	-156.31	-267.2	-342.2	767.2	753.6	13.63	56.283	
2,952.7	2,918.8	2,781.1	2,735.1	9.0	9.5	-156.12	-271.3	-354.3	789.1	775.2	13.93	56.635	
3,000.0	2,965.0	2,824.0	2,776.5	9.2	9.7	-155.96	-275.1	-365.2	808.7	794.5	14.20	56.936	
3,051.2	3,015.1	2,870.5	2,821.3	9.4	10.0	-155.79	-279.1	-376.9	829.9	815.4	14.50	57.244	
3,100.0	3,062.8	2,914.9	2,864.1	9.6	10.2	-155.64	-283.0	-388.1	850.2	835.4	14.78	57.526	
3,149.6	3,111.4	2,960.0	2,907.5	9.8	10.5	-155.50	-286.9	-399.5	870.8	855.7	15.07	57.798	
3,200.0	3,160.7	3,005.8	2,951.6	10.0	10.7	-155.35	-290.9	-411.1	891.7	876.4	15.36	58.063	
3,248.0	3,207.6	3,049.4	2,993.7	10.2	11.0	-155.22	-294.7	-422.1	911.7	896.1	15.64	58.302	
3,300.0	3,258.5	3,096.7	3,039.2	10.5	11.2	-155.09	-298.8	-434.0	933.3	917.3	15.94	58.552	
3,346.4	3,303.9	3,138.9	3,079.9	10.7	11.5	-154.97	-302.5	-444.7	952.6	936.4	16.21	58.763	
3,400.0	3,356.3	3,187.6	3,126.8	10.9	11.7	-154.85	-306.7	-457.0	974.8	958.3	16.52	58.998	
3,444.9	3,400.2	3,228.3	3,166.1	11.1	12.0	-154.75	-310.3	-467.3	993.5	976.7	16.79	59.186	
3,500.0	3,454.1	3,278.4	3,214.4	11.3	12.3	-154.63	-314.7	-479.9	1,016.4	999.3	17.11	59.407	
3,543.3	3,496.5	3,317.8	3,252.3	11.5	12.5	-154.54	-318.1	-489.9	1,034.4	1,017.1	17.36	59.574	
3,600.0	3,551.9	3,369.3	3,301.9	11.7	12.8	-154.42	-322.6	-502.9	1,058.0	1,040.3	17.70	59.784	
3,641.7	3,592.7	3,407.2	3,338.5	11.9	13.0	-154.34	-325.9	-512.5	1,075.4	1,057.4	17.94	59.932	
3,700.0	3,649.7	3,460.2	3,389.5	12.2	13.3	-154.23	-330.5	-525.8	1,099.6	1,081.3	18.29	60.131	
3,740.1	3,689.0	3,496.7	3,424.7	12.4	13.5	-154.16	-333.7	-535.1	1,116.3	1,097.8	18.52	60.263	
3,800.0	3,747.5	3,551.1	3,477.1	12.6	13.8	-154.06	-338.4	-548.8	1,141.2	1,122.3	18.88	60.451	
3,838.6	3,785.3	3,586.1	3,510.9	12.8	14.0	-153.99	-341.5	-557.7	1,157.3	1,138.2	19.11	60.569	
3,900.0	3,845.4	3,642.0	3,564.7	13.1	14.3	-153.90	-346.3	-571.8	1,182.8	1,163.4	19.47	60.748	
3,937.0	3,881.6	3,675.6	3,597.1	13.2	14.5	-153.84	-349.3	-580.3	1,198.2	1,178.5	19.69	60.853	
4,000.0	3,943.2	3,732.8	3,652.2	13.5	14.8	-153.74	-354.2	-594.7	1,224.4	1,204.4	20.07	61.024	
4,035.4	3,977.8	3,765.0	3,683.3	13.6	15.0	-153.69	-357.0	-602.8	1,239.2	1,218.9	20.28	61.117	
4,100.0	4,041.0	3,823.7	3,739.8	13.9	15.3	-153.60	-362.2	-617.7	1,266.1	1,245.4	20.66	61.280	
4,133.8	4,074.1	3,854.5	3,769.5	14.1	15.5	-153.56	-364.8	-625.4	1,280.2	1,259.3	20.86	61.363	
4,200.0	4,138.8	3,914.6	3,827.4	14.4	15.9	-153.47	-370.1	-640.6	1,307.7	1,286.5	21.26	61.519	
4,232.3	4,170.4	3,943.9	3,855.7	14.5	16.0	-153.43	-372.6	-648.0	1,321.1	1,299.7	21.45	61.592	
4,300.0	4,236.6	4,005.5	3,915.0	14.8	16.4	-153.35	-378.0	-663.6	1,349.3	1,327.5	21.85	61.742	
4,330.7	4,266.7	4,033.4	3,941.9	14.9	16.5	-153.31	-380.4	-670.6	1,362.1	1,340.1	22.04	61.807	
4,400.0	4,334.4	4,096.4	4,002.5	15.2	16.9	-153.23	-385.9	-686.5	1,391.0	1,368.5	22.45	61.951	
4,429.1	4,362.9	4,122.8	4,028.1	15.4	17.0	-153.20	-388.2	-693.2	1,403.1	1,380.5	22.63	62.009	
4,500.0	4,432.3	4,187.2	4,090.1	15.7	17.4	-153.12	-393.8	-709.5	1,432.6	1,409.6	23.05	62.146	
4,527.5	4,459.2	4,212.3	4,114.3	15.8	17.6	-153.09	-396.0	-715.8	1,444.1	1,420.9	23.22	62.198	
4,600.0	4,530.1	4,278.1	4,177.7	16.1	17.9	-153.01	-401.7	-732.5	1,474.3	1,450.6	23.65	62.329	
4,626.0	4,555.5	4,301.7	4,200.4	16.2	18.1	-152.99	-403.8	-738.4	1,485.1	1,461.3	23.81	62.375	
4,700.0	4,627.9	4,369.0	4,265.3	16.6	18.5	-152.92	-409.7	-755.4	1,515.9	1,491.7	24.25	62.502	
4,724.4	4,651.7	4,391.2	4,286.6	16.7	18.6	-152.89	-411.6	-761.0	1,526.1	1,501.7	24.40	62.542	
4,800.0	4,725.7	4,459.9	4,352.9	17.0	19.0	-152.82	-417.6	-778.4	1,557.6	1,532.8	24.86	62.664	
4,822.8	4,748.0	4,480.6	4,372.8	17.1	19.1	-152.80	-419.4	-783.6	1,567.1	1,542.1	24.99	62.700	
4,904.9	4,828.3	4,555.2	4,444.7	17.5	19.5	-152.73	-425.9	-802.4	1,601.3	1,575.8	25.49	62.824	
4,921.2	4,844.3	4,570.1	4,459.1	17.5	19.6	-152.78	-427.2	-806.2	1,608.1	1,582.5	25.61	62.796	
5,000.0	4,921.6	4,642.2	4,528.5	17.8	20.0	-153.01	-433.5	-824.4	1,639.7	1,613.5	26.18	62.635	
5,019.7	4,941.0	4,660.3	4,546.0	17.9	20.1	-153.05	-435.0	-829.0	1,647.3	1,621.0	26.31	62.610	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,734.8	4,617.8	18.1	20.6	-153.21	-441.5	-847.8	1,677.2	1,650.3	26.84	62.482	
5,118.1	5,038.3	4,751.6	4,634.0	18.2	20.7	-153.24	-443.0	-852.1	1,683.7	1,656.7	26.96	62.455	
5,200.0	5,119.6	4,828.4	4,708.0	18.4	21.1	-153.33	-449.7	-871.4	1,711.8	1,684.4	27.47	62.311	
5,216.5	5,136.0	4,844.0	4,723.0	18.4	21.2	-153.34	-451.0	-875.4	1,717.3	1,689.7	27.57	62.284	
5,300.0	5,219.2	4,922.9	4,799.1	18.6	21.6	-153.37	-457.9	-895.3	1,743.6	1,715.5	28.06	62.128	
5,314.9	5,234.1	4,937.1	4,812.7	18.6	21.7	-153.37	-459.1	-898.9	1,748.0	1,719.9	28.15	62.102	
5,400.0	5,319.1	5,018.3	4,890.9	18.8	22.2	-153.33	-466.2	-919.4	1,772.3	1,743.7	28.61	61.938	
5,413.4	5,332.4	5,031.1	4,903.3	18.8	22.3	-153.32	-467.3	-922.6	1,776.0	1,747.3	28.68	61.915	
5,504.9	5,423.9	5,119.0	4,988.0	18.9	22.8	-134.80	-475.0	-944.9	1,799.4	1,759.9	39.43	45.638	
5,511.8	5,430.8	5,125.7	4,994.4	18.9	22.8	-134.78	-475.6	-946.5	1,801.1	1,761.6	39.47	45.628	
5,600.0	5,519.0	7,983.4	6,713.3	19.0	38.2	179.09	-529.3	314.2	1,754.0	1,719.2	34.86	50.323	
5,610.2	5,529.3	7,983.2	6,713.3	19.0	38.2	179.10	-529.3	314.1	1,747.1	1,712.2	34.87	50.102	
5,700.0	5,619.0	7,981.7	6,713.3	19.2	38.2	179.17	-529.3	312.5	1,687.5	1,652.5	35.00	48.211	
5,708.6	5,627.7	7,981.5	6,713.3	19.2	38.1	179.17	-529.3	312.4	1,681.9	1,646.9	35.02	48.033	
5,800.0	5,719.0	7,980.0	6,713.3	19.3	38.1	179.24	-529.3	310.8	1,624.5	1,589.3	35.15	46.212	
5,807.1	5,726.1	7,979.8	6,713.3	19.3	38.1	179.25	-529.3	310.7	1,620.1	1,585.0	35.16	46.075	
5,900.0	5,819.0	7,978.3	6,713.4	19.4	38.1	179.32	-529.3	309.1	1,565.3	1,530.0	35.30	44.337	
5,905.5	5,824.5	7,978.2	6,713.4	19.4	38.1	179.32	-529.3	309.0	1,562.1	1,526.8	35.31	44.237	
6,003.9	5,923.0	7,976.5	6,713.4	19.6	38.0	179.40	-529.3	307.4	1,508.3	1,472.8	35.46	42.532	
6,009.8	5,928.8	7,976.4	6,713.4	19.6	38.0	179.40	-529.3	307.3	1,505.2	1,469.8	35.47	42.435	
6,050.0	5,969.0	7,974.6	6,713.4	19.6	38.0	-92.43	-529.3	305.4	1,484.7	1,431.5	53.16	27.928	
6,100.0	6,018.8	7,969.2	6,713.5	19.7	37.9	-94.41	-529.3	300.0	1,460.4	1,407.1	53.25	27.425	
6,102.3	6,021.1	7,968.8	6,713.5	19.7	37.9	-94.50	-529.3	299.7	1,459.3	1,406.0	53.25	27.404	
6,150.0	6,068.1	7,960.3	6,713.7	19.7	37.7	-96.06	-529.3	291.2	1,437.6	1,384.4	53.19	27.026	
6,200.0	6,116.8	7,948.1	6,713.9	19.7	37.4	-97.39	-529.3	278.9	1,416.5	1,363.5	53.01	26.724	
6,200.8	6,117.5	7,947.9	6,713.9	19.7	37.4	-97.41	-529.3	278.7	1,416.2	1,363.2	53.00	26.720	
6,250.0	6,164.5	7,932.5	6,714.1	19.7	37.1	-98.40	-529.3	263.3	1,397.2	1,344.5	52.70	26.511	
6,299.2	6,210.4	7,913.9	6,714.4	19.7	36.7	-99.12	-529.3	244.8	1,379.9	1,327.6	52.30	26.385	
6,300.0	6,211.1	7,913.6	6,714.5	19.7	36.7	-99.13	-529.3	244.4	1,379.6	1,327.3	52.29	26.384	
6,350.0	6,256.4	7,891.5	6,714.8	19.7	36.2	-99.57	-529.3	222.4	1,363.9	1,312.1	51.80	26.329	
6,397.6	6,298.0	7,867.6	6,715.2	19.7	35.8	-99.77	-529.3	198.5	1,350.6	1,299.3	51.28	26.336	
6,400.0	6,300.0	7,866.4	6,715.3	19.7	35.7	-99.78	-529.3	197.2	1,350.0	1,298.7	51.26	26.338	
6,450.0	6,341.8	7,838.3	6,715.7	19.7	35.2	-99.76	-529.3	169.1	1,337.9	1,287.2	50.66	26.408	
6,496.0	6,378.6	7,809.9	6,716.2	19.7	34.6	-99.57	-529.3	140.8	1,328.2	1,278.1	50.09	26.518	
6,500.0	6,381.6	7,807.4	6,716.3	19.7	34.6	-99.55	-529.3	138.2	1,327.4	1,277.4	50.03	26.530	
6,550.0	6,419.2	7,773.8	6,716.8	19.6	33.9	-99.18	-529.3	104.7	1,318.6	1,269.1	49.42	26.679	
6,594.5	6,450.7	7,741.8	6,717.4	19.6	33.3	-98.74	-529.3	72.7	1,311.9	1,263.0	48.89	26.833	
6,600.0	6,454.4	7,737.7	6,717.5	19.6	33.2	-98.68	-529.3	68.6	1,311.2	1,262.4	48.83	26.854	
6,650.0	6,487.1	7,699.3	6,718.1	19.6	32.5	-98.09	-529.3	30.2	1,305.1	1,256.9	48.25	27.047	
6,692.9	6,513.0	7,664.6	6,718.7	19.6	31.9	-97.53	-529.3	-4.5	1,300.9	1,253.1	47.84	27.190	
6,700.0	6,517.0	7,658.7	6,718.8	19.6	31.8	-97.44	-529.3	-10.3	1,300.3	1,252.5	47.78	27.216	
6,750.0	6,544.1	7,616.3	6,719.5	19.6	31.1	-96.76	-529.3	-52.8	1,296.5	1,249.1	47.35	27.380	
6,791.3	6,564.2	7,579.8	6,720.1	19.7	30.5	-96.20	-529.3	-89.2	1,294.0	1,246.9	47.09	27.480	
6,800.0	6,568.2	7,572.0	6,720.3	19.7	30.4	-96.09	-529.3	-97.0	1,293.5	1,246.5	47.03	27.503	
6,850.0	6,589.1	7,526.3	6,721.1	19.8	29.6	-95.45	-529.3	-142.8	1,291.3	1,244.5	46.81	27.588	
6,889.7	6,603.5	7,489.0	6,721.7	19.9	29.1	-94.98	-529.3	-180.1	1,290.0	1,243.3	46.70	27.620	
6,900.0	6,606.9	7,479.3	6,721.9	19.9	29.0	-94.87	-529.3	-189.8	1,289.7	1,243.0	46.69	27.623	
6,950.0	6,621.3	7,431.2	6,722.7	20.2	28.3	-94.38	-529.3	-237.9	1,288.5	1,241.8	46.69	27.598	
6,988.2	6,630.0	7,393.9	6,723.3	20.6	27.8	-94.08	-529.3	-275.2	1,287.9	1,241.2	46.75	27.546	
7,000.0	6,632.4	7,382.2	6,723.5	20.7	27.7	-94.00	-529.3	-286.8	1,287.8	1,241.0	46.79	27.519	
7,050.0	6,640.0	7,332.7	6,724.4	21.4	27.2	-93.74	-529.3	-336.3	1,287.3	1,240.3	47.03	27.372	
7,086.6	6,643.4	7,296.2	6,725.0	21.9	26.8	-93.63	-529.3	-372.8	1,287.1	1,239.9	47.24	27.245	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	7,281.3	6,725.1	22.1	26.6	-93.60	-529.3	-387.8	1,287.1	1,239.8	47.33	27.196	
7,135.7	6,645.0	7,241.2	6,723.9	22.7	26.3	-93.51	-529.3	-427.8	1,287.0	1,239.4	47.58	27.046	
7,185.0	6,644.9	7,186.1	6,718.6	23.6	25.9	-93.28	-529.3	-482.6	1,286.7	1,238.6	48.05	26.776	
7,200.0	6,644.9	7,169.6	6,716.2	23.9	25.8	-93.18	-529.3	-498.9	1,286.6	1,238.3	48.21	26.685	
7,283.4	6,644.8	7,080.3	6,696.6	25.6	25.3	-92.31	-529.3	-586.1	1,285.7	1,236.3	49.34	26.059	
7,300.0	6,644.8	7,063.2	6,691.7	25.9	25.2	-92.09	-529.3	-602.4	1,285.5	1,235.9	49.59	25.924	
7,381.9	6,644.7	6,982.7	6,663.1	27.7	25.0	-90.82	-529.3	-677.7	1,284.7	1,233.6	51.05	25.165	
7,400.0	6,644.7	6,965.8	6,656.1	28.1	25.0	-90.51	-529.3	-693.0	1,284.6	1,233.2	51.40	24.994	
7,428.4	6,644.6	6,940.1	6,644.7	28.7	24.9	-90.00	-529.3	-716.0	1,284.5	1,232.6	51.98	24.711	
7,480.3	6,644.6	6,895.6	6,622.9	29.9	24.9	-89.03	-529.3	-754.9	1,284.8	1,231.7	53.08	24.203	
7,500.0	6,644.6	6,879.5	6,614.5	30.3	24.9	-88.66	-529.3	-768.6	1,285.0	1,231.5	53.52	24.012	
7,578.7	6,644.5	6,819.5	6,580.4	32.2	24.9	-87.14	-529.3	-817.9	1,287.0	1,231.7	55.31	23.268	
7,600.0	6,644.4	6,804.5	6,571.2	32.7	25.0	-86.73	-529.3	-829.8	1,287.9	1,232.1	55.80	23.080	
7,677.1	6,644.3	6,750.0	6,535.9	34.6	25.1	-85.17	-529.3	-871.2	1,292.5	1,234.9	57.62	22.430	
7,700.0	6,644.3	6,740.0	6,529.1	35.1	25.1	-84.87	-529.3	-878.5	1,294.3	1,236.1	58.17	22.250	
7,775.6	6,644.2	6,700.0	6,500.8	37.0	25.2	-83.62	-529.3	-906.8	1,301.9	1,242.0	59.99	21.703	
7,800.0	6,644.2	6,684.9	6,489.7	37.6	25.2	-83.13	-529.3	-917.0	1,305.0	1,244.4	60.57	21.545	
7,874.0	6,644.1	6,650.0	6,463.2	39.5	25.3	-81.97	-529.3	-939.8	1,316.0	1,253.7	62.35	21.107	
7,900.0	6,644.1	6,637.8	6,453.8	40.1	25.3	-81.56	-529.3	-947.5	1,320.6	1,257.6	62.97	20.971	
7,972.4	6,644.0	6,600.0	6,423.5	42.0	25.4	-80.25	-529.3	-970.2	1,335.1	1,270.5	64.68	20.643	
8,000.0	6,643.9	6,600.0	6,423.5	42.7	25.4	-80.25	-529.3	-970.2	1,341.4	1,276.0	65.38	20.517	
8,070.8	6,643.9	6,572.2	6,400.5	44.5	25.5	-79.25	-529.3	-985.9	1,359.4	1,292.4	67.07	20.269	
8,100.0	6,643.8	6,562.5	6,392.4	45.2	25.6	-78.91	-529.3	-991.1	1,367.6	1,299.9	67.76	20.182	
8,169.3	6,643.7	6,550.0	6,381.8	47.0	25.6	-78.45	-529.3	-997.7	1,389.1	1,319.6	69.48	19.992	
8,200.0	6,643.7	6,532.3	6,366.5	47.9	25.6	-77.80	-529.3	-1,006.7	1,399.3	1,329.2	70.16	19.945	
8,267.7	6,643.6	6,514.1	6,350.6	49.6	25.7	-77.12	-529.3	-1,015.6	1,423.8	1,352.0	71.78	19.835	
8,300.0	6,643.6	6,500.0	6,338.2	50.5	25.7	-76.60	-529.3	-1,022.2	1,436.3	1,363.8	72.50	19.811	
8,366.1	6,643.5	6,500.0	6,338.2	52.2	25.7	-76.60	-529.3	-1,022.2	1,463.6	1,389.3	74.22	19.719	
8,400.0	6,643.4	6,482.7	6,322.8	53.1	25.8	-75.95	-529.3	-1,030.0	1,478.3	1,403.3	74.94	19.725	
8,464.5	6,643.4	6,469.3	6,310.6	54.8	25.8	-75.44	-529.3	-1,035.8	1,508.0	1,431.5	76.49	19.714 SF	
8,500.0	6,643.3	6,450.0	6,293.0	55.8	25.9	-74.71	-529.3	-1,043.6	1,525.2	1,448.0	77.21	19.754	
8,563.0	6,643.2	6,450.0	6,293.0	57.5	25.9	-74.71	-529.3	-1,043.6	1,556.8	1,478.0	78.85	19.744	
8,600.0	6,643.2	6,450.0	6,293.0	58.5	25.9	-74.71	-529.3	-1,043.6	1,576.3	1,496.5	79.82	19.750	
8,661.4	6,643.1	6,433.9	6,278.2	60.1	25.9	-74.10	-529.3	-1,049.8	1,609.8	1,528.6	81.22	19.820	
8,700.0	6,643.1	6,427.9	6,272.6	61.2	25.9	-73.86	-529.3	-1,052.1	1,631.7	1,549.5	82.15	19.862	
8,759.8	6,643.0	6,419.0	6,264.3	62.8	25.9	-73.52	-529.3	-1,055.3	1,666.6	1,583.0	83.60	19.936	
8,800.0	6,643.0	6,400.0	6,246.5	63.9	26.0	-72.80	-529.3	-1,061.9	1,690.9	1,606.6	84.38	20.041	
8,858.2	6,642.9	6,400.0	6,246.5	65.4	26.0	-72.80	-529.3	-1,061.9	1,726.9	1,641.0	85.90	20.104	
8,900.0	6,642.8	6,400.0	6,246.5	66.6	26.0	-72.80	-529.3	-1,061.9	1,753.4	1,666.4	86.99	20.157	
8,956.7	6,642.8	6,400.0	6,246.5	68.1	26.0	-72.80	-529.3	-1,061.9	1,790.3	1,701.8	88.47	20.236	
9,000.0	6,642.7	6,400.0	6,246.5	69.3	26.0	-72.80	-529.3	-1,061.9	1,819.2	1,729.6	89.60	20.302	
9,055.1	6,642.6	6,382.2	6,229.6	70.8	26.0	-72.11	-529.3	-1,067.6	1,856.5	1,765.7	90.75	20.457	
9,100.0	6,642.6	6,377.4	6,225.1	72.0	26.0	-71.93	-529.3	-1,069.0	1,887.6	1,795.7	91.84	20.552	
9,153.5	6,642.5	6,372.0	6,219.9	73.5	26.0	-71.72	-529.3	-1,070.6	1,925.3	1,832.2	93.15	20.669	
9,200.0	6,642.5	6,367.5	6,215.6	74.7	26.0	-71.55	-529.3	-1,071.9	1,958.6	1,864.4	94.28	20.774	
9,251.9	6,642.4	6,350.0	6,198.8	76.2	26.1	-70.88	-529.3	-1,076.8	1,996.6	1,901.3	95.31	20.949	
9,300.0	6,642.3	6,350.0	6,198.8	77.5	26.1	-70.88	-529.3	-1,076.8	2,032.1	1,935.5	96.56	21.045	
9,350.4	6,642.3	6,350.0	6,198.8	78.9	26.1	-70.88	-529.3	-1,076.8	2,069.8	1,971.9	97.87	21.147	
9,400.0	6,642.2	6,350.0	6,198.8	80.2	26.1	-70.88	-529.3	-1,076.8	2,107.4	2,008.3	99.17	21.251	
9,448.8	6,642.1	6,350.0	6,198.8	81.6	26.1	-70.88	-529.3	-1,076.8	2,145.0	2,044.5	100.45	21.354	
9,500.0	6,642.1	6,350.0	6,198.8	83.0	26.1	-70.88	-529.3	-1,076.8	2,184.8	2,083.0	101.78	21.465	
9,547.2	6,642.0	6,350.0	6,198.8	84.3	26.1	-70.88	-529.3	-1,076.8	2,222.0	2,118.9	103.02	21.568	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,600.0	6,642.0	6,350.0	6,198.8	85.7	26.1	-70.88	-529.3	-1,076.8	2,263.9	2,159.5	104.40	21.685	
9,645.6	6,641.9	6,350.0	6,198.8	87.0	26.1	-70.88	-529.3	-1,076.8	2,300.6	2,195.0	105.60	21.786	
9,700.0	6,641.8	6,328.8	6,178.2	88.5	26.1	-70.06	-529.3	-1,082.1	2,344.3	2,237.8	106.54	22.004	
9,744.1	6,641.8	6,326.0	6,175.5	89.7	26.1	-69.96	-529.3	-1,082.8	2,380.2	2,272.6	107.63	22.116	
9,800.0	6,641.7	6,322.6	6,172.3	91.2	26.1	-69.83	-529.3	-1,083.5	2,426.2	2,317.2	109.00	22.258	
9,842.5	6,641.7	6,320.1	6,169.8	92.4	26.1	-69.73	-529.3	-1,084.1	2,461.4	2,351.4	110.05	22.366	
9,900.0	6,641.6	6,300.0	6,150.2	94.0	26.1	-68.96	-529.3	-1,088.3	2,509.6	2,398.6	111.05	22.600	
9,940.9	6,641.5	6,300.0	6,150.2	95.1	26.1	-68.96	-529.3	-1,088.3	2,544.0	2,431.8	112.11	22.692	
10,000.0	6,641.5	6,300.0	6,150.2	96.7	26.1	-68.96	-529.3	-1,088.3	2,593.8	2,480.2	113.64	22.824	
10,039.3	6,641.4	6,300.0	6,150.2	97.8	26.1	-68.96	-529.3	-1,088.3	2,627.3	2,512.6	114.67	22.912	
10,100.0	6,641.3	6,300.0	6,150.2	99.5	26.1	-68.96	-529.3	-1,088.3	2,679.1	2,562.9	116.25	23.047	
10,137.8	6,641.3	6,300.0	6,150.2	100.6	26.1	-68.96	-529.3	-1,088.3	2,711.6	2,594.4	117.23	23.131	
10,200.0	6,641.2	6,300.0	6,150.2	102.3	26.1	-68.96	-529.3	-1,088.3	2,765.4	2,646.5	118.85	23.268	
10,236.2	6,641.2	6,300.0	6,150.2	103.3	26.1	-68.96	-529.3	-1,088.3	2,796.9	2,677.1	119.79	23.348	
10,300.0	6,641.1	6,300.0	6,150.2	105.0	26.1	-68.96	-529.3	-1,088.3	2,852.6	2,731.1	121.45	23.487	
10,334.6	6,641.0	6,300.0	6,150.2	106.0	26.1	-68.96	-529.3	-1,088.3	2,882.9	2,760.6	122.35	23.562	
10,400.0	6,641.0	6,300.0	6,150.2	107.8	26.1	-68.96	-529.3	-1,088.3	2,940.6	2,816.5	124.06	23.703	
10,433.0	6,640.9	6,300.0	6,150.2	108.7	26.1	-68.96	-529.3	-1,088.3	2,969.8	2,844.9	124.92	23.774	
10,500.0	6,640.8	6,300.0	6,150.2	110.6	26.1	-68.96	-529.3	-1,088.3	3,029.3	2,902.6	126.67	23.916	
10,531.5	6,640.8	6,300.0	6,150.2	111.5	26.1	-68.96	-529.3	-1,088.3	3,057.4	2,929.9	127.49	23.982	
10,600.0	6,640.7	6,300.0	6,150.2	113.4	26.1	-68.96	-529.3	-1,088.3	3,118.7	2,989.4	129.27	24.125	
10,629.9	6,640.7	6,300.0	6,150.2	114.2	26.1	-68.96	-529.3	-1,088.3	3,145.6	3,015.5	130.05	24.186	
10,700.0	6,640.6	6,300.0	6,150.2	116.1	26.1	-68.96	-529.3	-1,088.3	3,208.7	3,076.9	131.88	24.330	
10,728.3	6,640.5	6,300.0	6,150.2	116.9	26.1	-68.96	-529.3	-1,088.3	3,234.3	3,101.7	132.62	24.387	
10,800.0	6,640.5	6,278.9	6,129.4	118.9	26.2	-68.16	-529.3	-1,092.2	3,299.0	3,165.2	133.82	24.653	
10,826.7	6,640.4	6,278.0	6,128.5	119.7	26.2	-68.13	-529.3	-1,092.4	3,323.3	3,188.8	134.48	24.712	
10,900.0	6,640.3	6,275.7	6,126.3	121.7	26.2	-68.04	-529.3	-1,092.7	3,390.0	3,253.7	136.31	24.870	
10,925.2	6,640.3	6,274.9	6,125.5	122.4	26.2	-68.01	-529.3	-1,092.9	3,413.0	3,276.1	136.94	24.924	
11,000.0	6,640.2	6,272.7	6,123.3	124.5	26.2	-67.93	-529.3	-1,093.2	3,481.5	3,342.7	138.81	25.082	
11,023.6	6,640.2	6,272.0	6,122.6	125.1	26.2	-67.90	-529.3	-1,093.3	3,503.2	3,363.8	139.39	25.131	
11,100.0	6,640.1	6,250.0	6,100.8	127.3	26.2	-67.07	-529.3	-1,096.5	3,573.8	3,433.2	140.60	25.418	
11,122.0	6,640.0	6,250.0	6,100.8	127.9	26.2	-67.07	-529.3	-1,096.5	3,594.1	3,452.9	141.17	25.459	
11,200.0	6,639.9	6,250.0	6,100.8	130.1	26.2	-67.07	-529.3	-1,096.5	3,666.1	3,522.9	143.18	25.604	
11,220.4	6,639.9	6,250.0	6,100.8	130.6	26.2	-67.07	-529.3	-1,096.5	3,685.0	3,541.3	143.71	25.641	
11,300.0	6,639.8	6,250.0	6,100.8	132.8	26.2	-67.07	-529.3	-1,096.5	3,758.7	3,613.0	145.77	25.786	
11,318.9	6,639.8	6,250.0	6,100.8	133.4	26.2	-67.07	-529.3	-1,096.5	3,776.3	3,630.0	146.26	25.820	
11,400.0	6,639.7	6,250.0	6,100.8	135.6	26.2	-67.07	-529.3	-1,096.5	3,851.8	3,703.4	148.35	25.964	
11,417.3	6,639.7	6,250.0	6,100.8	136.1	26.2	-67.07	-529.3	-1,096.5	3,867.9	3,719.1	148.80	25.994	
11,500.0	6,639.6	6,250.0	6,100.8	138.4	26.2	-67.07	-529.3	-1,096.5	3,945.2	3,794.2	150.94	26.138	
11,515.7	6,639.5	6,250.0	6,100.8	138.9	26.2	-67.07	-529.3	-1,096.5	3,959.9	3,808.5	151.34	26.165	
11,600.0	6,639.4	6,250.0	6,100.8	141.2	26.2	-67.07	-529.3	-1,096.5	4,038.8	3,885.3	153.52	26.308	
11,614.1	6,639.4	6,250.0	6,100.8	141.6	26.2	-67.07	-529.3	-1,096.5	4,052.1	3,898.2	153.89	26.332	
11,700.0	6,639.3	6,250.0	6,100.8	144.0	26.2	-67.07	-529.3	-1,096.5	4,132.8	3,976.7	156.11	26.474	
11,712.6	6,639.3	6,250.0	6,100.8	144.3	26.2	-67.07	-529.3	-1,096.5	4,144.7	3,988.2	156.44	26.495	
11,800.0	6,639.2	6,250.0	6,100.8	146.8	26.2	-67.07	-529.3	-1,096.5	4,227.1	4,068.4	158.70	26.636	
11,811.0	6,639.2	6,250.0	6,100.8	147.1	26.2	-67.07	-529.3	-1,096.5	4,237.5	4,078.5	158.98	26.654	
11,900.0	6,639.1	6,250.0	6,100.8	149.6	26.2	-67.07	-529.3	-1,096.5	4,321.6	4,160.3	161.28	26.795	
11,909.4	6,639.0	6,250.0	6,100.8	149.8	26.2	-67.07	-529.3	-1,096.5	4,330.6	4,169.0	161.53	26.810	
12,000.0	6,638.9	6,250.0	6,100.8	152.4	26.2	-67.07	-529.3	-1,096.5	4,416.4	4,252.5	163.87	26.950	
12,007.8	6,638.9	6,250.0	6,100.8	152.6	26.2	-67.07	-529.3	-1,096.5	4,423.8	4,259.8	164.08	26.962	
12,100.0	6,638.8	6,250.0	6,100.8	155.2	26.2	-67.07	-529.3	-1,096.5	4,511.4	4,344.9	166.46	27.102	
12,106.3	6,638.8	6,250.0	6,100.8	155.3	26.2	-67.07	-529.3	-1,096.5	4,517.4	4,350.7	166.62	27.111	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,200.0	6,638.7	6,250.0	6,100.8	157.9	26.2	-67.07	-529.3	-1,096.5	4,606.6	4,437.5	169.05	27.250	
12,204.7	6,638.7	6,250.0	6,100.8	158.1	26.2	-67.07	-529.3	-1,096.5	4,611.1	4,441.9	169.17	27.257	
12,300.0	6,638.5	6,250.0	6,100.8	160.7	26.2	-67.07	-529.3	-1,096.5	4,702.0	4,530.4	171.64	27.394	
12,303.1	6,638.5	6,250.0	6,100.8	160.8	26.2	-67.07	-529.3	-1,096.5	4,705.0	4,533.3	171.72	27.399	
12,400.0	6,638.4	6,250.0	6,100.8	163.5	26.2	-67.07	-529.3	-1,096.5	4,797.6	4,623.4	174.23	27.536	
12,401.5	6,638.4	6,250.0	6,100.8	163.6	26.2	-67.07	-529.3	-1,096.5	4,799.1	4,624.8	174.27	27.538	
12,500.0	6,638.3	6,250.0	6,100.8	166.3	26.2	-67.07	-529.3	-1,096.5	4,893.4	4,716.5	176.82	27.674	
12,598.4	6,638.2	6,250.0	6,100.8	169.1	26.2	-67.07	-529.3	-1,096.5	4,987.8	4,808.4	179.37	27.807	
12,600.0	6,638.2	6,250.0	6,100.8	169.1	26.2	-67.07	-529.3	-1,096.5	4,989.3	4,809.9	179.41	27.809	
12,696.8	6,638.0	6,250.0	6,100.8	171.8	26.2	-67.07	-529.3	-1,096.5	5,082.3	4,900.4	181.92	27.937	
12,700.0	6,638.0	6,250.0	6,100.8	171.9	26.2	-67.07	-529.3	-1,096.5	5,085.4	4,903.4	182.00	27.941	
12,795.2	6,637.9	6,250.0	6,100.8	174.6	26.2	-67.07	-529.3	-1,096.5	5,177.0	4,992.6	184.47	28.064	
12,800.0	6,637.9	6,250.0	6,100.8	174.7	26.2	-67.07	-529.3	-1,096.5	5,181.6	4,997.0	184.60	28.070	
12,893.7	6,637.8	6,250.0	6,100.8	177.3	26.2	-67.07	-529.3	-1,096.5	5,271.9	5,084.9	187.02	28.188	
12,900.0	6,637.8	6,250.0	6,100.8	177.5	26.2	-67.07	-529.3	-1,096.5	5,278.0	5,090.8	187.19	28.196	
12,992.1	6,637.7	6,250.0	6,100.8	180.1	26.2	-67.07	-529.3	-1,096.5	5,366.9	5,177.3	189.57	28.310	
13,000.0	6,637.6	6,250.0	6,100.8	180.3	26.2	-67.07	-529.3	-1,096.5	5,374.5	5,184.7	189.78	28.320	
13,090.5	6,637.5	6,250.0	6,100.8	182.8	26.2	-67.07	-529.3	-1,096.5	5,462.0	5,269.8	192.13	28.429	
13,100.0	6,637.5	6,250.0	6,100.8	183.1	26.2	-67.07	-529.3	-1,096.5	5,471.1	5,278.8	192.37	28.440	
13,188.9	6,637.4	6,250.0	6,100.8	185.6	26.2	-67.07	-529.3	-1,096.5	5,557.2	5,362.5	194.68	28.545	
13,200.0	6,637.4	6,250.0	6,100.8	185.9	26.2	-67.07	-529.3	-1,096.5	5,567.9	5,372.9	194.96	28.558	
13,287.4	6,637.3	6,250.0	6,100.8	188.4	26.2	-67.07	-529.3	-1,096.5	5,652.5	5,455.3	197.23	28.659	
13,300.0	6,637.3	6,250.0	6,100.8	188.7	26.2	-67.07	-529.3	-1,096.5	5,664.8	5,467.2	197.56	28.674	
13,385.8	6,637.1	6,250.0	6,100.8	191.1	26.2	-67.07	-529.3	-1,096.5	5,748.0	5,548.2	199.78	28.771	
13,400.0	6,637.1	6,250.0	6,100.8	191.5	26.2	-67.07	-529.3	-1,096.5	5,761.7	5,561.6	200.15	28.787	
13,484.2	6,637.0	6,250.0	6,100.8	193.9	26.2	-67.07	-529.3	-1,096.5	5,843.5	5,641.1	202.34	28.880	
13,500.0	6,637.0	6,250.0	6,100.8	194.3	26.2	-67.07	-529.3	-1,096.5	5,858.8	5,656.1	202.74	28.897	
13,582.6	6,636.9	6,227.0	6,077.9	196.6	26.2	-66.21	-529.3	-1,099.1	5,938.7	5,735.1	203.66	29.161	
13,600.0	6,636.9	6,226.8	6,077.8	197.1	26.2	-66.20	-529.3	-1,099.1	5,955.6	5,751.5	204.09	29.181	
13,681.1	6,636.8	6,225.9	6,076.9	199.4	26.2	-66.17	-529.3	-1,099.2	6,034.4	5,828.2	206.14	29.274	
13,700.0	6,636.7	6,225.7	6,076.7	199.9	26.2	-66.16	-529.3	-1,099.2	6,052.8	5,846.2	206.61	29.295	
13,779.5	6,636.6	6,224.9	6,075.9	202.1	26.2	-66.13	-529.3	-1,099.3	6,130.1	5,921.5	208.62	29.385	
13,800.0	6,636.6	6,224.7	6,075.7	202.7	26.2	-66.12	-529.3	-1,099.3	6,150.1	5,941.0	209.13	29.408	
13,877.9	6,636.5	6,223.9	6,074.9	204.9	26.2	-66.09	-529.3	-1,099.4	6,226.0	6,014.9	211.10	29.493	
13,900.0	6,636.5	6,223.7	6,074.7	205.5	26.2	-66.09	-529.3	-1,099.4	6,247.5	6,035.8	211.66	29.517	
13,976.3	6,636.4	6,223.0	6,074.0	207.6	26.2	-66.06	-529.3	-1,099.5	6,321.9	6,108.3	213.58	29.600	
14,000.0	6,636.3	6,222.8	6,073.7	208.3	26.2	-66.05	-529.3	-1,099.5	6,345.0	6,130.8	214.18	29.625	
14,074.8	6,636.3	6,200.0	6,051.1	210.4	26.2	-65.21	-529.3	-1,101.2	6,418.3	6,203.5	214.77	29.884	
14,100.0	6,636.2	6,200.0	6,051.1	211.1	26.2	-65.21	-529.3	-1,101.2	6,442.9	6,227.5	215.42	29.908	
14,173.2	6,636.1	6,200.0	6,051.1	213.2	26.2	-65.21	-529.3	-1,101.2	6,514.3	6,297.0	217.30	29.979	
14,200.0	6,636.1	6,200.0	6,051.1	213.9	26.2	-65.21	-529.3	-1,101.2	6,540.5	6,322.5	217.98	30.005	
14,271.6	6,636.0	6,200.0	6,051.1	215.9	26.2	-65.21	-529.3	-1,101.2	6,610.4	6,390.6	219.82	30.073	
14,300.0	6,636.0	6,200.0	6,051.1	216.7	26.2	-65.21	-529.3	-1,101.2	6,638.2	6,417.6	220.54	30.099	
14,370.0	6,635.9	6,200.0	6,051.1	218.7	26.2	-65.21	-529.3	-1,101.2	6,706.6	6,484.3	222.34	30.164	
14,400.0	6,635.8	6,200.0	6,051.1	219.5	26.2	-65.21	-529.3	-1,101.2	6,735.9	6,512.8	223.10	30.192	
14,468.5	6,635.7	6,200.0	6,051.1	221.4	26.2	-65.21	-529.3	-1,101.2	6,802.9	6,578.0	224.86	30.254	
14,500.0	6,635.7	6,200.0	6,051.1	222.3	26.2	-65.21	-529.3	-1,101.2	6,833.7	6,608.0	225.67	30.282	
14,566.9	6,635.6	6,200.0	6,051.1	224.2	26.2	-65.21	-529.3	-1,101.2	6,899.2	6,671.8	227.38	30.342	
14,600.0	6,635.6	6,200.0	6,051.1	225.1	26.2	-65.21	-529.3	-1,101.2	6,931.6	6,703.3	228.23	30.371	
14,665.3	6,635.5	6,200.0	6,051.1	226.9	26.2	-65.21	-529.3	-1,101.2	6,995.5	6,765.6	229.90	30.428	
14,700.0	6,635.4	6,200.0	6,051.1	227.9	26.2	-65.21	-529.3	-1,101.2	7,029.5	6,798.7	230.79	30.459	
14,763.7	6,635.4	6,200.0	6,051.1	229.7	26.2	-65.21	-529.3	-1,101.2	7,091.9	6,859.5	232.42	30.513	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10G-302 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,800.0	6,635.3	6,200.0	6,051.1	230.7	26.2	-65.21	-529.3	-1,101.2	7,127.5	6,894.1	233.35	30.544	
14,862.2	6,635.2	6,200.0	6,051.1	232.5	26.2	-65.21	-529.3	-1,101.2	7,188.4	6,953.5	234.94	30.596	
14,900.0	6,635.2	6,200.0	6,051.1	233.5	26.2	-65.21	-529.3	-1,101.2	7,225.5	6,989.6	235.91	30.628	
14,960.6	6,635.1	6,200.0	6,051.1	235.2	26.2	-65.21	-529.3	-1,101.2	7,284.9	7,047.5	237.46	30.678	
15,000.0	6,635.0	6,200.0	6,051.1	236.3	26.2	-65.21	-529.3	-1,101.2	7,323.6	7,085.1	238.47	30.710	
15,033.1	6,635.0	6,200.0	6,051.1	237.3	26.2	-65.21	-529.3	-1,101.2	7,356.0	7,116.7	239.32	30.737	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-179.41	-134.8	-1.4	134.8				
98.4	98.4	98.4	98.4	0.1	0.1	-179.41	-134.8	-1.4	134.8	134.6	0.19	701.212	
100.0	100.0	100.0	100.0	0.1	0.1	-179.41	-134.8	-1.4	134.8	134.6	0.20	689.343	
196.8	196.8	196.8	196.8	0.3	0.3	-179.41	-134.8	-1.4	134.8	134.2	0.63	213.655	
200.0	200.0	200.0	200.0	0.3	0.3	-179.41	-134.8	-1.4	134.8	134.2	0.65	208.965	
295.3	295.3	295.3	295.3	0.5	0.5	-179.41	-134.8	-1.4	134.8	133.7	1.07	125.584	
300.0	300.0	300.0	300.0	0.5	0.5	-179.41	-134.8	-1.4	134.8	133.7	1.09	123.148	
393.7	393.7	393.7	393.7	0.8	0.8	-179.41	-134.8	-1.4	134.8	133.3	1.52	88.928	
400.0	400.0	400.0	400.0	0.8	0.8	-179.41	-134.8	-1.4	134.8	133.3	1.54	87.297	
492.1	492.1	492.1	492.1	1.0	1.0	-179.41	-134.8	-1.4	134.8	132.8	1.96	68.835	
500.0	500.0	500.0	500.0	1.0	1.0	-179.41	-134.8	-1.4	134.8	132.8	1.99	67.613	
590.5	590.5	590.5	590.5	1.2	1.2	-179.41	-134.8	-1.4	134.8	132.4	2.40	56.149	
600.0	600.0	600.0	600.0	1.2	1.2	-179.41	-134.8	-1.4	134.8	132.4	2.44	55.173	
689.0	689.0	689.0	689.0	1.4	1.4	-179.41	-134.8	-1.4	134.8	132.0	2.84	47.411	
700.0	700.0	700.0	700.0	1.4	1.4	-179.41	-134.8	-1.4	134.8	131.9	2.89	46.599	
787.4	787.4	787.4	787.4	1.6	1.6	-179.41	-134.8	-1.4	134.8	131.5	3.29	41.027	
800.0	800.0	800.0	800.0	1.7	1.7	-179.41	-134.8	-1.4	134.8	131.5	3.34	40.331	
885.8	885.8	885.8	885.8	1.9	1.9	-179.41	-134.8	-1.4	134.8	131.1	3.73	36.158	
900.0	900.0	900.0	900.0	1.9	1.9	-179.41	-134.8	-1.4	134.8	131.0	3.79	35.550	
984.2	984.2	984.2	984.2	2.1	2.1	-179.41	-134.8	-1.4	134.8	130.6	4.17	32.322	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.41	-134.8	-1.4	134.8	130.6	4.24	31.782 CC, ES	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	153.81	-134.8	-1.4	135.9	131.3	4.61	29.461	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	153.90	-134.8	-1.4	136.4	131.7	4.69	29.082	
1,181.1	1,181.0	1,178.2	1,178.1	2.5	2.5	154.26	-135.6	-0.7	140.8	135.7	5.03	28.007	
1,200.0	1,199.8	1,196.3	1,196.3	2.6	2.5	154.31	-136.0	-0.3	142.3	137.2	5.10	27.883	
1,279.5	1,279.1	1,272.5	1,272.4	2.8	2.7	154.37	-137.7	2.0	151.1	145.6	5.42	27.851	
1,300.0	1,299.5	1,292.0	1,291.9	2.8	2.7	154.35	-139.6	2.8	153.9	148.4	5.51	27.950	
1,377.9	1,376.9	1,365.8	1,365.5	3.0	2.9	154.17	-144.1	6.7	166.7	160.9	5.83	28.618	
1,400.0	1,398.7	1,386.6	1,386.1	3.0	2.9	154.09	-145.6	8.0	171.0	165.1	5.92	28.899	
1,476.4	1,474.2	1,457.8	1,456.9	3.2	3.1	153.73	-151.6	13.2	187.7	181.5	6.24	30.081	
1,500.0	1,497.5	1,479.6	1,478.5	3.3	3.1	153.61	-153.7	15.1	193.5	187.2	6.34	30.525	
1,574.8	1,571.0	1,548.0	1,546.2	3.5	3.3	153.16	-161.2	21.5	213.9	207.2	6.67	32.074	
1,600.0	1,595.6	1,570.7	1,568.6	3.6	3.3	153.00	-163.9	23.9	221.4	214.6	6.78	32.661	
1,673.2	1,667.2	1,636.3	1,633.1	3.9	3.5	152.63	-172.6	31.4	244.3	237.2	7.13	34.281	
1,700.0	1,693.4	1,660.0	1,656.5	4.0	3.6	152.46	-176.0	34.4	253.0	245.8	7.26	34.868	
1,771.6	1,763.5	1,724.8	1,719.9	4.2	3.8	151.91	-185.9	43.1	277.0	269.4	7.62	36.372	
1,800.0	1,791.3	1,751.4	1,745.9	4.3	3.9	151.69	-190.1	46.7	286.5	278.8	7.76	36.923	
1,870.1	1,859.8	1,817.3	1,810.4	4.6	4.1	151.21	-200.5	55.7	310.2	302.1	8.13	38.174	
1,900.0	1,889.1	1,845.5	1,837.9	4.7	4.2	151.02	-204.9	59.5	320.3	312.1	8.29	38.660	
1,968.5	1,956.1	1,909.9	1,901.0	4.9	4.4	150.64	-215.0	68.3	343.5	334.9	8.65	39.701	
2,000.0	1,986.9	1,939.6	1,929.9	5.1	4.5	150.49	-219.6	72.4	354.2	345.4	8.82	40.138	
2,066.9	2,052.3	2,002.5	1,991.5	5.3	4.8	150.18	-229.5	80.9	376.8	367.6	9.19	40.996	
2,100.0	2,084.7	2,033.6	2,021.9	5.5	4.9	150.04	-234.4	85.2	388.0	378.7	9.38	41.378	
2,165.3	2,148.6	2,095.1	2,082.1	5.7	5.2	149.79	-244.0	93.6	410.2	400.4	9.74	42.099	
2,200.0	2,182.5	2,127.7	2,113.9	5.9	5.3	149.67	-249.2	98.0	421.9	412.0	9.94	42.450	
2,263.8	2,244.9	2,187.6	2,172.6	6.1	5.5	149.46	-258.6	106.2	443.5	433.2	10.30	43.050	
2,300.0	2,280.3	2,221.7	2,205.9	6.3	5.7	149.35	-263.9	110.9	455.8	445.3	10.51	43.367	
2,362.2	2,341.2	2,280.2	2,263.2	6.5	5.9	149.18	-273.1	118.8	476.9	466.0	10.87	43.872	
2,400.0	2,378.1	2,315.8	2,297.9	6.7	6.1	149.08	-278.7	123.7	489.7	478.6	11.09	44.159	
2,460.6	2,437.4	2,372.8	2,353.7	6.9	6.3	148.93	-287.6	131.5	510.2	498.8	11.44	44.587	
2,500.0	2,476.0	2,409.8	2,389.9	7.1	6.5	148.84	-293.5	136.5	523.6	511.9	11.67	44.849	
2,550.0	2,524.9	2,456.9	2,435.9	7.3	6.7	148.73	-300.8	142.9	540.5	528.6	11.97	45.158	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,465.4	2,444.3	7.3	6.7	149.62	-302.2	144.1	543.6	531.6	12.02	45.230	
2,600.0	2,573.8	2,503.8	2,481.9	7.5	6.9	153.61	-308.2	149.3	557.7	545.5	12.24	45.563	
2,639.4	2,612.3	2,540.7	2,517.9	7.7	7.0	157.41	-314.0	154.4	571.5	559.0	12.44	45.920	
2,657.5	2,630.0	2,557.6	2,534.5	7.7	7.1	157.32	-316.6	156.7	577.9	565.3	12.55	46.059	
2,700.0	2,671.6	2,597.3	2,573.3	7.9	7.3	157.13	-322.9	162.1	592.9	580.1	12.78	46.377	
2,755.9	2,726.3	2,649.6	2,624.4	8.1	7.5	156.89	-331.1	169.2	612.6	599.5	13.11	46.740	
2,800.0	2,769.4	2,690.8	2,664.8	8.3	7.7	156.71	-337.6	174.8	628.1	614.8	13.36	47.014	
2,854.3	2,822.5	2,741.6	2,714.4	8.5	7.9	156.50	-345.5	181.8	647.3	633.6	13.68	47.334	
2,900.0	2,867.2	2,784.3	2,756.2	8.7	8.1	156.34	-352.2	187.6	663.4	649.5	13.94	47.591	
2,952.7	2,918.8	2,833.6	2,804.4	9.0	8.3	156.16	-360.0	194.3	682.1	667.8	14.25	47.873	
3,000.0	2,965.0	2,877.8	2,847.6	9.2	8.5	156.00	-366.9	200.4	698.8	684.3	14.52	48.115	
3,051.2	3,015.1	2,925.6	2,894.4	9.4	8.7	155.85	-374.4	206.9	716.9	702.0	14.82	48.364	
3,100.0	3,062.8	2,971.2	2,939.1	9.6	8.9	155.70	-381.6	213.1	734.1	719.0	15.11	48.592	
3,149.6	3,111.4	3,017.6	2,984.4	9.8	9.1	155.56	-388.8	219.4	751.7	736.3	15.40	48.814	
3,200.0	3,160.7	3,064.7	3,030.5	10.0	9.3	155.43	-396.2	225.9	769.5	753.8	15.69	49.029	
3,248.0	3,207.6	3,109.6	3,074.4	10.2	9.5	155.30	-403.3	232.0	786.5	770.5	15.98	49.226	
3,300.0	3,258.5	3,158.2	3,121.9	10.5	9.7	155.18	-410.9	238.6	804.9	788.6	16.28	49.429	
3,346.4	3,303.9	3,201.6	3,164.4	10.7	9.9	155.07	-417.7	244.5	821.3	804.8	16.56	49.605	
3,400.0	3,356.3	3,251.7	3,213.4	10.9	10.2	154.95	-425.6	251.4	840.3	823.4	16.87	49.798	
3,444.9	3,400.2	3,293.6	3,254.4	11.1	10.3	154.85	-432.2	257.1	856.1	839.0	17.14	49.954	
3,500.0	3,454.1	3,350.5	3,310.1	11.3	10.6	154.73	-441.0	264.8	875.6	858.1	17.47	50.108	
3,543.3	3,496.5	3,405.0	3,363.5	11.5	10.8	154.65	-448.9	271.6	890.4	872.6	17.76	50.148	
3,600.0	3,551.9	3,477.3	3,434.8	11.7	11.0	154.61	-458.1	279.7	908.8	890.7	18.10	50.207	
3,641.7	3,592.7	3,531.1	3,488.0	11.9	11.2	154.63	-464.1	284.9	921.6	903.2	18.35	50.219	
3,700.0	3,649.7	3,607.1	3,563.4	12.2	11.4	154.71	-471.3	291.1	938.4	919.7	18.70	50.190	
3,740.1	3,689.0	3,660.0	3,616.0	12.4	11.5	154.81	-475.5	294.7	949.3	930.4	18.93	50.151	
3,800.0	3,747.5	3,739.6	3,695.4	12.6	11.7	155.02	-480.3	298.9	964.4	945.2	19.27	50.052	
3,838.6	3,785.3	3,791.4	3,747.1	12.8	11.8	155.19	-482.5	300.8	973.5	954.0	19.48	49.965	
3,900.0	3,845.4	3,874.4	3,830.0	13.1	11.9	155.53	-484.6	302.7	986.8	967.0	19.81	49.803	
3,937.0	3,881.6	3,924.7	3,880.3	13.2	12.0	155.76	-485.0	303.0	994.2	974.2	20.01	49.686	
4,000.0	3,943.2	3,987.5	3,943.2	13.5	12.1	156.08	-485.0	303.0	1,006.2	985.9	20.30	49.561	
4,035.4	3,977.8	4,022.2	3,977.8	13.6	12.1	156.24	-485.0	303.0	1,012.9	992.5	20.47	49.494	
4,100.0	4,041.0	4,085.4	4,041.0	13.9	12.2	156.55	-485.0	303.0	1,025.3	1,004.5	20.76	49.376	
4,133.8	4,074.1	4,118.5	4,074.1	14.1	12.2	156.70	-485.0	303.0	1,031.8	1,010.8	20.92	49.315	
4,200.0	4,138.8	4,183.2	4,138.8	14.4	12.3	157.00	-485.0	303.0	1,044.4	1,023.2	21.23	49.202	
4,232.3	4,170.4	4,214.7	4,170.4	14.5	12.4	157.14	-485.0	303.0	1,050.6	1,029.3	21.38	49.148	
4,300.0	4,236.6	4,281.0	4,236.6	14.8	12.5	157.43	-485.0	303.0	1,063.7	1,042.0	21.69	49.039	
4,330.7	4,266.7	4,311.0	4,266.7	14.9	12.5	157.57	-485.0	303.0	1,069.6	1,047.8	21.83	48.991	
4,400.0	4,334.4	4,378.8	4,334.4	15.2	12.6	157.86	-485.0	303.0	1,083.0	1,060.8	22.15	48.887	
4,429.1	4,362.9	4,407.3	4,362.9	15.4	12.7	157.97	-485.0	303.0	1,088.6	1,066.3	22.29	48.844	
4,500.0	4,432.3	4,476.6	4,432.3	15.7	12.8	158.26	-485.0	303.0	1,102.3	1,079.7	22.61	48.743	
4,527.5	4,459.2	4,503.6	4,459.2	15.8	12.8	158.37	-485.0	303.0	1,107.6	1,084.9	22.74	48.706	
4,600.0	4,530.1	4,574.4	4,530.1	16.1	12.9	158.65	-485.0	303.0	1,121.7	1,098.6	23.08	48.609	
4,626.0	4,555.5	4,599.8	4,555.5	16.2	13.0	158.75	-485.0	303.0	1,126.8	1,103.6	23.20	48.576	
4,700.0	4,627.9	4,672.3	4,627.9	16.6	13.1	159.03	-485.0	303.0	1,141.1	1,117.6	23.54	48.482	
4,724.4	4,651.7	4,696.1	4,651.7	16.7	13.1	159.12	-485.0	303.0	1,145.9	1,122.3	23.65	48.453	
4,800.0	4,725.7	4,770.1	4,725.7	17.0	13.2	159.40	-485.0	303.0	1,160.6	1,136.6	24.00	48.363	
4,822.8	4,748.0	4,792.4	4,748.0	17.1	13.3	159.48	-485.0	303.0	1,165.1	1,141.0	24.10	48.336	
4,904.9	4,828.3	4,872.6	4,828.3	17.5	13.4	159.77	-485.0	303.0	1,181.1	1,156.6	24.48	48.244	
4,921.2	4,844.3	4,888.7	4,844.3	17.5	13.4	159.85	-485.0	303.0	1,184.3	1,159.7	24.57	48.204	
5,000.0	4,921.6	4,966.0	4,921.6	17.8	13.5	160.19	-485.0	303.0	1,198.3	1,173.3	24.98	47.976	
5,019.7	4,941.0	4,985.4	4,941.0	17.9	13.6	160.27	-485.0	303.0	1,201.5	1,176.4	25.07	47.928	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	5,064.7	5,020.4	18.1	13.7	160.54	-485.0	303.0	1,213.2	1,187.8	25.44	47.696	
5,118.1	5,038.3	5,082.7	5,038.3	18.2	13.7	160.60	-485.0	303.0	1,215.6	1,190.0	25.51	47.641	
5,200.0	5,119.6	5,164.0	5,119.6	18.4	13.9	160.81	-485.0	303.0	1,224.9	1,199.0	25.86	47.360	
5,216.5	5,136.0	5,180.4	5,136.0	18.4	13.9	160.85	-485.0	303.0	1,226.5	1,200.6	25.93	47.301	
5,300.0	5,219.2	5,263.6	5,219.2	18.6	14.0	161.00	-485.0	303.0	1,233.3	1,207.0	26.26	46.970	
5,314.9	5,234.1	5,278.5	5,234.1	18.6	14.1	161.02	-485.0	303.0	1,234.3	1,207.9	26.31	46.909	
5,400.0	5,319.1	5,363.4	5,319.1	18.8	14.2	161.12	-485.0	303.0	1,238.4	1,211.8	26.62	46.528	
5,413.4	5,332.4	5,376.8	5,332.4	18.8	14.2	161.13	-485.0	303.0	1,238.8	1,212.2	26.66	46.466	
5,504.9	5,423.9	5,468.3	5,423.9	18.9	14.4	179.58	-485.0	303.0	1,240.2	1,208.7	31.49	39.387	
5,511.8	5,430.8	5,475.2	5,430.8	18.9	14.4	179.58	-485.0	303.0	1,240.2	1,208.7	31.51	39.360	
5,600.0	5,519.0	5,563.4	5,519.0	19.0	14.5	179.58	-485.0	303.0	1,240.2	1,208.4	31.78	39.020	
5,610.2	5,529.3	5,573.6	5,529.3	19.0	14.6	179.58	-485.0	303.0	1,240.2	1,208.4	31.82	38.979	
5,700.0	5,619.0	5,663.4	5,619.0	19.2	14.7	179.58	-485.0	303.0	1,240.2	1,208.1	32.11	38.627	
5,708.6	5,627.7	5,672.0	5,627.7	19.2	14.7	179.58	-485.0	303.0	1,240.2	1,208.1	32.14	38.593	
5,800.0	5,719.0	5,763.4	5,719.0	19.3	14.9	179.58	-485.0	303.0	1,240.2	1,207.8	32.43	38.238	
5,807.1	5,726.1	5,770.5	5,726.1	19.3	14.9	179.58	-485.0	303.0	1,240.2	1,207.7	32.46	38.211	
5,900.0	5,819.0	5,863.4	5,819.0	19.4	15.1	179.58	-485.0	303.0	1,240.2	1,207.4	32.76	37.854	
5,905.5	5,824.5	5,868.9	5,824.5	19.4	15.1	179.58	-485.0	303.0	1,240.2	1,207.4	32.78	37.833	
6,003.9	5,923.0	5,967.3	5,923.0	19.6	15.2	179.58	-485.0	303.0	1,240.2	1,207.1	33.11	37.460	
6,009.8	5,928.8	5,973.2	5,928.8	19.6	15.3	179.58	-485.0	303.0	1,240.2	1,207.1	33.13	37.438	
6,050.0	5,969.0	6,013.4	5,969.0	19.6	15.3	-90.48	-485.0	303.0	1,240.2	1,211.2	29.00	42.760	
6,100.0	6,018.8	6,063.6	6,018.8	19.7	15.4	-90.67	-485.0	302.7	1,240.3	1,211.1	29.16	42.529	
6,102.3	6,021.1	6,066.0	6,021.1	19.7	15.4	-90.68	-485.0	302.6	1,240.3	1,211.1	29.17	42.520	
6,150.0	6,068.1	6,114.5	6,070.1	19.7	15.5	-90.89	-485.0	299.5	1,240.3	1,211.0	29.29	42.352	
6,200.0	6,116.8	6,165.9	6,120.9	19.7	15.5	-91.11	-485.0	292.5	1,240.4	1,211.0	29.38	42.224	
6,200.8	6,117.5	6,166.7	6,121.7	19.7	15.5	-91.11	-485.0	292.4	1,240.4	1,211.0	29.38	42.223	
6,250.0	6,164.5	6,217.6	6,171.5	19.7	15.6	-91.32	-485.0	281.9	1,240.5	1,211.1	29.44	42.138	
6,299.2	6,210.4	6,268.8	6,220.7	19.7	15.6	-91.53	-485.0	267.8	1,240.6	1,211.1	29.48	42.082	
6,300.0	6,211.1	6,269.6	6,221.5	19.7	15.6	-91.53	-485.0	267.5	1,240.6	1,211.1	29.48	42.081	
6,350.0	6,256.4	6,322.0	6,270.7	19.7	15.6	-91.73	-485.0	249.4	1,240.7	1,211.2	29.52	42.037	
6,397.6	6,298.0	6,372.3	6,316.4	19.7	15.6	-91.92	-485.0	228.7	1,240.9	1,211.3	29.55	41.986	
6,400.0	6,300.0	6,374.8	6,318.7	19.7	15.6	-91.93	-485.0	227.6	1,240.9	1,211.3	29.56	41.984	
6,450.0	6,341.8	6,427.9	6,365.3	19.7	15.6	-92.11	-485.0	202.1	1,241.0	1,211.4	29.62	41.898	
6,496.0	6,378.6	6,477.1	6,406.6	19.7	15.6	-92.27	-485.0	175.5	1,241.2	1,211.4	29.72	41.761	
6,500.0	6,381.6	6,481.3	6,410.1	19.7	15.6	-92.28	-485.0	173.1	1,241.2	1,211.4	29.73	41.748	
6,550.0	6,419.2	6,535.0	6,452.9	19.6	15.6	-92.45	-485.0	140.7	1,241.3	1,211.4	29.91	41.502	
6,594.5	6,450.7	6,583.1	6,489.0	19.6	15.6	-92.58	-485.0	109.0	1,241.4	1,211.3	30.15	41.171	
6,600.0	6,454.4	6,589.0	6,493.3	19.6	15.6	-92.60	-485.0	104.9	1,241.5	1,211.3	30.19	41.128	
6,650.0	6,487.1	6,643.3	6,531.2	19.6	15.6	-92.73	-485.0	65.9	1,241.6	1,211.0	30.58	40.597	
6,692.9	6,513.0	6,690.1	6,561.3	19.6	15.6	-92.84	-485.0	30.1	1,241.7	1,210.7	31.05	39.990	
6,700.0	6,517.0	6,697.9	6,566.1	19.6	15.7	-92.85	-485.0	24.0	1,241.7	1,210.6	31.13	39.889	
6,750.0	6,544.1	6,752.7	6,597.8	19.6	15.8	-92.96	-485.0	-20.6	1,241.8	1,210.0	31.85	38.991	
6,791.3	6,564.2	6,798.1	6,621.5	19.7	16.0	-93.04	-485.0	-59.3	1,241.9	1,209.3	32.59	38.105	
6,800.0	6,568.2	6,807.6	6,626.1	19.7	16.1	-93.05	-485.0	-67.7	1,241.9	1,209.2	32.76	37.912	
6,850.0	6,589.1	6,862.8	6,650.9	19.8	16.6	-93.13	-485.0	-116.9	1,242.0	1,208.2	33.86	36.680	
6,889.7	6,603.5	6,906.7	6,667.8	19.9	17.1	-93.18	-485.0	-157.5	1,242.1	1,207.2	34.88	35.611	
6,900.0	6,606.9	6,918.0	6,671.8	19.9	17.2	-93.19	-485.0	-168.1	1,242.1	1,206.9	35.16	35.329	
6,950.0	6,621.3	6,973.4	6,688.7	20.2	18.0	-93.23	-485.0	-220.8	1,242.2	1,205.5	36.64	33.904	
6,988.2	6,630.0	7,015.7	6,698.8	20.6	18.7	-93.25	-485.0	-261.9	1,242.2	1,204.3	37.89	32.786	
7,000.0	6,632.4	7,028.8	6,701.5	20.7	18.9	-93.25	-485.0	-274.7	1,242.2	1,203.9	38.29	32.444	
7,050.0	6,640.0	7,084.3	6,710.1	21.4	19.9	-93.26	-485.0	-329.5	1,242.2	1,202.1	40.08	30.990	
7,086.6	6,643.4	7,124.9	6,713.7	21.9	20.6	-93.25	-485.0	-369.9	1,242.2	1,200.7	41.48	29.944	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	7,139.7	6,714.4	22.1	20.9	-93.25	-485.0	-384.8	1,242.2	1,200.2	42.00	29.574	
7,135.7	6,645.0	7,178.3	6,715.0	22.7	21.6	-93.23	-485.0	-423.3	1,242.2	1,198.8	43.41	28.613	
7,185.0	6,644.9	7,227.7	6,714.9	23.6	22.7	-93.23	-485.0	-472.7	1,242.2	1,196.8	45.38	27.375	
7,200.0	6,644.9	7,242.7	6,714.9	23.9	23.0	-93.23	-485.0	-487.7	1,242.2	1,196.2	45.98	27.016	
7,283.4	6,644.8	7,326.1	6,714.7	25.6	24.8	-93.22	-485.0	-571.1	1,242.2	1,192.7	49.48	25.106	
7,300.0	6,644.8	7,342.7	6,714.7	25.9	25.1	-93.22	-485.0	-587.7	1,242.2	1,192.0	50.19	24.751	
7,381.9	6,644.7	7,424.5	6,714.5	27.7	27.0	-93.22	-485.0	-669.6	1,242.2	1,188.3	53.83	23.076	
7,400.0	6,644.7	7,442.7	6,714.5	28.1	27.4	-93.22	-485.0	-687.7	1,242.2	1,187.5	54.65	22.729	
7,480.3	6,644.6	7,523.0	6,714.3	29.9	29.3	-93.22	-485.0	-768.0	1,242.2	1,183.8	58.39	21.274	
7,500.0	6,644.6	7,542.7	6,714.3	30.3	29.8	-93.22	-485.0	-787.7	1,242.2	1,182.8	59.32	20.941	
7,578.7	6,644.5	7,621.4	6,714.1	32.2	31.7	-93.21	-485.0	-866.4	1,242.2	1,179.1	63.10	19.685	
7,600.0	6,644.4	7,642.7	6,714.1	32.7	32.2	-93.21	-485.0	-887.7	1,242.2	1,178.0	64.13	19.368	
7,677.1	6,644.3	7,719.8	6,713.9	34.6	34.1	-93.21	-485.0	-964.8	1,242.2	1,174.2	67.94	18.284	
7,700.0	6,644.3	7,742.7	6,713.9	35.1	34.7	-93.21	-485.0	-987.7	1,242.2	1,173.1	69.07	17.983	
7,775.6	6,644.2	7,818.2	6,713.7	37.0	36.6	-93.21	-485.0	-1,063.3	1,242.2	1,169.3	72.87	17.045	
7,800.0	6,644.2	7,842.7	6,713.7	37.6	37.2	-93.21	-485.0	-1,087.7	1,242.2	1,168.0	74.11	16.761	
7,874.0	6,644.1	7,916.7	6,713.5	39.5	39.1	-93.21	-485.0	-1,161.7	1,242.2	1,164.3	77.89	15.948	
7,900.0	6,644.1	7,942.7	6,713.5	40.1	39.8	-93.20	-485.0	-1,187.7	1,242.2	1,162.9	79.22	15.679	
7,972.4	6,644.0	8,015.1	6,713.4	42.0	41.7	-93.20	-485.0	-1,260.1	1,242.2	1,159.2	82.97	14.971	
8,000.0	6,643.9	8,042.7	6,713.3	42.7	42.4	-93.20	-485.0	-1,287.7	1,242.2	1,157.8	84.40	14.717	
8,070.8	6,643.9	8,113.5	6,713.2	44.5	44.3	-93.20	-485.0	-1,358.5	1,242.1	1,154.0	88.10	14.099	
8,100.0	6,643.8	8,142.7	6,713.1	45.2	45.0	-93.20	-485.0	-1,387.7	1,242.1	1,152.5	89.63	13.859	
8,169.3	6,643.7	8,211.9	6,713.0	47.0	46.9	-93.20	-485.0	-1,457.0	1,242.1	1,148.9	93.28	13.316	
8,200.0	6,643.7	8,242.7	6,712.9	47.9	47.7	-93.19	-485.0	-1,487.7	1,242.1	1,147.2	94.90	13.088	
8,267.7	6,643.6	8,310.4	6,712.8	49.6	49.5	-93.19	-485.0	-1,555.4	1,242.1	1,143.6	98.50	12.611	
8,300.0	6,643.6	8,342.7	6,712.7	50.5	50.3	-93.19	-485.0	-1,587.7	1,242.1	1,141.9	100.22	12.395	
8,366.1	6,643.5	8,408.8	6,712.6	52.2	52.1	-93.19	-485.0	-1,653.8	1,242.1	1,138.4	103.75	11.973	
8,400.0	6,643.4	8,442.7	6,712.5	53.1	53.0	-93.19	-485.0	-1,687.7	1,242.1	1,136.6	105.56	11.767	
8,464.5	6,643.4	8,507.2	6,712.4	54.8	54.8	-93.19	-485.0	-1,752.2	1,242.1	1,133.1	109.02	11.394	
8,500.0	6,643.3	8,542.7	6,712.3	55.8	55.7	-93.18	-485.0	-1,787.7	1,242.1	1,131.2	110.93	11.198	
8,563.0	6,643.2	8,605.6	6,712.2	57.5	57.4	-93.18	-485.0	-1,850.7	1,242.1	1,127.8	114.32	10.865	
8,600.0	6,643.2	8,642.7	6,712.1	58.5	58.4	-93.18	-485.0	-1,887.7	1,242.1	1,125.8	116.32	10.679	
8,661.4	6,643.1	8,704.1	6,712.0	60.1	60.1	-93.18	-485.0	-1,949.1	1,242.1	1,122.5	119.64	10.382	
8,700.0	6,643.1	8,742.7	6,711.9	61.2	61.1	-93.18	-485.0	-1,987.7	1,242.1	1,120.4	121.73	10.204	
8,759.8	6,643.0	8,802.5	6,711.8	62.8	62.8	-93.18	-485.0	-2,047.5	1,242.1	1,117.2	124.98	9.939	
8,800.0	6,643.0	8,842.7	6,711.8	63.9	63.9	-93.18	-485.0	-2,087.7	1,242.1	1,115.0	127.16	9.768	
8,858.2	6,642.9	8,900.9	6,711.6	65.4	65.4	-93.17	-485.0	-2,145.9	1,242.1	1,111.8	130.33	9.530	
8,900.0	6,642.8	8,942.7	6,711.6	66.6	66.6	-93.17	-485.0	-2,187.7	1,242.1	1,109.5	132.61	9.367	
8,956.7	6,642.8	8,999.3	6,711.4	68.1	68.1	-93.17	-485.0	-2,244.4	1,242.1	1,106.4	135.70	9.153	
9,000.0	6,642.7	9,042.7	6,711.4	69.3	69.3	-93.17	-485.0	-2,287.7	1,242.1	1,104.1	138.07	8.996	
9,055.1	6,642.6	9,097.8	6,711.3	70.8	70.8	-93.17	-485.0	-2,342.8	1,242.1	1,101.0	141.08	8.804	
9,100.0	6,642.6	9,142.7	6,711.2	72.0	72.1	-93.17	-485.0	-2,387.7	1,242.1	1,098.6	143.54	8.654	
9,153.5	6,642.5	9,196.2	6,711.1	73.5	73.5	-93.16	-485.0	-2,441.2	1,242.1	1,095.7	146.47	8.480	
9,200.0	6,642.5	9,242.7	6,711.0	74.7	74.8	-93.16	-485.0	-2,487.7	1,242.1	1,093.1	149.02	8.335	
9,251.9	6,642.4	9,294.6	6,710.9	76.2	76.2	-93.16	-485.0	-2,539.6	1,242.1	1,090.2	151.87	8.179	
9,300.0	6,642.3	9,342.7	6,710.8	77.5	77.6	-93.16	-485.0	-2,587.7	1,242.1	1,087.6	154.51	8.039	
9,350.4	6,642.3	9,393.0	6,710.7	78.9	79.0	-93.16	-485.0	-2,638.1	1,242.1	1,084.8	157.28	7.897	
9,400.0	6,642.2	9,442.7	6,710.6	80.2	80.3	-93.16	-485.0	-2,687.7	1,242.1	1,082.1	160.01	7.763	
9,448.8	6,642.1	9,491.5	6,710.5	81.6	81.7	-93.15	-485.0	-2,736.5	1,242.1	1,079.4	162.70	7.634	
9,500.0	6,642.1	9,542.7	6,710.4	83.0	83.1	-93.15	-485.0	-2,787.7	1,242.1	1,076.6	165.52	7.504	
9,547.2	6,642.0	9,589.9	6,710.3	84.3	84.4	-93.15	-485.0	-2,834.9	1,242.1	1,074.0	168.13	7.388	
9,600.0	6,642.0	9,642.7	6,710.2	85.7	85.8	-93.15	-485.0	-2,887.7	1,242.1	1,071.1	171.04	7.262	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	9,688.3	6,710.1	87.0	87.1	-93.15	-485.0	-2,933.3	1,242.1	1,068.6	173.56	7.157	
9,700.0	6,641.8	9,742.7	6,710.0	88.5	88.6	-93.15	-485.0	-2,987.7	1,242.1	1,065.5	176.56	7.035	
9,744.1	6,641.8	9,786.7	6,709.9	89.7	89.8	-93.15	-485.0	-3,031.8	1,242.1	1,063.1	178.99	6.939	
9,800.0	6,641.7	9,842.7	6,709.8	91.2	91.4	-93.14	-485.0	-3,087.7	1,242.1	1,060.0	182.09	6.822	
9,842.5	6,641.7	9,885.2	6,709.7	92.4	92.6	-93.14	-485.0	-3,130.2	1,242.1	1,057.7	184.44	6.735	
9,900.0	6,641.6	9,942.7	6,709.6	94.0	94.1	-93.14	-485.0	-3,187.7	1,242.1	1,054.5	187.62	6.620	
9,940.9	6,641.5	9,983.6	6,709.6	95.1	95.3	-93.14	-485.0	-3,228.6	1,242.1	1,052.2	189.88	6.541	
10,000.0	6,641.5	10,042.7	6,709.4	96.7	96.9	-93.14	-485.0	-3,287.7	1,242.1	1,048.9	193.16	6.431	
10,039.3	6,641.4	10,082.0	6,709.4	97.8	98.0	-93.14	-485.0	-3,327.0	1,242.1	1,046.8	195.34	6.359	
10,100.0	6,641.3	10,142.7	6,709.3	99.5	99.7	-93.13	-485.0	-3,387.7	1,242.1	1,043.4	198.70	6.251	
10,137.8	6,641.3	10,180.4	6,709.2	100.6	100.7	-93.13	-485.0	-3,425.5	1,242.1	1,041.3	200.79	6.186	
10,200.0	6,641.2	10,242.7	6,709.1	102.3	102.5	-93.13	-485.0	-3,487.7	1,242.1	1,037.8	204.24	6.081	
10,236.2	6,641.2	10,278.9	6,709.0	103.3	103.5	-93.13	-485.0	-3,523.9	1,242.1	1,035.8	206.25	6.022	
10,300.0	6,641.1	10,342.7	6,708.9	105.0	105.3	-93.13	-485.0	-3,587.7	1,242.1	1,032.3	209.79	5.921	
10,334.6	6,641.0	10,377.3	6,708.8	106.0	106.2	-93.13	-485.0	-3,622.3	1,242.1	1,030.4	211.71	5.867	
10,400.0	6,641.0	10,442.7	6,708.7	107.8	108.0	-93.13	-485.0	-3,687.7	1,242.1	1,026.7	215.34	5.768	
10,433.0	6,640.9	10,475.7	6,708.6	108.7	109.0	-93.12	-485.0	-3,720.7	1,242.1	1,024.9	217.18	5.719	
10,500.0	6,640.8	10,542.7	6,708.5	110.6	110.8	-93.12	-485.0	-3,787.7	1,242.1	1,021.2	220.90	5.623	
10,531.5	6,640.8	10,574.1	6,708.4	111.5	111.7	-93.12	-485.0	-3,819.2	1,242.1	1,019.4	222.65	5.579	
10,600.0	6,640.7	10,642.7	6,708.3	113.4	113.6	-93.12	-485.0	-3,887.7	1,242.1	1,015.6	226.46	5.485	
10,629.9	6,640.7	10,672.6	6,708.2	114.2	114.4	-93.12	-485.0	-3,917.6	1,242.1	1,014.0	228.12	5.445	
10,700.0	6,640.6	10,742.7	6,708.1	116.1	116.4	-93.12	-485.0	-3,987.7	1,242.1	1,010.0	232.02	5.353	
10,728.3	6,640.5	10,771.0	6,708.1	116.9	117.2	-93.12	-485.0	-4,016.0	1,242.1	1,008.5	233.60	5.317	
10,800.0	6,640.5	10,842.7	6,707.9	118.9	119.2	-93.11	-485.0	-4,087.7	1,242.1	1,004.5	237.59	5.228	
10,826.7	6,640.4	10,869.4	6,707.9	119.7	119.9	-93.11	-485.0	-4,114.4	1,242.1	1,003.0	239.07	5.195	
10,900.0	6,640.3	10,942.7	6,707.7	121.7	122.0	-93.11	-485.0	-4,187.7	1,242.1	998.9	243.15	5.108	
10,925.2	6,640.3	10,967.8	6,707.7	122.4	122.7	-93.11	-485.0	-4,212.9	1,242.1	997.5	244.55	5.079	
11,000.0	6,640.2	11,042.7	6,707.5	124.5	124.7	-93.11	-485.0	-4,287.7	1,242.1	993.3	248.72	4.994	
11,023.6	6,640.2	11,066.3	6,707.5	125.1	125.4	-93.11	-485.0	-4,311.3	1,242.1	992.0	250.04	4.968	
11,100.0	6,640.1	11,142.7	6,707.3	127.3	127.5	-93.10	-485.0	-4,387.7	1,242.1	987.8	254.29	4.884	
11,122.0	6,640.0	11,164.7	6,707.3	127.9	128.1	-93.10	-485.0	-4,409.7	1,242.1	986.5	255.52	4.861	
11,200.0	6,639.9	11,242.7	6,707.2	130.1	130.3	-93.10	-485.0	-4,487.7	1,242.0	982.2	259.86	4.780	
11,220.4	6,639.9	11,263.1	6,707.1	130.6	130.9	-93.10	-485.0	-4,508.1	1,242.0	981.0	261.00	4.759	
11,300.0	6,639.8	11,342.7	6,707.0	132.8	133.1	-93.10	-485.0	-4,587.7	1,242.0	976.6	265.44	4.679	
11,318.9	6,639.8	11,361.5	6,706.9	133.4	133.6	-93.10	-485.0	-4,606.6	1,242.0	975.6	266.49	4.661	
11,400.0	6,639.7	11,442.7	6,706.8	135.6	135.9	-93.10	-485.0	-4,687.7	1,242.0	971.0	271.02	4.583	
11,417.3	6,639.7	11,460.0	6,706.7	136.1	136.4	-93.10	-485.0	-4,705.0	1,242.0	970.1	271.98	4.567	
11,500.0	6,639.6	11,542.7	6,706.6	138.4	138.7	-93.09	-485.0	-4,787.7	1,242.0	965.4	276.59	4.490	
11,515.7	6,639.5	11,558.4	6,706.6	138.9	139.1	-93.09	-485.0	-4,803.4	1,242.0	964.6	277.47	4.476	
11,600.0	6,639.4	11,642.7	6,706.4	141.2	141.5	-93.09	-485.0	-4,887.7	1,242.0	959.9	282.17	4.402	
11,614.1	6,639.4	11,656.8	6,706.4	141.6	141.9	-93.09	-485.0	-4,901.8	1,242.0	959.1	282.96	4.389	
11,700.0	6,639.3	11,742.7	6,706.2	144.0	144.3	-93.09	-485.0	-4,987.7	1,242.0	954.3	287.75	4.316	
11,712.6	6,639.3	11,755.2	6,706.2	144.3	144.6	-93.09	-485.0	-5,000.3	1,242.0	953.6	288.46	4.306	
11,800.0	6,639.2	11,842.7	6,706.0	146.8	147.1	-93.08	-485.0	-5,087.7	1,242.0	948.7	293.34	4.234	
11,811.0	6,639.2	11,853.7	6,706.0	147.1	147.4	-93.08	-485.0	-5,098.7	1,242.0	948.1	293.95	4.225	
11,900.0	6,639.1	11,942.7	6,705.8	149.6	149.9	-93.08	-485.0	-5,187.7	1,242.0	943.1	298.92	4.155	
11,909.4	6,639.0	11,952.1	6,705.8	149.8	150.1	-93.08	-485.0	-5,197.1	1,242.0	942.6	299.45	4.148	
12,000.0	6,638.9	12,042.7	6,705.6	152.4	152.7	-93.08	-485.0	-5,287.7	1,242.0	937.5	304.50	4.079	
12,007.8	6,638.9	12,050.5	6,705.6	152.6	152.9	-93.08	-485.0	-5,295.5	1,242.0	937.1	304.94	4.073	
12,100.0	6,638.8	12,142.7	6,705.5	155.2	155.5	-93.08	-485.0	-5,387.7	1,242.0	931.9	310.09	4.005	
12,106.3	6,638.8	12,148.9	6,705.4	155.3	155.6	-93.08	-485.0	-5,394.0	1,242.0	931.6	310.44	4.001	
12,200.0	6,638.7	12,242.7	6,705.3	157.9	158.3	-93.07	-485.0	-5,487.7	1,242.0	926.3	315.68	3.934	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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		
12,204.7	6,638.7	12,247.4	6,705.3	158.1	158.4	-93.07	-485.0	-5,492.4	1,242.0	926.1	315.94	3.931		
12,300.0	6,638.5	12,342.7	6,705.1	160.7	161.1	-93.07	-485.0	-5,587.7	1,242.0	920.7	321.27	3.866		
12,303.1	6,638.5	12,345.8	6,705.1	160.8	161.2	-93.07	-485.0	-5,590.8	1,242.0	920.6	321.44	3.864		
12,400.0	6,638.4	12,442.7	6,704.9	163.5	163.9	-93.07	-485.0	-5,687.7	1,242.0	915.1	326.85	3.800		
12,401.5	6,638.4	12,444.2	6,704.9	163.6	163.9	-93.07	-485.0	-5,689.2	1,242.0	915.1	326.94	3.799		
12,500.0	6,638.3	12,542.7	6,704.7	166.3	166.7	-93.07	-485.0	-5,787.7	1,242.0	909.5	332.44	3.736		
12,598.4	6,638.2	12,641.1	6,704.5	169.1	169.4	-93.06	-485.0	-5,886.1	1,242.0	904.0	337.95	3.675		
12,600.0	6,638.2	12,642.7	6,704.5	169.1	169.5	-93.06	-485.0	-5,887.7	1,242.0	903.9	338.03	3.674		
12,696.8	6,638.0	12,739.5	6,704.3	171.8	172.2	-93.06	-485.0	-5,984.5	1,242.0	898.5	343.45	3.616		
12,700.0	6,638.0	12,742.7	6,704.3	171.9	172.3	-93.06	-485.0	-5,987.7	1,242.0	898.3	343.63	3.614		
12,795.2	6,637.9	12,837.9	6,704.1	174.6	174.9	-93.06	-485.0	-6,082.9	1,242.0	893.0	348.95	3.559		
12,800.0	6,637.9	12,842.7	6,704.1	174.7	175.1	-93.06	-485.0	-6,087.7	1,242.0	892.8	349.22	3.556		
12,893.7	6,637.8	12,936.3	6,704.0	177.3	177.7	-93.05	-485.0	-6,181.4	1,242.0	887.5	354.46	3.504		
12,900.0	6,637.8	12,942.7	6,704.0	177.5	177.9	-93.05	-485.0	-6,187.7	1,242.0	887.2	354.81	3.500		
12,992.1	6,637.7	13,034.8	6,703.8	180.1	180.4	-93.05	-485.0	-6,279.8	1,242.0	882.0	359.96	3.450		
13,000.0	6,637.6	13,042.7	6,703.8	180.3	180.7	-93.05	-485.0	-6,287.7	1,242.0	881.6	360.41	3.446		
13,090.5	6,637.5	13,133.2	6,703.6	182.8	183.2	-93.05	-485.0	-6,378.2	1,242.0	876.5	365.47	3.398		
13,100.0	6,637.5	13,142.7	6,703.6	183.1	183.5	-93.05	-485.0	-6,387.7	1,242.0	876.0	366.00	3.393		
13,188.9	6,637.4	13,231.6	6,703.4	185.6	185.9	-93.05	-485.0	-6,476.6	1,241.9	871.0	370.98	3.348		
13,200.0	6,637.4	13,242.7	6,703.4	185.9	186.3	-93.05	-485.0	-6,487.7	1,241.9	870.4	371.60	3.342		
13,287.4	6,637.3	13,330.0	6,703.2	188.4	188.7	-93.04	-485.0	-6,575.1	1,241.9	865.5	376.49	3.299		
13,300.0	6,637.3	13,342.7	6,703.2	188.7	189.1	-93.04	-485.0	-6,587.7	1,241.9	864.7	377.19	3.293		
13,385.8	6,637.1	13,428.5	6,703.0	191.1	191.5	-93.04	-485.0	-6,673.5	1,241.9	859.9	381.99	3.251		
13,400.0	6,637.1	13,442.7	6,703.0	191.5	191.9	-93.04	-485.0	-6,687.7	1,241.9	859.1	382.79	3.244		
13,484.2	6,637.0	13,526.9	6,702.9	193.9	194.2	-93.04	-485.0	-6,771.9	1,241.9	854.4	387.50	3.205		
13,500.0	6,637.0	13,542.7	6,702.8	194.3	194.7	-93.04	-485.0	-6,787.7	1,241.9	853.5	388.39	3.198		
13,582.6	6,636.9	13,625.3	6,702.7	196.6	197.0	-93.04	-485.0	-6,870.3	1,241.9	848.9	393.01	3.160		
13,600.0	6,636.9	13,642.7	6,702.6	197.1	197.5	-93.04	-485.0	-6,887.7	1,241.9	847.9	393.98	3.152		
13,681.1	6,636.8	13,723.7	6,702.5	199.4	199.7	-93.03	-485.0	-6,968.8	1,241.9	843.4	398.52	3.116		
13,700.0	6,636.7	13,742.7	6,702.5	199.9	200.3	-93.03	-485.0	-6,987.7	1,241.9	842.3	399.58	3.108		
13,779.5	6,636.6	13,822.2	6,702.3	202.1	202.5	-93.03	-485.0	-7,067.2	1,241.9	837.9	404.03	3.074		
13,800.0	6,636.6	13,842.7	6,702.3	202.7	203.1	-93.03	-485.0	-7,087.7	1,241.9	836.7	405.18	3.065		
13,877.9	6,636.5	13,920.6	6,702.1	204.9	205.3	-93.03	-485.0	-7,165.6	1,241.9	832.4	409.54	3.032		
13,900.0	6,636.5	13,942.7	6,702.1	205.5	205.9	-93.03	-485.0	-7,187.7	1,241.9	831.1	410.78	3.023		
13,976.3	6,636.4	14,019.0	6,701.9	207.6	208.0	-93.03	-485.0	-7,264.0	1,241.9	826.8	415.05	2.992		
14,000.0	6,636.3	14,042.7	6,701.9	208.3	208.7	-93.03	-485.0	-7,287.7	1,241.9	825.5	416.38	2.983		
14,074.8	6,636.3	14,117.4	6,701.8	210.4	210.8	-93.02	-485.0	-7,362.5	1,241.9	821.3	420.57	2.953		
14,100.0	6,636.2	14,142.7	6,701.7	211.1	211.5	-93.02	-485.0	-7,387.7	1,241.9	819.9	421.98	2.943		
14,173.2	6,636.1	14,215.9	6,701.6	213.2	213.5	-93.02	-485.0	-7,460.9	1,241.9	815.8	426.08	2.915		
14,200.0	6,636.1	14,242.7	6,701.5	213.9	214.3	-93.02	-485.0	-7,487.7	1,241.9	814.3	427.58	2.904		
14,271.6	6,636.0	14,314.3	6,701.4	215.9	216.3	-93.02	-485.0	-7,559.3	1,241.9	810.3	431.59	2.877		
14,300.0	6,636.0	14,342.7	6,701.3	216.7	217.1	-93.02	-485.0	-7,587.7	1,241.9	808.7	433.18	2.867		
14,370.0	6,635.9	14,412.7	6,701.2	218.7	219.0	-93.02	-485.0	-7,657.7	1,241.9	804.8	437.10	2.841		
14,400.0	6,635.8	14,442.7	6,701.2	219.5	219.9	-93.02	-485.0	-7,687.7	1,241.9	803.1	438.78	2.830		
14,468.5	6,635.7	14,511.1	6,701.0	221.4	221.8	-93.01	-485.0	-7,756.2	1,241.9	799.2	442.62	2.806		
14,500.0	6,635.7	14,542.7	6,701.0	222.3	222.7	-93.01	-485.0	-7,787.7	1,241.9	797.5	444.38	2.795		
14,566.9	6,635.6	14,609.6	6,700.8	224.2	224.6	-93.01	-485.0	-7,854.6	1,241.9	793.7	448.13	2.771		
14,600.0	6,635.6	14,642.7	6,700.8	225.1	225.5	-93.01	-485.0	-7,887.7	1,241.9	791.9	449.99	2.760		
14,665.3	6,635.5	14,708.0	6,700.7	226.9	227.3	-93.01	-485.0	-7,953.0	1,241.9	788.2	453.65	2.737		
14,700.0	6,635.4	14,742.7	6,700.6	227.9	228.3	-93.01	-484.9	-7,987.7	1,241.8	786.3	455.59	2.726		
14,763.7	6,635.4	14,806.4	6,700.5	229.7	230.1	-93.01	-484.9	-8,051.4	1,241.8	782.7	459.16	2.705		
14,800.0	6,635.3	14,842.7	6,700.4	230.7	231.1	-93.01	-484.9	-8,087.7	1,241.8	780.7	461.19	2.693		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10G-304 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,862.2	6,635.2	14,904.8	6,700.3	232.5	232.9	-93.00	-484.9	-8,149.9	1,241.8	777.2	464.67	2.672	
14,900.0	6,635.2	14,942.7	6,700.2	233.5	233.9	-93.00	-484.9	-8,187.7	1,241.8	775.0	466.79	2.660	
14,960.6	6,635.1	15,003.3	6,700.1	235.2	235.6	-93.00	-484.9	-8,248.3	1,241.8	771.7	470.16	2.641	
15,000.0	6,635.0	15,042.7	6,700.0	236.3	236.3	-93.00	-484.9	-8,287.7	1,241.8	769.9	471.97	2.631	
15,022.5	6,635.0	15,065.2	6,700.0	237.0	236.7	-93.00	-484.9	-8,310.2	1,241.8	768.8	473.01	2.625	
15,033.1	6,635.0	15,065.7	6,700.0	237.3	236.7	-93.00	-484.9	-8,310.7	1,241.9	768.5	473.31	2.624 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-179.47	-90.0	-0.8	90.0				
98.4	98.4	98.4	98.4	0.1	0.1	-179.47	-90.0	-0.8	90.0	89.8	0.19	468.095	
100.0	100.0	100.0	100.0	0.1	0.1	-179.47	-90.0	-0.8	90.0	89.8	0.20	460.171	
196.8	196.8	196.8	196.8	0.3	0.3	-179.47	-90.0	-0.8	90.0	89.4	0.63	142.625	
200.0	200.0	200.0	200.0	0.3	0.3	-179.47	-90.0	-0.8	90.0	89.3	0.65	139.495	
295.3	295.3	295.3	295.3	0.5	0.5	-179.47	-90.0	-0.8	90.0	88.9	1.07	83.834	
300.0	300.0	300.0	300.0	0.5	0.5	-179.47	-90.0	-0.8	90.0	88.9	1.09	82.207	
393.7	393.7	393.7	393.7	0.8	0.8	-179.47	-90.0	-0.8	90.0	88.5	1.52	59.364	
400.0	400.0	400.0	400.0	0.8	0.8	-179.47	-90.0	-0.8	90.0	88.4	1.54	58.275	
492.1	492.1	492.1	492.1	1.0	1.0	-179.47	-90.0	-0.8	90.0	88.0	1.96	45.951	
500.0	500.0	500.0	500.0	1.0	1.0	-179.47	-90.0	-0.8	90.0	88.0	1.99	45.135	
590.5	590.5	590.5	590.5	1.2	1.2	-179.47	-90.0	-0.8	90.0	87.6	2.40	37.482	
600.0	600.0	600.0	600.0	1.2	1.2	-179.47	-90.0	-0.8	90.0	87.5	2.44	36.831	
689.0	689.0	689.0	689.0	1.4	1.4	-179.47	-90.0	-0.8	90.0	87.1	2.84	31.649	
700.0	700.0	700.0	700.0	1.4	1.4	-179.47	-90.0	-0.8	90.0	87.1	2.89	31.107	
787.4	787.4	787.4	787.4	1.6	1.6	-179.47	-90.0	-0.8	90.0	86.7	3.29	27.387	
800.0	800.0	800.0	800.0	1.7	1.7	-179.47	-90.0	-0.8	90.0	86.6	3.34	26.923	
885.8	885.8	885.8	885.8	1.9	1.9	-179.47	-90.0	-0.8	90.0	86.3	3.73	24.137	
900.0	900.0	900.0	900.0	1.9	1.9	-179.47	-90.0	-0.8	90.0	86.2	3.79	23.731	
984.2	984.2	984.2	984.2	2.1	2.1	-179.47	-90.0	-0.8	90.0	85.8	4.17	21.576	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.47	-90.0	-0.8	90.0	85.7	4.24	21.216 CC, ES	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	153.86	-90.0	-0.8	91.1	86.4	4.61	19.744	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	154.00	-90.0	-0.8	91.6	86.9	4.69	19.525	
1,181.1	1,181.0	1,181.0	1,181.0	2.5	2.5	155.02	-90.0	-0.8	95.1	90.1	5.05	18.840	
1,200.0	1,199.8	1,199.8	1,199.8	2.6	2.6	155.33	-90.0	-0.8	96.3	91.1	5.13	18.756	
1,279.5	1,279.1	1,279.1	1,279.1	2.8	2.7	156.83	-90.0	-0.8	102.4	96.9	5.49	18.660	
1,300.0	1,299.5	1,299.5	1,299.5	2.8	2.8	157.27	-90.0	-0.8	104.3	98.7	5.58	18.702	
1,377.9	1,376.9	1,376.9	1,376.9	3.0	3.0	159.01	-90.0	-0.8	112.8	106.9	5.92	19.063	
1,400.0	1,398.7	1,398.7	1,398.7	3.0	3.0	159.52	-90.0	-0.8	115.6	109.6	6.01	19.225	
1,476.4	1,474.2	1,474.2	1,474.2	3.2	3.2	161.29	-90.0	-0.8	126.6	120.2	6.35	19.946	
1,500.0	1,497.5	1,497.5	1,497.5	3.3	3.2	161.83	-90.0	-0.8	130.4	123.9	6.45	20.223	
1,574.8	1,571.0	1,571.0	1,571.0	3.5	3.4	163.48	-90.0	-0.8	143.7	137.0	6.77	21.228	
1,600.0	1,595.6	1,595.6	1,595.6	3.6	3.5	164.02	-90.0	-0.8	148.7	141.8	6.88	21.617	
1,673.2	1,667.2	1,666.8	1,666.8	3.9	3.6	165.75	-89.9	-1.6	163.5	156.3	7.20	22.694	
1,700.0	1,693.4	1,692.7	1,692.7	4.0	3.7	166.46	-89.8	-2.3	169.0	161.7	7.32	23.082	
1,771.6	1,763.5	1,761.9	1,761.8	4.2	3.8	168.50	-89.5	-5.4	184.0	176.4	7.63	24.101	
1,800.0	1,791.3	1,789.1	1,789.0	4.3	3.9	169.36	-89.3	-7.0	190.1	182.3	7.76	24.507	
1,870.1	1,859.8	1,856.1	1,855.8	4.6	4.0	171.56	-88.7	-12.2	205.5	197.5	8.06	25.484	
1,900.0	1,889.1	1,884.6	1,884.1	4.7	4.1	172.52	-88.4	-14.9	212.3	204.1	8.20	25.900	
1,968.5	1,956.1	1,949.4	1,948.5	4.9	4.2	174.77	-87.7	-22.0	228.3	219.8	8.51	26.845	
2,000.0	1,986.9	1,979.0	1,977.9	5.1	4.3	175.81	-87.3	-25.7	236.0	227.3	8.65	27.283	
2,066.9	2,052.3	2,041.4	2,039.7	5.3	4.4	178.04	-86.3	-34.6	252.7	243.8	8.96	28.204	
2,100.0	2,084.7	2,072.0	2,069.9	5.5	4.5	179.13	-85.8	-39.4	261.3	252.2	9.12	28.665	
2,165.3	2,148.6	2,132.1	2,129.0	5.7	4.7	-178.73	-84.6	-49.8	278.9	269.5	9.43	29.569	
2,200.0	2,182.5	2,163.7	2,160.0	5.9	4.8	-177.60	-84.0	-55.8	288.6	279.0	9.60	30.050	
2,263.8	2,244.9	2,221.3	2,216.4	6.1	5.0	-175.57	-82.7	-67.5	307.1	297.2	9.93	30.935	
2,300.0	2,280.3	2,253.7	2,248.0	6.3	5.1	-174.44	-81.9	-74.7	318.0	307.9	10.12	31.434	
2,362.2	2,341.2	2,308.8	2,301.6	6.5	5.2	-172.55	-80.5	-87.6	337.5	327.0	10.45	32.303	
2,400.0	2,378.1	2,341.9	2,333.7	6.7	5.4	-171.43	-79.6	-95.8	349.7	339.1	10.66	32.817	
2,460.6	2,437.4	2,394.6	2,384.4	6.9	5.6	-169.68	-78.1	-109.7	370.1	359.1	10.99	33.664	
2,500.0	2,476.0	2,428.4	2,416.9	7.1	5.7	-168.58	-77.1	-119.1	383.8	372.5	11.22	34.204	
2,550.0	2,524.9	2,470.9	2,457.5	7.3	5.9	-167.23	-75.7	-131.4	401.7	390.2	11.51	34.892	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,478.5	2,464.8	7.3	5.9	-166.07	-75.5	-133.7	405.0	393.4	11.57	35.017	
2,600.0	2,573.8	2,515.4	2,500.0	7.5	6.1	-160.84	-74.3	-144.8	420.0	408.2	11.82	35.521	
2,639.4	2,612.3	2,551.5	2,534.4	7.7	6.3	-155.95	-73.1	-155.7	434.4	422.3	12.08	35.972	
2,657.5	2,630.0	2,568.2	2,550.2	7.7	6.4	-155.57	-72.5	-160.8	441.0	428.8	12.19	36.177	
2,700.0	2,671.6	2,607.2	2,587.4	7.9	6.6	-154.71	-71.2	-172.5	456.6	444.1	12.46	36.647	
2,755.9	2,726.3	2,658.6	2,636.4	8.1	6.8	-153.67	-69.6	-188.1	477.2	464.3	12.83	37.201	
2,800.0	2,769.4	2,699.1	2,675.0	8.3	7.0	-152.91	-68.2	-200.3	493.5	480.4	13.12	37.626	
2,854.3	2,822.5	2,749.0	2,722.5	8.5	7.3	-152.04	-66.6	-215.3	513.7	500.2	13.48	38.110	
2,900.0	2,867.2	2,790.9	2,762.5	8.7	7.5	-151.35	-65.2	-228.0	530.8	517.0	13.79	38.504	
2,952.7	2,918.8	2,839.4	2,808.7	9.0	7.8	-150.62	-63.6	-242.6	550.6	536.5	14.14	38.930	
3,000.0	2,965.0	2,882.8	2,850.0	9.2	8.0	-150.00	-62.2	-255.7	568.4	553.9	14.46	39.297	
3,051.2	3,015.1	2,929.8	2,894.8	9.4	8.3	-149.37	-60.6	-269.9	587.7	572.9	14.81	39.673	
3,100.0	3,062.8	2,974.7	2,937.5	9.6	8.5	-148.81	-59.1	-283.5	606.3	591.1	15.15	40.017	
3,149.6	3,111.4	3,020.2	2,980.9	9.8	8.8	-148.27	-57.6	-297.2	625.1	609.6	15.49	40.349	
3,200.0	3,160.7	3,066.5	3,025.1	10.0	9.1	-147.76	-56.1	-311.2	644.3	628.5	15.84	40.672	
3,248.0	3,207.6	3,110.6	3,067.1	10.2	9.3	-147.30	-54.7	-324.5	662.6	646.5	16.18	40.967	
3,300.0	3,258.5	3,158.4	3,112.6	10.5	9.6	-146.83	-53.1	-339.0	682.5	666.0	16.54	41.270	
3,346.4	3,303.9	3,201.1	3,153.2	10.7	9.9	-146.43	-51.7	-351.8	700.3	683.5	16.86	41.532	
3,400.0	3,356.3	3,250.2	3,200.1	10.9	10.1	-145.99	-50.1	-366.7	720.9	703.6	17.24	41.819	
3,444.9	3,400.2	3,291.5	3,239.4	11.1	10.4	-145.64	-48.7	-379.1	738.1	720.6	17.55	42.050	
3,500.0	3,454.1	3,342.1	3,287.6	11.3	10.7	-145.24	-47.0	-394.4	759.3	741.4	17.94	42.322	
3,543.3	3,496.5	3,381.9	3,325.5	11.5	10.9	-144.93	-45.7	-406.4	776.0	757.8	18.25	42.528	
3,600.0	3,551.9	3,434.0	3,375.1	11.7	11.3	-144.56	-44.0	-422.2	797.9	779.3	18.65	42.787	
3,641.7	3,592.7	3,472.3	3,411.7	11.9	11.5	-144.29	-42.7	-433.7	814.0	795.1	18.94	42.970	
3,700.0	3,649.7	3,525.8	3,462.7	12.2	11.8	-143.94	-41.0	-449.9	836.6	817.2	19.36	43.216	
3,740.1	3,689.0	3,562.7	3,497.8	12.4	12.0	-143.71	-39.8	-461.0	852.1	832.5	19.64	43.379	
3,800.0	3,747.5	3,617.7	3,550.2	12.6	12.4	-143.37	-38.0	-477.6	875.3	855.3	20.07	43.614	
3,838.6	3,785.3	3,653.1	3,583.9	12.8	12.6	-143.17	-36.8	-488.3	890.3	869.9	20.35	43.759	
3,900.0	3,845.4	3,709.6	3,637.7	13.1	12.9	-142.86	-34.9	-505.4	914.1	893.4	20.78	43.984	
3,937.0	3,881.6	3,743.5	3,670.1	13.2	13.1	-142.68	-33.8	-515.6	928.5	907.5	21.05	44.113	
4,000.0	3,943.2	3,801.4	3,725.2	13.5	13.5	-142.38	-31.9	-533.1	953.0	931.5	21.50	44.328	
4,035.4	3,977.8	3,834.0	3,756.2	13.6	13.7	-142.22	-30.8	-542.9	966.8	945.0	21.75	44.444	
4,100.0	4,041.0	3,893.3	3,812.8	13.9	14.1	-141.95	-28.9	-560.8	991.9	969.7	22.22	44.649	
4,133.8	4,074.1	3,924.4	3,842.4	14.1	14.3	-141.81	-27.9	-570.2	1,005.1	982.6	22.46	44.752	
4,200.0	4,138.8	3,985.1	3,900.3	14.4	14.6	-141.54	-25.8	-588.6	1,030.9	1,007.9	22.93	44.949	
4,232.3	4,170.4	4,014.8	3,928.5	14.5	14.8	-141.42	-24.9	-597.5	1,043.5	1,020.3	23.17	45.042	
4,300.0	4,236.6	4,077.0	3,987.8	14.8	15.2	-141.17	-22.8	-616.3	1,069.9	1,046.2	23.65	45.230	
4,330.7	4,266.7	4,105.2	4,014.7	14.9	15.4	-141.06	-21.9	-624.8	1,081.9	1,058.0	23.88	45.313	
4,400.0	4,334.4	4,168.9	4,075.3	15.2	15.8	-140.82	-19.8	-644.0	1,108.9	1,084.5	24.38	45.494	
4,429.1	4,362.9	4,195.6	4,100.8	15.4	16.0	-140.72	-18.9	-652.1	1,120.3	1,095.7	24.59	45.568	
4,500.0	4,432.3	4,260.7	4,162.8	15.7	16.4	-140.49	-16.8	-671.8	1,148.0	1,122.9	25.10	45.742	
4,527.5	4,459.2	4,286.0	4,187.0	15.8	16.5	-140.41	-15.9	-679.4	1,158.8	1,133.5	25.30	45.808	
4,600.0	4,530.1	4,352.6	4,250.4	16.1	17.0	-140.19	-13.7	-699.5	1,187.1	1,161.3	25.82	45.976	
4,626.0	4,555.5	4,376.4	4,273.1	16.2	17.1	-140.11	-13.0	-706.7	1,197.3	1,171.2	26.01	46.034	
4,700.0	4,627.9	4,444.4	4,337.9	16.6	17.5	-139.90	-10.7	-727.2	1,226.2	1,199.7	26.54	46.196	
4,724.4	4,651.7	4,466.9	4,359.2	16.7	17.7	-139.84	-10.0	-734.0	1,235.8	1,209.1	26.72	46.248	
4,800.0	4,725.7	4,536.3	4,425.4	17.0	18.1	-139.64	-7.7	-755.0	1,265.4	1,238.1	27.27	46.404	
4,822.8	4,748.0	4,557.3	4,445.4	17.1	18.3	-139.58	-7.0	-761.3	1,274.3	1,246.9	27.43	46.450	
4,904.9	4,828.3	4,632.6	4,517.2	17.5	18.7	-139.37	-4.5	-784.0	1,306.5	1,278.4	28.03	46.611	
4,921.2	4,844.3	4,647.7	4,531.5	17.5	18.8	-139.42	-4.0	-788.6	1,312.8	1,284.7	28.16	46.617	
5,000.0	4,921.6	4,720.4	4,600.8	17.8	19.3	-139.61	-1.6	-810.5	1,342.6	1,313.8	28.80	46.619	
5,019.7	4,941.0	4,738.7	4,618.2	17.9	19.4	-139.64	-1.0	-816.1	1,349.8	1,320.9	28.95	46.631	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	4,813.5	4,689.5	18.1	19.9	-139.74	1.4	-838.6	1,378.3	1,348.8	29.54	46.652	
5,118.1	5,038.3	4,830.4	4,705.6	18.2	20.0	-139.75	2.0	-843.7	1,384.5	1,354.8	29.67	46.658	
5,200.0	5,119.6	4,907.2	4,778.8	18.4	20.5	-139.74	4.5	-866.9	1,411.5	1,381.3	30.25	46.663	
5,216.5	5,136.0	4,922.8	4,793.6	18.4	20.6	-139.74	5.0	-871.6	1,416.8	1,386.4	30.36	46.666	
5,300.0	5,219.2	5,001.6	4,868.7	18.6	21.1	-139.64	7.6	-895.4	1,442.3	1,411.4	30.91	46.660	
5,314.9	5,234.1	5,015.7	4,882.2	18.6	21.2	-139.62	8.1	-899.7	1,446.7	1,415.7	31.00	46.661	
5,400.0	5,319.1	5,096.3	4,959.0	18.8	21.7	-139.44	10.8	-924.0	1,470.7	1,439.2	31.53	46.649	
5,413.4	5,332.4	5,109.1	4,971.1	18.8	21.8	-139.41	11.2	-927.9	1,474.3	1,442.7	31.60	46.650	
5,504.9	5,423.9	7,998.5	6,713.2	18.9	39.3	178.26	30.6	315.9	1,479.1	1,446.0	33.05	44.747	
5,511.8	5,430.8	7,998.3	6,713.2	18.9	39.3	178.27	30.6	315.8	1,473.1	1,440.0	33.06	44.552	
5,600.0	5,519.0	7,996.8	6,713.2	19.0	39.3	178.39	30.6	314.3	1,396.9	1,363.8	33.18	42.103	
5,610.2	5,529.3	7,996.7	6,713.2	19.0	39.2	178.40	30.6	314.1	1,388.2	1,355.0	33.19	41.821	
5,700.0	5,619.0	7,995.1	6,713.2	19.2	39.2	178.52	30.6	312.5	1,312.5	1,279.2	33.32	39.388	
5,708.6	5,627.7	7,995.0	6,713.2	19.2	39.2	178.54	30.6	312.4	1,305.3	1,272.0	33.33	39.157	
5,800.0	5,719.0	7,993.4	6,713.3	19.3	39.2	178.66	30.6	310.8	1,230.4	1,196.9	33.47	36.764	
5,807.1	5,726.1	7,993.3	6,713.3	19.3	39.2	178.67	30.6	310.7	1,224.6	1,191.2	33.48	36.582	
5,900.0	5,819.0	7,991.7	6,713.3	19.4	39.1	178.79	30.6	309.1	1,151.1	1,117.4	33.61	34.245	
5,905.5	5,824.5	7,991.6	6,713.3	19.4	39.1	178.80	30.6	309.0	1,146.8	1,113.2	33.62	34.110	
6,003.9	5,923.0	7,989.9	6,713.3	19.6	39.1	178.93	30.6	307.4	1,072.3	1,038.5	33.77	31.757	
6,009.8	5,928.8	7,989.8	6,713.3	19.6	39.1	178.94	30.6	307.3	1,068.0	1,034.2	33.78	31.621	
6,050.0	5,969.0	7,988.0	6,713.4	19.6	39.1	-94.30	30.6	305.4	1,038.8	984.6	54.27	19.143	
6,100.0	6,018.8	7,982.6	6,713.4	19.7	38.9	-97.79	30.6	300.1	1,003.8	949.5	54.30	18.487	
6,102.3	6,021.1	7,982.3	6,713.5	19.7	38.9	-97.93	30.6	299.7	1,002.2	947.9	54.30	18.459	
6,150.0	6,068.1	7,973.8	6,713.6	19.7	38.8	-100.66	30.6	291.2	970.4	916.3	54.14	17.923	
6,200.0	6,116.8	7,961.5	6,713.8	19.7	38.5	-102.95	30.6	278.9	938.9	885.1	53.84	17.439	
6,200.8	6,117.5	7,961.3	6,713.8	19.7	38.5	-102.98	30.6	278.7	938.4	884.6	53.83	17.432	
6,250.0	6,164.5	7,945.9	6,714.1	19.7	38.2	-104.68	30.6	263.3	909.4	856.0	53.42	17.026	
6,299.2	6,210.4	7,927.4	6,714.4	19.7	37.8	-105.88	30.6	244.8	882.6	829.7	52.91	16.681	
6,300.0	6,211.1	7,927.0	6,714.4	19.7	37.8	-105.89	30.6	244.5	882.2	829.3	52.91	16.676	
6,350.0	6,256.4	7,905.0	6,714.8	19.7	37.3	-106.65	30.6	222.4	857.4	805.1	52.33	16.385	
6,397.6	6,298.0	7,881.1	6,715.2	19.7	36.8	-106.97	30.6	198.5	836.1	784.4	51.76	16.155	
6,400.0	6,300.0	7,879.8	6,715.2	19.7	36.8	-106.98	30.6	197.3	835.1	783.4	51.73	16.145	
6,450.0	6,341.8	7,851.7	6,715.7	19.7	36.2	-106.95	30.6	169.2	815.4	764.2	51.11	15.954	
6,496.0	6,378.6	7,823.4	6,716.2	19.7	35.6	-106.64	30.6	140.8	799.4	748.8	50.52	15.822	
6,500.0	6,381.6	7,820.8	6,716.2	19.7	35.6	-106.60	30.6	138.3	798.1	747.6	50.47	15.812	
6,550.0	6,419.2	7,787.2	6,716.8	19.6	34.9	-105.98	30.6	104.7	783.3	733.4	49.86	15.708	
6,594.5	6,450.7	7,755.3	6,717.3	19.6	34.3	-105.24	30.6	72.7	772.1	722.7	49.37	15.640	
6,600.0	6,454.4	7,751.2	6,717.4	19.6	34.2	-105.14	30.6	68.6	770.8	721.5	49.30	15.634	
6,650.0	6,487.1	7,712.8	6,718.0	19.6	33.4	-104.14	30.6	30.2	760.5	711.7	48.78	15.590	
6,692.9	6,513.0	7,678.1	6,718.6	19.6	32.8	-103.19	30.6	-4.4	753.2	704.8	48.40	15.561	
6,700.0	6,517.0	7,672.2	6,718.7	19.6	32.7	-103.03	30.6	-10.3	752.1	703.8	48.34	15.558	
6,750.0	6,544.1	7,629.7	6,719.5	19.6	31.9	-101.86	30.6	-52.8	745.5	697.5	47.98	15.536	
6,791.3	6,564.2	7,593.3	6,720.1	19.7	31.3	-100.90	30.6	-89.2	741.2	693.4	47.76	15.519	
6,800.0	6,568.2	7,585.5	6,720.2	19.7	31.2	-100.70	30.6	-97.0	740.4	692.7	47.71	15.519	
6,850.0	6,589.1	7,539.8	6,721.0	19.8	30.4	-99.59	30.6	-142.7	736.5	688.9	47.54	15.491	
6,889.7	6,603.5	7,502.5	6,721.6	19.9	29.8	-98.79	30.6	-180.0	734.1	686.7	47.46	15.468	
6,900.0	6,606.9	7,492.7	6,721.8	19.9	29.7	-98.59	30.6	-189.8	733.6	686.2	47.45	15.461	
6,950.0	6,621.3	7,444.6	6,722.6	20.2	29.0	-97.73	30.6	-237.9	731.6	684.1	47.49	15.405	
6,988.2	6,630.0	7,407.3	6,723.3	20.6	28.4	-97.20	30.6	-275.2	730.5	683.0	47.57	15.358	
7,000.0	6,632.4	7,395.7	6,723.5	20.7	28.3	-97.06	30.6	-286.8	730.3	682.7	47.60	15.343	
7,050.0	6,640.0	7,346.2	6,724.3	21.4	27.6	-96.60	30.6	-336.3	729.5	681.6	47.85	15.246	
7,086.6	6,643.4	7,309.7	6,724.9	21.9	27.2	-96.41	30.6	-372.8	729.2	681.1	48.06	15.170	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	7,295.2	6,725.1	22.1	27.0	-96.37	30.6	-387.3	729.1	680.9	48.14	15.144	
7,135.7	6,645.0	7,255.1	6,724.1	22.7	26.6	-96.23	30.6	-427.4	728.9	680.5	48.39	15.062	
7,185.0	6,644.9	7,200.0	6,719.1	23.6	26.0	-95.85	30.6	-482.2	728.4	679.6	48.81	14.924	
7,200.0	6,644.9	7,183.5	6,716.8	23.9	25.9	-95.67	30.6	-498.6	728.2	679.3	48.96	14.874	
7,283.4	6,644.8	7,093.9	6,697.7	25.6	25.2	-94.18	30.6	-586.1	726.7	676.7	50.00	14.534	
7,300.0	6,644.8	7,076.8	6,692.8	25.9	25.1	-93.79	30.6	-602.5	726.3	676.1	50.24	14.458	
7,381.9	6,644.7	6,995.9	6,664.5	27.7	24.7	-91.57	30.6	-678.1	724.9	673.3	51.59	14.052	
7,400.0	6,644.7	6,979.0	6,657.5	28.1	24.6	-91.02	30.6	-693.6	724.7	672.8	51.91	13.961	
7,432.0	6,644.6	6,950.0	6,644.7	28.8	24.5	-90.00	30.6	-719.6	724.6	672.1	52.51	13.799	
7,480.3	6,644.6	6,908.4	6,624.5	29.9	24.4	-88.41	30.6	-755.9	725.0	671.5	53.44	13.566	
7,500.0	6,644.6	6,892.2	6,616.1	30.3	24.4	-87.75	30.6	-769.7	725.4	671.6	53.82	13.478	
7,578.7	6,644.5	6,831.9	6,582.0	32.2	24.4	-85.07	30.6	-819.4	728.8	673.4	55.39	13.157	
7,600.0	6,644.4	6,816.8	6,572.8	32.7	24.4	-84.35	30.6	-831.4	730.3	674.5	55.81	13.086	
7,677.1	6,644.3	6,766.0	6,540.0	34.6	24.4	-81.80	30.6	-870.3	738.1	680.8	57.33	12.874	
7,700.0	6,644.3	6,750.0	6,529.2	35.1	24.4	-80.96	30.6	-882.0	741.2	683.5	57.75	12.835	
7,775.6	6,644.2	6,709.4	6,500.4	37.0	24.5	-78.76	30.6	-910.7	754.3	695.1	59.23	12.735	
7,800.0	6,644.2	6,700.0	6,493.6	37.6	24.5	-78.24	30.6	-917.1	759.5	699.7	59.72	12.716 SF	
7,874.0	6,644.1	6,660.9	6,464.1	39.5	24.6	-76.03	30.6	-942.8	778.0	716.9	61.07	12.739	
7,900.0	6,644.1	6,650.0	6,455.6	40.1	24.6	-75.40	30.6	-949.6	785.6	724.0	61.56	12.762	
7,972.4	6,644.0	6,619.2	6,431.1	42.0	24.7	-73.60	30.6	-968.3	809.6	746.7	62.88	12.875	
8,000.0	6,643.9	6,600.0	6,415.5	42.7	24.7	-72.47	30.6	-979.4	819.9	756.6	63.22	12.969	
8,070.8	6,643.9	6,583.2	6,401.6	44.5	24.7	-71.48	30.6	-988.8	848.7	784.1	64.66	13.126	
8,100.0	6,643.8	6,573.5	6,393.4	45.2	24.8	-70.90	30.6	-994.1	861.7	796.5	65.18	13.220	
8,169.3	6,643.7	6,550.0	6,373.4	47.0	24.8	-69.50	30.6	-1,006.4	895.0	828.6	66.39	13.481	
8,200.0	6,643.7	6,550.0	6,373.4	47.9	24.8	-69.50	30.6	-1,006.4	910.9	843.7	67.15	13.564	
8,267.7	6,643.6	6,524.8	6,351.5	49.6	24.9	-68.00	30.6	-1,018.8	947.7	879.5	68.21	13.893	
8,300.0	6,643.6	6,516.6	6,344.2	50.5	24.9	-67.51	30.6	-1,022.7	966.3	897.5	68.80	14.046	
8,366.1	6,643.5	6,500.0	6,329.5	52.2	25.0	-66.52	30.6	-1,030.3	1,006.1	936.1	69.98	14.378	
8,400.0	6,643.4	6,500.0	6,329.5	53.1	25.0	-66.52	30.6	-1,030.3	1,027.4	956.6	70.81	14.509	
8,464.5	6,643.4	6,479.8	6,311.3	54.8	25.0	-65.32	30.6	-1,039.1	1,069.5	997.7	71.80	14.894	
8,500.0	6,643.3	6,472.8	6,304.9	55.8	25.0	-64.91	30.6	-1,042.0	1,093.4	1,020.9	72.46	15.090	
8,563.0	6,643.2	6,450.0	6,284.0	57.5	25.1	-63.57	30.6	-1,051.1	1,137.2	1,063.9	73.26	15.524	
8,600.0	6,643.2	6,450.0	6,284.0	58.5	25.1	-63.57	30.6	-1,051.1	1,163.5	1,089.3	74.16	15.690	
8,661.4	6,643.1	6,450.0	6,284.0	60.1	25.1	-63.57	30.6	-1,051.1	1,208.4	1,132.7	75.66	15.971	
8,700.0	6,643.1	6,450.0	6,284.0	61.2	25.1	-63.57	30.6	-1,051.1	1,237.3	1,160.7	76.60	16.152	
8,759.8	6,643.0	6,429.3	6,264.8	62.8	25.1	-62.36	30.6	-1,058.8	1,282.8	1,205.4	77.31	16.591	
8,800.0	6,643.0	6,423.6	6,259.5	63.9	25.1	-62.03	30.6	-1,060.8	1,313.9	1,235.8	78.08	16.829	
8,858.2	6,642.9	6,415.8	6,252.1	65.4	25.2	-61.58	30.6	-1,063.5	1,359.9	1,280.7	79.19	17.173	
8,900.0	6,642.8	6,400.0	6,237.2	66.6	25.2	-60.68	30.6	-1,068.7	1,393.4	1,313.8	79.57	17.512	
8,956.7	6,642.8	6,400.0	6,237.2	68.1	25.2	-60.68	30.6	-1,068.7	1,439.3	1,358.3	80.93	17.783	
9,000.0	6,642.7	6,400.0	6,237.2	69.3	25.2	-60.68	30.6	-1,068.7	1,474.8	1,392.9	81.98	17.991	
9,055.1	6,642.6	6,400.0	6,237.2	70.8	25.2	-60.68	30.6	-1,068.7	1,520.7	1,437.4	83.30	18.254	
9,100.0	6,642.6	6,400.0	6,237.2	72.0	25.2	-60.68	30.6	-1,068.7	1,558.5	1,474.1	84.39	18.468	
9,153.5	6,642.5	6,382.2	6,220.3	73.5	25.2	-59.67	30.6	-1,074.1	1,603.7	1,518.8	84.90	18.890	
9,200.0	6,642.5	6,377.7	6,216.0	74.7	25.2	-59.42	30.6	-1,075.4	1,643.5	1,557.7	85.81	19.153	
9,251.9	6,642.4	6,372.9	6,211.4	76.2	25.2	-59.15	30.6	-1,076.8	1,688.3	1,601.4	86.83	19.444	
9,300.0	6,642.3	6,368.6	6,207.3	77.5	25.2	-58.91	30.6	-1,078.0	1,730.0	1,642.3	87.78	19.709	
9,350.4	6,642.3	6,350.0	6,189.3	78.9	25.3	-57.88	30.6	-1,082.9	1,774.3	1,686.2	88.09	20.142	
9,400.0	6,642.2	6,350.0	6,189.3	80.2	25.3	-57.88	30.6	-1,082.9	1,818.0	1,728.7	89.26	20.366	
9,448.8	6,642.1	6,350.0	6,189.3	81.6	25.3	-57.88	30.6	-1,082.9	1,861.2	1,770.7	90.42	20.584	
9,500.0	6,642.1	6,350.0	6,189.3	83.0	25.3	-57.88	30.6	-1,082.9	1,906.8	1,815.1	91.63	20.810	
9,547.2	6,642.0	6,350.0	6,189.3	84.3	25.3	-57.88	30.6	-1,082.9	1,949.1	1,856.3	92.75	21.016	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,600.0	6,642.0	6,350.0	6,189.3	85.7	25.3	-57.88	30.6	-1,082.9	1,996.6	1,902.6	93.99	21.242	
9,645.6	6,641.9	6,350.0	6,189.3	87.0	25.3	-57.88	30.6	-1,082.9	2,038.0	1,942.9	95.08	21.435	
9,700.0	6,641.8	6,350.0	6,189.3	88.5	25.3	-57.88	30.6	-1,082.9	2,087.4	1,991.1	96.37	21.662	
9,744.1	6,641.8	6,350.0	6,189.3	89.7	25.3	-57.88	30.6	-1,082.9	2,127.7	2,030.3	97.41	21.843	
9,800.0	6,641.7	6,350.0	6,189.3	91.2	25.3	-57.88	30.6	-1,082.9	2,179.0	2,080.3	98.74	22.069	
9,842.5	6,641.7	6,330.2	6,170.0	92.4	25.3	-56.80	30.6	-1,087.7	2,217.8	2,119.2	98.65	22.481	
9,900.0	6,641.6	6,326.9	6,166.9	94.0	25.3	-56.63	30.6	-1,088.4	2,270.9	2,171.1	99.82	22.749	
9,940.9	6,641.5	6,324.7	6,164.7	95.1	25.3	-56.51	30.6	-1,088.9	2,308.7	2,208.1	100.66	22.937	
10,000.0	6,641.5	6,321.6	6,161.6	96.7	25.3	-56.34	30.6	-1,089.6	2,363.6	2,261.7	101.86	23.204	
10,039.3	6,641.4	6,319.6	6,159.7	97.8	25.3	-56.23	30.6	-1,090.0	2,400.2	2,297.5	102.66	23.379	
10,100.0	6,641.3	6,300.0	6,140.5	99.5	25.3	-55.20	30.6	-1,093.8	2,457.0	2,354.1	102.92	23.872	
10,137.8	6,641.3	6,300.0	6,140.5	100.6	25.3	-55.20	30.6	-1,093.8	2,492.3	2,388.5	103.80	24.011	
10,200.0	6,641.2	6,300.0	6,140.5	102.3	25.3	-55.20	30.6	-1,093.8	2,550.6	2,445.4	105.24	24.236	
10,236.2	6,641.2	6,300.0	6,140.5	103.3	25.3	-55.20	30.6	-1,093.8	2,584.6	2,478.5	106.08	24.365	
10,300.0	6,641.1	6,300.0	6,140.5	105.0	25.3	-55.20	30.6	-1,093.8	2,644.7	2,537.1	107.56	24.589	
10,334.6	6,641.0	6,300.0	6,140.5	106.0	25.3	-55.20	30.6	-1,093.8	2,677.3	2,569.0	108.36	24.708	
10,400.0	6,641.0	6,300.0	6,140.5	107.8	25.3	-55.20	30.6	-1,093.8	2,739.1	2,629.3	109.87	24.930	
10,433.0	6,640.9	6,300.0	6,140.5	108.7	25.3	-55.20	30.6	-1,093.8	2,770.4	2,659.8	110.64	25.040	
10,500.0	6,640.8	6,300.0	6,140.5	110.6	25.3	-55.20	30.6	-1,093.8	2,834.0	2,721.8	112.19	25.260	
10,531.5	6,640.8	6,300.0	6,140.5	111.5	25.3	-55.20	30.6	-1,093.8	2,863.9	2,751.0	112.92	25.362	
10,600.0	6,640.7	6,300.0	6,140.5	113.4	25.3	-55.20	30.6	-1,093.8	2,929.2	2,814.7	114.51	25.580	
10,629.9	6,640.7	6,300.0	6,140.5	114.2	25.3	-55.20	30.6	-1,093.8	2,957.7	2,842.5	115.21	25.673	
10,700.0	6,640.6	6,300.0	6,140.5	116.1	25.3	-55.20	30.6	-1,093.8	3,024.7	2,907.8	116.83	25.889	
10,728.3	6,640.5	6,300.0	6,140.5	116.9	25.3	-55.20	30.6	-1,093.8	3,051.8	2,934.3	117.49	25.975	
10,800.0	6,640.5	6,300.0	6,140.5	118.9	25.3	-55.20	30.6	-1,093.8	3,120.5	3,001.3	119.15	26.188	
10,826.7	6,640.4	6,300.0	6,140.5	119.7	25.3	-55.20	30.6	-1,093.8	3,146.1	3,026.4	119.78	26.267	
10,900.0	6,640.3	6,300.0	6,140.5	121.7	25.3	-55.20	30.6	-1,093.8	3,216.5	3,095.0	121.48	26.478	
10,925.2	6,640.3	6,300.0	6,140.5	122.4	25.3	-55.20	30.6	-1,093.8	3,240.7	3,118.7	122.06	26.550	
11,000.0	6,640.2	6,300.0	6,140.5	124.5	25.3	-55.19	30.6	-1,093.8	3,312.8	3,189.0	123.80	26.759	
11,023.6	6,640.2	6,300.0	6,140.5	125.1	25.3	-55.19	30.6	-1,093.8	3,335.5	3,211.2	124.35	26.824	
11,100.0	6,640.1	6,300.0	6,140.5	127.3	25.3	-55.19	30.6	-1,093.8	3,409.3	3,283.1	126.13	27.031	
11,122.0	6,640.0	6,279.2	6,120.0	127.9	25.3	-54.12	30.6	-1,097.4	3,430.2	3,305.1	125.10	27.419	
11,200.0	6,639.9	6,277.1	6,117.9	130.1	25.3	-54.01	30.6	-1,097.7	3,505.5	3,378.8	126.74	27.659	
11,220.4	6,639.9	6,276.5	6,117.4	130.6	25.3	-53.98	30.6	-1,097.8	3,525.3	3,398.1	127.17	27.722	
11,300.0	6,639.8	6,274.5	6,115.4	132.8	25.3	-53.88	30.6	-1,098.1	3,602.3	3,473.5	128.84	27.960	
11,318.9	6,639.8	6,274.0	6,114.9	133.4	25.3	-53.85	30.6	-1,098.2	3,620.6	3,491.3	129.23	28.016	
11,400.0	6,639.7	6,272.0	6,112.9	135.6	25.3	-53.75	30.6	-1,098.4	3,699.2	3,568.3	130.94	28.252	
11,417.3	6,639.7	6,271.6	6,112.5	136.1	25.3	-53.73	30.6	-1,098.5	3,716.0	3,584.7	131.30	28.301	
11,500.0	6,639.6	6,250.0	6,091.1	138.4	25.4	-52.64	30.6	-1,101.3	3,796.6	3,665.1	131.49	28.873	
11,515.7	6,639.5	6,250.0	6,091.1	138.9	25.4	-52.64	30.6	-1,101.3	3,811.9	3,680.0	131.85	28.911	
11,600.0	6,639.4	6,250.0	6,091.1	141.2	25.4	-52.64	30.6	-1,101.3	3,893.8	3,760.0	133.75	29.112	
11,614.1	6,639.4	6,250.0	6,091.1	141.6	25.4	-52.64	30.6	-1,101.3	3,907.5	3,773.4	134.07	29.145	
11,700.0	6,639.3	6,250.0	6,091.1	144.0	25.4	-52.64	30.6	-1,101.3	3,991.1	3,855.0	136.01	29.343	
11,712.6	6,639.3	6,250.0	6,091.1	144.3	25.4	-52.64	30.6	-1,101.3	4,003.3	3,867.0	136.30	29.371	
11,800.0	6,639.2	6,250.0	6,091.1	146.8	25.4	-52.64	30.6	-1,101.3	4,088.5	3,950.2	138.28	29.567	
11,811.0	6,639.2	6,250.0	6,091.1	147.1	25.4	-52.64	30.6	-1,101.3	4,099.2	3,960.7	138.53	29.592	
11,900.0	6,639.1	6,250.0	6,091.1	149.6	25.4	-52.64	30.6	-1,101.3	4,186.0	4,045.5	140.54	29.785	
11,909.4	6,639.0	6,250.0	6,091.1	149.8	25.4	-52.64	30.6	-1,101.3	4,195.2	4,054.5	140.75	29.806	
12,000.0	6,638.9	6,250.0	6,091.1	152.4	25.4	-52.64	30.6	-1,101.3	4,283.7	4,140.9	142.80	29.997	
12,007.8	6,638.9	6,250.0	6,091.1	152.6	25.4	-52.64	30.6	-1,101.3	4,291.3	4,148.4	142.98	30.014	
12,100.0	6,638.8	6,250.0	6,091.1	155.2	25.4	-52.64	30.6	-1,101.3	4,381.4	4,236.4	145.06	30.203	
12,106.3	6,638.8	6,250.0	6,091.1	155.3	25.4	-52.64	30.6	-1,101.3	4,387.6	4,242.4	145.21	30.216	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,200.0	6,638.7	6,250.0	6,091.1	157.9	25.4	-52.64	30.6	-1,101.3	4,479.3	4,332.0	147.33	30.403	
12,204.7	6,638.7	6,250.0	6,091.1	158.1	25.4	-52.64	30.6	-1,101.3	4,483.9	4,336.5	147.43	30.413	
12,300.0	6,638.5	6,250.0	6,091.1	160.7	25.4	-52.64	30.6	-1,101.3	4,577.2	4,427.6	149.59	30.598	
12,303.1	6,638.5	6,250.0	6,091.1	160.8	25.4	-52.64	30.6	-1,101.3	4,580.3	4,430.6	149.66	30.604	
12,400.0	6,638.4	6,250.0	6,091.1	163.5	25.4	-52.64	30.6	-1,101.3	4,675.3	4,523.4	151.86	30.787	
12,401.5	6,638.4	6,250.0	6,091.1	163.6	25.4	-52.64	30.6	-1,101.3	4,676.8	4,524.9	151.89	30.790	
12,500.0	6,638.3	6,250.0	6,091.1	166.3	25.4	-52.64	30.6	-1,101.3	4,773.4	4,619.3	154.12	30.972	
12,598.4	6,638.2	6,250.0	6,091.1	169.1	25.4	-52.64	30.6	-1,101.3	4,870.0	4,713.7	156.35	31.148	
12,600.0	6,638.2	6,250.0	6,091.1	169.1	25.4	-52.64	30.6	-1,101.3	4,871.6	4,715.2	156.39	31.151	
12,696.8	6,638.0	6,250.0	6,091.1	171.8	25.4	-52.64	30.6	-1,101.3	4,966.7	4,808.2	158.58	31.320	
12,700.0	6,638.0	6,250.0	6,091.1	171.9	25.4	-52.64	30.6	-1,101.3	4,969.9	4,811.2	158.65	31.326	
12,795.2	6,637.9	6,250.0	6,091.1	174.6	25.4	-52.64	30.6	-1,101.3	5,063.5	4,902.7	160.81	31.488	
12,800.0	6,637.9	6,250.0	6,091.1	174.7	25.4	-52.64	30.6	-1,101.3	5,068.2	4,907.3	160.92	31.496	
12,893.7	6,637.8	6,250.0	6,091.1	177.3	25.4	-52.64	30.6	-1,101.3	5,160.4	4,997.3	163.04	31.651	
12,900.0	6,637.8	6,250.0	6,091.1	177.5	25.4	-52.64	30.6	-1,101.3	5,166.6	5,003.4	163.18	31.661	
12,992.1	6,637.7	6,250.0	6,091.1	180.1	25.4	-52.64	30.6	-1,101.3	5,257.3	5,092.0	165.27	31.810	
13,000.0	6,637.6	6,250.0	6,091.1	180.3	25.4	-52.64	30.6	-1,101.3	5,265.1	5,099.6	165.45	31.823	
13,090.5	6,637.5	6,250.0	6,091.1	182.8	25.4	-52.64	30.6	-1,101.3	5,354.2	5,186.7	167.50	31.965	
13,100.0	6,637.5	6,250.0	6,091.1	183.1	25.4	-52.64	30.6	-1,101.3	5,363.6	5,195.9	167.72	31.980	
13,188.9	6,637.4	6,250.0	6,091.1	185.6	25.4	-52.64	30.6	-1,101.3	5,451.3	5,281.5	169.73	32.117	
13,200.0	6,637.4	6,250.0	6,091.1	185.9	25.4	-52.64	30.6	-1,101.3	5,462.1	5,292.2	169.98	32.134	
13,287.4	6,637.3	6,250.0	6,091.1	188.4	25.4	-52.64	30.6	-1,101.3	5,548.3	5,376.4	171.96	32.265	
13,300.0	6,637.3	6,250.0	6,091.1	188.7	25.4	-52.64	30.6	-1,101.3	5,560.8	5,388.5	172.25	32.283	
13,385.8	6,637.1	6,250.0	6,091.1	191.1	25.4	-52.64	30.6	-1,101.3	5,645.4	5,471.2	174.19	32.409	
13,400.0	6,637.1	6,250.0	6,091.1	191.5	25.4	-52.64	30.6	-1,101.3	5,659.4	5,484.9	174.52	32.429	
13,484.2	6,637.0	6,250.0	6,091.1	193.9	25.4	-52.64	30.6	-1,101.3	5,742.6	5,566.2	176.43	32.550	
13,500.0	6,637.0	6,250.0	6,091.1	194.3	25.4	-52.64	30.6	-1,101.3	5,758.2	5,581.4	176.78	32.572	
13,582.6	6,636.9	6,250.0	6,091.1	196.6	25.4	-52.64	30.6	-1,101.3	5,839.8	5,661.1	178.66	32.687	
13,600.0	6,636.9	6,250.0	6,091.1	197.1	25.4	-52.64	30.6	-1,101.3	5,856.9	5,677.9	179.05	32.711	
13,681.1	6,636.8	6,250.0	6,091.1	199.4	25.4	-52.64	30.6	-1,101.3	5,937.0	5,756.1	180.89	32.821	
13,700.0	6,636.7	6,250.0	6,091.1	199.9	25.4	-52.64	30.6	-1,101.3	5,955.7	5,774.4	181.32	32.847	
13,779.5	6,636.6	6,250.0	6,091.1	202.1	25.4	-52.64	30.6	-1,101.3	6,034.3	5,851.2	183.12	32.952	
13,800.0	6,636.6	6,250.0	6,091.1	202.7	25.4	-52.64	30.6	-1,101.3	6,054.6	5,871.0	183.59	32.979	
13,877.9	6,636.5	6,250.0	6,091.1	204.9	25.4	-52.64	30.6	-1,101.3	6,131.6	5,946.3	185.35	33.081	
13,900.0	6,636.5	6,250.0	6,091.1	205.5	25.4	-52.64	30.6	-1,101.3	6,153.4	5,967.6	185.85	33.109	
13,976.3	6,636.4	6,250.0	6,091.1	207.6	25.4	-52.64	30.6	-1,101.3	6,229.0	6,041.4	187.59	33.206	
14,000.0	6,636.3	6,250.0	6,091.1	208.3	25.4	-52.64	30.6	-1,101.3	6,252.4	6,064.2	188.12	33.236	
14,074.8	6,636.3	6,250.0	6,091.1	210.4	25.4	-52.64	30.6	-1,101.3	6,326.3	6,136.5	189.82	33.328	
14,100.0	6,636.2	6,250.0	6,091.1	211.1	25.4	-52.64	30.6	-1,101.3	6,351.3	6,160.9	190.39	33.359	
14,173.2	6,636.1	6,250.0	6,091.1	213.2	25.4	-52.64	30.6	-1,101.3	6,423.7	6,231.7	192.05	33.448	
14,200.0	6,636.1	6,250.0	6,091.1	213.9	25.4	-52.64	30.6	-1,101.3	6,450.3	6,257.6	192.66	33.480	
14,271.6	6,636.0	6,250.0	6,091.1	215.9	25.4	-52.64	30.6	-1,101.3	6,521.2	6,326.9	194.28	33.565	
14,300.0	6,636.0	6,250.0	6,091.1	216.7	25.4	-52.64	30.6	-1,101.3	6,549.3	6,354.4	194.93	33.599	
14,370.0	6,635.9	6,250.0	6,091.1	218.7	25.4	-52.64	30.6	-1,101.3	6,618.7	6,422.1	196.52	33.680	
14,400.0	6,635.8	6,250.0	6,091.1	219.5	25.4	-52.64	30.6	-1,101.3	6,648.3	6,451.1	197.20	33.714	
14,468.5	6,635.7	6,250.0	6,091.1	221.4	25.4	-52.64	30.6	-1,101.3	6,716.2	6,517.4	198.75	33.792	
14,500.0	6,635.7	6,250.0	6,091.1	222.3	25.4	-52.64	30.6	-1,101.3	6,747.4	6,547.9	199.47	33.827	
14,566.9	6,635.6	6,250.0	6,091.1	224.2	25.4	-52.64	30.6	-1,101.3	6,813.7	6,612.7	200.98	33.902	
14,600.0	6,635.6	6,227.4	6,068.6	225.1	25.4	-51.53	30.6	-1,103.5	6,846.1	6,647.1	199.00	34.403	
14,665.3	6,635.5	6,226.8	6,068.0	226.9	25.4	-51.51	30.6	-1,103.6	6,910.8	6,710.4	200.40	34.486	
14,700.0	6,635.4	6,226.6	6,067.8	227.9	25.4	-51.49	30.6	-1,103.6	6,945.2	6,744.1	201.14	34.529	
14,763.7	6,635.4	6,226.1	6,067.3	229.7	25.4	-51.47	30.6	-1,103.7	7,008.4	6,805.9	202.51	34.608	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10G-312 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,800.0	6,635.3	6,225.8	6,067.0	230.7	25.4	-51.45	30.6	-1,103.7	7,044.3	6,841.0	203.28	34.653	
14,862.2	6,635.2	6,225.3	6,066.5	232.5	25.4	-51.43	30.6	-1,103.7	7,106.0	6,901.3	204.61	34.728	
14,900.0	6,635.2	6,225.0	6,066.2	233.5	25.4	-51.42	30.6	-1,103.7	7,143.5	6,938.0	205.42	34.774	
14,960.6	6,635.1	6,224.6	6,065.8	235.2	25.4	-51.40	30.6	-1,103.8	7,203.5	6,996.8	206.72	34.846	
15,000.0	6,635.0	6,224.3	6,065.5	236.3	25.4	-51.38	30.6	-1,103.8	7,242.6	7,035.1	207.57	34.893	
15,033.1	6,635.0	6,224.1	6,065.3	237.3	25.4	-51.37	30.6	-1,103.8	7,275.4	7,067.2	208.28	34.931	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	-179.36	-75.0	-0.8	75.0				
98.4	98.4	98.4	98.4	0.1	0.1	-179.36	-75.0	-0.8	75.0	74.9	0.19	390.398	
100.0	100.0	100.0	100.0	0.1	0.1	-179.36	-75.0	-0.8	75.0	74.9	0.20	383.790	
196.8	196.8	196.8	196.8	0.3	0.3	-179.36	-75.0	-0.8	75.0	74.4	0.63	118.952	
200.0	200.0	200.0	200.0	0.3	0.3	-179.36	-75.0	-0.8	75.0	74.4	0.65	116.341	
295.3	295.3	295.3	295.3	0.5	0.5	-179.36	-75.0	-0.8	75.0	74.0	1.07	69.919	
300.0	300.0	300.0	300.0	0.5	0.5	-179.36	-75.0	-0.8	75.0	74.0	1.09	68.562	
393.7	393.7	393.7	393.7	0.8	0.8	-179.36	-75.0	-0.8	75.0	73.5	1.52	49.510	
400.0	400.0	400.0	400.0	0.8	0.8	-179.36	-75.0	-0.8	75.0	73.5	1.54	48.602	
492.1	492.1	492.1	492.1	1.0	1.0	-179.36	-75.0	-0.8	75.0	73.1	1.96	38.324	
500.0	500.0	500.0	500.0	1.0	1.0	-179.36	-75.0	-0.8	75.0	73.1	1.99	37.644	
590.5	590.5	590.5	590.5	1.2	1.2	-179.36	-75.0	-0.8	75.0	72.6	2.40	31.261	
600.0	600.0	600.0	600.0	1.2	1.2	-179.36	-75.0	-0.8	75.0	72.6	2.44	30.717	
689.0	689.0	689.0	689.0	1.4	1.4	-179.36	-75.0	-0.8	75.0	72.2	2.84	26.396	
700.0	700.0	700.0	700.0	1.4	1.4	-179.36	-75.0	-0.8	75.0	72.2	2.89	25.944	
787.4	787.4	787.4	787.4	1.6	1.6	-179.36	-75.0	-0.8	75.0	71.8	3.29	22.842	
800.0	800.0	800.0	800.0	1.7	1.7	-179.36	-75.0	-0.8	75.0	71.7	3.34	22.454	
885.8	885.8	885.8	885.8	1.9	1.9	-179.36	-75.0	-0.8	75.0	71.3	3.73	20.131	
900.0	900.0	900.0	900.0	1.9	1.9	-179.36	-75.0	-0.8	75.0	71.3	3.79	19.792	
984.2	984.2	984.2	984.2	2.1	2.1	-179.36	-75.0	-0.8	75.0	70.9	4.17	17.995	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	-179.36	-75.0	-0.8	75.0	70.8	4.24	17.695 CC, ES	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	154.03	-75.0	-0.8	76.1	71.5	4.61	16.506	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	154.20	-75.0	-0.8	76.6	71.9	4.69	16.340	
1,181.1	1,181.0	1,181.0	1,181.0	2.5	2.5	155.41	-75.0	-0.8	80.2	75.2	5.05	15.884	
1,200.0	1,199.8	1,199.8	1,199.8	2.6	2.6	155.77	-75.0	-0.8	81.4	76.2	5.13	15.849	
1,279.5	1,279.1	1,279.1	1,279.1	2.8	2.7	157.51	-75.0	-0.8	87.5	82.0	5.49	15.945	
1,300.0	1,299.5	1,299.5	1,299.5	2.8	2.8	158.00	-75.0	-0.8	89.4	83.8	5.58	16.033	
1,377.9	1,376.9	1,376.9	1,376.9	3.0	3.0	159.96	-75.0	-0.8	98.0	92.1	5.92	16.558	
1,400.0	1,398.7	1,398.7	1,398.7	3.0	3.0	160.52	-75.0	-0.8	100.8	94.8	6.01	16.763	
1,476.4	1,474.2	1,474.2	1,474.2	3.2	3.2	162.44	-75.0	-0.8	111.8	105.5	6.35	17.626	
1,500.0	1,497.5	1,497.5	1,497.5	3.3	3.2	163.01	-75.0	-0.8	115.7	109.2	6.45	17.944	
1,574.8	1,571.0	1,572.0	1,572.0	3.5	3.4	164.39	-74.9	0.1	128.8	122.0	6.76	19.044	
1,600.0	1,595.6	1,597.2	1,597.2	3.6	3.5	164.66	-74.8	0.8	133.5	126.6	6.87	19.439	
1,673.2	1,667.2	1,670.4	1,670.3	3.9	3.6	164.98	-74.3	4.2	147.1	139.9	7.19	20.439	
1,700.0	1,693.4	1,697.2	1,697.0	4.0	3.7	164.92	-74.1	5.9	151.9	144.5	7.31	20.762	
1,771.6	1,763.5	1,769.1	1,768.7	4.2	3.8	164.35	-73.3	11.7	164.3	156.6	7.65	21.475	
1,800.0	1,791.3	1,797.6	1,797.0	4.3	3.9	163.99	-72.9	14.5	169.1	161.3	7.78	21.721	
1,870.1	1,859.8	1,868.0	1,867.0	4.6	4.0	162.81	-71.8	22.5	180.5	172.3	8.13	22.199	
1,900.0	1,889.1	1,898.1	1,896.8	4.7	4.1	162.19	-71.2	26.5	185.2	176.9	8.28	22.365	
1,968.5	1,956.1	1,966.9	1,964.8	4.9	4.3	160.55	-69.8	36.8	195.8	187.2	8.65	22.640	
2,000.0	1,986.9	1,998.5	1,995.9	5.1	4.4	159.71	-69.0	42.0	200.6	191.8	8.82	22.739	
2,066.9	2,052.3	2,065.4	2,061.8	5.3	4.6	157.74	-67.3	54.2	210.6	201.4	9.22	22.853	
2,100.0	2,084.7	2,098.5	2,094.1	5.5	4.7	156.68	-66.4	60.8	215.5	206.1	9.41	22.892	
2,165.3	2,148.6	2,162.6	2,156.9	5.7	4.9	154.67	-64.5	74.1	225.3	215.5	9.83	22.923	
2,200.0	2,182.5	2,196.6	2,190.2	5.9	5.0	153.67	-63.6	81.1	230.6	220.6	10.05	22.944	
2,263.8	2,244.9	2,259.2	2,251.4	6.1	5.2	151.95	-61.7	93.9	240.6	230.1	10.48	22.959	
2,300.0	2,280.3	2,294.8	2,286.2	6.3	5.3	151.03	-60.7	101.3	246.3	235.6	10.72	22.971	
2,362.2	2,341.2	2,355.9	2,345.9	6.5	5.5	149.55	-59.0	113.8	256.3	245.2	11.16	22.976	
2,400.0	2,378.1	2,393.0	2,382.2	6.7	5.7	148.70	-57.9	121.5	262.5	251.1	11.42	22.982	
2,460.6	2,437.4	2,452.5	2,440.4	6.9	5.9	147.43	-56.2	133.7	272.5	260.6	11.86	22.981	
2,500.0	2,476.0	2,491.1	2,478.2	7.1	6.0	146.65	-55.1	141.7	279.0	266.9	12.14	22.983	
2,550.0	2,524.9	2,540.2	2,526.2	7.3	6.2	145.71	-53.6	151.8	287.4	274.9	12.51	22.979	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	2,533.7	2,549.1	2,534.9	7.3	6.2	146.42	-53.4	153.6	288.9	276.3	12.57	22.988	
2,600.0	2,573.8	2,589.2	2,574.1	7.5	6.4	149.60	-52.2	161.9	296.1	283.2	12.85	23.042	
2,639.4	2,612.3	2,627.7	2,611.8	7.7	6.6	152.61	-51.1	169.8	303.3	290.2	13.11	23.128	
2,657.5	2,630.0	2,645.3	2,629.0	7.7	6.6	152.23	-50.6	173.4	306.7	293.4	13.24	23.156	
2,700.0	2,671.6	2,686.8	2,669.6	7.9	6.8	151.37	-49.4	182.0	314.7	301.2	13.55	23.223	
2,755.9	2,726.3	2,741.4	2,723.0	8.1	7.0	150.30	-47.8	193.2	325.4	311.4	13.97	23.292	
2,800.0	2,769.4	2,784.4	2,765.1	8.3	7.2	149.50	-46.6	202.1	333.8	319.5	14.30	23.347	
2,854.3	2,822.5	2,837.5	2,817.0	8.5	7.4	148.57	-45.0	213.0	344.3	329.6	14.71	23.412	
2,900.0	2,867.2	2,882.0	2,860.6	8.7	7.6	147.84	-43.8	222.2	353.3	338.2	15.05	23.466	
2,952.7	2,918.8	2,933.5	2,910.9	9.0	7.8	147.03	-42.3	232.8	363.6	348.2	15.45	23.528	
3,000.0	2,965.0	2,980.0	2,956.4	9.2	8.0	146.35	-40.9	242.2	372.9	357.1	15.81	23.595	
3,051.2	3,015.1	3,030.8	3,006.3	9.4	8.1	145.76	-39.6	251.9	383.0	366.8	16.15	23.710	
3,100.0	3,062.8	3,079.5	3,054.2	9.6	8.3	145.35	-38.4	260.3	392.5	376.0	16.47	23.831	
3,149.6	3,111.4	3,129.0	3,103.1	9.8	8.4	145.07	-37.3	268.1	402.1	385.3	16.78	23.959	
3,200.0	3,160.7	3,179.5	3,153.1	10.0	8.6	144.92	-36.3	275.1	411.7	394.6	17.09	24.090	
3,248.0	3,207.6	3,227.6	3,200.8	10.2	8.7	144.90	-35.5	281.0	420.8	403.4	17.37	24.219	
3,300.0	3,258.5	3,279.8	3,252.7	10.5	8.8	145.00	-34.7	286.5	430.4	412.8	17.67	24.363	
3,346.4	3,303.9	3,326.4	3,299.1	10.7	8.9	145.19	-34.2	290.6	439.0	421.0	17.92	24.497	
3,400.0	3,356.3	3,380.1	3,352.7	10.9	9.0	145.53	-33.6	294.4	448.7	430.5	18.20	24.657	
3,444.9	3,400.2	3,425.0	3,397.6	11.1	9.1	145.89	-33.3	296.9	456.8	438.3	18.42	24.800	
3,500.0	3,454.1	3,480.1	3,452.6	11.3	9.2	146.44	-33.0	298.9	466.6	447.9	18.68	24.983	
3,543.3	3,496.5	3,523.4	3,495.8	11.5	9.3	146.95	-32.9	299.7	474.3	455.4	18.87	25.136	
3,600.0	3,551.9	3,579.4	3,551.9	11.7	9.4	147.69	-32.8	300.0	484.3	465.2	19.11	25.347	
3,641.7	3,592.7	3,620.2	3,592.7	11.9	9.5	148.22	-32.8	300.0	491.7	472.4	19.28	25.499	
3,700.0	3,649.7	3,677.3	3,649.7	12.2	9.6	148.95	-32.8	300.0	502.1	482.5	19.53	25.705	
3,740.1	3,689.0	3,716.5	3,689.0	12.4	9.6	149.43	-32.8	300.0	509.3	489.6	19.70	25.847	
3,800.0	3,747.5	3,775.1	3,747.5	12.6	9.7	150.12	-32.8	300.0	520.1	500.1	19.96	26.057	
3,838.6	3,785.3	3,812.8	3,785.3	12.8	9.8	150.56	-32.8	300.0	527.1	507.0	20.12	26.192	
3,900.0	3,845.4	3,872.9	3,845.4	13.1	9.9	151.22	-32.8	300.0	538.3	517.9	20.39	26.405	
3,937.0	3,881.6	3,909.1	3,881.6	13.2	10.0	151.61	-32.8	300.0	545.1	524.6	20.54	26.533	
4,000.0	3,943.2	3,970.7	3,943.2	13.5	10.1	152.25	-32.8	300.0	556.7	535.9	20.81	26.748	
4,035.4	3,977.8	4,005.3	3,977.8	13.6	10.2	152.59	-32.8	300.0	563.3	542.3	20.96	26.868	
4,100.0	4,041.0	4,068.5	4,041.0	13.9	10.3	153.21	-32.8	300.0	575.3	554.0	21.24	27.084	
4,133.8	4,074.1	4,101.6	4,074.1	14.1	10.3	153.52	-32.8	300.0	581.6	560.2	21.38	27.197	
4,200.0	4,138.8	4,166.3	4,138.8	14.4	10.5	154.11	-32.8	300.0	594.0	572.3	21.67	27.414	
4,232.3	4,170.4	4,197.9	4,170.4	14.5	10.5	154.39	-32.8	300.0	600.1	578.3	21.81	27.518	
4,300.0	4,236.6	4,264.1	4,236.6	14.8	10.6	154.95	-32.8	300.0	612.8	590.7	22.10	27.735	
4,330.7	4,266.7	4,294.2	4,266.7	14.9	10.7	155.20	-32.8	300.0	618.6	596.4	22.23	27.833	
4,400.0	4,334.4	4,362.0	4,334.4	15.2	10.8	155.75	-32.8	300.0	631.8	609.3	22.52	28.049	
4,429.1	4,362.9	4,390.4	4,362.9	15.4	10.9	155.97	-32.8	300.0	637.3	614.7	22.65	28.139	
4,500.0	4,432.3	4,459.8	4,432.3	15.7	11.0	156.50	-32.8	300.0	650.9	627.9	22.96	28.355	
4,527.5	4,459.2	4,486.7	4,459.2	15.8	11.1	156.70	-32.8	300.0	656.2	633.1	23.07	28.437	
4,600.0	4,530.1	4,557.6	4,530.1	16.1	11.2	157.20	-32.8	300.0	670.1	646.7	23.39	28.652	
4,626.0	4,555.5	4,583.0	4,555.5	16.2	11.3	157.38	-32.8	300.0	675.1	651.6	23.50	28.728	
4,700.0	4,627.9	4,655.4	4,627.9	16.6	11.4	157.87	-32.8	300.0	689.3	665.5	23.82	28.941	
4,724.4	4,651.7	4,679.3	4,651.7	16.7	11.4	158.03	-32.8	300.0	694.1	670.1	23.92	29.010	
4,800.0	4,725.7	4,753.2	4,725.7	17.0	11.6	158.50	-32.8	300.0	708.7	684.4	24.25	29.221	
4,822.8	4,748.0	4,775.5	4,748.0	17.1	11.6	158.64	-32.8	300.0	713.1	688.8	24.35	29.284	
4,904.9	4,828.3	4,855.8	4,828.3	17.5	11.8	159.13	-32.8	300.0	729.1	704.4	24.71	29.507	
4,921.2	4,844.3	4,871.8	4,844.3	17.5	11.8	159.24	-32.8	300.0	732.2	707.5	24.78	29.544	
5,000.0	4,921.6	4,949.2	4,921.6	17.8	12.0	159.75	-32.8	300.0	746.2	721.0	25.15	29.673	
5,019.7	4,941.0	4,968.5	4,941.0	17.9	12.0	159.86	-32.8	300.0	749.4	724.1	25.23	29.703	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	5,020.4	5,047.9	5,020.4	18.1	12.2	160.26	-32.8	300.0	761.1	735.5	25.56	29.779	
5,118.1	5,038.3	5,065.8	5,038.3	18.2	12.2	160.34	-32.8	300.0	763.4	737.8	25.63	29.788	
5,200.0	5,119.6	5,147.1	5,119.6	18.4	12.4	160.65	-32.8	300.0	772.7	746.8	25.94	29.783	
5,216.5	5,136.0	5,163.6	5,136.0	18.4	12.4	160.70	-32.8	300.0	774.3	748.3	26.01	29.776	
5,300.0	5,219.2	5,246.7	5,219.2	18.6	12.6	160.92	-32.8	300.0	781.1	754.8	26.31	29.692	
5,314.9	5,234.1	5,261.6	5,234.1	18.6	12.6	160.95	-32.8	300.0	782.1	755.7	26.36	29.672	
5,400.0	5,319.1	5,346.6	5,319.1	18.8	12.8	161.08	-32.8	300.0	786.2	759.6	26.64	29.510	
5,413.4	5,332.4	5,359.9	5,332.4	18.8	12.8	161.09	-32.8	300.0	786.7	760.0	26.68	29.480	
5,504.9	5,423.9	5,451.4	5,423.9	18.9	13.0	179.56	-32.8	300.0	788.0	758.1	29.96	26.301	
5,511.8	5,430.8	5,458.3	5,430.8	18.9	13.0	179.56	-32.8	300.0	788.0	758.1	29.99	26.280	
5,600.0	5,519.0	5,546.5	5,519.0	19.0	13.2	179.56	-32.8	300.0	788.0	757.8	30.29	26.014	
5,610.2	5,529.3	5,556.8	5,529.3	19.0	13.2	179.56	-32.8	300.0	788.0	757.7	30.33	25.982	
5,700.0	5,619.0	5,646.5	5,619.0	19.2	13.4	179.56	-32.8	300.0	788.0	757.4	30.65	25.709	
5,708.6	5,627.7	5,655.2	5,627.7	19.2	13.4	179.56	-32.8	300.0	788.0	757.4	30.68	25.683	
5,800.0	5,719.0	5,746.5	5,719.0	19.3	13.6	179.56	-32.8	300.0	788.0	757.0	31.01	25.410	
5,807.1	5,726.1	5,753.6	5,726.1	19.3	13.6	179.56	-32.8	300.0	788.0	757.0	31.04	25.389	
5,900.0	5,819.0	5,846.5	5,819.0	19.4	13.8	179.56	-32.8	300.0	788.0	756.7	31.38	25.116	
5,905.5	5,824.5	5,852.0	5,824.5	19.4	13.8	179.56	-32.8	300.0	788.0	756.7	31.40	25.100	
6,003.9	5,923.0	5,950.5	5,923.0	19.6	14.0	179.56	-32.8	300.0	788.0	756.3	31.76	24.816	
6,009.8	5,928.8	5,956.3	5,928.8	19.6	14.0	179.56	-32.8	300.0	788.0	756.3	31.78	24.800	
6,050.0	5,969.0	5,996.5	5,969.0	19.6	14.1	-90.53	-32.8	300.0	788.1	759.0	29.08	27.103	
6,100.0	6,018.8	6,046.6	6,019.1	19.7	14.2	-90.83	-32.8	299.7	788.1	758.8	29.26	26.934	
6,102.3	6,021.1	6,049.0	6,021.5	19.7	14.2	-90.85	-32.8	299.6	788.1	758.8	29.27	26.927	
6,150.0	6,068.1	6,097.4	6,069.8	19.7	14.3	-91.18	-32.8	296.4	788.2	758.8	29.41	26.802	
6,200.0	6,116.8	6,148.5	6,120.4	19.7	14.3	-91.53	-32.8	289.6	788.3	758.8	29.52	26.703	
6,200.8	6,117.5	6,149.3	6,121.2	19.7	14.3	-91.53	-32.8	289.4	788.3	758.8	29.52	26.701	
6,250.0	6,164.5	6,200.0	6,170.7	19.7	14.4	-91.87	-32.8	279.0	788.4	758.8	29.61	26.630	
6,299.2	6,210.4	6,250.9	6,219.8	19.7	14.4	-92.20	-32.8	265.0	788.6	758.9	29.67	26.579	
6,300.0	6,211.1	6,251.8	6,220.6	19.7	14.4	-92.20	-32.8	264.8	788.6	758.9	29.67	26.579	
6,350.0	6,256.4	6,304.0	6,269.5	19.7	14.4	-92.52	-32.8	246.8	788.8	759.1	29.72	26.537	
6,397.6	6,298.0	6,354.0	6,315.2	19.7	14.4	-92.82	-32.8	226.3	789.0	759.2	29.78	26.496	
6,400.0	6,300.0	6,356.5	6,317.4	19.7	14.4	-92.83	-32.8	225.2	789.0	759.2	29.78	26.493	
6,450.0	6,341.8	6,409.4	6,363.8	19.7	14.5	-93.13	-32.8	200.0	789.2	759.4	29.86	26.431	
6,496.0	6,378.6	6,458.4	6,405.1	19.7	14.5	-93.39	-32.8	173.6	789.4	759.4	29.97	26.340	
6,500.0	6,381.6	6,462.6	6,408.6	19.7	14.5	-93.41	-32.8	171.2	789.4	759.5	29.98	26.331	
6,550.0	6,419.2	6,516.1	6,451.3	19.6	14.6	-93.67	-32.8	138.9	789.7	759.5	30.17	26.174	
6,594.5	6,450.7	6,564.0	6,487.3	19.6	14.8	-93.89	-32.8	107.5	789.9	759.4	30.42	25.968	
6,600.0	6,454.4	6,569.9	6,491.7	19.6	14.8	-93.92	-32.8	103.4	789.9	759.4	30.45	25.939	
6,650.0	6,487.1	6,624.0	6,529.5	19.6	15.0	-94.15	-32.8	64.7	790.1	759.3	30.85	25.607	
6,692.9	6,513.0	6,670.7	6,559.7	19.6	15.2	-94.32	-32.8	29.1	790.3	759.0	31.32	25.233	
6,700.0	6,517.0	6,678.4	6,564.5	19.6	15.3	-94.35	-32.8	23.1	790.3	758.9	31.40	25.166	
6,750.0	6,544.1	6,733.0	6,596.3	19.6	15.7	-94.53	-32.8	-21.3	790.5	758.4	32.12	24.611	
6,791.3	6,564.2	6,778.3	6,620.0	19.7	16.0	-94.67	-32.8	-59.9	790.7	757.8	32.86	24.059	
6,800.0	6,568.2	6,787.8	6,624.7	19.7	16.1	-94.69	-32.8	-68.2	790.7	757.7	33.02	23.945	
6,850.0	6,589.1	6,842.8	6,649.6	19.8	16.7	-94.82	-32.8	-117.2	790.8	756.7	34.11	23.182	
6,889.7	6,603.5	6,886.7	6,666.7	19.9	17.3	-94.91	-32.8	-157.6	790.9	755.8	35.14	22.511	
6,900.0	6,606.9	6,898.0	6,670.7	19.9	17.4	-94.93	-32.8	-168.2	791.0	755.6	35.40	22.342	
6,950.0	6,621.3	6,953.3	6,687.8	20.2	18.2	-95.01	-32.8	-220.7	791.1	754.2	36.88	21.449	
6,988.2	6,630.0	6,995.6	6,698.1	20.6	18.9	-95.06	-32.8	-261.7	791.1	753.0	38.13	20.746	
7,000.0	6,632.4	7,008.7	6,700.8	20.7	19.1	-95.07	-32.8	-274.5	791.1	752.6	38.53	20.531	
7,050.0	6,640.0	7,064.1	6,709.7	21.4	20.1	-95.09	-32.8	-329.2	791.2	750.8	40.34	19.615	
7,086.6	6,643.4	7,104.7	6,713.5	21.9	20.8	-95.09	-32.8	-369.6	791.2	749.4	41.74	18.956	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	6,644.2	7,119.5	6,714.3	22.1	21.1	-95.09	-32.8	-384.4	791.2	748.9	42.26	18.721	
7,135.7	6,645.0	7,158.4	6,715.0	22.7	21.8	-95.08	-32.8	-423.3	791.1	747.5	43.68	18.111	
7,185.0	6,644.9	7,207.8	6,714.9	23.6	22.8	-95.07	-32.8	-472.7	791.1	745.5	45.63	17.339	
7,200.0	6,644.9	7,222.8	6,714.9	23.9	23.1	-95.07	-32.8	-487.7	791.1	744.9	46.23	17.112	
7,283.4	6,644.8	7,306.2	6,714.7	25.6	24.9	-95.07	-32.8	-571.1	791.1	741.4	49.72	15.913	
7,300.0	6,644.8	7,322.8	6,714.7	25.9	25.3	-95.07	-32.8	-587.7	791.1	740.7	50.42	15.690	
7,381.9	6,644.7	7,404.6	6,714.5	27.7	27.1	-95.06	-32.8	-669.6	791.1	737.1	54.05	14.638	
7,400.0	6,644.7	7,422.8	6,714.5	28.1	27.5	-95.06	-32.8	-687.7	791.1	736.3	54.87	14.420	
7,480.3	6,644.6	7,503.1	6,714.3	29.9	29.4	-95.06	-32.8	-768.0	791.1	732.6	58.58	13.504	
7,500.0	6,644.6	7,522.8	6,714.3	30.3	29.9	-95.06	-32.8	-787.7	791.1	731.6	59.51	13.294	
7,578.7	6,644.5	7,601.5	6,714.1	32.2	31.8	-95.05	-32.8	-866.4	791.1	727.9	63.28	12.503	
7,600.0	6,644.4	7,622.8	6,714.1	32.7	32.3	-95.05	-32.8	-887.7	791.1	726.8	64.31	12.302	
7,677.1	6,644.3	7,699.9	6,713.9	34.6	34.2	-95.05	-32.8	-964.8	791.1	723.0	68.09	11.618	
7,700.0	6,644.3	7,722.8	6,713.9	35.1	34.8	-95.05	-32.8	-987.7	791.1	721.9	69.23	11.428	
7,775.6	6,644.2	7,798.3	6,713.7	37.0	36.7	-95.04	-32.8	-1,063.3	791.1	718.1	73.01	10.836	
7,800.0	6,644.2	7,822.8	6,713.7	37.6	37.3	-95.04	-32.8	-1,087.7	791.1	716.9	74.24	10.656	
7,874.0	6,644.1	7,896.8	6,713.6	39.5	39.2	-95.04	-32.8	-1,161.7	791.1	713.1	78.01	10.142	
7,900.0	6,644.1	7,922.8	6,713.5	40.1	39.9	-95.04	-32.8	-1,187.7	791.1	711.8	79.34	9.972	
7,972.4	6,644.0	7,995.2	6,713.4	42.0	41.8	-95.03	-32.8	-1,260.1	791.1	708.0	83.07	9.524	
8,000.0	6,643.9	8,022.8	6,713.3	42.7	42.5	-95.03	-32.8	-1,287.7	791.1	706.6	84.50	9.363	
8,070.8	6,643.9	8,093.6	6,713.2	44.5	44.3	-95.03	-32.8	-1,358.5	791.1	702.9	88.19	8.971	
8,100.0	6,643.8	8,122.8	6,713.1	45.2	45.1	-95.03	-32.8	-1,387.7	791.1	701.4	89.71	8.819	
8,169.3	6,643.7	8,192.0	6,713.0	47.0	46.9	-95.02	-32.8	-1,457.0	791.1	697.8	93.35	8.475	
8,200.0	6,643.7	8,222.8	6,712.9	47.9	47.8	-95.02	-32.8	-1,487.7	791.1	696.1	94.97	8.330	
8,267.7	6,643.6	8,290.5	6,712.8	49.6	49.6	-95.02	-32.8	-1,555.4	791.1	692.6	98.55	8.028	
8,300.0	6,643.6	8,322.8	6,712.7	50.5	50.4	-95.01	-32.8	-1,587.7	791.1	690.8	100.26	7.890	
8,366.1	6,643.5	8,388.9	6,712.6	52.2	52.2	-95.01	-32.8	-1,653.8	791.1	687.3	103.78	7.623	
8,400.0	6,643.4	8,422.8	6,712.5	53.1	53.1	-95.01	-32.8	-1,687.7	791.1	685.5	105.59	7.492	
8,464.5	6,643.4	8,487.3	6,712.4	54.8	54.8	-95.01	-32.8	-1,752.2	791.1	682.1	109.04	7.255	
8,500.0	6,643.3	8,522.8	6,712.3	55.8	55.8	-95.00	-32.8	-1,787.7	791.1	680.2	110.94	7.131	
8,563.0	6,643.2	8,585.7	6,712.2	57.5	57.5	-95.00	-32.8	-1,850.7	791.1	676.8	114.33	6.920	
8,600.0	6,643.2	8,622.8	6,712.1	58.5	58.5	-95.00	-32.8	-1,887.7	791.1	674.8	116.32	6.801	
8,661.4	6,643.1	8,684.2	6,712.0	60.1	60.2	-95.00	-32.8	-1,949.1	791.1	671.5	119.63	6.613	
8,700.0	6,643.1	8,722.8	6,712.0	61.2	61.2	-94.99	-32.8	-1,987.7	791.1	669.4	121.72	6.499	
8,759.8	6,643.0	8,782.6	6,711.8	62.8	62.8	-94.99	-32.8	-2,047.5	791.1	666.1	124.96	6.331	
8,800.0	6,643.0	8,822.8	6,711.8	63.9	63.9	-94.99	-32.8	-2,087.7	791.1	663.9	127.13	6.222	
8,858.2	6,642.9	8,881.0	6,711.6	65.4	65.5	-94.99	-32.8	-2,145.9	791.1	660.8	130.30	6.071	
8,900.0	6,642.8	8,922.8	6,711.6	66.6	66.7	-94.98	-32.8	-2,187.7	791.1	658.5	132.57	5.967	
8,956.7	6,642.8	8,979.4	6,711.5	68.1	68.2	-94.98	-32.8	-2,244.4	791.1	655.4	135.65	5.832	
9,000.0	6,642.7	9,022.8	6,711.4	69.3	69.4	-94.98	-32.8	-2,287.7	791.1	653.1	138.01	5.732	
9,055.1	6,642.6	9,077.9	6,711.3	70.8	70.9	-94.98	-32.8	-2,342.8	791.1	650.0	141.02	5.610	
9,100.0	6,642.6	9,122.8	6,711.2	72.0	72.1	-94.97	-32.8	-2,387.7	791.1	647.6	143.47	5.514	
9,153.5	6,642.5	9,176.3	6,711.1	73.5	73.6	-94.97	-32.8	-2,441.2	791.1	644.7	146.40	5.404	
9,200.0	6,642.5	9,222.8	6,711.0	74.7	74.9	-94.97	-32.8	-2,487.7	791.1	642.1	148.94	5.311	
9,251.9	6,642.4	9,274.7	6,710.9	76.2	76.3	-94.97	-32.8	-2,539.6	791.1	639.3	151.78	5.212	
9,300.0	6,642.3	9,322.8	6,710.8	77.5	77.6	-94.96	-32.8	-2,587.7	791.1	636.6	154.42	5.123	
9,350.4	6,642.3	9,373.1	6,710.7	78.9	79.0	-94.96	-32.8	-2,638.1	791.1	633.9	157.18	5.033	
9,400.0	6,642.2	9,422.8	6,710.6	80.2	80.4	-94.96	-32.8	-2,687.7	791.1	631.1	159.90	4.947	
9,448.8	6,642.1	9,471.6	6,710.5	81.6	81.7	-94.96	-32.8	-2,736.5	791.0	628.5	162.58	4.865	
9,500.0	6,642.1	9,522.8	6,710.4	83.0	83.1	-94.96	-32.8	-2,787.7	791.0	625.6	165.40	4.783	
9,547.2	6,642.0	9,570.0	6,710.3	84.3	84.4	-94.95	-32.8	-2,834.9	791.0	623.0	168.00	4.709	
9,600.0	6,642.0	9,622.8	6,710.2	85.7	85.9	-94.95	-32.8	-2,887.7	791.0	620.1	170.90	4.629	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
9,645.6	6,641.9	9,668.4	6,710.1	87.0	87.2	-94.95	-32.8	-2,933.3	791.0	617.6	173.42	4.562	
9,700.0	6,641.8	9,722.8	6,710.0	88.5	88.7	-94.95	-32.8	-2,987.7	791.0	614.6	176.41	4.484	
9,744.1	6,641.8	9,766.8	6,709.9	89.7	89.9	-94.94	-32.8	-3,031.8	791.0	612.2	178.84	4.423	
9,800.0	6,641.7	9,822.8	6,709.8	91.2	91.4	-94.94	-32.8	-3,087.7	791.0	609.1	181.92	4.348	
9,842.5	6,641.7	9,865.3	6,709.8	92.4	92.6	-94.94	-32.8	-3,130.2	791.0	606.8	184.27	4.293	
9,900.0	6,641.6	9,922.8	6,709.6	94.0	94.2	-94.94	-32.8	-3,187.7	791.0	603.6	187.44	4.220	
9,940.9	6,641.5	9,963.7	6,709.6	95.1	95.3	-94.93	-32.8	-3,228.6	791.0	601.3	189.71	4.170	
10,000.0	6,641.5	10,022.8	6,709.5	96.7	97.0	-94.93	-32.8	-3,287.7	791.0	598.1	192.97	4.099	
10,039.3	6,641.4	10,062.1	6,709.4	97.8	98.1	-94.93	-32.8	-3,327.0	791.0	595.9	195.15	4.053	
10,100.0	6,641.3	10,122.8	6,709.3	99.5	99.8	-94.93	-32.8	-3,387.7	791.0	592.5	198.50	3.985	
10,137.8	6,641.3	10,160.5	6,709.2	100.6	100.8	-94.92	-32.8	-3,425.5	791.0	590.4	200.59	3.943	
10,200.0	6,641.2	10,222.8	6,709.1	102.3	102.5	-94.92	-32.8	-3,487.7	791.0	587.0	204.03	3.877	
10,236.2	6,641.2	10,259.0	6,709.0	103.3	103.5	-94.92	-32.8	-3,523.9	791.0	585.0	206.04	3.839	
10,300.0	6,641.1	10,322.8	6,708.9	105.0	105.3	-94.92	-32.8	-3,587.7	791.0	581.4	209.57	3.774	
10,334.6	6,641.0	10,357.4	6,708.8	106.0	106.3	-94.92	-32.8	-3,622.3	791.0	579.5	211.49	3.740	
10,400.0	6,641.0	10,422.8	6,708.7	107.8	108.1	-94.91	-32.8	-3,687.7	791.0	575.9	215.11	3.677	
10,433.0	6,640.9	10,455.8	6,708.6	108.7	109.0	-94.91	-32.8	-3,720.7	791.0	574.1	216.94	3.646	
10,500.0	6,640.8	10,522.8	6,708.5	110.6	110.9	-94.91	-32.8	-3,787.7	791.0	570.3	220.66	3.585	
10,531.5	6,640.8	10,554.2	6,708.4	111.5	111.7	-94.91	-32.8	-3,819.2	791.0	568.6	222.40	3.557	
10,600.0	6,640.7	10,622.8	6,708.3	113.4	113.7	-94.90	-32.8	-3,887.7	791.0	564.8	226.20	3.497	
10,629.9	6,640.7	10,652.7	6,708.2	114.2	114.5	-94.90	-32.8	-3,917.6	791.0	563.1	227.86	3.471	
10,700.0	6,640.6	10,722.8	6,708.1	116.1	116.4	-94.90	-32.8	-3,987.7	791.0	559.2	231.75	3.413	
10,728.3	6,640.5	10,751.1	6,708.1	116.9	117.2	-94.90	-32.8	-4,016.0	791.0	557.7	233.33	3.390	
10,800.0	6,640.5	10,822.8	6,707.9	118.9	119.2	-94.89	-32.8	-4,087.7	791.0	553.7	237.31	3.333	
10,826.7	6,640.4	10,849.5	6,707.9	119.7	120.0	-94.89	-32.8	-4,114.4	791.0	552.2	238.79	3.312	
10,900.0	6,640.3	10,922.8	6,707.7	121.7	122.0	-94.89	-32.8	-4,187.7	791.0	548.1	242.86	3.257	
10,925.2	6,640.3	10,947.9	6,707.7	122.4	122.7	-94.89	-32.8	-4,212.8	791.0	546.7	244.26	3.238	
11,000.0	6,640.2	11,022.8	6,707.5	124.5	124.8	-94.88	-32.8	-4,287.7	791.0	542.5	248.42	3.184	
11,023.6	6,640.2	11,046.4	6,707.5	125.1	125.5	-94.88	-32.8	-4,311.3	791.0	541.2	249.73	3.167	
11,100.0	6,640.1	11,122.8	6,707.4	127.3	127.6	-94.88	-32.8	-4,387.7	791.0	537.0	253.98	3.114	
11,122.0	6,640.0	11,144.8	6,707.3	127.9	128.2	-94.88	-32.8	-4,409.7	791.0	535.8	255.20	3.099	
11,200.0	6,639.9	11,222.8	6,707.2	130.1	130.4	-94.88	-32.8	-4,487.7	791.0	531.4	259.54	3.048	
11,220.4	6,639.9	11,243.2	6,707.1	130.6	130.9	-94.87	-32.8	-4,508.1	791.0	530.3	260.68	3.034	
11,300.0	6,639.8	11,322.8	6,707.0	132.8	133.2	-94.87	-32.8	-4,587.7	790.9	525.8	265.11	2.984	
11,318.9	6,639.8	11,341.6	6,706.9	133.4	133.7	-94.87	-32.8	-4,606.5	790.9	524.8	266.16	2.972	
11,400.0	6,639.7	11,422.8	6,706.8	135.6	136.0	-94.87	-32.8	-4,687.7	790.9	520.3	270.67	2.922	
11,417.3	6,639.7	11,440.1	6,706.8	136.1	136.4	-94.87	-32.8	-4,705.0	790.9	519.3	271.63	2.912	
11,500.0	6,639.6	11,522.8	6,706.6	138.4	138.8	-94.86	-32.8	-4,787.7	790.9	514.7	276.24	2.863	
11,515.7	6,639.5	11,538.5	6,706.6	138.9	139.2	-94.86	-32.8	-4,803.4	790.9	513.8	277.11	2.854	
11,600.0	6,639.4	11,622.8	6,706.4	141.2	141.5	-94.86	-32.8	-4,887.7	790.9	509.1	281.81	2.807	
11,614.1	6,639.4	11,636.9	6,706.4	141.6	141.9	-94.86	-32.8	-4,901.8	790.9	508.3	282.60	2.799	
11,700.0	6,639.3	11,722.8	6,706.2	144.0	144.3	-94.85	-32.8	-4,987.7	790.9	503.5	287.38	2.752	
11,712.6	6,639.3	11,735.3	6,706.2	144.3	144.7	-94.85	-32.8	-5,000.2	790.9	502.8	288.08	2.746	
11,800.0	6,639.2	11,822.8	6,706.0	146.8	147.1	-94.85	-32.8	-5,087.7	790.9	498.0	292.95	2.700	
11,811.0	6,639.2	11,833.8	6,706.0	147.1	147.4	-94.85	-32.8	-5,098.7	790.9	497.4	293.56	2.694	
11,900.0	6,639.1	11,922.8	6,705.8	149.6	149.9	-94.84	-32.8	-5,187.7	790.9	492.4	298.52	2.649	
11,909.4	6,639.0	11,932.2	6,705.8	149.8	150.2	-94.84	-32.8	-5,197.1	790.9	491.9	299.05	2.645	
12,000.0	6,638.9	12,022.8	6,705.6	152.4	152.7	-94.84	-32.8	-5,287.7	790.9	486.8	304.10	2.601	
12,007.8	6,638.9	12,030.6	6,705.6	152.6	152.9	-94.84	-32.8	-5,295.5	790.9	486.4	304.53	2.597	
12,100.0	6,638.8	12,122.8	6,705.5	155.2	155.5	-94.83	-32.8	-5,387.7	790.9	481.2	309.67	2.554	
12,106.3	6,638.8	12,129.0	6,705.4	155.3	155.7	-94.83	-32.8	-5,393.9	790.9	480.9	310.02	2.551	
12,200.0	6,638.7	12,222.8	6,705.3	157.9	158.3	-94.83	-32.8	-5,487.7	790.9	475.6	315.25	2.509	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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	
12,204.7	6,638.7	12,227.5	6,705.3	158.1	158.4	-94.83	-32.8	-5,492.4	790.9	475.4	315.51	2.507	
12,300.0	6,638.5	12,322.8	6,705.1	160.7	161.1	-94.83	-32.8	-5,587.7	790.9	470.1	320.83	2.465	
12,303.1	6,638.5	12,325.9	6,705.1	160.8	161.2	-94.83	-32.8	-5,590.8	790.9	469.9	321.00	2.464	
12,400.0	6,638.4	12,422.8	6,704.9	163.5	163.9	-94.82	-32.8	-5,687.7	790.9	464.5	326.40	2.423	
12,401.5	6,638.4	12,424.3	6,704.9	163.6	164.0	-94.82	-32.8	-5,689.2	790.9	464.4	326.49	2.422	
12,500.0	6,638.3	12,522.8	6,704.7	166.3	166.7	-94.82	-32.8	-5,787.7	790.9	458.9	331.98	2.382	
12,598.4	6,638.2	12,621.2	6,704.5	169.1	169.5	-94.81	-32.8	-5,886.1	790.9	453.4	337.48	2.343	
12,600.0	6,638.2	12,622.8	6,704.5	169.1	169.5	-94.81	-32.8	-5,887.7	790.9	453.3	337.57	2.343	
12,696.8	6,638.0	12,719.6	6,704.3	171.8	172.2	-94.81	-32.8	-5,984.5	790.9	447.9	342.97	2.306	
12,700.0	6,638.0	12,722.8	6,704.3	171.9	172.3	-94.81	-32.8	-5,987.7	790.9	447.7	343.15	2.305	
12,795.2	6,637.9	12,818.0	6,704.2	174.6	175.0	-94.80	-32.8	-6,082.9	790.9	442.4	348.46	2.270	
12,800.0	6,637.9	12,822.8	6,704.1	174.7	175.1	-94.80	-32.8	-6,087.7	790.9	442.1	348.73	2.268	
12,893.7	6,637.8	12,916.4	6,704.0	177.3	177.7	-94.80	-32.8	-6,181.3	790.8	436.9	353.96	2.234	
12,900.0	6,637.8	12,922.8	6,704.0	177.5	177.9	-94.80	-32.8	-6,187.7	790.8	436.5	354.31	2.232	
12,992.1	6,637.7	13,014.9	6,703.8	180.1	180.5	-94.80	-32.8	-6,279.8	790.8	431.4	359.45	2.200	
13,000.0	6,637.6	13,022.8	6,703.8	180.3	180.7	-94.80	-32.8	-6,287.7	790.8	430.9	359.90	2.197	
13,090.5	6,637.5	13,113.3	6,703.6	182.8	183.2	-94.79	-32.8	-6,378.2	790.8	425.9	364.95	2.167	
13,100.0	6,637.5	13,122.8	6,703.6	183.1	183.5	-94.79	-32.8	-6,387.7	790.8	425.4	365.48	2.164	
13,188.9	6,637.4	13,211.7	6,703.4	185.6	186.0	-94.79	-32.8	-6,476.6	790.8	420.4	370.45	2.135	
13,200.0	6,637.4	13,222.8	6,703.4	185.9	186.3	-94.79	-32.8	-6,487.7	790.8	419.8	371.07	2.131	
13,287.4	6,637.3	13,310.1	6,703.2	188.4	188.8	-94.78	-32.8	-6,575.0	790.8	414.9	375.95	2.104	
13,300.0	6,637.3	13,322.8	6,703.2	188.7	189.1	-94.78	-32.8	-6,587.7	790.8	414.2	376.65	2.100	
13,385.8	6,637.1	13,408.6	6,703.0	191.1	191.5	-94.78	-32.8	-6,673.5	790.8	409.4	381.45	2.073	
13,400.0	6,637.1	13,422.8	6,703.0	191.5	191.9	-94.78	-32.8	-6,687.7	790.8	408.6	382.24	2.069	
13,484.2	6,637.0	13,507.0	6,702.9	193.9	194.3	-94.78	-32.8	-6,771.9	790.8	403.9	386.94	2.044	
13,500.0	6,637.0	13,522.8	6,702.8	194.3	194.7	-94.78	-32.8	-6,787.7	790.8	403.0	387.83	2.039	
13,582.6	6,636.9	13,605.4	6,702.7	196.6	197.0	-94.77	-32.8	-6,870.3	790.8	398.4	392.44	2.015	
13,600.0	6,636.9	13,622.8	6,702.6	197.1	197.5	-94.77	-32.8	-6,887.7	790.8	397.4	393.41	2.010	
13,681.1	6,636.8	13,703.8	6,702.5	199.4	199.8	-94.77	-32.8	-6,968.7	790.8	392.8	397.95	1.987	
13,700.0	6,636.7	13,722.8	6,702.5	199.9	200.3	-94.77	-32.8	-6,987.7	790.8	391.8	399.00	1.982	
13,779.5	6,636.6	13,802.3	6,702.3	202.1	202.5	-94.76	-32.8	-7,067.2	790.8	387.3	403.45	1.960	
13,800.0	6,636.6	13,822.8	6,702.3	202.7	203.1	-94.76	-32.8	-7,087.7	790.8	386.2	404.59	1.955	
13,877.9	6,636.5	13,900.7	6,702.1	204.9	205.3	-94.76	-32.8	-7,165.6	790.8	381.8	408.95	1.934	
13,900.0	6,636.5	13,922.8	6,702.1	205.5	205.9	-94.76	-32.8	-7,187.7	790.8	380.6	410.18	1.928	
13,976.3	6,636.4	13,999.1	6,701.9	207.6	208.1	-94.76	-32.8	-7,264.0	790.8	376.3	414.45	1.908	
14,000.0	6,636.3	14,022.8	6,701.9	208.3	208.7	-94.76	-32.8	-7,287.7	790.8	375.0	415.77	1.902	
14,074.8	6,636.3	14,097.5	6,701.8	210.4	210.8	-94.75	-32.8	-7,362.4	790.8	370.8	419.95	1.883	
14,100.0	6,636.2	14,122.8	6,701.7	211.1	211.5	-94.75	-32.8	-7,387.7	790.8	369.4	421.36	1.877	
14,173.2	6,636.1	14,196.0	6,701.6	213.2	213.6	-94.75	-32.8	-7,460.9	790.8	365.3	425.45	1.859	
14,200.0	6,636.1	14,222.8	6,701.5	213.9	214.3	-94.75	-32.8	-7,487.7	790.8	363.8	426.95	1.852	
14,271.6	6,636.0	14,294.4	6,701.4	215.9	216.3	-94.74	-32.8	-7,559.3	790.7	359.8	430.96	1.835	
14,300.0	6,636.0	14,322.8	6,701.3	216.7	217.1	-94.74	-32.8	-7,587.7	790.7	358.2	432.54	1.828	
14,370.0	6,635.9	14,392.8	6,701.2	218.7	219.1	-94.74	-32.8	-7,657.7	790.7	354.3	436.46	1.812	
14,400.0	6,635.8	14,422.8	6,701.2	219.5	219.9	-94.74	-32.8	-7,687.7	790.7	352.6	438.14	1.805	
14,468.5	6,635.7	14,491.2	6,701.0	221.4	221.9	-94.74	-32.8	-7,756.1	790.7	348.8	441.97	1.789	
14,500.0	6,635.7	14,522.8	6,701.0	222.3	222.7	-94.74	-32.8	-7,787.7	790.7	347.0	443.73	1.782	
14,566.9	6,635.6	14,589.7	6,700.8	224.2	224.6	-94.73	-32.8	-7,854.6	790.7	343.3	447.47	1.767	
14,600.0	6,635.6	14,622.8	6,700.8	225.1	225.5	-94.73	-32.8	-7,887.7	790.7	341.4	449.32	1.760	
14,665.3	6,635.5	14,688.1	6,700.7	226.9	227.4	-94.73	-32.8	-7,953.0	790.7	337.7	452.98	1.746	
14,700.0	6,635.4	14,722.8	6,700.6	227.9	228.4	-94.73	-32.8	-7,987.7	790.7	335.8	454.92	1.738	
14,763.7	6,635.4	14,786.5	6,700.5	229.7	230.1	-94.72	-32.8	-8,051.4	790.7	332.2	458.48	1.725	
14,800.0	6,635.3	14,822.8	6,700.4	230.7	231.2	-94.72	-32.8	-8,087.7	790.7	330.2	460.51	1.717	

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 WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 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. 10 T5N R64W 6th P.M. - WACKER 10G-314 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,862.2	6,635.2	14,884.9	6,700.3	232.5	232.9	-94.72	-32.8	-8,149.8	790.7	326.7	463.99	1.704	
14,900.0	6,635.2	14,922.8	6,700.2	233.5	234.0	-94.72	-32.8	-8,187.7	790.7	324.6	466.10	1.696	
14,960.6	6,635.1	14,983.4	6,700.1	235.2	235.7	-94.72	-32.8	-8,248.3	790.7	321.2	469.49	1.684	
15,000.0	6,635.0	15,022.8	6,700.0	236.3	236.8	-94.72	-32.8	-8,287.7	790.7	319.0	471.70	1.676	
15,024.6	6,635.0	15,047.3	6,700.0	237.0	237.5	-94.71	-32.8	-8,312.2	790.7	317.6	473.07	1.671	
15,033.1	6,635.0	15,049.3	6,700.0	237.3	237.5	-94.71	-32.8	-8,314.2	790.7	317.3	473.36	1.670 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are 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 @ 4624.0usft (Original Well ECoordinates are relative to: WACKER 10F-204

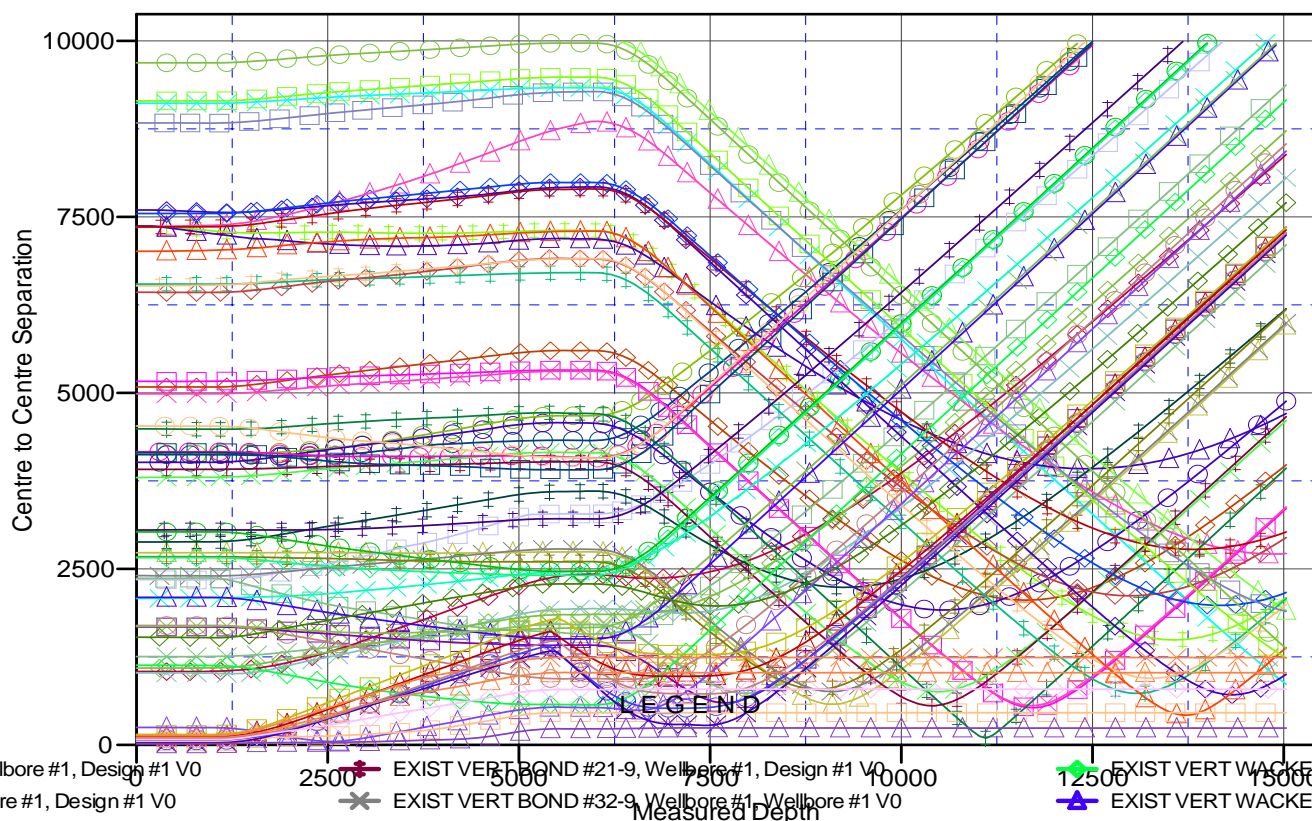
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.62°

Ladder Plot



Wellbore #1, Design #1 V0	EXIST VERT BOND #21-9, Wellbore #1, Design #1 V0	EXIST VERT WACKER #10D, V
Wellbore #1, Design #1 V0	EXIST VERT BOND #32-9, Wellbore #1, Wellbore #1 V0	EXIST VERT WACKER #2, Well
Wellbore #1, Design #1 V0	EXIST VERT DR B #10-12, Wellbore #1, Wellbore #1 V0	EXIST VERT WACKER #22-10,
Wellbore #1, Design #1 V0	EXIST VERT HECKENDORF #1, Wellbore #1, Design #1 V0	EXIST VERT WACKER #31-10,
Wellbore #1, Design #1 V0	EXIST VERT HEINRICH #41-9, Wellbore #1, Design #1 V0	EXIST VERT WACKER #32-10,
Wellbore #1, Design #1 V0	EXIST VERT JURGENS #8-1, Wellbore #1, Wellbore #1 V0	EXIST VERT WACKER #41-10,
Wellbore #1, Design #1 V0	EXIST VERT JURGENS #8-13, Wellbore #1, Wellbore #1 V0	EXIST VERT WACKER #42-10,
Wellbore #1, Design #1 V0	EXIST VERT JURGENS #8-14, Wellbore #1, Wellbore #1 V0	EXIST VERT WILLIAMS #1, Wel
Wellbore #1, Design #1 V0	EXIST VERT JURGENS PC #B8-23, Wellbore #1, Wellbore #1 V0	WACKER 10F-232, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT JURGENS PMB #B8-10, Wellbore #1, Design #1 V0	WACKER 10F-234, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT LOWER LATHAM #8-15, Wellbore #1, Wellbore #1 V0	WACKER 10F-302, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT MILLAGE #11-10, Wellbore #1, Design #1 V0	WACKER 10F-304, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT OGRADY #31-9, Wellbore #1, Design #1 V0	WACKER 10G-212, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT PAULINE #5, Wellbore #1, Design #1 V0	WACKER 10G-214, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT PAULINE #5, Wellbore #1, Design #1 V0	WACKER 10G-222, ORIGINAL V

Company:	PDC ENERGY	Local Co-ordinate Reference:	Well WACKER 10F-204
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Reference Site:	SW NW SEC. 10 T5N R64W 6th P.M.	MD Reference:	KB-EST @ 4624.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	WACKER 10F-204	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are 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 @ 4624.0usft (Original Well ECoordinates are relative to: WACKER 10F-204

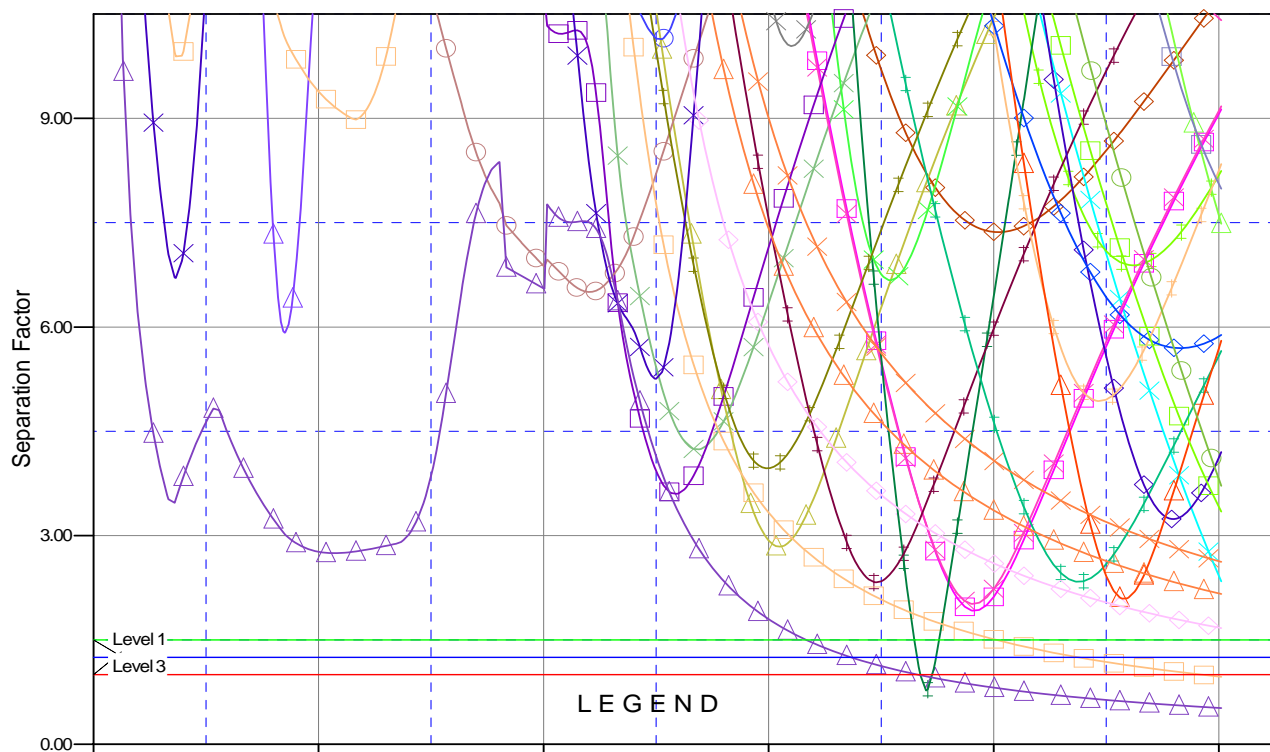
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.62°

Separation Factor Plot



Wellbore #1, Design #1 V0	EXIST VERT BOND #21-9, Wellbore #1, Design #1 V0	EXIST VERT WACKER #10D, V
Wellbore #1, Design #1 V0	EXIST VERT BOND #32-9, Wellbore #1, Design #1 V0	EXIST VERT WACKER #2, Well
Wellbore #1, Design #1 V0	EXIST VERT DR B #30-12, Wellbore #1, Design #1 V0	EXIST VERT WACKER #22-10, V
Wellbore #1, Design #1 V0	EXIST VERT HECKENDORF #1, Wellbore #1, Design #1 V0	EXIST VERT WACKER #31-10, V
Wellbore #1, Design #1 V0	EXIST VERT HEINRICH #41-9, Wellbore #1, Design #1 V0	EXIST VERT WACKER #32-10, V
Wellbore #1, Design #1 V0	EXIST VERT JURGENS #8-1, Wellbore #1, Design #1 V0	EXIST VERT WACKER #41-10, V
Wellbore #1, Design #1 V0	EXIST VERT JURGENS #8-13, Wellbore #1, Design #1 V0	EXIST VERT WACKER #42-10, V
Wellbore #1, Design #1 V0	EXIST VERT JURGENS #8-14, Wellbore #1, Design #1 V0	EXIST VERT WILLIAMS #1, Well
Wellbore #1, Design #1 V0	EXIST VERT JURGENS PC #B8-23, Wellbore #1, Design #1 V0	WACKER 10F-232, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT JURGENS PMB #B8-10, Wellbore #1, Design #1 V0	WACKER 10F-234, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT LOWER LATHAM #8-15, Wellbore #1, Design #1 V0	WACKER 10F-302, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT MILLAGE #11-10, Wellbore #1, Design #1 V0	WACKER 10F-304, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT OGRADY #31-9, Wellbore #1, Design #1 V0	WACKER 10G-212, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT PAULINE #5, Wellbore #1, Design #1 V0	WACKER 10G-214, ORIGINAL V
Wellbore #1, Design #1 V0	EXIST VERT PAULINE #5, Wellbore #1, Design #1 V0	WACKER 10G-214, ORIGINAL V