

# **PDC ENERGY**

**WELD COUNTY, COLORADO  
SW SW SEC. 28 T5N R67W 6th P.M.  
KINZER 28G-332**

**ORIGINAL WELLBORE  
PROPOSAL #2**

## **Anticollision Report**

**25 March, 2016**



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PROPOSAL #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 100.0usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0 us	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	25/03/2016		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	12,133.9	PROPOSAL #2 (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 SW SEC. 28 T5N R67W 6th P.M.						
ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 -	11,574.0	6,938.4	1,382.2	1,115.2	5.177	CC
ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 -	11,600.0	6,938.1	1,382.4	1,114.7	5.164	ES
ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 -	11,800.0	6,936.4	1,400.5	1,127.3	5.126	SF
EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1	10,896.5	6,964.3	690.2	564.3	5.483	CC
EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1	10,900.0	6,964.3	690.2	564.2	5.479	ES
EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1	11,000.0	6,963.5	697.9	569.2	5.421	SF
EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1	8,140.5	7,105.9	717.3	663.8	13.407	CC, ES
EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1	8,400.0	7,104.1	762.8	702.9	12.733	SF
EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1	470.1	468.6	383.7	381.9	203.934	CC
EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1	500.0	498.7	383.8	381.8	190.312	ES
EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1	10,000.0	6,930.1	2,680.5	2,575.6	25.571	SF
EXIST VERT BINDER 10-28 - Wellbore #1 - Design #1	10,135.8	6,962.9	153.5	-74.0	0.675	Level 1, CC, ES, SF
EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1	10,032.9	6,913.8	1,540.5	1,315.2	6.839	CC
EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1	10,100.0	6,913.2	1,542.0	1,314.9	6.790	ES
EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1	10,300.0	6,911.4	1,563.5	1,330.9	6.723	SF
EXIST VERT BINDER 16-28 - Wellbore #1 - Design #1	11,604.7	6,880.1	1,354.5	1,086.2	5.050	CC, ES
EXIST VERT BINDER 16-28 - Wellbore #1 - Design #1	11,800.0	6,878.4	1,368.5	1,094.9	5.001	SF
EXIST VERT BINDER 9-28 - Wellbore #1 - Design #1	11,718.6	6,939.1	153.8	-117.2	0.568	Level 1, CC, ES, SF
EXIST VERT HELEN 1 - Wellbore #1 - Design #1	11,559.6	6,965.5	1,286.8	1,019.9	4.822	CC
EXIST VERT HELEN 1 - Wellbore #1 - Design #1	11,600.0	6,965.1	1,287.4	1,019.4	4.805	ES
EXIST VERT HELEN 1 - Wellbore #1 - Design #1	11,700.0	6,964.3	1,294.4	1,023.7	4.781	SF
EXIST VERT KINZER 13-28 - Wellbore #1 - Design #1	7,401.4	6,903.9	237.1	77.0	1.481	Level 3, CC, ES, SF
EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1	400.0	392.5	389.1	380.8	47.061	CC
EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1	800.0	791.2	392.3	375.0	22.694	ES
EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1	7,800.0	6,871.2	1,579.5	1,412.3	9.445	SF
EXIST VERT KINZER 28A - Wellbore #1 - Design #1	8,006.8	6,955.4	1,851.1	1,678.4	10.719	CC, ES
EXIST VERT KINZER 28A - Wellbore #1 - Design #1	8,500.0	6,951.1	1,915.6	1,730.9	10.369	SF
EXIST VERT KINZER 28B - Wellbore #1 - Wellbore #1	7,943.5	6,923.8	307.0	269.9	8.263	CC, ES
EXIST VERT KINZER 28B - Wellbore #1 - Wellbore #1	8,000.0	6,922.4	312.2	273.8	8.124	SF
EXIST VERT KIZNER 28-1 - Wellbore #1 - Design #1	7,457.8	6,954.2	1,268.1	1,106.6	7.848	CC
EXIST VERT KIZNER 28-1 - Wellbore #1 - Design #1	7,500.0	6,957.6	1,268.8	1,106.5	7.816	ES
EXIST VERT KIZNER 28-1 - Wellbore #1 - Design #1	7,700.0	6,957.1	1,291.0	1,125.0	7.776	SF
EXIST VERT MELLON 28-1 - Wellbore #1 - Design #1	9,035.1	6,937.5	72.4	-126.1	0.365	Level 1, CC, ES, SF
EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1	8,792.8	6,896.6	1,456.8	1,265.1	7.597	CC
EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1	8,800.0	6,896.5	1,456.9	1,264.9	7.590	ES
EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1	9,100.0	6,893.9	1,488.9	1,289.0	7.450	SF
EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1	8,867.9	6,969.9	1,086.1	892.6	5.614	CC

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

## Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SW SW SEC. 28 T5N R67W 6th P.M.						
EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1	8,900.0	6,969.6	1,086.5	892.2	5.592	ES
EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1	9,000.0	6,968.8	1,094.1	897.1	5.555	SF
EXIST VERT ROGER 1 - Wellbore #1 - Design #1	10,216.5	6,972.2	1,279.3	1,171.8	11.899	CC, ES
EXIST VERT ROGER 1 - Wellbore #1 - Design #1	10,600.0	6,968.8	1,335.5	1,217.4	11.310	SF
KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSAL	300.0	300.0	16.7	15.6	15.291	CC
KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSAL	400.0	399.9	17.0	15.5	11.051	ES
KINZER 28G-232 - ORIGINAL WELLBORE - PROPOSAL	12,133.9	12,140.5	315.7	30.4	1.107	Level 2, SF
KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSAL	400.0	400.0	44.6	43.0	28.896	CC
KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSAL	500.0	500.0	44.9	42.9	22.554	ES
KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSAL	12,133.9	11,880.2	830.7	543.4	2.892	SF
KINZER 28H-212 - ORIGINAL WELLBORE - PROPOSAL	400.0	400.0	13.9	12.4	9.030	CC
KINZER 28H-212 - ORIGINAL WELLBORE - PROPOSAL	12,133.9	11,971.0	287.4	10.4	1.038	Level 2, ES, SF
KINZER 28H-302 - ORIGINAL WELLBORE - PROPOSAL	400.0	400.0	30.7	29.1	19.866	CC
KINZER 28H-302 - ORIGINAL WELLBORE - PROPOSAL	500.0	500.0	31.0	29.0	15.565	ES
KINZER 28H-302 - ORIGINAL WELLBORE - PROPOSAL	12,133.9	11,998.8	537.7	247.7	1.854	SF
KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSAL	400.0	400.0	58.5	57.0	37.926	CC
KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSAL	500.0	500.0	58.8	56.9	29.545	ES
KINZER 28H-432 - ORIGINAL WELLBORE - PROPOSAL	12,133.9	12,054.1	1,159.3	870.5	4.014	SF
KINZER 28I-202 - ORIGINAL WELLBORE - PROPOSAL	400.0	400.0	89.2	87.6	57.792	CC
KINZER 28I-202 - ORIGINAL WELLBORE - PROPOSAL	500.0	500.0	89.5	87.5	44.931	ES
KINZER 28I-202 - ORIGINAL WELLBORE - PROPOSAL	12,133.9	11,836.3	1,830.2	1,540.8	6.325	SF
KINZER 28I-312 - ORIGINAL WELLBORE - PROPOSAL	400.0	400.0	75.2	73.7	48.762	CC
KINZER 28I-312 - ORIGINAL WELLBORE - PROPOSAL	500.0	500.0	75.6	73.6	37.937	ES
KINZER 28I-312 - ORIGINAL WELLBORE - PROPOSAL	12,133.9	11,938.6	1,492.8	1,202.9	5.148	SF

Offset Design														Offset Site Error:	0.0 usft
Survey Program: 0-INC														Offset Well Error:	0.0 usft
Reference															
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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.0	0.0	92.5	92.5	0.0	0.0	87.41	202.2	4,475.4	4,479.9						
100.0	100.0	192.5	192.5	0.1	1.2	87.41	202.2	4,475.4	4,479.9	4,478.7	1.25	3,570.154			
200.0	200.0	292.5	292.5	0.3	3.4	87.41	202.2	4,475.4	4,479.9	4,476.2	3.68	1,217.160			
300.0	300.0	392.5	392.5	0.5	5.5	87.41	202.2	4,475.4	4,479.9	4,473.9	6.00	746.932			
400.0	400.0	492.5	492.5	0.8	7.5	87.41	202.2	4,475.4	4,479.9	4,471.7	8.27	541.898			
500.0	500.0	592.5	592.5	1.0	9.5	97.41	202.2	4,475.4	4,480.2	4,469.6	10.52	425.851			
600.0	599.8	692.3	692.3	1.2	11.5	97.46	202.2	4,475.4	4,480.8	4,468.1	12.77	350.950			
700.0	699.5	792.0	792.0	1.5	13.6	97.55	202.2	4,475.4	4,482.0	4,467.0	15.02	298.406			
800.0	798.7	891.2	891.2	1.7	15.6	97.67	202.2	4,475.4	4,483.6	4,466.3	17.29	259.365			
900.0	897.5	990.0	990.0	2.0	17.6	97.82	202.2	4,475.4	4,485.7	4,466.2	19.58	229.120			
1,000.0	995.6	1,088.1	1,088.1	2.4	19.5	98.01	202.2	4,475.4	4,488.4	4,466.5	21.90	204.947			
1,100.0	1,093.1	1,185.6	1,185.6	2.8	21.5	98.22	202.2	4,475.4	4,491.7	4,467.4	24.26	185.163			
1,200.0	1,189.6	1,282.1	1,282.1	3.3	23.4	98.46	202.2	4,475.4	4,495.6	4,468.9	26.65	168.670			
1,300.0	1,285.3	1,377.8	1,377.8	3.8	25.4	98.72	202.2	4,475.4	4,500.1	4,471.0	29.09	154.719			
1,326.4	1,310.3	1,402.8	1,402.8	3.9	25.9	98.79	202.2	4,475.4	4,501.4	4,471.7	29.73	151.390			
1,400.0	1,380.1	1,472.6	1,472.6	4.3	27.3	99.07	202.2	4,475.4	4,505.3	4,473.7	31.55	142.780			
1,500.0	1,474.9	1,567.4	1,567.4	4.9	29.2	99.45	202.2	4,475.4	4,510.7	4,476.6	34.04	132.521			
1,600.0	1,569.8	1,662.3	1,662.3	5.5	31.1	99.83	202.2	4,475.4	4,516.3	4,479.7	36.53	123.634			
1,700.0	1,664.6	1,757.1	1,757.1	6.1	33.0	100.21	202.2	4,475.4	4,522.1	4,483.1	39.03	115.871			
1,800.0	1,759.4	1,851.9	1,851.9	6.8	34.9	100.58	202.2	4,475.4	4,528.1	4,486.6	41.53	109.039			

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,900.0	1,854.2	1,946.7	1,946.7	7.4	36.8	100.96	202.2	4,475.4	4,534.4	4,490.3	44.03	102.983	
2,000.0	1,949.0	2,041.5	2,041.5	8.0	38.7	101.33	202.2	4,475.4	4,540.8	4,494.3	46.53	97.581	
2,100.0	2,043.8	2,136.3	2,136.3	8.6	40.6	101.70	202.2	4,475.4	4,547.5	4,498.5	49.04	92.734	
2,200.0	2,138.7	2,231.2	2,231.2	9.2	42.5	102.08	202.2	4,475.4	4,554.4	4,502.9	51.54	88.363	
2,300.0	2,233.5	2,326.0	2,326.0	9.9	44.4	102.45	202.2	4,475.4	4,561.5	4,507.4	54.04	84.402	
2,400.0	2,328.3	2,420.8	2,420.8	10.5	46.3	102.82	202.2	4,475.4	4,568.8	4,512.3	56.55	80.797	
2,500.0	2,423.1	2,515.6	2,515.6	11.1	48.3	103.19	202.2	4,475.4	4,576.3	4,517.3	59.05	77.503	
2,600.0	2,517.9	2,610.4	2,610.4	11.8	50.2	103.55	202.2	4,475.4	4,584.0	4,522.5	61.55	74.481	
2,700.0	2,612.7	2,705.2	2,705.2	12.4	52.1	103.92	202.2	4,475.4	4,592.0	4,527.9	64.04	71.700	
2,800.0	2,707.6	2,800.1	2,800.1	13.0	54.0	104.29	202.2	4,475.4	4,600.1	4,533.6	66.54	69.134	
2,900.0	2,802.4	2,894.9	2,894.9	13.6	55.9	104.65	202.2	4,475.4	4,608.5	4,539.4	69.03	66.757	
3,000.0	2,897.2	2,989.7	2,989.7	14.3	57.8	105.01	202.2	4,475.4	4,617.0	4,545.5	71.52	64.552	
3,100.0	2,992.0	3,084.5	3,084.5	14.9	59.7	105.38	202.2	4,475.4	4,625.8	4,551.8	74.01	62.499	
3,200.0	3,086.8	3,179.3	3,179.3	15.5	61.6	105.74	202.2	4,475.4	4,634.7	4,558.2	76.50	60.584	
3,300.0	3,181.6	3,274.1	3,274.1	16.2	63.5	106.10	202.2	4,475.4	4,643.9	4,564.9	78.98	58.795	
3,400.0	3,276.5	3,369.0	3,369.0	16.8	65.4	106.45	202.2	4,475.4	4,653.2	4,571.8	81.47	57.119	
3,500.0	3,371.3	3,463.8	3,463.8	17.4	67.3	106.81	202.2	4,475.4	4,662.8	4,578.8	83.94	55.546	
3,600.0	3,466.1	3,558.6	3,558.6	18.1	69.2	107.17	202.2	4,475.4	4,672.5	4,586.1	86.42	54.067	
3,700.0	3,560.9	3,653.4	3,653.4	18.7	71.1	107.52	202.2	4,475.4	4,682.5	4,593.6	88.89	52.674	
3,800.0	3,655.7	3,748.2	3,748.2	19.3	73.0	107.87	202.2	4,475.4	4,692.6	4,601.2	91.37	51.361	
3,900.0	3,750.5	3,843.0	3,843.0	20.0	75.0	108.22	202.2	4,475.4	4,702.9	4,609.1	93.83	50.120	
4,000.0	3,845.4	3,937.9	3,937.9	20.6	76.9	108.57	202.2	4,475.4	4,713.4	4,617.1	96.30	48.946	
4,100.0	3,940.2	4,032.7	4,032.7	21.3	78.8	108.92	202.2	4,475.4	4,724.1	4,625.4	98.76	47.834	
4,200.0	4,035.0	4,127.5	4,127.5	21.9	80.7	109.27	202.2	4,475.4	4,735.0	4,633.8	101.22	46.780	
4,300.0	4,129.8	4,222.3	4,222.3	22.5	82.6	109.61	202.2	4,475.4	4,746.1	4,642.5	103.68	45.779	
4,400.0	4,224.6	4,317.1	4,317.1	23.2	84.5	109.96	202.2	4,475.4	4,757.4	4,651.3	106.13	44.827	
4,500.0	4,319.4	4,411.9	4,411.9	23.8	86.4	110.30	202.2	4,475.4	4,768.9	4,660.3	108.58	43.921	
4,600.0	4,414.3	4,506.8	4,506.8	24.4	88.3	110.64	202.2	4,475.4	4,780.5	4,669.5	111.02	43.058	
4,700.0	4,509.1	4,601.6	4,601.6	25.1	90.2	110.98	202.2	4,475.4	4,792.3	4,678.9	113.47	42.235	
4,800.0	4,603.9	4,696.4	4,696.4	25.7	92.1	111.32	202.2	4,475.4	4,804.3	4,688.4	115.91	41.450	
4,900.0	4,698.7	4,791.2	4,791.2	26.3	94.0	111.66	202.2	4,475.4	4,816.5	4,698.2	118.34	40.699	
5,000.0	4,793.5	4,886.0	4,886.0	27.0	95.9	111.99	202.2	4,475.4	4,828.9	4,708.1	120.78	39.982	
5,100.0	4,888.3	4,980.8	4,980.8	27.6	97.8	112.32	202.2	4,475.4	4,841.4	4,718.2	123.21	39.295	
5,200.0	4,983.2	5,075.7	5,075.7	28.2	99.7	112.66	202.2	4,475.4	4,854.1	4,728.5	125.63	38.637	
5,300.0	5,078.0	5,170.5	5,170.5	28.9	101.6	112.99	202.2	4,475.4	4,867.0	4,739.0	128.06	38.007	
5,400.0	5,172.8	5,265.3	5,265.3	29.5	103.6	113.31	202.2	4,475.4	4,880.1	4,749.6	130.48	37.402	
5,454.5	5,224.5	5,317.0	5,317.0	29.9	104.6	113.49	202.2	4,475.4	4,887.3	4,755.5	131.79	37.083	
5,500.0	5,267.7	5,360.2	5,360.2	30.1	105.5	113.75	202.2	4,475.4	4,893.2	4,760.3	132.92	36.813	
5,600.0	5,363.5	5,456.0	5,456.0	30.6	107.4	114.26	202.2	4,475.4	4,905.2	4,769.9	135.32	36.248	
5,700.0	5,460.3	5,552.8	5,552.8	31.0	109.3	114.72	202.2	4,475.4	4,916.0	4,778.3	137.71	35.697	
5,800.0	5,557.9	5,650.4	5,650.4	31.3	111.3	115.12	202.2	4,475.4	4,925.4	4,785.3	140.08	35.161	
5,900.0	5,656.2	5,748.7	5,748.7	31.7	113.3	115.45	202.2	4,475.4	4,933.4	4,790.9	142.42	34.640	
6,000.0	5,755.0	5,847.5	5,847.5	31.9	115.3	115.73	202.2	4,475.4	4,939.9	4,795.2	144.72	34.134	
6,100.0	5,854.4	5,946.9	5,946.9	32.2	117.3	115.94	202.2	4,475.4	4,944.9	4,798.0	146.98	33.644	
6,200.0	5,954.0	6,046.5	6,046.5	32.4	119.3	116.09	202.2	4,475.4	4,948.5	4,799.3	149.19	33.169	
6,300.0	6,053.9	6,146.4	6,146.4	32.5	121.3	116.17	202.2	4,475.4	4,950.5	4,799.2	151.35	32.710	
6,380.9	6,134.8	6,227.3	6,227.3	32.6	122.9	106.21	202.2	4,475.4	4,951.0	4,807.0	144.04	34.372	
6,400.0	6,153.9	6,246.4	6,246.4	32.6	123.3	106.21	202.2	4,475.4	4,951.0	4,806.6	144.45	34.275	
6,410.9	6,164.8	6,257.3	6,257.3	32.6	123.5	106.21	202.2	4,475.4	4,951.0	4,806.3	144.68	34.220	
6,450.0	6,203.9	6,296.4	6,296.4	32.6	124.3	16.24	202.2	4,475.4	4,950.0	4,795.7	154.23	32.095	
6,500.0	6,253.7	6,346.2	6,346.2	32.7	125.3	16.35	202.2	4,475.4	4,945.7	4,791.4	154.30	32.053	
6,550.0	6,303.0	6,395.5	6,395.5	32.7	126.3	16.55	202.2	4,475.4	4,938.1	4,784.4	153.65	32.139	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,600.0	6,351.7	6,444.2	6,444.2	32.7	127.3	16.84	202.2	4,475.4	4,927.2	4,774.9	152.28	32.357	
6,650.0	6,399.5	6,492.0	6,492.0	32.7	128.2	17.24	202.2	4,475.4	4,913.0	4,762.8	150.20	32.711	
6,700.0	6,446.1	6,538.6	6,538.6	32.7	129.2	17.75	202.2	4,475.4	4,895.8	4,748.3	147.43	33.207	
6,750.0	6,491.4	6,583.9	6,583.9	32.7	130.1	18.38	202.2	4,475.4	4,875.4	4,731.4	144.01	33.853	
6,800.0	6,535.1	6,627.6	6,627.6	32.7	131.0	19.15	202.2	4,475.4	4,852.1	4,712.0	140.01	34.655	
6,850.0	6,576.9	6,669.4	6,669.4	32.7	131.8	20.08	202.2	4,475.4	4,825.9	4,690.4	135.50	35.615	
6,900.0	6,616.8	6,709.3	6,709.3	32.7	132.6	21.20	202.2	4,475.4	4,797.0	4,666.4	130.60	36.729	
6,950.0	6,654.4	6,746.9	6,746.9	32.7	133.4	22.55	202.2	4,475.4	4,765.5	4,640.0	125.50	37.973	
7,000.0	6,689.7	6,782.2	6,782.2	32.7	134.1	24.18	202.2	4,475.4	4,731.6	4,611.2	120.41	39.294	
7,050.0	6,722.4	6,814.9	6,814.9	32.7	134.7	26.14	202.2	4,475.4	4,695.5	4,579.8	115.69	40.586	
7,100.0	6,752.4	6,844.9	6,844.9	32.7	135.3	28.53	202.2	4,475.4	4,657.3	4,545.5	111.78	41.665	
7,150.0	6,779.5	6,872.0	6,872.0	32.7	135.9	31.44	202.2	4,475.4	4,617.2	4,507.9	109.27	42.255	
7,200.0	6,803.7	6,896.2	6,896.2	32.7	136.4	35.03	202.2	4,475.4	4,575.4	4,466.6	108.87	42.026	
7,250.0	6,824.7	6,917.2	6,917.2	32.7	136.8	39.49	202.2	4,475.4	4,532.2	4,420.9	111.33	40.711	
7,300.0	6,842.5	6,935.0	6,935.0	32.8	137.1	45.03	202.2	4,475.4	4,487.8	4,370.6	117.18	38.297	
7,350.0	6,857.0	6,949.5	6,949.5	32.8	137.4	51.91	202.2	4,475.4	4,442.3	4,315.8	126.45	35.129	
7,400.0	6,868.1	6,960.6	6,960.6	32.9	137.6	60.34	202.2	4,475.4	4,396.0	4,257.8	138.18	31.814	
7,450.0	6,875.9	6,968.4	6,968.4	33.0	137.8	70.36	202.2	4,475.4	4,349.1	4,199.0	150.11	28.972	
7,500.0	6,880.1	6,972.6	6,972.6	33.2	137.9	81.60	202.2	4,475.4	4,301.9	4,142.8	159.08	27.043	
7,542.1	6,881.0	6,973.5	6,973.5	33.4	137.9	91.46	202.2	4,475.4	4,262.1	4,099.7	162.30	26.260	
7,600.0	6,880.5	6,973.0	6,973.0	33.6	137.9	91.44	202.2	4,475.4	4,207.4	4,044.0	163.33	25.759	
7,700.0	6,879.6	6,972.1	6,972.1	34.3	137.9	91.40	202.2	4,475.4	4,113.0	3,947.8	165.25	24.889	
7,800.0	6,878.7	6,971.2	6,971.2	35.2	137.9	91.36	202.2	4,475.4	4,019.0	3,851.7	167.31	24.021	
7,900.0	6,877.8	6,970.3	6,970.3	36.5	137.8	91.33	202.2	4,475.4	3,925.3	3,755.8	169.48	23.161	
8,000.0	6,877.0	6,969.5	6,969.5	38.0	137.8	91.29	202.2	4,475.4	3,831.8	3,660.1	171.74	22.312	
8,100.0	6,876.1	6,968.6	6,968.6	39.9	137.8	91.26	202.2	4,475.4	3,738.7	3,564.7	174.07	21.478	
8,200.0	6,875.2	6,967.7	6,967.7	41.9	137.8	91.22	202.2	4,475.4	3,646.0	3,469.5	176.47	20.661	
8,300.0	6,874.4	6,966.9	6,966.9	44.0	137.8	91.18	202.2	4,475.4	3,553.7	3,374.8	178.92	19.862	
8,400.0	6,873.5	6,966.0	6,966.0	46.3	137.8	91.15	202.2	4,475.4	3,461.8	3,280.4	181.40	19.083	
8,500.0	6,872.6	6,965.1	6,965.1	48.6	137.7	91.11	202.2	4,475.4	3,370.3	3,186.4	183.92	18.325	
8,600.0	6,871.7	6,964.2	6,964.2	51.0	137.7	91.07	202.2	4,475.4	3,279.4	3,092.9	186.48	17.586	
8,700.0	6,870.9	6,963.4	6,963.4	53.4	137.7	91.04	202.2	4,475.4	3,189.0	2,999.9	189.05	16.868	
8,800.0	6,870.0	6,962.5	6,962.5	55.9	137.7	91.00	202.2	4,475.4	3,099.2	2,907.5	191.65	16.171	
8,900.0	6,869.1	6,961.6	6,961.6	58.5	137.7	90.97	202.2	4,475.4	3,010.0	2,815.7	194.27	15.494	
9,000.0	6,868.3	6,960.8	6,960.8	61.0	137.7	90.93	202.2	4,475.4	2,921.5	2,724.6	196.90	14.838	
9,100.0	6,867.4	6,959.9	6,959.9	63.6	137.6	90.89	202.2	4,475.4	2,833.8	2,634.3	199.55	14.201	
9,200.0	6,866.5	6,959.0	6,959.0	66.2	137.6	90.86	202.2	4,475.4	2,747.0	2,544.8	202.21	13.585	
9,300.0	6,865.6	6,958.1	6,958.1	68.8	137.6	90.82	202.2	4,475.4	2,661.0	2,456.2	204.88	12.989	
9,400.0	6,864.8	6,957.3	6,957.3	71.5	137.6	90.78	202.2	4,475.4	2,576.1	2,368.5	207.55	12.412	
9,500.0	6,863.9	6,956.4	6,956.4	74.1	137.6	90.75	202.2	4,475.4	2,492.3	2,282.1	210.24	11.854	
9,600.0	6,863.0	6,955.5	6,955.5	76.8	137.5	90.71	202.2	4,475.4	2,409.7	2,196.8	212.94	11.317	
9,700.0	6,862.2	6,954.7	6,954.7	79.4	137.5	90.68	202.2	4,475.4	2,328.5	2,112.9	215.64	10.798	
9,800.0	6,861.3	6,953.8	6,953.8	82.1	137.5	90.64	202.2	4,475.4	2,248.8	2,030.5	218.35	10.299	
9,900.0	6,860.4	6,952.9	6,952.9	84.8	137.5	90.60	202.2	4,475.4	2,170.8	1,949.8	221.06	9.820	
10,000.0	6,859.5	6,952.0	6,952.0	87.5	137.5	90.57	202.2	4,475.4	2,094.7	1,870.9	223.78	9.361	
10,100.0	6,858.7	6,951.2	6,951.2	90.2	137.5	90.53	202.2	4,475.4	2,020.6	1,794.1	226.50	8.921	
10,200.0	6,857.8	6,950.3	6,950.3	92.9	137.4	90.50	202.2	4,475.4	1,948.9	1,719.7	229.23	8.502	
10,300.0	6,856.9	6,949.4	6,949.4	95.6	137.4	90.46	202.2	4,475.4	1,879.7	1,647.8	231.96	8.104	
10,400.0	6,856.1	6,948.6	6,948.6	98.4	137.4	90.42	202.2	4,475.4	1,813.4	1,578.7	234.69	7.727	
10,500.0	6,855.2	6,947.7	6,947.7	101.1	137.4	90.39	202.2	4,475.4	1,750.4	1,512.9	237.43	7.372	
10,600.0	6,854.3	6,946.8	6,946.8	103.8	137.4	90.35	202.2	4,475.4	1,690.9	1,450.7	240.17	7.040	
10,700.0	6,853.5	6,946.0	6,946.0	106.5	137.4	90.32	202.2	4,475.4	1,635.3	1,392.4	242.91	6.732	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - ABDN VERT OSTER POOLING UNIT #1 - Wellbore #1 - Desig												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	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
10,800.0	6,852.6	6,945.1	6,945.1	109.3	137.3	90.28	202.2	4,475.4	1,584.1	1,338.5	245.65	6.449	
10,900.0	6,851.7	6,944.2	6,944.2	112.0	137.3	90.24	202.2	4,475.4	1,537.7	1,289.3	248.40	6.191	
11,000.0	6,850.9	6,943.4	6,943.4	114.8	137.3	90.21	202.2	4,475.4	1,496.6	1,245.5	251.15	5.959	
11,100.0	6,850.0	6,942.5	6,942.5	117.5	137.3	90.17	202.2	4,475.4	1,461.2	1,207.3	253.90	5.755	
11,200.0	6,849.1	6,941.6	6,941.6	120.3	137.3	90.13	202.2	4,475.4	1,431.9	1,175.2	256.65	5.579	
11,300.0	6,848.2	6,940.7	6,940.7	123.0	137.2	90.10	202.2	4,475.4	1,409.1	1,149.7	259.41	5.432	
11,400.0	6,847.4	6,939.9	6,939.9	125.8	137.2	90.06	202.2	4,475.4	1,393.1	1,130.9	262.16	5.314	
11,500.0	6,846.5	6,939.0	6,939.0	128.5	137.2	90.03	202.2	4,475.4	1,384.1	1,119.2	264.92	5.225	
11,574.0	6,845.9	6,938.4	6,938.4	130.6	137.2	90.00	202.2	4,475.4	1,382.2	1,115.2	266.96	5.177 CC	
11,600.0	6,845.6	6,938.1	6,938.1	131.3	137.2	89.99	202.2	4,475.4	1,382.4	1,114.7	267.68	5.164 ES	
11,700.0	6,844.8	6,937.3	6,937.3	134.1	137.2	89.95	202.2	4,475.4	1,387.9	1,117.5	270.44	5.132	
11,800.0	6,843.9	6,936.4	6,936.4	136.8	137.2	89.92	202.2	4,475.4	1,400.5	1,127.3	273.20	5.126 SF	
11,900.0	6,843.0	6,935.5	6,935.5	139.6	137.1	89.88	202.2	4,475.4	1,420.1	1,144.1	275.96	5.146	
12,000.0	6,842.2	6,934.7	6,934.7	142.4	137.1	89.85	202.2	4,475.4	1,446.3	1,167.6	278.72	5.189	
12,100.0	6,841.3	6,933.8	6,933.8	145.1	137.1	89.81	202.2	4,475.4	1,478.9	1,197.4	281.48	5.254	
12,133.9	6,841.0	6,933.5	6,933.5	146.1	137.1	89.80	202.2	4,475.4	1,491.2	1,208.8	282.42	5.280	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 782-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	91.5	91.5	0.0	0.1	74.75	943.8	3,460.9	3,587.3				
100.0	100.0	192.7	192.7	0.1	0.2	74.74	943.9	3,460.8	3,587.2	3,587.0	0.28	N/A	
200.0	200.0	293.8	293.8	0.3	0.3	74.74	944.0	3,460.7	3,587.2	3,586.6	0.61	5,898.739	
300.0	300.0	395.0	395.0	0.5	0.4	74.74	944.2	3,460.6	3,587.1	3,586.1	0.93	3,851.288	
400.0	400.0	496.1	496.1	0.8	0.5	74.73	944.4	3,460.3	3,586.9	3,585.7	1.25	2,858.879	
500.0	500.0	597.3	597.2	1.0	0.6	84.74	944.7	3,460.1	3,586.6	3,585.0	1.58	2,273.908	
600.0	599.8	698.3	698.3	1.2	0.7	84.84	945.0	3,459.8	3,585.9	3,584.0	1.90	1,883.907	
700.0	699.5	798.9	798.9	1.5	0.8	84.99	945.4	3,459.4	3,584.9	3,582.6	2.26	1,584.455	
800.0	798.7	898.8	898.8	1.7	1.0	85.20	945.7	3,459.1	3,583.6	3,580.8	2.74	1,308.454	
900.0	897.5	1,000.3	1,000.3	2.0	1.2	85.48	946.1	3,458.7	3,582.0	3,578.7	3.25	1,102.835	
1,000.0	995.6	1,097.2	1,097.2	2.4	1.4	85.80	946.5	3,458.2	3,580.2	3,576.3	3.80	941.493	
1,100.0	1,093.1	1,194.0	1,194.0	2.8	1.6	86.18	947.0	3,457.8	3,578.3	3,573.9	4.41	811.557	
1,200.0	1,189.6	1,296.0	1,295.9	3.3	1.8	86.63	947.5	3,457.3	3,576.2	3,571.1	5.08	704.597	
1,300.0	1,285.3	1,393.5	1,393.5	3.8	2.0	87.13	947.7	3,456.8	3,574.1	3,568.3	5.79	617.045	
1,326.4	1,310.3	1,421.2	1,421.2	3.9	2.1	87.28	947.8	3,456.6	3,573.5	3,567.5	6.00	595.922	
1,400.0	1,380.1	1,493.4	1,493.4	4.3	2.2	87.64	947.9	3,456.1	3,571.9	3,565.3	6.57	543.500	
1,500.0	1,474.9	1,586.2	1,586.1	4.9	2.4	88.11	948.0	3,455.5	3,570.0	3,562.7	7.36	485.299	
1,600.0	1,569.8	1,680.4	1,680.4	5.5	2.6	88.59	947.8	3,455.0	3,568.5	3,560.3	8.15	437.893	
1,700.0	1,664.6	1,778.1	1,778.1	6.1	2.8	89.09	947.5	3,454.5	3,567.1	3,558.2	8.96	398.177	
1,800.0	1,759.4	1,871.2	1,871.2	6.8	3.0	89.57	947.2	3,454.0	3,566.1	3,556.3	9.77	365.017	
1,900.0	1,854.2	1,982.4	1,982.4	7.4	3.2	90.14	947.0	3,453.2	3,565.3	3,554.7	10.62	335.602	
2,000.0	1,949.0	2,091.3	2,091.3	8.0	3.5	90.70	946.6	3,451.8	3,564.1	3,552.6	11.47	310.692	
2,100.0	2,043.8	2,181.7	2,181.6	8.6	3.7	91.17	946.0	3,450.6	3,563.1	3,550.8	12.28	290.169	
2,200.0	2,138.7	2,273.2	2,273.1	9.2	3.9	91.64	945.2	3,449.6	3,562.7	3,549.6	13.09	272.186	
2,300.0	2,233.5	2,376.5	2,376.5	9.9	4.1	92.18	944.1	3,448.2	3,562.3	3,548.3	13.93	255.784	
2,343.9	2,275.1	2,412.6	2,412.5	10.1	4.1	92.37	943.7	3,447.8	3,562.2	3,547.9	14.28	249.527	
2,400.0	2,328.3	2,461.2	2,461.1	10.5	4.2	92.63	943.1	3,447.2	3,562.3	3,547.6	14.73	241.897	
2,500.0	2,423.1	2,547.3	2,547.2	11.1	4.4	93.08	942.3	3,446.4	3,562.8	3,547.3	15.53	229.431	
2,600.0	2,517.9	2,621.0	2,620.9	11.8	4.6	93.46	942.1	3,445.9	3,564.0	3,547.7	16.31	218.537	
2,700.0	2,612.7	2,673.3	2,673.2	12.4	4.7	93.72	942.3	3,446.0	3,566.3	3,549.3	17.04	209.236	
2,800.0	2,707.6	2,717.0	2,716.9	13.0	4.8	93.94	942.7	3,446.5	3,570.1	3,552.4	17.76	200.983	
2,900.0	2,802.4	2,784.9	2,784.7	13.6	4.9	94.28	943.2	3,448.2	3,575.2	3,556.7	18.53	192.941	
3,000.0	2,897.2	2,846.0	2,845.8	14.3	5.0	94.59	943.5	3,450.3	3,581.5	3,562.2	19.28	185.735	
3,100.0	2,992.0	2,908.0	2,907.8	14.9	5.2	94.91	943.5	3,453.0	3,588.9	3,568.8	20.04	179.116	
3,200.0	3,086.8	2,963.2	2,962.9	15.5	5.3	95.19	943.2	3,456.0	3,597.5	3,576.8	20.78	173.148	
3,300.0	3,181.6	3,003.0	3,002.6	16.2	5.4	95.40	942.8	3,458.6	3,607.6	3,586.1	21.49	167.896	
3,400.0	3,276.5	3,067.5	3,067.0	16.8	5.5	95.75	941.8	3,463.5	3,618.9	3,596.6	22.25	162.673	
3,500.0	3,371.3	3,121.7	3,120.9	17.4	5.6	96.04	940.9	3,468.4	3,631.6	3,608.7	22.98	158.003	
3,600.0	3,466.1	3,193.0	3,191.8	18.1	5.8	96.43	938.9	3,475.5	3,645.7	3,621.9	23.76	153.460	
3,700.0	3,560.9	3,233.8	3,232.3	18.7	5.9	96.66	937.6	3,480.0	3,660.9	3,636.4	24.47	149.620	
3,800.0	3,655.7	3,287.0	3,285.1	19.3	6.0	96.94	936.6	3,486.4	3,677.4	3,652.2	25.20	145.910	
3,900.0	3,750.5	3,410.4	3,407.7	20.0	6.3	97.58	935.3	3,500.8	3,693.9	3,667.8	26.07	141.682	
4,000.0	3,845.4	3,475.0	3,471.8	20.6	6.4	97.91	934.5	3,509.0	3,711.4	3,684.6	26.83	138.356	
4,100.0	3,940.2	3,527.0	3,523.3	21.3	6.5	98.18	933.7	3,516.0	3,730.1	3,702.5	27.56	135.364	
4,200.0	4,035.0	3,606.8	3,602.3	21.9	6.8	98.59	932.4	3,526.9	3,749.3	3,721.0	28.34	132.300	
4,300.0	4,129.8	3,686.4	3,681.1	22.5	7.0	99.00	931.0	3,538.2	3,769.3	3,740.2	29.12	129.437	
4,400.0	4,224.6	3,799.1	3,792.6	23.2	7.2	99.57	929.2	3,554.0	3,789.5	3,759.5	29.96	126.485	
4,500.0	4,319.4	3,915.5	3,908.0	23.8	7.5	100.14	928.1	3,569.6	3,809.3	3,778.5	30.80	123.672	
4,600.0	4,414.3	4,009.7	4,001.4	24.4	7.8	100.59	927.3	3,582.0	3,829.0	3,797.4	31.60	121.168	
4,700.0	4,509.1	4,109.5	4,100.4	25.1	8.0	101.08	925.7	3,595.0	3,849.0	3,816.6	32.41	118.766	
4,800.0	4,603.9	4,242.3	4,232.1	25.7	8.4	101.73	923.4	3,611.5	3,868.7	3,835.5	33.27	116.275	
4,900.0	4,698.7	4,391.9	4,380.8	26.3	8.8	102.44	921.2	3,628.3	3,887.6	3,853.5	34.16	113.795	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 782-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	4,793.5	4,538.2	4,526.3	27.0	9.2	103.14	918.7	3,642.4	3,905.2	3,870.1	35.04	111.437	
5,100.0	4,888.3	4,616.0	4,603.8	27.6	9.4	103.50	917.6	3,649.3	3,922.4	3,886.6	35.80	109.558	
5,200.0	4,983.2	4,683.5	4,671.0	28.2	9.5	103.82	916.4	3,655.7	3,940.4	3,903.8	36.54	107.836	
5,300.0	5,078.0	4,799.8	4,786.6	28.9	9.8	104.36	914.2	3,667.4	3,959.3	3,921.9	37.36	105.974	
5,400.0	5,172.8	4,938.3	4,924.6	29.5	10.2	105.00	911.9	3,679.4	3,976.8	3,938.5	38.21	104.066	
5,454.5	5,224.5	4,975.5	4,961.7	29.9	10.3	105.17	911.3	3,682.6	3,986.4	3,947.8	38.61	103.241	
5,500.0	5,267.7	4,996.0	4,982.1	30.1	10.3	105.43	910.9	3,684.4	3,994.6	3,955.7	38.88	102.745	
5,600.0	5,363.5	5,058.8	5,044.6	30.6	10.5	106.04	909.7	3,690.3	4,012.7	3,973.3	39.40	101.853	
5,700.0	5,460.3	5,156.0	5,141.3	31.0	10.8	106.74	907.6	3,700.3	4,030.7	3,990.8	39.94	100.930	
5,800.0	5,557.9	5,308.9	5,293.5	31.3	11.1	107.54	903.8	3,714.4	4,047.0	4,006.5	40.54	99.834	
5,900.0	5,656.2	5,414.0	5,398.2	31.7	11.4	108.10	901.1	3,722.8	4,061.1	4,020.1	41.02	99.012	
6,000.0	5,755.0	5,488.5	5,472.4	31.9	11.6	108.52	899.1	3,729.4	4,075.0	4,033.6	41.40	98.431	
6,100.0	5,854.4	5,611.5	5,595.0	32.2	11.9	108.98	896.0	3,739.3	4,087.0	4,045.1	41.84	97.688	
6,200.0	5,954.0	5,754.0	5,736.9	32.4	12.3	109.34	893.1	3,751.2	4,098.5	4,056.2	42.28	96.935	
6,300.0	6,053.9	5,824.0	5,806.7	32.5	12.5	109.58	891.2	3,756.4	4,107.8	4,065.3	42.54	96.568	
6,380.9	6,134.8	5,881.8	5,864.3	32.6	12.6	99.76	889.4	3,761.1	4,115.1	4,082.9	32.20	127.799	
6,400.0	6,153.9	5,896.3	5,878.7	32.6	12.6	99.76	889.0	3,762.3	4,116.8	4,084.5	32.26	127.604	
6,410.9	6,164.8	5,904.6	5,886.9	32.6	12.7	99.76	888.8	3,763.0	4,117.8	4,085.5	32.30	127.487	
6,450.0	6,203.9	5,943.0	5,925.2	32.6	12.8	9.74	888.0	3,766.4	4,120.3	4,077.4	42.84	96.171	
6,500.0	6,253.7	5,981.1	5,963.1	32.7	12.9	9.74	887.6	3,769.9	4,120.5	4,077.7	42.72	96.461	
6,550.0	6,303.0	6,030.3	6,012.2	32.7	13.0	9.79	887.6	3,774.6	4,117.2	4,074.8	42.43	97.040	
6,600.0	6,351.7	6,145.0	6,126.4	32.7	13.3	9.91	889.0	3,784.7	4,110.3	4,068.2	42.10	97.639	
6,650.0	6,399.5	6,191.7	6,172.0	32.7	14.1	10.29	892.2	3,799.7	4,097.8	4,055.7	42.10	97.342	
6,700.0	6,446.1	6,237.6	6,218.0	32.7	14.2	10.62	892.5	3,799.5	4,079.9	4,038.6	41.26	98.880	
6,750.0	6,491.4	6,282.5	6,262.9	32.7	14.3	11.03	892.9	3,799.2	4,058.7	4,018.4	40.24	100.864	
6,800.0	6,535.1	6,326.0	6,306.0	32.7	14.4	11.53	893.1	3,799.0	4,034.4	3,995.4	39.04	103.341	
6,850.0	6,576.9	6,367.9	6,347.0	32.7	14.5	12.14	893.3	3,798.7	4,007.2	3,969.5	37.69	106.325	
6,900.0	6,616.8	6,407.8	6,386.0	32.7	14.5	12.88	893.4	3,798.5	3,977.2	3,941.0	36.20	109.870	
6,950.0	6,654.4	6,448.1	6,426.0	32.7	14.6	13.77	893.6	3,798.3	3,944.6	3,910.0	34.59	114.032	
7,000.0	6,689.7	6,489.8	6,467.0	32.7	14.7	14.86	893.7	3,798.1	3,909.6	3,876.7	32.89	118.879	
7,050.0	6,722.4	6,530.1	6,507.0	32.7	14.7	16.19	893.8	3,798.0	3,872.2	3,841.1	31.12	124.433	
7,100.0	6,752.4	6,569.4	6,546.0	32.7	14.8	17.84	893.9	3,797.9	3,832.7	3,803.4	29.34	130.650	
7,150.0	6,779.5	6,597.5	6,573.0	32.7	14.8	19.92	894.0	3,797.9	3,791.4	3,763.8	27.61	137.336	
7,200.0	6,803.7	6,618.4	6,593.0	32.7	14.8	22.57	894.1	3,797.9	3,748.3	3,722.3	26.04	143.953	
7,250.0	6,824.7	6,636.6	6,611.0	32.7	14.9	26.05	894.1	3,797.9	3,703.7	3,678.9	24.81	149.266	
7,300.0	6,842.5	6,652.1	6,626.0	32.8	14.9	30.71	894.2	3,797.9	3,657.8	3,633.6	24.24	150.901	
7,350.0	6,857.0	6,664.8	6,638.0	32.8	14.9	37.14	894.2	3,797.9	3,610.9	3,586.0	24.81	145.537	
7,400.0	6,868.1	6,674.5	6,647.0	32.9	14.9	46.18	894.3	3,797.9	3,563.0	3,535.9	27.11	131.427	
7,450.0	6,875.9	6,686.0	6,658.0	33.0	15.0	59.18	894.3	3,797.9	3,514.6	3,483.2	31.44	111.804	
7,500.0	6,880.1	6,696.0	6,667.0	33.2	15.0	75.87	894.3	3,797.9	3,465.8	3,429.4	36.42	95.162	
7,542.1	6,881.0	6,696.0	6,666.0	33.4	15.0	92.05	894.3	3,797.9	3,424.5	3,385.1	39.42	86.878	
7,600.0	6,880.5	6,696.0	6,666.0	33.6	15.0	92.05	894.3	3,797.9	3,367.9	3,327.4	40.46	83.243	
7,700.0	6,879.6	6,696.0	6,666.0	34.3	15.0	92.05	894.3	3,797.9	3,270.1	3,227.7	42.39	77.135	
7,800.0	6,878.7	6,696.0	6,666.0	35.2	15.0	92.05	894.3	3,797.9	3,172.4	3,127.9	44.47	71.338	
7,900.0	6,877.8	6,696.0	6,666.0	36.5	15.0	92.05	894.3	3,797.9	3,074.9	3,028.2	46.65	65.907	
8,000.0	6,877.0	6,696.0	6,666.0	38.0	15.0	92.05	894.3	3,797.9	2,977.5	2,928.6	48.93	60.851	
8,100.0	6,876.1	6,696.0	6,666.0	39.9	15.0	92.05	894.3	3,797.9	2,880.3	2,829.0	51.28	56.166	
8,200.0	6,875.2	6,696.0	6,666.0	41.9	15.0	92.05	894.3	3,797.9	2,783.3	2,729.6	53.69	51.837	
8,300.0	6,874.4	6,696.0	6,666.0	44.0	15.0	92.05	894.3	3,797.9	2,686.6	2,630.4	56.16	47.841	
8,400.0	6,873.5	6,696.0	6,666.0	46.3	15.0	91.64	894.3	3,797.9	2,590.1	2,531.4	58.63	44.178	
8,500.0	6,872.6	6,696.0	6,666.0	48.6	15.0	91.59	894.3	3,797.9	2,493.8	2,432.7	61.16	40.773	
8,600.0	6,871.7	6,696.0	6,666.0	51.0	15.0	91.54	894.3	3,797.9	2,397.9	2,334.2	63.73	37.626	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD BINDER 20-28 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 782-MWD												<b>Offset Well Error:</b>	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
8,700.0	6,870.9	6,979.2	6,960.1	53.4	14.9	91.49	894.3	3,797.9	2,302.3	2,236.0	66.32	34.715	
8,800.0	6,870.0	6,978.6	6,959.5	55.9	14.9	91.43	894.3	3,797.9	2,207.1	2,138.2	68.93	32.019	
8,900.0	6,869.1	6,978.0	6,958.9	58.5	14.9	91.38	894.3	3,797.9	2,112.3	2,040.8	71.56	29.518	
9,000.0	6,868.3	6,977.3	6,958.2	61.0	14.9	91.33	894.3	3,797.9	2,018.1	1,943.9	74.21	27.195	
9,100.0	6,867.4	6,976.7	6,957.6	63.6	14.9	91.28	894.3	3,797.9	1,924.4	1,847.6	76.87	25.036	
9,200.0	6,866.5	6,976.0	6,957.0	66.2	14.9	91.22	894.3	3,797.9	1,831.4	1,751.9	79.54	23.025	
9,300.0	6,865.6	6,975.4	6,956.3	68.8	14.9	91.17	894.3	3,797.9	1,739.2	1,657.0	82.22	21.152	
9,400.0	6,864.8	6,974.7	6,955.7	71.5	14.9	91.11	894.3	3,797.9	1,647.9	1,563.0	84.92	19.406	
9,500.0	6,863.9	6,974.1	6,955.0	74.1	14.9	91.06	894.3	3,797.9	1,557.7	1,470.1	87.62	17.778	
9,600.0	6,863.0	6,973.4	6,954.4	76.8	14.9	91.01	894.3	3,797.9	1,468.7	1,378.4	90.33	16.260	
9,700.0	6,862.2	6,972.8	6,953.7	79.4	14.9	90.95	894.3	3,797.9	1,381.2	1,288.2	93.04	14.845	
9,800.0	6,861.3	6,972.1	6,953.0	82.1	14.9	90.89	894.3	3,797.9	1,295.6	1,199.8	95.77	13.528	
9,900.0	6,860.4	6,971.4	6,952.3	84.8	14.9	90.84	894.3	3,797.9	1,212.1	1,113.6	98.49	12.306	
10,000.0	6,859.5	6,970.7	6,951.6	87.5	14.9	90.78	894.3	3,797.9	1,131.4	1,030.1	101.23	11.176	
10,100.0	6,858.7	6,970.0	6,950.9	90.2	14.9	90.72	894.3	3,797.9	1,053.9	949.9	103.96	10.137	
10,200.0	6,857.8	6,969.3	6,950.2	92.9	14.9	90.66	894.2	3,797.9	980.5	873.8	106.71	9.189	
10,300.0	6,856.9	6,968.6	6,949.5	95.6	14.9	90.61	894.2	3,797.9	912.2	802.7	109.45	8.334	
10,400.0	6,856.1	6,967.9	6,948.8	98.4	14.9	90.55	894.2	3,797.9	850.2	738.0	112.20	7.578	
10,500.0	6,855.2	6,967.2	6,948.1	101.1	14.9	90.49	894.2	3,797.9	795.9	681.0	114.95	6.924	
10,600.0	6,854.3	6,966.5	6,947.4	103.8	14.9	90.43	894.2	3,797.9	751.2	633.5	117.70	6.382	
10,700.0	6,853.5	6,965.7	6,946.7	106.5	14.9	90.37	894.2	3,797.9	717.6	597.1	120.46	5.957	
10,800.0	6,852.6	6,965.0	6,945.9	109.3	14.9	90.30	894.2	3,797.9	696.9	573.7	123.22	5.656	
10,896.5	6,851.8	6,964.3	6,945.2	111.9	14.9	90.25	894.2	3,797.9	690.2	564.3	125.88	5.483 CC	
10,900.0	6,851.7	6,964.3	6,945.2	112.0	14.9	90.24	894.2	3,797.9	690.2	564.2	125.98	5.479 ES	
11,000.0	6,850.9	6,963.5	6,944.4	114.8	14.9	90.18	894.2	3,797.9	697.9	569.2	128.74	5.421 SF	
11,100.0	6,850.0	6,962.7	6,943.7	117.5	14.9	90.12	894.2	3,797.9	719.6	588.1	131.51	5.472	
11,200.0	6,849.1	6,962.0	6,942.9	120.3	14.9	90.05	894.2	3,797.9	754.0	619.7	134.27	5.615	
11,300.0	6,848.2	6,961.2	6,942.1	123.0	14.9	89.99	894.2	3,797.9	799.5	662.4	137.04	5.834	
11,400.0	6,847.4	6,960.4	6,941.4	125.8	14.9	89.93	894.2	3,797.9	854.3	714.5	139.81	6.111	
11,500.0	6,846.5	6,959.6	6,940.6	128.5	14.9	89.86	894.2	3,797.9	916.8	774.3	142.58	6.430	
11,600.0	6,845.6	6,958.8	6,939.8	131.3	14.9	89.79	894.2	3,797.9	985.5	840.2	145.35	6.780	
11,700.0	6,844.8	6,958.0	6,939.0	134.1	14.9	89.73	894.2	3,797.9	1,059.2	911.1	148.13	7.151	
11,800.0	6,843.9	6,957.2	6,938.2	136.8	14.9	89.66	894.2	3,797.9	1,137.0	986.1	150.90	7.535	
11,900.0	6,843.0	6,956.4	6,937.3	139.6	14.9	89.59	894.2	3,797.9	1,217.9	1,064.3	153.67	7.925	
12,000.0	6,842.2	6,955.6	6,936.5	142.4	14.9	89.53	894.2	3,797.9	1,301.6	1,145.1	156.45	8.319	
12,100.0	6,841.3	6,954.8	6,935.7	145.1	14.9	89.46	894.2	3,797.9	1,387.4	1,228.1	159.23	8.713	
12,133.9	6,841.0	6,954.5	6,935.4	146.1	14.9	89.43	894.2	3,797.9	1,416.8	1,256.7	160.17	8.846	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 40-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	81.2	81.2	0.0	0.0	14.86	3,413.6	905.6	3,531.6				
100.0	100.0	183.4	183.4	0.1	0.2	14.86	3,413.4	905.7	3,531.6	3,531.3	0.27	N/A	
200.0	200.0	285.8	285.8	0.3	0.4	14.86	3,413.2	905.9	3,531.4	3,530.7	0.73	4,869.659	
300.0	300.0	388.0	388.0	0.5	0.6	14.87	3,412.9	906.3	3,531.2	3,530.0	1.18	2,993.090	
400.0	400.0	490.1	490.1	0.8	0.9	14.88	3,412.5	906.7	3,530.9	3,529.3	1.63	2,160.263	
500.0	500.0	592.2	592.2	1.0	1.1	24.90	3,412.0	907.3	3,529.0	3,526.9	2.09	1,686.820	
600.0	599.8	699.5	699.5	1.2	1.3	24.99	3,411.4	907.8	3,523.8	3,521.3	2.55	1,383.709	
700.0	699.5	812.4	812.4	1.5	1.5	25.14	3,410.5	907.8	3,515.2	3,512.2	3.00	1,169.867	
800.0	798.7	927.5	927.5	1.7	1.8	25.35	3,409.1	907.7	3,503.0	3,499.5	3.50	1,001.270	
900.0	897.5	1,007.7	1,007.7	2.0	1.9	25.57	3,408.2	907.6	3,487.6	3,483.8	3.90	894.883	
1,000.0	995.6	1,102.5	1,102.5	2.4	2.1	25.86	3,407.5	907.3	3,469.6	3,465.3	4.34	799.834	
1,100.0	1,093.1	2,039.6	2,027.2	2.8	4.9	28.63	3,280.7	915.1	3,437.3	3,430.5	6.82	503.644	
1,200.0	1,189.6	2,238.1	2,216.9	3.3	5.9	30.14	3,223.0	923.8	3,388.6	3,380.9	7.71	439.576	
1,300.0	1,285.3	2,449.6	2,416.8	3.8	7.1	32.01	3,154.7	932.1	3,334.9	3,326.2	8.75	380.957	
1,326.4	1,310.3	2,473.6	2,439.4	3.9	7.2	32.36	3,146.5	933.2	3,320.1	3,311.1	8.94	371.382	
1,400.0	1,380.1	2,527.2	2,489.7	4.3	7.5	32.73	3,128.2	935.5	3,278.4	3,269.0	9.41	348.410	
1,500.0	1,474.9	2,578.5	2,537.9	4.9	7.7	33.08	3,110.9	937.6	3,222.4	3,212.4	9.97	323.114	
1,600.0	1,569.8	2,617.4	2,574.7	5.5	7.9	33.35	3,098.2	939.2	3,167.4	3,156.9	10.51	301.444	
1,700.0	1,664.6	2,679.2	2,633.3	6.1	8.2	33.77	3,078.8	941.5	3,113.6	3,102.5	11.14	279.471	
1,800.0	1,759.4	2,777.8	2,726.7	6.8	8.8	34.48	3,047.5	945.3	3,059.7	3,047.7	11.97	255.572	
1,900.0	1,854.2	2,840.0	2,785.6	7.4	9.1	34.94	3,027.7	947.8	3,006.1	2,993.5	12.64	237.772	
2,000.0	1,949.0	2,880.0	2,823.6	8.0	9.3	35.24	3,015.4	949.5	2,953.6	2,940.3	13.23	223.221	
2,100.0	2,043.8	2,924.4	2,866.0	8.6	9.5	35.58	3,002.3	951.4	2,902.4	2,888.6	13.84	209.672	
2,200.0	2,138.7	3,012.5	2,950.4	9.2	10.0	36.25	2,977.0	954.8	2,852.1	2,837.4	14.65	194.635	
2,300.0	2,233.5	3,089.6	3,024.1	9.9	10.4	36.84	2,954.8	957.3	2,801.8	2,786.3	15.44	181.496	
2,400.0	2,328.3	3,160.0	3,091.6	10.5	10.7	37.40	2,934.8	959.8	2,752.1	2,735.9	16.20	169.893	
2,500.0	2,423.1	3,239.4	3,167.6	11.1	11.1	38.07	2,912.3	963.1	2,703.0	2,685.9	17.04	158.631	
2,600.0	2,517.9	3,350.1	3,273.5	11.8	11.8	39.03	2,880.3	967.8	2,653.9	2,635.8	18.08	146.767	
2,700.0	2,612.7	3,451.0	3,369.6	12.4	12.4	39.98	2,849.6	972.5	2,604.0	2,584.9	19.12	136.181	
2,800.0	2,707.6	3,542.1	3,456.1	13.0	12.9	40.89	2,821.5	977.6	2,554.6	2,534.4	20.14	126.832	
2,900.0	2,802.4	3,710.8	3,614.7	13.6	14.0	42.72	2,765.0	987.6	2,503.6	2,481.9	21.77	114.997	
3,000.0	2,897.2	3,807.5	3,704.8	14.3	14.6	43.86	2,730.4	993.2	2,451.6	2,428.6	22.97	106.734	
3,100.0	2,992.0	3,867.7	3,761.1	14.9	15.0	44.58	2,709.3	996.0	2,400.2	2,376.3	23.88	100.490	
3,200.0	3,086.8	3,920.0	3,810.4	15.5	15.3	45.19	2,691.8	997.9	2,350.1	2,325.4	24.74	95.001	
3,300.0	3,181.6	3,948.9	3,837.8	16.2	15.4	45.52	2,682.8	998.8	2,302.0	2,276.5	25.43	90.522	
3,400.0	3,276.5	4,000.0	3,886.6	16.8	15.7	46.11	2,667.8	1,000.4	2,255.7	2,229.5	26.27	85.873	
3,500.0	3,371.3	4,076.6	3,960.0	17.4	16.1	47.00	2,645.8	1,002.6	2,210.7	2,183.4	27.31	80.941	
3,600.0	3,466.1	4,141.1	4,021.7	18.1	16.5	47.78	2,627.3	1,005.0	2,166.6	2,138.3	28.30	76.571	
3,700.0	3,560.9	4,213.8	4,091.3	18.7	16.9	48.71	2,606.6	1,008.5	2,123.7	2,094.3	29.37	72.312	
3,800.0	3,655.7	4,370.0	4,240.2	19.3	17.8	50.81	2,560.1	1,015.6	2,080.9	2,049.7	31.18	66.740	
3,900.0	3,750.5	4,445.4	4,311.8	20.0	18.2	51.86	2,536.6	1,017.8	2,036.9	2,004.6	32.33	63.002	
4,000.0	3,845.4	4,577.2	4,436.7	20.6	19.0	53.77	2,494.3	1,019.7	1,992.2	1,958.2	34.01	58.579	
4,100.0	3,940.2	4,625.5	4,482.3	21.3	19.3	54.50	2,478.7	1,020.6	1,948.4	1,913.5	34.98	55.701	
4,200.0	4,035.0	4,691.7	4,545.1	21.9	19.6	55.53	2,457.8	1,022.5	1,906.7	1,870.5	36.13	52.774	
4,300.0	4,129.8	4,760.0	4,610.0	22.5	20.0	56.63	2,436.5	1,024.5	1,866.2	1,828.9	37.33	49.999	
4,400.0	4,224.6	4,809.0	4,656.9	23.2	20.3	57.40	2,422.2	1,025.7	1,827.9	1,789.5	38.32	47.704	
4,500.0	4,319.4	4,862.7	4,708.6	23.8	20.5	58.23	2,408.1	1,026.5	1,792.0	1,752.6	39.33	45.562	
4,600.0	4,414.3	4,920.0	4,764.3	24.4	20.8	59.10	2,394.3	1,027.3	1,758.3	1,717.9	40.36	43.561	
4,700.0	4,509.1	4,984.1	4,826.7	25.1	21.1	60.07	2,379.9	1,028.4	1,726.7	1,685.2	41.45	41.659	
4,800.0	4,603.9	5,047.1	4,888.3	25.7	21.3	61.04	2,366.5	1,029.9	1,697.3	1,654.8	42.53	39.904	
4,900.0	4,698.7	5,114.3	4,954.0	26.3	21.6	62.10	2,352.7	1,032.1	1,670.0	1,626.4	43.66	38.250	
5,000.0	4,793.5	5,179.5	5,017.9	27.0	21.8	63.13	2,340.3	1,034.5	1,644.9	1,600.2	44.76	36.747	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 40-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	5,246.2	5,083.7	27.6	22.1	64.15	2,329.3	1,036.7	1,622.0	1,576.2	45.85	35.377	
5,200.0	4,983.2	5,315.0	5,151.8	28.2	22.3	65.19	2,319.3	1,038.9	1,601.3	1,554.4	46.93	34.123	
5,300.0	5,078.0	5,388.8	5,224.9	28.9	22.5	66.27	2,310.2	1,041.1	1,582.6	1,534.6	48.01	32.963	
5,400.0	5,172.8	5,475.9	5,311.6	29.5	22.7	67.50	2,301.5	1,043.1	1,565.5	1,516.4	49.14	31.857	
5,454.5	5,224.5	5,525.5	5,361.0	29.9	22.8	68.17	2,297.4	1,043.6	1,556.6	1,506.8	49.74	31.291	
5,500.0	5,267.7	5,565.1	5,400.5	30.1	22.9	68.55	2,294.6	1,043.8	1,549.5	1,499.3	50.16	30.889	
5,600.0	5,363.5	5,648.4	5,483.7	30.6	23.0	69.26	2,289.9	1,043.6	1,535.6	1,484.7	50.92	30.155	
5,700.0	5,460.3	5,732.7	5,567.9	31.0	23.2	69.88	2,287.1	1,043.2	1,524.3	1,472.7	51.60	29.542	
5,800.0	5,557.9	5,814.9	5,650.1	31.3	23.3	70.40	2,285.4	1,042.8	1,515.2	1,463.0	52.18	29.037	
5,900.0	5,656.2	5,886.6	5,721.8	31.7	23.4	70.76	2,285.2	1,043.0	1,509.1	1,456.4	52.67	28.653	
6,000.0	5,755.0	5,982.5	5,817.7	31.9	23.4	71.19	2,286.1	1,043.7	1,505.2	1,452.1	53.13	28.329	
6,100.0	5,854.4	6,086.0	5,921.2	32.2	23.5	71.54	2,287.3	1,044.2	1,502.5	1,449.0	53.54	28.064	
6,200.0	5,954.0	6,192.6	6,027.8	32.4	23.6	71.77	2,288.6	1,044.2	1,500.5	1,446.6	53.88	27.852	
6,300.0	6,053.9	6,292.0	6,127.2	32.5	23.7	71.87	2,289.8	1,044.0	1,499.5	1,445.4	54.13	27.701	
6,366.1	6,120.0	6,361.8	6,197.0	32.6	23.8	71.88	2,290.7	1,043.8	1,499.4	1,445.1	54.26	27.631	
6,380.9	6,134.8	6,375.6	6,210.8	32.6	23.8	61.89	2,290.9	1,043.7	1,499.4	1,463.9	35.46	42.288	
6,400.0	6,153.9	6,393.5	6,228.7	32.6	23.8	61.88	2,291.1	1,043.6	1,499.4	1,463.9	35.51	42.222	
6,410.9	6,164.8	6,403.6	6,238.8	32.6	23.8	61.87	2,291.3	1,043.6	1,499.5	1,463.9	35.55	42.184	
6,450.0	6,203.9	6,440.0	6,275.2	32.6	23.9	-28.20	2,291.9	1,043.5	1,498.7	1,444.4	54.33	27.586	
6,500.0	6,253.7	6,498.4	6,333.5	32.7	23.9	-28.47	2,292.8	1,043.2	1,495.0	1,440.9	54.08	27.646	
6,550.0	6,303.0	6,560.0	6,395.1	32.7	24.0	-28.97	2,293.6	1,042.4	1,487.7	1,434.1	53.55	27.779	
6,600.0	6,351.7	6,603.3	6,438.4	32.7	24.0	-29.60	2,294.0	1,041.8	1,477.3	1,424.6	52.77	27.995	
6,650.0	6,399.5	6,643.8	6,478.9	32.7	24.1	-30.40	2,294.4	1,041.4	1,464.3	1,412.6	51.75	28.299	
6,700.0	6,446.1	6,690.7	6,525.8	32.7	24.1	-31.47	2,294.9	1,041.2	1,448.6	1,398.1	50.49	28.692	
6,750.0	6,491.4	6,737.6	6,572.7	32.7	24.2	-32.78	2,295.2	1,041.0	1,430.1	1,381.1	49.02	29.173	
6,800.0	6,535.1	6,778.7	6,613.9	32.7	24.2	-34.31	2,295.3	1,040.9	1,409.0	1,361.6	47.38	29.739	
6,850.0	6,576.9	6,815.7	6,650.8	32.7	24.2	-36.08	2,295.5	1,040.8	1,385.6	1,340.0	45.60	30.388	
6,900.0	6,616.8	6,850.5	6,685.6	32.7	24.3	-38.15	2,295.9	1,040.8	1,360.0	1,316.3	43.72	31.104	
6,950.0	6,654.4	6,880.0	6,715.1	32.7	24.3	-40.46	2,296.4	1,040.9	1,332.5	1,290.6	41.84	31.846	
7,000.0	6,689.7	6,912.7	6,747.8	32.7	24.3	-43.24	2,297.1	1,041.0	1,303.2	1,263.2	40.02	32.563	
7,050.0	6,722.4	6,943.1	6,778.3	32.7	24.4	-46.40	2,297.8	1,041.1	1,272.3	1,233.9	38.38	33.148	
7,100.0	6,752.4	6,973.2	6,808.3	32.7	24.4	-50.02	2,298.6	1,041.3	1,240.0	1,202.9	37.05	33.466	
7,150.0	6,779.5	7,002.0	6,837.1	32.7	24.4	-54.11	2,299.3	1,041.4	1,206.4	1,170.3	36.15	33.373	
7,200.0	6,803.7	7,027.7	6,862.8	32.7	24.4	-58.55	2,299.9	1,041.6	1,171.9	1,136.1	35.75	32.778	
7,250.0	6,824.7	7,050.2	6,885.2	32.7	24.5	-63.27	2,300.4	1,041.7	1,136.7	1,100.8	35.86	31.694	
7,300.0	6,842.5	7,069.2	6,904.2	32.8	24.5	-68.15	2,300.8	1,041.7	1,101.1	1,064.7	36.40	30.248	
7,350.0	6,857.0	7,084.6	6,919.7	32.8	24.5	-73.04	2,301.1	1,041.8	1,065.5	1,028.2	37.22	28.624	
7,400.0	6,868.1	7,096.4	6,931.5	32.9	24.5	-77.78	2,301.4	1,041.8	1,030.1	991.9	38.17	26.987	
7,450.0	6,875.9	7,104.6	6,939.7	33.0	24.5	-82.21	2,301.5	1,041.8	995.4	956.3	39.12	25.447	
7,500.0	6,880.1	7,109.2	6,944.2	33.2	24.5	-86.22	2,301.6	1,041.8	961.6	921.6	39.99	24.048	
7,542.1	6,881.0	7,110.2	6,945.2	33.4	24.5	-89.20	2,301.6	1,041.8	934.1	893.4	40.65	22.980	
7,600.0	6,880.5	7,109.7	6,944.8	33.6	24.5	-89.16	2,301.6	1,041.8	898.1	856.4	41.69	21.543	
7,700.0	6,879.6	7,109.0	6,944.1	34.3	24.5	-89.11	2,301.6	1,041.8	841.7	798.1	43.63	19.294	
7,800.0	6,878.7	7,108.3	6,943.4	35.2	24.5	-89.05	2,301.6	1,041.8	794.0	748.3	45.71	17.372	
7,900.0	6,877.8	7,107.6	6,942.6	36.5	24.5	-88.99	2,301.6	1,041.8	756.5	708.6	47.89	15.796	
8,000.0	6,877.0	7,106.9	6,941.9	38.0	24.5	-88.94	2,301.6	1,041.8	730.9	680.7	50.17	14.568	
8,100.0	6,876.1	7,106.2	6,941.2	39.9	24.5	-88.88	2,301.6	1,041.8	718.4	665.9	52.53	13.677	
8,140.5	6,875.8	7,105.9	6,940.9	40.6	24.5	-88.86	2,301.6	1,041.8	717.3	663.8	53.50	13.407 CC, ES	
8,200.0	6,875.2	7,105.5	6,940.5	41.9	24.5	-88.82	2,301.6	1,041.8	719.8	664.8	54.94	13.101	
8,300.0	6,874.4	7,104.8	6,939.8	44.0	24.5	-88.77	2,301.5	1,041.8	734.8	677.4	57.41	12.801	
8,400.0	6,873.5	7,104.1	6,939.2	46.3	24.5	-88.71	2,301.5	1,041.8	762.8	702.9	59.91	12.733 SF	
8,500.0	6,872.6	7,103.4	6,938.5	48.6	24.5	-88.66	2,301.5	1,041.8	802.4	739.9	62.45	12.848	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD KINZER 28KD - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 40-MWD												<b>Offset Well Error:</b>	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
8,600.0	6,871.7	7,102.7	6,937.8	51.0	24.5	-88.61	2,301.5	1,041.8	851.9	786.9	65.02	13.102	
8,700.0	6,870.9	7,102.1	6,937.1	53.4	24.5	-88.55	2,301.5	1,041.8	909.7	842.1	67.61	13.455	
8,800.0	6,870.0	7,101.4	6,936.4	55.9	24.5	-88.50	2,301.5	1,041.8	974.4	904.2	70.23	13.875	
8,900.0	6,869.1	7,100.7	6,935.8	58.5	24.5	-88.45	2,301.5	1,041.8	1,044.7	971.8	72.86	14.338	
9,000.0	6,868.3	7,100.1	6,935.1	61.0	24.5	-88.39	2,301.4	1,041.8	1,119.5	1,044.0	75.51	14.826	
9,100.0	6,867.4	7,099.4	6,934.5	63.6	24.5	-88.34	2,301.4	1,041.8	1,198.0	1,119.8	78.17	15.325	
9,200.0	6,866.5	7,098.8	6,933.8	66.2	24.5	-88.29	2,301.4	1,041.8	1,279.5	1,198.6	80.85	15.826	
9,300.0	6,865.6	7,098.1	6,933.2	68.8	24.5	-88.24	2,301.4	1,041.8	1,363.5	1,279.9	83.53	16.323	
9,400.0	6,864.8	7,097.5	6,932.5	71.5	24.5	-88.19	2,301.4	1,041.8	1,449.5	1,363.2	86.23	16.810	
9,500.0	6,863.9	7,096.8	6,931.9	74.1	24.5	-88.14	2,301.4	1,041.8	1,537.1	1,448.2	88.93	17.285	
9,600.0	6,863.0	7,096.2	6,931.3	76.8	24.5	-88.08	2,301.4	1,041.8	1,626.3	1,534.6	91.64	17.747	
9,700.0	6,862.2	7,095.6	6,930.6	79.4	24.5	-88.03	2,301.4	1,041.8	1,716.6	1,622.2	94.35	18.193	
9,800.0	6,861.3	7,094.9	6,930.0	82.1	24.5	-87.98	2,301.3	1,041.8	1,807.9	1,710.8	97.08	18.624	
9,900.0	6,860.4	7,094.3	6,929.4	84.8	24.5	-87.94	2,301.3	1,041.8	1,900.1	1,800.3	99.80	19.038	
10,000.0	6,859.5	7,093.7	6,928.8	87.5	24.5	-87.89	2,301.3	1,041.8	1,993.1	1,890.5	102.54	19.438	
10,100.0	6,858.7	7,093.1	6,928.2	90.2	24.5	-87.84	2,301.3	1,041.8	2,086.7	1,981.4	105.27	19.822	
10,200.0	6,857.8	7,092.5	6,927.6	92.9	24.5	-87.79	2,301.3	1,041.8	2,180.8	2,072.8	108.01	20.191	
10,300.0	6,856.9	7,091.9	6,927.0	95.6	24.5	-87.74	2,301.3	1,041.8	2,275.5	2,164.8	110.76	20.545	
10,400.0	6,856.1	7,091.3	6,926.4	98.4	24.5	-87.69	2,301.3	1,041.8	2,370.6	2,257.1	113.50	20.886	
10,500.0	6,855.2	7,090.7	6,925.8	101.1	24.5	-87.65	2,301.3	1,041.8	2,466.1	2,349.9	116.25	21.213	
10,600.0	6,854.3	7,090.1	6,925.2	103.8	24.5	-87.60	2,301.2	1,041.8	2,562.0	2,443.0	119.01	21.528	
10,700.0	6,853.5	7,089.5	6,924.6	106.5	24.5	-87.55	2,301.2	1,041.8	2,658.1	2,536.3	121.76	21.831	
10,800.0	6,852.6	7,088.9	6,924.0	109.3	24.5	-87.51	2,301.2	1,041.8	2,754.5	2,630.0	124.52	22.122	
10,900.0	6,851.7	7,088.3	6,923.4	112.0	24.5	-87.46	2,301.2	1,041.8	2,851.2	2,723.9	127.28	22.402	
11,000.0	6,850.9	7,087.8	6,922.8	114.8	24.5	-87.41	2,301.2	1,041.8	2,948.1	2,818.0	130.04	22.671	
11,100.0	6,850.0	7,087.2	6,922.3	117.5	24.5	-87.37	2,301.2	1,041.8	3,045.2	2,912.4	132.80	22.930	
11,200.0	6,849.1	7,086.6	6,921.7	120.3	24.5	-87.32	2,301.2	1,041.8	3,142.4	3,006.9	135.57	23.180	
11,300.0	6,848.2	7,086.1	6,921.1	123.0	24.5	-87.28	2,301.2	1,041.8	3,239.9	3,101.5	138.33	23.421	
11,400.0	6,847.4	7,085.5	6,920.6	125.8	24.5	-87.23	2,301.1	1,041.8	3,337.5	3,196.4	141.10	23.653	
11,500.0	6,846.5	7,084.9	6,920.0	128.5	24.5	-87.19	2,301.1	1,041.8	3,435.2	3,291.3	143.87	23.878	
11,600.0	6,845.6	7,084.4	6,919.5	131.3	24.5	-87.15	2,301.1	1,041.8	3,533.1	3,386.4	146.64	24.094	
11,700.0	6,844.8	7,083.8	6,918.9	134.1	24.5	-87.10	2,301.1	1,041.8	3,631.0	3,481.6	149.41	24.303	
11,800.0	6,843.9	7,083.3	6,918.4	136.8	24.5	-87.06	2,301.1	1,041.8	3,729.1	3,576.9	152.18	24.505	
11,900.0	6,843.0	7,082.7	6,917.8	139.6	24.5	-87.02	2,301.1	1,041.8	3,827.3	3,672.3	154.95	24.700	
12,000.0	6,842.2	7,082.2	6,917.3	142.4	24.5	-86.97	2,301.1	1,041.8	3,925.6	3,767.8	157.73	24.889	
12,100.0	6,841.3	7,080.0	6,915.1	145.1	24.5	-86.80	2,301.0	1,041.8	4,023.9	3,863.4	160.48	25.074	
12,133.9	6,841.0	7,080.0	6,915.1	146.1	24.5	-86.80	2,301.0	1,041.8	4,057.2	3,895.8	161.42	25.134	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 80-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	92.17	-14.6	384.6	384.9				
100.0	100.0	97.0	97.0	0.1	0.1	92.18	-14.6	384.5	384.8	384.5	0.21	1,796.259	
200.0	200.0	197.5	197.5	0.3	0.3	92.20	-14.8	384.3	384.6	383.9	0.66	578.419	
300.0	300.0	298.0	298.0	0.5	0.6	92.24	-15.0	384.0	384.3	383.2	1.12	344.350	
400.0	400.0	398.0	398.0	0.8	0.8	92.29	-15.3	383.6	383.9	382.3	1.57	245.157	
470.1	470.1	468.6	468.6	0.9	1.0	102.44	-15.6	383.2	383.7	381.9	1.88	203.934 CC	
500.0	500.0	498.7	498.7	1.0	1.0	102.60	-15.8	383.1	383.8	381.8	2.02	190.312 ES	
600.0	599.8	598.8	598.8	1.2	1.2	103.43	-16.3	382.4	384.3	381.8	2.47	155.628	
700.0	699.5	699.5	699.5	1.5	1.5	104.77	-16.9	381.5	385.6	382.7	2.93	131.396	
800.0	798.7	799.9	799.9	1.7	1.7	106.59	-17.6	380.4	387.9	384.5	3.41	113.590	
900.0	897.5	898.1	898.1	2.0	1.9	108.75	-18.0	379.2	391.5	387.6	3.89	100.614	
1,000.0	995.6	996.0	996.0	2.4	2.1	111.27	-18.3	378.2	397.2	392.8	4.42	89.889	
1,100.0	1,093.1	1,093.7	1,093.6	2.8	2.3	114.11	-18.7	377.1	405.1	400.1	5.00	81.078	
1,200.0	1,189.6	1,190.4	1,190.3	3.3	2.5	117.20	-19.2	375.9	415.6	409.9	5.60	74.147	
1,300.0	1,285.3	1,286.1	1,286.0	3.8	2.7	120.44	-19.7	374.7	429.1	422.9	6.23	68.890	
1,326.4	1,310.3	1,311.4	1,311.4	3.9	2.7	121.32	-19.9	374.4	433.3	426.9	6.40	67.735	
1,400.0	1,380.1	1,381.5	1,381.4	4.3	2.9	123.88	-20.1	373.5	445.5	438.7	6.86	64.945	
1,500.0	1,474.9	1,476.4	1,476.3	4.9	3.1	127.10	-20.2	372.3	463.6	456.1	7.48	62.011	
1,600.0	1,569.8	1,570.8	1,570.7	5.5	3.2	130.06	-20.2	371.2	483.0	474.9	8.08	59.813	
1,700.0	1,664.6	1,661.6	1,661.6	6.1	3.4	132.68	-20.1	370.5	503.9	495.3	8.66	58.219	
1,800.0	1,759.4	1,745.9	1,745.8	6.8	3.6	134.87	-20.4	371.2	527.4	518.2	9.22	57.193	
1,900.0	1,854.2	1,827.9	1,827.8	7.4	3.8	136.78	-21.3	373.6	553.8	544.0	9.78	56.650	
2,000.0	1,949.0	1,909.3	1,909.0	8.0	3.9	138.47	-23.0	377.8	583.0	572.7	10.33	56.463	
2,100.0	2,043.8	1,992.5	1,992.0	8.6	4.1	140.10	-26.0	383.0	614.6	603.8	10.87	56.561	
2,200.0	2,138.7	2,068.6	2,067.8	9.2	4.3	141.51	-30.2	388.5	648.6	637.2	11.39	56.928	
2,300.0	2,233.5	2,141.3	2,140.0	9.9	4.4	142.71	-35.3	395.5	685.6	673.6	11.91	57.540	
2,400.0	2,328.3	2,212.7	2,210.6	10.5	4.6	143.73	-41.2	404.2	725.4	713.0	12.43	58.351	
2,500.0	2,423.1	2,280.0	2,276.9	11.1	4.8	144.58	-47.7	414.0	768.0	755.0	12.95	59.308	
2,600.0	2,517.9	2,353.3	2,348.6	11.8	5.0	145.36	-55.7	426.5	813.0	799.5	13.47	60.343	
2,700.0	2,612.7	2,438.0	2,431.2	12.4	5.2	146.06	-64.9	443.0	859.6	845.6	14.01	61.343	
2,800.0	2,707.6	2,537.2	2,528.1	13.0	5.5	146.75	-74.6	462.2	905.5	890.9	14.57	62.164	
2,900.0	2,802.4	2,625.0	2,613.8	13.6	5.8	147.24	-82.2	479.4	950.9	935.7	15.12	62.869	
3,000.0	2,897.2	2,709.2	2,695.9	14.3	6.1	147.68	-90.0	496.1	996.9	981.2	15.69	63.552	
3,100.0	2,992.0	2,803.8	2,788.4	14.9	6.4	148.15	-98.7	514.5	1,042.6	1,026.3	16.26	64.126	
3,200.0	3,086.8	2,892.1	2,874.6	15.5	6.7	148.56	-106.7	531.6	1,088.2	1,071.4	16.83	64.661	
3,300.0	3,181.6	2,986.0	2,966.4	16.2	7.1	148.93	-114.8	549.8	1,133.6	1,116.2	17.41	65.094	
3,400.0	3,276.5	3,070.2	3,048.7	16.8	7.4	149.25	-122.2	566.1	1,179.1	1,161.1	17.99	65.542	
3,500.0	3,371.3	3,158.1	3,134.5	17.4	7.7	149.56	-130.1	583.1	1,224.9	1,206.3	18.57	65.947	
3,600.0	3,466.1	3,247.6	3,221.9	18.1	8.1	149.84	-138.1	600.6	1,270.6	1,251.5	19.16	66.303	
3,700.0	3,560.9	3,331.9	3,304.2	18.7	8.4	150.09	-145.6	617.2	1,316.5	1,296.7	19.75	66.660	
3,800.0	3,655.7	3,400.0	3,370.7	19.3	8.7	150.29	-152.1	630.7	1,363.0	1,342.7	20.31	67.123	
3,900.0	3,750.5	3,480.0	3,448.4	20.0	9.0	150.47	-160.3	647.8	1,410.8	1,389.9	20.90	67.512	
4,000.0	3,845.4	3,547.7	3,513.9	20.6	9.4	150.60	-167.6	663.1	1,459.6	1,438.1	21.47	67.983	
4,100.0	3,940.2	3,630.4	3,593.9	21.3	9.7	150.74	-176.6	682.3	1,508.9	1,486.8	22.08	68.339	
4,200.0	4,035.0	3,742.6	3,702.5	21.9	10.2	150.91	-188.5	707.8	1,557.7	1,535.0	22.75	68.474	
4,300.0	4,129.8	3,853.7	3,810.5	22.5	10.7	151.09	-198.7	731.5	1,604.7	1,581.3	23.41	68.538	
4,400.0	4,224.6	3,940.4	3,895.0	23.2	11.1	151.27	-207.2	748.9	1,651.5	1,627.4	24.02	68.762	
4,500.0	4,319.4	4,031.6	3,984.0	23.8	11.5	151.44	-216.1	767.1	1,698.2	1,673.6	24.63	68.941	
4,600.0	4,414.3	4,127.3	4,077.4	24.4	11.9	151.62	-225.2	785.9	1,744.6	1,719.4	25.26	69.074	
4,700.0	4,509.1	4,219.2	4,167.0	25.1	12.3	151.78	-233.7	804.1	1,790.9	1,765.1	25.88	69.201	
4,800.0	4,603.9	4,330.5	4,275.9	25.7	12.7	151.96	-243.2	825.4	1,836.3	1,809.8	26.54	69.181	
4,900.0	4,698.7	4,406.5	4,350.3	26.3	13.0	152.10	-250.1	839.2	1,881.7	1,854.6	27.12	69.377	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 80-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	4,793.5	4,480.0	4,422.1	27.0	13.3	152.23	-257.1	853.1	1,927.7	1,900.0	27.70	69.591		
5,100.0	4,888.3	4,571.2	4,511.1	27.6	13.7	152.35	-265.5	871.2	1,974.1	1,945.8	28.33	69.681		
5,200.0	4,983.2	4,669.7	4,607.2	28.2	14.2	152.46	-273.9	891.2	2,020.2	1,991.2	28.98	69.697		
5,300.0	5,078.0	4,813.4	4,747.9	28.9	14.7	152.62	-284.8	918.3	2,064.8	2,035.0	29.74	69.426		
5,400.0	5,172.8	4,916.4	4,849.2	29.5	15.1	152.78	-292.0	935.5	2,107.9	2,077.5	30.38	69.380		
5,454.5	5,224.5	4,966.1	4,898.0	29.9	15.3	152.84	-295.2	944.1	2,131.2	2,100.5	30.72	69.371		
5,500.0	5,267.7	5,004.8	4,936.0	30.1	15.5	153.08	-297.7	950.8	2,150.5	2,119.5	31.01	69.339		
5,600.0	5,363.5	5,092.9	5,022.7	30.6	15.8	153.56	-303.9	965.6	2,190.9	2,159.3	31.61	69.319		
5,700.0	5,460.3	5,248.6	5,176.2	31.0	16.4	154.01	-314.6	989.3	2,227.7	2,195.4	32.33	68.910		
5,800.0	5,557.9	5,552.4	5,478.4	31.3	17.1	154.65	-326.2	1,014.8	2,255.2	2,222.0	33.25	67.826		
5,900.0	5,656.2	5,690.9	5,616.9	31.7	17.4	155.05	-327.9	1,018.2	2,274.3	2,240.5	33.76	67.370		
6,000.0	5,755.0	5,825.0	5,751.1	31.9	17.6	155.36	-328.3	1,019.5	2,288.6	2,254.4	34.21	66.892		
6,100.0	5,854.4	5,916.3	5,842.3	32.2	17.7	155.54	-328.0	1,020.1	2,299.3	2,264.7	34.56	66.527		
6,200.0	5,954.0	6,005.1	5,931.1	32.4	17.9	155.66	-328.1	1,021.0	2,307.2	2,272.4	34.87	66.176		
6,300.0	6,053.9	6,096.7	6,022.7	32.5	18.0	155.73	-328.4	1,022.2	2,312.4	2,277.3	35.14	65.814		
6,380.9	6,134.8	6,176.4	6,102.4	32.6	18.2	145.77	-328.9	1,023.2	2,314.5	2,266.7	47.73	48.488		
6,400.0	6,153.9	6,195.5	6,121.5	32.6	18.2	145.76	-329.1	1,023.4	2,314.7	2,266.9	47.78	48.444		
6,410.9	6,164.8	6,206.3	6,132.3	32.6	18.2	145.76	-329.1	1,023.5	2,314.9	2,267.0	47.81	48.418		
6,450.0	6,203.9	6,245.4	6,171.4	32.6	18.3	55.79	-329.4	1,024.0	2,314.7	2,279.3	35.47	65.257		
6,500.0	6,253.7	6,300.1	6,226.1	32.7	18.4	56.01	-329.8	1,024.6	2,312.8	2,277.4	35.45	65.237		
6,550.0	6,303.0	6,353.4	6,279.4	32.7	18.4	56.44	-330.1	1,025.1	2,308.8	2,273.5	35.35	65.308		
6,600.0	6,351.7	6,409.0	6,334.9	32.7	18.5	57.10	-330.2	1,025.6	2,302.9	2,267.7	35.19	65.439		
6,650.0	6,399.5	6,459.7	6,385.6	32.7	18.6	57.95	-330.3	1,025.9	2,295.0	2,260.0	34.98	65.615		
6,700.0	6,446.1	6,506.9	6,432.9	32.7	18.7	58.99	-330.4	1,026.2	2,285.3	2,250.5	34.73	65.798		
6,750.0	6,491.4	6,551.2	6,477.1	32.7	18.8	60.21	-330.5	1,026.3	2,273.9	2,239.5	34.49	65.936		
6,800.0	6,535.1	6,595.9	6,521.9	32.7	18.8	61.64	-330.8	1,026.3	2,261.1	2,226.8	34.28	65.965		
6,850.0	6,576.9	6,641.1	6,567.0	32.7	18.9	63.28	-331.0	1,026.3	2,246.9	2,212.7	34.14	65.817		
6,900.0	6,616.8	6,680.0	6,606.0	32.7	19.0	65.02	-331.0	1,026.3	2,231.3	2,197.2	34.09	65.456		
6,950.0	6,654.4	6,714.6	6,640.5	32.7	19.0	66.86	-331.1	1,026.4	2,214.8	2,180.6	34.16	64.841		
7,000.0	6,689.7	6,744.1	6,670.1	32.7	19.1	68.77	-331.3	1,026.5	2,197.4	2,163.1	34.35	63.966		
7,050.0	6,722.4	6,774.0	6,699.9	32.7	19.1	70.81	-331.5	1,026.6	2,179.4	2,144.7	34.70	62.806		
7,100.0	6,752.4	6,804.9	6,730.8	32.7	19.2	73.00	-331.7	1,026.8	2,160.9	2,125.7	35.21	61.378		
7,150.0	6,779.5	6,836.3	6,762.2	32.7	19.2	75.29	-331.9	1,027.0	2,142.0	2,106.2	35.86	59.734		
7,200.0	6,803.7	6,865.2	6,791.2	32.7	19.2	77.61	-332.0	1,027.1	2,122.9	2,086.3	36.62	57.965		
7,250.0	6,824.7	6,888.1	6,814.1	32.7	19.3	79.83	-332.0	1,027.2	2,103.9	2,066.4	37.46	56.170		
7,300.0	6,842.5	6,904.8	6,830.8	32.8	19.3	81.88	-332.0	1,027.3	2,085.1	2,046.8	38.33	54.404		
7,350.0	6,857.0	6,918.4	6,844.3	32.8	19.3	83.82	-332.1	1,027.4	2,066.8	2,027.6	39.24	52.675		
7,400.0	6,868.1	6,929.2	6,855.2	32.9	19.4	85.64	-332.1	1,027.4	2,049.1	2,008.9	40.17	51.005		
7,450.0	6,875.9	6,936.8	6,862.7	33.0	19.4	87.30	-332.1	1,027.4	2,032.2	1,991.1	41.13	49.411		
7,500.0	6,880.1	6,941.0	6,867.0	33.2	19.4	88.78	-332.1	1,027.5	2,016.2	1,974.1	42.09	47.900		
7,542.1	6,881.0	6,942.0	6,867.9	33.4	19.4	89.87	-332.1	1,027.5	2,003.5	1,960.6	42.91	46.691		
7,600.0	6,880.5	6,941.6	6,867.6	33.6	19.4	89.86	-332.1	1,027.5	1,987.4	1,943.5	43.95	45.220		
7,700.0	6,879.6	6,941.1	6,867.1	34.3	19.4	89.84	-332.1	1,027.5	1,963.3	1,917.4	45.89	42.786		
7,800.0	6,878.7	6,940.6	6,866.6	35.2	19.4	89.83	-332.1	1,027.5	1,944.1	1,896.1	47.96	40.532		
7,900.0	6,877.8	6,940.1	6,866.0	36.5	19.4	89.81	-332.1	1,027.5	1,929.8	1,879.7	50.15	38.480		
8,000.0	6,877.0	6,939.5	6,865.5	38.0	19.4	89.80	-332.1	1,027.5	1,920.7	1,868.3	52.43	36.633		
8,100.0	6,876.1	6,939.0	6,865.0	39.9	19.4	89.78	-332.1	1,027.5	1,916.7	1,861.9	54.78	34.987		
8,126.0	6,875.9	6,938.9	6,864.9	40.4	19.4	89.78	-332.1	1,027.5	1,916.5	1,861.1	55.41	34.587		
8,200.0	6,875.2	6,938.5	6,864.5	41.9	19.4	89.76	-332.1	1,027.5	1,918.0	1,860.8	57.20	33.532		
8,300.0	6,874.4	6,938.0	6,864.0	44.0	19.4	89.75	-332.1	1,027.5	1,924.4	1,864.8	59.66	32.255		
8,400.0	6,873.5	6,937.5	6,863.5	46.3	19.4	89.73	-332.1	1,027.4	1,936.0	1,873.9	62.17	31.142		
8,500.0	6,872.6	6,937.0	6,863.0	48.6	19.4	89.72	-332.1	1,027.4	1,952.7	1,888.0	64.71	30.177		

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST DD KINZER 28LD - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 80-MWD												<b>Offset Well Error:</b>	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
8,600.0	6,871.7	6,936.5	6,862.5	51.0	19.4	89.71	-332.1	1,027.4	1,974.3	1,907.0	67.28	29.345	
8,700.0	6,870.9	6,936.1	6,862.0	53.4	19.4	89.69	-332.1	1,027.4	2,000.6	1,930.8	69.87	28.633	
8,800.0	6,870.0	6,935.6	6,861.6	55.9	19.4	89.68	-332.1	1,027.4	2,031.6	1,959.1	72.49	28.026	
8,900.0	6,869.1	6,935.1	6,861.1	58.5	19.4	89.66	-332.1	1,027.4	2,066.9	1,991.8	75.12	27.514	
9,000.0	6,868.3	6,934.6	6,860.6	61.0	19.4	89.65	-332.1	1,027.4	2,106.4	2,028.6	77.77	27.084	
9,100.0	6,867.4	6,934.2	6,860.1	63.6	19.4	89.63	-332.1	1,027.4	2,149.8	2,069.4	80.44	26.726	
9,200.0	6,866.5	6,933.7	6,859.7	66.2	19.4	89.62	-332.1	1,027.4	2,196.9	2,113.8	83.11	26.433	
9,300.0	6,865.6	6,933.2	6,859.2	68.8	19.4	89.61	-332.1	1,027.4	2,247.5	2,161.7	85.80	26.194	
9,400.0	6,864.8	6,932.8	6,858.8	71.5	19.4	89.59	-332.1	1,027.4	2,301.3	2,212.8	88.50	26.004	
9,500.0	6,863.9	6,932.3	6,858.3	74.1	19.4	89.58	-332.1	1,027.4	2,358.2	2,267.0	91.20	25.856	
9,600.0	6,863.0	6,931.9	6,857.9	76.8	19.4	89.57	-332.1	1,027.4	2,417.8	2,323.9	93.92	25.744	
9,700.0	6,862.2	6,931.4	6,857.4	79.4	19.4	89.55	-332.1	1,027.4	2,480.0	2,383.4	96.63	25.664	
9,800.0	6,861.3	6,931.0	6,857.0	82.1	19.4	89.54	-332.1	1,027.4	2,544.7	2,445.3	99.36	25.611	
9,900.0	6,860.4	6,930.6	6,856.5	84.8	19.4	89.53	-332.1	1,027.4	2,611.5	2,509.4	102.09	25.581	
10,000.0	6,859.5	6,930.1	6,856.1	87.5	19.4	89.51	-332.1	1,027.4	2,680.5	2,575.6	104.83	25.571 SF	
10,100.0	6,858.7	6,929.7	6,855.7	90.2	19.4	89.50	-332.1	1,027.4	2,751.3	2,643.7	107.57	25.578	
10,200.0	6,857.8	6,929.3	6,855.2	92.9	19.4	89.49	-332.1	1,027.4	2,823.9	2,713.6	110.31	25.600	
10,300.0	6,856.9	6,928.8	6,854.8	95.6	19.4	89.48	-332.1	1,027.4	2,898.1	2,785.1	113.06	25.634	
10,400.0	6,856.1	6,928.4	6,854.4	98.4	19.3	89.46	-332.1	1,027.4	2,973.9	2,858.1	115.81	25.679	
10,500.0	6,855.2	6,928.0	6,854.0	101.1	19.3	89.45	-332.1	1,027.4	3,051.0	2,932.5	118.56	25.733	
10,600.0	6,854.3	6,927.6	6,853.6	103.8	19.3	89.44	-332.1	1,027.4	3,129.5	3,008.1	121.32	25.795	
10,700.0	6,853.5	6,927.2	6,853.2	106.5	19.3	89.43	-332.1	1,027.4	3,209.1	3,085.0	124.08	25.863	
10,800.0	6,852.6	6,926.8	6,852.8	109.3	19.3	89.41	-332.1	1,027.4	3,289.8	3,163.0	126.84	25.937	
10,900.0	6,851.7	6,926.4	6,852.4	112.0	19.3	89.40	-332.1	1,027.4	3,371.6	3,242.0	129.61	26.014	
11,000.0	6,850.9	6,926.0	6,852.0	114.8	19.3	89.39	-332.1	1,027.4	3,454.4	3,322.0	132.37	26.096	
11,100.0	6,850.0	6,925.6	6,851.6	117.5	19.3	89.38	-332.1	1,027.4	3,538.0	3,402.9	135.14	26.180	
11,200.0	6,849.1	6,925.2	6,851.2	120.3	19.3	89.37	-332.1	1,027.4	3,622.5	3,484.5	137.91	26.266	
11,300.0	6,848.2	6,924.8	6,850.8	123.0	19.3	89.36	-332.1	1,027.4	3,707.7	3,567.0	140.68	26.355	
11,400.0	6,847.4	6,924.4	6,850.4	125.8	19.3	89.34	-332.1	1,027.4	3,793.6	3,650.2	143.46	26.444	
11,500.0	6,846.5	6,924.0	6,850.0	128.5	19.3	89.33	-332.1	1,027.4	3,880.3	3,734.0	146.23	26.535	
11,600.0	6,845.6	6,920.0	6,846.0	131.3	19.3	89.21	-332.1	1,027.4	3,967.5	3,818.5	148.99	26.629	
11,700.0	6,844.8	6,920.0	6,846.0	134.1	19.3	89.21	-332.1	1,027.4	4,055.4	3,903.6	151.77	26.720	
11,800.0	6,843.9	6,920.0	6,846.0	136.8	19.3	89.21	-332.1	1,027.4	4,143.8	3,989.2	154.55	26.811	
11,900.0	6,843.0	6,920.0	6,846.0	139.6	19.3	89.21	-332.1	1,027.4	4,232.7	4,075.4	157.33	26.902	
12,000.0	6,842.2	6,920.0	6,846.0	142.4	19.3	89.21	-332.1	1,027.4	4,322.1	4,162.0	160.12	26.993	
12,100.0	6,841.3	6,920.0	6,846.0	145.1	19.3	89.21	-332.1	1,027.4	4,411.9	4,249.0	162.90	27.084	
12,133.9	6,841.0	6,920.0	6,846.0	146.1	19.3	89.21	-332.1	1,027.4	4,442.5	4,278.6	163.84	27.114	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	104.5	104.5	0.0	0.0	60.22	1,737.9	3,037.3	3,499.3				
100.0	100.0	204.5	204.5	0.1	1.2	60.22	1,737.9	3,037.3	3,499.3	3,498.0	1.29	2,706.272	
200.0	200.0	304.5	304.5	0.3	3.5	60.22	1,737.9	3,037.3	3,499.3	3,495.5	3.82	915.784	
300.0	300.0	404.5	404.5	0.5	5.6	60.22	1,737.9	3,037.3	3,499.3	3,493.2	6.12	571.392	
400.0	400.0	504.5	504.5	0.8	7.6	60.22	1,737.9	3,037.3	3,499.3	3,490.9	8.39	417.036	
500.0	500.0	604.5	604.5	1.0	9.6	70.24	1,737.9	3,037.3	3,498.7	3,488.1	10.64	328.732	
600.0	599.8	704.3	704.3	1.2	11.7	70.35	1,737.9	3,037.3	3,497.0	3,484.1	12.89	271.330	
700.0	699.5	804.0	804.0	1.5	13.7	70.54	1,737.9	3,037.3	3,494.1	3,478.9	15.14	230.854	
800.0	798.7	903.2	903.2	1.7	15.7	70.81	1,737.9	3,037.3	3,490.0	3,472.6	17.39	200.649	
900.0	897.5	1,002.0	1,002.0	2.0	17.7	71.14	1,737.9	3,037.3	3,484.8	3,465.2	19.67	177.154	
1,000.0	995.6	1,100.1	1,100.1	2.4	19.6	71.55	1,737.9	3,037.3	3,478.6	3,456.7	21.98	158.295	
1,100.0	1,093.1	1,197.6	1,197.6	2.8	21.6	72.04	1,737.9	3,037.3	3,471.4	3,447.1	24.31	142.784	
1,200.0	1,189.6	1,294.1	1,294.1	3.3	23.6	72.59	1,737.9	3,037.3	3,463.3	3,436.6	26.69	129.782	
1,300.0	1,285.3	1,389.8	1,389.8	3.8	25.5	73.20	1,737.9	3,037.3	3,454.4	3,425.3	29.10	118.716	
1,326.4	1,310.3	1,414.8	1,414.8	3.9	26.0	73.38	1,737.9	3,037.3	3,451.9	3,422.1	29.74	116.063	
1,400.0	1,380.1	1,484.6	1,484.6	4.3	27.4	73.73	1,737.9	3,037.3	3,444.9	3,413.4	31.56	109.156	
1,500.0	1,474.9	1,579.4	1,579.4	4.9	29.3	74.22	1,737.9	3,037.3	3,435.7	3,401.7	34.04	100.918	
1,600.0	1,569.8	1,674.3	1,674.3	5.5	31.2	74.70	1,737.9	3,037.3	3,426.8	3,390.2	36.54	93.776	
1,700.0	1,664.6	1,769.1	1,769.1	6.1	33.1	75.19	1,737.9	3,037.3	3,418.1	3,379.0	39.05	87.532	
1,800.0	1,759.4	1,863.9	1,863.9	6.8	35.0	75.68	1,737.9	3,037.3	3,409.7	3,368.1	41.56	82.034	
1,900.0	1,854.2	1,958.7	1,958.7	7.4	36.9	76.18	1,737.9	3,037.3	3,401.6	3,357.5	44.09	77.158	
2,000.0	1,949.0	2,053.5	2,053.5	8.0	38.8	76.67	1,737.9	3,037.3	3,393.7	3,347.1	46.61	72.808	
2,100.0	2,043.8	2,148.3	2,148.3	8.6	40.7	77.17	1,737.9	3,037.3	3,386.2	3,337.0	49.14	68.904	
2,200.0	2,138.7	2,243.2	2,243.2	9.2	42.7	77.67	1,737.9	3,037.3	3,378.9	3,327.2	51.68	65.384	
2,300.0	2,233.5	2,338.0	2,338.0	9.9	44.6	78.17	1,737.9	3,037.3	3,371.9	3,317.7	54.22	62.194	
2,400.0	2,328.3	2,432.8	2,432.8	10.5	46.5	78.67	1,737.9	3,037.3	3,365.2	3,308.4	56.76	59.292	
2,500.0	2,423.1	2,527.6	2,527.6	11.1	48.4	79.18	1,737.9	3,037.3	3,358.8	3,299.5	59.30	56.641	
2,600.0	2,517.9	2,622.4	2,622.4	11.8	50.3	79.68	1,737.9	3,037.3	3,352.6	3,290.8	61.84	54.210	
2,700.0	2,612.7	2,717.2	2,717.2	12.4	52.2	80.19	1,737.9	3,037.3	3,346.8	3,282.4	64.39	51.975	
2,800.0	2,707.6	2,812.1	2,812.1	13.0	54.1	80.70	1,737.9	3,037.3	3,341.2	3,274.3	66.94	49.913	
2,900.0	2,802.4	2,906.9	2,906.9	13.6	56.0	81.21	1,737.9	3,037.3	3,336.0	3,266.5	69.49	48.005	
3,000.0	2,897.2	3,001.7	3,001.7	14.3	57.9	81.73	1,737.9	3,037.3	3,331.0	3,258.9	72.04	46.236	
3,100.0	2,992.0	3,096.5	3,096.5	14.9	59.8	82.24	1,737.9	3,037.3	3,326.3	3,251.7	74.59	44.592	
3,200.0	3,086.8	3,191.3	3,191.3	15.5	61.7	82.76	1,737.9	3,037.3	3,322.0	3,244.8	77.15	43.059	
3,300.0	3,181.6	3,286.1	3,286.1	16.2	63.6	83.27	1,737.9	3,037.3	3,317.9	3,238.2	79.70	41.629	
3,400.0	3,276.5	3,381.0	3,381.0	16.8	65.5	83.79	1,737.9	3,037.3	3,314.1	3,231.8	82.26	40.291	
3,500.0	3,371.3	3,475.8	3,475.8	17.4	67.4	84.31	1,737.9	3,037.3	3,310.6	3,225.8	84.81	39.036	
3,600.0	3,466.1	3,570.6	3,570.6	18.1	69.4	84.83	1,737.9	3,037.3	3,307.5	3,220.1	87.36	37.859	
3,700.0	3,560.9	3,665.4	3,665.4	18.7	71.3	85.35	1,737.9	3,037.3	3,304.6	3,214.7	89.92	36.752	
3,800.0	3,655.7	3,760.2	3,760.2	19.3	73.2	85.87	1,737.9	3,037.3	3,302.0	3,209.6	92.47	35.710	
3,900.0	3,750.5	3,855.0	3,855.0	20.0	75.1	86.39	1,737.9	3,037.3	3,299.8	3,204.7	95.02	34.727	
4,000.0	3,845.4	3,949.9	3,949.9	20.6	77.0	86.91	1,737.9	3,037.3	3,297.8	3,200.2	97.57	33.799	
4,100.0	3,940.2	4,044.7	4,044.7	21.3	78.9	87.44	1,737.9	3,037.3	3,296.2	3,196.0	100.12	32.922	
4,200.0	4,035.0	4,139.5	4,139.5	21.9	80.8	87.96	1,737.9	3,037.3	3,294.8	3,192.1	102.67	32.091	
4,300.0	4,129.8	4,234.3	4,234.3	22.5	82.7	88.48	1,737.9	3,037.3	3,293.8	3,188.6	105.22	31.304	
4,400.0	4,224.6	4,329.1	4,329.1	23.2	84.6	89.01	1,737.9	3,037.3	3,293.0	3,185.3	107.76	30.558	
4,500.0	4,319.4	4,423.9	4,423.9	23.8	86.5	89.53	1,737.9	3,037.3	3,292.6	3,182.3	110.31	29.850	
4,589.1	4,404.0	4,508.5	4,508.5	24.4	88.2	90.00	1,737.9	3,037.3	3,292.5	3,179.9	112.57	29.248	
4,600.0	4,414.3	4,518.8	4,518.8	24.4	88.4	90.06	1,737.9	3,037.3	3,292.5	3,179.6	112.85	29.176	
4,700.0	4,509.1	4,613.6	4,613.6	25.1	90.3	90.58	1,737.9	3,037.3	3,292.7	3,177.3	115.39	28.536	
4,800.0	4,603.9	4,708.4	4,708.4	25.7	92.2	91.11	1,737.9	3,037.3	3,293.2	3,175.2	117.93	27.926	
4,900.0	4,698.7	4,803.2	4,803.2	26.3	94.1	91.63	1,737.9	3,037.3	3,294.0	3,173.5	120.46	27.345	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	4,793.5	4,898.0	4,898.0	27.0	96.0	92.15	1,737.9	3,037.3	3,295.1	3,172.1	122.99	26.791	
5,100.0	4,888.3	4,992.8	4,992.8	27.6	98.0	92.68	1,737.9	3,037.3	3,296.5	3,171.0	125.52	26.262	
5,200.0	4,983.2	5,087.7	5,087.7	28.2	99.9	93.20	1,737.9	3,037.3	3,298.2	3,170.2	128.05	25.758	
5,300.0	5,078.0	5,182.5	5,182.5	28.9	101.8	93.72	1,737.9	3,037.3	3,300.2	3,169.7	130.57	25.276	
5,400.0	5,172.8	5,277.3	5,277.3	29.5	103.7	94.24	1,737.9	3,037.3	3,302.6	3,169.5	133.09	24.815	
5,454.5	5,224.5	5,329.0	5,329.0	29.9	104.7	94.53	1,737.9	3,037.3	3,304.0	3,169.5	134.46	24.572	
5,500.0	5,267.7	5,372.2	5,372.2	30.1	105.6	94.78	1,737.9	3,037.3	3,305.2	3,169.6	135.57	24.379	
5,600.0	5,363.5	5,468.0	5,468.0	30.6	107.5	95.31	1,737.9	3,037.3	3,307.8	3,169.9	137.93	23.981	
5,700.0	5,460.3	5,564.8	5,564.8	31.0	109.5	95.78	1,737.9	3,037.3	3,310.3	3,170.0	140.27	23.599	
5,800.0	5,557.9	5,662.4	5,662.4	31.3	111.4	96.19	1,737.9	3,037.3	3,312.6	3,170.0	142.59	23.232	
5,900.0	5,656.2	5,760.7	5,760.7	31.7	113.4	96.55	1,737.9	3,037.3	3,314.7	3,169.8	144.88	22.880	
6,000.0	5,755.0	5,859.5	5,859.5	31.9	115.4	96.84	1,737.9	3,037.3	3,316.5	3,169.3	147.13	22.541	
6,100.0	5,854.4	5,958.9	5,958.9	32.2	117.4	97.06	1,737.9	3,037.3	3,317.9	3,168.5	149.36	22.215	
6,200.0	5,954.0	6,058.5	6,058.5	32.4	119.4	97.22	1,737.9	3,037.3	3,318.9	3,167.3	151.54	21.901	
6,300.0	6,053.9	6,158.4	6,158.4	32.5	121.4	97.31	1,737.9	3,037.3	3,319.5	3,165.8	153.69	21.599	
6,380.9	6,134.8	6,239.3	6,239.3	32.6	123.0	87.35	1,737.9	3,037.3	3,319.6	3,179.0	140.57	23.616	
6,400.0	6,153.9	6,258.4	6,258.4	32.6	123.4	87.35	1,737.9	3,037.3	3,319.6	3,178.6	140.98	23.547	
6,410.9	6,164.8	6,269.3	6,269.3	32.6	123.6	87.35	1,737.9	3,037.3	3,319.6	3,178.4	141.22	23.507	
6,450.0	6,203.9	6,308.4	6,308.4	32.6	124.4	-2.66	1,737.9	3,037.3	3,318.5	3,161.9	156.60	21.192	
6,500.0	6,253.7	6,358.2	6,358.2	32.7	125.4	-2.68	1,737.9	3,037.3	3,314.1	3,157.4	156.65	21.156	
6,550.0	6,303.0	6,407.5	6,407.5	32.7	126.4	-2.71	1,737.9	3,037.3	3,306.2	3,150.2	155.93	21.203	
6,600.0	6,351.7	6,456.2	6,456.2	32.7	127.4	-2.77	1,737.9	3,037.3	3,294.8	3,140.4	154.42	21.337	
6,650.0	6,399.5	6,504.0	6,504.0	32.7	128.3	-2.84	1,737.9	3,037.3	3,280.1	3,128.0	152.13	21.562	
6,700.0	6,446.1	6,550.6	6,550.6	32.7	129.3	-2.93	1,737.9	3,037.3	3,262.1	3,113.1	149.04	21.887	
6,750.0	6,491.4	6,595.9	6,595.9	32.7	130.2	-3.05	1,737.9	3,037.3	3,240.9	3,095.7	145.19	22.322	
6,800.0	6,535.1	6,639.6	6,639.6	32.7	131.1	-3.20	1,737.9	3,037.3	3,216.6	3,076.0	140.57	22.883	
6,850.0	6,576.9	6,681.4	6,681.4	32.7	131.9	-3.37	1,737.9	3,037.3	3,189.3	3,054.1	135.20	23.589	
6,900.0	6,616.8	6,721.3	6,721.3	32.7	132.7	-3.59	1,737.9	3,037.3	3,159.2	3,030.0	129.13	24.465	
6,950.0	6,654.4	6,758.9	6,758.9	32.7	133.5	-3.85	1,737.9	3,037.3	3,126.3	3,003.9	122.39	25.545	
7,000.0	6,689.7	6,794.2	6,794.2	32.7	134.2	-4.18	1,737.9	3,037.3	3,090.9	2,975.9	115.02	26.873	
7,050.0	6,722.4	6,826.9	6,826.9	32.7	134.8	-4.59	1,737.9	3,037.3	3,053.2	2,946.1	107.11	28.506	
7,100.0	6,752.4	6,856.9	6,856.9	32.7	135.4	-5.10	1,737.9	3,037.3	3,013.2	2,914.5	98.73	30.519	
7,150.0	6,779.5	6,884.0	6,884.0	32.7	136.0	-5.76	1,737.9	3,037.3	2,971.3	2,881.3	90.03	33.002	
7,200.0	6,803.7	6,908.2	6,908.2	32.7	136.5	-6.63	1,737.9	3,037.3	2,927.6	2,846.4	81.22	36.044	
7,250.0	6,824.7	6,929.2	6,929.2	32.7	136.9	-7.82	1,737.9	3,037.3	2,882.3	2,809.6	72.68	39.659	
7,300.0	6,842.5	6,947.0	6,947.0	32.8	137.3	-9.52	1,737.9	3,037.3	2,835.7	2,770.5	65.15	43.525	
7,350.0	6,857.0	6,961.5	6,961.5	32.8	137.5	-12.13	1,737.9	3,037.3	2,787.9	2,727.6	60.33	46.212	
7,400.0	6,868.1	6,972.6	6,972.6	32.9	137.8	-16.58	1,737.9	3,037.3	2,739.2	2,677.2	62.04	44.156	
7,450.0	6,875.9	6,980.4	6,980.4	33.0	137.9	-25.54	1,737.9	3,037.3	2,689.9	2,611.4	78.49	34.273	
7,500.0	6,880.1	6,984.6	6,984.6	33.2	138.0	-49.31	1,737.9	3,037.3	2,640.2	2,513.3	126.93	20.801	
7,542.1	6,881.0	6,985.5	6,985.5	33.4	138.0	-98.39	1,737.9	3,037.3	2,598.2	2,438.3	159.88	16.250	
7,600.0	6,880.5	6,985.0	6,985.0	33.6	138.0	-98.20	1,737.9	3,037.3	2,540.4	2,379.4	161.00	15.779	
7,700.0	6,879.6	6,984.1	6,984.1	34.3	138.0	-97.88	1,737.9	3,037.3	2,440.6	2,277.5	163.06	14.967	
7,800.0	6,878.7	6,983.2	6,983.2	35.2	138.0	-97.56	1,737.9	3,037.3	2,340.8	2,175.5	165.27	14.164	
7,900.0	6,877.8	6,982.3	6,982.3	36.5	138.0	-97.24	1,737.9	3,037.3	2,241.0	2,073.4	167.58	13.373	
8,000.0	6,877.0	6,981.5	6,981.5	38.0	137.9	-96.92	1,737.9	3,037.3	2,141.3	1,971.3	169.98	12.597	
8,100.0	6,876.1	6,980.6	6,980.6	39.9	137.9	-96.60	1,737.9	3,037.3	2,041.6	1,869.1	172.45	11.839	
8,200.0	6,875.2	6,979.7	6,979.7	41.9	137.9	-96.27	1,737.9	3,037.3	1,941.9	1,766.9	174.97	11.098	
8,300.0	6,874.4	6,978.9	6,978.9	44.0	137.9	-95.95	1,737.9	3,037.3	1,842.2	1,664.6	177.55	10.376	
8,400.0	6,873.5	6,978.0	6,978.0	46.3	137.9	-95.63	1,737.9	3,037.3	1,742.6	1,562.4	180.16	9.672	
8,500.0	6,872.6	6,977.1	6,977.1	48.6	137.9	-95.31	1,737.9	3,037.3	1,643.0	1,460.2	182.80	8.988	
8,600.0	6,871.7	6,976.2	6,976.2	51.0	137.8	-94.98	1,737.9	3,037.3	1,543.4	1,358.0	185.47	8.322	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	
8,700.0	6,870.9	6,975.4	6,975.4	53.4	137.8	-94.66	1,737.9	3,037.3	1,444.0	1,255.8	188.15	7.675	
8,800.0	6,870.0	6,974.5	6,974.5	55.9	137.8	-94.34	1,737.9	3,037.3	1,344.6	1,153.7	190.86	7.045	
8,900.0	6,869.1	6,973.6	6,973.6	58.5	137.8	-94.01	1,737.9	3,037.3	1,245.3	1,051.7	193.57	6.433	
9,000.0	6,868.3	6,972.8	6,972.8	61.0	137.8	-93.69	1,737.9	3,037.3	1,146.1	949.8	196.30	5.839	
9,100.0	6,867.4	6,971.9	6,971.9	63.6	137.8	-93.36	1,737.9	3,037.3	1,047.1	848.1	199.04	5.261	
9,200.0	6,866.5	6,971.0	6,971.0	66.2	137.7	-93.04	1,737.9	3,037.3	948.3	746.5	201.78	4.700	
9,300.0	6,865.6	6,970.1	6,970.1	68.8	137.7	-92.71	1,737.9	3,037.3	849.8	645.3	204.53	4.155	
9,400.0	6,864.8	6,969.3	6,969.3	71.5	137.7	-92.39	1,737.9	3,037.3	751.7	544.4	207.29	3.626	
9,500.0	6,863.9	6,968.4	6,968.4	74.1	137.7	-92.07	1,737.9	3,037.3	654.1	444.1	210.04	3.114	
9,600.0	6,863.0	6,967.5	6,967.5	76.8	137.7	-91.74	1,737.9	3,037.3	557.4	344.6	212.80	2.619	
9,700.0	6,862.2	6,966.7	6,966.7	79.4	137.7	-91.42	1,737.9	3,037.3	462.1	246.5	215.56	2.144	
9,800.0	6,861.3	6,965.8	6,965.8	82.1	137.6	-91.09	1,737.9	3,037.3	369.3	151.0	218.32	1.691	
9,900.0	6,860.4	6,964.9	6,964.9	84.8	137.6	-90.77	1,737.9	3,037.3	281.4	60.3	221.07	1.273	Level 3
10,000.0	6,859.5	6,964.0	6,964.0	87.5	137.6	-90.44	1,737.9	3,037.3	205.0	-18.8	223.83	0.916	Level 1
10,100.0	6,858.7	6,963.2	6,963.2	90.2	137.6	-90.12	1,737.9	3,037.3	157.7	-68.9	226.58	0.696	Level 1
10,135.8	6,858.4	6,962.9	6,962.9	91.2	137.6	-90.00	1,737.9	3,037.3	153.5	-74.0	227.57	0.675	Level 1, CC, ES, SF
10,200.0	6,857.8	6,962.3	6,962.3	92.9	137.6	-89.79	1,737.9	3,037.3	166.4	-62.9	229.33	0.726	Level 1
10,300.0	6,856.9	6,961.4	6,961.4	95.6	137.5	-89.47	1,737.9	3,037.3	224.8	-7.3	232.08	0.968	Level 1
10,400.0	6,856.1	6,960.6	6,960.6	98.4	137.5	-89.14	1,737.9	3,037.3	305.5	70.7	234.82	1.301	Level 3
10,500.0	6,855.2	6,959.7	6,959.7	101.1	137.5	-88.82	1,737.9	3,037.3	395.2	157.6	237.56	1.664	
10,600.0	6,854.3	6,958.8	6,958.8	103.8	137.5	-88.49	1,737.9	3,037.3	488.9	248.6	240.29	2.034	
10,700.0	6,853.5	6,958.0	6,958.0	106.5	137.5	-88.17	1,737.9	3,037.3	584.7	341.6	243.02	2.406	
10,800.0	6,852.6	6,957.1	6,957.1	109.3	137.5	-87.85	1,737.9	3,037.3	681.6	435.9	245.74	2.774	
10,900.0	6,851.7	6,956.2	6,956.2	112.0	137.4	-87.52	1,737.9	3,037.3	779.4	530.9	248.45	3.137	
11,000.0	6,850.9	6,955.4	6,955.4	114.8	137.4	-87.20	1,737.9	3,037.3	877.7	626.5	251.16	3.494	
11,100.0	6,850.0	6,954.5	6,954.5	117.5	137.4	-86.88	1,737.9	3,037.3	976.3	722.4	253.86	3.846	
11,200.0	6,849.1	6,953.6	6,953.6	120.3	137.4	-86.55	1,737.9	3,037.3	1,075.1	818.6	256.56	4.191	
11,300.0	6,848.2	6,952.7	6,952.7	123.0	137.4	-86.23	1,737.9	3,037.3	1,174.2	915.0	259.24	4.529	
11,400.0	6,847.4	6,951.9	6,951.9	125.8	137.4	-85.91	1,737.9	3,037.3	1,273.4	1,011.5	261.92	4.862	
11,500.0	6,846.5	6,951.0	6,951.0	128.5	137.3	-85.59	1,737.9	3,037.3	1,372.7	1,108.1	264.59	5.188	
11,600.0	6,845.6	6,950.1	6,950.1	131.3	137.3	-85.26	1,737.9	3,037.3	1,472.1	1,204.9	267.24	5.509	
11,700.0	6,844.8	6,949.3	6,949.3	134.1	137.3	-84.94	1,737.9	3,037.3	1,571.6	1,301.7	269.90	5.823	
11,800.0	6,843.9	6,948.4	6,948.4	136.8	137.3	-84.62	1,737.9	3,037.3	1,671.2	1,398.6	272.54	6.132	
11,900.0	6,843.0	6,947.5	6,947.5	139.6	137.3	-84.30	1,737.9	3,037.3	1,770.8	1,495.6	275.17	6.435	
12,000.0	6,842.2	6,946.7	6,946.7	142.4	137.2	-83.98	1,737.9	3,037.3	1,870.4	1,592.6	277.79	6.733	
12,100.0	6,841.3	6,945.8	6,945.8	145.1	137.2	-83.66	1,737.9	3,037.3	1,970.1	1,689.7	280.40	7.026	
12,133.9	6,841.0	6,945.5	6,945.5	146.1	137.2	-83.55	1,737.9	3,037.3	2,003.8	1,722.5	281.28	7.124	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	54.5	54.5	0.0	0.2	89.14	43.9	2,934.4	2,934.7				
100.0	100.0	154.5	154.5	0.1	1.8	89.14	43.9	2,934.4	2,934.7	2,932.8	1.89	1,555.948	
200.0	200.0	254.5	254.5	0.3	4.1	89.14	43.9	2,934.4	2,934.7	2,930.3	4.38	669.919	
300.0	300.0	354.5	354.5	0.5	6.1	89.14	43.9	2,934.4	2,934.7	2,928.0	6.66	440.537	
400.0	400.0	454.5	454.5	0.8	8.1	89.14	43.9	2,934.4	2,934.7	2,925.8	8.92	329.061	
500.0	500.0	554.5	554.5	1.0	10.2	99.15	43.9	2,934.4	2,935.0	2,923.8	11.17	262.871	
600.0	599.8	654.3	654.3	1.2	12.2	99.24	43.9	2,934.4	2,935.8	2,922.4	13.41	218.960	
700.0	699.5	754.0	754.0	1.5	14.2	99.37	43.9	2,934.4	2,937.2	2,921.6	15.66	187.604	
800.0	798.7	853.2	853.2	1.7	16.2	99.57	43.9	2,934.4	2,939.2	2,921.3	17.92	164.018	
900.0	897.5	952.0	952.0	2.0	18.2	99.81	43.9	2,934.4	2,941.9	2,921.7	20.21	145.584	
1,000.0	995.6	1,050.1	1,050.1	2.4	20.2	100.10	43.9	2,934.4	2,945.3	2,922.7	22.53	130.755	
1,100.0	1,093.1	1,147.6	1,147.6	2.8	22.1	100.44	43.9	2,934.4	2,949.4	2,924.5	24.88	118.561	
1,200.0	1,189.6	1,244.1	1,244.1	3.3	24.1	100.82	43.9	2,934.4	2,954.3	2,927.1	27.26	108.364	
1,300.0	1,285.3	1,339.8	1,339.8	3.8	26.0	101.24	43.9	2,934.4	2,960.2	2,930.5	29.68	99.721	
1,326.4	1,310.3	1,364.8	1,364.8	3.9	26.5	101.36	43.9	2,934.4	2,961.9	2,931.5	30.33	97.657	
1,400.0	1,380.1	1,434.6	1,434.6	4.3	27.9	101.78	43.9	2,934.4	2,966.8	2,934.7	32.14	92.305	
1,500.0	1,474.9	1,529.4	1,529.4	4.9	29.8	102.35	43.9	2,934.4	2,973.8	2,939.2	34.61	85.916	
1,600.0	1,569.8	1,624.3	1,624.3	5.5	31.7	102.91	43.9	2,934.4	2,981.1	2,944.0	37.09	80.372	
1,700.0	1,664.6	1,719.1	1,719.1	6.1	33.6	103.48	43.9	2,934.4	2,988.7	2,949.1	39.57	75.524	
1,800.0	1,759.4	1,813.9	1,813.9	6.8	35.5	104.04	43.9	2,934.4	2,996.7	2,954.6	42.06	71.252	
1,900.0	1,854.2	1,908.7	1,908.7	7.4	37.4	104.60	43.9	2,934.4	3,004.9	2,960.4	44.54	67.464	
2,000.0	1,949.0	2,003.5	2,003.5	8.0	39.3	105.16	43.9	2,934.4	3,013.5	2,966.5	47.02	64.084	
2,100.0	2,043.8	2,098.3	2,098.3	8.6	41.3	105.71	43.9	2,934.4	3,022.4	2,972.9	49.51	61.051	
2,200.0	2,138.7	2,193.2	2,193.2	9.2	43.2	106.26	43.9	2,934.4	3,031.6	2,979.6	51.98	58.317	
2,300.0	2,233.5	2,288.0	2,288.0	9.9	45.1	106.81	43.9	2,934.4	3,041.1	2,986.6	54.46	55.839	
2,400.0	2,328.3	2,382.8	2,382.8	10.5	47.0	107.35	43.9	2,934.4	3,050.9	2,993.9	56.93	53.586	
2,500.0	2,423.1	2,477.6	2,477.6	11.1	48.9	107.89	43.9	2,934.4	3,061.0	3,001.6	59.40	51.528	
2,600.0	2,517.9	2,572.4	2,572.4	11.8	50.8	108.43	43.9	2,934.4	3,071.4	3,009.5	61.87	49.642	
2,700.0	2,612.7	2,667.2	2,667.2	12.4	52.7	108.97	43.9	2,934.4	3,082.0	3,017.7	64.33	47.908	
2,800.0	2,707.6	2,762.1	2,762.1	13.0	54.6	109.50	43.9	2,934.4	3,093.0	3,026.2	66.79	46.309	
2,900.0	2,802.4	2,856.9	2,856.9	13.6	56.5	110.03	43.9	2,934.4	3,104.3	3,035.0	69.24	44.830	
3,000.0	2,897.2	2,951.7	2,951.7	14.3	58.4	110.55	43.9	2,934.4	3,115.8	3,044.1	71.69	43.460	
3,100.0	2,992.0	3,046.5	3,046.5	14.9	60.3	111.07	43.9	2,934.4	3,127.6	3,053.5	74.14	42.186	
3,200.0	3,086.8	3,141.3	3,141.3	15.5	62.2	111.59	43.9	2,934.4	3,139.7	3,063.2	76.58	41.000	
3,300.0	3,181.6	3,236.1	3,236.1	16.2	64.1	112.10	43.9	2,934.4	3,152.1	3,073.1	79.01	39.893	
3,400.0	3,276.5	3,331.0	3,331.0	16.8	66.0	112.61	43.9	2,934.4	3,164.8	3,083.3	81.45	38.857	
3,500.0	3,371.3	3,425.8	3,425.8	17.4	68.0	113.12	43.9	2,934.4	3,177.7	3,093.8	83.87	37.888	
3,600.0	3,466.1	3,520.6	3,520.6	18.1	69.9	113.62	43.9	2,934.4	3,190.8	3,104.6	86.29	36.977	
3,700.0	3,560.9	3,615.4	3,615.4	18.7	71.8	114.12	43.9	2,934.4	3,204.3	3,115.6	88.71	36.122	
3,800.0	3,655.7	3,710.2	3,710.2	19.3	73.7	114.61	43.9	2,934.4	3,218.0	3,126.9	91.12	35.317	
3,900.0	3,750.5	3,805.0	3,805.0	20.0	75.6	115.10	43.9	2,934.4	3,231.9	3,138.4	93.52	34.557	
4,000.0	3,845.4	3,899.9	3,899.9	20.6	77.5	115.59	43.9	2,934.4	3,246.1	3,150.2	95.92	33.841	
4,100.0	3,940.2	3,994.7	3,994.7	21.3	79.4	116.07	43.9	2,934.4	3,260.6	3,162.3	98.32	33.163	
4,200.0	4,035.0	4,089.5	4,089.5	21.9	81.3	116.55	43.9	2,934.4	3,275.3	3,174.6	100.71	32.522	
4,300.0	4,129.8	4,184.3	4,184.3	22.5	83.2	117.02	43.9	2,934.4	3,290.2	3,187.1	103.09	31.914	
4,400.0	4,224.6	4,279.1	4,279.1	23.2	85.1	117.49	43.9	2,934.4	3,305.4	3,199.9	105.47	31.338	
4,500.0	4,319.4	4,373.9	4,373.9	23.8	87.0	117.96	43.9	2,934.4	3,320.8	3,212.9	107.85	30.791	
4,600.0	4,414.3	4,468.8	4,468.8	24.4	88.9	118.42	43.9	2,934.4	3,336.4	3,226.2	110.22	30.271	
4,700.0	4,509.1	4,563.6	4,563.6	25.1	90.8	118.88	43.9	2,934.4	3,352.3	3,239.7	112.58	29.776	
4,800.0	4,603.9	4,658.4	4,658.4	25.7	92.7	119.34	43.9	2,934.4	3,368.4	3,253.4	114.94	29.305	
4,900.0	4,698.7	4,753.2	4,753.2	26.3	94.6	119.79	43.9	2,934.4	3,384.7	3,267.4	117.30	28.856	
5,000.0	4,793.5	4,848.0	4,848.0	27.0	96.6	120.24	43.9	2,934.4	3,401.2	3,281.6	119.65	28.427	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	4,942.8	4,942.8	27.6	98.5	120.68	43.9	2,934.4	3,418.0	3,296.0	121.99	28.018	
5,200.0	4,983.2	5,037.7	5,037.7	28.2	100.4	121.12	43.9	2,934.4	3,434.9	3,310.6	124.33	27.628	
5,300.0	5,078.0	5,132.5	5,132.5	28.9	102.3	121.55	43.9	2,934.4	3,452.1	3,325.4	126.66	27.254	
5,400.0	5,172.8	5,227.3	5,227.3	29.5	104.2	121.98	43.9	2,934.4	3,469.5	3,340.5	128.99	26.897	
5,454.5	5,224.5	5,279.0	5,279.0	29.9	105.2	122.22	43.9	2,934.4	3,479.0	3,348.8	130.26	26.708	
5,500.0	5,267.7	5,322.2	5,322.2	30.1	106.1	122.54	43.9	2,934.4	3,486.9	3,355.5	131.40	26.537	
5,600.0	5,363.5	5,418.0	5,418.0	30.6	108.0	123.19	43.9	2,934.4	3,502.9	3,369.0	133.84	26.172	
5,700.0	5,460.3	5,514.8	5,514.8	31.0	110.0	123.77	43.9	2,934.4	3,517.1	3,380.8	136.27	25.810	
5,800.0	5,557.9	5,612.4	5,612.4	31.3	111.9	124.27	43.9	2,934.4	3,529.5	3,390.8	138.68	25.451	
5,900.0	5,656.2	5,710.7	5,710.7	31.7	113.9	124.68	43.9	2,934.4	3,540.1	3,399.0	141.06	25.097	
6,000.0	5,755.0	5,809.5	5,809.5	31.9	115.9	125.02	43.9	2,934.4	3,548.7	3,405.3	143.39	24.748	
6,100.0	5,854.4	5,908.9	5,908.9	32.2	117.9	125.28	43.9	2,934.4	3,555.4	3,409.7	145.68	24.405	
6,200.0	5,954.0	6,008.5	6,008.5	32.4	119.9	125.47	43.9	2,934.4	3,560.0	3,412.1	147.91	24.069	
6,300.0	6,053.9	6,108.4	6,108.4	32.5	121.9	125.57	43.9	2,934.4	3,562.7	3,412.6	150.07	23.740	
6,380.9	6,134.8	6,189.3	6,189.3	32.6	123.5	115.61	43.9	2,934.4	3,563.4	3,416.2	147.15	24.216	
6,400.0	6,153.9	6,208.4	6,208.4	32.6	123.9	115.61	43.9	2,934.4	3,563.4	3,415.8	147.55	24.150	
6,410.9	6,164.8	6,219.3	6,219.3	32.6	124.1	115.61	43.9	2,934.4	3,563.4	3,415.6	147.78	24.112	
6,450.0	6,203.9	6,258.4	6,258.4	32.6	124.9	25.66	43.9	2,934.4	3,562.4	3,409.4	152.96	23.290	
6,500.0	6,253.7	6,308.2	6,308.2	32.7	125.9	25.83	43.9	2,934.4	3,558.4	3,405.3	153.09	23.243	
6,550.0	6,303.0	6,357.5	6,357.5	32.7	126.9	26.14	43.9	2,934.4	3,551.2	3,398.6	152.58	23.274	
6,600.0	6,351.7	6,406.2	6,406.2	32.7	127.9	26.59	43.9	2,934.4	3,541.0	3,389.6	151.44	23.382	
6,650.0	6,399.5	6,454.0	6,454.0	32.7	128.9	27.19	43.9	2,934.4	3,527.7	3,378.1	149.69	23.566	
6,700.0	6,446.1	6,500.6	6,500.6	32.7	129.8	27.96	43.9	2,934.4	3,511.5	3,364.1	147.40	23.824	
6,750.0	6,491.4	6,545.9	6,545.9	32.7	130.7	28.91	43.9	2,934.4	3,492.5	3,347.9	144.61	24.150	
6,800.0	6,535.1	6,589.6	6,589.6	32.7	131.6	30.06	43.9	2,934.4	3,470.7	3,329.2	141.46	24.535	
6,850.0	6,576.9	6,631.4	6,631.4	32.7	132.4	31.43	43.9	2,934.4	3,446.2	3,308.1	138.06	24.961	
6,900.0	6,616.8	6,671.3	6,671.3	32.7	133.2	33.05	43.9	2,934.4	3,419.2	3,284.6	134.61	25.400	
6,950.0	6,654.4	6,708.9	6,708.9	32.7	134.0	34.95	43.9	2,934.4	3,389.9	3,258.6	131.35	25.808	
7,000.0	6,689.7	6,744.2	6,744.2	32.7	134.7	37.19	43.9	2,934.4	3,358.4	3,229.8	128.57	26.121	
7,050.0	6,722.4	6,776.9	6,776.9	32.7	135.3	39.80	43.9	2,934.4	3,324.8	3,198.2	126.61	26.261	
7,100.0	6,752.4	6,806.9	6,806.9	32.7	135.9	42.83	43.9	2,934.4	3,289.5	3,163.6	125.83	26.143	
7,150.0	6,779.5	6,834.0	6,834.0	32.7	136.5	46.35	43.9	2,934.4	3,252.4	3,125.9	126.56	25.699	
7,200.0	6,803.7	6,858.2	6,858.2	32.7	137.0	50.39	43.9	2,934.4	3,213.9	3,084.9	129.03	24.909	
7,250.0	6,824.7	6,879.2	6,879.2	32.7	137.4	55.00	43.9	2,934.4	3,174.2	3,041.0	133.23	23.825	
7,300.0	6,842.5	6,897.0	6,897.0	32.8	137.8	60.19	43.9	2,934.4	3,133.4	2,994.6	138.87	22.564	
7,350.0	6,857.0	6,911.5	6,911.5	32.8	138.1	65.93	43.9	2,934.4	3,091.9	2,946.5	145.33	21.274	
7,400.0	6,868.1	6,922.6	6,922.6	32.9	138.3	72.14	43.9	2,934.4	3,049.7	2,897.9	151.77	20.094	
7,450.0	6,875.9	6,930.4	6,930.4	33.0	138.4	78.66	43.9	2,934.4	3,007.2	2,849.9	157.29	19.119	
7,500.0	6,880.1	6,934.6	6,934.6	33.2	138.5	85.29	43.9	2,934.4	2,964.5	2,803.4	161.17	18.394	
7,542.1	6,881.0	6,935.5	6,935.5	33.4	138.5	90.81	43.9	2,934.4	2,928.6	2,765.7	162.90	17.978	
7,600.0	6,880.5	6,935.0	6,935.0	33.6	138.5	90.79	43.9	2,934.4	2,879.6	2,715.6	163.93	17.565	
7,700.0	6,879.6	6,934.1	6,934.1	34.3	138.5	90.76	43.9	2,934.4	2,795.6	2,629.7	165.85	16.856	
7,800.0	6,878.7	6,933.2	6,933.2	35.2	138.5	90.72	43.9	2,934.4	2,712.7	2,544.8	167.91	16.156	
7,900.0	6,877.8	6,932.3	6,932.3	36.5	138.5	90.69	43.9	2,934.4	2,631.0	2,460.9	170.08	15.469	
8,000.0	6,877.0	6,931.5	6,931.5	38.0	138.5	90.66	43.9	2,934.4	2,550.6	2,378.3	172.34	14.800	
8,100.0	6,876.1	6,930.6	6,930.6	39.9	138.4	90.63	43.9	2,934.4	2,471.7	2,297.0	174.68	14.150	
8,200.0	6,875.2	6,929.7	6,929.7	41.9	138.4	90.59	43.9	2,934.4	2,394.3	2,217.2	177.07	13.522	
8,300.0	6,874.4	6,928.9	6,928.9	44.0	138.4	90.56	43.9	2,934.4	2,318.6	2,139.1	179.52	12.916	
8,400.0	6,873.5	6,928.0	6,928.0	46.3	138.4	90.53	43.9	2,934.4	2,244.9	2,062.9	182.00	12.334	
8,500.0	6,872.6	6,927.1	6,927.1	48.6	138.4	90.50	43.9	2,934.4	2,173.2	1,988.7	184.53	11.777	
8,600.0	6,871.7	6,926.2	6,926.2	51.0	138.3	90.46	43.9	2,934.4	2,103.9	1,916.8	187.08	11.246	
8,700.0	6,870.9	6,925.4	6,925.4	53.4	138.3	90.43	43.9	2,934.4	2,037.1	1,847.4	189.65	10.741	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 15-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	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
8,800.0	6,870.0	6,924.5	6,924.5	55.9	138.3	90.40	43.9	2,934.4	1,973.1	1,780.9	192.25	10.263	
8,900.0	6,869.1	6,923.6	6,923.6	58.5	138.3	90.37	43.9	2,934.4	1,912.2	1,717.4	194.87	9.813	
9,000.0	6,868.3	6,922.8	6,922.8	61.0	138.3	90.33	43.9	2,934.4	1,854.7	1,657.2	197.50	9.391	
9,100.0	6,867.4	6,921.9	6,921.9	63.6	138.3	90.30	43.9	2,934.4	1,801.0	1,600.8	200.15	8.998	
9,200.0	6,866.5	6,921.0	6,921.0	66.2	138.2	90.27	43.9	2,934.4	1,751.3	1,548.5	202.81	8.635	
9,300.0	6,865.6	6,920.1	6,920.1	68.8	138.2	90.24	43.9	2,934.4	1,706.0	1,500.5	205.48	8.303	
9,400.0	6,864.8	6,919.3	6,919.3	71.5	138.2	90.21	43.9	2,934.4	1,665.5	1,457.3	208.15	8.001	
9,500.0	6,863.9	6,918.4	6,918.4	74.1	138.2	90.17	43.9	2,934.4	1,630.1	1,419.2	210.84	7.731	
9,600.0	6,863.0	6,917.5	6,917.5	76.8	138.2	90.14	43.9	2,934.4	1,600.2	1,386.7	213.53	7.494	
9,700.0	6,862.2	6,916.7	6,916.7	79.4	138.2	90.11	43.9	2,934.4	1,576.1	1,359.8	216.24	7.289	
9,800.0	6,861.3	6,915.8	6,915.8	82.1	138.1	90.08	43.9	2,934.4	1,558.0	1,339.1	218.94	7.116	
9,900.0	6,860.4	6,914.9	6,914.9	84.8	138.1	90.04	43.9	2,934.4	1,546.2	1,324.6	221.66	6.976	
10,000.0	6,859.5	6,914.0	6,914.0	87.5	138.1	90.01	43.9	2,934.4	1,540.9	1,316.5	224.37	6.867	
10,032.9	6,859.3	6,913.8	6,913.8	88.4	138.1	90.00	43.9	2,934.4	1,540.5	1,315.2	225.27	6.839 CC	
10,100.0	6,858.7	6,913.2	6,913.2	90.2	138.1	89.98	43.9	2,934.4	1,542.0	1,314.9	227.09	6.790 ES	
10,200.0	6,857.8	6,912.3	6,912.3	92.9	138.1	89.95	43.9	2,934.4	1,549.5	1,319.7	229.82	6.742	
10,300.0	6,856.9	6,911.4	6,911.4	95.6	138.0	89.91	43.9	2,934.4	1,563.5	1,330.9	232.55	6.723 SF	
10,400.0	6,856.1	6,910.6	6,910.6	98.4	138.0	89.88	43.9	2,934.4	1,583.6	1,348.3	235.28	6.731	
10,500.0	6,855.2	6,909.7	6,909.7	101.1	138.0	89.85	43.9	2,934.4	1,609.7	1,371.7	238.02	6.763	
10,600.0	6,854.3	6,908.8	6,908.8	103.8	138.0	89.82	43.9	2,934.4	1,641.6	1,400.8	240.76	6.818	
10,700.0	6,853.5	6,908.0	6,908.0	106.5	138.0	89.78	43.9	2,934.4	1,678.7	1,435.2	243.50	6.894	
10,800.0	6,852.6	6,907.1	6,907.1	109.3	138.0	89.75	43.9	2,934.4	1,720.9	1,474.7	246.24	6.989	
10,900.0	6,851.7	6,906.2	6,906.2	112.0	137.9	89.72	43.9	2,934.4	1,767.7	1,518.7	248.99	7.100	
11,000.0	6,850.9	6,905.4	6,905.4	114.8	137.9	89.69	43.9	2,934.4	1,818.9	1,567.1	251.74	7.225	
11,100.0	6,850.0	6,904.5	6,904.5	117.5	137.9	89.66	43.9	2,934.4	1,873.9	1,619.5	254.49	7.364	
11,200.0	6,849.1	6,903.6	6,903.6	120.3	137.9	89.62	43.9	2,934.4	1,932.6	1,675.4	257.24	7.513	
11,300.0	6,848.2	6,902.7	6,902.7	123.0	137.9	89.59	43.9	2,934.4	1,994.6	1,734.6	259.99	7.672	
11,400.0	6,847.4	6,901.9	6,901.9	125.8	137.9	89.56	43.9	2,934.4	2,059.6	1,796.8	262.74	7.839	
11,500.0	6,846.5	6,901.0	6,901.0	128.5	137.8	89.53	43.9	2,934.4	2,127.3	1,861.8	265.50	8.012	
11,600.0	6,845.6	6,900.1	6,900.1	131.3	137.8	89.49	43.9	2,934.4	2,197.4	1,929.2	268.26	8.191	
11,700.0	6,844.8	6,899.3	6,899.3	134.1	137.8	89.46	43.9	2,934.4	2,269.8	1,998.8	271.02	8.375	
11,800.0	6,843.9	6,898.4	6,898.4	136.8	137.8	89.43	43.9	2,934.4	2,344.2	2,070.5	273.78	8.563	
11,900.0	6,843.0	6,897.5	6,897.5	139.6	137.8	89.40	43.9	2,934.4	2,420.5	2,144.0	276.54	8.753	
12,000.0	6,842.2	6,896.7	6,896.7	142.4	137.8	89.36	43.9	2,934.4	2,498.4	2,219.1	279.30	8.945	
12,100.0	6,841.3	6,895.8	6,895.8	145.1	137.7	89.33	43.9	2,934.4	2,577.9	2,295.8	282.06	9.140	
12,133.9	6,841.0	6,895.5	6,895.5	146.1	137.7	89.32	43.9	2,934.4	2,605.1	2,322.1	283.00	9.206	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	34.5	34.5	0.0	0.2	87.08	229.9	4,506.0	4,511.9				
100.0	100.0	134.5	134.5	0.1	1.5	87.08	229.9	4,506.0	4,511.9	4,510.2	1.62	2,778.887	
200.0	200.0	234.5	234.5	0.3	3.8	87.08	229.9	4,506.0	4,511.9	4,507.7	4.15	1,087.162	
300.0	300.0	334.5	334.5	0.5	5.9	87.08	229.9	4,506.0	4,511.9	4,505.4	6.44	700.303	
400.0	400.0	434.5	434.5	0.8	7.9	87.08	229.9	4,506.0	4,511.9	4,503.2	8.70	518.332	
500.0	500.0	534.5	534.5	1.0	10.0	97.08	229.9	4,506.0	4,512.1	4,501.1	10.95	411.906	
600.0	599.8	634.3	634.3	1.2	12.0	97.13	229.9	4,506.0	4,512.7	4,499.5	13.20	341.896	
700.0	699.5	734.0	734.0	1.5	14.0	97.22	229.9	4,506.0	4,513.8	4,498.4	15.45	292.163	
800.0	798.7	833.2	833.2	1.7	16.0	97.34	229.9	4,506.0	4,515.4	4,497.7	17.72	254.877	
900.0	897.5	932.0	932.0	2.0	18.0	97.49	229.9	4,506.0	4,517.4	4,497.4	20.01	225.797	
1,000.0	995.6	1,030.1	1,030.1	2.4	20.0	97.68	229.9	4,506.0	4,520.0	4,497.7	22.33	202.431	
1,100.0	1,093.1	1,127.6	1,127.6	2.8	21.9	97.89	229.9	4,506.0	4,523.1	4,498.4	24.69	183.224	
1,200.0	1,189.6	1,224.1	1,224.1	3.3	23.9	98.13	229.9	4,506.0	4,526.8	4,499.8	27.08	167.156	
1,300.0	1,285.3	1,319.8	1,319.8	3.8	25.8	98.39	229.9	4,506.0	4,531.2	4,501.7	29.51	153.524	
1,326.4	1,310.3	1,344.8	1,344.8	3.9	26.3	98.47	229.9	4,506.0	4,532.5	4,502.3	30.16	150.265	
1,400.0	1,380.1	1,414.6	1,414.6	4.3	27.7	98.74	229.9	4,506.0	4,536.2	4,504.2	31.98	141.829	
1,500.0	1,474.9	1,509.4	1,509.4	4.9	29.6	99.12	229.9	4,506.0	4,541.4	4,506.9	34.47	131.758	
1,600.0	1,569.8	1,604.3	1,604.3	5.5	31.5	99.50	229.9	4,506.0	4,546.8	4,509.8	36.96	123.019	
1,700.0	1,664.6	1,699.1	1,699.1	6.1	33.4	99.87	229.9	4,506.0	4,552.4	4,513.0	39.46	115.373	
1,800.0	1,759.4	1,793.9	1,793.9	6.8	35.3	100.24	229.9	4,506.0	4,558.3	4,516.3	41.96	108.634	
1,900.0	1,854.2	1,888.7	1,888.7	7.4	37.2	100.62	229.9	4,506.0	4,564.3	4,519.9	44.46	102.654	
2,000.0	1,949.0	1,983.5	1,983.5	8.0	39.1	100.99	229.9	4,506.0	4,570.6	4,523.6	46.97	97.313	
2,100.0	2,043.8	2,078.3	2,078.3	8.6	41.0	101.36	229.9	4,506.0	4,577.1	4,527.6	49.47	92.516	
2,200.0	2,138.7	2,173.2	2,173.2	9.2	43.0	101.73	229.9	4,506.0	4,583.8	4,531.8	51.98	88.187	
2,300.0	2,233.5	2,268.0	2,268.0	9.9	44.9	102.10	229.9	4,506.0	4,590.7	4,536.2	54.48	84.260	
2,400.0	2,328.3	2,362.8	2,362.8	10.5	46.8	102.47	229.9	4,506.0	4,597.8	4,540.8	56.99	80.684	
2,500.0	2,423.1	2,457.6	2,457.6	11.1	48.7	102.83	229.9	4,506.0	4,605.1	4,545.6	59.49	77.413	
2,600.0	2,517.9	2,552.4	2,552.4	11.8	50.6	103.20	229.9	4,506.0	4,612.6	4,550.7	61.99	74.412	
2,700.0	2,612.7	2,647.2	2,647.2	12.4	52.5	103.57	229.9	4,506.0	4,620.4	4,555.9	64.49	71.648	
2,800.0	2,707.6	2,742.1	2,742.1	13.0	54.4	103.93	229.9	4,506.0	4,628.3	4,561.3	66.98	69.096	
2,900.0	2,802.4	2,836.9	2,836.9	13.6	56.3	104.29	229.9	4,506.0	4,636.5	4,567.0	69.48	66.732	
3,000.0	2,897.2	2,931.7	2,931.7	14.3	58.2	104.65	229.9	4,506.0	4,644.8	4,572.8	71.97	64.536	
3,100.0	2,992.0	3,026.5	3,026.5	14.9	60.1	105.01	229.9	4,506.0	4,653.3	4,578.9	74.46	62.492	
3,200.0	3,086.8	3,121.3	3,121.3	15.5	62.0	105.37	229.9	4,506.0	4,662.1	4,585.1	76.95	60.585	
3,300.0	3,181.6	3,216.1	3,216.1	16.2	63.9	105.73	229.9	4,506.0	4,671.0	4,591.6	79.44	58.802	
3,400.0	3,276.5	3,311.0	3,311.0	16.8	65.8	106.09	229.9	4,506.0	4,680.2	4,598.3	81.92	57.131	
3,500.0	3,371.3	3,405.8	3,405.8	17.4	67.7	106.44	229.9	4,506.0	4,689.5	4,605.1	84.40	55.562	
3,600.0	3,466.1	3,500.6	3,500.6	18.1	69.7	106.80	229.9	4,506.0	4,699.1	4,612.2	86.88	54.087	
3,700.0	3,560.9	3,595.4	3,595.4	18.7	71.6	107.15	229.9	4,506.0	4,708.8	4,619.5	89.36	52.698	
3,800.0	3,655.7	3,690.2	3,690.2	19.3	73.5	107.50	229.9	4,506.0	4,718.7	4,626.9	91.83	51.387	
3,900.0	3,750.5	3,785.0	3,785.0	20.0	75.4	107.85	229.9	4,506.0	4,728.9	4,634.6	94.30	50.148	
4,000.0	3,845.4	3,879.9	3,879.9	20.6	77.3	108.20	229.9	4,506.0	4,739.2	4,642.4	96.77	48.976	
4,100.0	3,940.2	3,974.7	3,974.7	21.3	79.2	108.55	229.9	4,506.0	4,749.7	4,650.5	99.23	47.866	
4,200.0	4,035.0	4,069.5	4,069.5	21.9	81.1	108.89	229.9	4,506.0	4,760.4	4,658.7	101.69	46.813	
4,300.0	4,129.8	4,164.3	4,164.3	22.5	83.0	109.24	229.9	4,506.0	4,771.3	4,667.1	104.15	45.812	
4,400.0	4,224.6	4,259.1	4,259.1	23.2	84.9	109.58	229.9	4,506.0	4,782.3	4,675.7	106.60	44.861	
4,500.0	4,319.4	4,353.9	4,353.9	23.8	86.8	109.92	229.9	4,506.0	4,793.6	4,684.5	109.06	43.955	
4,600.0	4,414.3	4,448.8	4,448.8	24.4	88.7	110.26	229.9	4,506.0	4,805.0	4,693.5	111.50	43.093	
4,700.0	4,509.1	4,543.6	4,543.6	25.1	90.6	110.60	229.9	4,506.0	4,816.6	4,702.7	113.95	42.270	
4,800.0	4,603.9	4,638.4	4,638.4	25.7	92.5	110.94	229.9	4,506.0	4,828.4	4,712.0	116.39	41.484	
4,900.0	4,698.7	4,733.2	4,733.2	26.3	94.4	111.27	229.9	4,506.0	4,840.4	4,721.6	118.83	40.733	
5,000.0	4,793.5	4,828.0	4,828.0	27.0	96.4	111.61	229.9	4,506.0	4,852.6	4,731.3	121.27	40.015	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	4,922.8	4,922.8	27.6	98.3	111.94	229.9	4,506.0	4,864.9	4,741.2	123.70	39.328	
5,200.0	4,983.2	5,017.7	5,017.7	28.2	100.2	112.27	229.9	4,506.0	4,877.4	4,751.3	126.13	38.670	
5,300.0	5,078.0	5,112.5	5,112.5	28.9	102.1	112.60	229.9	4,506.0	4,890.1	4,761.6	128.56	38.039	
5,400.0	5,172.8	5,207.3	5,207.3	29.5	104.0	112.93	229.9	4,506.0	4,903.0	4,772.0	130.98	37.433	
5,454.5	5,224.5	5,259.0	5,259.0	29.9	105.0	113.10	229.9	4,506.0	4,910.1	4,777.8	132.30	37.114	
5,500.0	5,267.7	5,302.2	5,302.2	30.1	105.9	113.36	229.9	4,506.0	4,915.9	4,782.4	133.42	36.844	
5,600.0	5,363.5	5,398.0	5,398.0	30.6	107.8	113.87	229.9	4,506.0	4,927.7	4,791.9	135.83	36.280	
5,700.0	5,460.3	5,494.8	5,494.8	31.0	109.8	114.33	229.9	4,506.0	4,938.3	4,800.1	138.21	35.730	
5,800.0	5,557.9	5,592.4	5,592.4	31.3	111.7	114.72	229.9	4,506.0	4,947.6	4,807.0	140.58	35.194	
5,900.0	5,656.2	5,690.7	5,690.7	31.7	113.7	115.05	229.9	4,506.0	4,955.4	4,812.5	142.92	34.674	
6,000.0	5,755.0	5,789.5	5,789.5	31.9	115.7	115.33	229.9	4,506.0	4,961.9	4,816.7	145.22	34.169	
6,100.0	5,854.4	5,888.9	5,888.9	32.2	117.7	115.54	229.9	4,506.0	4,966.9	4,819.4	147.47	33.680	
6,200.0	5,954.0	5,988.5	5,988.5	32.4	119.7	115.68	229.9	4,506.0	4,970.3	4,820.7	149.68	33.206	
6,300.0	6,053.9	6,088.4	6,088.4	32.5	121.7	115.76	229.9	4,506.0	4,972.3	4,820.5	151.84	32.747	
6,380.9	6,134.8	6,169.3	6,169.3	32.6	123.3	105.81	229.9	4,506.0	4,972.8	4,828.5	144.36	34.447	
6,400.0	6,153.9	6,188.4	6,188.4	32.6	123.7	105.81	229.9	4,506.0	4,972.8	4,828.1	144.77	34.350	
6,410.9	6,164.8	6,199.3	6,199.3	32.6	123.9	105.81	229.9	4,506.0	4,972.8	4,827.8	145.00	34.295	
6,450.0	6,203.9	6,238.4	6,238.4	32.6	124.7	15.83	229.9	4,506.0	4,971.8	4,817.1	154.72	32.134	
6,500.0	6,253.7	6,288.2	6,288.2	32.7	125.7	15.94	229.9	4,506.0	4,967.5	4,812.7	154.79	32.093	
6,550.0	6,303.0	6,337.5	6,337.5	32.7	126.7	16.14	229.9	4,506.0	4,959.9	4,805.7	154.13	32.180	
6,600.0	6,351.7	6,386.2	6,386.2	32.7	127.7	16.42	229.9	4,506.0	4,948.9	4,796.2	152.74	32.401	
6,650.0	6,399.5	6,434.0	6,434.0	32.7	128.6	16.81	229.9	4,506.0	4,934.8	4,784.1	150.64	32.758	
6,700.0	6,446.1	6,480.6	6,480.6	32.7	129.6	17.31	229.9	4,506.0	4,917.5	4,769.6	147.85	33.260	
6,750.0	6,491.4	6,525.9	6,525.9	32.7	130.5	17.92	229.9	4,506.0	4,897.1	4,752.7	144.40	33.913	
6,800.0	6,535.1	6,569.6	6,569.6	32.7	131.4	18.67	229.9	4,506.0	4,873.7	4,733.3	140.35	34.725	
6,850.0	6,576.9	6,611.4	6,611.4	32.7	132.2	19.59	229.9	4,506.0	4,847.4	4,711.7	135.79	35.699	
6,900.0	6,616.8	6,651.3	6,651.3	32.7	133.0	20.69	229.9	4,506.0	4,818.5	4,687.6	130.82	36.832	
6,950.0	6,654.4	6,688.9	6,688.9	32.7	133.8	22.01	229.9	4,506.0	4,786.9	4,661.3	125.63	38.105	
7,000.0	6,689.7	6,724.2	6,724.2	32.7	134.5	23.60	229.9	4,506.0	4,753.0	4,632.5	120.43	39.466	
7,050.0	6,722.4	6,756.9	6,756.9	32.7	135.1	25.53	229.9	4,506.0	4,716.7	4,601.2	115.57	40.813	
7,100.0	6,752.4	6,786.9	6,786.9	32.7	135.7	27.88	229.9	4,506.0	4,678.4	4,567.0	111.49	41.963	
7,150.0	6,779.5	6,814.0	6,814.0	32.7	136.3	30.76	229.9	4,506.0	4,638.3	4,529.5	108.79	42.636	
7,200.0	6,803.7	6,838.2	6,838.2	32.7	136.8	34.30	229.9	4,506.0	4,596.4	4,488.2	108.19	42.484	
7,250.0	6,824.7	6,859.2	6,859.2	32.7	137.2	38.72	229.9	4,506.0	4,553.1	4,442.6	110.48	41.213	
7,300.0	6,842.5	6,877.0	6,877.0	32.8	137.6	44.24	229.9	4,506.0	4,508.5	4,392.3	116.25	38.782	
7,350.0	6,857.0	6,891.5	6,891.5	32.8	137.8	51.14	229.9	4,506.0	4,462.9	4,337.3	125.61	35.530	
7,400.0	6,868.1	6,902.6	6,902.6	32.9	138.1	59.66	229.9	4,506.0	4,416.5	4,278.9	137.63	32.090	
7,450.0	6,875.9	6,910.4	6,910.4	33.0	138.2	69.85	229.9	4,506.0	4,369.5	4,219.5	150.01	29.128	
7,500.0	6,880.1	6,914.6	6,914.6	33.2	138.3	81.37	229.9	4,506.0	4,322.2	4,162.8	159.38	27.118	
7,542.1	6,881.0	6,915.5	6,915.5	33.4	138.3	91.50	229.9	4,506.0	4,282.2	4,119.5	162.73	26.315	
7,600.0	6,880.5	6,915.0	6,915.0	33.6	138.3	91.48	229.9	4,506.0	4,227.4	4,063.6	163.76	25.815	
7,700.0	6,879.6	6,914.1	6,914.1	34.3	138.3	91.44	229.9	4,506.0	4,132.8	3,967.1	165.68	24.945	
7,800.0	6,878.7	6,913.2	6,913.2	35.2	138.3	91.40	229.9	4,506.0	4,038.4	3,870.7	167.73	24.076	
7,900.0	6,877.8	6,912.3	6,912.3	36.5	138.3	91.37	229.9	4,506.0	3,944.4	3,774.5	169.90	23.215	
8,000.0	6,877.0	6,911.5	6,911.5	38.0	138.3	91.33	229.9	4,506.0	3,850.6	3,678.4	172.16	22.366	
8,100.0	6,876.1	6,910.6	6,910.6	39.9	138.2	91.29	229.9	4,506.0	3,757.2	3,582.7	174.50	21.531	
8,200.0	6,875.2	6,909.7	6,909.7	41.9	138.2	91.26	229.9	4,506.0	3,664.1	3,487.2	176.89	20.713	
8,300.0	6,874.4	6,908.9	6,908.9	44.0	138.2	91.22	229.9	4,506.0	3,571.3	3,392.0	179.34	19.914	
8,400.0	6,873.5	6,908.0	6,908.0	46.3	138.2	91.18	229.9	4,506.0	3,479.0	3,297.2	181.83	19.134	
8,500.0	6,872.6	6,907.1	6,907.1	48.6	138.2	91.14	229.9	4,506.0	3,387.1	3,202.8	184.35	18.374	
8,600.0	6,871.7	6,906.2	6,906.2	51.0	138.1	91.11	229.9	4,506.0	3,295.7	3,108.8	186.90	17.634	
8,700.0	6,870.9	6,905.4	6,905.4	53.4	138.1	91.07	229.9	4,506.0	3,204.8	3,015.4	189.48	16.914	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 16-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	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
8,800.0	6,870.0	6,904.5	6,904.5	55.9	138.1	91.03	229.9	4,506.0	3,114.5	2,922.4	192.07	16.215	
8,900.0	6,869.1	6,903.6	6,903.6	58.5	138.1	91.00	229.9	4,506.0	3,024.8	2,830.1	194.69	15.536	
9,000.0	6,868.3	6,902.8	6,902.8	61.0	138.1	90.96	229.9	4,506.0	2,935.7	2,738.4	197.32	14.878	
9,100.0	6,867.4	6,901.9	6,901.9	63.6	138.1	90.92	229.9	4,506.0	2,847.3	2,647.4	199.97	14.239	
9,200.0	6,866.5	6,901.0	6,901.0	66.2	138.0	90.89	229.9	4,506.0	2,759.8	2,557.2	202.63	13.620	
9,300.0	6,865.6	6,900.1	6,900.1	68.8	138.0	90.85	229.9	4,506.0	2,673.1	2,467.8	205.30	13.021	
9,400.0	6,864.8	6,899.3	6,899.3	71.5	138.0	90.81	229.9	4,506.0	2,587.4	2,379.4	207.98	12.441	
9,500.0	6,863.9	6,898.4	6,898.4	74.1	138.0	90.78	229.9	4,506.0	2,502.8	2,292.1	210.67	11.880	
9,600.0	6,863.0	6,897.5	6,897.5	76.8	138.0	90.74	229.9	4,506.0	2,419.3	2,205.9	213.36	11.339	
9,700.0	6,862.2	6,896.7	6,896.7	79.4	138.0	90.70	229.9	4,506.0	2,337.1	2,121.0	216.06	10.817	
9,800.0	6,861.3	6,895.8	6,895.8	82.1	137.9	90.66	229.9	4,506.0	2,256.4	2,037.6	218.77	10.314	
9,900.0	6,860.4	6,894.9	6,894.9	84.8	137.9	90.63	229.9	4,506.0	2,177.2	1,955.7	221.48	9.830	
10,000.0	6,859.5	6,894.0	6,894.0	87.5	137.9	90.59	229.9	4,506.0	2,099.8	1,875.6	224.20	9.366	
10,100.0	6,858.7	6,893.2	6,893.2	90.2	137.9	90.55	229.9	4,506.0	2,024.5	1,797.5	226.92	8.921	
10,200.0	6,857.8	6,892.3	6,892.3	92.9	137.9	90.52	229.9	4,506.0	1,951.3	1,721.6	229.65	8.497	
10,300.0	6,856.9	6,891.4	6,891.4	95.6	137.8	90.48	229.9	4,506.0	1,880.6	1,648.2	232.38	8.093	
10,400.0	6,856.1	6,890.6	6,890.6	98.4	137.8	90.44	229.9	4,506.0	1,812.6	1,577.5	235.11	7.710	
10,500.0	6,855.2	6,889.7	6,889.7	101.1	137.8	90.41	229.9	4,506.0	1,747.8	1,509.9	237.85	7.348	
10,600.0	6,854.3	6,888.8	6,888.8	103.8	137.8	90.37	229.9	4,506.0	1,686.4	1,445.8	240.59	7.009	
10,700.0	6,853.5	6,888.0	6,888.0	106.5	137.8	90.33	229.9	4,506.0	1,628.8	1,385.4	243.33	6.694	
10,800.0	6,852.6	6,887.1	6,887.1	109.3	137.8	90.30	229.9	4,506.0	1,575.4	1,329.4	246.08	6.402	
10,900.0	6,851.7	6,886.2	6,886.2	112.0	137.7	90.26	229.9	4,506.0	1,526.8	1,278.0	248.82	6.136	
11,000.0	6,850.9	6,885.4	6,885.4	114.8	137.7	90.22	229.9	4,506.0	1,483.3	1,231.7	251.57	5.896	
11,100.0	6,850.0	6,884.5	6,884.5	117.5	137.7	90.19	229.9	4,506.0	1,445.4	1,191.1	254.32	5.683	
11,200.0	6,849.1	6,883.6	6,883.6	120.3	137.7	90.15	229.9	4,506.0	1,413.6	1,156.5	257.08	5.499	
11,300.0	6,848.2	6,882.7	6,882.7	123.0	137.7	90.11	229.9	4,506.0	1,388.3	1,128.5	259.83	5.343	
11,400.0	6,847.4	6,881.9	6,881.9	125.8	137.7	90.08	229.9	4,506.0	1,369.8	1,107.3	262.59	5.217	
11,500.0	6,846.5	6,881.0	6,881.0	128.5	137.6	90.04	229.9	4,506.0	1,358.5	1,093.2	265.34	5.120	
11,600.0	6,845.6	6,880.1	6,880.1	131.3	137.6	90.00	229.9	4,506.0	1,354.5	1,086.4	268.10	5.052	
11,604.7	6,845.6	6,880.1	6,880.1	131.4	137.6	90.00	229.9	4,506.0	1,354.5	1,086.2	268.23	5.050 CC, ES	
11,700.0	6,844.8	6,879.3	6,879.3	134.1	137.6	89.96	229.9	4,506.0	1,357.8	1,087.0	270.86	5.013	
11,800.0	6,843.9	6,878.4	6,878.4	136.8	137.6	89.93	229.9	4,506.0	1,368.5	1,094.9	273.62	5.001 SF	
11,900.0	6,843.0	6,877.5	6,877.5	139.6	137.6	89.89	229.9	4,506.0	1,386.3	1,109.9	276.38	5.016	
12,000.0	6,842.2	6,876.7	6,876.7	142.4	137.6	89.85	229.9	4,506.0	1,411.0	1,131.8	279.14	5.055	
12,100.0	6,841.3	6,875.8	6,875.8	145.1	137.5	89.82	229.9	4,506.0	1,442.2	1,160.3	281.91	5.116	
12,133.9	6,841.0	6,875.5	6,875.5	146.1	137.5	89.81	229.9	4,506.0	1,454.2	1,171.3	282.84	5.141	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	94.5	94.5	0.0	0.0	69.38	1,738.2	4,620.0	4,936.1				
100.0	100.0	194.5	194.5	0.1	1.2	69.38	1,738.2	4,620.0	4,936.1	4,934.9	1.25	3,934.139	
200.0	200.0	294.5	294.5	0.3	3.4	69.38	1,738.2	4,620.0	4,936.1	4,932.4	3.71	1,332.284	
300.0	300.0	394.5	394.5	0.5	5.5	69.38	1,738.2	4,620.0	4,936.1	4,930.1	6.02	820.101	
400.0	400.0	494.5	494.5	0.8	7.5	69.38	1,738.2	4,620.0	4,936.1	4,927.9	8.29	595.596	
500.0	500.0	594.5	594.5	1.0	9.5	79.39	1,738.2	4,620.0	4,935.8	4,925.3	10.54	468.250	
600.0	599.8	694.3	694.3	1.2	11.6	79.47	1,738.2	4,620.0	4,934.9	4,922.1	12.79	385.890	
700.0	699.5	794.0	794.0	1.5	13.6	79.60	1,738.2	4,620.0	4,933.3	4,918.2	15.04	328.009	
800.0	798.7	893.2	893.2	1.7	15.6	79.78	1,738.2	4,620.0	4,931.1	4,913.8	17.31	284.924	
900.0	897.5	992.0	992.0	2.0	17.6	80.01	1,738.2	4,620.0	4,928.3	4,908.7	19.60	251.479	
1,000.0	995.6	1,090.1	1,090.1	2.4	19.5	80.29	1,738.2	4,620.0	4,925.0	4,903.0	21.92	224.687	
1,100.0	1,093.1	1,187.6	1,187.6	2.8	21.5	80.62	1,738.2	4,620.0	4,921.1	4,896.9	24.28	202.702	
1,200.0	1,189.6	1,284.1	1,284.1	3.3	23.5	80.99	1,738.2	4,620.0	4,916.9	4,890.2	26.68	184.318	
1,300.0	1,285.3	1,379.8	1,379.8	3.8	25.4	81.40	1,738.2	4,620.0	4,912.2	4,883.1	29.12	168.715	
1,326.4	1,310.3	1,404.8	1,404.8	3.9	25.9	81.52	1,738.2	4,620.0	4,910.9	4,881.1	29.77	164.982	
1,400.0	1,380.1	1,474.6	1,474.6	4.3	27.3	81.78	1,738.2	4,620.0	4,907.3	4,875.7	31.59	155.325	
1,500.0	1,474.9	1,569.4	1,569.4	4.9	29.2	82.13	1,738.2	4,620.0	4,902.6	4,868.5	34.09	143.813	
1,600.0	1,569.8	1,664.3	1,664.3	5.5	31.1	82.48	1,738.2	4,620.0	4,898.1	4,861.6	36.60	133.837	
1,700.0	1,664.6	1,759.1	1,759.1	6.1	33.0	82.83	1,738.2	4,620.0	4,893.9	4,854.8	39.11	125.120	
1,800.0	1,759.4	1,853.9	1,853.9	6.8	34.9	83.18	1,738.2	4,620.0	4,889.8	4,848.2	41.63	117.445	
1,900.0	1,854.2	1,948.7	1,948.7	7.4	36.8	83.53	1,738.2	4,620.0	4,885.9	4,841.7	44.16	110.639	
2,000.0	1,949.0	2,043.5	2,043.5	8.0	38.7	83.88	1,738.2	4,620.0	4,882.2	4,835.5	46.69	104.567	
2,100.0	2,043.8	2,138.3	2,138.3	8.6	40.6	84.23	1,738.2	4,620.0	4,878.8	4,829.5	49.22	99.116	
2,200.0	2,138.7	2,233.2	2,233.2	9.2	42.6	84.58	1,738.2	4,620.0	4,875.5	4,823.7	51.76	94.199	
2,300.0	2,233.5	2,328.0	2,328.0	9.9	44.5	84.94	1,738.2	4,620.0	4,872.4	4,818.1	54.29	89.742	
2,400.0	2,328.3	2,422.8	2,422.8	10.5	46.4	85.29	1,738.2	4,620.0	4,869.6	4,812.8	56.83	85.684	
2,500.0	2,423.1	2,517.6	2,517.6	11.1	48.3	85.64	1,738.2	4,620.0	4,866.9	4,807.6	59.37	81.975	
2,600.0	2,517.9	2,612.4	2,612.4	11.8	50.2	86.00	1,738.2	4,620.0	4,864.5	4,802.6	61.91	78.572	
2,700.0	2,612.7	2,707.2	2,707.2	12.4	52.1	86.35	1,738.2	4,620.0	4,862.3	4,797.8	64.45	75.439	
2,800.0	2,707.6	2,802.1	2,802.1	13.0	54.0	86.71	1,738.2	4,620.0	4,860.2	4,793.2	66.99	72.547	
2,900.0	2,802.4	2,896.9	2,896.9	13.6	55.9	87.06	1,738.2	4,620.0	4,858.4	4,788.9	69.54	69.868	
3,000.0	2,897.2	2,991.7	2,991.7	14.3	57.8	87.42	1,738.2	4,620.0	4,856.8	4,784.7	72.08	67.382	
3,100.0	2,992.0	3,086.5	3,086.5	14.9	59.7	87.77	1,738.2	4,620.0	4,855.4	4,780.8	74.62	65.067	
3,200.0	3,086.8	3,181.3	3,181.3	15.5	61.6	88.13	1,738.2	4,620.0	4,854.2	4,777.0	77.16	62.907	
3,300.0	3,181.6	3,276.1	3,276.1	16.2	63.5	88.48	1,738.2	4,620.0	4,853.2	4,773.5	79.71	60.888	
3,400.0	3,276.5	3,371.0	3,371.0	16.8	65.4	88.84	1,738.2	4,620.0	4,852.4	4,770.2	82.25	58.997	
3,500.0	3,371.3	3,465.8	3,465.8	17.4	67.3	89.19	1,738.2	4,620.0	4,851.8	4,767.0	84.79	57.221	
3,600.0	3,466.1	3,560.6	3,560.6	18.1	69.3	89.55	1,738.2	4,620.0	4,851.5	4,764.1	87.33	55.552	
3,700.0	3,560.9	3,655.4	3,655.4	18.7	71.2	89.90	1,738.2	4,620.0	4,851.3	4,761.4	89.87	53.980	
3,726.7	3,586.2	3,680.7	3,680.7	18.9	71.7	90.00	1,738.2	4,620.0	4,851.3	4,760.8	90.55	53.575	
3,800.0	3,655.7	3,750.2	3,750.2	19.3	73.1	90.26	1,738.2	4,620.0	4,851.4	4,758.9	92.41	52.496	
3,900.0	3,750.5	3,845.0	3,845.0	20.0	75.0	90.62	1,738.2	4,620.0	4,851.6	4,756.7	94.95	51.095	
4,000.0	3,845.4	3,939.9	3,939.9	20.6	76.9	90.97	1,738.2	4,620.0	4,852.1	4,754.6	97.49	49.769	
4,100.0	3,940.2	4,034.7	4,034.7	21.3	78.8	91.33	1,738.2	4,620.0	4,852.8	4,752.7	100.03	48.513	
4,200.0	4,035.0	4,129.5	4,129.5	21.9	80.7	91.68	1,738.2	4,620.0	4,853.6	4,751.1	102.57	47.322	
4,300.0	4,129.8	4,224.3	4,224.3	22.5	82.6	92.04	1,738.2	4,620.0	4,854.7	4,749.6	105.10	46.190	
4,400.0	4,224.6	4,319.1	4,319.1	23.2	84.5	92.39	1,738.2	4,620.0	4,856.0	4,748.4	107.64	45.115	
4,500.0	4,319.4	4,413.9	4,413.9	23.8	86.4	92.75	1,738.2	4,620.0	4,857.5	4,747.4	110.17	44.091	
4,600.0	4,414.3	4,508.8	4,508.8	24.4	88.3	93.10	1,738.2	4,620.0	4,859.2	4,746.5	112.70	43.116	
4,700.0	4,509.1	4,603.6	4,603.6	25.1	90.2	93.46	1,738.2	4,620.0	4,861.2	4,745.9	115.23	42.185	
4,800.0	4,603.9	4,698.4	4,698.4	25.7	92.1	93.81	1,738.2	4,620.0	4,863.3	4,745.5	117.76	41.297	
4,900.0	4,698.7	4,793.2	4,793.2	26.3	94.0	94.17	1,738.2	4,620.0	4,865.6	4,745.3	120.29	40.449	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	4,793.5	4,888.0	4,888.0	27.0	95.9	94.52	1,738.2	4,620.0	4,868.1	4,745.3	122.82	39.638	
5,100.0	4,888.3	4,982.8	4,982.8	27.6	97.9	94.87	1,738.2	4,620.0	4,870.9	4,745.6	125.34	38.861	
5,200.0	4,983.2	5,077.7	5,077.7	28.2	99.8	95.23	1,738.2	4,620.0	4,873.8	4,746.0	127.86	38.118	
5,300.0	5,078.0	5,172.5	5,172.5	28.9	101.7	95.58	1,738.2	4,620.0	4,877.0	4,746.6	130.38	37.405	
5,400.0	5,172.8	5,267.3	5,267.3	29.5	103.6	95.93	1,738.2	4,620.0	4,880.4	4,747.5	132.90	36.721	
5,454.5	5,224.5	5,319.0	5,319.0	29.9	104.6	96.12	1,738.2	4,620.0	4,882.3	4,748.0	134.27	36.361	
5,500.0	5,267.7	5,362.2	5,362.2	30.1	105.5	96.31	1,738.2	4,620.0	4,883.9	4,748.5	135.39	36.073	
5,600.0	5,363.5	5,458.0	5,458.0	30.6	107.4	96.70	1,738.2	4,620.0	4,887.3	4,749.5	137.75	35.478	
5,700.0	5,460.3	5,554.8	5,554.8	31.0	109.4	97.05	1,738.2	4,620.0	4,890.4	4,750.3	140.10	34.907	
5,800.0	5,557.9	5,652.4	5,652.4	31.3	111.3	97.35	1,738.2	4,620.0	4,893.2	4,750.8	142.42	34.357	
5,900.0	5,656.2	5,750.7	5,750.7	31.7	113.3	97.61	1,738.2	4,620.0	4,895.6	4,750.9	144.71	33.830	
6,000.0	5,755.0	5,849.5	5,849.5	31.9	115.3	97.82	1,738.2	4,620.0	4,897.7	4,750.7	146.98	33.323	
6,100.0	5,854.4	5,948.9	5,948.9	32.2	117.3	97.98	1,738.2	4,620.0	4,899.3	4,750.0	149.20	32.836	
6,200.0	5,954.0	6,048.5	6,048.5	32.4	119.3	98.10	1,738.2	4,620.0	4,900.4	4,749.0	151.39	32.369	
6,300.0	6,053.9	6,148.4	6,148.4	32.5	121.3	98.17	1,738.2	4,620.0	4,901.0	4,747.5	153.54	31.921	
6,380.9	6,134.8	6,229.3	6,229.3	32.6	122.9	98.20	1,738.2	4,620.0	4,901.2	4,760.6	140.56	34.870	
6,400.0	6,153.9	6,248.4	6,248.4	32.6	123.3	98.20	1,738.2	4,620.0	4,901.2	4,760.2	140.97	34.768	
6,410.9	6,164.8	6,259.3	6,259.3	32.6	123.5	98.20	1,738.2	4,620.0	4,901.2	4,760.0	141.20	34.710	
6,450.0	6,203.9	6,298.4	6,298.4	32.6	124.3	-1.80	1,738.2	4,620.0	4,900.1	4,743.7	156.44	31.322	
6,500.0	6,253.7	6,348.2	6,348.2	32.7	125.3	-1.81	1,738.2	4,620.0	4,895.7	4,739.2	156.50	31.283	
6,550.0	6,303.0	6,397.5	6,397.5	32.7	126.3	-1.84	1,738.2	4,620.0	4,887.7	4,732.0	155.77	31.378	
6,600.0	6,351.7	6,446.2	6,446.2	32.7	127.3	-1.87	1,738.2	4,620.0	4,876.4	4,722.1	154.26	31.611	
6,650.0	6,399.5	6,494.0	6,494.0	32.7	128.2	-1.92	1,738.2	4,620.0	4,861.7	4,709.7	151.96	31.993	
6,700.0	6,446.1	6,540.6	6,540.6	32.7	129.2	-1.98	1,738.2	4,620.0	4,843.7	4,694.8	148.88	32.535	
6,750.0	6,491.4	6,585.9	6,585.9	32.7	130.1	-2.05	1,738.2	4,620.0	4,822.4	4,677.4	145.01	33.256	
6,800.0	6,535.1	6,629.6	6,629.6	32.7	131.0	-2.15	1,738.2	4,620.0	4,798.1	4,657.7	140.38	34.180	
6,850.0	6,576.9	6,671.4	6,671.4	32.7	131.8	-2.26	1,738.2	4,620.0	4,770.8	4,635.8	135.00	35.339	
6,900.0	6,616.8	6,711.3	6,711.3	32.7	132.6	-2.40	1,738.2	4,620.0	4,740.6	4,611.7	128.90	36.777	
6,950.0	6,654.4	6,748.9	6,748.9	32.7	133.4	-2.56	1,738.2	4,620.0	4,707.8	4,585.7	122.12	38.549	
7,000.0	6,689.7	6,784.2	6,784.2	32.7	134.1	-2.77	1,738.2	4,620.0	4,672.4	4,557.7	114.71	40.734	
7,050.0	6,722.4	6,816.9	6,816.9	32.7	134.7	-3.03	1,738.2	4,620.0	4,634.6	4,527.9	106.71	43.434	
7,100.0	6,752.4	6,846.9	6,846.9	32.7	135.3	-3.35	1,738.2	4,620.0	4,594.6	4,496.4	98.20	46.791	
7,150.0	6,779.5	6,874.0	6,874.0	32.7	135.9	-3.77	1,738.2	4,620.0	4,552.7	4,463.4	89.27	50.998	
7,200.0	6,803.7	6,898.2	6,898.2	32.7	136.4	-4.32	1,738.2	4,620.0	4,508.9	4,428.8	80.07	56.312	
7,250.0	6,824.7	6,919.2	6,919.2	32.7	136.8	-5.07	1,738.2	4,620.0	4,463.6	4,392.8	70.81	63.034	
7,300.0	6,842.5	6,937.0	6,937.0	32.8	137.2	-6.15	1,738.2	4,620.0	4,416.9	4,355.0	61.92	71.337	
7,350.0	6,857.0	6,951.5	6,951.5	32.8	137.4	-7.81	1,738.2	4,620.0	4,369.1	4,314.8	54.33	80.416	
7,400.0	6,868.1	6,962.6	6,962.6	32.9	137.7	-10.69	1,738.2	4,620.0	4,320.4	4,269.8	50.62	85.342	
7,450.0	6,875.9	6,970.4	6,970.4	33.0	137.8	-16.76	1,738.2	4,620.0	4,271.0	4,212.9	58.14	73.463	
7,500.0	6,880.1	6,974.6	6,974.6	33.2	137.9	-36.05	1,738.2	4,620.0	4,221.3	4,120.1	101.15	41.734	
7,542.1	6,881.0	6,975.5	6,975.5	33.4	137.9	-103.33	1,738.2	4,620.0	4,179.2	4,022.4	156.77	26.657	
7,600.0	6,880.5	6,975.0	6,975.0	33.6	137.9	-103.15	1,738.2	4,620.0	4,121.3	3,963.4	157.91	26.099	
7,700.0	6,879.6	6,974.1	6,974.1	34.3	137.9	-102.84	1,738.2	4,620.0	4,021.4	3,861.4	160.02	25.130	
7,800.0	6,878.7	6,973.2	6,973.2	35.2	137.9	-102.53	1,738.2	4,620.0	3,921.5	3,759.2	162.27	24.166	
7,900.0	6,877.8	6,972.3	6,972.3	36.5	137.9	-102.22	1,738.2	4,620.0	3,821.6	3,656.9	164.63	23.213	
8,000.0	6,877.0	6,971.5	6,971.5	38.0	137.8	-101.91	1,738.2	4,620.0	3,721.7	3,554.6	167.08	22.275	
8,100.0	6,876.1	6,970.6	6,970.6	39.9	137.8	-101.60	1,738.2	4,620.0	3,621.8	3,452.2	169.60	21.354	
8,200.0	6,875.2	6,969.7	6,969.7	41.9	137.8	-101.28	1,738.2	4,620.0	3,521.9	3,349.7	172.18	20.454	
8,300.0	6,874.4	6,968.9	6,968.9	44.0	137.8	-100.97	1,738.2	4,620.0	3,422.0	3,247.1	174.81	19.576	
8,400.0	6,873.5	6,968.0	6,968.0	46.3	137.8	-100.65	1,738.2	4,620.0	3,322.1	3,144.6	177.47	18.719	
8,500.0	6,872.6	6,967.1	6,967.1	48.6	137.8	-100.34	1,738.2	4,620.0	3,222.2	3,042.0	180.17	17.884	
8,600.0	6,871.7	6,966.2	6,966.2	51.0	137.7	-100.02	1,738.2	4,620.0	3,122.3	2,939.4	182.90	17.071	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT BINDER 9-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,870.9	6,965.4	6,965.4	53.4	137.7	-99.71	1,738.2	4,620.0	3,022.4	2,836.8	185.65	16.281	
8,800.0	6,870.0	6,964.5	6,964.5	55.9	137.7	-99.39	1,738.2	4,620.0	2,922.6	2,734.1	188.41	15.511	
8,900.0	6,869.1	6,963.6	6,963.6	58.5	137.7	-99.07	1,738.2	4,620.0	2,822.7	2,631.5	191.20	14.763	
9,000.0	6,868.3	6,962.8	6,962.8	61.0	137.7	-98.76	1,738.2	4,620.0	2,722.9	2,528.9	194.00	14.036	
9,100.0	6,867.4	6,961.9	6,961.9	63.6	137.7	-98.44	1,738.2	4,620.0	2,623.0	2,426.2	196.80	13.328	
9,200.0	6,866.5	6,961.0	6,961.0	66.2	137.6	-98.12	1,738.2	4,620.0	2,523.2	2,323.6	199.62	12.640	
9,300.0	6,865.6	6,960.1	6,960.1	68.8	137.6	-97.80	1,738.2	4,620.0	2,423.4	2,221.0	202.45	11.970	
9,400.0	6,864.8	6,959.3	6,959.3	71.5	137.6	-97.48	1,738.2	4,620.0	2,323.6	2,118.3	205.28	11.319	
9,500.0	6,863.9	6,958.4	6,958.4	74.1	137.6	-97.16	1,738.2	4,620.0	2,223.9	2,015.7	208.12	10.685	
9,600.0	6,863.0	6,957.5	6,957.5	76.8	137.6	-96.84	1,738.2	4,620.0	2,124.1	1,913.2	210.97	10.069	
9,700.0	6,862.2	6,956.7	6,956.7	79.4	137.5	-96.52	1,738.2	4,620.0	2,024.4	1,810.6	213.81	9.468	
9,800.0	6,861.3	6,955.8	6,955.8	82.1	137.5	-96.20	1,738.2	4,620.0	1,924.7	1,708.0	216.66	8.884	
9,900.0	6,860.4	6,954.9	6,954.9	84.8	137.5	-95.88	1,738.2	4,620.0	1,825.0	1,605.5	219.51	8.314	
10,000.0	6,859.5	6,954.0	6,954.0	87.5	137.5	-95.56	1,738.2	4,620.0	1,725.4	1,503.1	222.36	7.760	
10,100.0	6,858.7	6,953.2	6,953.2	90.2	137.5	-95.23	1,738.2	4,620.0	1,625.9	1,400.6	225.21	7.219	
10,200.0	6,857.8	6,952.3	6,952.3	92.9	137.5	-94.91	1,738.2	4,620.0	1,526.3	1,298.3	228.07	6.693	
10,300.0	6,856.9	6,951.4	6,951.4	95.6	137.4	-94.59	1,738.2	4,620.0	1,426.9	1,196.0	230.92	6.179	
10,400.0	6,856.1	6,950.6	6,950.6	98.4	137.4	-94.27	1,738.2	4,620.0	1,327.5	1,093.7	233.76	5.679	
10,500.0	6,855.2	6,949.7	6,949.7	101.1	137.4	-93.94	1,738.2	4,620.0	1,228.2	991.6	236.61	5.191	
10,600.0	6,854.3	6,948.8	6,948.8	103.8	137.4	-93.62	1,738.2	4,620.0	1,129.1	889.7	239.46	4.715	
10,700.0	6,853.5	6,948.0	6,948.0	106.5	137.4	-93.30	1,738.2	4,620.0	1,030.1	787.8	242.30	4.252	
10,800.0	6,852.6	6,947.1	6,947.1	109.3	137.4	-92.97	1,738.2	4,620.0	931.4	686.2	245.13	3.799	
10,900.0	6,851.7	6,946.2	6,946.2	112.0	137.3	-92.65	1,738.2	4,620.0	832.9	584.9	247.97	3.359	
11,000.0	6,850.9	6,945.4	6,945.4	114.8	137.3	-92.33	1,738.2	4,620.0	734.9	484.1	250.80	2.930	
11,100.0	6,850.0	6,944.5	6,944.5	117.5	137.3	-92.00	1,738.2	4,620.0	637.4	383.8	253.62	2.513	
11,200.0	6,849.1	6,943.6	6,943.6	120.3	137.3	-91.68	1,738.2	4,620.0	540.9	284.5	256.44	2.109	
11,300.0	6,848.2	6,942.7	6,942.7	123.0	137.3	-91.36	1,738.2	4,620.0	446.0	186.7	259.26	1.720	
11,400.0	6,847.4	6,941.9	6,941.9	125.8	137.3	-91.03	1,738.2	4,620.0	353.8	91.7	262.07	1.350 Level 3	
11,500.0	6,846.5	6,941.0	6,941.0	128.5	137.2	-90.71	1,738.2	4,620.0	267.3	2.4	264.87	1.009 Level 2	
11,600.0	6,845.6	6,940.1	6,940.1	131.3	137.2	-90.38	1,738.2	4,620.0	194.2	-73.4	267.67	0.726 Level 1	
11,700.0	6,844.8	6,939.3	6,939.3	134.1	137.2	-90.06	1,738.2	4,620.0	154.9	-115.5	270.46	0.573 Level 1	
11,718.6	6,844.6	6,939.1	6,939.1	134.6	137.2	-90.00	1,738.2	4,620.0	153.8	-117.2	270.97	0.568 Level 1, CC, ES, SF	
11,800.0	6,843.9	6,938.4	6,938.4	136.8	137.2	-89.74	1,738.2	4,620.0	174.0	-99.2	273.24	0.637 Level 1	
11,900.0	6,843.0	6,937.5	6,937.5	139.6	137.2	-89.41	1,738.2	4,620.0	237.8	-38.2	276.01	0.862 Level 1	
12,000.0	6,842.2	6,936.7	6,936.7	142.4	137.1	-89.09	1,738.2	4,620.0	320.6	41.9	278.78	1.150 Level 2	
12,100.0	6,841.3	6,935.8	6,935.8	145.1	137.1	-88.77	1,738.2	4,620.0	411.2	129.7	281.54	1.461 Level 3	
12,133.9	6,841.0	6,935.5	6,935.5	146.1	137.1	-88.66	1,738.2	4,620.0	442.8	160.3	282.47	1.568	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	119.5	119.5	0.0	0.2	57.23	2,871.2	4,460.9	5,305.1				
100.0	100.0	219.5	219.5	0.1	1.4	57.23	2,871.2	4,460.9	5,305.1	5,303.6	1.45	3,658.639	
200.0	200.0	319.5	319.5	0.3	3.7	57.23	2,871.2	4,460.9	5,305.1	5,301.1	3.98	1,331.939	
300.0	300.0	419.5	419.5	0.5	5.7	57.23	2,871.2	4,460.9	5,305.1	5,298.8	6.28	844.493	
400.0	400.0	519.5	519.5	0.8	7.8	57.23	2,871.2	4,460.9	5,305.1	5,296.5	8.55	620.716	
500.0	500.0	619.5	619.5	1.0	9.8	67.24	2,871.2	4,460.9	5,304.4	5,293.6	10.80	491.256	
600.0	599.8	719.3	719.3	1.2	11.8	67.33	2,871.2	4,460.9	5,302.4	5,289.3	13.04	406.585	
700.0	699.5	819.0	819.0	1.5	13.8	67.48	2,871.2	4,460.9	5,299.0	5,283.7	15.29	346.666	
800.0	798.7	918.2	918.2	1.7	15.8	67.69	2,871.2	4,460.9	5,294.3	5,276.8	17.54	301.855	
900.0	897.5	1,017.0	1,017.0	2.0	17.8	67.96	2,871.2	4,460.9	5,288.3	5,268.5	19.81	266.954	
1,000.0	995.6	1,115.1	1,115.1	2.4	19.8	68.28	2,871.2	4,460.9	5,281.1	5,259.0	22.10	238.918	
1,100.0	1,093.1	1,212.6	1,212.6	2.8	21.8	68.66	2,871.2	4,460.9	5,272.7	5,248.3	24.43	215.850	
1,200.0	1,189.6	1,309.1	1,309.1	3.3	23.7	69.09	2,871.2	4,460.9	5,263.1	5,236.3	26.78	196.506	
1,300.0	1,285.3	1,404.8	1,404.8	3.8	25.6	69.58	2,871.2	4,460.9	5,252.3	5,223.2	29.17	180.036	
1,326.4	1,310.3	1,429.8	1,429.8	3.9	26.1	69.72	2,871.2	4,460.9	5,249.3	5,219.5	29.81	176.087	
1,400.0	1,380.1	1,499.6	1,499.6	4.3	27.5	69.95	2,871.2	4,460.9	5,240.9	5,209.3	31.62	165.757	
1,500.0	1,474.9	1,594.4	1,594.4	4.9	29.5	70.26	2,871.2	4,460.9	5,229.6	5,195.5	34.09	153.417	
1,600.0	1,569.8	1,689.3	1,689.3	5.5	31.4	70.57	2,871.2	4,460.9	5,218.4	5,181.8	36.57	142.702	
1,700.0	1,664.6	1,784.1	1,784.1	6.1	33.3	70.89	2,871.2	4,460.9	5,207.4	5,168.3	39.06	133.321	
1,800.0	1,759.4	1,878.9	1,878.9	6.8	35.2	71.20	2,871.2	4,460.9	5,196.6	5,155.0	41.56	125.046	
1,900.0	1,854.2	1,973.7	1,973.7	7.4	37.1	71.52	2,871.2	4,460.9	5,185.9	5,141.9	44.06	117.698	
2,000.0	1,949.0	2,068.5	2,068.5	8.0	39.0	71.84	2,871.2	4,460.9	5,175.4	5,128.9	46.57	111.131	
2,100.0	2,043.8	2,163.3	2,163.3	8.6	40.9	72.16	2,871.2	4,460.9	5,165.1	5,116.1	49.08	105.230	
2,200.0	2,138.7	2,258.2	2,258.2	9.2	42.8	72.48	2,871.2	4,460.9	5,155.0	5,103.4	51.60	99.900	
2,300.0	2,233.5	2,353.0	2,353.0	9.9	44.7	72.80	2,871.2	4,460.9	5,145.1	5,090.9	54.12	95.063	
2,400.0	2,328.3	2,447.8	2,447.8	10.5	46.6	73.12	2,871.2	4,460.9	5,135.3	5,078.7	56.65	90.655	
2,500.0	2,423.1	2,542.6	2,542.6	11.1	48.5	73.45	2,871.2	4,460.9	5,125.7	5,066.5	59.17	86.621	
2,600.0	2,517.9	2,637.4	2,637.4	11.8	50.4	73.77	2,871.2	4,460.9	5,116.3	5,054.6	61.70	82.917	
2,700.0	2,612.7	2,732.2	2,732.2	12.4	52.3	74.10	2,871.2	4,460.9	5,107.1	5,042.8	64.24	79.505	
2,800.0	2,707.6	2,827.1	2,827.1	13.0	54.2	74.42	2,871.2	4,460.9	5,098.0	5,031.2	66.77	76.351	
2,900.0	2,802.4	2,921.9	2,921.9	13.6	56.2	74.75	2,871.2	4,460.9	5,089.1	5,019.8	69.31	73.429	
3,000.0	2,897.2	3,016.7	3,016.7	14.3	58.1	75.08	2,871.2	4,460.9	5,080.4	5,008.6	71.85	70.713	
3,100.0	2,992.0	3,111.5	3,111.5	14.9	60.0	75.41	2,871.2	4,460.9	5,071.9	4,997.6	74.39	68.184	
3,200.0	3,086.8	3,206.3	3,206.3	15.5	61.9	75.74	2,871.2	4,460.9	5,063.6	4,986.7	76.93	65.822	
3,300.0	3,181.6	3,301.1	3,301.1	16.2	63.8	76.07	2,871.2	4,460.9	5,055.5	4,976.0	79.47	63.613	
3,400.0	3,276.5	3,396.0	3,396.0	16.8	65.7	76.41	2,871.2	4,460.9	5,047.5	4,965.5	82.02	61.541	
3,500.0	3,371.3	3,490.8	3,490.8	17.4	67.6	76.74	2,871.2	4,460.9	5,039.8	4,955.2	84.57	59.596	
3,600.0	3,466.1	3,585.6	3,585.6	18.1	69.5	77.08	2,871.2	4,460.9	5,032.2	4,945.1	87.11	57.765	
3,700.0	3,560.9	3,680.4	3,680.4	18.7	71.4	77.41	2,871.2	4,460.9	5,024.8	4,935.2	89.66	56.040	
3,800.0	3,655.7	3,775.2	3,775.2	19.3	73.3	77.75	2,871.2	4,460.9	5,017.6	4,925.4	92.22	54.412	
3,900.0	3,750.5	3,870.0	3,870.0	20.0	75.2	78.09	2,871.2	4,460.9	5,010.6	4,915.9	94.77	52.873	
4,000.0	3,845.4	3,964.9	3,964.9	20.6	77.1	78.42	2,871.2	4,460.9	5,003.8	4,906.5	97.32	51.415	
4,100.0	3,940.2	4,059.7	4,059.7	21.3	79.0	78.76	2,871.2	4,460.9	4,997.2	4,897.4	99.88	50.034	
4,200.0	4,035.0	4,154.5	4,154.5	21.9	80.9	79.10	2,871.2	4,460.9	4,990.8	4,888.4	102.43	48.723	
4,300.0	4,129.8	4,249.3	4,249.3	22.5	82.9	79.44	2,871.2	4,460.9	4,984.6	4,879.6	104.99	47.478	
4,400.0	4,224.6	4,344.1	4,344.1	23.2	84.8	79.79	2,871.2	4,460.9	4,978.6	4,871.0	107.55	46.293	
4,500.0	4,319.4	4,438.9	4,438.9	23.8	86.7	80.13	2,871.2	4,460.9	4,972.7	4,862.6	110.10	45.164	
4,600.0	4,414.3	4,533.8	4,533.8	24.4	88.6	80.47	2,871.2	4,460.9	4,967.1	4,854.4	112.66	44.089	
4,700.0	4,509.1	4,628.6	4,628.6	25.1	90.5	80.81	2,871.2	4,460.9	4,961.6	4,846.4	115.22	43.062	
4,800.0	4,603.9	4,723.4	4,723.4	25.7	92.4	81.16	2,871.2	4,460.9	4,956.4	4,838.6	117.78	42.082	
4,900.0	4,698.7	4,818.2	4,818.2	26.3	94.3	81.50	2,871.2	4,460.9	4,951.4	4,831.0	120.34	41.145	
5,000.0	4,793.5	4,913.0	4,913.0	27.0	96.2	81.85	2,871.2	4,460.9	4,946.5	4,823.6	122.90	40.249	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	5,007.8	5,007.8	27.6	98.1	82.20	2,871.2	4,460.9	4,941.9	4,816.4	125.46	39.390	
5,200.0	4,983.2	5,102.7	5,102.7	28.2	100.0	82.54	2,871.2	4,460.9	4,937.4	4,809.4	128.02	38.568	
5,300.0	5,078.0	5,197.5	5,197.5	28.9	101.9	82.89	2,871.2	4,460.9	4,933.2	4,802.6	130.58	37.779	
5,400.0	5,172.8	5,292.3	5,292.3	29.5	103.8	83.24	2,871.2	4,460.9	4,929.1	4,796.0	133.14	37.023	
5,454.5	5,224.5	5,344.0	5,344.0	29.9	104.9	83.43	2,871.2	4,460.9	4,927.0	4,792.5	134.53	36.623	
5,500.0	5,267.7	5,387.2	5,387.2	30.1	105.7	83.55	2,871.2	4,460.9	4,925.3	4,789.7	135.67	36.304	
5,600.0	5,363.5	5,483.0	5,483.0	30.6	107.7	83.80	2,871.2	4,460.9	4,922.0	4,784.0	138.07	35.649	
5,700.0	5,460.3	5,579.8	5,579.8	31.0	109.6	84.03	2,871.2	4,460.9	4,919.3	4,778.8	140.44	35.026	
5,800.0	5,557.9	5,677.4	5,677.4	31.3	111.6	84.23	2,871.2	4,460.9	4,917.0	4,774.2	142.79	34.435	
5,900.0	5,656.2	5,775.7	5,775.7	31.7	113.5	84.40	2,871.2	4,460.9	4,915.1	4,770.0	145.10	33.874	
6,000.0	5,755.0	5,874.5	5,874.5	31.9	115.5	84.55	2,871.2	4,460.9	4,913.7	4,766.3	147.38	33.341	
6,100.0	5,854.4	5,973.9	5,973.9	32.2	117.5	84.66	2,871.2	4,460.9	4,912.6	4,763.0	149.61	32.835	
6,200.0	5,954.0	6,073.5	6,073.5	32.4	119.5	84.74	2,871.2	4,460.9	4,911.8	4,760.0	151.81	32.355	
6,300.0	6,053.9	6,173.4	6,173.4	32.5	121.5	84.78	2,871.2	4,460.9	4,911.4	4,757.4	153.96	31.901	
6,380.9	6,134.8	6,254.3	6,254.3	32.6	123.2	74.81	2,871.2	4,460.9	4,911.3	4,770.8	140.49	34.958	
6,400.0	6,153.9	6,273.4	6,273.4	32.6	123.6	74.81	2,871.2	4,460.9	4,911.3	4,770.4	140.90	34.856	
6,410.9	6,164.8	6,284.3	6,284.3	32.6	123.8	74.81	2,871.2	4,460.9	4,911.3	4,770.2	141.14	34.797	
6,450.0	6,203.9	6,323.4	6,323.4	32.6	124.6	-15.21	2,871.2	4,460.9	4,910.3	4,753.4	156.91	31.294	
6,500.0	6,253.7	6,373.2	6,373.2	32.7	125.6	-15.32	2,871.2	4,460.9	4,906.0	4,748.9	157.04	31.240	
6,550.0	6,303.0	6,422.5	6,422.5	32.7	126.6	-15.51	2,871.2	4,460.9	4,898.3	4,741.9	156.44	31.312	
6,600.0	6,351.7	6,471.2	6,471.2	32.7	127.5	-15.79	2,871.2	4,460.9	4,887.4	4,732.3	155.10	31.510	
6,650.0	6,399.5	6,519.0	6,519.0	32.7	128.5	-16.16	2,871.2	4,460.9	4,873.2	4,720.1	153.05	31.841	
6,700.0	6,446.1	6,565.6	6,565.6	32.7	129.4	-16.64	2,871.2	4,460.9	4,855.8	4,705.5	150.29	32.309	
6,750.0	6,491.4	6,610.9	6,610.9	32.7	130.3	-17.23	2,871.2	4,460.9	4,835.3	4,688.4	146.87	32.921	
6,800.0	6,535.1	6,654.6	6,654.6	32.7	131.2	-17.96	2,871.2	4,460.9	4,811.9	4,669.0	142.85	33.684	
6,850.0	6,576.9	6,696.4	6,696.4	32.7	132.1	-18.85	2,871.2	4,460.9	4,785.5	4,647.2	138.32	34.599	
6,900.0	6,616.8	6,736.3	6,736.3	32.7	132.9	-19.91	2,871.2	4,460.9	4,756.5	4,623.1	133.38	35.662	
6,950.0	6,654.4	6,773.9	6,773.9	32.7	133.6	-21.20	2,871.2	4,460.9	4,724.8	4,596.6	128.20	36.854	
7,000.0	6,689.7	6,809.2	6,809.2	32.7	134.3	-22.75	2,871.2	4,460.9	4,690.8	4,567.7	123.04	38.125	
7,050.0	6,722.4	6,841.9	6,841.9	32.7	135.0	-24.63	2,871.2	4,460.9	4,654.4	4,536.2	118.21	39.375	
7,100.0	6,752.4	6,871.9	6,871.9	32.7	135.6	-26.92	2,871.2	4,460.9	4,616.0	4,501.8	114.17	40.431	
7,150.0	6,779.5	6,899.0	6,899.0	32.7	136.1	-29.73	2,871.2	4,460.9	4,575.7	4,464.2	111.53	41.027	
7,200.0	6,803.7	6,923.2	6,923.2	32.7	136.6	-33.22	2,871.2	4,460.9	4,533.7	4,422.7	111.02	40.837	
7,250.0	6,824.7	6,944.2	6,944.2	32.7	137.0	-37.58	2,871.2	4,460.9	4,490.2	4,376.8	113.40	39.595	
7,300.0	6,842.5	6,962.0	6,962.0	32.8	137.4	-43.07	2,871.2	4,460.9	4,445.5	4,326.2	119.26	37.274	
7,350.0	6,857.0	6,976.5	6,976.5	32.8	137.7	-50.00	2,871.2	4,460.9	4,399.7	4,271.1	128.63	34.206	
7,400.0	6,868.1	6,987.6	6,987.6	32.9	137.9	-58.64	2,871.2	4,460.9	4,353.1	4,212.7	140.48	30.987	
7,450.0	6,875.9	6,995.4	6,995.4	33.0	138.1	-69.09	2,871.2	4,460.9	4,306.0	4,153.6	152.38	28.259	
7,500.0	6,880.1	6,999.6	6,999.6	33.2	138.2	-81.02	2,871.2	4,460.9	4,258.5	4,097.9	160.60	26.515	
7,542.1	6,881.0	7,000.5	7,000.5	33.4	138.2	-91.56	2,871.2	4,460.9	4,218.3	4,056.1	162.29	25.993	
7,600.0	6,880.5	7,000.0	7,000.0	33.6	138.2	-91.54	2,871.2	4,460.9	4,163.3	4,000.0	163.33	25.491	
7,700.0	6,879.6	6,999.1	6,999.1	34.3	138.2	-91.50	2,871.2	4,460.9	4,068.3	3,903.0	165.25	24.619	
7,800.0	6,878.7	6,998.2	6,998.2	35.2	138.1	-91.46	2,871.2	4,460.9	3,973.6	3,806.2	167.32	23.748	
7,900.0	6,877.8	6,997.3	6,997.3	36.5	138.1	-91.42	2,871.2	4,460.9	3,879.1	3,709.6	169.50	22.885	
8,000.0	6,877.0	6,996.5	6,996.5	38.0	138.1	-91.38	2,871.2	4,460.9	3,784.9	3,613.1	171.77	22.034	
8,100.0	6,876.1	6,995.6	6,995.6	39.9	138.1	-91.34	2,871.2	4,460.9	3,691.0	3,516.9	174.12	21.198	
8,200.0	6,875.2	6,994.7	6,994.7	41.9	138.1	-91.30	2,871.2	4,460.9	3,597.5	3,420.9	176.52	20.380	
8,300.0	6,874.4	6,993.9	6,993.9	44.0	138.0	-91.27	2,871.2	4,460.9	3,504.3	3,325.3	178.98	19.579	
8,400.0	6,873.5	6,993.0	6,993.0	46.3	138.0	-91.23	2,871.2	4,460.9	3,411.4	3,230.0	181.47	18.798	
8,500.0	6,872.6	6,992.1	6,992.1	48.6	138.0	-91.19	2,871.2	4,460.9	3,319.1	3,135.0	184.01	18.038	
8,600.0	6,871.7	6,991.2	6,991.2	51.0	138.0	-91.15	2,871.2	4,460.9	3,227.1	3,040.5	186.57	17.297	
8,700.0	6,870.9	6,990.4	6,990.4	53.4	138.0	-91.11	2,871.2	4,460.9	3,135.7	2,946.5	189.15	16.578	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT HELEN 1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	6,870.0	6,989.5	6,989.5	55.9	138.0	-91.07	2,871.2	4,460.9	3,044.7	2,853.0	191.76	15.878	
8,900.0	6,869.1	6,988.6	6,988.6	58.5	137.9	-91.03	2,871.2	4,460.9	2,954.4	2,760.0	194.38	15.199	
9,000.0	6,868.3	6,987.8	6,987.8	61.0	137.9	-90.99	2,871.2	4,460.9	2,864.7	2,667.7	197.02	14.540	
9,100.0	6,867.4	6,986.9	6,986.9	63.6	137.9	-90.95	2,871.2	4,460.9	2,775.8	2,576.1	199.68	13.901	
9,200.0	6,866.5	6,986.0	6,986.0	66.2	137.9	-90.92	2,871.2	4,460.9	2,687.6	2,485.2	202.34	13.282	
9,300.0	6,865.6	6,985.1	6,985.1	68.8	137.9	-90.88	2,871.2	4,460.9	2,600.2	2,395.2	205.02	12.683	
9,400.0	6,864.8	6,984.3	6,984.3	71.5	137.9	-90.84	2,871.2	4,460.9	2,513.8	2,306.1	207.70	12.103	
9,500.0	6,863.9	6,983.4	6,983.4	74.1	137.8	-90.80	2,871.2	4,460.9	2,428.4	2,218.0	210.40	11.542	
9,600.0	6,863.0	6,982.5	6,982.5	76.8	137.8	-90.76	2,871.2	4,460.9	2,344.2	2,131.1	213.10	11.001	
9,700.0	6,862.2	6,981.7	6,981.7	79.4	137.8	-90.72	2,871.2	4,460.9	2,261.3	2,045.5	215.81	10.478	
9,800.0	6,861.3	6,980.8	6,980.8	82.1	137.8	-90.68	2,871.2	4,460.9	2,179.8	1,961.3	218.52	9.975	
9,900.0	6,860.4	6,979.9	6,979.9	84.8	137.8	-90.64	2,871.2	4,460.9	2,099.9	1,878.7	221.24	9.492	
10,000.0	6,859.5	6,979.0	6,979.0	87.5	137.7	-90.60	2,871.2	4,460.9	2,021.9	1,797.9	223.96	9.028	
10,100.0	6,858.7	6,978.2	6,978.2	90.2	137.7	-90.57	2,871.2	4,460.9	1,945.8	1,719.1	226.69	8.583	
10,200.0	6,857.8	6,977.3	6,977.3	92.9	137.7	-90.53	2,871.2	4,460.9	1,871.9	1,642.5	229.43	8.159	
10,300.0	6,856.9	6,976.4	6,976.4	95.6	137.7	-90.49	2,871.2	4,460.9	1,800.6	1,568.4	232.16	7.756	
10,400.0	6,856.1	6,975.6	6,975.6	98.4	137.7	-90.45	2,871.2	4,460.9	1,732.1	1,497.2	234.90	7.374	
10,500.0	6,855.2	6,974.7	6,974.7	101.1	137.7	-90.41	2,871.2	4,460.9	1,666.9	1,429.2	237.64	7.014	
10,600.0	6,854.3	6,973.8	6,973.8	103.8	137.6	-90.37	2,871.2	4,460.9	1,605.1	1,364.8	240.39	6.677	
10,700.0	6,853.5	6,973.0	6,973.0	106.5	137.6	-90.33	2,871.2	4,460.9	1,547.4	1,304.3	243.14	6.365	
10,800.0	6,852.6	6,972.1	6,972.1	109.3	137.6	-90.29	2,871.2	4,460.9	1,494.2	1,248.3	245.89	6.077	
10,900.0	6,851.7	6,971.2	6,971.2	112.0	137.6	-90.26	2,871.2	4,460.9	1,446.0	1,197.3	248.64	5.815	
11,000.0	6,850.9	6,970.4	6,970.4	114.8	137.6	-90.22	2,871.2	4,460.9	1,403.2	1,151.8	251.39	5.582	
11,100.0	6,850.0	6,969.5	6,969.5	117.5	137.6	-90.18	2,871.2	4,460.9	1,366.4	1,112.2	254.15	5.376	
11,200.0	6,849.1	6,968.6	6,968.6	120.3	137.5	-90.14	2,871.2	4,460.9	1,336.1	1,079.2	256.91	5.201	
11,300.0	6,848.2	6,967.7	6,967.7	123.0	137.5	-90.10	2,871.2	4,460.9	1,312.7	1,053.0	259.66	5.055	
11,400.0	6,847.4	6,966.9	6,966.9	125.8	137.5	-90.06	2,871.2	4,460.9	1,296.6	1,034.2	262.43	4.941	
11,500.0	6,846.5	6,966.0	6,966.0	128.5	137.5	-90.02	2,871.2	4,460.9	1,288.1	1,023.0	265.19	4.857	
11,559.6	6,846.0	6,965.5	6,965.5	130.2	137.5	-90.00	2,871.2	4,460.9	1,286.8	1,019.9	266.83	4.822 CC	
11,600.0	6,845.6	6,965.1	6,965.1	131.3	137.5	-89.98	2,871.2	4,460.9	1,287.4	1,019.4	267.95	4.805 ES	
11,700.0	6,844.8	6,964.3	6,964.3	134.1	137.5	-89.95	2,871.2	4,460.9	1,294.4	1,023.7	270.71	4.781 SF	
11,800.0	6,843.9	6,963.4	6,963.4	136.8	137.4	-89.91	2,871.2	4,460.9	1,309.0	1,035.5	273.48	4.787	
11,900.0	6,843.0	6,962.5	6,962.5	139.6	137.4	-89.87	2,871.2	4,460.9	1,331.0	1,054.8	276.25	4.818	
12,000.0	6,842.2	6,961.7	6,961.7	142.4	137.4	-89.83	2,871.2	4,460.9	1,360.0	1,081.0	279.01	4.874	
12,100.0	6,841.3	6,960.8	6,960.8	145.1	137.4	-89.79	2,871.2	4,460.9	1,395.6	1,113.8	281.78	4.953	
12,133.9	6,841.0	6,960.5	6,960.5	146.1	137.4	-89.78	2,871.2	4,460.9	1,409.1	1,126.4	282.72	4.984	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	35.5	35.5	0.0	0.2	9.47	1,821.5	303.7	1,846.7				
100.0	100.0	135.5	135.5	0.1	1.5	9.47	1,821.5	303.7	1,846.7	1,845.1	1.64	1,128.885	
200.0	200.0	235.5	235.5	0.3	3.8	9.47	1,821.5	303.7	1,846.7	1,842.5	4.16	443.761	
300.0	300.0	335.5	335.5	0.5	5.9	9.47	1,821.5	303.7	1,846.7	1,840.2	6.45	286.151	
400.0	400.0	435.5	435.5	0.8	7.9	9.47	1,821.5	303.7	1,846.7	1,838.0	8.72	211.894	
500.0	500.0	535.5	535.5	1.0	10.0	19.48	1,821.5	303.7	1,845.1	1,834.1	10.96	168.323	
600.0	599.8	635.3	635.3	1.2	12.0	19.56	1,821.5	303.7	1,840.1	1,826.9	13.19	139.551	
700.0	699.5	735.0	735.0	1.5	14.0	19.71	1,821.5	303.7	1,831.9	1,816.5	15.38	119.083	
800.0	798.7	834.2	834.2	1.7	16.0	19.92	1,821.5	303.7	1,820.4	1,802.9	17.55	103.733	
900.0	897.5	933.0	933.0	2.0	18.0	20.19	1,821.5	303.7	1,805.7	1,786.0	19.68	91.758	
1,000.0	995.6	1,031.1	1,031.1	2.4	20.0	20.53	1,821.5	303.7	1,787.8	1,766.0	21.77	82.126	
1,100.0	1,093.1	1,128.6	1,128.6	2.8	21.9	20.94	1,821.5	303.7	1,766.7	1,742.9	23.82	74.183	
1,200.0	1,189.6	1,225.1	1,225.1	3.3	23.9	21.42	1,821.5	303.7	1,742.4	1,716.6	25.82	67.495	
1,300.0	1,285.3	1,320.8	1,320.8	3.8	25.8	21.99	1,821.5	303.7	1,715.1	1,687.3	27.77	61.763	
1,326.4	1,310.3	1,345.8	1,345.8	3.9	26.3	22.15	1,821.5	303.7	1,707.4	1,679.1	28.28	60.381	
1,400.0	1,380.1	1,415.6	1,415.6	4.3	27.7	22.45	1,821.5	303.7	1,685.6	1,655.7	29.88	56.413	
1,500.0	1,474.9	1,510.4	1,510.4	4.9	29.6	22.86	1,821.5	303.7	1,656.1	1,624.0	32.07	51.641	
1,600.0	1,569.8	1,605.3	1,605.3	5.5	31.5	23.30	1,821.5	303.7	1,626.6	1,592.3	34.27	47.465	
1,700.0	1,664.6	1,700.1	1,700.1	6.1	33.4	23.74	1,821.5	303.7	1,597.2	1,560.7	36.48	43.782	
1,800.0	1,759.4	1,794.9	1,794.9	6.8	35.3	24.21	1,821.5	303.7	1,567.9	1,529.2	38.70	40.511	
1,900.0	1,854.2	1,889.7	1,889.7	7.4	37.2	24.69	1,821.5	303.7	1,538.8	1,497.8	40.94	37.589	
2,000.0	1,949.0	1,984.5	1,984.5	8.0	39.2	25.19	1,821.5	303.7	1,509.7	1,466.5	43.18	34.963	
2,100.0	2,043.8	2,079.3	2,079.3	8.6	41.1	25.70	1,821.5	303.7	1,480.7	1,435.3	45.43	32.592	
2,200.0	2,138.7	2,174.2	2,174.2	9.2	43.0	26.24	1,821.5	303.7	1,451.9	1,404.2	47.70	30.440	
2,300.0	2,233.5	2,269.0	2,269.0	9.9	44.9	26.80	1,821.5	303.7	1,423.1	1,373.2	49.97	28.479	
2,400.0	2,328.3	2,363.8	2,363.8	10.5	46.8	27.39	1,821.5	303.7	1,394.5	1,342.3	52.26	26.686	
2,500.0	2,423.1	2,458.6	2,458.6	11.1	48.7	27.99	1,821.5	303.7	1,366.1	1,311.5	54.56	25.040	
2,600.0	2,517.9	2,553.4	2,553.4	11.8	50.6	28.62	1,821.5	303.7	1,337.8	1,280.9	56.87	23.525	
2,700.0	2,612.7	2,648.2	2,648.2	12.4	52.5	29.28	1,821.5	303.7	1,309.7	1,250.5	59.19	22.125	
2,800.0	2,707.6	2,743.1	2,743.1	13.0	54.4	29.97	1,821.5	303.7	1,281.7	1,220.2	61.53	20.830	
2,900.0	2,802.4	2,837.9	2,837.9	13.6	56.3	30.68	1,821.5	303.7	1,253.9	1,190.0	63.89	19.627	
3,000.0	2,897.2	2,932.7	2,932.7	14.3	58.2	31.43	1,821.5	303.7	1,226.3	1,160.0	66.26	18.508	
3,100.0	2,992.0	3,027.5	3,027.5	14.9	60.1	32.21	1,821.5	303.7	1,198.9	1,130.3	68.64	17.465	
3,200.0	3,086.8	3,122.3	3,122.3	15.5	62.0	33.03	1,821.5	303.7	1,171.7	1,100.7	71.05	16.492	
3,300.0	3,181.6	3,217.1	3,217.1	16.2	63.9	33.88	1,821.5	303.7	1,144.8	1,071.3	73.48	15.581	
3,400.0	3,276.5	3,312.0	3,312.0	16.8	65.9	34.77	1,821.5	303.7	1,118.1	1,042.2	75.92	14.727	
3,500.0	3,371.3	3,406.8	3,406.8	17.4	67.8	35.71	1,821.5	303.7	1,091.7	1,013.3	78.39	13.927	
3,600.0	3,466.1	3,501.6	3,501.6	18.1	69.7	36.69	1,821.5	303.7	1,065.6	984.7	80.88	13.175	
3,700.0	3,560.9	3,596.4	3,596.4	18.7	71.6	37.71	1,821.5	303.7	1,039.8	956.4	83.40	12.468	
3,800.0	3,655.7	3,691.2	3,691.2	19.3	73.5	38.79	1,821.5	303.7	1,014.4	928.4	85.94	11.803	
3,900.0	3,750.5	3,786.0	3,786.0	20.0	75.4	39.92	1,821.5	303.7	989.3	900.8	88.51	11.177	
4,000.0	3,845.4	3,880.9	3,880.9	20.6	77.3	41.10	1,821.5	303.7	964.6	873.5	91.11	10.587	
4,100.0	3,940.2	3,975.7	3,975.7	21.3	79.2	42.34	1,821.5	303.7	940.3	846.6	93.74	10.032	
4,200.0	4,035.0	4,070.5	4,070.5	21.9	81.1	43.65	1,821.5	303.7	916.5	820.1	96.40	9.508	
4,300.0	4,129.8	4,165.3	4,165.3	22.5	83.0	45.02	1,821.5	303.7	893.2	794.1	99.09	9.014	
4,400.0	4,224.6	4,260.1	4,260.1	23.2	84.9	46.46	1,821.5	303.7	870.4	768.6	101.82	8.549	
4,500.0	4,319.4	4,354.9	4,354.9	23.8	86.8	47.97	1,821.5	303.7	848.2	743.7	104.57	8.111	
4,600.0	4,414.3	4,449.8	4,449.8	24.4	88.7	49.56	1,821.5	303.7	826.7	719.3	107.37	7.699	
4,700.0	4,509.1	4,544.6	4,544.6	25.1	90.6	51.23	1,821.5	303.7	805.8	695.6	110.19	7.312	
4,800.0	4,603.9	4,639.4	4,639.4	25.7	92.5	52.97	1,821.5	303.7	785.6	672.6	113.05	6.949	
4,900.0	4,698.7	4,734.2	4,734.2	26.3	94.5	54.81	1,821.5	303.7	766.2	650.3	115.94	6.609	
5,000.0	4,793.5	4,829.0	4,829.0	27.0	96.4	56.73	1,821.5	303.7	747.7	628.8	118.86	6.291	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	4,923.8	4,923.8	27.6	98.3	58.73	1,821.5	303.7	730.1	608.3	121.80	5.994	
5,200.0	4,983.2	5,018.7	5,018.7	28.2	100.2	60.83	1,821.5	303.7	713.4	588.7	124.77	5.718	
5,300.0	5,078.0	5,113.5	5,113.5	28.9	102.1	63.01	1,821.5	303.7	697.9	570.1	127.75	5.463	
5,400.0	5,172.8	5,208.3	5,208.3	29.5	104.0	65.29	1,821.5	303.7	683.4	552.7	130.73	5.227	
5,454.5	5,224.5	5,260.0	5,260.0	29.9	105.0	66.56	1,821.5	303.7	676.0	543.7	132.36	5.107	
5,500.0	5,267.7	5,303.2	5,303.2	30.1	105.9	67.52	1,821.5	303.7	670.3	536.5	133.73	5.012	
5,600.0	5,363.5	5,399.0	5,399.0	30.6	107.8	69.52	1,821.5	303.7	659.4	522.8	136.59	4.828	
5,700.0	5,460.3	5,495.8	5,495.8	31.0	109.8	71.38	1,821.5	303.7	650.7	511.4	139.33	4.670	
5,800.0	5,557.9	5,593.4	5,593.4	31.3	111.7	73.05	1,821.5	303.7	643.9	501.9	141.95	4.536	
5,900.0	5,656.2	5,691.7	5,691.7	31.7	113.7	74.51	1,821.5	303.7	638.7	494.2	144.48	4.420	
6,000.0	5,755.0	5,790.5	5,790.5	31.9	115.7	75.72	1,821.5	303.7	634.8	487.9	146.91	4.321	
6,100.0	5,854.4	5,889.9	5,889.9	32.2	117.7	76.67	1,821.5	303.7	632.0	482.7	149.25	4.234	
6,200.0	5,954.0	5,989.5	5,989.5	32.4	119.7	77.35	1,821.5	303.7	630.2	478.7	151.51	4.159	
6,300.0	6,053.9	6,089.4	6,089.4	32.5	121.7	77.73	1,821.5	303.7	629.2	475.5	153.70	4.094	
6,380.9	6,134.8	6,170.3	6,170.3	32.6	123.3	67.85	1,821.5	303.7	628.9	487.5	141.41	4.448	
6,400.0	6,153.9	6,189.4	6,189.4	32.6	123.7	67.85	1,821.5	303.7	628.9	487.1	141.82	4.435	
6,410.9	6,164.8	6,200.3	6,200.3	32.6	123.9	67.85	1,821.5	303.7	628.9	486.9	142.06	4.427	
6,450.0	6,203.9	6,239.4	6,239.4	32.6	124.7	-22.22	1,821.5	303.7	628.0	471.3	156.68	4.008	
6,500.0	6,253.7	6,289.2	6,289.2	32.7	125.7	-22.50	1,821.5	303.7	623.8	467.0	156.87	3.977	
6,550.0	6,303.0	6,338.5	6,338.5	32.7	126.7	-23.01	1,821.5	303.7	616.5	460.1	156.38	3.942	
6,600.0	6,351.7	6,387.2	6,387.2	32.7	127.7	-23.77	1,821.5	303.7	606.0	450.8	155.22	3.904	
6,650.0	6,399.5	6,435.0	6,435.0	32.7	128.7	-24.81	1,821.5	303.7	592.5	439.1	153.45	3.861	
6,700.0	6,446.1	6,481.6	6,481.6	32.7	129.6	-26.16	1,821.5	303.7	576.0	424.9	151.13	3.812	
6,750.0	6,491.4	6,526.9	6,526.9	32.7	130.5	-27.88	1,821.5	303.7	556.8	408.4	148.40	3.752	
6,800.0	6,535.1	6,570.6	6,570.6	32.7	131.4	-30.02	1,821.5	303.7	534.8	389.4	145.43	3.678	
6,850.0	6,576.9	6,612.4	6,612.4	32.7	132.2	-32.68	1,821.5	303.7	510.5	368.0	142.50	3.582	
6,900.0	6,616.8	6,652.3	6,652.3	32.7	133.0	-35.93	1,821.5	303.7	484.0	344.0	139.97	3.458	
6,950.0	6,654.4	6,689.9	6,689.9	32.7	133.8	-39.87	1,821.5	303.7	455.6	317.3	138.28	3.295	
7,000.0	6,689.7	6,725.2	6,725.2	32.7	134.5	-44.59	1,821.5	303.7	425.8	287.8	137.93	3.087	
7,050.0	6,722.4	6,757.9	6,757.9	32.7	135.2	-50.12	1,821.5	303.7	394.9	255.7	139.26	2.836	
7,100.0	6,752.4	6,787.9	6,787.9	32.7	135.8	-56.38	1,821.5	303.7	363.7	221.4	142.30	2.556	
7,150.0	6,779.5	6,815.0	6,815.0	32.7	136.3	-63.17	1,821.5	303.7	333.0	186.5	146.54	2.273	
7,200.0	6,803.7	6,839.2	6,839.2	32.7	136.8	-70.09	1,821.5	303.7	303.9	152.8	151.07	2.012	
7,250.0	6,824.7	6,860.2	6,860.2	32.7	137.2	-76.66	1,821.5	303.7	277.8	122.9	154.94	1.793	
7,300.0	6,842.5	6,878.0	6,878.0	32.8	137.6	-82.39	1,821.5	303.7	256.6	99.0	157.63	1.628	
7,350.0	6,857.0	6,892.5	6,892.5	32.8	137.9	-86.89	1,821.5	303.7	242.4	83.2	159.21	1.523	
7,400.0	6,868.1	6,903.6	6,903.6	32.9	138.1	-89.94	1,821.5	303.7	237.2	77.0	160.11	1.481	Level 3
7,401.4	6,868.4	6,903.9	6,903.9	32.9	138.1	-90.00	1,821.5	303.7	237.1	77.0	160.13	1.481	Level 3, CC, ES, SF
7,450.0	6,875.9	6,911.4	6,911.4	33.0	138.2	-91.39	1,821.5	303.7	242.0	81.1	160.86	1.504	
7,500.0	6,880.1	6,915.6	6,915.6	33.2	138.3	-91.18	1,821.5	303.7	256.5	94.7	161.78	1.586	
7,542.1	6,881.0	6,916.5	6,916.5	33.4	138.3	-89.70	1,821.5	303.7	275.4	112.7	162.68	1.693	
7,600.0	6,880.5	6,916.0	6,916.0	33.6	138.3	-89.58	1,821.5	303.7	308.8	145.1	163.72	1.886	
7,700.0	6,879.6	6,915.1	6,915.1	34.3	138.3	-89.37	1,821.5	303.7	380.7	215.0	165.65	2.298	
7,800.0	6,878.7	6,914.2	6,914.2	35.2	138.3	-89.16	1,821.5	303.7	463.1	295.4	167.73	2.761	
7,900.0	6,877.8	6,913.3	6,913.3	36.5	138.3	-88.95	1,821.5	303.7	551.4	381.5	169.90	3.245	
8,000.0	6,877.0	6,912.5	6,912.5	38.0	138.3	-88.74	1,821.5	303.7	643.1	470.9	172.17	3.735	
8,100.0	6,876.1	6,911.6	6,911.6	39.9	138.2	-88.53	1,821.5	303.7	737.0	562.5	174.51	4.223	
8,200.0	6,875.2	6,910.7	6,910.7	41.9	138.2	-88.32	1,821.5	303.7	832.3	655.4	176.91	4.705	
8,300.0	6,874.4	6,909.9	6,909.9	44.0	138.2	-88.11	1,821.5	303.7	928.6	749.2	179.35	5.177	
8,400.0	6,873.5	6,909.0	6,909.0	46.3	138.2	-87.90	1,821.5	303.7	1,025.5	843.7	181.83	5.640	
8,500.0	6,872.6	6,908.1	6,908.1	48.6	138.2	-87.69	1,821.5	303.7	1,123.1	938.7	184.34	6.092	
8,600.0	6,871.7	6,907.2	6,907.2	51.0	138.2	-87.48	1,821.5	303.7	1,221.0	1,034.1	186.88	6.534	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 13-28 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	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
8,700.0	6,870.9	6,906.4	6,906.4	53.4	138.1	-87.27	1,821.5	303.7	1,319.2	1,129.8	189.44	6.964	
8,800.0	6,870.0	6,905.5	6,905.5	55.9	138.1	-87.06	1,821.5	303.7	1,417.7	1,225.7	192.02	7.383	
8,900.0	6,869.1	6,904.6	6,904.6	58.5	138.1	-86.85	1,821.5	303.7	1,516.4	1,321.8	194.61	7.792	
9,000.0	6,868.3	6,903.8	6,903.8	61.0	138.1	-86.64	1,821.5	303.7	1,615.2	1,418.0	197.22	8.190	
9,100.0	6,867.4	6,902.9	6,902.9	63.6	138.1	-86.43	1,821.5	303.7	1,714.2	1,514.4	199.83	8.578	
9,200.0	6,866.5	6,902.0	6,902.0	66.2	138.1	-86.22	1,821.5	303.7	1,813.3	1,610.8	202.45	8.957	
9,300.0	6,865.6	6,901.1	6,901.1	68.8	138.0	-86.01	1,821.5	303.7	1,912.5	1,707.4	205.09	9.325	
9,400.0	6,864.8	6,900.3	6,900.3	71.5	138.0	-85.80	1,821.5	303.7	2,011.7	1,804.0	207.72	9.685	
9,500.0	6,863.9	6,899.4	6,899.4	74.1	138.0	-85.60	1,821.5	303.7	2,111.1	1,900.7	210.36	10.035	
9,600.0	6,863.0	6,898.5	6,898.5	76.8	138.0	-85.39	1,821.5	303.7	2,210.5	1,997.5	213.00	10.378	
9,700.0	6,862.2	6,897.7	6,897.7	79.4	138.0	-85.18	1,821.5	303.7	2,309.9	2,094.3	215.65	10.711	
9,800.0	6,861.3	6,896.8	6,896.8	82.1	137.9	-84.97	1,821.5	303.7	2,409.4	2,191.1	218.30	11.037	
9,900.0	6,860.4	6,895.9	6,895.9	84.8	137.9	-84.76	1,821.5	303.7	2,508.9	2,288.0	220.95	11.355	
10,000.0	6,859.5	6,895.0	6,895.0	87.5	137.9	-84.55	1,821.5	303.7	2,608.5	2,384.9	223.60	11.666	
10,100.0	6,858.7	6,894.2	6,894.2	90.2	137.9	-84.35	1,821.5	303.7	2,708.1	2,481.8	226.24	11.970	
10,200.0	6,857.8	6,893.3	6,893.3	92.9	137.9	-84.14	1,821.5	303.7	2,807.7	2,578.8	228.89	12.267	
10,300.0	6,856.9	6,892.4	6,892.4	95.6	137.9	-83.93	1,821.5	303.7	2,907.4	2,675.8	231.54	12.557	
10,400.0	6,856.1	6,891.6	6,891.6	98.4	137.8	-83.72	1,821.5	303.7	3,007.0	2,772.9	234.19	12.840	
10,500.0	6,855.2	6,890.7	6,890.7	101.1	137.8	-83.52	1,821.5	303.7	3,106.7	2,869.9	236.83	13.118	
10,600.0	6,854.3	6,889.8	6,889.8	103.8	137.8	-83.31	1,821.5	303.7	3,206.5	2,967.0	239.47	13.390	
10,700.0	6,853.5	6,889.0	6,889.0	106.5	137.8	-83.10	1,821.5	303.7	3,306.2	3,064.1	242.11	13.656	
10,800.0	6,852.6	6,888.1	6,888.1	109.3	137.8	-82.90	1,821.5	303.7	3,405.9	3,161.2	244.75	13.916	
10,900.0	6,851.7	6,887.2	6,887.2	112.0	137.8	-82.69	1,821.5	303.7	3,505.7	3,258.3	247.38	14.171	
11,000.0	6,850.9	6,886.4	6,886.4	114.8	137.7	-82.49	1,821.5	303.7	3,605.5	3,355.4	250.01	14.421	
11,100.0	6,850.0	6,885.5	6,885.5	117.5	137.7	-82.28	1,821.5	303.7	3,705.2	3,452.6	252.64	14.666	
11,200.0	6,849.1	6,884.6	6,884.6	120.3	137.7	-82.08	1,821.5	303.7	3,805.0	3,549.8	255.27	14.906	
11,300.0	6,848.2	6,883.7	6,883.7	123.0	137.7	-81.87	1,821.5	303.7	3,904.9	3,647.0	257.89	15.142	
11,400.0	6,847.4	6,882.9	6,882.9	125.8	137.7	-81.67	1,821.5	303.7	4,004.7	3,744.2	260.50	15.373	
11,500.0	6,846.5	6,882.0	6,882.0	128.5	137.6	-81.46	1,821.5	303.7	4,104.5	3,841.4	263.11	15.600	
11,600.0	6,845.6	6,881.1	6,881.1	131.3	137.6	-81.26	1,821.5	303.7	4,204.3	3,938.6	265.72	15.822	
11,700.0	6,844.8	6,880.3	6,880.3	134.1	137.6	-81.05	1,821.5	303.7	4,304.2	4,035.8	268.32	16.041	
11,800.0	6,843.9	6,879.4	6,879.4	136.8	137.6	-80.85	1,821.5	303.7	4,404.0	4,133.1	270.92	16.256	
11,900.0	6,843.0	6,878.5	6,878.5	139.6	137.6	-80.65	1,821.5	303.7	4,503.9	4,230.4	273.52	16.467	
12,000.0	6,842.2	6,877.7	6,877.7	142.4	137.6	-80.44	1,821.5	303.7	4,603.7	4,327.6	276.10	16.674	
12,100.0	6,841.3	6,876.8	6,876.8	145.1	137.5	-80.24	1,821.5	303.7	4,703.6	4,424.9	278.69	16.878	
12,133.9	6,841.0	6,876.5	6,876.5	146.1	137.5	-80.17	1,821.5	303.7	4,737.4	4,457.8	279.56	16.946	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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	84.63	36.4	387.3	389.1				
100.0	100.0	92.5	92.5	0.1	1.2	84.63	36.4	387.3	389.1	387.8	1.25	310.048	
200.0	200.0	192.5	192.5	0.3	3.4	84.63	36.4	387.3	389.1	385.4	3.68	105.704	
300.0	300.0	292.5	292.5	0.5	5.5	84.63	36.4	387.3	389.1	383.1	6.00	64.867	
400.0	400.0	392.5	392.5	0.8	7.5	84.63	36.4	387.3	389.1	380.8	8.27	47.061 CC	
500.0	500.0	492.5	492.5	1.0	9.5	94.86	36.4	387.3	389.2	378.7	10.52	36.994	
600.0	599.8	592.3	592.3	1.2	11.5	95.62	36.4	387.3	389.7	376.9	12.77	30.520	
700.0	699.5	692.0	692.0	1.5	13.6	96.86	36.4	387.3	390.6	375.6	15.02	26.007	
800.0	798.7	791.2	791.2	1.7	15.6	98.59	36.4	387.3	392.3	375.0	17.29	22.694 ES	
900.0	897.5	890.0	890.0	2.0	17.6	100.75	36.4	387.3	394.9	375.4	19.57	20.180	
1,000.0	995.6	988.1	988.1	2.4	19.5	103.32	36.4	387.3	399.0	377.1	21.88	18.238	
1,100.0	1,093.1	1,085.6	1,085.6	2.8	21.5	106.23	36.4	387.3	404.9	380.7	24.20	16.732	
1,200.0	1,189.6	1,182.1	1,182.1	3.3	23.4	109.42	36.4	387.3	413.1	386.5	26.52	15.575	
1,300.0	1,285.3	1,277.8	1,277.8	3.8	25.4	112.81	36.4	387.3	424.0	395.2	28.83	14.710	
1,326.4	1,310.3	1,302.8	1,302.8	3.9	25.9	113.72	36.4	387.3	427.4	398.0	29.43	14.524	
1,400.0	1,380.1	1,372.6	1,372.6	4.3	27.3	116.41	36.4	387.3	437.8	406.6	31.13	14.064	
1,500.0	1,474.9	1,467.4	1,467.4	4.9	29.2	119.87	36.4	387.3	453.4	420.0	33.41	13.569	
1,600.0	1,569.8	1,562.3	1,562.3	5.5	31.1	123.10	36.4	387.3	470.6	435.0	35.67	13.193	
1,700.0	1,664.6	1,657.1	1,657.1	6.1	33.0	126.12	36.4	387.3	489.3	451.4	37.90	12.910	
1,800.0	1,759.4	1,751.9	1,751.9	6.8	34.9	128.92	36.4	387.3	509.4	469.2	40.11	12.699	
1,900.0	1,854.2	1,846.7	1,846.7	7.4	36.8	131.51	36.4	387.3	530.5	488.2	42.29	12.544	
2,000.0	1,949.0	1,941.5	1,941.5	8.0	38.7	133.91	36.4	387.3	552.7	508.2	44.45	12.433	
2,100.0	2,043.8	2,036.3	2,036.3	8.6	40.6	136.14	36.4	387.3	575.7	529.1	46.60	12.355	
2,200.0	2,138.7	2,131.2	2,131.2	9.2	42.5	138.19	36.4	387.3	599.6	550.9	48.73	12.305	
2,300.0	2,233.5	2,226.0	2,226.0	9.9	44.4	140.10	36.4	387.3	624.2	573.3	50.85	12.275	
2,400.0	2,328.3	2,320.8	2,320.8	10.5	46.3	141.86	36.4	387.3	649.4	596.4	52.96	12.262	
2,500.0	2,423.1	2,415.6	2,415.6	11.1	48.3	143.50	36.4	387.3	675.1	620.1	55.06	12.262	
2,600.0	2,517.9	2,510.4	2,510.4	11.8	50.2	145.02	36.4	387.3	701.4	644.2	57.16	12.272	
2,700.0	2,612.7	2,605.2	2,605.2	12.4	52.1	146.43	36.4	387.3	728.1	668.8	59.25	12.289	
2,800.0	2,707.6	2,700.1	2,700.1	13.0	54.0	147.74	36.4	387.3	755.2	693.8	61.33	12.312	
2,900.0	2,802.4	2,794.9	2,794.9	13.6	55.9	148.97	36.4	387.3	782.6	719.2	63.42	12.340	
3,000.0	2,897.2	2,889.7	2,889.7	14.3	57.8	150.11	36.4	387.3	810.4	744.9	65.50	12.372	
3,100.0	2,992.0	2,984.5	2,984.5	14.9	59.7	151.18	36.4	387.3	838.4	770.8	67.58	12.406	
3,200.0	3,086.8	3,079.3	3,079.3	15.5	61.6	152.18	36.4	387.3	866.7	797.0	69.66	12.442	
3,300.0	3,181.6	3,174.1	3,174.1	16.2	63.5	153.12	36.4	387.3	895.2	823.5	71.74	12.479	
3,400.0	3,276.5	3,269.0	3,269.0	16.8	65.4	154.00	36.4	387.3	924.0	850.2	73.82	12.517	
3,500.0	3,371.3	3,363.8	3,363.8	17.4	67.3	154.83	36.4	387.3	952.9	877.0	75.90	12.555	
3,600.0	3,466.1	3,458.6	3,458.6	18.1	69.2	155.61	36.4	387.3	982.0	904.0	77.98	12.593	
3,700.0	3,560.9	3,553.4	3,553.4	18.7	71.1	156.35	36.4	387.3	1,011.3	931.2	80.06	12.632	
3,800.0	3,655.7	3,648.2	3,648.2	19.3	73.0	157.05	36.4	387.3	1,040.7	958.6	82.14	12.670	
3,900.0	3,750.5	3,743.0	3,743.0	20.0	75.0	157.71	36.4	387.3	1,070.3	986.0	84.22	12.707	
4,000.0	3,845.4	3,837.9	3,837.9	20.6	76.9	158.33	36.4	387.3	1,099.9	1,013.6	86.31	12.745	
4,100.0	3,940.2	3,932.7	3,932.7	21.3	78.8	158.92	36.4	387.3	1,129.7	1,041.3	88.39	12.781	
4,200.0	4,035.0	4,027.5	4,027.5	21.9	80.7	159.48	36.4	387.3	1,159.6	1,069.2	90.48	12.817	
4,300.0	4,129.8	4,122.3	4,122.3	22.5	82.6	160.02	36.4	387.3	1,189.6	1,097.1	92.56	12.852	
4,400.0	4,224.6	4,217.1	4,217.1	23.2	84.5	160.52	36.4	387.3	1,219.7	1,125.1	94.65	12.887	
4,500.0	4,319.4	4,311.9	4,311.9	23.8	86.4	161.01	36.4	387.3	1,249.9	1,153.1	96.74	12.920	
4,600.0	4,414.3	4,406.8	4,406.8	24.4	88.3	161.47	36.4	387.3	1,280.1	1,181.3	98.83	12.953	
4,700.0	4,509.1	4,501.6	4,501.6	25.1	90.2	161.91	36.4	387.3	1,310.4	1,209.5	100.92	12.986	
4,800.0	4,603.9	4,596.4	4,596.4	25.7	92.1	162.33	36.4	387.3	1,340.8	1,237.8	103.01	13.017	
4,900.0	4,698.7	4,691.2	4,691.2	26.3	94.0	162.73	36.4	387.3	1,371.3	1,266.2	105.10	13.048	
5,000.0	4,793.5	4,786.0	4,786.0	27.0	95.9	163.11	36.4	387.3	1,401.8	1,294.6	107.19	13.077	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.0	4,888.3	4,880.8	4,880.8	27.6	97.8	163.48	36.4	387.3	1,432.4	1,323.1	109.29	13.107		
5,200.0	4,983.2	4,975.7	4,975.7	28.2	99.7	163.83	36.4	387.3	1,463.0	1,351.6	111.38	13.135		
5,300.0	5,078.0	5,070.5	5,070.5	28.9	101.6	164.17	36.4	387.3	1,493.6	1,380.2	113.48	13.163		
5,400.0	5,172.8	5,165.3	5,165.3	29.5	103.6	164.49	36.4	387.3	1,524.3	1,408.8	115.57	13.189		
5,454.5	5,224.5	5,217.0	5,217.0	29.9	104.6	164.67	36.4	387.3	1,541.1	1,424.4	116.72	13.204		
5,500.0	5,267.7	5,260.2	5,260.2	30.1	105.5	164.88	36.4	387.3	1,554.8	1,436.6	118.13	13.161		
5,600.0	5,363.5	5,356.0	5,356.0	30.6	107.4	165.29	36.4	387.3	1,582.5	1,461.3	121.17	13.060		
5,700.0	5,460.3	5,452.8	5,452.8	31.0	109.3	165.65	36.4	387.3	1,606.9	1,482.8	124.12	12.946		
5,800.0	5,557.9	5,550.4	5,550.4	31.3	111.3	165.94	36.4	387.3	1,628.2	1,501.2	126.99	12.821		
5,900.0	5,656.2	5,648.7	5,648.7	31.7	113.3	166.19	36.4	387.3	1,646.1	1,516.3	129.75	12.687		
6,000.0	5,755.0	5,747.5	5,747.5	31.9	115.3	166.38	36.4	387.3	1,660.6	1,528.2	132.38	12.544		
6,100.0	5,854.4	5,846.9	5,846.9	32.2	117.3	166.53	36.4	387.3	1,671.8	1,536.9	134.89	12.394		
6,200.0	5,954.0	5,946.5	5,946.5	32.4	119.3	166.63	36.4	387.3	1,679.7	1,542.4	137.26	12.237		
6,300.0	6,053.9	6,046.4	6,046.4	32.5	121.3	166.68	36.4	387.3	1,684.1	1,544.6	139.48	12.074		
6,380.9	6,134.8	6,127.3	6,127.3	32.6	122.9	166.72	36.4	387.3	1,685.2	1,530.3	154.88	10.881		
6,400.0	6,153.9	6,146.4	6,146.4	32.6	123.3	166.72	36.4	387.3	1,685.2	1,529.9	155.28	10.853		
6,410.9	6,164.8	6,157.3	6,157.3	32.6	123.5	166.72	36.4	387.3	1,685.2	1,529.7	155.51	10.837		
6,450.0	6,203.9	6,196.4	6,196.4	32.6	124.3	166.78	36.4	387.3	1,684.8	1,542.3	142.52	11.822		
6,500.0	6,253.7	6,246.2	6,246.2	32.7	125.3	167.05	36.4	387.3	1,683.0	1,539.7	143.30	11.745		
6,550.0	6,303.0	6,295.5	6,295.5	32.7	126.3	167.52	36.4	387.3	1,679.9	1,536.0	143.96	11.669		
6,600.0	6,351.7	6,344.2	6,344.2	32.7	127.3	168.20	36.4	387.3	1,675.6	1,531.0	144.53	11.593		
6,650.0	6,399.5	6,392.0	6,392.0	32.7	128.2	169.07	36.4	387.3	1,670.0	1,524.9	145.04	11.514		
6,700.0	6,446.1	6,438.6	6,438.6	32.7	129.2	170.12	36.4	387.3	1,663.3	1,517.8	145.55	11.428		
6,750.0	6,491.4	6,483.9	6,483.9	32.7	130.1	171.34	36.4	387.3	1,655.7	1,509.6	146.09	11.333		
6,800.0	6,535.1	6,527.6	6,527.6	32.7	131.0	172.71	36.4	387.3	1,647.2	1,500.5	146.72	11.227		
6,850.0	6,576.9	6,569.4	6,569.4	32.7	131.8	174.20	36.4	387.3	1,638.0	1,490.6	147.47	11.108		
6,900.0	6,616.8	6,609.3	6,609.3	32.7	132.6	175.78	36.4	387.3	1,628.4	1,480.1	148.34	10.977		
6,950.0	6,654.4	6,646.9	6,646.9	32.7	133.4	177.44	36.4	387.3	1,618.5	1,469.2	149.35	10.837		
7,000.0	6,689.7	6,682.2	6,682.2	32.7	134.1	179.12	36.4	387.3	1,608.5	1,458.1	150.47	10.690		
7,050.0	6,722.4	6,714.9	6,714.9	32.7	134.7	180.80	36.4	387.3	1,598.7	1,447.0	151.66	10.541		
7,100.0	6,752.4	6,744.9	6,744.9	32.7	135.3	182.44	36.4	387.3	1,589.1	1,436.2	152.90	10.394		
7,150.0	6,779.5	6,772.0	6,772.0	32.7	135.9	183.99	36.4	387.3	1,580.2	1,426.0	154.13	10.252		
7,200.0	6,803.7	6,796.2	6,796.2	32.7	136.4	185.43	36.4	387.3	1,572.0	1,416.6	155.33	10.120		
7,250.0	6,824.7	6,817.2	6,817.2	32.7	136.8	186.72	36.4	387.3	1,564.7	1,408.2	156.48	9.999		
7,300.0	6,842.5	6,835.0	6,835.0	32.8	137.1	187.83	36.4	387.3	1,558.6	1,401.0	157.58	9.891		
7,350.0	6,857.0	6,849.5	6,849.5	32.8	137.4	188.73	36.4	387.3	1,553.7	1,395.1	158.62	9.795		
7,400.0	6,868.1	6,860.6	6,860.6	32.9	137.6	189.41	36.4	387.3	1,550.3	1,390.7	159.62	9.713		
7,450.0	6,875.9	6,868.4	6,868.4	33.0	137.8	189.84	36.4	387.3	1,548.4	1,387.8	160.57	9.643		
7,485.8	6,879.2	6,871.7	6,871.7	33.1	137.9	190.00	36.4	387.3	1,548.0	1,386.7	161.23	9.601		
7,500.0	6,880.1	6,872.6	6,872.6	33.2	137.9	190.03	36.4	387.3	1,548.0	1,386.5	161.48	9.586		
7,542.1	6,881.0	6,873.5	6,873.5	33.4	137.9	189.98	36.4	387.3	1,549.0	1,386.8	162.22	9.549		
7,600.0	6,880.5	6,873.0	6,873.0	33.6	137.9	189.96	36.4	387.3	1,552.2	1,388.9	163.25	9.508		
7,700.0	6,879.6	6,872.1	6,872.1	34.3	137.9	189.93	36.4	387.3	1,562.7	1,397.5	165.17	9.461		
7,800.0	6,878.7	6,871.2	6,871.2	35.2	137.9	189.90	36.4	387.3	1,579.5	1,412.3	167.23	9.445 SF		
7,900.0	6,877.8	6,870.3	6,870.3	36.5	137.8	189.87	36.4	387.3	1,602.4	1,433.0	169.39	9.460		
8,000.0	6,877.0	6,869.5	6,869.5	38.0	137.8	189.83	36.4	387.3	1,631.1	1,459.5	171.65	9.502		
8,100.0	6,876.1	6,868.6	6,868.6	39.9	137.8	189.80	36.4	387.3	1,665.3	1,491.4	173.99	9.572		
8,200.0	6,875.2	6,867.7	6,867.7	41.9	137.8	189.77	36.4	387.3	1,704.8	1,528.4	176.38	9.665		
8,300.0	6,874.4	6,866.9	6,866.9	44.0	137.8	189.74	36.4	387.3	1,749.0	1,570.2	178.83	9.780		
8,400.0	6,873.5	6,866.0	6,866.0	46.3	137.8	189.71	36.4	387.3	1,797.7	1,616.4	181.32	9.915		
8,500.0	6,872.6	6,865.1	6,865.1	48.6	137.7	189.67	36.4	387.3	1,850.6	1,666.7	183.84	10.066		
8,600.0	6,871.7	6,864.2	6,864.2	51.0	137.7	189.64	36.4	387.3	1,907.2	1,720.8	186.39	10.232		

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 28-2 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	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
8,700.0	6,870.9	6,863.4	6,863.4	53.4	137.7	89.61	36.4	387.3	1,967.3	1,778.3	188.97	10.411	
8,800.0	6,870.0	6,862.5	6,862.5	55.9	137.7	89.58	36.4	387.3	2,030.5	1,839.0	191.56	10.600	
8,900.0	6,869.1	6,861.6	6,861.6	58.5	137.7	89.54	36.4	387.3	2,096.6	1,902.5	194.18	10.797	
9,000.0	6,868.3	6,860.8	6,860.8	61.0	137.7	89.51	36.4	387.3	2,165.3	1,968.5	196.81	11.002	
9,100.0	6,867.4	6,859.9	6,859.9	63.6	137.6	89.48	36.4	387.3	2,236.4	2,037.0	199.46	11.213	
9,200.0	6,866.5	6,859.0	6,859.0	66.2	137.6	89.45	36.4	387.3	2,309.6	2,107.5	202.11	11.427	
9,300.0	6,865.6	6,858.1	6,858.1	68.8	137.6	89.42	36.4	387.3	2,384.8	2,180.0	204.78	11.645	
9,400.0	6,864.8	6,857.3	6,857.3	71.5	137.6	89.38	36.4	387.3	2,461.7	2,254.2	207.46	11.866	
9,500.0	6,863.9	6,856.4	6,856.4	74.1	137.6	89.35	36.4	387.3	2,540.2	2,330.1	210.14	12.088	
9,600.0	6,863.0	6,855.5	6,855.5	76.8	137.5	89.32	36.4	387.3	2,620.2	2,407.4	212.84	12.311	
9,700.0	6,862.2	6,854.7	6,854.7	79.4	137.5	89.29	36.4	387.3	2,701.5	2,486.0	215.54	12.534	
9,800.0	6,861.3	6,853.8	6,853.8	82.1	137.5	89.25	36.4	387.3	2,784.1	2,565.8	218.24	12.757	
9,900.0	6,860.4	6,852.9	6,852.9	84.8	137.5	89.22	36.4	387.3	2,867.7	2,646.8	220.95	12.979	
10,000.0	6,859.5	6,852.0	6,852.0	87.5	137.5	89.19	36.4	387.3	2,952.4	2,728.7	223.67	13.200	
10,100.0	6,858.7	6,851.2	6,851.2	90.2	137.5	89.16	36.4	387.3	3,038.0	2,811.6	226.39	13.419	
10,200.0	6,857.8	6,850.3	6,850.3	92.9	137.4	89.13	36.4	387.3	3,124.5	2,895.4	229.11	13.637	
10,300.0	6,856.9	6,849.4	6,849.4	95.6	137.4	89.09	36.4	387.3	3,211.7	2,979.9	231.84	13.853	
10,400.0	6,856.1	6,848.6	6,848.6	98.4	137.4	89.06	36.4	387.3	3,299.7	3,065.1	234.57	14.067	
10,500.0	6,855.2	6,847.7	6,847.7	101.1	137.4	89.03	36.4	387.3	3,388.3	3,151.0	237.30	14.278	
10,600.0	6,854.3	6,846.8	6,846.8	103.8	137.4	89.00	36.4	387.3	3,477.6	3,237.5	240.04	14.487	
10,700.0	6,853.5	6,846.0	6,846.0	106.5	137.4	88.97	36.4	387.3	3,567.4	3,324.6	242.78	14.694	
10,800.0	6,852.6	6,845.1	6,845.1	109.3	137.3	88.93	36.4	387.3	3,657.7	3,412.2	245.52	14.898	
10,900.0	6,851.7	6,844.2	6,844.2	112.0	137.3	88.90	36.4	387.3	3,748.6	3,500.3	248.27	15.099	
11,000.0	6,850.9	6,843.4	6,843.4	114.8	137.3	88.87	36.4	387.3	3,839.9	3,588.9	251.01	15.298	
11,100.0	6,850.0	6,842.5	6,842.5	117.5	137.3	88.84	36.4	387.3	3,931.6	3,677.8	253.76	15.493	
11,200.0	6,849.1	6,841.6	6,841.6	120.3	137.3	88.81	36.4	387.3	4,023.7	3,767.2	256.51	15.686	
11,300.0	6,848.2	6,840.7	6,840.7	123.0	137.2	88.77	36.4	387.3	4,116.2	3,856.9	259.26	15.877	
11,400.0	6,847.4	6,839.9	6,839.9	125.8	137.2	88.74	36.4	387.3	4,209.0	3,947.0	262.01	16.064	
11,500.0	6,846.5	6,839.0	6,839.0	128.5	137.2	88.71	36.4	387.3	4,302.2	4,037.4	264.76	16.249	
11,600.0	6,845.6	6,838.1	6,838.1	131.3	137.2	88.68	36.4	387.3	4,395.6	4,128.1	267.52	16.431	
11,700.0	6,844.8	6,837.3	6,837.3	134.1	137.2	88.65	36.4	387.3	4,489.3	4,219.1	270.28	16.610	
11,800.0	6,843.9	6,836.4	6,836.4	136.8	137.2	88.61	36.4	387.3	4,583.3	4,310.3	273.03	16.787	
11,900.0	6,843.0	6,835.5	6,835.5	139.6	137.1	88.58	36.4	387.3	4,677.6	4,401.8	275.79	16.961	
12,000.0	6,842.2	6,834.7	6,834.7	142.4	137.1	88.55	36.4	387.3	4,772.0	4,493.5	278.55	17.132	
12,100.0	6,841.3	6,833.8	6,833.8	145.1	137.1	88.52	36.4	387.3	4,866.7	4,585.4	281.31	17.300	
12,133.9	6,841.0	6,833.5	6,833.5	146.1	137.1	88.51	36.4	387.3	4,898.8	4,616.6	282.24	17.357	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	78.5	78.5	0.0	0.1	14.81	3,435.5	908.3	3,553.5				
100.0	100.0	178.5	178.5	0.1	2.2	14.81	3,435.5	908.3	3,553.5	3,551.2	2.26	1,572.953	
200.0	200.0	278.5	278.5	0.3	4.3	14.81	3,435.5	908.3	3,553.5	3,548.8	4.67	761.492	
300.0	300.0	378.5	378.5	0.5	6.4	14.81	3,435.5	908.3	3,553.5	3,546.6	6.93	512.768	
400.0	400.0	478.5	478.5	0.8	8.4	14.81	3,435.5	908.3	3,553.5	3,544.3	9.18	387.121	
500.0	500.0	578.5	578.5	1.0	10.4	24.82	3,435.5	908.3	3,551.9	3,540.5	11.42	311.065	
600.0	599.8	678.3	678.3	1.2	12.4	24.89	3,435.5	908.3	3,547.2	3,533.5	13.64	260.062	
700.0	699.5	778.0	778.0	1.5	14.4	25.02	3,435.5	908.3	3,539.3	3,523.4	15.84	223.478	
800.0	798.7	877.2	877.2	1.7	16.4	25.19	3,435.5	908.3	3,528.2	3,510.2	18.01	195.934	
900.0	897.5	976.0	976.0	2.0	18.4	25.43	3,435.5	908.3	3,514.0	3,493.9	20.15	174.428	
1,000.0	995.6	1,074.1	1,074.1	2.4	20.4	25.71	3,435.5	908.3	3,496.8	3,474.5	22.25	157.152	
1,100.0	1,093.1	1,171.6	1,171.6	2.8	22.4	26.05	3,435.5	908.3	3,476.4	3,452.1	24.32	142.951	
1,200.0	1,189.6	1,268.1	1,268.1	3.3	24.3	26.45	3,435.5	908.3	3,453.1	3,426.7	26.35	131.051	
1,300.0	1,285.3	1,363.8	1,363.8	3.8	26.2	26.92	3,435.5	908.3	3,426.7	3,398.4	28.34	120.915	
1,326.4	1,310.3	1,388.8	1,388.8	3.9	26.7	27.05	3,435.5	908.3	3,419.3	3,390.4	28.86	118.483	
1,400.0	1,380.1	1,458.6	1,458.6	4.3	28.1	27.23	3,435.5	908.3	3,398.2	3,367.8	30.48	111.496	
1,500.0	1,474.9	1,553.4	1,553.4	4.9	30.1	27.47	3,435.5	908.3	3,369.7	3,337.0	32.69	103.081	
1,600.0	1,569.8	1,648.3	1,648.3	5.5	32.0	27.72	3,435.5	908.3	3,341.2	3,306.3	34.91	95.706	
1,700.0	1,664.6	1,743.1	1,743.1	6.1	33.9	27.97	3,435.5	908.3	3,312.8	3,275.7	37.14	89.194	
1,800.0	1,759.4	1,837.9	1,837.9	6.8	35.8	28.23	3,435.5	908.3	3,284.5	3,245.1	39.38	83.404	
1,900.0	1,854.2	1,932.7	1,932.7	7.4	37.7	28.49	3,435.5	908.3	3,256.2	3,214.6	41.63	78.226	
2,000.0	1,949.0	2,027.5	2,027.5	8.0	39.6	28.76	3,435.5	908.3	3,228.0	3,184.1	43.88	73.568	
2,100.0	2,043.8	2,122.3	2,122.3	8.6	41.5	29.03	3,435.5	908.3	3,199.8	3,153.7	46.14	69.357	
2,200.0	2,138.7	2,217.2	2,217.2	9.2	43.4	29.30	3,435.5	908.3	3,171.7	3,123.3	48.40	65.533	
2,300.0	2,233.5	2,312.0	2,312.0	9.9	45.3	29.58	3,435.5	908.3	3,143.7	3,093.0	50.67	62.044	
2,400.0	2,328.3	2,406.8	2,406.8	10.5	47.2	29.87	3,435.5	908.3	3,115.8	3,062.8	52.94	58.850	
2,500.0	2,423.1	2,501.6	2,501.6	11.1	49.1	30.16	3,435.5	908.3	3,087.9	3,032.7	55.23	55.914	
2,600.0	2,517.9	2,596.4	2,596.4	11.8	51.0	30.45	3,435.5	908.3	3,060.1	3,002.6	57.51	53.208	
2,700.0	2,612.7	2,691.2	2,691.2	12.4	52.9	30.75	3,435.5	908.3	3,032.4	2,972.6	59.80	50.705	
2,800.0	2,707.6	2,786.1	2,786.1	13.0	54.8	31.06	3,435.5	908.3	3,004.7	2,942.6	62.10	48.384	
2,900.0	2,802.4	2,880.9	2,880.9	13.6	56.8	31.37	3,435.5	908.3	2,977.2	2,912.8	64.41	46.225	
3,000.0	2,897.2	2,975.7	2,975.7	14.3	58.7	31.69	3,435.5	908.3	2,949.7	2,883.0	66.72	44.213	
3,100.0	2,992.0	3,070.5	3,070.5	14.9	60.6	32.01	3,435.5	908.3	2,922.3	2,853.3	69.03	42.333	
3,200.0	3,086.8	3,165.3	3,165.3	15.5	62.5	32.34	3,435.5	908.3	2,895.0	2,823.7	71.35	40.573	
3,300.0	3,181.6	3,260.1	3,260.1	16.2	64.4	32.67	3,435.5	908.3	2,867.8	2,794.2	73.68	38.922	
3,400.0	3,276.5	3,355.0	3,355.0	16.8	66.3	33.01	3,435.5	908.3	2,840.7	2,764.7	76.02	37.370	
3,500.0	3,371.3	3,449.8	3,449.8	17.4	68.2	33.36	3,435.5	908.3	2,813.7	2,735.4	78.36	35.909	
3,600.0	3,466.1	3,544.6	3,544.6	18.1	70.1	33.71	3,435.5	908.3	2,786.8	2,706.1	80.71	34.531	
3,700.0	3,560.9	3,639.4	3,639.4	18.7	72.0	34.07	3,435.5	908.3	2,760.0	2,677.0	83.06	33.229	
3,800.0	3,655.7	3,734.2	3,734.2	19.3	73.9	34.44	3,435.5	908.3	2,733.3	2,647.9	85.42	31.998	
3,900.0	3,750.5	3,829.0	3,829.0	20.0	75.8	34.81	3,435.5	908.3	2,706.8	2,619.0	87.79	30.832	
4,000.0	3,845.4	3,923.9	3,923.9	20.6	77.7	35.20	3,435.5	908.3	2,680.3	2,590.1	90.17	29.726	
4,100.0	3,940.2	4,018.7	4,018.7	21.3	79.6	35.58	3,435.5	908.3	2,653.9	2,561.4	92.55	28.676	
4,200.0	4,035.0	4,113.5	4,113.5	21.9	81.5	35.98	3,435.5	908.3	2,627.7	2,532.7	94.94	27.677	
4,300.0	4,129.8	4,208.3	4,208.3	22.5	83.4	36.38	3,435.5	908.3	2,601.6	2,504.2	97.34	26.727	
4,400.0	4,224.6	4,303.1	4,303.1	23.2	85.4	36.80	3,435.5	908.3	2,575.6	2,475.8	99.75	25.821	
4,500.0	4,319.4	4,397.9	4,397.9	23.8	87.3	37.22	3,435.5	908.3	2,549.7	2,447.6	102.16	24.958	
4,600.0	4,414.3	4,492.8	4,492.8	24.4	89.2	37.64	3,435.5	908.3	2,524.0	2,419.4	104.59	24.133	
4,700.0	4,509.1	4,587.6	4,587.6	25.1	91.1	38.08	3,435.5	908.3	2,498.4	2,391.4	107.02	23.346	
4,800.0	4,603.9	4,682.4	4,682.4	25.7	93.0	38.52	3,435.5	908.3	2,473.0	2,363.5	109.46	22.593	
4,900.0	4,698.7	4,777.2	4,777.2	26.3	94.9	38.98	3,435.5	908.3	2,447.7	2,335.8	111.91	21.872	
5,000.0	4,793.5	4,872.0	4,872.0	27.0	96.8	39.44	3,435.5	908.3	2,422.6	2,308.2	114.37	21.182	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	4,966.8	4,966.8	27.6	98.7	39.91	3,435.5	908.3	2,397.6	2,280.8	116.84	20.520	
5,200.0	4,983.2	5,061.7	5,061.7	28.2	100.6	40.40	3,435.5	908.3	2,372.8	2,253.5	119.32	19.886	
5,300.0	5,078.0	5,156.5	5,156.5	28.9	102.5	40.89	3,435.5	908.3	2,348.1	2,226.3	121.81	19.277	
5,400.0	5,172.8	5,251.3	5,251.3	29.5	104.4	41.39	3,435.5	908.3	2,323.7	2,199.4	124.31	18.693	
5,454.5	5,224.5	5,303.0	5,303.0	29.9	105.5	41.67	3,435.5	908.3	2,310.4	2,184.7	125.68	18.384	
5,500.0	5,267.7	5,346.2	5,346.2	30.1	106.3	41.75	3,435.5	908.3	2,299.6	2,172.6	127.03	18.103	
5,600.0	5,363.5	5,442.0	5,442.0	30.6	108.3	41.92	3,435.5	908.3	2,277.9	2,148.0	129.90	17.536	
5,700.0	5,460.3	5,538.8	5,538.8	31.0	110.2	42.08	3,435.5	908.3	2,258.9	2,126.2	132.71	17.022	
5,800.0	5,557.9	5,636.4	5,636.4	31.3	112.2	42.23	3,435.5	908.3	2,242.5	2,107.1	135.43	16.559	
5,900.0	5,656.2	5,734.7	5,734.7	31.7	114.1	42.36	3,435.5	908.3	2,228.8	2,090.7	138.06	16.143	
6,000.0	5,755.0	5,833.5	5,833.5	31.9	116.1	42.46	3,435.5	908.3	2,217.7	2,077.1	140.60	15.773	
6,100.0	5,854.4	5,932.9	5,932.9	32.2	118.1	42.55	3,435.5	908.3	2,209.2	2,066.1	143.04	15.445	
6,200.0	5,954.0	6,032.5	6,032.5	32.4	120.1	42.61	3,435.5	908.3	2,203.2	2,057.9	145.36	15.157	
6,300.0	6,053.9	6,132.4	6,132.4	32.5	122.1	42.64	3,435.5	908.3	2,199.9	2,052.3	147.57	14.907	
6,380.9	6,134.8	6,213.3	6,213.3	32.6	123.8	32.67	3,435.5	908.3	2,199.0	2,048.7	150.32	14.628	
6,400.0	6,153.9	6,232.4	6,232.4	32.6	124.2	32.67	3,435.5	908.3	2,199.0	2,048.3	150.73	14.589	
6,410.9	6,164.8	6,243.3	6,243.3	32.6	124.4	32.67	3,435.5	908.3	2,199.0	2,048.1	150.96	14.567	
6,450.0	6,203.9	6,282.4	6,282.4	32.6	125.2	-57.39	3,435.5	908.3	2,198.4	2,047.7	150.70	14.588	
6,500.0	6,253.7	6,332.2	6,332.2	32.7	126.2	-57.65	3,435.5	908.3	2,196.0	2,044.6	151.42	14.503	
6,550.0	6,303.0	6,381.5	6,381.5	32.7	127.2	-58.11	3,435.5	908.3	2,191.8	2,039.9	151.83	14.435	
6,600.0	6,351.7	6,430.2	6,430.2	32.7	128.1	-58.78	3,435.5	908.3	2,185.7	2,033.7	151.97	14.382	
6,650.0	6,399.5	6,478.0	6,478.0	32.7	129.1	-59.64	3,435.5	908.3	2,177.9	2,026.0	151.89	14.338	
6,700.0	6,446.1	6,524.6	6,524.6	32.7	130.0	-60.70	3,435.5	908.3	2,168.5	2,016.8	151.66	14.298	
6,750.0	6,491.4	6,569.9	6,569.9	32.7	130.9	-61.95	3,435.5	908.3	2,157.5	2,006.1	151.35	14.255	
6,800.0	6,535.1	6,613.6	6,613.6	32.7	131.8	-63.38	3,435.5	908.3	2,145.1	1,994.0	151.06	14.201	
6,850.0	6,576.9	6,655.4	6,655.4	32.7	132.7	-64.97	3,435.5	908.3	2,131.4	1,980.6	150.86	14.129	
6,900.0	6,616.8	6,695.3	6,695.3	32.7	133.5	-66.72	3,435.5	908.3	2,116.6	1,965.8	150.83	14.033	
6,950.0	6,654.4	6,732.9	6,732.9	32.7	134.2	-68.61	3,435.5	908.3	2,100.9	1,949.8	151.03	13.910	
7,000.0	6,689.7	6,768.2	6,768.2	32.7	134.9	-70.60	3,435.5	908.3	2,084.4	1,932.9	151.50	13.758	
7,050.0	6,722.4	6,800.9	6,800.9	32.7	135.6	-72.67	3,435.5	908.3	2,067.3	1,915.0	152.22	13.580	
7,100.0	6,752.4	6,830.9	6,830.9	32.7	136.2	-74.79	3,435.5	908.3	2,049.8	1,896.6	153.19	13.381	
7,150.0	6,779.5	6,858.0	6,858.0	32.7	136.7	-76.92	3,435.5	908.3	2,032.1	1,877.7	154.34	13.166	
7,200.0	6,803.7	6,882.2	6,882.2	32.7	137.2	-79.02	3,435.5	908.3	2,014.4	1,858.8	155.61	12.946	
7,250.0	6,824.7	6,903.2	6,903.2	32.7	137.6	-81.06	3,435.5	908.3	1,997.0	1,840.0	156.92	12.726	
7,300.0	6,842.5	6,921.0	6,921.0	32.8	138.0	-83.00	3,435.5	908.3	1,979.9	1,821.7	158.20	12.515	
7,350.0	6,857.0	6,935.5	6,935.5	32.8	138.3	-84.81	3,435.5	908.3	1,963.4	1,804.0	159.42	12.316	
7,400.0	6,868.1	6,946.6	6,946.6	32.9	138.5	-86.47	3,435.5	908.3	1,947.7	1,787.2	160.52	12.134	
7,450.0	6,875.9	6,954.4	6,954.4	33.0	138.7	-87.94	3,435.5	908.3	1,932.9	1,771.4	161.52	11.967	
7,500.0	6,880.1	6,958.6	6,958.6	33.2	138.8	-89.21	3,435.5	908.3	1,919.2	1,756.8	162.40	11.817	
7,542.1	6,881.0	6,959.5	6,959.5	33.4	138.8	-90.13	3,435.5	908.3	1,908.5	1,745.4	163.08	11.703	
7,600.0	6,880.5	6,959.0	6,959.0	33.6	138.8	-90.11	3,435.5	908.3	1,895.2	1,731.1	164.11	11.549	
7,700.0	6,879.6	6,958.1	6,958.1	34.3	138.7	-90.08	3,435.5	908.3	1,876.3	1,710.3	166.03	11.301	
7,800.0	6,878.7	6,957.2	6,957.2	35.2	138.7	-90.06	3,435.5	908.3	1,862.6	1,694.5	168.10	11.080	
7,900.0	6,877.8	6,956.3	6,956.3	36.5	138.7	-90.03	3,435.5	908.3	1,854.1	1,683.9	170.27	10.889	
8,000.0	6,877.0	6,955.5	6,955.5	38.0	138.7	-90.00	3,435.5	908.3	1,851.1	1,678.5	172.54	10.729	
8,006.8	6,876.9	6,955.4	6,955.4	38.2	138.7	-90.00	3,435.5	908.3	1,851.1	1,678.4	172.70	10.719 CC, ES	
8,100.0	6,876.1	6,954.6	6,954.6	39.9	138.7	-89.97	3,435.5	908.3	1,853.4	1,678.5	174.88	10.598	
8,200.0	6,875.2	6,953.7	6,953.7	41.9	138.7	-89.95	3,435.5	908.3	1,861.1	1,683.8	177.28	10.498	
8,300.0	6,874.4	6,952.9	6,952.9	44.0	138.6	-89.92	3,435.5	908.3	1,874.1	1,694.4	179.73	10.428	
8,400.0	6,873.5	6,952.0	6,952.0	46.3	138.6	-89.89	3,435.5	908.3	1,892.3	1,710.1	182.22	10.385	
8,500.0	6,872.6	6,951.1	6,951.1	48.6	138.6	-89.87	3,435.5	908.3	1,915.6	1,730.9	184.75	10.369 SF	
8,600.0	6,871.7	6,950.2	6,950.2	51.0	138.6	-89.84	3,435.5	908.3	1,943.8	1,756.5	187.30	10.378	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	
8,700.0	6,870.9	6,949.4	6,949.4	53.4	138.6	-89.81	3,435.5	908.3	1,976.6	1,786.7	189.88	10.409	
8,800.0	6,870.0	6,948.5	6,948.5	55.9	138.6	-89.79	3,435.5	908.3	2,013.8	1,821.3	192.48	10.462	
8,900.0	6,869.1	6,947.6	6,947.6	58.5	138.5	-89.76	3,435.5	908.3	2,055.3	1,860.2	195.10	10.534	
9,000.0	6,868.3	6,946.8	6,946.8	61.0	138.5	-89.73	3,435.5	908.3	2,100.6	1,902.9	197.74	10.623	
9,100.0	6,867.4	6,945.9	6,945.9	63.6	138.5	-89.71	3,435.5	908.3	2,149.7	1,949.3	200.39	10.728	
9,200.0	6,866.5	6,945.0	6,945.0	66.2	138.5	-89.68	3,435.5	908.3	2,202.3	1,999.2	203.05	10.846	
9,300.0	6,865.6	6,944.1	6,944.1	68.8	138.5	-89.65	3,435.5	908.3	2,258.0	2,052.3	205.72	10.976	
9,400.0	6,864.8	6,943.3	6,943.3	71.5	138.4	-89.62	3,435.5	908.3	2,316.7	2,108.3	208.41	11.116	
9,500.0	6,863.9	6,942.4	6,942.4	74.1	138.4	-89.60	3,435.5	908.3	2,378.2	2,167.1	211.10	11.266	
9,600.0	6,863.0	6,941.5	6,941.5	76.8	138.4	-89.57	3,435.5	908.3	2,442.2	2,228.4	213.79	11.423	
9,700.0	6,862.2	6,940.7	6,940.7	79.4	138.4	-89.54	3,435.5	908.3	2,508.6	2,292.1	216.50	11.587	
9,800.0	6,861.3	6,939.8	6,939.8	82.1	138.4	-89.52	3,435.5	908.3	2,577.1	2,357.9	219.21	11.757	
9,900.0	6,860.4	6,938.9	6,938.9	84.8	138.4	-89.49	3,435.5	908.3	2,647.7	2,425.8	221.92	11.931	
10,000.0	6,859.5	6,938.0	6,938.0	87.5	138.3	-89.46	3,435.5	908.3	2,720.1	2,495.4	224.64	12.108	
10,100.0	6,858.7	6,937.2	6,937.2	90.2	138.3	-89.44	3,435.5	908.3	2,794.2	2,566.8	227.37	12.289	
10,200.0	6,857.8	6,936.3	6,936.3	92.9	138.3	-89.41	3,435.5	908.3	2,869.8	2,639.7	230.10	12.472	
10,300.0	6,856.9	6,935.4	6,935.4	95.6	138.3	-89.38	3,435.5	908.3	2,947.0	2,714.1	232.83	12.657	
10,400.0	6,856.1	6,934.6	6,934.6	98.4	138.3	-89.36	3,435.5	908.3	3,025.4	2,789.9	235.56	12.843	
10,500.0	6,855.2	6,933.7	6,933.7	101.1	138.3	-89.33	3,435.5	908.3	3,105.1	2,866.8	238.30	13.030	
10,600.0	6,854.3	6,932.8	6,932.8	103.8	138.2	-89.30	3,435.5	908.3	3,186.0	2,944.9	241.05	13.217	
10,700.0	6,853.5	6,932.0	6,932.0	106.5	138.2	-89.28	3,435.5	908.3	3,267.9	3,024.1	243.79	13.404	
10,800.0	6,852.6	6,931.1	6,931.1	109.3	138.2	-89.25	3,435.5	908.3	3,350.8	3,104.2	246.54	13.591	
10,900.0	6,851.7	6,930.2	6,930.2	112.0	138.2	-89.22	3,435.5	908.3	3,434.6	3,185.3	249.28	13.778	
11,000.0	6,850.9	6,929.4	6,929.4	114.8	138.2	-89.19	3,435.5	908.3	3,519.2	3,267.2	252.04	13.963	
11,100.0	6,850.0	6,928.5	6,928.5	117.5	138.2	-89.17	3,435.5	908.3	3,604.6	3,349.8	254.79	14.148	
11,200.0	6,849.1	6,927.6	6,927.6	120.3	138.1	-89.14	3,435.5	908.3	3,690.8	3,433.2	257.54	14.331	
11,300.0	6,848.2	6,926.7	6,926.7	123.0	138.1	-89.11	3,435.5	908.3	3,777.6	3,517.3	260.30	14.513	
11,400.0	6,847.4	6,925.9	6,925.9	125.8	138.1	-89.09	3,435.5	908.3	3,865.1	3,602.1	263.06	14.693	
11,500.0	6,846.5	6,925.0	6,925.0	128.5	138.1	-89.06	3,435.5	908.3	3,953.2	3,687.4	265.81	14.872	
11,600.0	6,845.6	6,924.1	6,924.1	131.3	138.1	-89.03	3,435.5	908.3	4,041.8	3,773.2	268.57	15.049	
11,700.0	6,844.8	6,923.3	6,923.3	134.1	138.0	-89.01	3,435.5	908.3	4,131.0	3,859.6	271.33	15.225	
11,800.0	6,843.9	6,922.4	6,922.4	136.8	138.0	-88.98	3,435.5	908.3	4,220.6	3,946.5	274.10	15.398	
11,900.0	6,843.0	6,921.5	6,921.5	139.6	138.0	-88.95	3,435.5	908.3	4,310.7	4,033.8	276.86	15.570	
12,000.0	6,842.2	6,920.7	6,920.7	142.4	138.0	-88.93	3,435.5	908.3	4,401.2	4,121.6	279.63	15.740	
12,100.0	6,841.3	6,919.8	6,919.8	145.1	138.0	-88.90	3,435.5	908.3	4,492.1	4,209.7	282.39	15.907	
12,133.9	6,841.0	6,919.5	6,919.5	146.1	138.0	-88.89	3,435.5	908.3	4,523.0	4,239.7	283.33	15.964	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 650-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	41.3	41.3	0.0	0.0	35.57	1,289.7	922.4	1,585.6				
100.0	100.0	140.9	140.9	0.1	0.1	35.58	1,289.5	922.6	1,585.6	1,585.3	0.23	6,805.730	
200.0	200.0	240.5	240.5	0.3	0.2	35.61	1,289.1	923.2	1,585.6	1,585.1	0.55	2,863.762	
300.0	300.0	340.1	340.0	0.5	0.3	35.65	1,288.6	924.1	1,585.7	1,584.8	0.87	1,813.495	
400.0	400.0	439.6	439.6	0.8	0.4	35.70	1,287.9	925.3	1,585.8	1,584.6	1.20	1,326.939	
500.0	500.0	539.1	539.1	1.0	0.5	45.80	1,287.0	926.8	1,584.7	1,583.2	1.52	1,044.386	
600.0	599.8	638.4	638.4	1.2	0.6	46.06	1,285.9	928.6	1,581.3	1,579.4	1.85	856.037	
700.0	699.5	739.8	739.7	1.5	0.7	46.46	1,284.6	930.5	1,575.4	1,573.2	2.19	719.895	
800.0	798.7	841.0	840.9	1.7	0.8	46.99	1,283.4	932.2	1,567.0	1,564.4	2.54	615.733	
900.0	897.5	941.7	941.6	2.0	0.9	47.64	1,282.2	933.6	1,556.2	1,553.3	2.92	532.182	
1,000.0	995.6	1,040.9	1,040.8	2.4	1.0	48.42	1,281.1	934.7	1,543.1	1,539.8	3.33	463.255	
1,100.0	1,093.1	1,138.3	1,138.2	2.8	1.1	49.33	1,280.0	935.7	1,527.8	1,524.1	3.77	405.072	
1,200.0	1,189.6	1,234.9	1,234.8	3.3	1.2	50.37	1,279.1	936.5	1,510.6	1,506.3	4.26	354.804	
1,300.0	1,285.3	1,330.6	1,330.4	3.8	1.3	51.56	1,278.3	937.1	1,491.4	1,486.6	4.79	311.047	
1,326.4	1,310.3	1,355.7	1,355.5	3.9	1.3	51.90	1,278.1	937.2	1,486.1	1,481.1	4.95	300.454	
1,400.0	1,380.1	1,425.5	1,425.4	4.3	1.4	52.61	1,277.6	937.5	1,471.1	1,465.7	5.37	273.812	
1,500.0	1,474.9	1,520.9	1,520.7	4.9	1.5	53.61	1,277.0	937.9	1,451.1	1,445.1	5.97	242.957	
1,600.0	1,569.8	1,617.6	1,617.4	5.5	1.6	54.64	1,276.3	938.0	1,431.5	1,424.9	6.59	217.064	
1,700.0	1,664.6	1,714.3	1,714.1	6.1	1.7	55.70	1,275.6	938.1	1,412.2	1,404.9	7.23	195.232	
1,800.0	1,759.4	1,810.9	1,810.7	6.8	1.7	56.78	1,274.8	938.0	1,393.2	1,385.3	7.89	176.653	
1,900.0	1,854.2	1,907.5	1,907.3	7.4	1.8	57.89	1,273.9	937.8	1,374.6	1,366.0	8.55	160.706	
2,000.0	1,949.0	2,004.1	2,003.9	8.0	1.9	59.03	1,273.0	937.5	1,356.4	1,347.2	9.23	146.909	
2,100.0	2,043.8	2,100.6	2,100.4	8.6	2.0	60.19	1,271.9	937.1	1,338.6	1,328.7	9.92	134.882	
2,200.0	2,138.7	2,197.0	2,196.8	9.2	2.1	61.38	1,270.8	936.6	1,321.2	1,310.6	10.63	124.331	
2,300.0	2,233.5	2,293.5	2,293.3	9.9	2.2	62.60	1,269.6	935.9	1,304.3	1,293.0	11.34	115.023	
2,400.0	2,328.3	2,389.8	2,389.6	10.5	2.3	63.85	1,268.3	935.1	1,287.9	1,275.8	12.06	106.770	
2,500.0	2,423.1	2,486.2	2,485.9	11.1	2.4	65.13	1,266.9	934.2	1,271.9	1,259.1	12.79	99.418	
2,600.0	2,517.9	2,580.2	2,580.0	11.8	2.4	66.40	1,265.5	933.3	1,256.6	1,243.0	13.53	92.903	
2,700.0	2,612.7	2,674.0	2,673.7	12.4	2.5	67.70	1,264.2	932.3	1,241.9	1,227.7	14.26	87.076	
2,800.0	2,707.6	2,767.7	2,767.5	13.0	2.6	69.02	1,263.0	931.4	1,228.1	1,213.1	15.01	81.840	
2,900.0	2,802.4	2,861.5	2,861.3	13.6	2.7	70.36	1,261.9	930.5	1,215.0	1,199.3	15.75	77.123	
3,000.0	2,897.2	2,955.4	2,955.1	14.3	2.7	71.73	1,260.8	929.6	1,202.7	1,186.2	16.51	72.864	
3,100.0	2,992.0	3,049.3	3,049.0	14.9	2.8	73.13	1,259.8	928.7	1,191.3	1,174.0	17.26	69.011	
3,200.0	3,086.8	3,143.3	3,142.9	15.5	2.9	74.54	1,258.8	927.9	1,180.7	1,162.6	18.02	65.520	
3,300.0	3,181.6	3,237.3	3,236.9	16.2	3.0	75.97	1,257.9	927.1	1,170.9	1,152.1	18.78	62.353	
3,400.0	3,276.5	3,331.3	3,331.0	16.8	3.1	77.43	1,257.1	926.2	1,162.0	1,142.5	19.54	59.477	
3,500.0	3,371.3	3,425.4	3,425.1	17.4	3.1	78.90	1,256.4	925.4	1,154.0	1,133.7	20.29	56.864	
3,600.0	3,466.1	3,520.5	3,520.2	18.1	3.2	80.40	1,255.7	924.6	1,146.9	1,125.8	21.05	54.493	
3,700.0	3,560.9	3,619.6	3,619.3	18.7	3.3	81.98	1,255.0	923.5	1,140.4	1,118.6	21.79	52.346	
3,800.0	3,655.7	3,718.7	3,718.4	19.3	3.3	83.56	1,254.3	922.0	1,134.4	1,111.9	22.52	50.377	
3,900.0	3,750.5	3,817.9	3,817.5	20.0	3.4	85.16	1,253.7	920.1	1,129.0	1,105.7	23.24	48.570	
4,000.0	3,845.4	3,917.1	3,916.7	20.6	3.5	86.76	1,253.0	917.7	1,124.0	1,100.1	23.96	46.909	
4,100.0	3,940.2	4,016.3	4,015.9	21.3	3.5	88.37	1,252.4	915.0	1,119.6	1,094.9	24.67	45.382	
4,200.0	4,035.0	4,115.6	4,115.1	21.9	3.6	89.99	1,251.7	911.8	1,115.7	1,090.3	25.37	43.981	
4,300.0	4,129.8	4,214.9	4,214.3	22.5	3.6	91.61	1,251.1	908.2	1,112.3	1,086.2	26.05	42.694	
4,400.0	4,224.6	4,314.2	4,313.6	23.2	3.7	93.24	1,250.5	904.2	1,109.4	1,082.7	26.72	41.514	
4,500.0	4,319.4	4,413.5	4,412.8	23.8	3.8	94.88	1,249.9	899.8	1,107.0	1,079.7	27.38	40.434	
4,600.0	4,414.3	4,500.0	4,499.1	24.4	3.8	96.30	1,249.4	895.6	1,105.3	1,077.3	28.02	39.449	
4,700.0	4,509.1	4,601.7	4,600.8	25.1	3.9	97.98	1,248.9	890.8	1,104.4	1,075.8	28.61	38.598	
4,710.5	4,519.1	4,611.2	4,610.2	25.1	3.9	98.14	1,248.8	890.3	1,104.4	1,075.7	28.68	38.514	
4,800.0	4,603.9	4,691.9	4,690.8	25.7	3.9	99.46	1,248.6	886.9	1,104.9	1,075.7	29.20	37.843	
4,900.0	4,698.7	4,782.1	4,781.0	26.3	3.9	100.93	1,248.5	883.4	1,106.8	1,077.0	29.77	37.181	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 650-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	4,793.5	4,872.5	4,871.3	27.0	3.9	102.38	1,248.5	880.2	1,109.9	1,079.5	30.32	36.604	
5,100.0	4,888.3	4,962.9	4,961.6	27.6	4.0	103.83	1,248.7	877.5	1,114.2	1,083.4	30.86	36.108	
5,200.0	4,983.2	5,053.4	5,052.1	28.2	4.0	105.25	1,249.1	875.1	1,119.8	1,088.5	31.38	35.685	
5,300.0	5,078.0	5,143.9	5,142.7	28.9	4.0	106.65	1,249.6	873.1	1,126.7	1,094.8	31.89	35.331	
5,400.0	5,172.8	5,234.6	5,233.3	29.5	4.0	108.02	1,250.3	871.5	1,134.6	1,102.3	32.38	35.040	
5,454.5	5,224.5	5,284.0	5,282.7	29.9	4.1	108.76	1,250.8	870.8	1,139.5	1,106.8	32.64	34.907	
5,500.0	5,267.7	5,325.4	5,324.1	30.1	4.1	109.44	1,251.2	870.3	1,143.7	1,110.8	32.82	34.851	
5,600.0	5,363.5	5,417.1	5,415.8	30.6	4.1	110.80	1,252.2	869.4	1,152.7	1,119.6	33.10	34.824	
5,700.0	5,460.3	5,510.5	5,509.2	31.0	4.1	112.00	1,253.4	869.0	1,161.4	1,128.1	33.36	34.818	
5,800.0	5,557.9	5,611.3	5,610.0	31.3	4.2	113.09	1,254.9	868.5	1,169.2	1,135.6	33.59	34.806	
5,900.0	5,656.2	5,712.8	5,711.5	31.7	4.2	113.98	1,256.4	867.8	1,175.6	1,141.8	33.80	34.777	
6,000.0	5,755.0	5,814.9	5,813.5	31.9	4.3	114.69	1,258.0	866.8	1,180.5	1,146.5	34.00	34.724	
6,100.0	5,854.4	5,917.4	5,916.0	32.2	4.3	115.20	1,259.7	865.6	1,183.8	1,149.6	34.17	34.641	
6,200.0	5,954.0	6,020.3	6,018.8	32.4	4.3	115.53	1,261.5	864.1	1,185.4	1,151.1	34.34	34.524	
6,300.0	6,053.9	6,123.2	6,121.8	32.5	4.4	115.67	1,263.3	862.4	1,185.3	1,150.8	34.49	34.369	
6,380.9	6,134.8	6,206.6	6,205.1	32.6	4.4	105.66	1,264.9	860.8	1,183.9	1,158.5	25.41	46.589	
6,400.0	6,153.9	6,226.2	6,224.7	32.6	4.4	105.65	1,265.3	860.4	1,183.5	1,158.0	25.44	46.518	
6,410.9	6,164.8	6,237.4	6,236.0	32.6	4.4	105.64	1,265.5	860.2	1,183.2	1,157.7	25.46	46.475	
6,450.0	6,203.9	6,277.7	6,276.2	32.6	4.5	15.68	1,266.3	859.3	1,181.2	1,146.5	34.61	34.123	
6,500.0	6,253.7	6,328.8	6,327.3	32.7	4.5	15.83	1,267.3	858.2	1,175.5	1,141.1	34.46	34.116	
6,550.0	6,303.0	6,379.5	6,377.9	32.7	4.5	16.11	1,268.3	857.0	1,166.5	1,132.3	34.17	34.138	
6,600.0	6,351.7	6,429.3	6,427.7	32.7	4.5	16.52	1,269.3	855.8	1,154.2	1,120.4	33.76	34.190	
6,650.0	6,399.5	6,478.0	6,476.4	32.7	4.5	17.09	1,270.3	854.6	1,138.6	1,105.3	33.22	34.275	
6,700.0	6,446.1	6,523.9	6,522.2	32.7	4.6	17.81	1,271.3	853.3	1,119.8	1,087.2	32.55	34.406	
6,750.0	6,491.4	6,567.0	6,565.3	32.7	4.6	18.72	1,272.1	852.2	1,098.1	1,066.3	31.75	34.586	
6,800.0	6,535.1	6,608.5	6,606.8	32.7	4.6	19.84	1,272.9	851.2	1,073.5	1,042.7	30.83	34.817	
6,850.0	6,576.9	6,648.3	6,646.6	32.7	4.6	21.22	1,273.6	850.3	1,046.2	1,016.4	29.80	35.107	
6,900.0	6,616.8	6,686.2	6,684.5	32.7	4.6	22.90	1,274.3	849.4	1,016.4	987.8	28.66	35.462	
6,950.0	6,654.4	6,721.9	6,720.2	32.7	4.6	24.96	1,274.8	848.7	984.2	956.8	27.43	35.880	
7,000.0	6,689.7	6,755.3	6,753.6	32.7	4.6	27.47	1,275.3	848.0	949.8	923.7	26.13	36.347	
7,050.0	6,722.4	6,786.3	6,784.6	32.7	4.6	30.53	1,275.8	847.4	913.4	888.6	24.82	36.809	
7,100.0	6,752.4	6,814.7	6,812.9	32.7	4.6	34.26	1,276.1	846.8	875.2	851.7	23.56	37.141	
7,150.0	6,779.5	6,840.3	6,838.5	32.7	4.6	38.77	1,276.5	846.4	835.5	813.0	22.52	37.101	
7,200.0	6,803.7	6,863.0	6,861.3	32.7	4.6	44.18	1,276.7	846.0	794.5	772.6	21.87	36.329	
7,250.0	6,824.7	6,882.7	6,881.0	32.7	4.6	50.52	1,277.0	845.7	752.4	730.6	21.80	34.511	
7,300.0	6,842.5	6,899.4	6,897.6	32.8	4.6	57.73	1,277.1	845.4	709.7	687.3	22.40	31.688	
7,350.0	6,857.0	6,912.8	6,911.0	32.8	4.6	65.53	1,277.3	845.2	666.7	643.1	23.54	28.324	
7,400.0	6,868.1	6,922.9	6,921.1	32.9	4.6	73.48	1,277.4	845.0	623.6	598.6	24.98	24.966	
7,450.0	6,875.9	6,929.7	6,927.9	33.0	4.6	81.02	1,277.4	844.9	581.0	554.5	26.49	21.931	
7,500.0	6,880.1	6,933.1	6,931.3	33.2	4.6	87.67	1,277.5	844.9	539.3	511.4	27.94	19.302	
7,542.1	6,881.0	6,933.3	6,931.6	33.4	4.6	92.35	1,277.5	844.9	505.2	476.1	29.07	17.377	
7,600.0	6,880.5	6,932.0	6,930.2	33.6	4.6	92.10	1,277.5	844.9	460.6	430.5	30.09	15.306	
7,700.0	6,879.6	6,929.6	6,927.8	34.3	4.6	91.66	1,277.4	844.9	391.8	359.8	31.99	12.247	
7,800.0	6,878.7	6,927.2	6,925.5	35.2	4.6	91.21	1,277.4	844.9	338.9	304.8	34.03	9.957	
7,900.0	6,877.8	6,924.8	6,923.1	36.5	4.6	90.77	1,277.4	845.0	310.1	273.9	36.18	8.570	
7,943.5	6,877.5	6,923.8	6,922.0	37.1	4.6	90.57	1,277.4	845.0	307.0	269.9	37.16	8.263 CC, ES	
8,000.0	6,877.0	6,922.4	6,920.7	38.0	4.6	90.32	1,277.4	845.0	312.2	273.8	38.43	8.124 SF	
8,100.0	6,876.1	6,920.0	6,918.3	39.9	4.6	89.87	1,277.4	845.1	344.6	303.9	40.74	8.458	
8,200.0	6,875.2	6,917.6	6,915.8	41.9	4.6	89.42	1,277.3	845.1	400.0	356.9	43.12	9.278	
8,300.0	6,874.4	6,915.2	6,913.4	44.0	4.6	88.96	1,277.3	845.1	470.4	424.9	45.54	10.329	
8,400.0	6,873.5	6,912.7	6,910.9	46.3	4.6	88.50	1,277.3	845.2	550.1	502.0	48.01	11.457	
8,500.0	6,872.6	6,910.3	6,908.5	48.6	4.6	88.05	1,277.3	845.2	635.5	584.9	50.51	12.581	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KINZER 28B - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 650-GYD_CT												<b>Offset Well Error:</b>	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
8,600.0	6,871.7	6,907.8	6,906.0	51.0	4.6	87.58	1,277.2	845.2	724.6	671.6	53.03	13.663	
8,700.0	6,870.9	6,905.3	6,903.5	53.4	4.6	87.12	1,277.2	845.3	816.2	760.7	55.58	14.686	
8,800.0	6,870.0	6,902.8	6,901.0	55.9	4.6	86.66	1,277.2	845.3	909.6	851.5	58.14	15.645	
8,900.0	6,869.1	6,900.3	6,898.5	58.5	4.6	86.19	1,277.1	845.4	1,004.3	943.6	60.72	16.540	
9,000.0	6,868.3	6,897.7	6,896.0	61.0	4.6	85.72	1,277.1	845.4	1,099.9	1,036.6	63.31	17.374	
9,100.0	6,867.4	6,895.2	6,893.4	63.6	4.6	85.25	1,277.1	845.5	1,196.2	1,130.3	65.90	18.151	
9,200.0	6,866.5	6,892.6	6,890.9	66.2	4.6	84.78	1,277.1	845.5	1,293.1	1,224.6	68.51	18.876	
9,300.0	6,865.6	6,890.0	6,888.3	68.8	4.6	84.30	1,277.0	845.5	1,390.4	1,319.3	71.11	19.553	
9,400.0	6,864.8	6,887.5	6,885.7	71.5	4.6	83.82	1,277.0	845.6	1,488.1	1,414.4	73.72	20.187	
9,500.0	6,863.9	6,884.8	6,883.1	74.1	4.6	83.35	1,277.0	845.6	1,586.1	1,509.7	76.32	20.781	
9,600.0	6,863.0	6,882.2	6,880.5	76.8	4.6	82.87	1,277.0	845.7	1,684.2	1,605.3	78.93	21.339	
9,700.0	6,862.2	6,879.6	6,877.8	79.4	4.6	82.38	1,276.9	845.7	1,782.6	1,701.1	81.53	21.864	
9,800.0	6,861.3	6,877.0	6,875.2	82.1	4.6	81.90	1,276.9	845.8	1,881.2	1,797.1	84.13	22.361	
9,900.0	6,860.4	6,874.3	6,872.5	84.8	4.6	81.42	1,276.9	845.8	1,979.9	1,893.2	86.72	22.830	
10,000.0	6,859.5	6,871.6	6,869.9	87.5	4.6	80.93	1,276.8	845.8	2,078.7	1,989.4	89.31	23.276	
10,100.0	6,858.7	6,868.9	6,867.2	90.2	4.6	80.45	1,276.8	845.9	2,177.6	2,085.7	91.89	23.699	
10,200.0	6,857.8	6,866.2	6,864.5	92.9	4.6	79.96	1,276.8	845.9	2,276.6	2,182.2	94.46	24.103	
10,300.0	6,856.9	6,863.5	6,861.7	95.6	4.6	79.47	1,276.7	846.0	2,375.7	2,278.7	97.02	24.488	
10,400.0	6,856.1	6,860.8	6,859.0	98.4	4.6	78.98	1,276.7	846.0	2,474.9	2,375.3	99.56	24.857	
10,500.0	6,855.2	6,858.0	6,856.2	101.1	4.6	78.49	1,276.7	846.1	2,574.1	2,472.0	102.10	25.211	
10,600.0	6,854.3	6,855.2	6,853.5	103.8	4.6	78.00	1,276.6	846.1	2,673.4	2,568.8	104.63	25.551	
10,700.0	6,853.5	6,852.5	6,850.7	106.5	4.6	77.50	1,276.6	846.2	2,772.7	2,665.6	107.14	25.879	
10,800.0	6,852.6	6,849.7	6,847.9	109.3	4.6	77.01	1,276.6	846.2	2,872.1	2,762.4	109.64	26.196	
10,900.0	6,851.7	6,846.8	6,845.1	112.0	4.6	76.51	1,276.5	846.3	2,971.5	2,859.4	112.12	26.502	
11,000.0	6,850.9	6,844.0	6,842.2	114.8	4.6	76.02	1,276.5	846.3	3,070.9	2,956.4	114.59	26.799	
11,100.0	6,850.0	6,841.2	6,839.4	117.5	4.6	75.52	1,276.5	846.4	3,170.4	3,053.4	117.04	27.088	
11,200.0	6,849.1	6,838.3	6,836.5	120.3	4.6	75.03	1,276.4	846.4	3,269.9	3,150.5	119.48	27.368	
11,300.0	6,848.2	6,835.4	6,833.7	123.0	4.6	74.53	1,276.4	846.5	3,369.5	3,247.6	121.90	27.642	
11,400.0	6,847.4	6,832.5	6,830.8	125.8	4.6	74.03	1,276.4	846.5	3,469.0	3,344.7	124.30	27.909	
11,500.0	6,846.5	6,829.6	6,827.8	128.5	4.6	73.54	1,276.3	846.6	3,568.6	3,441.9	126.68	28.171	
11,600.0	6,845.6	6,826.7	6,824.9	131.3	4.6	73.04	1,276.3	846.6	3,668.2	3,539.2	129.04	28.427	
11,700.0	6,844.8	6,823.7	6,822.0	134.1	4.6	72.54	1,276.3	846.7	3,767.8	3,636.5	131.38	28.679	
11,800.0	6,843.9	6,820.7	6,819.0	136.8	4.6	72.04	1,276.2	846.7	3,867.5	3,733.8	133.70	28.927	
11,900.0	6,843.0	6,817.8	6,816.0	139.6	4.6	71.54	1,276.2	846.8	3,967.1	3,831.1	136.00	29.170	
12,000.0	6,842.2	6,814.8	6,813.0	142.4	4.6	71.05	1,276.1	846.8	4,066.8	3,928.5	138.28	29.411	
12,100.0	6,841.3	6,811.7	6,810.0	145.1	4.6	70.55	1,276.1	846.9	4,166.5	4,026.0	140.53	29.648	
12,133.9	6,841.0	6,810.7	6,809.0	146.1	4.6	70.38	1,276.1	846.9	4,200.2	4,059.0	141.29	29.728	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	77.5	77.5	0.0	0.1	7.18	2,852.5	359.4	2,875.1				
100.0	100.0	177.5	177.5	0.1	2.1	7.18	2,852.5	359.4	2,875.1	2,872.9	2.24	1,282.318	
200.0	200.0	277.5	277.5	0.3	4.3	7.18	2,852.5	359.4	2,875.1	2,870.4	4.65	617.711	
300.0	300.0	377.5	377.5	0.5	6.4	7.18	2,852.5	359.4	2,875.1	2,868.2	6.92	415.552	
400.0	400.0	477.5	477.5	0.8	8.4	7.18	2,852.5	359.4	2,875.1	2,865.9	9.17	313.590	
500.0	500.0	577.5	577.5	1.0	10.4	17.18	2,852.5	359.4	2,873.4	2,862.0	11.41	251.892	
600.0	599.8	677.3	677.3	1.2	12.4	17.24	2,852.5	359.4	2,868.4	2,854.8	13.63	210.507	
700.0	699.5	777.0	777.0	1.5	14.4	17.34	2,852.5	359.4	2,860.1	2,844.3	15.82	180.815	
800.0	798.7	876.2	876.2	1.7	16.4	17.49	2,852.5	359.4	2,848.5	2,830.5	17.98	158.455	
900.0	897.5	975.0	975.0	2.0	18.4	17.67	2,852.5	359.4	2,833.5	2,813.4	20.10	140.994	
1,000.0	995.6	1,073.1	1,073.1	2.4	20.4	17.90	2,852.5	359.4	2,815.3	2,793.2	22.17	126.967	
1,100.0	1,093.1	1,170.6	1,170.6	2.8	22.4	18.18	2,852.5	359.4	2,793.9	2,769.7	24.20	115.438	
1,200.0	1,189.6	1,267.1	1,267.1	3.3	24.3	18.51	2,852.5	359.4	2,769.3	2,743.1	26.18	105.780	
1,300.0	1,285.3	1,362.8	1,362.8	3.8	26.2	18.89	2,852.5	359.4	2,741.4	2,713.3	28.10	97.557	
1,326.4	1,310.3	1,387.8	1,387.8	3.9	26.7	19.00	2,852.5	359.4	2,733.6	2,705.0	28.60	95.584	
1,400.0	1,380.1	1,457.6	1,457.6	4.3	28.1	19.16	2,852.5	359.4	2,711.4	2,681.2	30.18	89.830	
1,500.0	1,474.9	1,552.4	1,552.4	4.9	30.0	19.38	2,852.5	359.4	2,681.2	2,648.8	32.34	82.894	
1,600.0	1,569.8	1,647.3	1,647.3	5.5	32.0	19.61	2,852.5	359.4	2,651.1	2,616.6	34.52	76.809	
1,700.0	1,664.6	1,742.1	1,742.1	6.1	33.9	19.84	2,852.5	359.4	2,621.0	2,584.3	36.69	71.431	
1,800.0	1,759.4	1,836.9	1,836.9	6.8	35.8	20.08	2,852.5	359.4	2,590.9	2,552.1	38.88	66.645	
1,900.0	1,854.2	1,931.7	1,931.7	7.4	37.7	20.32	2,852.5	359.4	2,560.9	2,519.9	41.07	62.361	
2,000.0	1,949.0	2,026.5	2,026.5	8.0	39.6	20.57	2,852.5	359.4	2,531.0	2,487.7	43.26	58.504	
2,100.0	2,043.8	2,121.3	2,121.3	8.6	41.5	20.82	2,852.5	359.4	2,501.1	2,455.6	45.46	55.014	
2,200.0	2,138.7	2,216.2	2,216.2	9.2	43.4	21.08	2,852.5	359.4	2,471.2	2,423.5	47.67	51.841	
2,300.0	2,233.5	2,311.0	2,311.0	9.9	45.3	21.35	2,852.5	359.4	2,441.4	2,391.5	49.88	48.946	
2,400.0	2,328.3	2,405.8	2,405.8	10.5	47.2	21.62	2,852.5	359.4	2,411.6	2,359.5	52.09	46.292	
2,500.0	2,423.1	2,500.6	2,500.6	11.1	49.1	21.90	2,852.5	359.4	2,381.9	2,327.6	54.32	43.852	
2,600.0	2,517.9	2,595.4	2,595.4	11.8	51.0	22.19	2,852.5	359.4	2,352.2	2,295.7	56.54	41.601	
2,700.0	2,612.7	2,690.2	2,690.2	12.4	52.9	22.48	2,852.5	359.4	2,322.6	2,263.8	58.77	39.518	
2,800.0	2,707.6	2,785.1	2,785.1	13.0	54.8	22.78	2,852.5	359.4	2,293.0	2,232.0	61.01	37.585	
2,900.0	2,802.4	2,879.9	2,879.9	13.6	56.7	23.09	2,852.5	359.4	2,263.6	2,200.3	63.25	35.786	
3,000.0	2,897.2	2,974.7	2,974.7	14.3	58.7	23.41	2,852.5	359.4	2,234.1	2,168.6	65.50	34.109	
3,100.0	2,992.0	3,069.5	3,069.5	14.9	60.6	23.73	2,852.5	359.4	2,204.8	2,137.0	67.75	32.541	
3,200.0	3,086.8	3,164.3	3,164.3	15.5	62.5	24.07	2,852.5	359.4	2,175.5	2,105.5	70.01	31.072	
3,300.0	3,181.6	3,259.1	3,259.1	16.2	64.4	24.41	2,852.5	359.4	2,146.2	2,074.0	72.28	29.693	
3,400.0	3,276.5	3,354.0	3,354.0	16.8	66.3	24.76	2,852.5	359.4	2,117.1	2,042.5	74.55	28.397	
3,500.0	3,371.3	3,448.8	3,448.8	17.4	68.2	25.12	2,852.5	359.4	2,088.0	2,011.2	76.83	27.176	
3,600.0	3,466.1	3,543.6	3,543.6	18.1	70.1	25.50	2,852.5	359.4	2,059.0	1,979.9	79.12	26.024	
3,700.0	3,560.9	3,638.4	3,638.4	18.7	72.0	25.88	2,852.5	359.4	2,030.1	1,948.7	81.42	24.935	
3,800.0	3,655.7	3,733.2	3,733.2	19.3	73.9	26.27	2,852.5	359.4	2,001.3	1,917.6	83.72	23.905	
3,900.0	3,750.5	3,828.0	3,828.0	20.0	75.8	26.68	2,852.5	359.4	1,972.5	1,886.5	86.03	22.929	
4,000.0	3,845.4	3,922.9	3,922.9	20.6	77.7	27.09	2,852.5	359.4	1,943.9	1,855.6	88.35	22.003	
4,100.0	3,940.2	4,017.7	4,017.7	21.3	79.6	27.52	2,852.5	359.4	1,915.4	1,824.7	90.68	21.123	
4,200.0	4,035.0	4,112.5	4,112.5	21.9	81.5	27.96	2,852.5	359.4	1,886.9	1,793.9	93.02	20.286	
4,300.0	4,129.8	4,207.3	4,207.3	22.5	83.4	28.42	2,852.5	359.4	1,858.6	1,763.2	95.36	19.490	
4,400.0	4,224.6	4,302.1	4,302.1	23.2	85.3	28.88	2,852.5	359.4	1,830.4	1,732.7	97.72	18.731	
4,500.0	4,319.4	4,396.9	4,396.9	23.8	87.3	29.37	2,852.5	359.4	1,802.3	1,702.2	100.09	18.006	
4,600.0	4,414.3	4,491.8	4,491.8	24.4	89.2	29.86	2,852.5	359.4	1,774.3	1,671.8	102.47	17.315	
4,700.0	4,509.1	4,586.6	4,586.6	25.1	91.1	30.37	2,852.5	359.4	1,746.5	1,641.6	104.86	16.655	
4,800.0	4,603.9	4,681.4	4,681.4	25.7	93.0	30.90	2,852.5	359.4	1,718.8	1,611.5	107.27	16.023	
4,900.0	4,698.7	4,776.2	4,776.2	26.3	94.9	31.45	2,852.5	359.4	1,691.2	1,581.5	109.69	15.418	
5,000.0	4,793.5	4,871.0	4,871.0	27.0	96.8	32.01	2,852.5	359.4	1,663.8	1,551.7	112.12	14.839	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	4,965.8	4,965.8	27.6	98.7	32.59	2,852.5	359.4	1,636.5	1,522.0	114.57	14.285	
5,200.0	4,983.2	5,060.7	5,060.7	28.2	100.6	33.19	2,852.5	359.4	1,609.4	1,492.4	117.03	13.753	
5,300.0	5,078.0	5,155.5	5,155.5	28.9	102.5	33.81	2,852.5	359.4	1,582.5	1,463.0	119.50	13.242	
5,400.0	5,172.8	5,250.3	5,250.3	29.5	104.4	34.45	2,852.5	359.4	1,555.8	1,433.8	122.00	12.753	
5,454.5	5,224.5	5,302.0	5,302.0	29.9	105.5	34.81	2,852.5	359.4	1,541.3	1,417.9	123.36	12.494	
5,500.0	5,267.7	5,345.2	5,345.2	30.1	106.3	34.97	2,852.5	359.4	1,529.5	1,404.8	124.79	12.257	
5,600.0	5,363.5	5,441.0	5,441.0	30.6	108.2	35.30	2,852.5	359.4	1,505.8	1,378.0	127.80	11.782	
5,700.0	5,460.3	5,537.8	5,537.8	31.0	110.2	35.61	2,852.5	359.4	1,485.1	1,354.3	130.73	11.359	
5,800.0	5,557.9	5,635.4	5,635.4	31.3	112.2	35.89	2,852.5	359.4	1,467.2	1,333.6	133.56	10.985	
5,900.0	5,656.2	5,733.7	5,733.7	31.7	114.1	36.13	2,852.5	359.4	1,452.2	1,315.9	136.29	10.655	
6,000.0	5,755.0	5,832.5	5,832.5	31.9	116.1	36.34	2,852.5	359.4	1,440.0	1,301.2	138.90	10.368	
6,100.0	5,854.4	5,931.9	5,931.9	32.2	118.1	36.50	2,852.5	359.4	1,430.8	1,289.4	141.39	10.119	
6,200.0	5,954.0	6,031.5	6,031.5	32.4	120.1	36.61	2,852.5	359.4	1,424.3	1,280.5	143.75	9.908	
6,300.0	6,053.9	6,131.4	6,131.4	32.5	122.1	36.68	2,852.5	359.4	1,420.6	1,274.6	145.98	9.732	
6,380.9	6,134.8	6,212.3	6,212.3	32.6	123.8	26.72	2,852.5	359.4	1,419.7	1,267.9	151.75	9.355	
6,400.0	6,153.9	6,231.4	6,231.4	32.6	124.1	26.72	2,852.5	359.4	1,419.7	1,267.5	152.15	9.331	
6,410.9	6,164.8	6,242.3	6,242.3	32.6	124.4	26.72	2,852.5	359.4	1,419.7	1,267.3	152.38	9.317	
6,450.0	6,203.9	6,281.4	6,281.4	32.6	125.1	-63.36	2,852.5	359.4	1,419.2	1,270.1	149.12	9.517	
6,500.0	6,253.7	6,331.2	6,331.2	32.7	126.2	-63.66	2,852.5	359.4	1,417.2	1,267.3	149.92	9.453	
6,550.0	6,303.0	6,380.5	6,380.5	32.7	127.1	-64.20	2,852.5	359.4	1,413.7	1,263.2	150.47	9.395	
6,600.0	6,351.7	6,429.2	6,429.2	32.7	128.1	-64.97	2,852.5	359.4	1,408.7	1,257.9	150.81	9.341	
6,650.0	6,399.5	6,477.0	6,477.0	32.7	129.1	-65.96	2,852.5	359.4	1,402.4	1,251.4	150.99	9.288	
6,700.0	6,446.1	6,523.6	6,523.6	32.7	130.0	-67.16	2,852.5	359.4	1,394.8	1,243.7	151.08	9.232	
6,750.0	6,491.4	6,568.9	6,568.9	32.7	130.9	-68.56	2,852.5	359.4	1,386.1	1,234.9	151.14	9.171	
6,800.0	6,535.1	6,612.6	6,612.6	32.7	131.8	-70.14	2,852.5	359.4	1,376.4	1,225.2	151.25	9.100	
6,850.0	6,576.9	6,654.4	6,654.4	32.7	132.7	-71.87	2,852.5	359.4	1,366.0	1,214.6	151.47	9.019	
6,900.0	6,616.8	6,694.3	6,694.3	32.7	133.5	-73.71	2,852.5	359.4	1,355.1	1,203.3	151.83	8.925	
6,950.0	6,654.4	6,731.9	6,731.9	32.7	134.2	-75.64	2,852.5	359.4	1,343.9	1,191.5	152.36	8.820	
7,000.0	6,689.7	6,767.2	6,767.2	32.7	134.9	-77.62	2,852.5	359.4	1,332.6	1,179.5	153.06	8.706	
7,050.0	6,722.4	6,799.9	6,799.9	32.7	135.6	-79.58	2,852.5	359.4	1,321.4	1,167.5	153.90	8.587	
7,100.0	6,752.4	6,829.9	6,829.9	32.7	136.2	-81.50	2,852.5	359.4	1,310.8	1,155.9	154.83	8.466	
7,150.0	6,779.5	6,857.0	6,857.0	32.7	136.7	-83.32	2,852.5	359.4	1,300.8	1,145.0	155.82	8.348	
7,200.0	6,803.7	6,881.2	6,881.2	32.7	137.2	-84.99	2,852.5	359.4	1,291.7	1,134.9	156.82	8.237	
7,250.0	6,824.7	6,902.2	6,902.2	32.7	137.6	-86.49	2,852.5	359.4	1,283.9	1,126.1	157.80	8.136	
7,300.0	6,842.5	6,920.0	6,920.0	32.8	138.0	-87.76	2,852.5	359.4	1,277.4	1,118.7	158.75	8.047	
7,350.0	6,857.0	6,934.5	6,934.5	32.8	138.3	-88.77	2,852.5	359.4	1,272.6	1,112.9	159.67	7.970	
7,400.0	6,868.1	6,945.6	6,945.6	32.9	138.5	-89.51	2,852.5	359.4	1,269.4	1,108.9	160.56	7.906	
7,450.0	6,875.9	6,953.4	6,953.4	33.0	138.7	-89.96	2,852.5	359.4	1,268.2	1,106.7	161.44	7.855	
7,457.8	6,876.7	6,954.2	6,954.2	33.1	138.7	-90.00	2,852.5	359.4	1,268.1	1,106.6	161.58	7.848 CC	
7,500.0	6,880.1	6,957.6	6,957.6	33.2	138.7	-90.10	2,852.5	359.4	1,268.8	1,106.5	162.33	7.816 ES	
7,542.1	6,881.0	6,958.5	6,958.5	33.4	138.8	-89.97	2,852.5	359.4	1,270.9	1,107.9	163.08	7.793	
7,600.0	6,880.5	6,958.0	6,958.0	33.6	138.8	-89.94	2,852.5	359.4	1,276.1	1,112.0	164.11	7.776	
7,700.0	6,879.6	6,957.1	6,957.1	34.3	138.7	-89.90	2,852.5	359.4	1,291.0	1,125.0	166.04	7.776 SF	
7,800.0	6,878.7	6,956.2	6,956.2	35.2	138.7	-89.87	2,852.5	359.4	1,313.5	1,145.4	168.10	7.813	
7,900.0	6,877.8	6,955.3	6,955.3	36.5	138.7	-89.83	2,852.5	359.4	1,343.0	1,172.7	170.28	7.887	
8,000.0	6,877.0	6,954.5	6,954.5	38.0	138.7	-89.79	2,852.5	359.4	1,379.1	1,206.6	172.54	7.993	
8,100.0	6,876.1	6,953.6	6,953.6	39.9	138.7	-89.75	2,852.5	359.4	1,421.4	1,246.5	174.88	8.128	
8,200.0	6,875.2	6,952.7	6,952.7	41.9	138.6	-89.71	2,852.5	359.4	1,469.3	1,292.0	177.28	8.288	
8,300.0	6,874.4	6,951.9	6,951.9	44.0	138.6	-89.67	2,852.5	359.4	1,522.2	1,342.5	179.74	8.469	
8,400.0	6,873.5	6,951.0	6,951.0	46.3	138.6	-89.63	2,852.5	359.4	1,579.8	1,397.5	182.23	8.669	
8,500.0	6,872.6	6,950.1	6,950.1	48.6	138.6	-89.59	2,852.5	359.4	1,641.3	1,456.6	184.75	8.884	
8,600.0	6,871.7	6,949.2	6,949.2	51.0	138.6	-89.55	2,852.5	359.4	1,706.6	1,519.3	187.31	9.111	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT KIZNER 28-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	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
8,700.0	6,870.9	6,948.4	6,948.4	53.4	138.6	-89.51	2,852.5	359.4	1,775.1	1,585.2	189.89	9.348	
8,800.0	6,870.0	6,947.5	6,947.5	55.9	138.5	-89.47	2,852.5	359.4	1,846.4	1,653.9	192.49	9.592	
8,900.0	6,869.1	6,946.6	6,946.6	58.5	138.5	-89.43	2,852.5	359.4	1,920.3	1,725.2	195.11	9.842	
9,000.0	6,868.3	6,945.8	6,945.8	61.0	138.5	-89.39	2,852.5	359.4	1,996.5	1,798.8	197.75	10.096	
9,100.0	6,867.4	6,944.9	6,944.9	63.6	138.5	-89.35	2,852.5	359.4	2,074.7	1,874.3	200.40	10.353	
9,200.0	6,866.5	6,944.0	6,944.0	66.2	138.5	-89.31	2,852.5	359.4	2,154.7	1,951.7	203.06	10.611	
9,300.0	6,865.6	6,943.1	6,943.1	68.8	138.5	-89.28	2,852.5	359.4	2,236.3	2,030.6	205.73	10.870	
9,400.0	6,864.8	6,942.3	6,942.3	71.5	138.4	-89.24	2,852.5	359.4	2,319.4	2,111.0	208.41	11.129	
9,500.0	6,863.9	6,941.4	6,941.4	74.1	138.4	-89.20	2,852.5	359.4	2,403.7	2,192.6	211.10	11.387	
9,600.0	6,863.0	6,940.5	6,940.5	76.8	138.4	-89.16	2,852.5	359.4	2,489.2	2,275.4	213.80	11.643	
9,700.0	6,862.2	6,939.7	6,939.7	79.4	138.4	-89.12	2,852.5	359.4	2,575.8	2,359.3	216.50	11.897	
9,800.0	6,861.3	6,938.8	6,938.8	82.1	138.4	-89.08	2,852.5	359.4	2,663.3	2,444.1	219.21	12.150	
9,900.0	6,860.4	6,937.9	6,937.9	84.8	138.4	-89.04	2,852.5	359.4	2,751.6	2,529.7	221.92	12.399	
10,000.0	6,859.5	6,937.0	6,937.0	87.5	138.3	-89.00	2,852.5	359.4	2,840.7	2,616.1	224.64	12.646	
10,100.0	6,858.7	6,936.2	6,936.2	90.2	138.3	-88.96	2,852.5	359.4	2,930.6	2,703.2	227.37	12.889	
10,200.0	6,857.8	6,935.3	6,935.3	92.9	138.3	-88.92	2,852.5	359.4	3,021.0	2,790.9	230.09	13.130	
10,300.0	6,856.9	6,934.4	6,934.4	95.6	138.3	-88.88	2,852.5	359.4	3,112.1	2,879.2	232.82	13.367	
10,400.0	6,856.1	6,933.6	6,933.6	98.4	138.3	-88.84	2,852.5	359.4	3,203.6	2,968.1	235.56	13.600	
10,500.0	6,855.2	6,932.7	6,932.7	101.1	138.2	-88.80	2,852.5	359.4	3,295.7	3,057.4	238.30	13.830	
10,600.0	6,854.3	6,931.8	6,931.8	103.8	138.2	-88.77	2,852.5	359.4	3,388.2	3,147.2	241.04	14.057	
10,700.0	6,853.5	6,931.0	6,931.0	106.5	138.2	-88.73	2,852.5	359.4	3,481.2	3,237.4	243.78	14.280	
10,800.0	6,852.6	6,930.1	6,930.1	109.3	138.2	-88.69	2,852.5	359.4	3,574.5	3,327.9	246.52	14.500	
10,900.0	6,851.7	6,929.2	6,929.2	112.0	138.2	-88.65	2,852.5	359.4	3,668.1	3,418.9	249.27	14.716	
11,000.0	6,850.9	6,928.4	6,928.4	114.8	138.2	-88.61	2,852.5	359.4	3,762.1	3,510.1	252.02	14.928	
11,100.0	6,850.0	6,927.5	6,927.5	117.5	138.1	-88.57	2,852.5	359.4	3,856.4	3,601.6	254.77	15.137	
11,200.0	6,849.1	6,926.6	6,926.6	120.3	138.1	-88.53	2,852.5	359.4	3,951.0	3,693.5	257.52	15.342	
11,300.0	6,848.2	6,925.7	6,925.7	123.0	138.1	-88.49	2,852.5	359.4	4,045.8	3,785.5	260.27	15.544	
11,400.0	6,847.4	6,924.9	6,924.9	125.8	138.1	-88.45	2,852.5	359.4	4,140.9	3,877.9	263.03	15.743	
11,500.0	6,846.5	6,924.0	6,924.0	128.5	138.1	-88.41	2,852.5	359.4	4,236.2	3,970.4	265.78	15.938	
11,600.0	6,845.6	6,923.1	6,923.1	131.3	138.1	-88.37	2,852.5	359.4	4,331.7	4,063.2	268.54	16.130	
11,700.0	6,844.8	6,922.3	6,922.3	134.1	138.0	-88.34	2,852.5	359.4	4,427.4	4,156.1	271.30	16.319	
11,800.0	6,843.9	6,921.4	6,921.4	136.8	138.0	-88.30	2,852.5	359.4	4,523.3	4,249.3	274.06	16.505	
11,900.0	6,843.0	6,920.5	6,920.5	139.6	138.0	-88.26	2,852.5	359.4	4,619.4	4,342.6	276.82	16.687	
12,000.0	6,842.2	6,919.7	6,919.7	142.4	138.0	-88.22	2,852.5	359.4	4,715.6	4,436.0	279.58	16.867	
12,100.0	6,841.3	6,918.8	6,918.8	145.1	138.0	-88.18	2,852.5	359.4	4,812.0	4,529.7	282.34	17.043	
12,133.9	6,841.0	6,918.5	6,918.5	146.1	138.0	-88.17	2,852.5	359.4	4,844.7	4,561.4	283.28	17.102	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	69.5	69.5	0.0	0.2	52.02	1,512.0	1,936.6	2,456.9				
100.0	100.0	169.5	169.5	0.1	2.0	52.02	1,512.0	1,936.6	2,456.9	2,454.8	2.11	1,163.958	
200.0	200.0	269.5	269.5	0.3	4.2	52.02	1,512.0	1,936.6	2,456.9	2,452.4	4.56	538.993	
300.0	300.0	369.5	369.5	0.5	6.3	52.02	1,512.0	1,936.6	2,456.9	2,450.1	6.83	359.793	
400.0	400.0	469.5	469.5	0.8	8.3	52.02	1,512.0	1,936.6	2,456.9	2,447.9	9.08	270.559	
500.0	500.0	569.5	569.5	1.0	10.3	62.05	1,512.0	1,936.6	2,456.1	2,444.8	11.32	216.884	
600.0	599.8	669.3	669.3	1.2	12.3	62.20	1,512.0	1,936.6	2,453.7	2,440.1	13.56	180.923	
700.0	699.5	769.0	769.0	1.5	14.4	62.45	1,512.0	1,936.6	2,449.6	2,433.8	15.80	155.048	
800.0	798.7	868.2	868.2	1.7	16.4	62.81	1,512.0	1,936.6	2,444.0	2,425.9	18.04	135.454	
900.0	897.5	967.0	967.0	2.0	18.3	63.26	1,512.0	1,936.6	2,436.8	2,416.5	20.30	120.036	
1,000.0	995.6	1,065.1	1,065.1	2.4	20.3	63.81	1,512.0	1,936.6	2,428.2	2,405.6	22.58	107.540	
1,100.0	1,093.1	1,162.6	1,162.6	2.8	22.3	64.46	1,512.0	1,936.6	2,418.1	2,393.3	24.88	97.174	
1,200.0	1,189.6	1,259.1	1,259.1	3.3	24.2	65.21	1,512.0	1,936.6	2,406.8	2,379.6	27.22	88.415	
1,300.0	1,285.3	1,354.8	1,354.8	3.8	26.1	66.05	1,512.0	1,936.6	2,394.3	2,364.7	29.60	80.901	
1,326.4	1,310.3	1,379.8	1,379.8	3.9	26.6	66.29	1,512.0	1,936.6	2,390.8	2,360.6	30.23	79.091	
1,400.0	1,380.1	1,449.6	1,449.6	4.3	28.1	66.78	1,512.0	1,936.6	2,381.1	2,349.0	32.03	74.330	
1,500.0	1,474.9	1,544.4	1,544.4	4.9	30.0	67.45	1,512.0	1,936.6	2,368.2	2,333.7	34.50	68.635	
1,600.0	1,569.8	1,639.3	1,639.3	5.5	31.9	68.14	1,512.0	1,936.6	2,355.6	2,318.6	36.99	63.684	
1,700.0	1,664.6	1,734.1	1,734.1	6.1	33.8	68.83	1,512.0	1,936.6	2,343.4	2,303.9	39.49	59.348	
1,800.0	1,759.4	1,828.9	1,828.9	6.8	35.7	69.52	1,512.0	1,936.6	2,331.6	2,289.6	41.99	55.522	
1,900.0	1,854.2	1,923.7	1,923.7	7.4	37.6	70.22	1,512.0	1,936.6	2,320.1	2,275.6	44.51	52.126	
2,000.0	1,949.0	2,018.5	2,018.5	8.0	39.5	70.93	1,512.0	1,936.6	2,309.0	2,262.0	47.03	49.093	
2,100.0	2,043.8	2,113.3	2,113.3	8.6	41.4	71.64	1,512.0	1,936.6	2,298.3	2,248.8	49.56	46.370	
2,200.0	2,138.7	2,208.2	2,208.2	9.2	43.3	72.36	1,512.0	1,936.6	2,288.0	2,235.9	52.10	43.915	
2,300.0	2,233.5	2,303.0	2,303.0	9.9	45.2	73.09	1,512.0	1,936.6	2,278.1	2,223.5	54.64	41.691	
2,400.0	2,328.3	2,397.8	2,397.8	10.5	47.1	73.82	1,512.0	1,936.6	2,268.6	2,211.4	57.19	39.668	
2,500.0	2,423.1	2,492.6	2,492.6	11.1	49.0	74.56	1,512.0	1,936.6	2,259.5	2,199.8	59.74	37.822	
2,600.0	2,517.9	2,587.4	2,587.4	11.8	50.9	75.30	1,512.0	1,936.6	2,250.9	2,188.6	62.30	36.131	
2,700.0	2,612.7	2,682.2	2,682.2	12.4	52.8	76.05	1,512.0	1,936.6	2,242.6	2,177.7	64.86	34.579	
2,800.0	2,707.6	2,777.1	2,777.1	13.0	54.8	76.80	1,512.0	1,936.6	2,234.7	2,167.3	67.42	33.149	
2,900.0	2,802.4	2,871.9	2,871.9	13.6	56.7	77.55	1,512.0	1,936.6	2,227.3	2,157.4	69.98	31.828	
3,000.0	2,897.2	2,966.7	2,966.7	14.3	58.6	78.32	1,512.0	1,936.6	2,220.3	2,147.8	72.55	30.606	
3,100.0	2,992.0	3,061.5	3,061.5	14.9	60.5	79.08	1,512.0	1,936.6	2,213.8	2,138.7	75.11	29.473	
3,200.0	3,086.8	3,156.3	3,156.3	15.5	62.4	79.85	1,512.0	1,936.6	2,207.7	2,130.0	77.68	28.420	
3,300.0	3,181.6	3,251.1	3,251.1	16.2	64.3	80.62	1,512.0	1,936.6	2,202.0	2,121.7	80.25	27.439	
3,400.0	3,276.5	3,346.0	3,346.0	16.8	66.2	81.40	1,512.0	1,936.6	2,196.8	2,114.0	82.82	26.525	
3,500.0	3,371.3	3,440.8	3,440.8	17.4	68.1	82.18	1,512.0	1,936.6	2,192.0	2,106.6	85.39	25.671	
3,600.0	3,466.1	3,535.6	3,535.6	18.1	70.0	82.96	1,512.0	1,936.6	2,187.7	2,099.7	87.95	24.872	
3,700.0	3,560.9	3,630.4	3,630.4	18.7	71.9	83.75	1,512.0	1,936.6	2,183.8	2,093.3	90.52	24.124	
3,800.0	3,655.7	3,725.2	3,725.2	19.3	73.8	84.53	1,512.0	1,936.6	2,180.4	2,087.3	93.09	23.423	
3,900.0	3,750.5	3,820.0	3,820.0	20.0	75.7	85.32	1,512.0	1,936.6	2,177.4	2,081.8	95.65	22.764	
4,000.0	3,845.4	3,914.9	3,914.9	20.6	77.6	86.11	1,512.0	1,936.6	2,174.9	2,076.7	98.21	22.145	
4,100.0	3,940.2	4,009.7	4,009.7	21.3	79.5	86.91	1,512.0	1,936.6	2,172.9	2,072.1	100.77	21.563	
4,200.0	4,035.0	4,104.5	4,104.5	21.9	81.5	87.70	1,512.0	1,936.6	2,171.3	2,068.0	103.32	21.014	
4,300.0	4,129.8	4,199.3	4,199.3	22.5	83.4	88.50	1,512.0	1,936.6	2,170.2	2,064.3	105.87	20.498	
4,400.0	4,224.6	4,294.1	4,294.1	23.2	85.3	89.29	1,512.0	1,936.6	2,169.5	2,061.1	108.42	20.010	
4,489.0	4,309.0	4,378.5	4,378.5	23.7	87.0	90.00	1,512.0	1,936.6	2,169.3	2,058.7	110.68	19.599	
4,500.0	4,319.4	4,388.9	4,388.9	23.8	87.2	90.09	1,512.0	1,936.6	2,169.3	2,058.4	110.96	19.550	
4,600.0	4,414.3	4,483.8	4,483.8	24.4	89.1	90.88	1,512.0	1,936.6	2,169.6	2,056.1	113.50	19.116	
4,700.0	4,509.1	4,578.6	4,578.6	25.1	91.0	91.68	1,512.0	1,936.6	2,170.4	2,054.3	116.03	18.705	
4,800.0	4,603.9	4,673.4	4,673.4	25.7	92.9	92.47	1,512.0	1,936.6	2,171.6	2,053.0	118.56	18.317	
4,900.0	4,698.7	4,768.2	4,768.2	26.3	94.8	93.27	1,512.0	1,936.6	2,173.3	2,052.2	121.08	17.949	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	4,793.5	4,863.0	4,863.0	27.0	96.7	94.06	1,512.0	1,936.6	2,175.4	2,051.8	123.59	17.602	
5,100.0	4,888.3	4,957.8	4,957.8	27.6	98.6	94.85	1,512.0	1,936.6	2,178.0	2,051.9	126.10	17.272	
5,200.0	4,983.2	5,052.7	5,052.7	28.2	100.5	95.64	1,512.0	1,936.6	2,181.1	2,052.5	128.60	16.961	
5,300.0	5,078.0	5,147.5	5,147.5	28.9	102.4	96.43	1,512.0	1,936.6	2,184.6	2,053.5	131.09	16.665	
5,400.0	5,172.8	5,242.3	5,242.3	29.5	104.3	97.21	1,512.0	1,936.6	2,188.6	2,055.0	133.57	16.385	
5,454.5	5,224.5	5,294.0	5,294.0	29.9	105.4	97.64	1,512.0	1,936.6	2,190.9	2,056.0	134.92	16.238	
5,500.0	5,267.7	5,337.2	5,337.2	30.1	106.2	98.03	1,512.0	1,936.6	2,193.0	2,056.9	136.02	16.122	
5,600.0	5,363.5	5,433.0	5,433.0	30.6	108.2	98.82	1,512.0	1,936.6	2,197.3	2,059.0	138.36	15.882	
5,700.0	5,460.3	5,529.8	5,529.8	31.0	110.1	99.53	1,512.0	1,936.6	2,201.5	2,060.8	140.67	15.650	
5,800.0	5,557.9	5,627.4	5,627.4	31.3	112.1	100.15	1,512.0	1,936.6	2,205.3	2,062.3	142.97	15.425	
5,900.0	5,656.2	5,725.7	5,725.7	31.7	114.1	100.68	1,512.0	1,936.6	2,208.7	2,063.4	145.24	15.207	
6,000.0	5,755.0	5,824.5	5,824.5	31.9	116.0	101.12	1,512.0	1,936.6	2,211.5	2,064.1	147.49	14.995	
6,100.0	5,854.4	5,923.9	5,923.9	32.2	118.0	101.45	1,512.0	1,936.6	2,213.8	2,064.1	149.70	14.788	
6,200.0	5,954.0	6,023.5	6,023.5	32.4	120.0	101.69	1,512.0	1,936.6	2,215.4	2,063.6	151.89	14.586	
6,300.0	6,053.9	6,123.4	6,123.4	32.5	122.1	101.82	1,512.0	1,936.6	2,216.4	2,062.3	154.03	14.389	
6,380.9	6,134.8	6,204.3	6,204.3	32.6	123.7	91.87	1,512.0	1,936.6	2,216.6	2,074.8	141.80	15.632	
6,400.0	6,153.9	6,223.4	6,223.4	32.6	124.1	91.87	1,512.0	1,936.6	2,216.6	2,074.4	142.21	15.587	
6,410.9	6,164.8	6,234.3	6,234.3	32.6	124.3	91.87	1,512.0	1,936.6	2,216.6	2,074.2	142.44	15.561	
6,450.0	6,203.9	6,273.4	6,273.4	32.6	125.1	1.88	1,512.0	1,936.6	2,215.5	2,058.6	156.92	14.119	
6,500.0	6,253.7	6,323.2	6,323.2	32.7	126.1	1.89	1,512.0	1,936.6	2,211.1	2,054.1	156.96	14.087	
6,550.0	6,303.0	6,372.5	6,372.5	32.7	127.1	1.92	1,512.0	1,936.6	2,203.1	2,046.9	156.22	14.103	
6,600.0	6,351.7	6,421.2	6,421.2	32.7	128.0	1.96	1,512.0	1,936.6	2,191.8	2,037.1	154.69	14.169	
6,650.0	6,399.5	6,469.0	6,469.0	32.7	129.0	2.02	1,512.0	1,936.6	2,177.1	2,024.7	152.37	14.289	
6,700.0	6,446.1	6,515.6	6,515.6	32.7	129.9	2.09	1,512.0	1,936.6	2,159.1	2,009.8	149.25	14.466	
6,750.0	6,491.4	6,560.9	6,560.9	32.7	130.8	2.18	1,512.0	1,936.6	2,137.9	1,992.5	145.35	14.708	
6,800.0	6,535.1	6,604.6	6,604.6	32.7	131.7	2.29	1,512.0	1,936.6	2,113.5	1,972.8	140.68	15.023	
6,850.0	6,576.9	6,646.4	6,646.4	32.7	132.6	2.43	1,512.0	1,936.6	2,086.2	1,951.0	135.26	15.423	
6,900.0	6,616.8	6,686.3	6,686.3	32.7	133.4	2.60	1,512.0	1,936.6	2,056.1	1,927.0	129.12	15.924	
6,950.0	6,654.4	6,723.9	6,723.9	32.7	134.1	2.81	1,512.0	1,936.6	2,023.2	1,900.9	122.29	16.545	
7,000.0	6,689.7	6,759.2	6,759.2	32.7	134.8	3.07	1,512.0	1,936.6	1,987.8	1,873.0	114.81	17.314	
7,050.0	6,722.4	6,791.9	6,791.9	32.7	135.5	3.39	1,512.0	1,936.6	1,950.0	1,843.3	106.74	18.269	
7,100.0	6,752.4	6,821.9	6,821.9	32.7	136.1	3.80	1,512.0	1,936.6	1,910.1	1,811.9	98.15	19.461	
7,150.0	6,779.5	6,849.0	6,849.0	32.7	136.6	4.33	1,512.0	1,936.6	1,868.1	1,779.0	89.14	20.957	
7,200.0	6,803.7	6,873.2	6,873.2	32.7	137.1	5.02	1,512.0	1,936.6	1,824.4	1,744.5	79.85	22.848	
7,250.0	6,824.7	6,894.2	6,894.2	32.7	137.6	5.99	1,512.0	1,936.6	1,779.1	1,708.5	70.53	25.225	
7,300.0	6,842.5	6,912.0	6,912.0	32.8	137.9	7.37	1,512.0	1,936.6	1,732.4	1,670.7	61.67	28.092	
7,350.0	6,857.0	6,926.5	6,926.5	32.8	138.2	9.52	1,512.0	1,936.6	1,684.6	1,630.1	54.47	30.928	
7,400.0	6,868.1	6,937.6	6,937.6	32.9	138.4	13.23	1,512.0	1,936.6	1,635.9	1,583.8	52.07	31.417	
7,450.0	6,875.9	6,945.4	6,945.4	33.0	138.6	20.91	1,512.0	1,936.6	1,586.6	1,524.0	62.59	25.347	
7,500.0	6,880.1	6,949.6	6,949.6	33.2	138.7	43.29	1,512.0	1,936.6	1,536.8	1,427.0	109.82	13.994	
7,542.1	6,881.0	6,950.5	6,950.5	33.4	138.7	100.20	1,512.0	1,936.6	1,494.7	1,333.3	161.42	9.260	
7,600.0	6,880.5	6,950.0	6,950.0	33.6	138.7	99.81	1,512.0	1,936.6	1,436.9	1,274.3	162.59	8.838	
7,700.0	6,879.6	6,949.1	6,949.1	34.3	138.7	99.14	1,512.0	1,936.6	1,337.1	1,172.3	164.73	8.117	
7,800.0	6,878.7	6,948.2	6,948.2	35.2	138.6	98.46	1,512.0	1,936.6	1,237.2	1,070.3	166.99	7.409	
7,900.0	6,877.8	6,947.3	6,947.3	36.5	138.6	97.78	1,512.0	1,936.6	1,137.4	968.1	169.35	6.717	
8,000.0	6,877.0	6,946.5	6,946.5	38.0	138.6	97.10	1,512.0	1,936.6	1,037.7	865.9	171.78	6.041	
8,100.0	6,876.1	6,945.6	6,945.6	39.9	138.6	96.42	1,512.0	1,936.6	937.9	763.7	174.27	5.382	
8,200.0	6,875.2	6,944.7	6,944.7	41.9	138.6	95.74	1,512.0	1,936.6	838.3	661.5	176.80	4.741	
8,300.0	6,874.4	6,943.9	6,943.9	44.0	138.6	95.06	1,512.0	1,936.6	738.7	559.3	179.37	4.118	
8,400.0	6,873.5	6,943.0	6,943.0	46.3	138.5	94.37	1,512.0	1,936.6	639.3	457.3	181.96	3.513	
8,500.0	6,872.6	6,942.1	6,942.1	48.6	138.5	93.68	1,512.0	1,936.6	540.0	355.5	184.57	2.926	
8,600.0	6,871.7	6,941.2	6,941.2	51.0	138.5	93.00	1,512.0	1,936.6	441.1	253.9	187.19	2.357	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	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
8,700.0	6,870.9	6,940.4	6,940.4	53.4	138.5	92.31	1,512.0	1,936.6	342.9	153.1	189.81	1.806	
8,800.0	6,870.0	6,939.5	6,939.5	55.9	138.5	91.62	1,512.0	1,936.6	246.1	53.6	192.43	1.279	Level 3
8,900.0	6,869.1	6,938.6	6,938.6	58.5	138.4	90.93	1,512.0	1,936.6	153.3	-41.7	195.04	0.786	Level 1
9,000.0	6,868.3	6,937.8	6,937.8	61.0	138.4	90.24	1,512.0	1,936.6	80.5	-117.1	197.65	0.407	Level 1
9,035.1	6,868.0	6,937.5	6,937.5	61.9	138.4	90.00	1,512.0	1,936.6	72.4	-126.1	198.56	0.365	Level 1, CC, ES, SF
9,100.0	6,867.4	6,936.9	6,936.9	63.6	138.4	89.55	1,512.0	1,936.6	97.2	-103.0	200.24	0.485	Level 1
9,200.0	6,866.5	6,936.0	6,936.0	66.2	138.4	88.86	1,512.0	1,936.6	180.0	-22.8	202.82	0.888	Level 1
9,300.0	6,865.6	6,935.1	6,935.1	68.8	138.4	88.18	1,512.0	1,936.6	274.6	69.2	205.37	1.337	Level 3
9,400.0	6,864.8	6,934.3	6,934.3	71.5	138.4	87.49	1,512.0	1,936.6	371.9	164.0	207.91	1.789	
9,500.0	6,863.9	6,933.4	6,933.4	74.1	138.3	86.80	1,512.0	1,936.6	470.4	260.0	210.43	2.236	
9,600.0	6,863.0	6,932.5	6,932.5	76.8	138.3	86.12	1,512.0	1,936.6	569.4	356.5	212.92	2.674	
9,700.0	6,862.2	6,931.7	6,931.7	79.4	138.3	85.43	1,512.0	1,936.6	668.7	453.4	215.39	3.105	
9,800.0	6,861.3	6,930.8	6,930.8	82.1	138.3	84.75	1,512.0	1,936.6	768.2	550.4	217.83	3.527	
9,900.0	6,860.4	6,929.9	6,929.9	84.8	138.3	84.07	1,512.0	1,936.6	867.8	647.6	220.24	3.940	
10,000.0	6,859.5	6,929.0	6,929.0	87.5	138.3	83.39	1,512.0	1,936.6	967.5	744.9	222.62	4.346	
10,100.0	6,858.7	6,928.2	6,928.2	90.2	138.2	82.71	1,512.0	1,936.6	1,067.3	842.3	224.97	4.744	
10,200.0	6,857.8	6,927.3	6,927.3	92.9	138.2	82.04	1,512.0	1,936.6	1,167.0	939.8	227.28	5.135	
10,300.0	6,856.9	6,926.4	6,926.4	95.6	138.2	81.36	1,512.0	1,936.6	1,266.9	1,037.3	229.57	5.518	
10,400.0	6,856.1	6,925.6	6,925.6	98.4	138.2	80.69	1,512.0	1,936.6	1,366.7	1,134.9	231.82	5.896	
10,500.0	6,855.2	6,924.7	6,924.7	101.1	138.2	80.02	1,512.0	1,936.6	1,466.6	1,232.5	234.03	6.266	
10,600.0	6,854.3	6,923.8	6,923.8	103.8	138.1	79.36	1,512.0	1,936.6	1,566.5	1,330.2	236.21	6.632	
10,700.0	6,853.5	6,923.0	6,923.0	106.5	138.1	78.70	1,512.0	1,936.6	1,666.3	1,428.0	238.36	6.991	
10,800.0	6,852.6	6,922.1	6,922.1	109.3	138.1	78.04	1,512.0	1,936.6	1,766.3	1,525.8	240.46	7.345	
10,900.0	6,851.7	6,921.2	6,921.2	112.0	138.1	77.38	1,512.0	1,936.6	1,866.2	1,623.6	242.53	7.694	
11,000.0	6,850.9	6,920.4	6,920.4	114.8	138.1	76.73	1,512.0	1,936.6	1,966.1	1,721.5	244.57	8.039	
11,100.0	6,850.0	6,919.5	6,919.5	117.5	138.1	76.08	1,512.0	1,936.6	2,066.0	1,819.5	246.56	8.379	
11,200.0	6,849.1	6,918.6	6,918.6	120.3	138.0	75.44	1,512.0	1,936.6	2,166.0	1,917.4	248.52	8.715	
11,300.0	6,848.2	6,917.7	6,917.7	123.0	138.0	74.80	1,512.0	1,936.6	2,265.9	2,015.5	250.44	9.048	
11,400.0	6,847.4	6,916.9	6,916.9	125.8	138.0	74.16	1,512.0	1,936.6	2,365.9	2,113.5	252.32	9.376	
11,500.0	6,846.5	6,916.0	6,916.0	128.5	138.0	73.53	1,512.0	1,936.6	2,465.8	2,211.6	254.16	9.702	
11,600.0	6,845.6	6,915.1	6,915.1	131.3	138.0	72.90	1,512.0	1,936.6	2,565.8	2,309.8	255.97	10.024	
11,700.0	6,844.8	6,914.3	6,914.3	134.1	138.0	72.28	1,512.0	1,936.6	2,665.7	2,408.0	257.74	10.343	
11,800.0	6,843.9	6,913.4	6,913.4	136.8	137.9	71.66	1,512.0	1,936.6	2,765.7	2,506.2	259.46	10.659	
11,900.0	6,843.0	6,912.5	6,912.5	139.6	137.9	71.04	1,512.0	1,936.6	2,865.6	2,604.5	261.15	10.973	
12,000.0	6,842.2	6,911.7	6,911.7	142.4	137.9	70.43	1,512.0	1,936.6	2,965.6	2,702.8	262.81	11.284	
12,100.0	6,841.3	6,910.8	6,910.8	145.1	137.9	69.83	1,512.0	1,936.6	3,065.6	2,801.2	264.42	11.593	
12,133.9	6,841.0	6,910.5	6,910.5	146.1	137.9	69.62	1,512.0	1,936.6	3,099.4	2,834.5	264.96	11.698	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	26.5	26.5	0.0	0.2	85.69	127.6	1,694.3	1,699.1				
100.0	100.0	126.5	126.5	0.1	1.4	85.69	127.6	1,694.3	1,699.1	1,697.6	1.53	1,111.390	
200.0	200.0	226.5	226.5	0.3	3.7	85.69	127.6	1,694.3	1,699.1	1,695.0	4.06	418.460	
300.0	300.0	326.5	326.5	0.5	5.8	85.69	127.6	1,694.3	1,699.1	1,692.7	6.36	267.294	
400.0	400.0	426.5	426.5	0.8	7.8	85.69	127.6	1,694.3	1,699.1	1,690.5	8.62	197.107	
500.0	500.0	526.5	526.5	1.0	9.9	95.73	127.6	1,694.3	1,699.3	1,688.4	10.87	156.317	
600.0	599.8	626.3	626.3	1.2	11.9	95.89	127.6	1,694.3	1,699.8	1,686.7	13.12	129.593	
700.0	699.5	726.0	726.0	1.5	13.9	96.17	127.6	1,694.3	1,700.7	1,685.3	15.37	110.669	
800.0	798.7	825.2	825.2	1.7	15.9	96.54	127.6	1,694.3	1,702.1	1,684.4	17.63	96.520	
900.0	897.5	924.0	924.0	2.0	17.9	97.02	127.6	1,694.3	1,703.9	1,684.0	19.93	85.516	
1,000.0	995.6	1,022.1	1,022.1	2.4	19.9	97.60	127.6	1,694.3	1,706.4	1,684.2	22.25	76.703	
1,100.0	1,093.1	1,119.6	1,119.6	2.8	21.8	98.26	127.6	1,694.3	1,709.6	1,685.0	24.60	69.488	
1,200.0	1,189.6	1,216.1	1,216.1	3.3	23.8	99.01	127.6	1,694.3	1,713.6	1,686.6	26.99	63.484	
1,300.0	1,285.3	1,311.8	1,311.8	3.8	25.7	99.84	127.6	1,694.3	1,718.6	1,689.2	29.42	58.423	
1,326.4	1,310.3	1,336.8	1,336.8	3.9	26.2	100.06	127.6	1,694.3	1,720.1	1,690.1	30.06	57.219	
1,400.0	1,380.1	1,406.6	1,406.6	4.3	27.6	100.79	127.6	1,694.3	1,724.6	1,692.7	31.87	54.109	
1,500.0	1,474.9	1,501.4	1,501.4	4.9	29.5	101.77	127.6	1,694.3	1,731.1	1,696.8	34.34	50.412	
1,600.0	1,569.8	1,596.3	1,596.3	5.5	31.4	102.75	127.6	1,694.3	1,738.2	1,701.4	36.81	47.221	
1,700.0	1,664.6	1,691.1	1,691.1	6.1	33.3	103.72	127.6	1,694.3	1,745.9	1,706.6	39.28	44.444	
1,800.0	1,759.4	1,785.9	1,785.9	6.8	35.2	104.67	127.6	1,694.3	1,754.1	1,712.3	41.75	42.011	
1,900.0	1,854.2	1,880.7	1,880.7	7.4	37.2	105.63	127.6	1,694.3	1,762.8	1,718.6	44.22	39.865	
2,000.0	1,949.0	1,975.5	1,975.5	8.0	39.1	106.57	127.6	1,694.3	1,772.0	1,725.4	46.68	37.960	
2,100.0	2,043.8	2,070.3	2,070.3	8.6	41.0	107.50	127.6	1,694.3	1,781.8	1,732.7	49.14	36.261	
2,200.0	2,138.7	2,165.2	2,165.2	9.2	42.9	108.43	127.6	1,694.3	1,792.1	1,740.5	51.59	34.738	
2,300.0	2,233.5	2,260.0	2,260.0	9.9	44.8	109.34	127.6	1,694.3	1,802.9	1,748.8	54.03	33.367	
2,400.0	2,328.3	2,354.8	2,354.8	10.5	46.7	110.24	127.6	1,694.3	1,814.2	1,757.7	56.47	32.127	
2,500.0	2,423.1	2,449.6	2,449.6	11.1	48.6	111.14	127.6	1,694.3	1,825.9	1,767.0	58.90	31.002	
2,600.0	2,517.9	2,544.4	2,544.4	11.8	50.5	112.02	127.6	1,694.3	1,838.1	1,776.8	61.32	29.978	
2,700.0	2,612.7	2,639.2	2,639.2	12.4	52.4	112.89	127.6	1,694.3	1,850.8	1,787.1	63.73	29.043	
2,800.0	2,707.6	2,734.1	2,734.1	13.0	54.3	113.75	127.6	1,694.3	1,864.0	1,797.9	66.13	28.186	
2,900.0	2,802.4	2,828.9	2,828.9	13.6	56.2	114.60	127.6	1,694.3	1,877.6	1,809.1	68.53	27.400	
3,000.0	2,897.2	2,923.7	2,923.7	14.3	58.1	115.44	127.6	1,694.3	1,891.6	1,820.7	70.91	26.676	
3,100.0	2,992.0	3,018.5	3,018.5	14.9	60.0	116.27	127.6	1,694.3	1,906.1	1,832.8	73.29	26.008	
3,200.0	3,086.8	3,113.3	3,113.3	15.5	61.9	117.08	127.6	1,694.3	1,921.0	1,845.3	75.66	25.391	
3,300.0	3,181.6	3,208.1	3,208.1	16.2	63.9	117.89	127.6	1,694.3	1,936.3	1,858.2	78.02	24.819	
3,400.0	3,276.5	3,303.0	3,303.0	16.8	65.8	118.68	127.6	1,694.3	1,951.9	1,871.6	80.37	24.288	
3,500.0	3,371.3	3,397.8	3,397.8	17.4	67.7	119.46	127.6	1,694.3	1,968.0	1,885.3	82.71	23.795	
3,600.0	3,466.1	3,492.6	3,492.6	18.1	69.6	120.23	127.6	1,694.3	1,984.5	1,899.4	85.04	23.335	
3,700.0	3,560.9	3,587.4	3,587.4	18.7	71.5	120.98	127.6	1,694.3	2,001.3	1,913.9	87.37	22.907	
3,800.0	3,655.7	3,682.2	3,682.2	19.3	73.4	121.73	127.6	1,694.3	2,018.5	1,928.8	89.68	22.507	
3,900.0	3,750.5	3,777.0	3,777.0	20.0	75.3	122.46	127.6	1,694.3	2,036.0	1,944.0	91.99	22.133	
4,000.0	3,845.4	3,871.9	3,871.9	20.6	77.2	123.18	127.6	1,694.3	2,053.9	1,959.6	94.29	21.783	
4,100.0	3,940.2	3,966.7	3,966.7	21.3	79.1	123.89	127.6	1,694.3	2,072.1	1,975.5	96.58	21.454	
4,200.0	4,035.0	4,061.5	4,061.5	21.9	81.0	124.59	127.6	1,694.3	2,090.6	1,991.7	98.86	21.146	
4,300.0	4,129.8	4,156.3	4,156.3	22.5	82.9	125.27	127.6	1,694.3	2,109.4	2,008.3	101.14	20.857	
4,400.0	4,224.6	4,251.1	4,251.1	23.2	84.8	125.95	127.6	1,694.3	2,128.6	2,025.2	103.41	20.585	
4,500.0	4,319.4	4,345.9	4,345.9	23.8	86.7	126.61	127.6	1,694.3	2,148.1	2,042.4	105.67	20.328	
4,600.0	4,414.3	4,440.8	4,440.8	24.4	88.6	127.27	127.6	1,694.3	2,167.8	2,059.9	107.92	20.087	
4,700.0	4,509.1	4,535.6	4,535.6	25.1	90.6	127.91	127.6	1,694.3	2,187.8	2,077.7	110.17	19.859	
4,800.0	4,603.9	4,630.4	4,630.4	25.7	92.5	128.54	127.6	1,694.3	2,208.1	2,095.7	112.41	19.644	
4,900.0	4,698.7	4,725.2	4,725.2	26.3	94.4	129.16	127.6	1,694.3	2,228.7	2,114.1	114.64	19.441	
5,000.0	4,793.5	4,820.0	4,820.0	27.0	96.3	129.76	127.6	1,694.3	2,249.5	2,132.7	116.87	19.248	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	4,914.8	4,914.8	27.6	98.2	130.36	127.6	1,694.3	2,270.6	2,151.5	119.09	19.067	
5,200.0	4,983.2	5,009.7	5,009.7	28.2	100.1	130.95	127.6	1,694.3	2,292.0	2,170.6	121.30	18.894	
5,300.0	5,078.0	5,104.5	5,104.5	28.9	102.0	131.53	127.6	1,694.3	2,313.5	2,190.0	123.51	18.731	
5,400.0	5,172.8	5,199.3	5,199.3	29.5	103.9	132.09	127.6	1,694.3	2,335.3	2,209.6	125.71	18.576	
5,454.5	5,224.5	5,251.0	5,251.0	29.9	104.9	132.40	127.6	1,694.3	2,347.3	2,220.4	126.91	18.495	
5,500.0	5,267.7	5,294.2	5,294.2	30.1	105.8	132.79	127.6	1,694.3	2,357.1	2,229.0	128.08	18.404	
5,600.0	5,363.5	5,390.0	5,390.0	30.6	107.7	133.59	127.6	1,694.3	2,377.1	2,246.6	130.59	18.204	
5,700.0	5,460.3	5,486.8	5,486.8	31.0	109.7	134.28	127.6	1,694.3	2,394.9	2,261.9	133.08	17.996	
5,800.0	5,557.9	5,584.4	5,584.4	31.3	111.6	134.87	127.6	1,694.3	2,410.5	2,274.9	135.56	17.781	
5,900.0	5,656.2	5,682.7	5,682.7	31.7	113.6	135.36	127.6	1,694.3	2,423.6	2,285.6	138.00	17.563	
6,000.0	5,755.0	5,781.5	5,781.5	31.9	115.6	135.76	127.6	1,694.3	2,434.4	2,294.0	140.39	17.340	
6,100.0	5,854.4	5,880.9	5,880.9	32.2	117.6	136.06	127.6	1,694.3	2,442.7	2,300.0	142.71	17.116	
6,200.0	5,954.0	5,980.5	5,980.5	32.4	119.6	136.27	127.6	1,694.3	2,448.5	2,303.5	144.97	16.890	
6,300.0	6,053.9	6,080.4	6,080.4	32.5	121.6	136.39	127.6	1,694.3	2,451.8	2,304.7	147.14	16.663	
6,380.9	6,134.8	6,161.3	6,161.3	32.6	123.2	126.44	127.6	1,694.3	2,452.6	2,302.9	149.72	16.382	
6,400.0	6,153.9	6,180.4	6,180.4	32.6	123.6	126.44	127.6	1,694.3	2,452.6	2,302.5	150.12	16.338	
6,410.9	6,164.8	6,191.3	6,191.3	32.6	123.8	126.44	127.6	1,694.3	2,452.6	2,302.3	150.35	16.313	
6,450.0	6,203.9	6,230.4	6,230.4	32.6	124.6	36.50	127.6	1,694.3	2,451.8	2,301.7	150.04	16.341	
6,500.0	6,253.7	6,280.2	6,280.2	32.7	125.6	36.73	127.6	1,694.3	2,448.2	2,297.9	150.30	16.288	
6,550.0	6,303.0	6,329.5	6,329.5	32.7	126.6	37.15	127.6	1,694.3	2,441.8	2,291.8	150.04	16.275	
6,600.0	6,351.7	6,378.2	6,378.2	32.7	127.6	37.76	127.6	1,694.3	2,432.7	2,283.4	149.28	16.296	
6,650.0	6,399.5	6,426.0	6,426.0	32.7	128.6	38.57	127.6	1,694.3	2,420.9	2,272.9	148.08	16.349	
6,700.0	6,446.1	6,472.6	6,472.6	32.7	129.5	39.59	127.6	1,694.3	2,406.6	2,260.1	146.51	16.426	
6,750.0	6,491.4	6,517.9	6,517.9	32.7	130.4	40.83	127.6	1,694.3	2,389.7	2,245.0	144.67	16.518	
6,800.0	6,535.1	6,561.6	6,561.6	32.7	131.3	42.31	127.6	1,694.3	2,370.5	2,227.8	142.70	16.612	
6,850.0	6,576.9	6,603.4	6,603.4	32.7	132.1	44.03	127.6	1,694.3	2,349.0	2,208.2	140.76	16.688	
6,900.0	6,616.8	6,643.3	6,643.3	32.7	132.9	46.02	127.6	1,694.3	2,325.4	2,186.3	139.04	16.724	
6,950.0	6,654.4	6,680.9	6,680.9	32.7	133.7	48.28	127.6	1,694.3	2,299.8	2,162.1	137.75	16.695	
7,000.0	6,689.7	6,716.2	6,716.2	32.7	134.4	50.84	127.6	1,694.3	2,272.5	2,135.4	137.10	16.576	
7,050.0	6,722.4	6,748.9	6,748.9	32.7	135.1	53.68	127.6	1,694.3	2,243.7	2,106.4	137.25	16.347	
7,100.0	6,752.4	6,778.9	6,778.9	32.7	135.7	56.82	127.6	1,694.3	2,213.4	2,075.1	138.32	16.002	
7,150.0	6,779.5	6,806.0	6,806.0	32.7	136.2	60.23	127.6	1,694.3	2,182.0	2,041.6	140.32	15.550	
7,200.0	6,803.7	6,830.2	6,830.2	32.7	136.7	63.88	127.6	1,694.3	2,149.6	2,006.5	143.12	15.019	
7,250.0	6,824.7	6,851.2	6,851.2	32.7	137.1	67.73	127.6	1,694.3	2,116.4	1,970.0	146.49	14.447	
7,300.0	6,842.5	6,869.0	6,869.0	32.8	137.5	71.71	127.6	1,694.3	2,082.8	1,932.7	150.13	13.874	
7,350.0	6,857.0	6,883.5	6,883.5	32.8	137.8	75.76	127.6	1,694.3	2,048.9	1,895.2	153.68	13.332	
7,400.0	6,868.1	6,894.6	6,894.6	32.9	138.0	79.78	127.6	1,694.3	2,014.9	1,858.1	156.87	12.845	
7,450.0	6,875.9	6,902.4	6,902.4	33.0	138.1	83.71	127.6	1,694.3	1,981.1	1,821.6	159.49	12.422	
7,500.0	6,880.1	6,906.6	6,906.6	33.2	138.2	87.46	127.6	1,694.3	1,947.7	1,786.3	161.45	12.064	
7,542.1	6,881.0	6,907.5	6,907.5	33.4	138.3	90.43	127.6	1,694.3	1,920.0	1,757.4	162.60	11.808	
7,600.0	6,880.5	6,907.0	6,907.0	33.6	138.2	90.41	127.6	1,694.3	1,882.8	1,719.2	163.63	11.507	
7,700.0	6,879.6	6,906.1	6,906.1	34.3	138.2	90.37	127.6	1,694.3	1,821.1	1,655.6	165.55	11.001	
7,800.0	6,878.7	6,905.2	6,905.2	35.2	138.2	90.34	127.6	1,694.3	1,762.9	1,595.3	167.60	10.519	
7,900.0	6,877.8	6,904.3	6,904.3	36.5	138.2	90.31	127.6	1,694.3	1,708.6	1,538.9	169.77	10.064	
8,000.0	6,877.0	6,903.5	6,903.5	38.0	138.2	90.27	127.6	1,694.3	1,658.6	1,486.5	172.03	9.641	
8,100.0	6,876.1	6,902.6	6,902.6	39.9	138.2	90.24	127.6	1,694.3	1,613.2	1,438.8	174.37	9.252	
8,200.0	6,875.2	6,901.7	6,901.7	41.9	138.1	90.20	127.6	1,694.3	1,572.8	1,396.1	176.76	8.898	
8,300.0	6,874.4	6,900.9	6,900.9	44.0	138.1	90.17	127.6	1,694.3	1,537.9	1,358.7	179.21	8.582	
8,400.0	6,873.5	6,900.0	6,900.0	46.3	138.1	90.13	127.6	1,694.3	1,508.9	1,327.2	181.70	8.304	
8,500.0	6,872.6	6,899.1	6,899.1	48.6	138.1	90.10	127.6	1,694.3	1,486.0	1,301.8	184.22	8.066	
8,600.0	6,871.7	6,898.2	6,898.2	51.0	138.1	90.07	127.6	1,694.3	1,469.5	1,282.8	186.77	7.868	
8,700.0	6,870.9	6,897.4	6,897.4	53.4	138.0	90.03	127.6	1,694.3	1,459.8	1,270.4	189.35	7.710	

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



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<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-2 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	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
8,792.8	6,870.1	6,896.6	6,896.6	55.8	138.0	90.00	127.6	1,694.3	1,456.8	1,265.1	191.76	7.597	CC
8,800.0	6,870.0	6,896.5	6,896.5	55.9	138.0	90.00	127.6	1,694.3	1,456.9	1,264.9	191.94	7.590	ES
8,900.0	6,869.1	6,895.6	6,895.6	58.5	138.0	89.96	127.6	1,694.3	1,460.8	1,266.2	194.56	7.508	
9,000.0	6,868.3	6,894.8	6,894.8	61.0	138.0	89.93	127.6	1,694.3	1,471.5	1,274.3	197.19	7.462	
9,100.0	6,867.4	6,893.9	6,893.9	63.6	138.0	89.89	127.6	1,694.3	1,488.9	1,289.0	199.84	7.450	SF
9,200.0	6,866.5	6,893.0	6,893.0	66.2	138.0	89.86	127.6	1,694.3	1,512.7	1,310.2	202.49	7.470	
9,300.0	6,865.6	6,892.1	6,892.1	68.8	137.9	89.83	127.6	1,694.3	1,542.6	1,337.4	205.16	7.519	
9,400.0	6,864.8	6,891.3	6,891.3	71.5	137.9	89.79	127.6	1,694.3	1,578.3	1,370.4	207.84	7.594	
9,500.0	6,863.9	6,890.4	6,890.4	74.1	137.9	89.76	127.6	1,694.3	1,619.4	1,408.9	210.53	7.692	
9,600.0	6,863.0	6,889.5	6,889.5	76.8	137.9	89.72	127.6	1,694.3	1,665.5	1,452.3	213.22	7.811	
9,700.0	6,862.2	6,888.7	6,888.7	79.4	137.9	89.69	127.6	1,694.3	1,716.2	1,500.3	215.92	7.948	
9,800.0	6,861.3	6,887.8	6,887.8	82.1	137.9	89.66	127.6	1,694.3	1,771.1	1,552.4	218.63	8.101	
9,900.0	6,860.4	6,886.9	6,886.9	84.8	137.8	89.62	127.6	1,694.3	1,829.8	1,608.4	221.34	8.267	
10,000.0	6,859.5	6,886.0	6,886.0	87.5	137.8	89.59	127.6	1,694.3	1,892.0	1,667.9	224.05	8.444	
10,100.0	6,858.7	6,885.2	6,885.2	90.2	137.8	89.55	127.6	1,694.3	1,957.3	1,730.5	226.78	8.631	
10,200.0	6,857.8	6,884.3	6,884.3	92.9	137.8	89.52	127.6	1,694.3	2,025.4	1,795.9	229.50	8.825	
10,300.0	6,856.9	6,883.4	6,883.4	95.6	137.8	89.48	127.6	1,694.3	2,096.1	1,863.9	232.23	9.026	
10,400.0	6,856.1	6,882.6	6,882.6	98.4	137.7	89.45	127.6	1,694.3	2,169.1	1,934.2	234.96	9.232	
10,500.0	6,855.2	6,881.7	6,881.7	101.1	137.7	89.42	127.6	1,694.3	2,244.2	2,006.5	237.70	9.442	
10,600.0	6,854.3	6,880.8	6,880.8	103.8	137.7	89.38	127.6	1,694.3	2,321.2	2,080.8	240.43	9.654	
10,700.0	6,853.5	6,880.0	6,880.0	106.5	137.7	89.35	127.6	1,694.3	2,399.9	2,156.7	243.17	9.869	
10,800.0	6,852.6	6,879.1	6,879.1	109.3	137.7	89.31	127.6	1,694.3	2,480.1	2,234.2	245.91	10.085	
10,900.0	6,851.7	6,878.2	6,878.2	112.0	137.7	89.28	127.6	1,694.3	2,561.7	2,313.0	248.66	10.302	
11,000.0	6,850.9	6,877.4	6,877.4	114.8	137.6	89.25	127.6	1,694.3	2,644.5	2,393.1	251.41	10.519	
11,100.0	6,850.0	6,876.5	6,876.5	117.5	137.6	89.21	127.6	1,694.3	2,728.6	2,474.4	254.15	10.736	
11,200.0	6,849.1	6,875.6	6,875.6	120.3	137.6	89.18	127.6	1,694.3	2,813.6	2,556.7	256.90	10.952	
11,300.0	6,848.2	6,874.7	6,874.7	123.0	137.6	89.14	127.6	1,694.3	2,899.6	2,640.0	259.66	11.167	
11,400.0	6,847.4	6,873.9	6,873.9	125.8	137.6	89.11	127.6	1,694.3	2,986.5	2,724.1	262.41	11.381	
11,500.0	6,846.5	6,873.0	6,873.0	128.5	137.6	89.07	127.6	1,694.3	3,074.2	2,809.0	265.16	11.594	
11,600.0	6,845.6	6,872.1	6,872.1	131.3	137.5	89.04	127.6	1,694.3	3,162.6	2,894.7	267.92	11.804	
11,700.0	6,844.8	6,871.3	6,871.3	134.1	137.5	89.01	127.6	1,694.3	3,251.7	2,981.0	270.68	12.013	
11,800.0	6,843.9	6,870.4	6,870.4	136.8	137.5	88.97	127.6	1,694.3	3,341.4	3,067.9	273.43	12.220	
11,900.0	6,843.0	6,869.5	6,869.5	139.6	137.5	88.94	127.6	1,694.3	3,431.6	3,155.5	276.19	12.425	
12,000.0	6,842.2	6,868.7	6,868.7	142.4	137.5	88.90	127.6	1,694.3	3,522.4	3,243.5	278.95	12.627	
12,100.0	6,841.3	6,867.8	6,867.8	145.1	137.5	88.87	127.6	1,694.3	3,613.7	3,332.0	281.71	12.828	
12,133.9	6,841.0	6,867.5	6,867.5	146.1	137.4	88.86	127.6	1,694.3	3,644.7	3,362.1	282.65	12.895	

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<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	100.5	100.5	0.0	0.0	33.53	2,670.5	1,769.3	3,203.4					
100.0	100.0	200.5	200.5	0.1	1.2	33.53	2,670.5	1,769.3	3,203.4	3,202.2	1.25	2,555.198		
200.0	200.0	300.5	300.5	0.3	3.5	33.53	2,670.5	1,769.3	3,203.4	3,199.6	3.78	847.706		
300.0	300.0	400.5	400.5	0.5	5.5	33.53	2,670.5	1,769.3	3,203.4	3,197.3	6.08	526.641		
400.0	400.0	500.5	500.5	0.8	7.6	33.53	2,670.5	1,769.3	3,203.4	3,195.1	8.35	383.650		
500.0	500.0	600.5	600.5	1.0	9.6	43.55	2,670.5	1,769.3	3,202.2	3,191.6	10.60	302.068		
600.0	599.8	700.3	700.3	1.2	11.6	43.66	2,670.5	1,769.3	3,198.4	3,185.5	12.84	249.156		
700.0	699.5	800.0	800.0	1.5	13.6	43.86	2,670.5	1,769.3	3,192.1	3,177.0	15.06	211.963		
800.0	798.7	899.2	899.2	1.7	15.6	44.13	2,670.5	1,769.3	3,183.3	3,166.0	17.27	184.308		
900.0	897.5	998.0	998.0	2.0	17.6	44.49	2,670.5	1,769.3	3,172.0	3,152.5	19.48	162.872		
1,000.0	995.6	1,096.1	1,096.1	2.4	19.6	44.92	2,670.5	1,769.3	3,158.3	3,136.6	21.67	145.718		
1,100.0	1,093.1	1,193.6	1,193.6	2.8	21.6	45.44	2,670.5	1,769.3	3,142.2	3,118.4	23.87	131.633		
1,200.0	1,189.6	1,290.1	1,290.1	3.3	23.5	46.04	2,670.5	1,769.3	3,123.9	3,097.8	26.07	119.827		
1,300.0	1,285.3	1,385.8	1,385.8	3.8	25.4	46.73	2,670.5	1,769.3	3,103.2	3,075.0	28.27	109.756		
1,326.4	1,310.3	1,410.8	1,410.8	3.9	25.9	46.92	2,670.5	1,769.3	3,097.4	3,068.6	28.86	107.336		
1,400.0	1,380.1	1,480.6	1,480.6	4.3	27.4	47.23	2,670.5	1,769.3	3,081.0	3,050.5	30.58	100.750		
1,500.0	1,474.9	1,575.4	1,575.4	4.9	29.3	47.66	2,670.5	1,769.3	3,058.9	3,026.0	32.94	92.867		
1,600.0	1,569.8	1,670.3	1,670.3	5.5	31.2	48.09	2,670.5	1,769.3	3,037.0	3,001.7	35.31	86.007		
1,700.0	1,664.6	1,765.1	1,765.1	6.1	33.1	48.52	2,670.5	1,769.3	3,015.2	2,977.5	37.70	79.988		
1,800.0	1,759.4	1,859.9	1,859.9	6.8	35.0	48.96	2,670.5	1,769.3	2,993.7	2,953.6	40.09	74.669		
1,900.0	1,854.2	1,954.7	1,954.7	7.4	36.9	49.41	2,670.5	1,769.3	2,972.3	2,929.8	42.50	69.938		
2,000.0	1,949.0	2,049.5	2,049.5	8.0	38.8	49.87	2,670.5	1,769.3	2,951.0	2,906.1	44.91	65.705		
2,100.0	2,043.8	2,144.3	2,144.3	8.6	40.7	50.33	2,670.5	1,769.3	2,930.0	2,882.7	47.34	61.897		
2,200.0	2,138.7	2,239.2	2,239.2	9.2	42.6	50.79	2,670.5	1,769.3	2,909.2	2,859.4	49.77	58.453		
2,300.0	2,233.5	2,334.0	2,334.0	9.9	44.5	51.27	2,670.5	1,769.3	2,888.6	2,836.4	52.21	55.326		
2,400.0	2,328.3	2,428.8	2,428.8	10.5	46.4	51.75	2,670.5	1,769.3	2,868.2	2,813.5	54.66	52.475		
2,500.0	2,423.1	2,523.6	2,523.6	11.1	48.3	52.23	2,670.5	1,769.3	2,848.0	2,790.8	57.11	49.865		
2,600.0	2,517.9	2,618.4	2,618.4	11.8	50.2	52.73	2,670.5	1,769.3	2,828.0	2,768.4	59.58	47.468		
2,700.0	2,612.7	2,713.2	2,713.2	12.4	52.1	53.22	2,670.5	1,769.3	2,808.2	2,746.1	62.05	45.259		
2,800.0	2,707.6	2,808.1	2,808.1	13.0	54.1	53.73	2,670.5	1,769.3	2,788.6	2,724.1	64.52	43.218		
2,900.0	2,802.4	2,902.9	2,902.9	13.6	56.0	54.24	2,670.5	1,769.3	2,769.3	2,702.3	67.01	41.327		
3,000.0	2,897.2	2,997.7	2,997.7	14.3	57.9	54.76	2,670.5	1,769.3	2,750.2	2,680.7	69.50	39.570		
3,100.0	2,992.0	3,092.5	3,092.5	14.9	59.8	55.29	2,670.5	1,769.3	2,731.3	2,659.3	72.00	37.935		
3,200.0	3,086.8	3,187.3	3,187.3	15.5	61.7	55.82	2,670.5	1,769.3	2,712.7	2,638.2	74.51	36.409		
3,300.0	3,181.6	3,282.1	3,282.1	16.2	63.6	56.36	2,670.5	1,769.3	2,694.3	2,617.3	77.02	34.982		
3,400.0	3,276.5	3,377.0	3,377.0	16.8	65.5	56.90	2,670.5	1,769.3	2,676.2	2,596.6	79.54	33.646		
3,500.0	3,371.3	3,471.8	3,471.8	17.4	67.4	57.46	2,670.5	1,769.3	2,658.3	2,576.2	82.07	32.392		
3,600.0	3,466.1	3,566.6	3,566.6	18.1	69.3	58.02	2,670.5	1,769.3	2,640.7	2,556.1	84.60	31.214		
3,700.0	3,560.9	3,661.4	3,661.4	18.7	71.2	58.58	2,670.5	1,769.3	2,623.4	2,536.2	87.14	30.105		
3,800.0	3,655.7	3,756.2	3,756.2	19.3	73.1	59.16	2,670.5	1,769.3	2,606.3	2,516.6	89.69	29.060		
3,900.0	3,750.5	3,851.0	3,851.0	20.0	75.0	59.74	2,670.5	1,769.3	2,589.5	2,497.2	92.24	28.074		
4,000.0	3,845.4	3,945.9	3,945.9	20.6	76.9	60.32	2,670.5	1,769.3	2,573.0	2,478.2	94.80	27.142		
4,100.0	3,940.2	4,040.7	4,040.7	21.3	78.8	60.92	2,670.5	1,769.3	2,556.7	2,459.4	97.36	26.260		
4,200.0	4,035.0	4,135.5	4,135.5	21.9	80.8	61.52	2,670.5	1,769.3	2,540.8	2,440.9	99.93	25.425		
4,300.0	4,129.8	4,230.3	4,230.3	22.5	82.7	62.13	2,670.5	1,769.3	2,525.2	2,422.7	102.51	24.633		
4,400.0	4,224.6	4,325.1	4,325.1	23.2	84.6	62.74	2,670.5	1,769.3	2,509.9	2,404.8	105.09	23.882		
4,500.0	4,319.4	4,419.9	4,419.9	23.8	86.5	63.37	2,670.5	1,769.3	2,494.9	2,387.2	107.68	23.168		
4,600.0	4,414.3	4,514.8	4,514.8	24.4	88.4	63.99	2,670.5	1,769.3	2,480.2	2,369.9	110.28	22.490		
4,700.0	4,509.1	4,609.6	4,609.6	25.1	90.3	64.63	2,670.5	1,769.3	2,465.8	2,352.9	112.88	21.845		
4,800.0	4,603.9	4,704.4	4,704.4	25.7	92.2	65.27	2,670.5	1,769.3	2,451.7	2,336.2	115.48	21.231		
4,900.0	4,698.7	4,799.2	4,799.2	26.3	94.1	65.92	2,670.5	1,769.3	2,438.0	2,319.9	118.09	20.646		
5,000.0	4,793.5	4,894.0	4,894.0	27.0	96.0	66.58	2,670.5	1,769.3	2,424.6	2,303.9	120.70	20.088		

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	4,988.8	4,988.8	27.6	97.9	67.24	2,670.5	1,769.3	2,411.6	2,288.3	123.32	19.556	
5,200.0	4,983.2	5,083.7	5,083.7	28.2	99.8	67.91	2,670.5	1,769.3	2,398.9	2,273.0	125.94	19.048	
5,300.0	5,078.0	5,178.5	5,178.5	28.9	101.7	68.58	2,670.5	1,769.3	2,386.6	2,258.0	128.56	18.564	
5,400.0	5,172.8	5,273.3	5,273.3	29.5	103.6	69.27	2,670.5	1,769.3	2,374.6	2,243.4	131.19	18.101	
5,454.5	5,224.5	5,325.0	5,325.0	29.9	104.7	69.64	2,670.5	1,769.3	2,368.3	2,235.6	132.62	17.857	
5,500.0	5,267.7	5,368.2	5,368.2	30.1	105.5	69.85	2,670.5	1,769.3	2,363.2	2,229.3	133.83	17.658	
5,600.0	5,363.5	5,464.0	5,464.0	30.6	107.5	70.29	2,670.5	1,769.3	2,353.0	2,216.7	136.37	17.255	
5,700.0	5,460.3	5,560.8	5,560.8	31.0	109.4	70.69	2,670.5	1,769.3	2,344.4	2,205.5	138.87	16.882	
5,800.0	5,557.9	5,658.4	5,658.4	31.3	111.4	71.04	2,670.5	1,769.3	2,337.0	2,195.7	141.32	16.537	
5,900.0	5,656.2	5,756.7	5,756.7	31.7	113.4	71.35	2,670.5	1,769.3	2,331.0	2,187.3	143.72	16.219	
6,000.0	5,755.0	5,855.5	5,855.5	31.9	115.3	71.60	2,670.5	1,769.3	2,326.2	2,180.1	146.07	15.926	
6,100.0	5,854.4	5,954.9	5,954.9	32.2	117.3	71.80	2,670.5	1,769.3	2,322.6	2,174.2	148.35	15.655	
6,200.0	5,954.0	6,054.5	6,054.5	32.4	119.3	71.94	2,670.5	1,769.3	2,320.0	2,169.5	150.58	15.407	
6,300.0	6,053.9	6,154.4	6,154.4	32.5	121.4	72.02	2,670.5	1,769.3	2,318.6	2,165.9	152.75	15.179	
6,380.9	6,134.8	6,235.3	6,235.3	32.6	123.0	62.06	2,670.5	1,769.3	2,318.3	2,176.2	142.08	16.316	
6,400.0	6,153.9	6,254.4	6,254.4	32.6	123.4	62.06	2,670.5	1,769.3	2,318.3	2,175.8	142.49	16.269	
6,410.9	6,164.8	6,265.3	6,265.3	32.6	123.6	62.06	2,670.5	1,769.3	2,318.3	2,175.5	142.73	16.243	
6,450.0	6,203.9	6,304.4	6,304.4	32.6	124.4	-27.98	2,670.5	1,769.3	2,317.3	2,161.6	155.75	14.878	
6,500.0	6,253.7	6,354.2	6,354.2	32.7	125.4	-28.18	2,670.5	1,769.3	2,313.4	2,157.4	156.03	14.827	
6,550.0	6,303.0	6,403.5	6,403.5	32.7	126.4	-28.55	2,670.5	1,769.3	2,306.4	2,150.7	155.67	14.816	
6,600.0	6,351.7	6,452.2	6,452.2	32.7	127.3	-29.08	2,670.5	1,769.3	2,296.4	2,141.7	154.69	14.845	
6,650.0	6,399.5	6,500.0	6,500.0	32.7	128.3	-29.78	2,670.5	1,769.3	2,283.4	2,130.3	153.13	14.911	
6,700.0	6,446.1	6,546.6	6,546.6	32.7	129.2	-30.68	2,670.5	1,769.3	2,267.6	2,116.5	151.07	15.011	
6,750.0	6,491.4	6,591.9	6,591.9	32.7	130.2	-31.78	2,670.5	1,769.3	2,249.0	2,100.4	148.57	15.138	
6,800.0	6,535.1	6,635.6	6,635.6	32.7	131.0	-33.12	2,670.5	1,769.3	2,227.7	2,081.9	145.77	15.282	
6,850.0	6,576.9	6,677.4	6,677.4	32.7	131.9	-34.70	2,670.5	1,769.3	2,203.9	2,061.1	142.82	15.431	
6,900.0	6,616.8	6,717.3	6,717.3	32.7	132.7	-36.57	2,670.5	1,769.3	2,177.7	2,037.7	139.94	15.562	
6,950.0	6,654.4	6,754.9	6,754.9	32.7	133.4	-38.74	2,670.5	1,769.3	2,149.2	2,011.9	137.36	15.646	
7,000.0	6,689.7	6,790.2	6,790.2	32.7	134.1	-41.27	2,670.5	1,769.3	2,118.7	1,983.4	135.39	15.650	
7,050.0	6,722.4	6,822.9	6,822.9	32.7	134.8	-44.17	2,670.5	1,769.3	2,086.4	1,952.1	134.30	15.535	
7,100.0	6,752.4	6,852.9	6,852.9	32.7	135.4	-47.49	2,670.5	1,769.3	2,052.3	1,917.9	134.38	15.273	
7,150.0	6,779.5	6,880.0	6,880.0	32.7	135.9	-51.24	2,670.5	1,769.3	2,016.8	1,881.0	135.80	14.852	
7,200.0	6,803.7	6,904.2	6,904.2	32.7	136.4	-55.43	2,670.5	1,769.3	1,980.1	1,841.5	138.57	14.289	
7,250.0	6,824.7	6,925.2	6,925.2	32.7	136.9	-60.05	2,670.5	1,769.3	1,942.3	1,799.8	142.49	13.631	
7,300.0	6,842.5	6,943.0	6,943.0	32.8	137.2	-65.03	2,670.5	1,769.3	1,903.8	1,756.6	147.14	12.939	
7,350.0	6,857.0	6,957.5	6,957.5	32.8	137.5	-70.29	2,670.5	1,769.3	1,864.7	1,712.8	151.92	12.274	
7,400.0	6,868.1	6,968.6	6,968.6	32.9	137.7	-75.71	2,670.5	1,769.3	1,825.3	1,669.1	156.23	11.683	
7,450.0	6,875.9	6,976.4	6,976.4	33.0	137.9	-81.12	2,670.5	1,769.3	1,785.8	1,626.3	159.54	11.194	
7,500.0	6,880.1	6,980.6	6,980.6	33.2	138.0	-86.39	2,670.5	1,769.3	1,746.6	1,585.0	161.56	10.810	
7,542.1	6,881.0	6,981.5	6,981.5	33.4	138.0	-90.61	2,670.5	1,769.3	1,713.8	1,551.5	162.24	10.563	
7,600.0	6,880.5	6,981.0	6,981.0	33.6	138.0	-90.58	2,670.5	1,769.3	1,669.4	1,506.1	163.27	10.225	
7,700.0	6,879.6	6,980.1	6,980.1	34.3	138.0	-90.54	2,670.5	1,769.3	1,594.8	1,429.6	165.20	9.654	
7,800.0	6,878.7	6,979.2	6,979.2	35.2	137.9	-90.49	2,670.5	1,769.3	1,523.1	1,355.8	167.27	9.106	
7,900.0	6,877.8	6,978.3	6,978.3	36.5	137.9	-90.45	2,670.5	1,769.3	1,454.7	1,285.3	169.44	8.585	
8,000.0	6,877.0	6,977.5	6,977.5	38.0	137.9	-90.40	2,670.5	1,769.3	1,390.2	1,218.5	171.71	8.096	
8,100.0	6,876.1	6,976.6	6,976.6	39.9	137.9	-90.35	2,670.5	1,769.3	1,330.1	1,156.0	174.05	7.642	
8,200.0	6,875.2	6,975.7	6,975.7	41.9	137.9	-90.31	2,670.5	1,769.3	1,275.0	1,098.5	176.46	7.225	
8,300.0	6,874.4	6,974.9	6,974.9	44.0	137.9	-90.26	2,670.5	1,769.3	1,225.6	1,046.6	178.91	6.850	
8,400.0	6,873.5	6,974.0	6,974.0	46.3	137.8	-90.22	2,670.5	1,769.3	1,182.5	1,001.1	181.41	6.519	
8,500.0	6,872.6	6,973.1	6,973.1	48.6	137.8	-90.17	2,670.5	1,769.3	1,146.7	962.7	183.93	6.234	
8,600.0	6,871.7	6,972.2	6,972.2	51.0	137.8	-90.12	2,670.5	1,769.3	1,118.6	932.1	186.49	5.998	
8,700.0	6,870.9	6,971.4	6,971.4	53.4	137.8	-90.08	2,670.5	1,769.3	1,098.9	909.9	189.08	5.812	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT MELLON 28-4 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-INC												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,800.0	6,870.0	6,970.5	6,970.5	55.9	137.8	-90.03	2,670.5	1,769.3	1,088.2	896.5	191.68	5.677	
8,867.9	6,869.4	6,969.9	6,969.9	57.7	137.8	-90.00	2,670.5	1,769.3	1,086.1	892.6	193.46	5.614 CC	
8,900.0	6,869.1	6,969.6	6,969.6	58.5	137.8	-89.99	2,670.5	1,769.3	1,086.5	892.2	194.30	5.592 ES	
9,000.0	6,868.3	6,968.8	6,968.8	61.0	137.7	-89.94	2,670.5	1,769.3	1,094.1	897.1	196.94	5.555 SF	
9,100.0	6,867.4	6,967.9	6,967.9	63.6	137.7	-89.89	2,670.5	1,769.3	1,110.6	911.0	199.59	5.564	
9,200.0	6,866.5	6,967.0	6,967.0	66.2	137.7	-89.85	2,670.5	1,769.3	1,135.7	933.4	202.25	5.615	
9,300.0	6,865.6	6,966.1	6,966.1	68.8	137.7	-89.80	2,670.5	1,769.3	1,168.9	963.9	204.93	5.704	
9,400.0	6,864.8	6,965.3	6,965.3	71.5	137.7	-89.76	2,670.5	1,769.3	1,209.4	1,001.8	207.61	5.825	
9,500.0	6,863.9	6,964.4	6,964.4	74.1	137.6	-89.71	2,670.5	1,769.3	1,256.6	1,046.3	210.30	5.975	
9,600.0	6,863.0	6,963.5	6,963.5	76.8	137.6	-89.66	2,670.5	1,769.3	1,309.8	1,096.8	213.00	6.149	
9,700.0	6,862.2	6,962.7	6,962.7	79.4	137.6	-89.62	2,670.5	1,769.3	1,368.2	1,152.5	215.71	6.343	
9,800.0	6,861.3	6,961.8	6,961.8	82.1	137.6	-89.57	2,670.5	1,769.3	1,431.2	1,212.8	218.42	6.552	
9,900.0	6,860.4	6,960.9	6,960.9	84.8	137.6	-89.53	2,670.5	1,769.3	1,498.2	1,277.1	221.14	6.775	
10,000.0	6,859.5	6,960.0	6,960.0	87.5	137.6	-89.48	2,670.5	1,769.3	1,568.8	1,344.9	223.86	7.008	
10,100.0	6,858.7	6,959.2	6,959.2	90.2	137.5	-89.43	2,670.5	1,769.3	1,642.4	1,415.8	226.58	7.249	
10,200.0	6,857.8	6,958.3	6,958.3	92.9	137.5	-89.39	2,670.5	1,769.3	1,718.7	1,489.4	229.31	7.495	
10,300.0	6,856.9	6,957.4	6,957.4	95.6	137.5	-89.34	2,670.5	1,769.3	1,797.3	1,565.3	232.04	7.746	
10,400.0	6,856.1	6,956.6	6,956.6	98.4	137.5	-89.30	2,670.5	1,769.3	1,878.0	1,643.2	234.78	7.999	
10,500.0	6,855.2	6,955.7	6,955.7	101.1	137.5	-89.25	2,670.5	1,769.3	1,960.4	1,722.9	237.52	8.254	
10,600.0	6,854.3	6,954.8	6,954.8	103.8	137.5	-89.21	2,670.5	1,769.3	2,044.4	1,804.1	240.26	8.509	
10,700.0	6,853.5	6,954.0	6,954.0	106.5	137.4	-89.16	2,670.5	1,769.3	2,129.8	1,886.8	243.00	8.764	
10,800.0	6,852.6	6,953.1	6,953.1	109.3	137.4	-89.11	2,670.5	1,769.3	2,216.4	1,970.6	245.75	9.019	
10,900.0	6,851.7	6,952.2	6,952.2	112.0	137.4	-89.07	2,670.5	1,769.3	2,304.1	2,055.6	248.50	9.272	
11,000.0	6,850.9	6,951.4	6,951.4	114.8	137.4	-89.02	2,670.5	1,769.3	2,392.7	2,141.5	251.25	9.523	
11,100.0	6,850.0	6,950.5	6,950.5	117.5	137.4	-88.98	2,670.5	1,769.3	2,482.2	2,228.2	254.00	9.773	
11,200.0	6,849.1	6,949.6	6,949.6	120.3	137.3	-88.93	2,670.5	1,769.3	2,572.5	2,315.8	256.75	10.019	
11,300.0	6,848.2	6,948.7	6,948.7	123.0	137.3	-88.89	2,670.5	1,769.3	2,663.5	2,404.0	259.51	10.264	
11,400.0	6,847.4	6,947.9	6,947.9	125.8	137.3	-88.84	2,670.5	1,769.3	2,755.1	2,492.8	262.27	10.505	
11,500.0	6,846.5	6,947.0	6,947.0	128.5	137.3	-88.79	2,670.5	1,769.3	2,847.3	2,582.3	265.02	10.744	
11,600.0	6,845.6	6,946.1	6,946.1	131.3	137.3	-88.75	2,670.5	1,769.3	2,940.0	2,672.2	267.78	10.979	
11,700.0	6,844.8	6,945.3	6,945.3	134.1	137.3	-88.70	2,670.5	1,769.3	3,033.1	2,762.6	270.54	11.211	
11,800.0	6,843.9	6,944.4	6,944.4	136.8	137.2	-88.66	2,670.5	1,769.3	3,126.7	2,853.4	273.30	11.440	
11,900.0	6,843.0	6,943.5	6,943.5	139.6	137.2	-88.61	2,670.5	1,769.3	3,220.6	2,944.6	276.06	11.666	
12,000.0	6,842.2	6,942.7	6,942.7	142.4	137.2	-88.57	2,670.5	1,769.3	3,315.0	3,036.1	278.83	11.889	
12,100.0	6,841.3	6,941.8	6,941.8	145.1	137.2	-88.52	2,670.5	1,769.3	3,409.6	3,128.0	281.59	12.108	
12,133.9	6,841.0	6,941.5	6,941.5	146.1	137.2	-88.50	2,670.5	1,769.3	3,441.7	3,159.2	282.52	12.182	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MW/D												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	114.5	114.5	0.0	0.0	47.43	2,863.7	3,117.9	4,233.4				
100.0	100.0	214.5	214.5	0.1	0.1	47.43	2,863.7	3,117.9	4,233.4	4,233.2	0.21	N/A	
200.0	200.0	314.5	314.5	0.3	0.3	47.43	2,863.7	3,117.9	4,233.4	4,232.8	0.66	6,411.877	
300.0	300.0	414.5	414.5	0.5	0.6	47.43	2,863.7	3,117.9	4,233.4	4,232.3	1.11	3,814.662	
400.0	400.0	514.5	514.5	0.8	0.8	47.43	2,863.7	3,117.9	4,233.4	4,231.9	1.56	2,714.940	
500.0	500.0	614.5	614.5	1.0	1.0	57.45	2,863.7	3,117.9	4,232.5	4,230.5	2.01	2,106.233	
600.0	599.8	714.3	714.3	1.2	1.2	57.56	2,863.7	3,117.9	4,229.7	4,227.2	2.46	1,717.212	
700.0	699.5	814.0	814.0	1.5	1.5	57.74	2,863.7	3,117.9	4,225.0	4,222.1	2.93	1,443.682	
800.0	798.7	913.2	913.2	1.7	1.7	57.99	2,863.7	3,117.9	4,218.5	4,215.1	3.41	1,237.736	
900.0	897.5	1,012.0	1,012.0	2.0	1.9	58.31	2,863.7	3,117.9	4,210.2	4,206.2	3.92	1,074.922	
1,000.0	995.6	1,110.1	1,110.1	2.4	2.1	58.70	2,863.7	3,117.9	4,200.1	4,195.6	4.46	941.735	
1,100.0	1,093.1	1,207.6	1,207.6	2.8	2.3	59.16	2,863.7	3,117.9	4,188.2	4,183.2	5.04	830.223	
1,200.0	1,189.6	1,304.1	1,304.1	3.3	2.6	59.69	2,863.7	3,117.9	4,174.7	4,169.0	5.68	735.407	
1,300.0	1,285.3	1,399.8	1,399.8	3.8	2.8	60.29	2,863.7	3,117.9	4,159.6	4,153.2	6.36	653.963	
1,326.4	1,310.3	1,424.8	1,424.8	3.9	2.8	60.46	2,863.7	3,117.9	4,155.4	4,148.8	6.55	634.381	
1,400.0	1,380.1	1,494.6	1,494.6	4.3	3.0	60.74	2,863.7	3,117.9	4,143.4	4,136.3	7.09	584.304	
1,500.0	1,474.9	1,589.4	1,589.4	4.9	3.2	61.10	2,863.7	3,117.9	4,127.3	4,119.5	7.84	526.396	
1,600.0	1,569.8	1,684.3	1,684.3	5.5	3.4	61.48	2,863.7	3,117.9	4,111.4	4,102.8	8.60	477.893	
1,700.0	1,664.6	1,779.1	1,779.1	6.1	3.6	61.85	2,863.7	3,117.9	4,095.7	4,086.4	9.38	436.835	
1,800.0	1,759.4	1,873.9	1,873.9	6.8	3.8	62.23	2,863.7	3,117.9	4,080.2	4,070.1	10.16	401.720	
1,900.0	1,854.2	1,968.7	1,968.7	7.4	4.1	62.61	2,863.7	3,117.9	4,064.9	4,053.9	10.94	371.400	
2,000.0	1,949.0	2,063.5	2,063.5	8.0	4.3	62.99	2,863.7	3,117.9	4,049.7	4,038.0	11.74	344.991	
2,100.0	2,043.8	2,158.3	2,158.3	8.6	4.5	63.38	2,863.7	3,117.9	4,034.8	4,022.2	12.54	321.807	
2,200.0	2,138.7	2,253.2	2,253.2	9.2	4.7	63.77	2,863.7	3,117.9	4,020.0	4,006.7	13.34	301.307	
2,300.0	2,233.5	2,348.0	2,348.0	9.9	4.9	64.16	2,863.7	3,117.9	4,005.5	3,991.3	14.15	283.064	
2,400.0	2,328.3	2,442.8	2,442.8	10.5	5.1	64.55	2,863.7	3,117.9	3,991.1	3,976.2	14.96	266.733	
2,500.0	2,423.1	2,537.6	2,537.6	11.1	5.3	64.95	2,863.7	3,117.9	3,977.0	3,961.2	15.78	252.036	
2,600.0	2,517.9	2,632.4	2,632.4	11.8	5.5	65.34	2,863.7	3,117.9	3,963.0	3,946.4	16.60	238.745	
2,700.0	2,612.7	2,727.2	2,727.2	12.4	5.8	65.75	2,863.7	3,117.9	3,949.3	3,931.9	17.42	226.673	
2,800.0	2,707.6	2,822.1	2,822.1	13.0	6.0	66.15	2,863.7	3,117.9	3,935.7	3,917.5	18.25	215.663	
2,900.0	2,802.4	2,916.9	2,916.9	13.6	6.2	66.56	2,863.7	3,117.9	3,922.4	3,903.3	19.08	205.585	
3,000.0	2,897.2	3,011.7	3,011.7	14.3	6.4	66.96	2,863.7	3,117.9	3,909.3	3,889.4	19.91	196.328	
3,100.0	2,992.0	3,106.5	3,106.5	14.9	6.6	67.37	2,863.7	3,117.9	3,896.4	3,875.7	20.75	187.799	
3,200.0	3,086.8	3,201.3	3,201.3	15.5	6.8	67.79	2,863.7	3,117.9	3,883.7	3,862.2	21.59	179.917	
3,300.0	3,181.6	3,296.1	3,296.1	16.2	7.0	68.20	2,863.7	3,117.9	3,871.3	3,848.9	22.43	172.614	
3,400.0	3,276.5	3,391.0	3,391.0	16.8	7.3	68.62	2,863.7	3,117.9	3,859.0	3,835.8	23.27	165.830	
3,500.0	3,371.3	3,485.8	3,485.8	17.4	7.5	69.04	2,863.7	3,117.9	3,847.0	3,822.9	24.12	159.514	
3,600.0	3,466.1	3,580.6	3,580.6	18.1	7.7	69.47	2,863.7	3,117.9	3,835.2	3,810.3	24.97	153.621	
3,700.0	3,560.9	3,675.4	3,675.4	18.7	7.9	69.89	2,863.7	3,117.9	3,823.7	3,797.9	25.82	148.110	
3,800.0	3,655.7	3,770.2	3,770.2	19.3	8.1	70.32	2,863.7	3,117.9	3,812.3	3,785.7	26.67	142.949	
3,900.0	3,750.5	3,865.0	3,865.0	20.0	8.3	70.75	2,863.7	3,117.9	3,801.2	3,773.7	27.52	138.105	
4,000.0	3,845.4	3,959.9	3,959.9	20.6	8.5	71.18	2,863.7	3,117.9	3,790.4	3,762.0	28.38	133.552	
4,100.0	3,940.2	4,054.7	4,054.7	21.3	8.7	71.62	2,863.7	3,117.9	3,779.8	3,750.5	29.24	129.265	
4,200.0	4,035.0	4,149.5	4,149.5	21.9	9.0	72.05	2,863.7	3,117.9	3,769.4	3,739.3	30.10	125.224	
4,300.0	4,129.8	4,244.3	4,244.3	22.5	9.2	72.49	2,863.7	3,117.9	3,759.2	3,728.3	30.96	121.408	
4,400.0	4,224.6	4,339.1	4,339.1	23.2	9.4	72.94	2,863.7	3,117.9	3,749.3	3,717.5	31.83	117.800	
4,500.0	4,319.4	4,433.9	4,433.9	23.8	9.6	73.38	2,863.7	3,117.9	3,739.6	3,706.9	32.69	114.386	
4,600.0	4,414.3	4,528.8	4,528.8	24.4	9.8	73.82	2,863.7	3,117.9	3,730.2	3,696.7	33.56	111.150	
4,700.0	4,509.1	4,623.6	4,623.6	25.1	10.0	74.27	2,863.7	3,117.9	3,721.0	3,686.6	34.43	108.080	
4,800.0	4,603.9	4,718.4	4,718.4	25.7	10.2	74.72	2,863.7	3,117.9	3,712.1	3,676.8	35.30	105.165	
4,900.0	4,698.7	4,813.2	4,813.2	26.3	10.4	75.17	2,863.7	3,117.9	3,703.5	3,667.3	36.17	102.393	
5,000.0	4,793.5	4,908.0	4,908.0	27.0	10.7	75.63	2,863.7	3,117.9	3,695.0	3,658.0	37.04	99.756	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	5,002.8	5,002.8	27.6	10.9	76.08	2,863.7	3,117.9	3,686.9	3,649.0	37.91	97.245	
5,200.0	4,983.2	5,097.7	5,097.7	28.2	11.1	76.54	2,863.7	3,117.9	3,679.0	3,640.2	38.79	94.851	
5,300.0	5,078.0	5,192.5	5,192.5	28.9	11.3	77.00	2,863.7	3,117.9	3,671.3	3,631.7	39.66	92.568	
5,400.0	5,172.8	5,287.3	5,287.3	29.5	11.5	77.46	2,863.7	3,117.9	3,663.9	3,623.4	40.54	90.388	
5,454.5	5,224.5	5,339.0	5,339.0	29.9	11.6	77.71	2,863.7	3,117.9	3,660.0	3,619.0	41.01	89.241	
5,500.0	5,267.7	5,382.2	5,382.2	30.1	11.7	77.85	2,863.7	3,117.9	3,656.9	3,615.5	41.37	88.392	
5,600.0	5,363.5	5,478.0	5,478.0	30.6	11.9	78.15	2,863.7	3,117.9	3,650.7	3,608.6	42.06	86.801	
5,700.0	5,460.3	5,574.8	5,574.8	31.0	12.2	78.42	2,863.7	3,117.9	3,645.4	3,602.7	42.70	85.366	
5,800.0	5,557.9	5,672.4	5,672.4	31.3	12.4	78.67	2,863.7	3,117.9	3,640.9	3,597.6	43.30	84.077	
5,900.0	5,656.2	5,770.7	5,770.7	31.7	12.6	78.87	2,863.7	3,117.9	3,637.3	3,593.4	43.86	82.927	
6,000.0	5,755.0	5,869.5	5,869.5	31.9	12.8	79.05	2,863.7	3,117.9	3,634.4	3,590.0	44.37	81.909	
6,100.0	5,854.4	5,968.9	5,968.9	32.2	13.0	79.18	2,863.7	3,117.9	3,632.2	3,587.4	44.83	81.015	
6,200.0	5,954.0	6,068.5	6,068.5	32.4	13.3	79.28	2,863.7	3,117.9	3,630.7	3,585.5	45.25	80.241	
6,300.0	6,053.9	6,168.4	6,168.4	32.5	13.5	79.33	2,863.7	3,117.9	3,629.8	3,584.2	45.61	79.580	
6,380.9	6,134.8	6,249.3	6,249.3	32.6	13.7	69.36	2,863.7	3,117.9	3,629.6	3,598.1	31.54	115.081	
6,400.0	6,153.9	6,268.4	6,268.4	32.6	13.7	69.36	2,863.7	3,117.9	3,629.6	3,598.0	31.61	114.825	
6,410.9	6,164.8	6,279.3	6,279.3	32.6	13.7	69.36	2,863.7	3,117.9	3,629.6	3,598.0	31.65	114.673	
6,450.0	6,203.9	6,318.4	6,318.4	32.6	13.8	-20.67	2,863.7	3,117.9	3,628.6	3,582.6	46.05	78.802	
6,500.0	6,253.7	6,368.2	6,368.2	32.7	13.9	-20.82	2,863.7	3,117.9	3,624.5	3,578.5	45.97	78.843	
6,550.0	6,303.0	6,417.5	6,417.5	32.7	14.1	-21.07	2,863.7	3,117.9	3,617.0	3,571.3	45.69	79.160	
6,600.0	6,351.7	6,466.2	6,466.2	32.7	14.2	-21.46	2,863.7	3,117.9	3,606.4	3,561.2	45.22	79.755	
6,650.0	6,399.5	6,514.0	6,514.0	32.7	14.3	-21.97	2,863.7	3,117.9	3,592.7	3,548.1	44.56	80.628	
6,700.0	6,446.1	6,560.6	6,560.6	32.7	14.4	-22.62	2,863.7	3,117.9	3,575.8	3,532.1	43.72	81.786	
6,750.0	6,491.4	6,605.9	6,605.9	32.7	14.5	-23.42	2,863.7	3,117.9	3,556.0	3,513.3	42.72	83.231	
6,800.0	6,535.1	6,649.6	6,649.6	32.7	14.6	-24.41	2,863.7	3,117.9	3,533.3	3,491.7	41.59	84.963	
6,850.0	6,576.9	6,691.4	6,691.4	32.7	14.7	-25.59	2,863.7	3,117.9	3,507.9	3,467.5	40.33	86.969	
6,900.0	6,616.8	6,731.3	6,731.3	32.7	14.8	-27.00	2,863.7	3,117.9	3,479.8	3,440.8	39.00	89.218	
6,950.0	6,654.4	6,768.9	6,768.9	32.7	14.8	-28.69	2,863.7	3,117.9	3,449.2	3,411.6	37.64	91.642	
7,000.0	6,689.7	6,804.2	6,804.2	32.7	14.9	-30.69	2,863.7	3,117.9	3,416.3	3,380.0	36.30	94.118	
7,050.0	6,722.4	6,836.9	6,836.9	32.7	15.0	-33.07	2,863.7	3,117.9	3,381.3	3,346.3	35.06	96.437	
7,100.0	6,752.4	6,866.9	6,866.9	32.7	15.1	-35.91	2,863.7	3,117.9	3,344.3	3,310.3	34.03	98.283	
7,150.0	6,779.5	6,894.0	6,894.0	32.7	15.1	-39.28	2,863.7	3,117.9	3,305.6	3,272.3	33.31	99.239	
7,200.0	6,803.7	6,918.2	6,918.2	32.7	15.2	-43.29	2,863.7	3,117.9	3,265.3	3,232.2	33.03	98.861	
7,250.0	6,824.7	6,939.2	6,939.2	32.7	15.2	-48.05	2,863.7	3,117.9	3,223.6	3,190.3	33.28	96.848	
7,300.0	6,842.5	6,957.0	6,957.0	32.8	15.3	-53.64	2,863.7	3,117.9	3,180.8	3,146.7	34.11	93.263	
7,350.0	6,857.0	6,971.5	6,971.5	32.8	15.3	-60.12	2,863.7	3,117.9	3,137.0	3,101.6	35.40	88.620	
7,400.0	6,868.1	6,982.6	6,982.6	32.9	15.3	-67.46	2,863.7	3,117.9	3,092.6	3,055.7	36.93	83.749	
7,450.0	6,875.9	6,990.4	6,990.4	33.0	15.3	-75.50	2,863.7	3,117.9	3,047.7	3,009.4	38.34	79.483	
7,500.0	6,880.1	6,994.6	6,994.6	33.2	15.4	-83.93	2,863.7	3,117.9	3,002.6	2,963.3	39.30	76.410	
7,542.1	6,881.0	6,995.5	6,995.5	33.4	15.4	-91.05	2,863.7	3,117.9	2,964.5	2,924.9	39.57	74.926	
7,600.0	6,880.5	6,995.0	6,995.0	33.6	15.4	-91.02	2,863.7	3,117.9	2,912.4	2,871.8	40.61	71.719	
7,700.0	6,879.6	6,994.1	6,994.1	34.3	15.4	-90.98	2,863.7	3,117.9	2,822.9	2,780.4	42.55	66.344	
7,800.0	6,878.7	6,993.2	6,993.2	35.2	15.3	-90.94	2,863.7	3,117.9	2,734.2	2,689.5	44.63	61.260	
7,900.0	6,877.8	6,992.3	6,992.3	36.5	15.3	-90.90	2,863.7	3,117.9	2,646.2	2,599.4	46.82	56.513	
8,000.0	6,877.0	6,991.5	6,991.5	38.0	15.3	-90.87	2,863.7	3,117.9	2,559.1	2,510.0	49.11	52.112	
8,100.0	6,876.1	6,990.6	6,990.6	39.9	15.3	-90.83	2,863.7	3,117.9	2,473.0	2,421.6	51.47	48.052	
8,200.0	6,875.2	6,989.7	6,989.7	41.9	15.3	-90.79	2,863.7	3,117.9	2,388.0	2,334.1	53.88	44.317	
8,300.0	6,874.4	6,988.9	6,988.9	44.0	15.3	-90.75	2,863.7	3,117.9	2,304.2	2,247.8	56.35	40.889	
8,400.0	6,873.5	6,988.0	6,988.0	46.3	15.3	-90.71	2,863.7	3,117.9	2,221.7	2,162.9	58.86	37.744	
8,500.0	6,872.6	6,987.1	6,987.1	48.6	15.3	-90.67	2,863.7	3,117.9	2,140.7	2,079.3	61.41	34.861	
8,600.0	6,871.7	6,986.2	6,986.2	51.0	15.3	-90.63	2,863.7	3,117.9	2,061.4	1,997.4	63.98	32.219	
8,700.0	6,870.9	6,985.4	6,985.4	53.4	15.3	-90.59	2,863.7	3,117.9	1,984.0	1,917.4	66.58	29.799	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - EXIST VERT ROGER 1 - Wellbore #1 - Design #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	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
8,800.0	6,870.0	6,984.5	6,984.5	55.9	15.3	-90.55	2,863.7	3,117.9	1,908.6	1,839.4	69.20	27.582	
8,900.0	6,869.1	6,983.6	6,983.6	58.5	15.3	-90.51	2,863.7	3,117.9	1,835.7	1,763.8	71.84	25.553	
9,000.0	6,868.3	6,982.8	6,982.8	61.0	15.3	-90.47	2,863.7	3,117.9	1,765.3	1,690.8	74.49	23.699	
9,100.0	6,867.4	6,981.9	6,981.9	63.6	15.3	-90.44	2,863.7	3,117.9	1,698.0	1,620.8	77.16	22.006	
9,200.0	6,866.5	6,981.0	6,981.0	66.2	15.3	-90.40	2,863.7	3,117.9	1,633.9	1,554.1	79.84	20.466	
9,300.0	6,865.6	6,980.1	6,980.1	68.8	15.3	-90.36	2,863.7	3,117.9	1,573.7	1,491.2	82.53	19.069	
9,400.0	6,864.8	6,979.3	6,979.3	71.5	15.3	-90.32	2,863.7	3,117.9	1,517.6	1,432.4	85.23	17.807	
9,500.0	6,863.9	6,978.4	6,978.4	74.1	15.3	-90.28	2,863.7	3,117.9	1,466.2	1,378.3	87.93	16.674	
9,600.0	6,863.0	6,977.5	6,977.5	76.8	15.3	-90.24	2,863.7	3,117.9	1,420.1	1,329.4	90.65	15.665	
9,700.0	6,862.2	6,976.7	6,976.7	79.4	15.3	-90.20	2,863.7	3,117.9	1,379.6	1,286.2	93.37	14.775	
9,800.0	6,861.3	6,975.8	6,975.8	82.1	15.3	-90.16	2,863.7	3,117.9	1,345.4	1,249.3	96.10	14.000	
9,900.0	6,860.4	6,974.9	6,974.9	84.8	15.3	-90.12	2,863.7	3,117.9	1,317.8	1,219.0	98.83	13.334	
10,000.0	6,859.5	6,974.0	6,974.0	87.5	15.3	-90.08	2,863.7	3,117.9	1,297.5	1,195.9	101.57	12.774	
10,100.0	6,858.7	6,973.2	6,973.2	90.2	15.3	-90.05	2,863.7	3,117.9	1,284.6	1,180.3	104.31	12.314	
10,200.0	6,857.8	6,972.3	6,972.3	92.9	15.3	-90.01	2,863.7	3,117.9	1,279.4	1,172.3	107.06	11.950	
10,216.5	6,857.7	6,972.2	6,972.2	93.4	15.3	-90.00	2,863.7	3,117.9	1,279.3	1,171.8	107.51	11.899 CC, ES	
10,300.0	6,856.9	6,971.4	6,971.4	95.6	15.3	-89.97	2,863.7	3,117.9	1,282.0	1,172.2	109.81	11.675	
10,400.0	6,856.1	6,970.6	6,970.6	98.4	15.3	-89.93	2,863.7	3,117.9	1,292.4	1,179.8	112.56	11.481	
10,500.0	6,855.2	6,969.7	6,969.7	101.1	15.3	-89.89	2,863.7	3,117.9	1,310.3	1,195.0	115.32	11.362	
10,600.0	6,854.3	6,968.8	6,968.8	103.8	15.3	-89.85	2,863.7	3,117.9	1,335.5	1,217.4	118.08	11.310 SF	
10,700.0	6,853.5	6,968.0	6,968.0	106.5	15.3	-89.81	2,863.7	3,117.9	1,367.6	1,246.7	120.84	11.317	
10,800.0	6,852.6	6,967.1	6,967.1	109.3	15.3	-89.77	2,863.7	3,117.9	1,406.0	1,282.4	123.61	11.375	
10,900.0	6,851.7	6,966.2	6,966.2	112.0	15.3	-89.73	2,863.7	3,117.9	1,450.4	1,324.0	126.37	11.477	
11,000.0	6,850.9	6,965.4	6,965.4	114.8	15.3	-89.69	2,863.7	3,117.9	1,500.1	1,371.0	129.14	11.616	
11,100.0	6,850.0	6,964.5	6,964.5	117.5	15.3	-89.66	2,863.7	3,117.9	1,554.7	1,422.8	131.91	11.786	
11,200.0	6,849.1	6,963.6	6,963.6	120.3	15.3	-89.62	2,863.7	3,117.9	1,613.6	1,478.9	134.68	11.981	
11,300.0	6,848.2	6,962.7	6,962.7	123.0	15.3	-89.58	2,863.7	3,117.9	1,676.4	1,539.0	137.46	12.196	
11,400.0	6,847.4	6,961.9	6,961.9	125.8	15.3	-89.54	2,863.7	3,117.9	1,742.7	1,602.5	140.23	12.427	
11,500.0	6,846.5	6,961.0	6,961.0	128.5	15.3	-89.50	2,863.7	3,117.9	1,812.1	1,669.1	143.01	12.671	
11,600.0	6,845.6	6,960.1	6,960.1	131.3	15.3	-89.46	2,863.7	3,117.9	1,884.3	1,738.5	145.79	12.925	
11,700.0	6,844.8	6,959.3	6,959.3	134.1	15.3	-89.42	2,863.7	3,117.9	1,958.8	1,810.3	148.57	13.185	
11,800.0	6,843.9	6,958.4	6,958.4	136.8	15.3	-89.38	2,863.7	3,117.9	2,035.6	1,884.3	151.35	13.450	
11,900.0	6,843.0	6,957.5	6,957.5	139.6	15.3	-89.35	2,863.7	3,117.9	2,114.3	1,960.2	154.13	13.718	
12,000.0	6,842.2	6,956.7	6,956.7	142.4	15.3	-89.31	2,863.7	3,117.9	2,194.8	2,037.9	156.91	13.988	
12,100.0	6,841.3	6,955.8	6,955.8	145.1	15.3	-89.27	2,863.7	3,117.9	2,276.8	2,117.1	159.69	14.257	
12,133.9	6,841.0	6,955.5	6,955.5	146.1	15.3	-89.25	2,863.7	3,117.9	2,304.9	2,144.2	160.63	14.349	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-16.7	16.7				
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-16.7	16.7	16.5	0.19	85.998	
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-16.7	16.7	16.1	0.64	25.965	
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-16.7	16.7	15.6	1.09	15.291 CC	
400.0	400.0	399.9	399.9	0.8	0.8	-84.19	1.7	-17.0	17.0	15.5	1.54	11.051 ES	
500.0	500.0	499.6	499.5	1.0	1.0	-63.40	6.9	-17.7	18.1	16.1	1.99	9.088	
600.0	599.8	599.2	598.7	1.2	1.2	-53.91	15.5	-18.8	19.6	17.2	2.46	7.991	
700.0	699.5	698.7	697.4	1.5	1.5	-45.75	27.4	-20.5	21.5	18.6	2.94	7.318	
800.0	798.7	798.1	795.6	1.7	1.8	-38.81	42.8	-22.6	23.7	20.2	3.44	6.878	
900.0	897.5	897.4	893.1	2.0	2.2	-32.89	61.5	-25.2	26.0	22.1	3.95	6.579	
1,000.0	995.6	996.5	989.7	2.4	2.6	-27.78	83.5	-28.2	28.5	24.0	4.47	6.370	
1,100.0	1,093.1	1,095.5	1,085.4	2.8	3.1	-23.34	108.7	-31.6	31.1	26.1	5.00	6.220	
1,200.0	1,189.6	1,194.5	1,180.0	3.3	3.6	-19.42	137.2	-35.5	33.7	28.2	5.52	6.109	
1,300.0	1,285.3	1,293.3	1,273.5	3.8	4.2	-15.93	168.9	-39.9	36.5	30.4	6.05	6.024	
1,326.4	1,310.3	1,319.3	1,297.9	3.9	4.3	-15.06	177.8	-41.1	37.2	31.0	6.20	5.998	
1,400.0	1,380.1	1,391.9	1,365.7	4.3	4.8	-12.49	203.7	-44.6	40.2	33.6	6.61	6.079	
1,500.0	1,474.9	1,491.2	1,457.4	4.9	5.5	-8.97	241.2	-49.8	46.5	39.4	7.17	6.495	
1,600.0	1,569.8	1,590.9	1,549.5	5.5	6.2	-6.25	279.1	-55.0	53.3	45.5	7.75	6.878	
1,700.0	1,664.6	1,690.7	1,641.7	6.1	7.0	-4.15	317.0	-60.2	60.1	51.8	8.34	7.203	
1,800.0	1,759.4	1,790.4	1,733.8	6.8	7.7	-2.48	354.9	-65.4	67.0	58.0	8.96	7.479	
1,900.0	1,854.2	1,890.1	1,825.9	7.4	8.4	-1.12	392.7	-70.6	73.9	64.3	9.58	7.714	
2,000.0	1,949.0	1,989.9	1,918.0	8.0	9.2	0.01	430.6	-75.8	80.9	70.7	10.22	7.916	
2,100.0	2,043.8	2,089.6	2,010.1	8.6	9.9	0.95	468.5	-81.0	87.9	77.0	10.86	8.090	
2,200.0	2,138.7	2,189.4	2,102.3	9.2	10.6	1.76	506.4	-86.2	94.9	83.4	11.52	8.240	
2,300.0	2,233.5	2,289.1	2,194.4	9.9	11.4	2.46	544.3	-91.4	101.9	89.8	12.18	8.372	
2,400.0	2,328.3	2,388.9	2,286.5	10.5	12.1	3.06	582.2	-96.5	109.0	96.1	12.84	8.487	
2,500.0	2,423.1	2,488.6	2,378.6	11.1	12.9	3.60	620.1	-101.7	116.0	102.5	13.51	8.589	
2,600.0	2,517.9	2,588.4	2,470.8	11.8	13.6	4.07	658.0	-106.9	123.1	108.9	14.18	8.680	
2,700.0	2,612.7	2,688.1	2,562.9	12.4	14.4	4.49	695.9	-112.1	130.2	115.3	14.86	8.761	
2,800.0	2,707.6	2,787.9	2,655.0	13.0	15.1	4.86	733.8	-117.3	137.2	121.7	15.54	8.833	
2,900.0	2,802.4	2,887.6	2,747.1	13.6	15.9	5.20	771.7	-122.5	144.3	128.1	16.22	8.899	
3,000.0	2,897.2	2,987.3	2,839.2	14.3	16.6	5.51	809.5	-127.7	151.4	134.5	16.90	8.958	
3,100.0	2,992.0	3,087.1	2,931.4	14.9	17.4	5.79	847.4	-132.9	158.5	140.9	17.59	9.011	
3,200.0	3,086.8	3,186.8	3,023.5	15.5	18.1	6.05	885.3	-138.1	165.6	147.3	18.28	9.061	
3,300.0	3,181.6	3,286.6	3,115.6	16.2	18.9	6.28	923.2	-143.3	172.7	153.7	18.97	9.105	
3,400.0	3,276.5	3,386.3	3,207.7	16.8	19.6	6.50	961.1	-148.5	179.8	160.1	19.66	9.147	
3,500.0	3,371.3	3,486.1	3,299.9	17.4	20.4	6.70	999.0	-153.7	186.9	166.5	20.35	9.185	
3,600.0	3,466.1	3,585.8	3,392.0	18.1	21.1	6.89	1,036.9	-158.9	194.0	173.0	21.04	9.220	
3,700.0	3,560.9	3,685.6	3,484.1	18.7	21.9	7.06	1,074.8	-164.1	201.1	179.4	21.74	9.252	
3,800.0	3,655.7	3,785.3	3,576.2	19.3	22.6	7.22	1,112.7	-169.3	208.2	185.8	22.43	9.282	
3,900.0	3,750.5	3,885.1	3,668.3	20.0	23.4	7.37	1,150.6	-174.5	215.3	192.2	23.13	9.310	
4,000.0	3,845.4	3,984.8	3,760.5	20.6	24.1	7.51	1,188.5	-179.7	222.4	198.6	23.82	9.337	
4,100.0	3,940.2	4,084.5	3,852.6	21.3	24.9	7.64	1,226.3	-184.9	229.6	205.0	24.52	9.361	
4,200.0	4,035.0	4,184.3	3,944.7	21.9	25.6	7.77	1,264.2	-190.1	236.7	211.4	25.22	9.384	
4,300.0	4,129.8	4,284.0	4,036.8	22.5	26.4	7.88	1,302.1	-195.3	243.8	217.9	25.92	9.406	
4,400.0	4,224.6	4,383.8	4,129.0	23.2	27.1	7.99	1,340.0	-200.5	250.9	224.3	26.62	9.426	
4,500.0	4,319.4	4,483.5	4,221.1	23.8	27.9	8.10	1,377.9	-205.7	258.0	230.7	27.32	9.445	
4,600.0	4,414.3	4,583.3	4,313.2	24.4	28.6	8.20	1,415.8	-210.8	265.1	237.1	28.02	9.463	
4,700.0	4,509.1	4,683.0	4,405.3	25.1	29.4	8.29	1,453.7	-216.0	272.2	243.5	28.72	9.480	
4,800.0	4,603.9	4,782.8	4,497.4	25.7	30.1	8.38	1,491.6	-221.2	279.4	249.9	29.42	9.496	
4,900.0	4,698.7	4,882.5	4,589.6	26.3	30.9	8.46	1,529.5	-226.4	286.5	256.4	30.12	9.511	
5,000.0	4,793.5	4,982.3	4,681.7	27.0	31.6	8.54	1,567.4	-231.6	293.6	262.8	30.82	9.525	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	5,082.0	4,773.8	27.6	32.4	8.62	1,605.3	-236.8	300.7	269.2	31.53	9.539	
5,200.0	4,983.2	5,181.7	4,865.9	28.2	33.1	8.69	1,643.1	-242.0	307.8	275.6	32.23	9.552	
5,300.0	5,078.0	5,283.7	4,960.1	28.9	33.9	8.76	1,681.8	-247.3	314.9	282.0	32.93	9.562	
5,400.0	5,172.8	5,396.0	5,064.9	29.5	34.5	8.90	1,721.7	-252.8	319.4	285.7	33.64	9.494	
5,454.5	5,224.5	5,457.2	5,122.7	29.9	34.8	9.02	1,741.7	-255.5	320.2	286.2	34.02	9.411	
5,500.0	5,267.7	5,508.4	5,171.4	30.1	35.1	9.12	1,757.5	-257.7	320.3	286.0	34.33	9.332	
5,600.0	5,363.5	5,620.9	5,279.2	30.6	35.6	9.34	1,789.2	-262.1	320.3	285.4	34.91	9.176	
5,700.0	5,460.3	5,733.3	5,388.2	31.0	36.1	9.55	1,816.7	-265.8	319.9	284.4	35.42	9.031	
5,800.0	5,557.9	5,845.8	5,498.1	31.3	36.5	9.74	1,839.9	-269.0	319.0	283.1	35.85	8.897	
5,900.0	5,656.2	5,958.1	5,608.8	31.7	36.8	9.91	1,858.8	-271.6	317.6	281.4	36.20	8.773	
6,000.0	5,755.0	6,070.4	5,720.1	31.9	37.1	10.07	1,873.4	-273.6	315.8	279.3	36.48	8.657	
6,100.0	5,854.4	6,182.6	5,831.8	32.2	37.3	10.22	1,883.6	-275.0	313.6	276.9	36.68	8.550	
6,200.0	5,954.0	6,294.6	5,943.7	32.4	37.5	10.35	1,889.5	-275.8	310.9	274.1	36.80	8.449	
6,300.0	6,053.9	6,404.9	6,053.9	32.5	37.6	10.46	1,891.1	-276.0	307.8	271.0	36.84	8.357	
6,376.6	6,130.5	6,481.1	6,130.1	32.6	37.6	10.97	1,891.1	-273.5	306.7	269.8	36.94	8.304	
6,380.9	6,134.8	6,485.3	6,134.3	32.6	37.6	1.06	1,891.1	-273.1	306.8	237.4	69.37	4.422	
6,400.0	6,153.9	6,504.1	6,153.0	32.6	37.6	1.43	1,891.1	-271.2	306.8	237.5	69.34	4.424	
6,410.9	6,164.8	6,514.8	6,163.6	32.6	37.6	1.67	1,891.1	-269.8	306.8	237.5	69.32	4.426	
6,450.0	6,203.9	6,553.0	6,201.3	32.6	37.6	-87.38	1,891.1	-263.8	307.0	269.4	37.62	8.162	
6,500.0	6,253.7	6,601.4	6,248.6	32.7	37.7	-86.20	1,891.1	-253.4	307.4	269.3	38.13	8.062	
6,550.0	6,303.0	6,650.0	6,295.2	32.7	37.7	-85.02	1,891.1	-239.6	307.9	269.2	38.63	7.969	
6,600.0	6,351.7	6,697.0	6,339.3	32.7	37.7	-83.90	1,891.1	-223.4	308.5	269.4	39.10	7.890	
6,650.0	6,399.5	6,744.3	6,382.5	32.7	37.7	-82.80	1,891.1	-204.2	309.2	269.6	39.52	7.823	
6,700.0	6,446.1	6,791.2	6,424.0	32.7	37.7	-81.75	1,891.1	-182.3	310.0	270.1	39.89	7.770	
6,750.0	6,491.4	6,837.8	6,463.7	32.7	37.7	-80.73	1,891.1	-158.0	310.8	270.6	40.20	7.731	
6,800.0	6,535.1	6,884.1	6,501.5	32.7	37.7	-79.77	1,891.1	-131.3	311.7	271.2	40.46	7.704	
6,850.0	6,576.9	6,930.1	6,537.3	32.7	37.7	-78.86	1,891.1	-102.4	312.6	272.0	40.67	7.687	
6,900.0	6,616.8	6,975.9	6,571.0	32.7	37.7	-78.01	1,891.1	-71.4	313.6	272.8	40.85	7.677	
6,950.0	6,654.4	7,021.4	6,602.5	32.7	37.7	-77.21	1,891.1	-38.6	314.6	273.5	41.02	7.669	
7,000.0	6,689.7	7,066.6	6,631.6	32.7	37.7	-76.48	1,891.1	-4.0	315.5	274.3	41.19	7.659	
7,050.0	6,722.4	7,111.7	6,658.5	32.7	37.7	-75.80	1,891.1	32.2	316.4	275.0	41.39	7.644	
7,100.0	6,752.4	7,156.6	6,682.9	32.7	37.7	-75.20	1,891.1	69.9	317.3	275.6	41.72	7.605	
7,150.0	6,779.5	7,200.0	6,704.2	32.7	37.7	-74.67	1,891.1	107.7	318.1	276.0	42.09	7.557	
7,200.0	6,803.7	7,245.9	6,724.2	32.7	37.7	-74.18	1,891.1	149.1	318.8	276.2	42.63	7.478	
7,250.0	6,824.7	7,290.4	6,741.0	32.7	37.8	-73.77	1,891.1	190.2	319.4	276.1	43.32	7.373	
7,300.0	6,842.5	7,334.8	6,755.2	32.8	37.8	-73.44	1,891.1	232.3	320.0	275.8	44.19	7.241	
7,350.0	6,857.0	7,379.1	6,766.7	32.8	37.9	-73.17	1,891.1	275.0	320.4	275.2	45.25	7.082	
7,400.0	6,868.1	7,423.3	6,775.6	32.9	38.0	-72.97	1,891.1	318.3	320.8	274.3	46.50	6.899	
7,450.0	6,875.9	7,467.4	6,781.7	33.0	38.0	-72.84	1,891.1	362.0	321.0	273.1	47.93	6.697	
7,500.0	6,880.1	7,511.6	6,785.2	33.2	38.2	-72.79	1,891.1	406.1	321.1	271.6	49.53	6.483	
7,542.1	6,881.0	7,548.9	6,786.0	33.4	38.3	-72.79	1,891.1	443.3	321.1	270.1	51.00	6.296	
7,600.0	6,880.5	7,606.7	6,785.7	33.6	38.5	-72.84	1,891.1	501.1	321.0	268.0	52.97	6.060	
7,700.0	6,879.6	7,706.7	6,785.3	34.3	38.9	-72.91	1,891.1	601.1	320.9	264.2	56.63	5.666	
7,800.0	6,878.7	7,806.6	6,784.9	35.2	39.6	-72.99	1,891.1	701.1	320.7	260.2	60.54	5.298	
7,900.0	6,877.8	7,906.6	6,784.4	36.5	40.5	-73.06	1,891.1	801.1	320.6	255.9	64.67	4.958	
8,000.0	6,877.0	8,006.6	6,784.0	38.0	41.6	-73.13	1,891.1	901.1	320.5	251.5	68.98	4.646	
8,100.0	6,876.1	8,106.6	6,783.6	39.9	43.0	-73.21	1,891.1	1,001.1	320.4	246.9	73.43	4.362	
8,200.0	6,875.2	8,206.6	6,783.1	41.9	44.6	-73.28	1,891.1	1,101.1	320.2	242.2	78.01	4.105	
8,300.0	6,874.4	8,306.6	6,782.7	44.0	46.4	-73.36	1,891.1	1,201.1	320.1	237.4	82.70	3.871	
8,400.0	6,873.5	8,406.6	6,782.2	46.3	48.4	-73.43	1,891.1	1,301.1	320.0	232.5	87.47	3.658	
8,500.0	6,872.6	8,506.6	6,781.8	48.6	50.6	-73.51	1,891.1	1,401.1	319.9	227.5	92.32	3.465	
8,600.0	6,871.7	8,606.6	6,781.4	51.0	52.8	-73.58	1,891.1	1,501.1	319.7	222.5	97.23	3.289	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	
8,700.0	6,870.9	8,706.6	6,780.9	53.4	55.1	-73.66	1,891.1	1,601.1	319.6	217.4	102.19	3.128	
8,800.0	6,870.0	8,806.6	6,780.5	55.9	57.5	-73.73	1,891.1	1,701.1	319.5	212.3	107.21	2.980	
8,900.0	6,869.1	8,906.6	6,780.1	58.5	59.9	-73.81	1,891.1	1,801.1	319.4	207.1	112.27	2.845	
9,000.0	6,868.3	9,006.6	6,779.6	61.0	62.4	-73.88	1,891.1	1,901.1	319.2	201.9	117.36	2.720	
9,100.0	6,867.4	9,106.6	6,779.2	63.6	64.9	-73.96	1,891.1	2,001.1	319.1	196.6	122.49	2.605	
9,200.0	6,866.5	9,206.6	6,778.8	66.2	67.4	-74.03	1,891.1	2,101.1	319.0	191.4	127.65	2.499	
9,300.0	6,865.6	9,306.6	6,778.3	68.8	70.0	-74.11	1,891.1	2,201.1	318.9	186.1	132.83	2.401	
9,400.0	6,864.8	9,406.6	6,777.9	71.5	72.5	-74.18	1,891.1	2,301.1	318.8	180.7	138.04	2.309	
9,500.0	6,863.9	9,506.6	6,777.4	74.1	75.2	-74.26	1,891.1	2,401.1	318.7	175.4	143.27	2.224	
9,600.0	6,863.0	9,606.6	6,777.0	76.8	77.8	-74.33	1,891.1	2,501.1	318.5	170.0	148.52	2.145	
9,700.0	6,862.2	9,706.6	6,776.6	79.4	80.4	-74.41	1,891.1	2,601.1	318.4	164.6	153.79	2.071	
9,800.0	6,861.3	9,806.6	6,776.1	82.1	83.1	-74.48	1,891.1	2,701.1	318.3	159.2	159.07	2.001	
9,900.0	6,860.4	9,906.6	6,775.7	84.8	85.7	-74.56	1,891.1	2,801.1	318.2	153.8	164.37	1.936	
10,000.0	6,859.5	10,006.6	6,775.3	87.5	88.4	-74.63	1,891.1	2,901.0	318.1	148.4	169.68	1.874	
10,100.0	6,858.7	10,106.6	6,774.8	90.2	91.1	-74.71	1,891.1	3,001.0	318.0	142.9	175.01	1.817	
10,200.0	6,857.8	10,206.6	6,774.4	92.9	93.7	-74.78	1,891.1	3,101.0	317.8	137.5	180.35	1.762	
10,300.0	6,856.9	10,306.6	6,774.0	95.6	96.4	-74.86	1,891.1	3,201.0	317.7	132.0	185.70	1.711	
10,400.0	6,856.1	10,406.6	6,773.5	98.4	99.1	-74.94	1,891.1	3,301.0	317.6	126.5	191.07	1.662	
10,500.0	6,855.2	10,506.6	6,773.1	101.1	101.8	-75.01	1,891.1	3,401.0	317.5	121.1	196.44	1.616	
10,600.0	6,854.3	10,606.6	6,772.6	103.8	104.6	-75.09	1,891.1	3,501.0	317.4	115.6	201.82	1.573	
10,700.0	6,853.5	10,706.6	6,772.2	106.5	107.3	-75.16	1,891.1	3,601.0	317.3	110.1	207.21	1.531	
10,800.0	6,852.6	10,806.6	6,771.8	109.3	110.0	-75.24	1,891.1	3,701.0	317.2	104.6	212.61	1.492 Level 3	
10,900.0	6,851.7	10,906.6	6,771.3	112.0	112.7	-75.31	1,891.1	3,801.0	317.1	99.0	218.02	1.454 Level 3	
11,000.0	6,850.9	11,006.6	6,770.9	114.8	115.5	-75.39	1,891.1	3,901.0	316.9	93.5	223.44	1.419 Level 3	
11,100.0	6,850.0	11,106.6	6,770.5	117.5	118.2	-75.47	1,891.1	4,001.0	316.8	88.0	228.86	1.384 Level 3	
11,200.0	6,849.1	11,206.6	6,770.0	120.3	120.9	-75.54	1,891.1	4,101.0	316.7	82.4	234.29	1.352 Level 3	
11,300.0	6,848.2	11,306.6	6,769.6	123.0	123.7	-75.62	1,891.1	4,201.0	316.6	76.9	239.73	1.321 Level 3	
11,400.0	6,847.4	11,406.6	6,769.2	125.8	126.4	-75.69	1,891.1	4,301.0	316.5	71.3	245.17	1.291 Level 3	
11,500.0	6,846.5	11,506.6	6,768.7	128.5	129.2	-75.77	1,891.1	4,401.0	316.4	65.8	250.63	1.262 Level 3	
11,600.0	6,845.6	11,606.6	6,768.3	131.3	131.9	-75.84	1,891.1	4,501.0	316.3	60.2	256.08	1.235 Level 2	
11,700.0	6,844.8	11,706.6	6,767.8	134.1	134.7	-75.92	1,891.1	4,601.0	316.2	54.7	261.55	1.209 Level 2	
11,800.0	6,843.9	11,806.6	6,767.4	136.8	137.4	-76.00	1,891.1	4,701.0	316.1	49.1	267.01	1.184 Level 2	
11,900.0	6,843.0	11,906.6	6,767.0	139.6	140.2	-76.07	1,891.1	4,801.0	316.0	43.5	272.49	1.160 Level 2	
12,000.0	6,842.2	12,006.6	6,766.5	142.4	142.9	-76.15	1,891.1	4,901.0	315.9	37.9	277.97	1.136 Level 2	
12,100.0	6,841.3	12,106.7	6,766.1	145.1	145.7	-76.23	1,891.1	5,001.1	315.8	32.3	283.46	1.114 Level 2	
12,133.9	6,841.0	12,140.5	6,766.0	146.1	146.6	-76.26	1,891.1	5,034.9	315.7	30.4	285.32	1.107 Level 2, SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	44.6	44.6				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	44.6	44.6	44.4	0.19	229.329	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	44.6	44.6	43.9	0.64	69.239	
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	44.6	44.6	43.5	1.09	40.775	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	44.6	44.6	43.0	1.54	28.896 CC	
500.0	500.0	500.0	500.0	1.0	1.0	102.17	0.0	44.6	44.9	42.9	1.99	22.554 ES	
600.0	599.8	599.8	599.8	1.2	1.2	108.47	0.0	44.6	46.3	43.9	2.44	18.949	
700.0	699.5	699.5	699.5	1.5	1.4	117.94	0.0	44.6	49.8	46.9	2.91	17.122	
800.0	798.7	800.2	800.2	1.7	1.7	127.83	1.6	43.9	55.2	51.8	3.38	16.324	
900.0	897.5	901.4	901.2	2.0	1.9	136.38	6.5	41.8	61.4	57.5	3.86	15.920	
1,000.0	995.6	1,002.8	1,002.3	2.4	2.1	143.83	14.7	38.2	68.3	63.9	4.33	15.749	
1,100.0	1,093.1	1,104.6	1,103.3	2.8	2.4	150.41	26.2	33.2	75.7	70.9	4.81	15.734	
1,200.0	1,189.6	1,206.8	1,204.1	3.3	2.7	156.30	41.0	26.8	83.6	78.3	5.28	15.829	
1,300.0	1,285.3	1,308.9	1,304.3	3.8	3.0	161.62	59.1	18.9	92.0	86.3	5.75	16.001	
1,326.4	1,310.3	1,335.1	1,329.9	3.9	3.1	162.92	64.1	16.8	94.5	88.6	5.87	16.090	
1,400.0	1,380.1	1,408.1	1,401.3	4.3	3.4	166.27	78.0	10.7	102.1	95.8	6.24	16.352	
1,500.0	1,474.9	1,507.2	1,498.3	4.9	3.8	170.09	96.9	2.5	112.8	106.0	6.76	16.691	
1,600.0	1,569.8	1,606.4	1,595.3	5.5	4.2	173.24	115.9	-5.7	123.9	116.6	7.29	17.004	
1,700.0	1,664.6	1,705.6	1,692.3	6.1	4.6	175.87	134.8	-13.9	135.3	127.5	7.83	17.272	
1,800.0	1,759.4	1,804.8	1,789.3	6.8	5.0	178.08	153.7	-22.1	147.0	138.6	8.40	17.496	
1,900.0	1,854.2	1,903.9	1,886.4	7.4	5.4	179.97	172.6	-30.3	158.8	149.8	8.98	17.681	
2,000.0	1,949.0	2,003.1	1,983.4	8.0	5.8	-178.40	191.5	-38.5	170.8	161.2	9.58	17.831	
2,100.0	2,043.8	2,102.3	2,080.4	8.6	6.2	-176.99	210.4	-46.7	182.9	172.7	10.19	17.952	
2,200.0	2,138.7	2,201.4	2,177.4	9.2	6.7	-175.75	229.3	-54.9	195.1	184.3	10.81	18.049	
2,300.0	2,233.5	2,300.6	2,274.4	9.9	7.1	-174.66	248.2	-63.1	207.4	196.0	11.44	18.126	
2,400.0	2,328.3	2,399.8	2,371.4	10.5	7.5	-173.70	267.1	-71.3	219.8	207.7	12.08	18.188	
2,500.0	2,423.1	2,498.9	2,468.4	11.1	7.9	-172.83	286.1	-79.5	232.2	219.5	12.73	18.237	
2,600.0	2,517.9	2,598.1	2,565.4	11.8	8.4	-172.06	305.0	-87.7	244.6	231.3	13.39	18.275	
2,700.0	2,612.7	2,697.3	2,662.4	12.4	8.8	-171.35	323.9	-95.9	257.1	243.1	14.05	18.305	
2,800.0	2,707.6	2,796.4	2,759.4	13.0	9.3	-170.72	342.8	-104.1	269.7	255.0	14.71	18.329	
2,900.0	2,802.4	2,895.6	2,856.4	13.6	9.7	-170.14	361.7	-112.3	282.2	266.8	15.38	18.346	
3,000.0	2,897.2	2,994.8	2,953.4	14.3	10.1	-169.61	380.6	-120.5	294.8	278.8	16.06	18.360	
3,100.0	2,992.0	3,094.0	3,050.4	14.9	10.6	-169.12	399.5	-128.8	307.4	290.7	16.74	18.369	
3,200.0	3,086.8	3,193.1	3,147.4	15.5	11.0	-168.67	418.4	-137.0	320.1	302.6	17.42	18.376	
3,300.0	3,181.6	3,292.3	3,244.4	16.2	11.4	-168.26	437.3	-145.2	332.7	314.6	18.10	18.380	
3,400.0	3,276.5	3,391.5	3,341.4	16.8	11.9	-167.87	456.3	-153.4	345.4	326.6	18.79	18.383	
3,500.0	3,371.3	3,490.6	3,438.4	17.4	12.3	-167.51	475.2	-161.6	358.0	338.6	19.48	18.383	
3,600.0	3,466.1	3,589.8	3,535.4	18.1	12.8	-167.18	494.1	-169.8	370.7	350.6	20.17	18.383	
3,700.0	3,560.9	3,689.0	3,632.4	18.7	13.2	-166.87	513.0	-178.0	383.4	362.6	20.86	18.381	
3,800.0	3,655.7	3,788.1	3,729.4	19.3	13.6	-166.58	531.9	-186.2	396.1	374.6	21.55	18.379	
3,900.0	3,750.5	3,887.3	3,826.4	20.0	14.1	-166.31	550.8	-194.4	408.9	386.6	22.25	18.376	
4,000.0	3,845.4	3,986.5	3,923.4	20.6	14.5	-166.05	569.7	-202.6	421.6	398.7	22.95	18.372	
4,100.0	3,940.2	4,085.6	4,020.4	21.3	15.0	-165.81	588.6	-210.8	434.3	410.7	23.65	18.368	
4,200.0	4,035.0	4,184.8	4,117.4	21.9	15.4	-165.58	607.5	-219.0	447.1	422.7	24.35	18.363	
4,300.0	4,129.8	4,284.0	4,214.4	22.5	15.9	-165.37	626.4	-227.2	459.8	434.8	25.05	18.358	
4,400.0	4,224.6	4,383.2	4,311.4	23.2	16.3	-165.17	645.4	-235.4	472.6	446.8	25.75	18.353	
4,500.0	4,319.4	4,482.3	4,408.4	23.8	16.7	-164.97	664.3	-243.6	485.4	458.9	26.45	18.348	
4,600.0	4,414.3	4,581.5	4,505.4	24.4	17.2	-164.79	683.2	-251.8	498.1	471.0	27.16	18.343	
4,700.0	4,509.1	4,679.8	4,601.6	25.1	17.6	-164.62	701.9	-260.0	510.9	483.0	27.86	18.341	
4,800.0	4,603.9	4,765.2	4,685.4	25.7	17.9	-164.55	716.9	-266.5	525.1	496.7	28.43	18.470	
4,900.0	4,698.7	4,849.9	4,769.0	26.3	18.2	-164.62	729.5	-271.9	542.0	513.0	28.96	18.717	
5,000.0	4,793.5	4,933.8	4,852.2	27.0	18.4	-164.80	739.8	-276.4	561.3	531.9	29.43	19.071	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	5,016.7	4,934.6	27.6	18.6	-165.09	747.7	-279.8	583.2	553.3	29.87	19.524	
5,200.0	4,983.2	5,100.0	5,017.7	28.2	18.7	-165.47	753.4	-282.3	607.6	577.3	30.27	20.072	
5,300.0	5,078.0	5,179.2	5,096.7	28.9	18.9	-165.90	756.9	-283.8	634.5	603.8	30.63	20.711	
5,400.0	5,172.8	5,258.5	5,176.1	29.5	19.0	-166.40	758.3	-284.4	663.7	632.8	30.97	21.431	
5,454.5	5,224.5	5,306.9	5,224.5	29.9	19.0	-166.71	758.3	-284.4	680.6	649.4	31.15	21.846	
5,500.0	5,267.7	5,350.2	5,267.7	30.1	19.1	-167.05	758.3	-284.4	694.4	663.0	31.32	22.169	
5,600.0	5,363.5	5,446.0	5,363.5	30.6	19.2	-167.68	758.3	-284.4	722.3	690.7	31.66	22.813	
5,700.0	5,460.3	5,542.8	5,460.3	31.0	19.3	-168.20	758.3	-284.4	747.0	715.0	31.99	23.350	
5,800.0	5,557.9	5,640.3	5,557.9	31.3	19.5	-168.62	758.3	-284.4	768.5	736.2	32.31	23.787	
5,900.0	5,656.2	5,738.6	5,656.2	31.7	19.6	-168.95	758.3	-284.4	786.5	753.9	32.60	24.131	
6,000.0	5,755.0	5,837.5	5,755.0	31.9	19.7	-169.21	758.3	-284.4	801.3	768.4	32.86	24.386	
6,100.0	5,854.4	5,936.8	5,854.4	32.2	19.9	-169.41	758.3	-284.4	812.6	779.5	33.09	24.557	
6,200.0	5,954.0	6,036.5	5,954.0	32.4	20.0	-169.54	758.3	-284.4	820.5	787.2	33.29	24.646	
6,300.0	6,053.9	6,136.4	6,053.9	32.5	20.2	-169.61	758.3	-284.4	825.0	791.5	33.46	24.657	
6,380.9	6,134.8	6,217.6	6,135.0	32.6	20.3	-179.82	758.3	-281.4	826.1	774.5	51.57	16.018	
6,400.0	6,153.9	6,236.6	6,154.0	32.6	20.3	-179.95	758.3	-279.4	826.1	774.5	51.63	15.999	
6,405.4	6,159.3	6,242.0	6,159.3	32.6	20.3	180.00	758.3	-278.8	826.1	774.4	51.65	15.993	
6,410.9	6,164.8	6,247.4	6,164.7	32.6	20.3	179.95	758.3	-278.1	826.1	774.4	51.67	15.988	
6,450.0	6,203.9	6,286.0	6,202.8	32.6	20.3	89.60	758.3	-272.0	826.1	792.6	33.53	24.637	
6,500.0	6,253.7	6,335.0	6,250.5	32.7	20.3	89.15	758.3	-261.2	826.2	792.7	33.52	24.651	
6,550.0	6,303.0	6,383.5	6,297.0	32.7	20.3	88.70	758.3	-247.4	826.3	792.8	33.48	24.679	
6,600.0	6,351.7	6,431.6	6,342.1	32.7	20.3	88.26	758.3	-230.6	826.5	793.0	33.44	24.716	
6,650.0	6,399.5	6,479.3	6,385.6	32.7	20.3	87.84	758.3	-211.0	826.7	793.3	33.40	24.754	
6,700.0	6,446.1	6,526.7	6,427.4	32.7	20.3	87.42	758.3	-188.7	827.0	793.6	33.37	24.784	
6,750.0	6,491.4	6,573.7	6,467.3	32.7	20.3	87.02	758.3	-164.0	827.2	793.9	33.36	24.797	
6,800.0	6,535.1	6,620.4	6,505.3	32.7	20.2	86.63	758.3	-136.8	827.5	794.2	33.39	24.783	
6,850.0	6,576.9	6,666.7	6,541.2	32.7	20.2	86.26	758.3	-107.4	827.9	794.4	33.47	24.732	
6,900.0	6,616.8	6,712.8	6,574.8	32.7	20.2	85.90	758.3	-76.0	828.2	794.6	33.62	24.633	
6,950.0	6,654.4	6,758.6	6,606.3	32.7	20.1	85.57	758.3	-42.7	828.6	794.7	33.85	24.478	
7,000.0	6,689.7	6,804.2	6,635.3	32.7	20.1	85.26	758.3	-7.6	829.0	794.8	34.17	24.257	
7,050.0	6,722.4	6,850.0	6,662.3	32.7	20.1	84.96	758.3	29.4	829.3	794.7	34.61	23.964	
7,100.0	6,752.4	6,894.6	6,686.2	32.7	20.1	84.69	758.3	67.1	829.7	794.5	35.16	23.597	
7,150.0	6,779.5	6,939.6	6,707.8	32.7	20.1	84.45	758.3	106.5	830.0	794.2	35.84	23.156	
7,200.0	6,803.7	6,984.3	6,726.9	32.7	20.1	84.23	758.3	147.0	830.3	793.7	36.66	22.648	
7,250.0	6,824.7	7,028.9	6,743.4	32.7	20.1	84.03	758.3	188.4	830.6	793.0	37.60	22.090	
7,300.0	6,842.5	7,073.4	6,757.2	32.8	20.1	83.86	758.3	230.7	830.9	792.2	38.68	21.478	
7,350.0	6,857.0	7,117.8	6,768.3	32.8	20.4	83.72	758.3	273.7	831.1	791.2	39.89	20.836	
7,400.0	6,868.1	7,162.1	6,776.8	32.9	20.8	83.61	758.3	317.1	831.3	790.1	41.21	20.174	
7,450.0	6,875.9	7,206.3	6,782.5	33.0	21.4	83.52	758.3	361.0	831.4	788.8	42.63	19.504	
7,500.0	6,880.1	7,250.0	6,785.5	33.2	22.1	83.46	758.3	404.5	831.5	787.4	44.13	18.843	
7,542.1	6,881.0	7,288.5	6,785.9	33.4	22.8	83.44	758.3	443.0	831.5	786.1	45.49	18.280	
7,600.0	6,880.5	7,346.3	6,785.5	33.6	23.9	83.44	758.3	500.8	831.5	783.9	47.65	17.450	
7,700.0	6,879.6	7,446.3	6,784.8	34.3	26.0	83.46	758.3	600.8	831.5	779.9	51.63	16.106	
7,800.0	6,878.7	7,546.3	6,784.1	35.2	28.2	83.47	758.3	700.8	831.5	775.6	55.88	14.880	
7,900.0	6,877.8	7,646.3	6,783.4	36.5	30.4	83.48	758.3	800.8	831.5	771.1	60.35	13.779	
8,000.0	6,877.0	7,746.3	6,782.7	38.0	32.8	83.49	758.3	900.8	831.5	766.5	64.99	12.795	
8,100.0	6,876.1	7,846.3	6,782.0	39.9	35.2	83.50	758.3	1,000.8	831.4	761.7	69.76	11.918	
8,200.0	6,875.2	7,946.3	6,781.3	41.9	37.7	83.52	758.3	1,100.8	831.4	756.8	74.65	11.137	
8,300.0	6,874.4	8,046.3	6,780.6	44.0	40.2	83.53	758.3	1,200.8	831.4	751.8	79.64	10.440	
8,400.0	6,873.5	8,146.3	6,780.0	46.3	42.8	83.54	758.3	1,300.8	831.4	746.7	84.70	9.816	
8,500.0	6,872.6	8,246.3	6,779.3	48.6	45.3	83.55	758.3	1,400.8	831.4	741.5	89.82	9.256	
8,600.0	6,871.7	8,346.3	6,778.6	51.0	47.9	83.56	758.3	1,500.8	831.3	736.3	94.99	8.752	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> SW SW SEC. 28 T5N R67W 6th P.M. - KINZER 28H-202 - ORIGINAL WELLBORE - PROPOSAL #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,700.0	6,870.9	8,446.3	6,777.9	53.4	50.6	83.58	758.3	1,600.8	831.3	731.1	100.21	8.296	
8,800.0	6,870.0	8,546.3	6,777.2	55.9	53.2	83.59	758.3	1,700.8	831.3	725.8	105.46	7.882	
8,900.0	6,869.1	8,646.3	6,776.5	58.5	55.9	83.60	758.3	1,800.8	831.3	720.5	110.75	7.506	
9,000.0	6,868.3	8,746.3	6,775.8	61.0	58.6	83.61	758.3	1,900.8	831.3	715.2	116.07	7.162	
9,100.0	6,867.4	8,846.3	6,775.1	63.6	61.2	83.62	758.3	2,000.8	831.2	709.8	121.41	6.847	
9,200.0	6,866.5	8,946.3	6,774.4	66.2	63.9	83.64	758.3	2,100.8	831.2	704.4	126.77	6.557	
9,300.0	6,865.6	9,046.3	6,773.7	68.8	66.6	83.65	758.3	2,200.8	831.2	699.0	132.16	6.290	
9,400.0	6,864.8	9,146.3	6,773.0	71.5	69.4	83.66	758.3	2,300.8	831.2	693.6	137.55	6.043	
9,500.0	6,863.9	9,246.3	6,772.3	74.1	72.1	83.67	758.3	2,400.8	831.2	688.2	142.97	5.814	
9,600.0	6,863.0	9,346.3	6,771.6	76.8	74.8	83.68	758.3	2,500.8	831.1	682.8	148.39	5.601	
9,700.0	6,862.2	9,446.3	6,770.9	79.4	77.5	83.70	758.3	2,600.8	831.1	677.3	153.83	5.403	
9,800.0	6,861.3	9,546.3	6,770.2	82.1	80.3	83.71	758.3	2,700.8	831.1	671.8	159.28	5.218	
9,900.0	6,860.4	9,646.3	6,769.5	84.8	83.0	83.72	758.3	2,800.8	831.1	666.3	164.74	5.045	
10,000.0	6,859.5	9,746.3	6,768.8	87.5	85.8	83.73	758.3	2,900.8	831.1	660.9	170.21	4.883	
10,100.0	6,858.7	9,846.3	6,768.1	90.2	88.5	83.74	758.3	3,000.8	831.1	655.4	175.68	4.730	
10,200.0	6,857.8	9,946.3	6,767.4	92.9	91.3	83.76	758.3	3,100.8	831.0	649.9	181.17	4.587	
10,300.0	6,856.9	10,046.3	6,766.7	95.6	94.0	83.77	758.3	3,200.8	831.0	644.4	186.65	4.452	
10,400.0	6,856.1	10,146.3	6,766.0	98.4	96.8	83.78	758.3	3,300.8	831.0	638.8	192.15	4.325	
10,500.0	6,855.2	10,246.3	6,765.3	101.1	99.6	83.79	758.3	3,400.8	831.0	633.3	197.65	4.204	
10,600.0	6,854.3	10,346.3	6,764.6	103.8	102.3	83.80	758.3	3,500.8	831.0	627.8	203.16	4.090	
10,700.0	6,853.5	10,446.3	6,763.9	106.5	105.1	83.82	758.3	3,600.8	830.9	622.3	208.67	3.982	
10,800.0	6,852.6	10,546.3	6,763.3	109.3	107.9	83.83	758.3	3,700.8	830.9	616.7	214.18	3.879	
10,900.0	6,851.7	10,646.3	6,762.6	112.0	110.6	83.84	758.3	3,800.8	830.9	611.2	219.70	3.782	
11,000.0	6,850.9	10,746.3	6,761.9	114.8	113.4	83.85	758.3	3,900.8	830.9	605.7	225.23	3.689	
11,100.0	6,850.0	10,846.3	6,761.2	117.5	116.2	83.86	758.3	4,000.8	830.9	600.1	230.75	3.601	
11,200.0	6,849.1	10,946.3	6,760.5	120.3	119.0	83.88	758.3	4,100.8	830.8	594.6	236.28	3.516	
11,300.0	6,848.2	11,046.3	6,759.8	123.0	121.7	83.89	758.3	4,200.7	830.8	589.0	241.82	3.436	
11,400.0	6,847.4	11,146.3	6,759.1	125.8	124.5	83.90	758.3	4,300.7	830.8	583.5	247.35	3.359	
11,500.0	6,846.5	11,246.3	6,758.4	128.5	127.3	83.91	758.3	4,400.7	830.8	577.9	252.89	3.285	
11,600.0	6,845.6	11,346.3	6,757.7	131.3	130.1	83.92	758.3	4,500.7	830.8	572.3	258.43	3.215	
11,700.0	6,844.8	11,446.3	6,757.0	134.1	132.9	83.94	758.3	4,600.7	830.8	566.8	263.98	3.147	
11,800.0	6,843.9	11,546.3	6,756.3	136.8	135.6	83.95	758.3	4,700.7	830.7	561.2	269.52	3.082	
11,900.0	6,843.0	11,646.3	6,755.6	139.6	138.4	83.96	758.3	4,800.7	830.7	555.7	275.07	3.020	
12,000.0	6,842.2	11,746.3	6,754.9	142.4	141.2	83.97	758.3	4,900.7	830.7	550.1	280.62	2.960	
12,100.0	6,841.3	11,846.3	6,754.2	145.1	143.5	83.98	758.3	5,000.7	830.7	545.0	285.71	2.907	
12,133.9	6,841.0	11,880.2	6,754.0	146.1	144.2	83.99	758.3	5,034.6	830.7	543.4	287.26	2.892 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	13.9	13.9				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	13.9	13.9	13.7	0.19	71.665	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	13.9	13.9	13.3	0.64	21.637	
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	13.9	13.9	12.8	1.09	12.742	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	13.9	13.9	12.4	1.54	9.030 CC	
500.0	500.0	500.0	500.0	1.0	1.0	106.85	0.0	13.9	14.3	12.3	1.99	7.199	
600.0	599.8	600.1	600.1	1.2	1.2	119.28	1.7	13.5	15.6	13.2	2.44	6.400	
700.0	699.5	700.4	700.3	1.5	1.5	129.75	6.8	12.4	17.4	14.5	2.90	6.000	
800.0	798.7	800.8	800.3	1.7	1.7	138.41	15.4	10.5	19.5	16.2	3.37	5.795	
900.0	897.5	901.4	900.1	2.0	2.0	145.59	27.4	7.8	21.9	18.1	3.85	5.691	
1,000.0	995.6	1,002.0	999.5	2.4	2.3	151.63	42.8	4.3	24.5	20.1	4.34	5.644	
1,100.0	1,093.1	1,102.8	1,098.4	2.8	2.6	156.79	61.6	0.0	27.2	22.3	4.82	5.631	
1,200.0	1,189.6	1,203.7	1,196.6	3.3	3.0	161.28	83.9	-5.0	30.0	24.6	5.32	5.635	
1,300.0	1,285.3	1,304.5	1,294.0	3.8	3.5	165.26	109.4	-10.8	32.9	27.1	5.81	5.657	
1,326.4	1,310.3	1,330.9	1,319.4	3.9	3.6	166.30	116.4	-12.3	33.9	28.0	5.94	5.703	
1,400.0	1,380.1	1,404.4	1,390.1	4.3	3.9	169.03	136.0	-16.8	37.1	30.8	6.33	5.866	
1,500.0	1,474.9	1,504.3	1,486.2	4.9	4.4	172.04	162.5	-22.7	41.7	34.8	6.87	6.065	
1,600.0	1,569.8	1,604.2	1,582.3	5.5	5.0	174.46	189.0	-28.7	46.3	38.9	7.43	6.233	
1,700.0	1,664.6	1,704.0	1,678.4	6.1	5.5	176.44	215.5	-34.7	51.0	43.0	7.99	6.376	
1,800.0	1,759.4	1,803.9	1,774.6	6.8	6.0	178.08	242.0	-40.7	55.7	47.1	8.57	6.497	
1,900.0	1,854.2	1,903.8	1,870.7	7.4	6.5	179.46	268.5	-46.7	60.5	51.3	9.16	6.599	
2,000.0	1,949.0	2,003.7	1,966.8	8.0	7.1	-179.36	295.1	-52.7	65.3	55.5	9.76	6.685	
2,100.0	2,043.8	2,103.6	2,062.9	8.6	7.6	-178.34	321.6	-58.6	70.1	59.7	10.37	6.758	
2,200.0	2,138.7	2,203.4	2,159.0	9.2	8.2	-177.45	348.1	-64.6	74.9	64.0	10.99	6.820	
2,300.0	2,233.5	2,303.3	2,255.1	9.9	8.7	-176.67	374.6	-70.6	79.8	68.2	11.61	6.873	
2,400.0	2,328.3	2,403.2	2,351.2	10.5	9.3	-175.98	401.1	-76.6	84.7	72.4	12.24	6.918	
2,500.0	2,423.1	2,503.1	2,447.3	11.1	9.8	-175.37	427.6	-82.6	89.6	76.7	12.87	6.958	
2,600.0	2,517.9	2,602.9	2,543.4	11.8	10.3	-174.81	454.2	-88.6	94.5	81.0	13.51	6.991	
2,700.0	2,612.7	2,702.8	2,639.5	12.4	10.9	-174.32	480.7	-94.6	99.4	85.2	14.15	7.021	
2,800.0	2,707.6	2,802.7	2,735.6	13.0	11.4	-173.87	507.2	-100.5	104.3	89.5	14.80	7.047	
2,900.0	2,802.4	2,902.6	2,831.7	13.6	12.0	-173.46	533.7	-106.5	109.2	93.7	15.44	7.070	
3,000.0	2,897.2	3,002.4	2,927.8	14.3	12.5	-173.08	560.2	-112.5	114.1	98.0	16.09	7.090	
3,100.0	2,992.0	3,102.3	3,023.9	14.9	13.1	-172.74	586.7	-118.5	119.0	102.3	16.75	7.107	
3,200.0	3,086.8	3,202.2	3,120.0	15.5	13.6	-172.42	613.3	-124.5	124.0	106.6	17.40	7.123	
3,300.0	3,181.6	3,302.1	3,216.1	16.2	14.2	-172.13	639.8	-130.5	128.9	110.8	18.06	7.137	
3,400.0	3,276.5	3,401.9	3,312.2	16.8	14.7	-171.86	666.3	-136.5	133.8	115.1	18.72	7.150	
3,500.0	3,371.3	3,501.8	3,408.3	17.4	15.3	-171.61	692.8	-142.4	138.8	119.4	19.38	7.161	
3,600.0	3,466.1	3,601.7	3,504.5	18.1	15.9	-171.38	719.3	-148.4	143.7	123.7	20.04	7.171	
3,700.0	3,560.9	3,701.6	3,600.6	18.7	16.4	-171.16	745.8	-154.4	148.6	127.9	20.70	7.181	
3,800.0	3,655.7	3,801.5	3,696.7	19.3	17.0	-170.95	772.3	-160.4	153.6	132.2	21.36	7.189	
3,900.0	3,750.5	3,901.3	3,792.8	20.0	17.5	-170.76	798.9	-166.4	158.5	136.5	22.03	7.197	
4,000.0	3,845.4	4,001.2	3,888.9	20.6	18.1	-170.58	825.4	-172.4	163.5	140.8	22.70	7.203	
4,100.0	3,940.2	4,101.1	3,985.0	21.3	18.6	-170.41	851.9	-178.3	168.4	145.1	23.36	7.210	
4,200.0	4,035.0	4,201.0	4,081.1	21.9	19.2	-170.25	878.4	-184.3	173.4	149.4	24.03	7.215	
4,300.0	4,129.8	4,300.8	4,177.2	22.5	19.7	-170.10	904.9	-190.3	178.3	153.6	24.70	7.221	
4,400.0	4,224.6	4,400.7	4,273.3	23.2	20.3	-169.96	931.4	-196.3	183.3	157.9	25.37	7.226	
4,500.0	4,319.4	4,500.6	4,369.4	23.8	20.8	-169.83	958.0	-202.3	188.2	162.2	26.04	7.230	
4,600.0	4,414.3	4,600.5	4,465.5	24.4	21.4	-169.70	984.5	-208.3	193.2	166.5	26.71	7.234	
4,700.0	4,509.1	4,700.3	4,561.6	25.1	21.9	-169.58	1,011.0	-214.3	198.2	170.8	27.38	7.238	
4,800.0	4,603.9	4,800.2	4,657.7	25.7	22.5	-169.46	1,037.5	-220.2	203.1	175.1	28.05	7.241	
4,900.0	4,698.7	4,900.1	4,753.8	26.3	23.1	-169.35	1,064.0	-226.2	208.1	179.3	28.72	7.245	
5,000.0	4,793.5	5,000.0	4,849.9	27.0	23.6	-169.24	1,090.5	-232.2	213.0	183.6	29.39	7.248	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	5,099.8	4,946.0	27.6	24.2	-169.14	1,117.1	-238.2	218.0	187.9	30.07	7.250	
5,200.0	4,983.2	5,199.7	5,042.1	28.2	24.7	-169.05	1,143.6	-244.2	222.9	192.2	30.74	7.253	
5,300.0	5,078.0	5,299.6	5,138.3	28.9	25.3	-168.96	1,170.1	-250.2	227.9	196.5	31.41	7.255	
5,400.0	5,172.8	5,399.5	5,234.4	29.5	25.8	-168.87	1,196.6	-256.2	232.9	200.8	32.09	7.258	
5,454.5	5,224.5	5,451.8	5,284.8	29.9	26.1	-168.83	1,210.4	-259.3	235.7	203.3	32.44	7.266	
5,500.0	5,267.7	5,493.9	5,325.4	30.1	26.3	-168.83	1,220.9	-261.6	238.3	205.6	32.72	7.284	
5,600.0	5,363.5	5,586.2	5,415.2	30.6	26.7	-168.84	1,242.0	-266.4	243.9	210.6	33.23	7.338	
5,700.0	5,460.3	5,678.4	5,505.4	31.0	27.0	-168.87	1,260.2	-270.5	249.1	215.4	33.68	7.396	
5,800.0	5,557.9	5,770.4	5,596.1	31.3	27.3	-168.92	1,275.5	-274.0	254.1	220.0	34.06	7.459	
5,900.0	5,656.2	5,862.3	5,687.1	31.7	27.5	-168.99	1,287.9	-276.8	258.7	224.3	34.38	7.526	
6,000.0	5,755.0	5,954.1	5,778.4	31.9	27.7	-169.07	1,297.5	-278.9	263.0	228.4	34.62	7.598	
6,100.0	5,854.4	6,045.8	5,869.8	32.2	27.9	-169.16	1,304.3	-280.5	267.1	232.3	34.80	7.675	
6,200.0	5,954.0	6,137.3	5,961.3	32.4	28.0	-169.27	1,308.1	-281.3	270.7	235.8	34.90	7.757	
6,300.0	6,053.9	6,230.0	6,053.9	32.5	28.1	-169.40	1,309.2	-281.6	274.1	239.1	34.95	7.842	
6,380.9	6,134.8	6,311.0	6,134.8	32.6	28.2	-179.96	1,309.2	-278.6	275.2	215.3	59.90	4.595	
6,400.0	6,153.9	6,329.9	6,153.7	32.6	28.2	-179.55	1,309.2	-276.6	275.2	215.2	59.99	4.588	
6,410.9	6,164.8	6,340.7	6,164.3	32.6	28.2	-179.27	1,309.2	-275.3	275.2	215.2	60.05	4.583	
6,450.0	6,203.9	6,379.1	6,202.3	32.6	28.2	-88.21	1,309.2	-269.2	275.3	240.8	34.55	7.969	
6,500.0	6,253.7	6,427.9	6,249.9	32.7	28.2	-86.87	1,309.2	-258.6	275.6	241.3	34.35	8.024	
6,550.0	6,303.0	6,476.2	6,296.2	32.7	28.2	-85.55	1,309.2	-244.8	276.0	241.9	34.17	8.078	
6,600.0	6,351.7	6,524.2	6,341.2	32.7	28.2	-84.26	1,309.2	-228.2	276.6	242.6	34.02	8.130	
6,650.0	6,399.5	6,571.8	6,384.5	32.7	28.2	-83.01	1,309.2	-208.7	277.3	243.4	33.91	8.177	
6,700.0	6,446.1	6,619.0	6,426.2	32.7	28.2	-81.79	1,309.2	-186.6	278.1	244.2	33.84	8.218	
6,750.0	6,491.4	6,665.8	6,466.1	32.7	28.2	-80.63	1,309.2	-161.9	279.0	245.2	33.81	8.250	
6,800.0	6,535.1	6,712.4	6,504.0	32.7	28.2	-79.52	1,309.2	-134.9	279.9	246.1	33.83	8.275	
6,850.0	6,576.9	6,758.6	6,539.8	32.7	28.2	-78.46	1,309.2	-105.7	280.9	247.0	33.89	8.290	
6,900.0	6,616.8	6,804.6	6,573.5	32.7	28.2	-77.47	1,309.2	-74.5	282.0	248.0	34.00	8.294	
6,950.0	6,654.4	6,850.0	6,604.8	32.7	28.2	-76.54	1,309.2	-41.5	283.0	248.9	34.15	8.288	
7,000.0	6,689.7	6,895.7	6,634.1	32.7	28.2	-75.67	1,309.2	-6.4	284.1	249.7	34.37	8.266	
7,050.0	6,722.4	6,941.0	6,660.8	32.7	28.2	-74.87	1,309.2	30.1	285.1	250.5	34.65	8.228	
7,100.0	6,752.4	6,986.0	6,685.1	32.7	28.2	-74.14	1,309.2	68.0	286.1	251.1	35.01	8.173	
7,150.0	6,779.5	7,030.9	6,706.8	32.7	28.2	-73.49	1,309.2	107.3	287.1	251.6	35.44	8.100	
7,200.0	6,803.7	7,075.6	6,726.0	32.7	28.2	-72.90	1,309.2	147.7	288.0	252.0	35.96	8.008	
7,250.0	6,824.7	7,120.2	6,742.6	32.7	28.2	-72.40	1,309.2	189.0	288.8	252.2	36.59	7.891	
7,300.0	6,842.5	7,164.6	6,756.5	32.8	28.3	-71.96	1,309.2	231.2	289.4	252.1	37.33	7.754	
7,350.0	6,857.0	7,209.0	6,767.8	32.8	28.3	-71.61	1,309.2	274.1	290.0	251.9	38.18	7.597	
7,400.0	6,868.1	7,253.3	6,776.4	32.9	28.4	-71.33	1,309.2	317.5	290.5	251.4	39.14	7.421	
7,450.0	6,875.9	7,300.0	6,782.5	33.0	28.6	-71.11	1,309.2	363.9	290.9	250.6	40.26	7.224	
7,451.0	6,876.0	7,300.0	6,782.5	33.0	28.6	-71.11	1,309.2	363.9	290.9	250.6	40.27	7.222	
7,500.0	6,880.1	7,341.6	6,785.4	33.2	28.8	-71.00	1,309.2	405.4	291.1	249.6	41.42	7.028	
7,542.1	6,881.0	7,379.3	6,786.0	33.4	29.0	-70.95	1,309.2	443.1	291.1	248.6	42.50	6.850	
7,600.0	6,880.5	7,437.2	6,785.6	33.6	29.4	-70.98	1,309.2	500.9	291.1	246.5	44.55	6.534	
7,700.0	6,879.6	7,537.2	6,785.0	34.3	30.4	-71.03	1,309.2	600.9	291.0	242.7	48.33	6.022	
7,800.0	6,878.7	7,637.2	6,784.4	35.2	31.8	-71.08	1,309.2	700.9	290.9	238.5	52.38	5.554	
7,900.0	6,877.8	7,737.2	6,783.8	36.5	33.5	-71.13	1,309.2	800.9	290.8	234.2	56.64	5.135	
8,000.0	6,877.0	7,837.2	6,783.2	38.0	35.5	-71.18	1,309.2	900.9	290.8	229.7	61.07	4.761	
8,100.0	6,876.1	7,937.2	6,782.6	39.9	37.6	-71.22	1,309.2	1,000.9	290.7	225.0	65.65	4.428	
8,200.0	6,875.2	8,037.2	6,781.9	41.9	39.9	-71.27	1,309.2	1,100.9	290.6	220.2	70.33	4.131	
8,300.0	6,874.4	8,137.2	6,781.3	44.0	42.3	-71.32	1,309.2	1,200.9	290.5	215.4	75.11	3.867	
8,400.0	6,873.5	8,237.2	6,780.7	46.3	44.7	-71.37	1,309.2	1,300.9	290.4	210.4	79.97	3.632	
8,500.0	6,872.6	8,337.2	6,780.1	48.6	47.1	-71.42	1,309.2	1,400.9	290.3	205.4	84.89	3.420	
8,600.0	6,871.7	8,437.2	6,779.5	51.0	49.6	-71.47	1,309.2	1,500.9	290.2	200.4	89.86	3.230	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	
8,700.0	6,870.9	8,537.2	6,778.9	53.4	52.2	71.52	1,309.2	1,600.9	290.2	195.3	94.88	3.058	
8,800.0	6,870.0	8,637.2	6,778.3	55.9	54.7	71.57	1,309.2	1,700.9	290.1	190.1	99.94	2.903	
8,900.0	6,869.1	8,737.2	6,777.7	58.5	57.3	71.62	1,309.2	1,800.9	290.0	185.0	105.03	2.761	
9,000.0	6,868.3	8,837.2	6,777.1	61.0	59.9	71.67	1,309.2	1,900.9	289.9	179.8	110.15	2.632	
9,100.0	6,867.4	8,937.2	6,776.5	63.6	62.6	71.71	1,309.2	2,000.9	289.8	174.5	115.30	2.514	
9,200.0	6,866.5	9,037.2	6,775.8	66.2	65.2	71.76	1,309.2	2,100.9	289.8	169.3	120.47	2.405	
9,300.0	6,865.6	9,137.2	6,775.2	68.8	67.9	71.81	1,309.2	2,200.9	289.7	164.0	125.67	2.305	
9,400.0	6,864.8	9,237.2	6,774.6	71.5	70.6	71.86	1,309.2	2,300.9	289.6	158.7	130.88	2.213	
9,500.0	6,863.9	9,337.2	6,774.0	74.1	73.2	71.91	1,309.2	2,400.9	289.5	153.4	136.10	2.127	
9,600.0	6,863.0	9,437.2	6,773.4	76.8	75.9	71.96	1,309.2	2,500.9	289.4	148.1	141.35	2.048	
9,700.0	6,862.2	9,537.2	6,772.8	79.4	78.6	72.01	1,309.2	2,600.9	289.3	142.7	146.60	1.974	
9,800.0	6,861.3	9,637.2	6,772.2	82.1	81.3	72.06	1,309.2	2,700.9	289.3	137.4	151.87	1.905	
9,900.0	6,860.4	9,737.2	6,771.6	84.8	84.0	72.11	1,309.2	2,800.9	289.2	132.0	157.15	1.840	
10,000.0	6,859.5	9,837.2	6,771.0	87.5	86.8	72.16	1,309.2	2,900.9	289.1	126.7	162.44	1.780	
10,100.0	6,858.7	9,937.2	6,770.4	90.2	89.5	72.21	1,309.2	3,000.9	289.0	121.3	167.74	1.723	
10,200.0	6,857.8	10,037.2	6,769.8	92.9	92.2	72.26	1,309.2	3,100.9	288.9	115.9	173.06	1.670	
10,300.0	6,856.9	10,137.2	6,769.1	95.6	94.9	72.31	1,309.2	3,200.9	288.9	110.5	178.37	1.619	
10,400.0	6,856.1	10,237.2	6,768.5	98.4	97.7	72.36	1,309.2	3,300.9	288.8	105.1	183.70	1.572	
10,500.0	6,855.2	10,337.2	6,767.9	101.1	100.4	72.41	1,309.2	3,400.9	288.7	99.7	189.04	1.527	
10,600.0	6,854.3	10,437.2	6,767.3	103.8	103.2	72.45	1,309.2	3,500.9	288.6	94.2	194.38	1.485 Level 3	
10,700.0	6,853.5	10,537.2	6,766.7	106.5	105.9	72.50	1,309.2	3,600.9	288.5	88.8	199.73	1.445 Level 3	
10,800.0	6,852.6	10,637.2	6,766.1	109.3	108.7	72.55	1,309.2	3,700.9	288.5	83.4	205.09	1.407 Level 3	
10,900.0	6,851.7	10,737.2	6,765.5	112.0	111.4	72.60	1,309.2	3,800.9	288.4	77.9	210.45	1.370 Level 3	
11,000.0	6,850.9	10,837.2	6,764.9	114.8	114.2	72.65	1,309.2	3,900.9	288.3	72.5	215.82	1.336 Level 3	
11,100.0	6,850.0	10,937.2	6,764.3	117.5	117.0	72.70	1,309.2	4,000.9	288.2	67.0	221.19	1.303 Level 3	
11,200.0	6,849.1	11,037.2	6,763.7	120.3	119.7	72.75	1,309.2	4,100.9	288.2	61.6	226.57	1.272 Level 3	
11,300.0	6,848.2	11,137.2	6,763.1	123.0	122.5	72.80	1,309.2	4,200.9	288.1	56.1	231.96	1.242 Level 2	
11,400.0	6,847.4	11,237.2	6,762.5	125.8	125.2	72.85	1,309.2	4,300.8	288.0	50.7	237.35	1.213 Level 2	
11,500.0	6,846.5	11,337.2	6,761.9	128.5	128.0	72.90	1,309.2	4,400.8	287.9	45.2	242.74	1.186 Level 2	
11,600.0	6,845.6	11,437.2	6,761.2	131.3	130.8	72.95	1,309.2	4,500.8	287.8	39.7	248.14	1.160 Level 2	
11,700.0	6,844.8	11,537.2	6,760.6	134.1	133.6	73.00	1,309.2	4,600.8	287.8	34.2	253.55	1.135 Level 2	
11,800.0	6,843.9	11,637.2	6,760.0	136.8	136.3	73.05	1,309.2	4,700.8	287.7	28.7	258.95	1.111 Level 2	
11,900.0	6,843.0	11,737.2	6,759.4	139.6	139.1	73.10	1,309.2	4,800.8	287.6	23.3	264.37	1.088 Level 2	
12,000.0	6,842.2	11,837.2	6,758.8	142.4	141.9	73.15	1,309.2	4,900.8	287.5	17.8	269.79	1.066 Level 2	
12,100.0	6,841.3	11,937.2	6,758.2	145.1	144.7	73.20	1,309.2	5,000.8	287.5	12.3	275.21	1.045 Level 2	
12,133.9	6,841.0	11,971.0	6,758.0	146.1	145.6	73.22	1,309.2	5,034.7	287.4	10.4	277.04	1.038 Level 2, ES, SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	30.7	30.7				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	30.7	30.7	30.5	0.19	157.664	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	30.7	30.7	30.0	0.64	47.602	
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	30.7	30.7	29.6	1.09	28.033	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	30.7	30.7	29.1	1.54	19.866 CC	
500.0	500.0	500.0	500.0	1.0	1.0	103.15	0.0	30.7	31.0	29.0	1.99	15.565 ES	
600.0	599.8	599.8	599.8	1.2	1.2	112.10	0.0	30.7	32.6	30.2	2.44	13.337	
700.0	699.5	700.3	700.2	1.5	1.4	122.69	1.7	30.2	35.7	32.7	2.91	12.272	
800.0	798.7	800.9	800.8	1.7	1.7	131.76	6.7	28.6	39.4	36.0	3.37	11.681	
900.0	897.5	901.8	901.3	2.0	1.9	139.51	15.2	26.1	43.7	39.9	3.85	11.349	
1,000.0	995.6	1,003.0	1,001.7	2.4	2.2	146.18	27.1	22.6	48.4	44.1	4.34	11.171	
1,100.0	1,093.1	1,104.4	1,101.8	2.8	2.5	151.99	42.4	18.0	53.5	48.7	4.82	11.091	
1,200.0	1,189.6	1,206.0	1,201.5	3.3	2.8	157.12	61.2	12.4	58.8	53.5	5.31	11.078	
1,300.0	1,285.3	1,306.1	1,299.2	3.8	3.2	161.82	82.0	6.2	65.4	59.6	5.79	11.296	
1,326.4	1,310.3	1,332.4	1,324.8	3.9	3.3	163.04	87.5	4.6	67.7	61.8	5.91	11.448	
1,400.0	1,380.1	1,405.5	1,396.2	4.3	3.6	166.13	102.7	0.0	74.7	68.4	6.29	11.877	
1,500.0	1,474.9	1,504.9	1,493.3	4.9	4.0	169.49	123.5	-6.2	84.4	77.6	6.81	12.403	
1,600.0	1,569.8	1,604.4	1,590.3	5.5	4.4	172.15	144.2	-12.4	94.4	87.1	7.34	12.868	
1,700.0	1,664.6	1,703.8	1,687.3	6.1	4.8	174.30	165.0	-18.5	104.5	96.7	7.88	13.268	
1,800.0	1,759.4	1,803.2	1,784.4	6.8	5.3	176.07	185.7	-24.7	114.8	106.4	8.43	13.613	
1,900.0	1,854.2	1,902.6	1,881.4	7.4	5.7	177.55	206.5	-30.9	125.2	116.2	9.00	13.910	
2,000.0	1,949.0	2,002.0	1,978.4	8.0	6.2	178.80	227.2	-37.1	135.6	126.0	9.57	14.166	
2,100.0	2,043.8	2,101.4	2,075.5	8.6	6.6	179.87	248.0	-43.3	146.1	135.9	10.15	14.389	
2,200.0	2,138.7	2,200.8	2,172.5	9.2	7.0	-179.20	268.7	-49.5	156.6	145.8	10.74	14.582	
2,300.0	2,233.5	2,300.3	2,269.5	9.9	7.5	-178.39	289.5	-55.7	167.1	155.8	11.33	14.751	
2,400.0	2,328.3	2,399.7	2,366.5	10.5	7.9	-177.68	310.2	-61.9	177.7	165.8	11.93	14.899	
2,500.0	2,423.1	2,499.1	2,463.6	11.1	8.4	-177.04	330.9	-68.0	188.3	175.8	12.53	15.030	
2,600.0	2,517.9	2,598.5	2,560.6	11.8	8.8	-176.48	351.7	-74.2	199.0	185.8	13.14	15.146	
2,700.0	2,612.7	2,697.9	2,657.6	12.4	9.3	-175.97	372.4	-80.4	209.6	195.9	13.75	15.250	
2,800.0	2,707.6	2,797.3	2,754.7	13.0	9.8	-175.51	393.2	-86.6	220.3	205.9	14.36	15.342	
2,900.0	2,802.4	2,896.8	2,851.7	13.6	10.2	-175.09	413.9	-92.8	231.0	216.0	14.97	15.426	
3,000.0	2,897.2	2,996.2	2,948.7	14.3	10.7	-174.71	434.7	-99.0	241.6	226.1	15.59	15.501	
3,100.0	2,992.0	3,095.6	3,045.7	14.9	11.1	-174.36	455.4	-105.2	252.3	236.1	16.21	15.568	
3,200.0	3,086.8	3,195.0	3,142.8	15.5	11.6	-174.04	476.2	-111.3	263.0	246.2	16.83	15.630	
3,300.0	3,181.6	3,294.4	3,239.8	16.2	12.0	-173.75	496.9	-117.5	273.8	256.3	17.45	15.686	
3,400.0	3,276.5	3,393.8	3,336.8	16.8	12.5	-173.48	517.7	-123.7	284.5	266.4	18.08	15.738	
3,500.0	3,371.3	3,493.2	3,433.9	17.4	12.9	-173.22	538.4	-129.9	295.2	276.5	18.70	15.785	
3,600.0	3,466.1	3,592.7	3,530.9	18.1	13.4	-172.99	559.2	-136.1	305.9	286.6	19.33	15.828	
3,700.0	3,560.9	3,692.1	3,627.9	18.7	13.9	-172.77	579.9	-142.3	316.7	296.7	19.96	15.868	
3,800.0	3,655.7	3,791.5	3,724.9	19.3	14.3	-172.56	600.6	-148.5	327.4	306.8	20.59	15.905	
3,900.0	3,750.5	3,890.9	3,822.0	20.0	14.8	-172.37	621.4	-154.7	338.2	316.9	21.22	15.939	
4,000.0	3,845.4	3,990.3	3,919.0	20.6	15.2	-172.19	642.1	-160.8	348.9	327.1	21.85	15.971	
4,100.0	3,940.2	4,089.7	4,016.0	21.3	15.7	-172.02	662.9	-167.0	359.7	337.2	22.48	16.001	
4,200.0	4,035.0	4,189.1	4,113.1	21.9	16.2	-171.86	683.6	-173.2	370.4	347.3	23.11	16.029	
4,300.0	4,129.8	4,288.6	4,210.1	22.5	16.6	-171.71	704.4	-179.4	381.2	357.4	23.74	16.054	
4,400.0	4,224.6	4,388.0	4,307.1	23.2	17.1	-171.57	725.1	-185.6	391.9	367.5	24.38	16.079	
4,500.0	4,319.4	4,487.4	4,404.2	23.8	17.5	-171.44	745.9	-191.8	402.7	377.7	25.01	16.101	
4,600.0	4,414.3	4,586.8	4,501.2	24.4	18.0	-171.31	766.6	-198.0	413.4	387.8	25.64	16.123	
4,700.0	4,509.1	4,686.2	4,598.2	25.1	18.5	-171.19	787.4	-204.1	424.2	397.9	26.28	16.143	
4,800.0	4,603.9	4,785.6	4,695.2	25.7	18.9	-171.07	808.1	-210.3	435.0	408.1	26.91	16.161	
4,900.0	4,698.7	4,885.1	4,792.3	26.3	19.4	-170.96	828.9	-216.5	445.7	418.2	27.55	16.179	
5,000.0	4,793.5	4,984.5	4,889.3	27.0	19.8	-170.86	849.6	-222.7	456.5	428.3	28.19	16.196	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	5,083.9	4,986.3	27.6	20.3	-170.76	870.3	-228.9	467.3	438.5	28.82	16.212	
5,200.0	4,983.2	5,183.3	5,083.4	28.2	20.7	-170.66	891.1	-235.1	478.1	448.6	29.46	16.227	
5,300.0	5,078.0	5,282.7	5,180.4	28.9	21.2	-170.57	911.8	-241.3	488.8	458.7	30.10	16.242	
5,400.0	5,172.8	5,382.1	5,277.4	29.5	21.7	-170.49	932.6	-247.5	499.6	468.9	30.74	16.255	
5,454.5	5,224.5	5,436.3	5,330.3	29.9	21.9	-170.44	943.9	-250.8	505.5	474.4	31.08	16.262	
5,500.0	5,267.7	5,481.6	5,374.5	30.1	22.1	-170.41	953.3	-253.6	510.0	478.6	31.39	16.248	
5,600.0	5,363.5	5,581.3	5,471.8	30.6	22.6	-170.30	974.1	-259.8	517.5	485.5	32.02	16.162	
5,700.0	5,460.3	5,671.2	5,559.7	31.0	23.0	-170.15	992.4	-265.3	522.3	489.7	32.57	16.037	
5,800.0	5,557.9	5,756.2	5,643.2	31.3	23.3	-170.02	1,007.3	-269.8	526.2	493.2	33.01	15.943	
5,900.0	5,656.2	5,841.1	5,727.1	31.7	23.5	-169.92	1,019.9	-273.5	529.6	496.2	33.38	15.867	
6,000.0	5,755.0	5,926.0	5,811.4	31.9	23.7	-169.85	1,030.1	-276.5	532.4	498.7	33.69	15.805	
6,100.0	5,854.4	6,010.9	5,895.8	32.2	23.9	-169.79	1,037.9	-278.9	534.6	500.7	33.93	15.757	
6,200.0	5,954.0	6,100.0	5,984.7	32.4	24.1	-169.75	1,043.5	-280.5	536.2	502.1	34.11	15.719	
6,300.0	6,053.9	6,180.5	6,065.2	32.5	24.2	-169.73	1,046.2	-281.4	537.2	502.9	34.21	15.700	
6,380.9	6,134.8	6,250.1	6,134.8	32.6	24.3	-179.71	1,046.9	-281.5	537.5	502.9	34.21	15.700	
6,400.0	6,153.9	6,269.2	6,153.9	32.6	24.3	-179.71	1,046.9	-281.5	537.5	502.9	34.21	15.700	
6,410.9	6,164.8	6,280.1	6,164.8	32.6	24.3	-179.71	1,046.9	-281.5	537.5	502.9	34.21	15.700	
6,450.0	6,203.9	6,319.4	6,204.0	32.6	24.3	90.25	1,046.9	-280.1	537.5	503.1	34.45	15.600	
6,500.0	6,253.7	6,369.5	6,253.9	32.7	24.4	90.19	1,046.9	-275.1	537.5	503.0	34.55	15.557	
6,550.0	6,303.0	6,419.6	6,303.3	32.7	24.4	90.14	1,046.9	-266.6	537.5	502.9	34.62	15.527	
6,600.0	6,351.7	6,469.7	6,351.9	32.7	24.4	90.08	1,046.9	-254.7	537.5	502.8	34.66	15.508	
6,650.0	6,399.5	6,519.7	6,399.6	32.7	24.4	90.03	1,046.9	-239.5	537.5	502.8	34.69	15.496	
6,677.3	6,425.1	6,547.0	6,425.1	32.7	24.4	90.00	1,046.9	-229.8	537.5	502.8	34.70	15.492	
6,700.0	6,446.1	6,569.7	6,446.0	32.7	24.4	89.97	1,046.9	-221.0	537.5	502.8	34.70	15.488	
6,750.0	6,491.4	6,619.7	6,491.0	32.7	24.4	89.92	1,046.9	-199.3	537.5	502.8	34.73	15.479	
6,800.0	6,535.1	6,669.6	6,534.4	32.7	24.4	89.86	1,046.9	-174.6	537.5	502.7	34.76	15.462	
6,850.0	6,576.9	6,719.5	6,575.9	32.7	24.4	89.81	1,046.9	-146.9	537.5	502.7	34.83	15.430	
6,900.0	6,616.8	6,769.4	6,615.3	32.7	24.3	89.75	1,046.9	-116.4	537.5	502.6	34.96	15.377	
6,950.0	6,654.4	6,819.2	6,652.5	32.7	24.3	89.70	1,046.9	-83.3	537.5	502.4	35.15	15.294	
7,000.0	6,689.7	6,869.0	6,687.3	32.7	24.3	89.65	1,046.9	-47.6	537.5	502.1	35.42	15.173	
7,050.0	6,722.4	6,918.7	6,719.5	32.7	24.3	89.60	1,046.9	-9.7	537.5	501.7	35.81	15.009	
7,100.0	6,752.4	6,968.5	6,748.9	32.7	24.3	89.55	1,046.9	30.3	537.5	501.2	36.33	14.797	
7,150.0	6,779.5	7,018.1	6,775.5	32.7	24.3	89.51	1,046.9	72.3	537.5	500.5	36.98	14.535	
7,200.0	6,803.7	7,067.8	6,799.2	32.7	24.3	89.46	1,046.9	115.9	537.5	499.7	37.79	14.225	
7,250.0	6,824.7	7,117.4	6,819.7	32.7	24.3	89.42	1,046.9	161.1	537.5	498.8	38.75	13.873	
7,300.0	6,842.5	7,167.1	6,837.0	32.8	24.3	89.39	1,046.9	207.6	537.5	497.7	39.86	13.484	
7,350.0	6,857.0	7,216.6	6,851.1	32.8	24.4	89.35	1,046.9	255.1	537.5	496.4	41.13	13.069	
7,400.0	6,868.1	7,266.2	6,861.9	32.9	24.5	89.32	1,046.9	303.5	537.5	495.0	42.54	12.636	
7,450.0	6,875.9	7,315.8	6,869.3	33.0	24.8	89.29	1,046.9	352.5	537.5	493.5	44.07	12.197	
7,500.0	6,880.1	7,365.3	6,873.2	33.2	25.1	89.27	1,046.9	401.8	537.5	491.8	45.71	11.759	
7,542.1	6,881.0	7,407.0	6,873.9	33.4	25.5	89.25	1,046.9	443.6	537.5	490.4	47.16	11.398	
7,600.0	6,880.5	7,464.9	6,873.3	33.6	26.2	89.24	1,046.9	501.4	537.5	488.2	49.30	10.903	
7,700.0	6,879.6	7,564.9	6,872.3	34.3	27.8	89.22	1,046.9	601.4	537.5	484.3	53.24	10.096	
7,800.0	6,878.7	7,664.9	6,871.2	35.2	29.7	89.20	1,046.9	701.4	537.6	480.1	57.46	9.355	
7,900.0	6,877.8	7,764.9	6,870.2	36.5	31.7	89.18	1,046.9	801.4	537.6	475.7	61.90	8.684	
8,000.0	6,877.0	7,864.9	6,869.1	38.0	34.0	89.17	1,046.9	901.4	537.6	471.0	66.52	8.081	
8,100.0	6,876.1	7,964.9	6,868.1	39.9	36.3	89.15	1,046.9	1,001.4	537.6	466.3	71.28	7.542	
8,200.0	6,875.2	8,064.9	6,867.1	41.9	38.7	89.13	1,046.9	1,101.4	537.6	461.4	76.16	7.059	
8,300.0	6,874.4	8,164.9	6,866.0	44.0	41.1	89.11	1,046.9	1,201.4	537.6	456.4	81.13	6.626	
8,400.0	6,873.5	8,264.9	6,865.0	46.3	43.6	89.09	1,046.9	1,301.4	537.6	451.4	86.18	6.238	
8,500.0	6,872.6	8,364.9	6,863.9	48.6	46.2	89.07	1,046.9	1,401.4	537.6	446.3	91.30	5.888	
8,600.0	6,871.7	8,464.9	6,862.9	51.0	48.7	89.05	1,046.9	1,501.4	537.6	441.1	96.47	5.572	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	
8,700.0	6,870.9	8,564.9	6,861.8	53.4	51.3	89.04	1,046.9	1,601.4	537.6	435.9	101.69	5.286	
8,800.0	6,870.0	8,664.9	6,860.8	55.9	53.9	89.02	1,046.9	1,701.4	537.6	430.6	106.95	5.026	
8,900.0	6,869.1	8,764.9	6,859.7	58.5	56.5	89.00	1,046.9	1,801.4	537.6	425.3	112.24	4.789	
9,000.0	6,868.3	8,864.9	6,858.7	61.0	59.2	88.98	1,046.9	1,901.4	537.6	420.0	117.57	4.573	
9,100.0	6,867.4	8,964.9	6,857.6	63.6	61.8	88.96	1,046.9	2,001.4	537.6	414.7	122.92	4.374	
9,200.0	6,866.5	9,064.9	6,856.6	66.2	64.5	88.94	1,046.9	2,101.3	537.6	409.3	128.29	4.190	
9,300.0	6,865.6	9,164.9	6,855.6	68.8	67.2	88.92	1,046.9	2,201.3	537.6	403.9	133.68	4.021	
9,400.0	6,864.8	9,264.9	6,854.5	71.5	69.9	88.91	1,046.9	2,301.3	537.6	398.5	139.09	3.865	
9,500.0	6,863.9	9,364.9	6,853.5	74.1	72.6	88.89	1,046.9	2,401.3	537.6	393.1	144.51	3.720	
9,600.0	6,863.0	9,464.9	6,852.4	76.8	75.3	88.87	1,046.9	2,501.3	537.6	387.6	149.95	3.585	
9,700.0	6,862.2	9,564.9	6,851.4	79.4	78.0	88.85	1,046.9	2,601.3	537.6	382.2	155.40	3.459	
9,800.0	6,861.3	9,664.9	6,850.3	82.1	80.8	88.83	1,046.9	2,701.3	537.6	376.7	160.87	3.342	
9,900.0	6,860.4	9,764.9	6,849.3	84.8	83.5	88.81	1,046.9	2,801.3	537.6	371.3	166.34	3.232	
10,000.0	6,859.5	9,864.9	6,848.2	87.5	86.2	88.80	1,046.9	2,901.3	537.6	365.8	171.82	3.129	
10,100.0	6,858.7	9,964.9	6,847.2	90.2	89.0	88.78	1,046.9	3,001.3	537.6	360.3	177.31	3.032	
10,200.0	6,857.8	10,064.9	6,846.2	92.9	91.7	88.76	1,046.9	3,101.3	537.6	354.8	182.81	2.941	
10,300.0	6,856.9	10,164.9	6,845.1	95.6	94.4	88.74	1,046.9	3,201.3	537.6	349.3	188.31	2.855	
10,400.0	6,856.1	10,264.9	6,844.1	98.4	97.2	88.72	1,046.9	3,301.3	537.6	343.8	193.82	2.774	
10,500.0	6,855.2	10,364.9	6,843.0	101.1	99.9	88.70	1,046.9	3,401.3	537.6	338.3	199.33	2.697	
10,600.0	6,854.3	10,464.9	6,842.0	103.8	102.7	88.68	1,046.9	3,501.3	537.6	332.8	204.86	2.624	
10,700.0	6,853.5	10,564.9	6,840.9	106.5	105.5	88.67	1,046.9	3,601.3	537.6	327.3	210.38	2.556	
10,800.0	6,852.6	10,664.9	6,839.9	109.3	108.2	88.65	1,046.9	3,701.3	537.6	321.7	215.91	2.490	
10,900.0	6,851.7	10,764.9	6,838.9	112.0	111.0	88.63	1,046.9	3,801.2	537.6	316.2	221.44	2.428	
11,000.0	6,850.9	10,864.9	6,837.8	114.8	113.7	88.61	1,046.9	3,901.2	537.7	310.7	226.98	2.369	
11,100.0	6,850.0	10,964.9	6,836.8	117.5	116.5	88.59	1,046.9	4,001.2	537.7	305.1	232.52	2.312	
11,200.0	6,849.1	11,064.9	6,835.7	120.3	119.3	88.57	1,046.9	4,101.2	537.7	299.6	238.07	2.258	
11,300.0	6,848.2	11,164.9	6,834.7	123.0	122.1	88.56	1,046.9	4,201.2	537.7	294.1	243.62	2.207	
11,400.0	6,847.4	11,264.9	6,833.6	125.8	124.8	88.54	1,046.9	4,301.2	537.7	288.5	249.17	2.158	
11,500.0	6,846.5	11,364.9	6,832.6	128.5	127.6	88.52	1,046.9	4,401.2	537.7	283.0	254.72	2.111	
11,600.0	6,845.6	11,464.9	6,831.6	131.3	130.4	88.50	1,046.9	4,501.2	537.7	277.4	260.27	2.066	
11,700.0	6,844.8	11,564.9	6,830.5	134.1	133.2	88.48	1,046.9	4,601.2	537.7	271.9	265.83	2.023	
11,800.0	6,843.9	11,664.9	6,829.5	136.8	135.9	88.46	1,046.9	4,701.2	537.7	266.3	271.39	1.981	
11,900.0	6,843.0	11,764.9	6,828.4	139.6	138.7	88.44	1,046.9	4,801.2	537.7	260.7	276.95	1.941	
12,000.0	6,842.2	11,864.9	6,827.4	142.4	141.5	88.43	1,046.9	4,901.2	537.7	255.2	282.52	1.903	
12,100.0	6,841.3	11,964.9	6,826.4	145.1	144.3	88.41	1,046.9	5,001.2	537.7	249.6	288.08	1.866	
12,133.9	6,841.0	11,998.8	6,826.0	146.1	145.2	88.40	1,046.9	5,035.0	537.7	247.7	289.97	1.854 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	58.5	58.5				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	58.5	58.5	58.3	0.19	300.994	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	58.5	58.5	57.9	0.64	90.876	
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	58.5	58.5	57.4	1.09	53.517	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	58.5	58.5	57.0	1.54	37.926 CC	
500.0	500.0	500.0	500.0	1.0	1.0	101.65	0.0	58.5	58.8	56.9	1.99	29.545 ES	
600.0	599.8	599.8	599.8	1.2	1.2	106.51	0.0	58.5	60.1	57.7	2.44	24.603	
700.0	699.5	699.5	699.5	1.5	1.4	114.03	0.0	58.5	63.2	60.3	2.91	21.727	
800.0	798.7	798.7	798.7	1.7	1.7	123.16	0.0	58.5	69.0	65.7	3.38	20.401	
900.0	897.5	900.0	900.0	2.0	1.9	132.35	1.4	57.4	77.1	73.3	3.87	19.944	
1,000.0	995.6	1,001.7	1,001.6	2.4	2.1	140.71	5.6	54.1	86.0	81.7	4.34	19.802	
1,100.0	1,093.1	1,103.7	1,103.2	2.8	2.4	148.39	12.6	48.5	95.8	91.0	4.81	19.900	
1,200.0	1,189.6	1,206.0	1,204.7	3.3	2.6	155.49	22.5	40.6	106.5	101.3	5.27	20.206	
1,300.0	1,285.3	1,308.5	1,305.8	3.8	2.9	162.09	35.2	30.5	118.4	112.6	5.73	20.673	
1,326.4	1,310.3	1,335.6	1,332.5	3.9	3.0	163.75	39.0	27.4	121.7	115.8	5.85	20.810	
1,400.0	1,380.1	1,410.8	1,406.2	4.3	3.2	168.14	50.7	18.1	130.5	124.3	6.21	21.006	
1,500.0	1,474.9	1,509.3	1,502.6	4.9	3.6	173.16	66.8	5.3	142.6	135.8	6.74	21.163	
1,600.0	1,569.8	1,607.9	1,599.0	5.5	4.0	177.38	82.8	-7.4	155.5	148.2	7.30	21.298	
1,700.0	1,664.6	1,706.4	1,695.4	6.1	4.4	-179.05	98.8	-20.2	169.2	161.3	7.91	21.404	
1,800.0	1,759.4	1,805.0	1,791.8	6.8	4.8	-176.03	114.9	-33.0	183.5	174.9	8.55	21.459	
1,900.0	1,854.2	1,903.5	1,888.2	7.4	5.2	-173.45	130.9	-45.7	198.1	188.9	9.23	21.476	
2,000.0	1,949.0	2,002.1	1,984.5	8.0	5.6	-171.22	146.9	-58.5	213.2	203.2	9.93	21.464	
2,100.0	2,043.8	2,100.6	2,080.9	8.6	6.0	-169.29	163.0	-71.3	228.4	217.8	10.66	21.430	
2,200.0	2,138.7	2,199.2	2,177.3	9.2	6.4	-167.60	179.0	-84.0	244.0	232.5	11.41	21.383	
2,300.0	2,233.5	2,297.7	2,273.7	9.9	6.8	-166.11	195.0	-96.8	259.7	247.5	12.17	21.327	
2,400.0	2,328.3	2,396.3	2,370.1	10.5	7.3	-164.79	211.0	-109.6	275.5	262.5	12.95	21.267	
2,500.0	2,423.1	2,494.8	2,466.5	11.1	7.7	-163.62	227.1	-122.4	291.5	277.7	13.75	21.205	
2,600.0	2,517.9	2,593.4	2,562.9	11.8	8.1	-162.56	243.1	-135.1	307.6	293.0	14.55	21.143	
2,700.0	2,612.7	2,691.9	2,659.3	12.4	8.6	-161.62	259.1	-147.9	323.7	308.4	15.36	21.082	
2,800.0	2,707.6	2,790.5	2,755.7	13.0	9.0	-160.76	275.2	-160.7	340.0	323.8	16.17	21.023	
2,900.0	2,802.4	2,889.0	2,852.1	13.6	9.4	-159.98	291.2	-173.4	356.3	339.3	16.99	20.966	
3,000.0	2,897.2	2,987.6	2,948.5	14.3	9.9	-159.27	307.2	-186.2	372.7	354.9	17.82	20.912	
3,100.0	2,992.0	3,086.1	3,044.9	14.9	10.3	-158.62	323.3	-199.0	389.1	370.5	18.65	20.861	
3,200.0	3,086.8	3,184.7	3,141.3	15.5	10.7	-158.02	339.3	-211.8	405.6	386.1	19.49	20.813	
3,300.0	3,181.6	3,283.2	3,237.7	16.2	11.2	-157.46	355.3	-224.5	422.1	401.8	20.33	20.767	
3,400.0	3,276.5	3,381.8	3,334.1	16.8	11.6	-156.95	371.4	-237.3	438.7	417.5	21.17	20.723	
3,500.0	3,371.3	3,479.0	3,429.1	17.4	12.1	-156.49	387.2	-249.9	455.3	433.3	22.00	20.696	
3,600.0	3,466.1	3,568.3	3,516.9	18.1	12.4	-156.27	400.3	-260.3	473.1	450.4	22.68	20.861	
3,700.0	3,560.9	3,657.1	3,604.5	18.7	12.6	-156.31	411.2	-269.1	492.9	469.6	23.28	21.169	
3,800.0	3,655.7	3,745.0	3,691.7	19.3	12.8	-156.60	420.0	-276.0	514.5	490.7	23.81	21.605	
3,900.0	3,750.5	3,832.0	3,778.3	20.0	13.0	-157.09	426.5	-281.2	538.0	513.7	24.28	22.160	
4,000.0	3,845.4	3,917.9	3,864.1	20.6	13.2	-157.75	431.0	-284.8	563.5	538.8	24.68	22.829	
4,100.0	3,940.2	4,000.0	3,946.1	21.3	13.3	-158.51	433.4	-286.7	590.9	565.8	25.03	23.604	
4,200.0	4,035.0	4,088.9	4,035.0	21.9	13.5	-159.46	434.0	-287.2	620.2	594.9	25.33	24.483	
4,300.0	4,129.8	4,183.7	4,129.8	22.5	13.6	-160.44	434.0	-287.2	650.2	624.6	25.64	25.356	
4,400.0	4,224.6	4,278.6	4,224.6	23.2	13.7	-161.33	434.0	-287.2	680.4	654.5	25.97	26.197	
4,500.0	4,319.4	4,373.4	4,319.4	23.8	13.9	-162.14	434.0	-287.2	710.8	684.4	26.32	27.007	
4,600.0	4,414.3	4,468.2	4,414.3	24.4	14.0	-162.89	434.0	-287.2	741.2	714.5	26.67	27.788	
4,700.0	4,509.1	4,563.0	4,509.1	25.1	14.2	-163.59	434.0	-287.2	771.8	744.7	27.04	28.539	
4,800.0	4,603.9	4,657.8	4,603.9	25.7	14.3	-164.22	434.0	-287.2	802.4	775.0	27.42	29.262	
4,900.0	4,698.7	4,752.6	4,698.7	26.3	14.4	-164.82	434.0	-287.2	833.1	805.3	27.81	29.959	
5,000.0	4,793.5	4,847.5	4,793.5	27.0	14.6	-165.37	434.0	-287.2	864.0	835.7	28.21	30.629	

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

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<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	4,942.3	4,888.3	27.6	14.7	-165.88	434.0	-287.2	894.8	866.2	28.61	31.274	
5,200.0	4,983.2	5,037.1	4,983.2	28.2	14.9	-166.36	434.0	-287.2	925.8	896.7	29.03	31.895	
5,300.0	5,078.0	5,131.9	5,078.0	28.9	15.0	-166.81	434.0	-287.2	956.8	927.3	29.44	32.494	
5,400.0	5,172.8	5,226.7	5,172.8	29.5	15.2	-167.22	434.0	-287.2	987.8	957.9	29.87	33.070	
5,454.5	5,224.5	5,278.4	5,224.5	29.9	15.3	-167.44	434.0	-287.2	1,004.7	974.6	30.10	33.376	
5,500.0	5,267.7	5,321.7	5,267.7	30.1	15.3	-167.68	434.0	-287.2	1,018.6	988.2	30.32	33.594	
5,600.0	5,363.5	5,417.5	5,363.5	30.6	15.5	-168.13	434.0	-287.2	1,046.6	1,015.8	30.75	34.032	
5,700.0	5,460.3	5,514.2	5,460.3	31.0	15.7	-168.51	434.0	-287.2	1,071.3	1,040.2	31.16	34.381	
5,800.0	5,557.9	5,611.8	5,557.9	31.3	15.8	-168.82	434.0	-287.2	1,092.8	1,061.2	31.54	34.647	
5,900.0	5,656.2	5,710.1	5,656.2	31.7	16.0	-169.08	434.0	-287.2	1,110.8	1,079.0	31.89	34.836	
6,000.0	5,755.0	5,809.0	5,755.0	31.9	16.2	-169.28	434.0	-287.2	1,125.6	1,093.4	32.20	34.954	
6,100.0	5,854.4	5,908.3	5,854.4	32.2	16.3	-169.43	434.0	-287.2	1,136.9	1,104.4	32.48	35.003	
6,200.0	5,954.0	6,008.0	5,954.0	32.4	16.5	-169.53	434.0	-287.2	1,144.8	1,112.1	32.72	34.986	
6,300.0	6,053.9	6,107.9	6,053.9	32.5	16.7	-169.59	434.0	-287.2	1,149.3	1,116.4	32.93	34.906	
6,380.9	6,134.8	6,188.7	6,134.8	32.6	16.8	-179.58	434.0	-287.2	1,150.4	1,102.7	47.76	24.086	
6,400.0	6,153.9	6,207.8	6,153.9	32.6	16.9	-179.58	434.0	-287.2	1,150.4	1,102.6	47.81	24.060	
6,410.9	6,164.8	6,218.7	6,164.8	32.6	16.9	-179.58	434.0	-287.2	1,150.4	1,102.6	47.84	24.045	
6,450.0	6,203.9	6,257.8	6,203.9	32.6	16.9	90.47	434.0	-287.2	1,150.4	1,117.1	33.31	34.537	
6,500.0	6,253.7	6,307.6	6,253.7	32.7	17.0	90.69	434.0	-287.2	1,150.5	1,117.0	33.51	34.337	
6,550.0	6,303.0	6,358.0	6,304.1	32.7	17.1	91.04	434.0	-286.3	1,150.6	1,116.9	33.70	34.138	
6,600.0	6,351.7	6,409.3	6,355.1	32.7	17.2	91.39	434.0	-282.0	1,150.7	1,116.9	33.87	33.978	
6,650.0	6,399.5	6,461.1	6,406.3	32.7	17.2	91.74	434.0	-273.9	1,150.9	1,116.9	34.00	33.852	
6,700.0	6,446.1	6,513.4	6,457.2	32.7	17.2	92.08	434.0	-261.9	1,151.2	1,117.1	34.10	33.754	
6,750.0	6,491.4	6,566.3	6,507.7	32.7	17.2	92.42	434.0	-246.2	1,151.4	1,117.3	34.19	33.678	
6,800.0	6,535.1	6,619.8	6,557.4	32.7	17.2	92.74	434.0	-226.5	1,151.7	1,117.5	34.27	33.612	
6,850.0	6,576.9	6,673.8	6,606.0	32.7	17.2	93.05	434.0	-202.8	1,152.1	1,117.7	34.35	33.543	
6,900.0	6,616.8	6,728.4	6,653.1	32.7	17.2	93.35	434.0	-175.3	1,152.4	1,117.9	34.45	33.453	
6,950.0	6,654.4	6,783.5	6,698.4	32.7	17.2	93.63	434.0	-144.0	1,152.7	1,118.1	34.60	33.321	
7,000.0	6,689.7	6,839.1	6,741.6	32.7	17.2	93.89	434.0	-108.9	1,153.1	1,118.3	34.81	33.124	
7,050.0	6,722.4	6,895.3	6,782.3	32.7	17.1	94.13	434.0	-70.3	1,153.4	1,118.3	35.12	32.839	
7,100.0	6,752.4	6,951.8	6,820.1	32.7	17.1	94.35	434.0	-28.2	1,153.8	1,118.2	35.56	32.443	
7,150.0	6,779.5	7,008.8	6,854.7	32.7	17.1	94.55	434.0	17.1	1,154.1	1,117.9	36.16	31.916	
7,200.0	6,803.7	7,066.2	6,885.8	32.7	17.2	94.73	434.0	65.3	1,154.3	1,117.4	36.93	31.256	
7,250.0	6,824.7	7,123.9	6,913.0	32.7	17.5	94.87	434.0	116.1	1,154.6	1,116.7	37.89	30.469	
7,300.0	6,842.5	7,181.9	6,936.2	32.8	18.0	94.99	434.0	169.3	1,154.8	1,115.7	39.05	29.569	
7,350.0	6,857.0	7,240.2	6,955.1	32.8	18.7	95.08	434.0	224.3	1,154.9	1,114.5	40.41	28.581	
7,400.0	6,868.1	7,298.5	6,969.5	32.9	19.6	95.15	434.0	280.9	1,155.1	1,113.1	41.95	27.534	
7,450.0	6,875.9	7,357.0	6,979.3	33.0	20.5	95.18	434.0	338.6	1,155.1	1,111.4	43.66	26.454	
7,500.0	6,880.1	7,415.5	6,984.3	33.2	21.6	95.18	434.0	396.8	1,155.1	1,109.6	45.52	25.376	
7,535.9	6,881.0	7,456.1	6,985.0	33.3	22.3	95.17	434.0	437.4	1,155.1	1,108.2	46.90	24.630	
7,542.1	6,881.0	7,462.4	6,985.0	33.4	22.4	95.17	434.0	443.6	1,155.1	1,108.0	47.13	24.511	
7,600.0	6,880.5	7,520.2	6,985.0	33.6	23.6	95.19	434.0	501.5	1,155.1	1,105.9	49.29	23.438	
7,700.0	6,879.6	7,620.2	6,985.0	34.3	25.6	95.23	434.0	601.5	1,155.2	1,102.0	53.26	21.689	
7,800.0	6,878.7	7,720.2	6,985.0	35.2	27.8	95.28	434.0	701.5	1,155.3	1,097.8	57.51	20.089	
7,900.0	6,877.8	7,820.2	6,985.0	36.5	30.1	95.32	434.0	801.5	1,155.4	1,093.4	61.97	18.645	
8,000.0	6,877.0	7,920.2	6,985.0	38.0	32.5	95.36	434.0	901.5	1,155.5	1,088.9	66.60	17.350	
8,100.0	6,876.1	8,020.2	6,985.0	39.9	35.0	95.41	434.0	1,001.5	1,155.5	1,084.2	71.36	16.192	
8,200.0	6,875.2	8,120.2	6,985.0	41.9	37.4	95.45	434.0	1,101.5	1,155.6	1,079.4	76.24	15.157	
8,300.0	6,874.4	8,220.2	6,985.0	44.0	40.0	95.49	434.0	1,201.5	1,155.7	1,074.5	81.21	14.231	
8,400.0	6,873.5	8,320.2	6,985.0	46.3	42.5	95.54	434.0	1,301.5	1,155.8	1,069.5	86.26	13.399	
8,500.0	6,872.6	8,420.2	6,985.0	48.6	45.1	95.58	434.0	1,401.5	1,155.9	1,064.5	91.37	12.651	
8,600.0	6,871.7	8,520.2	6,985.0	51.0	47.8	95.62	434.0	1,501.5	1,156.0	1,059.4	96.53	11.975	

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

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<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	
8,700.0	6,870.9	8,620.2	6,985.0	53.4	50.4	95.67	434.0	1,601.5	1,156.0	1,054.3	101.74	11.363	
8,800.0	6,870.0	8,720.2	6,985.0	55.9	53.1	95.71	434.0	1,701.5	1,156.1	1,049.2	106.98	10.807	
8,900.0	6,869.1	8,820.2	6,985.0	58.5	55.7	95.75	434.0	1,801.5	1,156.2	1,044.0	112.26	10.300	
9,000.0	6,868.3	8,920.2	6,985.0	61.0	58.4	95.79	434.0	1,901.5	1,156.3	1,038.7	117.56	9.836	
9,100.0	6,867.4	9,020.2	6,985.0	63.6	61.1	95.84	434.0	2,001.5	1,156.4	1,033.5	122.89	9.410	
9,200.0	6,866.5	9,120.2	6,985.0	66.2	63.8	95.88	434.0	2,101.5	1,156.5	1,028.2	128.24	9.018	
9,300.0	6,865.6	9,220.2	6,985.0	68.8	66.5	95.92	434.0	2,201.4	1,156.6	1,023.0	133.61	8.656	
9,400.0	6,864.8	9,320.2	6,985.0	71.5	69.3	95.97	434.0	2,301.4	1,156.7	1,017.7	138.99	8.322	
9,500.0	6,863.9	9,420.2	6,985.0	74.1	72.0	96.01	434.0	2,401.4	1,156.8	1,012.4	144.39	8.011	
9,600.0	6,863.0	9,520.1	6,985.0	76.8	74.7	96.05	434.0	2,501.4	1,156.8	1,007.0	149.80	7.722	
9,700.0	6,862.2	9,620.1	6,985.0	79.4	77.5	96.09	434.0	2,601.4	1,156.9	1,001.7	155.23	7.453	
9,800.0	6,861.3	9,720.1	6,985.0	82.1	80.2	96.14	434.0	2,701.4	1,157.0	996.4	160.66	7.202	
9,900.0	6,860.4	9,820.1	6,985.0	84.8	82.9	96.18	434.0	2,801.4	1,157.1	991.0	166.10	6.966	
10,000.0	6,859.5	9,920.1	6,985.0	87.5	85.7	96.22	434.0	2,901.4	1,157.2	985.7	171.55	6.746	
10,100.0	6,858.7	10,020.1	6,985.0	90.2	88.5	96.27	434.0	3,001.4	1,157.3	980.3	177.01	6.538	
10,200.0	6,857.8	10,120.1	6,985.0	92.9	91.2	96.31	434.0	3,101.4	1,157.4	974.9	182.47	6.343	
10,300.0	6,856.9	10,220.1	6,985.0	95.6	94.0	96.35	434.0	3,201.4	1,157.5	969.6	187.94	6.159	
10,400.0	6,856.1	10,320.1	6,985.0	98.4	96.7	96.39	434.0	3,301.4	1,157.6	964.2	193.42	5.985	
10,500.0	6,855.2	10,420.1	6,985.0	101.1	99.5	96.44	434.0	3,401.4	1,157.7	958.8	198.90	5.821	
10,600.0	6,854.3	10,520.1	6,985.0	103.8	102.3	96.48	434.0	3,501.4	1,157.8	953.4	204.38	5.665	
10,700.0	6,853.5	10,620.1	6,985.0	106.5	105.0	96.52	434.0	3,601.4	1,157.9	948.0	209.87	5.517	
10,800.0	6,852.6	10,720.1	6,985.0	109.3	107.8	96.57	434.0	3,701.4	1,158.0	942.6	215.36	5.377	
10,900.0	6,851.7	10,820.1	6,985.0	112.0	110.6	96.61	434.0	3,801.4	1,158.1	937.2	220.85	5.244	
11,000.0	6,850.9	10,920.1	6,985.0	114.8	113.4	96.65	434.0	3,901.4	1,158.2	931.8	226.35	5.117	
11,100.0	6,850.0	11,020.1	6,985.0	117.5	116.2	96.69	434.0	4,001.4	1,158.3	926.4	231.85	4.996	
11,200.0	6,849.1	11,120.1	6,985.0	120.3	118.9	96.74	434.0	4,101.4	1,158.4	921.0	237.35	4.881	
11,300.0	6,848.2	11,220.1	6,985.0	123.0	121.7	96.78	434.0	4,201.4	1,158.5	915.6	242.85	4.770	
11,400.0	6,847.4	11,320.1	6,985.0	125.8	124.5	96.82	434.0	4,301.4	1,158.6	910.2	248.36	4.665	
11,500.0	6,846.5	11,420.1	6,985.0	128.5	127.3	96.86	434.0	4,401.4	1,158.7	904.8	253.87	4.564	
11,600.0	6,845.6	11,520.1	6,985.0	131.3	130.1	96.91	434.0	4,501.4	1,158.8	899.4	259.37	4.468	
11,700.0	6,844.8	11,620.1	6,985.0	134.1	132.8	96.95	434.0	4,601.4	1,158.9	894.0	264.88	4.375	
11,800.0	6,843.9	11,720.1	6,985.0	136.8	135.6	96.99	434.0	4,701.4	1,159.0	888.6	270.39	4.286	
11,900.0	6,843.0	11,820.1	6,985.0	139.6	138.4	97.03	434.0	4,801.3	1,159.1	883.2	275.91	4.201	
12,000.0	6,842.2	11,920.1	6,985.0	142.4	141.2	97.08	434.0	4,901.3	1,159.2	877.8	281.42	4.119	
12,100.0	6,841.3	12,020.8	6,985.0	145.1	144.0	97.12	434.0	5,002.1	1,159.3	872.4	286.95	4.040	
12,133.9	6,841.0	12,054.1	6,985.0	146.1	145.0	97.13	434.0	5,035.4	1,159.3	870.5	288.80	4.014 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	89.99	0.0	89.2	89.2					
100.0	100.0	100.0	100.0	0.1	0.1	89.99	0.0	89.2	89.2	89.0	0.19	458.658		
200.0	200.0	200.0	200.0	0.3	0.3	89.99	0.0	89.2	89.2	88.5	0.64	138.478		
300.0	300.0	300.0	300.0	0.5	0.5	89.99	0.0	89.2	89.2	88.1	1.09	81.550		
400.0	400.0	400.0	400.0	0.8	0.8	89.99	0.0	89.2	89.2	87.6	1.54	57.792 CC		
500.0	500.0	500.0	500.0	1.0	1.0	101.07	0.0	89.2	89.5	87.5	1.99	44.931 ES		
600.0	599.8	599.8	599.8	1.2	1.2	104.29	0.0	89.2	90.6	88.2	2.44	37.093		
700.0	699.5	699.5	699.5	1.5	1.4	109.42	0.0	89.2	93.2	90.3	2.91	32.050		
800.0	798.7	798.7	798.7	1.7	1.7	116.04	0.0	89.2	97.9	94.5	3.39	28.896		
900.0	897.5	897.5	897.5	2.0	1.9	123.47	0.0	89.2	105.8	101.9	3.89	27.215		
1,000.0	995.6	995.6	995.6	2.4	2.1	131.00	0.0	89.2	117.5	113.1	4.39	26.749		
1,100.0	1,093.1	1,094.4	1,094.4	2.8	2.3	138.74	-0.8	87.9	133.0	128.2	4.87	27.310		
1,200.0	1,189.6	1,191.5	1,191.4	3.3	2.5	146.63	-3.5	83.8	152.7	147.4	5.31	28.758		
1,300.0	1,285.3	1,286.4	1,285.9	3.8	2.7	154.07	-7.7	77.1	177.6	171.9	5.74	30.964		
1,326.4	1,310.3	1,311.0	1,310.4	3.9	2.7	155.91	-9.1	75.0	185.1	179.3	5.85	31.659		
1,400.0	1,380.1	1,379.0	1,377.9	4.3	2.9	160.82	-13.5	68.1	207.4	201.2	6.17	33.586		
1,500.0	1,474.9	1,470.1	1,468.0	4.9	3.1	166.60	-20.8	56.8	239.9	233.2	6.64	36.145		
1,600.0	1,569.8	1,560.8	1,557.3	5.5	3.4	171.50	-29.3	43.6	274.7	267.6	7.13	38.547		
1,700.0	1,664.6	1,652.0	1,647.1	6.1	3.7	175.39	-37.9	30.2	311.1	303.4	7.65	40.667		
1,800.0	1,759.4	1,743.2	1,737.0	6.8	4.0	178.48	-46.5	16.8	348.5	340.3	8.20	42.517		
1,900.0	1,854.2	1,834.4	1,826.8	7.4	4.3	-179.01	-55.1	3.5	386.6	377.9	8.76	44.119		
2,000.0	1,949.0	1,925.7	1,916.6	8.0	4.6	-176.95	-63.7	-9.9	425.3	415.9	9.35	45.504		
2,100.0	2,043.8	2,016.9	2,006.4	8.6	4.9	-175.23	-72.3	-23.3	464.3	454.4	9.94	46.703		
2,200.0	2,138.7	2,108.1	2,096.2	9.2	5.3	-173.77	-80.9	-36.7	503.7	493.1	10.55	47.751		
2,300.0	2,233.5	2,199.3	2,186.1	9.9	5.6	-172.53	-89.5	-50.1	543.3	532.1	11.16	48.668		
2,400.0	2,328.3	2,290.5	2,275.9	10.5	5.9	-171.44	-98.1	-63.5	583.1	571.3	11.79	49.745		
2,500.0	2,423.1	2,381.8	2,365.7	11.1	6.3	-170.50	-106.7	-76.9	623.0	610.6	12.41	50.189		
2,600.0	2,517.9	2,473.0	2,455.5	11.8	6.6	-169.67	-115.3	-90.3	663.1	650.1	13.05	50.826		
2,700.0	2,612.7	2,564.2	2,545.3	12.4	7.0	-168.93	-123.9	-103.7	703.3	689.6	13.68	51.396		
2,800.0	2,707.6	2,655.4	2,635.1	13.0	7.3	-168.28	-132.5	-117.1	743.5	729.2	14.32	51.909		
2,900.0	2,802.4	2,746.6	2,725.0	13.6	7.7	-167.69	-141.1	-130.5	783.9	768.9	14.97	52.371		
3,000.0	2,897.2	2,837.8	2,814.8	14.3	8.1	-167.15	-149.7	-143.9	824.3	808.7	15.61	52.791		
3,100.0	2,992.0	2,929.1	2,904.6	14.9	8.4	-166.67	-158.3	-157.3	864.7	848.5	16.26	53.174		
3,200.0	3,086.8	3,020.3	2,994.4	15.5	8.8	-166.23	-166.9	-170.6	905.2	888.3	16.91	53.523		
3,300.0	3,181.6	3,111.5	3,084.2	16.2	9.1	-165.83	-175.6	-184.0	945.8	928.2	17.57	53.843		
3,400.0	3,276.5	3,202.7	3,174.1	16.8	9.5	-165.46	-184.2	-197.4	986.4	968.1	18.22	54.138		
3,500.0	3,371.3	3,293.9	3,263.9	17.4	9.9	-165.12	-192.8	-210.8	1,027.0	1,008.1	18.88	54.409		
3,600.0	3,466.1	3,385.2	3,353.7	18.1	10.2	-164.80	-201.4	-224.2	1,067.6	1,048.1	19.53	54.660		
3,700.0	3,560.9	3,476.4	3,443.5	18.7	10.6	-164.51	-210.0	-237.6	1,108.3	1,088.1	20.19	54.893		
3,800.0	3,655.7	3,567.6	3,533.3	19.3	10.9	-164.24	-218.6	-251.0	1,149.0	1,128.1	20.85	55.109		
3,900.0	3,750.5	3,685.4	3,649.7	20.0	11.3	-163.99	-228.7	-266.7	1,188.8	1,167.3	21.51	55.257		
4,000.0	3,845.4	3,810.5	3,773.9	20.6	11.6	-163.96	-236.6	-279.0	1,226.2	1,204.1	22.14	55.391		
4,100.0	3,940.2	3,938.1	3,901.1	21.3	11.9	-164.15	-241.6	-286.8	1,261.1	1,238.4	22.71	55.520		
4,200.0	4,035.0	4,067.8	4,030.7	21.9	12.1	-164.54	-243.6	-289.9	1,293.5	1,270.2	23.25	55.639		
4,300.0	4,129.8	4,166.9	4,129.8	22.5	12.2	-164.92	-243.6	-289.9	1,324.3	1,300.5	23.72	55.823		
4,400.0	4,224.6	4,261.7	4,224.6	23.2	12.4	-165.27	-243.6	-289.9	1,355.1	1,330.9	24.19	56.007		
4,500.0	4,319.4	4,356.5	4,319.4	23.8	12.5	-165.60	-243.6	-289.9	1,385.9	1,361.3	24.67	56.185		
4,600.0	4,414.3	4,451.3	4,414.3	24.4	12.7	-165.92	-243.6	-289.9	1,416.8	1,391.7	25.14	56.355		
4,700.0	4,509.1	4,546.1	4,509.1	25.1	12.8	-166.23	-243.6	-289.9	1,447.8	1,422.1	25.62	56.519		
4,800.0	4,603.9	4,640.9	4,603.9	25.7	12.9	-166.52	-243.6	-289.9	1,478.7	1,452.6	26.09	56.676		
4,900.0	4,698.7	4,735.8	4,698.7	26.3	13.1	-166.80	-243.6	-289.9	1,509.7	1,483.2	26.57	56.827		
5,000.0	4,793.5	4,830.6	4,793.5	27.0	13.2	-167.07	-243.6	-289.9	1,540.8	1,513.7	27.04	56.971		

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	4,888.3	4,925.4	4,888.3	27.6	13.4	-167.33	-243.6	-289.9	1,571.8	1,544.3	27.52	57.110	
5,200.0	4,983.2	5,020.2	4,983.2	28.2	13.6	-167.58	-243.6	-289.9	1,602.9	1,574.9	28.00	57.243	
5,300.0	5,078.0	5,115.0	5,078.0	28.9	13.7	-167.82	-243.6	-289.9	1,634.0	1,605.6	28.48	57.371	
5,400.0	5,172.8	5,209.8	5,172.8	29.5	13.9	-168.05	-243.6	-289.9	1,665.2	1,636.2	28.96	57.494	
5,454.5	5,224.5	5,261.5	5,224.5	29.9	14.0	-168.17	-243.6	-289.9	1,682.2	1,652.9	29.23	57.558	
5,500.0	5,267.7	5,304.8	5,267.7	30.1	14.0	-168.32	-243.6	-289.9	1,696.0	1,666.5	29.49	57.507	
5,600.0	5,363.5	5,400.6	5,363.5	30.6	14.2	-168.63	-243.6	-289.9	1,724.1	1,694.0	30.03	57.416	
5,700.0	5,460.3	5,497.3	5,460.3	31.0	14.4	-168.89	-243.6	-289.9	1,748.9	1,718.3	30.53	57.291	
5,800.0	5,557.9	5,594.9	5,557.9	31.3	14.5	-169.11	-243.6	-289.9	1,770.3	1,739.3	30.99	57.134	
5,900.0	5,656.2	5,693.2	5,656.2	31.7	14.7	-169.29	-243.6	-289.9	1,788.4	1,757.0	31.40	56.948	
6,000.0	5,755.0	5,792.1	5,755.0	31.9	14.9	-169.44	-243.6	-289.9	1,803.2	1,771.4	31.78	56.735	
6,100.0	5,854.4	5,891.4	5,854.4	32.2	15.0	-169.54	-243.6	-289.9	1,814.5	1,782.4	32.12	56.497	
6,200.0	5,954.0	5,991.1	5,954.0	32.4	15.2	-169.62	-243.6	-289.9	1,822.4	1,790.0	32.41	56.234	
6,300.0	6,053.9	6,091.0	6,053.9	32.5	15.4	-169.66	-243.6	-289.9	1,826.9	1,794.2	32.66	55.946	
6,380.9	6,134.8	6,172.7	6,135.6	32.6	15.5	-179.76	-243.6	-286.5	1,828.0	1,781.9	46.12	39.633	
6,400.0	6,153.9	6,191.9	6,154.6	32.6	15.5	-179.82	-243.6	-284.4	1,828.0	1,781.8	46.17	39.590	
6,410.9	6,164.8	6,202.7	6,165.4	32.6	15.5	-179.87	-243.6	-283.0	1,828.0	1,781.8	46.20	39.565	
6,441.2	6,195.2	6,232.9	6,195.2	32.6	15.6	90.00	-243.6	-278.1	1,828.0	1,795.1	32.89	55.578	
6,450.0	6,203.9	6,241.6	6,203.7	32.6	15.6	89.96	-243.6	-276.5	1,828.0	1,795.1	32.90	55.555	
6,500.0	6,253.7	6,290.8	6,251.6	32.7	15.6	89.75	-243.6	-265.4	1,828.0	1,795.1	32.95	55.474	
6,550.0	6,303.0	6,339.5	6,298.2	32.7	15.6	89.54	-243.6	-251.2	1,828.1	1,795.1	32.98	55.437	
6,600.0	6,351.7	6,387.8	6,343.3	32.7	15.6	89.33	-243.6	-234.0	1,828.1	1,795.1	32.98	55.432	
6,650.0	6,399.5	6,435.7	6,386.8	32.7	15.6	89.12	-243.6	-214.0	1,828.2	1,795.2	32.98	55.441	
6,700.0	6,446.1	6,483.2	6,428.5	32.7	15.5	88.92	-243.6	-191.3	1,828.3	1,795.3	32.98	55.445	
6,750.0	6,491.4	6,530.3	6,468.3	32.7	15.5	88.72	-243.6	-166.1	1,828.5	1,795.5	32.99	55.423	
6,800.0	6,535.1	6,577.1	6,506.1	32.7	15.5	88.54	-243.6	-138.6	1,828.6	1,795.6	33.04	55.350	
6,850.0	6,576.9	6,623.5	6,541.8	32.7	15.5	88.35	-243.6	-108.9	1,828.8	1,795.6	33.13	55.201	
6,900.0	6,616.8	6,669.6	6,575.2	32.7	15.6	88.18	-243.6	-77.1	1,828.9	1,795.6	33.28	54.950	
6,950.0	6,654.4	6,715.4	6,606.4	32.7	15.6	88.02	-243.6	-43.5	1,829.1	1,795.6	33.52	54.571	
7,000.0	6,689.7	6,761.0	6,635.1	32.7	15.7	87.86	-243.6	-8.2	1,829.3	1,795.4	33.85	54.044	
7,050.0	6,722.4	6,806.3	6,661.5	32.7	15.9	87.71	-243.6	28.6	1,829.5	1,795.2	34.29	53.353	
7,100.0	6,752.4	6,850.0	6,684.6	32.7	16.2	87.58	-243.6	65.7	1,829.6	1,794.8	34.84	52.510	
7,150.0	6,779.5	6,896.2	6,706.6	32.7	16.5	87.45	-243.6	106.3	1,829.8	1,794.2	35.56	51.457	
7,200.0	6,803.7	6,940.9	6,725.3	32.7	16.9	87.34	-243.6	146.9	1,830.0	1,793.6	36.41	50.263	
7,250.0	6,824.7	6,985.4	6,741.3	32.7	17.5	87.24	-243.6	188.4	1,830.1	1,792.7	37.40	48.938	
7,300.0	6,842.5	7,029.7	6,754.8	32.8	18.0	87.15	-243.6	230.7	1,830.3	1,791.7	38.52	47.511	
7,350.0	6,857.0	7,073.9	6,765.5	32.8	18.7	87.07	-243.6	273.6	1,830.4	1,790.6	39.78	46.012	
7,400.0	6,868.1	7,118.1	6,773.6	32.9	19.4	87.01	-243.6	316.9	1,830.5	1,789.3	41.16	44.474	
7,450.0	6,875.9	7,162.1	6,779.0	33.0	20.1	86.95	-243.6	360.6	1,830.6	1,787.9	42.64	42.927	
7,500.0	6,880.1	7,206.1	6,781.7	33.2	20.9	86.92	-243.6	404.5	1,830.6	1,786.4	44.22	41.399	
7,542.1	6,881.0	7,244.6	6,781.9	33.4	21.6	86.90	-243.6	443.0	1,830.7	1,785.0	45.64	40.108	
7,600.0	6,880.5	7,302.4	6,781.5	33.6	22.8	86.90	-243.6	500.9	1,830.7	1,782.9	47.81	38.289	
7,700.0	6,879.6	7,402.4	6,780.9	34.3	24.9	86.91	-243.6	600.9	1,830.7	1,778.8	51.83	35.318	
7,800.0	6,878.7	7,502.4	6,780.2	35.2	27.1	86.91	-243.6	700.9	1,830.6	1,774.5	56.13	32.615	
7,900.0	6,877.8	7,602.4	6,779.5	36.5	29.4	86.92	-243.6	800.9	1,830.6	1,770.0	60.63	30.191	
8,000.0	6,877.0	7,702.4	6,778.9	38.0	31.8	86.93	-243.6	900.8	1,830.6	1,765.3	65.31	28.029	
8,100.0	6,876.1	7,802.4	6,778.2	39.9	34.3	86.93	-243.6	1,000.8	1,830.6	1,760.5	70.12	26.105	
8,200.0	6,875.2	7,902.4	6,777.5	41.9	36.8	86.94	-243.6	1,100.8	1,830.6	1,755.5	75.05	24.392	
8,300.0	6,874.4	8,002.4	6,776.9	44.0	39.3	86.95	-243.6	1,200.8	1,830.6	1,750.5	80.06	22.864	
8,400.0	6,873.5	8,102.4	6,776.2	46.3	41.9	86.95	-243.6	1,300.8	1,830.6	1,745.4	85.15	21.498	
8,500.0	6,872.6	8,202.4	6,775.5	48.6	44.5	86.96	-243.6	1,400.8	1,830.6	1,740.3	90.30	20.272	
8,600.0	6,871.7	8,302.4	6,774.9	51.0	47.2	86.97	-243.6	1,500.8	1,830.6	1,735.0	95.50	19.167	

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



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	
8,700.0	6,870.9	8,402.4	6,774.2	53.4	49.8	86.97	-243.6	1,600.8	1,830.5	1,729.8	100.75	18.169	
8,800.0	6,870.0	8,502.4	6,773.5	55.9	52.5	86.98	-243.6	1,700.8	1,830.5	1,724.5	106.03	17.264	
8,900.0	6,869.1	8,602.4	6,772.9	58.5	55.2	86.99	-243.6	1,800.8	1,830.5	1,719.2	111.35	16.440	
9,000.0	6,868.3	8,702.4	6,772.2	61.0	57.9	86.99	-243.6	1,900.8	1,830.5	1,713.8	116.69	15.687	
9,100.0	6,867.4	8,802.4	6,771.5	63.6	60.6	87.00	-243.6	2,000.8	1,830.5	1,708.4	122.06	14.997	
9,200.0	6,866.5	8,902.4	6,770.8	66.2	63.3	87.00	-243.6	2,100.8	1,830.5	1,703.0	127.45	14.363	
9,300.0	6,865.6	9,002.4	6,770.2	68.8	66.0	87.01	-243.6	2,200.8	1,830.5	1,697.6	132.85	13.778	
9,400.0	6,864.8	9,102.4	6,769.5	71.5	68.7	87.02	-243.6	2,300.8	1,830.5	1,692.2	138.28	13.238	
9,500.0	6,863.9	9,202.4	6,768.8	74.1	71.5	87.02	-243.6	2,400.8	1,830.5	1,686.7	143.71	12.737	
9,600.0	6,863.0	9,302.4	6,768.2	76.8	74.2	87.03	-243.6	2,500.8	1,830.4	1,681.3	149.16	12.271	
9,700.0	6,862.2	9,402.4	6,767.5	79.4	77.0	87.04	-243.6	2,600.8	1,830.4	1,675.8	154.62	11.838	
9,800.0	6,861.3	9,502.4	6,766.8	82.1	79.7	87.04	-243.6	2,700.8	1,830.4	1,670.3	160.10	11.433	
9,900.0	6,860.4	9,602.4	6,766.1	84.8	82.5	87.05	-243.6	2,800.8	1,830.4	1,664.8	165.58	11.055	
10,000.0	6,859.5	9,702.4	6,765.5	87.5	85.2	87.05	-243.6	2,900.8	1,830.4	1,659.3	171.07	10.700	
10,100.0	6,858.7	9,802.4	6,764.8	90.2	88.0	87.06	-243.6	3,000.8	1,830.4	1,653.8	176.57	10.367	
10,200.0	6,857.8	9,902.4	6,764.1	92.9	90.7	87.07	-243.6	3,100.8	1,830.4	1,648.3	182.07	10.053	
10,300.0	6,856.9	10,002.4	6,763.5	95.6	93.5	87.07	-243.6	3,200.8	1,830.4	1,642.8	187.58	9.758	
10,400.0	6,856.1	10,102.4	6,762.8	98.4	96.3	87.08	-243.6	3,300.8	1,830.4	1,637.3	193.10	9.479	
10,500.0	6,855.2	10,202.4	6,762.1	101.1	99.0	87.08	-243.6	3,400.8	1,830.3	1,631.7	198.62	9.215	
10,600.0	6,854.3	10,302.4	6,761.4	103.8	101.8	87.09	-243.6	3,500.8	1,830.3	1,626.2	204.15	8.966	
10,700.0	6,853.5	10,402.4	6,760.7	106.5	104.6	87.10	-243.6	3,600.8	1,830.3	1,620.6	209.68	8.729	
10,800.0	6,852.6	10,502.4	6,760.1	109.3	107.4	87.10	-243.6	3,700.8	1,830.3	1,615.1	215.22	8.505	
10,900.0	6,851.7	10,602.4	6,759.4	112.0	110.2	87.11	-243.6	3,800.8	1,830.3	1,609.5	220.76	8.291	
11,000.0	6,850.9	10,702.4	6,758.7	114.8	112.9	87.11	-243.6	3,900.8	1,830.3	1,604.0	226.30	8.088	
11,100.0	6,850.0	10,802.4	6,758.0	117.5	115.7	87.12	-243.6	4,000.8	1,830.3	1,598.4	231.85	7.894	
11,200.0	6,849.1	10,902.4	6,757.4	120.3	118.5	87.13	-243.6	4,100.8	1,830.3	1,592.9	237.40	7.710	
11,300.0	6,848.2	11,002.4	6,756.7	123.0	121.3	87.13	-243.6	4,200.8	1,830.3	1,587.3	242.95	7.533	
11,400.0	6,847.4	11,102.4	6,756.0	125.8	124.1	87.14	-243.6	4,300.8	1,830.3	1,581.7	248.51	7.365	
11,500.0	6,846.5	11,202.4	6,755.3	128.5	126.8	87.14	-243.6	4,400.8	1,830.2	1,576.2	254.06	7.204	
11,600.0	6,845.6	11,302.4	6,754.6	131.3	129.6	87.15	-243.6	4,500.7	1,830.2	1,570.6	259.62	7.050	
11,700.0	6,844.8	11,402.4	6,754.0	134.1	132.4	87.16	-243.6	4,600.7	1,830.2	1,565.0	265.19	6.902	
11,800.0	6,843.9	11,502.4	6,753.3	136.8	135.2	87.16	-243.6	4,700.7	1,830.2	1,559.5	270.75	6.760	
11,900.0	6,843.0	11,602.4	6,752.6	139.6	138.0	87.17	-243.6	4,800.7	1,830.2	1,553.9	276.32	6.624	
12,000.0	6,842.2	11,702.4	6,751.9	142.4	140.8	87.17	-243.6	4,900.7	1,830.2	1,548.3	281.89	6.493	
12,100.0	6,841.3	11,802.4	6,751.2	145.1	143.6	87.18	-243.6	5,000.7	1,830.2	1,542.7	287.46	6.367	
12,133.9	6,841.0	11,836.3	6,751.0	146.1	144.5	87.18	-243.6	5,034.6	1,830.2	1,540.8	289.34	6.325 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.00	0.0	75.2	75.2				
100.0	100.0	100.0	100.0	0.1	0.1	90.00	0.0	75.2	75.2	75.0	0.19	386.992	
200.0	200.0	200.0	200.0	0.3	0.3	90.00	0.0	75.2	75.2	74.6	0.64	116.841	
300.0	300.0	300.0	300.0	0.5	0.5	90.00	0.0	75.2	75.2	74.1	1.09	68.808	
400.0	400.0	400.0	400.0	0.8	0.8	90.00	0.0	75.2	75.2	73.7	1.54	48.762 CC	
500.0	500.0	500.0	500.0	1.0	1.0	101.28	0.0	75.2	75.6	73.6	1.99	37.937 ES	
600.0	599.8	599.8	599.8	1.2	1.2	105.08	0.0	75.2	76.8	74.3	2.44	31.411	
700.0	699.5	699.5	699.5	1.5	1.4	111.09	0.0	75.2	79.5	76.6	2.91	27.337	
800.0	798.7	798.7	798.7	1.7	1.7	118.67	0.0	75.2	84.6	81.3	3.39	24.989	
900.0	897.5	897.5	897.5	2.0	1.9	126.93	0.0	75.2	93.2	89.3	3.88	24.023	
1,000.0	995.6	999.0	999.0	2.4	2.1	135.57	0.4	73.6	104.4	100.0	4.37	23.899	
1,100.0	1,093.1	1,100.3	1,100.1	2.8	2.3	144.27	1.7	68.5	117.1	112.3	4.83	24.256	
1,200.0	1,189.6	1,201.0	1,200.5	3.3	2.6	152.77	3.9	59.9	132.3	127.0	5.27	25.084	
1,300.0	1,285.3	1,301.0	1,299.7	3.8	2.8	160.79	6.9	48.1	150.6	144.8	5.71	26.356	
1,326.4	1,310.3	1,327.2	1,325.7	3.9	2.9	162.80	7.8	44.4	156.0	150.1	5.83	26.740	
1,400.0	1,380.1	1,400.3	1,397.7	4.3	3.1	168.17	10.7	33.0	171.5	165.3	6.19	27.698	
1,500.0	1,474.9	1,499.2	1,494.9	4.9	3.4	174.78	15.3	14.7	192.9	186.2	6.74	28.640	
1,600.0	1,569.8	1,594.7	1,588.3	5.5	3.7	-179.73	20.2	-4.5	215.6	208.2	7.35	29.336	
1,700.0	1,664.6	1,690.2	1,681.6	6.1	4.1	-175.29	25.0	-23.8	239.8	231.8	8.02	29.896	
1,800.0	1,759.4	1,785.6	1,775.0	6.8	4.5	-171.65	29.9	-43.0	265.2	256.4	8.74	30.337	
1,900.0	1,854.2	1,881.1	1,868.3	7.4	4.9	-168.65	34.8	-62.3	291.4	281.9	9.50	30.683	
2,000.0	1,949.0	1,976.5	1,961.7	8.0	5.3	-166.14	39.6	-81.5	318.2	308.0	10.28	30.958	
2,100.0	2,043.8	2,071.9	2,055.1	8.6	5.7	-164.01	44.5	-100.7	345.6	334.5	11.08	31.179	
2,200.0	2,138.7	2,167.4	2,148.4	9.2	6.1	-162.20	49.3	-120.0	373.3	361.4	11.90	31.361	
2,300.0	2,233.5	2,262.8	2,241.8	9.9	6.5	-160.63	54.2	-139.2	401.3	388.6	12.73	31.513	
2,400.0	2,328.3	2,358.3	2,335.2	10.5	6.9	-159.27	59.1	-158.5	429.6	416.0	13.58	31.642	
2,500.0	2,423.1	2,453.7	2,428.5	11.1	7.3	-158.07	63.9	-177.7	458.0	443.6	14.42	31.754	
2,600.0	2,517.9	2,549.2	2,521.9	11.8	7.7	-157.02	68.8	-196.9	486.7	471.4	15.28	31.851	
2,700.0	2,612.7	2,644.6	2,615.3	12.4	8.2	-156.08	73.7	-216.2	515.4	499.3	16.14	31.938	
2,800.0	2,707.6	2,740.0	2,708.6	13.0	8.5	-155.27	78.4	-235.1	544.3	527.3	16.95	32.116	
2,900.0	2,802.4	2,835.5	2,802.6	13.6	8.8	-154.84	82.6	-251.4	573.3	555.6	17.66	32.460	
3,000.0	2,897.2	2,931.2	2,897.3	14.3	9.1	-154.76	85.9	-264.7	602.3	583.9	18.32	32.881	
3,100.0	2,992.0	3,026.8	2,992.3	14.9	9.3	-154.99	88.5	-274.9	631.3	612.3	18.91	33.380	
3,200.0	3,086.8	3,122.1	3,087.4	15.5	9.5	-155.48	90.3	-282.1	660.3	640.9	19.44	33.959	
3,300.0	3,181.6	3,217.0	3,182.1	16.2	9.7	-156.21	91.3	-286.1	689.5	669.5	19.92	34.620	
3,400.0	3,276.5	3,311.3	3,276.5	16.8	9.8	-157.13	91.6	-287.2	718.8	698.5	20.33	35.356	
3,500.0	3,371.3	3,406.2	3,371.3	17.4	10.0	-158.07	91.6	-287.2	748.4	727.7	20.74	36.079	
3,600.0	3,466.1	3,501.0	3,466.1	18.1	10.1	-158.94	91.6	-287.2	778.2	757.0	21.16	36.776	
3,700.0	3,560.9	3,595.8	3,560.9	18.7	10.3	-159.74	91.6	-287.2	808.1	786.5	21.58	37.447	
3,800.0	3,655.7	3,690.6	3,655.7	19.3	10.4	-160.49	91.6	-287.2	838.2	816.2	22.00	38.092	
3,900.0	3,750.5	3,785.4	3,750.5	20.0	10.6	-161.19	91.6	-287.2	868.4	845.9	22.43	38.713	
4,000.0	3,845.4	3,880.2	3,845.4	20.6	10.8	-161.84	91.6	-287.2	898.7	875.8	22.86	39.308	
4,100.0	3,940.2	3,975.1	3,940.2	21.3	10.9	-162.44	91.6	-287.2	929.0	905.7	23.30	39.880	
4,200.0	4,035.0	4,069.9	4,035.0	21.9	11.1	-163.01	91.6	-287.2	959.5	935.8	23.73	40.430	
4,300.0	4,129.8	4,164.7	4,129.8	22.5	11.2	-163.55	91.6	-287.2	990.1	965.9	24.17	40.957	
4,400.0	4,224.6	4,259.5	4,224.6	23.2	11.4	-164.05	91.6	-287.2	1,020.7	996.1	24.62	41.463	
4,500.0	4,319.4	4,354.3	4,319.4	23.8	11.6	-164.53	91.6	-287.2	1,051.4	1,026.4	25.06	41.949	
4,600.0	4,414.3	4,449.1	4,414.3	24.4	11.7	-164.97	91.6	-287.2	1,082.2	1,056.7	25.51	42.415	
4,700.0	4,509.1	4,544.0	4,509.1	25.1	11.9	-165.40	91.6	-287.2	1,113.0	1,087.0	25.97	42.863	
4,800.0	4,603.9	4,638.8	4,603.9	25.7	12.1	-165.80	91.6	-287.2	1,143.9	1,117.5	26.42	43.293	
4,900.0	4,698.7	4,733.6	4,698.7	26.3	12.3	-166.18	91.6	-287.2	1,174.8	1,147.9	26.88	43.706	
5,000.0	4,793.5	4,828.4	4,793.5	27.0	12.4	-166.54	91.6	-287.2	1,205.8	1,178.4	27.34	44.103	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	4,888.3	4,923.2	4,888.3	27.6	12.6	-166.88	91.6	-287.2	1,236.8	1,209.0	27.80	44.485	
5,200.0	4,983.2	5,018.0	4,983.2	28.2	12.8	-167.20	91.6	-287.2	1,267.8	1,239.6	28.27	44.852	
5,300.0	5,078.0	5,112.9	5,078.0	28.9	13.0	-167.51	91.6	-287.2	1,298.9	1,270.2	28.73	45.204	
5,400.0	5,172.8	5,207.7	5,172.8	29.5	13.1	-167.81	91.6	-287.2	1,330.0	1,300.8	29.20	45.544	
5,454.5	5,224.5	5,259.3	5,224.5	29.9	13.2	-167.96	91.6	-287.2	1,347.0	1,317.5	29.46	45.723	
5,500.0	5,267.7	5,302.6	5,267.7	30.1	13.3	-168.15	91.6	-287.2	1,360.8	1,331.1	29.71	45.808	
5,600.0	5,363.5	5,398.4	5,363.5	30.6	13.5	-168.51	91.6	-287.2	1,388.9	1,358.7	30.20	45.984	
5,700.0	5,460.3	5,495.2	5,460.3	31.0	13.7	-168.81	91.6	-287.2	1,413.7	1,383.0	30.67	46.095	
5,800.0	5,557.9	5,592.8	5,557.9	31.3	13.9	-169.06	91.6	-287.2	1,435.1	1,404.0	31.10	46.148	
5,900.0	5,656.2	5,691.0	5,656.2	31.7	14.1	-169.27	91.6	-287.2	1,453.2	1,421.7	31.49	46.147	
6,000.0	5,755.0	5,789.9	5,755.0	31.9	14.3	-169.43	91.6	-287.2	1,468.0	1,436.1	31.85	46.096	
6,100.0	5,854.4	5,889.2	5,854.4	32.2	14.5	-169.55	91.6	-287.2	1,479.3	1,447.1	32.16	45.996	
6,200.0	5,954.0	5,988.9	5,954.0	32.4	14.6	-169.64	91.6	-287.2	1,487.2	1,454.8	32.44	45.851	
6,300.0	6,053.9	6,088.8	6,053.9	32.5	14.8	-169.69	91.6	-287.2	1,491.7	1,459.0	32.67	45.661	
6,380.9	6,134.8	6,169.7	6,134.8	32.6	15.0	-179.68	91.6	-287.2	1,492.8	1,447.2	45.65	32.703	
6,400.0	6,153.9	6,188.8	6,153.9	32.6	15.0	-179.68	91.6	-287.2	1,492.8	1,447.1	45.71	32.662	
6,410.9	6,164.8	6,199.8	6,164.9	32.6	15.1	-179.68	91.6	-287.1	1,492.8	1,447.1	45.74	32.639	
6,450.0	6,203.9	6,239.3	6,204.4	32.6	15.1	90.30	91.6	-285.6	1,492.8	1,459.8	33.04	45.179	
6,500.0	6,253.7	6,289.9	6,254.7	32.7	15.2	90.28	91.6	-280.6	1,492.8	1,459.7	33.15	45.030	
6,550.0	6,303.0	6,340.4	6,304.4	32.7	15.2	90.26	91.6	-272.0	1,492.8	1,459.6	33.23	44.925	
6,600.0	6,351.7	6,390.8	6,353.4	32.7	15.2	90.24	91.6	-259.9	1,492.8	1,459.5	33.28	44.855	
6,650.0	6,399.5	6,441.2	6,401.4	32.7	15.3	90.21	91.6	-244.5	1,492.8	1,459.5	33.31	44.810	
6,700.0	6,446.1	6,491.6	6,448.1	32.7	15.3	90.19	91.6	-225.7	1,492.8	1,459.5	33.34	44.776	
6,750.0	6,491.4	6,541.9	6,493.3	32.7	15.3	90.16	91.6	-203.7	1,492.8	1,459.4	33.37	44.737	
6,800.0	6,535.1	6,592.2	6,536.9	32.7	15.3	90.13	91.6	-178.6	1,492.8	1,459.4	33.41	44.675	
6,850.0	6,576.9	6,642.4	6,578.5	32.7	15.3	90.10	91.6	-150.6	1,492.8	1,459.3	33.50	44.566	
6,900.0	6,616.8	6,692.5	6,618.0	32.7	15.4	90.08	91.6	-119.7	1,492.8	1,459.2	33.63	44.386	
6,950.0	6,654.4	6,742.6	6,655.3	32.7	15.5	90.05	91.6	-86.2	1,492.8	1,459.0	33.84	44.111	
7,000.0	6,689.7	6,792.7	6,690.0	32.7	15.7	90.02	91.6	-50.2	1,492.8	1,458.7	34.15	43.716	
7,046.6	6,720.3	6,839.3	6,720.1	32.7	15.9	89.99	91.6	-14.6	1,492.8	1,458.3	34.54	43.221	
7,050.0	6,722.4	6,842.7	6,722.2	32.7	15.9	89.99	91.6	-11.9	1,492.8	1,458.2	34.57	43.184	
7,100.0	6,752.4	6,892.6	6,751.5	32.7	16.2	89.96	91.6	28.5	1,492.8	1,457.7	35.12	42.503	
7,150.0	6,779.5	6,942.5	6,778.0	32.7	16.6	89.93	91.6	70.8	1,492.8	1,457.0	35.82	41.671	
7,200.0	6,803.7	6,992.4	6,801.4	32.7	17.0	89.90	91.6	114.8	1,492.8	1,456.1	36.68	40.696	
7,250.0	6,824.7	7,042.2	6,821.7	32.7	17.6	89.87	91.6	160.3	1,492.8	1,455.1	37.70	39.595	
7,300.0	6,842.5	7,091.9	6,838.7	32.8	18.2	89.85	91.6	207.0	1,492.8	1,453.9	38.88	38.394	
7,350.0	6,857.0	7,141.6	6,852.5	32.8	18.9	89.82	91.6	254.7	1,492.8	1,452.6	40.21	37.123	
7,400.0	6,868.1	7,191.3	6,862.9	32.9	19.7	89.79	91.6	303.3	1,492.8	1,451.1	41.68	35.812	
7,450.0	6,875.9	7,240.9	6,869.9	33.0	20.5	89.77	91.6	352.4	1,492.8	1,449.5	43.28	34.492	
7,500.0	6,880.1	7,290.4	6,873.5	33.2	21.4	89.75	91.6	401.8	1,492.8	1,447.8	44.98	33.188	
7,542.1	6,881.0	7,332.2	6,873.9	33.4	22.2	89.73	91.6	443.6	1,492.8	1,446.3	46.48	32.115	
7,600.0	6,880.5	7,390.1	6,873.3	33.6	23.3	89.73	91.6	501.4	1,492.8	1,444.2	48.66	30.678	
7,700.0	6,879.6	7,490.1	6,872.3	34.3	25.4	89.72	91.6	601.4	1,492.8	1,440.1	52.69	28.333	
7,800.0	6,878.7	7,590.1	6,871.4	35.2	27.6	89.72	91.6	701.4	1,492.8	1,435.8	56.98	26.198	
7,900.0	6,877.8	7,690.1	6,870.4	36.5	30.0	89.71	91.6	801.4	1,492.8	1,431.3	61.49	24.279	
8,000.0	6,877.0	7,790.1	6,869.4	38.0	32.3	89.71	91.6	901.4	1,492.8	1,426.7	66.16	22.564	
8,100.0	6,876.1	7,890.1	6,868.4	39.9	34.8	89.71	91.6	1,001.4	1,492.8	1,421.8	70.97	21.034	
8,200.0	6,875.2	7,990.1	6,867.5	41.9	37.3	89.70	91.6	1,101.4	1,492.8	1,416.9	75.89	19.670	
8,300.0	6,874.4	8,090.1	6,866.5	44.0	39.9	89.70	91.6	1,201.4	1,492.8	1,411.9	80.90	18.452	
8,400.0	6,873.5	8,190.1	6,865.5	46.3	42.4	89.69	91.6	1,301.4	1,492.8	1,406.8	85.99	17.360	
8,500.0	6,872.6	8,290.1	6,864.5	48.6	45.0	89.69	91.6	1,401.4	1,492.8	1,401.7	91.14	16.380	
8,600.0	6,871.7	8,390.1	6,863.5	51.0	47.7	89.69	91.6	1,501.4	1,492.8	1,396.5	96.34	15.495	

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

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	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	
8,700.0	6,870.9	8,490.1	6,862.6	53.4	50.3	89.68	91.6	1,601.4	1,492.8	1,391.2	101.58	14.695	
8,800.0	6,870.0	8,590.1	6,861.6	55.9	53.0	89.68	91.6	1,701.4	1,492.8	1,386.0	106.87	13.969	
8,900.0	6,869.1	8,898.0	6,858.6	58.5	61.1	89.66	112.6	2,008.2	1,486.3	1,368.6	117.66	12.632	
9,000.0	6,868.3	8,997.0	6,857.6	61.0	63.8	89.65	126.4	2,106.3	1,472.4	1,349.4	122.93	11.978	
9,100.0	6,867.4	9,096.0	6,856.6	63.6	66.4	89.64	140.2	2,204.3	1,458.5	1,330.2	128.21	11.375	
9,200.0	6,866.5	9,195.0	6,855.7	66.2	69.0	89.64	153.9	2,302.4	1,444.5	1,311.0	133.52	10.819	
9,300.0	6,865.6	9,294.1	6,854.7	68.8	71.7	89.63	167.7	2,400.4	1,430.6	1,291.8	138.84	10.304	
9,400.0	6,864.8	9,382.5	6,853.8	71.5	74.1	89.62	180.0	2,488.0	1,416.8	1,272.9	143.90	9.846	
9,500.0	6,863.9	9,439.6	6,853.3	74.1	75.6	89.61	186.7	2,544.7	1,405.1	1,257.0	148.15	9.485	
9,600.0	6,863.0	9,500.0	6,852.7	76.8	77.2	89.61	191.9	2,604.9	1,396.4	1,243.9	152.50	9.157	
9,700.0	6,862.2	9,554.8	6,852.1	79.4	78.7	89.61	194.9	2,659.6	1,390.7	1,234.0	156.72	8.874	
9,800.0	6,861.3	9,612.7	6,851.5	82.1	80.3	89.60	196.5	2,717.4	1,388.0	1,227.0	161.03	8.620	
9,848.4	6,860.9	9,644.9	6,851.2	83.4	81.2	89.60	196.6	2,749.7	1,387.8	1,224.6	163.24	8.502	
9,900.0	6,860.4	9,696.6	6,850.7	84.8	82.6	89.60	196.6	2,801.3	1,387.8	1,221.7	166.07	8.357	
10,000.0	6,859.5	9,796.6	6,849.7	87.5	85.4	89.59	196.6	2,901.3	1,387.8	1,216.3	171.56	8.089	
10,049.3	6,859.1	9,845.9	6,849.2	88.8	86.8	89.59	196.6	2,950.6	1,387.8	1,213.5	174.27	7.963	
10,100.0	6,858.7	9,885.6	6,848.9	90.2	87.9	89.59	196.6	2,990.3	1,387.9	1,211.2	176.76	7.852	
10,200.0	6,857.8	9,943.5	6,848.3	92.9	89.5	89.59	195.2	3,048.2	1,390.2	1,209.1	181.11	7.676	
10,300.0	6,856.9	10,000.0	6,847.7	95.6	91.0	89.59	192.2	3,104.7	1,395.6	1,210.1	185.42	7.526	
10,400.0	6,856.1	10,058.7	6,847.2	98.4	92.6	89.59	187.4	3,163.2	1,403.9	1,214.1	189.80	7.397	
10,500.0	6,855.2	10,115.9	6,846.6	101.1	94.2	89.58	180.9	3,220.0	1,415.2	1,221.1	194.13	7.290	
10,600.0	6,854.3	10,199.2	6,845.8	103.8	96.5	89.58	169.4	3,302.4	1,428.9	1,229.8	199.18	7.174	
10,700.0	6,853.5	10,298.2	6,844.8	106.5	99.2	89.58	155.6	3,400.5	1,442.9	1,238.2	204.67	7.050	
10,800.0	6,852.6	10,397.2	6,843.9	109.3	101.9	89.58	141.8	3,498.6	1,456.8	1,246.6	210.17	6.931	
10,900.0	6,851.7	10,496.3	6,842.9	112.0	104.6	89.58	128.1	3,596.6	1,470.7	1,255.0	215.67	6.819	
11,000.0	6,850.9	10,595.3	6,841.9	114.8	107.4	89.58	114.3	3,694.7	1,484.6	1,263.4	221.17	6.713	
11,100.0	6,850.0	10,694.3	6,841.0	117.5	110.1	89.58	100.5	3,792.7	1,498.5	1,271.8	226.68	6.611	
11,200.0	6,849.1	11,004.1	6,837.9	120.3	118.7	89.58	76.7	4,101.3	1,507.8	1,269.7	238.04	6.334	
11,300.0	6,848.2	11,104.1	6,837.0	123.0	121.5	89.57	76.7	4,201.3	1,507.8	1,264.2	243.60	6.190	
11,400.0	6,847.4	11,204.1	6,836.0	125.8	124.3	89.57	76.7	4,301.3	1,507.8	1,258.6	249.16	6.052	
11,500.0	6,846.5	11,304.1	6,835.0	128.5	127.1	89.56	76.7	4,401.3	1,507.8	1,253.1	254.72	5.919	
11,600.0	6,845.6	11,404.1	6,834.1	131.3	129.8	89.56	76.7	4,501.2	1,507.8	1,247.5	260.28	5.793	
11,700.0	6,844.8	11,500.9	6,832.7	134.1	133.9	89.56	79.5	4,648.0	1,505.6	1,238.5	267.14	5.636	
11,800.0	6,843.9	11,650.9	6,831.7	136.8	136.7	89.55	82.7	4,747.9	1,502.5	1,229.8	272.70	5.510	
11,900.0	6,843.0	11,750.8	6,830.8	139.6	139.5	89.55	85.8	4,847.8	1,499.4	1,221.1	278.26	5.389	
12,000.0	6,842.2	11,850.8	6,829.8	142.4	142.3	89.54	88.9	4,947.7	1,496.3	1,212.5	283.82	5.272	
12,100.0	6,841.3	11,938.6	6,829.0	145.1	144.7	89.54	91.6	5,035.5	1,493.2	1,204.2	289.05	5.166	
12,133.9	6,841.0	11,938.6	6,829.0	146.1	144.7	89.54	91.6	5,035.5	1,492.8	1,202.9	289.99	5.148 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

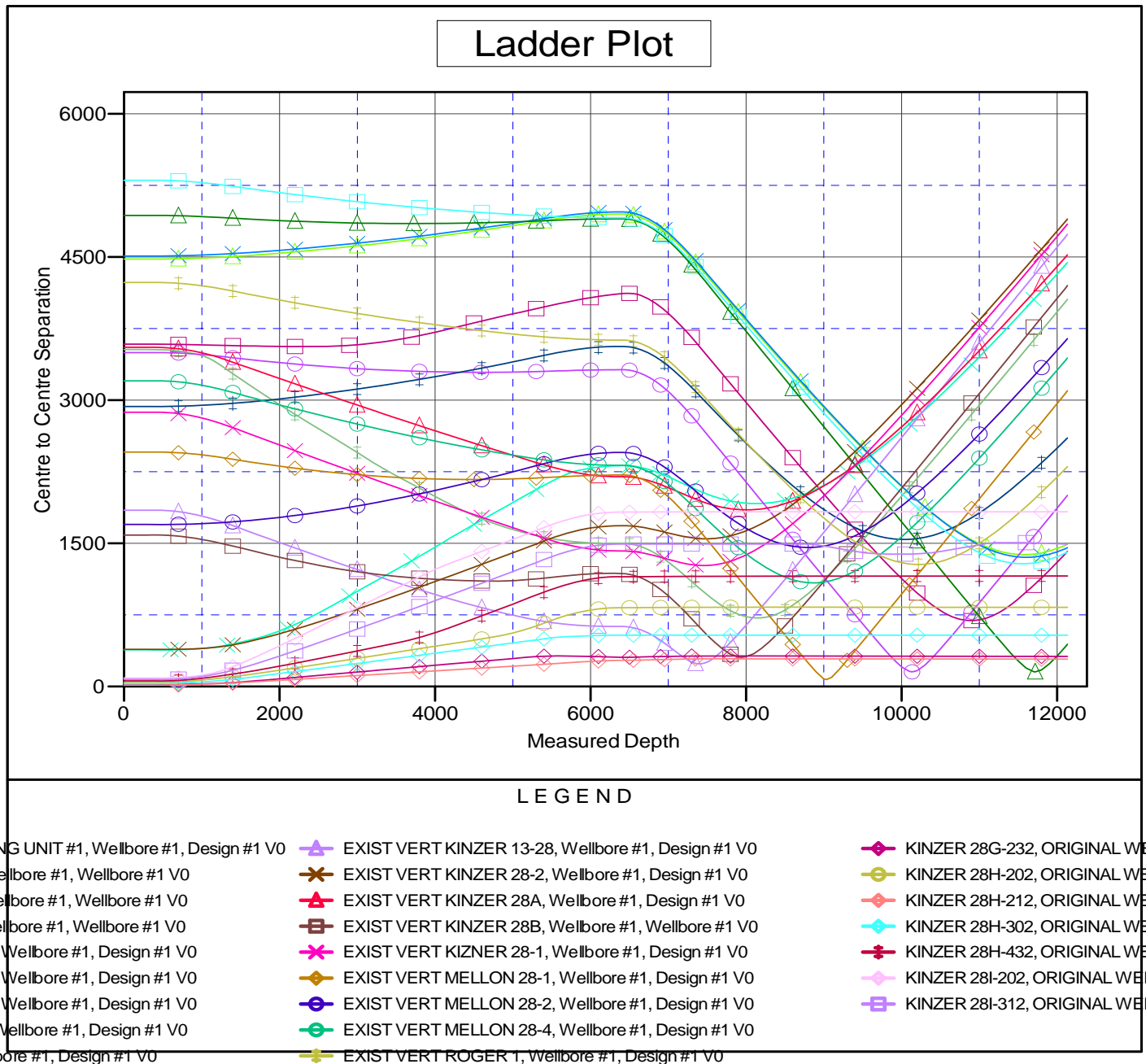
Reference Depths are relative to KB-EST @ 4797.5usft (Original Well ECoordinates are relative to: KINZER 28G-332

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: 0.38°





<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well KINZER 28G-332
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Reference Site:</b>	SW SW SEC. 28 T5N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4797.5usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	KINZER 28G-332	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB-EST @ 4797.5usft (Original Well ECoordinates are relative to: KINZER 28G-332

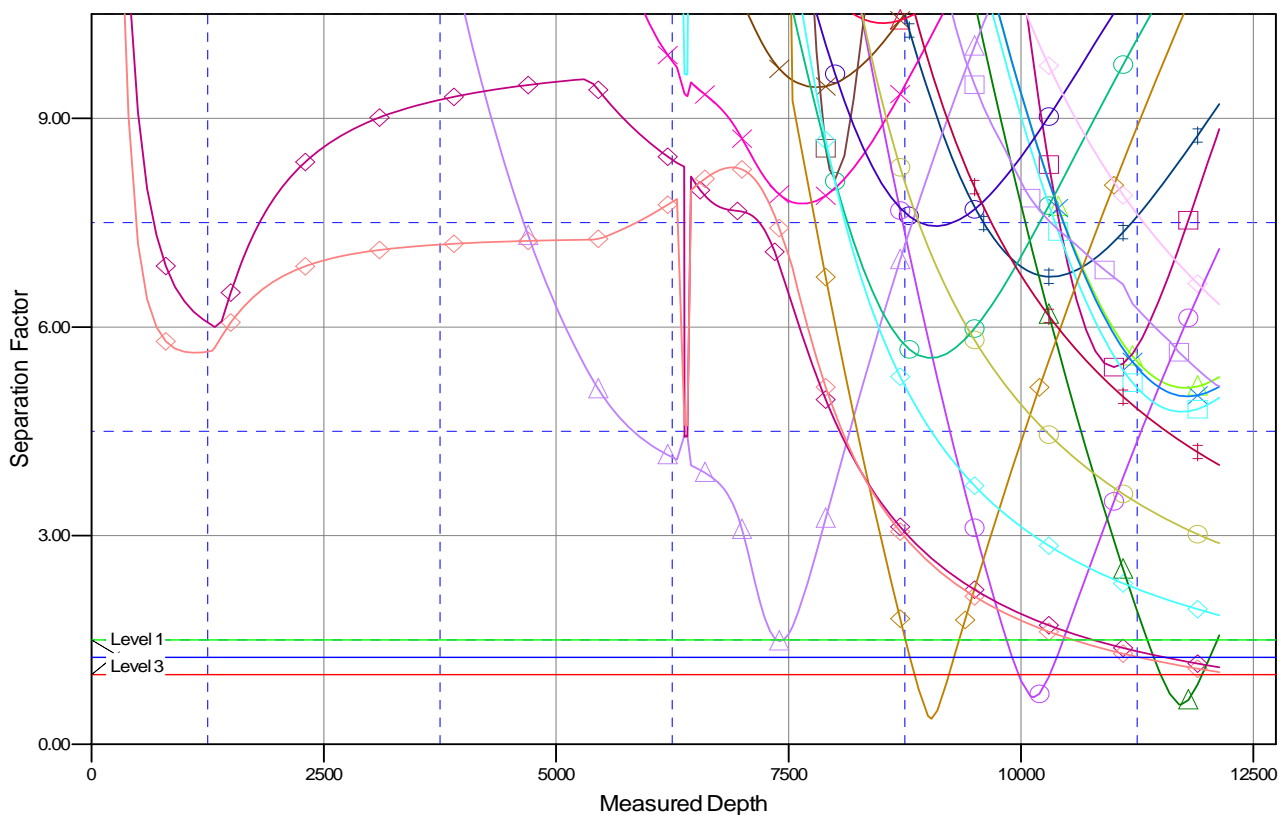
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.500000

Grid Convergence at Surface is: 0.38°

## Separation Factor Plot



### LEGEND

ING UNIT #1, Wellbore #1, Design #1 V0	EXIST VERT KINZER 13-28, Wellbore #1, Design #1 V0	KINZER 28G-232, ORIGINAL WEL
Wellbore #1, Wellbore #1 V0	EXIST VERT KINZER 28-2, Wellbore #1, Design #1 V0	KINZER 28H-202, ORIGINAL WEL
Wellbore #1, Wellbore #1 V0	EXIST VERT KINZER 28A, Wellbore #1, Design #1 V0	KINZER 28H-212, ORIGINAL WEL
Wellbore #1, Wellbore #1 V0	EXIST VERT KINZER 28B, Wellbore #1, Wellbore #1 V0	KINZER 28H-302, ORIGINAL WEL
i, Wellbore #1, Design #1 V0	EXIST VERT KIZNER 28-1, Wellbore #1, Design #1 V0	KINZER 28H-432, ORIGINAL WEL
i, Wellbore #1, Design #1 V0	EXIST VERT MELLON 28-1, Wellbore #1, Design #1 V0	KINZER 28I-202, ORIGINAL WEL
i, Wellbore #1, Design #1 V0	EXIST VERT MELLON 28-2, Wellbore #1, Design #1 V0	KINZER 28I-312, ORIGINAL WEL
Wellbore #1, Design #1 V0	EXIST VERT MELLON 28-4, Wellbore #1, Design #1 V0	
llore #1, Design #1 V0	EXIST VERT ROGER 1, Wellbore #1, Design #1 V0	