

# **PDC ENERGY**

**WELD COUNTY, COLORADO  
NW NE SEC 30 T4N R67W 6th P.M.  
OLSON 30R-203**

**ORIGINAL WELLBORE  
PROPOSAL #2**

## **Anticollision Report**

**27 February, 2016**



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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 98.4usft	<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> 27/02/2016			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,747.9	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
Offet Well - Wellbore - Design						
NW NE SEC 30 T4N R67W 6th P.M.						
ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #	11,664.5	6,330.0	1,096.5	1,037.3	18.536	CC, ES
ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #	11,747.9	6,330.0	1,099.7	1,039.3	18.229	SF
EXIST VERT BROWN 30-2 - Wellbore #1 - Wellbore #1	7,150.0	6,857.2	819.1	792.2	30.500	SF
EXIST VERT BROWN 30-2 - Wellbore #1 - Wellbore #1	7,704.5	7,092.1	655.9	635.0	31.400	CC, ES
EXIST VERT BROWN 30-31 - Wellbore #1 - Wellbore #1	3,776.8	3,667.4	49.7	35.6	3.524	CC, ES, SF
EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 -	10,264.4	7,105.8	669.5	621.5	13.929	CC, ES
EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 -	10,433.0	7,107.3	690.5	639.4	13.522	SF
EXIST VERT BROWN-MCCARTY 30-5 - Wellbore #1 - V	8,931.3	7,080.5	667.8	640.8	24.704	CC, ES
EXIST VERT BROWN-MCCARTY 30-5 - Wellbore #1 - V	9,153.5	7,080.5	703.8	673.7	23.351	SF
EXIST VERT MCCART 30-2 - Wellbore #1 - Wellbore #1	11,570.8	7,129.2	682.3	610.9	9.548	CC, ES
EXIST VERT MCCART 30-2 - Wellbore #1 - Wellbore #1	11,700.0	7,128.2	694.5	620.6	9.401	SF
EXIST VERT NYGREN 21-30 - Wellbore #1 - Design #1	1,750.0	1,751.0	1,193.4	1,155.5	31.534	CC
EXIST VERT NYGREN 21-30 - Wellbore #1 - Design #1	1,870.1	1,871.0	1,194.7	1,154.1	29.490	ES
EXIST VERT NYGREN 21-30 - Wellbore #1 - Design #1	7,678.1	7,126.0	2,104.7	1,943.9	13.089	SF
EXIST VERT SHULTZ 22-30 - Wellbore #1 - Design #1	1,750.0	1,746.0	1,109.7	1,071.9	29.362	CC
EXIST VERT SHULTZ 22-30 - Wellbore #1 - Design #1	1,800.0	1,796.0	1,110.1	1,071.2	28.535	ES
EXIST VERT SHULTZ 22-30 - Wellbore #1 - Design #1	8,956.7	7,118.5	1,742.2	1,575.3	10.435	SF
EXIST VERT SHULTZ 23-30 - Wellbore #1 - Design #1	10,023.2	7,115.7	1,751.1	1,567.2	9.526	CC
EXIST VERT SHULTZ 23-30 - Wellbore #1 - Design #1	10,039.3	7,115.6	1,751.1	1,567.0	9.512	ES
EXIST VERT SHULTZ 23-30 - Wellbore #1 - Design #1	10,334.6	7,114.3	1,778.5	1,589.3	9.397	SF
EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Well	9,172.3	7,087.6	958.7	928.4	31.669	CC
EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Well	9,200.0	7,087.7	959.1	928.4	31.262	ES
EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Well	9,700.0	7,089.1	1,094.3	1,055.7	28.305	SF
EXIST VERT SHULTZ FARM 30-33 - Wellbore #1 - Well	10,298.3	7,090.9	625.2	576.1	12.736	CC
EXIST VERT SHULTZ FARM 30-33 - Wellbore #1 - Well	10,300.0	7,090.9	625.2	576.0	12.728	ES
EXIST VERT SHULTZ FARM 30-33 - Wellbore #1 - Well	10,433.0	7,090.6	639.5	588.0	12.421	SF
OLSON 30M-223 - ORIGINAL WELLBORE - PROPOSA	1,750.0	1,751.0	60.0	52.4	7.903	CC
OLSON 30M-223 - ORIGINAL WELLBORE - PROPOSA	1,771.6	1,772.6	60.1	52.4	7.811	ES
OLSON 30M-223 - ORIGINAL WELLBORE - PROPOSA	11,747.9	11,655.0	990.3	837.4	6.476	SF
OLSON 30M-323 - ORIGINAL WELLBORE - PROPOSA	1,750.0	1,751.0	44.9	37.3	5.919	CC
OLSON 30M-323 - ORIGINAL WELLBORE - PROPOSA	1,771.6	1,772.6	45.0	37.3	5.851	ES
OLSON 30M-323 - ORIGINAL WELLBORE - PROPOSA	11,747.9	11,747.1	737.9	585.0	4.826	SF
OLSON 30M-403 - ORIGINAL WELLBORE - PROPOSA	1,436.8	1,437.8	74.8	68.6	12.095	CC
OLSON 30M-403 - ORIGINAL WELLBORE - PROPOSA	1,500.0	1,500.6	74.9	68.5	11.584	ES
OLSON 30M-403 - ORIGINAL WELLBORE - PROPOSA	11,747.9	11,849.6	1,262.9	1,111.0	8.318	SF
OLSON 30R-223 - ORIGINAL WELLBORE - PROPOSA	1,537.5	1,537.5	30.1	23.5	4.542	CC
OLSON 30R-223 - ORIGINAL WELLBORE - PROPOSA	1,574.8	1,574.6	30.2	23.4	4.445	ES

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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						
NW NE SEC 30 T4N R67W 6th P.M.						
OLSON 30R-223 - ORIGINAL WELLBORE - PROPOSA	11,747.9	11,846.6	490.0	337.9	3.222	SF
OLSON 30R-243 - ORIGINAL WELLBORE - PROPOSA	1,750.0	1,751.0	29.9	22.3	3.933	CC
OLSON 30R-243 - ORIGINAL WELLBORE - PROPOSA	1,771.6	1,772.6	29.9	22.2	3.890	ES
OLSON 30R-243 - ORIGINAL WELLBORE - PROPOSA	11,747.9	11,668.5	490.1	337.5	3.210	SF
OLSON 30R-303 - ORIGINAL WELLBORE - PROPOSA	1,637.5	1,637.5	15.1	8.0	2.127	CC
OLSON 30R-303 - ORIGINAL WELLBORE - PROPOSA	1,673.2	1,673.1	15.1	7.9	2.091	ES
OLSON 30R-303 - ORIGINAL WELLBORE - PROPOSA	11,747.9	11,877.4	252.2	105.2	1.715	SF
OLSON 30R-343 - ORIGINAL WELLBORE - PROPOSA	1,750.0	1,751.0	14.8	7.2	1.948	CC
OLSON 30R-343 - ORIGINAL WELLBORE - PROPOSA	1,771.6	1,772.6	14.8	7.2	1.931	ES
OLSON 30R-343 - ORIGINAL WELLBORE - PROPOSA	11,747.9	11,791.4	252.1	101.3	1.672	SF
OLSON 30U-343 - ORIGINAL WELLBORE - PROPOSA	1,437.5	1,437.5	45.2	39.0	7.309	CC
OLSON 30U-343 - ORIGINAL WELLBORE - PROPOSA	1,476.4	1,476.0	45.3	39.0	7.128	ES
OLSON 30U-343 - ORIGINAL WELLBORE - PROPOSA	11,747.9	12,019.9	807.2	656.3	5.349	SF
PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore	7,086.6	8,428.5	434.2	383.3	8.539	SF
PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore	7,185.0	8,430.5	414.2	368.2	9.004	ES
PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore	7,190.6	8,430.6	414.1	368.4	9.059	CC

<b>Offset Design</b> NW NE SEC 30 T4N R67W 6th P.M. - ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
<b>Survey Program:</b> 100-GYD_CT												<b>Offset Well Error:</b>	0.0 usft
Reference	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference	Semi Major Axis Offset	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	1.5	1.5	0.0	0.0	175.44	-3,761.8	299.9	3,773.7				
98.4	98.4	128.5	128.5	0.1	0.1	175.45	-3,761.2	299.4	3,773.2	3,773.0	0.16	N/A	
100.0	100.0	129.9	129.9	0.1	0.1	175.45	-3,761.2	299.4	3,773.2	3,773.0	0.16	N/A	
196.8	196.8	225.7	225.7	0.3	0.2	175.46	-3,760.6	298.5	3,772.6	3,772.0	0.53	7,070.912	
200.0	200.0	231.0	231.0	0.3	0.2	175.46	-3,760.6	298.4	3,772.5	3,772.0	0.55	6,913.413	
295.3	295.3	358.6	358.6	0.5	0.3	175.50	-3,759.1	295.7	3,771.2	3,770.3	0.87	4,333.410	
300.0	300.0	363.7	363.7	0.5	0.3	175.50	-3,759.0	295.6	3,771.1	3,770.2	0.88	4,262.237	
393.7	393.7	454.7	454.6	0.7	0.4	175.54	-3,757.6	293.3	3,769.6	3,768.4	1.16	3,256.052	
400.0	400.0	460.4	460.3	0.8	0.4	175.54	-3,757.6	293.1	3,769.5	3,768.3	1.18	3,206.708	
492.1	492.1	550.4	550.3	1.0	0.5	175.57	-3,756.4	290.9	3,768.1	3,766.6	1.44	2,624.236	
500.0	500.0	558.5	558.4	1.0	0.5	175.58	-3,756.3	290.7	3,767.9	3,766.5	1.46	2,584.050	
590.5	590.5	645.9	645.8	1.2	0.5	175.60	-3,755.1	288.7	3,766.6	3,764.9	1.71	2,203.748	
600.0	600.0	654.5	654.4	1.2	0.5	175.61	-3,755.0	288.5	3,766.4	3,764.7	1.73	2,170.945	
689.0	689.0	744.8	744.6	1.4	0.6	175.63	-3,753.9	286.6	3,765.2	3,763.2	1.98	1,900.389	
700.0	700.0	757.5	757.3	1.4	0.6	175.64	-3,753.7	286.3	3,765.1	3,763.0	2.01	1,870.914	
787.4	787.4	845.3	845.1	1.6	0.6	175.67	-3,752.5	284.4	3,763.7	3,761.4	2.25	1,671.316	
800.0	800.0	856.7	856.5	1.7	0.6	175.67	-3,752.3	284.1	3,763.5	3,761.2	2.29	1,646.547	
885.8	885.8	934.6	934.3	1.9	0.7	175.70	-3,751.4	282.4	3,762.3	3,759.8	2.52	1,495.898	
900.0	900.0	947.6	947.3	1.9	0.7	175.70	-3,751.3	282.1	3,762.1	3,759.6	2.55	1,473.697	
984.2	984.2	1,026.2	1,025.9	2.1	0.7	175.72	-3,750.5	280.5	3,761.2	3,758.4	2.78	1,354.116	
1,000.0	1,000.0	1,041.4	1,041.1	2.1	0.7	175.73	-3,750.4	280.2	3,761.0	3,758.2	2.82	1,333.836	
1,082.7	1,082.7	1,120.9	1,120.6	2.3	0.7	175.75	-3,749.6	278.6	3,760.2	3,757.1	3.04	1,236.805	
1,100.0	1,100.0	1,137.3	1,137.0	2.3	0.8	175.75	-3,749.5	278.4	3,760.0	3,756.9	3.09	1,218.346	
1,181.1	1,181.1	1,213.1	1,212.8	2.5	0.8	175.77	-3,748.9	277.3	3,759.3	3,756.0	3.30	1,138.976	
1,200.0	1,200.0	1,229.9	1,229.6	2.6	0.8	175.77	-3,748.8	277.1	3,759.1	3,755.8	3.35	1,122.152	
1,279.5	1,279.5	1,300.6	1,300.3	2.7	0.8	175.79	-3,748.4	276.1	3,758.6	3,755.1	3.56	1,056.489	
1,300.0	1,300.0	1,322.2	1,321.8	2.8	0.8	175.79	-3,748.3	275.8	3,758.5	3,754.9	3.61	1,040.455	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,377.9	1,377.9	1,404.4	1,404.1	3.0	0.9	175.81	-3,747.9	274.5	3,758.0	3,754.2	3.82	983.581	
1,400.0	1,400.0	1,428.8	1,428.4	3.0	0.9	175.82	-3,747.8	274.1	3,757.9	3,754.0	3.88	968.512	
1,476.4	1,476.4	1,509.7	1,509.4	3.2	0.9	175.84	-3,747.2	272.8	3,757.2	3,753.2	4.08	920.006	
1,500.0	1,500.0	1,529.1	1,528.8	3.2	0.9	175.84	-3,747.1	272.6	3,757.1	3,752.9	4.14	906.523	
1,574.8	1,574.8	1,590.6	1,590.2	3.4	0.9	175.85	-3,746.8	271.8	3,756.6	3,752.3	4.34	866.355	
1,600.0	1,600.0	1,615.4	1,615.1	3.5	1.0	175.86	-3,746.7	271.5	3,756.5	3,752.1	4.40	853.331	
1,673.2	1,673.2	1,697.6	1,697.3	3.6	1.0	175.87	-3,746.4	270.5	3,756.2	3,751.6	4.60	816.935	
1,700.0	1,700.0	1,724.9	1,724.5	3.7	1.0	175.87	-3,746.2	270.2	3,756.0	3,751.3	4.67	804.536	
1,750.0	1,750.0	1,775.3	1,775.0	3.8	1.0	175.88	-3,745.9	269.6	3,755.7	3,750.9	4.80	782.379	
1,771.6	1,771.6	1,797.2	1,796.8	3.8	1.0	133.89	-3,745.8	269.3	3,755.6	3,750.9	4.75	790.610	
1,775.5	1,775.5	1,800.0	1,799.6	3.9	1.0	133.89	-3,745.8	269.3	3,755.6	3,750.9	4.76	789.069	
1,800.0	1,800.0	1,821.5	1,821.2	3.9	1.0	133.90	-3,745.7	269.0	3,755.7	3,750.9	4.82	779.294	
1,870.1	1,870.0	1,880.5	1,880.1	4.1	1.1	133.91	-3,745.5	268.2	3,756.9	3,751.9	4.99	753.073	
1,900.0	1,899.9	1,906.8	1,906.4	4.1	1.1	133.92	-3,745.5	267.8	3,757.8	3,752.7	5.06	742.441	
1,968.5	1,968.3	1,975.9	1,975.5	4.3	1.1	133.92	-3,745.5	267.0	3,760.7	3,755.5	5.23	718.737	
2,000.0	1,999.7	2,007.6	2,007.2	4.3	1.1	133.94	-3,745.4	266.7	3,762.5	3,757.2	5.31	708.417	
2,066.9	2,066.3	2,075.4	2,075.0	4.5	1.1	133.96	-3,745.3	266.1	3,766.9	3,761.5	5.48	687.103	
2,100.0	2,099.1	2,109.4	2,109.0	4.6	1.1	133.97	-3,745.3	265.8	3,769.6	3,764.0	5.57	677.080	
2,165.3	2,163.9	2,179.8	2,179.4	4.7	1.2	134.00	-3,745.1	265.3	3,775.4	3,769.7	5.74	657.459	
2,200.0	2,198.2	2,215.9	2,215.5	4.8	1.2	134.01	-3,745.0	265.0	3,778.9	3,773.1	5.84	647.612	
2,263.8	2,261.0	2,279.7	2,279.3	5.0	1.2	134.03	-3,744.7	264.5	3,786.1	3,780.1	6.01	629.534	
2,300.0	2,296.6	2,312.1	2,311.7	5.1	1.2	134.04	-3,744.6	264.1	3,790.6	3,784.5	6.11	619.928	
2,362.2	2,357.6	2,359.5	2,359.1	5.3	1.2	134.02	-3,744.5	263.6	3,799.3	3,793.0	6.30	603.449	
2,400.0	2,394.4	2,388.1	2,387.7	5.4	1.2	134.01	-3,744.6	263.4	3,805.2	3,798.8	6.41	593.978	
2,460.6	2,453.4	2,446.1	2,445.7	5.6	1.3	134.02	-3,744.7	262.8	3,815.4	3,808.8	6.60	578.106	
2,500.0	2,491.5	2,486.5	2,486.1	5.7	1.3	134.03	-3,744.8	262.5	3,822.5	3,815.7	6.73	568.303	
2,559.0	2,548.3	2,547.7	2,547.3	5.9	1.3	134.05	-3,744.9	262.0	3,833.8	3,826.9	6.93	553.214	
2,600.0	2,587.6	2,590.0	2,589.6	6.1	1.3	134.07	-3,745.0	261.6	3,842.1	3,835.0	7.08	543.046	
2,657.5	2,642.4	2,637.2	2,636.8	6.3	1.3	134.05	-3,745.0	261.0	3,854.5	3,847.2	7.29	528.503	
2,700.0	2,682.7	2,670.1	2,669.7	6.5	1.3	134.03	-3,745.1	260.5	3,864.3	3,856.8	7.46	518.289	
2,750.0	2,729.8	2,713.9	2,713.4	6.8	1.4	134.02	-3,745.3	259.9	3,876.5	3,868.8	7.66	505.956	
2,755.9	2,735.4	2,721.3	2,720.8	6.8	1.4	134.05	-3,745.4	259.8	3,877.9	3,870.2	7.69	504.519	
2,800.0	2,776.8	2,776.6	2,776.2	7.0	1.4	134.27	-3,745.5	259.0	3,888.9	3,881.0	7.87	494.037	
2,854.3	2,827.8	2,836.5	2,836.0	7.3	1.4	134.50	-3,745.5	258.1	3,902.2	3,894.1	8.10	481.481	
2,900.0	2,870.8	2,883.1	2,882.6	7.5	1.4	134.69	-3,745.4	257.2	3,913.4	3,905.1	8.30	471.434	
2,952.7	2,920.3	2,945.4	2,944.9	7.8	1.4	134.93	-3,745.2	256.0	3,926.3	3,917.8	8.54	459.995	
3,000.0	2,964.7	3,004.8	3,004.4	8.1	1.5	135.17	-3,744.7	254.8	3,937.7	3,929.0	8.75	450.231	
3,051.2	3,012.8	3,068.7	3,068.2	8.4	1.5	135.41	-3,744.0	253.8	3,949.9	3,941.0	8.98	439.837	
3,100.0	3,058.7	3,121.1	3,120.6	8.7	1.5	135.61	-3,743.2	253.1	3,961.5	3,952.3	9.20	430.428	
3,149.6	3,105.3	3,165.1	3,164.6	9.0	1.5	135.77	-3,742.6	252.6	3,973.2	3,963.8	9.44	421.096	
3,200.0	3,152.7	3,200.0	3,199.5	9.3	1.5	135.90	-3,742.1	252.3	3,985.3	3,975.6	9.67	412.162	
3,248.0	3,197.8	3,241.8	3,241.3	9.5	1.5	136.05	-3,741.6	252.1	3,996.8	3,986.9	9.90	403.722	
3,300.0	3,246.6	3,278.6	3,278.0	9.9	1.5	136.18	-3,741.2	251.9	4,009.5	3,999.4	10.15	395.132	
3,346.4	3,290.3	3,300.0	3,299.5	10.1	1.6	136.26	-3,741.1	251.8	4,021.1	4,010.7	10.37	387.786	
3,400.0	3,340.6	3,342.8	3,342.2	10.5	1.6	136.41	-3,741.0	251.6	4,034.6	4,024.0	10.63	379.718	
3,444.9	3,382.8	3,370.2	3,369.7	10.8	1.6	136.51	-3,741.0	251.4	4,046.1	4,035.3	10.84	373.244	
3,500.0	3,434.6	3,400.0	3,399.5	11.1	1.6	136.61	-3,741.2	251.2	4,060.5	4,049.4	11.10	365.705	
3,543.3	3,475.3	3,436.7	3,436.2	11.4	1.6	136.74	-3,741.5	250.9	4,072.0	4,060.6	11.31	359.963	
3,600.0	3,528.6	3,478.5	3,478.0	11.7	1.6	136.89	-3,741.9	250.3	4,087.1	4,075.5	11.59	352.745	
3,641.7	3,567.8	3,513.0	3,512.5	12.0	1.6	137.02	-3,742.4	249.7	4,098.4	4,086.6	11.79	347.569	
3,700.0	3,622.5	3,574.0	3,573.4	12.4	1.6	137.24	-3,743.2	248.4	4,114.2	4,102.1	12.07	340.787	
3,740.1	3,660.3	3,619.7	3,619.1	12.6	1.6	137.41	-3,743.7	247.1	4,125.0	4,112.8	12.27	336.303	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
3,749.0	3,668.6	3,631.2	3,630.6	12.7	1.6	137.45	-3,743.8	246.8	4,127.4	4,115.1	12.31	335.344	
3,800.0	3,716.5	3,697.3	3,696.7	13.0	1.7	134.71	-3,744.2	244.9	4,140.7	4,128.1	12.54	330.171	
3,838.6	3,752.8	3,734.4	3,733.7	13.2	1.7	132.60	-3,744.3	243.8	4,150.2	4,137.5	12.71	326.457	
3,885.2	3,796.6	3,778.3	3,777.6	13.5	1.7	130.05	-3,744.5	242.4	4,161.4	4,148.4	12.92	322.125	
3,900.0	3,810.5	3,792.2	3,791.6	13.6	1.7	130.11	-3,744.6	242.0	4,164.8	4,151.8	12.99	320.601	
3,937.0	3,845.3	3,825.2	3,824.5	13.8	1.7	130.25	-3,744.7	241.0	4,173.4	4,160.3	13.18	316.569	
4,000.0	3,904.5	3,880.3	3,879.6	14.2	1.7	130.47	-3,744.9	239.2	4,188.3	4,174.7	13.51	309.991	
4,035.4	3,937.7	3,909.7	3,908.9	14.5	1.7	130.59	-3,745.1	238.3	4,196.6	4,182.9	13.70	306.408	
4,100.0	3,998.4	3,958.1	3,957.4	14.9	1.7	130.79	-3,745.4	236.6	4,212.1	4,198.1	14.03	300.130	
4,133.8	4,030.2	3,983.5	3,982.7	15.1	1.8	130.90	-3,745.7	235.7	4,220.3	4,206.1	14.21	296.947	
4,200.0	4,092.4	4,040.3	4,039.5	15.5	1.8	131.13	-3,746.3	233.7	4,236.5	4,221.9	14.56	291.004	
4,232.3	4,122.7	4,069.8	4,069.0	15.8	1.8	131.25	-3,746.6	232.6	4,244.4	4,229.7	14.73	288.202	
4,300.0	4,186.4	4,138.9	4,138.0	16.2	1.8	131.53	-3,747.3	230.0	4,261.1	4,246.1	15.08	282.597	
4,330.7	4,215.2	4,173.3	4,172.4	16.4	1.8	131.67	-3,747.6	228.6	4,268.7	4,253.4	15.24	280.153	
4,400.0	4,280.3	4,244.5	4,243.6	16.9	1.8	131.96	-3,748.1	225.5	4,285.7	4,270.1	15.59	274.823	
4,429.1	4,307.7	4,273.1	4,272.1	17.1	1.8	132.08	-3,748.2	224.3	4,292.8	4,277.1	15.74	272.647	
4,500.0	4,374.3	4,341.5	4,340.4	17.6	1.9	132.35	-3,748.6	221.3	4,310.2	4,294.1	16.11	267.532	
4,527.5	4,400.2	4,367.8	4,366.7	17.7	1.9	132.46	-3,748.7	220.2	4,317.0	4,300.8	16.25	265.600	
4,600.0	4,468.3	4,437.3	4,436.2	18.2	1.9	132.74	-3,749.0	217.1	4,334.9	4,318.3	16.63	260.701	
4,626.0	4,492.7	4,462.3	4,461.1	18.4	1.9	132.84	-3,749.1	216.1	4,341.4	4,324.6	16.76	258.996	
4,700.0	4,562.3	4,531.9	4,530.7	18.9	1.9	133.11	-3,749.4	213.1	4,359.7	4,342.6	17.14	254.298	
4,724.4	4,585.2	4,554.3	4,553.0	19.1	1.9	133.20	-3,749.5	212.2	4,365.8	4,348.5	17.27	252.792	
4,800.0	4,656.2	4,622.8	4,621.4	19.6	2.0	133.47	-3,749.7	209.3	4,384.7	4,367.1	17.66	248.283	
4,822.8	4,677.7	4,643.0	4,641.6	19.7	2.0	133.55	-3,749.8	208.4	4,390.5	4,372.7	17.78	246.959	
4,900.0	4,750.2	4,710.8	4,709.3	20.3	2.0	133.81	-3,750.1	205.5	4,409.9	4,391.8	18.18	242.628	
4,921.2	4,770.2	4,728.4	4,727.0	20.4	2.0	133.88	-3,750.2	204.7	4,415.3	4,397.1	18.29	241.465	
5,000.0	4,844.2	4,794.0	4,792.5	20.9	2.0	134.13	-3,750.7	201.9	4,435.5	4,416.8	18.69	237.300	
5,019.7	4,862.7	4,810.5	4,809.0	21.1	2.0	134.19	-3,750.8	201.1	4,440.6	4,421.8	18.79	236.289	
5,100.0	4,938.1	4,878.6	4,877.1	21.6	2.1	134.45	-3,751.3	198.0	4,461.4	4,442.2	19.21	232.297	
5,118.1	4,955.1	4,894.0	4,892.4	21.7	2.1	134.51	-3,751.5	197.3	4,466.2	4,446.9	19.30	231.423	
5,200.0	5,032.1	4,975.7	4,974.0	22.3	2.1	134.82	-3,752.2	193.5	4,487.6	4,467.9	19.71	227.635	
5,216.5	5,047.6	4,992.5	4,990.8	22.4	2.1	134.89	-3,752.3	192.7	4,491.9	4,472.1	19.80	226.892	
5,300.0	5,126.1	5,065.0	5,063.2	23.0	2.1	135.16	-3,752.9	189.6	4,513.8	4,493.6	20.22	223.207	
5,314.9	5,140.1	5,077.8	5,076.0	23.1	2.1	135.20	-3,753.0	189.1	4,517.8	4,497.5	20.30	222.563	
5,400.0	5,220.0	5,163.2	5,161.4	23.7	2.1	135.51	-3,753.8	186.0	4,540.3	4,519.6	20.73	219.036	
5,413.4	5,232.6	5,177.5	5,175.7	23.8	2.2	135.56	-3,754.0	185.5	4,543.8	4,523.0	20.80	218.497	
5,504.2	5,318.0	5,280.5	5,278.5	24.4	2.2	135.92	-3,754.7	182.3	4,567.7	4,546.5	21.25	214.964	
5,511.8	5,325.1	5,289.2	5,287.3	24.4	2.2	135.98	-3,754.7	182.1	4,569.7	4,548.4	21.27	214.826	
5,600.0	5,408.5	5,376.2	5,374.3	24.9	2.2	136.57	-3,755.1	179.8	4,591.7	4,570.1	21.54	213.166	
5,610.2	5,418.2	5,386.2	5,384.2	25.0	2.2	136.64	-3,755.1	179.5	4,594.1	4,572.5	21.56	213.055	
5,700.0	5,504.1	5,495.3	5,493.3	25.4	2.3	137.23	-3,755.4	177.0	4,614.1	4,592.4	21.76	212.067	
5,708.6	5,512.4	5,506.3	5,504.3	25.5	2.3	137.28	-3,755.3	176.8	4,615.9	4,594.1	21.77	211.991	
5,800.0	5,600.7	5,624.2	5,622.2	25.9	2.3	137.81	-3,754.9	174.6	4,633.5	4,611.6	21.95	211.124	
5,807.1	5,607.5	5,633.4	5,631.4	25.9	2.3	137.85	-3,754.8	174.5	4,634.8	4,612.8	21.96	211.071	
5,900.0	5,698.1	5,753.1	5,751.0	26.3	2.3	138.30	-3,753.5	172.4	4,649.8	4,627.7	22.11	210.261	
5,905.5	5,703.4	5,760.0	5,758.0	26.3	2.3	138.33	-3,753.4	172.3	4,650.6	4,628.4	22.12	210.225	
6,000.0	5,796.2	5,839.8	5,837.7	26.6	2.4	138.64	-3,752.2	170.8	4,663.1	4,640.9	22.26	209.440	
6,003.9	5,800.1	5,842.3	5,840.2	26.6	2.4	138.65	-3,752.2	170.7	4,663.6	4,641.3	22.27	209.414	
6,100.0	5,894.9	5,904.6	5,902.6	26.9	2.4	138.89	-3,751.7	169.8	4,674.6	4,652.2	22.40	208.711	
6,102.3	5,897.3	5,906.8	5,904.7	26.9	2.4	138.90	-3,751.7	169.8	4,674.8	4,652.4	22.40	208.698	
6,200.0	5,994.2	6,000.0	5,997.9	27.2	2.4	139.12	-3,751.5	168.7	4,683.8	4,661.3	22.51	208.081	
6,200.8	5,994.9	6,000.0	5,997.9	27.2	2.4	139.12	-3,751.5	168.7	4,683.9	4,661.4	22.51	208.077	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,299.2	6,093.0	6,084.8	6,082.7	27.4	2.5	139.28	-3,751.5	168.0	4,690.6	4,668.0	22.60	207.514	
6,300.0	6,093.8	6,085.5	6,083.4	27.4	2.5	139.28	-3,751.5	168.0	4,690.7	4,668.1	22.60	207.508	
6,397.6	6,191.2	6,171.2	6,169.1	27.5	2.5	139.38	-3,751.7	167.3	4,695.0	4,672.4	22.68	206.974	
6,400.0	6,193.6	6,173.2	6,171.2	27.5	2.5	139.38	-3,751.7	167.3	4,695.1	4,672.4	22.69	206.958	
6,496.0	6,289.6	6,285.6	6,283.5	27.6	2.5	139.43	-3,752.1	166.9	4,697.0	4,674.2	22.76	206.375	
6,504.1	6,297.7	6,296.1	6,294.0	27.6	2.5	-170.60	-3,752.1	166.9	4,697.0	4,674.2	22.77	206.310	
6,594.5	6,388.1	6,330.0	6,327.9	27.7	2.5	-170.60	-3,752.1	166.7	4,697.4	4,674.5	22.88	205.266	
6,600.0	6,393.6	6,330.0	6,327.9	27.7	2.5	-170.60	-3,752.1	166.7	4,697.5	4,674.6	22.89	205.205	
6,618.2	6,411.8	6,330.0	6,327.9	27.8	2.5	-170.60	-3,752.1	166.7	4,697.8	4,674.9	22.92	204.987	
6,650.0	6,443.6	6,330.0	6,327.9	27.8	2.5	9.40	-3,752.1	166.7	4,697.8	4,674.9	22.87	205.426	
6,692.9	6,486.4	6,330.0	6,327.9	27.8	2.5	9.42	-3,752.1	166.7	4,695.9	4,673.1	22.80	205.975	
6,700.0	6,493.4	6,330.0	6,327.9	27.8	2.5	9.43	-3,752.1	166.7	4,695.4	4,672.6	22.79	206.061	
6,750.0	6,542.8	6,330.0	6,327.9	27.8	2.5	9.50	-3,752.1	166.7	4,690.0	4,667.4	22.69	206.731	
6,791.3	6,583.2	6,330.0	6,327.9	27.7	2.5	9.59	-3,752.1	166.7	4,683.5	4,660.9	22.57	207.481	
6,800.0	6,591.6	6,330.0	6,327.9	27.7	2.5	9.61	-3,752.1	166.7	4,681.9	4,659.3	22.54	207.672	
6,850.0	6,639.6	6,330.0	6,327.9	27.6	2.5	9.76	-3,752.1	166.7	4,670.8	4,648.5	22.34	209.084	
6,889.7	6,676.9	6,330.0	6,327.9	27.6	2.5	9.92	-3,752.1	166.7	4,660.0	4,637.9	22.12	210.640	
6,900.0	6,686.4	6,330.0	6,327.9	27.5	2.5	9.96	-3,752.1	166.7	4,656.9	4,634.9	22.06	211.111	
6,950.0	6,731.8	6,330.0	6,327.9	27.4	2.5	10.21	-3,752.1	166.7	4,640.2	4,618.5	21.70	213.857	
6,988.2	6,765.5	6,330.0	6,327.9	27.3	2.5	10.44	-3,752.1	166.7	4,625.7	4,604.3	21.37	216.487	
7,000.0	6,775.8	6,330.0	6,327.9	27.2	2.5	10.51	-3,752.1	166.7	4,620.8	4,599.6	21.25	217.404	
7,050.0	6,817.9	6,330.0	6,327.9	27.1	2.5	10.88	-3,752.1	166.7	4,598.8	4,578.0	20.73	221.822	
7,086.6	6,847.5	6,330.0	6,327.9	26.9	2.5	11.19	-3,752.1	166.7	4,580.9	4,560.6	20.30	225.637	
7,100.0	6,858.1	6,330.0	6,327.9	26.9	2.5	11.32	-3,752.1	166.7	4,574.1	4,553.9	20.14	227.168	
7,150.0	6,896.1	6,330.0	6,327.9	26.6	2.5	11.84	-3,752.1	166.7	4,546.9	4,527.4	19.47	233.481	
7,185.0	6,921.3	6,330.0	6,327.9	26.5	2.5	12.26	-3,752.1	166.7	4,526.4	4,507.4	18.98	238.474	
7,200.0	6,931.7	6,330.0	6,327.9	26.4	2.5	12.46	-3,752.1	166.7	4,517.2	4,498.5	18.76	240.766	
7,250.0	6,964.8	6,330.0	6,327.9	26.2	2.5	13.20	-3,752.1	166.7	4,485.2	4,467.2	18.02	248.963	
7,283.4	6,985.4	6,330.0	6,327.9	26.0	2.5	13.77	-3,752.1	166.7	4,462.6	4,445.1	17.51	254.849	
7,300.0	6,995.2	6,330.0	6,327.9	25.9	2.5	14.08	-3,752.1	166.7	4,451.0	4,433.8	17.26	257.881	
7,350.0	7,022.7	6,330.0	6,327.9	25.7	2.5	15.15	-3,752.1	166.7	4,414.7	4,398.2	16.53	267.112	
7,381.9	7,038.8	6,330.0	6,327.9	25.5	2.5	15.95	-3,752.1	166.7	4,390.5	4,374.4	16.09	272.798	
7,400.0	7,047.3	6,330.0	6,327.9	25.4	2.5	16.45	-3,752.1	166.7	4,376.4	4,360.5	15.86	275.901	
7,450.0	7,068.8	6,330.0	6,327.9	25.1	2.5	18.05	-3,752.1	166.7	4,336.2	4,320.9	15.32	283.023	
7,480.3	7,080.3	6,330.0	6,327.9	25.0	2.5	19.21	-3,752.1	166.7	4,311.0	4,295.9	15.09	285.780	
7,500.0	7,087.1	6,330.0	6,327.9	24.9	2.5	20.06	-3,752.1	166.7	4,294.3	4,279.3	14.97	286.817	
7,550.0	7,102.1	6,330.0	6,327.9	24.6	2.5	22.61	-3,752.1	166.7	4,250.9	4,236.0	14.89	285.563	
7,578.7	7,109.2	6,330.0	6,327.9	24.5	2.5	24.40	-3,752.1	166.7	4,225.3	4,210.3	14.98	282.045	
7,600.0	7,113.7	6,330.0	6,327.9	24.4	2.5	25.93	-3,752.1	166.7	4,206.1	4,191.0	15.12	278.256	
7,650.0	7,121.9	6,330.0	6,327.9	24.2	2.5	30.38	-3,752.1	166.7	4,160.1	4,144.4	15.68	265.239	
7,677.1	7,125.0	6,330.0	6,327.9	24.1	2.5	33.44	-3,752.1	166.7	4,134.6	4,118.5	16.14	256.238	
7,700.0	7,126.7	6,330.0	6,327.9	24.0	2.5	36.49	-3,752.1	166.7	4,113.0	4,096.5	16.58	248.088	
7,746.5	7,128.0	6,330.0	6,327.9	23.8	2.5	44.40	-3,752.1	166.7	4,068.6	4,050.9	17.66	230.371	
7,775.6	7,127.9	6,330.0	6,327.9	23.7	2.5	44.40	-3,752.1	166.7	4,040.6	4,022.9	17.62	229.377	
7,800.0	7,127.7	6,330.0	6,327.9	23.6	2.5	44.40	-3,752.1	166.7	4,017.1	3,999.5	17.58	228.535	
7,874.0	7,127.4	6,330.0	6,327.9	23.4	2.5	44.40	-3,752.1	166.7	3,945.9	3,928.5	17.39	226.906	
7,900.0	7,127.3	6,330.0	6,327.9	23.4	2.5	44.40	-3,752.1	166.7	3,920.9	3,903.6	17.33	226.312	
7,972.4	7,127.0	6,330.0	6,327.9	23.3	2.5	44.40	-3,752.1	166.7	3,851.5	3,834.2	17.26	223.127	
8,000.0	7,126.8	6,330.0	6,327.9	23.3	2.5	44.40	-3,752.1	166.7	3,825.0	3,807.8	17.24	221.892	
8,070.8	7,126.5	6,330.0	6,327.9	23.4	2.5	44.40	-3,752.1	166.7	3,757.2	3,739.9	17.30	217.233	
8,100.0	7,126.4	6,330.0	6,327.9	23.5	2.5	44.40	-3,752.1	166.7	3,729.3	3,712.0	17.32	215.323	
8,169.3	7,126.1	6,330.0	6,327.9	23.7	2.5	44.40	-3,752.1	166.7	3,663.2	3,645.7	17.49	209.442	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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 NW NE SEC 30 T4N R67W 6th P.M. - ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,200.0	7,125.9	6,330.0	6,327.9	23.8	2.5	44.40	-3,752.1	166.7	3,633.9	3,616.3	17.57	206.866		
8,267.7	7,125.6	6,330.0	6,327.9	24.1	2.5	44.40	-3,752.1	166.7	3,569.4	3,551.6	17.84	200.093		
8,300.0	7,125.5	6,330.0	6,327.9	24.2	2.5	44.40	-3,752.1	166.7	3,538.7	3,520.7	17.97	196.934		
8,366.1	7,125.2	6,330.0	6,327.9	24.6	2.5	44.40	-3,752.1	166.7	3,475.9	3,457.5	18.33	189.639		
8,400.0	7,125.0	6,330.0	6,327.9	24.8	2.5	44.40	-3,752.1	166.7	3,443.7	3,425.2	18.51	186.015		
8,464.5	7,124.7	6,330.0	6,327.9	25.3	2.5	44.40	-3,752.1	166.7	3,382.6	3,363.7	18.95	178.539		
8,500.0	7,124.6	6,330.0	6,327.9	25.6	2.5	44.40	-3,752.1	166.7	3,349.1	3,329.9	19.18	174.584		
8,563.0	7,124.3	6,330.0	6,327.9	26.1	2.5	44.40	-3,752.1	166.7	3,289.6	3,270.0	19.67	167.205		
8,600.0	7,124.1	6,330.0	6,327.9	26.4	2.5	44.40	-3,752.1	166.7	3,254.8	3,234.8	19.96	163.046		
8,661.4	7,123.8	6,330.0	6,327.9	26.9	2.5	44.40	-3,752.1	166.7	3,197.0	3,176.5	20.50	155.967		
8,700.0	7,123.7	6,330.0	6,327.9	27.3	2.5	44.40	-3,752.1	166.7	3,160.8	3,139.9	20.83	151.713		
8,759.8	7,123.4	6,330.0	6,327.9	27.9	2.5	44.40	-3,752.1	166.7	3,104.7	3,083.3	21.40	145.060		
8,800.0	7,123.2	6,330.0	6,327.9	28.3	2.5	44.40	-3,752.1	166.7	3,067.2	3,045.4	21.78	140.799		
8,858.2	7,123.0	6,330.0	6,327.9	28.9	2.5	44.40	-3,752.1	166.7	3,012.9	2,990.5	22.38	134.642		
8,900.0	7,122.8	6,330.0	6,327.9	29.4	2.5	44.40	-3,752.1	166.7	2,974.0	2,951.2	22.80	130.437		
8,956.7	7,122.5	6,330.0	6,327.9	30.0	2.5	44.40	-3,752.1	166.7	2,921.4	2,898.0	23.41	124.802		
9,000.0	7,122.3	6,330.0	6,327.9	30.5	2.5	44.40	-3,752.1	166.7	2,881.3	2,857.4	23.87	120.698		
9,055.1	7,122.1	6,330.0	6,327.9	31.2	2.5	44.40	-3,752.1	166.7	2,830.4	2,805.9	24.49	115.582		
9,100.0	7,121.9	6,330.0	6,327.9	31.7	2.5	44.40	-3,752.1	166.7	2,789.1	2,764.1	24.99	111.609		
9,153.5	7,121.6	6,330.0	6,327.9	32.4	2.5	44.40	-3,752.1	166.7	2,739.9	2,714.3	25.61	106.989		
9,200.0	7,121.4	6,330.0	6,327.9	33.0	2.5	44.40	-3,752.1	166.7	2,697.4	2,671.3	26.15	103.164		
9,251.9	7,121.2	6,330.0	6,327.9	33.7	2.5	44.40	-3,752.1	166.7	2,650.0	2,623.3	26.77	99.009		
9,300.0	7,121.0	6,330.0	6,327.9	34.3	2.5	44.40	-3,752.1	166.7	2,606.4	2,579.0	27.34	95.343		
9,350.4	7,120.7	6,330.0	6,327.9	35.0	2.5	44.40	-3,752.1	166.7	2,560.8	2,532.8	27.95	91.616		
9,400.0	7,120.5	6,330.0	6,327.9	35.7	2.5	44.40	-3,752.1	166.7	2,516.0	2,487.4	28.55	88.111		
9,448.8	7,120.3	6,330.0	6,327.9	36.4	2.5	44.40	-3,752.1	166.7	2,472.2	2,443.0	29.16	84.775		
9,500.0	7,120.1	6,330.0	6,327.9	37.2	2.5	44.40	-3,752.1	166.7	2,426.4	2,396.6	29.80	81.431		
9,547.2	7,119.9	6,330.0	6,327.9	37.8	2.5	44.40	-3,752.1	166.7	2,384.3	2,354.0	30.39	78.449		
9,600.0	7,119.6	6,330.0	6,327.9	38.6	2.5	44.40	-3,752.1	166.7	2,337.6	2,306.6	31.06	75.263		
9,645.6	7,119.4	6,330.0	6,327.9	39.3	2.5	44.40	-3,752.1	166.7	2,297.4	2,265.7	31.64	72.601		
9,700.0	7,119.2	6,330.0	6,327.9	40.1	2.5	44.40	-3,752.1	166.7	2,249.8	2,217.4	32.34	69.568		
9,744.1	7,119.0	6,330.0	6,327.9	40.8	2.5	44.40	-3,752.1	166.7	2,211.4	2,178.5	32.91	67.194		
9,800.0	7,118.7	6,330.0	6,327.9	41.7	2.5	44.40	-3,752.1	166.7	2,163.0	2,129.4	33.63	64.309		
9,842.5	7,118.5	6,330.0	6,327.9	42.3	2.5	44.40	-3,752.1	166.7	2,126.5	2,092.3	34.19	62.194		
9,900.0	7,118.3	6,330.0	6,327.9	43.2	2.5	44.40	-3,752.1	166.7	2,077.4	2,042.5	34.94	59.451		
9,940.9	7,118.1	6,330.0	6,327.9	43.9	2.5	44.40	-3,752.1	166.7	2,042.8	2,007.3	35.48	57.569		
10,000.0	7,117.8	6,330.0	6,327.9	44.8	2.5	44.40	-3,752.1	166.7	1,993.2	1,956.9	36.26	54.963		
10,039.3	7,117.6	6,330.0	6,327.9	45.5	2.5	44.40	-3,752.1	166.7	1,960.5	1,923.7	36.79	53.291		
10,100.0	7,117.4	6,330.0	6,327.9	46.4	2.5	44.40	-3,752.1	166.7	1,910.5	1,872.9	37.59	50.818		
10,137.8	7,117.2	6,330.0	6,327.9	47.1	2.5	44.40	-3,752.1	166.7	1,879.7	1,841.6	38.10	49.334		
10,200.0	7,116.9	6,330.0	6,327.9	48.1	2.5	44.40	-3,752.1	166.7	1,829.5	1,790.6	38.93	46.989		
10,236.2	7,116.8	6,330.0	6,327.9	48.7	2.5	44.40	-3,752.1	166.7	1,800.6	1,761.2	39.42	45.675		
10,300.0	7,116.5	6,330.0	6,327.9	49.7	2.5	44.40	-3,752.1	166.7	1,750.5	1,710.2	40.28	43.455		
10,334.6	7,116.3	6,330.0	6,327.9	50.3	2.5	44.40	-3,752.1	166.7	1,723.6	1,682.9	40.75	42.296		
10,400.0	7,116.0	6,330.0	6,327.9	51.4	2.5	44.40	-3,752.1	166.7	1,673.7	1,632.0	41.64	40.197		
10,433.0	7,115.9	6,330.0	6,327.9	52.0	2.5	44.40	-3,752.1	166.7	1,648.9	1,606.8	42.09	39.177		
10,500.0	7,115.6	6,330.0	6,327.9	53.1	2.5	44.40	-3,752.1	166.7	1,599.5	1,556.5	43.00	37.199		
10,531.5	7,115.4	6,330.0	6,327.9	53.6	2.5	44.40	-3,752.1	166.7	1,576.7	1,533.3	43.43	36.306		
10,600.0	7,115.1	6,330.0	6,327.9	54.8	2.5	44.40	-3,752.1	166.7	1,528.2	1,483.8	44.37	34.446		
10,629.9	7,115.0	6,330.0	6,327.9	55.3	2.5	44.40	-3,752.1	166.7	1,507.5	1,462.8	44.78	33.669		
10,700.0	7,114.7	6,330.0	6,327.9	56.5	2.5	44.40	-3,752.1	166.7	1,460.3	1,414.6	45.74	31.929		
10,728.3	7,114.6	6,330.0	6,327.9	57.0	2.5	44.40	-3,752.1	166.7	1,441.8	1,395.6	46.13	31.256		

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - ABDN VERT MCCARTY 30-3 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
10,800.0	7,114.2	6,330.0	6,327.9	58.3	2.5	44.40	-3,752.1	166.7	1,396.3	1,349.2	47.11	29.637	
10,826.7	7,114.1	6,330.0	6,327.9	58.7	2.5	44.40	-3,752.1	166.7	1,379.9	1,332.4	47.48	29.061	
10,900.0	7,113.8	6,330.0	6,327.9	60.0	2.5	44.40	-3,752.1	166.7	1,336.7	1,288.2	48.49	27.564	
10,925.2	7,113.7	6,330.0	6,327.9	60.5	2.5	44.40	-3,752.1	166.7	1,322.5	1,273.6	48.84	27.075	
11,000.0	7,113.3	6,330.0	6,327.9	61.8	2.5	44.40	-3,752.1	166.7	1,282.1	1,232.2	49.88	25.705	
11,023.6	7,113.2	6,330.0	6,327.9	62.2	2.5	44.40	-3,752.1	166.7	1,270.1	1,219.8	50.21	25.296	
11,100.0	7,112.9	6,330.0	6,327.9	63.5	2.5	44.40	-3,752.1	166.7	1,233.3	1,182.0	51.27	24.056	
11,122.0	7,112.8	6,330.0	6,327.9	63.9	2.5	44.40	-3,752.1	166.7	1,223.3	1,171.8	51.57	23.720	
11,200.0	7,112.4	6,330.0	6,327.9	65.3	2.5	44.40	-3,752.1	166.7	1,190.8	1,138.2	52.66	22.614	
11,220.4	7,112.4	6,330.0	6,327.9	65.7	2.5	44.40	-3,752.1	166.7	1,183.0	1,130.0	52.94	22.344	
11,300.0	7,112.0	6,330.0	6,327.9	67.1	2.5	44.40	-3,752.1	166.7	1,155.5	1,101.4	54.05	21.377	
11,318.9	7,111.9	6,330.0	6,327.9	67.4	2.5	44.40	-3,752.1	166.7	1,149.7	1,095.4	54.32	21.166	
11,400.0	7,111.6	6,330.0	6,327.9	68.9	2.5	44.40	-3,752.1	166.7	1,127.9	1,072.5	55.45	20.342	
11,417.3	7,111.5	6,330.0	6,327.9	69.2	2.5	44.40	-3,752.1	166.7	1,124.0	1,068.3	55.69	20.183	
11,500.0	7,111.1	6,330.0	6,327.9	70.7	2.5	44.40	-3,752.1	166.7	1,108.8	1,051.9	56.85	19.504	
11,515.7	7,111.0	6,330.0	6,327.9	71.0	2.5	44.40	-3,752.1	166.7	1,106.5	1,049.5	57.07	19.389	
11,600.0	7,110.7	6,330.0	6,327.9	72.5	2.5	44.40	-3,752.1	166.7	1,098.4	1,040.1	58.25	18.856	
11,614.1	7,110.6	6,330.0	6,327.9	72.7	2.5	44.40	-3,752.1	166.7	1,097.7	1,039.2	58.45	18.780	
11,664.5	7,110.4	6,330.0	6,327.9	73.6	2.5	44.40	-3,752.1	166.7	1,096.5	1,037.3	59.16	18.536	CC, ES
11,700.0	7,110.2	6,330.0	6,327.9	74.3	2.5	44.40	-3,752.1	166.7	1,097.1	1,037.4	59.65	18.391	
11,712.6	7,110.2	6,330.0	6,327.9	74.5	2.5	44.40	-3,752.1	166.7	1,097.6	1,037.7	59.83	18.344	
11,747.9	7,110.0	6,330.0	6,327.9	75.1	2.5	44.40	-3,752.1	166.7	1,099.7	1,039.3	60.33	18.229	SF



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN 30-2 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
0.0	0.0	0.0	0.0	0.0	0.0	84.66	156.0	1,667.2	1,675.0				
98.4	98.4	55.7	55.7	0.1	0.0	84.66	156.0	1,667.1	1,674.4	1,674.3	0.12	N/A	
100.0	100.0	57.3	57.3	0.1	0.0	84.66	156.0	1,667.1	1,674.4	1,674.3	0.12	N/A	
170.7	170.7	126.7	126.7	0.2	0.1	84.66	156.0	1,667.1	1,674.4	1,674.1	0.30	5,505.033	
196.8	196.8	150.8	150.8	0.3	0.1	84.66	156.0	1,667.1	1,674.4	1,674.0	0.36	4,606.479	
200.0	200.0	153.7	153.7	0.3	0.1	84.66	156.0	1,667.1	1,674.4	1,674.0	0.37	4,517.749	
295.3	295.3	251.5	251.5	0.5	0.1	84.65	156.2	1,667.3	1,674.6	1,674.0	0.64	2,629.080	
300.0	300.0	256.9	256.9	0.5	0.1	84.65	156.2	1,667.3	1,674.6	1,673.9	0.65	2,564.640	
393.7	393.7	358.5	358.5	0.7	0.2	84.61	157.1	1,666.8	1,674.3	1,673.3	0.97	1,730.130	
400.0	400.0	365.1	365.1	0.8	0.2	84.61	157.2	1,666.8	1,674.2	1,673.2	0.99	1,693.308	
492.1	492.1	455.9	455.9	1.0	0.3	84.57	158.3	1,666.2	1,673.7	1,672.4	1.27	1,314.641	
500.0	500.0	463.4	463.4	1.0	0.3	84.57	158.4	1,666.1	1,673.7	1,672.4	1.30	1,291.088	
590.5	590.5	556.3	556.3	1.2	0.4	84.51	160.0	1,665.6	1,673.3	1,671.7	1.56	1,071.978	
600.0	600.0	566.5	566.5	1.2	0.4	84.51	160.1	1,665.5	1,673.2	1,671.6	1.59	1,053.419	
689.0	689.0	657.8	657.7	1.4	0.4	84.46	161.6	1,664.7	1,672.6	1,670.7	1.84	909.335	
700.0	700.0	668.8	668.7	1.4	0.5	84.45	161.7	1,664.6	1,672.5	1,670.6	1.87	894.412	
787.4	787.4	755.5	755.5	1.6	0.5	84.40	163.1	1,663.8	1,671.8	1,669.7	2.11	792.531	
800.0	800.0	768.0	768.0	1.7	0.5	84.39	163.3	1,663.7	1,671.7	1,669.6	2.14	779.811	
885.8	885.8	853.7	853.6	1.9	0.6	84.33	165.0	1,662.9	1,671.1	1,668.8	2.38	703.348	
900.0	900.0	867.9	867.8	1.9	0.6	84.32	165.3	1,662.8	1,671.0	1,668.6	2.41	692.175	
984.2	984.2	955.5	955.4	2.1	0.6	84.25	167.3	1,661.9	1,670.4	1,667.7	2.64	632.479	
1,000.0	1,000.0	972.3	972.1	2.1	0.6	84.24	167.8	1,661.7	1,670.2	1,667.6	2.68	622.438	
1,082.7	1,082.7	1,060.5	1,060.3	2.3	0.7	84.15	170.2	1,660.5	1,669.3	1,666.4	2.90	574.771	
1,100.0	1,100.0	1,079.0	1,078.9	2.3	0.7	84.13	170.8	1,660.2	1,669.1	1,666.1	2.95	565.705	
1,181.1	1,181.1	1,165.6	1,165.3	2.5	0.7	84.03	173.5	1,658.5	1,667.8	1,664.7	3.16	526.995	
1,200.0	1,200.0	1,185.7	1,185.5	2.6	0.7	84.00	174.1	1,658.1	1,667.5	1,664.3	3.21	518.725	
1,279.5	1,279.5	1,263.8	1,263.5	2.7	0.8	83.91	176.6	1,656.5	1,666.1	1,662.7	3.42	487.054	
1,300.0	1,300.0	1,283.6	1,283.3	2.8	0.8	83.89	177.3	1,656.1	1,665.8	1,662.3	3.47	479.540	
1,377.9	1,377.9	1,359.8	1,359.4	3.0	0.8	83.80	179.7	1,654.6	1,664.5	1,660.9	3.67	452.972	
1,400.0	1,400.0	1,381.4	1,381.0	3.0	0.8	83.77	180.5	1,654.2	1,664.2	1,660.5	3.73	445.983	
1,476.4	1,476.4	1,458.3	1,457.8	3.2	0.8	83.68	183.0	1,652.8	1,663.1	1,659.1	3.93	423.340	
1,500.0	1,500.0	1,482.3	1,481.8	3.2	0.8	83.65	183.9	1,652.3	1,662.7	1,658.7	3.99	416.786	
1,574.8	1,574.8	1,560.6	1,560.1	3.4	0.9	83.55	186.5	1,650.7	1,661.5	1,657.3	4.18	397.304	
1,600.0	1,600.0	1,587.2	1,586.7	3.5	0.9	83.52	187.4	1,650.1	1,661.0	1,656.8	4.25	391.132	
1,673.2	1,673.2	1,663.4	1,662.8	3.6	0.9	83.44	189.7	1,648.4	1,659.6	1,655.2	4.43	374.342	
1,700.0	1,700.0	1,691.1	1,690.5	3.7	0.9	83.41	190.4	1,647.7	1,659.0	1,654.5	4.50	368.555	
1,750.0	1,750.0	1,740.7	1,740.0	3.8	1.0	83.36	191.7	1,646.5	1,658.0	1,653.4	4.63	358.288	
1,771.6	1,771.6	1,762.0	1,761.3	3.8	1.0	41.35	192.2	1,646.0	1,657.5	1,652.8	4.69	353.636	
1,800.0	1,800.0	1,789.8	1,789.1	3.9	1.0	41.34	192.8	1,645.4	1,656.7	1,651.9	4.76	348.083	
1,870.1	1,870.0	1,857.3	1,856.6	4.1	1.0	41.37	194.4	1,643.9	1,653.7	1,648.8	4.93	335.109	
1,900.0	1,899.9	1,886.0	1,885.3	4.1	1.0	41.39	195.1	1,643.3	1,652.1	1,647.1	5.01	329.777	
1,968.5	1,968.3	1,952.8	1,952.1	4.3	1.0	41.49	196.7	1,642.0	1,647.7	1,642.5	5.18	317.928	
2,000.0	1,999.7	1,983.7	1,982.9	4.3	1.1	41.56	197.4	1,641.3	1,645.2	1,639.9	5.26	312.670	
2,066.9	2,066.3	2,049.5	2,048.6	4.5	1.1	41.73	199.0	1,640.1	1,639.2	1,633.7	5.43	301.702	
2,100.0	2,099.1	2,081.9	2,081.1	4.6	1.1	41.83	199.8	1,639.5	1,635.8	1,630.2	5.52	296.475	
2,165.3	2,163.9	2,147.1	2,146.2	4.7	1.1	42.07	201.5	1,638.2	1,628.2	1,622.5	5.69	286.175	
2,200.0	2,198.2	2,181.8	2,180.9	4.8	1.1	42.22	202.5	1,637.6	1,623.8	1,618.0	5.78	280.891	
2,263.8	2,261.0	2,246.3	2,245.4	5.0	1.2	42.54	204.2	1,636.3	1,614.8	1,608.8	5.96	271.060	
2,300.0	2,296.6	2,283.0	2,282.1	5.1	1.2	42.74	205.2	1,635.5	1,609.2	1,603.1	6.06	265.649	
2,362.2	2,357.6	2,345.2	2,344.2	5.3	1.2	43.13	206.8	1,634.2	1,598.7	1,592.5	6.24	256.185	
2,400.0	2,394.4	2,382.7	2,381.7	5.4	1.2	43.40	207.7	1,633.3	1,591.9	1,585.6	6.35	250.625	
2,460.6	2,453.4	2,443.6	2,442.6	5.6	1.2	43.87	209.2	1,632.0	1,580.2	1,573.7	6.55	241.428	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,500.0	2,491.5	2,483.2	2,482.2	5.7	1.2	44.20	210.1	1,631.0	1,572.1	1,565.5	6.67	235.654	
2,559.0	2,548.3	2,540.0	2,539.0	5.9	1.3	44.74	211.3	1,629.7	1,559.3	1,552.4	6.88	226.683	
2,600.0	2,587.6	2,578.6	2,577.6	6.1	1.3	45.14	212.1	1,628.7	1,549.9	1,542.9	7.02	220.755	
2,657.5	2,642.4	2,633.2	2,632.1	6.3	1.3	45.74	213.3	1,627.5	1,536.2	1,529.0	7.24	212.099	
2,700.0	2,682.7	2,673.6	2,672.5	6.5	1.3	46.22	214.2	1,626.5	1,525.6	1,518.2	7.41	205.875	
2,750.0	2,729.8	2,720.0	2,718.8	6.8	1.3	46.81	215.2	1,625.4	1,512.7	1,505.0	7.62	198.450	
2,755.9	2,735.4	2,725.3	2,724.1	6.8	1.3	46.86	215.3	1,625.3	1,511.1	1,503.5	7.65	197.591	
2,800.0	2,776.8	2,765.0	2,763.8	7.0	1.3	47.22	216.1	1,624.4	1,499.6	1,491.7	7.84	191.325	
2,854.3	2,827.8	2,814.3	2,813.1	7.3	1.4	47.68	217.0	1,623.4	1,485.5	1,477.4	8.08	183.783	
2,900.0	2,870.8	2,856.6	2,855.4	7.5	1.4	48.08	217.8	1,622.5	1,473.8	1,465.5	8.29	177.735	
2,952.7	2,920.3	2,905.6	2,904.4	7.8	1.4	48.55	218.6	1,621.5	1,460.3	1,451.8	8.55	170.893	
3,000.0	2,964.7	2,950.3	2,949.1	8.1	1.4	48.99	219.4	1,620.7	1,448.4	1,439.6	8.78	165.033	
3,051.2	3,012.8	2,998.7	2,997.5	8.4	1.4	49.47	220.1	1,619.7	1,435.5	1,426.5	9.04	158.851	
3,100.0	3,058.7	3,042.8	3,041.5	8.7	1.4	49.92	220.7	1,618.8	1,423.4	1,414.1	9.29	153.261	
3,149.6	3,105.3	3,087.4	3,086.1	9.0	1.5	50.39	221.1	1,618.0	1,411.2	1,401.7	9.55	147.759	
3,200.0	3,152.7	3,131.5	3,130.2	9.3	1.5	50.87	221.4	1,617.3	1,399.0	1,389.2	9.82	142.460	
3,248.0	3,197.8	3,173.2	3,171.9	9.5	1.5	51.34	221.5	1,616.7	1,387.6	1,377.6	10.09	137.593	
3,300.0	3,246.6	3,219.0	3,217.7	9.9	1.5	51.86	221.6	1,616.2	1,375.6	1,365.2	10.38	132.576	
3,346.4	3,290.3	3,261.0	3,259.7	10.1	1.5	52.34	221.7	1,615.7	1,364.9	1,354.3	10.64	128.244	
3,400.0	3,340.6	3,309.9	3,308.6	10.5	1.5	52.92	221.8	1,615.3	1,352.9	1,341.9	10.96	123.484	
3,444.9	3,382.8	3,352.3	3,351.0	10.8	1.5	53.42	221.8	1,614.9	1,342.9	1,331.7	11.23	119.620	
3,500.0	3,434.6	3,404.4	3,403.1	11.1	1.6	54.05	221.9	1,614.4	1,330.8	1,319.2	11.56	115.094	
3,543.3	3,475.3	3,445.7	3,444.4	11.4	1.6	54.55	222.0	1,614.0	1,321.4	1,309.5	11.83	111.665	
3,600.0	3,528.6	3,499.8	3,498.5	11.7	1.6	55.23	222.1	1,613.5	1,309.2	1,297.0	12.19	107.380	
3,641.7	3,567.8	3,536.5	3,535.2	12.0	1.6	55.70	222.1	1,613.1	1,300.3	1,287.9	12.46	104.399	
3,700.0	3,622.5	3,587.7	3,586.4	12.4	1.6	56.36	221.9	1,612.7	1,288.3	1,275.4	12.83	100.434	
3,740.1	3,660.3	3,622.0	3,620.6	12.6	1.6	56.81	221.8	1,612.5	1,280.2	1,267.1	13.08	97.856	
3,749.0	3,668.6	3,629.4	3,628.1	12.7	1.6	56.91	221.7	1,612.5	1,278.4	1,265.3	13.14	97.305	
3,800.0	3,716.5	3,672.2	3,670.9	13.0	1.6	54.56	221.3	1,612.4	1,268.1	1,254.7	13.45	94.314	
3,838.6	3,752.8	3,705.0	3,703.7	13.2	1.6	52.77	221.0	1,612.5	1,260.1	1,246.5	13.66	92.220	
3,885.2	3,796.6	3,747.6	3,746.3	13.5	1.6	50.64	220.5	1,612.6	1,250.1	1,236.2	13.93	89.752	
3,900.0	3,810.5	3,761.1	3,759.8	13.6	1.6	50.82	220.3	1,612.6	1,246.9	1,232.8	14.02	88.954	
3,937.0	3,845.3	3,794.9	3,793.6	13.8	1.6	51.25	220.0	1,612.8	1,238.8	1,224.6	14.25	86.941	
4,000.0	3,904.5	3,856.1	3,854.7	14.2	1.6	52.06	219.4	1,613.0	1,225.3	1,210.7	14.65	83.617	
4,035.4	3,937.7	3,890.6	3,889.3	14.5	1.6	52.52	219.1	1,613.1	1,217.8	1,202.9	14.89	81.811	
4,100.0	3,998.4	3,952.9	3,951.5	14.9	1.6	53.37	218.5	1,613.2	1,204.1	1,188.8	15.31	78.634	
4,133.8	4,030.2	3,985.4	3,984.1	15.1	1.6	53.82	218.2	1,613.2	1,197.1	1,181.5	15.54	77.028	
4,200.0	4,092.4	4,048.6	4,047.3	15.5	1.6	54.71	217.6	1,613.1	1,183.4	1,167.4	15.99	74.007	
4,232.3	4,122.7	4,079.4	4,078.1	15.8	1.6	55.15	217.3	1,613.1	1,176.8	1,160.6	16.21	72.587	
4,300.0	4,186.4	4,142.9	4,141.5	16.2	1.6	56.08	216.6	1,613.0	1,163.2	1,146.5	16.68	69.729	
4,330.7	4,215.2	4,171.4	4,170.0	16.4	1.6	56.51	216.3	1,612.9	1,157.2	1,140.3	16.90	68.483	
4,400.0	4,280.3	4,236.8	4,235.4	16.9	1.6	57.50	215.5	1,612.8	1,143.8	1,126.4	17.39	65.779	
4,429.1	4,307.7	4,264.6	4,263.2	17.1	1.6	57.92	215.2	1,612.7	1,138.2	1,120.6	17.60	64.683	
4,500.0	4,374.3	4,332.1	4,330.7	17.6	1.6	58.97	214.6	1,612.5	1,125.0	1,106.9	18.11	62.118	
4,527.5	4,400.2	4,358.2	4,356.8	17.7	1.6	59.38	214.4	1,612.4	1,119.9	1,101.6	18.31	61.158	
4,600.0	4,468.3	4,427.1	4,425.8	18.2	1.6	60.48	213.8	1,612.2	1,106.8	1,088.0	18.85	58.730	
4,626.0	4,492.7	4,452.0	4,450.6	18.4	1.6	60.88	213.7	1,612.1	1,102.2	1,083.2	19.04	57.891	
4,700.0	4,562.3	4,522.6	4,521.2	18.9	1.6	62.02	213.3	1,611.8	1,089.4	1,069.8	19.60	55.591	
4,724.4	4,585.2	4,545.8	4,544.4	19.1	1.6	62.41	213.2	1,611.7	1,085.2	1,065.4	19.78	54.860	
4,800.0	4,656.2	4,617.6	4,616.2	19.6	1.7	63.60	213.0	1,611.3	1,072.6	1,052.3	20.36	52.685	
4,822.8	4,677.7	4,639.3	4,637.9	19.7	1.7	63.97	213.0	1,611.2	1,068.9	1,048.4	20.54	52.053	
4,900.0	4,750.2	4,712.5	4,711.1	20.3	1.7	65.22	212.8	1,610.8	1,056.7	1,035.5	21.13	50.000	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,921.2	4,770.2	4,732.4	4,731.1	20.4	1.7	65.56	212.7	1,610.7	1,053.4	1,032.1	21.30	49.457	
5,000.0	4,844.2	4,806.3	4,805.0	20.9	1.7	66.86	212.6	1,610.2	1,041.6	1,019.7	21.91	47.530	
5,019.7	4,862.7	4,824.5	4,823.1	21.1	1.7	67.18	212.6	1,610.1	1,038.7	1,016.6	22.07	47.070	
5,100.0	4,938.1	4,898.7	4,897.3	21.6	1.7	68.52	212.3	1,609.7	1,027.5	1,004.8	22.69	45.274	
5,118.1	4,955.1	4,915.4	4,914.1	21.7	1.7	68.83	212.2	1,609.6	1,025.0	1,002.2	22.84	44.887	
5,200.0	5,032.1	4,991.4	4,990.0	22.3	1.7	70.23	211.9	1,609.2	1,014.5	991.0	23.48	43.214	
5,216.5	5,047.6	5,006.8	5,005.5	22.4	1.7	70.52	211.9	1,609.2	1,012.5	988.9	23.61	42.890	
5,300.0	5,126.1	5,085.8	5,084.4	23.0	1.8	72.00	211.7	1,608.8	1,002.6	978.3	24.26	41.322	
5,314.9	5,140.1	5,100.0	5,098.6	23.1	1.8	72.27	211.6	1,608.8	1,000.9	976.5	24.38	41.054	
5,400.0	5,220.0	5,181.8	5,180.4	23.7	1.8	73.84	211.5	1,608.4	991.6	966.6	25.05	39.580	
5,413.4	5,232.6	5,194.7	5,193.3	23.8	1.8	74.09	211.5	1,608.3	990.2	965.1	25.16	39.358	
5,504.2	5,318.0	5,281.7	5,280.3	24.4	1.8	75.78	211.5	1,607.7	981.1	955.2	25.88	37.915	
5,511.8	5,325.1	5,289.0	5,287.6	24.4	1.8	75.91	211.5	1,607.7	980.4	954.5	25.93	37.811	
5,600.0	5,408.5	5,373.8	5,372.4	24.9	1.8	77.36	211.6	1,606.9	972.7	946.2	26.53	36.663	
5,610.2	5,418.2	5,383.7	5,382.3	25.0	1.8	77.52	211.6	1,606.9	971.9	945.3	26.59	36.553	
5,700.0	5,504.1	5,471.9	5,470.5	25.4	1.9	78.93	211.6	1,605.8	965.5	938.4	27.10	35.632	
5,708.6	5,512.4	5,480.5	5,479.1	25.5	1.9	79.06	211.6	1,605.7	964.9	937.7	27.14	35.553	
5,800.0	5,600.7	5,569.3	5,567.9	25.9	1.9	80.35	211.5	1,604.3	959.4	931.8	27.60	34.760	
5,807.1	5,607.5	5,576.2	5,574.8	25.9	1.9	80.45	211.5	1,604.2	959.0	931.4	27.63	34.706	
5,900.0	5,698.1	5,664.7	5,663.3	26.3	1.9	81.61	211.2	1,602.6	954.6	926.6	28.05	34.037	
5,905.5	5,703.4	5,670.0	5,668.5	26.3	1.9	81.68	211.2	1,602.6	954.4	926.4	28.07	34.003	
6,000.0	5,796.2	5,759.2	5,757.8	26.6	2.0	82.72	210.6	1,601.1	951.2	922.7	28.43	33.451	
6,003.9	5,800.1	5,762.9	5,761.5	26.6	2.0	82.76	210.6	1,601.0	951.1	922.6	28.45	33.431	
6,100.0	5,894.9	5,855.2	5,853.8	26.9	2.0	83.67	209.7	1,599.7	948.9	920.1	28.77	32.985	
6,102.3	5,897.3	5,857.5	5,856.1	26.9	2.0	83.69	209.7	1,599.7	948.8	920.0	28.77	32.976	
6,200.0	5,994.2	5,953.2	5,951.7	27.2	2.0	84.45	208.9	1,598.6	947.3	918.3	29.04	32.618	
6,200.8	5,994.9	5,953.9	5,952.5	27.2	2.0	84.45	208.9	1,598.6	947.3	918.3	29.04	32.616	
6,299.2	6,093.0	6,052.0	6,050.5	27.4	2.0	85.02	208.3	1,597.8	946.4	917.1	29.27	32.334	
6,300.0	6,093.8	6,052.8	6,051.3	27.4	2.0	85.02	208.3	1,597.8	946.4	917.1	29.27	32.332	
6,397.6	6,191.2	6,151.3	6,149.8	27.5	2.1	85.37	208.0	1,597.2	945.7	916.3	29.45	32.114	
6,400.0	6,193.6	6,153.7	6,152.2	27.5	2.1	85.37	208.0	1,597.2	945.7	916.3	29.45	32.109	
6,496.0	6,289.6	6,250.5	6,249.0	27.6	2.1	85.51	207.8	1,596.6	945.2	915.7	29.59	31.950	
6,504.1	6,297.7	6,258.5	6,257.0	27.6	2.1	135.49	207.8	1,596.5	945.2	915.6	29.60	31.937	
6,594.5	6,388.1	6,349.4	6,347.9	27.7	2.1	135.52	207.6	1,595.9	944.9	915.2	29.71	31.807	
6,600.0	6,393.6	6,355.0	6,353.5	27.7	2.1	135.52	207.6	1,595.8	944.9	915.1	29.71	31.799	
6,618.2	6,411.8	6,373.3	6,371.8	27.8	2.1	135.53	207.6	1,595.7	944.8	915.0	29.74	31.771	
6,650.0	6,443.6	6,405.2	6,403.7	27.8	2.1	-44.52	207.5	1,595.4	944.1	914.4	29.77	31.714	
6,692.9	6,486.4	6,447.5	6,446.1	27.8	2.1	-44.77	207.4	1,595.0	941.7	911.9	29.78	31.622	
6,700.0	6,493.4	6,454.5	6,453.0	27.8	2.1	-44.83	207.4	1,595.0	941.1	911.3	29.78	31.602	
6,750.0	6,542.8	6,503.5	6,502.0	27.8	2.2	-45.43	207.2	1,594.5	935.7	905.9	29.74	31.460	
6,791.3	6,583.2	6,543.4	6,541.9	27.7	2.2	-46.15	207.0	1,594.2	929.4	899.7	29.66	31.329	
6,800.0	6,591.6	6,551.7	6,550.2	27.7	2.2	-46.33	206.9	1,594.1	927.9	898.2	29.65	31.298	
6,850.0	6,639.6	6,599.1	6,597.6	27.6	2.2	-47.52	206.7	1,593.6	917.8	888.3	29.49	31.126	
6,889.7	6,676.9	6,635.8	6,634.3	27.6	2.2	-48.69	206.4	1,593.3	908.3	878.9	29.30	30.994	
6,900.0	6,686.4	6,645.2	6,643.7	27.5	2.2	-49.02	206.4	1,593.3	905.6	876.3	29.25	30.957	
6,950.0	6,731.8	6,689.9	6,688.4	27.4	2.2	-50.85	206.1	1,593.0	891.4	862.5	28.94	30.803	
6,988.2	6,765.5	6,724.2	6,722.7	27.3	2.2	-52.49	206.0	1,592.8	879.4	850.8	28.64	30.702	
7,000.0	6,775.8	6,734.7	6,733.2	27.2	2.2	-53.04	206.0	1,592.8	875.5	846.9	28.54	30.671	
7,050.0	6,817.9	6,778.2	6,776.7	27.1	2.2	-55.58	205.8	1,592.5	857.9	829.8	28.06	30.572	
7,086.6	6,847.5	6,808.4	6,806.9	26.9	2.2	-57.64	205.7	1,592.3	844.2	816.5	27.65	30.527	
7,100.0	6,858.1	6,819.0	6,817.5	26.9	2.2	-58.43	205.7	1,592.2	839.0	811.5	27.50	30.513	
7,150.0	6,896.1	6,857.2	6,855.7	26.6	2.2	-61.53	205.6	1,591.9	819.1	792.2	26.85	30.500 SF	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,185.0	6,921.3	6,882.5	6,881.0	26.5	2.3	-63.84	205.5	1,591.7	804.7	778.4	26.36	30.524	
7,200.0	6,931.7	6,893.0	6,891.5	26.4	2.3	-64.86	205.5	1,591.6	798.5	772.4	26.15	30.539	
7,250.0	6,964.8	6,926.4	6,924.9	26.2	2.3	-68.36	205.3	1,591.3	777.7	752.3	25.39	30.627	
7,283.4	6,985.4	6,947.2	6,945.7	26.0	2.3	-70.75	205.2	1,591.1	763.9	739.0	24.87	30.711	
7,300.0	6,995.2	6,957.1	6,955.6	25.9	2.3	-71.93	205.2	1,591.1	757.1	732.5	24.62	30.757	
7,350.0	7,022.7	6,985.0	6,983.5	25.7	2.3	-75.46	205.1	1,590.8	737.1	713.3	23.85	30.910	
7,381.9	7,038.8	7,001.2	6,999.7	25.5	2.3	-77.64	205.0	1,590.6	724.9	701.5	23.38	31.007	
7,400.0	7,047.3	7,010.0	7,008.5	25.4	2.3	-78.84	205.0	1,590.6	718.3	695.1	23.12	31.064	
7,450.0	7,068.8	7,032.1	7,030.6	25.1	2.3	-81.97	204.9	1,590.3	701.0	678.5	22.47	31.195	
7,480.3	7,080.3	7,043.9	7,042.4	25.0	2.3	-83.70	204.8	1,590.2	691.6	669.5	22.13	31.249	
7,500.0	7,087.1	7,050.9	7,049.4	24.9	2.3	-84.73	204.8	1,590.1	685.9	664.0	21.93	31.282	
7,550.0	7,102.1	7,066.3	7,064.8	24.6	2.3	-87.03	204.8	1,590.0	673.5	652.0	21.50	31.324	
7,578.7	7,109.2	7,073.6	7,072.1	24.5	2.3	-88.12	204.7	1,589.9	667.7	646.4	21.31	31.327	
7,600.0	7,113.7	7,078.3	7,076.8	24.4	2.3	-88.81	204.7	1,589.8	664.1	642.9	21.19	31.337	
7,650.0	7,121.9	7,086.8	7,085.3	24.2	2.3	-90.03	204.7	1,589.7	658.1	637.1	20.99	31.351	
7,677.1	7,125.0	7,089.9	7,088.4	24.1	2.3	-90.44	204.7	1,589.7	656.5	635.5	20.93	31.362	
7,700.0	7,126.7	7,091.8	7,090.3	24.0	2.3	-90.64	204.7	1,589.7	655.9	635.0	20.89	31.396	
7,704.5	7,127.0	7,092.1	7,090.6	24.0	2.3	-90.67	204.7	1,589.7	655.9	635.0	20.89	31.400 CC, ES	
7,746.5	7,128.0	7,093.3	7,091.8	23.8	2.3	-90.66	204.7	1,589.7	657.2	636.4	20.87	31.486	
7,775.6	7,127.9	7,093.2	7,091.7	23.7	2.3	-90.66	204.7	1,589.7	659.7	638.9	20.80	31.718	
7,800.0	7,127.7	7,093.2	7,091.7	23.6	2.3	-90.66	204.7	1,589.7	662.8	642.1	20.74	31.962	
7,874.0	7,127.4	7,093.1	7,091.6	23.4	2.3	-90.65	204.7	1,589.7	677.5	657.1	20.43	33.154	
7,900.0	7,127.3	7,093.1	7,091.6	23.4	2.3	-90.65	204.7	1,589.7	684.5	664.2	20.33	33.672	
7,972.4	7,127.0	7,093.0	7,091.5	23.3	2.3	-90.64	204.7	1,589.7	708.6	688.4	20.18	35.124	
8,000.0	7,126.8	7,092.9	7,091.4	23.3	2.3	-90.63	204.7	1,589.7	719.5	699.4	20.12	35.767	
8,070.8	7,126.5	7,092.9	7,091.4	23.4	2.3	-90.63	204.7	1,589.7	751.4	731.3	20.11	37.361	
8,100.0	7,126.4	7,092.8	7,091.3	23.5	2.3	-90.62	204.7	1,589.7	766.1	746.0	20.11	38.092	
8,169.3	7,126.1	7,092.7	7,091.2	23.7	2.3	-90.62	204.7	1,589.7	804.1	783.8	20.25	39.707	
8,200.0	7,125.9	7,092.7	7,091.2	23.8	2.3	-90.61	204.7	1,589.7	822.2	801.9	20.31	40.480	
8,267.7	7,125.6	7,092.6	7,091.1	24.1	2.3	-90.61	204.7	1,589.7	864.7	844.2	20.58	42.013	
8,300.0	7,125.5	7,092.6	7,091.1	24.2	2.3	-90.60	204.7	1,589.7	886.1	865.4	20.71	42.784	
8,366.1	7,125.2	7,092.5	7,091.0	24.6	2.3	-90.59	204.7	1,589.7	931.9	910.8	21.10	44.166	
8,400.0	7,125.0	7,092.4	7,090.9	24.8	2.3	-90.59	204.7	1,589.7	956.3	935.0	21.30	44.897	
8,464.5	7,124.7	7,092.4	7,090.9	25.3	2.3	-90.58	204.7	1,589.7	1,004.2	982.4	21.79	46.092	
8,500.0	7,124.6	7,092.3	7,090.8	25.6	2.3	-90.58	204.7	1,589.7	1,031.3	1,009.3	22.06	46.760	
8,563.0	7,124.3	7,092.2	7,090.7	26.1	2.3	-90.57	204.7	1,589.7	1,080.7	1,058.0	22.63	47.759	
8,600.0	7,124.1	7,092.2	7,090.7	26.4	2.3	-90.57	204.7	1,589.7	1,110.3	1,087.3	22.96	48.351	
8,661.4	7,123.8	7,092.1	7,090.6	26.9	2.3	-90.56	204.7	1,589.7	1,160.4	1,136.8	23.60	49.165	
8,700.0	7,123.7	7,092.1	7,090.6	27.3	2.3	-90.56	204.7	1,589.7	1,192.5	1,168.5	24.00	49.677	
8,759.8	7,123.4	7,092.0	7,090.5	27.9	2.3	-90.55	204.7	1,589.7	1,242.9	1,218.2	24.70	50.328	
8,800.0	7,123.2	7,092.0	7,090.5	28.3	2.3	-90.55	204.7	1,589.7	1,277.2	1,252.0	25.16	50.763	
8,858.2	7,123.0	7,091.9	7,090.4	28.9	2.3	-90.54	204.7	1,589.7	1,327.5	1,301.6	25.89	51.275	
8,900.0	7,122.8	7,091.8	7,090.3	29.4	2.3	-90.54	204.7	1,589.7	1,363.9	1,337.5	26.41	51.640	
8,956.7	7,122.5	7,091.8	7,090.3	30.0	2.3	-90.53	204.7	1,589.7	1,413.9	1,386.7	27.17	52.039	
9,000.0	7,122.3	7,091.7	7,090.2	30.5	2.3	-90.53	204.7	1,589.7	1,452.4	1,424.7	27.75	52.342	
9,055.1	7,122.1	7,091.7	7,090.1	31.2	2.3	-90.52	204.7	1,589.7	1,501.8	1,473.3	28.52	52.649	
9,100.0	7,121.9	7,091.6	7,090.1	31.7	2.3	-90.52	204.7	1,589.7	1,542.3	1,513.1	29.16	52.898	
9,153.5	7,121.6	7,091.5	7,090.0	32.4	2.3	-90.51	204.7	1,589.7	1,590.9	1,561.0	29.94	53.133	
9,200.0	7,121.4	7,091.5	7,090.0	33.0	2.3	-90.51	204.7	1,589.7	1,633.4	1,602.7	30.62	53.336	
9,251.9	7,121.2	7,091.4	7,089.9	33.7	2.3	-90.50	204.7	1,589.7	1,681.1	1,649.6	31.41	53.515	
9,300.0	7,121.0	7,091.4	7,089.9	34.3	2.3	-90.50	204.7	1,589.7	1,725.4	1,693.3	32.14	53.679	
9,350.4	7,120.7	7,091.3	7,089.8	35.0	2.3	-90.49	204.7	1,589.7	1,772.1	1,739.2	32.93	53.813	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN 30-2 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
9,400.0	7,120.5	7,091.2	7,089.7	35.7	2.3	-90.49	204.7	1,589.7	1,818.3	1,784.6	33.71	53.945	
9,448.8	7,120.3	7,091.2	7,089.7	36.4	2.3	-90.48	204.7	1,589.7	1,863.9	1,829.4	34.49	54.045	
9,500.0	7,120.1	7,091.1	7,089.6	37.2	2.3	-90.48	204.7	1,589.7	1,911.9	1,876.6	35.31	54.150	
9,547.2	7,119.9	7,091.1	7,089.6	37.8	2.3	-90.47	204.7	1,589.7	1,956.3	1,920.2	36.08	54.224	
9,600.0	7,119.6	7,091.0	7,089.5	38.6	2.3	-90.47	204.7	1,589.7	2,006.1	1,969.2	36.94	54.306	
9,645.6	7,119.4	7,091.0	7,089.4	39.3	2.3	-90.46	204.7	1,589.7	2,049.3	2,011.6	37.70	54.359	
9,700.0	7,119.2	7,090.9	7,089.4	40.1	2.3	-90.46	204.7	1,589.7	2,100.9	2,062.3	38.60	54.423	
9,744.1	7,119.0	7,090.8	7,089.3	40.8	2.3	-90.45	204.7	1,589.7	2,142.8	2,103.5	39.35	54.461	
9,800.0	7,118.7	7,090.8	7,089.3	41.7	2.3	-90.45	204.7	1,589.7	2,196.1	2,155.8	40.29	54.509	
9,842.5	7,118.5	7,090.7	7,089.2	42.3	2.3	-90.44	204.7	1,589.7	2,236.7	2,195.7	41.01	54.534	
9,900.0	7,118.3	7,090.7	7,089.2	43.2	2.3	-90.44	204.7	1,589.7	2,291.7	2,249.7	42.00	54.570	
9,940.9	7,118.1	7,090.6	7,089.1	43.9	2.3	-90.43	204.7	1,589.7	2,331.0	2,288.3	42.70	54.586	
10,000.0	7,117.8	7,090.5	7,089.0	44.8	2.3	-90.43	204.7	1,589.7	2,387.7	2,344.0	43.72	54.611	
10,039.3	7,117.6	7,090.5	7,089.0	45.5	2.3	-90.42	204.7	1,589.7	2,425.6	2,381.2	44.41	54.620	
10,100.0	7,117.4	7,090.4	7,088.9	46.4	2.3	-90.42	204.7	1,589.7	2,484.0	2,438.6	45.47	54.636	
10,137.8	7,117.2	7,090.4	7,088.9	47.1	2.3	-90.42	204.7	1,589.7	2,520.5	2,474.4	46.13	54.640	
10,200.0	7,116.9	7,090.3	7,088.8	48.1	2.3	-90.41	204.7	1,589.7	2,580.6	2,533.4	47.22	54.648	
10,236.2	7,116.8	7,090.3	7,088.8	48.7	2.3	-90.41	204.7	1,589.7	2,615.6	2,567.8	47.86	54.648	
10,300.0	7,116.5	7,090.2	7,088.7	49.7	2.3	-90.40	204.7	1,589.7	2,677.5	2,628.5	48.99	54.650	
10,334.6	7,116.3	7,090.2	7,088.7	50.3	2.3	-90.40	204.7	1,589.7	2,711.0	2,661.4	49.61	54.648	
10,400.0	7,116.0	7,090.1	7,088.6	51.4	2.3	-90.39	204.7	1,589.7	2,774.5	2,723.7	50.77	54.644	
10,433.0	7,115.9	7,090.0	7,088.5	52.0	2.3	-90.39	204.7	1,589.7	2,806.6	2,755.3	51.37	54.640	
10,500.0	7,115.6	7,090.0	7,088.5	53.1	2.3	-90.38	204.7	1,589.7	2,871.8	2,819.2	52.57	54.632	
10,531.5	7,115.4	7,089.9	7,088.4	53.6	2.3	-90.38	204.7	1,589.7	2,902.4	2,849.3	53.13	54.626	
10,600.0	7,115.1	7,089.9	7,088.4	54.8	2.3	-90.37	204.7	1,589.7	2,969.2	2,914.9	54.37	54.614	
10,629.9	7,115.0	7,089.8	7,088.3	55.3	2.3	-90.37	204.7	1,589.7	2,998.4	2,943.5	54.91	54.607	
10,700.0	7,114.7	7,089.7	7,088.2	56.5	2.3	-90.36	204.7	1,589.7	3,066.8	3,010.7	56.18	54.593	
10,728.3	7,114.6	7,089.7	7,088.2	57.0	2.3	-90.36	204.7	1,589.7	3,094.5	3,037.8	56.69	54.585	
10,800.0	7,114.2	7,089.6	7,088.1	58.3	2.3	-90.35	204.7	1,589.7	3,164.6	3,106.6	57.99	54.568	
10,826.7	7,114.1	7,089.6	7,088.1	58.7	2.3	-90.35	204.7	1,589.7	3,190.8	3,132.3	58.48	54.561	
10,900.0	7,113.8	7,089.5	7,088.0	60.0	2.3	-90.34	204.7	1,589.7	3,262.5	3,202.7	59.82	54.541	
10,925.2	7,113.7	7,089.5	7,088.0	60.5	2.3	-90.34	204.7	1,589.7	3,287.2	3,226.9	60.28	54.534	
11,000.0	7,113.3	7,089.4	7,087.9	61.8	2.3	-90.34	204.7	1,589.7	3,360.5	3,298.9	61.65	54.512	
11,023.6	7,113.2	7,089.4	7,087.9	62.2	2.3	-90.33	204.7	1,589.7	3,383.7	3,321.6	62.08	54.505	
11,100.0	7,112.9	7,089.3	7,087.8	63.5	2.3	-90.33	204.7	1,589.7	3,458.6	3,395.2	63.48	54.482	
11,122.0	7,112.8	7,089.3	7,087.8	63.9	2.3	-90.32	204.7	1,589.7	3,480.3	3,416.4	63.89	54.475	
11,200.0	7,112.4	7,089.2	7,087.7	65.3	2.3	-90.32	204.7	1,589.7	3,556.9	3,491.6	65.32	54.451	
11,220.4	7,112.4	7,089.2	7,087.7	65.7	2.3	-90.32	204.7	1,589.7	3,577.0	3,511.3	65.70	54.444	
11,300.0	7,112.0	7,089.1	7,087.6	67.1	2.3	-90.31	204.7	1,589.7	3,655.2	3,588.0	67.17	54.419	
11,318.9	7,111.9	7,089.1	7,087.6	67.4	2.3	-90.31	204.7	1,589.7	3,673.8	3,606.3	67.52	54.413	
11,400.0	7,111.6	7,089.0	7,087.5	68.9	2.3	-90.30	204.7	1,589.7	3,753.6	3,684.6	69.02	54.387	
11,417.3	7,111.5	7,088.9	7,087.4	69.2	2.3	-90.30	204.7	1,589.7	3,770.7	3,701.3	69.34	54.381	
11,500.0	7,111.1	7,088.9	7,087.4	70.7	2.3	-90.29	204.7	1,589.7	3,852.1	3,781.3	70.87	54.355	
11,515.7	7,111.0	7,088.8	7,087.3	71.0	2.3	-90.29	204.7	1,589.7	3,867.6	3,796.5	71.16	54.349	
11,600.0	7,110.7	7,088.7	7,087.2	72.5	2.3	-90.28	204.7	1,589.7	3,950.7	3,878.0	72.73	54.322	
11,614.1	7,110.6	7,088.7	7,087.2	72.7	2.3	-90.28	204.7	1,589.7	3,964.7	3,891.7	72.99	54.318	
11,700.0	7,110.2	7,088.6	7,087.1	74.3	2.3	-90.27	204.7	1,589.7	4,049.4	3,974.8	74.59	54.290	
11,712.6	7,110.2	7,088.6	7,087.1	74.5	2.3	-90.27	204.7	1,589.7	4,061.8	3,986.9	74.82	54.286	
11,747.9	7,110.0	7,088.6	7,087.1	75.1	2.3	-90.27	204.7	1,589.7	4,096.6	4,021.1	75.48	54.275	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	47.80	408.0	450.0	608.1				
98.4	98.4	76.8	76.8	0.1	0.0	47.82	407.5	449.8	607.0	606.9	0.13	4,684.910	
100.0	100.0	78.6	78.6	0.1	0.0	47.82	407.5	449.8	607.0	606.9	0.13	4,586.133	
196.8	196.8	179.2	179.2	0.3	0.2	47.90	405.8	449.1	605.4	604.9	0.49	1,232.411	
200.0	200.0	182.4	182.4	0.3	0.2	47.90	405.7	449.1	605.3	604.8	0.50	1,202.130	
295.3	295.3	281.8	281.8	0.5	0.3	47.99	403.6	448.1	603.2	602.4	0.82	734.668	
300.0	300.0	286.8	286.7	0.5	0.3	48.00	403.4	448.0	603.1	602.3	0.84	721.217	
393.7	393.7	383.7	383.6	0.7	0.4	48.12	400.6	446.8	600.4	599.3	1.12	535.498	
400.0	400.0	390.2	390.1	0.8	0.4	48.13	400.4	446.7	600.2	599.0	1.14	526.400	
492.1	492.1	481.6	481.4	1.0	0.4	48.29	397.2	445.7	597.3	595.9	1.41	424.725	
500.0	500.0	489.4	489.2	1.0	0.4	48.31	396.9	445.6	597.0	595.6	1.43	417.829	
590.5	590.5	580.2	579.9	1.2	0.5	48.50	393.6	444.8	594.3	592.6	1.68	352.730	
600.0	600.0	589.7	589.4	1.2	0.5	48.51	393.3	444.7	594.0	592.3	1.71	347.068	
689.0	689.0	678.0	677.7	1.4	0.5	48.69	390.1	443.9	591.2	589.3	1.96	301.898	
700.0	700.0	689.0	688.7	1.4	0.6	48.72	389.7	443.9	590.9	588.9	1.99	297.095	
787.4	787.4	775.0	774.7	1.6	0.6	48.90	386.7	443.2	588.4	586.2	2.23	264.043	
800.0	800.0	787.4	787.0	1.7	0.6	48.92	386.3	443.1	588.1	585.8	2.26	259.869	
885.8	885.8	872.7	872.3	1.9	0.6	49.08	383.6	442.4	585.8	583.3	2.50	234.638	
900.0	900.0	886.8	886.4	1.9	0.7	49.10	383.1	442.3	585.4	582.9	2.53	230.924	
984.2	984.2	970.5	970.0	2.1	0.7	49.25	380.6	441.7	583.2	580.4	2.76	211.070	
1,000.0	1,000.0	986.1	985.6	2.1	0.7	49.28	380.1	441.5	582.8	580.0	2.81	207.722	
1,082.7	1,082.7	1,068.7	1,068.2	2.3	0.7	49.42	377.7	440.9	580.7	577.7	3.03	191.739	
1,100.0	1,100.0	1,086.0	1,085.5	2.3	0.7	49.45	377.1	440.8	580.3	577.2	3.08	188.685	
1,181.1	1,181.1	1,166.5	1,165.9	2.5	0.8	49.58	374.8	440.2	578.3	575.0	3.29	175.616	
1,200.0	1,200.0	1,185.2	1,184.6	2.6	0.8	49.61	374.3	440.0	577.9	574.5	3.34	172.822	
1,279.5	1,279.5	1,262.4	1,261.8	2.7	0.8	49.72	372.4	439.5	576.1	572.6	3.56	162.057	
1,300.0	1,300.0	1,282.1	1,281.5	2.8	0.8	49.75	372.0	439.4	575.8	572.1	3.61	159.510	
1,377.9	1,377.9	1,359.3	1,358.6	3.0	0.9	49.83	370.5	438.8	574.4	570.6	3.82	150.522	
1,400.0	1,400.0	1,381.2	1,380.6	3.0	0.9	49.84	370.1	438.7	574.0	570.2	3.87	148.156	
1,476.4	1,476.4	1,457.8	1,457.2	3.2	0.9	49.88	369.0	437.9	572.8	568.7	4.08	140.509	
1,500.0	1,500.0	1,481.5	1,480.9	3.2	0.9	49.89	368.7	437.7	572.3	568.2	4.14	138.294	
1,574.8	1,574.8	1,556.7	1,556.1	3.4	0.9	49.90	367.7	436.7	571.0	566.7	4.33	131.760	
1,600.0	1,600.0	1,582.0	1,581.4	3.5	0.9	49.90	367.5	436.4	570.6	566.2	4.40	129.693	
1,673.2	1,673.2	1,655.7	1,655.0	3.6	1.0	49.86	366.8	435.1	569.2	564.6	4.59	124.090	
1,700.0	1,700.0	1,682.6	1,681.9	3.7	1.0	49.84	366.7	434.6	568.7	564.0	4.66	122.159	
1,750.0	1,750.0	1,732.7	1,732.0	3.8	1.0	49.79	366.5	433.5	567.7	563.0	4.78	118.739	
1,771.6	1,771.6	1,754.3	1,753.6	3.8	1.0	7.76	366.4	432.9	567.2	562.4	4.82	117.571	
1,800.0	1,800.0	1,782.6	1,781.9	3.9	1.0	7.72	366.4	432.2	566.3	561.4	4.90	115.612	
1,870.1	1,870.0	1,852.0	1,851.3	4.1	1.0	7.64	366.5	430.5	563.0	557.9	5.08	110.847	
1,900.0	1,899.9	1,881.6	1,880.9	4.1	1.0	7.61	366.5	429.7	561.0	555.9	5.16	108.824	
1,968.5	1,968.3	1,948.8	1,948.0	4.3	1.1	7.57	366.7	428.1	555.5	550.2	5.33	104.208	
2,000.0	1,999.7	1,979.6	1,978.8	4.3	1.1	7.56	366.7	427.5	552.5	547.1	5.41	102.103	
2,066.9	2,066.3	2,045.1	2,044.4	4.5	1.1	7.57	366.8	426.2	545.0	539.4	5.58	97.615	
2,100.0	2,099.1	2,077.5	2,076.8	4.6	1.1	7.60	366.8	425.7	540.8	535.1	5.67	95.433	
2,165.3	2,163.9	2,142.0	2,141.2	4.7	1.1	7.67	366.9	424.6	531.4	525.6	5.84	91.060	
2,200.0	2,198.2	2,176.2	2,175.4	4.8	1.1	7.72	366.9	424.1	525.8	519.9	5.92	88.762	
2,263.8	2,261.0	2,239.4	2,238.6	5.0	1.1	7.82	367.0	423.0	514.5	508.4	6.09	84.457	
2,300.0	2,296.6	2,275.3	2,274.5	5.1	1.2	7.90	367.0	422.4	507.4	501.2	6.18	82.036	
2,362.2	2,357.6	2,336.5	2,335.7	5.3	1.2	8.08	366.8	421.4	494.1	487.7	6.35	77.795	
2,400.0	2,394.4	2,373.5	2,372.7	5.4	1.2	8.20	366.7	420.7	485.4	478.9	6.45	75.249	
2,460.6	2,453.4	2,432.3	2,431.5	5.6	1.2	8.43	366.6	419.7	470.4	463.7	6.62	71.094	
2,500.0	2,491.5	2,470.3	2,469.5	5.7	1.2	8.60	366.5	419.0	460.0	453.2	6.72	68.451	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,548.3	2,527.1	2,526.2	5.9	1.2	8.89	366.3	418.1	443.4	436.5	6.88	64.416	
2,600.0	2,587.6	2,566.4	2,565.5	6.1	1.3	9.13	366.2	417.4	431.2	424.2	6.99	61.652	
2,657.5	2,642.4	2,621.1	2,620.2	6.3	1.3	9.50	366.0	416.3	413.2	406.0	7.16	57.728	
2,700.0	2,682.7	2,661.2	2,660.4	6.5	1.3	9.82	365.8	415.6	399.1	391.8	7.28	54.850	
2,750.0	2,729.8	2,708.4	2,707.5	6.8	1.3	10.24	365.7	414.7	381.8	374.4	7.42	51.450	
2,755.9	2,735.4	2,714.1	2,713.2	6.8	1.3	10.29	365.7	414.6	379.8	372.3	7.44	51.044	
2,800.0	2,776.8	2,756.5	2,755.6	7.0	1.3	10.66	365.4	413.7	364.1	356.5	7.58	48.063	
2,854.3	2,827.8	2,808.3	2,807.4	7.3	1.3	11.16	365.1	412.5	344.6	336.9	7.75	44.481	
2,900.0	2,870.8	2,851.0	2,850.1	7.5	1.3	11.62	364.7	411.4	328.2	320.3	7.89	41.587	
2,952.7	2,920.3	2,900.3	2,899.4	7.8	1.4	12.20	364.3	410.1	309.2	301.1	8.07	38.338	
3,000.0	2,964.7	2,944.6	2,943.7	8.1	1.4	12.79	363.9	408.9	292.2	284.0	8.22	35.547	
3,051.2	3,012.8	2,992.6	2,991.7	8.4	1.4	13.50	363.5	407.5	273.8	265.4	8.40	32.607	
3,100.0	3,058.7	3,038.4	3,037.4	8.7	1.4	14.28	363.1	406.2	256.1	247.6	8.57	29.905	
3,149.6	3,105.3	3,084.8	3,083.8	9.0	1.4	15.19	362.6	404.8	238.2	229.5	8.75	27.237	
3,200.0	3,152.7	3,132.0	3,130.9	9.3	1.4	16.27	362.1	403.4	220.1	211.1	8.94	24.623	
3,248.0	3,197.8	3,176.9	3,175.8	9.5	1.5	17.47	361.5	401.9	202.7	193.6	9.13	22.204	
3,300.0	3,246.6	3,225.7	3,224.6	9.9	1.5	19.02	360.9	400.2	184.0	174.6	9.35	19.674	
3,346.4	3,290.3	3,269.5	3,268.3	10.1	1.5	20.67	360.4	398.5	167.2	157.6	9.57	17.472	
3,400.0	3,340.6	3,319.3	3,318.1	10.5	1.5	22.98	359.7	396.4	147.8	137.9	9.84	15.018	
3,444.9	3,382.8	3,360.5	3,359.3	10.8	1.5	25.45	359.1	394.7	131.8	121.7	10.10	13.048	
3,500.0	3,434.6	3,411.1	3,409.9	11.1	1.5	29.49	358.3	392.9	112.8	102.3	10.49	10.751	
3,543.3	3,475.3	3,451.0	3,449.7	11.4	1.6	33.75	357.6	391.5	98.4	87.5	10.87	9.054	
3,600.0	3,528.6	3,503.3	3,502.0	11.7	1.6	41.48	356.6	390.0	80.8	69.3	11.51	7.020	
3,641.7	3,567.8	3,541.9	3,540.6	12.0	1.6	49.38	356.0	388.9	69.3	57.2	12.13	5.712	
3,700.0	3,622.5	3,595.9	3,594.6	12.4	1.6	64.76	355.2	387.6	56.6	43.4	13.15	4.301	
3,740.1	3,660.3	3,633.3	3,631.9	12.6	1.6	78.61	354.7	386.8	51.3	37.5	13.79	3.720	
3,749.0	3,668.6	3,641.5	3,640.2	12.7	1.6	81.94	354.6	386.6	50.6	36.7	13.90	3.643	
3,776.8	3,694.7	3,667.4	3,666.0	12.9	1.6	91.20	354.2	386.0	49.7	35.6	14.12	3.524 CC, ES, SF	
3,800.0	3,716.5	3,689.0	3,687.6	13.0	1.6	98.98	354.0	385.5	50.4	36.2	14.15	3.559	
3,838.6	3,752.8	3,725.0	3,723.5	13.2	1.6	110.95	353.5	384.6	54.0	40.1	13.95	3.872	
3,885.2	3,796.6	3,768.3	3,766.9	13.5	1.7	122.70	352.9	383.6	62.0	48.5	13.47	4.599	
3,900.0	3,810.5	3,782.1	3,780.7	13.6	1.7	126.58	352.7	383.3	65.1	51.8	13.32	4.890	
3,937.0	3,845.3	3,816.5	3,815.1	13.8	1.7	134.83	352.3	382.4	74.2	61.2	12.99	5.716	
4,000.0	3,904.5	3,875.1	3,873.6	14.2	1.7	144.99	351.5	381.0	92.3	79.7	12.61	7.322	
4,035.4	3,937.7	3,908.1	3,906.6	14.5	1.7	149.15	351.1	380.2	103.4	90.9	12.49	8.274	
4,100.0	3,998.4	3,968.4	3,966.9	14.9	1.7	154.84	350.4	378.7	124.4	112.0	12.41	10.024	
4,133.8	4,030.2	4,000.0	3,998.5	15.1	1.7	157.12	350.0	378.0	135.7	123.3	12.42	10.930	
4,200.0	4,092.4	4,062.4	4,060.9	15.5	1.8	160.62	349.4	376.8	158.1	145.7	12.49	12.659	
4,232.3	4,122.7	4,092.9	4,091.4	15.8	1.8	161.98	349.2	376.3	169.1	156.6	12.55	13.474	
4,300.0	4,186.4	4,156.4	4,154.9	16.2	1.8	164.31	348.9	375.3	192.2	179.5	12.70	15.135	
4,330.7	4,215.2	4,185.2	4,183.7	16.4	1.8	165.20	348.7	374.9	202.8	190.0	12.78	15.867	
4,400.0	4,280.3	4,250.3	4,248.8	16.9	1.8	166.94	348.6	373.8	226.7	213.7	12.97	17.477	
4,429.1	4,307.7	4,277.7	4,276.2	17.1	1.8	167.57	348.5	373.4	236.7	223.6	13.05	18.132	
4,500.0	4,374.3	4,344.4	4,342.8	17.6	1.9	168.90	348.5	372.3	261.2	247.9	13.27	19.683	
4,527.5	4,400.2	4,370.3	4,368.7	17.7	1.9	169.35	348.5	371.9	270.7	257.3	13.35	20.269	
4,600.0	4,468.3	4,438.7	4,437.1	18.2	1.9	170.42	348.6	370.9	295.7	282.1	13.58	21.767	
4,626.0	4,492.7	4,463.3	4,461.7	18.4	1.9	170.77	348.7	370.6	304.6	291.0	13.67	22.288	
4,700.0	4,562.3	4,533.3	4,531.7	18.9	1.9	171.65	349.1	369.6	330.0	316.1	13.91	23.729	
4,724.4	4,585.2	4,556.2	4,554.7	19.1	1.9	171.91	349.2	369.3	338.4	324.4	13.99	24.190	
4,800.0	4,656.2	4,627.8	4,626.2	19.6	1.9	172.66	349.7	368.4	364.4	350.1	14.24	25.585	
4,822.8	4,677.7	4,649.6	4,648.0	19.7	1.9	172.87	349.9	368.1	372.2	357.8	14.32	25.993	
4,900.0	4,750.2	4,723.0	4,721.4	20.3	1.9	173.50	350.5	367.4	398.4	383.8	14.58	27.331	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN 30-31 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
4,921.2	4,770.2	4,742.8	4,741.2	20.4	2.0	173.65	350.7	367.2	405.6	391.0	14.65	27.690	
5,000.0	4,844.2	4,816.6	4,815.0	20.9	2.0	174.18	351.4	366.5	432.4	417.5	14.92	28.991	
5,019.7	4,862.7	4,835.1	4,833.5	21.1	2.0	174.31	351.6	366.3	439.1	424.2	14.98	29.307	
5,100.0	4,938.1	4,910.9	4,909.3	21.6	2.0	174.76	352.2	365.6	466.5	451.2	15.26	30.568	
5,118.1	4,955.1	4,927.8	4,926.2	21.7	2.0	174.85	352.3	365.5	472.7	457.3	15.32	30.845	
5,200.0	5,032.1	5,004.6	5,003.0	22.3	2.0	175.24	352.9	364.9	500.6	485.0	15.61	32.071	
5,216.5	5,047.6	5,020.0	5,018.3	22.4	2.0	175.31	353.0	364.8	506.2	490.5	15.67	32.312	
5,300.0	5,126.1	5,097.5	5,095.9	23.0	2.0	175.64	353.4	364.3	534.8	518.8	15.96	33.506	
5,314.9	5,140.1	5,111.5	5,109.8	23.1	2.0	175.69	353.5	364.2	539.9	523.9	16.01	33.715	
5,400.0	5,220.0	5,191.0	5,189.4	23.7	2.0	175.97	353.8	363.6	569.2	552.8	16.32	34.878	
5,413.4	5,232.6	5,203.5	5,201.8	23.8	2.0	176.02	353.8	363.5	573.8	557.4	16.37	35.057	
5,504.2	5,318.0	5,288.1	5,286.5	24.4	2.1	176.28	354.1	362.9	605.1	588.4	16.69	36.244	
5,511.8	5,325.1	5,295.2	5,293.5	24.4	2.1	176.30	354.1	362.8	607.7	591.0	16.72	36.354	
5,600.0	5,408.5	5,376.8	5,375.2	24.9	2.1	176.56	354.1	362.1	636.7	619.8	16.96	37.543	
5,610.2	5,418.2	5,386.3	5,384.7	25.0	2.1	176.58	354.1	362.0	640.0	623.0	16.98	37.679	
5,700.0	5,504.1	5,470.4	5,468.8	25.4	2.1	176.78	354.0	361.2	666.8	649.7	17.20	38.781	
5,708.6	5,512.4	5,478.6	5,477.0	25.5	2.1	176.80	353.9	361.2	669.3	652.1	17.21	38.882	
5,800.0	5,600.7	5,563.1	5,561.5	25.9	2.2	176.95	353.4	360.3	694.0	676.5	17.41	39.869	
5,807.1	5,607.5	5,569.7	5,568.0	25.9	2.2	176.96	353.4	360.2	695.8	678.3	17.42	39.942	
5,900.0	5,698.1	5,655.4	5,653.7	26.3	2.2	177.08	352.4	359.0	718.3	700.7	17.59	40.831	
5,905.5	5,703.4	5,660.4	5,658.8	26.3	2.2	177.08	352.3	358.9	719.6	702.0	17.60	40.881	
6,000.0	5,796.2	5,755.1	5,753.4	26.6	2.2	177.17	350.8	357.4	739.7	721.9	17.76	41.660	
6,003.9	5,800.1	5,759.3	5,757.6	26.6	2.2	177.17	350.7	357.4	740.4	722.7	17.76	41.689	
6,100.0	5,894.9	5,861.8	5,860.1	26.9	2.3	177.24	349.8	356.5	756.7	738.8	17.89	42.292	
6,102.3	5,897.3	5,864.3	5,862.6	26.9	2.3	177.24	349.7	356.5	757.1	739.2	17.90	42.305	
6,200.0	5,994.2	5,965.6	5,963.9	27.2	2.3	177.29	349.4	356.3	769.4	751.4	18.00	42.744	
6,200.8	5,994.9	5,966.4	5,964.7	27.2	2.3	177.29	349.4	356.3	769.5	751.5	18.00	42.747	
6,299.2	6,093.0	6,066.0	6,064.3	27.4	2.3	177.32	349.3	356.4	778.2	760.2	18.07	43.057	
6,300.0	6,093.8	6,066.8	6,065.1	27.4	2.3	177.32	349.2	356.4	778.3	760.2	18.08	43.059	
6,397.6	6,191.2	6,164.5	6,162.8	27.5	2.3	177.33	349.2	356.5	783.5	765.4	18.12	43.232	
6,400.0	6,193.6	6,166.8	6,165.1	27.5	2.3	177.33	349.2	356.5	783.6	765.5	18.12	43.234	
6,496.0	6,289.6	6,263.1	6,261.4	27.6	2.3	177.33	349.1	356.7	785.4	767.3	18.16	43.250	
6,504.1	6,297.7	6,271.2	6,269.5	27.6	2.3	-132.70	349.1	356.7	785.4	767.3	18.16	43.243	
6,594.5	6,388.1	6,361.5	6,359.8	27.7	2.3	-132.72	349.1	356.9	785.3	767.0	18.31	42.895	
6,600.0	6,393.6	6,367.0	6,365.3	27.7	2.3	-132.72	349.1	356.9	785.3	767.0	18.32	42.874	
6,618.2	6,411.8	6,385.2	6,383.5	27.8	2.3	-132.72	349.1	356.9	785.3	766.9	18.35	42.800	
6,650.0	6,443.6	6,416.9	6,415.2	27.8	2.3	47.35	349.1	356.9	784.8	766.5	18.29	42.897	
6,692.9	6,486.4	6,459.8	6,458.1	27.8	2.3	47.66	349.2	356.9	782.6	764.4	18.22	42.945	
6,700.0	6,493.4	6,466.9	6,465.2	27.8	2.3	47.73	349.2	356.9	782.1	763.8	18.21	42.940	
6,750.0	6,542.8	6,516.1	6,514.4	27.8	2.3	48.44	349.2	356.9	777.0	758.9	18.15	42.813	
6,791.3	6,583.2	6,555.7	6,554.0	27.7	2.3	49.26	349.3	356.9	771.2	753.1	18.12	42.565	
6,800.0	6,591.6	6,563.9	6,562.2	27.7	2.3	49.47	349.3	356.9	769.8	751.7	18.11	42.495	
6,850.0	6,639.6	6,611.0	6,609.3	27.6	2.3	50.83	349.3	356.8	760.5	742.4	18.12	41.969	
6,889.7	6,676.9	6,648.2	6,646.5	27.6	2.3	52.18	349.3	356.7	751.7	733.5	18.17	41.379	
6,900.0	6,686.4	6,657.6	6,655.9	27.5	2.3	52.56	349.3	356.7	749.3	731.1	18.19	41.201	
6,950.0	6,731.8	6,702.8	6,701.1	27.4	2.3	54.65	349.3	356.5	736.3	718.0	18.32	40.192	
6,988.2	6,765.5	6,736.1	6,734.4	27.3	2.3	56.46	349.4	356.4	725.4	706.9	18.47	39.264	
7,000.0	6,775.8	6,746.2	6,744.5	27.2	2.3	57.06	349.4	356.3	721.8	703.3	18.53	38.949	
7,050.0	6,817.9	6,787.9	6,786.2	27.1	2.3	59.81	349.4	356.2	706.2	687.4	18.83	37.505	
7,086.6	6,847.5	6,817.2	6,815.5	26.9	2.3	62.00	349.3	356.1	694.1	675.1	19.09	36.359	
7,100.0	6,858.1	6,827.6	6,825.9	26.9	2.3	62.84	349.3	356.0	689.7	670.5	19.20	35.927	
7,150.0	6,896.1	6,865.1	6,863.4	26.6	2.3	66.12	349.2	355.8	672.7	653.1	19.61	34.305	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,185.0	6,921.3	6,890.0	6,888.3	26.5	2.3	68.52	349.2	355.7	660.7	640.8	19.90	33.195	
7,200.0	6,931.7	6,900.3	6,898.6	26.4	2.3	69.56	349.2	355.6	655.6	635.6	20.03	32.737	
7,250.0	6,964.8	6,933.9	6,932.2	26.2	2.4	73.13	349.1	355.4	639.0	618.6	20.42	31.292	
7,283.4	6,985.4	6,954.8	6,953.1	26.0	2.4	75.51	349.1	355.3	628.4	607.7	20.65	30.431	
7,300.0	6,995.2	6,964.7	6,963.0	25.9	2.4	76.66	349.1	355.3	623.4	602.6	20.75	30.044	
7,350.0	7,022.7	6,992.7	6,991.0	25.7	2.4	80.04	349.0	355.2	609.2	588.2	20.99	29.025	
7,381.9	7,038.8	7,008.8	7,007.1	25.5	2.4	82.03	349.0	355.1	601.2	580.1	21.10	28.498	
7,400.0	7,047.3	7,017.3	7,015.6	25.4	2.4	83.09	349.0	355.1	597.1	576.0	21.14	28.248	
7,450.0	7,068.8	7,038.6	7,036.9	25.1	2.4	85.74	349.0	355.0	587.8	566.6	21.21	27.709	
7,480.3	7,080.3	7,050.0	7,048.3	25.0	2.4	87.11	349.0	354.9	583.6	562.4	21.23	27.491	
7,500.0	7,087.1	7,056.7	7,055.0	24.9	2.4	87.90	349.0	354.9	581.6	560.4	21.23	27.401	
7,550.0	7,102.1	7,071.5	7,069.8	24.6	2.4	89.49	349.0	354.8	579.1	557.9	21.20	27.323	
7,556.9	7,103.9	7,073.3	7,071.6	24.6	2.4	89.66	349.0	354.8	579.1	557.9	21.19	27.327	
7,578.7	7,109.2	7,078.5	7,076.8	24.5	2.4	90.13	349.0	354.7	579.5	558.3	21.17	27.375	
7,600.0	7,113.7	7,083.0	7,081.3	24.4	2.4	90.47	349.0	354.7	580.6	559.5	21.13	27.471	
7,650.0	7,121.9	7,091.0	7,089.3	24.2	2.4	90.80	349.0	354.7	586.2	565.1	21.06	27.841	
7,677.1	7,125.0	7,093.9	7,092.2	24.1	2.4	90.70	349.0	354.7	591.0	570.0	21.01	28.124	
7,700.0	7,126.7	7,095.6	7,093.9	24.0	2.4	90.46	349.0	354.6	595.9	575.0	20.97	28.422	
7,746.5	7,128.0	7,096.8	7,095.1	23.8	2.4	89.54	349.0	354.6	608.5	587.7	20.89	29.136	
7,775.6	7,127.9	7,096.7	7,095.0	23.7	2.4	89.52	349.0	354.6	618.1	597.3	20.81	29.699	
7,800.0	7,127.7	7,096.5	7,094.8	23.6	2.4	89.51	349.0	354.6	627.0	606.3	20.75	30.219	
7,874.0	7,127.4	7,096.1	7,094.4	23.4	2.4	89.46	349.0	354.6	658.9	638.5	20.44	32.232	
7,900.0	7,127.3	7,096.0	7,094.3	23.4	2.4	89.45	349.0	354.6	671.7	651.4	20.34	33.032	
7,972.4	7,127.0	7,095.6	7,093.9	23.3	2.4	89.41	349.0	354.6	711.1	691.0	20.18	35.241	
8,000.0	7,126.8	7,095.4	7,093.7	23.3	2.4	89.40	349.0	354.6	727.5	707.4	20.12	36.158	
8,070.8	7,126.5	7,095.0	7,093.3	23.4	2.4	89.36	349.0	354.6	772.4	752.3	20.11	38.406	
8,100.0	7,126.4	7,094.9	7,093.2	23.5	2.4	89.34	349.0	354.7	792.0	771.9	20.11	39.386	
8,169.3	7,126.1	7,094.5	7,092.8	23.7	2.4	89.30	349.0	354.7	840.8	820.5	20.24	41.533	
8,200.0	7,125.9	7,094.3	7,092.6	23.8	2.4	89.29	349.0	354.7	863.3	843.0	20.30	42.520	
8,267.7	7,125.6	7,094.0	7,092.3	24.1	2.4	89.25	349.0	354.7	914.6	894.1	20.57	44.464	
8,300.0	7,125.5	7,093.8	7,092.1	24.2	2.4	89.23	349.0	354.7	939.9	919.2	20.70	45.410	
8,366.1	7,125.2	7,093.4	7,091.7	24.6	2.4	89.20	349.0	354.7	992.8	971.7	21.08	47.093	
8,400.0	7,125.0	7,093.2	7,091.5	24.8	2.4	89.18	349.0	354.7	1,020.5	999.2	21.28	47.960	
8,464.5	7,124.7	7,092.9	7,091.2	25.3	2.4	89.14	349.0	354.7	1,074.2	1,052.5	21.76	49.362	
8,500.0	7,124.6	7,092.7	7,091.0	25.6	2.4	89.13	349.0	354.7	1,104.3	1,082.2	22.03	50.129	
8,563.0	7,124.3	7,092.4	7,090.7	26.1	2.4	89.09	349.0	354.7	1,158.3	1,135.7	22.60	51.262	
8,600.0	7,124.1	7,092.2	7,090.5	26.4	2.4	89.07	349.0	354.7	1,190.5	1,167.6	22.93	51.920	
8,661.4	7,123.8	7,091.8	7,090.1	26.9	2.4	89.04	349.0	354.7	1,244.5	1,221.0	23.57	52.811	
8,700.0	7,123.7	7,091.6	7,089.9	27.3	2.4	89.02	349.0	354.7	1,278.8	1,254.9	23.97	53.362	
8,759.8	7,123.4	7,091.3	7,089.6	27.9	2.4	88.99	349.0	354.7	1,332.4	1,307.8	24.65	54.048	
8,800.0	7,123.2	7,091.1	7,089.4	28.3	2.4	88.97	349.0	354.7	1,368.7	1,343.6	25.11	54.499	
8,858.2	7,123.0	7,090.8	7,089.1	28.9	2.4	88.94	349.0	354.7	1,421.7	1,395.9	25.84	55.017	
8,900.0	7,122.8	7,090.6	7,088.9	29.4	2.4	88.92	349.0	354.7	1,460.0	1,433.6	26.36	55.380	
8,956.7	7,122.5	7,090.3	7,088.6	30.0	2.4	88.89	349.0	354.7	1,512.1	1,485.0	27.12	55.764	
9,000.0	7,122.3	7,090.1	7,088.3	30.5	2.4	88.87	349.0	354.7	1,552.3	1,524.6	27.69	56.051	
9,055.1	7,122.1	7,089.8	7,088.1	31.2	2.4	88.84	349.0	354.7	1,603.5	1,575.0	28.47	56.329	
9,100.0	7,121.9	7,089.5	7,087.8	31.7	2.4	88.81	349.0	354.7	1,645.5	1,616.4	29.10	56.552	
9,153.5	7,121.6	7,089.3	7,087.6	32.4	2.4	88.79	349.0	354.7	1,695.7	1,665.8	29.88	56.750	
9,200.0	7,121.4	7,089.0	7,087.3	33.0	2.4	88.76	349.0	354.7	1,739.4	1,708.8	30.56	56.919	
9,251.9	7,121.2	7,088.8	7,087.0	33.7	2.4	88.74	349.0	354.7	1,788.5	1,757.1	31.35	57.055	
9,300.0	7,121.0	7,088.5	7,086.8	34.3	2.4	88.71	349.0	354.7	1,834.0	1,801.9	32.07	57.180	
9,350.4	7,120.7	7,088.3	7,086.5	35.0	2.4	88.69	349.0	354.7	1,881.9	1,849.0	32.86	57.270	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN 30-31 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
9,400.0	7,120.5	7,088.0	7,086.3	35.7	2.4	88.66	349.0	354.7	1,929.1	1,895.5	33.63	57.358	
9,448.8	7,120.3	7,087.8	7,086.0	36.4	2.4	88.64	349.0	354.7	1,975.7	1,941.3	34.41	57.414	
9,500.0	7,120.1	7,087.5	7,085.8	37.2	2.4	88.61	349.0	354.7	2,024.7	1,989.5	35.23	57.472	
9,547.2	7,119.9	7,087.3	7,085.6	37.8	2.4	88.59	349.0	354.7	2,070.0	2,034.0	36.00	57.502	
9,600.0	7,119.6	7,087.0	7,085.3	38.6	2.4	88.57	349.0	354.7	2,120.8	2,083.9	36.86	57.536	
9,645.6	7,119.4	7,086.8	7,085.1	39.3	2.4	88.54	349.0	354.7	2,164.7	2,127.1	37.62	57.547	
9,700.0	7,119.2	7,086.5	7,084.8	40.1	2.4	88.52	349.0	354.7	2,217.1	2,178.6	38.52	57.562	
9,744.1	7,119.0	7,086.3	7,084.6	40.8	2.4	88.49	349.0	354.7	2,259.7	2,220.4	39.26	57.559	
9,800.0	7,118.7	7,086.0	7,084.3	41.7	2.4	88.47	349.0	354.7	2,313.8	2,273.6	40.20	57.558	
9,842.5	7,118.5	7,085.8	7,084.1	42.3	2.4	88.45	349.0	354.7	2,355.0	2,314.0	40.92	57.546	
9,900.0	7,118.3	7,085.5	7,083.8	43.2	2.4	88.42	349.0	354.7	2,410.7	2,368.8	41.90	57.532	
9,940.9	7,118.1	7,085.3	7,083.6	43.9	2.4	88.40	349.0	354.7	2,450.5	2,407.9	42.61	57.513	
10,000.0	7,117.8	7,085.0	7,083.3	44.8	2.4	88.37	349.0	354.7	2,507.9	2,464.3	43.62	57.488	
10,039.3	7,117.6	7,084.8	7,083.1	45.5	2.4	88.35	349.0	354.7	2,546.2	2,501.9	44.31	57.465	
10,100.0	7,117.4	7,084.5	7,082.8	46.4	2.4	88.32	349.0	354.7	2,605.3	2,560.0	45.36	57.432	
10,137.8	7,117.2	7,084.3	7,082.6	47.1	2.4	88.31	349.0	354.7	2,642.2	2,596.1	46.03	57.406	
10,200.0	7,116.9	7,084.0	7,082.3	48.1	2.4	88.28	349.0	354.7	2,702.9	2,655.8	47.12	57.366	
10,236.2	7,116.8	7,083.9	7,082.2	48.7	2.4	88.26	349.0	354.7	2,738.3	2,690.5	47.76	57.339	
10,300.0	7,116.5	7,083.6	7,081.9	49.7	2.4	88.23	349.0	354.7	2,800.7	2,751.8	48.88	57.294	
10,334.6	7,116.3	7,083.4	7,081.7	50.3	2.4	88.21	349.0	354.7	2,834.6	2,785.1	49.50	57.266	
10,400.0	7,116.0	7,083.1	7,081.4	51.4	2.4	88.18	349.0	354.7	2,898.6	2,847.9	50.66	57.216	
10,433.0	7,115.9	7,082.9	7,081.2	52.0	2.4	88.17	349.0	354.7	2,931.0	2,879.7	51.25	57.189	
10,500.0	7,115.6	7,082.6	7,080.9	53.1	2.4	88.14	349.0	354.7	2,996.6	2,944.2	52.45	57.135	
10,531.5	7,115.4	7,082.5	7,080.8	53.6	2.4	88.12	349.0	354.7	3,027.5	2,974.5	53.01	57.109	
10,600.0	7,115.1	7,082.1	7,080.4	54.8	2.4	88.09	349.0	354.7	3,094.8	3,040.6	54.24	57.053	
10,629.9	7,115.0	7,082.0	7,080.3	55.3	2.4	88.08	349.0	354.7	3,124.2	3,069.4	54.78	57.027	
10,700.0	7,114.7	7,081.7	7,080.0	56.5	2.4	88.05	349.0	354.7	3,193.1	3,137.0	56.05	56.969	
10,728.3	7,114.6	7,081.5	7,079.8	57.0	2.4	88.03	349.0	354.7	3,220.9	3,164.4	56.56	56.944	
10,800.0	7,114.2	7,081.2	7,079.5	58.3	2.4	88.00	349.0	354.7	3,291.5	3,233.6	57.86	56.885	
10,826.7	7,114.1	7,081.1	7,079.4	58.7	2.4	87.99	349.0	354.7	3,317.8	3,259.5	58.35	56.862	
10,900.0	7,113.8	7,080.7	7,079.0	60.0	2.4	87.95	349.0	354.7	3,390.0	3,330.3	59.68	56.801	
10,925.2	7,113.7	7,080.6	7,078.9	60.5	2.4	87.94	349.0	354.7	3,414.8	3,354.6	60.14	56.779	
11,000.0	7,113.3	7,080.3	7,078.6	61.8	2.4	87.91	349.0	354.7	3,488.5	3,427.0	61.51	56.718	
11,023.6	7,113.2	7,080.2	7,078.5	62.2	2.4	87.90	349.0	354.7	3,511.8	3,449.9	61.94	56.698	
11,100.0	7,112.9	7,079.8	7,078.1	63.5	2.4	87.87	349.0	354.7	3,587.2	3,523.8	63.34	56.636	
11,122.0	7,112.8	7,079.7	7,078.0	63.9	2.4	87.86	349.0	354.7	3,608.9	3,545.2	63.74	56.618	
11,200.0	7,112.4	7,079.4	7,077.7	65.3	2.4	87.82	349.0	354.7	3,685.9	3,620.7	65.17	56.555	
11,220.4	7,112.4	7,079.3	7,077.6	65.7	2.4	87.81	349.0	354.7	3,706.1	3,640.5	65.55	56.539	
11,300.0	7,112.0	7,078.9	7,077.2	67.1	2.4	87.78	349.0	354.7	3,784.7	3,717.7	67.01	56.476	
11,318.9	7,111.9	7,078.8	7,077.1	67.4	2.4	87.77	349.0	354.7	3,803.3	3,736.0	67.36	56.461	
11,400.0	7,111.6	7,078.5	7,076.8	68.9	2.4	87.73	349.0	354.7	3,883.5	3,814.7	68.86	56.399	
11,417.3	7,111.5	7,078.4	7,076.7	69.2	2.4	87.73	349.0	354.7	3,900.6	3,831.5	69.18	56.386	
11,500.0	7,111.1	7,078.0	7,076.3	70.7	2.4	87.69	349.0	354.8	3,982.4	3,911.7	70.71	56.323	
11,515.7	7,111.0	7,078.0	7,076.2	71.0	2.4	87.68	349.0	354.8	3,998.0	3,927.0	71.00	56.311	
11,600.0	7,110.7	7,077.6	7,075.9	72.5	2.4	87.65	349.0	354.8	4,081.4	4,008.9	72.56	56.250	
11,614.1	7,110.6	7,077.5	7,075.8	72.7	2.4	87.64	349.0	354.8	4,095.4	4,022.6	72.82	56.239	
11,700.0	7,110.2	7,077.1	7,075.4	74.3	2.4	87.60	349.0	354.8	4,180.4	4,106.0	74.41	56.178	
11,712.6	7,110.2	7,077.1	7,075.4	74.5	2.4	87.60	349.0	354.8	4,192.9	4,118.2	74.65	56.169	
11,747.9	7,110.0	7,076.9	7,075.2	75.1	2.4	87.58	349.0	354.8	4,227.8	4,152.5	75.30	56.144	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	145.02	-2,379.9	1,665.4	2,904.8				
98.4	98.4	149.3	149.2	0.1	0.1	145.03	-2,378.5	1,663.7	2,903.4	2,903.2	0.22	N/A	
100.0	100.0	151.1	151.1	0.1	0.1	145.03	-2,378.4	1,663.7	2,903.4	2,903.1	0.22	N/A	
196.8	196.8	256.6	256.5	0.3	0.3	145.04	-2,376.5	1,661.7	2,900.9	2,900.3	0.57	5,051.002	
200.0	200.0	259.8	259.8	0.3	0.3	145.04	-2,376.4	1,661.6	2,900.8	2,900.2	0.58	4,964.575	
295.3	295.3	355.3	355.2	0.5	0.4	145.05	-2,374.7	1,659.7	2,898.2	2,897.3	0.87	3,318.559	
300.0	300.0	359.9	359.8	0.5	0.4	145.05	-2,374.6	1,659.6	2,898.1	2,897.2	0.89	3,266.454	
393.7	393.7	447.4	447.3	0.7	0.4	145.06	-2,373.0	1,657.9	2,895.6	2,894.5	1.15	2,507.627	
400.0	400.0	453.1	452.9	0.8	0.4	145.06	-2,372.9	1,657.8	2,895.5	2,894.3	1.17	2,469.904	
492.1	492.1	539.2	539.0	1.0	0.5	145.07	-2,371.5	1,656.2	2,893.3	2,891.9	1.43	2,024.067	
500.0	500.0	546.9	546.8	1.0	0.5	145.07	-2,371.4	1,656.1	2,893.2	2,891.7	1.45	1,993.260	
590.5	590.5	634.6	634.4	1.2	0.5	145.08	-2,370.2	1,654.5	2,891.2	2,889.5	1.70	1,698.347	
600.0	600.0	643.5	643.3	1.2	0.5	145.09	-2,370.1	1,654.3	2,891.0	2,889.2	1.73	1,672.826	
689.0	689.0	727.7	727.4	1.4	0.6	145.10	-2,369.2	1,652.6	2,889.2	2,887.2	1.97	1,465.756	
700.0	700.0	738.2	738.0	1.4	0.6	145.11	-2,369.1	1,652.3	2,888.9	2,886.9	2.00	1,443.695	
787.4	787.4	823.6	823.3	1.6	0.6	145.12	-2,368.2	1,650.8	2,887.3	2,885.1	2.24	1,289.497	
800.0	800.0	836.6	836.4	1.7	0.6	145.12	-2,368.1	1,650.5	2,887.1	2,884.8	2.27	1,269.838	
885.8	885.8	925.2	925.0	1.9	0.7	145.14	-2,367.2	1,648.9	2,885.4	2,882.9	2.51	1,150.511	
900.0	900.0	939.6	939.4	1.9	0.7	145.14	-2,367.0	1,648.6	2,885.1	2,882.6	2.55	1,133.006	
984.2	984.2	1,025.4	1,025.1	2.1	0.7	145.17	-2,366.2	1,646.7	2,883.4	2,880.6	2.77	1,039.099	
1,000.0	1,000.0	1,041.4	1,041.1	2.1	0.7	145.17	-2,366.1	1,646.3	2,883.1	2,880.3	2.82	1,023.285	
1,082.7	1,082.7	1,123.7	1,123.4	2.3	0.8	145.19	-2,365.3	1,644.5	2,881.4	2,878.4	3.04	947.912	
1,100.0	1,100.0	1,140.0	1,139.7	2.3	0.8	145.19	-2,365.1	1,644.1	2,881.0	2,878.0	3.09	933.674	
1,181.1	1,181.1	1,215.6	1,215.2	2.5	0.8	145.21	-2,364.5	1,642.5	2,879.5	2,876.2	3.30	872.449	
1,200.0	1,200.0	1,232.5	1,232.2	2.6	0.8	145.22	-2,364.4	1,642.1	2,879.1	2,875.8	3.35	859.425	
1,279.5	1,279.5	1,304.3	1,304.0	2.7	0.8	145.24	-2,364.1	1,640.6	2,877.9	2,874.3	3.56	808.602	
1,300.0	1,300.0	1,324.9	1,324.6	2.8	0.8	145.25	-2,364.0	1,640.2	2,877.6	2,874.0	3.61	796.305	
1,377.9	1,377.9	1,403.6	1,403.2	3.0	0.9	145.27	-2,363.6	1,638.6	2,876.4	2,872.6	3.82	752.690	
1,400.0	1,400.0	1,427.2	1,426.8	3.0	0.9	145.27	-2,363.5	1,638.2	2,876.1	2,872.2	3.88	741.118	
1,476.4	1,476.4	1,508.4	1,508.0	3.2	0.9	145.29	-2,363.0	1,636.6	2,874.8	2,870.7	4.09	703.633	
1,500.0	1,500.0	1,532.7	1,532.3	3.2	0.9	145.30	-2,362.8	1,636.1	2,874.4	2,870.3	4.15	692.852	
1,574.8	1,574.8	1,610.1	1,609.6	3.4	1.0	145.33	-2,362.4	1,634.2	2,873.1	2,868.7	4.35	660.738	
1,600.0	1,600.0	1,637.4	1,636.9	3.5	1.0	145.34	-2,362.3	1,633.5	2,872.6	2,868.2	4.42	650.499	
1,673.2	1,673.2	1,715.7	1,715.2	3.6	1.0	145.37	-2,361.8	1,631.4	2,871.1	2,866.5	4.61	622.505	
1,700.0	1,700.0	1,742.8	1,742.4	3.7	1.0	145.38	-2,361.7	1,630.7	2,870.6	2,865.9	4.68	612.948	
1,750.0	1,750.0	1,793.6	1,793.1	3.8	1.0	145.40	-2,361.3	1,629.3	2,869.5	2,864.7	4.82	595.854	
1,771.6	1,771.6	1,813.8	1,813.3	3.8	1.0	103.41	-2,361.2	1,628.7	2,869.1	2,864.2	4.84	592.472	
1,800.0	1,800.0	1,839.2	1,838.6	3.9	1.0	103.44	-2,361.0	1,628.0	2,868.6	2,863.7	4.91	583.815	
1,870.1	1,870.0	1,902.3	1,901.7	4.1	1.1	103.51	-2,360.7	1,626.5	2,867.8	2,862.7	5.09	563.727	
1,900.0	1,899.9	1,934.1	1,933.6	4.1	1.1	103.56	-2,360.5	1,625.7	2,867.6	2,862.4	5.16	555.429	
1,966.5	1,966.3	2,000.0	1,999.4	4.3	1.1	103.66	-2,360.1	1,624.1	2,867.3	2,862.0	5.33	537.789	
1,968.5	1,968.3	2,000.0	1,999.4	4.3	1.1	103.66	-2,360.1	1,624.1	2,867.3	2,862.0	5.34	537.345	
2,000.0	1,999.7	2,032.2	2,031.6	4.3	1.1	103.72	-2,359.9	1,623.4	2,867.3	2,861.9	5.42	529.408	
2,066.9	2,066.3	2,088.7	2,088.1	4.5	1.1	103.84	-2,359.6	1,622.2	2,867.9	2,862.3	5.59	513.320	
2,100.0	2,099.1	2,121.0	2,120.4	4.6	1.2	103.91	-2,359.5	1,621.6	2,868.4	2,862.7	5.67	505.540	
2,165.3	2,163.9	2,190.6	2,190.0	4.7	1.2	104.08	-2,359.2	1,620.2	2,869.5	2,863.7	5.85	490.158	
2,200.0	2,198.2	2,223.0	2,222.4	4.8	1.2	104.17	-2,359.0	1,619.6	2,870.3	2,864.3	5.95	482.460	
2,263.8	2,261.0	2,279.8	2,279.2	5.0	1.2	104.34	-2,358.8	1,618.5	2,872.1	2,865.9	6.13	468.180	
2,300.0	2,296.6	2,314.5	2,313.9	5.1	1.2	104.45	-2,358.8	1,617.9	2,873.3	2,867.1	6.24	460.344	
2,362.2	2,357.6	2,380.9	2,380.3	5.3	1.2	104.68	-2,358.6	1,616.6	2,875.7	2,869.2	6.44	446.326	
2,400.0	2,394.4	2,417.6	2,417.0	5.4	1.3	104.81	-2,358.4	1,615.9	2,877.3	2,870.7	6.57	438.221	
2,460.6	2,453.4	2,471.2	2,470.5	5.6	1.3	105.01	-2,358.2	1,614.9	2,880.2	2,873.4	6.78	424.763	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,500.0	2,491.5	2,507.0	2,506.3	5.7	1.3	105.15	-2,358.1	1,614.2	2,882.4	2,875.5	6.92	416.392	
2,559.0	2,548.3	2,569.2	2,568.5	5.9	1.3	105.42	-2,358.0	1,613.0	2,886.0	2,878.8	7.16	403.132	
2,600.0	2,587.6	2,610.4	2,609.7	6.1	1.3	105.61	-2,357.9	1,612.1	2,888.7	2,881.3	7.33	394.297	
2,657.5	2,642.4	2,662.3	2,661.6	6.3	1.4	105.85	-2,357.7	1,611.1	2,892.8	2,885.2	7.58	381.442	
2,700.0	2,682.7	2,700.0	2,699.3	6.5	1.4	106.02	-2,357.6	1,610.3	2,896.1	2,888.4	7.78	372.420	
2,750.0	2,729.8	2,741.5	2,740.8	6.8	1.4	106.21	-2,357.5	1,609.5	2,900.4	2,892.4	8.02	361.575	
2,755.9	2,735.4	2,746.3	2,745.6	6.8	1.4	106.25	-2,357.5	1,609.5	2,901.0	2,892.9	8.05	360.297	
2,800.0	2,776.8	2,782.5	2,781.8	7.0	1.4	106.49	-2,357.5	1,608.9	2,905.1	2,896.8	8.28	351.004	
2,854.3	2,827.8	2,832.5	2,831.8	7.3	1.4	106.83	-2,357.5	1,608.2	2,910.3	2,901.7	8.56	339.834	
2,900.0	2,870.8	2,877.6	2,876.9	7.5	1.4	107.13	-2,357.4	1,607.6	2,914.7	2,905.9	8.81	330.929	
2,952.7	2,920.3	2,928.1	2,927.3	7.8	1.4	107.46	-2,357.3	1,606.9	2,919.9	2,910.8	9.10	320.942	
3,000.0	2,964.7	2,972.1	2,971.3	8.1	1.5	107.76	-2,357.3	1,606.2	2,924.7	2,915.3	9.36	312.509	
3,051.2	3,012.8	3,019.5	3,018.8	8.4	1.5	108.07	-2,357.2	1,605.5	2,929.9	2,920.3	9.65	303.676	
3,100.0	3,058.7	3,064.5	3,063.7	8.7	1.5	108.37	-2,357.2	1,604.8	2,935.0	2,925.1	9.93	295.722	
3,149.6	3,105.3	3,111.8	3,111.0	9.0	1.5	108.68	-2,357.1	1,604.2	2,940.3	2,930.1	10.21	287.923	
3,200.0	3,152.7	3,165.2	3,164.5	9.3	1.5	109.03	-2,356.9	1,603.6	2,945.7	2,935.2	10.51	280.399	
3,248.0	3,197.8	3,214.6	3,213.8	9.5	1.5	109.34	-2,356.5	1,603.2	2,950.9	2,940.1	10.79	273.491	
3,300.0	3,246.6	3,264.1	3,263.3	9.9	1.6	109.65	-2,356.0	1,602.9	2,956.5	2,945.4	11.10	266.394	
3,346.4	3,290.3	3,309.6	3,308.9	10.1	1.6	109.94	-2,355.5	1,602.6	2,961.6	2,950.2	11.38	260.302	
3,400.0	3,340.6	3,368.8	3,368.0	10.5	1.6	110.31	-2,354.8	1,602.3	2,967.5	2,955.8	11.70	253.626	
3,444.9	3,382.8	3,418.2	3,417.5	10.8	1.6	110.61	-2,353.9	1,602.1	2,972.4	2,960.4	11.97	248.262	
3,500.0	3,434.6	3,478.6	3,477.8	11.1	1.6	110.97	-2,352.7	1,602.1	2,978.3	2,966.0	12.31	242.023	
3,543.3	3,475.3	3,523.6	3,522.8	11.4	1.6	111.24	-2,351.5	1,602.3	2,983.0	2,970.4	12.57	237.323	
3,600.0	3,528.6	3,579.9	3,579.1	11.7	1.6	111.57	-2,350.0	1,602.6	2,989.1	2,976.2	12.91	231.478	
3,641.7	3,567.8	3,617.7	3,616.8	12.0	1.6	111.79	-2,348.9	1,602.8	2,993.7	2,980.5	13.17	227.348	
3,700.0	3,622.5	3,665.5	3,664.6	12.4	1.7	112.07	-2,347.7	1,603.1	3,000.2	2,986.7	13.52	221.862	
3,740.1	3,660.3	3,700.0	3,699.1	12.6	1.7	112.27	-2,346.9	1,603.1	3,004.9	2,991.1	13.77	218.243	
3,749.0	3,668.6	3,706.1	3,705.2	12.7	1.7	112.30	-2,346.8	1,603.1	3,005.9	2,992.1	13.82	217.464	
3,800.0	3,716.5	3,751.8	3,750.9	13.0	1.7	109.74	-2,345.8	1,603.2	3,011.6	2,997.5	14.11	213.385	
3,838.6	3,752.8	3,786.3	3,785.4	13.2	1.7	107.80	-2,345.2	1,603.2	3,015.4	3,001.0	14.32	210.526	
3,885.2	3,796.6	3,825.4	3,824.5	13.5	1.7	105.45	-2,344.5	1,603.2	3,019.4	3,004.8	14.57	207.187	
3,900.0	3,810.5	3,837.4	3,836.5	13.6	1.7	105.52	-2,344.3	1,603.2	3,020.6	3,005.9	14.66	206.011	
3,937.0	3,845.3	3,867.4	3,866.5	13.8	1.7	105.70	-2,343.8	1,603.2	3,023.7	3,008.8	14.90	202.962	
4,000.0	3,904.5	3,921.3	3,920.4	14.2	1.7	106.03	-2,343.1	1,603.3	3,029.1	3,013.8	15.30	198.009	
4,035.4	3,937.7	3,954.4	3,953.4	14.5	1.7	106.24	-2,342.7	1,603.3	3,032.3	3,016.7	15.52	195.331	
4,100.0	3,998.4	4,014.1	4,013.2	14.9	1.7	106.60	-2,342.0	1,603.3	3,038.1	3,022.2	15.93	190.663	
4,133.8	4,030.2	4,044.8	4,043.9	15.1	1.7	106.79	-2,341.6	1,603.3	3,041.3	3,025.1	16.15	188.308	
4,200.0	4,092.4	4,105.5	4,104.5	15.5	1.8	107.16	-2,341.0	1,603.2	3,047.6	3,031.0	16.57	183.902	
4,232.3	4,122.7	4,140.2	4,139.3	15.8	1.8	107.38	-2,340.7	1,603.1	3,050.7	3,033.9	16.78	181.833	
4,300.0	4,186.4	4,210.2	4,209.3	16.2	1.8	107.80	-2,339.8	1,603.0	3,057.2	3,039.9	17.21	177.661	
4,330.7	4,215.2	4,235.9	4,235.0	16.4	1.8	107.96	-2,339.4	1,602.9	3,060.2	3,042.7	17.40	175.837	
4,400.0	4,280.3	4,293.7	4,292.8	16.9	1.8	108.31	-2,338.9	1,602.6	3,067.1	3,049.3	17.84	171.891	
4,429.1	4,307.7	4,317.5	4,316.6	17.1	1.8	108.46	-2,338.7	1,602.4	3,070.2	3,052.1	18.03	170.297	
4,500.0	4,374.3	4,375.2	4,374.3	17.6	1.8	108.82	-2,338.4	1,602.0	3,077.8	3,059.3	18.48	166.576	
4,527.5	4,400.2	4,400.0	4,399.1	17.7	1.8	108.97	-2,338.3	1,601.9	3,080.9	3,062.2	18.65	165.186	
4,600.0	4,468.3	4,457.3	4,456.3	18.2	1.9	109.32	-2,338.3	1,601.5	3,089.2	3,070.1	19.10	161.706	
4,626.0	4,492.7	4,478.6	4,477.7	18.4	1.9	109.45	-2,338.3	1,601.4	3,092.3	3,073.0	19.27	160.504	
4,700.0	4,562.3	4,529.7	4,528.8	18.9	1.9	109.76	-2,338.4	1,601.1	3,101.4	3,081.7	19.73	157.227	
4,724.4	4,585.2	4,544.8	4,543.9	19.1	1.9	109.86	-2,338.5	1,601.1	3,104.5	3,084.7	19.88	156.190	
4,800.0	4,656.2	4,600.0	4,599.1	19.6	1.9	110.19	-2,339.3	1,601.0	3,114.8	3,094.5	20.34	153.136	
4,822.8	4,677.7	4,608.7	4,607.8	19.7	1.9	110.24	-2,339.4	1,601.0	3,118.0	3,097.5	20.48	152.221	
4,900.0	4,750.2	4,684.0	4,683.1	20.3	1.9	110.69	-2,340.7	1,601.1	3,129.1	3,108.1	20.94	149.410	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 - Wellbor												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
4,921.2	4,770.2	4,705.3	4,704.3	20.4	1.9	110.82	-2,341.0	1,601.2	3,132.1	3,111.0	21.07	148.659	
5,000.0	4,844.2	4,790.3	4,789.4	20.9	1.9	111.33	-2,342.2	1,601.2	3,143.4	3,121.9	21.53	146.006	
5,019.7	4,862.7	4,810.6	4,809.6	21.1	1.9	111.45	-2,342.5	1,601.1	3,146.3	3,124.6	21.65	145.357	
5,100.0	4,938.1	4,890.0	4,889.0	21.6	1.9	111.92	-2,343.4	1,600.8	3,157.9	3,135.7	22.12	142.768	
5,118.1	4,955.1	4,907.8	4,906.9	21.7	1.9	112.03	-2,343.6	1,600.7	3,160.5	3,138.3	22.23	142.200	
5,200.0	5,032.1	4,988.7	4,987.7	22.3	1.9	112.51	-2,344.5	1,600.2	3,172.4	3,149.7	22.71	139.703	
5,216.5	5,047.6	5,005.0	5,004.0	22.4	1.9	112.61	-2,344.7	1,600.1	3,174.9	3,152.1	22.81	139.214	
5,300.0	5,126.1	5,087.0	5,086.0	23.0	1.9	113.09	-2,345.5	1,599.7	3,187.2	3,163.9	23.30	136.810	
5,314.9	5,140.1	5,101.8	5,100.8	23.1	1.9	113.18	-2,345.6	1,599.6	3,189.4	3,166.0	23.38	136.392	
5,400.0	5,220.0	5,190.4	5,189.4	23.7	1.9	113.69	-2,346.2	1,599.1	3,202.1	3,178.2	23.88	134.089	
5,413.4	5,232.6	5,203.8	5,202.8	23.8	1.9	113.77	-2,346.3	1,599.1	3,204.1	3,180.1	23.96	133.735	
5,504.2	5,318.0	5,285.4	5,284.4	24.4	1.9	114.24	-2,346.7	1,598.7	3,217.8	3,193.3	24.49	131.372	
5,511.8	5,325.1	5,292.2	5,291.2	24.4	1.9	114.30	-2,346.8	1,598.7	3,218.9	3,194.4	24.53	131.241	
5,600.0	5,408.5	5,374.0	5,373.0	24.9	2.0	114.97	-2,347.3	1,598.4	3,231.9	3,207.0	24.91	129.739	
5,610.2	5,418.2	5,383.6	5,382.6	25.0	2.0	115.05	-2,347.3	1,598.4	3,233.4	3,208.4	24.94	129.623	
5,700.0	5,504.1	5,479.4	5,478.4	25.4	2.0	115.72	-2,347.8	1,598.3	3,245.4	3,220.2	25.23	128.620	
5,708.6	5,512.4	5,489.0	5,488.0	25.5	2.0	115.79	-2,347.8	1,598.3	3,246.5	3,221.2	25.26	128.539	
5,800.0	5,600.7	5,590.2	5,589.2	25.9	2.0	116.40	-2,347.8	1,598.3	3,257.2	3,231.7	25.52	127.649	
5,807.1	5,607.5	5,598.1	5,597.1	25.9	2.0	116.44	-2,347.8	1,598.3	3,257.9	3,232.4	25.53	127.591	
5,900.0	5,698.1	5,675.9	5,674.9	26.3	2.0	116.89	-2,347.8	1,598.1	3,267.5	3,241.7	25.79	126.717	
5,905.5	5,703.4	5,680.5	5,679.5	26.3	2.0	116.92	-2,347.8	1,598.1	3,268.0	3,242.2	25.80	126.675	
6,000.0	5,796.2	5,760.9	5,759.9	26.6	2.0	117.32	-2,348.2	1,597.6	3,276.7	3,250.7	26.02	125.930	
6,003.9	5,800.1	5,764.3	5,763.3	26.6	2.0	117.34	-2,348.2	1,597.6	3,277.1	3,251.0	26.03	125.906	
6,100.0	5,894.9	5,856.2	5,855.2	26.9	2.0	117.71	-2,348.9	1,597.2	3,284.8	3,258.6	26.22	125.293	
6,102.3	5,897.3	5,858.6	5,857.6	26.9	2.0	117.72	-2,349.0	1,597.2	3,284.9	3,258.7	26.22	125.282	
6,200.0	5,994.2	5,961.5	5,960.5	27.2	2.0	118.02	-2,349.6	1,597.3	3,291.2	3,264.8	26.38	124.758	
6,200.8	5,994.9	5,962.3	5,961.3	27.2	2.0	118.02	-2,349.6	1,597.3	3,291.2	3,264.8	26.38	124.755	
6,299.2	6,093.0	6,063.9	6,062.9	27.4	2.0	118.23	-2,349.9	1,597.7	3,295.7	3,269.2	26.52	124.267	
6,300.0	6,093.8	6,064.7	6,063.7	27.4	2.0	118.24	-2,349.9	1,597.8	3,295.7	3,269.2	26.52	124.262	
6,397.6	6,191.2	6,163.5	6,162.5	27.5	2.0	118.35	-2,350.1	1,598.6	3,298.6	3,271.9	26.64	123.803	
6,400.0	6,193.6	6,165.9	6,164.9	27.5	2.0	118.36	-2,350.1	1,598.7	3,298.6	3,272.0	26.65	123.790	
6,496.0	6,289.6	6,258.3	6,257.3	27.6	2.0	118.39	-2,350.2	1,599.8	3,299.9	3,273.1	26.75	123.376	
6,504.1	6,297.7	6,265.8	6,264.8	27.6	2.0	168.36	-2,350.2	1,599.9	3,299.9	3,273.2	26.76	123.336	
6,594.5	6,388.1	6,361.0	6,360.0	27.7	2.0	168.33	-2,350.3	1,601.5	3,300.3	3,273.4	26.87	122.826	
6,600.0	6,393.6	6,367.3	6,366.2	27.7	2.0	168.33	-2,350.2	1,601.6	3,300.3	3,273.5	26.88	122.794	
6,618.2	6,411.8	6,387.9	6,386.9	27.8	2.0	168.32	-2,350.2	1,602.1	3,300.4	3,273.5	26.90	122.680	
6,650.0	6,443.6	6,422.7	6,421.7	27.8	2.0	-11.71	-2,350.1	1,602.9	3,299.7	3,272.8	26.90	122.678	
6,692.9	6,486.4	6,468.8	6,467.7	27.8	2.0	-11.79	-2,349.9	1,604.2	3,296.6	3,269.8	26.89	122.576	
6,700.0	6,493.4	6,476.4	6,475.3	27.8	2.0	-11.81	-2,349.8	1,604.4	3,295.9	3,269.0	26.90	122.543	
6,750.0	6,542.8	6,521.5	6,520.4	27.8	2.0	-11.98	-2,349.5	1,605.8	3,288.6	3,261.7	26.89	122.307	
6,791.3	6,583.2	6,553.1	6,552.0	27.7	2.0	-12.17	-2,349.4	1,606.6	3,280.2	3,253.3	26.86	122.129	
6,800.0	6,591.6	6,559.7	6,558.6	27.7	2.0	-12.21	-2,349.4	1,606.8	3,278.1	3,251.3	26.85	122.092	
6,850.0	6,639.6	6,600.0	6,598.9	27.6	2.0	-12.51	-2,349.5	1,607.5	3,264.5	3,237.7	26.77	121.960	
6,889.7	6,676.9	6,626.3	6,625.2	27.6	2.0	-12.80	-2,349.7	1,607.9	3,251.5	3,224.8	26.65	121.992	
6,900.0	6,686.4	6,633.7	6,632.6	27.5	2.0	-12.88	-2,349.8	1,608.0	3,247.8	3,221.2	26.62	122.009	
6,950.0	6,731.8	6,669.2	6,668.1	27.4	2.0	-13.34	-2,350.2	1,608.2	3,228.1	3,201.6	26.41	122.214	
6,988.2	6,765.5	6,700.0	6,698.9	27.3	1.9	-13.76	-2,350.6	1,608.3	3,211.0	3,184.8	26.22	122.468	
7,000.0	6,775.8	6,707.4	6,706.3	27.2	2.0	-13.90	-2,350.8	1,608.3	3,205.4	3,179.2	26.15	122.571	
7,050.0	6,817.9	6,773.9	6,772.8	27.1	2.0	-14.67	-2,351.7	1,608.0	3,179.6	3,153.8	25.87	122.886	
7,086.6	6,847.5	6,812.3	6,811.2	26.9	2.0	-15.31	-2,352.1	1,607.4	3,158.8	3,133.2	25.63	123.234	
7,100.0	6,858.1	6,822.4	6,821.2	26.9	2.0	-15.56	-2,352.2	1,607.3	3,150.8	3,125.3	25.54	123.391	
7,150.0	6,896.1	6,858.5	6,857.3	26.6	2.0	-16.59	-2,352.5	1,606.7	3,119.3	3,094.2	25.15	124.045	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,185.0	6,921.3	6,882.5	6,881.4	26.5	2.0	-17.45	-2,352.8	1,606.3	3,095.7	3,070.9	24.86	124.526	
7,200.0	6,931.7	6,892.4	6,891.3	26.4	2.0	-17.85	-2,352.9	1,606.1	3,085.3	3,060.6	24.74	124.722	
7,250.0	6,964.8	6,924.1	6,923.0	26.2	2.0	-19.39	-2,353.3	1,605.6	3,049.0	3,024.7	24.33	125.333	
7,283.4	6,985.4	6,943.9	6,942.8	26.0	2.0	-20.61	-2,353.5	1,605.2	3,023.5	2,999.5	24.06	125.644	
7,300.0	6,995.2	6,953.3	6,952.1	25.9	2.0	-21.29	-2,353.6	1,605.1	3,010.6	2,986.6	23.94	125.747	
7,350.0	7,022.7	6,979.8	6,978.6	25.7	2.0	-23.65	-2,353.9	1,604.7	2,970.2	2,946.5	23.61	125.801	
7,381.9	7,038.8	6,995.3	6,994.1	25.5	2.0	-25.46	-2,354.1	1,604.5	2,943.5	2,920.0	23.44	125.565	
7,400.0	7,047.3	7,003.6	7,002.4	25.4	2.0	-26.62	-2,354.2	1,604.4	2,928.0	2,904.6	23.37	125.315	
7,450.0	7,068.8	7,024.4	7,023.2	25.1	2.0	-30.41	-2,354.5	1,604.2	2,884.3	2,861.0	23.23	124.136	
7,480.3	7,080.3	7,035.6	7,034.4	25.0	2.0	-33.24	-2,354.6	1,604.1	2,857.1	2,833.9	23.22	123.058	
7,500.0	7,087.1	7,042.3	7,041.1	24.9	2.0	-35.33	-2,354.7	1,604.0	2,839.2	2,816.0	23.23	122.232	
7,550.0	7,102.1	7,057.1	7,055.9	24.6	2.0	-41.78	-2,354.9	1,603.8	2,793.1	2,769.8	23.30	119.852	
7,578.7	7,109.2	7,064.1	7,063.0	24.5	2.0	-46.38	-2,355.0	1,603.8	2,766.1	2,742.8	23.34	118.523	
7,600.0	7,113.7	7,068.7	7,067.5	24.4	2.0	-50.28	-2,355.0	1,603.7	2,746.0	2,722.7	23.32	117.750	
7,650.0	7,121.9	7,077.1	7,075.9	24.2	2.0	-61.28	-2,355.2	1,603.6	2,698.3	2,675.3	22.98	117.400	
7,677.1	7,125.0	7,080.3	7,079.1	24.1	2.0	-68.34	-2,355.2	1,603.6	2,672.2	2,649.7	22.53	118.617	
7,700.0	7,126.7	7,082.3	7,081.1	24.0	2.0	-74.78	-2,355.2	1,603.6	2,650.2	2,628.2	21.97	120.649	
7,746.5	7,128.0	7,084.1	7,082.9	23.8	2.0	-88.66	-2,355.2	1,603.6	2,605.3	2,584.6	20.71	125.786	
7,775.6	7,127.9	7,084.3	7,083.1	23.7	2.0	-88.68	-2,355.2	1,603.6	2,577.2	2,556.5	20.64	124.861	
7,800.0	7,127.7	7,084.5	7,083.3	23.6	2.0	-88.70	-2,355.2	1,603.6	2,553.6	2,533.0	20.58	124.081	
7,874.0	7,127.4	7,085.1	7,084.0	23.4	2.0	-88.75	-2,355.3	1,603.6	2,482.3	2,462.0	20.28	122.393	
7,900.0	7,127.3	7,085.4	7,084.2	23.4	2.0	-88.77	-2,355.3	1,603.6	2,457.2	2,437.1	20.18	121.790	
7,972.4	7,127.0	7,086.0	7,084.8	23.3	2.0	-88.82	-2,355.3	1,603.6	2,387.6	2,367.6	20.03	119.228	
8,000.0	7,126.8	7,086.2	7,085.0	23.3	2.0	-88.84	-2,355.3	1,603.6	2,361.2	2,341.2	19.97	118.244	
8,070.8	7,126.5	7,086.8	7,085.6	23.4	2.0	-88.89	-2,355.3	1,603.5	2,293.3	2,273.4	19.97	114.862	
8,100.0	7,126.4	7,087.0	7,085.9	23.5	2.0	-88.91	-2,355.3	1,603.5	2,265.5	2,245.5	19.96	113.473	
8,169.3	7,126.1	7,087.6	7,086.4	23.7	2.0	-88.96	-2,355.3	1,603.5	2,199.4	2,179.3	20.10	109.404	
8,200.0	7,125.9	7,087.9	7,086.7	23.8	2.0	-88.98	-2,355.3	1,603.5	2,170.1	2,150.0	20.16	107.621	
8,267.7	7,125.6	7,088.5	7,087.3	24.1	2.0	-89.03	-2,355.3	1,603.5	2,105.8	2,085.4	20.43	103.059	
8,300.0	7,125.5	7,088.7	7,087.6	24.2	2.0	-89.06	-2,355.3	1,603.5	2,075.2	2,054.7	20.56	100.929	
8,366.1	7,125.2	7,089.3	7,088.1	24.6	2.0	-89.10	-2,355.3	1,603.5	2,012.8	1,991.8	20.95	96.092	
8,400.0	7,125.0	7,089.6	7,088.4	24.8	2.0	-89.13	-2,355.3	1,603.5	1,980.9	1,959.7	21.14	93.688	
8,464.5	7,124.7	7,090.1	7,089.0	25.3	2.0	-89.17	-2,355.3	1,603.5	1,920.2	1,898.6	21.63	88.786	
8,500.0	7,124.6	7,090.4	7,089.3	25.6	2.0	-89.20	-2,355.3	1,603.5	1,887.1	1,865.2	21.89	86.192	
8,563.0	7,124.3	7,091.0	7,089.8	26.1	2.0	-89.25	-2,355.3	1,603.5	1,828.3	1,805.9	22.46	81.400	
8,600.0	7,124.1	7,091.3	7,090.1	26.4	2.0	-89.27	-2,355.3	1,603.5	1,793.9	1,771.1	22.79	78.700	
8,661.4	7,123.8	7,091.8	7,090.6	26.9	2.0	-89.32	-2,355.3	1,603.5	1,737.1	1,713.7	23.43	74.146	
8,700.0	7,123.7	7,092.2	7,091.0	27.3	2.0	-89.35	-2,355.4	1,603.5	1,701.6	1,677.7	23.83	71.414	
8,759.8	7,123.4	7,092.7	7,091.5	27.9	2.0	-89.39	-2,355.4	1,603.5	1,646.7	1,622.2	24.51	67.179	
8,800.0	7,123.2	7,093.0	7,091.8	28.3	2.0	-89.42	-2,355.4	1,603.5	1,610.1	1,585.1	24.97	64.474	
8,858.2	7,123.0	7,093.5	7,092.3	28.9	2.0	-89.46	-2,355.4	1,603.5	1,557.3	1,531.6	25.70	60.602	
8,900.0	7,122.8	7,093.9	7,092.7	29.4	2.0	-89.49	-2,355.4	1,603.5	1,519.7	1,493.5	26.22	57.967	
8,956.7	7,122.5	7,094.4	7,093.2	30.0	2.0	-89.54	-2,355.4	1,603.5	1,469.1	1,442.1	26.97	54.472	
9,000.0	7,122.3	7,094.7	7,093.6	30.5	2.0	-89.57	-2,355.4	1,603.5	1,430.6	1,403.1	27.54	51.939	
9,055.1	7,122.1	7,095.2	7,094.0	31.2	2.0	-89.61	-2,355.4	1,603.5	1,382.2	1,353.9	28.32	48.814	
9,100.0	7,121.9	7,095.6	7,094.4	31.7	2.0	-89.64	-2,355.4	1,603.5	1,343.1	1,314.1	28.94	46.404	
9,153.5	7,121.6	7,096.1	7,094.9	32.4	2.0	-89.68	-2,355.4	1,603.5	1,297.0	1,267.2	29.72	43.633	
9,200.0	7,121.4	7,096.5	7,095.3	33.0	2.0	-89.72	-2,355.4	1,603.5	1,257.4	1,227.0	30.40	41.358	
9,251.9	7,121.2	7,096.9	7,095.7	33.7	2.0	-89.75	-2,355.4	1,603.5	1,213.7	1,182.5	31.19	38.917	
9,300.0	7,121.0	7,097.4	7,096.2	34.3	2.0	-89.79	-2,355.4	1,603.4	1,174.0	1,142.0	31.91	36.785	
9,350.4	7,120.7	7,097.8	7,096.6	35.0	2.0	-89.83	-2,355.4	1,603.4	1,132.9	1,100.2	32.70	34.649	
9,400.0	7,120.5	7,098.2	7,097.0	35.7	2.0	-89.86	-2,355.4	1,603.4	1,093.3	1,059.8	33.47	32.666	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN MCCARTY 30-43 - Wellbore #1 - Wellbor												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
9,448.8	7,120.3	7,100.0	7,098.8	36.4	2.0	-90.02	-2,355.5	1,603.4	1,055.2	1,020.9	34.24	30.818	
9,500.0	7,120.1	7,100.0	7,098.8	37.2	2.0	-90.02	-2,355.5	1,603.4	1,016.1	981.0	35.06	28.985	
9,547.2	7,119.9	7,100.0	7,098.8	37.8	2.0	-90.02	-2,355.5	1,603.4	981.1	945.2	35.83	27.383	
9,600.0	7,119.6	7,100.0	7,098.8	38.6	2.0	-90.02	-2,355.5	1,603.4	943.2	906.5	36.69	25.708	
9,645.6	7,119.4	7,100.4	7,099.2	39.3	2.0	-90.05	-2,355.5	1,603.4	911.6	874.2	37.44	24.346	
9,700.0	7,119.2	7,100.9	7,099.7	40.1	2.0	-90.09	-2,355.5	1,603.4	875.6	837.3	38.34	22.837	
9,744.1	7,119.0	7,101.3	7,100.1	40.8	2.0	-90.13	-2,355.5	1,603.4	847.9	808.8	39.08	21.695	
9,800.0	7,118.7	7,101.8	7,100.6	41.7	2.0	-90.17	-2,355.5	1,603.4	814.8	774.8	40.02	20.358	
9,842.5	7,118.5	7,102.2	7,101.0	42.3	2.0	-90.20	-2,355.5	1,603.4	791.3	750.6	40.75	19.421	
9,900.0	7,118.3	7,102.7	7,101.5	43.2	2.0	-90.24	-2,355.5	1,603.4	762.2	720.5	41.72	18.269	
9,940.9	7,118.1	7,103.0	7,101.8	43.9	2.0	-90.28	-2,355.5	1,603.4	743.6	701.1	42.43	17.525	
10,000.0	7,117.8	7,103.6	7,102.4	44.8	2.0	-90.32	-2,355.5	1,603.4	719.8	676.4	43.44	16.569	
10,039.3	7,117.6	7,103.9	7,102.7	45.5	2.0	-90.35	-2,355.5	1,603.4	706.3	662.2	44.13	16.007	
10,100.0	7,117.4	7,104.4	7,103.2	46.4	2.0	-90.39	-2,355.5	1,603.4	689.4	644.2	45.18	15.259	
10,137.8	7,117.2	7,104.8	7,103.6	47.1	2.0	-90.42	-2,355.5	1,603.4	681.4	635.6	45.84	14.864	
10,200.0	7,116.9	7,105.3	7,104.1	48.1	2.0	-90.47	-2,355.5	1,603.4	672.6	625.7	46.93	14.332	
10,236.2	7,116.8	7,105.6	7,104.4	48.7	2.0	-90.49	-2,355.5	1,603.4	670.1	622.6	47.57	14.087	
10,264.4	7,116.6	7,105.8	7,104.6	49.1	2.0	-90.52	-2,355.5	1,603.4	669.5	621.5	48.07	13.929 CC, ES	
10,300.0	7,116.5	7,106.1	7,105.0	49.7	2.0	-90.54	-2,355.5	1,603.4	670.5	621.8	48.70	13.769	
10,334.6	7,116.3	7,106.4	7,105.2	50.3	2.0	-90.57	-2,355.5	1,603.4	673.2	623.9	49.31	13.653	
10,400.0	7,116.0	7,107.0	7,105.8	51.4	2.0	-90.61	-2,355.6	1,603.4	683.1	632.7	50.47	13.535	
10,433.0	7,115.9	7,107.3	7,106.1	52.0	2.0	-90.64	-2,355.6	1,603.4	690.5	639.4	51.06	13.522 SF	
10,500.0	7,115.6	7,107.8	7,106.6	53.1	2.0	-90.69	-2,355.6	1,603.4	709.8	657.5	52.26	13.583	
10,531.5	7,115.4	7,108.1	7,106.9	53.6	2.0	-90.71	-2,355.6	1,603.3	720.8	668.0	52.82	13.647	
10,600.0	7,115.1	7,108.7	7,107.5	54.8	2.0	-90.76	-2,355.6	1,603.3	748.9	694.9	54.05	13.856	
10,629.9	7,115.0	7,108.9	7,107.7	55.3	2.0	-90.78	-2,355.6	1,603.3	762.8	708.2	54.59	13.973	
10,700.0	7,114.7	7,109.5	7,108.3	56.5	2.0	-90.83	-2,355.6	1,603.3	798.8	742.9	55.86	14.301	
10,728.3	7,114.6	7,109.7	7,108.5	57.0	2.0	-90.85	-2,355.6	1,603.3	814.6	758.2	56.37	14.451	
10,800.0	7,114.2	7,110.3	7,109.1	58.3	2.0	-90.90	-2,355.6	1,603.3	857.4	799.8	57.67	14.868	
10,826.7	7,114.1	7,110.5	7,109.3	58.7	2.0	-90.91	-2,355.6	1,603.3	874.4	816.2	58.15	15.035	
10,900.0	7,113.8	7,111.1	7,109.9	60.0	2.0	-90.97	-2,355.6	1,603.3	923.2	863.7	59.49	15.519	
10,925.2	7,113.7	7,111.3	7,110.1	60.5	2.0	-90.98	-2,355.6	1,603.3	940.7	880.8	59.95	15.693	
11,000.0	7,113.3	7,111.9	7,110.7	61.8	2.0	-91.03	-2,355.6	1,603.3	994.7	933.4	61.31	16.224	
11,023.6	7,113.2	7,112.1	7,110.9	62.2	2.0	-91.05	-2,355.6	1,603.3	1,012.3	950.5	61.74	16.395	
11,100.0	7,112.9	7,112.7	7,111.5	63.5	2.0	-91.10	-2,355.6	1,603.3	1,070.8	1,007.6	63.14	16.958	
11,122.0	7,112.8	7,112.9	7,111.7	63.9	2.0	-91.12	-2,355.6	1,603.3	1,088.0	1,024.5	63.54	17.122	
11,200.0	7,112.4	7,113.5	7,112.3	65.3	2.0	-91.17	-2,355.6	1,603.3	1,150.5	1,085.5	64.98	17.707	
11,220.4	7,112.4	7,113.6	7,112.4	65.7	2.0	-91.18	-2,355.6	1,603.3	1,167.2	1,101.8	65.35	17.860	
11,300.0	7,112.0	7,114.2	7,113.1	67.1	2.0	-91.24	-2,355.6	1,603.3	1,233.2	1,166.4	66.82	18.457	
11,318.9	7,111.9	7,114.4	7,113.2	67.4	2.0	-91.25	-2,355.6	1,603.3	1,249.1	1,181.9	67.16	18.598	
11,400.0	7,111.6	7,115.0	7,113.8	68.9	2.0	-91.30	-2,355.7	1,603.3	1,318.3	1,249.6	68.66	19.200	
11,417.3	7,111.5	7,115.1	7,114.0	69.2	2.0	-91.31	-2,355.7	1,603.3	1,333.2	1,264.2	68.98	19.328	
11,500.0	7,111.1	7,115.8	7,114.6	70.7	2.0	-91.37	-2,355.7	1,603.3	1,405.3	1,334.8	70.51	19.932	
11,515.7	7,111.0	7,115.9	7,114.7	71.0	2.0	-91.38	-2,355.7	1,603.3	1,419.2	1,348.4	70.80	20.045	
11,600.0	7,110.7	7,116.5	7,115.3	72.5	2.0	-91.43	-2,355.7	1,603.3	1,494.0	1,421.7	72.36	20.647	
11,614.1	7,110.6	7,116.6	7,115.4	72.7	2.0	-91.44	-2,355.7	1,603.3	1,506.7	1,434.1	72.62	20.747	
11,700.0	7,110.2	7,117.3	7,116.1	74.3	2.0	-91.50	-2,355.7	1,603.3	1,584.0	1,509.8	74.21	21.344	
11,712.6	7,110.2	7,117.4	7,116.2	74.5	2.0	-91.50	-2,355.7	1,603.3	1,595.5	1,521.0	74.45	21.430	
11,747.9	7,110.0	7,117.6	7,116.4	75.1	2.0	-91.53	-2,355.7	1,603.3	1,627.5	1,552.4	75.10	21.671	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN-MCCARTY 30-5 - Wellbore #1 - Wellbore												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<b>Offset Well Error:</b>	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	121.50	-1,015.6	1,657.5	1,944.4				
98.4	98.4	54.5	54.5	0.1	0.0	121.50	-1,015.6	1,657.5	1,943.9	1,943.8	0.12	N/A	
100.0	100.0	56.1	56.1	0.1	0.0	121.50	-1,015.6	1,657.5	1,943.9	1,943.8	0.12	N/A	
196.8	196.8	154.3	154.3	0.3	0.1	121.49	-1,015.2	1,657.7	1,943.9	1,943.4	0.45	4,350.549	
200.0	200.0	157.5	157.5	0.3	0.1	121.49	-1,015.2	1,657.7	1,943.9	1,943.4	0.46	4,235.895	
295.3	295.3	256.8	256.8	0.5	0.3	121.48	-1,014.9	1,657.7	1,943.7	1,942.9	0.78	2,490.154	
300.0	300.0	261.8	261.8	0.5	0.3	121.48	-1,014.9	1,657.7	1,943.7	1,942.9	0.79	2,445.438	
393.7	393.7	357.3	357.3	0.7	0.3	121.48	-1,014.7	1,657.4	1,943.3	1,942.3	1.07	1,823.085	
400.0	400.0	363.6	363.6	0.8	0.3	121.48	-1,014.7	1,657.4	1,943.3	1,942.2	1.08	1,793.293	
492.1	492.1	452.3	452.3	1.0	0.4	121.48	-1,014.7	1,657.0	1,943.0	1,941.7	1.34	1,452.198	
500.0	500.0	459.7	459.7	1.0	0.4	121.48	-1,014.7	1,657.0	1,943.0	1,941.6	1.36	1,429.191	
590.5	590.5	551.2	551.2	1.2	0.4	121.49	-1,015.0	1,656.7	1,942.9	1,941.3	1.61	1,207.997	
600.0	600.0	561.3	561.3	1.2	0.4	121.49	-1,015.0	1,656.6	1,942.8	1,941.2	1.63	1,188.697	
689.0	689.0	653.7	653.7	1.4	0.5	121.50	-1,015.0	1,656.2	1,942.5	1,940.6	1.88	1,032.958	
700.0	700.0	664.8	664.8	1.4	0.5	121.50	-1,015.0	1,656.1	1,942.4	1,940.5	1.91	1,016.432	
787.4	787.4	755.4	755.4	1.6	0.5	121.51	-1,014.9	1,655.7	1,942.0	1,939.8	2.15	902.375	
800.0	800.0	768.7	768.7	1.7	0.5	121.51	-1,014.8	1,655.6	1,941.9	1,939.7	2.19	888.037	
885.8	885.8	854.0	854.0	1.9	0.6	121.51	-1,014.6	1,655.1	1,941.3	1,938.9	2.42	802.542	
900.0	900.0	867.7	867.7	1.9	0.6	121.51	-1,014.5	1,655.0	1,941.2	1,938.8	2.46	790.090	
984.2	984.2	952.7	952.7	2.1	0.6	121.51	-1,014.3	1,654.6	1,940.7	1,938.1	2.68	723.229	
1,000.0	1,000.0	969.1	969.1	2.1	0.6	121.51	-1,014.2	1,654.5	1,940.6	1,937.9	2.73	711.942	
1,082.7	1,082.7	1,053.6	1,053.6	2.3	0.7	121.51	-1,013.9	1,653.9	1,940.0	1,937.1	2.95	658.284	
1,100.0	1,100.0	1,071.1	1,071.1	2.3	0.7	121.51	-1,013.9	1,653.8	1,939.9	1,936.9	2.99	648.076	
1,181.1	1,181.1	1,153.6	1,153.5	2.5	0.7	121.51	-1,013.6	1,653.2	1,939.2	1,936.0	3.21	604.347	
1,200.0	1,200.0	1,172.8	1,172.8	2.6	0.7	121.51	-1,013.5	1,653.1	1,939.1	1,935.8	3.26	595.004	
1,279.5	1,279.5	1,248.6	1,248.6	2.7	0.8	121.51	-1,013.2	1,652.5	1,938.4	1,935.0	3.47	559.110	
1,300.0	1,300.0	1,267.5	1,267.5	2.8	0.8	121.51	-1,013.1	1,652.4	1,938.3	1,934.8	3.52	550.623	
1,377.9	1,377.9	1,343.4	1,343.3	3.0	0.8	121.52	-1,013.0	1,652.0	1,937.9	1,934.2	3.72	520.703	
1,400.0	1,400.0	1,365.8	1,365.7	3.0	0.8	121.52	-1,013.0	1,652.0	1,937.8	1,934.0	3.78	512.851	
1,476.4	1,476.4	1,445.3	1,445.3	3.2	0.8	121.51	-1,012.6	1,651.6	1,937.4	1,933.4	3.98	487.261	
1,500.0	1,500.0	1,470.4	1,470.4	3.2	0.8	121.51	-1,012.5	1,651.5	1,937.2	1,933.2	4.04	479.818	
1,574.8	1,574.8	1,546.5	1,546.5	3.4	0.9	121.52	-1,012.3	1,650.9	1,936.6	1,932.4	4.23	457.576	
1,600.0	1,600.0	1,571.5	1,571.4	3.5	0.9	121.52	-1,012.2	1,650.7	1,936.4	1,932.1	4.30	450.522	
1,673.2	1,673.2	1,642.6	1,642.6	3.6	0.9	121.52	-1,012.0	1,650.2	1,935.9	1,931.4	4.49	431.299	
1,700.0	1,700.0	1,668.3	1,668.3	3.7	0.9	121.52	-1,012.0	1,650.0	1,935.7	1,931.1	4.56	424.697	
1,750.0	1,750.0	1,718.0	1,718.0	3.8	0.9	121.53	-1,011.9	1,649.7	1,935.4	1,930.7	4.69	412.811	
1,771.6	1,771.6	1,741.1	1,741.0	3.8	0.9	79.53	-1,011.9	1,649.5	1,935.2	1,930.4	4.78	404.648	
1,800.0	1,800.0	1,771.2	1,771.2	3.9	1.0	79.55	-1,011.9	1,649.3	1,935.0	1,930.1	4.86	398.438	
1,870.1	1,870.0	1,842.2	1,842.1	4.1	1.0	79.64	-1,011.9	1,648.6	1,934.0	1,928.9	5.03	384.113	
1,900.0	1,899.9	1,871.5	1,871.5	4.1	1.0	79.70	-1,011.9	1,648.3	1,933.5	1,928.4	5.11	378.319	
1,968.5	1,968.3	1,940.3	1,940.2	4.3	1.0	79.86	-1,011.7	1,647.8	1,932.2	1,926.9	5.29	365.486	
2,000.0	1,999.7	1,972.4	1,972.4	4.3	1.0	79.95	-1,011.6	1,647.5	1,931.4	1,926.1	5.37	359.839	
2,066.9	2,066.3	2,039.4	2,039.3	4.5	1.1	80.19	-1,011.6	1,646.8	1,929.7	1,924.2	5.54	348.142	
2,100.0	2,099.1	2,072.0	2,072.0	4.6	1.1	80.32	-1,011.6	1,646.5	1,928.7	1,923.1	5.63	342.560	
2,165.3	2,163.9	2,135.3	2,135.2	4.7	1.1	80.62	-1,011.6	1,645.9	1,926.7	1,920.9	5.81	331.647	
2,200.0	2,198.2	2,168.3	2,168.3	4.8	1.1	80.79	-1,011.5	1,645.6	1,925.6	1,919.7	5.91	326.078	
2,263.8	2,261.0	2,232.2	2,232.2	5.0	1.1	81.15	-1,011.3	1,645.2	1,923.5	1,917.4	6.09	315.584	
2,300.0	2,296.6	2,270.4	2,270.4	5.1	1.1	81.38	-1,011.2	1,644.9	1,922.1	1,915.9	6.20	309.771	
2,362.2	2,357.6	2,331.6	2,331.5	5.3	1.2	81.80	-1,010.8	1,644.4	1,919.6	1,913.2	6.41	299.568	
2,400.0	2,394.4	2,366.5	2,366.4	5.4	1.2	82.05	-1,010.7	1,644.1	1,918.1	1,911.6	6.53	293.639	
2,460.6	2,453.4	2,425.0	2,425.0	5.6	1.2	82.51	-1,010.5	1,643.7	1,915.6	1,908.9	6.75	283.690	
2,500.0	2,491.5	2,465.7	2,465.6	5.7	1.2	82.85	-1,010.4	1,643.4	1,914.0	1,907.1	6.90	277.429	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,548.3	2,523.4	2,523.4	5.9	1.2	83.37	-1,010.1	1,642.9	1,911.4	1,904.2	7.14	267.630	
2,600.0	2,587.6	2,560.7	2,560.6	6.1	1.2	83.72	-1,009.9	1,642.6	1,909.6	1,902.3	7.31	261.187	
2,657.5	2,642.4	2,613.6	2,613.5	6.3	1.3	84.24	-1,009.5	1,642.3	1,907.2	1,899.6	7.58	251.695	
2,700.0	2,682.7	2,654.4	2,654.4	6.5	1.3	84.66	-1,009.3	1,642.0	1,905.4	1,897.7	7.78	244.981	
2,750.0	2,729.8	2,700.0	2,699.9	6.8	1.3	85.16	-1,009.0	1,641.7	1,903.4	1,895.4	8.03	236.934	
2,755.9	2,735.4	2,707.2	2,707.1	6.8	1.3	85.23	-1,009.0	1,641.7	1,903.2	1,895.1	8.07	235.962	
2,800.0	2,776.8	2,746.0	2,745.9	7.0	1.3	85.63	-1,008.9	1,641.4	1,901.6	1,893.3	8.30	229.055	
2,854.3	2,827.8	2,793.8	2,793.7	7.3	1.3	86.13	-1,008.7	1,641.2	1,899.8	1,891.2	8.60	220.816	
2,900.0	2,870.8	2,837.1	2,837.0	7.5	1.3	86.57	-1,008.6	1,641.0	1,898.5	1,889.6	8.86	214.267	
2,952.7	2,920.3	2,887.7	2,887.6	7.8	1.4	87.09	-1,008.4	1,640.8	1,897.1	1,887.9	9.17	206.928	
3,000.0	2,964.7	2,931.6	2,931.5	8.1	1.4	87.54	-1,008.1	1,640.7	1,896.0	1,886.6	9.44	200.751	
3,051.2	3,012.8	2,978.4	2,978.3	8.4	1.4	88.03	-1,008.0	1,640.5	1,895.0	1,885.3	9.75	194.313	
3,100.0	3,058.7	3,023.4	3,023.3	8.7	1.4	88.50	-1,007.9	1,640.2	1,894.2	1,884.2	10.05	188.543	
3,149.6	3,105.3	3,069.5	3,069.4	9.0	1.4	88.98	-1,007.9	1,640.0	1,893.6	1,883.2	10.35	182.929	
3,200.0	3,152.7	3,116.3	3,116.2	9.3	1.4	89.47	-1,008.0	1,639.6	1,893.1	1,882.5	10.66	177.562	
3,248.0	3,197.8	3,160.9	3,160.9	9.5	1.4	89.94	-1,008.2	1,639.3	1,892.8	1,881.9	10.96	172.677	
3,300.0	3,246.6	3,210.0	3,209.9	9.9	1.5	90.46	-1,008.3	1,638.9	1,892.7	1,881.4	11.29	167.687	
3,335.5	3,280.0	3,245.5	3,245.4	10.1	1.5	90.84	-1,008.4	1,638.6	1,892.7	1,881.2	11.51	164.396	
3,346.4	3,290.3	3,256.5	3,256.4	10.1	1.5	90.95	-1,008.4	1,638.5	1,892.7	1,881.1	11.58	163.405	
3,400.0	3,340.6	3,309.9	3,309.9	10.5	1.5	91.52	-1,008.6	1,637.9	1,892.7	1,880.8	11.92	158.735	
3,444.9	3,382.8	3,354.2	3,354.1	10.8	1.5	91.99	-1,008.7	1,637.3	1,892.9	1,880.7	12.21	154.983	
3,500.0	3,434.6	3,407.9	3,407.8	11.1	1.5	92.56	-1,008.8	1,636.6	1,893.2	1,880.6	12.57	150.623	
3,543.3	3,475.3	3,447.4	3,447.3	11.4	1.5	92.98	-1,008.9	1,636.0	1,893.5	1,880.7	12.85	147.356	
3,600.0	3,528.6	3,500.0	3,499.9	11.7	1.6	93.55	-1,009.0	1,635.3	1,894.2	1,881.0	13.22	143.306	
3,641.7	3,567.8	3,536.8	3,536.7	12.0	1.6	93.94	-1,009.1	1,634.8	1,894.9	1,881.4	13.49	140.469	
3,700.0	3,622.5	3,589.6	3,589.5	12.4	1.6	94.50	-1,009.3	1,634.2	1,896.1	1,882.2	13.87	136.712	
3,740.1	3,660.3	3,624.6	3,624.5	12.6	1.6	94.87	-1,009.4	1,633.8	1,897.0	1,882.9	14.13	134.257	
3,749.0	3,668.6	3,632.2	3,632.1	12.7	1.6	94.95	-1,009.4	1,633.7	1,897.3	1,883.1	14.19	133.731	
3,800.0	3,716.5	3,675.9	3,675.8	13.0	1.6	92.61	-1,009.6	1,633.3	1,898.3	1,883.8	14.50	130.955	
3,838.6	3,752.8	3,710.0	3,709.9	13.2	1.6	90.84	-1,009.8	1,633.0	1,898.7	1,884.0	14.72	129.018	
3,885.2	3,796.6	3,754.7	3,754.5	13.5	1.6	88.75	-1,010.0	1,632.7	1,898.6	1,883.6	14.98	126.742	
3,900.0	3,810.5	3,768.9	3,768.8	13.6	1.6	88.90	-1,010.1	1,632.6	1,898.5	1,883.4	15.07	125.961	
3,937.0	3,845.3	3,804.0	3,803.9	13.8	1.6	89.27	-1,010.2	1,632.5	1,898.2	1,882.9	15.31	123.949	
4,000.0	3,904.5	3,859.3	3,859.2	14.2	1.7	89.85	-1,010.4	1,632.1	1,898.0	1,882.3	15.73	120.694	
4,002.6	3,906.9	3,861.6	3,861.5	14.2	1.7	89.88	-1,010.4	1,632.1	1,898.0	1,882.3	15.74	120.565	
4,035.4	3,937.7	3,890.4	3,890.3	14.5	1.7	90.18	-1,010.7	1,631.9	1,898.1	1,882.1	15.96	118.942	
4,100.0	3,998.4	3,952.7	3,952.5	14.9	1.7	90.84	-1,011.2	1,631.4	1,898.4	1,882.0	16.38	115.904	
4,133.8	4,030.2	3,985.9	3,985.8	15.1	1.7	91.20	-1,011.4	1,631.2	1,898.6	1,882.0	16.60	114.374	
4,200.0	4,092.4	4,044.9	4,044.7	15.5	1.7	91.82	-1,011.8	1,630.7	1,899.3	1,882.3	17.03	111.515	
4,232.3	4,122.7	4,072.7	4,072.6	15.8	1.7	92.12	-1,012.1	1,630.5	1,899.8	1,882.6	17.24	110.178	
4,300.0	4,186.4	4,134.6	4,134.5	16.2	1.7	92.79	-1,013.0	1,629.8	1,901.2	1,883.5	17.68	107.506	
4,330.7	4,215.2	4,164.1	4,164.0	16.4	1.7	93.11	-1,013.4	1,629.4	1,901.9	1,884.0	17.88	106.345	
4,400.0	4,280.3	4,228.3	4,228.1	16.9	1.7	93.80	-1,014.3	1,628.5	1,903.7	1,885.3	18.33	103.832	
4,429.1	4,307.7	4,254.1	4,254.0	17.1	1.7	94.09	-1,014.8	1,628.1	1,904.5	1,886.0	18.52	102.817	
4,500.0	4,374.3	4,320.1	4,319.9	17.6	1.8	94.80	-1,015.9	1,627.2	1,907.0	1,888.0	18.98	100.459	
4,527.5	4,400.2	4,349.0	4,348.8	17.7	1.8	95.12	-1,016.4	1,626.7	1,908.0	1,888.8	19.16	99.579	
4,600.0	4,468.3	4,422.9	4,422.6	18.2	1.8	95.92	-1,017.5	1,625.4	1,910.7	1,891.0	19.63	97.349	
4,626.0	4,492.7	4,447.8	4,447.5	18.4	1.8	96.19	-1,017.8	1,625.0	1,911.7	1,891.9	19.79	96.575	
4,700.0	4,562.3	4,518.8	4,518.6	18.9	1.8	96.96	-1,018.7	1,623.6	1,914.8	1,894.5	20.27	94.457	
4,724.4	4,585.2	4,542.3	4,542.0	19.1	1.8	97.21	-1,018.9	1,623.2	1,915.9	1,895.4	20.43	93.784	
4,800.0	4,656.2	4,614.7	4,614.5	19.6	1.8	97.99	-1,019.7	1,621.8	1,919.4	1,898.5	20.91	91.781	
4,822.8	4,677.7	4,636.3	4,636.1	19.7	1.9	98.22	-1,020.0	1,621.3	1,920.6	1,899.5	21.06	91.198	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,750.2	4,708.3	4,708.1	20.3	1.9	99.00	-1,020.8	1,619.8	1,924.7	1,903.1	21.55	89.305	
4,921.2	4,770.2	4,726.4	4,726.1	20.4	1.9	99.19	-1,021.0	1,619.4	1,925.9	1,904.2	21.69	88.803	
5,000.0	4,844.2	4,793.7	4,793.4	20.9	1.9	99.90	-1,021.7	1,618.4	1,930.8	1,908.6	22.19	87.018	
5,019.7	4,862.7	4,811.5	4,811.2	21.1	1.9	100.09	-1,021.9	1,618.3	1,932.1	1,909.8	22.31	86.592	
5,100.0	4,938.1	4,886.3	4,886.0	21.6	1.9	100.86	-1,022.7	1,617.5	1,937.7	1,914.9	22.82	84.927	
5,118.1	4,955.1	4,903.4	4,903.1	21.7	1.9	101.04	-1,022.9	1,617.3	1,939.1	1,916.1	22.93	84.565	
5,200.0	5,032.1	4,985.1	4,984.8	22.3	2.0	101.89	-1,023.7	1,616.3	1,945.2	1,921.8	23.44	82.998	
5,216.5	5,047.6	5,001.5	5,001.2	22.4	2.0	102.05	-1,023.8	1,616.1	1,946.5	1,923.0	23.54	82.692	
5,300.0	5,126.1	5,079.0	5,078.7	23.0	2.0	102.84	-1,024.3	1,615.3	1,953.2	1,929.1	24.06	81.193	
5,314.9	5,140.1	5,092.9	5,092.6	23.1	2.0	102.98	-1,024.4	1,615.2	1,954.4	1,930.3	24.15	80.934	
5,400.0	5,220.0	5,174.9	5,174.5	23.7	2.0	103.80	-1,024.8	1,614.5	1,961.7	1,937.0	24.67	79.520	
5,413.4	5,232.6	5,187.8	5,187.5	23.8	2.0	103.93	-1,024.9	1,614.4	1,962.8	1,938.1	24.75	79.305	
5,504.2	5,318.0	5,268.5	5,268.1	24.4	2.0	104.74	-1,025.3	1,613.8	1,971.1	1,945.8	25.31	77.885	
5,511.8	5,325.1	5,275.1	5,274.8	24.4	2.0	104.82	-1,025.4	1,613.7	1,971.9	1,946.5	25.35	77.800	
5,600.0	5,408.5	5,368.0	5,367.7	24.9	2.1	105.86	-1,026.0	1,612.6	1,980.0	1,954.3	25.76	76.859	
5,610.2	5,418.2	5,379.7	5,379.4	25.0	2.1	105.98	-1,026.1	1,612.5	1,980.9	1,955.1	25.80	76.785	
5,700.0	5,504.1	5,471.2	5,470.9	25.4	2.1	106.90	-1,026.2	1,611.1	1,988.2	1,962.1	26.13	76.096	
5,708.6	5,512.4	5,479.8	5,479.5	25.5	2.1	106.98	-1,026.2	1,611.0	1,988.9	1,962.7	26.16	76.039	
5,800.0	5,600.7	5,582.4	5,582.0	25.9	2.1	107.86	-1,025.8	1,609.6	1,995.4	1,968.9	26.46	75.425	
5,807.1	5,607.5	5,590.6	5,590.2	25.9	2.1	107.93	-1,025.7	1,609.5	1,995.8	1,969.4	26.48	75.385	
5,900.0	5,698.1	5,696.2	5,695.8	26.3	2.2	108.71	-1,024.5	1,607.6	2,000.9	1,974.2	26.75	74.810	
5,905.5	5,703.4	5,700.0	5,699.6	26.3	2.2	108.74	-1,024.5	1,607.5	2,001.2	1,974.4	26.76	74.778	
6,000.0	5,796.2	5,774.1	5,773.6	26.6	2.2	109.24	-1,023.8	1,606.0	2,005.7	1,978.6	27.02	74.237	
6,003.9	5,800.1	5,777.1	5,776.7	26.6	2.2	109.26	-1,023.8	1,605.9	2,005.8	1,978.8	27.03	74.219	
6,100.0	5,894.9	5,867.5	5,867.1	26.9	2.2	109.75	-1,023.5	1,604.7	2,010.2	1,982.9	27.25	73.778	
6,102.3	5,897.3	5,869.9	5,869.5	26.9	2.2	109.76	-1,023.5	1,604.7	2,010.3	1,983.0	27.25	73.769	
6,200.0	5,994.2	5,963.2	5,962.7	27.2	2.2	110.13	-1,022.8	1,604.6	2,013.6	1,986.2	27.45	73.365	
6,200.8	5,994.9	5,963.9	5,963.4	27.2	2.2	110.13	-1,022.8	1,604.6	2,013.7	1,986.2	27.45	73.363	
6,299.2	6,093.0	6,053.8	6,053.4	27.4	2.2	110.38	-1,022.2	1,604.9	2,016.3	1,988.7	27.61	73.025	
6,300.0	6,093.8	6,054.6	6,054.1	27.4	2.2	110.38	-1,022.2	1,604.9	2,016.3	1,988.7	27.61	73.022	
6,397.6	6,191.2	6,144.2	6,143.7	27.5	2.2	110.55	-1,022.3	1,604.7	2,018.1	1,990.4	27.74	72.757	
6,400.0	6,193.6	6,146.4	6,146.0	27.5	2.2	110.55	-1,022.3	1,604.7	2,018.2	1,990.4	27.74	72.750	
6,496.0	6,289.6	6,259.6	6,259.2	27.6	2.3	110.63	-1,022.4	1,604.5	2,018.9	1,991.1	27.84	72.523	
6,504.1	6,297.7	6,272.0	6,271.6	27.6	2.3	160.60	-1,022.3	1,604.5	2,018.9	1,991.0	27.85	72.497	
6,594.5	6,388.1	6,359.2	6,358.8	27.7	2.3	160.60	-1,021.5	1,604.1	2,017.9	1,989.9	27.96	72.184	
6,600.0	6,393.6	6,363.8	6,363.3	27.7	2.3	160.60	-1,021.5	1,604.0	2,017.9	1,989.9	27.96	72.165	
6,618.2	6,411.8	6,378.7	6,378.2	27.8	2.3	160.60	-1,021.4	1,604.0	2,017.7	1,989.8	27.99	72.100	
6,650.0	6,443.6	6,405.5	6,405.0	27.8	2.3	-19.42	-1,021.3	1,603.8	2,017.0	1,989.0	27.99	72.058	
6,692.9	6,486.4	6,446.1	6,445.6	27.8	2.3	-19.53	-1,021.3	1,603.6	2,013.9	1,985.9	28.00	71.932	
6,700.0	6,493.4	6,452.8	6,452.3	27.8	2.3	-19.55	-1,021.3	1,603.6	2,013.1	1,985.1	28.00	71.900	
6,750.0	6,542.8	6,500.0	6,499.6	27.8	2.3	-19.81	-1,021.3	1,603.4	2,006.1	1,978.1	28.00	71.640	
6,791.3	6,583.2	6,540.1	6,539.7	27.7	2.3	-20.12	-1,021.4	1,603.2	1,997.8	1,969.9	27.99	71.382	
6,800.0	6,591.6	6,548.5	6,548.1	27.7	2.3	-20.19	-1,021.4	1,603.2	1,995.8	1,967.9	27.98	71.321	
6,850.0	6,639.6	6,596.5	6,596.0	27.6	2.4	-20.72	-1,021.5	1,603.0	1,982.4	1,954.5	27.93	70.985	
6,889.7	6,676.9	6,632.3	6,631.9	27.6	2.4	-21.24	-1,021.5	1,602.9	1,969.6	1,941.7	27.84	70.734	
6,900.0	6,686.4	6,641.4	6,641.0	27.5	2.4	-21.39	-1,021.5	1,602.9	1,965.9	1,938.1	27.82	70.667	
6,950.0	6,731.8	6,685.0	6,684.5	27.4	2.4	-22.23	-1,021.6	1,602.7	1,946.5	1,918.8	27.66	70.378	
6,988.2	6,765.5	6,718.0	6,717.5	27.3	2.4	-22.99	-1,021.8	1,602.6	1,929.7	1,902.2	27.50	70.179	
7,000.0	6,775.8	6,728.2	6,727.8	27.2	2.4	-23.26	-1,021.8	1,602.5	1,924.1	1,896.7	27.44	70.115	
7,050.0	6,817.9	6,770.3	6,769.9	27.1	2.4	-24.51	-1,021.9	1,602.5	1,899.0	1,871.9	27.18	69.870	
7,086.6	6,847.5	6,800.0	6,799.6	26.9	2.4	-25.59	-1,022.0	1,602.4	1,879.0	1,852.0	26.96	69.698	
7,100.0	6,858.1	6,810.9	6,810.5	26.9	2.4	-26.03	-1,022.0	1,602.4	1,871.3	1,844.4	26.88	69.626	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT BROWN-MCCARTY 30-5 - Wellbore #1 - Wellbore												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
7,150.0	6,896.1	6,850.5	6,850.1	26.6	2.4	-27.85	-1,022.1	1,602.4	1,841.0	1,814.5	26.54	69.356	
7,185.0	6,921.3	6,876.8	6,876.4	26.5	2.4	-29.34	-1,022.1	1,602.4	1,818.4	1,792.1	26.30	69.148	
7,200.0	6,931.7	6,887.7	6,887.2	26.4	2.4	-30.04	-1,022.1	1,602.4	1,808.4	1,782.2	26.19	69.046	
7,250.0	6,964.8	6,921.5	6,921.1	26.2	2.4	-32.64	-1,022.2	1,602.3	1,773.7	1,747.8	25.83	68.662	
7,283.4	6,985.4	6,942.5	6,942.0	26.0	2.4	-34.64	-1,022.2	1,602.2	1,749.3	1,723.7	25.59	68.352	
7,300.0	6,995.2	6,952.4	6,951.9	25.9	2.4	-35.72	-1,022.2	1,602.2	1,737.0	1,711.5	25.48	68.177	
7,350.0	7,022.7	6,980.4	6,979.9	25.7	2.4	-39.39	-1,022.2	1,602.1	1,698.5	1,673.4	25.14	67.572	
7,381.9	7,038.8	6,996.7	6,996.2	25.5	2.5	-42.07	-1,022.2	1,602.0	1,673.2	1,648.3	24.93	67.127	
7,400.0	7,047.3	7,004.9	7,004.4	25.4	2.5	-43.71	-1,022.3	1,601.9	1,658.6	1,633.8	24.81	66.861	
7,450.0	7,068.8	7,024.8	7,024.3	25.1	2.5	-48.70	-1,022.3	1,601.8	1,617.4	1,592.9	24.47	66.101	
7,480.3	7,080.3	7,035.5	7,035.0	25.0	2.5	-52.11	-1,022.3	1,601.8	1,591.9	1,567.6	24.25	65.648	
7,500.0	7,087.1	7,041.8	7,041.4	24.9	2.5	-54.48	-1,022.3	1,601.8	1,575.1	1,551.0	24.09	65.381	
7,550.0	7,102.1	7,055.8	7,055.4	24.6	2.5	-61.01	-1,022.4	1,601.7	1,532.1	1,508.5	23.63	64.845	
7,578.7	7,109.2	7,062.5	7,062.1	24.5	2.5	-65.06	-1,022.4	1,601.7	1,507.1	1,483.8	23.31	64.667	
7,600.0	7,113.7	7,066.8	7,066.3	24.4	2.5	-68.17	-1,022.4	1,601.7	1,488.5	1,465.5	23.03	64.626	
7,650.0	7,121.9	7,074.6	7,074.2	24.2	2.5	-75.72	-1,022.5	1,601.7	1,444.6	1,422.3	22.32	64.721	
7,677.1	7,125.0	7,077.5	7,077.1	24.1	2.5	-79.86	-1,022.5	1,601.7	1,420.8	1,398.9	21.92	64.804	
7,700.0	7,126.7	7,079.2	7,078.8	24.0	2.5	-83.33	-1,022.5	1,601.7	1,400.7	1,379.1	21.60	64.852	
7,746.5	7,128.0	7,080.6	7,080.2	23.8	2.5	-90.13	-1,022.5	1,601.6	1,360.1	1,339.0	21.07	64.550	
7,775.6	7,127.9	7,080.6	7,080.2	23.7	2.5	-90.13	-1,022.5	1,601.6	1,334.8	1,313.8	21.00	63.569	
7,800.0	7,127.7	7,080.6	7,080.2	23.6	2.5	-90.13	-1,022.5	1,601.6	1,313.7	1,292.8	20.94	62.747	
7,874.0	7,127.4	7,080.6	7,080.2	23.4	2.5	-90.13	-1,022.5	1,601.6	1,250.5	1,229.9	20.63	60.604	
7,900.0	7,127.3	7,080.6	7,080.2	23.4	2.5	-90.13	-1,022.5	1,601.6	1,228.6	1,208.1	20.53	59.849	
7,972.4	7,127.0	7,080.6	7,080.1	23.3	2.5	-90.13	-1,022.5	1,601.6	1,168.5	1,148.1	20.38	57.344	
8,000.0	7,126.8	7,080.6	7,080.1	23.3	2.5	-90.13	-1,022.5	1,601.6	1,146.0	1,125.7	20.32	56.398	
8,070.8	7,126.5	7,080.6	7,080.1	23.4	2.5	-90.13	-1,022.5	1,601.6	1,089.2	1,068.9	20.32	53.610	
8,100.0	7,126.4	7,080.6	7,080.1	23.5	2.5	-90.13	-1,022.5	1,601.6	1,066.3	1,046.0	20.32	52.487	
8,169.3	7,126.1	7,080.6	7,080.1	23.7	2.5	-90.13	-1,022.5	1,601.6	1,013.2	992.8	20.46	49.534	
8,200.0	7,125.9	7,080.6	7,080.1	23.8	2.5	-90.13	-1,022.5	1,601.6	990.3	969.8	20.52	48.268	
8,267.7	7,125.6	7,080.6	7,080.1	24.1	2.5	-90.13	-1,022.5	1,601.6	941.5	920.7	20.79	45.287	
8,300.0	7,125.5	7,080.6	7,080.1	24.2	2.5	-90.13	-1,022.5	1,601.6	919.0	898.1	20.92	43.932	
8,366.1	7,125.2	7,080.6	7,080.1	24.6	2.5	-90.13	-1,022.5	1,601.6	874.9	853.6	21.31	41.062	
8,400.0	7,125.0	7,080.6	7,080.1	24.8	2.5	-90.13	-1,022.5	1,601.6	853.4	831.9	21.50	39.683	
8,464.5	7,124.7	7,080.5	7,080.1	25.3	2.5	-90.13	-1,022.5	1,601.6	814.7	792.8	21.99	37.046	
8,500.0	7,124.6	7,080.5	7,080.1	25.6	2.5	-90.13	-1,022.5	1,601.6	795.0	772.7	22.26	35.712	
8,563.0	7,124.3	7,080.5	7,080.1	26.1	2.5	-90.13	-1,022.5	1,601.6	762.6	739.8	22.83	33.402	
8,600.0	7,124.1	7,080.5	7,080.1	26.4	2.5	-90.12	-1,022.5	1,601.6	745.5	722.3	23.17	32.176	
8,661.4	7,123.8	7,080.5	7,080.1	26.9	2.5	-90.12	-1,022.5	1,601.6	720.3	696.5	23.81	30.255	
8,700.0	7,123.7	7,080.5	7,080.1	27.3	2.5	-90.12	-1,022.5	1,601.6	706.7	682.5	24.21	29.194	
8,759.8	7,123.4	7,080.5	7,080.1	27.9	2.5	-90.12	-1,022.5	1,601.6	689.5	664.6	24.90	27.691	
8,800.0	7,123.2	7,080.5	7,080.1	28.3	2.5	-90.12	-1,022.5	1,601.6	680.6	655.2	25.36	26.835	
8,858.2	7,123.0	7,080.5	7,080.1	28.9	2.5	-90.12	-1,022.5	1,601.6	671.8	645.7	26.09	25.748	
8,900.0	7,122.8	7,080.5	7,080.1	29.4	2.5	-90.12	-1,022.5	1,601.6	668.5	641.9	26.61	25.120	
8,931.3	7,122.6	7,080.5	7,080.0	29.7	2.5	-90.12	-1,022.5	1,601.6	667.8	640.8	27.03	24.704 CC, ES	
8,956.7	7,122.5	7,080.5	7,080.0	30.0	2.5	-90.12	-1,022.5	1,601.6	668.3	640.9	27.37	24.416	
9,000.0	7,122.3	7,080.5	7,080.0	30.5	2.5	-90.12	-1,022.5	1,601.6	671.3	643.4	27.95	24.020	
9,055.1	7,122.1	7,080.5	7,080.0	31.2	2.5	-90.12	-1,022.5	1,601.6	679.2	650.4	28.72	23.645	
9,100.0	7,121.9	7,080.5	7,080.0	31.7	2.5	-90.12	-1,022.5	1,601.6	688.8	659.4	29.35	23.464	
9,153.5	7,121.6	7,080.5	7,080.0	32.4	2.5	-90.12	-1,022.5	1,601.6	703.8	673.7	30.14	23.351 SF	
9,200.0	7,121.4	7,080.5	7,080.0	33.0	2.5	-90.12	-1,022.5	1,601.6	719.8	689.0	30.82	23.355	
9,251.9	7,121.2	7,080.5	7,080.0	33.7	2.5	-90.12	-1,022.5	1,601.6	740.8	709.2	31.61	23.435	
9,300.0	7,121.0	7,080.5	7,080.0	34.3	2.5	-90.12	-1,022.5	1,601.6	762.8	730.5	32.34	23.588	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,350.4	7,120.7	7,080.5	7,080.0	35.0	2.5	-90.12	-1,022.5	1,601.6	788.4	755.3	33.13	23.800	
9,400.0	7,120.5	7,080.5	7,080.0	35.7	2.5	-90.12	-1,022.5	1,601.6	815.9	782.0	33.90	24.066	
9,448.8	7,120.3	7,080.5	7,080.0	36.4	2.5	-90.12	-1,022.5	1,601.6	844.8	810.2	34.68	24.359	
9,500.0	7,120.1	7,080.4	7,080.0	37.2	2.5	-90.12	-1,022.5	1,601.6	877.1	841.6	35.50	24.707	
9,547.2	7,119.9	7,080.4	7,080.0	37.8	2.5	-90.12	-1,022.5	1,601.6	908.5	872.2	36.27	25.046	
9,600.0	7,119.6	7,080.4	7,080.0	38.6	2.5	-90.12	-1,022.5	1,601.6	945.0	907.9	37.13	25.450	
9,645.6	7,119.4	7,080.4	7,080.0	39.3	2.5	-90.12	-1,022.5	1,601.6	977.9	940.0	37.89	25.807	
9,700.0	7,119.2	7,080.4	7,080.0	40.1	2.5	-90.12	-1,022.5	1,601.6	1,018.2	979.5	38.79	26.247	
9,744.1	7,119.0	7,080.4	7,080.0	40.8	2.5	-90.12	-1,022.5	1,601.6	1,051.9	1,012.4	39.54	26.606	
9,800.0	7,118.7	7,080.4	7,080.0	41.7	2.5	-90.12	-1,022.5	1,601.6	1,095.7	1,055.2	40.48	27.068	
9,842.5	7,118.5	7,080.4	7,080.0	42.3	2.5	-90.12	-1,022.5	1,601.6	1,129.7	1,088.5	41.20	27.417	
9,900.0	7,118.3	7,080.4	7,080.0	43.2	2.5	-90.12	-1,022.5	1,601.6	1,176.6	1,134.4	42.19	27.890	
9,940.9	7,118.1	7,080.4	7,080.0	43.9	2.5	-90.11	-1,022.5	1,601.6	1,210.5	1,167.6	42.89	28.222	
10,000.0	7,117.8	7,080.4	7,080.0	44.8	2.5	-90.11	-1,022.5	1,601.6	1,260.2	1,216.3	43.91	28.698	
10,039.3	7,117.6	7,080.4	7,079.9	45.5	2.5	-90.11	-1,022.5	1,601.6	1,293.7	1,249.1	44.60	29.009	
10,100.0	7,117.4	7,080.4	7,079.9	46.4	2.5	-90.11	-1,022.5	1,601.6	1,346.0	1,300.4	45.65	29.484	
10,137.8	7,117.2	7,080.4	7,079.9	47.1	2.5	-90.11	-1,022.5	1,601.6	1,378.9	1,332.6	46.32	29.772	
10,200.0	7,116.9	7,080.4	7,079.9	48.1	2.5	-90.11	-1,022.5	1,601.6	1,433.7	1,386.3	47.41	30.241	
10,236.2	7,116.8	7,080.4	7,079.9	48.7	2.5	-90.11	-1,022.5	1,601.6	1,465.8	1,417.8	48.05	30.507	
10,300.0	7,116.5	7,080.4	7,079.9	49.7	2.5	-90.11	-1,022.5	1,601.6	1,522.9	1,473.7	49.18	30.967	
10,334.6	7,116.3	7,080.4	7,079.9	50.3	2.5	-90.11	-1,022.5	1,601.6	1,554.1	1,504.3	49.80	31.210	
10,400.0	7,116.0	7,080.4	7,079.9	51.4	2.5	-90.11	-1,022.5	1,601.6	1,613.4	1,562.4	50.96	31.660	
10,433.0	7,115.9	7,080.4	7,079.9	52.0	2.5	-90.11	-1,022.5	1,601.6	1,643.5	1,592.0	51.55	31.881	
10,500.0	7,115.6	7,080.4	7,079.9	53.1	2.5	-90.11	-1,022.5	1,601.6	1,704.9	1,652.2	52.75	32.320	
10,531.5	7,115.4	7,080.4	7,079.9	53.6	2.5	-90.11	-1,022.5	1,601.6	1,733.9	1,680.6	53.32	32.521	
10,600.0	7,115.1	7,080.4	7,079.9	54.8	2.5	-90.11	-1,022.5	1,601.6	1,797.3	1,742.8	54.55	32.948	
10,629.9	7,115.0	7,080.4	7,079.9	55.3	2.5	-90.11	-1,022.5	1,601.6	1,825.1	1,770.1	55.09	33.129	
10,700.0	7,114.7	7,080.3	7,079.9	56.5	2.5	-90.11	-1,022.5	1,601.6	1,890.6	1,834.2	56.36	33.545	
10,728.3	7,114.6	7,080.3	7,079.9	57.0	2.5	-90.11	-1,022.5	1,601.6	1,917.1	1,860.2	56.87	33.708	
10,800.0	7,114.2	7,080.3	7,079.9	58.3	2.5	-90.11	-1,022.5	1,601.6	1,984.4	1,926.2	58.18	34.111	
10,826.7	7,114.1	7,080.3	7,079.9	58.7	2.5	-90.11	-1,022.5	1,601.6	2,009.6	1,951.0	58.66	34.257	
10,900.0	7,113.8	7,080.3	7,079.9	60.0	2.5	-90.11	-1,022.5	1,601.6	2,078.9	2,018.9	60.00	34.649	
10,925.2	7,113.7	7,080.3	7,079.9	60.5	2.5	-90.11	-1,022.5	1,601.6	2,102.7	2,042.3	60.46	34.780	
11,000.0	7,113.3	7,080.3	7,079.9	61.8	2.5	-90.11	-1,022.5	1,601.6	2,173.8	2,112.0	61.83	35.159	
11,023.6	7,113.2	7,080.3	7,079.9	62.2	2.5	-90.11	-1,022.5	1,601.6	2,196.3	2,134.0	62.26	35.276	
11,100.0	7,112.9	7,080.3	7,079.9	63.5	2.5	-90.11	-1,022.5	1,601.6	2,269.2	2,205.5	63.66	35.644	
11,122.0	7,112.8	7,080.3	7,079.9	63.9	2.5	-90.11	-1,022.5	1,601.6	2,290.2	2,226.2	64.07	35.748	
11,200.0	7,112.4	7,080.3	7,079.9	65.3	2.5	-90.11	-1,022.5	1,601.6	2,364.9	2,299.4	65.50	36.105	
11,220.4	7,112.4	7,080.3	7,079.9	65.7	2.5	-90.11	-1,022.5	1,601.6	2,384.6	2,318.7	65.88	36.196	
11,300.0	7,112.0	7,080.3	7,079.9	67.1	2.5	-90.11	-1,022.5	1,601.6	2,461.0	2,393.7	67.35	36.543	
11,318.9	7,111.9	7,080.3	7,079.9	67.4	2.5	-90.11	-1,022.5	1,601.6	2,479.2	2,411.5	67.69	36.623	
11,400.0	7,111.6	7,080.3	7,079.9	68.9	2.5	-90.11	-1,022.5	1,601.6	2,557.4	2,488.2	69.19	36.960	
11,417.3	7,111.5	7,080.3	7,079.8	69.2	2.5	-90.11	-1,022.5	1,601.6	2,574.1	2,504.6	69.51	37.030	
11,500.0	7,111.1	7,080.3	7,079.8	70.7	2.5	-90.11	-1,022.5	1,601.6	2,654.1	2,583.0	71.05	37.357	
11,515.7	7,111.0	7,080.3	7,079.8	71.0	2.5	-90.11	-1,022.5	1,601.6	2,669.3	2,598.0	71.34	37.417	
11,600.0	7,110.7	7,080.3	7,079.8	72.5	2.5	-90.11	-1,022.5	1,601.6	2,751.0	2,678.1	72.90	37.735	
11,614.1	7,110.6	7,080.3	7,079.8	72.7	2.5	-90.11	-1,022.5	1,601.6	2,764.7	2,691.5	73.17	37.786	
11,700.0	7,110.2	7,080.3	7,079.8	74.3	2.5	-90.11	-1,022.5	1,601.6	2,848.1	2,773.3	74.76	38.095	
11,712.6	7,110.2	7,080.3	7,079.8	74.5	2.5	-90.11	-1,022.5	1,601.6	2,860.3	2,785.3	75.00	38.139	
11,747.9	7,110.0	7,080.3	7,079.8	75.1	2.5	-90.11	-1,022.5	1,601.6	2,894.6	2,819.0	75.65	38.261	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	9.9	9.9	0.0	0.0	156.22	-3,683.8	1,623.3	4,025.6				
98.4	98.4	132.2	132.2	0.1	0.1	156.22	-3,683.2	1,623.1	4,025.1	4,024.9	0.16	N/A	
100.0	100.0	133.6	133.6	0.1	0.1	156.22	-3,683.2	1,623.1	4,025.1	4,024.9	0.16	N/A	
196.8	196.8	221.7	221.7	0.3	0.2	156.22	-3,682.7	1,623.0	4,024.6	4,024.0	0.53	7,592.889	
200.0	200.0	224.5	224.5	0.3	0.2	156.22	-3,682.7	1,623.0	4,024.5	4,024.0	0.54	7,460.361	
295.3	295.3	309.7	309.7	0.5	0.3	156.21	-3,682.4	1,623.1	4,024.3	4,023.4	0.82	4,883.432	
300.0	300.0	314.8	314.8	0.5	0.3	156.21	-3,682.4	1,623.1	4,024.3	4,023.4	0.84	4,801.725	
393.7	393.7	412.5	412.5	0.7	0.4	156.21	-3,682.1	1,623.2	4,024.0	4,022.9	1.11	3,616.889	
400.0	400.0	418.2	418.2	0.8	0.4	156.21	-3,682.1	1,623.2	4,024.0	4,022.9	1.13	3,561.917	
492.1	492.1	502.2	502.2	1.0	0.4	156.21	-3,681.9	1,623.3	4,023.8	4,022.4	1.38	2,915.659	
500.0	500.0	510.4	510.4	1.0	0.4	156.21	-3,681.8	1,623.3	4,023.8	4,022.4	1.40	2,873.682	
590.5	590.5	600.0	600.0	1.2	0.5	156.21	-3,681.7	1,623.3	4,023.7	4,022.1	1.63	2,467.584	
600.0	600.0	612.3	612.3	1.2	0.5	156.21	-3,681.7	1,623.3	4,023.7	4,022.0	1.65	2,435.296	
647.5	647.5	654.5	654.5	1.3	0.5	156.21	-3,681.7	1,623.3	4,023.7	4,021.9	1.76	2,285.899	
689.0	689.0	691.3	691.3	1.4	0.5	156.21	-3,681.7	1,623.3	4,023.7	4,021.8	1.85	2,169.587	
700.0	700.0	701.3	701.3	1.4	0.5	156.21	-3,681.7	1,623.3	4,023.7	4,021.8	1.88	2,140.029	
787.4	787.4	791.0	791.0	1.6	0.5	156.20	-3,681.7	1,623.5	4,023.8	4,021.7	2.12	1,901.362	
800.0	800.0	804.2	804.2	1.7	0.5	156.20	-3,681.7	1,623.5	4,023.8	4,021.7	2.15	1,872.582	
885.8	885.8	898.6	898.6	1.9	0.5	156.20	-3,681.7	1,623.5	4,023.8	4,021.4	2.35	1,714.384	
900.0	900.0	912.7	912.7	1.9	0.5	156.20	-3,681.7	1,623.5	4,023.8	4,021.4	2.38	1,689.096	
984.2	984.2	995.8	995.8	2.1	0.6	156.20	-3,681.5	1,623.6	4,023.6	4,021.1	2.59	1,552.115	
1,000.0	1,000.0	1,011.4	1,011.4	2.1	0.6	156.20	-3,681.5	1,623.6	4,023.6	4,021.0	2.63	1,529.828	
1,082.7	1,082.7	1,093.8	1,093.8	2.3	0.6	156.20	-3,681.4	1,623.5	4,023.5	4,020.7	2.83	1,424.109	
1,100.0	1,100.0	1,111.9	1,111.9	2.3	0.6	156.20	-3,681.4	1,623.5	4,023.5	4,020.7	2.87	1,402.739	
1,181.1	1,181.1	1,198.9	1,198.9	2.5	0.6	156.20	-3,681.3	1,623.4	4,023.4	4,020.3	3.08	1,308.369	
1,200.0	1,200.0	1,217.8	1,217.8	2.6	0.6	156.20	-3,681.2	1,623.4	4,023.3	4,020.2	3.12	1,287.467	
1,279.5	1,279.5	1,296.8	1,296.8	2.7	0.6	156.20	-3,681.0	1,623.4	4,023.1	4,019.8	3.34	1,206.230	
1,300.0	1,300.0	1,318.0	1,318.0	2.8	0.7	156.20	-3,681.0	1,623.4	4,023.0	4,019.7	3.39	1,186.933	
1,377.9	1,377.9	1,399.5	1,399.5	3.0	0.7	156.20	-3,680.7	1,623.3	4,022.8	4,019.2	3.60	1,118.786	
1,400.0	1,400.0	1,420.7	1,420.6	3.0	0.7	156.20	-3,680.6	1,623.3	4,022.7	4,019.1	3.65	1,101.442	
1,476.4	1,476.4	1,493.8	1,493.8	3.2	0.7	156.20	-3,680.5	1,623.1	4,022.5	4,018.6	3.85	1,045.553	
1,500.0	1,500.0	1,515.8	1,515.8	3.2	0.7	156.20	-3,680.4	1,623.1	4,022.4	4,018.5	3.90	1,030.187	
1,574.8	1,574.8	1,584.7	1,584.7	3.4	0.7	156.20	-3,680.4	1,623.0	4,022.3	4,018.2	4.08	985.225	
1,600.0	1,600.0	1,610.1	1,610.1	3.5	0.7	156.20	-3,680.3	1,623.0	4,022.3	4,018.2	4.14	970.657	
1,673.2	1,673.2	1,696.5	1,696.5	3.6	0.8	156.20	-3,680.1	1,622.9	4,022.1	4,017.8	4.33	929.090	
1,700.0	1,700.0	1,722.8	1,722.8	3.7	0.8	156.20	-3,680.0	1,622.9	4,022.0	4,017.6	4.40	914.781	
1,750.0	1,750.0	1,770.7	1,770.7	3.8	0.8	156.20	-3,679.9	1,622.9	4,021.8	4,017.3	4.52	889.214	
1,771.6	1,771.6	1,791.4	1,791.4	3.8	0.8	114.20	-3,679.8	1,622.9	4,021.8	4,017.2	4.64	866.693	
1,772.1	1,772.1	1,791.8	1,791.8	3.8	0.8	114.20	-3,679.8	1,622.9	4,021.8	4,017.2	4.64	866.473	
1,800.0	1,800.0	1,819.2	1,819.2	3.9	0.8	114.21	-3,679.7	1,622.9	4,021.9	4,017.2	4.71	853.271	
1,870.1	1,870.0	1,888.5	1,888.5	4.1	0.9	114.22	-3,679.4	1,622.9	4,022.5	4,017.6	4.89	822.070	
1,900.0	1,899.9	1,918.6	1,918.6	4.1	0.9	114.23	-3,679.3	1,622.9	4,023.0	4,018.0	4.97	809.533	
1,968.5	1,968.3	1,988.3	1,988.3	4.3	0.9	114.25	-3,679.1	1,623.0	4,024.6	4,019.5	5.15	782.016	
2,000.0	1,999.7	2,018.5	2,018.5	4.3	0.9	114.27	-3,678.9	1,623.1	4,025.6	4,020.3	5.23	770.208	
2,066.9	2,066.3	2,080.4	2,080.4	4.5	0.9	114.29	-3,678.7	1,623.3	4,028.1	4,022.7	5.40	746.006	
2,100.0	2,099.1	2,112.2	2,112.2	4.6	0.9	114.31	-3,678.6	1,623.4	4,029.7	4,024.2	5.49	734.503	
2,165.3	2,163.9	2,179.8	2,179.8	4.7	1.0	114.36	-3,678.4	1,623.6	4,033.2	4,027.5	5.67	711.906	
2,200.0	2,198.2	2,213.1	2,213.0	4.8	1.0	114.39	-3,678.2	1,623.7	4,035.3	4,029.5	5.76	700.723	
2,263.8	2,261.0	2,268.1	2,268.1	5.0	1.0	114.42	-3,678.1	1,623.9	4,039.7	4,033.7	5.94	680.502	
2,300.0	2,296.6	2,300.0	2,300.0	5.1	1.0	114.45	-3,678.1	1,624.0	4,042.5	4,036.5	6.04	669.482	
2,362.2	2,357.6	2,355.6	2,355.6	5.3	1.0	114.49	-3,678.1	1,624.1	4,047.9	4,041.7	6.22	650.784	
2,400.0	2,394.4	2,389.8	2,389.8	5.4	1.0	114.52	-3,678.2	1,624.1	4,051.5	4,045.1	6.33	639.856	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,460.6	2,453.4	2,446.1	2,446.0	5.6	1.0	114.58	-3,678.5	1,624.0	4,057.7	4,051.2	6.54	620.901	
2,500.0	2,491.5	2,482.7	2,482.6	5.7	1.0	114.62	-3,678.6	1,623.9	4,062.1	4,055.5	6.67	609.080	
2,559.0	2,548.3	2,536.6	2,536.6	5.9	1.0	114.68	-3,679.0	1,623.7	4,069.2	4,062.3	6.89	590.434	
2,600.0	2,587.6	2,573.6	2,573.6	6.1	1.0	114.73	-3,679.2	1,623.6	4,074.5	4,067.4	7.05	577.868	
2,657.5	2,642.4	2,628.8	2,628.8	6.3	1.0	114.80	-3,679.7	1,623.2	4,082.4	4,075.1	7.30	559.421	
2,700.0	2,682.7	2,672.2	2,672.2	6.5	1.0	114.87	-3,680.0	1,622.9	4,088.5	4,081.0	7.48	546.401	
2,750.0	2,729.8	2,719.5	2,719.4	6.8	1.0	114.94	-3,680.3	1,622.6	4,096.1	4,088.4	7.72	530.719	
2,755.9	2,735.4	2,724.5	2,724.5	6.8	1.0	114.97	-3,680.4	1,622.6	4,097.0	4,089.3	7.75	528.887	
2,800.0	2,776.8	2,762.2	2,762.2	7.0	1.0	115.14	-3,680.7	1,622.3	4,103.9	4,096.0	7.96	515.551	
2,854.3	2,827.8	2,810.2	2,810.1	7.3	1.0	115.35	-3,681.1	1,621.9	4,112.6	4,104.4	8.23	499.544	
2,900.0	2,870.8	2,856.1	2,856.1	7.5	1.0	115.56	-3,681.5	1,621.6	4,119.9	4,111.5	8.46	486.741	
2,952.7	2,920.3	2,911.4	2,911.4	7.8	1.0	115.81	-3,682.0	1,621.2	4,128.4	4,119.7	8.74	472.347	
3,000.0	2,964.7	2,970.4	2,970.4	8.1	1.1	116.07	-3,682.3	1,620.7	4,135.9	4,127.0	8.99	460.162	
3,051.2	3,012.8	3,031.4	3,031.3	8.4	1.1	116.34	-3,682.5	1,620.0	4,144.0	4,134.7	9.27	447.251	
3,100.0	3,058.7	3,087.1	3,087.1	8.7	1.1	116.59	-3,682.5	1,619.3	4,151.6	4,142.1	9.53	435.587	
3,149.6	3,105.3	3,144.0	3,144.0	9.0	1.1	116.84	-3,682.4	1,618.4	4,159.3	4,149.5	9.81	424.093	
3,200.0	3,152.7	3,202.6	3,202.6	9.3	1.1	117.10	-3,682.2	1,617.5	4,167.0	4,156.9	10.09	413.043	
3,248.0	3,197.8	3,276.2	3,276.1	9.5	1.1	117.42	-3,681.6	1,616.3	4,174.3	4,163.9	10.36	402.788	
3,300.0	3,246.6	3,343.9	3,343.8	9.9	1.1	117.72	-3,680.5	1,615.2	4,181.8	4,171.2	10.66	392.311	
3,346.4	3,290.3	3,400.0	3,399.9	10.1	1.2	117.95	-3,679.4	1,614.6	4,188.5	4,177.6	10.93	383.322	
3,400.0	3,340.6	3,443.2	3,443.0	10.5	1.2	118.14	-3,678.4	1,614.2	4,196.2	4,185.0	11.23	373.525	
3,444.9	3,382.8	3,479.3	3,479.2	10.8	1.2	118.28	-3,677.6	1,614.1	4,202.8	4,191.3	11.49	365.643	
3,500.0	3,434.6	3,524.6	3,524.5	11.1	1.2	118.47	-3,676.7	1,614.0	4,211.0	4,199.2	11.81	356.426	
3,543.3	3,475.3	3,560.7	3,560.5	11.4	1.2	118.61	-3,676.0	1,614.0	4,217.6	4,205.5	12.07	349.458	
3,600.0	3,528.6	3,608.5	3,608.4	11.7	1.2	118.81	-3,675.0	1,614.1	4,226.3	4,213.9	12.40	340.787	
3,641.7	3,567.8	3,645.9	3,645.7	12.0	1.2	118.96	-3,674.4	1,614.1	4,232.8	4,220.2	12.65	334.653	
3,700.0	3,622.5	3,700.0	3,699.8	12.4	1.2	119.17	-3,673.4	1,614.2	4,242.0	4,229.0	12.99	326.488	
3,740.1	3,660.3	3,733.8	3,733.6	12.6	1.3	119.31	-3,672.8	1,614.2	4,248.3	4,235.1	13.23	321.111	
3,749.0	3,668.6	3,741.7	3,741.5	12.7	1.3	119.34	-3,672.7	1,614.2	4,249.7	4,236.5	13.28	319.952	
3,800.0	3,716.5	3,787.2	3,787.0	13.0	1.3	116.65	-3,671.9	1,614.4	4,257.5	4,244.0	13.56	313.946	
3,838.6	3,752.8	3,819.7	3,819.5	13.2	1.3	114.61	-3,671.4	1,614.5	4,262.9	4,249.2	13.76	309.724	
3,885.2	3,796.6	3,857.5	3,857.3	13.5	1.3	112.15	-3,670.8	1,614.6	4,268.9	4,254.9	14.01	304.802	
3,900.0	3,810.5	3,869.5	3,869.4	13.6	1.3	112.20	-3,670.7	1,614.6	4,270.8	4,256.7	14.09	303.053	
3,937.0	3,845.3	3,900.0	3,899.8	13.8	1.3	112.33	-3,670.3	1,614.7	4,275.4	4,261.0	14.32	298.509	
4,000.0	3,904.5	3,963.2	3,963.0	14.2	1.3	112.60	-3,669.5	1,615.0	4,283.3	4,268.6	14.71	291.104	
4,035.4	3,937.7	3,999.1	3,998.9	14.5	1.3	112.75	-3,668.9	1,615.1	4,287.7	4,272.8	14.94	287.091	
4,100.0	3,998.4	4,057.5	4,057.3	14.9	1.4	112.99	-3,668.1	1,615.3	4,295.9	4,280.6	15.34	280.111	
4,133.8	4,030.2	4,088.1	4,087.9	15.1	1.4	113.11	-3,667.7	1,615.5	4,300.3	4,284.8	15.55	276.585	
4,200.0	4,092.4	4,143.1	4,142.8	15.5	1.4	113.34	-3,667.0	1,615.7	4,308.9	4,293.0	15.96	269.995	
4,232.3	4,122.7	4,169.3	4,169.1	15.8	1.4	113.45	-3,666.7	1,615.9	4,313.2	4,297.1	16.16	266.895	
4,300.0	4,186.4	4,225.4	4,225.2	16.2	1.4	113.68	-3,666.1	1,616.3	4,322.4	4,305.8	16.58	260.664	
4,330.7	4,215.2	4,251.5	4,251.2	16.4	1.4	113.78	-3,665.9	1,616.5	4,326.6	4,309.9	16.77	257.942	
4,400.0	4,280.3	4,312.1	4,311.8	16.9	1.4	114.03	-3,665.4	1,617.0	4,336.3	4,319.1	17.20	252.044	
4,429.1	4,307.7	4,341.1	4,340.8	17.1	1.4	114.14	-3,665.1	1,617.2	4,340.4	4,323.0	17.39	249.657	
4,500.0	4,374.3	4,410.7	4,410.5	17.6	1.4	114.42	-3,664.5	1,617.8	4,350.4	4,332.6	17.83	244.062	
4,527.5	4,400.2	4,435.8	4,435.5	17.7	1.5	114.52	-3,664.3	1,618.0	4,354.3	4,336.3	18.00	241.959	
4,600.0	4,468.3	4,500.0	4,499.8	18.2	1.5	114.78	-3,663.7	1,618.5	4,364.7	4,346.3	18.45	236.628	
4,626.0	4,492.7	4,525.0	4,524.8	18.4	1.5	114.88	-3,663.6	1,618.7	4,368.5	4,349.9	18.61	234.782	
4,700.0	4,562.3	4,591.5	4,591.2	18.9	1.5	115.15	-3,663.1	1,619.1	4,379.3	4,360.3	19.07	229.699	
4,724.4	4,585.2	4,613.4	4,613.2	19.1	1.5	115.24	-3,662.9	1,619.3	4,383.0	4,363.7	19.22	228.077	
4,800.0	4,656.2	4,681.7	4,681.4	19.6	1.5	115.51	-3,662.5	1,619.7	4,394.3	4,374.6	19.69	223.223	
4,822.8	4,677.7	4,700.0	4,699.7	19.7	1.5	115.58	-3,662.4	1,619.8	4,397.7	4,377.9	19.83	221.810	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.0	4,750.2	4,768.5	4,768.2	20.3	1.5	115.86	-3,662.1	1,620.0	4,409.5	4,389.2	20.30	217.191	
4,921.2	4,770.2	4,786.7	4,786.4	20.4	1.5	115.93	-3,662.1	1,620.0	4,412.8	4,392.3	20.43	215.959	
5,000.0	4,844.2	4,868.8	4,868.5	20.9	1.6	116.26	-3,661.9	1,619.9	4,425.0	4,404.1	20.92	211.506	
5,019.7	4,862.7	4,890.2	4,890.0	21.1	1.6	116.35	-3,661.8	1,619.9	4,428.0	4,407.0	21.04	210.425	
5,100.0	4,938.1	4,969.0	4,968.8	21.6	1.6	116.66	-3,661.4	1,619.8	4,440.5	4,419.0	21.54	206.140	
5,118.1	4,955.1	4,986.5	4,986.3	21.7	1.6	116.73	-3,661.3	1,619.8	4,443.3	4,421.7	21.65	205.204	
5,200.0	5,032.1	5,056.2	5,056.0	22.3	1.6	117.01	-3,661.0	1,619.7	4,456.2	4,434.0	22.16	201.093	
5,216.5	5,047.6	5,069.9	5,069.6	22.4	1.6	117.06	-3,661.0	1,619.7	4,458.8	4,436.6	22.26	200.287	
5,300.0	5,126.1	5,142.5	5,142.3	23.0	1.6	117.35	-3,660.8	1,619.7	4,472.3	4,449.5	22.78	196.343	
5,314.9	5,140.1	5,156.0	5,155.8	23.1	1.7	117.40	-3,660.7	1,619.7	4,474.8	4,451.9	22.87	195.656	
5,400.0	5,220.0	5,234.6	5,234.3	23.7	1.7	117.71	-3,660.6	1,619.7	4,488.7	4,465.3	23.39	191.870	
5,413.4	5,232.6	5,247.3	5,247.1	23.8	1.7	117.76	-3,660.6	1,619.7	4,490.9	4,467.5	23.48	191.292	
5,504.2	5,318.0	5,335.6	5,335.3	24.4	1.7	118.11	-3,660.4	1,619.7	4,506.0	4,482.0	24.03	187.497	
5,511.8	5,325.1	5,343.2	5,343.0	24.4	1.7	118.16	-3,660.4	1,619.7	4,507.3	4,483.2	24.07	187.281	
5,600.0	5,408.5	5,431.8	5,431.5	24.9	1.7	118.73	-3,660.2	1,619.5	4,521.3	4,496.8	24.47	184.789	
5,610.2	5,418.2	5,442.0	5,441.8	25.0	1.7	118.80	-3,660.1	1,619.5	4,522.8	4,498.3	24.50	184.580	
5,700.0	5,504.1	5,533.5	5,533.3	25.4	1.8	119.32	-3,659.8	1,619.3	4,535.6	4,510.8	24.82	182.737	
5,708.6	5,512.4	5,542.6	5,542.3	25.5	1.8	119.37	-3,659.7	1,619.2	4,536.7	4,511.9	24.85	182.582	
5,800.0	5,600.7	5,629.5	5,629.2	25.9	1.8	119.82	-3,659.2	1,619.3	4,548.2	4,523.1	25.14	180.923	
5,807.1	5,607.5	5,635.2	5,634.9	25.9	1.8	119.85	-3,659.2	1,619.3	4,549.1	4,523.9	25.16	180.813	
5,900.0	5,698.1	5,712.4	5,712.1	26.3	1.8	120.22	-3,659.0	1,619.5	4,559.5	4,534.0	25.42	179.343	
5,905.5	5,703.4	5,717.7	5,717.5	26.3	1.8	120.24	-3,658.9	1,619.5	4,560.0	4,534.6	25.44	179.270	
6,000.0	5,796.2	5,810.3	5,810.1	26.6	1.8	120.59	-3,658.8	1,619.6	4,569.2	4,543.5	25.67	177.968	
6,003.9	5,800.1	5,814.4	5,814.1	26.6	1.8	120.60	-3,658.8	1,619.6	4,569.5	4,543.8	25.68	177.921	
6,100.0	5,894.9	5,912.1	5,911.8	26.9	1.9	120.90	-3,658.6	1,619.7	4,577.1	4,551.2	25.90	176.729	
6,102.3	5,897.3	5,914.1	5,913.8	26.9	1.9	120.91	-3,658.6	1,619.7	4,577.3	4,551.4	25.90	176.707	
6,200.0	5,994.2	6,000.0	5,999.7	27.2	1.9	121.12	-3,658.5	1,619.7	4,583.4	4,557.3	26.08	175.759	
6,200.8	5,994.9	6,000.0	5,999.7	27.2	1.9	121.12	-3,658.5	1,619.7	4,583.5	4,557.4	26.08	175.753	
6,299.2	6,093.0	6,081.6	6,081.4	27.4	1.9	121.28	-3,658.7	1,619.9	4,588.2	4,562.0	26.22	175.009	
6,300.0	6,093.8	6,082.3	6,082.0	27.4	1.9	121.28	-3,658.7	1,619.9	4,588.3	4,562.0	26.22	175.002	
6,397.6	6,191.2	6,190.0	6,189.7	27.5	1.9	121.39	-3,659.0	1,620.2	4,591.4	4,565.0	26.33	174.408	
6,400.0	6,193.6	6,192.8	6,192.5	27.5	1.9	121.39	-3,659.0	1,620.2	4,591.4	4,565.1	26.33	174.392	
6,496.0	6,289.6	6,281.1	6,280.9	27.6	1.9	121.43	-3,659.2	1,620.2	4,592.6	4,566.2	26.41	173.907	
6,504.1	6,297.7	6,288.4	6,288.1	27.6	1.9	171.41	-3,659.2	1,620.2	4,592.7	4,566.2	26.42	173.860	
6,594.5	6,388.1	6,379.0	6,378.8	27.7	1.9	171.41	-3,659.6	1,620.1	4,593.0	4,566.5	26.51	173.249	
6,600.0	6,393.6	6,384.7	6,384.4	27.7	1.9	171.41	-3,659.6	1,620.1	4,593.0	4,566.5	26.52	173.211	
6,618.2	6,411.8	6,403.3	6,403.0	27.8	1.9	171.41	-3,659.7	1,620.1	4,593.1	4,566.5	26.54	173.076	
6,650.0	6,443.6	6,436.4	6,436.2	27.8	1.9	-8.60	-3,659.8	1,620.2	4,592.5	4,566.0	26.52	173.181	
6,692.9	6,486.4	6,481.0	6,480.7	27.8	1.8	-8.64	-3,659.9	1,620.1	4,589.5	4,563.0	26.49	173.257	
6,700.0	6,493.4	6,488.4	6,488.1	27.8	1.8	-8.65	-3,660.0	1,620.1	4,588.7	4,562.2	26.49	173.255	
6,750.0	6,542.8	6,544.0	6,543.7	27.8	1.8	-8.76	-3,660.1	1,620.0	4,581.5	4,555.0	26.45	173.199	
6,791.3	6,583.2	6,590.4	6,590.2	27.7	1.8	-8.88	-3,660.1	1,619.9	4,572.9	4,546.5	26.41	173.163	
6,800.0	6,591.6	6,600.0	6,599.7	27.7	1.8	-8.91	-3,660.1	1,619.8	4,570.8	4,544.4	26.40	173.158	
6,850.0	6,639.6	6,639.5	6,639.3	27.6	1.8	-9.12	-3,660.2	1,619.7	4,556.7	4,530.4	26.29	173.320	
6,889.7	6,676.9	6,670.3	6,670.0	27.6	1.8	-9.32	-3,660.3	1,619.7	4,543.3	4,517.1	26.17	173.631	
6,900.0	6,686.4	6,678.1	6,677.8	27.5	1.8	-9.38	-3,660.3	1,619.7	4,539.5	4,513.4	26.13	173.734	
6,950.0	6,731.8	6,721.9	6,721.7	27.4	1.8	-9.72	-3,660.5	1,619.5	4,519.2	4,493.2	25.91	174.410	
6,988.2	6,765.5	6,760.9	6,760.7	27.3	1.8	-10.03	-3,660.6	1,619.4	4,501.5	4,475.8	25.71	175.095	
7,000.0	6,775.8	6,772.8	6,772.5	27.2	1.8	-10.14	-3,660.7	1,619.3	4,495.7	4,470.0	25.64	175.335	
7,050.0	6,817.9	6,815.8	6,815.5	27.1	1.8	-10.65	-3,660.8	1,619.1	4,469.2	4,443.9	25.31	176.590	
7,086.6	6,847.5	6,841.0	6,840.7	26.9	1.8	-11.09	-3,660.9	1,619.0	4,448.0	4,423.0	25.03	177.740	
7,100.0	6,858.1	6,850.0	6,849.7	26.9	1.8	-11.26	-3,660.9	1,619.0	4,439.9	4,415.0	24.92	178.190	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT MCCART 30-2 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
7,150.0	6,896.1	6,882.4	6,882.2	26.6	1.8	-12.00	-3,661.1	1,618.8	4,407.9	4,383.5	24.48	180.041	
7,185.0	6,921.3	6,904.9	6,904.7	26.5	1.8	-12.62	-3,661.2	1,618.7	4,384.1	4,359.9	24.16	181.438	
7,200.0	6,931.7	6,915.9	6,915.6	26.4	1.8	-12.91	-3,661.3	1,618.7	4,373.5	4,349.5	24.03	182.022	
7,250.0	6,964.8	6,950.7	6,950.5	26.2	1.8	-14.04	-3,661.5	1,618.5	4,336.7	4,313.1	23.57	183.979	
7,283.4	6,985.4	6,972.5	6,972.2	26.0	1.8	-14.94	-3,661.6	1,618.3	4,310.8	4,287.5	23.27	185.212	
7,300.0	6,995.2	6,982.8	6,982.5	25.9	1.8	-15.44	-3,661.7	1,618.2	4,297.6	4,274.5	23.13	185.766	
7,350.0	7,022.7	7,016.8	7,016.5	25.7	1.9	-17.24	-3,661.9	1,617.8	4,256.6	4,233.8	22.76	187.006	
7,381.9	7,038.8	7,040.6	7,040.4	25.5	1.9	-18.68	-3,662.0	1,617.5	4,229.4	4,206.8	22.58	187.304	
7,400.0	7,047.3	7,053.3	7,053.0	25.4	1.9	-19.61	-3,662.0	1,617.3	4,213.7	4,191.2	22.50	187.280	
7,450.0	7,068.8	7,085.0	7,084.7	25.1	1.9	-22.75	-3,662.1	1,616.8	4,169.1	4,146.7	22.38	186.306	
7,480.3	7,080.3	7,102.1	7,101.8	25.0	1.9	-25.18	-3,662.1	1,616.6	4,141.4	4,119.0	22.39	184.936	
7,500.0	7,087.1	7,114.0	7,113.7	24.9	1.9	-27.06	-3,662.1	1,616.4	4,123.2	4,100.7	22.45	183.659	
7,550.0	7,102.1	7,139.8	7,139.5	24.6	1.9	-33.22	-3,662.0	1,616.0	4,076.0	4,053.3	22.73	179.314	
7,578.7	7,109.2	7,151.8	7,151.5	24.5	1.9	-37.96	-3,661.9	1,615.8	4,048.5	4,025.6	22.95	176.379	
7,600.0	7,113.7	7,159.4	7,159.1	24.4	1.9	-42.24	-3,661.9	1,615.6	4,028.0	4,004.9	23.11	174.330	
7,650.0	7,121.9	7,172.8	7,172.5	24.2	1.9	-55.66	-3,661.8	1,615.4	3,979.3	3,956.2	23.12	172.121	
7,677.1	7,125.0	7,177.6	7,177.3	24.1	1.9	-65.30	-3,661.7	1,615.3	3,952.7	3,930.1	22.63	174.695	
7,700.0	7,126.7	7,180.2	7,179.9	24.0	1.9	-74.63	-3,661.7	1,615.3	3,930.3	3,908.5	21.77	180.500	
7,746.5	7,128.0	7,181.7	7,181.4	23.8	1.9	-95.34	-3,661.7	1,615.2	3,884.5	3,864.5	20.01	194.163	
7,775.6	7,127.9	7,181.0	7,180.7	23.7	1.9	-95.29	-3,661.7	1,615.3	3,855.9	3,836.0	19.93	193.490	
7,800.0	7,127.7	7,180.5	7,180.2	23.6	1.9	-95.24	-3,661.7	1,615.3	3,831.9	3,812.0	19.86	192.922	
7,874.0	7,127.4	7,178.8	7,178.5	23.4	1.9	-95.11	-3,661.7	1,615.3	3,759.1	3,739.5	19.54	192.331	
7,900.0	7,127.3	7,178.3	7,178.0	23.4	1.9	-95.06	-3,661.7	1,615.3	3,733.5	3,714.1	19.43	192.119	
7,972.4	7,127.0	7,176.7	7,176.4	23.3	1.9	-94.93	-3,661.7	1,615.3	3,662.3	3,643.1	19.27	190.064	
8,000.0	7,126.8	7,176.1	7,175.8	23.3	1.9	-94.88	-3,661.7	1,615.3	3,635.2	3,616.0	19.21	189.272	
8,070.8	7,126.5	7,174.7	7,174.4	23.4	1.9	-94.76	-3,661.7	1,615.4	3,565.7	3,546.5	19.19	185.767	
8,100.0	7,126.4	7,174.1	7,173.8	23.5	1.9	-94.71	-3,661.7	1,615.4	3,537.1	3,517.9	19.19	184.324	
8,169.3	7,126.1	7,172.7	7,172.4	23.7	1.9	-94.59	-3,661.8	1,615.4	3,469.1	3,449.8	19.32	179.531	
8,200.0	7,125.9	7,172.1	7,171.8	23.8	1.9	-94.54	-3,661.8	1,615.4	3,439.0	3,419.6	19.38	177.426	
8,267.7	7,125.6	7,170.8	7,170.5	24.1	1.9	-94.43	-3,661.8	1,615.4	3,372.7	3,353.0	19.65	171.626	
8,300.0	7,125.5	7,170.2	7,169.9	24.2	1.9	-94.38	-3,661.8	1,615.4	3,341.1	3,321.3	19.78	168.914	
8,366.1	7,125.2	7,168.9	7,168.6	24.6	1.9	-94.28	-3,661.8	1,615.5	3,276.4	3,256.2	20.17	162.454	
8,400.0	7,125.0	7,168.3	7,168.0	24.8	1.9	-94.22	-3,661.8	1,615.5	3,243.3	3,222.9	20.37	159.240	
8,464.5	7,124.7	7,167.1	7,166.8	25.3	1.9	-94.13	-3,661.8	1,615.5	3,180.2	3,159.3	20.86	152.469	
8,500.0	7,124.6	7,166.5	7,166.2	25.6	1.9	-94.07	-3,661.8	1,615.5	3,145.6	3,124.4	21.13	148.885	
8,563.0	7,124.3	7,165.4	7,165.1	26.1	1.9	-93.98	-3,661.8	1,615.5	3,084.1	3,062.4	21.70	142.105	
8,600.0	7,124.1	7,164.8	7,164.5	26.4	1.9	-93.92	-3,661.8	1,615.5	3,048.0	3,026.0	22.04	138.285	
8,661.4	7,123.8	7,163.7	7,163.4	26.9	1.9	-93.84	-3,661.8	1,615.6	2,988.2	2,965.5	22.69	131.725	
8,700.0	7,123.7	7,163.1	7,162.8	27.3	1.9	-93.78	-3,661.8	1,615.6	2,950.7	2,927.6	23.09	127.791	
8,759.8	7,123.4	7,162.1	7,161.8	27.9	1.9	-93.70	-3,661.8	1,615.6	2,892.5	2,868.7	23.79	121.605	
8,800.0	7,123.2	7,161.4	7,161.1	28.3	1.9	-93.64	-3,661.8	1,615.6	2,853.5	2,829.2	24.25	117.653	
8,858.2	7,123.0	7,160.5	7,160.2	28.9	1.9	-93.56	-3,661.8	1,615.6	2,797.0	2,772.0	24.99	111.930	
8,900.0	7,122.8	7,159.8	7,159.5	29.4	1.9	-93.51	-3,661.9	1,615.6	2,756.5	2,731.0	25.52	108.033	
8,956.7	7,122.5	7,158.9	7,158.6	30.0	1.9	-93.43	-3,661.9	1,615.6	2,701.6	2,675.3	26.28	102.810	
9,000.0	7,122.3	7,158.2	7,157.9	30.5	1.9	-93.38	-3,661.9	1,615.7	2,659.7	2,632.9	26.86	99.019	
9,055.1	7,122.1	7,157.4	7,157.1	31.2	1.9	-93.31	-3,661.9	1,615.7	2,606.5	2,578.9	27.64	94.297	
9,100.0	7,121.9	7,156.7	7,156.4	31.7	1.9	-93.25	-3,661.9	1,615.7	2,563.2	2,534.9	28.28	90.645	
9,153.5	7,121.6	7,155.9	7,155.6	32.4	1.9	-93.18	-3,661.9	1,615.7	2,511.7	2,482.6	29.07	86.407	
9,200.0	7,121.4	7,155.2	7,154.9	33.0	1.9	-93.12	-3,661.9	1,615.7	2,467.0	2,437.2	29.75	82.912	
9,251.9	7,121.2	7,154.5	7,154.2	33.7	1.9	-93.06	-3,661.9	1,615.7	2,417.1	2,386.5	30.55	79.124	
9,300.0	7,121.0	7,153.8	7,153.5	34.3	1.9	-93.00	-3,661.9	1,615.7	2,371.0	2,339.7	31.28	75.795	
9,350.4	7,120.7	7,153.1	7,152.8	35.0	1.9	-92.94	-3,661.9	1,615.7	2,322.8	2,290.8	32.07	72.421	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT MCCART 30-2 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
9,400.0	7,120.5	7,152.4	7,152.1	35.7	1.9	-92.89	-3,661.9	1,615.7	2,275.4	2,242.6	32.85	69.260	
9,448.8	7,120.3	7,151.7	7,151.4	36.4	1.9	-92.83	-3,661.9	1,615.8	2,228.9	2,195.3	33.64	66.260	
9,500.0	7,120.1	7,151.0	7,150.8	37.2	1.9	-92.77	-3,661.9	1,615.8	2,180.3	2,145.8	34.46	63.263	
9,547.2	7,119.9	7,150.4	7,150.1	37.8	1.9	-92.72	-3,661.9	1,615.8	2,135.5	2,100.2	35.24	60.600	
9,600.0	7,119.6	7,149.7	7,149.4	38.6	1.9	-92.66	-3,661.9	1,615.8	2,085.5	2,049.4	36.10	57.763	
9,645.6	7,119.4	7,149.1	7,148.8	39.3	1.9	-92.61	-3,661.9	1,615.8	2,042.4	2,005.6	36.87	55.401	
9,700.0	7,119.2	7,148.4	7,148.1	40.1	1.9	-92.55	-3,661.9	1,615.8	1,991.3	1,953.5	37.77	52.716	
9,744.1	7,119.0	7,147.9	7,147.6	40.8	1.9	-92.50	-3,661.9	1,615.8	1,950.0	1,911.4	38.52	50.621	
9,800.0	7,118.7	7,147.2	7,146.9	41.7	1.9	-92.45	-3,661.9	1,615.8	1,897.7	1,858.2	39.47	48.082	
9,842.5	7,118.5	7,146.6	7,146.4	42.3	1.9	-92.40	-3,661.9	1,615.8	1,858.1	1,817.9	40.20	46.225	
9,900.0	7,118.3	7,145.9	7,145.7	43.2	1.9	-92.34	-3,661.9	1,615.9	1,804.7	1,763.5	41.18	43.823	
9,940.9	7,118.1	7,145.5	7,145.2	43.9	1.9	-92.30	-3,661.9	1,615.9	1,766.9	1,725.0	41.89	42.178	
10,000.0	7,117.8	7,144.7	7,144.5	44.8	1.9	-92.24	-3,661.9	1,615.9	1,712.6	1,669.7	42.92	39.906	
10,039.3	7,117.6	7,144.3	7,144.0	45.5	1.9	-92.20	-3,661.9	1,615.9	1,676.5	1,632.9	43.60	38.450	
10,100.0	7,117.4	7,143.6	7,143.3	46.4	1.9	-92.14	-3,662.0	1,615.9	1,621.3	1,576.7	44.66	36.300	
10,137.8	7,117.2	7,143.1	7,142.9	47.1	1.9	-92.11	-3,662.0	1,615.9	1,587.2	1,541.8	45.33	35.013	
10,200.0	7,116.9	7,142.4	7,142.2	48.1	1.9	-92.05	-3,662.0	1,615.9	1,531.2	1,484.8	46.43	32.980	
10,236.2	7,116.8	7,142.0	7,141.7	48.7	1.9	-92.01	-3,662.0	1,615.9	1,498.9	1,451.8	47.07	31.843	
10,300.0	7,116.5	7,141.3	7,141.0	49.7	1.9	-91.95	-3,662.0	1,615.9	1,442.4	1,394.2	48.20	29.922	
10,334.6	7,116.3	7,141.0	7,140.7	50.3	1.9	-91.92	-3,662.0	1,615.9	1,412.0	1,363.1	48.82	28.920	
10,400.0	7,116.0	7,140.2	7,140.0	51.4	1.9	-91.86	-3,662.0	1,616.0	1,355.1	1,305.1	49.99	27.107	
10,433.0	7,115.9	7,139.9	7,139.6	52.0	1.9	-91.83	-3,662.0	1,616.0	1,326.7	1,276.1	50.59	26.226	
10,500.0	7,115.6	7,139.2	7,138.9	53.1	1.9	-91.77	-3,662.0	1,616.0	1,269.7	1,217.9	51.79	24.517	
10,531.5	7,115.4	7,138.9	7,138.6	53.6	1.9	-91.75	-3,662.0	1,616.0	1,243.3	1,190.9	52.36	23.746	
10,600.0	7,115.1	7,138.2	7,137.9	54.8	1.9	-91.69	-3,662.0	1,616.0	1,186.6	1,133.0	53.60	22.140	
10,629.9	7,115.0	7,137.8	7,137.6	55.3	1.9	-91.66	-3,662.0	1,616.0	1,162.3	1,108.1	54.14	21.468	
10,700.0	7,114.7	7,137.1	7,136.9	56.5	1.9	-91.60	-3,662.0	1,616.0	1,106.3	1,050.9	55.41	19.965	
10,728.3	7,114.6	7,136.9	7,136.6	57.0	1.9	-91.58	-3,662.0	1,616.0	1,084.1	1,028.2	55.93	19.385	
10,800.0	7,114.2	7,136.2	7,135.9	58.3	1.9	-91.52	-3,662.0	1,616.0	1,029.4	972.2	57.23	17.987	
10,826.7	7,114.1	7,135.9	7,135.6	58.7	1.9	-91.50	-3,662.0	1,616.0	1,009.6	951.8	57.72	17.490	
10,900.0	7,113.8	7,135.2	7,134.9	60.0	1.9	-91.44	-3,662.0	1,616.0	956.9	897.8	59.06	16.201	
10,925.2	7,113.7	7,134.9	7,134.7	60.5	1.9	-91.42	-3,662.0	1,616.0	939.4	879.9	59.52	15.781	
11,000.0	7,113.3	7,134.2	7,134.0	61.8	1.9	-91.36	-3,662.0	1,616.1	889.6	828.7	60.90	14.609	
11,023.6	7,113.2	7,134.0	7,133.7	62.2	1.9	-91.34	-3,662.0	1,616.1	874.7	813.3	61.33	14.261	
11,100.0	7,112.9	7,133.3	7,133.0	63.5	1.9	-91.28	-3,662.0	1,616.1	829.0	766.3	62.74	13.214	
11,122.0	7,112.8	7,133.1	7,132.8	63.9	1.9	-91.26	-3,662.0	1,616.1	816.7	753.6	63.14	12.934	
11,200.0	7,112.4	7,132.4	7,132.1	65.3	1.9	-91.20	-3,662.0	1,616.1	776.6	712.0	64.58	12.025	
11,220.4	7,112.4	7,132.2	7,131.9	65.7	1.9	-91.19	-3,662.0	1,616.1	767.0	702.1	64.96	11.808	
11,300.0	7,112.0	7,131.5	7,131.2	67.1	1.9	-91.13	-3,662.0	1,616.1	734.1	667.7	66.43	11.051	
11,318.9	7,111.9	7,131.4	7,131.1	67.4	1.9	-91.12	-3,662.0	1,616.1	727.4	660.6	66.78	10.892	
11,400.0	7,111.6	7,130.7	7,130.4	68.9	1.9	-91.06	-3,662.0	1,616.1	703.4	635.1	68.29	10.301	
11,417.3	7,111.5	7,130.5	7,130.2	69.2	1.9	-91.04	-3,662.0	1,616.1	699.4	630.8	68.61	10.194	
11,500.0	7,111.1	7,129.8	7,129.5	70.7	1.9	-90.99	-3,662.0	1,616.1	686.0	615.9	70.14	9.780	
11,515.7	7,111.0	7,129.7	7,129.4	71.0	1.9	-90.97	-3,662.0	1,616.1	684.6	614.1	70.44	9.719	
11,570.8	7,110.8	7,129.2	7,128.9	71.9	1.9	-90.94	-3,662.0	1,616.1	682.3	610.9	71.46	9.548 CC, ES	
11,600.0	7,110.7	7,129.0	7,128.7	72.5	1.9	-90.92	-3,662.0	1,616.1	683.0	611.0	72.00	9.485	
11,614.1	7,110.6	7,128.9	7,128.6	72.7	1.9	-90.91	-3,662.0	1,616.1	683.7	611.4	72.27	9.461	
11,700.0	7,110.2	7,128.2	7,127.9	74.3	1.9	-90.85	-3,662.0	1,616.2	694.5	620.6	73.87	9.401 SF	
11,712.6	7,110.2	7,128.1	7,127.8	74.5	1.9	-90.84	-3,662.0	1,616.2	696.9	622.8	74.10	9.405	
11,747.9	7,110.0	7,127.8	7,127.5	75.1	1.9	-90.82	-3,662.0	1,616.2	704.9	630.2	74.76	9.429	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	1.0	1.0	0.0	0.0	-78.86	230.6	-1,170.9	1,193.4				
98.4	98.4	99.4	99.4	0.1	0.1	-78.86	230.6	-1,170.9	1,193.4	1,193.1	0.22	5,495.896	
100.0	100.0	101.0	101.0	0.1	0.2	-78.86	230.6	-1,170.9	1,193.4	1,193.1	0.25	4,856.010	
196.8	196.8	197.8	197.8	0.3	2.7	-78.86	230.6	-1,170.9	1,193.4	1,190.4	2.99	399.252	
200.0	200.0	201.0	201.0	0.3	2.8	-78.86	230.6	-1,170.9	1,193.4	1,190.3	3.07	388.365	
295.3	295.3	296.3	296.3	0.5	4.7	-78.86	230.6	-1,170.9	1,193.4	1,188.1	5.25	227.125	
300.0	300.0	301.0	301.0	0.5	4.8	-78.86	230.6	-1,170.9	1,193.4	1,188.0	5.36	222.557	
393.7	393.7	394.7	394.7	0.7	6.7	-78.86	230.6	-1,170.9	1,193.4	1,185.9	7.48	159.596	
400.0	400.0	401.0	401.0	0.8	6.9	-78.86	230.6	-1,170.9	1,193.4	1,185.7	7.62	156.619	
492.1	492.1	493.1	493.1	1.0	8.7	-78.86	230.6	-1,170.9	1,193.4	1,183.7	9.69	123.153	
500.0	500.0	501.0	501.0	1.0	8.9	-78.86	230.6	-1,170.9	1,193.4	1,183.5	9.87	120.944	
590.5	590.5	591.5	591.5	1.2	10.7	-78.86	230.6	-1,170.9	1,193.4	1,181.5	11.90	100.297	
600.0	600.0	601.0	601.0	1.2	10.9	-78.86	230.6	-1,170.9	1,193.4	1,181.2	12.11	98.542	
689.0	689.0	690.0	690.0	1.4	12.7	-78.86	230.6	-1,170.9	1,193.4	1,179.3	14.10	84.612	
700.0	700.0	701.0	701.0	1.4	12.9	-78.86	230.6	-1,170.9	1,193.4	1,179.0	14.35	83.155	
787.4	787.4	788.4	788.4	1.6	14.7	-78.86	230.6	-1,170.9	1,193.4	1,177.1	16.31	73.175	
800.0	800.0	801.0	801.0	1.7	14.9	-78.86	230.6	-1,170.9	1,193.4	1,176.8	16.59	71.930	
885.8	885.8	886.8	886.8	1.9	16.7	-78.86	230.6	-1,170.9	1,193.4	1,174.8	18.51	64.465	
900.0	900.0	901.0	901.0	1.9	16.9	-78.86	230.6	-1,170.9	1,193.4	1,174.5	18.83	63.379	
984.2	984.2	985.2	985.2	2.1	18.6	-78.86	230.6	-1,170.9	1,193.4	1,172.6	20.71	57.610	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	19.0	-78.86	230.6	-1,170.9	1,193.4	1,172.3	21.07	56.646	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	20.6	-78.86	230.6	-1,170.9	1,193.4	1,170.4	22.92	52.073	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	21.0	-78.86	230.6	-1,170.9	1,193.4	1,170.1	23.30	51.207	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	22.6	-78.86	230.6	-1,170.9	1,193.4	1,168.2	25.12	47.508	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	23.0	-78.86	230.6	-1,170.9	1,193.4	1,167.8	25.54	46.722	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	24.6	-78.86	230.6	-1,170.9	1,193.4	1,166.0	27.32	43.680	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	25.0	-78.86	230.6	-1,170.9	1,193.4	1,165.6	27.78	42.960	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	26.6	-78.86	230.6	-1,170.9	1,193.4	1,163.8	29.52	40.422	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	27.0	-78.86	230.6	-1,170.9	1,193.4	1,163.3	30.02	39.758	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	28.5	-78.86	230.6	-1,170.9	1,193.4	1,161.6	31.72	37.617	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	29.0	-78.86	230.6	-1,170.9	1,193.4	1,161.1	32.25	37.001	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	30.5	-78.86	230.6	-1,170.9	1,193.4	1,159.4	33.92	35.176	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	31.0	-78.86	230.6	-1,170.9	1,193.4	1,158.9	34.49	34.602	
1,673.2	1,673.2	1,674.2	1,674.2	3.6	32.5	-78.86	230.6	-1,170.9	1,193.4	1,157.2	36.13	33.033	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	33.0	-78.86	230.6	-1,170.9	1,193.4	1,156.6	36.72	32.494	
1,750.0	1,750.0	1,751.0	1,751.0	3.8	34.0	-78.86	230.6	-1,170.9	1,193.4	1,155.5	37.84	31.534 CC	
1,771.6	1,771.6	1,772.6	1,772.6	3.8	34.5	-120.86	230.6	-1,170.9	1,193.4	1,155.1	38.33	31.138	
1,800.0	1,800.0	1,801.0	1,801.0	3.9	35.1	-120.87	230.6	-1,170.9	1,193.6	1,154.6	38.96	30.638	
1,870.1	1,870.0	1,871.0	1,871.0	4.1	36.5	-120.94	230.6	-1,170.9	1,194.7	1,154.1	40.51	29.490 ES	
1,900.0	1,899.9	1,900.9	1,900.9	4.1	37.1	-120.98	230.6	-1,170.9	1,195.4	1,154.2	41.17	29.034	
1,968.5	1,968.3	1,969.3	1,969.3	4.3	38.4	-121.12	230.6	-1,170.9	1,197.7	1,155.0	42.68	28.062	
2,000.0	1,999.7	2,000.7	2,000.7	4.3	39.1	-121.21	230.6	-1,170.9	1,199.0	1,155.6	43.37	27.647	
2,066.9	2,066.3	2,067.3	2,067.3	4.5	40.4	-121.42	230.6	-1,170.9	1,202.4	1,157.6	44.83	26.824	
2,100.0	2,099.1	2,100.1	2,100.1	4.6	41.1	-121.54	230.6	-1,170.9	1,204.5	1,158.9	45.54	26.446	
2,165.3	2,163.9	2,164.9	2,164.9	4.7	42.4	-121.81	230.6	-1,170.9	1,209.1	1,162.1	46.96	25.749	
2,200.0	2,198.2	2,199.2	2,199.2	4.8	43.1	-121.97	230.6	-1,170.9	1,211.8	1,164.1	47.70	25.406	
2,263.8	2,261.0	2,262.0	2,262.0	5.0	44.3	-122.29	230.6	-1,170.9	1,217.6	1,168.5	49.06	24.816	
2,300.0	2,296.6	2,297.6	2,297.6	5.1	45.0	-122.49	230.6	-1,170.9	1,221.2	1,171.4	49.83	24.507	
2,362.2	2,357.6	2,358.6	2,358.6	5.3	46.3	-122.86	230.6	-1,170.9	1,228.1	1,176.9	51.15	24.010	
2,400.0	2,394.4	2,395.4	2,395.4	5.4	47.0	-123.10	230.6	-1,170.9	1,232.6	1,180.7	51.94	23.732	
2,460.6	2,453.4	2,454.4	2,454.4	5.6	48.2	-123.51	230.6	-1,170.9	1,240.6	1,187.4	53.21	23.316	
2,500.0	2,491.5	2,492.5	2,492.5	5.7	49.0	-123.79	230.6	-1,170.9	1,246.2	1,192.2	54.02	23.069	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
2,559.0	2,548.3	2,549.3	2,549.3	5.9	50.1	-124.22	230.6	-1,170.9	1,255.4	1,200.1	55.25	22.723	
2,600.0	2,587.6	2,588.6	2,588.6	6.1	50.9	-124.54	230.6	-1,170.9	1,262.1	1,206.1	56.08	22.507	
2,657.5	2,642.4	2,643.4	2,643.4	6.3	52.0	-124.99	230.6	-1,170.9	1,272.4	1,215.1	57.25	22.226	
2,700.0	2,682.7	2,683.7	2,683.7	6.5	52.8	-125.34	230.6	-1,170.9	1,280.4	1,222.3	58.10	22.039	
2,750.0	2,729.8	2,730.8	2,730.8	6.8	53.8	-125.75	230.6	-1,170.9	1,290.5	1,231.4	59.09	21.838	
2,755.9	2,735.4	2,736.4	2,736.4	6.8	53.9	-125.82	230.6	-1,170.9	1,291.7	1,232.5	59.22	21.811	
2,800.0	2,776.8	2,777.8	2,777.8	7.0	54.7	-126.34	230.6	-1,170.9	1,301.0	1,240.8	60.19	21.615	
2,854.3	2,827.8	2,828.8	2,828.8	7.3	55.7	-126.97	230.6	-1,170.9	1,312.5	1,251.1	61.38	21.382	
2,900.0	2,870.8	2,871.8	2,871.8	7.5	56.6	-127.49	230.6	-1,170.9	1,322.3	1,260.0	62.39	21.196	
2,952.7	2,920.3	2,921.3	2,921.3	7.8	57.6	-128.08	230.6	-1,170.9	1,333.8	1,270.3	63.55	20.988	
3,000.0	2,964.7	2,965.7	2,965.7	8.1	58.5	-128.60	230.6	-1,170.9	1,344.2	1,279.6	64.59	20.811	
3,051.2	3,012.8	3,013.8	3,013.8	8.4	59.4	-129.16	230.6	-1,170.9	1,355.6	1,289.9	65.72	20.626	
3,100.0	3,058.7	3,059.7	3,059.7	8.7	60.4	-129.68	230.6	-1,170.9	1,366.6	1,299.8	66.80	20.458	
3,149.6	3,105.3	3,106.3	3,106.3	9.0	61.3	-130.21	230.6	-1,170.9	1,377.9	1,310.0	67.90	20.294	
3,200.0	3,152.7	3,153.7	3,153.7	9.3	62.3	-130.73	230.6	-1,170.9	1,389.5	1,320.5	69.01	20.134	
3,248.0	3,197.8	3,198.8	3,198.8	9.5	63.2	-131.22	230.6	-1,170.9	1,400.7	1,330.6	70.07	19.988	
3,300.0	3,246.6	3,247.6	3,247.6	9.9	64.1	-131.75	230.6	-1,170.9	1,412.8	1,341.6	71.22	19.837	
3,346.4	3,290.3	3,291.3	3,291.3	10.1	65.0	-132.21	230.6	-1,170.9	1,423.8	1,351.6	72.25	19.707	
3,400.0	3,340.6	3,341.6	3,341.6	10.5	66.0	-132.73	230.6	-1,170.9	1,436.6	1,363.2	73.43	19.565	
3,444.9	3,382.8	3,383.8	3,383.8	10.8	66.9	-133.16	230.6	-1,170.9	1,447.4	1,373.0	74.42	19.449	
3,500.0	3,434.6	3,435.6	3,435.6	11.1	67.9	-133.69	230.6	-1,170.9	1,460.8	1,385.2	75.63	19.314	
3,543.3	3,475.3	3,476.3	3,476.3	11.4	68.7	-134.09	230.6	-1,170.9	1,471.4	1,394.8	76.59	19.212	
3,600.0	3,528.6	3,529.6	3,529.6	11.7	69.8	-134.61	230.6	-1,170.9	1,485.4	1,407.5	77.83	19.084	
3,641.7	3,567.8	3,568.8	3,568.8	12.0	70.6	-134.99	230.6	-1,170.9	1,495.7	1,417.0	78.75	18.994	
3,700.0	3,622.5	3,623.5	3,623.5	12.4	71.7	-135.51	230.6	-1,170.9	1,510.3	1,430.3	80.03	18.873	
3,740.1	3,660.3	3,661.3	3,661.3	12.6	72.5	-135.86	230.6	-1,170.9	1,520.4	1,439.5	80.91	18.792	
3,749.0	3,668.6	3,669.6	3,669.6	12.7	72.6	-135.94	230.6	-1,170.9	1,522.7	1,441.6	81.10	18.775	
3,800.0	3,716.5	3,717.5	3,717.5	13.0	73.6	-139.38	230.6	-1,170.9	1,535.9	1,453.9	81.96	18.741	
3,838.6	3,752.8	3,753.8	3,753.8	13.2	74.3	-141.98	230.6	-1,170.9	1,546.3	1,463.7	82.58	18.726	
3,885.2	3,796.6	3,797.6	3,797.6	13.5	75.2	-145.09	230.6	-1,170.9	1,559.4	1,476.1	83.32	18.716	
3,900.0	3,810.5	3,811.5	3,811.5	13.6	75.5	-145.20	230.6	-1,170.9	1,563.6	1,480.0	83.63	18.696	
3,937.0	3,845.3	3,846.3	3,846.3	13.8	76.2	-145.45	230.6	-1,170.9	1,574.2	1,489.8	84.43	18.646	
4,000.0	3,904.5	3,905.5	3,905.5	14.2	77.4	-145.89	230.6	-1,170.9	1,592.4	1,506.6	85.78	18.563	
4,035.4	3,937.7	3,938.7	3,938.7	14.5	78.0	-146.12	230.6	-1,170.9	1,602.6	1,516.1	86.54	18.518	
4,100.0	3,998.4	3,999.4	3,999.4	14.9	79.3	-146.55	230.6	-1,170.9	1,621.3	1,533.4	87.93	18.440	
4,133.8	4,030.2	4,031.2	4,031.2	15.1	79.9	-146.77	230.6	-1,170.9	1,631.2	1,542.5	88.65	18.400	
4,200.0	4,092.4	4,093.4	4,093.4	15.5	81.2	-147.19	230.6	-1,170.9	1,650.5	1,560.4	90.07	18.325	
4,232.3	4,122.7	4,123.7	4,123.7	15.8	81.8	-147.40	230.6	-1,170.9	1,659.9	1,569.2	90.76	18.290	
4,300.0	4,186.4	4,187.4	4,187.4	16.2	83.0	-147.82	230.6	-1,170.9	1,679.8	1,587.6	92.20	18.219	
4,330.7	4,215.2	4,216.2	4,216.2	16.4	83.6	-148.00	230.6	-1,170.9	1,688.9	1,596.0	92.86	18.187	
4,400.0	4,280.3	4,281.3	4,281.3	16.9	84.9	-148.42	230.6	-1,170.9	1,709.4	1,615.0	94.34	18.119	
4,429.1	4,307.7	4,308.7	4,308.7	17.1	85.5	-148.59	230.6	-1,170.9	1,718.0	1,623.0	94.96	18.092	
4,500.0	4,374.3	4,375.3	4,375.3	17.6	86.8	-149.00	230.6	-1,170.9	1,739.0	1,642.6	96.47	18.027	
4,527.5	4,400.2	4,401.2	4,401.2	17.7	87.3	-149.15	230.6	-1,170.9	1,747.3	1,650.2	97.05	18.003	
4,600.0	4,468.3	4,469.3	4,469.3	18.2	88.7	-149.56	230.6	-1,170.9	1,768.9	1,670.3	98.59	17.941	
4,626.0	4,492.7	4,493.7	4,493.7	18.4	89.2	-149.70	230.6	-1,170.9	1,776.7	1,677.5	99.15	17.920	
4,700.0	4,562.3	4,563.3	4,563.3	18.9	90.6	-150.10	230.6	-1,170.9	1,798.9	1,698.2	100.72	17.861	
4,724.4	4,585.2	4,586.2	4,586.2	19.1	91.1	-150.23	230.6	-1,170.9	1,806.3	1,705.0	101.24	17.842	
4,800.0	4,656.2	4,657.2	4,657.2	19.6	92.5	-150.63	230.6	-1,170.9	1,829.1	1,726.2	102.84	17.786	
4,822.8	4,677.7	4,678.7	4,678.7	19.7	92.9	-150.75	230.6	-1,170.9	1,836.0	1,732.7	103.32	17.770	
4,900.0	4,750.2	4,751.2	4,751.2	20.3	94.4	-151.14	230.6	-1,170.9	1,859.4	1,754.4	104.95	17.716	
4,921.2	4,770.2	4,771.2	4,771.2	20.4	94.8	-151.25	230.6	-1,170.9	1,865.8	1,760.4	105.40	17.702	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	4,844.2	4,845.2	4,845.2	20.9	96.3	-151.63	230.6	-1,170.9	1,889.8	1,782.7	107.07	17.650	
5,019.7	4,862.7	4,863.7	4,863.7	21.1	96.6	-151.73	230.6	-1,170.9	1,895.8	1,788.3	107.49	17.638	
5,100.0	4,938.1	4,939.1	4,939.1	21.6	98.2	-152.11	230.6	-1,170.9	1,920.4	1,811.2	109.18	17.589	
5,118.1	4,955.1	4,956.1	4,956.1	21.7	98.5	-152.20	230.6	-1,170.9	1,925.9	1,816.3	109.56	17.578	
5,200.0	5,032.1	5,033.1	5,033.1	22.3	100.1	-152.58	230.6	-1,170.9	1,951.0	1,839.8	111.29	17.531	
5,216.5	5,047.6	5,048.6	5,048.6	22.4	100.4	-152.65	230.6	-1,170.9	1,956.1	1,844.5	111.64	17.522	
5,300.0	5,126.1	5,127.1	5,127.1	23.0	101.9	-153.02	230.6	-1,170.9	1,981.8	1,868.4	113.40	17.477	
5,314.9	5,140.1	5,141.1	5,141.1	23.1	102.2	-153.09	230.6	-1,170.9	1,986.5	1,872.7	113.71	17.469	
5,400.0	5,220.0	5,221.0	5,221.0	23.7	103.8	-153.46	230.6	-1,170.9	2,012.7	1,897.2	115.50	17.426	
5,413.4	5,232.6	5,233.6	5,233.6	23.8	104.1	-153.52	230.6	-1,170.9	2,016.9	1,901.1	115.79	17.419	
5,504.2	5,318.0	5,319.0	5,319.0	24.4	105.8	-153.90	230.6	-1,170.9	2,045.1	1,927.4	117.70	17.376	
5,511.8	5,325.1	5,326.1	5,326.1	24.4	105.9	-153.96	230.6	-1,170.9	2,047.4	1,929.5	117.93	17.362	
5,600.0	5,408.5	5,409.5	5,409.5	24.9	107.6	-154.54	230.6	-1,170.9	2,073.5	1,952.9	120.60	17.193	
5,610.2	5,418.2	5,419.2	5,419.2	25.0	107.8	-154.60	230.6	-1,170.9	2,076.4	1,955.5	120.90	17.174	
5,700.0	5,504.1	5,505.1	5,505.1	25.4	109.5	-155.11	230.6	-1,170.9	2,100.3	1,976.7	123.56	16.998	
5,708.6	5,512.4	5,513.4	5,513.4	25.5	109.7	-155.16	230.6	-1,170.9	2,102.5	1,978.6	123.81	16.981	
5,800.0	5,600.7	5,601.7	5,601.7	25.9	111.5	-155.61	230.6	-1,170.9	2,124.1	1,997.6	126.47	16.795	
5,807.1	5,607.5	5,608.5	5,608.5	25.9	111.6	-155.64	230.6	-1,170.9	2,125.6	1,999.0	126.67	16.781	
5,900.0	5,698.1	5,699.1	5,699.1	26.3	113.4	-156.03	230.6	-1,170.9	2,144.8	2,015.5	129.31	16.587	
5,905.5	5,703.4	5,704.4	5,704.4	26.3	113.6	-156.05	230.6	-1,170.9	2,145.9	2,016.4	129.46	16.576	
6,000.0	5,796.2	5,797.2	5,797.2	26.6	115.4	-156.38	230.6	-1,170.9	2,162.4	2,030.4	132.06	16.375	
6,003.9	5,800.1	5,801.1	5,801.1	26.6	115.5	-156.39	230.6	-1,170.9	2,163.1	2,030.9	132.16	16.367	
6,100.0	5,894.9	5,895.9	5,895.9	26.9	117.4	-156.66	230.6	-1,170.9	2,177.0	2,042.2	134.71	16.160	
6,102.3	5,897.3	5,898.3	5,898.3	26.9	117.5	-156.67	230.6	-1,170.9	2,177.3	2,042.5	134.77	16.155	
6,200.0	5,994.2	5,995.2	5,995.2	27.2	119.4	-156.88	230.6	-1,170.9	2,188.3	2,051.0	137.25	15.944	
6,200.8	5,994.9	5,995.9	5,995.9	27.2	119.4	-156.88	230.6	-1,170.9	2,188.4	2,051.1	137.27	15.942	
6,299.2	6,093.0	6,094.0	6,094.0	27.4	121.4	-157.03	230.6	-1,170.9	2,196.4	2,056.7	139.65	15.728	
6,300.0	6,093.8	6,094.8	6,094.8	27.4	121.4	-157.04	230.6	-1,170.9	2,196.4	2,056.8	139.67	15.726	
6,397.6	6,191.2	6,192.2	6,192.2	27.5	123.4	-157.13	230.6	-1,170.9	2,201.3	2,059.4	141.90	15.513	
6,400.0	6,193.6	6,194.6	6,194.6	27.5	123.4	-157.13	230.6	-1,170.9	2,201.4	2,059.4	141.96	15.507	
6,496.0	6,289.6	6,290.6	6,290.6	27.6	125.3	-157.16	230.6	-1,170.9	2,203.1	2,059.1	144.02	15.297	
6,504.1	6,297.7	6,298.7	6,298.7	27.6	125.5	-107.19	230.6	-1,170.9	2,203.1	2,059.0	144.19	15.280	
6,594.5	6,388.1	6,389.1	6,389.1	27.7	127.3	-107.19	230.6	-1,170.9	2,203.1	2,057.0	146.13	15.076	
6,600.0	6,393.6	6,394.6	6,394.6	27.7	127.4	-107.19	230.6	-1,170.9	2,203.1	2,056.9	146.25	15.064	
6,618.2	6,411.8	6,412.8	6,412.8	27.8	127.8	-107.19	230.6	-1,170.9	2,203.1	2,056.5	146.65	15.023	
6,650.0	6,443.6	6,444.6	6,444.6	27.8	128.4	72.84	230.6	-1,170.9	2,202.9	2,055.6	147.29	14.956	
6,692.9	6,486.4	6,487.4	6,487.4	27.8	129.3	72.99	230.6	-1,170.9	2,202.0	2,053.9	148.12	14.866	
6,700.0	6,493.4	6,494.4	6,494.4	27.8	129.4	73.03	230.6	-1,170.9	2,201.8	2,053.5	148.26	14.851	
6,750.0	6,542.8	6,543.8	6,543.8	27.8	130.4	73.38	230.6	-1,170.9	2,199.6	2,050.4	149.18	14.745	
6,791.3	6,583.2	6,584.2	6,584.2	27.7	131.2	73.79	230.6	-1,170.9	2,197.1	2,047.2	149.91	14.656	
6,800.0	6,591.6	6,592.6	6,592.6	27.7	131.4	73.88	230.6	-1,170.9	2,196.5	2,046.4	150.06	14.637	
6,850.0	6,639.6	6,640.6	6,640.6	27.6	132.4	74.54	230.6	-1,170.9	2,192.4	2,041.5	150.92	14.527	
6,889.7	6,676.9	6,677.9	6,677.9	27.6	133.1	75.16	230.6	-1,170.9	2,188.6	2,037.1	151.59	14.438	
6,900.0	6,686.4	6,687.4	6,687.4	27.5	133.3	75.33	230.6	-1,170.9	2,187.6	2,035.8	151.77	14.414	
6,950.0	6,731.8	6,732.8	6,732.8	27.4	134.2	76.25	230.6	-1,170.9	2,182.0	2,029.4	152.62	14.297	
6,988.2	6,765.5	6,766.5	6,766.5	27.3	134.9	77.02	230.6	-1,170.9	2,177.4	2,024.1	153.27	14.206	
7,000.0	6,775.8	6,776.8	6,776.8	27.2	135.1	77.28	230.6	-1,170.9	2,175.8	2,022.4	153.48	14.177	
7,050.0	6,817.9	6,818.9	6,818.9	27.1	136.0	78.39	230.6	-1,170.9	2,169.2	2,014.8	154.35	14.054	
7,086.6	6,847.5	6,848.5	6,848.5	26.9	136.6	79.25	230.6	-1,170.9	2,164.1	2,009.1	154.99	13.963	
7,100.0	6,858.1	6,859.1	6,859.1	26.9	136.8	79.57	230.6	-1,170.9	2,162.2	2,006.9	155.22	13.929	
7,150.0	6,896.1	6,897.1	6,897.1	26.6	137.5	80.80	230.6	-1,170.9	2,155.0	1,998.9	156.09	13.806	
7,185.0	6,921.3	6,922.3	6,922.3	26.5	138.0	81.67	230.6	-1,170.9	2,149.9	1,993.2	156.68	13.721	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
7,200.0	6,931.7	6,932.7	6,932.7	26.4	138.3	82.05	230.6	-1,170.9	2,147.7	1,990.8	156.93	13.686	
7,250.0	6,964.8	6,965.8	6,965.8	26.2	138.9	83.28	230.6	-1,170.9	2,140.6	1,982.8	157.72	13.572	
7,283.4	6,985.4	6,986.4	6,986.4	26.0	139.3	84.09	230.6	-1,170.9	2,135.9	1,977.7	158.21	13.501	
7,300.0	6,995.2	6,996.2	6,996.2	25.9	139.5	84.48	230.6	-1,170.9	2,133.7	1,975.3	158.43	13.467	
7,350.0	7,022.7	7,023.7	7,023.7	25.7	140.1	85.62	230.6	-1,170.9	2,127.2	1,968.2	159.06	13.374	
7,381.9	7,038.8	7,039.8	7,039.8	25.5	140.4	86.31	230.6	-1,170.9	2,123.4	1,964.0	159.40	13.321	
7,400.0	7,047.3	7,048.3	7,048.3	25.4	140.6	86.68	230.6	-1,170.9	2,121.4	1,961.8	159.58	13.294	
7,450.0	7,068.8	7,069.8	7,069.8	25.1	141.0	87.62	230.6	-1,170.9	2,116.2	1,956.2	159.99	13.227	
7,480.3	7,080.3	7,081.3	7,081.3	25.0	141.2	88.12	230.6	-1,170.9	2,113.5	1,953.3	160.20	13.193	
7,500.0	7,087.1	7,088.1	7,088.1	24.9	141.4	88.43	230.6	-1,170.9	2,111.9	1,951.5	160.31	13.174	
7,550.0	7,102.1	7,103.1	7,103.1	24.6	141.7	89.09	230.6	-1,170.9	2,108.5	1,947.9	160.53	13.135	
7,578.7	7,109.2	7,110.2	7,110.2	24.5	141.8	89.39	230.6	-1,170.9	2,107.0	1,946.4	160.63	13.117	
7,600.0	7,113.7	7,114.7	7,114.7	24.4	141.9	89.58	230.6	-1,170.9	2,106.1	1,945.5	160.68	13.108	
7,650.0	7,121.9	7,122.9	7,122.9	24.2	142.1	89.90	230.6	-1,170.9	2,104.9	1,944.1	160.77	13.093	
7,677.1	7,125.0	7,126.0	7,126.0	24.1	142.1	90.00	230.6	-1,170.9	2,104.7	1,943.9	160.80	13.089	
7,678.1	7,125.0	7,126.0	7,126.0	24.1	142.1	90.00	230.6	-1,170.9	2,104.7	1,943.9	160.80	13.089 SF	
7,700.0	7,126.7	7,127.7	7,127.7	24.0	142.2	90.04	230.6	-1,170.9	2,104.8	1,944.0	160.81	13.089	
7,746.5	7,128.0	7,129.0	7,129.0	23.8	142.2	89.99	230.6	-1,170.9	2,105.8	1,945.0	160.81	13.095	
7,775.6	7,127.9	7,128.9	7,128.9	23.7	142.2	89.99	230.6	-1,170.9	2,107.0	1,946.2	160.74	13.108	
7,800.0	7,127.7	7,128.7	7,128.7	23.6	142.2	89.98	230.6	-1,170.9	2,108.2	1,947.6	160.67	13.121	
7,874.0	7,127.4	7,128.4	7,128.4	23.4	142.2	89.98	230.6	-1,170.9	2,113.8	1,953.4	160.37	13.181	
7,900.0	7,127.3	7,128.3	7,128.3	23.4	142.2	89.97	230.6	-1,170.9	2,116.4	1,956.1	160.26	13.206	
7,972.4	7,127.0	7,128.0	7,128.0	23.3	142.2	89.96	230.6	-1,170.9	2,125.2	1,965.1	160.10	13.274	
8,000.0	7,126.8	7,127.8	7,127.8	23.3	142.2	89.96	230.6	-1,170.9	2,129.2	1,969.1	160.04	13.304	
8,070.8	7,126.5	7,127.5	7,127.5	23.4	142.2	89.95	230.6	-1,170.9	2,141.0	1,981.0	160.03	13.379	
8,100.0	7,126.4	7,127.4	7,127.4	23.5	142.2	89.95	230.6	-1,170.9	2,146.6	1,986.5	160.03	13.414	
8,169.3	7,126.1	7,127.1	7,127.1	23.7	142.2	89.94	230.6	-1,170.9	2,161.2	2,001.1	160.16	13.494	
8,200.0	7,125.9	7,126.9	7,126.9	23.8	142.2	89.94	230.6	-1,170.9	2,168.4	2,008.2	160.22	13.534	
8,267.7	7,125.6	7,126.6	7,126.6	24.1	142.2	89.93	230.6	-1,170.9	2,185.7	2,025.2	160.48	13.620	
8,300.0	7,125.5	7,126.5	7,126.5	24.2	142.2	89.92	230.6	-1,170.9	2,194.6	2,034.0	160.61	13.665	
8,366.1	7,125.2	7,126.2	7,126.2	24.6	142.1	89.92	230.6	-1,170.9	2,214.3	2,053.3	160.99	13.754	
8,400.0	7,125.0	7,126.0	7,126.0	24.8	142.1	89.91	230.6	-1,170.9	2,225.0	2,063.9	161.18	13.804	
8,464.5	7,124.7	7,125.7	7,125.7	25.3	142.1	89.90	230.6	-1,170.9	2,246.8	2,085.2	161.67	13.898	
8,500.0	7,124.6	7,125.6	7,125.6	25.6	142.1	89.90	230.6	-1,170.9	2,259.5	2,097.5	161.93	13.953	
8,563.0	7,124.3	7,125.3	7,125.3	26.1	142.1	89.89	230.6	-1,170.9	2,283.1	2,120.6	162.49	14.050	
8,600.0	7,124.1	7,125.1	7,125.1	26.4	142.1	89.89	230.6	-1,170.9	2,297.7	2,134.9	162.83	14.111	
8,661.4	7,123.8	7,124.8	7,124.8	26.9	142.1	89.88	230.6	-1,170.9	2,323.0	2,159.6	163.46	14.212	
8,700.0	7,123.7	7,124.7	7,124.7	27.3	142.1	89.87	230.6	-1,170.9	2,339.6	2,175.8	163.86	14.279	
8,759.8	7,123.4	7,124.4	7,124.4	27.9	142.1	89.87	230.6	-1,170.9	2,366.4	2,201.8	164.54	14.382	
8,800.0	7,123.2	7,124.2	7,124.2	28.3	142.1	89.86	230.6	-1,170.9	2,385.0	2,220.0	165.00	14.455	
8,858.2	7,123.0	7,124.0	7,124.0	28.9	142.1	89.85	230.6	-1,170.9	2,413.0	2,247.2	165.72	14.560	
8,900.0	7,122.8	7,123.8	7,123.8	29.4	142.1	89.85	230.6	-1,170.9	2,433.6	2,267.4	166.24	14.639	
8,956.7	7,122.5	7,123.5	7,123.5	30.0	142.1	89.84	230.6	-1,170.9	2,462.6	2,295.6	166.99	14.747	
9,000.0	7,122.3	7,123.3	7,123.3	30.5	142.1	89.84	230.6	-1,170.9	2,485.4	2,317.8	167.57	14.832	
9,055.1	7,122.1	7,123.1	7,123.1	31.2	142.1	89.83	230.6	-1,170.9	2,515.1	2,346.8	168.34	14.941	
9,100.0	7,121.9	7,122.9	7,122.9	31.7	142.1	89.83	230.6	-1,170.9	2,540.0	2,371.0	168.96	15.033	
9,153.5	7,121.6	7,122.6	7,122.6	32.4	142.1	89.82	230.6	-1,170.9	2,570.3	2,400.6	169.74	15.142	
9,200.0	7,121.4	7,122.4	7,122.4	33.0	142.1	89.81	230.6	-1,170.9	2,597.3	2,426.8	170.42	15.240	
9,251.9	7,121.2	7,122.2	7,122.2	33.7	142.1	89.81	230.6	-1,170.9	2,628.0	2,456.8	171.20	15.350	
9,300.0	7,121.0	7,122.0	7,122.0	34.3	142.1	89.80	230.6	-1,170.9	2,657.1	2,485.2	171.93	15.455	
9,350.4	7,120.7	7,121.7	7,121.7	35.0	142.1	89.79	230.6	-1,170.9	2,688.1	2,515.4	172.71	15.565	
9,400.0	7,120.5	7,121.5	7,121.5	35.7	142.1	89.79	230.6	-1,170.9	2,719.3	2,545.8	173.48	15.675	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
9,448.8	7,120.3	7,121.3	7,121.3	36.4	142.0	89.78	230.6	-1,170.9	2,750.4	2,576.2	174.25	15.784	
9,500.0	7,120.1	7,121.1	7,121.1	37.2	142.0	89.78	230.6	-1,170.9	2,783.7	2,608.6	175.07	15.901	
9,547.2	7,119.9	7,120.9	7,120.9	37.8	142.0	89.77	230.6	-1,170.9	2,814.8	2,639.0	175.83	16.008	
9,600.0	7,119.6	7,120.6	7,120.6	38.6	142.0	89.76	230.6	-1,170.9	2,850.1	2,673.4	176.69	16.131	
9,645.6	7,119.4	7,120.4	7,120.4	39.3	142.0	89.76	230.6	-1,170.9	2,881.1	2,703.7	177.44	16.237	
9,700.0	7,119.2	7,120.2	7,120.2	40.1	142.0	89.75	230.6	-1,170.9	2,918.5	2,740.1	178.34	16.365	
9,744.1	7,119.0	7,120.0	7,120.0	40.8	142.0	89.75	230.6	-1,170.9	2,949.2	2,770.1	179.08	16.469	
9,800.0	7,118.7	7,119.7	7,119.7	41.7	142.0	89.74	230.6	-1,170.9	2,988.6	2,808.6	180.02	16.602	
9,842.5	7,118.5	7,119.5	7,119.5	42.3	142.0	89.74	230.6	-1,170.9	3,018.9	2,838.2	180.74	16.704	
9,900.0	7,118.3	7,119.3	7,119.3	43.2	142.0	89.73	230.6	-1,170.9	3,060.4	2,878.7	181.71	16.842	
9,940.9	7,118.1	7,119.1	7,119.1	43.9	142.0	89.72	230.6	-1,170.9	3,090.3	2,907.9	182.41	16.941	
10,000.0	7,117.8	7,118.8	7,118.8	44.8	142.0	89.72	230.6	-1,170.9	3,133.8	2,950.4	183.43	17.085	
10,039.3	7,117.6	7,118.6	7,118.6	45.5	142.0	89.71	230.6	-1,170.9	3,163.0	2,978.9	184.11	17.180	
10,100.0	7,117.4	7,118.4	7,118.4	46.4	142.0	89.70	230.6	-1,170.9	3,208.6	3,023.4	185.16	17.329	
10,137.8	7,117.2	7,118.2	7,118.2	47.1	142.0	89.70	230.6	-1,170.9	3,237.2	3,051.4	185.82	17.421	
10,200.0	7,116.9	7,117.9	7,117.9	48.1	142.0	89.69	230.6	-1,170.9	3,284.7	3,097.8	186.91	17.574	
10,236.2	7,116.8	7,117.8	7,117.8	48.7	142.0	89.69	230.6	-1,170.9	3,312.6	3,125.0	187.54	17.663	
10,300.0	7,116.5	7,117.5	7,117.5	49.7	142.0	89.68	230.6	-1,170.9	3,362.1	3,173.4	188.66	17.820	
10,334.6	7,116.3	7,117.3	7,117.3	50.3	142.0	89.68	230.6	-1,170.9	3,389.2	3,199.9	189.28	17.906	
10,400.0	7,116.0	7,117.0	7,117.0	51.4	142.0	89.67	230.6	-1,170.9	3,440.6	3,250.2	190.44	18.067	
10,433.0	7,115.9	7,116.9	7,116.9	52.0	142.0	89.66	230.6	-1,170.9	3,466.8	3,275.8	191.02	18.149	
10,500.0	7,115.6	7,116.6	7,116.6	53.1	142.0	89.66	230.6	-1,170.9	3,520.3	3,328.1	192.22	18.314	
10,531.5	7,115.4	7,116.4	7,116.4	53.6	142.0	89.65	230.6	-1,170.9	3,545.6	3,352.8	192.78	18.392	
10,600.0	7,115.1	7,116.1	7,116.1	54.8	141.9	89.64	230.6	-1,170.9	3,600.9	3,406.9	194.01	18.561	
10,629.9	7,115.0	7,116.0	7,116.0	55.3	141.9	89.64	230.6	-1,170.9	3,625.2	3,430.7	194.54	18.634	
10,700.0	7,114.7	7,115.7	7,115.7	56.5	141.9	89.63	230.6	-1,170.9	3,682.5	3,486.7	195.81	18.807	
10,728.3	7,114.6	7,115.6	7,115.6	57.0	141.9	89.63	230.6	-1,170.9	3,705.8	3,509.5	196.32	18.877	
10,800.0	7,114.2	7,115.2	7,115.2	58.3	141.9	89.62	230.6	-1,170.9	3,765.0	3,567.4	197.61	19.053	
10,826.7	7,114.1	7,115.1	7,115.1	58.7	141.9	89.62	230.6	-1,170.9	3,787.2	3,589.1	198.10	19.118	
10,900.0	7,113.8	7,114.8	7,114.8	60.0	141.9	89.61	230.6	-1,170.9	3,848.4	3,648.9	199.42	19.297	
10,925.2	7,113.7	7,114.7	7,114.7	60.5	141.9	89.60	230.6	-1,170.9	3,869.5	3,669.6	199.88	19.359	
11,000.0	7,113.3	7,114.3	7,114.3	61.8	141.9	89.60	230.6	-1,170.9	3,932.5	3,731.2	201.24	19.541	
11,023.6	7,113.2	7,114.2	7,114.2	62.2	141.9	89.59	230.6	-1,170.9	3,952.4	3,750.7	201.67	19.598	
11,100.0	7,112.9	7,113.9	7,113.9	63.5	141.9	89.58	230.6	-1,170.9	4,017.3	3,814.2	203.07	19.783	
11,122.0	7,112.8	7,113.8	7,113.8	63.9	141.9	89.58	230.6	-1,170.9	4,036.1	3,832.6	203.47	19.836	
11,200.0	7,112.4	7,113.4	7,113.4	65.3	141.9	89.57	230.6	-1,170.9	4,102.8	3,897.9	204.90	20.024	
11,220.4	7,112.4	7,113.4	7,113.4	65.7	141.9	89.57	230.6	-1,170.9	4,120.4	3,915.1	205.27	20.073	
11,300.0	7,112.0	7,113.0	7,113.0	67.1	141.9	89.56	230.6	-1,170.9	4,188.9	3,982.2	206.73	20.263	
11,318.9	7,111.9	7,112.9	7,112.9	67.4	141.9	89.56	230.6	-1,170.9	4,205.3	3,998.2	207.08	20.308	
11,400.0	7,111.6	7,112.6	7,112.6	68.9	141.9	89.55	230.6	-1,170.9	4,275.7	4,067.1	208.57	20.500	
11,417.3	7,111.5	7,112.5	7,112.5	69.2	141.9	89.55	230.6	-1,170.9	4,290.8	4,081.9	208.89	20.541	
11,500.0	7,111.1	7,112.1	7,112.1	70.7	141.9	89.54	230.6	-1,170.9	4,363.0	4,152.6	210.41	20.735	
11,515.7	7,111.0	7,112.0	7,112.0	71.0	141.9	89.53	230.6	-1,170.9	4,376.8	4,166.1	210.70	20.772	
11,600.0	7,110.7	7,111.7	7,111.7	72.5	141.9	89.52	230.6	-1,170.9	4,450.9	4,238.6	212.26	20.969	
11,614.1	7,110.6	7,111.6	7,111.6	72.7	141.9	89.52	230.6	-1,170.9	4,463.3	4,250.8	212.52	21.002	
11,700.0	7,110.2	7,111.2	7,111.2	74.3	141.8	89.51	230.6	-1,170.9	4,539.2	4,325.1	214.11	21.200	
11,712.6	7,110.2	7,111.2	7,111.2	74.5	141.8	89.51	230.6	-1,170.9	4,550.4	4,336.0	214.34	21.229	
11,747.9	7,110.0	7,111.0	7,111.0	75.1	141.8	89.51	230.6	-1,170.9	4,581.7	4,366.7	215.00	21.311	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	0.0	0.0	0.0	0.0	-134.76	-781.4	-787.9	1,109.7				
98.4	98.4	94.4	94.4	0.1	0.2	-134.76	-781.4	-787.9	1,109.7	1,109.4	0.27	4,059.680	
100.0	100.0	96.0	96.0	0.1	0.2	-134.76	-781.4	-787.9	1,109.7	1,109.4	0.28	3,987.965	
196.8	196.8	192.8	192.8	0.3	2.6	-134.76	-781.4	-787.9	1,109.7	1,106.8	2.90	382.498	
200.0	200.0	196.0	196.0	0.3	2.7	-134.76	-781.4	-787.9	1,109.7	1,106.7	2.99	371.186	
295.3	295.3	291.3	291.3	0.5	4.7	-134.76	-781.4	-787.9	1,109.7	1,104.5	5.19	213.609	
300.0	300.0	296.0	296.0	0.5	4.8	-134.76	-781.4	-787.9	1,109.7	1,104.4	5.30	209.244	
393.7	393.7	389.7	389.7	0.7	6.7	-134.76	-781.4	-787.9	1,109.7	1,102.2	7.42	149.522	
400.0	400.0	396.0	396.0	0.8	6.8	-134.76	-781.4	-787.9	1,109.7	1,102.1	7.56	146.708	
492.1	492.1	488.1	488.1	1.0	8.7	-134.76	-781.4	-787.9	1,109.7	1,100.0	9.64	115.162	
500.0	500.0	496.0	496.0	1.0	8.8	-134.76	-781.4	-787.9	1,109.7	1,099.8	9.81	113.084	
590.5	590.5	586.5	586.5	1.2	10.7	-134.76	-781.4	-787.9	1,109.7	1,097.8	11.84	93.685	
600.0	600.0	596.0	596.0	1.2	10.8	-134.76	-781.4	-787.9	1,109.7	1,097.6	12.06	92.037	
689.0	689.0	685.0	685.0	1.4	12.6	-134.76	-781.4	-787.9	1,109.7	1,095.6	14.05	78.974	
700.0	700.0	696.0	696.0	1.4	12.9	-134.76	-781.4	-787.9	1,109.7	1,095.4	14.30	77.609	
787.4	787.4	783.4	783.4	1.6	14.6	-134.76	-781.4	-787.9	1,109.7	1,093.4	16.26	68.263	
800.0	800.0	796.0	796.0	1.7	14.9	-134.76	-781.4	-787.9	1,109.7	1,093.1	16.54	67.098	
885.8	885.8	881.8	881.8	1.9	16.6	-134.76	-781.4	-787.9	1,109.7	1,091.2	18.46	60.114	
900.0	900.0	896.0	896.0	1.9	16.9	-134.76	-781.4	-787.9	1,109.7	1,090.9	18.78	59.098	
984.2	984.2	980.2	980.2	2.1	18.6	-134.76	-781.4	-787.9	1,109.7	1,089.0	20.66	53.704	
1,000.0	1,000.0	996.0	996.0	2.1	18.9	-134.76	-781.4	-787.9	1,109.7	1,088.6	21.01	52.803	
1,082.7	1,082.7	1,078.7	1,078.7	2.3	20.6	-134.76	-781.4	-787.9	1,109.7	1,086.8	22.86	48.531	
1,100.0	1,100.0	1,096.0	1,096.0	2.3	20.9	-134.76	-781.4	-787.9	1,109.7	1,086.4	23.25	47.722	
1,181.1	1,181.1	1,177.1	1,177.1	2.5	22.6	-134.76	-781.4	-787.9	1,109.7	1,084.6	25.07	44.268	
1,200.0	1,200.0	1,196.0	1,196.0	2.6	22.9	-134.76	-781.4	-787.9	1,109.7	1,084.2	25.49	43.533	
1,279.5	1,279.5	1,275.5	1,275.5	2.7	24.5	-134.76	-781.4	-787.9	1,109.7	1,082.4	27.27	40.693	
1,300.0	1,300.0	1,296.0	1,296.0	2.8	24.9	-134.76	-781.4	-787.9	1,109.7	1,081.9	27.73	40.021	
1,377.9	1,377.9	1,373.9	1,373.9	3.0	26.5	-134.76	-781.4	-787.9	1,109.7	1,080.2	29.47	37.653	
1,400.0	1,400.0	1,396.0	1,396.0	3.0	27.0	-134.76	-781.4	-787.9	1,109.7	1,079.7	29.96	37.033	
1,476.4	1,476.4	1,472.4	1,472.4	3.2	28.5	-134.76	-781.4	-787.9	1,109.7	1,078.0	31.67	35.036	
1,500.0	1,500.0	1,496.0	1,496.0	3.2	29.0	-134.76	-781.4	-787.9	1,109.7	1,077.5	32.20	34.461	
1,574.8	1,574.8	1,570.8	1,570.8	3.4	30.5	-134.76	-781.4	-787.9	1,109.7	1,075.8	33.87	32.759	
1,600.0	1,600.0	1,596.0	1,596.0	3.5	31.0	-134.76	-781.4	-787.9	1,109.7	1,075.2	34.44	32.223	
1,673.2	1,673.2	1,669.2	1,669.2	3.6	32.5	-134.76	-781.4	-787.9	1,109.7	1,073.6	36.07	30.760	
1,700.0	1,700.0	1,696.0	1,696.0	3.7	33.0	-134.76	-781.4	-787.9	1,109.7	1,073.0	36.67	30.258	
1,750.0	1,750.0	1,746.0	1,746.0	3.8	34.0	-134.76	-781.4	-787.9	1,109.7	1,071.9	37.79	29.362 CC	
1,771.6	1,771.6	1,767.6	1,767.6	3.8	34.4	-176.77	-781.4	-787.9	1,109.7	1,071.5	38.27	28.994	
1,800.0	1,800.0	1,796.0	1,796.0	3.9	35.0	-176.77	-781.4	-787.9	1,110.1	1,071.2	38.90	28.535 ES	
1,870.1	1,870.0	1,866.0	1,866.0	4.1	36.4	-176.77	-781.4	-787.9	1,112.2	1,071.7	40.44	27.505	
1,900.0	1,899.9	1,895.9	1,895.9	4.1	37.0	-176.77	-781.4	-787.9	1,113.6	1,072.5	41.08	27.107	
1,968.5	1,968.3	1,964.3	1,964.3	4.3	38.4	-176.78	-781.4	-787.9	1,118.0	1,075.4	42.54	26.280	
2,000.0	1,999.7	1,995.7	1,995.7	4.3	39.0	-176.78	-781.4	-787.9	1,120.5	1,077.3	43.20	25.938	
2,066.9	2,066.3	2,062.3	2,062.3	4.5	40.4	-176.80	-781.4	-787.9	1,127.1	1,082.6	44.58	25.282	
2,100.0	2,099.1	2,095.1	2,095.1	4.6	41.0	-176.80	-781.4	-787.9	1,131.0	1,085.7	45.25	24.994	
2,165.3	2,163.9	2,159.9	2,159.9	4.7	42.3	-176.82	-781.4	-787.9	1,139.7	1,093.1	46.55	24.483	
2,200.0	2,198.2	2,194.2	2,194.2	4.8	43.0	-176.83	-781.4	-787.9	1,144.9	1,097.7	47.22	24.244	
2,263.8	2,261.0	2,257.0	2,257.0	5.0	44.3	-176.84	-781.4	-787.9	1,155.5	1,107.1	48.44	23.856	
2,300.0	2,296.6	2,292.6	2,292.6	5.1	45.0	-176.85	-781.4	-787.9	1,162.2	1,113.1	49.11	23.666	
2,362.2	2,357.6	2,353.6	2,353.6	5.3	46.2	-176.87	-781.4	-787.9	1,174.7	1,124.5	50.24	23.384	
2,400.0	2,394.4	2,390.4	2,390.4	5.4	47.0	-176.89	-781.4	-787.9	1,183.0	1,132.1	50.90	23.241	
2,460.6	2,453.4	2,449.4	2,449.4	5.6	48.1	-176.91	-781.4	-787.9	1,197.2	1,145.3	51.94	23.050	
2,500.0	2,491.5	2,487.5	2,487.5	5.7	48.9	-176.92	-781.4	-787.9	1,207.1	1,154.5	52.59	22.954	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
2,559.0	2,548.3	2,544.3	2,544.3	5.9	50.1	-176.94	-781.4	-787.9	1,223.0	1,169.4	53.54	22.843	
2,600.0	2,587.6	2,583.6	2,583.6	6.1	50.8	-176.96	-781.4	-787.9	1,234.7	1,180.5	54.17	22.792	
2,657.5	2,642.4	2,638.4	2,638.4	6.3	51.9	-176.98	-781.4	-787.9	1,252.0	1,197.0	55.03	22.752	
2,700.0	2,682.7	2,678.7	2,678.7	6.5	52.8	-177.00	-781.4	-787.9	1,265.5	1,209.9	55.64	22.747	
2,750.0	2,729.8	2,725.8	2,725.8	6.8	53.7	-177.02	-781.4	-787.9	1,282.2	1,225.9	56.32	22.765	
2,755.9	2,735.4	2,731.4	2,731.4	6.8	53.8	-177.03	-781.4	-787.9	1,284.2	1,227.8	56.44	22.752	
2,800.0	2,776.8	2,772.8	2,772.8	7.0	54.6	-177.06	-781.4	-787.9	1,299.3	1,241.9	57.34	22.659	
2,854.3	2,827.8	2,823.8	2,823.8	7.3	55.7	-177.10	-781.4	-787.9	1,317.8	1,259.4	58.45	22.546	
2,900.0	2,870.8	2,866.8	2,866.8	7.5	56.5	-177.14	-781.4	-787.9	1,333.4	1,274.1	59.38	22.456	
2,952.7	2,920.3	2,916.3	2,916.3	7.8	57.5	-177.17	-781.4	-787.9	1,351.5	1,291.0	60.46	22.352	
3,000.0	2,964.7	2,960.7	2,960.7	8.1	58.4	-177.21	-781.4	-787.9	1,367.6	1,306.2	61.43	22.264	
3,051.2	3,012.8	3,008.8	3,008.8	8.4	59.4	-177.24	-781.4	-787.9	1,385.1	1,322.6	62.48	22.169	
3,100.0	3,058.7	3,054.7	3,054.7	8.7	60.3	-177.28	-781.4	-787.9	1,401.8	1,338.3	63.48	22.082	
3,149.6	3,105.3	3,101.3	3,101.3	9.0	61.3	-177.31	-781.4	-787.9	1,418.7	1,354.2	64.50	21.995	
3,200.0	3,152.7	3,148.7	3,148.7	9.3	62.2	-177.34	-781.4	-787.9	1,435.9	1,370.4	65.54	21.910	
3,248.0	3,197.8	3,193.8	3,193.8	9.5	63.1	-177.37	-781.4	-787.9	1,452.3	1,385.8	66.53	21.831	
3,300.0	3,246.6	3,242.6	3,242.6	9.9	64.1	-177.40	-781.4	-787.9	1,470.1	1,402.5	67.60	21.748	
3,346.4	3,290.3	3,286.3	3,286.3	10.1	65.0	-177.43	-781.4	-787.9	1,486.0	1,417.4	68.56	21.675	
3,400.0	3,340.6	3,336.6	3,336.6	10.5	66.0	-177.46	-781.4	-787.9	1,504.3	1,434.6	69.66	21.594	
3,444.9	3,382.8	3,378.8	3,378.8	10.8	66.8	-177.49	-781.4	-787.9	1,519.6	1,449.0	70.59	21.527	
3,500.0	3,434.6	3,430.6	3,430.6	11.1	67.9	-177.52	-781.4	-787.9	1,538.4	1,466.7	71.73	21.448	
3,543.3	3,475.3	3,471.3	3,471.3	11.4	68.7	-177.54	-781.4	-787.9	1,553.2	1,480.6	72.63	21.386	
3,600.0	3,528.6	3,524.6	3,524.6	11.7	69.8	-177.57	-781.4	-787.9	1,572.6	1,498.8	73.80	21.309	
3,641.7	3,567.8	3,563.8	3,563.8	12.0	70.6	-177.59	-781.4	-787.9	1,586.9	1,512.2	74.67	21.253	
3,700.0	3,622.5	3,618.5	3,618.5	12.4	71.7	-177.62	-781.4	-787.9	1,606.8	1,530.9	75.88	21.177	
3,740.1	3,660.3	3,656.3	3,656.3	12.6	72.4	-177.64	-781.4	-787.9	1,620.5	1,543.8	76.71	21.126	
3,749.0	3,668.6	3,664.6	3,664.6	12.7	72.6	-177.65	-781.4	-787.9	1,623.5	1,546.7	76.89	21.114	
3,800.0	3,716.5	3,712.5	3,712.5	13.0	73.5	-179.17	-781.4	-787.9	1,641.0	1,563.0	77.96	21.050	
3,838.6	3,752.8	3,748.8	3,748.8	13.2	74.3	-176.78	-781.4	-787.9	1,654.1	1,575.4	78.76	21.002	
3,885.2	3,796.6	3,792.6	3,792.6	13.5	75.2	-173.93	-781.4	-787.9	1,670.0	1,590.3	79.73	20.944	
3,900.0	3,810.5	3,806.5	3,806.5	13.6	75.4	-173.94	-781.4	-787.9	1,675.0	1,595.0	80.04	20.927	
3,937.0	3,845.3	3,841.3	3,841.3	13.8	76.1	-173.99	-781.4	-787.9	1,687.6	1,606.8	80.81	20.884	
4,000.0	3,904.5	3,900.5	3,900.5	14.2	77.3	-174.07	-781.4	-787.9	1,709.1	1,626.9	82.12	20.812	
4,035.4	3,937.7	3,933.7	3,933.7	14.5	78.0	-174.11	-781.4	-787.9	1,721.1	1,638.3	82.86	20.773	
4,100.0	3,998.4	3,994.4	3,994.4	14.9	79.2	-174.18	-781.4	-787.9	1,743.1	1,658.9	84.20	20.702	
4,133.8	4,030.2	4,026.2	4,026.2	15.1	79.9	-174.22	-781.4	-787.9	1,754.6	1,669.7	84.90	20.666	
4,200.0	4,092.4	4,088.4	4,088.4	15.5	81.1	-174.29	-781.4	-787.9	1,777.2	1,690.9	86.28	20.597	
4,232.3	4,122.7	4,118.7	4,118.7	15.8	81.7	-174.33	-781.4	-787.9	1,788.1	1,701.2	86.95	20.564	
4,300.0	4,186.4	4,182.4	4,182.4	16.2	83.0	-174.40	-781.4	-787.9	1,811.2	1,722.8	88.37	20.497	
4,330.7	4,215.2	4,211.2	4,211.2	16.4	83.6	-174.43	-781.4	-787.9	1,821.7	1,732.7	89.01	20.467	
4,400.0	4,280.3	4,276.3	4,276.3	16.9	84.9	-174.50	-781.4	-787.9	1,845.3	1,754.8	90.45	20.401	
4,429.1	4,307.7	4,303.7	4,303.7	17.1	85.4	-174.53	-781.4	-787.9	1,855.2	1,764.1	91.06	20.373	
4,500.0	4,374.3	4,370.3	4,370.3	17.6	86.8	-174.60	-781.4	-787.9	1,879.3	1,786.8	92.54	20.309	
4,527.5	4,400.2	4,396.2	4,396.2	17.7	87.3	-174.63	-781.4	-787.9	1,888.7	1,795.6	93.11	20.284	
4,600.0	4,468.3	4,464.3	4,464.3	18.2	88.7	-174.70	-781.4	-787.9	1,913.4	1,818.8	94.63	20.221	
4,626.0	4,492.7	4,488.7	4,488.7	18.4	89.2	-174.72	-781.4	-787.9	1,922.2	1,827.1	95.17	20.198	
4,700.0	4,562.3	4,558.3	4,558.3	18.9	90.6	-174.79	-781.4	-787.9	1,947.5	1,850.7	96.71	20.136	
4,724.4	4,585.2	4,581.2	4,581.2	19.1	91.0	-174.82	-781.4	-787.9	1,955.8	1,858.5	97.23	20.116	
4,800.0	4,656.2	4,652.2	4,652.2	19.6	92.4	-174.88	-781.4	-787.9	1,981.5	1,882.7	98.81	20.055	
4,822.8	4,677.7	4,673.7	4,673.7	19.7	92.9	-174.90	-781.4	-787.9	1,989.3	1,890.0	99.28	20.037	
4,900.0	4,750.2	4,746.2	4,746.2	20.3	94.3	-174.97	-781.4	-787.9	2,015.6	1,914.7	100.90	19.977	
4,921.2	4,770.2	4,766.2	4,766.2	20.4	94.7	-174.99	-781.4	-787.9	2,022.9	1,921.5	101.34	19.961	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	4,844.2	4,840.2	4,840.2	20.9	96.2	175.05	-781.4	-787.9	2,049.7	1,946.7	102.99	19.902	
5,019.7	4,862.7	4,858.7	4,858.7	21.1	96.6	175.07	-781.4	-787.9	2,056.4	1,953.0	103.40	19.888	
5,100.0	4,938.1	4,934.1	4,934.1	21.6	98.1	175.13	-781.4	-787.9	2,083.8	1,978.7	105.08	19.830	
5,118.1	4,955.1	4,951.1	4,951.1	21.7	98.5	175.15	-781.4	-787.9	2,090.0	1,984.5	105.46	19.817	
5,200.0	5,032.1	5,028.1	5,028.1	22.3	100.0	175.21	-781.4	-787.9	2,117.9	2,010.7	107.18	19.761	
5,216.5	5,047.6	5,043.6	5,043.6	22.4	100.3	175.23	-781.4	-787.9	2,123.5	2,016.0	107.52	19.750	
5,300.0	5,126.1	5,122.1	5,122.1	23.0	101.9	175.29	-781.4	-787.9	2,152.0	2,042.7	109.27	19.694	
5,314.9	5,140.1	5,136.1	5,136.1	23.1	102.2	175.30	-781.4	-787.9	2,157.1	2,047.5	109.58	19.684	
5,400.0	5,220.0	5,216.0	5,216.0	23.7	103.8	175.36	-781.4	-787.9	2,186.1	2,074.7	111.37	19.630	
5,413.4	5,232.6	5,228.6	5,228.6	23.8	104.0	175.37	-781.4	-787.9	2,190.6	2,079.0	111.65	19.621	
5,504.2	5,318.0	5,314.0	5,314.0	24.4	105.8	175.44	-781.4	-787.9	2,221.6	2,108.0	113.55	19.565	
5,511.8	5,325.1	5,321.1	5,321.1	24.4	105.9	175.45	-781.4	-787.9	2,224.2	2,110.4	113.80	19.544	
5,600.0	5,408.5	5,404.5	5,404.5	24.9	107.6	175.55	-781.4	-787.9	2,252.8	2,136.0	116.74	19.298	
5,610.2	5,418.2	5,414.2	5,414.2	25.0	107.8	175.56	-781.4	-787.9	2,255.9	2,138.8	117.07	19.270	
5,700.0	5,504.1	5,500.1	5,500.1	25.4	109.5	175.66	-781.4	-787.9	2,282.1	2,162.1	119.96	19.023	
5,708.6	5,512.4	5,508.4	5,508.4	25.5	109.7	175.66	-781.4	-787.9	2,284.4	2,164.2	120.23	19.000	
5,800.0	5,600.7	5,596.7	5,596.7	25.9	111.4	175.74	-781.4	-787.9	2,308.0	2,184.9	123.08	18.751	
5,807.1	5,607.5	5,603.5	5,603.5	25.9	111.6	175.75	-781.4	-787.9	2,309.7	2,186.4	123.30	18.732	
5,900.0	5,698.1	5,694.1	5,694.1	26.3	113.4	175.82	-781.4	-787.9	2,330.6	2,204.5	126.10	18.482	
5,905.5	5,703.4	5,699.4	5,699.4	26.3	113.5	175.82	-781.4	-787.9	2,331.7	2,205.5	126.26	18.467	
6,000.0	5,796.2	5,792.2	5,792.2	26.6	115.4	175.88	-781.4	-787.9	2,349.7	2,220.7	129.00	18.216	
6,003.9	5,800.1	5,796.1	5,796.1	26.6	115.4	175.88	-781.4	-787.9	2,350.4	2,221.3	129.11	18.205	
6,100.0	5,894.9	5,890.9	5,890.9	26.9	117.4	175.93	-781.4	-787.9	2,365.5	2,233.7	131.76	17.953	
6,102.3	5,897.3	5,893.3	5,893.3	26.9	117.4	175.93	-781.4	-787.9	2,365.8	2,234.0	131.82	17.947	
6,200.0	5,994.2	5,990.2	5,990.2	27.2	119.4	175.97	-781.4	-787.9	2,377.8	2,243.4	134.39	17.694	
6,200.8	5,994.9	5,990.9	5,990.9	27.2	119.4	175.97	-781.4	-787.9	2,377.9	2,243.5	134.41	17.692	
6,299.2	6,093.0	6,089.0	6,089.0	27.4	121.3	176.00	-781.4	-787.9	2,386.6	2,249.7	136.84	17.440	
6,300.0	6,093.8	6,089.8	6,089.8	27.4	121.4	176.00	-781.4	-787.9	2,386.6	2,249.8	136.86	17.438	
6,397.6	6,191.2	6,187.2	6,187.2	27.5	123.3	176.01	-781.4	-787.9	2,391.9	2,252.8	139.12	17.193	
6,400.0	6,193.6	6,189.6	6,189.6	27.5	123.4	176.01	-781.4	-787.9	2,392.0	2,252.8	139.18	17.187	
6,496.0	6,289.6	6,285.6	6,285.6	27.6	125.3	176.02	-781.4	-787.9	2,393.9	2,252.6	141.24	16.949	
6,504.1	6,297.7	6,293.7	6,293.7	27.6	125.5	-134.01	-781.4	-787.9	2,393.9	2,252.5	141.40	16.929	
6,594.5	6,388.1	6,384.1	6,384.1	27.7	127.3	-134.01	-781.4	-787.9	2,393.9	2,250.5	143.37	16.697	
6,600.0	6,393.6	6,389.6	6,389.6	27.7	127.4	-134.01	-781.4	-787.9	2,393.9	2,250.4	143.49	16.683	
6,618.2	6,411.8	6,407.8	6,407.8	27.8	127.8	-134.01	-781.4	-787.9	2,393.9	2,250.0	143.89	16.637	
6,650.0	6,443.6	6,439.6	6,439.6	27.8	128.4	46.03	-781.4	-787.9	2,393.4	2,249.0	144.41	16.573	
6,692.9	6,486.4	6,482.4	6,482.4	27.8	129.3	46.21	-781.4	-787.9	2,391.2	2,246.3	144.89	16.503	
6,700.0	6,493.4	6,489.4	6,489.4	27.8	129.4	46.26	-781.4	-787.9	2,390.6	2,245.7	144.95	16.493	
6,750.0	6,542.8	6,538.8	6,538.8	27.8	130.4	46.69	-781.4	-787.9	2,385.5	2,240.3	145.15	16.435	
6,791.3	6,583.2	6,579.2	6,579.2	27.7	131.2	47.19	-781.4	-787.9	2,379.4	2,234.4	145.09	16.399	
6,800.0	6,591.6	6,587.6	6,587.6	27.7	131.4	47.32	-781.4	-787.9	2,378.0	2,232.9	145.06	16.393	
6,850.0	6,639.6	6,635.6	6,635.6	27.6	132.3	48.16	-781.4	-787.9	2,368.2	2,223.4	144.74	16.362	
6,889.7	6,676.9	6,672.9	6,672.9	27.6	133.1	48.98	-781.4	-787.9	2,358.8	2,214.4	144.37	16.339	
6,900.0	6,686.4	6,682.4	6,682.4	27.5	133.3	49.21	-781.4	-787.9	2,356.2	2,211.9	144.26	16.332	
6,950.0	6,731.8	6,727.8	6,727.8	27.4	134.2	50.48	-781.4	-787.9	2,342.0	2,198.3	143.74	16.294	
6,988.2	6,765.5	6,761.5	6,761.5	27.3	134.9	51.59	-781.4	-787.9	2,329.9	2,186.5	143.37	16.252	
7,000.0	6,775.8	6,771.8	6,771.8	27.2	135.1	51.96	-781.4	-787.9	2,325.9	2,182.7	143.27	16.235	
7,050.0	6,817.9	6,813.9	6,813.9	27.1	135.9	53.67	-781.4	-787.9	2,307.9	2,164.9	142.98	16.142	
7,086.6	6,847.5	6,843.5	6,843.5	26.9	136.5	55.06	-781.4	-787.9	2,293.7	2,150.7	142.95	16.045	
7,100.0	6,858.1	6,854.1	6,854.1	26.9	136.7	55.60	-781.4	-787.9	2,288.2	2,145.2	142.99	16.003	
7,150.0	6,896.1	6,892.1	6,892.1	26.6	137.5	57.75	-781.4	-787.9	2,266.9	2,123.5	143.39	15.809	
7,185.0	6,921.3	6,917.3	6,917.3	26.5	138.0	59.37	-781.4	-787.9	2,251.2	2,107.3	143.94	15.640	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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
7,200.0	6,931.7	6,927.7	6,927.7	26.4	138.2	60.10	-781.4	-787.9	2,244.3	2,100.0	144.24	15.559	
7,250.0	6,964.8	6,960.8	6,960.8	26.2	138.9	62.64	-781.4	-787.9	2,220.4	2,074.9	145.55	15.255	
7,283.4	6,985.4	6,981.4	6,981.4	26.0	139.3	64.43	-781.4	-787.9	2,203.9	2,057.3	146.67	15.027	
7,300.0	6,995.2	6,991.2	6,991.2	25.9	139.5	65.34	-781.4	-787.9	2,195.6	2,048.3	147.28	14.908	
7,350.0	7,022.7	7,018.7	7,018.7	25.7	140.0	68.18	-781.4	-787.9	2,170.0	2,020.7	149.31	14.533	
7,381.9	7,038.8	7,034.8	7,034.8	25.5	140.4	70.04	-781.4	-787.9	2,153.3	2,002.6	150.71	14.288	
7,400.0	7,047.3	7,043.3	7,043.3	25.4	140.5	71.12	-781.4	-787.9	2,143.7	1,992.2	151.52	14.149	
7,450.0	7,068.8	7,064.8	7,064.8	25.1	141.0	74.10	-781.4	-787.9	2,117.2	1,963.4	153.73	13.772	
7,480.3	7,080.3	7,076.3	7,076.3	25.0	141.2	75.91	-781.4	-787.9	2,101.0	1,946.0	155.01	13.554	
7,500.0	7,087.1	7,083.1	7,083.1	24.9	141.3	77.08	-781.4	-787.9	2,090.4	1,934.6	155.79	13.418	
7,550.0	7,102.1	7,098.1	7,098.1	24.6	141.6	80.01	-781.4	-787.9	2,063.8	1,906.2	157.56	13.098	
7,578.7	7,109.2	7,105.2	7,105.2	24.5	141.8	81.65	-781.4	-787.9	2,048.5	1,890.1	158.42	12.931	
7,600.0	7,113.7	7,109.7	7,109.7	24.4	141.9	82.84	-781.4	-787.9	2,037.4	1,878.4	158.96	12.817	
7,650.0	7,121.9	7,117.9	7,117.9	24.2	142.0	85.52	-781.4	-787.9	2,011.4	1,851.5	159.95	12.576	
7,677.1	7,125.0	7,121.0	7,121.0	24.1	142.1	86.90	-781.4	-787.9	1,997.6	1,837.3	160.32	12.460	
7,700.0	7,126.7	7,122.7	7,122.7	24.0	142.1	88.01	-781.4	-787.9	1,986.2	1,825.6	160.54	12.372	
7,746.5	7,128.0	7,124.0	7,124.0	23.8	142.2	90.14	-781.4	-787.9	1,963.4	1,802.6	160.77	12.212	
7,775.6	7,127.9	7,123.9	7,123.9	23.7	142.2	90.14	-781.4	-787.9	1,949.6	1,788.9	160.70	12.132	
7,800.0	7,127.7	7,123.7	7,123.7	23.6	142.1	90.13	-781.4	-787.9	1,938.2	1,777.6	160.63	12.066	
7,874.0	7,127.4	7,123.4	7,123.4	23.4	142.1	90.12	-781.4	-787.9	1,905.4	1,745.1	160.33	11.885	
7,900.0	7,127.3	7,123.3	7,123.3	23.4	142.1	90.12	-781.4	-787.9	1,894.4	1,734.2	160.22	11.824	
7,972.4	7,127.0	7,123.0	7,123.0	23.3	142.1	90.11	-781.4	-787.9	1,865.4	1,705.3	160.06	11.654	
8,000.0	7,126.8	7,122.8	7,122.8	23.3	142.1	90.10	-781.4	-787.9	1,854.9	1,694.9	160.00	11.593	
8,070.8	7,126.5	7,122.5	7,122.5	23.4	142.1	90.09	-781.4	-787.9	1,829.7	1,669.7	159.99	11.437	
8,100.0	7,126.4	7,122.4	7,122.4	23.5	142.1	90.09	-781.4	-787.9	1,820.1	1,660.1	159.99	11.376	
8,169.3	7,126.1	7,122.1	7,122.1	23.7	142.1	90.08	-781.4	-787.9	1,798.8	1,638.7	160.12	11.234	
8,200.0	7,125.9	7,121.9	7,121.9	23.8	142.1	90.07	-781.4	-787.9	1,790.1	1,630.0	160.18	11.176	
8,267.7	7,125.6	7,121.6	7,121.6	24.1	142.1	90.06	-781.4	-787.9	1,772.8	1,612.4	160.44	11.049	
8,300.0	7,125.5	7,121.5	7,121.5	24.2	142.1	90.06	-781.4	-787.9	1,765.4	1,604.8	160.57	10.995	
8,366.1	7,125.2	7,121.2	7,121.2	24.6	142.1	90.05	-781.4	-787.9	1,752.0	1,591.0	160.95	10.885	
8,400.0	7,125.0	7,121.0	7,121.0	24.8	142.1	90.04	-781.4	-787.9	1,746.0	1,584.9	161.15	10.835	
8,464.5	7,124.7	7,120.7	7,120.7	25.3	142.1	90.03	-781.4	-787.9	1,736.4	1,574.8	161.63	10.744	
8,500.0	7,124.6	7,120.6	7,120.6	25.6	142.1	90.03	-781.4	-787.9	1,732.2	1,570.3	161.89	10.700	
8,563.0	7,124.3	7,120.3	7,120.3	26.1	142.1	90.02	-781.4	-787.9	1,726.4	1,564.0	162.46	10.627	
8,600.0	7,124.1	7,120.1	7,120.1	26.4	142.1	90.01	-781.4	-787.9	1,724.1	1,561.3	162.79	10.591	
8,661.4	7,123.8	7,119.8	7,119.8	26.9	142.1	90.00	-781.4	-787.9	1,722.0	1,558.5	163.42	10.537	
8,690.2	7,123.7	7,119.7	7,119.7	27.2	142.1	90.00	-781.4	-787.9	1,721.7	1,558.0	163.72	10.516	
8,700.0	7,123.7	7,119.7	7,119.7	27.3	142.1	90.00	-781.4	-787.9	1,721.7	1,557.9	163.82	10.510	
8,759.8	7,123.4	7,119.4	7,119.4	27.9	142.1	89.99	-781.4	-787.9	1,723.1	1,558.6	164.50	10.475	
8,800.0	7,123.2	7,119.2	7,119.2	28.3	142.1	89.98	-781.4	-787.9	1,725.2	1,560.2	164.96	10.458	
8,858.2	7,123.0	7,119.0	7,119.0	28.9	142.1	89.97	-781.4	-787.9	1,729.9	1,564.2	165.68	10.441	
8,900.0	7,122.8	7,118.8	7,118.8	29.4	142.0	89.97	-781.4	-787.9	1,734.4	1,568.2	166.20	10.436	
8,956.7	7,122.5	7,118.5	7,118.5	30.0	142.0	89.96	-781.4	-787.9	1,742.2	1,575.3	166.95	10.435 SF	
9,000.0	7,122.3	7,118.3	7,118.3	30.5	142.0	89.95	-781.4	-787.9	1,749.4	1,581.8	167.53	10.442	
9,055.1	7,122.1	7,118.1	7,118.1	31.2	142.0	89.95	-781.4	-787.9	1,759.9	1,591.7	168.30	10.458	
9,100.0	7,121.9	7,117.9	7,117.9	31.7	142.0	89.94	-781.4	-787.9	1,769.8	1,600.9	168.92	10.477	
9,153.5	7,121.6	7,117.6	7,117.6	32.4	142.0	89.93	-781.4	-787.9	1,783.0	1,613.3	169.70	10.506	
9,200.0	7,121.4	7,117.4	7,117.4	33.0	142.0	89.92	-781.4	-787.9	1,795.6	1,625.2	170.38	10.539	
9,251.9	7,121.2	7,117.2	7,117.2	33.7	142.0	89.92	-781.4	-787.9	1,811.0	1,639.9	171.16	10.581	
9,300.0	7,121.0	7,117.0	7,117.0	34.3	142.0	89.91	-781.4	-787.9	1,826.5	1,654.6	171.89	10.626	
9,350.4	7,120.7	7,116.7	7,116.7	35.0	142.0	89.90	-781.4	-787.9	1,843.9	1,671.3	172.67	10.679	
9,400.0	7,120.5	7,116.5	7,116.5	35.7	142.0	89.89	-781.4	-787.9	1,862.3	1,688.8	173.44	10.737	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
9,448.8	7,120.3	7,116.3	7,116.3	36.4	142.0	89.89	-781.4	-787.9	1,881.4	1,707.2	174.21	10.800	
9,500.0	7,120.1	7,116.1	7,116.1	37.2	142.0	89.88	-781.4	-787.9	1,902.6	1,727.6	175.03	10.871	
9,547.2	7,119.9	7,115.9	7,115.9	37.8	142.0	89.87	-781.4	-787.9	1,923.2	1,747.4	175.79	10.940	
9,600.0	7,119.6	7,115.6	7,115.6	38.6	142.0	89.86	-781.4	-787.9	1,947.3	1,770.6	176.65	11.024	
9,645.6	7,119.4	7,115.4	7,115.4	39.3	142.0	89.86	-781.4	-787.9	1,969.0	1,791.6	177.40	11.099	
9,700.0	7,119.2	7,115.2	7,115.2	40.1	142.0	89.85	-781.4	-787.9	1,996.0	1,817.7	178.30	11.195	
9,744.1	7,119.0	7,115.0	7,115.0	40.8	142.0	89.84	-781.4	-787.9	2,018.6	1,839.6	179.04	11.275	
9,800.0	7,118.7	7,114.7	7,114.7	41.7	142.0	89.83	-781.4	-787.9	2,048.4	1,868.4	179.97	11.382	
9,842.5	7,118.5	7,114.5	7,114.5	42.3	142.0	89.83	-781.4	-787.9	2,071.7	1,891.0	180.69	11.465	
9,900.0	7,118.3	7,114.3	7,114.3	43.2	142.0	89.82	-781.4	-787.9	2,104.2	1,922.6	181.67	11.583	
9,940.9	7,118.1	7,114.1	7,114.1	43.9	142.0	89.81	-781.4	-787.9	2,128.0	1,945.7	182.37	11.669	
10,000.0	7,117.8	7,113.8	7,113.8	44.8	141.9	89.80	-781.4	-787.9	2,163.3	1,979.9	183.38	11.796	
10,039.3	7,117.6	7,113.6	7,113.6	45.5	141.9	89.80	-781.4	-787.9	2,187.3	2,003.3	184.07	11.883	
10,100.0	7,117.4	7,113.4	7,113.4	46.4	141.9	89.79	-781.4	-787.9	2,225.2	2,040.1	185.12	12.021	
10,137.8	7,117.2	7,113.2	7,113.2	47.1	141.9	89.78	-781.4	-787.9	2,249.4	2,063.6	185.78	12.108	
10,200.0	7,116.9	7,112.9	7,112.9	48.1	141.9	89.77	-781.4	-787.9	2,289.9	2,103.0	186.86	12.254	
10,236.2	7,116.8	7,112.8	7,112.8	48.7	141.9	89.77	-781.4	-787.9	2,313.9	2,126.4	187.50	12.341	
10,300.0	7,116.5	7,112.5	7,112.5	49.7	141.9	89.76	-781.4	-787.9	2,357.0	2,168.4	188.62	12.496	
10,334.6	7,116.3	7,112.3	7,112.3	50.3	141.9	89.75	-781.4	-787.9	2,380.8	2,191.6	189.23	12.581	
10,400.0	7,116.0	7,112.0	7,112.0	51.4	141.9	89.74	-781.4	-787.9	2,426.4	2,236.0	190.39	12.744	
10,433.0	7,115.9	7,111.9	7,111.9	52.0	141.9	89.74	-781.4	-787.9	2,449.8	2,258.8	190.98	12.828	
10,500.0	7,115.6	7,111.6	7,111.6	53.1	141.9	89.73	-781.4	-787.9	2,497.9	2,305.7	192.17	12.998	
10,531.5	7,115.4	7,111.4	7,111.4	53.6	141.9	89.73	-781.4	-787.9	2,520.8	2,328.1	192.74	13.079	
10,600.0	7,115.1	7,111.1	7,111.1	54.8	141.9	89.72	-781.4	-787.9	2,571.3	2,377.3	193.96	13.257	
10,629.9	7,115.0	7,111.0	7,111.0	55.3	141.9	89.71	-781.4	-787.9	2,593.6	2,399.1	194.50	13.334	
10,700.0	7,114.7	7,110.7	7,110.7	56.5	141.9	89.70	-781.4	-787.9	2,646.4	2,450.6	195.76	13.518	
10,728.3	7,114.6	7,110.6	7,110.6	57.0	141.9	89.70	-781.4	-787.9	2,668.0	2,471.7	196.27	13.593	
10,800.0	7,114.2	7,110.2	7,110.2	58.3	141.9	89.69	-781.4	-787.9	2,723.1	2,525.5	197.57	13.783	
10,826.7	7,114.1	7,110.1	7,110.1	58.7	141.9	89.68	-781.4	-787.9	2,743.9	2,545.8	198.05	13.854	
10,900.0	7,113.8	7,109.8	7,109.8	60.0	141.9	89.67	-781.4	-787.9	2,801.3	2,601.9	199.38	14.050	
10,925.2	7,113.7	7,109.7	7,109.7	60.5	141.9	89.67	-781.4	-787.9	2,821.2	2,621.4	199.84	14.117	
11,000.0	7,113.3	7,109.3	7,109.3	61.8	141.9	89.66	-781.4	-787.9	2,880.8	2,679.6	201.20	14.318	
11,023.6	7,113.2	7,109.2	7,109.2	62.2	141.9	89.65	-781.4	-787.9	2,899.8	2,698.2	201.63	14.382	
11,100.0	7,112.9	7,108.9	7,108.9	63.5	141.8	89.64	-781.4	-787.9	2,961.6	2,758.6	203.02	14.588	
11,122.0	7,112.8	7,108.8	7,108.8	63.9	141.8	89.64	-781.4	-787.9	2,979.6	2,776.1	203.43	14.647	
11,200.0	7,112.4	7,108.4	7,108.4	65.3	141.8	89.63	-781.4	-787.9	3,043.5	2,838.7	204.85	14.857	
11,220.4	7,112.4	7,108.4	7,108.4	65.7	141.8	89.62	-781.4	-787.9	3,060.4	2,855.2	205.23	14.912	
11,300.0	7,112.0	7,108.0	7,108.0	67.1	141.8	89.61	-781.4	-787.9	3,126.5	2,919.8	206.69	15.127	
11,318.9	7,111.9	7,107.9	7,107.9	67.4	141.8	89.61	-781.4	-787.9	3,142.3	2,935.2	207.03	15.178	
11,400.0	7,111.6	7,107.6	7,107.6	68.9	141.8	89.60	-781.4	-787.9	3,210.5	3,001.9	208.53	15.396	
11,417.3	7,111.5	7,107.5	7,107.5	69.2	141.8	89.60	-781.4	-787.9	3,225.1	3,016.2	208.84	15.442	
11,500.0	7,111.1	7,107.1	7,107.1	70.7	141.8	89.58	-781.4	-787.9	3,295.3	3,084.9	210.37	15.664	
11,515.7	7,111.0	7,107.0	7,107.0	71.0	141.8	89.58	-781.4	-787.9	3,308.7	3,098.1	210.66	15.707	
11,600.0	7,110.7	7,106.7	7,106.7	72.5	141.8	89.57	-781.4	-787.9	3,381.0	3,168.7	212.21	15.932	
11,614.1	7,110.6	7,106.6	7,106.6	72.7	141.8	89.57	-781.4	-787.9	3,393.1	3,180.7	212.48	15.970	
11,700.0	7,110.2	7,106.2	7,106.2	74.3	141.8	89.55	-781.4	-787.9	3,467.4	3,253.3	214.06	16.198	
11,712.6	7,110.2	7,106.2	7,106.2	74.5	141.8	89.55	-781.4	-787.9	3,478.3	3,264.0	214.30	16.231	
11,747.9	7,110.0	7,106.0	7,106.0	75.1	141.8	89.55	-781.4	-787.9	3,509.0	3,294.1	214.95	16.325	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	0.0	0.0	0.0	0.0	-158.87	-2,114.4	-817.2	2,266.8				
98.4	98.4	96.4	96.4	0.1	0.2	-158.87	-2,114.4	-817.2	2,266.8	2,266.6	0.25	9,007.696	
100.0	100.0	98.0	98.0	0.1	0.2	-158.87	-2,114.4	-817.2	2,266.8	2,266.6	0.26	8,849.592	
196.8	196.8	194.8	194.8	0.3	2.6	-158.87	-2,114.4	-817.2	2,266.8	2,263.9	2.94	772.130	
200.0	200.0	198.0	198.0	0.3	2.7	-158.87	-2,114.4	-817.2	2,266.8	2,263.8	3.02	749.478	
295.3	295.3	293.3	293.3	0.5	4.7	-158.87	-2,114.4	-817.2	2,266.8	2,261.6	5.22	434.381	
300.0	300.0	298.0	298.0	0.5	4.8	-158.87	-2,114.4	-817.2	2,266.8	2,261.5	5.33	425.550	
393.7	393.7	391.7	391.7	0.7	6.7	-158.87	-2,114.4	-817.2	2,266.8	2,259.4	7.44	304.528	
400.0	400.0	398.0	398.0	0.8	6.8	-158.87	-2,114.4	-817.2	2,266.8	2,259.2	7.59	298.816	
492.1	492.1	490.1	490.1	1.0	8.7	-158.87	-2,114.4	-817.2	2,266.8	2,257.2	9.66	234.726	
500.0	500.0	498.0	498.0	1.0	8.8	-158.87	-2,114.4	-817.2	2,266.8	2,257.0	9.83	230.500	
590.5	590.5	588.5	588.5	1.2	10.7	-158.87	-2,114.4	-817.2	2,266.8	2,255.0	11.87	191.035	
600.0	600.0	598.0	598.0	1.2	10.9	-158.87	-2,114.4	-817.2	2,266.8	2,254.8	12.08	187.682	
689.0	689.0	687.0	687.0	1.4	12.7	-158.87	-2,114.4	-817.2	2,266.8	2,252.8	14.07	161.087	
700.0	700.0	698.0	698.0	1.4	12.9	-158.87	-2,114.4	-817.2	2,266.8	2,252.5	14.32	158.307	
787.4	787.4	785.4	785.4	1.6	14.6	-158.87	-2,114.4	-817.2	2,266.8	2,250.6	16.28	139.269	
800.0	800.0	798.0	798.0	1.7	14.9	-158.87	-2,114.4	-817.2	2,266.8	2,250.3	16.56	136.895	
885.8	885.8	883.8	883.8	1.9	16.6	-158.87	-2,114.4	-817.2	2,266.8	2,248.4	18.48	122.662	
900.0	900.0	898.0	898.0	1.9	16.9	-158.87	-2,114.4	-817.2	2,266.8	2,248.0	18.80	120.591	
984.2	984.2	982.2	982.2	2.1	18.6	-158.87	-2,114.4	-817.2	2,266.8	2,246.1	20.68	109.598	
1,000.0	1,000.0	998.0	998.0	2.1	18.9	-158.87	-2,114.4	-817.2	2,266.8	2,245.8	21.04	107.761	
1,082.7	1,082.7	1,080.7	1,080.7	2.3	20.6	-158.87	-2,114.4	-817.2	2,266.8	2,243.9	22.89	99.050	
1,100.0	1,100.0	1,098.0	1,098.0	2.3	20.9	-158.87	-2,114.4	-817.2	2,266.8	2,243.6	23.27	97.400	
1,181.1	1,181.1	1,179.1	1,179.1	2.5	22.6	-158.87	-2,114.4	-817.2	2,266.8	2,241.7	25.09	90.356	
1,200.0	1,200.0	1,198.0	1,198.0	2.6	23.0	-158.87	-2,114.4	-817.2	2,266.8	2,241.3	25.51	88.858	
1,279.5	1,279.5	1,277.5	1,277.5	2.7	24.6	-158.87	-2,114.4	-817.2	2,266.8	2,239.5	27.29	83.066	
1,300.0	1,300.0	1,298.0	1,298.0	2.8	25.0	-158.87	-2,114.4	-817.2	2,266.8	2,239.1	27.75	81.695	
1,377.9	1,377.9	1,375.9	1,375.9	3.0	26.5	-158.87	-2,114.4	-817.2	2,266.8	2,237.3	29.49	76.865	
1,400.0	1,400.0	1,398.0	1,398.0	3.0	27.0	-158.87	-2,114.4	-817.2	2,266.8	2,236.8	29.98	75.600	
1,476.4	1,476.4	1,474.4	1,474.4	3.2	28.5	-158.87	-2,114.4	-817.2	2,266.8	2,235.1	31.69	71.525	
1,500.0	1,500.0	1,498.0	1,498.0	3.2	29.0	-158.87	-2,114.4	-817.2	2,266.8	2,234.6	32.22	70.352	
1,574.8	1,574.8	1,572.8	1,572.8	3.4	30.5	-158.87	-2,114.4	-817.2	2,266.8	2,232.9	33.89	66.880	
1,600.0	1,600.0	1,598.0	1,598.0	3.5	31.0	-158.87	-2,114.4	-817.2	2,266.8	2,232.4	34.46	65.786	
1,673.2	1,673.2	1,671.2	1,671.2	3.6	32.5	-158.87	-2,114.4	-817.2	2,266.8	2,230.7	36.10	62.801	
1,700.0	1,700.0	1,698.0	1,698.0	3.7	33.0	-158.87	-2,114.4	-817.2	2,266.8	2,230.1	36.69	61.776	
1,750.0	1,750.0	1,748.0	1,748.0	3.8	34.0	-158.87	-2,114.4	-817.2	2,266.8	2,229.0	37.81	59.950	
1,771.6	1,771.6	1,769.6	1,769.6	3.8	34.5	159.13	-2,114.4	-817.2	2,266.9	2,228.6	38.29	59.196	
1,800.0	1,800.0	1,798.0	1,798.0	3.9	35.0	159.13	-2,114.4	-817.2	2,267.2	2,228.3	38.92	58.248	
1,870.1	1,870.0	1,868.0	1,868.0	4.1	36.4	159.14	-2,114.4	-817.2	2,269.2	2,228.7	40.46	56.084	
1,900.0	1,899.9	1,897.9	1,897.9	4.1	37.0	159.14	-2,114.4	-817.2	2,270.5	2,229.4	41.11	55.231	
1,968.5	1,968.3	1,966.3	1,966.3	4.3	38.4	159.15	-2,114.4	-817.2	2,274.6	2,232.0	42.58	53.422	
2,000.0	1,999.7	1,997.7	1,997.7	4.3	39.0	159.16	-2,114.4	-817.2	2,277.0	2,233.8	43.24	52.656	
2,066.9	2,066.3	2,064.3	2,064.3	4.5	40.4	159.17	-2,114.4	-817.2	2,283.2	2,238.6	44.64	51.147	
2,100.0	2,099.1	2,097.1	2,097.1	4.6	41.0	159.18	-2,114.4	-817.2	2,286.8	2,241.5	45.32	50.461	
2,165.3	2,163.9	2,161.9	2,161.9	4.7	42.3	159.20	-2,114.4	-817.2	2,294.9	2,248.3	46.64	49.206	
2,200.0	2,198.2	2,196.2	2,196.2	4.8	43.0	159.21	-2,114.4	-817.2	2,299.8	2,252.5	47.33	48.595	
2,263.8	2,261.0	2,259.0	2,259.0	5.0	44.3	159.23	-2,114.4	-817.2	2,309.8	2,261.3	48.57	47.556	
2,300.0	2,296.6	2,294.6	2,294.6	5.1	45.0	159.25	-2,114.4	-817.2	2,316.1	2,266.8	49.26	47.017	
2,362.2	2,357.6	2,355.6	2,355.6	5.3	46.2	159.27	-2,114.4	-817.2	2,327.8	2,277.4	50.43	46.164	
2,400.0	2,394.4	2,392.4	2,392.4	5.4	47.0	159.29	-2,114.4	-817.2	2,335.6	2,284.5	51.11	45.693	
2,460.6	2,453.4	2,451.4	2,451.4	5.6	48.2	159.31	-2,114.4	-817.2	2,349.0	2,296.8	52.20	44.999	
2,500.0	2,491.5	2,489.5	2,489.5	5.7	48.9	159.33	-2,114.4	-817.2	2,358.3	2,305.4	52.88	44.594	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
2,559.0	2,548.3	2,546.3	2,546.3	5.9	50.1	159.35	-2,114.4	-817.2	2,373.2	2,319.3	53.89	44.041	
2,600.0	2,587.6	2,585.6	2,585.6	6.1	50.9	159.37	-2,114.4	-817.2	2,384.2	2,329.7	54.56	43.697	
2,657.5	2,642.4	2,640.4	2,640.4	6.3	52.0	159.40	-2,114.4	-817.2	2,400.6	2,345.1	55.49	43.264	
2,700.0	2,682.7	2,680.7	2,680.7	6.5	52.8	159.42	-2,114.4	-817.2	2,413.3	2,357.2	56.14	42.984	
2,750.0	2,729.8	2,727.8	2,727.8	6.8	53.7	159.44	-2,114.4	-817.2	2,429.0	2,372.1	56.90	42.690	
2,755.9	2,735.4	2,733.4	2,733.4	6.8	53.8	159.45	-2,114.4	-817.2	2,430.9	2,373.9	57.02	42.632	
2,800.0	2,776.8	2,774.8	2,774.8	7.0	54.7	159.58	-2,114.4	-817.2	2,445.2	2,387.2	57.94	42.204	
2,854.3	2,827.8	2,825.8	2,825.8	7.3	55.7	159.73	-2,114.4	-817.2	2,462.7	2,403.7	59.07	41.693	
2,900.0	2,870.8	2,868.8	2,868.8	7.5	56.6	159.85	-2,114.4	-817.2	2,477.5	2,417.5	60.02	41.279	
2,952.7	2,920.3	2,918.3	2,918.3	7.8	57.6	159.99	-2,114.4	-817.2	2,494.6	2,433.4	61.12	40.813	
3,000.0	2,964.7	2,962.7	2,962.7	8.1	58.4	160.12	-2,114.4	-817.2	2,509.8	2,447.7	62.11	40.411	
3,051.2	3,012.8	3,010.8	3,010.8	8.4	59.4	160.25	-2,114.4	-817.2	2,526.4	2,463.2	63.18	39.988	
3,100.0	3,058.7	3,056.7	3,056.7	8.7	60.3	160.38	-2,114.4	-817.2	2,542.3	2,478.1	64.20	39.598	
3,149.6	3,105.3	3,103.3	3,103.3	9.0	61.3	160.51	-2,114.4	-817.2	2,558.3	2,493.1	65.24	39.212	
3,200.0	3,152.7	3,150.7	3,150.7	9.3	62.2	160.63	-2,114.4	-817.2	2,574.7	2,508.4	66.30	38.833	
3,248.0	3,197.8	3,195.8	3,195.8	9.5	63.1	160.75	-2,114.4	-817.2	2,590.3	2,523.0	67.31	38.482	
3,300.0	3,246.6	3,244.6	3,244.6	9.9	64.1	160.88	-2,114.4	-817.2	2,607.2	2,538.8	68.40	38.115	
3,346.4	3,290.3	3,288.3	3,288.3	10.1	65.0	160.99	-2,114.4	-817.2	2,622.3	2,552.9	69.38	37.795	
3,400.0	3,340.6	3,338.6	3,338.6	10.5	66.0	161.12	-2,114.4	-817.2	2,639.8	2,569.2	70.51	37.438	
3,444.9	3,382.8	3,380.8	3,380.8	10.8	66.9	161.23	-2,114.4	-817.2	2,654.4	2,582.9	71.46	37.146	
3,500.0	3,434.6	3,432.6	3,432.6	11.1	67.9	161.36	-2,114.4	-817.2	2,672.3	2,599.7	72.62	36.799	
3,543.3	3,475.3	3,473.3	3,473.3	11.4	68.7	161.46	-2,114.4	-817.2	2,686.5	2,612.9	73.53	36.534	
3,600.0	3,528.6	3,526.6	3,526.6	11.7	69.8	161.59	-2,114.4	-817.2	2,705.0	2,630.2	74.73	36.196	
3,641.7	3,567.8	3,565.8	3,565.8	12.0	70.6	161.68	-2,114.4	-817.2	2,718.6	2,643.0	75.61	35.955	
3,700.0	3,622.5	3,620.5	3,620.5	12.4	71.7	161.81	-2,114.4	-817.2	2,737.6	2,660.8	76.84	35.627	
3,740.1	3,660.3	3,658.3	3,658.3	12.6	72.4	161.90	-2,114.4	-817.2	2,750.7	2,673.1	77.69	35.406	
3,749.0	3,668.6	3,666.6	3,666.6	12.7	72.6	161.92	-2,114.4	-817.2	2,753.6	2,675.8	77.88	35.359	
3,800.0	3,716.5	3,714.5	3,714.5	13.0	73.6	158.91	-2,114.4	-817.2	2,770.2	2,691.0	79.14	35.002	
3,838.6	3,752.8	3,750.8	3,750.8	13.2	74.3	156.65	-2,114.4	-817.2	2,782.4	2,702.3	80.10	34.737	
3,885.2	3,796.6	3,794.6	3,794.6	13.5	75.2	153.94	-2,114.4	-817.2	2,797.1	2,715.8	81.25	34.424	
3,900.0	3,810.5	3,808.5	3,808.5	13.6	75.5	153.98	-2,114.4	-817.2	2,801.7	2,720.1	81.57	34.347	
3,937.0	3,845.3	3,843.3	3,843.3	13.8	76.2	154.10	-2,114.4	-817.2	2,813.2	2,730.8	82.36	34.157	
4,000.0	3,904.5	3,902.5	3,902.5	14.2	77.3	154.28	-2,114.4	-817.2	2,832.8	2,749.1	83.71	33.841	
4,035.4	3,937.7	3,935.7	3,935.7	14.5	78.0	154.39	-2,114.4	-817.2	2,843.8	2,759.4	84.47	33.667	
4,100.0	3,998.4	3,996.4	3,996.4	14.9	79.2	154.58	-2,114.4	-817.2	2,864.0	2,778.1	85.85	33.360	
4,133.8	4,030.2	4,028.2	4,028.2	15.1	79.9	154.68	-2,114.4	-817.2	2,874.5	2,788.0	86.58	33.202	
4,200.0	4,092.4	4,090.4	4,090.4	15.5	81.1	154.87	-2,114.4	-817.2	2,895.2	2,807.2	87.99	32.903	
4,232.3	4,122.7	4,120.7	4,120.7	15.8	81.7	154.96	-2,114.4	-817.2	2,905.3	2,816.6	88.69	32.760	
4,300.0	4,186.4	4,184.4	4,184.4	16.2	83.0	155.15	-2,114.4	-817.2	2,926.6	2,836.4	90.14	32.468	
4,330.7	4,215.2	4,213.2	4,213.2	16.4	83.6	155.23	-2,114.4	-817.2	2,936.2	2,845.4	90.79	32.339	
4,400.0	4,280.3	4,278.3	4,278.3	16.9	84.9	155.42	-2,114.4	-817.2	2,957.9	2,865.7	92.28	32.055	
4,429.1	4,307.7	4,305.7	4,305.7	17.1	85.5	155.50	-2,114.4	-817.2	2,967.1	2,874.2	92.90	31.938	
4,500.0	4,374.3	4,372.3	4,372.3	17.6	86.8	155.69	-2,114.4	-817.2	2,989.4	2,895.0	94.42	31.661	
4,527.5	4,400.2	4,398.2	4,398.2	17.7	87.3	155.77	-2,114.4	-817.2	2,998.1	2,903.1	95.01	31.555	
4,600.0	4,468.3	4,466.3	4,466.3	18.2	88.7	155.96	-2,114.4	-817.2	3,020.9	2,924.3	96.56	31.285	
4,626.0	4,492.7	4,490.7	4,490.7	18.4	89.2	156.02	-2,114.4	-817.2	3,029.1	2,932.0	97.12	31.190	
4,700.0	4,562.3	4,560.3	4,560.3	18.9	90.6	156.22	-2,114.4	-817.2	3,052.5	2,953.8	98.70	30.926	
4,724.4	4,585.2	4,583.2	4,583.2	19.1	91.0	156.28	-2,114.4	-817.2	3,060.2	2,961.0	99.23	30.841	
4,800.0	4,656.2	4,654.2	4,654.2	19.6	92.5	156.47	-2,114.4	-817.2	3,084.1	2,983.2	100.84	30.583	
4,822.8	4,677.7	4,675.7	4,675.7	19.7	92.9	156.53	-2,114.4	-817.2	3,091.3	2,990.0	101.33	30.507	
4,900.0	4,750.2	4,748.2	4,748.2	20.3	94.4	156.72	-2,114.4	-817.2	3,115.8	3,012.8	102.98	30.255	
4,921.2	4,770.2	4,768.2	4,768.2	20.4	94.8	156.77	-2,114.4	-817.2	3,122.5	3,019.1	103.44	30.187	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	4,844.2	4,842.2	4,842.2	20.9	96.2	156.96	-2,114.4	-817.2	3,147.5	3,042.4	105.12	29.942	
5,019.7	4,862.7	4,860.7	4,860.7	21.1	96.6	157.01	-2,114.4	-817.2	3,153.7	3,048.2	105.54	29.881	
5,100.0	4,938.1	4,936.1	4,936.1	21.6	98.1	157.20	-2,114.4	-817.2	3,179.3	3,072.0	107.26	29.641	
5,118.1	4,955.1	4,953.1	4,953.1	21.7	98.5	157.24	-2,114.4	-817.2	3,185.0	3,077.4	107.65	29.588	
5,200.0	5,032.1	5,030.1	5,030.1	22.3	100.0	157.44	-2,114.4	-817.2	3,211.1	3,101.7	109.40	29.353	
5,216.5	5,047.6	5,045.6	5,045.6	22.4	100.3	157.47	-2,114.4	-817.2	3,216.4	3,106.6	109.75	29.307	
5,300.0	5,126.1	5,124.1	5,124.1	23.0	101.9	157.67	-2,114.4	-817.2	3,243.0	3,131.5	111.53	29.077	
5,314.9	5,140.1	5,138.1	5,138.1	23.1	102.2	157.70	-2,114.4	-817.2	3,247.8	3,135.9	111.85	29.036	
5,400.0	5,220.0	5,218.0	5,218.0	23.7	103.8	157.89	-2,114.4	-817.2	3,274.9	3,161.3	113.67	28.811	
5,413.4	5,232.6	5,230.6	5,230.6	23.8	104.1	157.92	-2,114.4	-817.2	3,279.2	3,165.2	113.95	28.777	
5,504.2	5,318.0	5,316.0	5,316.0	24.4	105.8	158.12	-2,114.4	-817.2	3,308.2	3,192.3	115.89	28.546	
5,511.8	5,325.1	5,323.1	5,323.1	24.4	105.9	158.16	-2,114.4	-817.2	3,310.7	3,194.5	116.13	28.508	
5,600.0	5,408.5	5,406.5	5,406.5	24.9	107.6	158.55	-2,114.4	-817.2	3,337.5	3,218.6	118.88	28.074	
5,610.2	5,418.2	5,416.2	5,416.2	25.0	107.8	158.59	-2,114.4	-817.2	3,340.4	3,221.3	119.20	28.025	
5,700.0	5,504.1	5,502.1	5,502.1	25.4	109.5	158.93	-2,114.4	-817.2	3,365.0	3,243.1	121.92	27.601	
5,708.6	5,512.4	5,510.4	5,510.4	25.5	109.7	158.97	-2,114.4	-817.2	3,367.3	3,245.1	122.18	27.561	
5,800.0	5,600.7	5,598.7	5,598.7	25.9	111.5	159.27	-2,114.4	-817.2	3,389.4	3,264.5	124.88	27.141	
5,807.1	5,607.5	5,605.5	5,605.5	25.9	111.6	159.29	-2,114.4	-817.2	3,391.0	3,266.0	125.09	27.109	
5,900.0	5,698.1	5,696.1	5,696.1	26.3	113.4	159.56	-2,114.4	-817.2	3,410.7	3,282.9	127.76	26.695	
5,905.5	5,703.4	5,701.4	5,701.4	26.3	113.5	159.57	-2,114.4	-817.2	3,411.8	3,283.8	127.92	26.671	
6,000.0	5,796.2	5,794.2	5,794.2	26.6	115.4	159.80	-2,114.4	-817.2	3,428.7	3,298.2	130.55	26.264	
6,003.9	5,800.1	5,798.1	5,798.1	26.6	115.5	159.81	-2,114.4	-817.2	3,429.4	3,298.7	130.66	26.248	
6,100.0	5,894.9	5,892.9	5,892.9	26.9	117.4	159.99	-2,114.4	-817.2	3,443.6	3,310.4	133.23	25.848	
6,102.3	5,897.3	5,895.3	5,895.3	26.9	117.4	159.99	-2,114.4	-817.2	3,443.9	3,310.6	133.29	25.838	
6,200.0	5,994.2	5,992.2	5,992.2	27.2	119.4	160.14	-2,114.4	-817.2	3,455.2	3,319.4	135.79	25.446	
6,200.8	5,994.9	5,992.9	5,992.9	27.2	119.4	160.14	-2,114.4	-817.2	3,455.3	3,319.5	135.80	25.443	
6,299.2	6,093.0	6,091.0	6,091.0	27.4	121.4	160.25	-2,114.4	-817.2	3,463.5	3,325.3	138.19	25.062	
6,300.0	6,093.8	6,091.8	6,091.8	27.4	121.4	160.25	-2,114.4	-817.2	3,463.5	3,325.3	138.21	25.059	
6,397.6	6,191.2	6,189.2	6,189.2	27.5	123.3	160.31	-2,114.4	-817.2	3,468.5	3,328.1	140.45	24.696	
6,400.0	6,193.6	6,191.6	6,191.6	27.5	123.4	160.31	-2,114.4	-817.2	3,468.6	3,328.1	140.50	24.687	
6,496.0	6,289.6	6,287.6	6,287.6	27.6	125.3	160.33	-2,114.4	-817.2	3,470.4	3,327.8	142.56	24.343	
6,504.1	6,297.7	6,295.7	6,295.7	27.6	125.5	160.33	-2,114.4	-817.2	3,470.4	3,327.6	142.72	24.315	
6,594.5	6,388.1	6,386.1	6,386.1	27.7	127.3	160.40	-2,114.4	-817.2	3,470.4	3,325.7	144.68	23.986	
6,600.0	6,393.6	6,391.6	6,391.6	27.7	127.4	160.40	-2,114.4	-817.2	3,470.4	3,325.6	144.80	23.966	
6,618.2	6,411.8	6,409.8	6,409.8	27.8	127.8	160.40	-2,114.4	-817.2	3,470.4	3,325.2	145.20	23.901	
6,650.0	6,443.6	6,441.6	6,441.6	27.8	128.4	30.33	-2,114.4	-817.2	3,469.8	3,324.1	145.66	23.821	
6,692.9	6,486.4	6,484.4	6,484.4	27.8	129.3	30.47	-2,114.4	-817.2	3,467.0	3,321.1	145.92	23.759	
6,700.0	6,493.4	6,491.4	6,491.4	27.8	129.4	30.51	-2,114.4	-817.2	3,466.3	3,320.4	145.92	23.754	
6,750.0	6,542.8	6,540.8	6,540.8	27.8	130.4	30.83	-2,114.4	-817.2	3,459.9	3,314.3	145.63	23.758	
6,791.3	6,583.2	6,581.2	6,581.2	27.7	131.2	31.22	-2,114.4	-817.2	3,452.4	3,307.4	144.98	23.813	
6,800.0	6,591.6	6,589.6	6,589.6	27.7	131.4	31.32	-2,114.4	-817.2	3,450.6	3,305.8	144.80	23.830	
6,850.0	6,639.6	6,637.6	6,637.6	27.6	132.4	31.97	-2,114.4	-817.2	3,438.3	3,294.8	143.47	23.965	
6,889.7	6,676.9	6,674.9	6,674.9	27.6	133.1	32.62	-2,114.4	-817.2	3,426.5	3,284.4	142.11	24.112	
6,900.0	6,686.4	6,684.4	6,684.4	27.5	133.3	32.80	-2,114.4	-817.2	3,423.2	3,281.5	141.72	24.155	
6,950.0	6,731.8	6,729.8	6,729.8	27.4	134.2	33.83	-2,114.4	-817.2	3,405.4	3,265.8	139.62	24.390	
6,988.2	6,765.5	6,763.5	6,763.5	27.3	134.9	34.75	-2,114.4	-817.2	3,390.0	3,252.1	137.87	24.588	
7,000.0	6,775.8	6,773.8	6,773.8	27.2	135.1	35.06	-2,114.4	-817.2	3,384.9	3,247.6	137.31	24.651	
7,050.0	6,817.9	6,815.9	6,815.9	27.1	135.9	36.53	-2,114.4	-817.2	3,362.0	3,227.0	134.95	24.912	
7,086.6	6,847.5	6,845.5	6,845.5	26.9	136.5	37.76	-2,114.4	-817.2	3,343.6	3,210.3	133.31	25.082	
7,100.0	6,858.1	6,856.1	6,856.1	26.9	136.7	38.25	-2,114.4	-817.2	3,336.6	3,203.8	132.74	25.136	
7,150.0	6,896.1	6,894.1	6,894.1	26.6	137.5	40.25	-2,114.4	-817.2	3,309.0	3,178.1	130.91	25.276	
7,185.0	6,921.3	6,919.3	6,919.3	26.5	138.0	41.83	-2,114.4	-817.2	3,288.4	3,158.4	130.00	25.295	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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 NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ 23-30 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,200.0	6,931.7	6,929.7	6,929.7	26.4	138.2	42.56	-2,114.4	-817.2	3,279.3	3,149.5	129.73	25.278	
7,250.0	6,964.8	6,962.8	6,962.8	26.2	138.9	45.21	-2,114.4	-817.2	3,247.6	3,118.2	129.44	25.089	
7,283.4	6,985.4	6,983.4	6,983.4	26.0	139.3	47.19	-2,114.4	-817.2	3,225.5	3,095.7	129.87	24.837	
7,300.0	6,995.2	6,993.2	6,993.2	25.9	139.5	48.24	-2,114.4	-817.2	3,214.3	3,084.0	130.28	24.673	
7,350.0	7,022.7	7,020.7	7,020.7	25.7	140.1	51.66	-2,114.4	-817.2	3,179.4	3,047.1	132.34	24.025	
7,381.9	7,038.8	7,036.8	7,036.8	25.5	140.4	54.06	-2,114.4	-817.2	3,156.4	3,022.2	134.29	23.505	
7,400.0	7,047.3	7,045.3	7,045.3	25.4	140.6	55.50	-2,114.4	-817.2	3,143.2	3,007.6	135.60	23.180	
7,450.0	7,068.8	7,066.8	7,066.8	25.1	141.0	59.75	-2,114.4	-817.2	3,105.8	2,965.9	139.85	22.208	
7,480.3	7,080.3	7,078.3	7,078.3	25.0	141.2	62.53	-2,114.4	-817.2	3,082.7	2,939.9	142.76	21.593	
7,500.0	7,087.1	7,085.1	7,085.1	24.9	141.4	64.40	-2,114.4	-817.2	3,067.5	2,922.8	144.72	21.196	
7,550.0	7,102.1	7,100.1	7,100.1	24.6	141.7	69.39	-2,114.4	-817.2	3,028.4	2,878.8	149.69	20.232	
7,578.7	7,109.2	7,107.2	7,107.2	24.5	141.8	72.38	-2,114.4	-817.2	3,005.8	2,853.4	152.38	19.726	
7,600.0	7,113.7	7,111.7	7,111.7	24.4	141.9	74.64	-2,114.4	-817.2	2,988.9	2,834.7	154.20	19.384	
7,650.0	7,121.9	7,119.9	7,119.9	24.2	142.1	80.03	-2,114.4	-817.2	2,949.1	2,791.3	157.74	18.695	
7,677.1	7,125.0	7,123.0	7,123.0	24.1	142.1	82.97	-2,114.4	-817.2	2,927.4	2,768.3	159.14	18.395	
7,700.0	7,126.7	7,124.7	7,124.7	24.0	142.1	85.43	-2,114.4	-817.2	2,909.2	2,749.2	159.99	18.184	
7,746.5	7,128.0	7,126.0	7,126.0	23.8	142.2	90.34	-2,114.4	-817.2	2,872.2	2,711.4	160.80	17.862	
7,775.6	7,127.9	7,125.9	7,125.9	23.7	142.2	90.33	-2,114.4	-817.2	2,849.2	2,688.5	160.73	17.727	
7,800.0	7,127.7	7,125.7	7,125.7	23.6	142.2	90.33	-2,114.4	-817.2	2,830.0	2,669.3	160.66	17.614	
7,874.0	7,127.4	7,125.4	7,125.4	23.4	142.2	90.32	-2,114.4	-817.2	2,772.2	2,611.9	160.36	17.288	
7,900.0	7,127.3	7,125.3	7,125.3	23.4	142.2	90.32	-2,114.4	-817.2	2,752.1	2,591.9	160.25	17.174	
7,972.4	7,127.0	7,125.0	7,125.0	23.3	142.2	90.30	-2,114.4	-817.2	2,696.7	2,536.6	160.09	16.844	
8,000.0	7,126.8	7,124.8	7,124.8	23.3	142.2	90.30	-2,114.4	-817.2	2,675.7	2,515.7	160.03	16.720	
8,070.8	7,126.5	7,124.5	7,124.5	23.4	142.1	90.29	-2,114.4	-817.2	2,622.6	2,462.6	160.02	16.389	
8,100.0	7,126.4	7,124.4	7,124.4	23.5	142.1	90.29	-2,114.4	-817.2	2,601.0	2,440.9	160.02	16.254	
8,169.3	7,126.1	7,124.1	7,124.1	23.7	142.1	90.27	-2,114.4	-817.2	2,550.2	2,390.0	160.15	15.923	
8,200.0	7,125.9	7,123.9	7,123.9	23.8	142.1	90.27	-2,114.4	-817.2	2,527.9	2,367.7	160.21	15.778	
8,267.7	7,125.6	7,123.6	7,123.6	24.1	142.1	90.26	-2,114.4	-817.2	2,479.5	2,319.0	160.48	15.451	
8,300.0	7,125.5	7,123.5	7,123.5	24.2	142.1	90.26	-2,114.4	-817.2	2,456.8	2,296.2	160.60	15.297	
8,366.1	7,125.2	7,123.2	7,123.2	24.6	142.1	90.25	-2,114.4	-817.2	2,410.8	2,249.9	160.99	14.975	
8,400.0	7,125.0	7,123.0	7,123.0	24.8	142.1	90.24	-2,114.4	-817.2	2,387.7	2,226.5	161.18	14.814	
8,464.5	7,124.7	7,122.7	7,122.7	25.3	142.1	90.23	-2,114.4	-817.2	2,344.3	2,182.6	161.66	14.501	
8,500.0	7,124.6	7,122.6	7,122.6	25.6	142.1	90.23	-2,114.4	-817.2	2,320.9	2,158.9	161.93	14.333	
8,563.0	7,124.3	7,122.3	7,122.3	26.1	142.1	90.22	-2,114.4	-817.2	2,280.0	2,117.5	162.49	14.032	
8,600.0	7,124.1	7,122.1	7,122.1	26.4	142.1	90.21	-2,114.4	-817.2	2,256.5	2,093.7	162.83	13.858	
8,661.4	7,123.8	7,121.8	7,121.8	26.9	142.1	90.20	-2,114.4	-817.2	2,218.3	2,054.8	163.46	13.571	
8,700.0	7,123.7	7,121.7	7,121.7	27.3	142.1	90.20	-2,114.4	-817.2	2,194.8	2,030.9	163.85	13.395	
8,759.8	7,123.4	7,121.4	7,121.4	27.9	142.1	90.19	-2,114.4	-817.2	2,159.3	1,994.7	164.54	13.123	
8,800.0	7,123.2	7,121.2	7,121.2	28.3	142.1	90.18	-2,114.4	-817.2	2,136.0	1,971.0	165.00	12.946	
8,858.2	7,123.0	7,121.0	7,121.0	28.9	142.1	90.17	-2,114.4	-817.2	2,103.2	1,937.5	165.72	12.691	
8,900.0	7,122.8	7,120.8	7,120.8	29.4	142.1	90.17	-2,114.4	-817.2	2,080.3	1,914.1	166.24	12.514	
8,956.7	7,122.5	7,120.5	7,120.5	30.0	142.1	90.16	-2,114.4	-817.2	2,050.3	1,883.3	166.99	12.278	
9,000.0	7,122.3	7,120.3	7,120.3	30.5	142.1	90.15	-2,114.4	-817.2	2,028.1	1,860.5	167.56	12.103	
9,055.1	7,122.1	7,120.1	7,120.1	31.2	142.1	90.14	-2,114.4	-817.2	2,000.9	1,832.5	168.33	11.886	
9,100.0	7,121.9	7,119.9	7,119.9	31.7	142.1	90.14	-2,114.4	-817.2	1,979.5	1,810.6	168.96	11.716	
9,153.5	7,121.6	7,119.6	7,119.6	32.4	142.0	90.13	-2,114.4	-817.2	1,955.1	1,785.4	169.74	11.519	
9,200.0	7,121.4	7,119.4	7,119.4	33.0	142.0	90.12	-2,114.4	-817.2	1,934.9	1,764.5	170.41	11.354	
9,251.9	7,121.2	7,119.2	7,119.2	33.7	142.0	90.11	-2,114.4	-817.2	1,913.4	1,742.2	171.20	11.177	
9,300.0	7,121.0	7,119.0	7,119.0	34.3	142.0	90.11	-2,114.4	-817.2	1,894.5	1,722.6	171.92	11.020	
9,350.4	7,120.7	7,118.7	7,118.7	35.0	142.0	90.10	-2,114.4	-817.2	1,875.9	1,703.2	172.70	10.862	
9,400.0	7,120.5	7,118.5	7,118.5	35.7	142.0	90.09	-2,114.4	-817.2	1,858.7	1,685.2	173.47	10.714	
9,448.8	7,120.3	7,118.3	7,118.3	36.4	142.0	90.08	-2,114.4	-817.2	1,842.9	1,668.6	174.25	10.576	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
9,500.0	7,120.1	7,118.1	7,118.1	37.2	142.0	90.08	-2,114.4	-817.2	1,827.6	1,652.5	175.06	10.439	
9,547.2	7,119.9	7,117.9	7,117.9	37.8	142.0	90.07	-2,114.4	-817.2	1,814.6	1,638.8	175.83	10.320	
9,600.0	7,119.6	7,117.6	7,117.6	38.6	142.0	90.06	-2,114.4	-817.2	1,801.5	1,624.8	176.68	10.196	
9,645.6	7,119.4	7,117.4	7,117.4	39.3	142.0	90.06	-2,114.4	-817.2	1,791.3	1,613.9	177.44	10.095	
9,700.0	7,119.2	7,117.2	7,117.2	40.1	142.0	90.05	-2,114.4	-817.2	1,780.6	1,602.3	178.33	9.985	
9,744.1	7,119.0	7,117.0	7,117.0	40.8	142.0	90.04	-2,114.4	-817.2	1,773.2	1,594.1	179.07	9.902	
9,800.0	7,118.7	7,116.7	7,116.7	41.7	142.0	90.03	-2,114.4	-817.2	1,765.2	1,585.2	180.01	9.806	
9,842.5	7,118.5	7,116.5	7,116.5	42.3	142.0	90.03	-2,114.4	-817.2	1,760.4	1,579.6	180.73	9.740	
9,900.0	7,118.3	7,116.3	7,116.3	43.2	142.0	90.02	-2,114.4	-817.2	1,755.4	1,573.7	181.71	9.661	
9,940.9	7,118.1	7,116.1	7,116.1	43.9	142.0	90.01	-2,114.4	-817.2	1,753.0	1,570.6	182.41	9.610	
10,000.0	7,117.8	7,115.8	7,115.8	44.8	142.0	90.00	-2,114.4	-817.2	1,751.2	1,567.8	183.42	9.548	
10,023.2	7,117.7	7,115.7	7,115.7	45.2	142.0	90.00	-2,114.4	-817.2	1,751.1	1,567.2	183.82	9.526 CC	
10,039.3	7,117.6	7,115.6	7,115.6	45.5	142.0	90.00	-2,114.4	-817.2	1,751.1	1,567.0	184.10	9.512 ES	
10,100.0	7,117.4	7,115.4	7,115.4	46.4	142.0	89.99	-2,114.4	-817.2	1,752.7	1,567.6	185.15	9.466	
10,137.8	7,117.2	7,115.2	7,115.2	47.1	142.0	89.98	-2,114.4	-817.2	1,754.8	1,569.0	185.81	9.444	
10,200.0	7,116.9	7,114.9	7,114.9	48.1	142.0	89.97	-2,114.4	-817.2	1,760.0	1,573.1	186.90	9.417	
10,236.2	7,116.8	7,114.8	7,114.8	48.7	141.9	89.97	-2,114.4	-817.2	1,764.0	1,576.4	187.54	9.406	
10,300.0	7,116.5	7,114.5	7,114.5	49.7	141.9	89.96	-2,114.4	-817.2	1,772.8	1,584.1	188.66	9.397	
10,334.6	7,116.3	7,114.3	7,114.3	50.3	141.9	89.95	-2,114.4	-817.2	1,778.5	1,589.3	189.27	9.397 SF	
10,400.0	7,116.0	7,114.0	7,114.0	51.4	141.9	89.94	-2,114.4	-817.2	1,791.1	1,600.7	190.43	9.406	
10,433.0	7,115.9	7,113.9	7,113.9	52.0	141.9	89.94	-2,114.4	-817.2	1,798.4	1,607.4	191.02	9.415	
10,500.0	7,115.6	7,113.6	7,113.6	53.1	141.9	89.93	-2,114.4	-817.2	1,814.8	1,622.6	192.21	9.442	
10,531.5	7,115.4	7,113.4	7,113.4	53.6	141.9	89.93	-2,114.4	-817.2	1,823.3	1,630.6	192.77	9.458	
10,600.0	7,115.1	7,113.1	7,113.1	54.8	141.9	89.92	-2,114.4	-817.2	1,843.6	1,649.6	194.00	9.503	
10,629.9	7,115.0	7,113.0	7,113.0	55.3	141.9	89.91	-2,114.4	-817.2	1,853.2	1,658.6	194.54	9.526	
10,700.0	7,114.7	7,112.7	7,112.7	56.5	141.9	89.90	-2,114.4	-817.2	1,877.3	1,681.5	195.80	9.588	
10,728.3	7,114.6	7,112.6	7,112.6	57.0	141.9	89.90	-2,114.4	-817.2	1,887.7	1,691.4	196.31	9.616	
10,800.0	7,114.2	7,112.2	7,112.2	58.3	141.9	89.89	-2,114.4	-817.2	1,915.6	1,718.0	197.60	9.694	
10,826.7	7,114.1	7,112.1	7,112.1	58.7	141.9	89.88	-2,114.4	-817.2	1,926.6	1,728.5	198.09	9.726	
10,900.0	7,113.8	7,111.8	7,111.8	60.0	141.9	89.87	-2,114.4	-817.2	1,958.3	1,758.9	199.42	9.820	
10,925.2	7,113.7	7,111.7	7,111.7	60.5	141.9	89.87	-2,114.4	-817.2	1,969.7	1,769.8	199.87	9.855	
11,000.0	7,113.3	7,111.3	7,111.3	61.8	141.9	89.86	-2,114.4	-817.2	2,005.1	1,803.8	201.24	9.964	
11,023.6	7,113.2	7,111.2	7,111.2	62.2	141.9	89.85	-2,114.4	-817.2	2,016.7	1,815.0	201.67	10.000	
11,100.0	7,112.9	7,110.9	7,110.9	63.5	141.9	89.84	-2,114.4	-817.2	2,055.6	1,852.6	203.06	10.123	
11,122.0	7,112.8	7,110.8	7,110.8	63.9	141.9	89.84	-2,114.4	-817.2	2,067.3	1,863.8	203.46	10.160	
11,200.0	7,112.4	7,110.4	7,110.4	65.3	141.9	89.83	-2,114.4	-817.2	2,109.7	1,904.8	204.89	10.297	
11,220.4	7,112.4	7,110.4	7,110.4	65.7	141.9	89.83	-2,114.4	-817.2	2,121.2	1,915.9	205.26	10.334	
11,300.0	7,112.0	7,110.0	7,110.0	67.1	141.9	89.81	-2,114.4	-817.2	2,167.1	1,960.4	206.72	10.483	
11,318.9	7,111.9	7,109.9	7,109.9	67.4	141.9	89.81	-2,114.4	-817.2	2,178.3	1,971.2	207.07	10.519	
11,400.0	7,111.6	7,109.6	7,109.6	68.9	141.8	89.80	-2,114.4	-817.2	2,227.5	2,018.9	208.56	10.680	
11,417.3	7,111.5	7,109.5	7,109.5	69.2	141.8	89.80	-2,114.4	-817.2	2,238.2	2,029.3	208.88	10.715	
11,500.0	7,111.1	7,109.1	7,109.1	70.7	141.8	89.78	-2,114.4	-817.2	2,290.6	2,080.2	210.40	10.887	
11,515.7	7,111.0	7,109.0	7,109.0	71.0	141.8	89.78	-2,114.4	-817.2	2,300.8	2,090.1	210.70	10.920	
11,600.0	7,110.7	7,108.7	7,108.7	72.5	141.8	89.77	-2,114.4	-817.2	2,356.4	2,144.1	212.25	11.102	
11,614.1	7,110.6	7,108.6	7,108.6	72.7	141.8	89.77	-2,114.4	-817.2	2,365.8	2,153.3	212.51	11.133	
11,700.0	7,110.2	7,108.2	7,108.2	74.3	141.8	89.76	-2,114.4	-817.2	2,424.4	2,210.3	214.10	11.324	
11,712.6	7,110.2	7,108.2	7,108.2	74.5	141.8	89.75	-2,114.4	-817.2	2,433.1	2,218.8	214.33	11.352	
11,747.9	7,110.0	7,108.0	7,108.0	75.1	141.8	89.75	-2,114.4	-817.2	2,457.8	2,242.8	214.99	11.432	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<b>Offset Well Error:</b>	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	176.00	-1,233.2	86.2	1,236.5				
98.4	98.4	68.7	68.7	0.1	0.0	176.00	-1,233.2	86.2	1,236.2	1,236.1	0.11	N/A	
100.0	100.0	70.2	70.2	0.1	0.0	176.00	-1,233.2	86.2	1,236.2	1,236.1	0.12	N/A	
196.8	196.8	164.9	164.9	0.3	0.1	176.00	-1,233.4	86.2	1,236.5	1,236.0	0.45	2,724.452	
200.0	200.0	168.0	168.0	0.3	0.2	176.00	-1,233.4	86.2	1,236.5	1,236.0	0.47	2,653.043	
295.3	295.3	263.6	263.6	0.5	0.3	176.01	-1,233.8	86.1	1,236.8	1,236.0	0.79	1,572.082	
300.0	300.0	268.4	268.4	0.5	0.3	176.01	-1,233.8	86.1	1,236.8	1,236.0	0.80	1,543.498	
393.7	393.7	361.8	361.8	0.7	0.3	176.02	-1,234.1	85.9	1,237.1	1,236.0	1.08	1,145.923	
400.0	400.0	368.0	368.0	0.8	0.3	176.02	-1,234.1	85.9	1,237.1	1,236.0	1.10	1,126.791	
492.1	492.1	459.3	459.3	1.0	0.4	176.04	-1,234.5	85.5	1,237.4	1,236.1	1.36	910.611	
500.0	500.0	467.2	467.2	1.0	0.4	176.04	-1,234.5	85.5	1,237.5	1,236.1	1.38	896.150	
590.5	590.5	555.0	555.0	1.2	0.5	176.08	-1,235.0	84.7	1,237.9	1,236.2	1.63	759.698	
600.0	600.0	564.0	564.0	1.2	0.5	176.08	-1,235.0	84.6	1,237.9	1,236.3	1.66	747.939	
689.0	689.0	652.4	652.4	1.4	0.5	176.12	-1,235.7	83.7	1,238.6	1,236.7	1.90	653.131	
700.0	700.0	663.7	663.6	1.4	0.5	176.13	-1,235.8	83.6	1,238.7	1,236.7	1.93	643.057	
787.4	787.4	750.8	750.8	1.6	0.6	176.18	-1,236.4	82.6	1,239.2	1,237.1	2.16	573.783	
800.0	800.0	763.2	763.1	1.7	0.6	176.18	-1,236.5	82.5	1,239.3	1,237.1	2.19	565.091	
885.8	885.8	847.0	847.0	1.9	0.6	176.22	-1,237.3	81.7	1,240.0	1,237.6	2.42	512.562	
900.0	900.0	860.9	860.8	1.9	0.6	176.23	-1,237.4	81.5	1,240.1	1,237.7	2.46	504.858	
984.2	984.2	942.7	942.7	2.1	0.7	176.29	-1,238.3	80.3	1,241.0	1,238.3	2.68	463.673	
1,000.0	1,000.0	958.0	958.0	2.1	0.7	176.30	-1,238.5	80.0	1,241.1	1,238.4	2.72	456.747	
1,082.7	1,082.7	1,038.3	1,038.3	2.3	0.7	176.37	-1,239.6	78.6	1,242.1	1,239.2	2.93	423.710	
1,100.0	1,100.0	1,055.2	1,055.1	2.3	0.7	176.39	-1,239.8	78.3	1,242.4	1,239.4	2.98	417.420	
1,181.1	1,181.1	1,134.5	1,134.4	2.5	0.7	176.45	-1,241.0	77.0	1,243.5	1,240.4	3.19	390.402	
1,200.0	1,200.0	1,153.0	1,152.9	2.6	0.8	176.46	-1,241.3	76.7	1,243.8	1,240.6	3.23	384.627	
1,279.5	1,279.5	1,230.2	1,230.1	2.7	0.8	176.53	-1,242.6	75.4	1,245.1	1,241.7	3.44	362.213	
1,300.0	1,300.0	1,249.7	1,249.6	2.8	0.8	176.54	-1,243.0	75.1	1,245.5	1,242.0	3.49	356.904	
1,377.9	1,377.9	1,325.5	1,325.4	3.0	0.8	176.61	-1,244.6	73.7	1,247.0	1,243.3	3.69	338.085	
1,400.0	1,400.0	1,347.9	1,347.8	3.0	0.8	176.63	-1,245.0	73.3	1,247.4	1,243.7	3.74	333.115	
1,476.4	1,476.4	1,425.4	1,425.2	3.2	0.9	176.70	-1,246.6	71.8	1,248.9	1,244.9	3.94	317.019	
1,500.0	1,500.0	1,449.3	1,449.1	3.2	0.9	176.73	-1,247.0	71.3	1,249.3	1,245.3	4.00	312.372	
1,574.8	1,574.8	1,523.2	1,523.0	3.4	0.9	176.78	-1,248.5	70.1	1,250.7	1,246.5	4.19	298.581	
1,600.0	1,600.0	1,547.1	1,546.9	3.5	0.9	176.80	-1,249.0	69.7	1,251.2	1,246.9	4.25	294.250	
1,673.2	1,673.2	1,620.3	1,620.0	3.6	1.0	176.87	-1,250.6	68.3	1,252.7	1,248.3	4.44	282.355	
1,700.0	1,700.0	1,651.6	1,651.3	3.7	1.0	176.91	-1,251.2	67.6	1,253.2	1,248.7	4.50	278.183	
1,750.0	1,750.0	1,708.9	1,708.6	3.8	1.0	176.97	-1,252.0	66.2	1,253.9	1,249.2	4.63	270.681	
1,771.6	1,771.6	1,731.5	1,731.1	3.8	1.0	135.00	-1,252.3	65.6	1,254.1	1,249.4	4.76	263.504	
1,800.0	1,800.0	1,760.9	1,760.6	3.9	1.0	135.05	-1,252.6	64.7	1,254.7	1,249.8	4.83	259.711	
1,870.1	1,870.0	1,838.5	1,838.1	4.1	1.0	135.21	-1,253.3	62.2	1,256.6	1,251.6	5.01	251.042	
1,900.0	1,899.9	1,874.0	1,873.6	4.1	1.0	135.31	-1,253.4	60.9	1,257.7	1,252.6	5.08	247.576	
1,968.5	1,968.3	1,945.0	1,944.5	4.3	1.1	135.54	-1,253.3	58.2	1,260.6	1,255.3	5.25	240.144	
2,000.0	1,999.7	1,975.4	1,974.9	4.3	1.1	135.64	-1,253.2	57.0	1,262.3	1,257.0	5.33	236.982	
2,066.9	2,066.3	2,040.6	2,040.0	4.5	1.1	135.89	-1,253.2	54.6	1,266.9	1,261.4	5.50	230.541	
2,100.0	2,099.1	2,072.9	2,072.3	4.6	1.1	136.03	-1,253.2	53.3	1,269.7	1,264.1	5.58	227.562	
2,165.3	2,163.9	2,138.0	2,137.4	4.7	1.1	136.34	-1,253.2	50.6	1,275.9	1,270.2	5.75	221.855	
2,200.0	2,198.2	2,173.0	2,172.4	4.8	1.1	136.51	-1,253.2	49.2	1,279.7	1,273.8	5.84	219.041	
2,263.8	2,261.0	2,232.2	2,231.5	5.0	1.2	136.81	-1,253.2	47.0	1,287.4	1,281.4	6.02	213.950	
2,300.0	2,296.6	2,263.5	2,262.8	5.1	1.2	136.96	-1,253.3	45.9	1,292.4	1,286.3	6.12	211.295	
2,362.2	2,357.6	2,318.8	2,318.1	5.3	1.2	137.24	-1,253.7	44.3	1,302.1	1,295.8	6.30	206.664	
2,400.0	2,394.4	2,354.5	2,353.8	5.4	1.2	137.43	-1,254.0	43.3	1,308.6	1,302.2	6.41	204.043	
2,460.6	2,453.4	2,411.1	2,410.3	5.6	1.2	137.74	-1,254.6	41.7	1,319.9	1,313.3	6.61	199.734	
2,500.0	2,491.5	2,446.7	2,446.0	5.7	1.2	137.94	-1,255.0	40.8	1,327.9	1,321.1	6.73	197.222	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,548.3	2,500.0	2,499.2	5.9	1.3	138.24	-1,255.7	39.4	1,340.7	1,333.8	6.93	193.372	
2,600.0	2,587.6	2,537.2	2,536.4	6.1	1.3	138.47	-1,256.3	38.4	1,350.3	1,343.2	7.08	190.820	
2,657.5	2,642.4	2,589.3	2,588.5	6.3	1.3	138.78	-1,257.2	37.0	1,364.6	1,357.3	7.29	187.187	
2,700.0	2,682.7	2,628.2	2,627.4	6.5	1.3	139.02	-1,257.9	36.0	1,375.9	1,368.4	7.45	184.727	
2,750.0	2,729.8	2,673.9	2,673.1	6.8	1.3	139.31	-1,258.8	34.8	1,389.8	1,382.2	7.64	181.795	
2,755.9	2,735.4	2,679.3	2,678.4	6.8	1.3	139.37	-1,258.9	34.6	1,391.5	1,383.8	7.67	181.457	
2,800.0	2,776.8	2,719.0	2,718.1	7.0	1.3	139.79	-1,259.6	33.5	1,404.2	1,396.4	7.84	179.009	
2,854.3	2,827.8	2,767.1	2,766.2	7.3	1.4	140.29	-1,260.6	32.1	1,420.0	1,412.0	8.07	176.053	
2,900.0	2,870.8	2,807.8	2,806.8	7.5	1.4	140.71	-1,261.5	31.0	1,433.5	1,425.2	8.25	173.731	
2,952.7	2,920.3	2,855.6	2,854.6	7.8	1.4	141.19	-1,262.7	29.5	1,449.1	1,440.7	8.47	171.072	
3,000.0	2,964.7	2,898.5	2,897.4	8.1	1.4	141.62	-1,263.7	28.2	1,463.3	1,454.6	8.67	168.849	
3,051.2	3,012.8	2,950.1	2,949.1	8.4	1.4	142.12	-1,264.8	26.6	1,478.7	1,469.8	8.88	166.505	
3,100.0	3,058.7	2,999.8	2,998.7	8.7	1.5	142.59	-1,265.8	25.2	1,493.3	1,484.2	9.08	164.401	
3,149.6	3,105.3	3,048.5	3,047.4	9.0	1.5	143.04	-1,266.7	23.8	1,508.1	1,498.8	9.29	162.333	
3,200.0	3,152.7	3,098.1	3,097.0	9.3	1.5	143.50	-1,267.4	22.3	1,523.1	1,513.6	9.50	160.359	
3,248.0	3,197.8	3,151.3	3,150.1	9.5	1.5	143.98	-1,268.0	20.7	1,537.4	1,527.7	9.70	158.552	
3,300.0	3,246.6	3,210.0	3,208.8	9.9	1.5	144.49	-1,268.4	19.1	1,552.6	1,542.7	9.91	156.711	
3,346.4	3,290.3	3,265.7	3,264.5	10.1	1.5	144.97	-1,268.3	17.7	1,566.0	1,555.9	10.09	155.163	
3,400.0	3,340.6	3,325.1	3,323.9	10.5	1.6	145.46	-1,267.8	16.4	1,581.0	1,570.7	10.31	153.397	
3,444.9	3,382.8	3,370.3	3,369.0	10.8	1.6	145.82	-1,267.3	15.5	1,593.6	1,583.1	10.49	151.940	
3,500.0	3,434.6	3,423.5	3,422.2	11.1	1.6	146.24	-1,266.6	14.5	1,609.0	1,598.3	10.71	150.269	
3,543.3	3,475.3	3,463.2	3,461.9	11.4	1.6	146.55	-1,266.1	13.9	1,621.2	1,610.3	10.88	148.947	
3,600.0	3,528.6	3,515.0	3,513.7	11.7	1.6	146.93	-1,265.5	13.1	1,637.2	1,626.1	11.11	147.305	
3,641.7	3,567.8	3,552.7	3,551.4	12.0	1.6	147.21	-1,265.1	12.4	1,649.1	1,637.8	11.29	146.123	
3,700.0	3,622.5	3,605.3	3,604.0	12.4	1.6	147.60	-1,264.6	11.6	1,665.8	1,654.3	11.52	144.564	
3,740.1	3,660.3	3,641.0	3,639.7	12.6	1.6	147.85	-1,264.3	11.0	1,677.4	1,665.7	11.69	143.520	
3,749.0	3,668.6	3,648.9	3,647.6	12.7	1.6	147.91	-1,264.2	10.8	1,680.0	1,668.3	11.72	143.297	
3,800.0	3,716.5	3,694.3	3,693.0	13.0	1.6	145.19	-1,263.9	10.1	1,694.6	1,682.7	11.93	142.045	
3,838.6	3,752.8	3,729.0	3,727.7	13.2	1.7	143.14	-1,263.8	9.6	1,705.4	1,693.3	12.08	141.150	
3,885.2	3,796.6	3,771.1	3,769.7	13.5	1.7	140.70	-1,263.6	9.0	1,718.2	1,705.9	12.26	140.115	
3,900.0	3,810.5	3,784.4	3,783.1	13.6	1.7	140.80	-1,263.5	8.7	1,722.2	1,709.9	12.32	139.750	
3,937.0	3,845.3	3,817.9	3,816.6	13.8	1.7	141.07	-1,263.4	8.2	1,732.3	1,719.8	12.49	138.745	
4,000.0	3,904.5	3,875.2	3,873.9	14.2	1.7	141.52	-1,263.2	7.2	1,749.5	1,736.8	12.76	137.120	
4,035.4	3,937.7	3,907.6	3,906.2	14.5	1.7	141.78	-1,263.1	6.6	1,759.3	1,746.4	12.91	136.234	
4,100.0	3,998.4	3,967.7	3,966.4	14.9	1.7	142.24	-1,263.0	5.4	1,777.2	1,764.1	13.19	134.714	
4,133.8	4,030.2	3,999.2	3,997.9	15.1	1.7	142.48	-1,262.9	4.8	1,786.7	1,773.4	13.34	133.944	
4,200.0	4,092.4	4,070.5	4,069.1	15.5	1.8	143.03	-1,262.5	3.2	1,805.1	1,791.5	13.62	132.573	
4,232.3	4,122.7	4,105.1	4,103.7	15.8	1.8	143.29	-1,262.1	2.3	1,814.0	1,800.3	13.75	131.928	
4,300.0	4,186.4	4,175.1	4,173.7	16.2	1.8	143.82	-1,261.1	0.5	1,832.6	1,818.6	14.03	130.637	
4,330.7	4,215.2	4,206.3	4,204.9	16.4	1.8	144.05	-1,260.6	-0.3	1,841.0	1,826.8	14.15	130.069	
4,400.0	4,280.3	4,272.4	4,270.9	16.9	1.8	144.54	-1,259.5	-2.0	1,860.0	1,845.5	14.44	128.808	
4,429.1	4,307.7	4,300.2	4,298.7	17.1	1.8	144.74	-1,259.0	-2.6	1,868.0	1,853.4	14.56	128.295	
4,500.0	4,374.3	4,373.4	4,371.8	17.6	1.8	145.25	-1,257.6	-4.2	1,887.4	1,872.5	14.85	127.119	
4,527.5	4,400.2	4,400.0	4,398.5	17.7	1.8	145.43	-1,257.1	-4.7	1,894.9	1,879.9	14.96	126.664	
4,600.0	4,468.3	4,462.0	4,460.5	18.2	1.9	145.85	-1,256.0	-5.7	1,914.9	1,899.6	15.26	125.477	
4,626.0	4,492.7	4,483.7	4,482.2	18.4	1.9	145.99	-1,255.6	-6.0	1,922.1	1,906.7	15.37	125.066	
4,700.0	4,562.3	4,553.5	4,552.0	18.9	1.9	146.44	-1,254.7	-7.0	1,942.9	1,927.2	15.67	123.970	
4,724.4	4,585.2	4,577.5	4,575.9	19.1	1.9	146.59	-1,254.3	-7.4	1,949.8	1,934.0	15.77	123.622	
4,800.0	4,656.2	4,666.1	4,664.5	19.6	1.9	147.13	-1,252.8	-8.3	1,970.9	1,954.8	16.07	122.669	
4,822.8	4,677.7	4,694.9	4,693.3	19.7	1.9	147.30	-1,252.2	-8.4	1,977.1	1,960.9	16.15	122.390	
4,900.0	4,750.2	4,766.8	4,765.2	20.3	1.9	147.71	-1,250.5	-8.3	1,998.1	1,981.6	16.46	121.369	
4,921.2	4,770.2	4,786.2	4,784.6	20.4	1.9	147.82	-1,250.1	-8.3	2,003.9	1,987.3	16.55	121.096	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,844.2	4,858.6	4,857.0	20.9	1.9	148.22	-1,248.5	-8.3	2,025.5	2,008.7	16.86	120.103		
5,019.7	4,862.7	4,876.7	4,875.1	21.1	1.9	148.32	-1,248.1	-8.3	2,031.0	2,014.0	16.94	119.862		
5,100.0	4,938.1	4,940.5	4,938.9	21.6	1.9	148.67	-1,246.9	-8.2	2,053.4	2,036.1	17.27	118.874		
5,118.1	4,955.1	4,953.8	4,952.2	21.7	1.9	148.74	-1,246.7	-8.3	2,058.5	2,041.2	17.35	118.658		
5,200.0	5,032.1	5,016.6	5,015.0	22.3	1.9	149.07	-1,246.1	-8.5	2,082.2	2,064.6	17.69	117.739		
5,216.5	5,047.6	5,031.2	5,029.5	22.4	1.9	149.15	-1,246.0	-8.6	2,087.1	2,069.3	17.75	117.563		
5,300.0	5,126.1	5,104.8	5,103.2	23.0	1.9	149.53	-1,245.6	-8.9	2,111.7	2,093.6	18.09	116.712		
5,314.9	5,140.1	5,117.9	5,116.2	23.1	1.9	149.59	-1,245.5	-8.9	2,116.2	2,098.0	18.15	116.565		
5,400.0	5,220.0	5,192.1	5,190.4	23.7	2.0	149.97	-1,245.3	-9.3	2,141.6	2,123.1	18.50	115.767		
5,413.4	5,232.6	5,203.8	5,202.1	23.8	2.0	150.02	-1,245.3	-9.3	2,145.7	2,127.1	18.55	115.645		
5,504.2	5,318.0	5,284.2	5,282.5	24.4	2.0	150.42	-1,245.3	-9.9	2,173.2	2,154.3	18.92	114.841		
5,511.8	5,325.1	5,290.9	5,289.2	24.4	2.0	150.48	-1,245.3	-10.0	2,175.5	2,156.6	18.94	114.855		
5,600.0	5,408.5	5,364.3	5,362.6	24.9	2.0	151.07	-1,245.5	-10.7	2,201.4	2,182.2	19.15	114.948		
5,610.2	5,418.2	5,372.8	5,371.1	25.0	2.0	151.14	-1,245.5	-10.8	2,204.2	2,185.1	19.17	114.991		
5,700.0	5,504.1	5,455.0	5,453.3	25.4	2.0	151.70	-1,246.1	-11.6	2,228.4	2,209.0	19.32	115.311		
5,708.6	5,512.4	5,463.3	5,461.7	25.5	2.1	151.75	-1,246.1	-11.7	2,230.6	2,211.2	19.34	115.347		
5,800.0	5,600.7	5,538.4	5,536.7	25.9	2.1	152.23	-1,246.7	-12.6	2,252.7	2,233.2	19.48	115.636		
5,807.1	5,607.5	5,543.4	5,541.8	25.9	2.1	152.26	-1,246.7	-12.7	2,254.3	2,234.8	19.49	115.662		
5,900.0	5,698.1	5,600.0	5,598.3	26.3	2.1	152.62	-1,247.7	-13.5	2,275.0	2,255.4	19.62	115.950		
5,905.5	5,703.4	5,614.1	5,612.4	26.3	2.1	152.67	-1,248.0	-13.8	2,276.1	2,256.5	19.63	115.967		
6,000.0	5,796.2	5,681.3	5,679.6	26.6	2.1	153.02	-1,249.7	-15.4	2,295.3	2,275.6	19.74	116.266		
6,003.9	5,800.1	5,684.1	5,682.3	26.6	2.1	153.03	-1,249.8	-15.5	2,296.1	2,276.4	19.75	116.282		
6,100.0	5,894.9	5,809.2	5,807.4	26.9	2.2	153.46	-1,252.9	-19.3	2,313.0	2,293.2	19.84	116.596		
6,102.3	5,897.3	5,813.7	5,811.9	26.9	2.2	153.48	-1,252.9	-19.4	2,313.4	2,293.5	19.84	116.606		
6,200.0	5,994.2	5,958.6	5,956.7	27.2	2.2	153.82	-1,253.9	-21.4	2,325.1	2,305.2	19.91	116.759		
6,200.8	5,994.9	5,959.5	5,957.6	27.2	2.2	153.82	-1,253.9	-21.4	2,325.2	2,305.3	19.91	116.760		
6,299.2	6,093.0	6,056.7	6,054.8	27.4	2.2	153.99	-1,254.0	-21.8	2,333.3	2,313.4	19.99	116.743		
6,300.0	6,093.8	6,057.4	6,055.5	27.4	2.2	153.99	-1,254.0	-21.8	2,333.4	2,313.4	19.99	116.742		
6,397.6	6,191.2	6,151.1	6,149.3	27.5	2.3	154.10	-1,254.5	-22.1	2,338.7	2,318.7	20.06	116.602		
6,400.0	6,193.6	6,153.5	6,151.6	27.5	2.3	154.10	-1,254.5	-22.1	2,338.8	2,318.7	20.06	116.595		
6,496.0	6,289.6	6,251.3	6,249.4	27.6	2.3	154.13	-1,255.1	-22.1	2,341.0	2,320.9	20.13	116.320		
6,504.1	6,297.7	6,259.5	6,257.7	27.6	2.3	155.90	-1,255.2	-22.1	2,341.1	2,321.0	20.13	116.286		
6,594.5	6,388.1	6,346.2	6,344.4	27.7	2.3	155.91	-1,255.8	-21.8	2,341.6	2,321.3	20.29	115.418		
6,600.0	6,393.6	6,351.2	6,349.4	27.7	2.3	155.91	-1,255.8	-21.8	2,341.6	2,321.3	20.30	115.367		
6,618.2	6,411.8	6,367.7	6,365.8	27.8	2.3	155.91	-1,256.0	-21.8	2,341.7	2,321.4	20.33	115.182		
6,650.0	6,443.6	6,400.0	6,398.1	27.8	2.3	24.10	-1,256.3	-21.8	2,341.4	2,321.1	20.27	115.515		
6,692.9	6,486.4	6,439.7	6,437.8	27.8	2.3	24.21	-1,256.7	-21.7	2,338.8	2,318.7	20.17	115.963		
6,700.0	6,493.4	6,446.9	6,445.0	27.8	2.3	24.24	-1,256.8	-21.7	2,338.2	2,318.0	20.15	116.034		
6,750.0	6,542.8	6,497.4	6,495.5	27.8	2.3	24.52	-1,257.3	-21.6	2,331.8	2,311.8	20.01	116.535		
6,791.3	6,583.2	6,541.6	6,539.7	27.7	2.3	24.87	-1,257.7	-21.6	2,324.2	2,304.3	19.87	116.984		
6,800.0	6,591.6	6,550.8	6,549.0	27.7	2.3	24.96	-1,257.8	-21.6	2,322.3	2,302.5	19.83	117.088		
6,850.0	6,639.6	6,600.0	6,598.1	27.6	2.3	25.56	-1,258.1	-21.5	2,309.6	2,290.0	19.61	117.776		
6,889.7	6,676.9	6,633.9	6,632.1	27.6	2.3	26.14	-1,258.3	-21.6	2,297.4	2,278.0	19.39	118.458		
6,900.0	6,686.4	6,641.9	6,640.0	27.5	2.3	26.30	-1,258.3	-21.6	2,293.9	2,274.6	19.33	118.658		
6,950.0	6,731.8	6,680.2	6,678.3	27.4	2.3	27.21	-1,258.7	-21.7	2,275.5	2,256.5	19.00	119.750		
6,988.2	6,765.5	6,708.8	6,706.9	27.3	2.3	28.03	-1,259.0	-21.9	2,259.6	2,240.9	18.72	120.712		
7,000.0	6,775.8	6,717.6	6,715.7	27.2	2.3	28.31	-1,259.1	-21.9	2,254.4	2,235.8	18.63	121.034		
7,050.0	6,817.9	6,754.0	6,752.1	27.1	2.3	29.63	-1,259.6	-22.2	2,230.7	2,212.5	18.22	122.431		
7,086.6	6,847.5	6,779.6	6,777.7	26.9	2.3	30.74	-1,260.0	-22.5	2,211.9	2,193.9	17.92	123.436		
7,100.0	6,858.1	6,788.8	6,786.9	26.9	2.3	31.19	-1,260.1	-22.6	2,204.6	2,186.8	17.81	123.792		
7,150.0	6,896.1	6,829.4	6,827.5	26.6	2.4	33.11	-1,260.8	-23.1	2,176.2	2,158.7	17.43	124.841		
7,185.0	6,921.3	6,858.9	6,857.0	26.5	2.4	34.70	-1,261.2	-23.3	2,154.8	2,137.6	17.21	125.172		

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,200.0	6,931.7	6,871.1	6,869.2	26.4	2.4	35.43	-1,261.4	-23.4	2,145.3	2,128.2	17.14	125.191	
7,250.0	6,964.8	6,909.6	6,907.6	26.2	2.4	38.15	-1,261.9	-23.7	2,112.4	2,095.4	16.98	124.417	
7,283.4	6,985.4	6,933.0	6,931.1	26.0	2.4	40.21	-1,262.2	-23.8	2,089.2	2,072.3	16.98	123.066	
7,300.0	6,995.2	6,944.1	6,942.2	25.9	2.4	41.31	-1,262.3	-23.9	2,077.5	2,060.5	17.01	122.162	
7,350.0	7,022.7	6,975.3	6,973.3	25.7	2.4	44.98	-1,262.6	-24.1	2,040.9	2,023.6	17.25	118.338	
7,381.9	7,038.8	6,993.4	6,991.4	25.5	2.4	47.60	-1,262.8	-24.2	2,016.7	1,999.2	17.51	115.176	
7,400.0	7,047.3	7,002.6	7,000.7	25.4	2.4	49.19	-1,262.8	-24.2	2,002.8	1,985.1	17.69	113.246	
7,450.0	7,068.8	7,023.8	7,021.9	25.1	2.4	53.87	-1,263.0	-24.3	1,963.5	1,945.2	18.25	107.558	
7,480.3	7,080.3	7,035.2	7,033.3	25.0	2.4	56.98	-1,263.1	-24.4	1,939.2	1,920.5	18.64	104.042	
7,500.0	7,087.1	7,042.0	7,040.0	24.9	2.4	59.11	-1,263.1	-24.5	1,923.2	1,904.3	18.88	101.860	
7,550.0	7,102.1	7,056.9	7,055.0	24.6	2.4	64.84	-1,263.2	-24.6	1,882.1	1,862.7	19.47	96.674	
7,578.7	7,109.2	7,064.0	7,062.1	24.5	2.4	68.32	-1,263.3	-24.6	1,858.3	1,838.5	19.77	94.017	
7,600.0	7,113.7	7,068.6	7,066.7	24.4	2.4	70.96	-1,263.3	-24.7	1,840.6	1,820.6	19.95	92.265	
7,650.0	7,121.9	7,076.9	7,075.0	24.2	2.4	77.28	-1,263.4	-24.7	1,798.8	1,778.5	20.31	88.580	
7,677.1	7,125.0	7,080.1	7,078.1	24.1	2.4	80.73	-1,263.4	-24.8	1,776.0	1,755.5	20.47	86.744	
7,700.0	7,126.7	7,081.9	7,080.0	24.0	2.4	83.61	-1,263.4	-24.8	1,756.9	1,736.3	20.60	85.271	
7,746.5	7,128.0	7,083.5	7,081.6	23.8	2.4	89.29	-1,263.4	-24.8	1,718.2	1,697.3	20.92	82.131	
7,775.6	7,127.9	7,083.6	7,081.7	23.7	2.4	89.29	-1,263.4	-24.8	1,694.1	1,673.3	20.85	81.265	
7,800.0	7,127.7	7,083.7	7,081.7	23.6	2.4	89.30	-1,263.4	-24.8	1,674.0	1,653.2	20.79	80.539	
7,874.0	7,127.4	7,083.9	7,082.0	23.4	2.4	89.31	-1,263.4	-24.8	1,613.9	1,593.4	20.48	78.797	
7,900.0	7,127.3	7,084.0	7,082.0	23.4	2.4	89.31	-1,263.4	-24.8	1,593.1	1,572.7	20.38	78.187	
7,972.4	7,127.0	7,084.2	7,082.2	23.3	2.4	89.33	-1,263.4	-24.8	1,535.9	1,515.6	20.22	75.948	
8,000.0	7,126.8	7,084.2	7,082.3	23.3	2.4	89.33	-1,263.4	-24.8	1,514.4	1,494.3	20.16	75.104	
8,070.8	7,126.5	7,084.4	7,082.5	23.4	2.4	89.34	-1,263.4	-24.8	1,460.3	1,440.1	20.16	72.431	
8,100.0	7,126.4	7,084.5	7,082.6	23.5	2.4	89.35	-1,263.4	-24.8	1,438.4	1,418.2	20.16	71.352	
8,169.3	7,126.1	7,084.7	7,082.8	23.7	2.4	89.36	-1,263.4	-24.8	1,387.5	1,367.2	20.30	68.355	
8,200.0	7,125.9	7,084.8	7,082.9	23.8	2.4	89.36	-1,263.4	-24.8	1,365.5	1,345.1	20.36	67.065	
8,267.7	7,125.6	7,085.0	7,083.1	24.1	2.4	89.38	-1,263.4	-24.8	1,318.1	1,297.5	20.63	63.889	
8,300.0	7,125.5	7,085.1	7,083.2	24.2	2.4	89.38	-1,263.4	-24.8	1,296.2	1,275.4	20.76	62.433	
8,366.1	7,125.2	7,085.3	7,083.4	24.6	2.4	89.39	-1,263.4	-24.8	1,252.6	1,231.5	21.15	59.227	
8,400.0	7,125.0	7,085.4	7,083.5	24.8	2.4	89.40	-1,263.4	-24.8	1,231.1	1,209.7	21.35	57.667	
8,464.5	7,124.7	7,085.6	7,083.6	25.3	2.4	89.41	-1,263.4	-24.8	1,191.7	1,169.8	21.84	54.570	
8,500.0	7,124.6	7,085.7	7,083.7	25.6	2.4	89.41	-1,263.5	-24.8	1,171.0	1,148.8	22.11	52.970	
8,563.0	7,124.3	7,085.9	7,083.9	26.1	2.4	89.43	-1,263.5	-24.8	1,136.0	1,113.3	22.68	50.090	
8,600.0	7,124.1	7,086.0	7,084.0	26.4	2.4	89.43	-1,263.5	-24.8	1,116.5	1,093.5	23.01	48.514	
8,661.4	7,123.8	7,086.1	7,084.2	26.9	2.4	89.44	-1,263.5	-24.8	1,086.4	1,062.7	23.65	45.926	
8,700.0	7,123.7	7,086.2	7,084.3	27.3	2.4	89.45	-1,263.5	-24.8	1,068.7	1,044.7	24.06	44.427	
8,759.8	7,123.4	7,086.4	7,084.5	27.9	2.4	89.46	-1,263.5	-24.8	1,043.7	1,018.9	24.75	42.173	
8,800.0	7,123.2	7,086.5	7,084.6	28.3	2.4	89.47	-1,263.5	-24.8	1,028.5	1,003.3	25.21	40.793	
8,858.2	7,123.0	7,086.7	7,084.8	28.9	2.4	89.48	-1,263.5	-24.8	1,008.8	982.9	25.94	38.888	
8,900.0	7,122.8	7,086.8	7,084.9	29.4	2.4	89.48	-1,263.5	-24.8	996.6	970.2	26.47	37.658	
8,956.7	7,122.5	7,087.0	7,085.1	30.0	2.4	89.49	-1,263.5	-24.8	982.7	955.4	27.22	36.096	
9,000.0	7,122.3	7,087.1	7,085.2	30.5	2.4	89.50	-1,263.5	-24.8	974.1	946.3	27.80	35.035	
9,055.1	7,122.1	7,087.3	7,085.3	31.2	2.4	89.51	-1,263.5	-24.8	965.8	937.3	28.58	33.796	
9,100.0	7,121.9	7,087.4	7,085.5	31.7	2.4	89.52	-1,263.5	-24.8	961.4	932.2	29.21	32.914	
9,153.5	7,121.6	7,087.6	7,085.6	32.4	2.4	89.53	-1,263.5	-24.8	958.9	928.9	30.00	31.966	
9,172.3	7,121.5	7,087.6	7,085.7	32.7	2.4	89.53	-1,263.5	-24.8	958.7	928.4	30.27	31.669 CC	
9,200.0	7,121.4	7,087.7	7,085.8	33.0	2.4	89.54	-1,263.5	-24.8	959.1	928.4	30.68	31.262 ES	
9,251.9	7,121.2	7,087.8	7,085.9	33.7	2.4	89.54	-1,263.5	-24.8	962.0	930.5	31.47	30.570	
9,300.0	7,121.0	7,088.0	7,086.1	34.3	2.4	89.55	-1,263.5	-24.8	967.2	935.0	32.20	30.037	
9,350.4	7,120.7	7,088.1	7,086.2	35.0	2.4	89.56	-1,263.5	-24.8	975.1	942.1	32.99	29.560	
9,400.0	7,120.5	7,088.3	7,086.3	35.7	2.4	89.57	-1,263.5	-24.8	985.4	951.6	33.76	29.185	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-32 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
9,448.8	7,120.3	7,088.4	7,086.5	36.4	2.4	89.58	-1,263.5	-24.8	997.8	963.2	34.54	28.883	
9,500.0	7,120.1	7,088.6	7,086.6	37.2	2.4	89.59	-1,263.5	-24.8	1,013.2	977.8	35.37	28.649	
9,547.2	7,119.9	7,088.7	7,086.8	37.8	2.4	89.60	-1,263.5	-24.8	1,029.4	993.3	36.14	28.486	
9,600.0	7,119.6	7,088.9	7,086.9	38.6	2.4	89.60	-1,263.5	-24.8	1,049.8	1,012.8	37.00	28.373	
9,645.6	7,119.4	7,089.0	7,087.1	39.3	2.4	89.61	-1,263.5	-24.8	1,069.2	1,031.4	37.76	28.317	
9,700.0	7,119.2	7,089.1	7,087.2	40.1	2.4	89.62	-1,263.5	-24.8	1,094.3	1,055.7	38.66	28.305 SF	
9,744.1	7,119.0	7,089.3	7,087.3	40.8	2.4	89.63	-1,263.5	-24.8	1,116.3	1,076.8	39.41	28.327	
9,800.0	7,118.7	7,089.4	7,087.5	41.7	2.4	89.64	-1,263.5	-24.8	1,145.9	1,105.6	40.35	28.400	
9,842.5	7,118.5	7,089.6	7,087.6	42.3	2.4	89.65	-1,263.5	-24.8	1,169.7	1,128.6	41.07	28.478	
9,900.0	7,118.3	7,089.7	7,087.8	43.2	2.4	89.66	-1,263.5	-24.8	1,203.6	1,161.5	42.06	28.618	
9,940.9	7,118.1	7,089.8	7,087.9	43.9	2.4	89.66	-1,263.5	-24.8	1,228.8	1,186.0	42.76	28.734	
10,000.0	7,117.8	7,090.0	7,088.1	44.8	2.4	89.67	-1,263.5	-24.8	1,266.6	1,222.8	43.78	28.928	
10,039.3	7,117.6	7,090.1	7,088.2	45.5	2.4	89.68	-1,263.5	-24.8	1,292.6	1,248.1	44.47	29.067	
10,100.0	7,117.4	7,090.3	7,088.4	46.4	2.4	89.69	-1,263.5	-24.8	1,334.1	1,288.5	45.53	29.302	
10,137.8	7,117.2	7,090.4	7,088.5	47.1	2.4	89.70	-1,263.5	-24.8	1,360.6	1,314.4	46.19	29.456	
10,200.0	7,116.9	7,090.6	7,088.7	48.1	2.4	89.71	-1,263.5	-24.8	1,405.4	1,358.1	47.28	29.723	
10,236.2	7,116.8	7,090.7	7,088.8	48.7	2.4	89.72	-1,263.5	-24.8	1,432.1	1,384.2	47.93	29.882	
10,300.0	7,116.5	7,090.9	7,089.0	49.7	2.4	89.73	-1,263.5	-24.8	1,480.1	1,431.1	49.06	30.172	
10,334.6	7,116.3	7,091.0	7,089.1	50.3	2.4	89.73	-1,263.5	-24.8	1,506.7	1,457.0	49.67	30.332	
10,400.0	7,116.0	7,091.2	7,089.3	51.4	2.4	89.75	-1,263.5	-24.8	1,557.7	1,506.8	50.84	30.640	
10,433.0	7,115.9	7,091.3	7,089.4	52.0	2.4	89.75	-1,263.5	-24.8	1,583.8	1,532.4	51.43	30.796	
10,500.0	7,115.6	7,091.5	7,089.6	53.1	2.4	89.76	-1,263.5	-24.9	1,637.6	1,585.0	52.63	31.116	
10,531.5	7,115.4	7,091.6	7,089.6	53.6	2.4	89.77	-1,263.5	-24.9	1,663.3	1,610.1	53.20	31.266	
10,600.0	7,115.1	7,091.8	7,089.8	54.8	2.4	89.78	-1,263.5	-24.9	1,719.7	1,665.3	54.43	31.593	
10,629.9	7,115.0	7,091.9	7,089.9	55.3	2.4	89.79	-1,263.5	-24.9	1,744.6	1,689.6	54.97	31.735	
10,700.0	7,114.7	7,092.1	7,090.1	56.5	2.4	89.80	-1,263.5	-24.9	1,803.6	1,747.3	56.24	32.068	
10,728.3	7,114.6	7,092.2	7,090.2	57.0	2.4	89.80	-1,263.5	-24.9	1,827.6	1,770.9	56.76	32.201	
10,800.0	7,114.2	7,092.4	7,090.4	58.3	2.4	89.82	-1,263.5	-24.9	1,889.0	1,831.0	58.06	32.536	
10,826.7	7,114.1	7,092.4	7,090.5	58.7	2.4	89.82	-1,263.5	-24.9	1,912.1	1,853.6	58.55	32.659	
10,900.0	7,113.8	7,092.7	7,090.7	60.0	2.4	89.83	-1,263.5	-24.9	1,975.8	1,916.0	59.88	32.995	
10,925.2	7,113.7	7,092.7	7,090.8	60.5	2.4	89.84	-1,263.5	-24.9	1,997.9	1,937.6	60.34	33.108	
11,000.0	7,113.3	7,093.0	7,091.0	61.8	2.4	89.85	-1,263.5	-24.9	2,063.9	2,002.1	61.71	33.442	
11,023.6	7,113.2	7,093.0	7,091.1	62.2	2.4	89.86	-1,263.5	-24.9	2,084.8	2,022.6	62.15	33.546	
11,100.0	7,112.9	7,093.3	7,091.3	63.5	2.4	89.87	-1,263.5	-24.9	2,152.9	2,089.4	63.55	33.877	
11,122.0	7,112.8	7,093.3	7,091.4	63.9	2.4	89.87	-1,263.5	-24.9	2,172.7	2,108.7	63.96	33.971	
11,200.0	7,112.4	7,093.5	7,091.6	65.3	2.4	89.89	-1,263.5	-24.9	2,242.9	2,177.5	65.39	34.300	
11,220.4	7,112.4	7,093.6	7,091.7	65.7	2.4	89.89	-1,263.5	-24.9	2,261.4	2,195.6	65.77	34.384	
11,300.0	7,112.0	7,093.8	7,091.9	67.1	2.4	89.91	-1,263.5	-24.9	2,333.7	2,266.5	67.24	34.708	
11,318.9	7,111.9	7,093.9	7,092.0	67.4	2.4	89.91	-1,263.5	-24.9	2,350.9	2,283.3	67.59	34.784	
11,400.0	7,111.6	7,094.1	7,092.2	68.9	2.4	89.92	-1,263.5	-24.9	2,425.2	2,356.1	69.09	35.104	
11,417.3	7,111.5	7,094.2	7,092.3	69.2	2.4	89.93	-1,263.5	-24.9	2,441.1	2,371.7	69.41	35.170	
11,500.0	7,111.1	7,094.4	7,092.5	70.7	2.4	89.94	-1,263.5	-24.9	2,517.4	2,446.4	70.94	35.485	
11,515.7	7,111.0	7,094.5	7,092.6	71.0	2.4	89.94	-1,263.5	-24.9	2,531.9	2,460.7	71.23	35.544	
11,600.0	7,110.7	7,094.7	7,092.8	72.5	2.4	89.96	-1,263.5	-24.9	2,610.1	2,537.3	72.80	35.854	
11,614.1	7,110.6	7,094.8	7,092.8	72.7	2.4	89.96	-1,263.5	-24.9	2,623.3	2,550.2	73.06	35.905	
11,700.0	7,110.2	7,095.0	7,093.1	74.3	2.4	89.98	-1,263.5	-24.9	2,703.4	2,628.7	74.66	36.209	
11,712.6	7,110.2	7,095.1	7,093.1	74.5	2.4	89.98	-1,263.5	-24.9	2,715.1	2,640.2	74.89	36.253	
11,747.9	7,110.0	7,095.2	7,093.2	75.1	2.4	89.99	-1,263.5	-24.9	2,748.2	2,672.6	75.55	36.375	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-33 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
0.0	0.0	0.0	0.0	0.0	0.0	169.98	-2,369.4	418.5	2,406.2				
98.4	98.4	74.1	74.1	0.1	0.0	169.98	-2,369.6	418.5	2,406.2	2,406.1	0.11	N/A	
100.0	100.0	75.5	75.5	0.1	0.0	169.98	-2,369.6	418.5	2,406.3	2,406.1	0.11	N/A	
196.8	196.8	177.9	177.9	0.3	0.2	169.99	-2,370.0	418.2	2,406.6	2,406.1	0.45	5,306.587	
200.0	200.0	181.4	181.4	0.3	0.2	169.99	-2,370.0	418.2	2,406.6	2,406.1	0.47	5,163.884	
295.3	295.3	276.4	276.4	0.5	0.3	170.00	-2,370.1	417.8	2,406.6	2,405.9	0.78	3,087.492	
300.0	300.0	281.0	281.0	0.5	0.3	170.00	-2,370.1	417.8	2,406.7	2,405.9	0.79	3,029.771	
393.7	393.7	370.7	370.7	0.7	0.3	170.01	-2,370.3	417.6	2,406.8	2,405.8	1.06	2,267.913	
400.0	400.0	376.7	376.7	0.8	0.3	170.01	-2,370.3	417.6	2,406.9	2,405.8	1.08	2,231.242	
492.1	492.1	464.5	464.5	1.0	0.4	170.01	-2,370.7	417.6	2,407.2	2,405.9	1.34	1,799.753	
500.0	500.0	472.0	472.0	1.0	0.4	170.01	-2,370.7	417.6	2,407.3	2,405.9	1.36	1,770.347	
590.5	590.5	564.2	564.2	1.2	0.4	170.01	-2,371.2	417.7	2,407.7	2,406.1	1.61	1,492.559	
600.0	600.0	574.1	574.1	1.2	0.4	170.01	-2,371.2	417.7	2,407.8	2,406.1	1.64	1,468.616	
689.0	689.0	666.8	666.8	1.4	0.5	170.01	-2,371.5	417.6	2,408.0	2,406.2	1.88	1,280.398	
700.0	700.0	678.3	678.3	1.4	0.5	170.01	-2,371.6	417.6	2,408.1	2,406.2	1.91	1,260.598	
787.4	787.4	763.1	763.1	1.6	0.5	170.02	-2,371.8	417.4	2,408.3	2,406.2	2.13	1,128.484	
800.0	800.0	775.1	775.1	1.7	0.5	170.02	-2,371.9	417.4	2,408.3	2,406.2	2.17	1,111.940	
885.8	885.8	862.8	862.8	1.9	0.6	170.02	-2,372.2	417.6	2,408.7	2,406.3	2.39	1,006.956	
900.0	900.0	877.8	877.8	1.9	0.6	170.02	-2,372.2	417.6	2,408.7	2,406.3	2.43	991.222	
984.2	984.2	961.8	961.8	2.1	0.6	170.01	-2,372.4	417.8	2,408.9	2,406.3	2.65	907.905	
1,000.0	1,000.0	977.2	977.1	2.1	0.6	170.01	-2,372.4	417.8	2,408.9	2,406.3	2.69	893.934	
1,082.7	1,082.7	1,058.0	1,058.0	2.3	0.6	170.01	-2,372.7	417.8	2,409.2	2,406.3	2.91	829.196	
1,100.0	1,100.0	1,074.9	1,074.9	2.3	0.7	170.01	-2,372.8	417.8	2,409.3	2,406.3	2.95	816.968	
1,181.1	1,181.1	1,160.6	1,160.6	2.5	0.7	170.02	-2,373.1	417.4	2,409.5	2,406.4	3.16	763.322	
1,200.0	1,200.0	1,181.3	1,181.3	2.6	0.7	170.03	-2,373.2	417.3	2,409.6	2,406.4	3.21	751.739	
1,279.5	1,279.5	1,257.5	1,257.5	2.7	0.7	170.03	-2,373.3	417.1	2,409.7	2,406.3	3.40	707.852	
1,300.0	1,300.0	1,276.4	1,276.4	2.8	0.7	170.03	-2,373.4	417.0	2,409.7	2,406.3	3.45	697.469	
1,377.9	1,377.9	1,354.2	1,354.2	3.0	0.8	170.04	-2,373.7	416.9	2,410.0	2,406.4	3.65	659.826	
1,400.0	1,400.0	1,377.0	1,377.0	3.0	0.8	170.04	-2,373.8	416.8	2,410.1	2,406.4	3.71	649.801	
1,476.4	1,476.4	1,453.6	1,453.6	3.2	0.8	170.05	-2,374.0	416.5	2,410.3	2,406.4	3.90	617.500	
1,500.0	1,500.0	1,477.0	1,476.9	3.2	0.8	170.05	-2,374.1	416.4	2,410.4	2,406.4	3.96	608.179	
1,574.8	1,574.8	1,554.1	1,554.1	3.4	0.8	170.06	-2,374.4	416.0	2,410.6	2,406.4	4.15	580.475	
1,600.0	1,600.0	1,580.6	1,580.5	3.5	0.8	170.07	-2,374.5	415.9	2,410.6	2,406.4	4.22	571.707	
1,673.2	1,673.2	1,658.6	1,658.6	3.6	0.9	170.08	-2,374.6	415.4	2,410.6	2,406.2	4.40	547.748	
1,700.0	1,700.0	1,687.3	1,687.3	3.7	0.9	170.08	-2,374.6	415.2	2,410.6	2,406.1	4.47	539.488	
1,750.0	1,750.0	1,734.5	1,734.5	3.8	0.9	170.09	-2,374.6	414.8	2,410.6	2,406.0	4.59	524.889	
1,750.8	1,750.8	1,735.3	1,735.2	3.8	0.9	128.09	-2,374.6	414.7	2,410.6	2,405.9	4.66	517.815	
1,771.6	1,771.6	1,754.1	1,754.1	3.8	0.9	128.10	-2,374.6	414.5	2,410.6	2,405.9	4.71	512.239	
1,800.0	1,800.0	1,779.8	1,779.8	3.9	0.9	128.11	-2,374.7	414.2	2,410.9	2,406.1	4.78	504.873	
1,870.1	1,870.0	1,854.0	1,854.0	4.1	0.9	128.15	-2,375.0	413.2	2,412.3	2,407.3	4.95	487.567	
1,900.0	1,899.9	1,887.9	1,887.8	4.1	0.9	128.18	-2,375.1	412.8	2,413.1	2,408.1	5.02	480.537	
1,968.5	1,968.3	1,949.9	1,949.9	4.3	1.0	128.23	-2,375.2	411.8	2,415.8	2,410.6	5.19	465.439	
2,000.0	1,999.7	1,977.1	1,977.0	4.3	1.0	128.26	-2,375.3	411.4	2,417.4	2,412.2	5.27	458.929	
2,066.9	2,066.3	2,044.8	2,044.7	4.5	1.0	128.35	-2,375.7	410.2	2,421.8	2,416.3	5.44	445.270	
2,100.0	2,099.1	2,081.5	2,081.4	4.6	1.0	128.40	-2,375.9	409.5	2,424.2	2,418.7	5.52	438.775	
2,165.3	2,163.9	2,145.2	2,145.2	4.7	1.0	128.50	-2,376.1	408.4	2,429.7	2,424.0	5.70	426.376	
2,200.0	2,198.2	2,177.4	2,177.3	4.8	1.0	128.55	-2,376.3	407.8	2,433.0	2,427.2	5.79	420.194	
2,263.8	2,261.0	2,234.1	2,234.0	5.0	1.1	128.64	-2,376.6	406.9	2,439.9	2,434.0	5.97	408.744	
2,300.0	2,296.6	2,265.4	2,265.3	5.1	1.1	128.69	-2,376.8	406.4	2,444.3	2,438.3	6.07	402.567	
2,362.2	2,357.6	2,322.2	2,322.1	5.3	1.1	128.80	-2,377.4	405.4	2,452.8	2,446.5	6.26	391.725	
2,400.0	2,394.4	2,360.3	2,360.2	5.4	1.1	128.88	-2,377.8	404.6	2,458.3	2,451.9	6.38	385.448	
2,460.6	2,453.4	2,421.0	2,420.9	5.6	1.1	129.03	-2,378.5	403.2	2,467.9	2,461.3	6.58	375.083	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,500.0	2,491.5	2,460.1	2,460.0	5.7	1.2	129.12	-2,378.8	402.3	2,474.5	2,467.8	6.71	368.814	
2,559.0	2,548.3	2,515.8	2,515.7	5.9	1.2	129.26	-2,379.3	401.2	2,485.1	2,478.2	6.92	359.096	
2,600.0	2,587.6	2,550.4	2,550.2	6.1	1.2	129.33	-2,379.7	400.4	2,493.0	2,485.9	7.07	352.582	
2,657.5	2,642.4	2,600.0	2,599.8	6.3	1.2	129.44	-2,380.3	399.4	2,504.9	2,497.6	7.30	343.167	
2,700.0	2,682.7	2,643.4	2,643.2	6.5	1.2	129.56	-2,380.9	398.4	2,514.2	2,506.8	7.47	336.553	
2,750.0	2,729.8	2,696.5	2,696.3	6.8	1.2	129.73	-2,381.5	397.2	2,525.7	2,518.0	7.69	328.579	
2,755.9	2,735.4	2,700.0	2,699.8	6.8	1.2	129.75	-2,381.5	397.1	2,527.1	2,519.3	7.71	327.675	
2,800.0	2,776.8	2,736.7	2,736.5	7.0	1.2	130.00	-2,381.9	396.3	2,537.4	2,529.5	7.90	320.997	
2,854.3	2,827.8	2,779.4	2,779.2	7.3	1.3	130.28	-2,382.5	395.3	2,550.5	2,542.3	8.15	312.984	
2,900.0	2,870.8	2,817.9	2,817.7	7.5	1.3	130.53	-2,383.1	394.4	2,561.6	2,553.2	8.36	306.574	
2,952.7	2,920.3	2,866.4	2,866.1	7.8	1.3	130.85	-2,383.9	393.3	2,574.5	2,565.9	8.60	299.253	
3,000.0	2,964.7	2,910.7	2,910.4	8.1	1.3	131.13	-2,384.7	392.2	2,586.2	2,577.4	8.82	293.074	
3,051.2	3,012.8	2,962.0	2,961.6	8.4	1.3	131.46	-2,385.5	390.9	2,598.9	2,589.8	9.07	286.599	
3,100.0	3,058.7	3,013.2	3,012.8	8.7	1.3	131.79	-2,386.3	389.5	2,611.0	2,601.7	9.30	280.779	
3,149.6	3,105.3	3,073.5	3,073.1	9.0	1.4	132.18	-2,386.9	387.9	2,623.2	2,613.7	9.54	275.081	
3,200.0	3,152.7	3,132.7	3,132.3	9.3	1.4	132.55	-2,387.3	386.3	2,635.4	2,625.6	9.77	269.636	
3,248.0	3,197.8	3,187.5	3,187.1	9.5	1.4	132.89	-2,387.4	384.8	2,646.9	2,636.9	10.00	264.613	
3,300.0	3,246.6	3,244.2	3,243.7	9.9	1.4	133.24	-2,387.2	383.2	2,659.2	2,649.0	10.25	259.488	
3,346.4	3,290.3	3,294.3	3,293.8	10.1	1.4	133.54	-2,387.0	381.8	2,670.2	2,659.7	10.47	254.991	
3,400.0	3,340.6	3,350.5	3,350.0	10.5	1.5	133.88	-2,386.6	380.4	2,682.8	2,672.1	10.73	250.092	
3,444.9	3,382.8	3,397.5	3,397.0	10.8	1.5	134.15	-2,386.2	379.2	2,693.4	2,682.4	10.94	246.133	
3,500.0	3,434.6	3,470.0	3,469.5	11.1	1.5	134.59	-2,385.2	377.1	2,706.1	2,694.9	11.20	241.571	
3,543.3	3,475.3	3,521.2	3,520.6	11.4	1.5	134.89	-2,384.1	375.3	2,716.0	2,704.6	11.41	238.090	
3,600.0	3,528.6	3,579.2	3,578.6	11.7	1.5	135.24	-2,382.8	373.2	2,728.8	2,717.1	11.68	233.716	
3,641.7	3,567.8	3,616.3	3,615.7	12.0	1.5	135.46	-2,381.9	371.9	2,738.2	2,726.4	11.88	230.564	
3,700.0	3,622.5	3,660.8	3,660.1	12.4	1.5	135.72	-2,381.0	370.3	2,751.6	2,739.5	12.16	226.315	
3,740.1	3,660.3	3,700.0	3,699.3	12.6	1.5	135.95	-2,380.3	368.9	2,761.1	2,748.7	12.35	223.527	
3,749.0	3,668.6	3,700.0	3,699.3	12.7	1.5	135.95	-2,380.3	368.9	2,763.2	2,750.8	12.40	222.907	
3,800.0	3,716.5	3,743.3	3,742.5	13.0	1.5	133.24	-2,379.7	367.4	2,775.0	2,762.3	12.63	219.678	
3,838.6	3,752.8	3,777.6	3,776.9	13.2	1.6	131.20	-2,379.2	366.2	2,783.5	2,770.7	12.80	217.398	
3,885.2	3,796.6	3,818.1	3,817.3	13.5	1.6	128.75	-2,378.6	364.7	2,793.5	2,780.5	13.01	214.742	
3,900.0	3,810.5	3,830.6	3,829.8	13.6	1.6	128.83	-2,378.4	364.3	2,796.6	2,783.5	13.08	213.794	
3,937.0	3,845.3	3,861.8	3,861.0	13.8	1.6	129.03	-2,378.1	363.2	2,804.4	2,791.1	13.27	211.290	
4,000.0	3,904.5	3,916.7	3,915.8	14.2	1.6	129.37	-2,377.5	361.4	2,817.8	2,804.2	13.60	207.232	
4,035.4	3,937.7	3,950.1	3,949.2	14.5	1.6	129.57	-2,377.1	360.4	2,825.5	2,811.7	13.78	205.038	
4,100.0	3,998.4	4,011.4	4,010.5	14.9	1.6	129.94	-2,376.5	358.4	2,839.5	2,825.4	14.11	201.223	
4,133.8	4,030.2	4,044.8	4,043.9	15.1	1.6	130.14	-2,376.1	357.5	2,846.9	2,832.6	14.28	199.302	
4,200.0	4,092.4	4,110.3	4,109.4	15.5	1.6	130.52	-2,375.4	356.0	2,861.3	2,846.7	14.62	195.704	
4,232.3	4,122.7	4,142.3	4,141.3	15.8	1.7	130.71	-2,375.0	355.5	2,868.3	2,853.6	14.78	194.010	
4,300.0	4,186.4	4,210.8	4,209.8	16.2	1.7	131.08	-2,374.1	354.6	2,883.2	2,868.0	15.13	190.603	
4,330.7	4,215.2	4,245.6	4,244.6	16.4	1.7	131.27	-2,373.5	354.3	2,889.9	2,874.6	15.28	189.126	
4,400.0	4,280.3	4,318.5	4,317.5	16.9	1.7	131.67	-2,372.2	353.4	2,904.9	2,889.3	15.63	185.892	
4,429.1	4,307.7	4,343.7	4,342.6	17.1	1.7	131.81	-2,371.7	353.1	2,911.2	2,895.4	15.77	184.550	
4,500.0	4,374.3	4,400.0	4,399.0	17.6	1.7	132.11	-2,370.7	352.4	2,926.8	2,910.7	16.13	181.399	
4,527.5	4,400.2	4,425.3	4,424.2	17.7	1.7	132.25	-2,370.4	352.0	2,932.9	2,916.7	16.28	180.210	
4,600.0	4,468.3	4,480.3	4,479.2	18.2	1.7	132.54	-2,369.7	351.2	2,949.4	2,932.7	16.65	177.180	
4,626.0	4,492.7	4,500.0	4,499.0	18.4	1.7	132.65	-2,369.5	350.9	2,955.4	2,938.6	16.78	176.132	
4,700.0	4,562.3	4,551.5	4,550.4	18.9	1.7	132.92	-2,369.2	350.2	2,972.8	2,955.6	17.16	173.218	
4,724.4	4,585.2	4,568.4	4,567.4	19.1	1.7	133.00	-2,369.2	350.0	2,978.7	2,961.4	17.29	172.293	
4,800.0	4,656.2	4,626.1	4,625.1	19.6	1.8	133.30	-2,369.3	349.5	2,997.2	2,979.5	17.68	169.538	
4,822.8	4,677.7	4,645.9	4,644.8	19.7	1.8	133.40	-2,369.4	349.3	3,002.8	2,985.0	17.80	168.734	
4,900.0	4,750.2	4,714.4	4,713.3	20.3	1.8	133.74	-2,369.8	348.9	3,022.1	3,003.9	18.19	166.133	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-33 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-GYD_CT												<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	
4,921.2	4,770.2	4,735.2	4,734.1	20.4	1.8	133.84	-2,370.0	348.7	3,027.4	3,009.1	18.30	165.447	
5,000.0	4,844.2	4,812.3	4,811.3	20.9	1.8	134.22	-2,370.4	348.1	3,047.2	3,028.5	18.70	162.993	
5,019.7	4,862.7	4,831.4	4,830.3	21.1	1.8	134.32	-2,370.5	348.0	3,052.2	3,033.4	18.79	162.398	
5,100.0	4,938.1	4,909.0	4,907.9	21.6	1.9	134.69	-2,370.8	347.5	3,072.4	3,053.2	19.20	160.052	
5,118.1	4,955.1	4,926.1	4,925.0	21.7	1.9	134.77	-2,370.8	347.3	3,077.0	3,057.7	19.29	159.538	
5,200.0	5,032.1	5,003.8	5,002.7	22.3	1.9	135.15	-2,371.1	346.7	3,097.8	3,078.1	19.69	157.287	
5,216.5	5,047.6	5,020.2	5,019.1	22.4	1.9	135.22	-2,371.2	346.6	3,102.0	3,082.2	19.78	156.849	
5,300.0	5,126.1	5,103.0	5,102.0	23.0	1.9	135.61	-2,371.4	345.9	3,123.2	3,103.0	20.19	154.704	
5,314.9	5,140.1	5,116.9	5,115.8	23.1	1.9	135.68	-2,371.4	345.8	3,127.0	3,106.7	20.26	154.328	
5,400.0	5,220.0	5,195.7	5,194.6	23.7	1.9	136.04	-2,371.5	345.2	3,148.7	3,128.0	20.68	152.252	
5,413.4	5,232.6	5,208.6	5,207.5	23.8	2.0	136.10	-2,371.6	345.1	3,152.1	3,131.4	20.75	151.936	
5,504.2	5,318.0	5,298.0	5,297.0	24.4	2.0	136.51	-2,371.7	344.5	3,175.5	3,154.3	21.19	149.863	
5,511.8	5,325.1	5,305.7	5,304.6	24.4	2.0	136.57	-2,371.7	344.4	3,177.4	3,156.2	21.21	149.796	
5,600.0	5,408.5	5,395.2	5,394.1	24.9	2.0	137.26	-2,371.6	343.7	3,198.9	3,177.4	21.47	148.998	
5,610.2	5,418.2	5,400.0	5,398.9	25.0	2.0	137.31	-2,371.6	343.7	3,201.3	3,179.8	21.49	148.944	
5,700.0	5,504.1	5,476.2	5,475.2	25.4	2.0	137.87	-2,371.6	343.0	3,221.2	3,199.5	21.69	148.507	
5,708.6	5,512.4	5,483.2	5,482.1	25.5	2.0	137.92	-2,371.6	342.9	3,223.0	3,201.3	21.71	148.476	
5,800.0	5,600.7	5,567.1	5,566.0	25.9	2.1	138.45	-2,372.0	342.0	3,241.4	3,219.5	21.89	148.108	
5,807.1	5,607.5	5,573.8	5,572.7	25.9	2.1	138.49	-2,372.0	341.9	3,242.7	3,220.8	21.90	148.089	
5,900.0	5,698.1	5,650.0	5,648.9	26.3	2.1	138.93	-2,372.3	340.7	3,259.3	3,237.3	22.06	147.761	
5,905.5	5,703.4	5,654.2	5,653.1	26.3	2.1	138.96	-2,372.4	340.6	3,260.3	3,238.2	22.07	147.749	
6,000.0	5,796.2	5,739.2	5,738.1	26.6	2.1	139.37	-2,373.2	338.9	3,275.2	3,253.0	22.21	147.495	
6,003.9	5,800.1	5,743.7	5,742.5	26.6	2.1	139.39	-2,373.3	338.8	3,275.8	3,253.6	22.21	147.490	
6,100.0	5,894.9	5,841.7	5,840.5	26.9	2.2	139.76	-2,374.0	336.9	3,288.5	3,266.1	22.33	147.259	
6,102.3	5,897.3	5,843.8	5,842.6	26.9	2.2	139.77	-2,374.1	336.9	3,288.7	3,266.4	22.33	147.256	
6,200.0	5,942.2	5,932.8	5,931.7	27.2	2.2	140.05	-2,374.9	335.2	3,299.2	3,276.8	22.44	147.021	
6,200.8	5,994.9	5,933.6	5,932.4	27.2	2.2	140.06	-2,374.9	335.2	3,299.3	3,276.8	22.44	147.019	
6,299.2	6,093.0	6,022.5	6,021.3	27.4	2.2	140.28	-2,376.0	333.3	3,307.5	3,284.9	22.53	146.775	
6,300.0	6,093.8	6,023.1	6,021.9	27.4	2.2	140.28	-2,376.0	333.3	3,307.5	3,285.0	22.54	146.772	
6,397.6	6,191.2	6,103.0	6,101.7	27.5	2.2	140.42	-2,377.3	332.1	3,313.5	3,290.9	22.62	146.509	
6,400.0	6,193.6	6,105.6	6,104.3	27.5	2.2	140.42	-2,377.4	332.1	3,313.6	3,291.0	22.62	146.499	
6,496.0	6,289.6	6,210.1	6,208.8	27.6	2.3	140.51	-2,379.3	330.6	3,317.1	3,294.4	22.69	146.162	
6,504.1	6,297.7	6,218.2	6,217.0	27.6	2.3	-169.52	-2,379.5	330.5	3,317.3	3,294.5	22.70	146.125	
6,594.5	6,388.1	6,311.5	6,310.3	27.7	2.3	-169.49	-2,380.9	328.5	3,319.0	3,296.2	22.84	145.344	
6,600.0	6,393.6	6,317.7	6,316.5	27.7	2.3	-169.49	-2,381.0	328.4	3,319.1	3,296.2	22.84	145.297	
6,618.2	6,411.8	6,338.2	6,336.9	27.8	2.3	-169.48	-2,381.3	327.9	3,319.4	3,296.5	22.87	145.127	
6,650.0	6,443.6	6,373.8	6,372.5	27.8	2.3	10.54	-2,381.8	327.1	3,319.3	3,296.4	22.82	145.438	
6,692.9	6,486.4	6,417.0	6,415.7	27.8	2.3	10.60	-2,382.3	326.0	3,316.8	3,294.1	22.74	145.835	
6,700.0	6,493.4	6,423.2	6,421.8	27.8	2.3	10.61	-2,382.4	325.9	3,316.2	3,293.5	22.73	145.896	
6,750.0	6,542.8	6,466.3	6,465.0	27.8	2.4	10.75	-2,382.9	324.8	3,309.8	3,287.1	22.62	146.340	
6,791.3	6,583.2	6,502.0	6,500.6	27.7	2.4	10.91	-2,383.5	323.8	3,302.0	3,279.5	22.50	146.781	
6,800.0	6,591.6	6,510.7	6,509.4	27.7	2.4	10.95	-2,383.6	323.6	3,300.0	3,277.6	22.47	146.889	
6,850.0	6,639.6	6,560.7	6,559.3	27.6	2.4	11.23	-2,384.4	322.2	3,287.0	3,264.8	22.26	147.657	
6,889.7	6,676.9	6,599.6	6,598.2	27.6	2.4	11.50	-2,384.9	321.1	3,274.3	3,252.2	22.05	148.492	
6,900.0	6,686.4	6,609.5	6,608.1	27.5	2.4	11.58	-2,385.0	320.8	3,270.7	3,248.7	21.99	148.745	
6,950.0	6,731.8	6,656.8	6,655.4	27.4	2.4	12.03	-2,385.7	319.4	3,251.2	3,229.5	21.64	150.223	
6,988.2	6,765.5	6,691.9	6,690.4	27.3	2.4	12.44	-2,386.1	318.4	3,234.1	3,212.8	21.33	151.656	
7,000.0	6,775.8	6,700.0	6,698.5	27.2	2.4	12.57	-2,386.2	318.2	3,228.5	3,207.3	21.22	152.164	
7,050.0	6,817.9	6,742.4	6,740.9	27.1	2.4	13.24	-2,386.8	316.9	3,202.9	3,182.2	20.72	154.610	
7,086.6	6,847.5	6,770.6	6,769.1	26.9	2.5	13.80	-2,387.2	316.0	3,182.4	3,162.1	20.30	156.745	
7,100.0	6,858.1	6,780.7	6,779.2	26.9	2.5	14.03	-2,387.3	315.7	3,174.5	3,154.4	20.14	157.606	
7,150.0	6,896.1	6,822.5	6,821.0	26.6	2.5	15.01	-2,387.9	314.3	3,143.4	3,123.9	19.51	161.139	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,185.0	6,921.3	6,854.4	6,852.8	26.5	2.5	15.85	-2,388.3	313.3	3,120.0	3,101.0	19.04	163.902		
7,200.0	6,931.7	6,867.5	6,866.0	26.4	2.5	16.24	-2,388.4	312.9	3,109.6	3,090.8	18.83	165.165		
7,250.0	6,964.8	6,910.6	6,909.0	26.2	2.5	17.75	-2,388.8	311.8	3,073.4	3,055.3	18.12	169.573		
7,283.4	6,985.4	6,940.4	6,938.8	26.0	2.5	18.98	-2,389.0	311.2	3,047.9	3,030.2	17.66	172.559		
7,300.0	6,995.2	6,954.4	6,952.8	25.9	2.5	19.65	-2,389.1	310.9	3,034.9	3,017.5	17.44	174.030		
7,350.0	7,022.7	6,993.7	6,992.1	25.7	2.5	22.03	-2,389.3	310.3	2,994.3	2,977.5	16.83	177.939		
7,381.9	7,038.8	7,011.2	7,009.6	25.5	2.5	23.81	-2,389.3	310.1	2,967.4	2,950.9	16.52	179.674		
7,400.0	7,047.3	7,019.4	7,017.8	25.4	2.5	24.93	-2,389.3	309.9	2,951.8	2,935.5	16.37	180.290		
7,450.0	7,068.8	7,040.1	7,038.5	25.1	2.5	28.63	-2,389.3	309.6	2,907.8	2,891.7	16.19	179.575		
7,480.3	7,080.3	7,051.1	7,049.5	25.0	2.6	31.40	-2,389.4	309.5	2,880.5	2,864.2	16.27	176.998		
7,500.0	7,087.1	7,057.7	7,056.1	24.9	2.6	33.47	-2,389.4	309.4	2,862.5	2,846.1	16.41	174.455		
7,550.0	7,102.1	7,072.2	7,070.6	24.6	2.6	39.92	-2,389.4	309.1	2,816.1	2,799.0	17.08	164.868		
7,578.7	7,109.2	7,079.0	7,077.4	24.5	2.6	44.58	-2,389.4	309.0	2,789.0	2,771.3	17.66	157.932		
7,600.0	7,113.7	7,083.4	7,081.8	24.4	2.6	48.58	-2,389.4	308.9	2,768.8	2,750.6	18.14	152.627		
7,650.0	7,121.9	7,091.4	7,089.8	24.2	2.6	60.08	-2,389.4	308.8	2,720.8	2,701.5	19.33	140.764		
7,677.1	7,125.0	7,094.3	7,092.7	24.1	2.6	67.61	-2,389.4	308.7	2,694.6	2,674.7	19.89	135.462		
7,700.0	7,126.7	7,096.0	7,094.5	24.0	2.6	74.54	-2,389.4	308.7	2,672.4	2,652.1	20.27	131.844		
7,746.5	7,128.0	7,097.4	7,095.8	23.8	2.6	89.58	-2,389.4	308.7	2,627.3	2,606.2	21.06	124.738		
7,775.6	7,127.9	7,097.3	7,095.7	23.7	2.6	89.57	-2,389.4	308.7	2,599.0	2,578.0	20.99	123.829		
7,800.0	7,127.7	7,097.2	7,095.6	23.6	2.6	89.56	-2,389.4	308.7	2,575.3	2,554.4	20.93	123.062		
7,874.0	7,127.4	7,097.1	7,095.5	23.4	2.6	89.55	-2,389.4	308.7	2,503.6	2,483.0	20.62	121.401		
7,900.0	7,127.3	7,097.0	7,095.4	23.4	2.6	89.54	-2,389.4	308.7	2,478.4	2,457.9	20.52	120.808		
7,972.4	7,127.0	7,096.8	7,095.2	23.3	2.6	89.52	-2,389.4	308.7	2,408.4	2,388.1	20.36	118.285		
8,000.0	7,126.8	7,096.7	7,095.1	23.3	2.6	89.52	-2,389.4	308.7	2,381.8	2,361.5	20.30	117.317		
8,070.8	7,126.5	7,096.5	7,095.0	23.4	2.6	89.50	-2,389.4	308.7	2,313.5	2,293.2	20.30	113.984		
8,100.0	7,126.4	7,096.5	7,094.9	23.5	2.6	89.49	-2,389.4	308.7	2,285.5	2,265.2	20.29	112.615		
8,169.3	7,126.1	7,096.3	7,094.7	23.7	2.6	89.48	-2,389.4	308.7	2,218.9	2,198.5	20.43	108.601		
8,200.0	7,125.9	7,096.2	7,094.6	23.8	2.6	89.47	-2,389.4	308.7	2,189.5	2,169.0	20.49	106.842		
8,267.7	7,125.6	7,096.0	7,094.5	24.1	2.6	89.45	-2,389.4	308.7	2,124.7	2,103.9	20.76	102.337		
8,300.0	7,125.5	7,096.0	7,094.4	24.2	2.6	89.44	-2,389.4	308.7	2,093.8	2,072.9	20.89	100.233		
8,366.1	7,125.2	7,095.8	7,094.2	24.6	2.6	89.43	-2,389.4	308.7	2,030.8	2,009.5	21.28	95.453		
8,400.0	7,125.0	7,095.7	7,094.1	24.8	2.6	89.42	-2,389.4	308.7	1,998.6	1,977.1	21.47	93.075		
8,464.5	7,124.7	7,095.5	7,094.0	25.3	2.6	89.41	-2,389.4	308.7	1,937.4	1,915.4	21.96	88.226		
8,500.0	7,124.6	7,095.5	7,093.9	25.6	2.6	89.40	-2,389.4	308.7	1,903.9	1,881.6	22.23	85.658		
8,563.0	7,124.3	7,095.3	7,093.7	26.1	2.6	89.38	-2,389.4	308.7	1,844.5	1,821.7	22.80	80.912		
8,600.0	7,124.1	7,095.2	7,093.6	26.4	2.6	89.37	-2,389.4	308.7	1,809.7	1,786.6	23.13	78.236		
8,661.4	7,123.8	7,095.0	7,093.4	26.9	2.6	89.36	-2,389.4	308.7	1,752.2	1,728.5	23.77	73.720		
8,700.0	7,123.7	7,094.9	7,093.4	27.3	2.6	89.35	-2,389.4	308.7	1,716.2	1,692.0	24.17	71.009		
8,759.8	7,123.4	7,094.8	7,093.2	27.9	2.6	89.34	-2,389.4	308.7	1,660.6	1,635.8	24.86	66.805		
8,800.0	7,123.2	7,094.7	7,093.1	28.3	2.6	89.33	-2,389.4	308.7	1,623.5	1,598.2	25.32	64.117		
8,858.2	7,123.0	7,094.5	7,092.9	28.9	2.6	89.31	-2,389.4	308.7	1,569.9	1,543.8	26.05	60.268		
8,900.0	7,122.8	7,094.4	7,092.8	29.4	2.6	89.30	-2,389.4	308.7	1,531.7	1,505.1	26.57	57.646		
8,956.7	7,122.5	7,094.3	7,092.7	30.0	2.6	89.29	-2,389.4	308.7	1,480.1	1,452.8	27.33	54.165		
9,000.0	7,122.3	7,094.2	7,092.6	30.5	2.6	89.28	-2,389.4	308.8	1,441.0	1,413.1	27.90	51.641		
9,055.1	7,122.1	7,094.0	7,092.4	31.2	2.6	89.27	-2,389.4	308.8	1,391.5	1,362.9	28.68	48.523		
9,100.0	7,121.9	7,093.9	7,092.3	31.7	2.6	89.26	-2,389.4	308.8	1,351.6	1,322.3	29.31	46.116		
9,153.5	7,121.6	7,093.8	7,092.2	32.4	2.6	89.24	-2,389.4	308.8	1,304.4	1,274.3	30.09	43.345		
9,200.0	7,121.4	7,093.7	7,092.1	33.0	2.6	89.23	-2,389.4	308.8	1,263.8	1,233.0	30.77	41.067		
9,251.9	7,121.2	7,093.5	7,092.0	33.7	2.6	89.22	-2,389.4	308.8	1,218.9	1,187.3	31.56	38.620		
9,300.0	7,121.0	7,093.4	7,091.8	34.3	2.6	89.21	-2,389.4	308.8	1,177.9	1,145.6	32.29	36.479		
9,350.4	7,120.7	7,093.3	7,091.7	35.0	2.6	89.20	-2,389.4	308.8	1,135.5	1,102.4	33.08	34.330		
9,400.0	7,120.5	7,093.2	7,091.6	35.7	2.6	89.18	-2,389.4	308.8	1,094.4	1,060.6	33.85	32.331		

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - EXIST VERT SHULTZ FARM 30-33 - Wellbore #1 - Wellbore #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-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
9,448.8	7,120.3	7,093.0	7,091.5	36.4	2.6	89.17	-2,389.4	308.8	1,054.7	1,020.1	34.63	30.457	
9,500.0	7,120.1	7,092.9	7,091.3	37.2	2.6	89.16	-2,389.4	308.8	1,014.0	978.5	35.45	28.603	
9,547.2	7,119.9	7,092.8	7,091.2	37.8	2.6	89.15	-2,389.4	308.8	977.2	941.0	36.22	26.980	
9,600.0	7,119.6	7,092.7	7,091.1	38.6	2.6	89.14	-2,389.4	308.8	937.3	900.2	37.08	25.276	
9,645.6	7,119.4	7,092.5	7,091.0	39.3	2.6	89.13	-2,389.4	308.8	903.8	865.9	37.84	23.885	
9,700.0	7,119.2	7,092.4	7,090.8	40.1	2.6	89.11	-2,389.4	308.8	865.3	826.6	38.74	22.337	
9,744.1	7,119.0	7,092.3	7,090.7	40.8	2.6	89.10	-2,389.4	308.8	835.5	796.0	39.48	21.161	
9,800.0	7,118.7	7,092.2	7,090.6	41.7	2.6	89.09	-2,389.4	308.8	799.5	759.0	40.42	19.777	
9,842.5	7,118.5	7,092.1	7,090.5	42.3	2.6	89.08	-2,389.4	308.8	773.7	732.5	41.15	18.802	
9,900.0	7,118.3	7,091.9	7,090.3	43.2	2.6	89.07	-2,389.4	308.8	741.3	699.1	42.13	17.595	
9,940.9	7,118.1	7,091.8	7,090.2	43.9	2.6	89.06	-2,389.4	308.8	720.1	677.3	42.83	16.811	
10,000.0	7,117.8	7,091.7	7,090.1	44.8	2.6	89.04	-2,389.4	308.8	692.7	648.8	43.85	15.796	
10,039.3	7,117.6	7,091.6	7,090.0	45.5	2.6	89.04	-2,389.4	308.8	676.7	632.1	44.54	15.193	
10,100.0	7,117.4	7,091.4	7,089.8	46.4	2.6	89.02	-2,389.4	308.8	655.9	610.3	45.59	14.385	
10,137.8	7,117.2	7,091.3	7,089.7	47.1	2.6	89.01	-2,389.4	308.8	645.4	599.2	46.26	13.954	
10,200.0	7,116.9	7,091.1	7,089.6	48.1	2.6	89.00	-2,389.4	308.8	632.8	585.5	47.35	13.366	
10,236.2	7,116.8	7,091.1	7,089.5	48.7	2.6	88.99	-2,389.4	308.8	628.2	580.2	47.99	13.092	
10,298.3	7,116.5	7,090.9	7,089.3	49.7	2.6	88.98	-2,389.4	308.8	625.2	576.1	49.09	12.736 CC	
10,300.0	7,116.5	7,090.9	7,089.3	49.7	2.6	88.98	-2,389.4	308.8	625.2	576.0	49.12	12.728 ES	
10,334.6	7,116.3	7,090.8	7,089.2	50.3	2.6	88.97	-2,389.4	308.8	626.2	576.5	49.73	12.592	
10,400.0	7,116.0	7,090.6	7,089.0	51.4	2.6	88.95	-2,389.4	308.8	633.4	582.5	50.89	12.445	
10,433.0	7,115.9	7,090.6	7,089.0	52.0	2.6	88.94	-2,389.4	308.8	639.5	588.0	51.49	12.421 SF	
10,500.0	7,115.6	7,090.4	7,088.8	53.1	2.6	88.93	-2,389.4	308.8	656.9	604.2	52.68	12.468	
10,531.5	7,115.4	7,090.3	7,088.7	53.6	2.6	88.92	-2,389.4	308.8	667.2	614.0	53.25	12.530	
10,600.0	7,115.1	7,090.1	7,088.5	54.8	2.6	88.91	-2,389.4	308.8	694.1	639.7	54.48	12.741	
10,629.9	7,115.0	7,090.1	7,088.5	55.3	2.6	88.90	-2,389.4	308.8	707.7	652.6	55.02	12.861	
10,700.0	7,114.7	7,089.9	7,088.3	56.5	2.6	88.88	-2,389.4	308.8	743.1	686.8	56.29	13.201	
10,728.3	7,114.6	7,089.8	7,088.2	57.0	2.6	88.88	-2,389.4	308.8	758.8	702.0	56.80	13.358	
10,800.0	7,114.2	7,089.6	7,088.0	58.3	2.6	88.86	-2,389.4	308.8	801.6	743.5	58.10	13.795	
10,826.7	7,114.1	7,089.6	7,088.0	58.7	2.6	88.85	-2,389.4	308.8	818.6	760.0	58.59	13.971	
10,900.0	7,113.8	7,089.4	7,087.8	60.0	2.6	88.84	-2,389.4	308.8	867.7	807.7	59.93	14.479	
10,925.2	7,113.7	7,089.3	7,087.7	60.5	2.6	88.83	-2,389.4	308.8	885.3	824.9	60.39	14.661	
11,000.0	7,113.3	7,089.1	7,087.5	61.8	2.6	88.81	-2,389.4	308.8	939.8	878.0	61.75	15.218	
11,023.6	7,113.2	7,089.1	7,087.5	62.2	2.6	88.81	-2,389.4	308.8	957.5	895.3	62.19	15.398	
11,100.0	7,112.9	7,088.9	7,087.3	63.5	2.6	88.79	-2,389.4	308.8	1,016.6	953.0	63.59	15.988	
11,122.0	7,112.8	7,088.8	7,087.2	63.9	2.6	88.79	-2,389.4	308.8	1,034.1	970.1	63.99	16.160	
11,200.0	7,112.4	7,088.6	7,087.0	65.3	2.6	88.77	-2,389.4	308.9	1,097.2	1,031.8	65.42	16.771	
11,220.4	7,112.4	7,088.6	7,087.0	65.7	2.6	88.76	-2,389.4	308.9	1,114.1	1,048.3	65.80	16.931	
11,300.0	7,112.0	7,088.4	7,086.8	67.1	2.6	88.75	-2,389.4	308.9	1,180.8	1,113.5	67.27	17.554	
11,318.9	7,111.9	7,088.3	7,086.7	67.4	2.6	88.74	-2,389.4	308.9	1,196.8	1,129.2	67.61	17.700	
11,400.0	7,111.6	7,088.1	7,086.5	68.9	2.6	88.72	-2,389.4	308.9	1,266.7	1,197.6	69.11	18.328	
11,417.3	7,111.5	7,088.1	7,086.5	69.2	2.6	88.72	-2,389.4	308.9	1,281.8	1,212.3	69.43	18.461	
11,500.0	7,111.1	7,087.9	7,086.3	70.7	2.6	88.70	-2,389.4	308.9	1,354.6	1,283.6	70.96	19.088	
11,515.7	7,111.0	7,087.8	7,086.2	71.0	2.6	88.70	-2,389.4	308.9	1,368.5	1,297.3	71.26	19.206	
11,600.0	7,110.7	7,087.6	7,086.0	72.5	2.6	88.68	-2,389.4	308.9	1,444.0	1,371.2	72.82	19.830	
11,614.1	7,110.6	7,087.6	7,086.0	72.7	2.6	88.67	-2,389.4	308.9	1,456.8	1,383.7	73.08	19.934	
11,700.0	7,110.2	7,087.4	7,085.8	74.3	2.6	88.65	-2,389.4	308.9	1,534.8	1,460.1	74.68	20.552	
11,712.6	7,110.2	7,087.3	7,085.7	74.5	2.6	88.65	-2,389.4	308.9	1,546.3	1,471.4	74.91	20.642	
11,747.9	7,110.0	7,087.2	7,085.6	75.1	2.6	88.64	-2,389.4	308.9	1,578.6	1,503.0	75.57	20.890	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	1.0	1.0	0.0	0.0	-88.26	1.8	-60.0	60.0				
98.4	98.4	99.4	99.4	0.1	0.1	-88.26	1.8	-60.0	60.0	59.8	0.17	351.330	
100.0	100.0	101.0	101.0	0.1	0.1	-88.26	1.8	-60.0	60.0	59.8	0.18	342.281	
196.8	196.8	197.8	197.8	0.3	0.3	-88.26	1.8	-60.0	60.0	59.4	0.61	98.263	
200.0	200.0	201.0	201.0	0.3	0.3	-88.26	1.8	-60.0	60.0	59.4	0.62	96.036	
295.3	295.3	296.3	296.3	0.5	0.5	-88.26	1.8	-60.0	60.0	59.0	1.05	56.980	
300.0	300.0	301.0	301.0	0.5	0.5	-88.26	1.8	-60.0	60.0	58.9	1.07	55.853	
393.7	393.7	394.7	394.7	0.7	0.7	-88.26	1.8	-60.0	60.0	58.5	1.50	40.123	
400.0	400.0	401.0	401.0	0.8	0.8	-88.26	1.8	-60.0	60.0	58.5	1.52	39.378	
492.1	492.1	493.1	493.1	1.0	1.0	-88.26	1.8	-60.0	60.0	58.1	1.94	30.963	
500.0	500.0	501.0	501.0	1.0	1.0	-88.26	1.8	-60.0	60.0	58.0	1.97	30.408	
590.5	590.5	591.5	591.5	1.2	1.2	-88.26	1.8	-60.0	60.0	57.6	2.38	25.208	
600.0	600.0	601.0	601.0	1.2	1.2	-88.26	1.8	-60.0	60.0	57.6	2.42	24.766	
689.0	689.0	690.0	690.0	1.4	1.4	-88.26	1.8	-60.0	60.0	57.2	2.82	21.257	
700.0	700.0	701.0	701.0	1.4	1.4	-88.26	1.8	-60.0	60.0	57.1	2.87	20.890	
787.4	787.4	788.4	788.4	1.6	1.6	-88.26	1.8	-60.0	60.0	56.7	3.27	18.377	
800.0	800.0	801.0	801.0	1.7	1.7	-88.26	1.8	-60.0	60.0	56.7	3.32	18.064	
885.8	885.8	886.8	886.8	1.9	1.9	-88.26	1.8	-60.0	60.0	56.3	3.71	16.184	
900.0	900.0	901.0	901.0	1.9	1.9	-88.26	1.8	-60.0	60.0	56.2	3.77	15.911	
984.2	984.2	985.2	985.2	2.1	2.1	-88.26	1.8	-60.0	60.0	55.9	4.15	14.459	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-88.26	1.8	-60.0	60.0	55.8	4.22	14.216	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	2.3	-88.26	1.8	-60.0	60.0	55.4	4.59	13.066	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	2.3	-88.26	1.8	-60.0	60.0	55.3	4.67	12.848	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	2.5	-88.26	1.8	-60.0	60.0	55.0	5.04	11.918	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-88.26	1.8	-60.0	60.0	54.9	5.12	11.720	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	2.7	-88.26	1.8	-60.0	60.0	54.5	5.48	10.955	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-88.26	1.8	-60.0	60.0	54.4	5.57	10.774	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	3.0	-88.26	1.8	-60.0	60.0	54.1	5.92	10.136	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-88.26	1.8	-60.0	60.0	54.0	6.02	9.969	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	3.2	-88.26	1.8	-60.0	60.0	53.6	6.36	9.431	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	3.2	-88.26	1.8	-60.0	60.0	53.5	6.47	9.277	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	3.4	-88.26	1.8	-60.0	60.0	53.2	6.81	8.818	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	3.5	-88.26	1.8	-60.0	60.0	53.1	6.92	8.674	
1,673.2	1,673.2	1,674.2	1,674.2	3.6	3.6	-88.26	1.8	-60.0	60.0	52.8	7.25	8.280	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	3.7	-88.26	1.8	-60.0	60.0	52.6	7.37	8.145	
1,750.0	1,750.0	1,751.0	1,751.0	3.8	3.8	-88.26	1.8	-60.0	60.0	52.4	7.59	7.903 CC	
1,771.6	1,771.6	1,772.6	1,772.6	3.8	3.8	-130.32	1.8	-60.0	60.1	52.4	7.69	7.811 ES	
1,800.0	1,800.0	1,801.0	1,801.0	3.9	3.9	-130.57	1.8	-60.0	60.3	52.5	7.81	7.715	
1,870.1	1,870.0	1,871.0	1,871.0	4.1	4.1	-132.02	1.8	-60.0	61.7	53.5	8.12	7.592	
1,900.0	1,899.9	1,900.9	1,900.9	4.1	4.1	-132.96	1.8	-60.0	62.6	54.4	8.25	7.587	
1,968.5	1,968.3	1,969.3	1,969.3	4.3	4.3	-135.73	1.8	-60.0	65.7	57.1	8.55	7.684	
2,000.0	1,999.7	2,000.7	2,000.7	4.3	4.4	-137.22	1.8	-60.0	67.6	58.9	8.69	7.780	
2,066.9	2,066.3	2,067.3	2,067.3	4.5	4.5	-140.70	1.8	-60.0	72.6	63.6	8.97	8.089	
2,100.0	2,099.1	2,100.1	2,100.1	4.6	4.6	-142.50	1.8	-60.0	75.6	66.5	9.11	8.297	
2,165.3	2,163.9	2,165.0	2,165.0	4.7	4.7	-146.07	1.9	-60.0	82.7	73.3	9.38	8.810	
2,200.0	2,198.2	2,199.6	2,199.6	4.8	4.8	-147.70	2.3	-60.0	86.9	77.4	9.53	9.127	
2,263.8	2,261.0	2,263.3	2,263.2	5.0	4.9	-150.01	4.1	-60.0	95.6	85.8	9.79	9.764	
2,300.0	2,296.6	2,299.5	2,299.4	5.1	5.0	-150.98	5.7	-60.0	100.9	91.0	9.93	10.155	
2,362.2	2,357.6	2,361.6	2,361.5	5.3	5.2	-152.14	9.6	-59.9	110.6	100.4	10.19	10.855	
2,400.0	2,394.4	2,399.4	2,399.1	5.4	5.3	-152.60	12.7	-59.9	116.9	106.5	10.34	11.303	
2,460.6	2,453.4	2,460.1	2,459.5	5.6	5.4	-152.99	18.6	-59.9	127.5	116.9	10.60	12.034	
2,500.0	2,491.5	2,499.5	2,498.6	5.7	5.5	-153.06	23.1	-59.9	134.8	124.0	10.76	12.528	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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													NW NE SEC 30 T4N R67W 6th P.M. - OLSON 30M-223 - ORIGINAL WELLBORE - PROPOSAL #2		Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft		
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
2,559.0	2,548.3	2,558.5	2,557.1	5.9	5.6	-152.94	30.9	-59.9	146.1	135.1	11.01	13.269				
2,600.0	2,587.6	2,599.4	2,597.5	6.1	5.7	-152.74	37.0	-59.8	154.4	143.2	11.19	13.800				
2,657.5	2,642.4	2,656.7	2,654.1	6.3	5.9	-152.30	46.5	-59.8	166.5	155.0	11.45	14.534				
2,700.0	2,682.7	2,699.1	2,695.8	6.5	6.0	-151.89	54.3	-59.8	175.8	164.2	11.65	15.088				
2,750.0	2,729.8	2,748.9	2,744.6	6.8	6.1	-151.34	64.2	-59.7	187.2	175.3	11.90	15.725				
2,755.9	2,735.4	2,754.8	2,750.3	6.8	6.1	-151.28	65.4	-59.7	188.6	176.6	11.94	15.794				
2,800.0	2,776.8	2,798.8	2,793.2	7.0	6.2	-150.77	75.0	-59.7	198.7	186.5	12.21	16.279				
2,854.3	2,827.8	2,852.9	2,845.9	7.3	6.4	-149.96	87.6	-59.6	210.8	198.3	12.56	16.787				
2,900.0	2,870.8	2,898.3	2,889.8	7.5	6.6	-149.16	99.0	-59.6	220.9	208.0	12.86	17.167				
2,952.7	2,920.3	2,949.7	2,939.5	7.8	6.7	-148.28	112.1	-59.5	232.4	219.1	13.24	17.552				
3,000.0	2,964.7	2,995.7	2,984.0	8.1	6.9	-147.56	123.8	-59.5	242.7	229.2	13.58	17.878				
3,051.2	3,012.8	3,045.5	3,032.1	8.4	7.1	-146.85	136.5	-59.4	254.0	240.1	13.96	18.193				
3,100.0	3,058.7	3,093.0	3,078.1	8.7	7.2	-146.22	148.6	-59.4	264.8	250.5	14.33	18.477				
3,149.6	3,105.3	3,141.3	3,124.8	9.0	7.4	-145.64	161.0	-59.3	275.8	261.1	14.72	18.734				
3,200.0	3,152.7	3,190.4	3,172.3	9.3	7.6	-145.09	173.5	-59.3	287.0	271.8	15.12	18.981				
3,248.0	3,197.8	3,237.2	3,217.5	9.5	7.8	-144.61	185.4	-59.2	297.6	282.1	15.51	19.191				
3,300.0	3,246.6	3,287.8	3,266.4	9.9	8.0	-144.12	198.3	-59.1	309.2	293.3	15.94	19.404				
3,346.4	3,290.3	3,333.0	3,310.1	10.1	8.2	-143.72	209.8	-59.1	319.6	303.2	16.33	19.575				
3,400.0	3,340.6	3,385.1	3,360.6	10.5	8.4	-143.28	223.1	-59.0	331.5	314.8	16.78	19.760				
3,444.9	3,382.8	3,428.8	3,402.8	10.8	8.6	-142.94	234.3	-59.0	341.6	324.4	17.16	19.899				
3,500.0	3,434.6	3,482.5	3,454.7	11.1	8.8	-142.55	248.0	-58.9	353.9	336.3	17.64	20.060				
3,543.3	3,475.3	3,524.7	3,495.5	11.4	9.0	-142.26	258.7	-58.9	363.6	345.6	18.02	20.174				
3,600.0	3,528.6	3,579.9	3,548.9	11.7	9.2	-141.91	272.8	-58.8	376.3	357.8	18.53	20.313				
3,641.7	3,567.8	3,620.5	3,588.1	12.0	9.4	-141.66	283.2	-58.8	385.7	366.8	18.90	20.407				
3,700.0	3,622.5	3,677.2	3,643.0	12.4	9.6	-141.33	297.6	-58.7	398.8	379.4	19.43	20.528				
3,740.1	3,660.3	3,716.3	3,680.8	12.6	9.8	-141.12	307.6	-58.7	407.9	388.1	19.79	20.605				
3,749.0	3,668.6	3,725.0	3,689.1	12.7	9.9	-141.07	309.8	-58.7	409.8	390.0	19.87	20.621				
3,800.0	3,716.5	3,774.5	3,737.1	13.0	10.1	-143.77	322.5	-58.6	421.6	401.3	20.28	20.784				
3,838.6	3,752.8	3,811.9	3,773.2	13.2	10.3	-145.76	332.0	-58.6	430.8	410.2	20.58	20.931				
3,885.2	3,796.6	3,857.0	3,816.8	13.5	10.5	-148.11	343.5	-58.5	442.4	421.4	20.95	21.118				
3,900.0	3,810.5	3,871.3	3,830.6	13.6	10.5	-147.98	347.1	-58.5	446.1	425.0	21.08	21.160				
3,937.0	3,845.3	3,907.0	3,865.2	13.8	10.7	-147.64	356.2	-58.5	455.5	434.0	21.43	21.256				
4,000.0	3,904.5	3,967.8	3,923.9	14.2	11.0	-147.11	371.7	-58.4	471.4	449.4	22.02	21.410				
4,035.4	3,937.7	4,002.0	3,957.0	14.5	11.1	-146.82	380.5	-58.4	480.4	458.1	22.35	21.492				
4,100.0	3,998.4	4,064.3	4,017.3	14.9	11.4	-146.32	396.3	-58.3	496.9	473.9	22.97	21.634				
4,133.8	4,030.2	4,097.0	4,048.8	15.1	11.6	-146.08	404.7	-58.3	505.5	482.2	23.29	21.704				
4,200.0	4,092.4	4,160.8	4,110.6	15.5	11.9	-145.62	421.0	-58.2	522.4	498.4	23.92	21.835				
4,232.3	4,122.7	4,191.9	4,140.7	15.8	12.0	-145.40	428.9	-58.2	530.6	506.4	24.23	21.896				
4,300.0	4,186.4	4,257.3	4,203.9	16.2	12.3	-144.98	445.6	-58.1	547.9	523.1	24.89	22.017				
4,330.7	4,215.2	4,286.9	4,232.5	16.4	12.5	-144.79	453.1	-58.1	555.8	530.6	25.18	22.070				
4,400.0	4,280.3	4,353.8	4,297.2	16.9	12.8	-144.39	470.2	-58.0	573.6	547.7	25.86	22.182				
4,429.1	4,307.7	4,381.9	4,324.4	17.1	12.9	-144.23	477.3	-58.0	581.0	554.9	26.14	22.227				
4,500.0	4,374.3	4,450.3	4,390.5	17.6	13.3	-143.86	494.8	-57.9	599.3	572.4	26.83	22.332				
4,527.5	4,400.2	4,476.9	4,416.2	17.7	13.4	-143.72	501.6	-57.9	606.3	579.2	27.10	22.371				
4,600.0	4,468.3	4,546.8	4,483.8	18.2	13.7	-143.37	519.4	-57.8	625.0	597.2	27.81	22.469				
4,626.0	4,492.7	4,571.9	4,508.0	18.4	13.8	-143.25	525.8	-57.8	631.7	603.6	28.07	22.503				
4,700.0	4,562.3	4,643.3	4,577.1	18.9	14.2	-142.92	544.0	-57.7	650.7	621.9	28.80	22.595				
4,724.4	4,585.2	4,666.8	4,599.9	19.1	14.3	-142.82	550.0	-57.7	657.0	628.0	29.04	22.623				
4,800.0	4,656.2	4,739.8	4,670.4	19.6	14.7	-142.50	568.6	-57.6	676.5	646.8	29.79	22.709				
4,822.8	4,677.7	4,761.8	4,691.7	19.7	14.8	-142.41	574.2	-57.5	682.4	652.4	30.02	22.734				
4,900.0	4,750.2	4,836.3	4,763.7	20.3	15.1	-142.12	593.2	-57.5	702.4	671.6	30.79	22.815				
4,921.2	4,770.2	4,856.8	4,783.6	20.4	15.2	-142.04	598.5	-57.4	707.9	676.9	31.00	22.836				

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
5,000.0	4,844.2	4,932.8	4,857.0	20.9	15.6	-141.76	617.8	-57.4	728.2	696.5	31.78	22.912	
5,019.7	4,862.7	4,951.8	4,875.4	21.1	15.7	-141.69	622.7	-57.3	733.3	701.4	31.98	22.930	
5,100.0	4,938.1	5,029.3	4,950.4	21.6	16.1	-141.42	642.5	-57.3	754.1	721.3	32.78	23.002	
5,118.1	4,955.1	5,046.8	4,967.2	21.7	16.2	-141.37	646.9	-57.2	758.8	725.8	32.97	23.018	
5,200.0	5,032.1	5,125.8	5,043.7	22.3	16.6	-141.11	667.1	-57.2	780.0	746.2	33.79	23.085	
5,216.5	5,047.6	5,141.8	5,059.1	22.4	16.6	-141.06	671.1	-57.1	784.3	750.4	33.96	23.099	
5,300.0	5,126.1	5,222.3	5,137.0	23.0	17.0	-140.82	691.7	-57.0	806.0	771.2	34.80	23.163	
5,314.9	5,140.1	5,236.7	5,150.9	23.1	17.1	-140.78	695.4	-57.0	809.8	774.9	34.95	23.174	
5,400.0	5,220.0	5,318.8	5,230.3	23.7	17.5	-140.55	716.3	-56.9	831.9	796.1	35.80	23.235	
5,413.4	5,232.6	5,331.7	5,242.8	23.8	17.6	-140.51	719.6	-56.9	835.4	799.4	35.94	23.244	
5,504.2	5,318.0	5,419.4	5,327.5	24.4	18.0	-140.28	741.9	-56.8	859.0	822.1	36.86	23.304	
5,511.8	5,325.1	5,426.7	5,334.6	24.4	18.1	-140.28	743.8	-56.8	860.9	824.0	36.94	23.308	
5,600.0	5,408.5	5,512.1	5,417.2	24.9	18.5	-140.29	765.6	-56.7	882.7	844.8	37.87	23.310	
5,610.2	5,418.2	5,522.0	5,426.8	25.0	18.6	-140.28	768.1	-56.7	885.0	847.1	37.97	23.310	
5,700.0	5,504.1	5,609.3	5,511.2	25.4	19.0	-140.14	790.4	-56.6	904.9	866.0	38.87	23.279	
5,708.6	5,512.4	5,617.8	5,519.4	25.5	19.0	-140.12	792.5	-56.6	906.7	867.7	38.96	23.275	
5,800.0	5,600.7	5,707.0	5,605.6	25.9	19.5	-139.84	815.3	-56.5	924.5	884.7	39.86	23.193	
5,807.1	5,607.5	5,713.9	5,612.3	25.9	19.5	-139.81	817.1	-56.5	925.8	885.9	39.93	23.185	
5,900.0	5,698.1	5,804.8	5,700.4	26.3	19.9	-139.43	839.6	-56.4	941.7	900.9	40.79	23.084	
5,905.5	5,703.4	5,810.2	5,705.6	26.3	20.0	-139.41	840.9	-56.4	942.6	901.7	40.84	23.081	
6,000.0	5,796.2	5,903.2	5,796.4	26.6	20.3	-139.06	861.1	-56.3	956.3	914.8	41.57	23.004	
6,003.9	5,800.1	5,907.1	5,800.2	26.6	20.3	-139.04	861.9	-56.3	956.9	915.3	41.60	23.002	
6,100.0	5,894.9	6,002.4	5,893.9	26.9	20.6	-138.73	879.4	-56.3	968.5	926.2	42.26	22.916	
6,102.3	5,897.3	6,004.8	5,896.2	26.9	20.6	-138.73	879.8	-56.2	968.7	926.4	42.28	22.914	
6,200.0	5,994.2	6,102.3	5,992.6	27.2	20.9	-138.45	894.5	-56.2	978.0	935.1	42.86	22.819	
6,200.8	5,994.9	6,103.1	5,993.4	27.2	20.9	-138.45	894.6	-56.2	978.0	935.2	42.86	22.818	
6,299.2	6,093.0	6,201.9	6,091.5	27.4	21.2	-138.21	906.0	-56.1	984.8	941.5	43.35	22.715	
6,300.0	6,093.8	6,202.7	6,092.3	27.4	21.2	-138.21	906.1	-56.1	984.9	941.5	43.36	22.715	
6,397.6	6,191.2	6,301.0	6,190.4	27.5	21.4	-138.01	914.0	-56.1	989.0	945.3	43.75	22.604	
6,400.0	6,193.6	6,303.4	6,192.8	27.5	21.4	-138.00	914.2	-56.1	989.1	945.3	43.76	22.602	
6,496.0	6,289.6	6,400.5	6,289.7	27.6	21.5	-137.84	918.7	-56.1	990.6	946.6	44.06	22.485	
6,504.1	6,297.7	6,408.6	6,297.8	27.6	21.5	-87.85	918.9	-56.1	990.6	946.6	44.08	22.475	
6,594.5	6,388.1	6,499.9	6,389.1	27.7	21.7	-87.79	919.9	-56.1	990.7	946.3	44.32	22.353	
6,600.0	6,393.6	6,505.4	6,394.6	27.7	21.7	-87.79	919.9	-56.1	990.7	946.3	44.33	22.346	
6,618.2	6,411.8	6,524.1	6,413.3	27.8	21.7	-87.80	919.9	-56.1	990.7	946.3	44.38	22.323	
6,650.0	6,443.6	6,557.7	6,446.8	27.8	21.7	92.17	918.6	-56.1	990.6	946.2	44.43	22.295	
6,692.9	6,486.4	6,602.9	6,491.9	27.8	21.7	92.13	914.5	-56.1	990.6	946.2	44.44	22.290	
6,700.0	6,493.4	6,610.4	6,499.3	27.8	21.7	92.12	913.5	-56.1	990.6	946.2	44.44	22.292	
6,750.0	6,542.8	6,663.0	6,551.2	27.8	21.7	92.06	904.6	-56.1	990.6	946.2	44.36	22.332	
6,791.3	6,583.2	6,706.5	6,593.4	27.7	21.6	92.00	894.4	-56.1	990.5	946.3	44.23	22.397	
6,800.0	6,591.6	6,715.6	6,602.2	27.7	21.6	91.99	891.9	-56.1	990.5	946.3	44.19	22.414	
6,850.0	6,639.6	6,768.0	6,652.0	27.6	21.5	91.91	875.5	-56.1	990.5	946.5	43.95	22.538	
6,889.7	6,676.9	6,809.7	6,690.6	27.6	21.4	91.83	860.0	-56.1	990.4	946.7	43.70	22.665	
6,900.0	6,686.4	6,820.4	6,700.4	27.5	21.3	91.81	855.6	-56.1	990.4	946.8	43.63	22.701	
6,950.0	6,731.8	6,872.6	6,747.0	27.4	21.1	91.71	832.3	-56.1	990.4	947.1	43.25	22.901	
6,988.2	6,765.5	6,912.3	6,781.4	27.3	21.0	91.63	812.3	-56.1	990.3	947.4	42.91	23.078	
7,000.0	6,775.8	6,924.6	6,791.8	27.2	20.9	91.60	805.7	-56.1	990.3	947.5	42.81	23.135	
7,050.0	6,817.9	6,976.5	6,834.3	27.1	20.7	91.48	776.1	-56.1	990.3	947.9	42.32	23.401	
7,086.6	6,847.5	7,014.4	6,864.0	26.9	20.5	91.39	752.5	-56.1	990.2	948.3	41.93	23.615	
7,100.0	6,858.1	7,028.2	6,874.5	26.9	20.4	91.36	743.5	-56.1	990.2	948.4	41.79	23.695	
7,150.0	6,896.1	7,079.8	6,912.1	26.6	20.2	91.23	708.2	-56.1	990.2	948.9	41.24	24.011	
7,185.0	6,921.3	7,115.8	6,936.8	26.5	20.0	91.13	682.1	-56.1	990.1	949.3	40.84	24.244	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
7,200.0	6,931.7	7,131.2	6,947.0	26.4	19.9	91.09	670.5	-56.1	990.1	949.4	40.67	24.344	
7,250.0	6,964.8	7,182.4	6,978.9	26.2	19.6	90.95	630.5	-56.1	990.1	950.0	40.10	24.688	
7,283.4	6,985.4	7,216.5	6,998.6	26.0	19.5	90.85	602.6	-56.1	990.0	950.3	39.73	24.920	
7,300.0	6,995.2	7,233.4	7,007.9	25.9	19.4	90.80	588.5	-56.1	990.0	950.5	39.55	25.035	
7,350.0	7,022.7	7,284.2	7,033.6	25.7	19.1	90.65	544.7	-56.1	990.0	951.0	39.01	25.375	
7,381.9	7,038.8	7,316.5	7,048.3	25.5	19.0	90.55	516.0	-56.1	990.0	951.3	38.70	25.584	
7,400.0	7,047.3	7,334.8	7,056.1	25.4	18.9	90.50	499.4	-56.1	990.0	951.4	38.52	25.701	
7,450.0	7,068.8	7,385.3	7,075.3	25.1	18.7	90.34	452.7	-56.1	989.9	951.9	38.07	26.002	
7,480.3	7,080.3	7,415.7	7,085.3	25.0	18.6	90.24	423.9	-56.1	989.9	952.1	37.83	26.166	
7,500.0	7,087.1	7,435.5	7,091.1	24.9	18.6	90.18	405.1	-56.1	989.9	952.3	37.68	26.269	
7,550.0	7,102.1	7,485.6	7,103.5	24.6	18.4	90.02	356.6	-56.1	989.9	952.6	37.37	26.492	
7,556.8	7,103.9	7,492.3	7,104.9	24.6	18.4	90.00	349.9	-56.1	989.9	952.6	37.33	26.518	
7,578.7	7,109.2	7,514.2	7,109.1	24.5	18.4	89.93	328.4	-56.1	989.9	952.7	37.22	26.595	
7,600.0	7,113.7	7,535.4	7,112.4	24.4	18.3	89.87	307.5	-56.1	989.9	952.8	37.13	26.664	
7,650.0	7,121.9	7,585.1	7,117.9	24.2	18.3	89.71	258.2	-56.1	989.9	953.0	36.97	26.779	
7,677.1	7,125.0	7,612.0	7,119.5	24.1	18.3	89.62	231.3	-56.1	990.0	953.0	36.92	26.812	
7,700.0	7,126.7	7,634.6	7,120.0	24.0	18.3	89.55	208.7	-56.1	990.0	953.1	36.89	26.833	
7,746.5	7,128.0	7,680.9	7,119.9	23.8	18.3	89.47	162.4	-56.1	990.0	953.1	36.92	26.816	
7,775.6	7,127.9	7,710.1	7,119.8	23.7	18.4	89.48	133.3	-56.1	990.0	953.1	36.89	26.834	
7,800.0	7,127.7	7,734.5	7,119.8	23.6	18.5	89.48	108.8	-56.1	990.0	953.1	36.90	26.830	
7,874.0	7,127.4	7,808.5	7,119.6	23.4	18.7	89.49	34.8	-56.1	990.0	953.2	36.81	26.893	
7,900.0	7,127.3	7,834.5	7,119.5	23.4	18.8	89.49	8.8	-56.1	990.0	953.1	36.83	26.883	
7,972.4	7,127.0	7,906.9	7,119.3	23.3	19.1	89.50	-63.6	-56.1	990.0	953.0	37.02	26.742	
8,000.0	7,126.8	7,934.5	7,119.3	23.3	19.3	89.50	-91.2	-56.1	990.0	952.8	37.14	26.657	
8,070.8	7,126.5	8,005.3	7,119.1	23.4	19.8	89.51	-162.0	-56.1	990.0	952.4	37.59	26.333	
8,100.0	7,126.4	8,034.5	7,119.0	23.5	20.0	89.52	-191.2	-56.1	990.0	952.1	37.83	26.172	
8,169.3	7,126.1	8,103.8	7,118.9	23.7	20.6	89.52	-260.4	-56.1	990.0	951.4	38.52	25.697	
8,200.0	7,125.9	8,134.5	7,118.8	23.8	20.9	89.53	-291.2	-56.1	990.0	951.1	38.88	25.465	
8,267.7	7,125.6	8,202.2	7,118.6	24.1	21.5	89.54	-358.9	-56.1	990.0	950.2	39.79	24.882	
8,300.0	7,125.5	8,234.5	7,118.5	24.2	21.8	89.54	-391.2	-56.1	990.0	949.7	40.26	24.589	
8,366.1	7,125.2	8,300.6	7,118.4	24.6	22.5	89.55	-457.3	-56.1	990.0	948.6	41.35	23.939	
8,400.0	7,125.0	8,334.5	7,118.3	24.8	22.9	89.55	-491.2	-56.1	990.0	948.0	41.95	23.599	
8,464.5	7,124.7	8,399.0	7,118.1	25.3	23.7	89.56	-555.7	-56.1	990.0	946.8	43.20	22.918	
8,500.0	7,124.6	8,434.5	7,118.0	25.6	24.1	89.56	-591.2	-56.1	990.0	946.0	43.91	22.544	
8,563.0	7,124.3	8,497.5	7,117.9	26.1	24.9	89.57	-654.1	-56.1	990.0	944.7	45.28	21.862	
8,600.0	7,124.1	8,534.5	7,117.8	26.4	25.4	89.58	-691.2	-56.1	990.0	943.8	46.12	21.467	
8,661.4	7,123.8	8,595.9	7,117.7	26.9	26.3	89.58	-752.6	-56.1	990.0	942.4	47.58	20.806	
8,700.0	7,123.7	8,634.5	7,117.6	27.3	26.8	89.59	-791.2	-56.1	990.0	941.4	48.53	20.401	
8,759.8	7,123.4	8,694.3	7,117.4	27.9	27.7	89.60	-851.0	-56.1	990.0	939.9	50.06	19.775	
8,800.0	7,123.2	8,734.5	7,117.3	28.3	28.2	89.60	-891.2	-56.1	990.0	938.8	51.11	19.368	
8,858.2	7,123.0	8,792.7	7,117.2	28.9	29.1	89.61	-949.4	-56.1	990.0	937.3	52.70	18.784	
8,900.0	7,122.8	8,834.5	7,117.1	29.4	29.7	89.61	-991.2	-56.1	990.0	936.1	53.86	18.382	
8,956.7	7,122.5	8,891.2	7,116.9	30.0	30.6	89.62	-1,047.8	-56.1	990.0	934.5	55.47	17.845	
9,000.0	7,122.3	8,934.5	7,116.8	30.5	31.3	89.62	-1,091.2	-56.1	990.0	933.2	56.73	17.451	
9,055.1	7,122.1	8,989.6	7,116.7	31.2	32.1	89.63	-1,146.3	-56.1	990.0	931.6	58.36	16.962	
9,100.0	7,121.9	9,034.5	7,116.6	31.7	32.8	89.64	-1,191.2	-56.1	990.0	930.2	59.71	16.579	
9,153.5	7,121.6	9,088.0	7,116.4	32.4	33.7	89.64	-1,244.7	-56.1	990.0	928.6	61.35	16.135	
9,200.0	7,121.4	9,134.5	7,116.3	33.0	34.5	89.65	-1,291.2	-56.1	990.0	927.2	62.79	15.766	
9,251.9	7,121.2	9,186.4	7,116.2	33.7	35.3	89.65	-1,343.1	-56.1	990.0	925.5	64.43	15.365	
9,300.0	7,121.0	9,234.5	7,116.1	34.3	36.1	89.66	-1,391.2	-56.1	990.0	924.0	65.95	15.010	
9,350.4	7,120.7	9,284.9	7,115.9	35.0	36.9	89.66	-1,441.5	-56.1	990.0	922.4	67.57	14.650	
9,400.0	7,120.5	9,334.5	7,115.8	35.7	37.8	89.67	-1,491.2	-56.1	990.0	920.8	69.18	14.309	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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
9,448.8	7,120.3	9,383.3	7,115.7	36.4	38.6	89.68	-1,540.0	-56.1	990.0	919.2	70.79	13.985	
9,500.0	7,120.1	9,434.5	7,115.6	37.2	39.5	89.68	-1,591.2	-56.1	990.0	917.5	72.47	13.659	
9,547.2	7,119.9	9,481.7	7,115.5	37.8	40.3	89.69	-1,638.4	-56.1	990.0	915.9	74.05	13.369	
9,600.0	7,119.6	9,534.5	7,115.3	38.6	41.2	89.69	-1,691.2	-56.1	990.0	914.1	75.82	13.057	
9,645.6	7,119.4	9,580.1	7,115.2	39.3	42.0	89.70	-1,736.8	-56.1	990.0	912.6	77.36	12.796	
9,700.0	7,119.2	9,634.5	7,115.1	40.1	42.9	89.71	-1,791.2	-56.1	990.0	910.7	79.21	12.498	
9,744.1	7,119.0	9,678.6	7,115.0	40.8	43.7	89.71	-1,835.2	-56.1	990.0	909.2	80.72	12.264	
9,800.0	7,118.7	9,734.5	7,114.8	41.7	44.6	89.72	-1,891.2	-56.1	990.0	907.3	82.64	11.979	
9,842.5	7,118.5	9,777.0	7,114.7	42.3	45.4	89.72	-1,933.7	-56.1	990.0	905.8	84.11	11.769	
9,858.6	7,118.5	9,793.0	7,114.7	42.6	45.7	89.72	-1,949.7	-56.1	990.0	905.3	84.67	11.692	
9,900.0	7,118.3	9,834.5	7,114.6	43.2	46.4	89.73	-1,991.2	-56.1	990.0	903.8	86.11	11.497	
9,940.9	7,118.1	9,875.4	7,114.5	43.9	47.1	89.73	-2,032.1	-56.1	990.0	902.4	87.54	11.309	
10,000.0	7,117.8	9,934.5	7,114.3	44.8	48.2	89.74	-2,091.2	-56.1	990.0	900.4	89.60	11.048	
10,039.3	7,117.6	9,973.8	7,114.2	45.5	48.9	89.74	-2,130.5	-56.1	990.0	899.0	90.99	10.880	
10,100.0	7,117.4	10,034.5	7,114.1	46.4	50.0	89.75	-2,191.2	-56.1	990.0	896.8	93.13	10.630	
10,137.8	7,117.2	10,072.3	7,114.0	47.1	50.6	89.76	-2,228.9	-56.1	990.0	895.5	94.47	10.479	
10,200.0	7,116.9	10,134.5	7,113.8	48.1	51.7	89.76	-2,291.2	-56.1	990.0	893.3	96.68	10.240	
10,236.2	7,116.8	10,170.7	7,113.7	48.7	52.4	89.77	-2,327.4	-56.1	990.0	892.0	97.97	10.105	
10,300.0	7,116.5	10,234.5	7,113.6	49.7	53.5	89.77	-2,391.2	-56.1	990.0	889.7	100.25	9.875	
10,334.6	7,116.3	10,269.1	7,113.5	50.3	54.2	89.78	-2,425.8	-56.1	990.0	888.5	101.49	9.754	
10,400.0	7,116.0	10,334.5	7,113.3	51.4	55.4	89.79	-2,491.1	-56.1	990.0	886.1	103.84	9.534	
10,433.0	7,115.9	10,367.5	7,113.2	52.0	56.0	89.79	-2,524.2	-56.1	990.0	884.9	105.03	9.425	
10,500.0	7,115.6	10,434.5	7,113.1	53.1	57.2	89.80	-2,591.1	-56.1	990.0	882.5	107.45	9.213	
10,531.5	7,115.4	10,466.0	7,113.0	53.6	57.7	89.80	-2,622.6	-56.1	990.0	881.4	108.59	9.117	
10,600.0	7,115.1	10,534.5	7,112.8	54.8	59.0	89.81	-2,691.1	-56.1	990.0	878.9	111.07	8.913	
10,629.9	7,115.0	10,564.4	7,112.8	55.3	59.5	89.81	-2,721.0	-56.1	990.0	877.8	112.16	8.826	
10,700.0	7,114.7	10,634.5	7,112.6	56.5	60.8	89.82	-2,791.1	-56.1	990.0	875.2	114.71	8.630	
10,728.3	7,114.6	10,662.8	7,112.5	57.0	61.3	89.82	-2,819.5	-56.1	990.0	874.2	115.74	8.553	
10,800.0	7,114.2	10,734.5	7,112.3	58.3	62.7	89.83	-2,891.1	-56.1	990.0	871.6	118.36	8.364	
10,826.7	7,114.1	10,761.2	7,112.3	58.7	63.1	89.83	-2,917.9	-56.1	990.0	870.6	119.34	8.295	
10,900.0	7,113.8	10,834.5	7,112.1	60.0	64.5	89.84	-2,991.1	-56.1	990.0	867.9	122.02	8.113	
10,925.2	7,113.7	10,859.7	7,112.0	60.5	65.0	89.85	-3,016.3	-56.1	990.0	867.0	122.95	8.052	
11,000.0	7,113.3	10,934.5	7,111.8	61.8	66.3	89.85	-3,091.1	-56.1	990.0	864.3	125.70	7.876	
11,023.6	7,113.2	10,958.1	7,111.8	62.2	66.8	89.86	-3,114.7	-56.1	990.0	863.4	126.57	7.822	
11,100.0	7,112.9	11,034.5	7,111.6	63.5	68.2	89.87	-3,191.1	-56.1	990.0	860.6	129.38	7.652	
11,122.0	7,112.8	11,056.5	7,111.5	63.9	68.6	89.87	-3,213.2	-56.1	990.0	859.8	130.19	7.604	
11,200.0	7,112.4	11,134.5	7,111.3	65.3	70.0	89.88	-3,291.1	-56.1	990.0	856.9	133.07	7.439	
11,220.4	7,112.4	11,154.9	7,111.3	65.7	70.4	89.88	-3,311.6	-56.1	990.0	856.1	133.83	7.397	
11,300.0	7,112.0	11,234.5	7,111.1	67.1	71.9	89.89	-3,391.1	-56.1	990.0	853.2	136.77	7.238	
11,318.9	7,111.9	11,253.4	7,111.0	67.4	72.2	89.89	-3,410.0	-56.1	990.0	852.5	137.47	7.201	
11,400.0	7,111.6	11,334.5	7,110.8	68.9	73.8	89.90	-3,491.1	-56.1	990.0	849.5	140.48	7.047	
11,417.3	7,111.5	11,351.8	7,110.8	69.2	74.1	89.90	-3,508.4	-56.1	990.0	848.8	141.13	7.015	
11,500.0	7,111.1	11,434.5	7,110.6	70.7	75.6	89.91	-3,591.1	-56.1	990.0	845.8	144.20	6.865	
11,515.7	7,111.0	11,450.2	7,110.5	71.0	75.9	89.91	-3,606.9	-56.1	990.0	845.2	144.78	6.838	
11,600.0	7,110.7	11,534.5	7,110.3	72.5	77.5	89.92	-3,691.1	-56.1	990.0	842.0	147.92	6.693	
11,614.1	7,110.6	11,548.6	7,110.3	72.7	77.7	89.92	-3,705.3	-56.1	990.0	841.5	148.45	6.669	
11,700.0	7,110.2	11,634.5	7,110.1	74.3	79.4	89.93	-3,791.1	-56.1	990.0	838.3	151.65	6.528	
11,712.6	7,110.2	11,647.1	7,110.0	74.5	79.6	89.93	-3,803.7	-56.1	990.0	837.9	152.12	6.508	
11,747.9	7,110.0	11,655.0	7,110.0	75.1	79.7	89.94	-3,811.7	-56.1	990.3	837.4	152.92	6.476 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	1.0	1.0	0.0	0.0	-88.14	1.5	-44.9	44.9				
98.4	98.4	99.4	99.4	0.1	0.1	-88.14	1.5	-44.9	44.9	44.8	0.17	263.106	
100.0	100.0	101.0	101.0	0.1	0.1	-88.14	1.5	-44.9	44.9	44.8	0.18	256.330	
196.8	196.8	197.8	197.8	0.3	0.3	-88.14	1.5	-44.9	44.9	44.3	0.61	73.588	
200.0	200.0	201.0	201.0	0.3	0.3	-88.14	1.5	-44.9	44.9	44.3	0.62	71.920	
295.3	295.3	296.3	296.3	0.5	0.5	-88.14	1.5	-44.9	44.9	43.9	1.05	42.672	
300.0	300.0	301.0	301.0	0.5	0.5	-88.14	1.5	-44.9	44.9	43.9	1.07	41.828	
393.7	393.7	394.7	394.7	0.7	0.7	-88.14	1.5	-44.9	44.9	43.4	1.50	30.048	
400.0	400.0	401.0	401.0	0.8	0.8	-88.14	1.5	-44.9	44.9	43.4	1.52	29.489	
492.1	492.1	493.1	493.1	1.0	1.0	-88.14	1.5	-44.9	44.9	43.0	1.94	23.188	
500.0	500.0	501.0	501.0	1.0	1.0	-88.14	1.5	-44.9	44.9	43.0	1.97	22.772	
590.5	590.5	591.5	591.5	1.2	1.2	-88.14	1.5	-44.9	44.9	42.6	2.38	18.878	
600.0	600.0	601.0	601.0	1.2	1.2	-88.14	1.5	-44.9	44.9	42.5	2.42	18.547	
689.0	689.0	690.0	690.0	1.4	1.4	-88.14	1.5	-44.9	44.9	42.1	2.82	15.919	
700.0	700.0	701.0	701.0	1.4	1.4	-88.14	1.5	-44.9	44.9	42.1	2.87	15.645	
787.4	787.4	788.4	788.4	1.6	1.6	-88.14	1.5	-44.9	44.9	41.7	3.27	13.762	
800.0	800.0	801.0	801.0	1.7	1.7	-88.14	1.5	-44.9	44.9	41.6	3.32	13.528	
885.8	885.8	886.8	886.8	1.9	1.9	-88.14	1.5	-44.9	44.9	41.2	3.71	12.120	
900.0	900.0	901.0	901.0	1.9	1.9	-88.14	1.5	-44.9	44.9	41.2	3.77	11.915	
984.2	984.2	985.2	985.2	2.1	2.1	-88.14	1.5	-44.9	44.9	40.8	4.15	10.828	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-88.14	1.5	-44.9	44.9	40.7	4.22	10.646	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	2.3	-88.14	1.5	-44.9	44.9	40.3	4.59	9.785	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	2.3	-88.14	1.5	-44.9	44.9	40.3	4.67	9.622	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	2.5	-88.14	1.5	-44.9	44.9	39.9	5.04	8.925	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-88.14	1.5	-44.9	44.9	39.8	5.12	8.777	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	2.7	-88.14	1.5	-44.9	44.9	39.5	5.48	8.204	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-88.14	1.5	-44.9	44.9	39.4	5.57	8.068	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	3.0	-88.14	1.5	-44.9	44.9	39.0	5.92	7.591	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-88.14	1.5	-44.9	44.9	38.9	6.02	7.466	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	3.2	-88.14	1.5	-44.9	44.9	38.6	6.36	7.063	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	3.2	-88.14	1.5	-44.9	44.9	38.5	6.47	6.947	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	3.4	-88.14	1.5	-44.9	44.9	38.1	6.81	6.604	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	3.5	-88.14	1.5	-44.9	44.9	38.0	6.92	6.496	
1,673.2	1,673.2	1,674.2	1,674.2	3.6	3.6	-88.14	1.5	-44.9	44.9	37.7	7.25	6.201	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	3.7	-88.14	1.5	-44.9	44.9	37.6	7.37	6.099	
1,750.0	1,750.0	1,751.0	1,751.0	3.8	3.8	-88.14	1.5	-44.9	44.9	37.3	7.59	5.919 CC	
1,771.6	1,771.6	1,772.6	1,772.6	3.8	3.8	-130.22	1.5	-44.9	45.0	37.3	7.69	5.851 ES	
1,800.0	1,800.0	1,801.0	1,801.0	3.9	3.9	-130.56	1.5	-44.9	45.2	37.4	7.81	5.787	
1,870.1	1,870.0	1,871.0	1,871.0	4.1	4.1	-132.48	1.5	-44.9	46.6	38.5	8.12	5.737	
1,900.0	1,899.9	1,900.9	1,900.9	4.1	4.1	-133.72	1.5	-44.9	47.6	39.3	8.25	5.764	
1,968.5	1,968.3	1,969.3	1,969.3	4.3	4.3	-137.27	1.5	-44.9	50.7	42.2	8.55	5.931	
2,000.0	1,999.7	2,000.7	2,000.7	4.3	4.4	-139.14	1.5	-44.9	52.6	43.9	8.68	6.060	
2,066.9	2,066.3	2,067.4	2,067.4	4.5	4.5	-143.33	1.5	-44.9	57.8	48.8	8.97	6.442	
2,100.0	2,099.1	2,100.6	2,100.6	4.6	4.6	-145.14	1.9	-44.8	60.7	51.6	9.11	6.667	
2,165.3	2,163.9	2,166.3	2,166.3	4.7	4.7	-147.93	3.7	-44.3	67.1	57.7	9.38	7.149	
2,200.0	2,198.2	2,201.2	2,201.1	4.8	4.8	-149.03	5.3	-43.9	70.7	61.2	9.52	7.421	
2,263.8	2,261.0	2,265.5	2,265.3	5.0	5.0	-150.49	9.3	-42.8	77.7	67.9	9.79	7.941	
2,300.0	2,296.6	2,302.0	2,301.7	5.1	5.0	-151.05	12.2	-42.0	81.9	72.0	9.93	8.248	
2,362.2	2,357.6	2,364.8	2,364.2	5.3	5.2	-151.63	18.1	-40.4	89.5	79.3	10.19	8.780	
2,400.0	2,394.4	2,403.0	2,402.1	5.4	5.3	-151.79	22.4	-39.3	94.3	84.0	10.35	9.113	
2,460.6	2,453.4	2,464.3	2,462.9	5.6	5.4	-151.79	30.3	-37.2	102.3	91.7	10.61	9.643	
2,500.0	2,491.5	2,504.2	2,502.3	5.7	5.5	-151.65	36.2	-35.6	107.7	97.0	10.78	9.996	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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
2,559.0	2,548.3	2,563.9	2,561.2	5.9	5.7	-151.28	45.9	-33.0	116.1	105.1	11.05	10.512	
2,600.0	2,587.6	2,605.4	2,602.0	6.1	5.8	-150.92	53.3	-31.0	122.2	111.0	11.23	10.876	
2,657.5	2,642.4	2,663.7	2,659.0	6.3	5.9	-150.31	64.7	-28.0	131.0	119.5	11.52	11.370	
2,700.0	2,682.7	2,706.8	2,701.0	6.5	6.0	-149.80	73.9	-25.5	137.7	126.0	11.73	11.737	
2,750.0	2,729.8	2,757.5	2,750.3	6.8	6.2	-149.13	85.4	-22.4	145.9	133.9	12.00	12.153	
2,755.9	2,735.4	2,763.4	2,756.1	6.8	6.2	-149.06	86.8	-22.0	146.8	134.8	12.04	12.196	
2,800.0	2,776.8	2,806.9	2,798.2	7.0	6.4	-148.54	97.2	-19.3	154.1	141.8	12.32	12.508	
2,854.3	2,827.8	2,860.5	2,850.1	7.3	6.5	-147.97	109.9	-15.8	163.1	150.4	12.68	12.860	
2,900.0	2,870.8	2,905.5	2,893.8	7.5	6.7	-147.54	120.6	-13.0	170.7	157.7	12.99	13.138	
2,952.7	2,920.3	2,957.5	2,944.2	7.8	6.9	-147.08	133.0	-9.7	179.4	166.1	13.36	13.427	
3,000.0	2,964.7	3,004.1	2,989.3	8.1	7.1	-146.71	144.1	-6.7	187.3	173.6	13.70	13.673	
3,051.2	3,012.8	3,054.5	3,038.2	8.4	7.2	-146.34	156.1	-3.5	195.8	181.7	14.07	13.912	
3,100.0	3,058.7	3,102.6	3,084.8	8.7	7.4	-146.02	167.5	-0.4	203.9	189.5	14.43	14.127	
3,149.6	3,105.3	3,151.5	3,132.2	9.0	7.6	-145.71	179.1	2.7	212.1	197.3	14.81	14.324	
3,200.0	3,152.7	3,201.2	3,180.4	9.3	7.8	-145.43	191.0	5.9	220.5	205.3	15.20	14.513	
3,248.0	3,197.8	3,248.6	3,226.3	9.5	8.0	-145.18	202.2	8.9	228.5	213.0	15.57	14.675	
3,300.0	3,246.6	3,299.8	3,275.9	9.9	8.2	-144.92	214.4	12.2	237.2	221.2	15.98	14.842	
3,346.4	3,290.3	3,345.6	3,320.3	10.1	8.4	-144.71	225.3	15.1	245.0	228.6	16.36	14.975	
3,400.0	3,340.6	3,398.4	3,371.5	10.5	8.6	-144.48	237.8	18.5	253.9	237.1	16.79	15.122	
3,444.9	3,382.8	3,442.6	3,414.4	10.8	8.8	-144.30	248.4	21.3	261.4	244.2	17.16	15.232	
3,500.0	3,434.6	3,497.0	3,467.0	11.1	9.0	-144.10	261.3	24.7	270.6	253.0	17.62	15.361	
3,543.3	3,475.3	3,539.6	3,508.4	11.4	9.2	-143.95	271.4	27.5	277.8	259.9	17.98	15.453	
3,600.0	3,528.6	3,595.5	3,562.6	11.7	9.5	-143.76	284.7	31.0	287.3	268.9	18.46	15.567	
3,641.7	3,567.8	3,636.7	3,602.4	12.0	9.7	-143.63	294.5	33.7	294.3	275.5	18.81	15.643	
3,700.0	3,622.5	3,694.1	3,658.1	12.4	9.9	-143.46	308.2	37.3	304.0	284.7	19.31	15.744	
3,740.1	3,660.3	3,733.7	3,696.5	12.6	10.1	-143.34	317.6	39.8	310.7	291.1	19.66	15.807	
3,749.0	3,668.6	3,742.4	3,704.9	12.7	10.1	-143.32	319.7	40.4	312.2	292.5	19.73	15.821	
3,800.0	3,716.5	3,792.7	3,753.6	13.0	10.3	-146.07	331.6	43.6	321.0	300.9	20.13	15.949	
3,838.6	3,752.8	3,830.6	3,790.4	13.2	10.5	-148.08	340.6	46.0	328.0	307.5	20.42	16.063	
3,885.2	3,796.6	3,876.3	3,834.7	13.5	10.7	-150.42	351.5	48.9	336.8	316.0	20.77	16.210	
3,900.0	3,810.5	3,890.8	3,848.7	13.6	10.8	-150.28	355.0	49.9	339.6	318.7	20.91	16.245	
3,937.0	3,845.3	3,927.1	3,883.9	13.8	11.0	-149.96	363.6	52.2	346.8	325.5	21.24	16.323	
4,000.0	3,904.5	3,988.8	3,943.7	14.2	11.2	-149.45	378.3	56.1	359.0	337.2	21.82	16.451	
4,035.4	3,937.7	4,023.5	3,977.3	14.5	11.4	-149.18	386.5	58.3	365.9	343.7	22.15	16.519	
4,100.0	3,998.4	4,086.8	4,038.7	14.9	11.7	-148.70	401.6	62.4	378.4	355.7	22.75	16.637	
4,133.8	4,030.2	4,119.9	4,070.8	15.1	11.8	-148.47	409.5	64.5	385.0	362.0	23.06	16.695	
4,200.0	4,092.4	4,184.7	4,133.6	15.5	12.1	-148.03	424.9	68.6	397.9	374.3	23.68	16.805	
4,232.3	4,122.7	4,216.4	4,164.3	15.8	12.3	-147.82	432.4	70.6	404.2	380.3	23.98	16.855	
4,300.0	4,186.4	4,282.7	4,228.6	16.2	12.6	-147.42	448.2	74.9	417.5	392.9	24.62	16.957	
4,330.7	4,215.2	4,312.8	4,257.7	16.4	12.7	-147.24	455.3	76.8	423.5	398.6	24.91	17.000	
4,400.0	4,280.3	4,380.7	4,323.5	16.9	13.1	-146.86	471.5	81.1	437.1	411.5	25.57	17.095	
4,429.1	4,307.7	4,409.2	4,351.2	17.1	13.2	-146.71	478.3	82.9	442.8	416.9	25.84	17.132	
4,500.0	4,374.3	4,478.7	4,418.5	17.6	13.5	-146.35	494.8	87.4	456.7	430.2	26.52	17.220	
4,527.5	4,400.2	4,505.7	4,444.7	17.7	13.6	-146.22	501.2	89.1	462.1	435.3	26.78	17.253	
4,600.0	4,468.3	4,576.7	4,513.5	18.2	14.0	-145.88	518.1	93.6	476.3	448.9	27.48	17.335	
4,626.0	4,492.7	4,602.1	4,538.1	18.4	14.1	-145.77	524.2	95.2	481.4	453.7	27.73	17.364	
4,700.0	4,562.3	4,674.6	4,608.4	18.9	14.5	-145.45	541.4	99.9	496.0	467.6	28.44	17.441	
4,724.4	4,585.2	4,698.5	4,631.6	19.1	14.6	-145.35	547.1	101.4	500.8	472.1	28.68	17.465	
4,800.0	4,656.2	4,772.6	4,703.4	19.6	14.9	-145.05	564.7	106.1	515.7	486.3	29.41	17.537	
4,822.8	4,677.7	4,795.0	4,725.1	19.7	15.0	-144.97	570.0	107.5	520.2	490.6	29.63	17.558	
4,900.0	4,750.2	4,870.6	4,798.4	20.3	15.4	-144.69	588.0	112.3	535.4	505.1	30.38	17.627	
4,921.2	4,770.2	4,891.4	4,818.5	20.4	15.5	-144.61	593.0	113.7	539.6	509.1	30.58	17.645	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
5,000.0	4,844.2	4,968.6	4,893.3	20.9	15.9	-144.34	611.3	118.6	555.2	523.8	31.35	17.709	
5,019.7	4,862.7	4,987.9	4,912.0	21.1	16.0	-144.28	615.9	119.8	559.1	527.5	31.54	17.724	
5,100.0	4,938.1	5,066.6	4,988.3	21.6	16.3	-144.02	634.6	124.8	575.0	542.6	32.33	17.785	
5,118.1	4,955.1	5,084.3	5,005.5	21.7	16.4	-143.97	638.9	126.0	578.5	546.0	32.51	17.798	
5,200.0	5,032.1	5,164.5	5,083.2	22.3	16.8	-143.73	657.9	131.1	594.7	561.4	33.31	17.856	
5,216.5	5,047.6	5,180.7	5,098.9	22.4	16.9	-143.68	661.8	132.1	598.0	564.5	33.47	17.867	
5,300.0	5,126.1	5,262.5	5,178.2	23.0	17.3	-143.45	681.2	137.3	614.5	580.2	34.29	17.921	
5,314.9	5,140.1	5,277.2	5,192.4	23.1	17.4	-143.41	684.7	138.3	617.5	583.1	34.44	17.931	
5,400.0	5,220.0	5,360.5	5,273.2	23.7	17.8	-143.19	704.6	143.6	634.3	599.1	35.28	17.982	
5,413.4	5,232.6	5,373.6	5,285.9	23.8	17.8	-143.15	707.7	144.4	637.0	601.6	35.41	17.990	
5,504.2	5,318.0	5,462.6	5,372.1	24.4	18.3	-142.93	728.8	150.1	655.0	618.7	36.31	18.042	
5,511.8	5,325.1	5,470.0	5,379.3	24.4	18.3	-142.93	730.6	150.6	656.5	620.1	36.38	18.045	
5,600.0	5,408.5	5,556.7	5,463.3	24.9	18.7	-142.85	751.2	156.1	672.8	635.5	37.29	18.041	
5,610.2	5,418.2	5,566.7	5,473.0	25.0	18.8	-142.83	753.6	156.7	674.5	637.1	37.39	18.039	
5,700.0	5,504.1	5,655.2	5,558.8	25.4	19.2	-142.56	774.7	162.4	688.6	650.3	38.29	17.984	
5,708.6	5,512.4	5,663.8	5,567.1	25.5	19.3	-142.53	776.7	162.9	689.9	651.5	38.38	17.977	
5,800.0	5,600.7	5,754.1	5,654.6	25.9	19.7	-142.10	798.2	168.7	701.8	662.5	39.30	17.860	
5,807.1	5,607.5	5,761.1	5,661.4	25.9	19.7	-142.06	799.8	169.1	702.7	663.3	39.37	17.849	
5,900.0	5,698.1	5,853.0	5,750.5	26.3	20.2	-141.45	821.7	175.0	712.4	672.1	40.30	17.676	
5,905.5	5,703.4	5,858.5	5,755.8	26.3	20.2	-141.41	823.0	175.3	712.9	672.5	40.36	17.664	
6,000.0	5,796.2	5,946.4	5,841.3	26.6	20.6	-140.76	842.9	180.7	720.7	679.6	41.17	17.505	
6,003.9	5,800.1	5,950.0	5,844.8	26.6	20.6	-140.74	843.6	180.9	721.0	679.8	41.20	17.499	
6,100.0	5,894.9	6,039.3	5,932.2	26.9	20.9	-140.14	861.1	185.6	727.4	685.5	41.93	17.350	
6,102.3	5,897.3	6,041.5	5,934.4	26.9	20.9	-140.12	861.5	185.7	727.6	685.6	41.94	17.347	
6,200.0	5,994.2	6,132.6	6,024.2	27.2	21.2	-139.57	876.5	189.7	732.4	689.8	42.59	17.196	
6,200.8	5,994.9	6,133.3	6,024.9	27.2	21.2	-139.56	876.6	189.7	732.4	689.8	42.59	17.196	
6,299.2	6,093.0	6,225.5	6,116.2	27.4	21.4	-139.05	889.0	193.0	735.6	692.5	43.16	17.046	
6,300.0	6,093.8	6,226.2	6,116.9	27.4	21.4	-139.05	889.1	193.1	735.7	692.5	43.16	17.044	
6,397.6	6,191.2	6,318.0	6,208.1	27.5	21.7	-138.58	898.6	195.6	737.1	693.5	43.63	16.895	
6,400.0	6,193.6	6,320.2	6,210.3	27.5	21.7	-138.57	898.8	195.7	737.1	693.5	43.64	16.891	
6,496.0	6,289.6	6,410.7	6,300.5	27.6	21.9	-138.14	905.3	197.4	736.9	692.9	44.01	16.742	
6,504.1	6,297.7	6,418.2	6,308.1	27.6	21.9	-88.14	905.7	197.5	736.8	692.7	44.04	16.729	
6,594.5	6,388.1	6,503.6	6,393.4	27.7	22.0	-87.87	909.1	198.4	735.9	691.6	44.36	16.591	
6,600.0	6,393.6	6,508.8	6,398.6	27.7	22.0	-87.86	909.2	198.5	735.9	691.5	44.37	16.584	
6,618.2	6,411.8	6,526.1	6,415.8	27.8	22.0	-87.84	909.6	198.6	735.8	691.4	44.43	16.562	
6,650.0	6,443.6	6,556.1	6,445.9	27.8	22.1	92.25	910.0	198.7	735.8	691.2	44.52	16.526	
6,650.2	6,443.8	6,556.3	6,446.0	27.8	22.1	92.25	910.0	198.7	735.8	691.2	44.52	16.525	
6,692.9	6,486.4	6,597.6	6,487.4	27.8	22.1	92.49	910.1	198.7	735.9	691.2	44.65	16.482	
6,700.0	6,493.4	6,604.7	6,494.4	27.8	22.1	92.55	910.1	198.7	735.9	691.2	44.67	16.474	
6,750.0	6,542.8	6,656.7	6,546.4	27.8	22.2	93.00	908.5	198.7	736.2	691.4	44.79	16.435	
6,791.3	6,583.2	6,700.3	6,589.8	27.7	22.2	93.37	904.3	198.7	736.5	691.6	44.82	16.430	
6,800.0	6,591.6	6,709.4	6,598.9	27.7	22.2	93.45	903.0	198.7	736.5	691.7	44.82	16.432	
6,850.0	6,639.6	6,762.7	6,651.2	27.6	22.1	93.88	893.6	198.7	736.9	692.1	44.76	16.464	
6,889.7	6,676.9	6,805.3	6,692.6	27.6	22.1	94.21	883.3	198.7	737.2	692.5	44.64	16.514	
6,900.0	6,686.4	6,816.3	6,703.2	27.5	22.1	94.29	880.3	198.7	737.3	692.7	44.60	16.531	
6,950.0	6,731.8	6,870.5	6,754.5	27.4	21.9	94.69	862.9	198.7	737.7	693.3	44.35	16.632	
6,988.2	6,765.5	6,912.1	6,792.9	27.3	21.8	94.97	846.9	198.7	738.0	693.9	44.10	16.733	
7,000.0	6,775.8	6,925.0	6,804.6	27.2	21.8	95.05	841.5	198.7	738.1	694.0	44.02	16.768	
7,050.0	6,817.9	6,980.0	6,853.4	27.1	21.6	95.40	816.1	198.7	738.5	694.9	43.60	16.936	
7,086.6	6,847.5	7,020.5	6,888.0	26.9	21.4	95.63	795.1	198.7	738.8	695.5	43.25	17.079	
7,100.0	6,858.1	7,035.4	6,900.4	26.9	21.3	95.71	786.8	198.7	738.9	695.7	43.12	17.134	
7,150.0	6,896.1	7,091.2	6,945.3	26.6	21.1	96.00	753.8	198.7	739.2	696.7	42.58	17.361	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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
7,185.0	6,921.3	7,130.4	6,975.3	26.5	20.9	96.18	728.5	198.7	739.5	697.3	42.17	17.536	
7,200.0	6,931.7	7,147.3	6,987.8	26.4	20.8	96.25	717.2	198.7	739.6	697.6	41.99	17.612	
7,250.0	6,964.8	7,203.6	7,027.4	26.2	20.5	96.47	677.1	198.7	739.9	698.5	41.37	17.883	
7,283.4	6,985.4	7,241.5	7,052.2	26.0	20.3	96.60	648.5	198.7	740.1	699.1	40.95	18.072	
7,300.0	6,995.2	7,260.3	7,063.9	25.9	20.2	96.66	633.8	198.7	740.2	699.4	40.74	18.167	
7,350.0	7,022.7	7,317.1	7,097.0	25.7	19.9	96.80	587.6	198.7	740.4	700.3	40.12	18.456	
7,381.9	7,038.8	7,353.5	7,116.2	25.5	19.7	96.88	556.8	198.7	740.5	700.8	39.73	18.640	
7,400.0	7,047.3	7,374.2	7,126.5	25.4	19.6	96.91	538.8	198.7	740.6	701.0	39.51	18.742	
7,450.0	7,068.8	7,431.3	7,152.0	25.1	19.4	96.99	487.6	198.7	740.7	701.7	38.95	19.014	
7,480.3	7,080.3	7,466.0	7,165.4	25.0	19.2	97.01	455.7	198.7	740.7	702.1	38.65	19.167	
7,500.0	7,087.1	7,488.5	7,173.3	24.9	19.1	97.02	434.6	198.7	740.7	702.3	38.45	19.263	
7,550.0	7,102.1	7,545.8	7,190.4	24.6	18.9	97.01	380.0	198.7	740.7	702.7	38.03	19.476	
7,578.7	7,109.2	7,578.6	7,198.2	24.5	18.8	96.99	348.1	198.7	740.7	702.8	37.84	19.574	
7,600.0	7,113.7	7,603.0	7,203.0	24.4	18.7	96.96	324.2	198.7	740.6	702.9	37.70	19.644	
7,650.0	7,121.9	7,660.1	7,211.2	24.2	18.6	96.88	267.7	198.7	740.5	703.0	37.48	19.756	
7,677.1	7,125.0	7,691.0	7,213.7	24.1	18.6	96.82	236.8	198.7	740.4	703.0	37.41	19.791	
7,700.0	7,126.7	7,717.0	7,214.8	24.0	18.5	96.75	210.9	198.7	740.3	702.9	37.37	19.811	
7,746.5	7,128.0	7,766.5	7,214.7	23.8	18.5	96.65	161.4	198.7	740.1	702.8	37.37	19.807	
7,775.6	7,127.9	7,795.6	7,214.4	23.7	18.6	96.63	132.3	198.7	740.1	702.8	37.35	19.817	
7,800.0	7,127.7	7,820.0	7,214.1	23.6	18.6	96.62	107.9	198.7	740.1	702.7	37.36	19.810	
7,874.0	7,127.4	7,894.0	7,213.3	23.4	18.8	96.58	33.9	198.7	740.0	702.7	37.31	19.837	
7,900.0	7,127.3	7,920.0	7,213.0	23.4	18.9	96.57	7.9	198.7	740.0	702.7	37.32	19.827	
7,972.4	7,127.0	7,992.5	7,212.2	23.3	19.2	96.53	-64.5	198.7	740.0	702.4	37.55	19.708	
8,000.0	7,126.8	8,020.0	7,211.8	23.3	19.3	96.52	-92.1	198.7	740.0	702.3	37.67	19.645	
8,070.8	7,126.5	8,090.9	7,211.1	23.4	19.8	96.48	-163.0	198.7	739.9	701.8	38.15	19.397	
8,100.0	7,126.4	8,120.0	7,210.7	23.5	20.0	96.47	-192.1	198.7	739.9	701.5	38.37	19.281	
8,169.3	7,126.1	8,189.3	7,210.0	23.7	20.6	96.43	-261.4	198.7	739.8	700.7	39.09	18.927	
8,200.0	7,125.9	8,220.0	7,209.6	23.8	20.9	96.42	-292.1	198.7	739.8	700.4	39.43	18.761	
8,267.7	7,125.6	8,287.7	7,208.9	24.1	21.5	96.38	-359.8	198.7	739.8	699.4	40.35	18.332	
8,300.0	7,125.5	8,320.0	7,208.5	24.2	21.9	96.37	-392.1	198.7	739.7	698.9	40.82	18.123	
8,366.1	7,125.2	8,386.2	7,207.8	24.6	22.6	96.33	-458.2	198.7	739.7	697.8	41.92	17.647	
8,400.0	7,125.0	8,420.0	7,207.4	24.8	23.0	96.31	-492.1	198.7	739.7	697.2	42.50	17.404	
8,464.5	7,124.7	8,484.6	7,206.7	25.3	23.7	96.28	-556.6	198.7	739.6	695.9	43.74	16.908	
8,500.0	7,124.6	8,520.0	7,206.3	25.6	24.2	96.26	-592.1	198.7	739.6	695.1	44.45	16.640	
8,563.0	7,124.3	8,583.0	7,205.5	26.1	25.0	96.23	-655.0	198.7	739.5	693.7	45.81	16.144	
8,600.0	7,124.1	8,620.0	7,205.1	26.4	25.5	96.21	-692.1	198.7	739.5	692.9	46.63	15.860	
8,661.4	7,123.8	8,681.4	7,204.4	26.9	26.3	96.18	-753.5	198.7	739.5	691.4	48.08	15.379	
8,700.0	7,123.7	8,720.0	7,204.0	27.3	26.8	96.16	-792.1	198.7	739.4	690.4	49.01	15.087	
8,759.8	7,123.4	8,779.8	7,203.3	27.9	27.7	96.13	-851.9	198.7	739.4	688.9	50.54	14.631	
8,800.0	7,123.2	8,820.0	7,202.9	28.3	28.3	96.11	-892.1	198.7	739.4	687.8	51.57	14.337	
8,858.2	7,123.0	8,878.3	7,202.2	28.9	29.1	96.08	-950.3	198.7	739.3	686.2	53.14	13.912	
8,900.0	7,122.8	8,920.0	7,201.8	29.4	29.8	96.06	-992.0	198.7	739.3	685.0	54.28	13.620	
8,956.7	7,122.5	8,976.7	7,201.1	30.0	30.6	96.03	-1,048.7	198.7	739.3	683.4	55.89	13.228	
9,000.0	7,122.3	9,020.0	7,200.7	30.5	31.3	96.01	-1,092.0	198.7	739.2	682.1	57.12	12.941	
9,055.1	7,122.1	9,075.1	7,200.0	31.2	32.2	95.98	-1,147.1	198.7	739.2	680.4	58.75	12.583	
9,100.0	7,121.9	9,120.0	7,199.5	31.7	32.9	95.95	-1,192.0	198.7	739.2	679.1	60.08	12.304	
9,153.5	7,121.6	9,173.5	7,198.9	32.4	33.7	95.93	-1,245.5	198.7	739.1	677.4	61.70	11.979	
9,200.0	7,121.4	9,220.0	7,198.4	33.0	34.5	95.90	-1,292.0	198.7	739.1	676.0	63.12	11.709	
9,251.9	7,121.2	9,272.0	7,197.8	33.7	35.3	95.88	-1,344.0	198.7	739.1	674.3	64.75	11.415	
9,300.0	7,121.0	9,320.0	7,197.3	34.3	36.1	95.85	-1,392.0	198.7	739.0	672.8	66.25	11.154	
9,350.4	7,120.7	9,370.4	7,196.7	35.0	36.9	95.82	-1,442.4	198.7	739.0	671.1	67.86	10.889	
9,400.0	7,120.5	9,420.0	7,196.2	35.7	37.8	95.80	-1,492.0	198.7	739.0	669.5	69.46	10.639	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - OLSON 30M-323 - ORIGINAL WELLBORE - PROPOSAL #2												<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	
9,448.8	7,120.3	9,468.8	7,195.6	36.4	38.6	95.77	-1,540.8	198.7	738.9	667.9	71.05	10.401	
9,500.0	7,120.1	9,520.0	7,195.1	37.2	39.5	95.75	-1,592.0	198.7	738.9	666.2	72.72	10.161	
9,547.2	7,119.9	9,567.2	7,194.5	37.8	40.3	95.72	-1,639.2	198.7	738.9	664.6	74.28	9.947	
9,600.0	7,119.6	9,620.0	7,193.9	38.6	41.2	95.70	-1,692.0	198.7	738.8	662.8	76.04	9.717	
9,645.6	7,119.4	9,665.6	7,193.4	39.3	41.9	95.67	-1,737.6	198.7	738.8	661.2	77.57	9.524	
9,700.0	7,119.2	9,720.0	7,192.8	40.1	42.9	95.64	-1,792.0	198.7	738.8	659.4	79.40	9.304	
9,744.1	7,119.0	9,764.1	7,192.3	40.8	43.7	95.62	-1,836.0	198.7	738.7	657.8	80.90	9.132	
9,800.0	7,118.7	9,820.0	7,191.7	41.7	44.6	95.59	-1,892.0	198.7	738.7	655.9	82.81	8.921	
9,842.5	7,118.5	9,862.5	7,191.2	42.3	45.4	95.57	-1,934.5	198.7	738.7	654.4	84.27	8.766	
9,900.0	7,118.3	9,920.0	7,190.6	43.2	46.4	95.54	-1,992.0	198.7	738.6	652.4	86.25	8.564	
9,940.9	7,118.1	9,960.9	7,190.1	43.9	47.1	95.52	-2,032.9	198.7	738.6	650.9	87.67	8.425	
10,000.0	7,117.8	10,020.0	7,189.4	44.8	48.1	95.49	-2,092.0	198.7	738.6	648.9	89.72	8.232	
10,039.3	7,117.6	10,059.3	7,189.0	45.5	48.8	95.47	-2,131.3	198.7	738.5	647.4	91.10	8.107	
10,100.0	7,117.4	10,120.0	7,188.3	46.4	49.9	95.44	-2,191.9	198.7	738.5	645.3	93.22	7.922	
10,137.8	7,117.2	10,157.8	7,187.9	47.1	50.6	95.42	-2,229.7	198.7	738.5	643.9	94.55	7.810	
10,200.0	7,116.9	10,220.0	7,187.2	48.1	51.7	95.38	-2,291.9	198.7	738.4	641.7	96.75	7.632	
10,236.2	7,116.8	10,256.2	7,186.8	48.7	52.4	95.36	-2,328.1	198.7	738.4	640.4	98.04	7.532	
10,300.0	7,116.5	10,320.0	7,186.1	49.7	53.5	95.33	-2,391.9	198.7	738.4	638.1	100.30	7.362	
10,334.6	7,116.3	10,354.6	7,185.7	50.3	54.1	95.31	-2,426.5	198.7	738.4	636.8	101.54	7.272	
10,400.0	7,116.0	10,420.0	7,184.9	51.4	55.3	95.28	-2,491.9	198.7	738.3	634.5	103.87	7.108	
10,433.0	7,115.9	10,453.0	7,184.6	52.0	55.9	95.26	-2,525.0	198.7	738.3	633.2	105.06	7.028	
10,500.0	7,115.6	10,520.0	7,183.8	53.1	57.1	95.23	-2,591.9	198.7	738.3	630.8	107.46	6.870	
10,531.5	7,115.4	10,551.5	7,183.5	53.6	57.7	95.21	-2,623.4	198.7	738.2	629.6	108.60	6.798	
10,600.0	7,115.1	10,620.0	7,182.7	54.8	58.9	95.17	-2,691.9	198.7	738.2	627.1	111.07	6.646	
10,629.9	7,115.0	10,649.9	7,182.4	55.3	59.5	95.16	-2,721.8	198.7	738.2	626.0	112.15	6.582	
10,700.0	7,114.7	10,720.0	7,181.6	56.5	60.8	95.12	-2,791.9	198.7	738.1	623.5	114.69	6.436	
10,728.3	7,114.6	10,748.3	7,181.3	57.0	61.3	95.11	-2,820.2	198.7	738.1	622.4	115.72	6.379	
10,800.0	7,114.2	10,820.0	7,180.4	58.3	62.6	95.07	-2,891.9	198.7	738.1	619.8	118.32	6.238	
10,826.7	7,114.1	10,846.7	7,180.1	58.7	63.1	95.06	-2,918.6	198.7	738.1	618.8	119.30	6.187	
10,900.0	7,113.8	10,920.0	7,179.3	60.0	64.4	95.02	-2,991.9	198.7	738.0	616.1	121.97	6.051	
10,925.2	7,113.7	10,945.1	7,179.0	60.5	64.9	95.00	-3,017.0	198.7	738.0	615.1	122.89	6.005	
11,000.0	7,113.3	11,020.0	7,178.2	61.8	66.3	94.96	-3,091.9	198.7	738.0	612.3	125.63	5.874	
11,023.6	7,113.2	11,043.6	7,177.9	62.2	66.7	94.95	-3,115.5	198.7	738.0	611.5	126.50	5.834	
11,100.0	7,112.9	11,120.0	7,177.1	63.5	68.1	94.91	-3,191.9	198.7	737.9	608.6	129.30	5.707	
11,122.0	7,112.8	11,142.0	7,176.8	63.9	68.5	94.90	-3,213.9	198.7	737.9	607.8	130.11	5.671	
11,200.0	7,112.4	11,220.0	7,175.9	65.3	70.0	94.86	-3,291.8	198.7	737.9	604.9	132.98	5.549	
11,220.4	7,112.4	11,240.4	7,175.7	65.7	70.4	94.85	-3,312.3	198.7	737.8	604.1	133.73	5.517	
11,300.0	7,112.0	11,320.0	7,174.8	67.1	71.8	94.81	-3,391.8	198.7	737.8	601.1	136.67	5.398	
11,318.9	7,111.9	11,338.8	7,174.6	67.4	72.2	94.80	-3,410.7	198.7	737.8	600.4	137.37	5.371	
11,400.0	7,111.6	11,420.0	7,173.7	68.9	73.7	94.75	-3,491.8	198.7	737.8	597.4	140.37	5.256	
11,417.3	7,111.5	11,437.3	7,173.5	69.2	74.0	94.74	-3,509.1	198.7	737.7	596.7	141.01	5.232	
11,500.0	7,111.1	11,520.0	7,172.6	70.7	75.5	94.70	-3,591.8	198.7	737.7	593.6	144.07	5.120	
11,515.7	7,111.0	11,535.7	7,172.4	71.0	75.8	94.69	-3,607.5	198.7	737.7	593.0	144.65	5.100	
11,600.0	7,110.7	11,620.0	7,171.4	72.5	77.4	94.65	-3,691.8	198.7	737.6	589.9	147.78	4.991	
11,614.1	7,110.6	11,634.1	7,171.3	72.7	77.7	94.64	-3,706.0	198.7	737.6	589.3	148.31	4.974	
11,700.0	7,110.2	11,720.0	7,170.3	74.3	79.3	94.60	-3,791.8	198.7	737.6	586.1	151.50	4.869	
11,712.6	7,110.2	11,732.5	7,170.2	74.5	79.5	94.59	-3,804.4	198.7	737.6	585.6	151.97	4.854	
11,726.5	7,110.1	11,746.5	7,170.0	74.8	79.8	94.58	-3,818.3	198.7	737.6	585.1	152.49	4.837	
11,747.9	7,110.0	11,747.1	7,170.0	75.1	79.8	94.58	-3,819.0	198.7	737.9	585.0	152.89	4.826 SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	1.0	1.0	0.0	0.0	-88.33	2.2	-74.8	74.8				
98.4	98.4	99.4	99.4	0.1	0.1	-88.33	2.2	-74.8	74.8	74.6	0.17	437.922	
100.0	100.0	101.0	101.0	0.1	0.1	-88.33	2.2	-74.8	74.8	74.6	0.18	426.643	
196.8	196.8	197.8	197.8	0.3	0.3	-88.33	2.2	-74.8	74.8	74.2	0.61	122.481	
200.0	200.0	201.0	201.0	0.3	0.3	-88.33	2.2	-74.8	74.8	74.2	0.62	119.706	
295.3	295.3	296.3	296.3	0.5	0.5	-88.33	2.2	-74.8	74.8	73.7	1.05	71.024	
300.0	300.0	301.0	301.0	0.5	0.5	-88.33	2.2	-74.8	74.8	73.7	1.07	69.620	
393.7	393.7	394.7	394.7	0.7	0.7	-88.33	2.2	-74.8	74.8	73.3	1.50	50.012	
400.0	400.0	401.0	401.0	0.8	0.8	-88.33	2.2	-74.8	74.8	73.3	1.52	49.083	
492.1	492.1	493.1	493.1	1.0	1.0	-88.33	2.2	-74.8	74.8	72.9	1.94	38.595	
500.0	500.0	501.0	501.0	1.0	1.0	-88.33	2.2	-74.8	74.8	72.8	1.97	37.902	
590.5	590.5	591.5	591.5	1.2	1.2	-88.33	2.2	-74.8	74.8	72.4	2.38	31.421	
600.0	600.0	601.0	601.0	1.2	1.2	-88.33	2.2	-74.8	74.8	72.4	2.42	30.870	
689.0	689.0	690.0	690.0	1.4	1.4	-88.33	2.2	-74.8	74.8	72.0	2.82	26.496	
700.0	700.0	701.0	701.0	1.4	1.4	-88.33	2.2	-74.8	74.8	71.9	2.87	26.039	
787.4	787.4	788.4	788.4	1.6	1.6	-88.33	2.2	-74.8	74.8	71.5	3.27	22.906	
800.0	800.0	801.0	801.0	1.7	1.7	-88.33	2.2	-74.8	74.8	71.5	3.32	22.516	
885.8	885.8	886.8	886.8	1.9	1.9	-88.33	2.2	-74.8	74.8	71.1	3.71	20.173	
900.0	900.0	901.0	901.0	1.9	1.9	-88.33	2.2	-74.8	74.8	71.0	3.77	19.832	
984.2	984.2	985.2	985.2	2.1	2.1	-88.33	2.2	-74.8	74.8	70.6	4.15	18.022	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-88.33	2.2	-74.8	74.8	70.6	4.22	17.720	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	2.3	-88.33	2.2	-74.8	74.8	70.2	4.59	16.286	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	2.3	-88.33	2.2	-74.8	74.8	70.1	4.67	16.015	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	2.5	-88.33	2.2	-74.8	74.8	69.8	5.04	14.855	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-88.33	2.2	-74.8	74.8	69.7	5.12	14.609	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	2.7	-88.33	2.2	-74.8	74.8	69.3	5.48	13.655	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-88.33	2.2	-74.8	74.8	69.2	5.57	13.429	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	3.0	-88.33	2.2	-74.8	74.8	68.9	5.92	12.635	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-88.33	2.2	-74.8	74.8	68.8	6.02	12.427	
1,436.8	1,436.8	1,437.8	1,437.8	3.1	3.1	-88.33	2.2	-74.8	74.8	68.6	6.18	12.095 CC	
1,476.4	1,476.4	1,477.2	1,477.2	3.2	3.2	-88.23	2.3	-74.8	74.8	68.5	6.36	11.763	
1,500.0	1,500.0	1,500.6	1,500.6	3.2	3.2	-88.00	2.6	-74.9	74.9	68.5	6.47	11.584 ES	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	-86.34	4.8	-75.4	75.6	68.8	6.80	11.115	
1,600.0	1,600.0	1,600.0	1,599.9	3.5	3.5	-85.48	6.0	-75.7	76.0	69.1	6.91	10.989	
1,673.2	1,673.2	1,672.2	1,672.0	3.6	3.6	-82.20	10.5	-76.9	77.6	70.4	7.24	10.722	
1,700.0	1,700.0	1,698.6	1,698.3	3.7	3.7	-80.73	12.6	-77.4	78.5	71.1	7.36	10.664	
1,750.0	1,750.0	1,747.8	1,747.2	3.8	3.8	-77.68	17.2	-78.6	80.5	72.9	7.59	10.613	
1,771.6	1,771.6	1,769.0	1,768.4	3.8	3.8	-118.27	19.4	-79.1	81.6	74.0	7.68	10.628	
1,800.0	1,800.0	1,796.8	1,796.0	3.9	3.9	-116.49	22.5	-79.9	83.4	75.6	7.81	10.682	
1,870.1	1,870.0	1,865.3	1,863.9	4.1	4.1	-112.46	31.3	-82.2	89.2	81.1	8.12	10.978	
1,900.0	1,899.9	1,894.5	1,892.7	4.1	4.1	-110.93	35.5	-83.3	92.2	84.0	8.26	11.171	
1,968.5	1,968.3	1,960.9	1,958.2	4.3	4.3	-107.87	46.2	-86.0	100.5	92.0	8.57	11.726	
2,000.0	1,999.7	1,991.4	1,988.2	4.3	4.4	-106.68	51.6	-87.4	104.9	96.2	8.72	12.034	
2,066.9	2,066.3	2,055.9	2,051.4	4.5	4.6	-104.54	64.0	-90.5	115.4	106.3	9.04	12.764	
2,100.0	2,099.1	2,088.5	2,083.3	4.6	4.7	-103.74	70.6	-92.2	120.9	111.7	9.20	13.141	
2,165.3	2,163.9	2,152.8	2,146.2	4.7	4.9	-102.80	83.6	-95.5	132.1	122.6	9.53	13.864	
2,200.0	2,198.2	2,187.0	2,179.6	4.8	5.0	-102.60	90.4	-97.2	138.2	128.5	9.71	14.239	
2,263.8	2,261.0	2,249.7	2,241.0	5.0	5.2	-102.65	103.1	-100.5	149.7	139.7	10.05	14.894	
2,300.0	2,296.6	2,285.3	2,275.8	5.1	5.3	-102.89	110.2	-102.3	156.4	146.1	10.25	15.256	
2,362.2	2,357.6	2,346.3	2,335.5	5.3	5.6	-103.58	122.5	-105.4	168.0	157.4	10.61	15.841	
2,400.0	2,394.4	2,383.4	2,371.7	5.4	5.7	-104.16	130.0	-107.3	175.3	164.5	10.83	16.190	
2,460.6	2,453.4	2,442.6	2,429.7	5.6	5.9	-105.26	141.9	-110.4	187.3	176.1	11.20	16.715	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
2,500.0	2,491.5	2,481.1	2,467.3	5.7	6.1	-106.08	149.7	-112.3	195.3	183.9	11.45	17.055	
2,559.0	2,548.3	2,538.5	2,523.5	5.9	6.3	-107.44	161.2	-115.3	207.7	195.9	11.85	17.532	
2,600.0	2,587.6	2,578.3	2,562.3	6.1	6.4	-108.44	169.2	-117.3	216.6	204.5	12.12	17.871	
2,657.5	2,642.4	2,633.9	2,616.7	6.3	6.6	-109.92	180.4	-120.2	229.6	217.1	12.53	18.320	
2,700.0	2,682.7	2,674.8	2,656.8	6.5	6.8	-111.06	188.7	-122.3	239.6	226.8	12.84	18.663	
2,750.0	2,729.8	2,722.9	2,703.8	6.8	7.0	-112.42	198.4	-124.7	251.8	238.6	13.21	19.058	
2,755.9	2,735.4	2,728.5	2,709.3	6.8	7.0	-112.61	199.5	-125.0	253.2	240.0	13.26	19.102	
2,800.0	2,776.8	2,770.8	2,750.7	7.0	7.2	-113.96	208.0	-127.2	264.3	250.7	13.60	19.431	
2,854.3	2,827.8	2,822.9	2,801.6	7.3	7.4	-115.48	218.5	-129.9	278.1	264.1	14.04	19.814	
2,900.0	2,870.8	2,866.7	2,844.5	7.5	7.5	-116.64	227.3	-132.1	289.8	275.4	14.40	20.127	
2,952.7	2,920.3	2,917.2	2,893.9	7.8	7.7	-117.87	237.5	-134.7	303.5	288.7	14.83	20.466	
3,000.0	2,964.7	2,962.5	2,938.2	8.1	7.9	-118.89	246.6	-137.0	315.9	300.6	15.21	20.760	
3,051.2	3,012.8	3,011.6	2,986.2	8.4	8.1	-119.90	256.5	-139.6	329.3	313.7	15.64	21.059	
3,100.0	3,058.7	3,058.4	3,032.0	8.7	8.3	-120.79	265.9	-142.0	342.3	326.2	16.04	21.335	
3,149.6	3,105.3	3,105.9	3,078.5	9.0	8.5	-121.63	275.5	-144.4	355.5	339.0	16.46	21.600	
3,200.0	3,152.7	3,154.2	3,125.8	9.3	8.7	-122.43	285.2	-146.9	369.0	352.1	16.88	21.860	
3,248.0	3,197.8	3,200.3	3,170.8	9.5	8.9	-123.13	294.5	-149.2	381.9	364.6	17.29	22.094	
3,300.0	3,246.6	3,250.1	3,219.5	9.9	9.1	-123.84	304.5	-151.8	395.9	378.2	17.73	22.338	
3,346.4	3,290.3	3,294.6	3,263.1	10.1	9.3	-124.44	313.5	-154.1	408.5	390.4	18.12	22.545	
3,400.0	3,340.6	3,346.0	3,313.3	10.5	9.5	-125.08	323.9	-156.7	423.1	404.5	18.58	22.776	
3,444.9	3,382.8	3,389.0	3,355.4	10.8	9.7	-125.58	332.5	-158.9	435.4	416.4	18.96	22.959	
3,500.0	3,434.6	3,441.8	3,407.1	11.1	9.9	-126.16	343.2	-161.6	450.4	431.0	19.43	23.177	
3,543.3	3,475.3	3,483.3	3,447.7	11.4	10.1	-126.60	351.5	-163.8	462.3	442.5	19.81	23.339	
3,600.0	3,528.6	3,537.7	3,500.8	11.7	10.3	-127.13	362.5	-166.6	477.9	457.6	20.30	23.545	
3,641.7	3,567.8	3,577.7	3,540.0	12.0	10.5	-127.50	370.5	-168.6	489.4	468.7	20.66	23.689	
3,700.0	3,622.5	3,633.6	3,594.6	12.4	10.7	-127.99	381.8	-171.5	505.5	484.3	21.16	23.884	
3,740.1	3,660.3	3,672.0	3,632.3	12.6	10.9	-128.31	389.5	-173.4	516.6	495.0	21.51	24.013	
3,749.0	3,668.6	3,680.5	3,640.6	12.7	10.9	-128.37	391.2	-173.9	519.0	497.4	21.59	24.041	
3,800.0	3,716.5	3,729.3	3,688.3	13.0	11.1	-131.73	401.1	-176.4	533.4	511.5	21.96	24.290	
3,838.6	3,752.8	3,766.2	3,724.3	13.2	11.3	-134.22	408.5	-178.3	544.8	522.6	22.23	24.510	
3,885.2	3,796.6	3,810.5	3,767.7	13.5	11.5	-137.18	417.4	-180.6	559.0	536.5	22.55	24.795	
3,900.0	3,810.5	3,824.6	3,781.5	13.6	11.5	-137.23	420.2	-181.3	563.6	540.9	22.67	24.863	
3,937.0	3,845.3	3,859.8	3,815.9	13.8	11.7	-137.35	427.3	-183.1	575.1	552.1	22.98	25.022	
4,000.0	3,904.5	3,919.6	3,874.4	14.2	11.9	-137.54	439.4	-186.1	594.7	571.2	23.52	25.283	
4,035.4	3,937.7	3,953.3	3,907.3	14.5	12.1	-137.64	446.2	-187.9	605.7	581.9	23.82	25.424	
4,100.0	3,998.4	4,014.6	3,967.3	14.9	12.4	-137.82	458.5	-191.0	625.8	601.4	24.38	25.671	
4,133.8	4,030.2	4,046.8	3,998.8	15.1	12.5	-137.90	465.0	-192.7	636.3	611.6	24.67	25.796	
4,200.0	4,092.4	4,109.6	4,060.3	15.5	12.8	-138.07	477.6	-195.9	656.9	631.6	25.23	26.031	
4,232.3	4,122.7	4,140.3	4,090.3	15.8	12.9	-138.14	483.8	-197.5	666.9	641.4	25.51	26.141	
4,300.0	4,186.4	4,204.6	4,153.2	16.2	13.2	-138.30	496.8	-200.8	688.0	661.9	26.09	26.365	
4,330.7	4,215.2	4,233.8	4,181.7	16.4	13.3	-138.36	502.7	-202.3	697.5	671.1	26.36	26.462	
4,400.0	4,280.3	4,299.6	4,246.1	16.9	13.6	-138.51	515.9	-205.6	719.1	692.1	26.96	26.675	
4,429.1	4,307.7	4,327.3	4,273.2	17.1	13.7	-138.57	521.5	-207.1	728.1	700.9	27.21	26.762	
4,500.0	4,374.3	4,394.6	4,339.1	17.6	14.0	-138.70	535.0	-210.5	750.2	722.4	27.82	26.965	
4,527.5	4,400.2	4,420.8	4,364.7	17.7	14.1	-138.75	540.3	-211.9	758.8	730.7	28.06	27.041	
4,600.0	4,468.3	4,489.6	4,432.0	18.2	14.4	-138.88	554.2	-215.4	781.3	752.6	28.69	27.236	
4,626.0	4,492.7	4,514.3	4,456.1	18.4	14.5	-138.92	559.1	-216.7	789.4	760.5	28.91	27.303	
4,700.0	4,562.3	4,584.6	4,524.9	18.9	14.8	-139.04	573.3	-220.3	812.4	782.9	29.55	27.489	
4,724.4	4,585.2	4,607.8	4,547.6	19.1	14.9	-139.08	578.0	-221.5	820.0	790.3	29.77	27.549	
4,800.0	4,656.2	4,679.6	4,617.9	19.6	15.2	-139.19	592.4	-225.1	843.6	813.2	30.42	27.727	
4,822.8	4,677.7	4,701.3	4,639.1	19.7	15.3	-139.23	596.8	-226.3	850.7	820.1	30.62	27.780	
4,900.0	4,750.2	4,774.7	4,710.8	20.3	15.6	-139.33	611.6	-230.0	874.7	843.4	31.30	27.951	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
4,921.2	4,770.2	4,794.8	4,730.5	20.4	15.7	-139.36	615.6	-231.1	881.4	849.9	31.48	27.997	
5,000.0	4,844.2	4,869.7	4,803.7	20.9	16.1	-139.46	630.7	-234.9	905.9	873.7	32.17	28.161	
5,019.7	4,862.7	4,888.3	4,822.0	21.1	16.1	-139.49	634.5	-235.9	912.0	879.7	32.34	28.201	
5,100.0	4,938.1	4,964.7	4,896.6	21.6	16.5	-139.59	649.8	-239.8	937.0	904.0	33.04	28.360	
5,118.1	4,955.1	4,981.9	4,913.5	21.7	16.6	-139.61	653.3	-240.7	942.7	909.5	33.20	28.395	
5,200.0	5,032.1	5,059.7	4,989.6	22.3	16.9	-139.70	669.0	-244.6	968.2	934.3	33.92	28.547	
5,216.5	5,047.6	5,075.4	5,004.9	22.4	17.0	-139.72	672.1	-245.4	973.3	939.3	34.06	28.577	
5,300.0	5,126.1	5,154.7	5,082.5	23.0	17.3	-139.81	688.1	-249.5	999.4	964.6	34.79	28.725	
5,314.9	5,140.1	5,168.9	5,096.4	23.1	17.4	-139.82	691.0	-250.2	1,004.0	969.1	34.92	28.750	
5,400.0	5,220.0	5,249.7	5,175.4	23.7	17.7	-139.91	707.2	-254.4	1,030.5	994.8	35.67	28.892	
5,413.4	5,232.6	5,262.4	5,187.9	23.8	17.8	-139.92	709.8	-255.0	1,034.7	998.9	35.78	28.914	
5,504.2	5,318.0	5,348.7	5,272.3	24.4	18.2	-140.01	727.2	-259.5	1,063.0	1,026.4	36.58	29.058	
5,511.8	5,325.1	5,355.9	5,279.3	24.4	18.2	-140.05	728.6	-259.8	1,065.4	1,028.7	36.65	29.067	
5,600.0	5,408.5	5,440.1	5,361.7	24.9	18.6	-140.42	745.6	-264.2	1,091.7	1,054.2	37.48	29.130	
5,610.2	5,418.2	5,449.9	5,371.3	25.0	18.6	-140.46	747.6	-264.7	1,094.6	1,057.0	37.56	29.139	
5,700.0	5,504.1	5,536.2	5,455.7	25.4	19.0	-140.70	765.0	-269.1	1,119.1	1,080.7	38.35	29.179	
5,708.6	5,512.4	5,544.6	5,463.9	25.5	19.0	-140.71	766.6	-269.5	1,121.3	1,082.9	38.43	29.182	
5,800.0	5,600.7	5,633.0	5,550.4	25.9	19.4	-140.82	784.4	-274.1	1,143.9	1,104.7	39.21	29.175	
5,807.1	5,607.5	5,639.9	5,557.1	25.9	19.4	-140.83	785.8	-274.4	1,145.6	1,106.3	39.27	29.173	
5,900.0	5,698.1	5,730.3	5,645.6	26.3	19.8	-140.81	804.0	-279.1	1,166.1	1,126.1	40.04	29.122	
5,905.5	5,703.4	5,735.7	5,650.8	26.3	19.9	-140.80	805.1	-279.3	1,167.3	1,127.2	40.09	29.118	
6,000.0	5,796.2	5,828.0	5,741.2	26.6	20.3	-140.66	823.7	-284.1	1,185.7	1,144.9	40.85	29.026	
6,003.9	5,800.1	5,831.9	5,744.9	26.6	20.3	-140.66	824.5	-284.3	1,186.5	1,145.6	40.88	29.022	
6,100.0	5,894.9	5,926.1	5,837.0	26.9	20.7	-140.39	843.5	-289.1	1,202.8	1,161.1	41.63	28.893	
6,102.3	5,897.3	5,928.4	5,839.3	26.9	20.7	-140.38	843.9	-289.2	1,203.1	1,161.5	41.65	28.889	
6,200.0	5,994.2	6,024.2	5,933.1	27.2	21.1	-140.00	863.2	-294.1	1,217.3	1,174.9	42.37	28.726	
6,200.8	5,994.9	6,025.0	5,933.8	27.2	21.1	-139.99	863.4	-294.2	1,217.4	1,175.0	42.38	28.724	
6,299.2	6,093.0	6,130.1	6,036.9	27.4	21.5	-139.47	883.6	-299.3	1,228.9	1,185.8	43.06	28.541	
6,300.0	6,093.8	6,131.0	6,037.7	27.4	21.5	-139.47	883.7	-299.4	1,229.0	1,185.9	43.06	28.540	
6,397.6	6,191.2	6,239.8	6,145.1	27.5	21.9	-138.95	900.9	-303.7	1,237.1	1,193.5	43.61	28.366	
6,400.0	6,193.6	6,242.4	6,147.7	27.5	21.9	-138.94	901.2	-303.8	1,237.3	1,193.7	43.63	28.361	
6,496.0	6,289.6	6,350.4	6,254.8	27.6	22.1	-138.47	914.2	-307.1	1,241.9	1,197.8	44.07	28.179	
6,504.1	6,297.7	6,359.5	6,263.8	27.6	22.2	-88.46	915.1	-307.4	1,242.1	1,198.0	44.11	28.163	
6,594.5	6,388.1	6,461.9	6,365.9	27.7	22.4	-88.08	923.5	-309.5	1,244.3	1,199.8	44.48	27.971	
6,600.0	6,393.6	6,468.2	6,372.1	27.7	22.4	-88.06	923.9	-309.6	1,244.4	1,199.9	44.51	27.960	
6,618.2	6,411.8	6,488.8	6,392.8	27.8	22.4	-88.00	925.1	-309.9	1,244.7	1,200.1	44.58	27.922	
6,650.0	6,443.6	6,525.0	6,428.9	27.8	22.5	92.07	926.9	-310.4	1,245.2	1,200.5	44.68	27.868	
6,692.9	6,486.4	6,573.6	6,477.5	27.8	22.6	92.27	928.6	-310.8	1,245.7	1,200.9	44.79	27.810	
6,700.0	6,493.4	6,581.7	6,485.5	27.8	22.6	92.32	928.8	-310.8	1,245.8	1,201.0	44.81	27.799	
6,750.0	6,542.8	6,638.1	6,542.0	27.8	22.7	92.69	929.6	-311.1	1,246.3	1,201.4	44.91	27.750	
6,791.3	6,583.2	6,680.4	6,584.2	27.7	22.7	93.07	929.7	-311.1	1,246.8	1,201.9	44.96	27.732	
6,800.0	6,591.6	6,688.8	6,592.6	27.7	22.7	93.15	929.7	-311.1	1,246.9	1,202.0	44.97	27.729	
6,850.0	6,639.6	6,740.8	6,644.7	27.6	22.8	93.73	928.8	-311.1	1,247.8	1,202.8	44.98	27.739	
6,889.7	6,676.9	6,784.6	6,688.3	27.6	22.8	94.21	925.4	-311.1	1,248.5	1,203.6	44.93	27.789	
6,900.0	6,686.4	6,796.0	6,699.6	27.5	22.8	94.33	924.0	-311.1	1,248.7	1,203.8	44.91	27.804	
6,950.0	6,731.8	6,852.5	6,755.4	27.4	22.8	94.92	914.7	-311.1	1,249.8	1,205.1	44.75	27.930	
6,988.2	6,765.5	6,896.6	6,798.2	27.3	22.7	95.35	904.5	-311.1	1,250.7	1,206.2	44.56	28.070	
7,000.0	6,775.8	6,910.4	6,811.5	27.2	22.7	95.48	900.7	-311.1	1,251.0	1,206.5	44.49	28.119	
7,050.0	6,817.9	6,969.6	6,867.6	27.1	22.5	96.03	881.7	-311.1	1,252.2	1,208.1	44.14	28.369	
7,086.6	6,847.5	7,013.9	6,908.3	26.9	22.4	96.41	864.5	-311.1	1,253.2	1,209.3	43.83	28.590	
7,100.0	6,858.1	7,030.3	6,923.2	26.9	22.4	96.55	857.5	-311.1	1,253.5	1,209.8	43.71	28.678	
7,150.0	6,896.1	7,092.3	6,977.7	26.6	22.1	97.04	828.0	-311.1	1,254.8	1,211.6	43.20	29.044	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
7,185.0	6,921.3	7,136.6	7,015.0	26.5	21.9	97.36	804.1	-311.1	1,255.6	1,212.8	42.81	29.333	
7,200.0	6,931.7	7,155.7	7,030.6	26.4	21.9	97.50	793.0	-311.1	1,256.0	1,213.4	42.63	29.463	
7,250.0	6,964.8	7,220.4	7,081.1	26.2	21.6	97.91	752.7	-311.1	1,257.2	1,215.2	42.01	29.928	
7,283.4	6,985.4	7,264.4	7,113.3	26.0	21.3	98.16	722.8	-311.1	1,257.9	1,216.4	41.57	30.258	
7,300.0	6,995.2	7,286.3	7,128.7	25.9	21.2	98.28	707.1	-311.1	1,258.3	1,216.9	41.36	30.426	
7,350.0	7,022.7	7,353.3	7,172.5	25.7	20.9	98.59	656.5	-311.1	1,259.2	1,218.5	40.69	30.945	
7,381.9	7,038.8	7,396.5	7,198.2	25.5	20.7	98.76	621.8	-311.1	1,259.8	1,219.5	40.28	31.277	
7,400.0	7,047.3	7,421.3	7,212.0	25.4	20.6	98.85	601.2	-311.1	1,260.0	1,220.0	40.05	31.465	
7,450.0	7,068.8	7,490.0	7,246.4	25.1	20.2	99.05	541.7	-311.1	1,260.7	1,221.2	39.44	31.964	
7,480.3	7,080.3	7,531.9	7,264.5	25.0	20.0	99.13	503.9	-311.1	1,260.9	1,221.8	39.11	32.243	
7,500.0	7,087.1	7,559.3	7,275.1	24.9	19.9	99.18	478.7	-311.1	1,261.1	1,222.2	38.90	32.418	
7,550.0	7,102.1	7,628.9	7,297.7	24.6	19.7	99.24	412.9	-311.1	1,261.3	1,222.8	38.45	32.800	
7,578.7	7,109.2	7,669.0	7,307.8	24.5	19.6	99.25	374.1	-311.1	1,261.3	1,223.1	38.25	32.975	
7,600.0	7,113.7	7,698.6	7,313.8	24.4	19.5	99.24	345.1	-311.1	1,261.3	1,223.2	38.11	33.092	
7,650.0	7,121.9	7,768.2	7,323.3	24.2	19.3	99.17	276.1	-311.1	1,261.1	1,223.1	37.91	33.265	
7,677.1	7,125.0	7,805.9	7,325.6	24.1	19.3	99.10	238.6	-311.1	1,260.8	1,223.0	37.85	33.309	
7,700.0	7,126.7	7,835.9	7,326.0	24.0	19.3	99.03	208.5	-311.1	1,260.6	1,222.8	37.83	33.322	
7,744.2	7,128.0	7,880.1	7,325.9	23.8	19.3	98.99	164.3	-311.1	1,260.4	1,222.5	37.86	33.290	
7,746.5	7,128.0	7,882.4	7,325.9	23.8	19.3	98.99	162.1	-311.1	1,260.4	1,222.5	37.86	33.289	
7,775.6	7,127.9	7,911.5	7,325.9	23.7	19.3	98.99	133.0	-311.1	1,260.4	1,222.6	37.86	33.294	
7,800.0	7,127.7	7,935.9	7,325.9	23.6	19.4	99.00	108.5	-311.1	1,260.4	1,222.5	37.88	33.278	
7,874.0	7,127.4	8,009.9	7,325.7	23.4	19.5	99.01	34.5	-311.1	1,260.5	1,222.6	37.84	33.309	
7,900.0	7,127.3	8,035.9	7,325.7	23.4	19.7	99.01	8.5	-311.1	1,260.5	1,222.6	37.87	33.284	
7,972.4	7,127.0	8,108.3	7,325.6	23.3	20.0	99.02	-63.9	-311.1	1,260.5	1,222.4	38.10	33.082	
8,000.0	7,126.8	8,135.9	7,325.6	23.3	20.1	99.02	-91.5	-311.1	1,260.5	1,222.3	38.23	32.970	
8,070.8	7,126.5	8,206.8	7,325.5	23.4	20.6	99.03	-162.3	-311.1	1,260.6	1,221.8	38.72	32.560	
8,100.0	7,126.4	8,235.9	7,325.4	23.5	20.8	99.04	-191.5	-311.1	1,260.6	1,221.6	38.95	32.360	
8,169.3	7,126.1	8,305.2	7,325.3	23.7	21.4	99.05	-260.7	-311.1	1,260.6	1,220.9	39.67	31.781	
8,200.0	7,125.9	8,335.9	7,325.3	23.8	21.7	99.05	-291.5	-311.1	1,260.6	1,220.6	40.02	31.500	
8,267.7	7,125.6	8,403.6	7,325.2	24.1	22.3	99.06	-359.2	-311.1	1,260.7	1,219.7	40.93	30.800	
8,300.0	7,125.5	8,435.9	7,325.1	24.2	22.6	99.07	-391.5	-311.1	1,260.7	1,219.3	41.40	30.449	
8,366.1	7,125.2	8,502.0	7,325.1	24.6	23.3	99.08	-457.6	-311.1	1,260.7	1,218.2	42.49	29.673	
8,400.0	7,125.0	8,535.9	7,325.0	24.8	23.7	99.08	-491.5	-311.1	1,260.7	1,217.6	43.08	29.267	
8,464.5	7,124.7	8,600.5	7,324.9	25.3	24.5	99.09	-556.0	-311.1	1,260.8	1,216.4	44.30	28.457	
8,500.0	7,124.6	8,635.9	7,324.9	25.6	24.9	99.09	-591.5	-311.1	1,260.8	1,215.8	45.01	28.010	
8,563.0	7,124.3	8,698.9	7,324.8	26.1	25.7	99.10	-654.4	-311.1	1,260.8	1,214.4	46.35	27.199	
8,600.0	7,124.1	8,735.9	7,324.7	26.4	26.2	99.11	-691.5	-311.1	1,260.8	1,213.6	47.17	26.727	
8,661.4	7,123.8	8,797.3	7,324.6	26.9	27.0	99.12	-752.9	-311.1	1,260.9	1,212.2	48.61	25.939	
8,700.0	7,123.7	8,835.9	7,324.6	27.3	27.6	99.12	-791.5	-311.1	1,260.9	1,211.3	49.54	25.454	
8,759.8	7,123.4	8,895.7	7,324.5	27.9	28.4	99.13	-851.3	-311.1	1,260.9	1,209.9	51.04	24.704	
8,800.0	7,123.2	8,935.9	7,324.4	28.3	29.0	99.14	-891.5	-311.1	1,260.9	1,208.8	52.07	24.216	
8,858.2	7,123.0	8,994.2	7,324.3	28.9	29.8	99.14	-949.7	-311.1	1,260.9	1,207.3	53.62	23.515	
8,900.0	7,122.8	9,035.9	7,324.3	29.4	30.4	99.15	-991.5	-311.1	1,261.0	1,206.2	54.75	23.029	
8,956.7	7,122.5	9,092.6	7,324.2	30.0	31.3	99.16	-1,048.1	-311.1	1,261.0	1,204.7	56.34	22.382	
9,000.0	7,122.3	9,135.9	7,324.1	30.5	32.0	99.16	-1,091.5	-311.1	1,261.0	1,203.5	57.57	21.905	
9,055.1	7,122.1	9,191.0	7,324.1	31.2	32.8	99.17	-1,146.6	-311.1	1,261.0	1,201.9	59.17	21.313	
9,100.0	7,121.9	9,235.9	7,324.0	31.7	33.5	99.18	-1,191.5	-311.1	1,261.1	1,200.6	60.49	20.848	
9,153.5	7,121.6	9,289.4	7,323.9	32.4	34.4	99.18	-1,245.0	-311.1	1,261.1	1,199.0	62.10	20.309	
9,200.0	7,121.4	9,335.9	7,323.8	33.0	35.1	99.19	-1,291.5	-311.1	1,261.1	1,197.6	63.50	19.859	
9,251.9	7,121.2	9,387.9	7,323.8	33.7	36.0	99.20	-1,343.4	-311.1	1,261.1	1,196.0	65.11	19.370	
9,300.0	7,121.0	9,435.9	7,323.7	34.3	36.7	99.20	-1,391.5	-311.1	1,261.2	1,194.6	66.60	18.936	
9,350.4	7,120.7	9,486.3	7,323.6	35.0	37.6	99.21	-1,441.8	-311.1	1,261.2	1,193.0	68.19	18.495	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
9,400.0	7,120.5	9,535.9	7,323.5	35.7	38.4	99.22	-1,491.5	-311.1	1,261.2	1,191.5	69.77	18.077	
9,448.8	7,120.3	9,584.7	7,323.5	36.4	39.2	99.22	-1,540.3	-311.1	1,261.2	1,189.9	71.34	17.679	
9,500.0	7,120.1	9,635.9	7,323.4	37.2	40.1	99.23	-1,591.5	-311.1	1,261.3	1,188.3	73.00	17.278	
9,547.2	7,119.9	9,683.1	7,323.3	37.8	40.9	99.24	-1,638.7	-311.1	1,261.3	1,186.7	74.54	16.920	
9,600.0	7,119.6	9,735.9	7,323.3	38.6	41.8	99.24	-1,691.5	-311.1	1,261.3	1,185.0	76.28	16.536	
9,645.6	7,119.4	9,781.6	7,323.2	39.3	42.6	99.25	-1,737.1	-311.1	1,261.3	1,183.5	77.80	16.214	
9,700.0	7,119.2	9,835.9	7,323.1	40.1	43.5	99.26	-1,791.5	-311.1	1,261.4	1,181.8	79.61	15.845	
9,744.1	7,119.0	9,880.0	7,323.0	40.8	44.2	99.26	-1,835.5	-311.1	1,261.4	1,180.3	81.09	15.555	
9,800.0	7,118.7	9,935.9	7,323.0	41.7	45.2	99.27	-1,891.5	-311.1	1,261.4	1,178.4	82.98	15.202	
9,842.5	7,118.5	9,978.4	7,322.9	42.3	46.0	99.28	-1,934.0	-311.1	1,261.4	1,177.0	84.42	14.942	
9,900.0	7,118.3	10,035.9	7,322.8	43.2	47.0	99.29	-1,991.5	-311.1	1,261.5	1,175.1	86.38	14.604	
9,940.9	7,118.1	10,076.8	7,322.7	43.9	47.7	99.29	-2,032.4	-311.1	1,261.5	1,173.7	87.79	14.370	
10,000.0	7,117.8	10,135.9	7,322.7	44.8	48.7	99.30	-2,091.5	-311.1	1,261.5	1,171.7	89.82	14.045	
10,039.3	7,117.6	10,175.3	7,322.6	45.5	49.4	99.30	-2,130.8	-311.1	1,261.5	1,170.4	91.18	13.836	
10,100.0	7,117.4	10,235.9	7,322.5	46.4	50.5	99.31	-2,191.5	-311.1	1,261.6	1,168.3	93.28	13.524	
10,137.8	7,117.2	10,273.7	7,322.4	47.1	51.2	99.32	-2,229.2	-311.1	1,261.6	1,167.0	94.60	13.336	
10,200.0	7,116.9	10,335.9	7,322.3	48.1	52.3	99.33	-2,291.5	-311.1	1,261.6	1,164.9	96.77	13.037	
10,236.2	7,116.8	10,372.1	7,322.3	48.7	52.9	99.33	-2,327.7	-311.1	1,261.6	1,163.6	98.04	12.868	
10,300.0	7,116.5	10,435.9	7,322.2	49.7	54.1	99.34	-2,391.5	-311.1	1,261.7	1,161.4	100.28	12.581	
10,334.6	7,116.3	10,470.5	7,322.1	50.3	54.7	99.34	-2,426.1	-311.1	1,261.7	1,160.2	101.50	12.430	
10,400.0	7,116.0	10,535.9	7,322.0	51.4	55.9	99.35	-2,491.5	-311.1	1,261.7	1,157.9	103.81	12.154	
10,433.0	7,115.9	10,569.0	7,322.0	52.0	56.5	99.36	-2,524.5	-311.1	1,261.7	1,156.8	104.99	12.018	
10,500.0	7,115.6	10,635.9	7,321.9	53.1	57.7	99.36	-2,591.5	-311.1	1,261.8	1,154.4	107.36	11.752	
10,531.5	7,115.4	10,667.4	7,321.8	53.6	58.2	99.37	-2,622.9	-311.1	1,261.8	1,153.3	108.49	11.631	
10,600.0	7,115.1	10,735.9	7,321.7	54.8	59.5	99.38	-2,691.5	-311.1	1,261.8	1,150.9	110.93	11.375	
10,629.9	7,115.0	10,765.8	7,321.7	55.3	60.0	99.38	-2,721.4	-311.1	1,261.8	1,149.8	112.00	11.266	
10,700.0	7,114.7	10,835.9	7,321.6	56.5	61.3	99.39	-2,791.5	-311.1	1,261.9	1,147.4	114.51	11.020	
10,728.3	7,114.6	10,864.2	7,321.5	57.0	61.8	99.39	-2,819.8	-311.1	1,261.9	1,146.4	115.53	10.923	
10,800.0	7,114.2	10,935.9	7,321.4	58.3	63.1	99.40	-2,891.5	-311.1	1,261.9	1,143.8	118.10	10.685	
10,826.7	7,114.1	10,962.7	7,321.4	58.7	63.6	99.41	-2,918.2	-311.1	1,261.9	1,142.9	119.07	10.598	
10,900.0	7,113.8	11,035.9	7,321.3	60.0	65.0	99.42	-2,991.5	-311.1	1,262.0	1,140.3	121.71	10.369	
10,925.2	7,113.7	11,061.1	7,321.2	60.5	65.4	99.42	-3,016.6	-311.1	1,262.0	1,139.4	122.62	10.292	
11,000.0	7,113.3	11,135.9	7,321.1	61.8	66.8	99.43	-3,091.5	-311.1	1,262.0	1,136.7	125.33	10.070	
11,023.6	7,113.2	11,159.5	7,321.1	62.2	67.2	99.43	-3,115.1	-311.1	1,262.0	1,135.9	126.18	10.002	
11,100.0	7,112.9	11,235.9	7,321.0	63.5	68.6	99.44	-3,191.5	-311.1	1,262.1	1,133.1	128.95	9.787	
11,122.0	7,112.8	11,257.9	7,320.9	63.9	69.1	99.45	-3,213.5	-311.1	1,262.1	1,132.3	129.75	9.727	
11,200.0	7,112.4	11,335.9	7,320.8	65.3	70.5	99.46	-3,291.5	-311.1	1,262.1	1,129.5	132.59	9.519	
11,220.4	7,112.4	11,356.4	7,320.8	65.7	70.9	99.46	-3,311.9	-311.1	1,262.1	1,128.8	133.33	9.466	
11,300.0	7,112.0	11,435.9	7,320.7	67.1	72.3	99.47	-3,391.5	-311.1	1,262.2	1,125.9	136.23	9.265	
11,318.9	7,111.9	11,454.8	7,320.6	67.4	72.7	99.47	-3,410.3	-311.1	1,262.2	1,125.3	136.92	9.218	
11,400.0	7,111.6	11,535.9	7,320.5	68.9	74.2	99.48	-3,491.5	-311.1	1,262.2	1,122.3	139.89	9.023	
11,417.3	7,111.5	11,553.2	7,320.5	69.2	74.5	99.48	-3,508.8	-311.1	1,262.2	1,121.7	140.52	8.983	
11,500.0	7,111.1	11,635.9	7,320.3	70.7	76.1	99.50	-3,591.5	-311.1	1,262.3	1,118.7	143.55	8.794	
11,515.7	7,111.0	11,651.6	7,320.3	71.0	76.3	99.50	-3,607.2	-311.1	1,262.3	1,118.2	144.12	8.758	
11,600.0	7,110.7	11,735.9	7,320.2	72.5	77.9	99.51	-3,691.5	-311.1	1,262.3	1,115.1	147.21	8.575	
11,614.1	7,110.6	11,750.1	7,320.2	72.7	78.2	99.51	-3,705.6	-311.1	1,262.3	1,114.6	147.73	8.545	
11,700.0	7,110.2	11,835.9	7,320.0	74.3	79.6	99.52	-3,791.5	-311.1	1,262.4	1,111.6	150.75	8.374	
11,712.6	7,110.2	11,848.5	7,320.0	74.5	79.8	99.52	-3,804.0	-311.1	1,262.4	1,111.2	151.16	8.351	
11,747.9	7,110.0	11,849.6	7,320.0	75.1	79.8	99.52	-3,805.2	-311.1	1,262.9	1,111.0	151.82	8.318 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	91.39	-0.7	30.1	30.1				
98.4	98.4	98.4	98.4	0.1	0.1	91.39	-0.7	30.1	30.1	30.0	0.17	177.351	
100.0	100.0	100.0	100.0	0.1	0.1	91.39	-0.7	30.1	30.1	30.0	0.17	174.140	
196.8	196.8	196.8	196.8	0.3	0.3	91.39	-0.7	30.1	30.1	29.5	0.61	49.534	
200.0	200.0	200.0	200.0	0.3	0.3	91.39	-0.7	30.1	30.1	29.5	0.62	48.407	
295.3	295.3	295.3	295.3	0.5	0.5	91.39	-0.7	30.1	30.1	29.1	1.05	28.679	
300.0	300.0	300.0	300.0	0.5	0.5	91.39	-0.7	30.1	30.1	29.1	1.07	28.111	
393.7	393.7	393.7	393.7	0.7	0.7	91.39	-0.7	30.1	30.1	28.6	1.49	20.182	
400.0	400.0	400.0	400.0	0.8	0.8	91.39	-0.7	30.1	30.1	28.6	1.52	19.806	
492.1	492.1	492.1	492.1	1.0	1.0	91.39	-0.7	30.1	30.1	28.2	1.94	15.569	
500.0	500.0	500.0	500.0	1.0	1.0	91.39	-0.7	30.1	30.1	28.2	1.97	15.289	
590.5	590.5	590.5	590.5	1.2	1.2	91.39	-0.7	30.1	30.1	27.8	2.38	12.673	
600.0	600.0	600.0	600.0	1.2	1.2	91.39	-0.7	30.1	30.1	27.7	2.42	12.450	
689.0	689.0	689.0	689.0	1.4	1.4	91.39	-0.7	30.1	30.1	27.3	2.82	10.685	
700.0	700.0	700.0	700.0	1.4	1.4	91.39	-0.7	30.1	30.1	27.3	2.87	10.500	
787.4	787.4	787.4	787.4	1.6	1.6	91.39	-0.7	30.1	30.1	26.9	3.26	9.236	
800.0	800.0	800.0	800.0	1.7	1.7	91.39	-0.7	30.1	30.1	26.8	3.32	9.078	
885.8	885.8	885.8	885.8	1.9	1.9	91.39	-0.7	30.1	30.1	26.4	3.71	8.133	
900.0	900.0	900.0	900.0	1.9	1.9	91.39	-0.7	30.1	30.1	26.4	3.77	7.996	
984.2	984.2	984.2	984.2	2.1	2.1	91.39	-0.7	30.1	30.1	26.0	4.15	7.266	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	91.39	-0.7	30.1	30.1	25.9	4.22	7.144	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	91.39	-0.7	30.1	30.1	25.5	4.59	6.565	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	91.39	-0.7	30.1	30.1	25.5	4.67	6.456	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	91.39	-0.7	30.1	30.1	25.1	5.03	5.988	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	91.39	-0.7	30.1	30.1	25.0	5.12	5.889	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	91.39	-0.7	30.1	30.1	24.7	5.48	5.504	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	91.39	-0.7	30.1	30.1	24.6	5.57	5.413	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	91.39	-0.7	30.1	30.1	24.2	5.92	5.093	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	91.39	-0.7	30.1	30.1	24.1	6.02	5.009	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	91.39	-0.7	30.1	30.1	23.8	6.36	4.739	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	91.39	-0.7	30.1	30.1	23.7	6.47	4.661	
1,537.5	1,537.5	1,537.5	1,537.5	3.3	3.3	91.39	-0.7	30.1	30.1	23.5	6.64	4.542 CC	
1,574.8	1,574.8	1,574.6	1,574.6	3.4	3.4	91.28	-0.7	30.2	30.2	23.4	6.80	4.445 ES	
1,600.0	1,600.0	1,599.6	1,599.6	3.5	3.5	90.94	-0.5	30.5	30.5	23.6	6.91	4.413	
1,673.2	1,673.2	1,672.1	1,672.0	3.6	3.6	88.86	0.6	32.3	32.4	25.1	7.23	4.476	
1,700.0	1,700.0	1,698.6	1,698.5	3.7	3.7	87.77	1.3	33.4	33.5	26.1	7.35	4.554	
1,750.0	1,750.0	1,747.9	1,747.8	3.8	3.8	85.43	2.9	35.9	36.1	28.6	7.57	4.773	
1,771.6	1,771.6	1,769.3	1,769.1	3.8	3.8	42.41	3.7	37.3	37.5	29.8	7.66	4.893	
1,800.0	1,800.0	1,797.2	1,796.9	3.9	3.9	41.26	4.9	39.2	39.3	31.5	7.78	5.050	
1,870.1	1,870.0	1,866.2	1,865.6	4.1	4.0	39.22	8.5	45.0	44.0	35.9	8.08	5.446	
1,900.0	1,899.9	1,895.6	1,894.8	4.1	4.1	38.63	10.2	47.8	46.1	37.9	8.20	5.617	
1,968.5	1,968.3	1,962.9	1,961.5	4.3	4.3	37.78	14.9	55.4	51.0	42.5	8.49	6.007	
2,000.0	1,999.7	1,993.8	1,992.0	4.3	4.3	37.59	17.3	59.3	53.4	44.7	8.63	6.186	
2,066.9	2,066.3	2,059.3	2,056.7	4.5	4.5	37.50	23.1	68.5	58.5	49.6	8.91	6.562	
2,100.0	2,099.1	2,091.7	2,088.5	4.6	4.6	37.59	26.2	73.5	61.1	52.0	9.05	6.748	
2,165.3	2,163.9	2,155.5	2,151.0	4.7	4.8	37.98	32.8	84.3	66.3	57.0	9.33	7.106	
2,200.0	2,198.2	2,189.3	2,184.0	4.8	4.9	38.28	36.7	90.5	69.2	59.7	9.48	7.295	
2,263.8	2,261.0	2,251.4	2,244.4	5.0	5.1	38.97	44.3	102.8	74.6	64.8	9.77	7.632	
2,300.0	2,296.6	2,286.6	2,278.5	5.1	5.2	39.43	48.9	110.2	77.7	67.8	9.94	7.823	
2,362.2	2,357.6	2,347.0	2,336.8	5.3	5.5	40.30	57.3	123.8	83.3	73.0	10.24	8.135	
2,400.0	2,394.4	2,383.6	2,371.9	5.4	5.6	40.87	62.7	132.5	86.7	76.3	10.42	8.323	
2,460.6	2,453.4	2,442.3	2,428.0	5.6	5.9	41.84	71.9	147.3	92.4	81.7	10.74	8.607	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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
2,500.0	2,491.5	2,480.4	2,464.1	5.7	6.1	42.49	78.1	157.4	96.3	85.3	10.95	8.787	
2,559.0	2,548.3	2,537.4	2,517.9	5.9	6.3	43.50	88.0	173.3	102.1	90.8	11.31	9.031	
2,600.0	2,587.6	2,576.8	2,555.0	6.1	6.6	44.22	95.2	184.9	106.3	94.7	11.55	9.198	
2,657.5	2,642.4	2,632.1	2,606.5	6.3	6.9	45.24	105.6	201.8	112.3	100.4	11.94	9.404	
2,700.0	2,682.7	2,672.9	2,644.4	6.5	7.1	46.00	113.7	214.8	116.9	104.6	12.24	9.548	
2,750.0	2,729.8	2,720.9	2,688.5	6.8	7.4	46.89	123.5	230.7	122.4	109.8	12.62	9.698	
2,755.9	2,735.4	2,726.5	2,693.7	6.8	7.5	47.00	124.7	232.6	123.0	110.4	12.67	9.712	
2,800.0	2,776.8	2,768.7	2,732.3	7.0	7.7	47.73	133.8	247.2	128.3	115.3	13.04	9.840	
2,854.3	2,827.8	2,822.3	2,781.0	7.3	8.1	48.44	145.5	266.1	135.3	121.8	13.52	10.005	
2,900.0	2,870.8	2,867.5	2,822.2	7.5	8.4	48.98	155.4	282.1	141.2	127.3	13.94	10.131	
2,952.7	2,920.3	2,919.8	2,869.8	7.8	8.8	49.56	166.8	300.5	148.0	133.6	14.44	10.256	
3,000.0	2,964.7	2,966.7	2,912.4	8.1	9.2	50.03	177.0	317.0	154.2	139.3	14.89	10.355	
3,051.2	3,012.8	3,017.4	2,958.5	8.4	9.5	50.50	188.1	334.9	160.8	145.4	15.39	10.447	
3,100.0	3,058.7	3,065.8	3,002.5	8.7	9.9	50.91	198.7	352.0	167.2	151.3	15.88	10.526	
3,149.6	3,105.3	3,114.9	3,047.3	9.0	10.3	51.30	209.5	369.4	173.6	157.2	16.39	10.594	
3,200.0	3,152.7	3,164.9	3,092.7	9.3	10.7	51.67	220.4	387.0	180.2	163.3	16.91	10.655	
3,248.0	3,197.8	3,212.5	3,136.0	9.5	11.0	52.00	230.8	403.8	186.4	169.0	17.42	10.705	
3,300.0	3,246.6	3,264.0	3,182.9	9.9	11.4	52.33	242.1	422.0	193.2	175.3	17.97	10.752	
3,346.4	3,290.3	3,310.1	3,224.8	10.1	11.8	52.60	252.1	438.3	199.3	180.8	18.47	10.789	
3,400.0	3,340.6	3,363.1	3,273.1	10.5	12.2	52.90	263.7	457.0	206.3	187.2	19.06	10.825	
3,444.9	3,382.8	3,407.6	3,313.5	10.8	12.6	53.13	273.5	472.7	212.2	192.6	19.55	10.851	
3,500.0	3,434.6	3,462.3	3,363.2	11.1	13.0	53.40	285.4	492.0	219.4	199.2	20.17	10.879	
3,543.3	3,475.3	3,505.2	3,402.3	11.4	13.4	53.60	294.8	507.1	225.1	204.4	20.65	10.897	
3,600.0	3,528.6	3,561.4	3,453.4	11.7	13.8	53.85	307.1	527.0	232.5	211.2	21.30	10.918	
3,641.7	3,567.8	3,602.7	3,491.0	12.0	14.2	54.02	316.1	541.6	238.0	216.2	21.77	10.931	
3,700.0	3,622.5	3,660.5	3,543.6	12.4	14.6	54.25	328.8	562.0	245.6	223.2	22.44	10.946	
3,740.1	3,660.3	3,700.3	3,579.8	12.6	15.0	54.40	337.5	576.0	250.9	228.0	22.90	10.954	
3,749.0	3,668.6	3,709.1	3,587.8	12.7	15.0	54.43	339.4	579.1	252.1	229.1	23.01	10.956	
3,800.0	3,716.5	3,759.7	3,633.8	13.0	15.4	51.82	350.5	597.0	258.4	234.8	23.58	10.958	
3,838.6	3,752.8	3,798.0	3,668.7	13.2	15.8	49.75	358.8	610.5	262.7	238.8	23.99	10.954	
3,885.2	3,796.6	3,844.4	3,710.8	13.5	16.1	47.15	369.0	626.9	267.5	243.0	24.45	10.937	
3,900.0	3,810.5	3,859.1	3,724.3	13.6	16.3	47.11	372.2	632.1	268.9	244.3	24.60	10.927	
3,937.0	3,845.3	3,896.0	3,757.8	13.8	16.6	47.00	380.3	645.1	272.4	247.4	24.98	10.901	
4,000.0	3,904.5	3,958.7	3,814.8	14.2	17.1	46.81	394.0	667.2	278.3	252.7	25.63	10.858	
4,035.4	3,937.7	3,993.9	3,846.9	14.5	17.4	46.71	401.7	679.6	281.7	255.7	26.00	10.835	
4,100.0	3,998.4	4,058.2	3,905.4	14.9	17.9	46.53	415.7	702.3	287.8	261.2	26.67	10.793	
4,133.8	4,030.2	4,091.9	3,936.0	15.1	18.2	46.44	423.1	714.2	291.0	264.0	27.02	10.773	
4,200.0	4,092.4	4,157.7	3,995.9	15.5	18.8	46.27	437.5	737.5	297.3	269.6	27.70	10.733	
4,232.3	4,122.7	4,189.9	4,025.1	15.8	19.0	46.19	444.5	748.8	300.4	272.3	28.03	10.715	
4,300.0	4,186.4	4,257.3	4,086.5	16.2	19.6	46.03	459.3	772.6	306.8	278.1	28.73	10.677	
4,330.7	4,215.2	4,287.8	4,114.3	16.4	19.8	45.96	466.0	783.4	309.7	280.7	29.05	10.661	
4,400.0	4,280.3	4,356.8	4,177.0	16.9	20.4	45.80	481.1	807.7	316.3	286.5	29.77	10.625	
4,429.1	4,307.7	4,385.8	4,203.4	17.1	20.7	45.74	487.4	818.0	319.1	289.0	30.07	10.610	
4,500.0	4,374.3	4,456.4	4,267.6	17.6	21.3	45.58	502.8	842.9	325.8	295.0	30.81	10.576	
4,527.5	4,400.2	4,483.8	4,292.5	17.7	21.5	45.53	508.8	852.5	328.4	297.3	31.09	10.563	
4,600.0	4,468.3	4,555.9	4,358.1	18.2	22.1	45.38	524.6	878.0	335.3	303.5	31.84	10.530	
4,626.0	4,492.7	4,581.8	4,381.7	18.4	22.3	45.33	530.2	887.1	337.8	305.7	32.11	10.519	
4,700.0	4,562.3	4,655.4	4,448.7	18.9	22.9	45.19	546.4	913.1	344.8	312.0	32.88	10.487	
4,724.4	4,585.2	4,679.7	4,470.8	19.1	23.2	45.14	551.7	921.7	347.2	314.0	33.14	10.477	
4,800.0	4,656.2	4,755.0	4,539.2	19.6	23.8	45.01	568.1	948.3	354.4	320.4	33.92	10.446	
4,822.8	4,677.7	4,777.7	4,559.9	19.7	24.0	44.97	573.1	956.3	356.5	322.4	34.16	10.438	
4,900.0	4,750.2	4,854.5	4,629.8	20.3	24.6	44.83	589.9	983.4	363.9	328.9	34.96	10.408	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
4,921.2	4,770.2	4,875.7	4,649.0	20.4	24.8	44.80	594.5	990.9	365.9	330.7	35.18	10.401	
5,000.0	4,844.2	4,954.1	4,720.3	20.9	25.5	44.67	611.7	1,018.5	373.4	337.4	36.00	10.373	
5,019.7	4,862.7	4,973.6	4,738.2	21.1	25.6	44.64	615.9	1,025.4	375.3	339.1	36.20	10.366	
5,100.0	4,938.1	5,053.6	4,810.9	21.6	26.3	44.51	633.4	1,053.7	382.9	345.9	37.04	10.339	
5,118.1	4,955.1	5,071.6	4,827.3	21.7	26.5	44.49	637.4	1,060.0	384.7	347.4	37.23	10.333	
5,200.0	5,032.1	5,153.1	4,901.4	22.3	27.2	44.37	655.2	1,088.8	392.5	354.4	38.08	10.307	
5,216.5	5,047.6	5,169.6	4,916.4	22.4	27.3	44.34	658.8	1,094.6	394.0	355.8	38.25	10.302	
5,300.0	5,126.1	5,252.7	4,992.0	23.0	28.0	44.23	677.0	1,123.9	402.0	362.9	39.12	10.276	
5,314.9	5,140.1	5,267.6	5,005.5	23.1	28.1	44.21	680.2	1,129.2	403.4	364.1	39.27	10.272	
5,400.0	5,220.0	5,352.2	5,082.6	23.7	28.9	44.09	698.7	1,159.1	411.5	371.4	40.16	10.248	
5,413.4	5,232.6	5,365.5	5,094.7	23.8	29.0	44.07	701.6	1,163.8	412.8	372.5	40.30	10.244	
5,504.2	5,318.0	5,455.9	5,176.9	24.4	29.8	43.96	721.4	1,195.7	421.5	380.2	41.24	10.219	
5,511.8	5,325.1	5,463.5	5,183.8	24.4	29.8	43.96	723.1	1,198.4	422.2	380.9	41.32	10.218	
5,600.0	5,408.5	5,561.1	5,273.0	24.9	30.5	43.88	743.9	1,231.9	430.9	388.7	42.18	10.216	
5,610.2	5,418.2	5,572.7	5,283.7	25.0	30.6	43.87	746.2	1,235.7	431.9	389.6	42.27	10.218	
5,700.0	5,504.1	5,674.6	5,378.5	25.4	31.2	43.78	766.0	1,267.7	440.2	397.2	43.02	10.234	
5,708.6	5,512.4	5,684.5	5,387.7	25.5	31.3	43.77	767.8	1,270.6	441.0	397.9	43.09	10.236	
5,800.0	5,600.7	5,788.6	5,485.9	25.9	31.8	43.66	786.0	1,300.0	448.9	405.1	43.77	10.256	
5,807.1	5,607.5	5,796.7	5,493.6	25.9	31.9	43.65	787.4	1,302.1	449.4	405.6	43.82	10.257	
5,900.0	5,698.1	5,903.0	5,595.1	26.3	32.4	43.53	803.9	1,328.8	456.8	412.4	44.42	10.282	
5,905.5	5,703.4	5,909.3	5,601.2	26.3	32.4	43.52	804.8	1,330.2	457.2	412.7	44.46	10.284	
6,000.0	5,796.2	6,017.7	5,706.0	26.6	32.9	43.38	819.4	1,353.9	464.0	419.0	44.98	10.314	
6,003.9	5,800.1	6,022.2	5,710.4	26.6	32.9	43.37	820.0	1,354.8	464.3	419.3	45.00	10.316	
6,100.0	5,894.9	6,132.8	5,818.4	26.9	33.4	43.21	832.7	1,375.2	470.5	425.0	45.45	10.351	
6,102.3	5,897.3	6,135.6	5,821.0	26.9	33.4	43.21	832.9	1,375.7	470.6	425.1	45.46	10.352	
6,200.0	5,994.2	6,248.3	5,932.0	27.2	33.7	43.03	843.5	1,392.8	476.2	430.4	45.82	10.392	
6,200.8	5,994.9	6,249.2	5,932.8	27.2	33.7	43.03	843.6	1,392.9	476.2	430.4	45.83	10.392	
6,299.2	6,093.0	6,363.1	6,045.7	27.4	34.1	42.83	852.0	1,406.4	481.1	435.0	46.10	10.437	
6,300.0	6,093.8	6,364.1	6,046.6	27.4	34.1	42.83	852.0	1,406.5	481.2	435.1	46.10	10.437	
6,397.6	6,191.2	6,477.3	6,159.3	27.5	34.3	42.63	858.0	1,416.1	485.3	439.0	46.29	10.485	
6,400.0	6,193.6	6,480.1	6,162.0	27.5	34.3	42.62	858.1	1,416.3	485.4	439.1	46.29	10.486	
6,496.0	6,289.6	6,591.8	6,273.5	27.6	34.5	42.40	861.6	1,421.9	488.7	442.4	46.38	10.537	
6,504.1	6,297.7	6,601.1	6,282.8	27.6	34.5	92.35	861.8	1,422.2	489.0	442.6	46.39	10.541	
6,594.5	6,388.1	6,706.4	6,388.1	27.7	34.6	92.22	862.8	1,423.8	490.3	443.8	46.56	10.531	
6,600.0	6,393.6	6,711.9	6,393.6	27.7	34.6	92.22	862.8	1,423.8	490.3	443.8	46.57	10.528	
6,618.2	6,411.8	6,730.1	6,411.8	27.8	34.6	92.22	862.8	1,423.8	490.3	443.7	46.62	10.518	
6,650.0	6,443.6	6,761.2	6,442.9	27.8	34.6	-87.81	862.3	1,423.8	490.3	443.7	46.67	10.507	
6,692.9	6,486.4	6,803.0	6,484.6	27.8	34.6	-87.86	859.6	1,423.8	490.3	443.6	46.67	10.506	
6,700.0	6,493.4	6,810.0	6,491.5	27.8	34.6	-87.87	859.0	1,423.8	490.3	443.6	46.67	10.507	
6,750.0	6,542.8	6,858.7	6,539.8	27.8	34.6	-87.93	852.3	1,423.8	490.3	443.7	46.58	10.525	
6,791.3	6,583.2	6,899.1	6,579.4	27.7	34.6	-88.00	844.3	1,423.8	490.3	443.8	46.45	10.555	
6,800.0	6,591.6	6,907.5	6,587.6	27.7	34.6	-88.01	842.3	1,423.8	490.3	443.9	46.42	10.563	
6,850.0	6,639.6	6,956.4	6,634.7	27.6	34.5	-88.10	829.2	1,423.8	490.2	444.1	46.17	10.619	
6,889.7	6,676.9	6,995.3	6,671.4	27.6	34.5	-88.18	816.4	1,423.8	490.2	444.3	45.91	10.677	
6,900.0	6,686.4	7,005.3	6,680.7	27.5	34.5	-88.20	812.8	1,423.8	490.2	444.4	45.84	10.693	
6,950.0	6,731.8	7,054.3	6,725.6	27.4	34.4	-88.31	793.2	1,423.8	490.2	444.7	45.45	10.785	
6,988.2	6,765.5	7,091.7	6,759.0	27.3	34.3	-88.40	776.3	1,423.8	490.2	445.1	45.11	10.866	
7,000.0	6,775.8	7,103.3	6,769.1	27.2	34.2	-88.42	770.7	1,423.8	490.2	445.2	45.00	10.892	
7,050.0	6,817.9	7,152.4	6,811.1	27.1	34.1	-88.55	745.1	1,423.8	490.1	445.6	44.50	11.015	
7,086.6	6,847.5	7,188.4	6,840.6	26.9	34.0	-88.64	724.6	1,423.8	490.1	446.0	44.09	11.115	
7,100.0	6,858.1	7,201.6	6,851.2	26.9	33.9	-88.68	716.7	1,423.8	490.1	446.2	43.95	11.152	
7,150.0	6,896.1	7,250.8	6,889.4	26.6	33.8	-88.81	685.6	1,423.8	490.1	446.7	43.37	11.301	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
7,185.0	6,921.3	7,285.4	6,914.8	26.5	33.6	-88.91	662.3	1,423.8	490.1	447.1	42.95	11.411	
7,200.0	6,931.7	7,300.0	6,925.2	26.4	33.6	-88.95	652.0	1,423.8	490.1	447.3	42.77	11.458	
7,250.0	6,964.8	7,349.6	6,959.0	26.2	33.4	-89.10	615.7	1,423.8	490.0	447.9	42.16	11.624	
7,283.4	6,985.4	7,382.7	6,980.1	26.0	33.3	-89.20	590.2	1,423.8	490.0	448.3	41.75	11.737	
7,300.0	6,995.2	7,399.1	6,990.1	25.9	33.2	-89.25	577.2	1,423.8	490.0	448.5	41.55	11.793	
7,350.0	7,022.7	7,448.7	7,018.5	25.7	33.0	-89.41	536.6	1,423.8	490.0	449.0	40.96	11.962	
7,381.9	7,038.8	7,480.3	7,035.1	25.5	32.8	-89.51	509.7	1,423.8	490.0	449.4	40.60	12.068	
7,400.0	7,047.3	7,498.3	7,044.1	25.4	32.8	-89.57	494.0	1,423.8	490.0	449.6	40.40	12.128	
7,450.0	7,068.8	7,548.1	7,066.7	25.1	32.6	-89.73	449.7	1,423.8	490.0	450.1	39.88	12.286	
7,480.3	7,080.3	7,578.3	7,078.9	25.0	32.4	-89.82	422.1	1,423.8	490.0	450.4	39.60	12.374	
7,500.0	7,087.1	7,598.0	7,086.2	24.9	32.4	-89.89	403.8	1,423.8	490.0	450.6	39.41	12.432	
7,533.7	7,097.6	7,631.6	7,097.6	24.7	32.2	-90.00	372.1	1,423.8	490.0	450.8	39.14	12.519	
7,550.0	7,102.1	7,647.9	7,102.5	24.6	32.2	-90.05	356.6	1,423.8	490.0	451.0	39.01	12.561	
7,578.7	7,109.2	7,676.7	7,110.4	24.5	32.0	-90.14	329.0	1,423.8	490.0	451.2	38.82	12.623	
7,600.0	7,113.7	7,698.0	7,115.5	24.4	32.0	-90.21	308.3	1,423.8	490.0	451.3	38.67	12.669	
7,650.0	7,121.9	7,748.1	7,125.1	24.2	31.8	-90.38	259.1	1,423.8	490.0	451.6	38.42	12.754	
7,677.1	7,125.0	7,775.4	7,128.9	24.1	31.7	-90.46	232.0	1,423.8	490.0	451.7	38.33	12.785	
7,700.0	7,126.7	7,798.4	7,131.3	24.0	31.6	-90.54	209.2	1,423.8	490.0	451.8	38.25	12.811	
7,746.5	7,128.0	7,845.2	7,133.8	23.8	31.5	-90.68	162.5	1,423.8	490.0	451.8	38.17	12.838	
7,775.6	7,127.9	7,874.5	7,133.9	23.7	31.4	-90.71	133.2	1,423.8	490.0	451.9	38.08	12.868	
7,800.0	7,127.7	7,898.9	7,133.7	23.6	31.4	-90.70	108.8	1,423.8	490.0	452.0	38.02	12.887	
7,874.0	7,127.4	7,972.9	7,133.2	23.4	31.2	-90.67	34.8	1,423.8	490.0	452.2	37.82	12.955	
7,900.0	7,127.3	7,998.9	7,133.0	23.4	31.2	-90.67	8.8	1,423.8	490.0	452.3	37.75	12.979	
7,972.4	7,127.0	8,071.3	7,132.4	23.3	31.1	-90.64	-63.6	1,423.8	490.0	452.2	37.84	12.951	
8,000.0	7,126.8	8,098.9	7,132.2	23.3	31.1	-90.63	-91.2	1,423.8	490.0	452.1	37.87	12.940	
8,070.8	7,126.5	8,169.7	7,131.7	23.4	31.1	-90.61	-162.1	1,423.8	490.0	451.8	38.22	12.822	
8,100.0	7,126.4	8,198.9	7,131.5	23.5	31.1	-90.60	-191.2	1,423.8	490.0	451.6	38.36	12.773	
8,169.3	7,126.1	8,268.2	7,131.0	23.7	31.2	-90.57	-260.5	1,423.8	490.0	451.0	38.96	12.577	
8,200.0	7,125.9	8,298.9	7,130.7	23.8	31.2	-90.56	-291.2	1,423.8	490.0	450.8	39.23	12.492	
8,267.7	7,125.6	8,366.6	7,130.2	24.1	31.4	-90.54	-358.9	1,423.8	490.0	450.0	40.05	12.236	
8,300.0	7,125.5	8,398.9	7,130.0	24.2	31.5	-90.53	-391.2	1,423.8	490.0	449.6	40.44	12.117	
8,366.1	7,125.2	8,465.0	7,129.5	24.6	31.7	-90.50	-457.3	1,423.8	490.0	448.5	41.45	11.821	
8,400.0	7,125.0	8,498.9	7,129.2	24.8	31.9	-90.49	-491.2	1,423.8	490.0	448.0	41.97	11.675	
8,464.5	7,124.7	8,563.4	7,128.7	25.3	32.2	-90.47	-555.8	1,423.8	490.0	446.8	43.14	11.357	
8,500.0	7,124.6	8,598.9	7,128.5	25.6	32.4	-90.46	-591.2	1,423.8	490.0	446.2	43.79	11.190	
8,563.0	7,124.3	8,661.9	7,128.0	26.1	32.8	-90.43	-654.2	1,423.8	490.0	444.9	45.09	10.866	
8,600.0	7,124.1	8,698.9	7,127.7	26.4	33.1	-90.42	-691.2	1,423.8	490.0	444.1	45.86	10.684	
8,661.4	7,123.8	8,760.3	7,127.3	26.9	33.5	-90.40	-752.6	1,423.8	490.0	442.7	47.27	10.366	
8,700.0	7,123.7	8,798.9	7,127.0	27.3	33.9	-90.39	-791.2	1,423.8	490.0	441.8	48.16	10.175	
8,759.8	7,123.4	8,858.7	7,126.5	27.9	34.4	-90.37	-851.0	1,423.8	490.0	440.3	49.64	9.870	
8,800.0	7,123.2	8,898.9	7,126.2	28.3	34.8	-90.35	-891.2	1,423.8	490.0	439.3	50.64	9.676	
8,858.2	7,123.0	8,957.1	7,125.8	28.9	35.4	-90.33	-949.4	1,423.8	490.0	437.8	52.18	9.389	
8,900.0	7,122.8	8,998.9	7,125.5	29.4	35.8	-90.32	-991.2	1,423.8	490.0	436.7	53.29	9.194	
8,956.7	7,122.5	9,055.6	7,125.1	30.0	36.5	-90.30	-1,047.9	1,423.8	490.0	435.1	54.87	8.930	
9,000.0	7,122.3	9,098.9	7,124.7	30.5	37.0	-90.28	-1,091.2	1,423.8	490.0	433.9	56.08	8.737	
9,055.1	7,122.1	9,154.0	7,124.3	31.2	37.6	-90.26	-1,146.3	1,423.8	490.0	432.3	57.68	8.494	
9,100.0	7,121.9	9,198.9	7,124.0	31.7	38.2	-90.25	-1,191.2	1,423.8	490.0	431.0	58.99	8.306	
9,153.5	7,121.6	9,252.4	7,123.6	32.4	38.9	-90.23	-1,244.7	1,423.8	490.0	429.4	60.60	8.085	
9,200.0	7,121.4	9,298.9	7,123.2	33.0	39.5	-90.21	-1,291.2	1,423.8	490.0	428.0	62.01	7.902	
9,251.9	7,121.2	9,350.8	7,122.8	33.7	40.1	-90.19	-1,343.1	1,423.8	490.0	426.4	63.62	7.702	
9,300.0	7,121.0	9,398.9	7,122.5	34.3	40.8	-90.18	-1,391.2	1,423.8	490.0	424.9	65.11	7.526	
9,350.4	7,120.7	9,449.3	7,122.1	35.0	41.5	-90.16	-1,441.6	1,423.8	490.0	423.3	66.71	7.345	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - OLSON 30R-223 - ORIGINAL WELLBORE - PROPOSAL #2												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MW/D												<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	
9,400.0	7,120.5	9,498.9	7,121.7	35.7	42.2	-90.14	-1,491.2	1,423.8	490.0	421.7	68.29	7.175	
9,448.8	7,120.3	9,547.7	7,121.4	36.4	42.9	-90.12	-1,540.0	1,423.8	490.0	420.1	69.87	7.013	
9,500.0	7,120.1	9,598.9	7,121.0	37.2	43.6	-90.11	-1,591.2	1,423.8	490.0	418.4	71.53	6.850	
9,547.2	7,119.9	9,646.1	7,120.6	37.8	44.3	-90.09	-1,638.4	1,423.8	490.0	416.9	73.09	6.704	
9,600.0	7,119.6	9,698.9	7,120.2	38.6	45.1	-90.07	-1,691.2	1,423.8	490.0	415.1	74.83	6.547	
9,645.6	7,119.4	9,744.5	7,119.9	39.3	45.8	-90.06	-1,736.8	1,423.8	490.0	413.6	76.36	6.416	
9,700.0	7,119.2	9,798.9	7,119.5	40.1	46.6	-90.04	-1,791.2	1,423.8	490.0	411.8	78.19	6.267	
9,744.1	7,119.0	9,843.0	7,119.1	40.8	47.3	-90.02	-1,835.2	1,423.8	490.0	410.3	79.68	6.149	
9,800.0	7,118.7	9,898.9	7,118.7	41.7	48.2	-90.00	-1,891.2	1,423.8	490.0	408.4	81.58	6.006	
9,842.5	7,118.5	9,941.4	7,118.4	42.3	48.8	-89.99	-1,933.7	1,423.8	490.0	406.9	83.04	5.900	
9,900.0	7,118.3	9,998.9	7,118.0	43.2	49.8	-89.97	-1,991.2	1,423.8	490.0	405.0	85.02	5.763	
9,940.9	7,118.1	10,039.8	7,117.7	43.9	50.4	-89.95	-2,032.1	1,423.8	490.0	403.5	86.44	5.669	
10,000.0	7,117.8	10,098.9	7,117.2	44.8	51.3	-89.93	-2,091.2	1,423.8	490.0	401.5	88.49	5.537	
10,039.3	7,117.6	10,138.2	7,116.9	45.5	52.0	-89.92	-2,130.5	1,423.8	490.0	400.1	89.86	5.452	
10,100.0	7,117.4	10,198.9	7,116.5	46.4	53.0	-89.90	-2,191.2	1,423.8	490.0	398.0	91.98	5.327	
10,137.8	7,117.2	10,236.7	7,116.2	47.1	53.6	-89.88	-2,228.9	1,423.8	490.0	396.7	93.32	5.251	
10,200.0	7,116.9	10,298.9	7,115.7	48.1	54.6	-89.86	-2,291.2	1,423.8	490.0	394.5	95.51	5.130	
10,236.2	7,116.8	10,335.1	7,115.5	48.7	55.2	-89.85	-2,327.4	1,423.8	490.0	393.2	96.79	5.062	
10,300.0	7,116.5	10,398.9	7,115.0	49.7	56.3	-89.82	-2,391.1	1,423.8	490.0	390.9	99.06	4.946	
10,317.7	7,116.4	10,416.5	7,114.8	50.0	56.6	-89.82	-2,408.8	1,423.8	490.0	390.3	99.69	4.915	
10,334.6	7,116.3	10,433.5	7,114.7	50.3	56.8	-89.81	-2,425.8	1,423.8	490.0	389.7	100.30	4.885	
10,400.0	7,116.0	10,498.9	7,114.2	51.4	57.9	-89.79	-2,491.1	1,423.8	490.0	387.3	102.63	4.774	
10,433.0	7,115.9	10,531.9	7,114.0	52.0	58.5	-89.78	-2,524.2	1,423.8	490.0	386.2	103.82	4.720	
10,500.0	7,115.6	10,598.9	7,113.5	53.1	59.6	-89.75	-2,591.1	1,423.8	490.0	383.8	106.22	4.613	
10,531.5	7,115.4	10,630.4	7,113.2	53.6	60.2	-89.74	-2,622.6	1,423.8	490.0	382.6	107.36	4.564	
10,600.0	7,115.1	10,698.9	7,112.7	54.8	61.3	-89.72	-2,691.1	1,423.8	490.0	380.1	109.83	4.461	
10,629.9	7,115.0	10,728.8	7,112.5	55.3	61.8	-89.71	-2,721.0	1,423.8	490.0	379.1	110.91	4.418	
10,700.0	7,114.7	10,798.9	7,112.0	56.5	63.1	-89.68	-2,791.1	1,423.8	490.0	376.5	113.45	4.319	
10,728.3	7,114.6	10,827.2	7,111.8	57.0	63.5	-89.67	-2,819.5	1,423.8	490.0	375.5	114.48	4.280	
10,800.0	7,114.2	10,898.9	7,111.2	58.3	64.8	-89.65	-2,891.1	1,423.8	490.0	372.9	117.09	4.185	
10,826.7	7,114.1	10,925.6	7,111.0	58.7	65.2	-89.64	-2,917.9	1,423.8	490.0	371.9	118.06	4.150	
10,900.0	7,113.8	10,998.9	7,110.5	60.0	66.5	-89.61	-2,991.1	1,423.8	490.0	369.2	120.74	4.058	
10,925.2	7,113.7	11,024.1	7,110.3	60.5	67.0	-89.60	-3,016.3	1,423.8	490.0	368.3	121.66	4.027	
11,000.0	7,113.3	11,098.9	7,109.7	61.8	68.3	-89.58	-3,091.1	1,423.8	490.0	365.6	124.40	3.939	
11,023.6	7,113.2	11,122.5	7,109.5	62.2	68.7	-89.57	-3,114.7	1,423.8	490.0	364.7	125.26	3.912	
11,100.0	7,112.9	11,198.9	7,109.0	63.5	70.0	-89.54	-3,191.1	1,423.8	490.0	361.9	128.07	3.826	
11,122.0	7,112.8	11,220.9	7,108.8	63.9	70.4	-89.53	-3,213.1	1,423.8	490.0	361.1	128.88	3.802	
11,200.0	7,112.4	11,298.9	7,108.2	65.3	71.8	-89.51	-3,291.1	1,423.8	490.0	358.2	131.75	3.719	
11,220.4	7,112.4	11,319.3	7,108.1	65.7	72.1	-89.50	-3,311.6	1,423.8	490.0	357.5	132.51	3.698	
11,300.0	7,112.0	11,398.9	7,107.5	67.1	73.6	-89.47	-3,391.1	1,423.8	490.0	354.5	135.44	3.618	
11,318.9	7,111.9	11,417.8	7,107.3	67.4	73.9	-89.46	-3,410.0	1,423.8	490.0	353.8	136.14	3.599	
11,400.0	7,111.6	11,498.9	7,106.7	68.9	75.3	-89.43	-3,491.1	1,423.8	490.0	350.8	139.14	3.521	
11,417.3	7,111.5	11,516.2	7,106.6	69.2	75.6	-89.43	-3,508.4	1,423.8	490.0	350.2	139.78	3.505	
11,500.0	7,111.1	11,598.9	7,106.0	70.7	77.1	-89.40	-3,591.1	1,423.8	490.0	347.1	142.85	3.430	
11,515.7	7,111.0	11,614.6	7,105.8	71.0	77.4	-89.39	-3,606.8	1,423.8	490.0	346.5	143.43	3.416	
11,600.0	7,110.7	11,698.9	7,105.2	72.5	78.9	-89.36	-3,691.1	1,423.8	490.0	343.4	146.56	3.343	
11,614.1	7,110.6	11,713.0	7,105.1	72.7	79.2	-89.36	-3,705.3	1,423.8	490.0	342.9	147.09	3.331	
11,700.0	7,110.2	11,798.9	7,104.5	74.3	80.7	-89.33	-3,791.1	1,423.8	490.0	339.7	150.28	3.260	
11,712.6	7,110.2	11,811.3	7,104.4	74.5	80.9	-89.32	-3,803.6	1,423.8	490.0	339.2	150.75	3.250	
11,747.9	7,110.0	11,846.6	7,104.1	75.1	81.6	-89.31	-3,838.9	1,423.8	490.0	337.9	152.06	3.222 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	1.0	1.0	0.0	0.0	-88.61	0.7	-29.9	29.9				
98.4	98.4	99.4	99.4	0.1	0.1	-88.61	0.7	-29.9	29.9	29.7	0.17	174.819	
100.0	100.0	101.0	101.0	0.1	0.1	-88.61	0.7	-29.9	29.9	29.7	0.18	170.316	
196.8	196.8	197.8	197.8	0.3	0.3	-88.61	0.7	-29.9	29.9	29.2	0.61	48.895	
200.0	200.0	201.0	201.0	0.3	0.3	-88.61	0.7	-29.9	29.9	29.2	0.62	47.787	
295.3	295.3	296.3	296.3	0.5	0.5	-88.61	0.7	-29.9	29.9	28.8	1.05	28.353	
300.0	300.0	301.0	301.0	0.5	0.5	-88.61	0.7	-29.9	29.9	28.8	1.07	27.792	
393.7	393.7	394.7	394.7	0.7	0.7	-88.61	0.7	-29.9	29.9	28.4	1.50	19.965	
400.0	400.0	401.0	401.0	0.8	0.8	-88.61	0.7	-29.9	29.9	28.3	1.52	19.594	
492.1	492.1	493.1	493.1	1.0	1.0	-88.61	0.7	-29.9	29.9	27.9	1.94	15.407	
500.0	500.0	501.0	501.0	1.0	1.0	-88.61	0.7	-29.9	29.9	27.9	1.97	15.131	
590.5	590.5	591.5	591.5	1.2	1.2	-88.61	0.7	-29.9	29.9	27.5	2.38	12.543	
600.0	600.0	601.0	601.0	1.2	1.2	-88.61	0.7	-29.9	29.9	27.4	2.42	12.323	
689.0	689.0	690.0	690.0	1.4	1.4	-88.61	0.7	-29.9	29.9	27.0	2.82	10.577	
700.0	700.0	701.0	701.0	1.4	1.4	-88.61	0.7	-29.9	29.9	27.0	2.87	10.395	
787.4	787.4	788.4	788.4	1.6	1.6	-88.61	0.7	-29.9	29.9	26.6	3.27	9.144	
800.0	800.0	801.0	801.0	1.7	1.7	-88.61	0.7	-29.9	29.9	26.5	3.32	8.988	
885.8	885.8	886.8	886.8	1.9	1.9	-88.61	0.7	-29.9	29.9	26.2	3.71	8.053	
900.0	900.0	901.0	901.0	1.9	1.9	-88.61	0.7	-29.9	29.9	26.1	3.77	7.917	
984.2	984.2	985.2	985.2	2.1	2.1	-88.61	0.7	-29.9	29.9	25.7	4.15	7.195	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-88.61	0.7	-29.9	29.9	25.6	4.22	7.074	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	2.3	-88.61	0.7	-29.9	29.9	25.3	4.59	6.501	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	2.3	-88.61	0.7	-29.9	29.9	25.2	4.67	6.393	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	2.5	-88.61	0.7	-29.9	29.9	24.8	5.04	5.930	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-88.61	0.7	-29.9	29.9	24.7	5.12	5.832	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	2.7	-88.61	0.7	-29.9	29.9	24.4	5.48	5.451	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-88.61	0.7	-29.9	29.9	24.3	5.57	5.361	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	3.0	-88.61	0.7	-29.9	29.9	23.9	5.92	5.044	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-88.61	0.7	-29.9	29.9	23.8	6.02	4.961	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	3.2	-88.61	0.7	-29.9	29.9	23.5	6.36	4.693	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	3.2	-88.61	0.7	-29.9	29.9	23.4	6.47	4.616	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	3.4	-88.61	0.7	-29.9	29.9	23.1	6.81	4.388	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	3.5	-88.61	0.7	-29.9	29.9	22.9	6.92	4.316	
1,673.2	1,673.2	1,674.2	1,674.2	3.6	3.6	-88.61	0.7	-29.9	29.9	22.6	7.25	4.120	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	3.7	-88.61	0.7	-29.9	29.9	22.5	7.37	4.053	
1,750.0	1,750.0	1,751.0	1,751.0	3.8	3.8	-88.61	0.7	-29.9	29.9	22.3	7.59	3.933 CC	
1,771.6	1,771.6	1,772.6	1,772.6	3.8	3.8	-130.73	0.7	-29.9	29.9	22.2	7.69	3.890 ES	
1,800.0	1,800.0	1,801.0	1,801.0	3.9	3.9	-131.23	0.7	-29.9	30.1	22.3	7.81	3.857	
1,870.1	1,870.0	1,871.0	1,871.0	4.1	4.1	-134.05	0.7	-29.9	31.6	23.4	8.12	3.885	
1,900.0	1,899.9	1,900.9	1,900.9	4.1	4.1	-135.82	0.7	-29.9	32.6	24.3	8.25	3.945	
1,968.5	1,968.3	1,969.4	1,969.4	4.3	4.3	-140.61	0.8	-29.8	35.8	27.3	8.55	4.188	
2,000.0	1,999.7	2,001.1	2,001.1	4.3	4.4	-142.62	1.1	-29.6	37.6	28.9	8.68	4.329	
2,066.9	2,066.3	2,068.5	2,068.4	4.5	4.5	-145.99	2.9	-28.7	41.7	32.7	8.96	4.651	
2,100.0	2,099.1	2,101.8	2,101.7	4.6	4.6	-147.27	4.3	-28.0	43.9	34.8	9.10	4.818	
2,165.3	2,163.9	2,167.7	2,167.5	4.7	4.7	-149.19	8.0	-26.0	48.3	39.0	9.37	5.157	
2,200.0	2,198.2	2,202.7	2,202.4	4.8	4.8	-149.92	10.6	-24.7	50.8	41.3	9.52	5.342	
2,263.8	2,261.0	2,267.1	2,266.5	5.0	5.0	-150.87	16.2	-21.7	55.6	45.8	9.78	5.682	
2,300.0	2,296.6	2,303.8	2,302.9	5.1	5.0	-151.20	20.0	-19.7	58.4	48.4	9.93	5.878	
2,362.2	2,357.6	2,366.8	2,365.3	5.3	5.2	-151.49	27.5	-15.8	63.3	53.1	10.19	6.209	
2,400.0	2,394.4	2,405.1	2,403.2	5.4	5.3	-151.53	32.6	-13.0	66.4	56.0	10.35	6.413	
2,460.6	2,453.4	2,466.6	2,463.8	5.6	5.4	-151.40	41.8	-8.2	71.5	60.8	10.62	6.730	
2,500.0	2,491.5	2,506.6	2,503.1	5.7	5.5	-151.20	48.4	-4.7	74.9	64.1	10.79	6.937	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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
2,559.0	2,548.3	2,566.6	2,561.8	5.9	5.7	-150.79	59.2	0.9	80.1	69.0	11.07	7.234	
2,600.0	2,587.6	2,608.2	2,602.5	6.1	5.8	-150.43	67.3	5.2	83.8	72.5	11.26	7.441	
2,657.5	2,642.4	2,666.7	2,659.3	6.3	6.0	-149.83	79.6	11.7	89.1	77.6	11.55	7.714	
2,700.0	2,682.7	2,710.0	2,701.2	6.5	6.2	-149.33	89.4	16.8	93.2	81.4	11.77	7.914	
2,750.0	2,729.8	2,760.3	2,749.6	6.8	6.3	-148.77	101.3	23.1	98.2	86.1	12.05	8.147	
2,755.9	2,735.4	2,766.1	2,755.2	6.8	6.4	-148.72	102.7	23.8	98.8	86.7	12.09	8.173	
2,800.0	2,776.8	2,810.0	2,797.4	7.0	6.5	-148.41	113.2	29.3	103.5	91.1	12.37	8.365	
2,854.3	2,827.8	2,864.0	2,849.5	7.3	6.7	-148.06	126.0	36.1	109.3	96.5	12.74	8.580	
2,900.0	2,870.8	2,909.4	2,893.2	7.5	6.9	-147.79	136.8	41.8	114.1	101.1	13.04	8.751	
2,952.7	2,920.3	2,961.9	2,943.7	7.8	7.1	-147.51	149.3	48.4	119.8	106.3	13.41	8.928	
3,000.0	2,964.7	3,008.8	2,988.9	8.1	7.3	-147.28	160.5	54.3	124.8	111.0	13.75	9.078	
3,051.2	3,012.8	3,059.7	3,037.9	8.4	7.5	-147.05	172.7	60.7	130.3	116.1	14.12	9.225	
3,100.0	3,058.7	3,108.3	3,084.7	8.7	7.7	-146.85	184.2	66.8	135.5	121.0	14.48	9.357	
3,149.6	3,105.3	3,157.6	3,132.2	9.0	8.0	-146.66	196.0	72.9	140.8	125.9	14.85	9.477	
3,200.0	3,152.7	3,207.7	3,180.5	9.3	8.2	-146.48	207.9	79.2	146.1	130.9	15.23	9.593	
3,248.0	3,197.8	3,255.4	3,226.4	9.5	8.4	-146.32	219.3	85.2	151.3	135.7	15.60	9.693	
3,300.0	3,246.6	3,307.1	3,276.2	9.9	8.6	-146.16	231.6	91.7	156.8	140.8	16.01	9.795	
3,346.4	3,290.3	3,353.3	3,320.7	10.1	8.8	-146.03	242.6	97.5	161.8	145.4	16.38	9.877	
3,400.0	3,340.6	3,406.5	3,372.0	10.5	9.1	-145.88	255.3	104.2	167.5	150.7	16.80	9.967	
3,444.9	3,382.8	3,451.2	3,414.9	10.8	9.3	-145.77	265.9	109.8	172.3	155.1	17.17	10.036	
3,500.0	3,434.6	3,506.0	3,467.7	11.1	9.6	-145.64	279.0	116.6	178.2	160.6	17.61	10.115	
3,543.3	3,475.3	3,549.0	3,509.2	11.4	9.8	-145.54	289.2	122.0	182.8	164.8	17.97	10.172	
3,600.0	3,528.6	3,605.4	3,563.5	11.7	10.0	-145.42	302.6	129.1	188.9	170.4	18.44	10.242	
3,641.7	3,567.8	3,646.9	3,603.4	12.0	10.2	-145.34	312.5	134.3	193.3	174.5	18.79	10.289	
3,700.0	3,622.5	3,704.8	3,659.2	12.4	10.5	-145.23	326.3	141.6	199.5	180.3	19.27	10.352	
3,740.1	3,660.3	3,744.7	3,697.7	12.6	10.7	-145.16	335.8	146.6	203.8	184.2	19.61	10.392	
3,749.0	3,668.6	3,753.5	3,706.1	12.7	10.8	-145.14	337.9	147.7	204.8	185.1	19.69	10.400	
3,800.0	3,716.5	3,804.2	3,754.9	13.0	11.0	-147.85	350.0	154.0	210.5	190.4	20.08	10.479	
3,838.6	3,752.8	3,842.5	3,791.8	13.2	11.2	-149.78	359.1	158.9	215.1	194.7	20.39	10.551	
3,885.2	3,796.6	3,888.7	3,836.3	13.5	11.4	-151.97	370.1	164.6	221.0	200.3	20.76	10.644	
3,900.0	3,810.5	3,903.4	3,850.4	13.6	11.5	-151.80	373.6	166.5	223.0	202.1	20.90	10.668	
3,937.0	3,845.3	3,940.0	3,885.7	13.8	11.7	-151.38	382.4	171.1	227.9	206.6	21.25	10.721	
4,000.0	3,904.5	4,002.4	3,945.8	14.2	12.0	-150.71	397.2	178.9	236.2	214.4	21.86	10.807	
4,035.4	3,937.7	4,037.5	3,979.6	14.5	12.2	-150.36	405.6	183.3	240.9	218.7	22.20	10.853	
4,100.0	3,998.4	4,101.4	4,041.2	14.9	12.5	-149.75	420.8	191.3	249.5	226.7	22.82	10.933	
4,133.8	4,030.2	4,134.9	4,073.5	15.1	12.7	-149.44	428.8	195.5	254.1	230.9	23.15	10.973	
4,200.0	4,092.4	4,200.4	4,136.5	15.5	13.0	-148.88	444.4	203.7	262.9	239.1	23.80	11.047	
4,232.3	4,122.7	4,232.4	4,167.3	15.8	13.2	-148.61	452.0	207.8	267.3	243.1	24.12	11.082	
4,300.0	4,186.4	4,299.5	4,231.9	16.2	13.5	-148.09	468.0	216.2	276.4	251.6	24.78	11.151	
4,330.7	4,215.2	4,329.9	4,261.2	16.4	13.7	-147.86	475.2	220.0	280.5	255.4	25.09	11.181	
4,400.0	4,280.3	4,398.5	4,327.3	16.9	14.0	-147.38	491.6	228.6	289.8	264.1	25.77	11.246	
4,429.1	4,307.7	4,427.3	4,355.1	17.1	14.2	-147.18	498.5	232.2	293.8	267.7	26.06	11.271	
4,500.0	4,374.3	4,497.5	4,422.6	17.6	14.6	-146.73	515.2	241.0	303.4	276.6	26.77	11.332	
4,527.5	4,400.2	4,524.8	4,448.9	17.7	14.7	-146.56	521.7	244.4	307.1	280.0	27.05	11.355	
4,600.0	4,468.3	4,596.5	4,518.0	18.2	15.1	-146.13	538.8	253.4	316.9	289.1	27.77	11.411	
4,626.0	4,492.7	4,622.3	4,542.8	18.4	15.2	-145.99	544.9	256.7	320.4	292.4	28.03	11.431	
4,700.0	4,562.3	4,695.6	4,613.4	18.9	15.6	-145.59	562.4	265.8	330.5	301.7	28.78	11.484	
4,724.4	4,585.2	4,719.7	4,636.7	19.1	15.7	-145.46	568.1	268.9	333.8	304.8	29.03	11.501	
4,800.0	4,656.2	4,794.6	4,708.8	19.6	16.1	-145.09	585.9	278.3	344.1	314.3	29.79	11.551	
4,822.8	4,677.7	4,817.2	4,730.5	19.7	16.2	-144.98	591.3	281.1	347.2	317.2	30.02	11.566	
4,900.0	4,750.2	4,893.6	4,804.1	20.3	16.6	-144.62	609.5	290.7	357.8	327.0	30.81	11.613	
4,921.2	4,770.2	4,914.7	4,824.4	20.4	16.7	-144.53	614.5	293.3	360.7	329.6	31.02	11.626	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
5,000.0	4,844.2	4,992.6	4,899.5	20.9	17.2	-144.19	633.1	303.1	371.4	339.6	31.82	11.671	
5,019.7	4,862.7	5,012.1	4,918.3	21.1	17.3	-144.11	637.8	305.6	374.1	342.1	32.03	11.682	
5,100.0	4,938.1	5,091.7	4,994.9	21.6	17.7	-143.79	656.7	315.5	385.1	352.3	32.85	11.724	
5,118.1	4,955.1	5,109.6	5,012.1	21.7	17.8	-143.72	661.0	317.8	387.6	354.6	33.03	11.733	
5,200.0	5,032.1	5,190.7	5,090.2	22.3	18.2	-143.42	680.3	328.0	398.8	364.9	33.87	11.774	
5,216.5	5,047.6	5,207.1	5,106.0	22.4	18.3	-143.36	684.2	330.0	401.1	367.0	34.04	11.782	
5,300.0	5,126.1	5,289.7	5,185.6	23.0	18.7	-143.07	703.9	340.4	412.5	377.6	34.90	11.820	
5,314.9	5,140.1	5,304.5	5,199.9	23.1	18.8	-143.02	707.4	342.2	414.6	379.5	35.05	11.827	
5,400.0	5,220.0	5,388.7	5,281.0	23.7	19.3	-142.75	727.5	352.8	426.2	390.3	35.93	11.863	
5,413.4	5,232.6	5,402.0	5,293.7	23.8	19.3	-142.71	730.6	354.5	428.1	392.0	36.07	11.869	
5,504.2	5,318.0	5,491.9	5,380.3	24.4	19.8	-142.43	752.1	365.7	440.6	403.6	37.00	11.905	
5,511.8	5,325.1	5,499.5	5,387.6	24.4	19.8	-142.42	753.9	366.7	441.6	404.5	37.08	11.908	
5,600.0	5,408.5	5,586.9	5,471.8	24.9	20.3	-142.18	774.7	377.7	452.5	414.4	38.04	11.895	
5,610.2	5,418.2	5,597.1	5,481.6	25.0	20.4	-142.14	777.1	378.9	453.6	415.5	38.15	11.891	
5,700.0	5,504.1	5,686.3	5,567.5	25.4	20.8	-141.64	798.4	390.1	462.3	423.2	39.12	11.817	
5,708.6	5,512.4	5,694.9	5,575.8	25.5	20.9	-141.58	800.4	391.2	463.0	423.8	39.21	11.807	
5,800.0	5,600.7	5,781.1	5,659.0	25.9	21.3	-140.95	820.4	401.7	469.8	429.6	40.15	11.700	
5,807.1	5,607.5	5,787.6	5,665.3	25.9	21.3	-140.90	821.9	402.5	470.2	430.0	40.22	11.692	
5,900.0	5,698.1	5,873.3	5,748.7	26.3	21.7	-140.33	839.5	411.8	476.1	435.0	41.03	11.603	
5,905.5	5,703.4	5,878.4	5,753.6	26.3	21.7	-140.29	840.5	412.3	476.4	435.3	41.07	11.598	
6,000.0	5,796.2	5,965.7	5,839.2	26.6	22.0	-139.77	856.1	420.5	481.3	439.5	41.81	11.512	
6,003.9	5,800.1	5,969.4	5,842.7	26.6	22.0	-139.75	856.7	420.8	481.5	439.7	41.84	11.509	
6,100.0	5,894.9	6,058.3	5,930.4	26.9	22.3	-139.29	870.1	427.9	485.5	443.0	42.50	11.424	
6,102.3	5,897.3	6,060.5	5,932.5	26.9	22.3	-139.27	870.4	428.0	485.6	443.0	42.51	11.422	
6,200.0	5,994.2	6,151.0	6,022.2	27.2	22.5	-138.85	881.5	433.9	488.5	445.4	43.09	11.336	
6,200.8	5,994.9	6,151.7	6,022.9	27.2	22.5	-138.85	881.5	433.9	488.5	445.4	43.10	11.336	
6,299.2	6,093.0	6,243.1	6,113.7	27.4	22.8	-138.48	890.2	438.4	490.4	446.8	43.59	11.250	
6,300.0	6,093.8	6,243.8	6,114.5	27.4	22.8	-138.48	890.2	438.5	490.4	446.8	43.59	11.249	
6,397.6	6,191.2	6,334.6	6,204.9	27.5	22.9	-138.16	896.2	441.6	491.1	447.1	43.99	11.164	
6,400.0	6,193.6	6,336.8	6,207.1	27.5	22.9	-138.15	896.3	441.7	491.1	447.1	44.00	11.162	
6,496.0	6,289.6	6,426.1	6,296.4	27.6	23.1	-137.88	899.7	443.5	490.7	446.4	44.30	11.077	
6,504.1	6,297.7	6,433.6	6,303.8	27.6	23.1	-87.89	899.9	443.6	490.7	446.3	44.32	11.070	
6,594.5	6,388.1	6,518.8	6,389.1	27.7	23.2	-87.80	900.6	444.0	490.3	445.7	44.57	10.999	
6,600.0	6,393.6	6,524.3	6,394.6	27.7	23.2	-87.80	900.6	444.0	490.3	445.7	44.59	10.995	
6,618.2	6,411.8	6,542.8	6,413.0	27.8	23.2	-87.81	900.6	444.0	490.3	445.6	44.63	10.985	
6,650.0	6,443.6	6,575.4	6,445.7	27.8	23.3	92.14	899.4	444.0	490.2	445.6	44.67	10.974	
6,692.9	6,486.4	6,619.4	6,489.5	27.8	23.3	92.07	895.5	444.0	490.2	445.6	44.67	10.975	
6,700.0	6,493.4	6,626.7	6,496.7	27.8	23.3	92.06	894.6	444.0	490.2	445.6	44.66	10.976	
6,750.0	6,542.8	6,677.9	6,547.2	27.8	23.2	91.96	886.1	444.0	490.2	445.6	44.57	10.998	
6,791.3	6,583.2	6,720.2	6,588.4	27.7	23.2	91.87	876.4	444.0	490.2	445.7	44.43	11.033	
6,800.0	6,591.6	6,729.1	6,596.9	27.7	23.2	91.85	874.1	444.0	490.2	445.8	44.39	11.041	
6,850.0	6,639.6	6,780.2	6,645.6	27.6	23.1	91.73	858.6	444.0	490.1	446.0	44.14	11.105	
6,889.7	6,676.9	6,820.7	6,683.3	27.6	22.9	91.63	843.8	444.0	490.1	446.2	43.88	11.170	
6,900.0	6,686.4	6,831.2	6,692.9	27.5	22.9	91.61	839.7	444.0	490.1	446.3	43.81	11.188	
6,950.0	6,731.8	6,882.1	6,738.8	27.4	22.8	91.48	817.5	444.0	490.1	446.7	43.41	11.289	
6,988.2	6,765.5	6,920.9	6,772.6	27.3	22.6	91.37	798.4	444.0	490.0	447.0	43.07	11.378	
7,000.0	6,775.8	6,932.9	6,782.8	27.2	22.6	91.34	792.1	444.0	490.0	447.1	42.96	11.407	
7,050.0	6,817.9	6,983.7	6,824.9	27.1	22.3	91.19	763.8	444.0	490.0	447.5	42.46	11.541	
7,086.6	6,847.5	7,020.8	6,854.3	26.9	22.2	91.08	741.2	444.0	490.0	447.9	42.07	11.648	
7,100.0	6,858.1	7,034.3	6,864.8	26.9	22.1	91.04	732.6	444.0	490.0	448.1	41.92	11.689	
7,150.0	6,896.1	7,084.9	6,902.3	26.6	21.8	90.88	698.7	444.0	490.0	448.6	41.35	11.848	
7,185.0	6,921.3	7,120.3	6,927.1	26.5	21.7	90.77	673.4	444.0	489.9	449.0	40.95	11.965	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
7,200.0	6,931.7	7,135.4	6,937.3	26.4	21.6	90.72	662.3	444.0	489.9	449.2	40.77	12.016	
7,250.0	6,964.8	7,185.7	6,969.5	26.2	21.3	90.55	623.6	444.0	489.9	449.7	40.19	12.190	
7,283.4	6,985.4	7,219.4	6,989.5	26.0	21.1	90.44	596.6	444.0	489.9	450.1	39.81	12.307	
7,300.0	6,995.2	7,236.0	6,998.9	25.9	21.0	90.38	582.9	444.0	489.9	450.3	39.62	12.366	
7,350.0	7,022.7	7,286.1	7,025.3	25.7	20.8	90.22	540.3	443.9	489.9	450.8	39.07	12.540	
7,381.9	7,038.8	7,318.1	7,040.6	25.5	20.6	90.11	512.2	443.9	489.9	451.2	38.74	12.647	
7,400.0	7,047.3	7,336.2	7,048.7	25.4	20.5	90.05	496.0	443.9	489.9	451.3	38.55	12.707	
7,412.7	7,053.1	7,348.9	7,054.1	25.3	20.4	90.00	484.5	443.9	489.9	451.5	38.43	12.748	
7,450.0	7,068.8	7,386.1	7,068.8	25.1	20.2	89.88	450.3	443.9	489.9	451.8	38.09	12.863	
7,480.3	7,080.3	7,416.4	7,079.4	25.0	20.1	89.77	422.0	443.9	489.9	452.1	37.83	12.949	
7,500.0	7,087.1	7,436.0	7,085.7	24.9	20.0	89.71	403.4	443.9	489.9	452.2	37.68	13.003	
7,550.0	7,102.1	7,485.8	7,099.3	24.6	19.8	89.54	355.5	443.9	489.9	452.6	37.34	13.122	
7,578.7	7,109.2	7,514.3	7,105.5	24.5	19.6	89.44	327.7	443.9	489.9	452.7	37.18	13.178	
7,600.0	7,113.7	7,535.4	7,109.4	24.4	19.5	89.37	306.9	443.9	489.9	452.9	37.07	13.216	
7,650.0	7,121.9	7,585.0	7,116.2	24.2	19.3	89.21	257.9	443.9	489.9	453.1	36.89	13.282	
7,677.1	7,125.0	7,611.8	7,118.5	24.1	19.2	89.12	231.1	443.9	490.0	453.1	36.83	13.304	
7,700.0	7,126.7	7,634.4	7,119.6	24.0	19.2	89.05	208.5	443.9	490.0	453.2	36.79	13.318	
7,746.5	7,128.0	7,680.6	7,119.9	23.8	19.0	88.94	162.4	443.9	490.0	453.2	36.78	13.321	
7,775.6	7,127.9	7,709.7	7,119.9	23.7	18.9	88.95	133.3	443.9	490.0	453.2	36.75	13.335	
7,800.0	7,127.7	7,734.1	7,119.8	23.6	18.9	88.96	108.8	443.9	490.0	453.2	36.74	13.337	
7,874.0	7,127.4	7,808.1	7,119.6	23.4	18.8	88.97	34.8	443.9	490.0	453.4	36.61	13.383	
7,900.0	7,127.3	7,834.1	7,119.6	23.4	18.8	88.98	8.8	443.9	490.0	453.4	36.61	13.383	
7,972.4	7,127.0	7,906.5	7,119.4	23.3	19.0	89.00	-63.6	443.9	490.0	453.2	36.77	13.325	
8,000.0	7,126.8	7,934.1	7,119.3	23.3	19.1	89.00	-91.2	443.9	490.0	453.1	36.88	13.287	
8,070.8	7,126.5	8,005.0	7,119.2	23.4	19.6	89.02	-162.0	443.9	490.0	452.7	37.30	13.135	
8,100.0	7,126.4	8,034.1	7,119.1	23.5	19.8	89.03	-191.2	443.9	490.0	452.5	37.52	13.058	
8,169.3	7,126.1	8,103.4	7,118.9	23.7	20.4	89.05	-260.4	443.9	490.0	451.8	38.19	12.828	
8,200.0	7,125.9	8,134.1	7,118.8	23.8	20.7	89.05	-291.2	443.9	490.0	451.4	38.53	12.715	
8,267.7	7,125.6	8,201.8	7,118.7	24.1	21.4	89.07	-358.9	443.9	490.0	450.5	39.42	12.428	
8,300.0	7,125.5	8,234.1	7,118.6	24.2	21.7	89.08	-391.2	443.9	490.0	450.1	39.89	12.284	
8,366.1	7,125.2	8,300.2	7,118.4	24.6	22.5	89.09	-457.3	443.9	490.0	449.0	40.96	11.961	
8,400.0	7,125.0	8,334.1	7,118.3	24.8	22.9	89.10	-491.2	443.9	490.0	448.4	41.55	11.792	
8,464.5	7,124.7	8,398.7	7,118.2	25.3	23.7	89.12	-555.7	443.9	490.0	447.2	42.78	11.452	
8,500.0	7,124.6	8,434.1	7,118.1	25.6	24.1	89.13	-591.2	443.9	490.0	446.5	43.49	11.265	
8,563.0	7,124.3	8,497.1	7,117.9	26.1	24.9	89.14	-654.1	443.9	490.0	445.1	44.85	10.924	
8,600.0	7,124.1	8,534.1	7,117.9	26.4	25.4	89.15	-691.2	443.9	490.0	444.3	45.68	10.727	
8,661.4	7,123.8	8,595.5	7,117.7	26.9	26.3	89.16	-752.6	443.9	490.0	442.8	47.13	10.395	
8,700.0	7,123.7	8,634.1	7,117.6	27.3	26.8	89.17	-791.2	443.9	490.0	441.9	48.07	10.192	
8,759.8	7,123.4	8,693.9	7,117.5	27.9	27.7	89.19	-851.0	443.9	490.0	440.4	49.60	9.878	
8,800.0	7,123.2	8,734.1	7,117.4	28.3	28.2	89.20	-891.2	443.9	490.0	439.3	50.65	9.673	
8,858.2	7,123.0	8,792.4	7,117.2	28.9	29.1	89.21	-949.4	443.9	490.0	437.7	52.23	9.381	
8,900.0	7,122.8	8,834.1	7,117.1	29.4	29.7	89.22	-991.2	443.9	490.0	436.6	53.38	9.178	
8,956.7	7,122.5	8,890.8	7,117.0	30.0	30.6	89.23	-1,047.8	443.9	490.0	435.0	55.00	8.909	
9,000.0	7,122.3	8,934.1	7,116.9	30.5	31.3	89.25	-1,091.2	443.9	490.0	433.7	56.25	8.711	
9,055.1	7,122.1	8,989.2	7,116.7	31.2	32.1	89.26	-1,146.3	443.9	490.0	432.1	57.88	8.465	
9,100.0	7,121.9	9,034.1	7,116.6	31.7	32.8	89.27	-1,191.2	443.9	489.9	430.7	59.22	8.273	
9,153.5	7,121.6	9,087.6	7,116.5	32.4	33.7	89.28	-1,244.7	443.9	489.9	429.1	60.86	8.050	
9,200.0	7,121.4	9,134.1	7,116.4	33.0	34.4	89.29	-1,291.2	443.9	489.9	427.7	62.30	7.865	
9,251.9	7,121.2	9,186.1	7,116.2	33.7	35.3	89.30	-1,343.1	443.9	489.9	426.0	63.93	7.664	
9,300.0	7,121.0	9,234.1	7,116.1	34.3	36.1	89.32	-1,391.2	443.9	489.9	424.5	65.45	7.485	
9,350.4	7,120.7	9,284.5	7,116.0	35.0	36.9	89.33	-1,441.5	443.9	489.9	422.9	67.08	7.304	
9,400.0	7,120.5	9,334.1	7,115.9	35.7	37.7	89.34	-1,491.2	443.9	489.9	421.3	68.68	7.134	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,448.8	7,120.3	9,382.9	7,115.7	36.4	38.5	89.35	-1,540.0	443.9	489.9	419.7	70.28	6.971	
9,500.0	7,120.1	9,434.1	7,115.6	37.2	39.4	89.36	-1,591.2	443.9	489.9	418.0	71.97	6.807	
9,547.2	7,119.9	9,481.3	7,115.5	37.8	40.2	89.37	-1,638.4	443.9	489.9	416.4	73.55	6.662	
9,600.0	7,119.6	9,534.1	7,115.4	38.6	41.1	89.39	-1,691.2	443.9	489.9	414.6	75.31	6.505	
9,645.6	7,119.4	9,579.8	7,115.3	39.3	41.9	89.40	-1,736.8	443.9	489.9	413.1	76.86	6.375	
9,700.0	7,119.2	9,634.1	7,115.1	40.1	42.8	89.41	-1,791.2	443.9	489.9	411.2	78.70	6.225	
9,744.1	7,119.0	9,678.2	7,115.0	40.8	43.6	89.42	-1,835.2	443.9	489.9	409.7	80.21	6.108	
9,800.0	7,118.7	9,734.1	7,114.9	41.7	44.6	89.43	-1,891.1	443.9	489.9	407.8	82.13	5.965	
9,842.5	7,118.5	9,776.6	7,114.8	42.3	45.3	89.44	-1,933.6	443.9	489.9	406.3	83.60	5.860	
9,900.0	7,118.3	9,834.1	7,114.6	43.2	46.3	89.46	-1,991.1	443.9	489.9	404.3	85.60	5.724	
9,940.9	7,118.1	9,875.0	7,114.5	43.9	47.0	89.47	-2,032.1	443.9	489.9	402.9	87.03	5.630	
10,000.0	7,117.8	9,934.1	7,114.4	44.8	48.1	89.48	-2,091.1	443.9	489.9	400.8	89.10	5.499	
10,039.3	7,117.6	9,973.5	7,114.3	45.5	48.8	89.49	-2,130.5	443.9	489.9	399.5	90.48	5.415	
10,073.6	7,117.5	10,007.7	7,114.2	46.0	49.4	89.50	-2,164.8	443.9	489.9	398.3	91.69	5.344	
10,100.0	7,117.4	10,034.1	7,114.1	46.4	49.8	89.50	-2,191.1	443.9	489.9	397.3	92.62	5.290	
10,137.8	7,117.2	10,071.9	7,114.0	47.1	50.5	89.51	-2,228.9	443.9	489.9	396.0	93.96	5.214	
10,200.0	7,116.9	10,134.1	7,113.9	48.1	51.6	89.53	-2,291.1	443.9	489.9	393.8	96.17	5.095	
10,236.2	7,116.8	10,170.3	7,113.8	48.7	52.3	89.54	-2,327.3	443.9	489.9	392.5	97.46	5.027	
10,300.0	7,116.5	10,234.1	7,113.6	49.7	53.4	89.55	-2,391.1	443.9	489.9	390.2	99.74	4.912	
10,334.6	7,116.3	10,268.7	7,113.5	50.3	54.0	89.56	-2,425.8	443.9	489.9	389.0	100.98	4.852	
10,400.0	7,116.0	10,334.1	7,113.4	51.4	55.2	89.57	-2,491.1	443.9	489.9	386.6	103.33	4.741	
10,433.0	7,115.9	10,367.2	7,113.3	52.0	55.8	89.58	-2,524.2	443.9	489.9	385.4	104.52	4.687	
10,500.0	7,115.6	10,434.1	7,113.1	53.1	57.0	89.60	-2,591.1	443.9	489.9	383.0	106.94	4.581	
10,531.5	7,115.4	10,465.6	7,113.0	53.6	57.6	89.60	-2,622.6	443.9	489.9	381.9	108.08	4.533	
10,600.0	7,115.1	10,534.1	7,112.9	54.8	58.8	89.62	-2,691.1	443.9	489.9	379.4	110.56	4.431	
10,629.9	7,115.0	10,564.0	7,112.8	55.3	59.4	89.63	-2,721.0	443.9	489.9	378.3	111.65	4.388	
10,700.0	7,114.7	10,634.1	7,112.6	56.5	60.7	89.64	-2,791.1	443.9	489.9	375.7	114.20	4.290	
10,728.3	7,114.6	10,662.4	7,112.5	57.0	61.2	89.65	-2,819.5	443.9	489.9	374.7	115.24	4.252	
10,800.0	7,114.2	10,734.1	7,112.4	58.3	62.5	89.66	-2,891.1	443.9	489.9	372.1	117.86	4.157	
10,826.7	7,114.1	10,760.9	7,112.3	58.7	63.0	89.67	-2,917.9	443.9	489.9	371.1	118.84	4.123	
10,900.0	7,113.8	10,834.1	7,112.1	60.0	64.3	89.69	-2,991.1	443.9	489.9	368.4	121.52	4.032	
10,925.2	7,113.7	10,859.3	7,112.1	60.5	64.8	89.69	-3,016.3	443.9	489.9	367.5	122.44	4.001	
11,000.0	7,113.3	10,934.1	7,111.9	61.8	66.2	89.71	-3,091.1	443.9	489.9	364.8	125.19	3.914	
11,023.6	7,113.2	10,957.7	7,111.8	62.2	66.6	89.72	-3,114.7	443.9	489.9	363.9	126.06	3.887	
11,100.0	7,112.9	11,034.1	7,111.6	63.5	68.0	89.73	-3,191.1	443.9	490.0	361.1	128.88	3.802	
11,122.0	7,112.8	11,056.1	7,111.6	63.9	68.4	89.74	-3,213.2	443.9	490.0	360.3	129.69	3.778	
11,200.0	7,112.4	11,134.1	7,111.4	65.3	69.8	89.76	-3,291.1	443.9	490.0	357.4	132.57	3.696	
11,220.4	7,112.4	11,154.6	7,111.3	65.7	70.2	89.76	-3,311.6	443.9	490.0	356.6	133.33	3.675	
11,300.0	7,112.0	11,234.1	7,111.1	67.1	71.7	89.78	-3,391.1	443.9	490.0	353.7	136.27	3.595	
11,318.9	7,111.9	11,253.0	7,111.1	67.4	72.0	89.78	-3,410.0	443.9	490.0	353.0	136.97	3.577	
11,400.0	7,111.6	11,334.1	7,110.8	68.9	73.5	89.80	-3,491.1	443.9	490.0	350.0	139.98	3.500	
11,417.3	7,111.5	11,351.4	7,110.8	69.2	73.9	89.80	-3,508.4	443.9	490.0	349.3	140.63	3.484	
11,500.0	7,111.1	11,434.1	7,110.6	70.7	75.4	89.82	-3,591.1	443.9	490.0	346.3	143.70	3.410	
11,515.7	7,111.0	11,449.8	7,110.6	71.0	75.7	89.83	-3,606.9	443.9	490.0	345.7	144.28	3.396	
11,600.0	7,110.7	11,534.1	7,110.3	72.5	77.3	89.85	-3,691.1	443.9	490.0	342.5	147.42	3.324	
11,614.1	7,110.6	11,548.3	7,110.3	72.7	77.5	89.85	-3,705.3	443.9	490.0	342.0	147.95	3.312	
11,700.0	7,110.2	11,634.1	7,110.1	74.3	79.1	89.87	-3,791.1	443.9	490.0	338.8	151.15	3.242	
11,712.6	7,110.2	11,646.7	7,110.1	74.5	79.4	89.87	-3,803.7	443.9	490.0	338.3	151.62	3.232	
11,723.3	7,110.1	11,657.4	7,110.0	74.7	79.6	89.87	-3,814.4	443.9	490.0	337.9	152.02	3.223	
11,747.9	7,110.0	11,668.5	7,110.0	75.1	79.8	89.88	-3,825.5	443.9	490.1	337.5	152.69	3.210 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	91.39	-0.4	15.1	15.1				
98.4	98.4	98.4	98.4	0.1	0.1	91.39	-0.4	15.1	15.1	14.9	0.17	88.675	
100.0	100.0	100.0	100.0	0.1	0.1	91.39	-0.4	15.1	15.1	14.9	0.17	87.070	
196.8	196.8	196.8	196.8	0.3	0.3	91.39	-0.4	15.1	15.1	14.5	0.61	24.767	
200.0	200.0	200.0	200.0	0.3	0.3	91.39	-0.4	15.1	15.1	14.4	0.62	24.204	
295.3	295.3	295.3	295.3	0.5	0.5	91.39	-0.4	15.1	15.1	14.0	1.05	14.339	
300.0	300.0	300.0	300.0	0.5	0.5	91.39	-0.4	15.1	15.1	14.0	1.07	14.055	
393.7	393.7	393.7	393.7	0.7	0.7	91.39	-0.4	15.1	15.1	13.6	1.49	10.091	
400.0	400.0	400.0	400.0	0.8	0.8	91.39	-0.4	15.1	15.1	13.5	1.52	9.903	
492.1	492.1	492.1	492.1	1.0	1.0	91.39	-0.4	15.1	15.1	13.1	1.94	7.785	
500.0	500.0	500.0	500.0	1.0	1.0	91.39	-0.4	15.1	15.1	13.1	1.97	7.645	
590.5	590.5	590.5	590.5	1.2	1.2	91.39	-0.4	15.1	15.1	12.7	2.38	6.336	
600.0	600.0	600.0	600.0	1.2	1.2	91.39	-0.4	15.1	15.1	12.6	2.42	6.225	
689.0	689.0	689.0	689.0	1.4	1.4	91.39	-0.4	15.1	15.1	12.2	2.82	5.342	
700.0	700.0	700.0	700.0	1.4	1.4	91.39	-0.4	15.1	15.1	12.2	2.87	5.250	
787.4	787.4	787.4	787.4	1.6	1.6	91.39	-0.4	15.1	15.1	11.8	3.26	4.618	
800.0	800.0	800.0	800.0	1.7	1.7	91.39	-0.4	15.1	15.1	11.7	3.32	4.539	
885.8	885.8	885.8	885.8	1.9	1.9	91.39	-0.4	15.1	15.1	11.4	3.71	4.067	
900.0	900.0	900.0	900.0	1.9	1.9	91.39	-0.4	15.1	15.1	11.3	3.77	3.998	
984.2	984.2	984.2	984.2	2.1	2.1	91.39	-0.4	15.1	15.1	10.9	4.15	3.633	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	91.39	-0.4	15.1	15.1	10.9	4.22	3.572	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	91.39	-0.4	15.1	15.1	10.5	4.59	3.283	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	91.39	-0.4	15.1	15.1	10.4	4.67	3.228	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	91.39	-0.4	15.1	15.1	10.0	5.03	2.994	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	91.39	-0.4	15.1	15.1	10.0	5.12	2.944	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	91.39	-0.4	15.1	15.1	9.6	5.48	2.752	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	91.39	-0.4	15.1	15.1	9.5	5.57	2.707	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	91.39	-0.4	15.1	15.1	9.2	5.92	2.546	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	91.39	-0.4	15.1	15.1	9.1	6.02	2.504	
1,476.4	1,476.4	1,476.4	1,476.4	3.2	3.2	91.39	-0.4	15.1	15.1	8.7	6.36	2.369	
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	91.39	-0.4	15.1	15.1	8.6	6.47	2.330	
1,574.8	1,574.8	1,574.8	1,574.8	3.4	3.4	91.39	-0.4	15.1	15.1	8.3	6.80	2.215	
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	91.39	-0.4	15.1	15.1	8.2	6.92	2.179	
1,637.5	1,637.5	1,637.5	1,637.5	3.5	3.5	91.39	-0.4	15.1	15.1	8.0	7.08	2.127 CC	
1,673.2	1,673.2	1,673.1	1,673.1	3.6	3.6	91.17	-0.3	15.1	15.1	7.9	7.24	2.091 ES	
1,700.0	1,700.0	1,699.8	1,699.8	3.7	3.7	90.39	-0.1	15.4	15.4	8.1	7.36	2.093	
1,750.0	1,750.0	1,749.5	1,749.5	3.8	3.8	87.66	0.7	16.4	16.5	8.9	7.58	2.172	
1,771.6	1,771.6	1,771.1	1,771.0	3.8	3.8	44.27	1.2	17.1	17.1	9.4	7.67	2.229	
1,800.0	1,800.0	1,799.3	1,799.2	3.9	3.9	42.72	2.0	18.2	18.0	10.2	7.80	2.306	
1,870.1	1,870.0	1,868.9	1,868.7	4.1	4.0	40.03	4.7	21.8	20.3	12.2	8.10	2.508	
1,900.0	1,899.9	1,898.6	1,898.3	4.1	4.1	39.29	6.1	23.7	21.4	13.1	8.22	2.599	
1,968.5	1,968.3	1,966.6	1,965.9	4.3	4.3	38.31	10.1	29.0	23.9	15.4	8.51	2.810	
2,000.0	1,999.7	1,997.8	1,997.0	4.3	4.3	38.13	12.3	31.9	25.1	16.5	8.64	2.909	
2,066.9	2,066.3	2,064.1	2,062.7	4.5	4.5	38.19	17.6	39.0	27.9	18.9	8.93	3.121	
2,100.0	2,099.1	2,096.9	2,095.1	4.6	4.6	38.40	20.5	42.9	29.3	20.2	9.07	3.227	
2,165.3	2,163.9	2,161.6	2,158.9	4.7	4.8	39.08	27.0	51.5	32.1	22.8	9.35	3.437	
2,200.0	2,198.2	2,195.8	2,192.5	4.8	4.8	39.56	30.7	56.5	33.7	24.2	9.50	3.550	
2,263.8	2,261.0	2,258.9	2,254.3	5.0	5.0	40.60	38.3	66.6	36.8	27.0	9.79	3.755	
2,300.0	2,296.6	2,294.6	2,289.2	5.1	5.1	41.26	43.0	72.8	38.5	28.6	9.95	3.873	
2,362.2	2,357.6	2,356.0	2,348.9	5.3	5.4	42.49	51.6	84.3	41.7	31.5	10.26	4.069	
2,400.0	2,394.4	2,393.3	2,385.0	5.4	5.5	43.28	57.2	91.8	43.8	33.3	10.44	4.190	
2,460.6	2,453.4	2,453.0	2,442.5	5.6	5.7	44.59	66.7	104.5	47.1	36.4	10.77	4.374	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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
2,500.0	2,491.5	2,491.8	2,479.7	5.7	5.9	45.46	73.3	113.3	49.4	38.4	10.99	4.495	
2,559.0	2,548.3	2,549.9	2,535.1	5.9	6.1	46.78	83.7	127.2	53.0	41.6	11.35	4.663	
2,600.0	2,587.6	2,590.1	2,573.3	6.1	6.3	47.70	91.3	137.4	55.5	43.9	11.61	4.779	
2,657.5	2,642.4	2,646.6	2,626.6	6.3	6.6	48.98	102.6	152.4	59.2	47.2	12.02	4.926	
2,700.0	2,682.7	2,688.3	2,665.7	6.5	6.8	49.92	111.3	164.0	62.1	49.7	12.34	5.032	
2,750.0	2,729.8	2,737.8	2,711.9	6.8	7.1	51.11	122.0	178.2	65.4	52.7	12.74	5.134	
2,755.9	2,735.4	2,743.7	2,717.4	6.8	7.1	51.28	123.2	179.9	65.8	53.0	12.80	5.142	
2,800.0	2,776.8	2,787.7	2,758.4	7.0	7.4	52.49	132.8	192.6	68.6	55.4	13.21	5.195	
2,854.3	2,827.8	2,841.9	2,809.0	7.3	7.7	53.85	144.5	208.3	72.1	58.4	13.73	5.250	
2,900.0	2,870.8	2,887.4	2,851.5	7.5	7.9	54.90	154.4	221.4	75.0	60.9	14.18	5.292	
2,952.7	2,920.3	2,940.1	2,900.5	7.8	8.3	56.01	165.7	236.6	78.5	63.8	14.72	5.331	
3,000.0	2,964.7	2,987.2	2,944.5	8.1	8.6	56.92	176.0	250.2	81.6	66.4	15.22	5.362	
3,051.2	3,012.8	3,038.2	2,992.1	8.4	8.9	57.84	187.0	265.0	85.0	69.2	15.77	5.388	
3,100.0	3,058.7	3,086.9	3,037.5	8.7	9.2	58.64	197.5	279.0	88.2	71.9	16.30	5.411	
3,149.6	3,105.3	3,136.4	3,083.7	9.0	9.5	59.40	208.3	293.3	91.5	74.7	16.86	5.429	
3,200.0	3,152.7	3,186.7	3,130.5	9.3	9.8	60.12	219.1	307.8	94.9	77.5	17.43	5.445	
3,248.0	3,197.8	3,234.6	3,175.2	9.5	10.2	60.76	229.5	321.7	98.2	80.2	17.99	5.457	
3,300.0	3,246.6	3,286.4	3,223.6	9.9	10.5	61.41	240.7	336.6	101.7	83.1	18.60	5.468	
3,346.4	3,290.3	3,332.8	3,266.8	10.1	10.8	61.95	250.8	350.0	104.8	85.7	19.15	5.475	
3,400.0	3,340.6	3,386.2	3,316.6	10.5	11.2	62.53	262.3	365.4	108.5	88.7	19.79	5.482	
3,444.9	3,382.8	3,430.9	3,358.3	10.8	11.5	62.99	272.0	378.3	111.5	91.2	20.33	5.486	
3,500.0	3,434.6	3,485.9	3,409.6	11.1	11.8	63.52	283.9	394.2	115.3	94.3	21.00	5.491	
3,543.3	3,475.3	3,529.1	3,449.9	11.4	12.1	63.91	293.3	406.7	118.3	96.8	21.54	5.493	
3,600.0	3,528.6	3,585.7	3,502.6	11.7	12.5	64.40	305.5	423.0	122.2	100.0	22.24	5.495	
3,641.7	3,567.8	3,627.3	3,541.5	12.0	12.8	64.74	314.5	435.0	125.1	102.3	22.76	5.495	
3,700.0	3,622.5	3,685.4	3,595.7	12.4	13.2	65.19	327.1	451.8	129.1	105.6	23.49	5.495	
3,740.1	3,660.3	3,725.5	3,633.0	12.6	13.5	65.48	335.8	463.4	131.9	107.9	24.00	5.495	
3,749.0	3,668.6	3,734.3	3,641.2	12.7	13.6	65.54	337.7	465.9	132.5	108.4	24.11	5.495	
3,800.0	3,716.5	3,785.2	3,688.7	13.0	13.9	63.03	348.7	480.6	135.6	110.9	24.72	5.485	
3,838.6	3,752.8	3,823.7	3,724.6	13.2	14.2	60.99	357.1	491.8	137.4	112.3	25.16	5.463	
3,885.2	3,796.6	3,870.3	3,768.1	13.5	14.5	58.40	367.1	505.2	139.0	113.4	25.66	5.419	
3,900.0	3,810.5	3,885.1	3,781.9	13.6	14.6	58.36	370.3	509.5	139.5	113.6	25.83	5.400	
3,937.0	3,845.3	3,922.1	3,816.4	13.8	14.9	58.26	378.4	520.2	140.5	114.2	26.25	5.351	
4,000.0	3,904.5	3,985.1	3,875.1	14.2	15.3	58.11	392.0	538.3	142.2	115.2	26.97	5.273	
4,035.4	3,937.7	4,020.5	3,908.1	14.5	15.6	58.02	399.7	548.6	143.2	115.8	27.37	5.230	
4,100.0	3,998.4	4,085.0	3,968.3	14.9	16.0	57.86	413.6	567.2	144.9	116.8	28.11	5.156	
4,133.8	4,030.2	4,118.9	3,999.9	15.1	16.3	57.78	421.0	577.0	145.8	117.3	28.50	5.118	
4,200.0	4,092.4	4,185.0	4,061.6	15.5	16.7	57.63	435.3	596.1	147.7	118.4	29.25	5.047	
4,232.3	4,122.7	4,217.3	4,091.7	15.8	17.0	57.55	442.3	605.4	148.5	118.9	29.62	5.014	
4,300.0	4,186.4	4,285.0	4,154.8	16.2	17.5	57.40	456.9	624.9	150.4	120.0	30.40	4.947	
4,330.7	4,215.2	4,315.6	4,183.4	16.4	17.7	57.33	463.6	633.8	151.2	120.5	30.75	4.918	
4,400.0	4,280.3	4,384.9	4,248.0	16.9	18.2	57.18	478.6	653.8	153.1	121.6	31.55	4.854	
4,429.1	4,307.7	4,414.0	4,275.2	17.1	18.4	57.12	484.9	662.2	153.9	122.1	31.88	4.828	
4,500.0	4,374.3	4,484.9	4,341.2	17.6	18.9	56.97	500.2	682.7	155.9	123.2	32.70	4.767	
4,527.5	4,400.2	4,512.4	4,366.9	17.7	19.1	56.91	506.2	690.6	156.6	123.6	33.01	4.745	
4,600.0	4,468.3	4,584.8	4,434.5	18.2	19.6	56.77	521.8	711.5	158.6	124.8	33.85	4.687	
4,626.0	4,492.7	4,610.8	4,458.7	18.4	19.8	56.72	527.5	719.0	159.3	125.2	34.14	4.667	
4,700.0	4,562.3	4,684.8	4,527.7	18.9	20.3	56.57	543.5	740.4	161.4	126.4	34.99	4.611	
4,724.4	4,585.2	4,709.2	4,550.4	19.1	20.5	56.52	548.8	747.4	162.0	126.8	35.27	4.594	
4,800.0	4,656.2	4,784.8	4,620.9	19.6	21.1	56.38	565.1	769.3	164.1	128.0	36.14	4.541	
4,822.8	4,677.7	4,807.6	4,642.2	19.7	21.2	56.34	570.1	775.8	164.8	128.3	36.41	4.525	
4,900.0	4,750.2	4,884.7	4,714.1	20.3	21.8	56.20	586.8	798.1	166.9	129.6	37.29	4.475	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
4,921.2	4,770.2	4,906.0	4,734.0	20.4	21.9	56.16	591.4	804.2	167.5	129.9	37.54	4.461	
5,000.0	4,844.2	4,984.7	4,807.4	20.9	22.5	56.02	608.4	827.0	169.6	131.2	38.44	4.413	
5,019.7	4,862.7	5,004.4	4,825.7	21.1	22.7	55.99	612.7	832.7	170.2	131.5	38.67	4.401	
5,100.0	4,938.1	5,084.6	4,900.6	21.6	23.2	55.85	630.0	855.8	172.4	132.8	39.59	4.354	
5,118.1	4,955.1	5,102.7	4,917.5	21.7	23.4	55.82	634.0	861.1	172.9	133.1	39.80	4.344	
5,200.0	5,032.1	5,184.6	4,993.8	22.3	24.0	55.68	651.7	884.7	175.1	134.4	40.74	4.299	
5,216.5	5,047.6	5,201.1	5,009.2	22.4	24.1	55.65	655.3	889.5	175.6	134.7	40.93	4.290	
5,300.0	5,126.1	5,284.6	5,087.0	23.0	24.7	55.52	673.3	913.6	177.9	136.0	41.88	4.247	
5,314.9	5,140.1	5,299.5	5,101.0	23.1	24.8	55.50	676.6	917.9	178.3	136.3	42.06	4.240	
5,400.0	5,220.0	5,384.5	5,180.3	23.7	25.4	55.36	695.0	942.4	180.7	137.6	43.03	4.198	
5,413.4	5,232.6	5,397.9	5,192.7	23.8	25.5	55.34	697.9	946.3	181.0	137.8	43.18	4.192	
5,504.2	5,318.0	5,488.7	5,277.4	24.4	26.2	55.21	717.5	972.5	183.5	139.3	44.23	4.150	
5,511.8	5,325.1	5,496.3	5,284.5	24.4	26.2	55.20	719.2	974.7	183.7	139.4	44.31	4.147	
5,600.0	5,408.5	5,584.4	5,366.7	24.9	26.9	54.72	738.2	1,000.1	187.1	141.9	45.15	4.144	
5,610.2	5,418.2	5,594.6	5,376.2	25.0	27.0	54.63	740.4	1,003.1	187.6	142.4	45.23	4.148	
5,700.0	5,504.1	5,684.8	5,460.3	25.4	27.6	53.45	759.9	1,029.1	192.8	147.1	45.74	4.216	
5,708.6	5,512.4	5,693.8	5,468.8	25.5	27.7	53.31	761.9	1,031.7	193.4	147.6	45.77	4.225	
5,800.0	5,600.7	5,789.1	5,558.5	25.9	28.2	51.91	781.1	1,057.3	199.3	153.2	46.06	4.326	
5,807.1	5,607.5	5,796.5	5,565.5	25.9	28.2	51.81	782.5	1,059.2	199.7	153.6	46.08	4.334	
5,900.0	5,698.1	5,893.7	5,658.1	26.3	28.7	50.48	800.2	1,082.8	205.6	159.3	46.30	4.441	
5,905.5	5,703.4	5,899.5	5,663.6	26.3	28.7	50.40	801.2	1,084.1	205.9	159.6	46.31	4.447	
6,000.0	5,796.2	5,998.7	5,759.2	26.6	29.2	49.12	817.1	1,105.4	211.8	165.3	46.46	4.559	
6,003.9	5,800.1	6,002.8	5,763.2	26.6	29.2	49.07	817.7	1,106.2	212.0	165.6	46.46	4.564	
6,100.0	5,894.9	6,103.9	5,861.5	26.9	29.6	47.84	831.9	1,125.0	217.9	171.3	46.54	4.681	
6,102.3	5,897.3	6,106.4	5,863.9	26.9	29.6	47.81	832.2	1,125.4	218.0	171.5	46.54	4.684	
6,200.0	5,994.2	6,209.5	5,965.0	27.2	30.0	46.62	844.4	1,141.7	223.7	177.2	46.54	4.807	
6,200.8	5,994.9	6,210.3	5,965.8	27.2	30.0	46.61	844.4	1,141.8	223.8	177.2	46.54	4.808	
6,299.2	6,093.0	6,314.5	6,068.6	27.4	30.3	45.47	854.5	1,155.2	229.4	182.9	46.47	4.936	
6,300.0	6,093.8	6,315.3	6,069.5	27.4	30.3	45.46	854.6	1,155.3	229.5	183.0	46.47	4.937	
6,397.6	6,191.2	6,419.0	6,172.3	27.5	30.5	44.38	862.4	1,165.7	234.8	188.5	46.33	5.068	
6,400.0	6,193.6	6,421.5	6,174.8	27.5	30.6	44.35	862.5	1,165.9	235.0	188.6	46.33	5.072	
6,496.0	6,289.6	6,523.8	6,276.7	27.6	30.8	43.34	867.9	1,173.1	240.1	193.9	46.12	5.205	
6,504.1	6,297.7	6,532.3	6,285.2	27.6	30.8	93.22	868.3	1,173.6	240.5	194.4	46.10	5.216	
6,594.5	6,388.1	6,628.9	6,381.7	27.7	30.9	92.48	871.2	1,177.5	244.0	198.0	46.03	5.301	
6,600.0	6,393.6	6,634.8	6,387.6	27.7	30.9	92.45	871.4	1,177.7	244.1	198.1	46.03	5.304	
6,618.2	6,411.8	6,654.3	6,407.0	27.8	31.0	92.37	871.7	1,178.1	244.5	198.5	46.05	5.311	
6,650.0	6,443.6	6,688.3	6,441.1	27.8	31.0	-87.87	872.1	1,178.7	245.0	199.0	46.02	5.323	
6,692.9	6,486.4	6,733.6	6,486.4	27.8	31.0	-88.68	872.2	1,178.9	245.1	199.4	45.73	5.360	
6,700.0	6,493.4	6,740.7	6,493.4	27.8	31.0	-88.86	872.2	1,178.9	245.1	199.4	45.66	5.368	
6,737.4	6,530.4	6,777.7	6,530.4	27.8	31.1	-90.00	871.9	1,178.9	245.0	199.9	45.16	5.425	
6,750.0	6,542.8	6,790.2	6,542.9	27.8	31.1	-90.40	871.4	1,178.9	245.0	200.0	44.99	5.446	
6,791.3	6,583.2	6,831.4	6,584.0	27.7	31.1	-91.70	868.3	1,178.9	245.1	200.8	44.36	5.525	
6,800.0	6,591.6	6,840.1	6,592.6	27.7	31.1	-91.97	867.3	1,178.9	245.2	200.9	44.23	5.543	
6,850.0	6,639.6	6,890.5	6,642.4	27.6	31.1	-93.55	859.7	1,178.9	245.5	202.1	43.42	5.654	
6,889.7	6,676.9	6,930.9	6,681.9	27.6	31.0	-94.79	851.0	1,178.9	245.9	203.1	42.74	5.753	
6,900.0	6,686.4	6,941.3	6,692.0	27.5	31.0	-95.10	848.4	1,178.9	246.0	203.4	42.57	5.780	
6,950.0	6,731.8	6,992.7	6,741.2	27.4	31.0	-96.64	833.5	1,178.9	246.7	205.0	41.68	5.918	
6,988.2	6,765.5	7,032.3	6,778.2	27.3	30.9	-97.79	819.7	1,178.9	247.3	206.3	41.00	6.033	
7,000.0	6,775.8	7,044.6	6,789.6	27.2	30.8	-98.14	814.9	1,178.9	247.5	206.8	40.79	6.069	
7,050.0	6,817.9	7,097.0	6,837.0	27.1	30.7	-99.59	792.6	1,178.9	248.5	208.7	39.89	6.230	
7,086.6	6,847.5	7,135.7	6,870.9	26.9	30.6	-100.63	774.0	1,178.9	249.4	210.1	39.24	6.354	
7,100.0	6,858.1	7,149.9	6,883.1	26.9	30.6	-101.00	766.7	1,178.9	249.7	210.7	39.01	6.400	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
7,150.0	6,896.1	7,203.4	6,927.6	26.6	30.4	-102.34	737.1	1,178.9	250.9	212.7	38.15	6.577	
7,185.0	6,921.3	7,241.1	6,957.6	26.5	30.2	-103.25	714.2	1,178.9	251.8	214.2	37.57	6.703	
7,200.0	6,931.7	7,257.3	6,970.2	26.4	30.2	-103.62	703.9	1,178.9	252.2	214.9	37.32	6.757	
7,250.0	6,964.8	7,311.8	7,010.4	26.2	30.0	-104.82	667.3	1,178.9	253.5	217.0	36.54	6.939	
7,283.4	6,985.4	7,348.5	7,036.0	26.0	29.8	-105.58	640.9	1,178.9	254.5	218.4	36.05	7.059	
7,300.0	6,995.2	7,366.7	7,048.2	25.9	29.7	-105.95	627.4	1,178.9	254.9	219.1	35.81	7.118	
7,350.0	7,022.7	7,422.1	7,083.0	25.7	29.5	-106.98	584.3	1,178.9	256.3	221.1	35.15	7.290	
7,381.9	7,038.8	7,457.7	7,103.5	25.5	29.3	-107.59	555.3	1,178.9	257.1	222.4	34.77	7.395	
7,400.0	7,047.3	7,478.0	7,114.6	25.4	29.2	-107.92	538.3	1,178.9	257.6	223.0	34.57	7.452	
7,450.0	7,068.8	7,534.2	7,142.7	25.1	29.0	-108.77	489.6	1,178.9	258.8	224.8	34.06	7.599	
7,480.3	7,080.3	7,568.5	7,157.9	25.0	28.8	-109.23	458.9	1,178.9	259.6	225.8	33.81	7.677	
7,500.0	7,087.1	7,590.8	7,167.1	24.9	28.7	-109.51	438.5	1,178.9	260.0	226.3	33.65	7.726	
7,550.0	7,102.1	7,647.8	7,187.4	24.6	28.4	-110.15	385.3	1,178.9	261.0	227.7	33.34	7.828	
7,578.7	7,109.2	7,680.6	7,197.2	24.5	28.3	-110.47	354.0	1,178.9	261.6	228.3	33.23	7.873	
7,600.0	7,113.7	7,705.0	7,203.5	24.4	28.2	-110.68	330.4	1,178.9	261.9	228.8	33.14	7.903	
7,650.0	7,121.9	7,762.5	7,215.3	24.2	28.0	-111.11	274.2	1,178.9	262.7	229.6	33.06	7.946	
7,677.1	7,125.0	7,793.8	7,219.8	24.1	27.9	-111.29	243.2	1,178.9	263.0	229.9	33.05	7.956	
7,700.0	7,126.7	7,820.2	7,222.5	24.0	27.8	-111.42	217.0	1,178.9	263.2	230.1	33.07	7.958	
7,746.5	7,128.0	7,873.9	7,225.1	23.8	27.6	-111.61	163.3	1,178.9	263.5	230.4	33.18	7.942	
7,775.6	7,127.9	7,905.3	7,224.8	23.7	27.5	-111.59	131.9	1,178.9	263.5	230.4	33.08	7.966	
7,800.0	7,127.7	7,929.7	7,224.5	23.6	27.4	-111.55	107.5	1,178.9	263.4	230.4	33.03	7.975	
7,874.0	7,127.4	8,003.7	7,223.5	23.4	27.3	-111.41	33.5	1,178.9	263.2	230.4	32.77	8.030	
7,900.0	7,127.3	8,029.7	7,223.1	23.4	27.2	-111.36	7.5	1,178.9	263.1	230.4	32.73	8.038	
7,972.4	7,127.0	8,102.1	7,222.1	23.3	27.2	-111.23	-64.9	1,178.9	262.8	230.1	32.76	8.024	
8,000.0	7,126.8	8,129.7	7,221.7	23.3	27.1	-111.17	-92.5	1,178.9	262.8	229.9	32.82	8.006	
8,070.8	7,126.5	8,200.6	7,220.8	23.4	27.2	-111.04	-163.3	1,178.9	262.5	229.4	33.12	7.926	
8,100.0	7,126.4	8,229.7	7,220.4	23.5	27.2	-110.98	-192.5	1,178.9	262.4	229.1	33.30	7.881	
8,169.3	7,126.1	8,299.0	7,219.4	23.7	27.3	-110.85	-261.7	1,178.9	262.2	228.3	33.86	7.744	
8,200.0	7,125.9	8,329.7	7,219.0	23.8	27.4	-110.80	-292.5	1,178.9	262.1	227.9	34.15	7.674	
8,267.7	7,125.6	8,397.4	7,218.0	24.1	27.6	-110.67	-360.2	1,178.9	261.9	226.9	34.94	7.494	
8,300.0	7,125.5	8,429.7	7,217.6	24.2	27.7	-110.61	-392.5	1,178.9	261.8	226.4	35.36	7.402	
8,366.1	7,125.2	8,495.8	7,216.7	24.6	28.1	-110.48	-458.6	1,178.9	261.5	225.2	36.35	7.194	
8,400.0	7,125.0	8,529.7	7,216.2	24.8	28.3	-110.42	-492.4	1,178.9	261.4	224.5	36.90	7.085	
8,464.5	7,124.7	8,594.2	7,215.3	25.3	28.7	-110.29	-557.0	1,178.9	261.2	223.2	38.06	6.864	
8,500.0	7,124.6	8,629.7	7,214.8	25.6	29.0	-110.23	-592.4	1,178.9	261.1	222.4	38.73	6.743	
8,563.0	7,124.3	8,692.7	7,214.0	26.1	29.6	-110.11	-655.4	1,178.9	260.9	220.9	40.02	6.520	
8,600.0	7,124.1	8,729.7	7,213.5	26.4	29.9	-110.03	-692.4	1,178.9	260.8	220.0	40.81	6.391	
8,661.4	7,123.8	8,791.1	7,212.6	26.9	30.5	-109.92	-753.8	1,178.9	260.6	218.4	42.20	6.175	
8,700.0	7,123.7	8,829.7	7,212.1	27.3	30.9	-109.84	-792.4	1,178.9	260.5	217.4	43.11	6.043	
8,759.8	7,123.4	8,889.5	7,211.3	27.9	31.6	-109.73	-852.2	1,178.9	260.3	215.7	44.58	5.838	
8,800.0	7,123.2	8,929.7	7,210.7	28.3	32.1	-109.65	-892.4	1,178.9	260.2	214.6	45.60	5.706	
8,858.2	7,123.0	8,987.9	7,209.9	28.9	32.8	-109.54	-950.6	1,178.9	260.0	212.9	47.13	5.516	
8,900.0	7,122.8	9,029.7	7,209.3	29.4	33.3	-109.46	-992.4	1,178.9	259.9	211.6	48.25	5.386	
8,956.7	7,122.5	9,086.4	7,208.5	30.0	34.0	-109.35	-1,049.0	1,178.9	259.7	209.9	49.82	5.213	
9,000.0	7,122.3	9,129.7	7,208.0	30.5	34.6	-109.27	-1,092.4	1,178.9	259.5	208.5	51.03	5.086	
9,055.1	7,122.1	9,184.8	7,207.2	31.2	35.4	-109.16	-1,147.4	1,178.9	259.4	206.8	52.62	4.929	
9,100.0	7,121.9	9,229.7	7,206.6	31.7	36.0	-109.07	-1,192.3	1,178.9	259.2	205.3	53.94	4.807	
9,153.5	7,121.6	9,283.2	7,205.8	32.4	36.7	-108.97	-1,245.9	1,178.9	259.1	203.5	55.54	4.665	
9,200.0	7,121.4	9,329.7	7,205.2	33.0	37.4	-108.88	-1,292.3	1,178.9	258.9	202.0	56.94	4.548	
9,251.9	7,121.2	9,381.6	7,204.5	33.7	38.2	-108.78	-1,344.3	1,178.9	258.8	200.2	58.54	4.421	
9,300.0	7,121.0	9,429.7	7,203.8	34.3	38.9	-108.68	-1,392.3	1,178.9	258.6	198.6	60.03	4.309	
9,350.4	7,120.7	9,480.0	7,203.1	35.0	39.6	-108.59	-1,442.7	1,178.9	258.5	196.9	61.62	4.195	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - OLSON 30R-303 - ORIGINAL WELLBORE - PROPOSAL #2												<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	
9,400.0	7,120.5	9,529.7	7,202.4	35.7	40.4	-108.49	-1,492.3	1,178.9	258.3	195.2	63.19	4.088	
9,448.8	7,120.3	9,578.5	7,201.8	36.4	41.1	-108.39	-1,541.1	1,178.9	258.2	193.4	64.76	3.987	
9,500.0	7,120.1	9,629.7	7,201.1	37.2	41.9	-108.29	-1,592.3	1,178.9	258.1	191.6	66.42	3.885	
9,547.2	7,119.9	9,676.9	7,200.4	37.8	42.7	-108.20	-1,639.5	1,178.9	257.9	189.9	67.97	3.795	
9,600.0	7,119.6	9,729.6	7,199.7	38.6	43.5	-108.10	-1,692.3	1,178.9	257.8	188.1	69.71	3.698	
9,645.6	7,119.4	9,775.3	7,199.0	39.3	44.2	-108.01	-1,737.9	1,178.9	257.6	186.4	71.23	3.617	
9,700.0	7,119.2	9,829.6	7,198.3	40.1	45.1	-107.90	-1,792.3	1,178.9	257.5	184.4	73.04	3.525	
9,744.1	7,119.0	9,873.7	7,197.7	40.8	45.8	-107.81	-1,836.3	1,178.9	257.3	182.8	74.53	3.453	
9,800.0	7,118.7	9,929.6	7,196.9	41.7	46.7	-107.70	-1,892.2	1,178.9	257.2	180.8	76.42	3.365	
9,842.5	7,118.5	9,972.1	7,196.3	42.3	47.4	-107.62	-1,934.7	1,178.9	257.1	179.2	77.87	3.301	
9,900.0	7,118.3	10,029.6	7,195.5	43.2	48.4	-107.51	-1,992.2	1,178.9	256.9	177.1	79.84	3.218	
9,940.9	7,118.1	10,070.6	7,195.0	43.9	49.0	-107.43	-2,033.1	1,178.9	256.8	175.5	81.25	3.160	
10,000.0	7,117.8	10,129.6	7,194.2	44.8	50.0	-107.31	-2,092.2	1,178.9	256.6	173.3	83.29	3.081	
10,039.3	7,117.6	10,169.0	7,193.6	45.5	50.7	-107.23	-2,131.6	1,178.9	256.5	171.9	84.66	3.030	
10,100.0	7,117.4	10,229.6	7,192.8	46.4	51.7	-107.11	-2,192.2	1,178.9	256.4	169.6	86.78	2.954	
10,137.8	7,117.2	10,267.4	7,192.3	47.1	52.3	-107.04	-2,230.0	1,178.9	256.2	168.1	88.11	2.908	
10,200.0	7,116.9	10,329.6	7,191.4	48.1	53.4	-106.91	-2,292.2	1,178.9	256.1	165.8	90.29	2.836	
10,236.2	7,116.8	10,365.8	7,190.9	48.7	54.0	-106.84	-2,328.4	1,178.9	256.0	164.4	91.58	2.795	
10,300.0	7,116.5	10,429.6	7,190.0	49.7	55.1	-106.71	-2,392.2	1,178.9	255.8	162.0	93.84	2.726	
10,334.6	7,116.3	10,464.2	7,189.6	50.3	55.7	-106.64	-2,426.8	1,178.9	255.7	160.6	95.07	2.690	
10,400.0	7,116.0	10,529.6	7,188.6	51.4	56.8	-106.51	-2,492.2	1,178.9	255.5	158.1	97.40	2.624	
10,433.0	7,115.9	10,562.7	7,188.2	52.0	57.4	-106.45	-2,525.2	1,178.9	255.5	156.9	98.59	2.591	
10,500.0	7,115.6	10,629.6	7,187.3	53.1	58.6	-106.31	-2,592.1	1,178.9	255.3	154.3	100.99	2.528	
10,531.5	7,115.4	10,661.1	7,186.8	53.6	59.1	-106.25	-2,623.6	1,178.9	255.2	153.1	102.12	2.499	
10,600.0	7,115.1	10,729.6	7,185.9	54.8	60.3	-106.11	-2,692.1	1,178.9	255.0	150.4	104.59	2.438	
10,629.9	7,115.0	10,759.5	7,185.5	55.3	60.8	-106.05	-2,722.0	1,178.9	254.9	149.3	105.68	2.412	
10,700.0	7,114.7	10,829.6	7,184.5	56.5	62.1	-105.91	-2,792.1	1,178.9	254.8	146.5	108.22	2.354	
10,728.3	7,114.6	10,857.9	7,184.1	57.0	62.6	-105.85	-2,820.4	1,178.9	254.7	145.4	109.25	2.331	
10,800.0	7,114.2	10,929.6	7,183.1	58.3	63.8	-105.71	-2,892.1	1,178.9	254.5	142.6	111.86	2.275	
10,826.7	7,114.1	10,956.3	7,182.8	58.7	64.3	-105.66	-2,918.9	1,178.9	254.4	141.6	112.84	2.255	
10,900.0	7,113.8	11,029.6	7,181.8	60.0	65.6	-105.51	-2,992.1	1,178.9	254.3	138.7	115.52	2.201	
10,925.2	7,113.7	11,054.8	7,181.4	60.5	66.0	-105.46	-3,017.3	1,178.9	254.2	137.7	116.45	2.183	
11,000.0	7,113.3	11,129.6	7,180.4	61.8	67.4	-105.30	-3,092.1	1,178.9	254.0	134.8	119.20	2.131	
11,023.6	7,113.2	11,153.2	7,180.1	62.2	67.8	-105.26	-3,115.7	1,178.9	253.9	133.9	120.07	2.115	
11,100.0	7,112.9	11,229.6	7,179.0	63.5	69.2	-105.10	-3,192.1	1,178.9	253.8	130.9	122.89	2.065	
11,122.0	7,112.8	11,251.6	7,178.7	63.9	69.6	-105.06	-3,214.1	1,178.9	253.7	130.0	123.70	2.051	
11,200.0	7,112.4	11,329.6	7,177.6	65.3	71.0	-104.90	-3,292.0	1,178.9	253.5	126.9	126.59	2.003	
11,220.4	7,112.4	11,350.0	7,177.3	65.7	71.3	-104.86	-3,312.5	1,178.9	253.5	126.1	127.35	1.990	
11,300.0	7,112.0	11,429.6	7,176.2	67.1	72.8	-104.69	-3,392.0	1,178.9	253.3	123.0	130.30	1.944	
11,318.9	7,111.9	11,448.4	7,176.0	67.4	73.1	-104.66	-3,410.9	1,178.9	253.2	122.2	131.01	1.933	
11,400.0	7,111.6	11,529.6	7,174.9	68.9	74.6	-104.49	-3,492.0	1,178.9	253.0	119.0	134.03	1.888	
11,417.3	7,111.5	11,546.9	7,174.6	69.2	74.9	-104.46	-3,509.3	1,178.9	253.0	118.3	134.68	1.879	
11,500.0	7,111.1	11,629.6	7,173.5	70.7	76.4	-104.29	-3,592.0	1,178.9	252.8	115.0	137.77	1.835	
11,515.7	7,111.0	11,645.3	7,173.3	71.0	76.7	-104.25	-3,607.7	1,178.9	252.8	114.4	138.36	1.827	
11,600.0	7,110.7	11,729.6	7,172.1	72.5	78.2	-104.08	-3,692.0	1,178.9	252.6	111.1	141.52	1.785	
11,614.1	7,110.6	11,743.7	7,171.9	72.7	78.4	-104.05	-3,706.1	1,178.9	252.5	110.5	142.05	1.778	
11,700.0	7,110.2	11,829.5	7,170.7	74.3	80.0	-103.88	-3,792.0	1,178.9	252.3	107.1	145.27	1.737	
11,712.6	7,110.2	11,842.1	7,170.6	74.5	80.2	-103.85	-3,804.5	1,178.9	252.3	106.6	145.75	1.731	
11,747.9	7,110.0	11,877.4	7,170.1	75.1	80.9	-103.78	-3,839.8	1,178.9	252.2	105.2	147.07	1.715 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	1.0	1.0	0.0	0.0	-88.59	0.4	-14.8	14.8				
98.4	98.4	99.4	99.4	0.1	0.1	-88.59	0.4	-14.8	14.8	14.6	0.17	86.593	
100.0	100.0	101.0	101.0	0.1	0.1	-88.59	0.4	-14.8	14.8	14.6	0.18	84.363	
196.8	196.8	197.8	197.8	0.3	0.3	-88.59	0.4	-14.8	14.8	14.2	0.61	24.219	
200.0	200.0	201.0	201.0	0.3	0.3	-88.59	0.4	-14.8	14.8	14.2	0.62	23.670	
295.3	295.3	296.3	296.3	0.5	0.5	-88.59	0.4	-14.8	14.8	13.7	1.05	14.044	
300.0	300.0	301.0	301.0	0.5	0.5	-88.59	0.4	-14.8	14.8	13.7	1.07	13.766	
393.7	393.7	394.7	394.7	0.7	0.7	-88.59	0.4	-14.8	14.8	13.3	1.50	9.889	
400.0	400.0	401.0	401.0	0.8	0.8	-88.59	0.4	-14.8	14.8	13.3	1.52	9.705	
492.1	492.1	493.1	493.1	1.0	1.0	-88.59	0.4	-14.8	14.8	12.9	1.94	7.632	
500.0	500.0	501.0	501.0	1.0	1.0	-88.59	0.4	-14.8	14.8	12.8	1.97	7.495	
590.5	590.5	591.5	591.5	1.2	1.2	-88.59	0.4	-14.8	14.8	12.4	2.38	6.213	
600.0	600.0	601.0	601.0	1.2	1.2	-88.59	0.4	-14.8	14.8	12.4	2.42	6.104	
689.0	689.0	690.0	690.0	1.4	1.4	-88.59	0.4	-14.8	14.8	12.0	2.82	5.239	
700.0	700.0	701.0	701.0	1.4	1.4	-88.59	0.4	-14.8	14.8	11.9	2.87	5.149	
787.4	787.4	788.4	788.4	1.6	1.6	-88.59	0.4	-14.8	14.8	11.5	3.27	4.529	
800.0	800.0	801.0	801.0	1.7	1.7	-88.59	0.4	-14.8	14.8	11.5	3.32	4.452	
885.8	885.8	886.8	886.8	1.9	1.9	-88.59	0.4	-14.8	14.8	11.1	3.71	3.989	
900.0	900.0	901.0	901.0	1.9	1.9	-88.59	0.4	-14.8	14.8	11.0	3.77	3.922	
984.2	984.2	985.2	985.2	2.1	2.1	-88.59	0.4	-14.8	14.8	10.6	4.15	3.564	
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-88.59	0.4	-14.8	14.8	10.6	4.22	3.504	
1,082.7	1,082.7	1,083.7	1,083.7	2.3	2.3	-88.59	0.4	-14.8	14.8	10.2	4.59	3.220	
1,100.0	1,100.0	1,101.0	1,101.0	2.3	2.3	-88.59	0.4	-14.8	14.8	10.1	4.67	3.167	
1,181.1	1,181.1	1,182.1	1,182.1	2.5	2.5	-88.59	0.4	-14.8	14.8	9.8	5.04	2.937	
1,200.0	1,200.0	1,201.0	1,201.0	2.6	2.6	-88.59	0.4	-14.8	14.8	9.7	5.12	2.889	
1,279.5	1,279.5	1,280.5	1,280.5	2.7	2.7	-88.59	0.4	-14.8	14.8	9.3	5.48	2.700	
1,300.0	1,300.0	1,301.0	1,301.0	2.8	2.8	-88.59	0.4	-14.8	14.8	9.2	5.57	2.655	
1,377.9	1,377.9	1,378.9	1,378.9	3.0	3.0	-88.59	0.4	-14.8	14.8	8.9	5.92	2.498	
1,400.0	1,400.0	1,401.0	1,401.0	3.0	3.0	-88.59	0.4	-14.8	14.8	8.8	6.02	2.457	
1,476.4	1,476.4	1,477.4	1,477.4	3.2	3.2	-88.59	0.4	-14.8	14.8	8.4	6.36	2.325	
1,500.0	1,500.0	1,501.0	1,501.0	3.2	3.2	-88.59	0.4	-14.8	14.8	8.3	6.47	2.286	
1,574.8	1,574.8	1,575.8	1,575.8	3.4	3.4	-88.59	0.4	-14.8	14.8	8.0	6.81	2.173	
1,600.0	1,600.0	1,601.0	1,601.0	3.5	3.5	-88.59	0.4	-14.8	14.8	7.9	6.92	2.138	
1,673.2	1,673.2	1,674.2	1,674.2	3.6	3.6	-88.59	0.4	-14.8	14.8	7.5	7.25	2.041	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	3.7	-88.59	0.4	-14.8	14.8	7.4	7.37	2.007	
1,750.0	1,750.0	1,751.0	1,751.0	3.8	3.8	-88.59	0.4	-14.8	14.8	7.2	7.59	1.948 CC	
1,771.6	1,771.6	1,772.6	1,772.6	3.8	3.8	-130.83	0.4	-14.8	14.8	7.2	7.69	1.931 ES	
1,800.0	1,800.0	1,801.0	1,801.0	3.9	3.9	-131.84	0.4	-14.8	15.1	7.3	7.81	1.929	
1,870.1	1,870.0	1,871.1	1,871.1	4.1	4.1	-137.01	0.4	-14.7	16.5	8.4	8.12	2.030	
1,900.0	1,899.9	1,901.2	1,901.2	4.1	4.1	-139.29	0.7	-14.5	17.3	9.0	8.25	2.093	
1,968.5	1,968.3	1,969.9	1,969.9	4.3	4.3	-143.59	2.3	-13.2	19.2	10.7	8.54	2.248	
2,000.0	1,999.7	2,001.6	2,001.5	4.3	4.4	-145.20	3.5	-12.3	20.1	11.5	8.67	2.322	
2,066.9	2,066.3	2,068.9	2,068.7	4.5	4.5	-148.00	6.9	-9.6	22.2	13.3	8.95	2.482	
2,100.0	2,099.1	2,102.1	2,101.8	4.6	4.6	-149.11	9.1	-7.9	23.3	14.2	9.09	2.561	
2,165.3	2,163.9	2,167.9	2,167.3	4.7	4.7	-150.88	14.2	-3.9	25.4	16.1	9.36	2.716	
2,200.0	2,198.2	2,202.8	2,201.9	4.8	4.8	-151.63	17.4	-1.3	26.6	17.1	9.50	2.799	
2,263.8	2,261.0	2,267.1	2,265.6	5.0	5.0	-152.71	24.1	4.0	28.8	19.0	9.77	2.946	
2,300.0	2,296.6	2,303.6	2,301.7	5.1	5.1	-153.19	28.5	7.4	30.0	20.1	9.92	3.029	
2,362.2	2,357.6	2,366.4	2,363.6	5.3	5.2	-153.79	36.8	14.0	32.2	22.0	10.18	3.166	
2,400.0	2,394.4	2,404.5	2,401.1	5.4	5.3	-154.05	42.3	18.4	33.6	23.2	10.33	3.248	
2,460.6	2,453.4	2,465.7	2,461.0	5.6	5.5	-154.33	52.1	26.1	35.7	25.1	10.60	3.373	
2,500.0	2,491.5	2,505.5	2,499.8	5.7	5.6	-154.42	59.0	31.5	37.2	26.4	10.76	3.454	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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
2,559.0	2,548.3	2,565.2	2,557.8	5.9	5.8	-154.46	70.1	40.3	39.3	28.3	11.03	3.566	
2,600.0	2,587.6	2,606.7	2,597.9	6.1	5.9	-154.42	78.3	46.8	40.9	29.6	11.21	3.643	
2,657.5	2,642.4	2,664.8	2,653.9	6.3	6.2	-154.28	90.7	56.6	43.0	31.5	11.49	3.742	
2,700.0	2,682.7	2,707.6	2,694.9	6.5	6.3	-154.19	100.3	64.1	44.7	33.0	11.69	3.821	
2,750.0	2,729.8	2,757.5	2,742.7	6.8	6.5	-154.46	111.5	73.0	47.3	35.4	11.93	3.964	
2,755.9	2,735.4	2,763.4	2,748.3	6.8	6.6	-154.52	112.9	74.1	47.7	35.7	11.97	3.983	
2,800.0	2,776.8	2,807.4	2,790.5	7.0	6.7	-154.93	122.8	81.9	50.3	38.1	12.22	4.119	
2,854.3	2,827.8	2,861.7	2,842.4	7.3	7.0	-155.39	135.0	91.6	53.6	41.1	12.53	4.278	
2,900.0	2,870.8	2,907.3	2,886.1	7.5	7.2	-155.73	145.3	99.7	56.4	43.6	12.79	4.405	
2,952.7	2,920.3	2,959.9	2,936.5	7.8	7.4	-156.08	157.2	109.1	59.6	46.4	13.11	4.543	
3,000.0	2,964.7	3,007.1	2,981.7	8.1	7.6	-156.37	167.8	117.5	62.4	49.0	13.39	4.662	
3,051.2	3,012.8	3,058.2	3,030.6	8.4	7.9	-156.65	179.3	126.6	65.5	51.8	13.70	4.782	
3,100.0	3,058.7	3,106.9	3,077.3	8.7	8.1	-156.90	190.3	135.3	68.5	54.5	14.00	4.892	
3,149.6	3,105.3	3,156.4	3,124.7	9.0	8.3	-157.12	201.5	144.1	71.5	57.2	14.31	4.997	
3,200.0	3,152.7	3,206.7	3,172.9	9.3	8.6	-157.34	212.9	153.1	74.5	59.9	14.62	5.100	
3,248.0	3,197.8	3,254.6	3,218.8	9.5	8.8	-157.53	223.7	161.6	77.5	62.5	14.92	5.192	
3,300.0	3,246.6	3,306.5	3,268.5	9.9	9.1	-157.71	235.4	170.9	80.6	65.4	15.25	5.288	
3,346.4	3,290.3	3,352.9	3,312.9	10.1	9.3	-157.87	245.8	179.1	83.4	67.9	15.54	5.368	
3,400.0	3,340.6	3,406.3	3,364.1	10.5	9.6	-158.04	257.9	188.6	86.7	70.8	15.88	5.458	
3,444.9	3,382.8	3,451.1	3,407.0	10.8	9.8	-158.17	268.0	196.6	89.4	73.2	16.18	5.528	
3,500.0	3,434.6	3,506.1	3,459.7	11.1	10.1	-158.32	280.4	206.4	92.8	76.2	16.53	5.612	
3,543.3	3,475.3	3,549.4	3,501.1	11.4	10.3	-158.43	290.1	214.1	95.4	78.6	16.81	5.674	
3,600.0	3,528.6	3,606.0	3,555.3	11.7	10.6	-158.56	302.9	224.2	98.8	81.7	17.18	5.753	
3,641.7	3,567.8	3,647.6	3,595.2	12.0	10.9	-158.66	312.3	231.6	101.4	83.9	17.46	5.807	
3,700.0	3,622.5	3,705.8	3,650.9	12.4	11.2	-158.78	325.4	242.0	104.9	87.1	17.84	5.881	
3,740.1	3,660.3	3,745.8	3,689.3	12.6	11.4	-158.86	334.5	249.1	107.4	89.3	18.11	5.930	
3,749.0	3,668.6	3,754.7	3,697.8	12.7	11.4	-158.88	336.5	250.7	107.9	89.7	18.17	5.940	
3,800.0	3,716.5	3,805.6	3,746.5	13.0	11.7	-161.61	347.9	259.8	111.1	92.6	18.49	6.010	
3,838.6	3,752.8	3,844.1	3,783.4	13.2	11.9	-163.41	356.6	266.6	113.8	95.0	18.76	6.065	
3,885.2	3,796.6	3,890.5	3,827.9	13.5	12.2	-165.27	367.1	274.9	117.2	98.1	19.11	6.130	
3,900.0	3,810.5	3,905.3	3,842.0	13.6	12.2	-164.99	370.4	277.5	118.3	99.1	19.24	6.148	
3,937.0	3,845.3	3,942.1	3,877.3	13.8	12.4	-164.29	378.7	284.1	121.1	101.6	19.57	6.189	
4,000.0	3,904.5	4,004.9	3,937.4	14.2	12.8	-163.18	392.9	295.3	126.0	105.8	20.13	6.257	
4,035.4	3,937.7	4,040.2	3,971.2	14.5	13.0	-162.59	400.9	301.6	128.7	108.2	20.45	6.293	
4,100.0	3,998.4	4,104.5	4,032.9	14.9	13.3	-161.58	415.4	313.0	133.7	112.7	21.04	6.356	
4,133.8	4,030.2	4,138.3	4,065.2	15.1	13.5	-161.07	423.0	319.1	136.4	115.0	21.35	6.388	
4,200.0	4,092.4	4,204.2	4,128.3	15.5	13.9	-160.15	437.8	330.8	141.6	119.6	21.96	6.447	
4,232.3	4,122.7	4,236.3	4,159.1	15.8	14.1	-159.72	445.1	336.5	144.1	121.9	22.26	6.475	
4,300.0	4,186.4	4,303.8	4,223.7	16.2	14.4	-158.88	460.3	348.6	149.5	126.6	22.90	6.531	
4,330.7	4,215.2	4,334.4	4,253.0	16.4	14.6	-158.51	467.2	354.0	152.0	128.8	23.19	6.555	
4,400.0	4,280.3	4,403.4	4,319.1	16.9	15.0	-157.73	482.8	366.3	157.5	133.7	23.84	6.608	
4,429.1	4,307.7	4,432.5	4,346.9	17.1	15.2	-157.42	489.3	371.5	159.9	135.8	24.12	6.629	
4,500.0	4,374.3	4,503.1	4,414.6	17.6	15.6	-156.70	505.3	384.1	165.6	140.8	24.80	6.678	
4,527.5	4,400.2	4,530.5	4,440.9	17.7	15.7	-156.43	511.4	389.0	167.8	142.8	25.06	6.697	
4,600.0	4,468.3	4,602.7	4,510.0	18.2	16.1	-155.76	527.7	401.8	173.7	148.0	25.76	6.744	
4,626.0	4,492.7	4,628.6	4,534.8	18.4	16.3	-155.53	533.6	406.4	175.8	149.8	26.01	6.760	
4,700.0	4,562.3	4,702.3	4,605.4	18.9	16.7	-154.91	550.2	419.6	181.9	155.1	26.73	6.804	
4,724.4	4,585.2	4,726.6	4,628.7	19.1	16.8	-154.71	555.7	423.9	183.9	156.9	26.97	6.818	
4,800.0	4,656.2	4,802.0	4,700.8	19.6	17.2	-154.13	572.7	437.3	190.1	162.4	27.70	6.861	
4,822.8	4,677.7	4,824.7	4,722.6	19.7	17.4	-153.96	577.8	441.4	191.9	164.0	27.93	6.873	
4,900.0	4,750.2	4,901.6	4,796.3	20.3	17.8	-153.41	595.1	455.1	198.3	169.6	28.68	6.913	
4,921.2	4,770.2	4,922.8	4,816.6	20.4	17.9	-153.27	599.9	458.8	200.0	171.1	28.89	6.924	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
5,000.0	4,844.2	5,001.2	4,891.7	20.9	18.4	-152.75	617.6	472.8	206.5	176.9	29.67	6.962	
5,019.7	4,862.7	5,020.8	4,910.5	21.1	18.5	-152.63	622.0	476.3	208.2	178.3	29.86	6.971	
5,100.0	4,938.1	5,100.9	4,987.1	21.6	18.9	-152.14	640.1	490.6	214.8	184.2	30.65	7.008	
5,118.1	4,955.1	5,118.9	5,004.4	21.7	19.0	-152.04	644.2	493.8	216.3	185.5	30.83	7.016	
5,200.0	5,032.1	5,200.5	5,082.6	22.3	19.5	-151.58	662.6	508.3	223.1	191.5	31.64	7.050	
5,216.5	5,047.6	5,217.0	5,098.3	22.4	19.6	-151.49	666.3	511.3	224.5	192.7	31.81	7.057	
5,300.0	5,126.1	5,300.1	5,178.0	23.0	20.1	-151.06	685.0	526.1	231.4	198.8	32.64	7.091	
5,314.9	5,140.1	5,315.0	5,192.3	23.1	20.2	-150.98	688.4	528.7	232.7	199.9	32.79	7.096	
5,400.0	5,220.0	5,399.8	5,273.4	23.7	20.6	-150.57	707.5	543.8	239.8	206.1	33.63	7.128	
5,413.4	5,232.6	5,413.1	5,286.2	23.8	20.7	-150.51	710.5	546.2	240.9	207.1	33.77	7.133	
5,504.2	5,318.0	5,503.6	5,372.8	24.4	21.2	-150.10	730.9	562.3	248.5	213.8	34.68	7.166	
5,511.8	5,325.1	5,511.1	5,380.1	24.4	21.3	-150.07	732.6	563.7	249.1	214.3	34.75	7.167	
5,600.0	5,408.5	5,599.1	5,464.3	24.9	21.8	-149.58	752.5	579.4	255.1	219.4	35.72	7.142	
5,610.2	5,418.2	5,609.3	5,474.1	25.0	21.8	-149.50	754.8	581.2	255.7	219.8	35.83	7.135	
5,700.0	5,504.1	5,698.9	5,560.0	25.4	22.4	-148.65	775.0	597.1	259.1	222.3	36.87	7.029	
5,708.6	5,512.4	5,707.6	5,568.2	25.5	22.4	-148.55	776.9	598.7	259.4	222.4	36.97	7.015	
5,800.0	5,600.7	5,798.4	5,655.2	25.9	22.9	-147.32	797.4	614.9	260.3	222.2	38.12	6.828	
5,807.1	5,607.5	5,805.0	5,661.6	25.9	23.0	-147.22	798.9	616.0	260.3	222.1	38.21	6.813	
5,900.0	5,698.1	5,892.1	5,745.5	26.3	23.3	-145.92	817.3	630.5	260.0	220.7	39.26	6.622	
5,905.5	5,703.4	5,900.0	5,753.1	26.3	23.4	-145.81	818.8	631.8	260.0	220.6	39.34	6.608	
6,000.0	5,796.2	5,986.0	5,836.6	26.6	23.7	-144.59	834.8	644.4	259.3	218.9	40.32	6.430	
6,003.9	5,800.1	5,989.7	5,840.2	26.6	23.7	-144.54	835.5	644.9	259.2	218.9	40.36	6.423	
6,100.0	5,894.9	6,080.1	5,928.7	26.9	24.0	-143.32	850.1	656.5	258.1	216.8	41.29	6.249	
6,102.3	5,897.3	6,082.3	5,930.9	26.9	24.1	-143.29	850.4	656.7	258.0	216.7	41.31	6.245	
6,200.0	5,994.2	6,174.3	6,021.5	27.2	24.3	-142.10	863.0	666.6	256.4	214.2	42.18	6.078	
6,200.8	5,994.9	6,175.1	6,022.2	27.2	24.3	-142.09	863.0	666.7	256.4	214.2	42.19	6.077	
6,299.2	6,093.0	6,268.0	6,114.2	27.4	24.6	-140.95	873.4	674.9	254.2	211.2	42.98	5.915	
6,300.0	6,093.8	6,268.8	6,115.0	27.4	24.6	-140.94	873.4	674.9	254.2	211.2	42.98	5.914	
6,397.6	6,191.2	6,361.1	6,206.8	27.5	24.8	-139.84	881.4	681.2	251.6	207.9	43.68	5.760	
6,400.0	6,193.6	6,363.4	6,209.0	27.5	24.8	-139.81	881.5	681.3	251.5	207.8	43.70	5.756	
6,496.0	6,289.6	6,454.4	6,299.8	27.6	25.0	-138.77	887.0	685.6	248.4	204.1	44.30	5.608	
6,504.1	6,297.7	6,462.0	6,307.3	27.6	25.0	-88.72	887.4	685.9	248.2	203.8	44.35	5.596	
6,594.5	6,388.1	6,547.9	6,393.2	27.7	25.2	-88.03	890.3	688.2	245.8	201.0	44.83	5.484	
6,600.0	6,393.6	6,553.2	6,398.4	27.7	25.2	-88.00	890.4	688.3	245.7	200.9	44.85	5.479	
6,618.2	6,411.8	6,570.5	6,415.7	27.8	25.2	-87.92	890.7	688.5	245.5	200.6	44.93	5.464	
6,650.0	6,443.6	6,600.7	6,446.0	27.8	25.2	92.34	891.1	688.8	245.2	200.1	45.09	5.438	
6,664.6	6,458.2	6,614.6	6,459.9	27.8	25.2	92.54	891.1	688.9	245.2	200.0	45.18	5.427	
6,692.9	6,486.4	6,642.1	6,487.4	27.8	25.3	93.08	891.2	688.9	245.3	199.9	45.41	5.402	
6,700.0	6,493.4	6,649.2	6,494.4	27.8	25.3	93.26	891.2	688.9	245.3	199.9	45.48	5.395	
6,750.0	6,542.8	6,699.8	6,545.0	27.8	25.3	94.70	890.0	688.9	245.8	199.8	45.97	5.346	
6,791.3	6,583.2	6,742.1	6,587.2	27.7	25.3	95.90	886.3	688.9	246.3	200.0	46.29	5.320	
6,800.0	6,591.6	6,751.1	6,596.1	27.7	25.3	96.14	885.2	688.9	246.4	200.0	46.35	5.315	
6,850.0	6,639.6	6,802.8	6,647.1	27.6	25.3	97.56	876.7	688.9	247.1	200.5	46.60	5.303	
6,889.7	6,676.9	6,844.3	6,687.5	27.6	25.3	98.65	867.2	688.9	247.8	201.1	46.69	5.307	
6,900.0	6,686.4	6,855.1	6,697.9	27.5	25.2	98.93	864.4	688.9	248.0	201.3	46.71	5.310	
6,950.0	6,731.8	6,907.8	6,748.1	27.4	25.1	100.26	848.3	688.9	249.0	202.3	46.67	5.335	
6,988.2	6,765.5	6,948.4	6,785.8	27.3	25.0	101.23	833.4	688.9	249.8	203.2	46.54	5.367	
7,000.0	6,775.8	6,961.0	6,797.4	27.2	25.0	101.53	828.3	688.9	250.0	203.6	46.48	5.379	
7,050.0	6,817.9	7,014.7	6,845.5	27.1	24.8	102.74	804.5	688.9	251.2	205.0	46.15	5.442	
7,086.6	6,847.5	7,054.3	6,879.7	26.9	24.7	103.58	784.6	688.9	252.1	206.2	45.83	5.500	
7,100.0	6,858.1	7,068.8	6,892.0	26.9	24.6	103.88	776.9	688.9	252.4	206.7	45.69	5.524	
7,150.0	6,896.1	7,123.4	6,936.7	26.6	24.4	104.94	745.6	688.9	253.6	208.5	45.10	5.622	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
7,185.0	6,921.3	7,161.9	6,966.8	26.5	24.2	105.64	721.5	688.9	254.4	209.8	44.63	5.701	
7,200.0	6,931.7	7,178.4	6,979.2	26.4	24.2	105.92	710.7	688.9	254.8	210.4	44.41	5.737	
7,250.0	6,964.8	7,233.8	7,019.2	26.2	23.9	106.82	672.3	688.9	256.0	212.3	43.63	5.866	
7,283.4	6,985.4	7,271.1	7,044.4	26.0	23.7	107.37	644.8	688.9	256.7	213.6	43.08	5.959	
7,300.0	6,995.2	7,289.6	7,056.4	25.9	23.6	107.63	630.7	688.9	257.1	214.3	42.80	6.007	
7,350.0	7,022.7	7,345.8	7,090.4	25.7	23.3	108.34	586.1	688.9	258.1	216.2	41.93	6.156	
7,381.9	7,038.8	7,381.7	7,110.3	25.5	23.1	108.75	556.1	688.9	258.7	217.3	41.38	6.253	
7,400.0	7,047.3	7,402.2	7,120.9	25.4	23.0	108.96	538.6	688.9	259.0	218.0	41.06	6.308	
7,450.0	7,068.8	7,458.9	7,147.7	25.1	22.7	109.47	488.7	688.9	259.8	219.6	40.23	6.458	
7,480.3	7,080.3	7,493.4	7,162.1	25.0	22.5	109.74	457.3	688.9	260.2	220.5	39.76	6.545	
7,500.0	7,087.1	7,515.9	7,170.6	24.9	22.4	109.89	436.5	688.9	260.5	221.0	39.47	6.600	
7,550.0	7,102.1	7,573.0	7,189.3	24.6	22.1	110.19	382.6	688.9	261.0	222.2	38.81	6.725	
7,578.7	7,109.2	7,605.8	7,198.1	24.5	21.9	110.32	350.9	688.9	261.2	222.7	38.48	6.787	
7,600.0	7,113.7	7,630.2	7,203.7	24.4	21.8	110.40	327.2	688.9	261.3	223.1	38.27	6.828	
7,650.0	7,121.9	7,687.5	7,213.7	24.2	21.6	110.49	270.8	688.9	261.5	223.6	37.89	6.901	
7,677.1	7,125.0	7,718.6	7,217.2	24.1	21.4	110.50	239.9	688.9	261.5	223.7	37.76	6.926	
7,700.0	7,126.7	7,744.8	7,219.0	24.0	21.3	110.48	213.7	688.9	261.5	223.8	37.67	6.940	
7,746.5	7,128.0	7,797.4	7,220.0	23.8	21.1	110.38	161.2	688.9	261.3	223.7	37.63	6.944	
7,775.6	7,127.9	7,826.5	7,219.6	23.7	21.0	110.33	132.1	688.9	261.2	223.5	37.67	6.935	
7,800.0	7,127.7	7,850.9	7,219.3	23.6	20.9	110.29	107.7	688.9	261.1	223.4	37.70	6.927	
7,874.0	7,127.4	7,924.9	7,218.4	23.4	20.6	110.17	33.7	688.9	260.9	223.2	37.75	6.912	
7,900.0	7,127.3	7,950.9	7,218.1	23.4	20.6	110.13	7.7	688.9	260.9	223.1	37.80	6.901	
7,972.4	7,127.0	8,023.3	7,217.2	23.3	20.4	110.01	-64.7	688.9	260.7	222.6	38.09	6.843	
8,000.0	7,126.8	8,050.9	7,216.8	23.3	20.4	109.97	-92.3	688.9	260.6	222.4	38.23	6.816	
8,070.8	7,126.5	8,121.8	7,216.0	23.4	20.5	109.85	-163.1	688.9	260.4	221.7	38.75	6.720	
8,100.0	7,126.4	8,150.9	7,215.6	23.5	20.6	109.81	-192.3	688.9	260.3	221.3	39.00	6.676	
8,169.3	7,126.1	8,220.2	7,214.7	23.7	21.2	109.69	-261.5	688.9	260.2	220.4	39.72	6.550	
8,200.0	7,125.9	8,250.9	7,214.4	23.8	21.5	109.64	-292.3	688.9	260.1	220.0	40.07	6.490	
8,267.7	7,125.6	8,318.6	7,213.5	24.1	22.1	109.53	-360.0	688.9	259.9	218.9	40.98	6.343	
8,300.0	7,125.5	8,350.9	7,213.1	24.2	22.5	109.48	-392.3	688.9	259.8	218.4	41.44	6.270	
8,366.1	7,125.2	8,417.0	7,212.3	24.6	23.2	109.37	-458.4	688.9	259.6	217.1	42.50	6.110	
8,400.0	7,125.0	8,450.9	7,211.9	24.8	23.6	109.31	-492.2	688.9	259.5	216.5	43.07	6.027	
8,464.5	7,124.7	8,515.5	7,211.1	25.3	24.4	109.21	-556.8	688.9	259.4	215.1	44.26	5.861	
8,500.0	7,124.6	8,550.9	7,210.6	25.6	24.8	109.15	-592.2	688.9	259.3	214.4	44.94	5.770	
8,563.0	7,124.3	8,613.9	7,209.8	26.1	25.6	109.05	-655.2	688.9	259.1	212.9	46.24	5.604	
8,600.0	7,124.1	8,650.9	7,209.4	26.4	26.1	108.98	-692.2	688.9	259.0	212.0	47.02	5.509	
8,661.4	7,123.8	8,712.3	7,208.6	26.9	26.9	108.88	-753.6	688.9	258.9	210.5	48.40	5.348	
8,700.0	7,123.7	8,750.9	7,208.1	27.3	27.5	108.82	-792.2	688.9	258.8	209.5	49.30	5.249	
8,759.8	7,123.4	8,810.7	7,207.4	27.9	28.3	108.72	-852.0	688.9	258.6	207.9	50.74	5.097	
8,800.0	7,123.2	8,850.9	7,206.9	28.3	28.9	108.65	-892.2	688.9	258.5	206.8	51.73	4.997	
8,858.2	7,123.0	8,909.1	7,206.2	28.9	29.7	108.55	-950.4	688.9	258.4	205.1	53.23	4.854	
8,900.0	7,122.8	8,950.9	7,205.6	29.4	30.3	108.48	-992.2	688.9	258.3	203.9	54.32	4.755	
8,956.7	7,122.5	9,007.6	7,204.9	30.0	31.2	108.39	-1,048.9	688.9	258.1	202.3	55.84	4.622	
9,000.0	7,122.3	9,050.9	7,204.4	30.5	31.8	108.32	-1,092.2	688.9	258.0	201.0	57.02	4.525	
9,055.1	7,122.1	9,106.0	7,203.7	31.2	32.7	108.22	-1,147.3	688.9	257.9	199.3	58.57	4.403	
9,100.0	7,121.9	9,150.9	7,203.2	31.7	33.4	108.15	-1,192.2	688.9	257.8	197.9	59.84	4.307	
9,153.5	7,121.6	9,204.4	7,202.5	32.4	34.2	108.06	-1,245.7	688.9	257.6	196.2	61.39	4.196	
9,200.0	7,121.4	9,250.9	7,201.9	33.0	35.0	107.98	-1,292.2	688.9	257.5	194.8	62.76	4.103	
9,251.9	7,121.2	9,302.8	7,201.3	33.7	35.8	107.89	-1,344.1	688.9	257.4	193.1	64.31	4.003	
9,300.0	7,121.0	9,350.9	7,200.7	34.3	36.6	107.81	-1,392.2	688.9	257.3	191.5	65.76	3.913	
9,350.4	7,120.7	9,401.3	7,200.0	35.0	37.4	107.73	-1,442.5	688.9	257.2	189.9	67.30	3.821	
9,400.0	7,120.5	9,450.9	7,199.4	35.7	38.2	107.64	-1,492.1	688.9	257.0	188.2	68.83	3.734	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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 NW NE SEC 30 T4N R67W 6th P.M. - OLSON 30R-343 - ORIGINAL WELLBORE - PROPOSAL #2												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,448.8	7,120.3	9,499.7	7,198.8	36.4	39.0	107.56	-1,540.9	688.9	256.9	186.6	70.35	3.652	
9,500.0	7,120.1	9,550.9	7,198.2	37.2	39.9	107.47	-1,592.1	688.9	256.8	184.8	71.96	3.568	
9,547.2	7,119.9	9,598.1	7,197.6	37.8	40.6	107.39	-1,639.4	688.9	256.7	183.2	73.47	3.494	
9,600.0	7,119.6	9,650.9	7,196.9	38.6	41.5	107.30	-1,692.1	688.9	256.6	181.4	75.16	3.413	
9,645.6	7,119.4	9,696.5	7,196.3	39.3	42.3	107.22	-1,737.8	688.9	256.4	179.8	76.64	3.346	
9,700.0	7,119.2	9,750.9	7,195.7	40.1	43.2	107.13	-1,792.1	688.9	256.3	177.9	78.41	3.269	
9,744.1	7,119.0	9,794.9	7,195.1	40.8	44.0	107.05	-1,836.2	688.9	256.2	176.4	79.85	3.209	
9,800.0	7,118.7	9,850.9	7,194.4	41.7	44.9	106.96	-1,892.1	688.9	256.1	174.4	81.70	3.135	
9,842.5	7,118.5	9,893.4	7,193.9	42.3	45.7	106.89	-1,934.6	688.9	256.0	172.9	83.11	3.080	
9,900.0	7,118.3	9,950.9	7,193.2	43.2	46.7	106.79	-1,992.1	688.9	255.9	170.8	85.03	3.009	
9,940.9	7,118.1	9,991.8	7,192.6	43.9	47.4	106.72	-2,033.0	688.9	255.8	169.4	86.41	2.960	
10,000.0	7,117.8	10,050.9	7,191.9	44.8	48.4	106.61	-2,092.1	688.9	255.6	167.2	88.40	2.892	
10,039.3	7,117.6	10,090.2	7,191.4	45.5	49.1	106.55	-2,131.4	688.9	255.5	165.8	89.74	2.848	
10,100.0	7,117.4	10,150.9	7,190.6	46.4	50.2	106.44	-2,192.1	688.9	255.4	163.6	91.80	2.782	
10,137.8	7,117.2	10,188.6	7,190.2	47.1	50.8	106.38	-2,229.8	688.9	255.3	162.2	93.10	2.742	
10,200.0	7,116.9	10,250.9	7,189.4	48.1	51.9	106.27	-2,292.1	688.9	255.2	159.9	95.24	2.679	
10,236.2	7,116.8	10,287.1	7,188.9	48.7	52.6	106.20	-2,328.3	688.9	255.1	158.6	96.49	2.644	
10,300.0	7,116.5	10,350.8	7,188.1	49.7	53.7	106.09	-2,392.0	688.9	254.9	156.2	98.70	2.583	
10,334.6	7,116.3	10,385.5	7,187.7	50.3	54.3	106.03	-2,426.7	688.9	254.9	155.0	99.90	2.551	
10,400.0	7,116.0	10,450.8	7,186.9	51.4	55.5	105.92	-2,492.0	688.9	254.7	152.5	102.18	2.493	
10,433.0	7,115.9	10,483.9	7,186.5	52.0	56.1	105.86	-2,525.1	688.9	254.7	151.3	103.34	2.464	
10,500.0	7,115.6	10,550.8	7,185.6	53.1	57.3	105.74	-2,592.0	688.9	254.5	148.8	105.69	2.408	
10,531.5	7,115.4	10,582.3	7,185.2	53.6	57.8	105.69	-2,623.5	688.9	254.4	147.6	106.80	2.382	
10,600.0	7,115.1	10,650.8	7,184.4	54.8	59.1	105.57	-2,692.0	688.9	254.3	145.1	109.23	2.328	
10,629.9	7,115.0	10,680.7	7,184.0	55.3	59.6	105.52	-2,721.9	688.9	254.2	143.9	110.29	2.305	
10,700.0	7,114.7	10,750.8	7,183.1	56.5	60.9	105.39	-2,792.0	688.9	254.1	141.3	112.78	2.253	
10,728.3	7,114.6	10,779.2	7,182.8	57.0	61.4	105.34	-2,820.3	688.9	254.0	140.2	113.79	2.232	
10,800.0	7,114.2	10,850.8	7,181.9	58.3	62.7	105.22	-2,892.0	688.9	253.9	137.5	116.35	2.182	
10,826.7	7,114.1	10,877.6	7,181.5	58.7	63.2	105.17	-2,918.7	688.9	253.8	136.5	117.31	2.164	
10,900.0	7,113.8	10,950.8	7,180.6	60.0	64.5	105.04	-2,992.0	688.9	253.7	133.7	119.93	2.115	
10,925.2	7,113.7	10,976.0	7,180.3	60.5	65.0	104.99	-3,017.2	688.9	253.6	132.8	120.84	2.099	
11,000.0	7,113.3	11,050.8	7,179.3	61.8	66.3	104.86	-3,092.0	688.9	253.4	129.9	123.54	2.052	
11,023.6	7,113.2	11,074.4	7,179.0	62.2	66.8	104.82	-3,115.6	688.9	253.4	129.0	124.39	2.037	
11,100.0	7,112.9	11,150.8	7,178.1	63.5	68.2	104.68	-3,192.0	688.9	253.2	126.1	127.16	1.992	
11,122.0	7,112.8	11,172.9	7,177.8	63.9	68.6	104.65	-3,214.0	688.9	253.2	125.2	127.95	1.979	
11,200.0	7,112.4	11,250.8	7,176.8	65.3	70.0	104.51	-3,291.9	688.9	253.0	122.2	130.79	1.935	
11,220.4	7,112.4	11,271.3	7,176.6	65.7	70.4	104.47	-3,312.4	688.9	253.0	121.5	131.53	1.923	
11,300.0	7,112.0	11,350.8	7,175.6	67.1	71.8	104.33	-3,391.9	688.9	252.8	118.4	134.43	1.881	
11,318.9	7,111.9	11,369.7	7,175.3	67.4	72.2	104.29	-3,410.8	688.9	252.8	117.7	135.12	1.871	
11,400.0	7,111.6	11,450.8	7,174.3	68.9	73.7	104.15	-3,491.9	688.9	252.6	114.5	138.09	1.830	
11,417.3	7,111.5	11,468.1	7,174.1	69.2	74.0	104.12	-3,509.2	688.9	252.6	113.9	138.72	1.821	
11,500.0	7,111.1	11,550.8	7,173.0	70.7	75.5	103.97	-3,591.9	688.9	252.4	110.7	141.76	1.781	
11,515.7	7,111.0	11,566.5	7,172.8	71.0	75.8	103.94	-3,607.6	688.9	252.4	110.1	142.34	1.773	
11,600.0	7,110.7	11,650.8	7,171.8	72.5	77.4	103.79	-3,691.9	688.9	252.2	106.8	145.44	1.734	
11,614.1	7,110.6	11,665.0	7,171.6	72.7	77.6	103.76	-3,706.1	688.9	252.2	106.3	145.96	1.728	
11,700.0	7,110.2	11,750.8	7,170.5	74.3	79.2	103.61	-3,791.9	688.9	252.1	102.9	149.13	1.690	
11,712.6	7,110.2	11,763.4	7,170.4	74.5	79.5	103.59	-3,804.5	688.9	252.0	102.4	149.60	1.685	
11,739.6	7,110.0	11,790.4	7,170.0	75.0	80.0	103.54	-3,831.5	688.9	252.0	101.4	150.60	1.673	
11,747.9	7,110.0	11,791.4	7,170.0	75.1	80.0	103.53	-3,832.5	688.9	252.1	101.3	150.76	1.672 SF	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	91.37	-1.1	45.2	45.2				
98.4	98.4	98.4	98.4	0.1	0.1	91.37	-1.1	45.2	45.2	45.0	0.17	266.025	
100.0	100.0	100.0	100.0	0.1	0.1	91.37	-1.1	45.2	45.2	45.0	0.17	261.209	
196.8	196.8	196.8	196.8	0.3	0.3	91.37	-1.1	45.2	45.2	44.6	0.61	74.300	
200.0	200.0	200.0	200.0	0.3	0.3	91.37	-1.1	45.2	45.2	44.6	0.62	72.611	
295.3	295.3	295.3	295.3	0.5	0.5	91.37	-1.1	45.2	45.2	44.2	1.05	43.018	
300.0	300.0	300.0	300.0	0.5	0.5	91.37	-1.1	45.2	45.2	44.1	1.07	42.166	
393.7	393.7	393.7	393.7	0.7	0.7	91.37	-1.1	45.2	45.2	43.7	1.49	30.273	
400.0	400.0	400.0	400.0	0.8	0.8	91.37	-1.1	45.2	45.2	43.7	1.52	29.709	
492.1	492.1	492.1	492.1	1.0	1.0	91.37	-1.1	45.2	45.2	43.3	1.94	23.353	
500.0	500.0	500.0	500.0	1.0	1.0	91.37	-1.1	45.2	45.2	43.2	1.97	22.934	
590.5	590.5	590.5	590.5	1.2	1.2	91.37	-1.1	45.2	45.2	42.8	2.38	19.009	
600.0	600.0	600.0	600.0	1.2	1.2	91.37	-1.1	45.2	45.2	42.8	2.42	18.675	
689.0	689.0	689.0	689.0	1.4	1.4	91.37	-1.1	45.2	45.2	42.4	2.82	16.027	
700.0	700.0	700.0	700.0	1.4	1.4	91.37	-1.1	45.2	45.2	42.3	2.87	15.750	
787.4	787.4	787.4	787.4	1.6	1.6	91.37	-1.1	45.2	45.2	41.9	3.26	13.854	
800.0	800.0	800.0	800.0	1.7	1.7	91.37	-1.1	45.2	45.2	41.9	3.32	13.618	
885.8	885.8	885.8	885.8	1.9	1.9	91.37	-1.1	45.2	45.2	41.5	3.71	12.200	
900.0	900.0	900.0	900.0	1.9	1.9	91.37	-1.1	45.2	45.2	41.4	3.77	11.994	
984.2	984.2	984.2	984.2	2.1	2.1	91.37	-1.1	45.2	45.2	41.1	4.15	10.898	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	91.37	-1.1	45.2	45.2	41.0	4.22	10.716	
1,082.7	1,082.7	1,082.7	1,082.7	2.3	2.3	91.37	-1.1	45.2	45.2	40.6	4.59	9.848	
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	91.37	-1.1	45.2	45.2	40.5	4.67	9.684	
1,181.1	1,181.1	1,181.1	1,181.1	2.5	2.5	91.37	-1.1	45.2	45.2	40.2	5.03	8.982	
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	91.37	-1.1	45.2	45.2	40.1	5.12	8.833	
1,279.5	1,279.5	1,279.5	1,279.5	2.7	2.7	91.37	-1.1	45.2	45.2	39.7	5.48	8.256	
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	91.37	-1.1	45.2	45.2	39.6	5.57	8.120	
1,377.9	1,377.9	1,377.9	1,377.9	3.0	3.0	91.37	-1.1	45.2	45.2	39.3	5.92	7.639	
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	91.37	-1.1	45.2	45.2	39.2	6.02	7.513	
1,437.5	1,437.5	1,437.5	1,437.5	3.1	3.1	91.37	-1.1	45.2	45.2	39.0	6.19	7.309 CC	
1,476.4	1,476.4	1,476.0	1,476.0	3.2	3.2	91.30	-1.0	45.3	45.3	39.0	6.36	7.128 ES	
1,500.0	1,500.0	1,499.3	1,499.3	3.2	3.2	91.12	-0.9	45.6	45.6	39.1	6.46	7.056	
1,574.8	1,574.8	1,573.0	1,573.0	3.4	3.4	89.88	0.1	47.6	47.6	40.8	6.79	7.013	
1,600.0	1,600.0	1,597.8	1,597.7	3.5	3.4	89.26	0.6	48.6	48.7	41.8	6.89	7.057	
1,673.2	1,673.2	1,669.7	1,669.5	3.6	3.6	87.07	2.7	52.7	52.9	45.7	7.21	7.335	
1,700.0	1,700.0	1,696.0	1,695.7	3.7	3.7	86.17	3.7	54.6	54.9	47.6	7.33	7.490	
1,750.0	1,750.0	1,744.8	1,744.3	3.8	3.8	84.43	5.7	58.7	59.3	51.7	7.55	7.850	
1,771.6	1,771.6	1,766.0	1,765.3	3.8	3.8	41.70	6.7	60.7	61.4	53.7	7.64	8.035	
1,800.0	1,800.0	1,793.6	1,792.8	3.9	3.9	40.87	8.2	63.6	64.2	56.4	7.76	8.270	
1,870.1	1,870.0	1,861.7	1,860.3	4.1	4.0	39.42	12.2	71.6	71.3	63.3	8.06	8.850	
1,900.0	1,899.9	1,890.8	1,889.1	4.1	4.1	39.01	14.1	75.4	74.5	66.3	8.18	9.097	
1,968.5	1,968.3	1,957.2	1,954.5	4.3	4.3	38.46	19.0	85.2	81.8	73.3	8.48	9.653	
2,000.0	1,999.7	1,987.6	1,984.5	4.3	4.4	38.35	21.5	90.1	85.3	76.7	8.61	9.907	
2,066.9	2,066.3	2,052.2	2,047.8	4.5	4.6	38.37	27.2	101.5	92.8	83.9	8.90	10.433	
2,100.0	2,099.1	2,084.1	2,078.9	4.6	4.7	38.48	30.3	107.6	96.6	87.6	9.04	10.690	
2,165.3	2,163.9	2,146.9	2,140.0	4.7	4.9	38.87	36.8	120.5	104.2	94.9	9.32	11.183	
2,200.0	2,198.2	2,180.1	2,172.2	4.8	5.0	39.15	40.5	127.9	108.4	98.9	9.47	11.441	
2,263.8	2,261.0	2,241.1	2,231.1	5.0	5.2	39.78	47.7	142.2	116.2	106.4	9.76	11.896	
2,300.0	2,296.6	2,275.7	2,264.3	5.1	5.4	40.19	52.0	150.8	120.7	110.7	9.93	12.151	
2,362.2	2,357.6	2,334.9	2,320.9	5.3	5.7	40.96	59.8	166.3	128.6	118.4	10.23	12.566	
2,400.0	2,394.4	2,370.8	2,355.1	5.4	5.8	41.46	64.8	176.3	133.5	123.1	10.42	12.813	
2,460.6	2,453.4	2,428.3	2,409.4	5.6	6.1	42.31	73.2	193.0	141.6	130.8	10.74	13.177	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
2,500.0	2,491.5	2,465.6	2,444.4	5.7	6.3	42.89	78.9	204.3	146.9	135.9	10.96	13.407	
2,559.0	2,548.3	2,521.3	2,496.5	5.9	6.6	43.78	87.8	222.1	155.1	143.8	11.31	13.717	
2,600.0	2,587.6	2,559.8	2,532.3	6.1	6.9	44.42	94.3	234.9	160.9	149.4	11.56	13.923	
2,657.5	2,642.4	2,613.8	2,582.0	6.3	7.2	45.32	103.6	253.5	169.3	157.3	11.94	14.175	
2,700.0	2,682.7	2,653.6	2,618.5	6.5	7.5	45.99	110.8	267.8	175.6	163.3	12.24	14.345	
2,750.0	2,729.8	2,700.0	2,660.7	6.8	7.8	46.78	119.5	285.0	183.2	170.6	12.61	14.524	
2,755.9	2,735.4	2,705.8	2,666.0	6.8	7.8	46.89	120.6	287.2	184.1	171.4	12.66	14.536	
2,800.0	2,776.8	2,746.9	2,703.1	7.0	8.2	47.60	128.5	303.0	191.2	178.2	13.04	14.668	
2,854.3	2,827.8	2,800.0	2,750.6	7.3	8.6	48.32	139.2	324.2	200.8	187.3	13.52	14.856	
2,900.0	2,870.8	2,839.9	2,786.0	7.5	8.9	48.74	147.4	340.6	209.5	195.6	13.91	15.062	
2,952.7	2,920.3	2,891.6	2,831.9	7.8	9.3	49.20	158.2	362.0	219.8	205.4	14.40	15.261	
3,000.0	2,964.7	2,938.0	2,872.9	8.1	9.7	49.58	167.8	381.2	229.0	214.2	14.85	15.420	
3,051.2	3,012.8	2,988.1	2,917.3	8.4	10.2	49.96	178.3	402.0	239.0	223.7	15.35	15.570	
3,100.0	3,058.7	3,036.0	2,959.7	8.7	10.6	50.29	188.3	421.9	248.6	232.7	15.84	15.697	
3,149.6	3,105.3	3,084.6	3,002.8	9.0	11.0	50.60	198.4	442.0	258.3	241.9	16.34	15.808	
3,200.0	3,152.7	3,134.0	3,046.6	9.3	11.5	50.89	208.7	462.5	268.2	251.3	16.86	15.909	
3,248.0	3,197.8	3,181.1	3,088.3	9.5	11.9	51.15	218.5	482.0	277.6	260.2	17.36	15.991	
3,300.0	3,246.6	3,232.0	3,133.4	9.9	12.3	51.41	229.1	503.1	287.8	269.9	17.91	16.070	
3,346.4	3,290.3	3,277.6	3,173.7	10.1	12.8	51.63	238.6	522.0	296.9	278.5	18.41	16.131	
3,400.0	3,340.6	3,330.1	3,220.2	10.5	13.2	51.87	249.6	543.8	307.4	288.4	18.98	16.193	
3,444.9	3,382.8	3,374.1	3,259.2	10.8	13.6	52.06	258.7	562.0	316.2	296.7	19.48	16.237	
3,500.0	3,434.6	3,428.1	3,307.1	11.1	14.1	52.27	270.0	584.4	327.1	307.0	20.08	16.285	
3,543.3	3,475.3	3,470.5	3,344.7	11.4	14.5	52.43	278.8	602.0	335.6	315.0	20.57	16.317	
3,600.0	3,528.6	3,526.1	3,393.9	11.7	15.1	52.63	290.4	625.0	346.7	325.5	21.20	16.354	
3,641.7	3,567.8	3,567.0	3,430.1	12.0	15.4	52.76	299.0	642.0	354.9	333.3	21.67	16.377	
3,700.0	3,622.5	3,624.1	3,480.7	12.4	16.0	52.94	310.9	665.7	366.4	344.1	22.33	16.405	
3,740.1	3,660.3	3,663.5	3,515.6	12.6	16.4	53.06	319.1	682.0	374.3	351.5	22.79	16.421	
3,749.0	3,668.6	3,672.2	3,523.3	12.7	16.4	53.09	320.9	685.6	376.0	353.1	22.89	16.425	
3,800.0	3,716.5	3,722.2	3,567.6	13.0	16.9	50.51	331.3	706.3	385.7	362.3	23.49	16.425	
3,838.6	3,752.8	3,760.2	3,601.2	13.2	17.3	48.49	339.2	722.1	392.6	368.7	23.91	16.424	
3,885.2	3,796.6	3,806.1	3,642.0	13.5	17.7	45.98	348.8	741.1	400.4	376.0	24.40	16.412	
3,900.0	3,810.5	3,820.8	3,654.9	13.6	17.8	45.95	351.8	747.2	402.8	378.3	24.55	16.408	
3,937.0	3,845.3	3,857.3	3,687.2	13.8	18.2	45.88	359.4	762.3	408.8	383.9	24.94	16.391	
4,000.0	3,904.5	3,919.4	3,742.3	14.2	18.8	45.78	372.4	788.1	419.0	393.4	25.60	16.364	
4,035.4	3,937.7	3,954.4	3,773.3	14.5	19.1	45.72	379.7	802.6	424.7	398.7	25.98	16.348	
4,100.0	3,998.4	4,018.1	3,829.7	14.9	19.7	45.61	393.0	829.0	435.1	408.4	26.66	16.321	
4,133.8	4,030.2	4,051.5	3,859.3	15.1	20.0	45.56	399.9	842.8	440.6	413.5	27.02	16.306	
4,200.0	4,092.4	4,116.8	3,917.2	15.5	20.7	45.46	413.5	869.9	451.2	423.5	27.72	16.279	
4,232.3	4,122.7	4,148.7	3,945.4	15.8	21.0	45.42	420.2	883.1	456.4	428.4	28.06	16.266	
4,300.0	4,186.4	4,215.5	4,004.6	16.2	21.6	45.32	434.1	910.8	467.4	438.6	28.78	16.239	
4,330.7	4,215.2	4,245.8	4,031.4	16.4	21.9	45.28	440.4	923.4	472.3	443.2	29.11	16.227	
4,400.0	4,280.3	4,314.2	4,092.0	16.9	22.6	45.19	454.7	951.7	483.5	453.7	29.84	16.201	
4,429.1	4,307.7	4,342.9	4,117.4	17.1	22.8	45.16	460.7	963.6	488.2	458.1	30.16	16.190	
4,500.0	4,374.3	4,412.9	4,179.4	17.6	23.5	45.07	475.2	992.6	499.7	468.8	30.91	16.164	
4,527.5	4,400.2	4,440.0	4,203.5	17.7	23.8	45.04	480.9	1,003.9	504.1	472.9	31.21	16.154	
4,600.0	4,468.3	4,511.5	4,266.8	18.2	24.5	44.96	495.8	1,033.5	515.8	483.8	31.98	16.129	
4,626.0	4,492.7	4,537.2	4,289.5	18.4	24.7	44.93	501.1	1,044.2	520.0	487.7	32.26	16.120	
4,700.0	4,562.3	4,610.2	4,354.2	18.9	25.4	44.85	516.4	1,074.5	532.0	498.9	33.05	16.095	
4,724.4	4,585.2	4,634.3	4,375.6	19.1	25.7	44.83	521.4	1,084.4	535.9	502.6	33.31	16.087	
4,800.0	4,656.2	4,708.9	4,441.7	19.6	26.4	44.75	536.9	1,115.4	548.1	514.0	34.12	16.062	
4,822.8	4,677.7	4,731.4	4,461.6	19.7	26.6	44.73	541.6	1,124.7	551.8	517.4	34.37	16.055	
4,900.0	4,750.2	4,807.6	4,529.1	20.3	27.3	44.65	557.5	1,156.3	564.3	529.1	35.20	16.031	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
4,921.2	4,770.2	4,828.6	4,547.6	20.4	27.5	44.63	561.9	1,165.0	567.7	532.3	35.43	16.025	
5,000.0	4,844.2	4,906.3	4,616.5	20.9	28.3	44.56	578.1	1,197.2	580.4	544.2	36.27	16.001	
5,019.7	4,862.7	4,925.7	4,633.7	21.1	28.5	44.55	582.1	1,205.2	583.6	547.1	36.49	15.996	
5,100.0	4,938.1	5,005.0	4,703.9	21.6	29.3	44.48	598.6	1,238.1	596.6	559.2	37.35	15.973	
5,118.1	4,955.1	5,022.8	4,719.7	21.7	29.4	44.46	602.4	1,245.5	599.5	562.0	37.54	15.968	
5,200.0	5,032.1	5,103.6	4,791.3	22.3	30.2	44.40	619.2	1,279.0	612.7	574.3	38.43	15.945	
5,216.5	5,047.6	5,119.9	4,805.8	22.4	30.4	44.39	622.6	1,285.8	615.4	576.8	38.61	15.941	
5,300.0	5,126.1	5,202.3	4,878.7	23.0	31.2	44.32	639.8	1,319.9	628.9	589.4	39.51	15.919	
5,314.9	5,140.1	5,217.1	4,891.8	23.1	31.3	44.31	642.9	1,326.0	631.3	591.6	39.67	15.915	
5,400.0	5,220.0	5,301.0	4,966.2	23.7	32.1	44.25	660.3	1,360.8	645.1	604.5	40.58	15.894	
5,413.4	5,232.6	5,314.2	4,977.8	23.8	32.3	44.24	663.1	1,366.3	647.2	606.5	40.73	15.891	
5,504.2	5,318.0	5,403.8	5,057.2	24.4	33.1	44.18	681.8	1,403.4	661.9	620.2	41.71	15.869	
5,511.8	5,325.1	5,411.3	5,063.9	24.4	33.2	44.19	683.3	1,406.6	663.1	621.3	41.79	15.867	
5,600.0	5,408.5	5,498.2	5,140.8	24.9	34.1	44.25	701.4	1,442.5	678.5	635.8	42.72	15.882	
5,610.2	5,418.2	5,508.2	5,149.7	25.0	34.2	44.25	703.5	1,446.7	680.4	637.6	42.82	15.891	
5,700.0	5,504.1	5,619.1	5,248.9	25.4	35.1	44.17	725.8	1,491.0	696.8	653.2	43.67	15.956	
5,708.6	5,512.4	5,629.9	5,258.6	25.5	35.2	44.16	727.8	1,495.1	698.4	654.6	43.75	15.964	
5,800.0	5,600.7	5,743.8	5,362.7	25.9	35.9	44.05	748.7	1,536.6	714.0	669.5	44.49	16.047	
5,807.1	5,607.5	5,752.7	5,370.8	25.9	36.0	44.04	750.3	1,539.7	715.2	670.6	44.55	16.054	
5,900.0	5,698.1	5,869.6	5,479.6	26.3	36.7	43.92	769.6	1,578.1	730.0	684.8	45.22	16.143	
5,905.5	5,703.4	5,876.6	5,486.1	26.3	36.8	43.91	770.7	1,580.3	730.8	685.6	45.26	16.148	
6,000.0	5,796.2	5,996.5	5,599.5	26.6	37.5	43.76	788.3	1,615.3	744.7	698.9	45.85	16.244	
6,003.9	5,800.1	6,001.5	5,604.2	26.6	37.5	43.75	789.0	1,616.7	745.3	699.4	45.87	16.248	
6,100.0	5,894.9	6,124.5	5,722.1	26.9	38.1	43.58	804.7	1,648.0	758.2	711.8	46.36	16.354	
6,102.3	5,897.3	6,127.5	5,725.0	26.9	38.1	43.57	805.1	1,648.7	758.5	712.1	46.37	16.357	
6,200.0	5,994.2	6,253.4	5,847.1	27.2	38.6	43.37	818.7	1,675.9	770.4	723.6	46.77	16.470	
6,200.8	5,994.9	6,254.4	5,848.1	27.2	38.6	43.37	818.8	1,676.1	770.5	723.7	46.78	16.471	
6,299.2	6,093.0	6,382.2	5,973.3	27.4	39.1	43.15	830.2	1,698.7	781.1	734.0	47.08	16.591	
6,300.0	6,093.8	6,383.2	5,974.3	27.4	39.1	43.15	830.3	1,698.9	781.2	734.1	47.08	16.592	
6,397.6	6,191.2	6,510.7	6,100.3	27.5	39.5	42.90	839.1	1,716.4	790.4	743.2	47.28	16.719	
6,400.0	6,193.6	6,513.8	6,103.4	27.5	39.5	42.90	839.3	1,716.8	790.7	743.4	47.28	16.722	
6,496.0	6,289.6	6,640.0	6,228.8	27.6	39.7	42.63	845.5	1,729.1	798.4	751.1	47.37	16.854	
6,504.1	6,297.7	6,650.5	6,239.3	27.6	39.8	92.58	845.9	1,729.9	799.0	751.6	47.38	16.865	
6,594.5	6,388.1	6,770.0	6,358.5	27.7	39.9	92.32	849.3	1,736.6	804.0	756.5	47.52	16.919	
6,600.0	6,393.6	6,777.3	6,365.8	27.7	39.9	92.31	849.4	1,736.9	804.2	756.6	47.53	16.919	
6,618.2	6,411.8	6,801.4	6,389.9	27.8	40.0	92.28	849.8	1,737.7	804.7	757.2	47.57	16.917	
6,650.0	6,443.6	6,843.6	6,432.0	27.8	40.0	-87.77	850.2	1,738.6	805.4	757.7	47.63	16.909	
6,692.9	6,486.4	6,897.9	6,486.4	27.8	40.1	-88.05	850.4	1,738.9	805.5	758.0	47.54	16.942	
6,700.0	6,493.4	6,904.9	6,493.4	27.8	40.1	-88.11	850.4	1,738.9	805.5	758.0	47.52	16.950	
6,750.0	6,542.8	6,953.4	6,541.9	27.8	40.1	-88.59	849.7	1,738.9	805.3	758.0	47.27	17.037	
6,791.3	6,583.2	6,993.4	6,581.8	27.7	40.1	-88.99	846.7	1,738.9	805.2	758.2	46.99	17.134	
6,800.0	6,591.6	7,001.8	6,590.2	27.7	40.1	-89.07	845.8	1,738.9	805.1	758.2	46.93	17.155	
6,850.0	6,639.6	7,050.7	6,638.5	27.6	40.1	-89.57	838.6	1,738.9	805.1	758.5	46.53	17.303	
6,889.7	6,676.9	7,089.9	6,676.8	27.6	40.1	-89.97	830.5	1,738.9	805.0	758.9	46.15	17.443	
6,893.1	6,680.0	7,093.2	6,680.0	27.6	40.1	-90.00	829.7	1,738.9	805.0	758.9	46.12	17.455	
6,900.0	6,686.4	7,100.0	6,686.6	27.5	40.1	-90.07	828.0	1,738.9	805.0	759.0	46.06	17.480	
6,950.0	6,731.8	7,149.8	6,734.4	27.4	40.0	-90.57	814.0	1,738.9	805.1	759.6	45.53	17.682	
6,988.2	6,765.5	7,188.2	6,770.5	27.3	39.9	-90.95	800.9	1,738.9	805.2	760.1	45.09	17.855	
7,000.0	6,775.8	7,200.1	6,781.6	27.2	39.9	-91.07	796.5	1,738.9	805.2	760.2	44.96	17.909	
7,050.0	6,817.9	7,250.9	6,827.8	27.1	39.8	-91.57	775.5	1,738.9	805.4	761.0	44.35	18.158	
7,086.6	6,847.5	7,288.5	6,861.0	26.9	39.7	-91.93	757.9	1,738.9	805.5	761.6	43.89	18.354	
7,100.0	6,858.1	7,302.3	6,873.0	26.9	39.7	-92.06	751.0	1,738.9	805.6	761.9	43.72	18.426	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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	
7,150.0	6,896.1	7,354.2	6,916.6	26.6	39.6	-92.55	723.0	1,738.9	805.9	762.8	43.07	18.710	
7,185.0	6,921.3	7,390.9	6,946.3	26.5	39.5	-92.88	701.4	1,738.9	806.1	763.5	42.61	18.916	
7,200.0	6,931.7	7,406.6	6,958.6	26.4	39.4	-93.02	691.6	1,738.9	806.2	763.8	42.42	19.005	
7,250.0	6,964.8	7,459.6	6,998.6	26.2	39.3	-93.49	656.8	1,738.9	806.6	764.8	41.77	19.308	
7,283.4	6,985.4	7,495.4	7,024.1	26.0	39.1	-93.79	631.8	1,738.9	806.8	765.5	41.35	19.512	
7,300.0	6,995.2	7,513.2	7,036.3	25.9	39.1	-93.93	618.8	1,738.9	807.0	765.8	41.14	19.613	
7,350.0	7,022.7	7,567.2	7,071.3	25.7	38.9	-94.36	577.7	1,738.9	807.4	766.9	40.55	19.914	
7,381.9	7,038.8	7,602.0	7,092.2	25.5	38.8	-94.63	549.9	1,738.9	807.7	767.5	40.18	20.100	
7,400.0	7,047.3	7,621.8	7,103.5	25.4	38.7	-94.77	533.5	1,738.9	807.9	767.9	39.99	20.204	
7,450.0	7,068.8	7,677.0	7,132.4	25.1	38.5	-95.16	486.6	1,738.9	808.3	768.9	39.48	20.477	
7,480.3	7,080.3	7,710.6	7,148.3	25.0	38.4	-95.38	457.0	1,738.9	808.6	769.4	39.20	20.630	
7,500.0	7,087.1	7,732.6	7,157.9	24.9	38.3	-95.51	437.2	1,738.9	808.8	769.8	39.02	20.726	
7,550.0	7,102.1	7,788.7	7,179.6	24.6	38.1	-95.84	385.5	1,738.9	809.3	770.6	38.64	20.945	
7,578.7	7,109.2	7,821.1	7,190.3	24.5	38.0	-96.02	354.9	1,738.9	809.5	771.1	38.46	21.050	
7,600.0	7,113.7	7,845.2	7,197.3	24.4	37.9	-96.14	331.9	1,738.9	809.7	771.4	38.33	21.126	
7,650.0	7,121.9	7,902.1	7,210.8	24.2	37.7	-96.41	276.6	1,738.9	810.1	772.0	38.10	21.265	
7,677.1	7,125.0	7,933.2	7,216.3	24.1	37.6	-96.54	246.0	1,738.9	810.3	772.3	38.02	21.315	
7,700.0	7,126.7	7,959.4	7,219.9	24.0	37.5	-96.64	220.0	1,738.9	810.5	772.5	37.95	21.354	
7,746.5	7,128.0	8,012.9	7,224.4	23.8	37.4	-96.82	166.7	1,738.9	810.8	772.9	37.90	21.394	
7,775.6	7,127.9	8,046.5	7,225.1	23.7	37.3	-96.89	133.1	1,738.9	810.9	773.1	37.77	21.472	
7,800.0	7,127.7	8,072.2	7,224.8	23.6	37.3	-96.87	107.5	1,738.9	810.9	773.2	37.69	21.515	
7,874.0	7,127.4	8,146.2	7,223.8	23.4	37.1	-96.83	33.5	1,738.9	810.8	773.4	37.42	21.665	
7,900.0	7,127.3	8,172.2	7,223.4	23.4	37.1	-96.81	7.5	1,738.9	810.8	773.4	37.34	21.711	
7,972.4	7,127.0	8,244.6	7,222.4	23.3	37.0	-96.76	-64.9	1,738.9	810.7	773.3	37.35	21.707	
8,000.0	7,126.8	8,272.1	7,222.0	23.3	37.0	-96.74	-92.5	1,738.9	810.7	773.3	37.37	21.694	
8,070.8	7,126.5	8,343.0	7,221.1	23.4	37.0	-96.70	-163.3	1,738.9	810.6	772.9	37.64	21.533	
8,100.0	7,126.4	8,372.1	7,220.7	23.5	37.0	-96.68	-192.5	1,738.9	810.5	772.8	37.78	21.456	
8,169.3	7,126.1	8,441.4	7,219.7	23.7	37.0	-96.63	-261.7	1,738.9	810.5	772.2	38.31	21.158	
8,200.0	7,125.9	8,472.1	7,219.3	23.8	37.1	-96.61	-292.5	1,738.9	810.4	771.9	38.56	21.017	
8,267.7	7,125.6	8,539.8	7,218.3	24.1	37.2	-96.57	-360.2	1,738.9	810.4	771.0	39.32	20.610	
8,300.0	7,125.5	8,572.1	7,217.9	24.2	37.2	-96.55	-392.5	1,738.9	810.3	770.6	39.70	20.411	
8,366.1	7,125.2	8,638.3	7,217.0	24.6	37.4	-96.51	-458.6	1,738.9	810.3	769.6	40.66	19.928	
8,400.0	7,125.0	8,672.1	7,216.5	24.8	37.5	-96.48	-492.4	1,738.9	810.2	769.1	41.17	19.680	
8,464.5	7,124.7	8,736.7	7,215.6	25.3	37.7	-96.44	-557.0	1,738.9	810.2	767.9	42.30	19.154	
8,500.0	7,124.6	8,772.1	7,215.1	25.6	37.9	-96.42	-592.4	1,738.9	810.1	767.2	42.93	18.869	
8,563.0	7,124.3	8,835.1	7,214.3	26.1	38.2	-96.38	-655.4	1,738.9	810.1	765.9	44.20	18.327	
8,600.0	7,124.1	8,872.1	7,213.8	26.4	38.4	-96.35	-692.4	1,738.9	810.0	765.1	44.96	18.016	
8,661.4	7,123.8	8,933.5	7,212.9	26.9	38.7	-96.31	-753.8	1,738.9	810.0	763.6	46.34	17.480	
8,700.0	7,123.7	8,972.1	7,212.4	27.3	38.9	-96.29	-792.4	1,738.9	809.9	762.7	47.22	17.154	
8,759.8	7,123.4	9,031.9	7,211.6	27.9	39.3	-96.25	-852.2	1,738.9	809.9	761.2	48.67	16.639	
8,800.0	7,123.2	9,072.1	7,211.0	28.3	39.6	-96.22	-892.4	1,738.9	809.8	760.1	49.67	16.305	
8,858.2	7,123.0	9,130.4	7,210.2	28.9	40.1	-96.19	-950.6	1,738.9	809.8	758.6	51.19	15.820	
8,900.0	7,122.8	9,172.1	7,209.6	29.4	40.4	-96.16	-992.4	1,738.9	809.7	757.4	52.29	15.486	
8,956.7	7,122.5	9,228.8	7,208.8	30.0	40.9	-96.12	-1,049.0	1,738.9	809.7	755.8	53.85	15.036	
9,000.0	7,122.3	9,272.1	7,208.2	30.5	41.3	-96.09	-1,092.4	1,738.9	809.6	754.6	55.05	14.706	
9,055.1	7,122.1	9,327.2	7,207.5	31.2	41.8	-96.06	-1,147.5	1,738.9	809.6	752.9	56.64	14.294	
9,100.0	7,121.9	9,372.1	7,206.9	31.7	42.3	-96.03	-1,192.3	1,738.9	809.5	751.6	57.94	13.971	
9,153.5	7,121.6	9,425.6	7,206.1	32.4	42.8	-95.99	-1,245.9	1,738.9	809.5	749.9	59.54	13.596	
9,200.0	7,121.4	9,472.1	7,205.5	33.0	43.4	-95.96	-1,292.3	1,738.9	809.4	748.5	60.94	13.283	
9,251.9	7,121.2	9,524.0	7,204.8	33.7	43.9	-95.93	-1,344.3	1,738.9	809.4	746.8	62.53	12.943	
9,300.0	7,121.0	9,572.1	7,204.1	34.3	44.5	-95.90	-1,392.3	1,738.9	809.3	745.3	64.02	12.641	
9,350.4	7,120.7	9,622.5	7,203.4	35.0	45.1	-95.86	-1,442.7	1,738.9	809.3	743.7	65.61	12.334	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - OLSON 30U-343 - ORIGINAL WELLBORE - PROPOSAL #2												<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	
9,400.0	7,120.5	9,672.1	7,202.7	35.7	45.7	-95.83	-1,492.3	1,738.9	809.2	742.0	67.19	12.044	
9,448.8	7,120.3	9,720.9	7,202.1	36.4	46.3	-95.80	-1,541.1	1,738.9	809.2	740.4	68.76	11.768	
9,500.0	7,120.1	9,772.1	7,201.3	37.2	47.0	-95.77	-1,592.3	1,738.9	809.1	738.7	70.42	11.490	
9,547.2	7,119.9	9,819.3	7,200.7	37.8	47.6	-95.73	-1,639.5	1,738.9	809.1	737.1	71.97	11.242	
9,600.0	7,119.6	9,872.1	7,200.0	38.6	48.3	-95.70	-1,692.3	1,738.9	809.0	735.3	73.71	10.976	
9,645.6	7,119.4	9,917.7	7,199.3	39.3	48.9	-95.67	-1,737.9	1,738.9	809.0	733.8	75.23	10.753	
9,700.0	7,119.2	9,972.1	7,198.6	40.1	49.7	-95.63	-1,792.3	1,738.9	808.9	731.9	77.05	10.498	
9,744.1	7,119.0	10,016.2	7,198.0	40.8	50.3	-95.61	-1,836.3	1,738.9	808.9	730.4	78.54	10.299	
9,800.0	7,118.7	10,072.1	7,197.2	41.7	51.1	-95.57	-1,892.3	1,738.9	808.8	728.4	80.44	10.055	
9,842.5	7,118.5	10,114.6	7,196.6	42.3	51.7	-95.54	-1,934.7	1,738.9	808.8	726.9	81.90	9.876	
9,900.0	7,118.3	10,172.1	7,195.8	43.2	52.5	-95.50	-1,992.2	1,738.9	808.8	724.9	83.87	9.643	
9,940.9	7,118.1	10,213.0	7,195.3	43.9	53.1	-95.48	-2,033.2	1,738.9	808.7	723.4	85.28	9.483	
10,000.0	7,117.8	10,272.1	7,194.4	44.8	54.0	-95.44	-2,092.2	1,738.9	808.7	721.3	87.33	9.260	
10,039.3	7,117.6	10,311.4	7,193.9	45.5	54.6	-95.41	-2,131.6	1,738.9	808.6	719.9	88.70	9.116	
10,100.0	7,117.4	10,372.1	7,193.1	46.4	55.5	-95.37	-2,192.2	1,738.9	808.6	717.7	90.82	8.903	
10,137.8	7,117.2	10,409.8	7,192.5	47.1	56.1	-95.35	-2,230.0	1,738.9	808.5	716.4	92.15	8.774	
10,200.0	7,116.9	10,472.1	7,191.7	48.1	57.1	-95.31	-2,292.2	1,738.9	808.5	714.1	94.35	8.569	
10,236.2	7,116.8	10,508.3	7,191.2	48.7	57.6	-95.28	-2,328.4	1,738.9	808.5	712.8	95.63	8.454	
10,300.0	7,116.5	10,572.1	7,190.3	49.7	58.6	-95.24	-2,392.2	1,738.9	808.4	710.5	97.89	8.258	
10,334.6	7,116.3	10,606.7	7,189.8	50.3	59.2	-95.22	-2,426.8	1,738.9	808.4	709.2	99.12	8.155	
10,400.0	7,116.0	10,672.1	7,188.9	51.4	60.2	-95.17	-2,492.2	1,738.9	808.3	706.9	101.46	7.967	
10,433.0	7,115.9	10,705.1	7,188.5	52.0	60.8	-95.15	-2,525.2	1,738.9	808.3	705.6	102.64	7.875	
10,500.0	7,115.6	10,772.1	7,187.5	53.1	61.8	-95.11	-2,592.2	1,738.9	808.2	703.2	105.05	7.694	
10,531.5	7,115.4	10,803.5	7,187.1	53.6	62.3	-95.09	-2,623.6	1,738.9	808.2	702.0	106.18	7.612	
10,600.0	7,115.1	10,872.0	7,186.2	54.8	63.5	-95.04	-2,692.1	1,738.9	808.1	699.5	108.65	7.438	
10,629.9	7,115.0	10,901.9	7,185.7	55.3	64.0	-95.02	-2,722.0	1,738.9	808.1	698.4	109.73	7.364	
10,700.0	7,114.7	10,972.0	7,184.8	56.5	65.1	-94.98	-2,792.1	1,738.9	808.1	695.8	112.27	7.197	
10,728.3	7,114.6	11,000.4	7,184.4	57.0	65.6	-94.96	-2,820.5	1,738.9	808.0	694.7	113.30	7.132	
10,800.0	7,114.2	11,072.0	7,183.4	58.3	66.8	-94.91	-2,892.1	1,738.9	808.0	692.1	115.91	6.971	
10,826.7	7,114.1	11,098.8	7,183.0	58.7	67.2	-94.89	-2,918.9	1,738.9	808.0	691.1	116.89	6.912	
10,900.0	7,113.8	11,172.0	7,182.0	60.0	68.4	-94.84	-2,992.1	1,738.9	807.9	688.3	119.56	6.757	
10,925.2	7,113.7	11,197.2	7,181.7	60.5	68.9	-94.83	-3,017.3	1,738.9	807.9	687.4	120.48	6.705	
11,000.0	7,113.3	11,272.0	7,180.6	61.8	70.1	-94.78	-3,092.1	1,738.9	807.8	684.6	123.22	6.556	
11,023.6	7,113.2	11,295.6	7,180.3	62.2	70.5	-94.76	-3,115.7	1,738.9	807.8	683.7	124.09	6.510	
11,100.0	7,112.9	11,372.0	7,179.2	63.5	71.8	-94.71	-3,192.1	1,738.9	807.7	680.8	126.90	6.365	
11,122.0	7,112.8	11,394.1	7,178.9	63.9	72.2	-94.70	-3,214.1	1,738.9	807.7	680.0	127.71	6.325	
11,200.0	7,112.4	11,472.0	7,177.9	65.3	73.5	-94.65	-3,292.1	1,738.9	807.7	677.1	130.58	6.185	
11,220.4	7,112.4	11,492.5	7,177.6	65.7	73.9	-94.63	-3,312.5	1,738.9	807.6	676.3	131.34	6.149	
11,300.0	7,112.0	11,572.0	7,176.5	67.1	75.3	-94.58	-3,392.1	1,738.9	807.6	673.3	134.28	6.014	
11,318.9	7,111.9	11,590.9	7,176.2	67.4	75.6	-94.57	-3,410.9	1,738.9	807.6	672.6	134.97	5.983	
11,400.0	7,111.6	11,672.0	7,175.1	68.9	77.0	-94.51	-3,492.0	1,738.9	807.5	669.5	137.98	5.852	
11,417.3	7,111.5	11,689.3	7,174.9	69.2	77.3	-94.50	-3,509.3	1,738.9	807.5	668.9	138.62	5.825	
11,500.0	7,111.1	11,772.0	7,173.7	70.7	78.7	-94.45	-3,592.0	1,738.9	807.4	665.7	141.69	5.699	
11,515.7	7,111.0	11,787.7	7,173.5	71.0	79.0	-94.44	-3,607.7	1,738.9	807.4	665.1	142.27	5.675	
11,600.0	7,110.7	11,872.0	7,172.3	72.5	80.5	-94.38	-3,692.0	1,738.9	807.3	661.9	145.41	5.552	
11,614.1	7,110.6	11,886.2	7,172.1	72.7	80.7	-94.37	-3,706.2	1,738.9	807.3	661.4	145.93	5.532	
11,700.0	7,110.2	11,972.0	7,171.0	74.3	82.2	-94.32	-3,792.0	1,738.9	807.3	658.1	149.13	5.413	
11,712.6	7,110.2	11,984.6	7,170.8	74.5	82.5	-94.31	-3,804.6	1,738.9	807.3	657.7	149.60	5.396	
11,747.9	7,110.0	12,019.9	7,170.3	75.1	83.1	-94.28	-3,839.9	1,738.9	807.2	656.3	150.92	5.349 SF	



# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore #1 - W												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 16-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
0.0	0.0	0.0	0.0	0.0	0.0	-6.58	1,371.6	-158.2	1,381.2				
98.4	98.4	59.6	59.6	0.1	0.1	-6.58	1,371.6	-158.2	1,380.7	1,380.5	0.19	7,300.919	
100.0	100.0	61.2	61.2	0.1	0.1	-6.58	1,371.6	-158.2	1,380.7	1,380.5	0.19	7,101.516	
196.8	196.8	158.0	158.0	0.3	0.3	-6.58	1,371.6	-158.2	1,380.7	1,380.1	0.63	2,192.297	
200.0	200.0	161.2	161.2	0.3	0.3	-6.58	1,371.6	-158.2	1,380.7	1,380.1	0.64	2,144.089	
295.3	295.3	256.5	256.5	0.5	0.5	-6.58	1,371.6	-158.2	1,380.7	1,379.6	1.07	1,287.667	
300.0	300.0	261.2	261.2	0.5	0.6	-6.58	1,371.6	-158.2	1,380.7	1,379.6	1.09	1,262.655	
393.7	393.7	354.9	354.9	0.7	0.8	-6.58	1,371.6	-158.2	1,380.7	1,379.2	1.51	911.532	
400.0	400.0	361.2	361.2	0.8	0.8	-6.58	1,371.6	-158.2	1,380.7	1,379.2	1.54	894.802	
492.1	492.1	453.3	453.3	1.0	1.0	-6.58	1,371.6	-158.2	1,380.7	1,378.7	1.96	705.463	
500.0	500.0	461.2	461.2	1.0	1.0	-6.58	1,371.6	-158.2	1,380.7	1,378.7	1.99	692.929	
590.5	590.5	551.7	551.7	1.2	1.2	-6.58	1,371.6	-158.2	1,380.7	1,378.3	2.40	575.386	
600.0	600.0	561.2	561.2	1.2	1.2	-6.58	1,371.6	-158.2	1,380.7	1,378.3	2.44	565.377	
689.0	689.0	650.2	650.2	1.4	1.4	-6.58	1,371.6	-158.2	1,380.7	1,377.9	2.84	485.809	
700.0	700.0	661.2	661.2	1.4	1.5	-6.58	1,371.6	-158.2	1,380.7	1,377.8	2.89	477.483	
787.4	787.4	748.6	748.6	1.6	1.7	-6.58	1,371.6	-158.2	1,380.7	1,377.4	3.28	420.367	
800.0	800.0	761.2	761.2	1.7	1.7	-6.58	1,371.6	-158.2	1,380.7	1,377.4	3.34	413.240	
885.8	885.8	847.0	847.0	1.9	1.9	-6.58	1,371.6	-158.2	1,380.7	1,377.0	3.73	370.462	
900.0	900.0	861.2	861.2	1.9	1.9	-6.58	1,371.6	-158.2	1,380.7	1,376.9	3.79	364.235	
984.2	984.2	945.4	945.4	2.1	2.1	-6.58	1,371.6	-158.2	1,380.7	1,376.5	4.17	331.149	
1,000.0	1,000.0	961.2	961.2	2.1	2.1	-6.58	1,371.6	-158.2	1,380.7	1,376.5	4.24	325.620	
1,082.7	1,082.7	1,043.9	1,043.9	2.3	2.3	-6.58	1,371.6	-158.2	1,380.7	1,376.1	4.61	299.379	
1,100.0	1,100.0	1,061.2	1,061.2	2.3	2.4	-6.58	1,371.6	-158.2	1,380.7	1,376.0	4.69	294.408	
1,181.1	1,181.1	1,142.3	1,142.3	2.5	2.5	-6.58	1,371.6	-158.2	1,380.7	1,375.6	5.05	273.172	
1,200.0	1,200.0	1,161.2	1,161.2	2.6	2.6	-6.58	1,371.6	-158.2	1,380.7	1,375.6	5.14	268.656	
1,279.5	1,279.5	1,240.7	1,240.7	2.7	2.8	-6.58	1,371.6	-158.2	1,380.7	1,375.2	5.50	251.183	
1,300.0	1,300.0	1,261.2	1,261.2	2.8	2.8	-6.58	1,371.6	-158.2	1,380.7	1,375.1	5.59	247.047	
1,377.9	1,377.9	1,339.1	1,339.1	3.0	3.0	-6.58	1,371.6	-158.2	1,380.7	1,374.8	5.94	232.471	
1,400.0	1,400.0	1,361.2	1,361.2	3.0	3.0	-6.58	1,371.6	-158.2	1,380.7	1,374.7	6.04	228.655	
1,476.4	1,476.4	1,437.6	1,437.6	3.2	3.2	-6.58	1,371.6	-158.2	1,380.7	1,374.3	6.38	216.354	
1,500.0	1,500.0	1,461.2	1,461.2	3.2	3.3	-6.58	1,371.6	-158.2	1,380.7	1,374.2	6.49	212.812	
1,574.8	1,574.8	1,536.0	1,536.0	3.4	3.4	-6.58	1,371.6	-158.2	1,380.7	1,373.9	6.82	202.326	
1,600.0	1,600.0	1,561.2	1,561.2	3.5	3.5	-6.58	1,371.6	-158.2	1,380.7	1,373.8	6.94	199.022	
1,673.2	1,673.2	1,634.4	1,634.4	3.6	3.6	-6.58	1,371.6	-158.2	1,380.7	1,373.4	7.27	190.007	
1,700.0	1,700.0	1,661.2	1,661.2	3.7	3.7	-6.58	1,371.6	-158.2	1,380.7	1,373.3	7.39	186.911	
1,750.0	1,750.0	1,711.2	1,711.2	3.8	3.8	-6.58	1,371.6	-158.2	1,380.7	1,373.1	7.61	181.391	
1,771.6	1,771.6	1,732.8	1,732.8	3.8	3.9	-48.58	1,371.6	-158.2	1,380.6	1,372.9	7.71	179.113	
1,800.0	1,800.0	1,761.2	1,761.2	3.9	3.9	-48.60	1,371.6	-158.2	1,380.4	1,372.6	7.83	176.200	
1,870.1	1,870.0	1,831.2	1,831.2	4.1	4.1	-48.68	1,371.6	-158.2	1,379.0	1,370.9	8.14	169.345	
1,900.0	1,899.9	1,861.1	1,861.1	4.1	4.2	-48.74	1,371.6	-158.2	1,378.1	1,369.8	8.27	166.546	
1,968.5	1,968.3	1,929.5	1,929.5	4.3	4.3	-48.92	1,371.6	-158.2	1,375.2	1,366.6	8.58	160.353	
2,000.0	1,999.7	1,960.9	1,960.9	4.3	4.4	-49.03	1,371.6	-158.2	1,373.5	1,364.8	8.71	157.622	
2,066.9	2,066.3	2,027.5	2,027.5	4.5	4.5	-49.30	1,371.6	-158.2	1,369.2	1,360.2	9.01	151.974	
2,100.0	2,099.1	2,060.3	2,060.3	4.6	4.6	-49.46	1,371.6	-158.2	1,366.7	1,357.5	9.15	149.286	
2,165.3	2,163.9	2,125.1	2,125.1	4.7	4.7	-49.83	1,371.6	-158.2	1,361.0	1,351.6	9.45	144.073	
2,200.0	2,198.2	2,159.4	2,159.4	4.8	4.8	-50.04	1,371.6	-158.2	1,357.6	1,348.0	9.60	141.407	
2,263.8	2,261.0	2,222.2	2,222.2	5.0	5.0	-50.50	1,371.6	-158.2	1,350.7	1,340.8	9.89	136.540	
2,300.0	2,296.6	2,257.8	2,257.8	5.1	5.0	-50.78	1,371.6	-158.2	1,346.5	1,336.4	10.06	133.869	
2,362.2	2,357.6	2,318.8	2,318.8	5.3	5.2	-51.32	1,371.6	-158.2	1,338.5	1,328.1	10.35	129.278	
2,400.0	2,394.4	2,355.6	2,355.6	5.4	5.3	-51.67	1,371.6	-158.2	1,333.3	1,322.7	10.53	126.578	
2,460.6	2,453.4	2,414.6	2,414.6	5.6	5.4	-52.29	1,371.6	-158.2	1,324.3	1,313.5	10.84	122.203	
2,500.0	2,491.5	2,452.7	2,452.7	5.7	5.5	-52.72	1,371.6	-158.2	1,318.1	1,307.1	11.03	119.457	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore #1 - W												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 16-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	
2,559.0	2,548.3	2,509.5	2,509.5	5.9	5.6	-53.42	1,371.6	-158.2	1,308.4	1,297.0	11.35	115.290	
2,600.0	2,587.6	2,548.8	2,548.8	6.1	5.7	-53.94	1,371.6	-158.2	1,301.3	1,289.7	11.57	112.454	
2,657.5	2,642.4	2,603.6	2,603.6	6.3	5.8	-54.72	1,371.6	-158.2	1,290.8	1,278.9	11.90	108.429	
2,700.0	2,682.7	2,643.9	2,643.9	6.5	5.9	-55.33	1,371.6	-158.2	1,282.8	1,270.6	12.15	105.538	
2,750.0	2,729.8	2,691.0	2,691.0	6.8	6.0	-56.09	1,371.6	-158.2	1,273.0	1,260.5	12.47	102.111	
2,755.9	2,735.4	2,696.6	2,696.6	6.8	6.0	-56.16	1,371.6	-158.2	1,271.8	1,259.3	12.51	101.694	
2,800.0	2,776.8	2,738.0	2,738.0	7.0	6.1	-56.70	1,371.6	-158.2	1,263.1	1,250.3	12.80	98.652	
2,854.3	2,827.8	2,789.0	2,789.0	7.3	6.2	-57.39	1,371.6	-158.2	1,252.6	1,239.4	13.18	95.024	
2,900.0	2,870.8	2,832.0	2,832.0	7.5	6.3	-57.97	1,371.6	-158.2	1,243.9	1,230.3	13.50	92.114	
2,952.7	2,920.3	2,881.5	2,881.5	7.8	6.4	-58.64	1,371.6	-158.2	1,233.9	1,220.1	13.89	88.858	
3,000.0	2,964.7	2,925.9	2,925.9	8.1	6.5	-59.26	1,371.6	-158.2	1,225.2	1,211.0	14.23	86.078	
3,051.2	3,012.8	2,974.0	2,974.0	8.4	6.7	-59.94	1,371.6	-158.2	1,216.0	1,201.3	14.62	83.169	
3,100.0	3,058.7	3,019.9	3,019.9	8.7	6.8	-60.59	1,371.6	-158.2	1,207.3	1,192.3	14.99	80.525	
3,149.6	3,105.3	3,066.5	3,066.5	9.0	6.9	-61.27	1,371.6	-158.2	1,198.6	1,183.3	15.38	77.938	
3,200.0	3,152.7	3,113.9	3,113.9	9.3	7.0	-61.96	1,371.6	-158.2	1,190.1	1,174.3	15.78	75.432	
3,248.0	3,197.8	3,159.0	3,159.0	9.5	7.1	-62.63	1,371.6	-158.2	1,182.0	1,165.9	16.16	73.137	
3,300.0	3,246.6	3,207.8	3,207.8	9.9	7.2	-63.36	1,371.6	-158.2	1,173.6	1,157.0	16.58	70.770	
3,346.4	3,290.3	3,251.5	3,251.5	10.1	7.3	-64.03	1,371.6	-158.2	1,166.2	1,149.2	16.97	68.738	
3,400.0	3,340.6	3,301.8	3,301.8	10.5	7.4	-64.80	1,371.6	-158.2	1,157.9	1,140.4	17.41	66.506	
3,444.9	3,382.8	3,344.0	3,344.0	10.8	7.5	-65.46	1,371.6	-158.2	1,151.1	1,133.3	17.79	64.711	
3,500.0	3,434.6	3,395.8	3,395.8	11.1	7.6	-66.28	1,371.6	-158.2	1,143.0	1,124.7	18.25	62.610	
3,543.3	3,475.3	3,436.5	3,436.5	11.4	7.7	-66.93	1,371.6	-158.2	1,136.8	1,118.1	18.63	61.028	
3,600.0	3,528.6	3,489.8	3,489.8	11.7	7.8	-67.78	1,371.6	-158.2	1,128.9	1,109.8	19.12	59.054	
3,641.7	3,567.8	3,529.0	3,529.0	12.0	7.9	-68.42	1,371.6	-158.2	1,123.3	1,103.8	19.48	57.661	
3,700.0	3,622.5	3,583.7	3,583.7	12.4	8.0	-69.32	1,371.6	-158.2	1,115.7	1,095.7	19.99	55.807	
3,740.1	3,660.3	3,621.5	3,621.5	12.6	8.1	-69.95	1,371.6	-158.2	1,110.7	1,090.3	20.35	54.585	
3,749.0	3,668.6	3,629.8	3,629.8	12.7	8.1	-70.09	1,371.6	-158.2	1,109.6	1,089.1	20.43	54.322	
3,800.0	3,716.5	3,677.7	3,677.7	13.0	8.2	-73.74	1,371.6	-158.2	1,103.8	1,083.0	20.88	52.867	
3,838.6	3,752.8	3,714.0	3,714.0	13.2	8.3	-76.50	1,371.6	-158.2	1,100.3	1,079.0	21.21	51.872	
3,885.2	3,796.6	3,757.8	3,757.8	13.5	8.4	-79.85	1,371.6	-158.2	1,096.8	1,075.2	21.61	50.762	
3,900.0	3,810.5	3,771.7	3,771.7	13.6	8.4	-80.10	1,371.6	-158.2	1,095.9	1,074.1	21.74	50.414	
3,937.0	3,845.3	3,806.5	3,806.5	13.8	8.5	-80.71	1,371.6	-158.2	1,093.6	1,071.5	22.08	49.537	
4,000.0	3,904.5	3,865.7	3,865.7	14.2	8.7	-81.76	1,371.6	-158.2	1,090.1	1,067.5	22.66	48.119	
4,035.4	3,937.7	3,898.9	3,898.9	14.5	8.7	-82.36	1,371.6	-158.2	1,088.4	1,065.4	22.98	47.358	
4,100.0	3,998.4	3,959.6	3,959.6	14.9	8.9	-83.44	1,371.6	-158.2	1,085.5	1,061.9	23.58	46.041	
4,133.8	4,030.2	3,991.4	3,991.4	15.1	8.9	-84.01	1,371.6	-158.2	1,084.1	1,060.2	23.89	45.383	
4,200.0	4,092.4	4,053.6	4,053.6	15.5	9.1	-85.13	1,371.6	-158.2	1,081.8	1,057.3	24.50	44.163	
4,232.3	4,122.7	4,083.9	4,083.9	15.8	9.1	-85.68	1,371.6	-158.2	1,080.9	1,056.1	24.79	43.596	
4,300.0	4,186.4	4,147.6	4,147.6	16.2	9.3	-86.84	1,371.6	-158.2	1,079.3	1,053.9	25.41	42.467	
4,330.7	4,215.2	4,176.4	4,176.4	16.4	9.4	-87.36	1,371.6	-158.2	1,078.7	1,053.0	25.70	41.980	
4,400.0	4,280.3	4,241.5	4,241.5	16.9	9.5	-88.54	1,371.6	-158.2	1,077.8	1,051.5	26.33	40.936	
4,429.1	4,307.7	4,268.9	4,268.9	17.1	9.6	-89.04	1,371.6	-158.2	1,077.6	1,051.0	26.59	40.520	
4,485.4	4,360.6	4,321.8	4,321.8	17.5	9.7	-90.00	1,371.6	-158.2	1,077.4	1,050.3	27.10	39.750	
4,500.0	4,374.3	4,335.5	4,335.5	17.6	9.7	-90.25	1,371.6	-158.2	1,077.4	1,050.2	27.24	39.558	
4,527.5	4,400.2	4,361.4	4,361.4	17.7	9.8	-90.72	1,371.6	-158.2	1,077.5	1,050.0	27.49	39.203	
4,600.0	4,468.3	4,429.5	4,429.5	18.2	9.9	-91.96	1,371.6	-158.2	1,078.1	1,050.0	28.14	38.318	
4,626.0	4,492.7	4,453.9	4,453.9	18.4	10.0	-92.40	1,371.6	-158.2	1,078.5	1,050.1	28.37	38.018	
4,700.0	4,562.3	4,523.5	4,523.5	18.9	10.1	-93.66	1,371.6	-158.2	1,079.9	1,050.9	29.03	37.206	
4,724.4	4,585.2	4,546.4	4,546.4	19.1	10.2	-94.08	1,371.6	-158.2	1,080.5	1,051.3	29.24	36.953	
4,800.0	4,656.2	4,617.4	4,617.4	19.6	10.3	-95.36	1,371.6	-158.2	1,082.8	1,052.9	29.90	36.210	
4,822.8	4,677.7	4,638.9	4,638.9	19.7	10.4	-95.75	1,371.6	-158.2	1,083.6	1,053.5	30.10	35.998	
4,900.0	4,750.2	4,711.4	4,711.4	20.3	10.6	-97.05	1,371.6	-158.2	1,086.7	1,055.9	30.77	35.321	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore #1 - W												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 16-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
4,921.2	4,770.2	4,731.4	4,731.4	20.4	10.6	-97.41	1,371.6	-158.2	1,087.7	1,056.7	30.95	35.145	
5,000.0	4,844.2	4,805.4	4,805.4	20.9	10.8	-98.73	1,371.6	-158.2	1,091.7	1,060.1	31.62	34.530	
5,019.7	4,862.7	4,823.9	4,823.9	21.1	10.8	-99.05	1,371.6	-158.2	1,092.8	1,061.0	31.78	34.385	
5,100.0	4,938.1	4,899.3	4,899.3	21.6	11.0	-100.39	1,371.6	-158.2	1,097.7	1,065.3	32.45	33.828	
5,118.1	4,955.1	4,916.3	4,916.3	21.7	11.0	-100.69	1,371.6	-158.2	1,098.9	1,066.3	32.60	33.710	
5,200.0	5,032.1	4,993.3	4,993.3	22.3	11.2	-102.03	1,371.6	-158.2	1,104.8	1,071.5	33.27	33.210	
5,216.5	5,047.6	5,008.8	5,008.8	22.4	11.2	-102.30	1,371.6	-158.2	1,106.1	1,072.7	33.40	33.115	
5,300.0	5,126.1	5,087.3	5,087.3	23.0	11.4	-103.66	1,371.6	-158.2	1,112.9	1,078.8	34.07	32.666	
5,314.9	5,140.1	5,101.3	5,101.3	23.1	11.4	-103.90	1,371.6	-158.2	1,114.1	1,080.0	34.19	32.591	
5,400.0	5,220.0	5,181.2	5,181.2	23.7	11.6	-105.26	1,371.6	-158.2	1,121.9	1,087.1	34.85	32.193	
5,413.4	5,232.6	5,193.8	5,193.8	23.8	11.6	-105.47	1,371.6	-158.2	1,123.2	1,088.2	34.95	32.135	
5,504.2	5,318.0	5,279.2	5,279.2	24.4	11.8	-106.90	1,371.6	-158.2	1,132.4	1,096.7	35.64	31.768	
5,511.8	5,325.1	5,286.3	5,286.3	24.4	11.9	-107.04	1,371.6	-158.2	1,133.2	1,097.5	35.70	31.745	
5,600.0	5,408.5	5,369.7	5,369.7	24.9	12.0	-108.52	1,371.6	-158.2	1,142.4	1,106.1	36.28	31.484	
5,610.2	5,418.2	5,379.4	5,379.4	25.0	12.1	-108.68	1,371.6	-158.2	1,143.4	1,107.1	36.34	31.463	
5,700.0	5,504.1	5,465.3	5,465.3	25.4	12.3	-110.04	1,371.6	-158.2	1,152.5	1,115.6	36.85	31.277	
5,708.6	5,512.4	5,473.6	5,473.6	25.5	12.3	-110.16	1,371.6	-158.2	1,153.3	1,116.4	36.89	31.262	
5,800.0	5,600.7	5,561.9	5,561.9	25.9	12.5	-111.39	1,371.6	-158.2	1,161.9	1,124.6	37.37	31.091	
5,807.1	5,607.5	5,568.7	5,568.7	25.9	12.5	-111.48	1,371.6	-158.2	1,162.6	1,125.2	37.41	31.079	
5,900.0	5,698.1	5,659.3	5,659.3	26.3	12.7	-112.56	1,371.6	-158.2	1,170.6	1,132.7	37.86	30.915	
5,905.5	5,703.4	5,664.6	5,664.6	26.3	12.7	-112.62	1,371.6	-158.2	1,171.1	1,133.2	37.89	30.907	
6,000.0	5,796.2	5,736.7	5,736.7	26.6	12.9	-113.41	1,371.3	-158.7	1,178.8	1,140.5	38.29	30.788	
6,003.9	5,800.1	5,739.2	5,739.2	26.6	12.9	-113.44	1,371.3	-158.7	1,179.1	1,140.8	38.30	30.786	
6,100.0	5,894.9	5,800.0	5,799.9	26.9	13.0	-114.17	1,369.6	-161.8	1,188.5	1,149.9	38.63	30.767	
6,102.3	5,897.3	5,800.0	5,799.9	26.9	13.0	-114.18	1,369.6	-161.8	1,188.7	1,150.1	38.63	30.769	
6,200.0	5,994.2	5,843.8	5,843.3	27.2	13.1	-114.84	1,367.0	-166.4	1,200.7	1,161.8	38.89	30.878	
6,200.8	5,994.9	5,844.1	5,843.6	27.2	13.1	-114.84	1,367.0	-166.5	1,200.8	1,161.9	38.89	30.880	
6,299.2	6,093.0	8,418.6	7,183.1	27.4	39.6	-117.16	954.1	930.6	1,131.6	1,087.1	44.45	25.460	
6,300.0	6,093.8	8,418.7	7,183.1	27.4	39.6	-116.90	954.1	930.6	1,130.8	1,086.2	44.56	25.378	
6,397.6	6,191.2	8,422.6	7,183.1	27.5	39.7	-79.03	954.0	934.6	1,033.3	973.3	59.99	17.223	
6,400.0	6,193.6	8,422.7	7,183.1	27.5	39.7	-78.12	954.0	934.6	1,030.9	970.7	60.23	17.116	
6,496.0	6,289.6	8,424.1	7,183.1	27.6	39.7	-49.82	953.9	936.0	935.0	872.7	62.32	15.004	
6,504.1	6,297.7	8,424.1	7,183.1	27.6	39.7	1.73	953.9	936.0	927.1	864.9	62.14	14.919	
6,594.5	6,388.1	8,424.1	7,183.1	27.7	39.7	1.73	953.9	936.0	837.0	774.7	62.25	13.445	
6,600.0	6,393.6	8,424.1	7,183.1	27.7	39.7	1.73	953.9	936.0	831.4	769.2	62.26	13.355	
6,618.2	6,411.8	8,424.1	7,183.1	27.8	39.7	1.73	953.9	936.0	813.3	751.0	62.28	13.059	
6,650.0	6,443.6	8,424.1	7,183.1	27.8	39.7	-178.83	953.9	936.1	781.7	719.4	62.28	12.551	
6,692.9	6,486.4	8,424.2	7,183.1	27.8	39.7	-179.14	953.9	936.1	739.5	677.4	62.05	11.916	
6,700.0	6,493.4	8,424.2	7,183.1	27.8	39.7	-179.17	953.9	936.2	732.5	670.5	61.99	11.816	
6,750.0	6,542.8	8,424.4	7,183.1	27.8	39.7	-179.30	953.9	936.4	684.3	622.9	61.41	11.143	
6,791.3	6,583.2	8,424.7	7,183.1	27.7	39.7	-179.34	953.9	936.7	645.4	584.7	60.71	10.630	
6,800.0	6,591.6	8,424.8	7,183.1	27.7	39.7	-179.34	953.9	936.7	637.4	576.8	60.54	10.528	
6,850.0	6,639.6	8,425.2	7,183.1	27.6	39.7	-179.35	953.9	937.2	592.5	533.1	59.41	9.973	
6,889.7	6,676.9	8,425.6	7,183.1	27.6	39.7	-179.33	953.9	937.6	558.7	500.4	58.33	9.578	
6,900.0	6,686.4	8,425.7	7,183.1	27.5	39.7	-179.32	953.9	937.7	550.3	492.3	58.03	9.484	
6,950.0	6,731.8	8,426.4	7,183.1	27.4	39.8	-179.27	953.9	938.3	511.8	455.4	56.40	9.074	
6,988.2	6,765.5	8,426.9	7,183.1	27.3	39.8	-179.22	953.8	938.9	485.5	430.5	55.01	8.826	
7,000.0	6,775.8	8,427.1	7,183.1	27.2	39.8	-179.21	953.8	939.0	478.0	423.4	54.55	8.762	
7,050.0	6,817.9	8,427.9	7,183.1	27.1	39.8	-179.13	953.8	939.8	450.1	397.6	52.48	8.576	
7,086.6	6,847.5	8,428.5	7,183.1	26.9	39.8	-179.05	953.8	940.5	434.2	383.3	50.84	8.539 SF	
7,100.0	6,858.1	8,428.8	7,183.1	26.9	39.8	-179.03	953.8	940.7	429.4	379.2	50.22	8.551	
7,150.0	6,896.1	8,429.8	7,183.1	26.6	39.8	-178.91	953.8	941.7	417.2	369.4	47.79	8.731	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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: 16-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,185.0	6,921.3	8,430.5	7,183.1	26.5	39.9	-178.81	953.7	942.5	414.2	368.2	46.00	9.004	ES
7,190.6	6,925.1	8,430.6	7,183.1	26.4	39.9	-178.79	953.7	942.6	414.1	368.4	45.71	9.059	CC
7,200.0	6,931.7	8,430.8	7,183.1	26.4	39.9	-178.76	953.7	942.8	414.3	369.1	45.22	9.162	
7,250.0	6,964.8	8,432.0	7,183.1	26.2	39.9	-178.60	953.7	943.9	420.8	378.3	42.53	9.893	
7,283.4	6,985.4	8,432.8	7,183.1	26.0	39.9	-178.46	953.7	944.7	430.2	389.5	40.69	10.572	
7,300.0	6,995.2	8,433.2	7,183.1	25.9	39.9	-178.39	953.7	945.1	436.3	396.5	39.78	10.969	
7,350.0	7,022.7	8,434.4	7,183.1	25.7	40.0	-178.14	953.6	946.4	459.8	422.8	36.99	12.430	
7,381.9	7,038.8	8,435.3	7,183.1	25.5	40.0	-177.96	953.6	947.2	478.4	443.2	35.23	13.580	
7,400.0	7,047.3	8,435.7	7,183.1	25.4	40.0	-177.84	953.6	947.7	490.1	455.9	34.24	14.313	
7,450.0	7,068.8	8,437.1	7,183.1	25.1	40.0	-177.45	953.5	949.0	525.9	494.3	31.59	16.644	
7,480.3	7,080.3	8,437.9	7,183.1	25.0	40.1	-177.15	953.5	949.9	549.7	519.6	30.08	18.275	
7,500.0	7,087.1	8,438.5	7,183.1	24.9	40.1	-176.94	953.5	950.4	565.9	536.7	29.14	19.421	
7,550.0	7,102.1	8,439.9	7,183.1	24.6	40.1	-176.24	953.5	951.9	609.1	582.2	26.97	22.586	
7,578.7	7,109.2	8,440.8	7,183.1	24.5	40.1	-175.72	953.4	952.7	635.1	609.2	25.90	24.522	
7,600.0	7,113.7	8,441.4	7,183.1	24.4	40.1	-175.24	953.4	953.4	654.8	629.6	25.21	25.980	
7,650.0	7,121.9	8,442.9	7,183.1	24.2	40.2	-173.67	953.4	954.8	702.3	678.3	23.96	29.316	
7,677.1	7,125.0	8,443.7	7,183.1	24.1	40.2	-172.38	953.3	955.7	728.6	705.0	23.53	30.961	
7,700.0	7,126.7	8,444.4	7,183.1	24.0	40.2	-170.87	953.3	956.3	750.9	727.6	23.33	32.191	
7,746.5	7,128.0	8,445.8	7,183.1	23.8	40.3	-165.18	953.3	957.7	796.8	773.4	23.47	33.954	
7,775.6	7,127.9	8,446.7	7,183.1	23.7	40.3	-164.66	953.3	958.6	825.8	802.2	23.60	34.993	
7,800.0	7,127.7	8,447.4	7,183.1	23.6	40.3	-164.23	953.2	959.4	850.0	826.3	23.71	35.858	
7,874.0	7,127.4	8,449.7	7,183.1	23.4	40.3	-162.93	953.2	961.6	923.6	899.6	24.02	38.448	
7,900.0	7,127.3	8,450.4	7,183.1	23.4	40.4	-162.47	953.1	962.4	949.5	925.3	24.13	39.349	
7,972.4	7,127.0	8,452.6	7,183.1	23.3	40.4	-161.22	953.1	964.6	1,021.6	997.1	24.46	41.762	
8,000.0	7,126.8	8,453.5	7,183.1	23.3	40.4	-160.75	953.0	965.4	1,049.0	1,024.4	24.59	42.669	
8,070.8	7,126.5	8,455.6	7,183.1	23.4	40.5	-159.55	953.0	967.5	1,119.6	1,094.7	24.94	44.894	
8,100.0	7,126.4	8,456.5	7,183.1	23.5	40.5	-159.06	953.0	968.4	1,148.6	1,123.6	25.08	45.796	
8,169.3	7,126.1	8,458.6	7,183.1	23.7	40.6	-157.91	952.9	970.5	1,217.7	1,192.2	25.46	47.823	
8,200.0	7,125.9	8,459.5	7,183.1	23.8	40.6	-157.41	952.9	971.4	1,248.3	1,222.7	25.63	48.706	
8,267.7	7,125.6	8,461.5	7,183.1	24.1	40.7	-156.31	952.8	973.5	1,315.8	1,289.8	26.04	50.528	
8,300.0	7,125.5	8,462.5	7,183.1	24.2	40.7	-155.80	952.8	974.5	1,348.0	1,321.8	26.24	51.377	
8,366.1	7,125.2	8,464.5	7,183.1	24.6	40.7	-154.75	952.7	976.4	1,414.0	1,387.3	26.68	52.988	
8,400.0	7,125.0	8,465.5	7,183.1	24.8	40.8	-154.22	952.7	977.5	1,447.8	1,420.8	26.92	53.790	
8,464.5	7,124.7	8,467.5	7,183.1	25.3	40.8	-153.23	952.6	979.4	1,512.2	1,484.8	27.40	55.189	
8,500.0	7,124.6	8,468.6	7,183.1	25.6	40.8	-152.69	952.6	980.5	1,547.5	1,519.9	27.67	55.931	
8,563.0	7,124.3	8,470.5	7,183.1	26.1	40.9	-151.75	952.5	982.4	1,610.4	1,582.2	28.19	57.125	
8,600.0	7,124.1	8,471.6	7,183.1	26.4	40.9	-151.20	952.5	983.5	1,647.3	1,618.8	28.50	57.798	
8,661.4	7,123.8	8,473.4	7,183.1	26.9	41.0	-150.31	952.4	985.4	1,708.6	1,679.6	29.06	58.796	
8,700.0	7,123.7	8,474.6	7,183.1	27.3	41.0	-149.75	952.4	986.5	1,747.1	1,717.7	29.42	59.394	
8,759.8	7,123.4	8,476.4	7,183.1	27.9	41.0	-148.91	952.4	988.3	1,806.9	1,776.9	30.01	60.211	
8,800.0	7,123.2	8,477.6	7,183.1	28.3	41.1	-148.35	952.3	989.5	1,847.0	1,816.6	30.41	60.730	
8,858.2	7,123.0	8,479.4	7,183.1	28.9	41.1	-147.55	952.3	991.3	1,905.1	1,874.1	31.04	61.384	
8,900.0	7,122.8	8,480.6	7,183.1	29.4	41.1	-146.98	952.2	992.6	1,946.8	1,915.3	31.49	61.824	
8,956.7	7,122.5	8,482.4	7,183.1	30.0	41.2	-146.23	952.2	994.3	2,003.4	1,971.3	32.14	62.334	
9,000.0	7,122.3	8,483.7	7,183.1	30.5	41.2	-145.66	952.1	995.6	2,046.7	2,014.0	32.64	62.696	
9,055.1	7,122.1	8,485.3	7,183.1	31.2	41.3	-144.94	952.1	997.2	2,101.7	2,068.4	33.32	63.083	
9,100.0	7,121.9	8,486.7	7,183.1	31.7	41.3	-144.37	952.0	998.6	2,146.5	2,112.7	33.87	63.372	
9,153.5	7,121.6	8,488.3	7,183.1	32.4	41.3	-143.70	952.0	1,000.2	2,200.0	2,165.4	34.56	63.654	
9,200.0	7,121.4	8,489.7	7,183.1	33.0	41.4	-143.13	952.0	1,001.6	2,246.4	2,211.2	35.17	63.876	
9,251.9	7,121.2	8,491.3	7,183.1	33.7	41.4	-142.50	951.9	1,003.2	2,298.3	2,262.4	35.87	64.071	
9,300.0	7,121.0	8,492.7	7,183.1	34.3	41.4	-141.93	951.9	1,004.6	2,346.3	2,309.7	36.53	64.231	
9,350.4	7,120.7	8,494.2	7,183.1	35.0	41.5	-141.33	951.8	1,006.2	2,396.6	2,359.3	37.24	64.355	

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 OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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> NW NE SEC 30 T4N R67W 6th P.M. - PROP HZ CHANDLER FARMS HD 20-389HN - Wellbore #1 - W												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 16-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
9,400.0	7,120.5	8,495.7	7,183.1	35.7	41.5	-140.76	951.8	1,007.7	2,446.2	2,408.2	37.95	64.460	
9,448.8	7,120.3	8,497.2	7,183.1	36.4	41.6	-140.20	951.7	1,009.1	2,494.9	2,456.2	38.66	64.527	
9,500.0	7,120.1	8,498.8	7,183.1	37.2	41.6	-139.63	951.7	1,010.7	2,546.0	2,506.6	39.42	64.584	
9,547.2	7,119.9	8,500.2	7,183.1	37.8	41.6	-139.11	951.6	1,012.1	2,593.2	2,553.1	40.14	64.606	
9,600.0	7,119.6	8,501.8	7,183.1	38.6	41.7	-138.54	951.6	1,013.7	2,645.9	2,605.0	40.95	64.620	
9,645.6	7,119.4	8,503.2	7,183.1	39.3	41.7	-138.05	951.5	1,015.1	2,691.5	2,649.9	41.66	64.608	
9,700.0	7,119.2	8,504.8	7,183.1	40.1	41.8	-137.49	951.5	1,016.7	2,745.8	2,703.3	42.52	64.585	
9,744.1	7,119.0	8,506.1	7,183.1	40.8	41.8	-137.03	951.5	1,018.0	2,789.9	2,746.6	43.22	64.547	
9,800.0	7,118.7	8,507.8	7,183.1	41.7	41.8	-136.46	951.4	1,019.7	2,845.7	2,801.6	44.13	64.492	
9,842.5	7,118.5	8,509.1	7,183.1	42.3	41.9	-136.04	951.4	1,021.0	2,888.2	2,843.4	44.82	64.435	
9,900.0	7,118.3	8,510.8	7,183.1	43.2	41.9	-135.48	951.3	1,022.8	2,945.6	2,899.9	45.77	64.354	
9,940.9	7,118.1	8,512.1	7,183.1	43.9	41.9	-135.08	951.3	1,024.0	2,986.5	2,940.1	46.46	64.283	
10,000.0	7,117.8	8,513.9	7,183.1	44.8	42.0	-134.52	951.2	1,025.8	3,045.6	2,998.1	47.45	64.179	
10,039.3	7,117.6	8,515.1	7,183.1	45.5	42.0	-134.16	951.2	1,027.0	3,084.9	3,036.7	48.13	64.100	
10,100.0	7,117.4	8,516.9	7,183.1	46.4	42.1	-133.60	951.1	1,028.8	3,145.5	3,096.3	49.17	63.977	
10,137.8	7,117.2	8,518.0	7,183.1	47.1	42.1	-133.26	951.1	1,029.9	3,183.2	3,133.4	49.82	63.893	
10,200.0	7,116.9	8,519.9	7,183.1	48.1	42.1	-132.71	951.0	1,031.8	3,245.4	3,194.5	50.91	63.754	
10,236.2	7,116.8	8,521.0	7,183.1	48.7	42.2	-132.39	951.0	1,032.9	3,281.5	3,230.0	51.54	63.667	
10,300.0	7,116.5	8,522.9	7,183.1	49.7	42.2	-131.84	950.9	1,034.8	3,345.3	3,292.6	52.67	63.515	
10,334.6	7,116.3	8,524.0	7,183.1	50.3	42.2	-131.55	950.9	1,035.9	3,379.9	3,326.6	53.29	63.428	
10,400.0	7,116.0	8,525.9	7,183.1	51.4	42.3	-131.01	950.9	1,037.8	3,445.2	3,390.8	54.46	63.266	
10,433.0	7,115.9	8,526.9	7,183.1	52.0	42.3	-130.74	950.8	1,038.8	3,478.2	3,423.2	55.05	63.181	
10,500.0	7,115.6	8,529.0	7,183.1	53.1	42.4	-130.20	950.8	1,040.9	3,545.1	3,488.9	56.26	63.010	
10,531.5	7,115.4	8,529.9	7,183.1	53.6	42.4	-129.95	950.7	1,041.8	3,576.6	3,519.7	56.84	62.928	
10,600.0	7,115.1	8,532.0	7,183.1	54.8	42.5	-129.42	950.7	1,043.9	3,645.1	3,587.0	58.09	62.751	
10,629.9	7,115.0	8,532.9	7,183.1	55.3	42.5	-129.19	950.6	1,044.8	3,674.9	3,616.3	58.64	62.672	
10,700.0	7,114.7	8,535.0	7,183.1	56.5	42.5	-128.66	950.6	1,046.9	3,745.0	3,685.1	59.93	62.490	
10,728.3	7,114.6	8,535.9	7,183.1	57.0	42.6	-128.45	950.6	1,047.8	3,773.3	3,712.8	60.45	62.415	
10,800.0	7,114.2	8,538.0	7,183.1	58.3	42.6	-127.93	950.5	1,049.9	3,844.9	3,783.1	61.79	62.230	
10,826.7	7,114.1	8,538.8	7,183.1	58.7	42.6	-127.74	950.5	1,050.7	3,871.6	3,809.4	62.29	62.159	
10,900.0	7,113.8	8,541.0	7,183.1	60.0	42.7	-127.22	950.4	1,052.9	3,944.8	3,881.2	63.66	61.972	
10,925.2	7,113.7	8,541.8	7,183.1	60.5	42.7	-127.05	950.4	1,053.7	3,970.0	3,905.9	64.13	61.906	
11,000.0	7,113.3	8,544.1	7,183.1	61.8	42.8	-126.53	950.3	1,056.0	4,044.8	3,979.2	65.54	61.717	
11,023.6	7,113.2	8,544.8	7,183.1	62.2	42.8	-126.38	950.3	1,056.7	4,068.3	4,002.4	65.98	61.657	
11,100.0	7,112.9	8,547.1	7,183.1	63.5	42.8	-125.87	950.2	1,059.0	4,144.7	4,077.3	67.43	61.467	
11,122.0	7,112.8	8,547.8	7,183.1	63.9	42.9	-125.73	950.2	1,059.7	4,166.7	4,098.9	67.85	61.412	
11,200.0	7,112.4	8,550.1	7,183.1	65.3	42.9	-125.23	950.1	1,062.0	4,244.6	4,175.3	69.33	61.222	
11,220.4	7,112.4	8,550.7	7,183.1	65.7	42.9	-125.10	950.1	1,062.6	4,265.1	4,195.3	69.72	61.172	
11,300.0	7,112.0	8,553.1	7,183.1	67.1	43.0	-124.60	950.0	1,065.0	4,344.6	4,273.3	71.24	60.983	
11,318.9	7,111.9	8,553.7	7,183.1	67.4	43.0	-124.49	950.0	1,065.6	4,363.4	4,291.8	71.60	60.938	
11,400.0	7,111.6	8,556.2	7,183.1	68.9	43.1	-124.00	949.9	1,068.0	4,444.5	4,371.3	73.16	60.750	
11,417.3	7,111.5	8,556.7	7,183.1	69.2	43.1	-123.90	949.9	1,068.6	4,461.8	4,388.3	73.49	60.710	
11,500.0	7,111.1	8,559.2	7,183.1	70.7	43.2	-123.41	949.9	1,071.1	4,544.4	4,469.3	75.09	60.523	
11,515.7	7,111.0	8,559.6	7,183.1	71.0	43.2	-123.32	949.8	1,071.5	4,560.1	4,484.7	75.39	60.487	
11,600.0	7,110.7	8,562.2	7,183.1	72.5	43.2	-122.84	949.8	1,074.1	4,644.4	4,567.3	77.02	60.302	
11,614.1	7,110.6	8,562.6	7,183.1	72.7	43.2	-122.76	949.7	1,074.5	4,658.5	4,581.2	77.29	60.271	
11,700.0	7,110.2	8,565.2	7,183.1	74.3	43.3	-122.29	949.7	1,077.1	4,744.3	4,665.3	78.96	60.089	
11,712.6	7,110.2	8,565.6	7,183.1	74.5	43.3	-122.22	949.7	1,077.5	4,756.9	4,677.7	79.20	60.062	
11,747.9	7,110.0	8,566.7	7,183.1	75.1	43.3	-122.04	949.6	1,078.5	4,792.1	4,712.2	79.88	59.988	

# Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well OLSON 30R-203
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Reference Site:</b>	NW NE SEC 30 T4N R67W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4989.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	OLSON 30R-203	<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

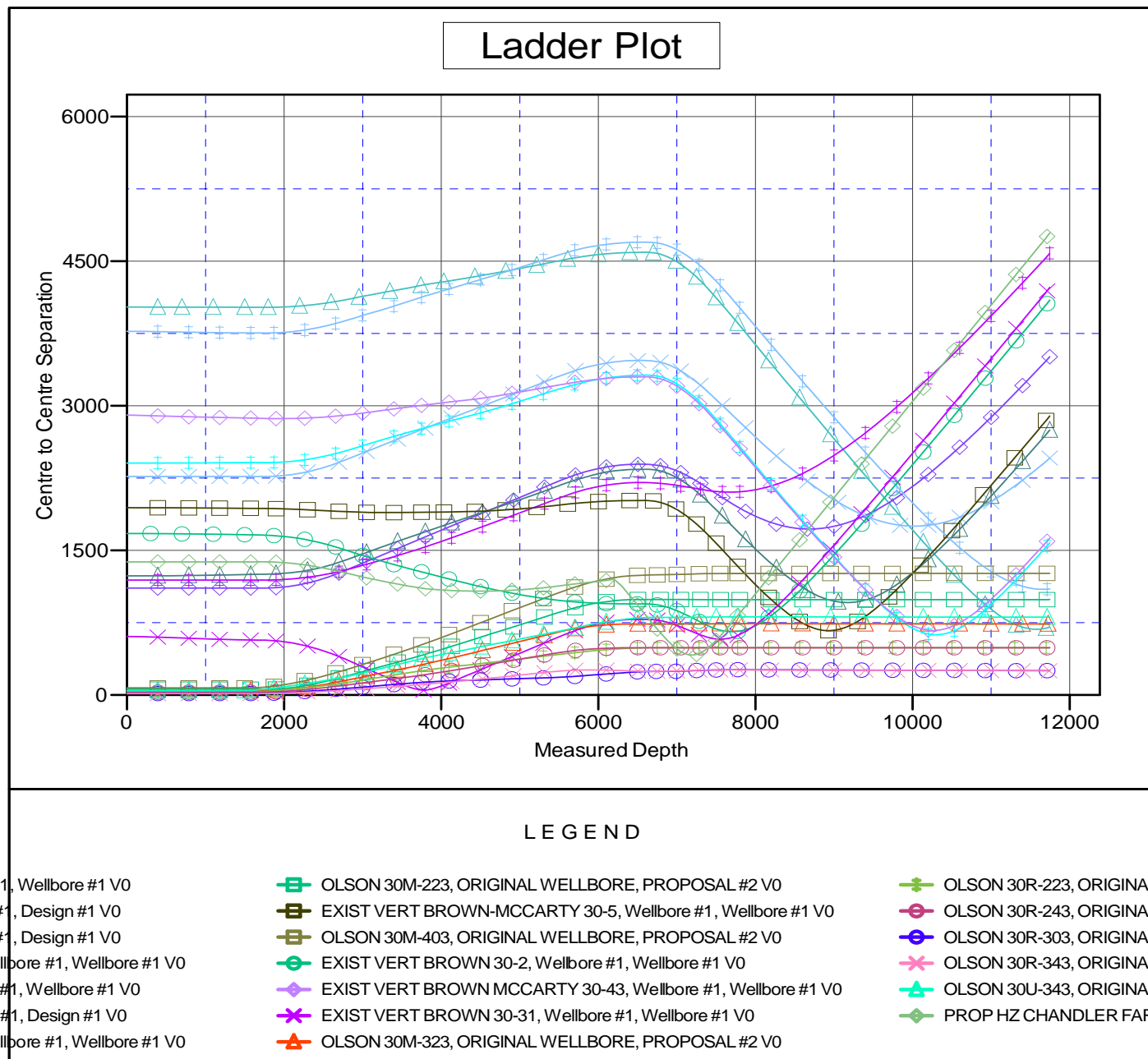
Reference Depths are relative to KB-EST @ 4989.0usft (Original Well ECoordinates are relative to: OLSON 30R-203

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: 0.37°





Reference Depths are relative to KB-EST @ 4989.0usft (Original Well) ECoordinates are relative to: OLSON 30R-203  
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: 0.37°

