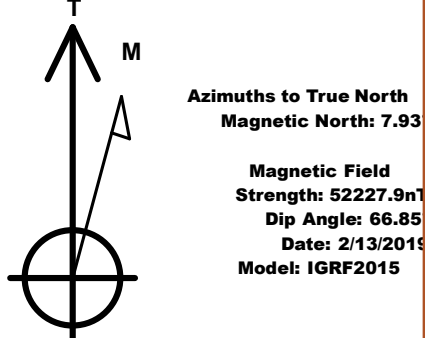




Project: WELD COUNTY, COLORADO (TRUE)  
Site: NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)  
Well: WATERMELON 8N  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

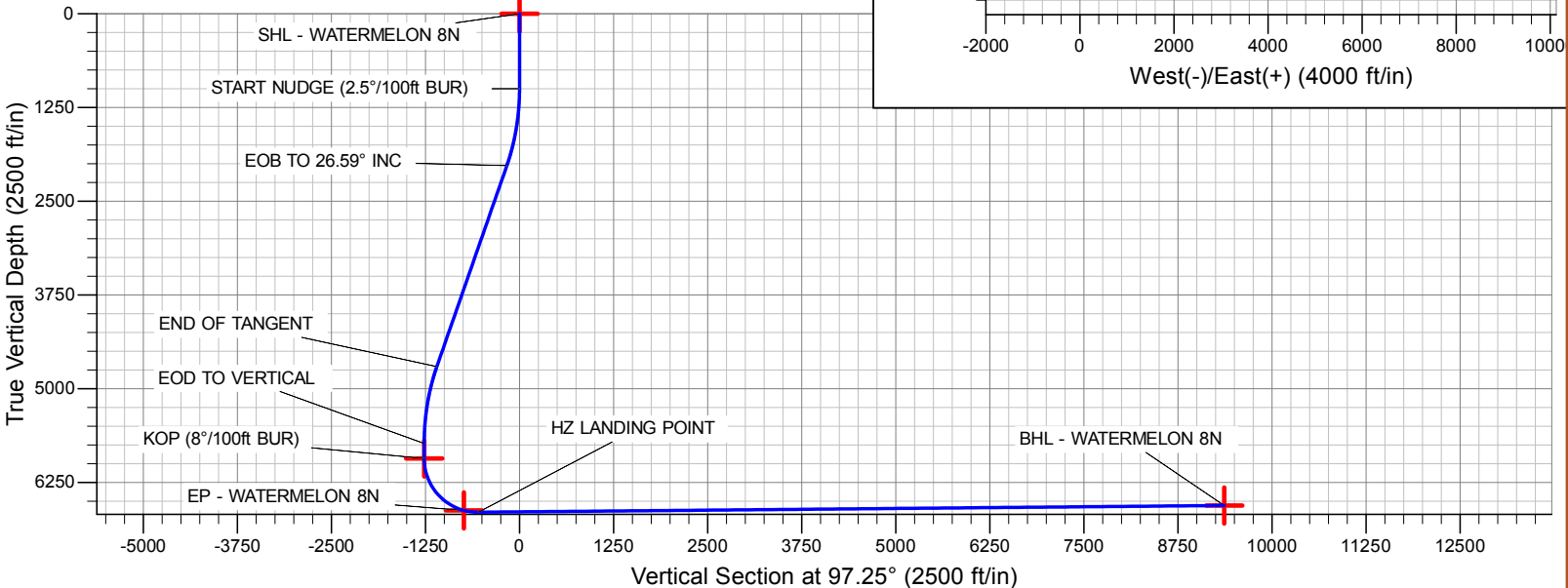
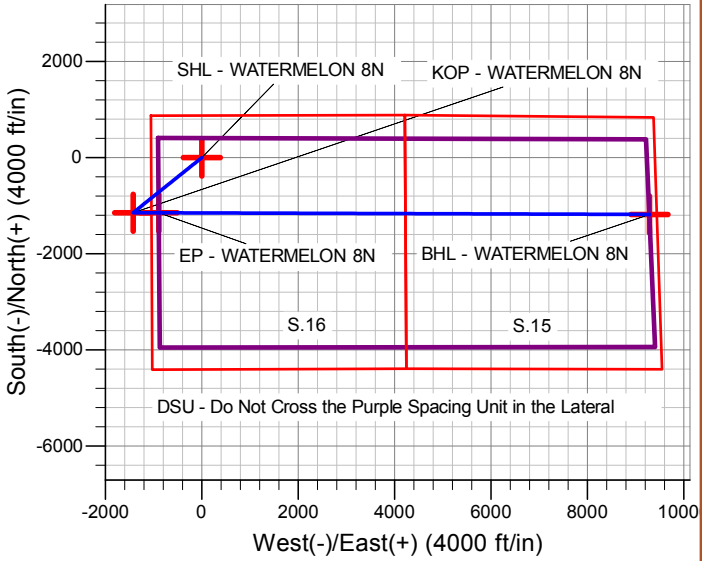
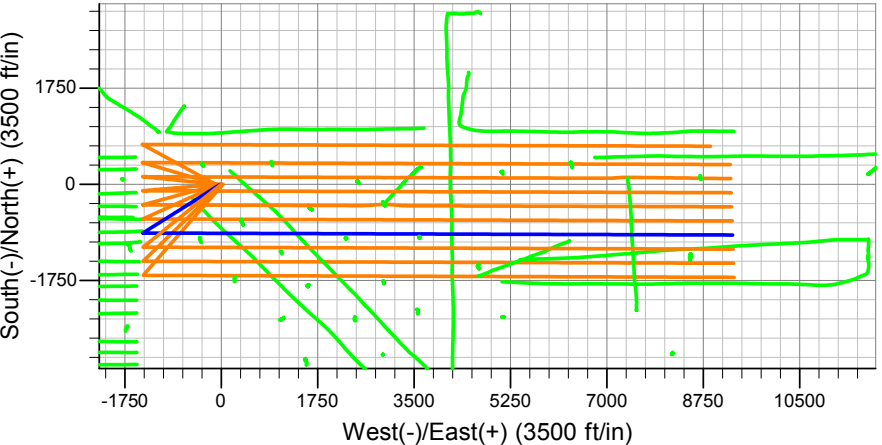


ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	SHL: 874ft FNL & 1048ft FWL of Sec 16
1000.0	0.00	0.00	1000.0	0.0	0.0	0.0	0.0	START NUDGE (2.5°/100ft BUR)
2063.7	26.59	231.15	2025.9	-152.1	-188.8	-168.1	242.4	EOB TO 26.59° INC
5060.7	26.59	231.15	4705.9	-993.6	-1233.7	-1098.6	1584.1	END OF TANGENT
6124.5	0.00	0.00	5731.9	-1145.6	-1422.6	-1266.8	1826.5	EOD TO VERTICAL
6324.5	0.00	0.00	5931.9	-1145.6	-1422.6	-1266.8	1826.5	KOP (8°/100ft BUR)
7262.0	75.00	90.19	6623.6	-1147.4	-891.7	-739.9	2357.4	EP: 2020ft FNL & 150ft FWL of Sec 16
7455.9	90.51	90.19	6648.0	-1148.0	-700.0	-549.6	2549.2	HZ LANDING POINT
17447.3	90.52	90.19	6558.0	-1181.2	9291.0	9365.7	12540.2	BHL: 2020ft FNL & 150ft FEL of Sec 15

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL - WATERMELON 8N	0.0	0.0	0.0	1391461.72	3261582.52	40° 24' 14.980 N	104° 33' 38.537 W
KOP - WATERMELON 8N	5931.9	-1145.6	-1422.6	1390301.12	3260172.20	40° 24' 3.659 N	104° 33' 56.925 W
BHL - WATERMELON 8N	6558.0	-1181.2	9291.0	1390379.08	3270885.10	40° 24' 3.291 N	104° 31' 38.446 W
EP - WATERMELON 8N	6623.6	-1147.4	-891.8	1390304.98	3260703.00	40° 24' 3.642 N	104° 33' 50.063 W



# **PDC ENERGY**

**WELD COUNTY, COLORADO (TRUE)  
NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)  
WATERMELON 8N**

**ORIGINAL WELLBORE  
PROPOSAL #1**

## **Anticollision Report**

**18 March, 2019**



**PDC Energy**  
Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well WATERMELON 8N - Slot WATERMELON 8N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Reference Site:</b>	NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)	<b>MD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	WATERMELON 8N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PROPOSAL #1
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria
<b>Interpolation Method:</b>	Stations
<b>Depth Range:</b>	Unlimited
<b>Results Limited by:</b>	Maximum ellipse separation of 1,000.0 ft
<b>Warning Levels Evaluated at:</b>	2.00 Sigma
<b>Error Model:</b>	ISCWSA
<b>Scan Method:</b>	Closest Approach 3D
<b>Error Surface:</b>	Pedal Curve
<b>Casing Method:</b>	Not applied

Survey Tool Program		Date	3/18/2019		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	17,447.3	PROPOSAL #1 (ORIGINAL WELLBORE)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)						
ABDN VERT DROEGEMULLER #11-5 - Wellbore #1 - W	13,265.4	6,551.7	1,352.6	1,175.5	7.638	CC
ABDN VERT DROEGEMULLER #11-5 - Wellbore #1 - W	13,300.0	6,551.8	1,353.0	1,175.1	7.606	ES
ABDN VERT DROEGEMULLER #11-5 - Wellbore #1 - W	13,400.0	6,551.8	1,359.3	1,179.7	7.570	SF
ABDN VERT LOUSTALET #15-1 - Wellbore #1 - Wellbor	13,295.5	6,539.3	1,242.7	1,065.1	6.997	CC
ABDN VERT LOUSTALET #15-1 - Wellbore #1 - Wellbor	13,300.0	6,539.2	1,242.7	1,064.9	6.991	ES
ABDN VERT LOUSTALET #15-1 - Wellbore #1 - Wellbor	13,400.0	6,538.3	1,247.1	1,066.8	6.918	SF
ABDN VERT LOUSTALET #21-15 - Wellbore #1 - Wellbc	14,515.0	6,500.0	1,483.1	1,271.5	7.010	CC, ES
ABDN VERT LOUSTALET #21-15 - Wellbore #1 - Wellbc	14,600.0	6,500.0	1,485.5	1,272.2	6.963	SF
ABDN VERT LOUSTALET #B15-14 - Wellbore #1 - Desi	14,589.3	6,535.0	2,569.4	2,227.2	7.508	CC
ABDN VERT LOUSTALET #B15-14 - Wellbore #1 - Desi	14,700.0	6,534.0	2,571.8	2,226.5	7.448	ES
ABDN VERT LOUSTALET #B15-14 - Wellbore #1 - Desi	14,900.0	6,532.2	2,588.1	2,238.3	7.399	SF
ABDN VERT LOUSTALET #B15-15 - Wellbore #1 - Desi	15,674.7	6,524.1	2,592.5	2,220.2	6.964	CC
ABDN VERT LOUSTALET #B15-15 - Wellbore #1 - Desi	15,700.0	6,523.9	2,592.6	2,219.6	6.950	ES
ABDN VERT LOUSTALET #B15-15 - Wellbore #1 - Desi	16,000.0	6,521.2	2,612.8	2,232.8	6.876	SF
ABDN VERT LOUSTALET #B15-16 - Wellbore #1 - Wellt	16,866.7	6,414.9	2,688.7	2,411.6	9.703	CC
ABDN VERT LOUSTALET #B15-16 - Wellbore #1 - Wellt	16,900.0	6,415.6	2,688.9	2,410.9	9.670	ES
ABDN VERT LOUSTALET #B15-16 - Wellbore #1 - Wellt	17,300.0	6,424.4	2,723.4	2,437.0	9.509	SF
ABDN VERT LOUSTALET #B15-9 - Wellbore #1 - Desig	16,905.3	6,511.0	1,362.4	956.0	3.352	CC, ES
ABDN VERT LOUSTALET #B15-9 - Wellbore #1 - Desig	17,000.0	6,510.1	1,365.7	957.0	3.341	SF
ABDN VERT PATRIOT #B16-13 - Wellbore #1 - Wellbore	7,748.7	6,575.4	2,697.7	2,661.1	73.647	CC
ABDN VERT PATRIOT #B16-13 - Wellbore #1 - Wellbore	7,800.0	6,576.3	2,698.2	2,661.0	72.654	ES
ABDN VERT PATRIOT #B16-13 - Wellbore #1 - Wellbore	9,700.0	6,617.6	3,329.1	3,262.1	49.673	SF
ABDN VERT PATRIOT #B16-3 - Wellbore #1 - Wellbore	330.9	290.9	990.8	989.9	1,118.888	CC
ABDN VERT PATRIOT #B16-3 - Wellbore #1 - Wellbore	1,000.0	959.7	991.2	988.5	371.497	ES
ABDN VERT PATRIOT #B16-3 - Wellbore #1 - Wellbore	9,500.0	6,658.3	1,556.3	1,483.6	21.407	SF
ABDN VERT PATRIOT #B16-9 - Wellbore #1 - Wellbore	11,720.0	6,603.4	1,174.0	1,039.7	8.743	CC, ES
ABDN VERT PATRIOT #B16-9 - Wellbore #1 - Wellbore	11,900.0	6,600.9	1,187.7	1,049.6	8.599	SF
ABDN VERT SOLIS #43-17 - Wellbore #1 - Wellbore #1	5,975.6	5,500.0	1,566.9	1,538.1	54.366	CC, ES
ABDN VERT SOLIS #43-17 - Wellbore #1 - Wellbore #1	6,100.0	5,500.0	1,574.4	1,545.3	54.041	SF
ABDN VERT SOLIS #44-17 - Wellbore #1 - Wellbore #1	6,085.4	5,663.0	2,403.4	2,371.0	74.169	CC, ES
ABDN VERT SOLIS #44-17 - Wellbore #1 - Wellbore #1	9,300.0	6,629.8	3,563.1	3,511.9	69.672	SF
EXIST DD BAUER DEBUS #22JD - Wellbore #1 - Wellbc	13,753.2	6,511.0	3,353.4	3,148.3	16.357	CC
EXIST DD BAUER DEBUS #22JD - Wellbore #1 - Wellbc	13,800.0	6,505.5	3,353.7	3,147.3	16.249	ES
EXIST DD BAUER DEBUS #22JD - Wellbore #1 - Wellbc	14,600.0	6,496.2	3,458.6	3,234.2	15.416	SF
EXIST DD BAUER DEBUS #22MD - Wellbore #1 - Wellb	15,017.3	6,638.1	3,275.8	3,033.4	13.514	CC

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

# PDC Energy

## Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well WATERMELON 8N - Slot WATERMELON 8N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Reference Site:</b>	NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)	<b>MD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	WATERMELON 8N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)						
EXIST DD BAUER DEBUS #22MD - Wellbore #1 - Wellb	15,100.0	6,636.8	3,276.8	3,032.2	13.395	ES
EXIST DD BAUER DEBUS #22MD - Wellbore #1 - Wellb	15,600.0	6,629.1	3,327.2	3,072.3	13.056	SF
EXIST DD DOUGHMAN #22RD - Wellbore #1 - Wellbore	16,409.5	6,553.7	3,318.8	3,039.1	11.865	CC
EXIST DD DOUGHMAN #22RD - Wellbore #1 - Wellbore	16,500.0	6,553.3	3,320.0	3,037.6	11.754	ES
EXIST DD DOUGHMAN #22RD - Wellbore #1 - Wellbore	17,000.0	6,544.0	3,370.9	3,077.1	11.472	SF
EXIST DD FRENZEL #B15-6 - Wellbore #1 - Wellbore #1	14,472.8	6,885.5	143.8	-73.1	0.663	Level 1, CC, ES, SF
EXIST DD GLOVER USX #B15-02CD - Wellbore #1 - W	15,546.1	6,685.5	1,209.0	973.4	5.131	CC, ES
EXIST DD GLOVER USX #B15-02CD - Wellbore #1 - W	15,600.0	6,681.0	1,210.2	973.8	5.119	SF
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	4,471.8	4,949.4	1,988.9	1,940.8	41.388	CC
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	4,500.0	4,961.8	1,989.0	1,940.6	41.066	ES
EXIST DD JURGENS STATE #B16-30D - Wellbore #1 -	6,650.0	6,569.3	2,111.2	2,050.4	34.746	SF
EXIST DD KLEIN #B15-13D - Wellbore #1 - Wellbore #1	13,093.5	6,741.5	2,603.2	2,425.6	14.663	CC
EXIST DD KLEIN #B15-13D - Wellbore #1 - Wellbore #1	13,200.0	6,741.8	2,605.3	2,424.9	14.439	ES
EXIST DD KLEIN #B15-13D - Wellbore #1 - Wellbore #1	13,600.0	6,743.0	2,652.0	2,463.3	14.056	SF
EXIST DD PATRIOT #B16-1 - Wellbore #1 - Wellbore #1	11,782.5	6,676.1	1,468.8	1,331.7	10.712	CC
EXIST DD PATRIOT #B16-1 - Wellbore #1 - Wellbore #1	11,800.0	6,676.0	1,468.9	1,331.3	10.679	ES
EXIST DD PATRIOT #B16-1 - Wellbore #1 - Wellbore #1	12,000.0	6,675.0	1,484.8	1,343.7	10.521	SF
EXIST HZ CECILS KERSEY FARM #17B-212 - Wellbore	6,750.0	11,218.0	1,764.5	1,613.6	11.693	SF
EXIST HZ CECILS KERSEY FARM #17B-212 - Wellbore	6,830.9	11,218.0	1,761.7	1,611.2	11.707	CC, ES
EXIST HZ CECILS KERSEY FARM #17B-302 - Wellbore	6,800.0	11,362.0	1,961.5	1,809.8	12.933	SF
EXIST HZ CECILS KERSEY FARM #17B-302 - Wellbore	6,850.0	11,362.0	1,959.9	1,808.5	12.944	ES
EXIST HZ CECILS KERSEY FARM #17B-302 - Wellbore	6,865.5	11,362.0	1,959.8	1,808.5	12.952	CC
EXIST HZ CECILS KERSEY FARM #17K-232 - Wellbore	6,800.0	11,295.0	1,038.7	896.5	7.305	SF
EXIST HZ CECILS KERSEY FARM #17K-232 - Wellbore	6,835.7	11,295.0	1,037.7	895.9	7.318	CC, ES
EXIST HZ CECILS KERSEY FARM #17K-332 - Wellbore	6,800.0	11,372.0	1,270.4	1,125.2	8.749	SF
EXIST HZ CECILS KERSEY FARM #17K-332 - Wellbore	6,850.0	11,372.0	1,268.2	1,123.3	8.756	ES
EXIST HZ CECILS KERSEY FARM #17K-332 - Wellbore	6,861.3	11,372.0	1,268.1	1,123.4	8.763	CC
EXIST HZ CECILS KERSEY FARM #17K-402 - Wellbore	6,850.0	11,210.0	864.1	745.0	7.257	SF
EXIST HZ CECILS KERSEY FARM #17K-402 - Wellbore	6,900.0	11,210.0	860.9	742.4	7.263	ES
EXIST HZ CECILS KERSEY FARM #17K-402 - Wellbore	6,907.0	11,210.0	860.9	742.4	7.269	CC
EXIST HZ COCKROFT #B15-69-1HNM - Wellbore #1 - V	14,928.1	11,709.0	1,660.1	1,293.3	4.526	CC, ES
EXIST HZ COCKROFT #B15-69-1HNM - Wellbore #1 - V	15,000.0	11,667.7	1,661.1	1,293.6	4.520	SF
EXIST HZ GILLAM #18X-102 - Wellbore #1 - Wellbore #	6,750.0	12,169.0	2,170.4	1,989.5	11.999	SF
EXIST HZ GILLAM #18X-102 - Wellbore #1 - Wellbore #	6,843.3	12,169.0	2,167.3	1,987.0	12.020	CC, ES
EXIST HZ GILLAM #18X-232 - Wellbore #1 - Wellbore #	6,750.0	12,156.0	2,608.0	2,425.6	14.299	SF
EXIST HZ GILLAM #18X-232 - Wellbore #1 - Wellbore #	6,833.8	12,156.0	2,606.0	2,424.0	14.320	CC, ES
EXIST HZ GILLAM #18X-332 - Wellbore #1 - Wellbore #	6,800.0	12,231.0	2,395.3	2,214.3	13.239	SF
EXIST HZ GILLAM #18X-332 - Wellbore #1 - Wellbore #	6,872.0	12,231.0	2,393.6	2,213.1	13.261	CC, ES
EXIST HZ GILLAM #18Y-202 - Wellbore #1 - Wellbore #	6,750.0	12,242.0	3,138.2	2,955.1	17.142	SF
EXIST HZ GILLAM #18Y-202 - Wellbore #1 - Wellbore #	6,845.0	12,242.0	3,136.0	2,953.3	17.162	CC, ES
EXIST HZ GILLAM #18Y-312 - Wellbore #1 - Wellbore #	6,800.0	12,233.0	2,919.4	2,737.7	16.062	SF
EXIST HZ GILLAM #18Y-312 - Wellbore #1 - Wellbore #	6,871.7	12,233.0	2,918.1	2,736.6	16.082	CC, ES
EXIST HZ HOLMAN #B15-65HNM - Wellbore #1 - Wellb	13,255.3	13,031.0	608.9	249.9	1.696	CC, ES, SF
EXIST HZ HOLMAN #B15-66HN - Wellbore #1 - Wellbor	15,500.0	10,746.2	98.1	-233.4	0.296	Level 1, ES
EXIST HZ HOLMAN #B15-66HN - Wellbore #1 - Wellbor	15,800.0	10,446.3	78.9	-216.0	0.267	Level 1, SF
EXIST HZ HOLMAN #B15-66HN - Wellbore #1 - Wellbor	16,607.6	9,640.7	51.4	-52.7	0.494	Level 1, CC
EXIST HZ HOP #18E-232 - Wellbore #1 - Wellbore #1	6,816.6	16,424.0	1,686.5	1,391.2	5.711	CC, ES
EXIST HZ HOP #18E-232 - Wellbore #1 - Wellbore #1	6,850.0	16,424.0	1,687.0	1,391.6	5.711	SF
EXIST HZ HOP #18E-332 - Wellbore #1 - Wellbore #1	6,863.6	16,442.0	1,491.8	1,200.8	5.127	CC, ES, SF
EXIST HZ HOP #18E-402 - Wellbore #1 - Wellbore #1	6,594.6	15,093.0	2,522.5	2,312.0	11.983	CC, ES
EXIST HZ HOP #18E-402 - Wellbore #1 - Wellbore #1	6,600.0	15,093.0	2,522.5	2,312.0	11.983	SF

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

**PDC Energy**  
Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well WATERMELON 8N - Slot WATERMELON 8N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Reference Site:</b>	NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)	<b>MD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	WATERMELON 8N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)						
EXIST HZ HOP #18F-102 - Wellbore #1 - Wellbore #1	6,796.1	16,506.0	816.5	538.8	2.940	CC
EXIST HZ HOP #18F-102 - Wellbore #1 - Wellbore #1	6,800.0	16,506.0	816.5	538.8	2.940	ES, SF
EXIST HZ HOP #18F-212 - Wellbore #1 - Wellbore #1	6,814.0	16,391.0	1,062.5	776.4	3.714	CC, ES, SF
EXIST HZ KLEIN #19M-402 - Wellbore #1 - Wellbore #1	10,105.4	17,440.0	3,326.7	2,937.4	8.545	CC
EXIST HZ KLEIN #19M-402 - Wellbore #1 - Wellbore #1	10,200.0	17,440.0	3,328.1	2,936.6	8.502	ES
EXIST HZ KLEIN #19M-402 - Wellbore #1 - Wellbore #1	10,500.0	17,440.0	3,350.0	2,953.8	8.454	SF
EXIST HZ KLEIN #B16-98HZ - Wellbore #1 - Wellbore #	8,500.0	10,655.3	32.2	-85.6	0.274	Level 1, ES, SF
EXIST HZ KLEIN #B16-98HZ - Wellbore #1 - Wellbore #	8,537.1	10,627.7	20.5	-29.4	0.410	Level 1, CC
EXIST HZ KLEIN #B16-99HZ - Wellbore #1 - Wellbore #	9,751.4	9,507.3	6.6	-45.3	0.127	Level 1, CC, SF
EXIST HZ KLEIN #B16-99HZ - Wellbore #1 - Wellbore #	9,800.0	9,473.3	35.5	-101.5	0.259	Level 1, ES
EXIST HZ PATRIOT #B16-69HN - Wellbore #1 - Wellbor	0.0	0.0	1,565.4			
EXIST HZ PATRIOT #B16-69HN - Wellbore #1 - Wellbor	1,000.0	991.3	1,567.5	1,564.3	481.528	ES
EXIST HZ PATRIOT #B16-69HN - Wellbore #1 - Wellbor	12,100.0	11,086.0	2,200.5	1,934.0	8.256	SF
EXIST HZ SCHAUMBERG #17F-202 - ORIGINAL WELL	6,901.0	11,867.0	590.0	434.8	3.802	CC, ES, SF
EXIST HZ SCHAUMBERG #17F-202 - SIDETRACK - SI	6,817.2	11,810.0	702.7	562.5	5.012	CC, ES, SF
EXIST HZ SCHAUMBERG #17F-232 - Wellbore #1 - We	6,872.0	11,632.0	356.2	287.8	5.202	CC, ES, SF
EXIST HZ SCHAUMBERG #17F-332 - Wellbore #1 - We	6,923.1	11,779.0	477.7	362.3	4.139	CC, ES, SF
EXIST HZ SCHAUMBERG #17G-202 - Wellbore #1 - We	6,850.0	11,796.0	626.3	500.6	4.985	ES, SF
EXIST HZ SCHAUMBERG #17G-202 - Wellbore #1 - We	6,850.3	11,796.0	626.3	500.6	4.985	CC
EXIST HZ SCHAUMBERG #17G-312 - Wellbore #1 - We	6,891.1	11,790.0	480.4	391.6	5.406	CC, ES
EXIST HZ SCHAUMBERG #17G-312 - Wellbore #1 - We	6,900.0	11,790.0	480.5	391.6	5.403	SF
EXIST HZ SEYLER B #15-69HN - Wellbore #1 - Wellbor	15,824.6	9,782.0	2,102.2	1,763.9	6.215	CC
EXIST HZ SEYLER B #15-69HN - Wellbore #1 - Wellbor	17,447.3	11,396.1	2,145.4	1,717.1	5.009	ES, SF
EXIST HZ SEYLER STATE #B15-79HNM - Wellbore #1	12,343.3	10,619.1	12.2	-65.6	0.157	Level 1, CC, ES, SF
EXIST VERT FRENZEL #B15-25 - Wellbore #1 - Design	13,714.8	6,544.9	1,832.6	1,514.5	5.761	CC
EXIST VERT FRENZEL #B15-25 - Wellbore #1 - Design	13,800.0	6,544.1	1,834.6	1,514.1	5.725	ES
EXIST VERT FRENZEL #B15-25 - Wellbore #1 - Design	13,900.0	6,543.2	1,841.9	1,519.3	5.709	SF
EXIST VERT FRENZEL #B15-5 - Wellbore #1 - Wellbore	12,838.0	6,542.9	367.4	202.3	2.226	CC, ES, SF
EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Wellbore	4,518.7	4,204.5	1,190.8	1,160.5	39.379	CC
EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Wellbore	4,600.0	4,278.3	1,191.3	1,160.3	38.432	ES
EXIST VERT HOSHIKO #41-17 - Wellbore #1 - Wellbore	6,350.0	5,929.7	1,283.7	1,246.1	34.144	SF
EXIST VERT HOSHIKO #42-17 - Wellbore #1 - Wellbore	6,342.2	5,937.4	237.5	212.6	9.534	CC, ES, SF
EXIST VERT LOUSTALET #41-15 - Wellbore #1 - Wellbore	16,849.9	6,507.1	1,331.6	1,054.7	4.810	CC
EXIST VERT LOUSTALET #41-15 - Wellbore #1 - Wellbore	16,900.0	6,507.5	1,332.5	1,054.7	4.795	ES, SF
EXIST VERT LOUSTALET #42-15 - Wellbore #1 - Wellbore	16,688.5	6,520.7	140.3	-131.5	0.516	Level 1, CC, ES, SF
EXIST VERT LOUSTALET #B15-10 - Wellbore #1 - Desi	15,701.3	6,513.9	1,166.4	793.5	3.128	CC, ES
EXIST VERT LOUSTALET #B15-10 - Wellbore #1 - Desi	15,800.0	6,513.0	1,170.6	795.4	3.120	SF
EXIST VERT LOUSTALET #B15-11 - Wellbore #1 - Desi	14,459.2	6,538.2	1,240.1	901.5	3.662	CC
EXIST VERT LOUSTALET #B15-11 - Wellbore #1 - Desi	14,500.0	6,537.8	1,240.8	901.0	3.651	ES, SF
EXIST VERT LOUSTALET #B15-15X - Wellbore #1 - De	15,892.8	6,521.2	2,736.7	2,358.3	7.234	CC
EXIST VERT LOUSTALET #B15-15X - Wellbore #1 - De	16,000.0	6,520.2	2,738.8	2,357.5	7.183	ES
EXIST VERT LOUSTALET #B15-15X - Wellbore #1 - De	16,200.0	6,518.4	2,753.9	2,368.0	7.138	SF
EXIST VERT LOUSTALET #B15-23 - Wellbore #1 - Well	16,353.9	6,570.4	1,907.7	1,645.2	7.267	CC
EXIST VERT LOUSTALET #B15-23 - Wellbore #1 - Well	16,400.0	6,571.9	1,908.3	1,644.4	7.232	ES
EXIST VERT LOUSTALET #B15-23 - Wellbore #1 - Well	16,600.0	6,578.0	1,923.5	1,655.7	7.182	SF
EXIST VERT PATRIOT #B16-10 - Wellbore #1 - Wellbore	10,592.2	6,590.0	1,328.0	1,223.9	12.758	CC
EXIST VERT PATRIOT #B16-10 - Wellbore #1 - Wellbore	10,600.0	6,589.9	1,328.1	1,223.8	12.732	ES
EXIST VERT PATRIOT #B16-10 - Wellbore #1 - Wellbore	10,800.0	6,588.4	1,344.2	1,235.4	12.358	SF
EXIST VERT PATRIOT #B16-11 - Wellbore #1 - Wellbore	9,217.2	6,617.5	1,315.9	1,248.1	19.393	CC, ES
EXIST VERT PATRIOT #B16-11 - Wellbore #1 - Wellbore	9,600.0	6,611.7	1,370.5	1,295.5	18.274	SF
EXIST VERT PATRIOT #B16-12 - Wellbore #1 - Design #	7,674.1	6,626.1	1,299.8	1,135.2	7.893	CC, ES

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



**PDC Energy**  
Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well WATERMELON 8N - Slot WATERMELON 8N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Reference Site:</b>	NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)	<b>MD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	WATERMELON 8N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)						
EXIST VERT PATRIOT #B16-12 - Wellbore #1 - Design #	7,700.0	6,625.8	1,300.1	1,135.4	7.891 SF	
EXIST VERT PATRIOT #B16-14 - Wellbore #1 - Wellbore	9,081.1	6,514.2	2,777.8	2,713.4	43.128 CC	
EXIST VERT PATRIOT #B16-14 - Wellbore #1 - Wellbore	9,100.0	6,513.1	2,777.9	2,713.0	42.831 ES	
EXIST VERT PATRIOT #B16-14 - Wellbore #1 - Wellbore	10,500.0	6,424.4	3,118.3	3,026.5	33.952 SF	
EXIST VERT PATRIOT #B16-15 - Wellbore #1 - Wellbore	10,458.5	6,526.0	2,849.4	2,749.2	28.445 CC	
EXIST VERT PATRIOT #B16-15 - Wellbore #1 - Wellbore	10,500.0	6,526.4	2,849.7	2,748.4	28.132 ES	
EXIST VERT PATRIOT #B16-15 - Wellbore #1 - Wellbore	11,500.0	6,536.2	3,033.8	2,911.7	24.865 SF	
EXIST VERT PATRIOT #B16-16 - Wellbore #1 - Wellbore	11,772.5	6,359.2	2,844.1	2,708.7	21.010 CC	
EXIST VERT PATRIOT #B16-16 - Wellbore #1 - Wellbore	11,800.0	6,359.8	2,844.2	2,708.1	20.892 ES	
EXIST VERT PATRIOT #B16-16 - Wellbore #1 - Wellbore	12,600.0	6,379.2	2,961.9	2,808.8	19.350 SF	
EXIST VERT PATRIOT #B16-17 - Wellbore #1 - Wellbore	11,126.0	6,570.4	763.0	644.9	6.463 CC, ES	
EXIST VERT PATRIOT #B16-17 - Wellbore #1 - Wellbore	11,200.0	6,570.0	766.5	647.2	6.425 SF	
EXIST VERT PATRIOT #B16-18 - Wellbore #1 - Wellbore	9,806.1	6,603.6	686.0	602.8	8.242 CC, ES	
EXIST VERT PATRIOT #B16-18 - Wellbore #1 - Wellbore	9,900.0	6,604.3	692.4	607.4	8.140 SF	
EXIST VERT PATRIOT #B16-19 - Wellbore #1 - Wellbore	8,553.8	6,620.3	409.9	357.8	7.879 CC, ES	
EXIST VERT PATRIOT #B16-19 - Wellbore #1 - Wellbore	8,600.0	6,620.6	412.5	359.1	7.731 SF	
EXIST VERT PATRIOT #B16-2 - Wellbore #1 - Wellbore	10,650.6	6,582.1	1,174.2	1,069.1	11.169 CC	
EXIST VERT PATRIOT #B16-2 - Wellbore #1 - Wellbore	10,700.0	6,582.3	1,175.3	1,069.0	11.055 ES	
EXIST VERT PATRIOT #B16-2 - Wellbore #1 - Wellbore	10,800.0	6,582.9	1,183.7	1,075.6	10.945 SF	
EXIST VERT PATRIOT #B16-20 - Wellbore #1 - Wellbore	8,397.3	6,616.4	621.7	573.1	12.792 CC	
EXIST VERT PATRIOT #B16-20 - Wellbore #1 - Wellbore	8,400.0	6,616.4	621.7	573.1	12.783 ES	
EXIST VERT PATRIOT #B16-20 - Wellbore #1 - Wellbore	8,500.0	6,615.2	630.1	580.5	12.705 SF	
EXIST VERT PATRIOT #B16-21 - Wellbore #1 - Wellbore	9,736.1	6,598.2	704.3	623.3	8.692 CC, ES	
EXIST VERT PATRIOT #B16-21 - Wellbore #1 - Wellbore	9,800.0	6,596.9	707.2	624.8	8.582 SF	
EXIST VERT PATRIOT #B16-22 - Wellbore #1 - Wellbore	11,099.3	6,584.6	603.2	486.0	5.144 CC	
EXIST VERT PATRIOT #B16-22 - Wellbore #1 - Wellbore	11,100.0	6,584.6	603.2	485.9	5.143 ES, SF	
EXIST VERT PATRIOT #B16-23 - Wellbore #1 - Wellbore	11,088.0	6,595.9	1,939.1	1,822.7	16.657 CC	
EXIST VERT PATRIOT #B16-23 - Wellbore #1 - Wellbore	11,100.0	6,595.8	1,939.2	1,822.4	16.609 ES	
EXIST VERT PATRIOT #B16-23 - Wellbore #1 - Wellbore	11,500.0	6,591.4	1,982.4	1,856.9	15.788 SF	
EXIST VERT PATRIOT #B16-24 - Wellbore #1 - Wellbore	9,705.1	6,581.5	2,133.0	2,052.8	26.591 CC	
EXIST VERT PATRIOT #B16-24 - Wellbore #1 - Wellbore	9,800.0	6,578.3	2,135.1	2,052.5	25.840 ES	
EXIST VERT PATRIOT #B16-24 - Wellbore #1 - Wellbore	10,400.0	6,557.3	2,243.2	2,148.6	23.703 SF	
EXIST VERT PATRIOT #B16-25 - Wellbore #1 - Design #	8,584.3	6,629.0	1,783.9	1,602.4	9.826 CC	
EXIST VERT PATRIOT #B16-25 - Wellbore #1 - Design #	8,600.0	6,628.8	1,784.0	1,602.1	9.810 ES	
EXIST VERT PATRIOT #B16-25 - Wellbore #1 - Design #	8,900.0	6,626.1	1,811.6	1,624.0	9.653 SF	
EXIST VERT PATRIOT #B16-4 - Wellbore #1 - Wellbore	584.6	557.6	509.5	508.0	352.900 CC	
EXIST VERT PATRIOT #B16-4 - Wellbore #1 - Wellbore	1,500.0	1,469.0	511.0	507.1	130.272 ES	
EXIST VERT PATRIOT #B16-4 - Wellbore #1 - Wellbore	8,500.0	6,552.1	1,659.1	1,609.7	33.593 SF	
EXIST VERT PATRIOT #B16-5 - Wellbore #1 - Wellbore	7,785.9	6,627.2	94.8	57.4	2.533 CC	
EXIST VERT PATRIOT #B16-5 - Wellbore #1 - Wellbore	7,800.0	6,627.3	95.9	56.9	2.458 ES, SF	
EXIST VERT PATRIOT #B16-6 - Wellbore #1 - Wellbore	9,253.7	6,607.1	108.2	39.4	1.572 CC, ES, SF	
EXIST VERT PATRIOT #B16-7 - Wellbore #1 - Wellbore	10,418.8	6,593.4	164.9	66.1	1.669 CC, ES, SF	
EXIST VERT PATRIOT #B16-8 - Wellbore #1 - Wellbore	11,755.4	6,567.1	181.5	46.1	1.341 Level 3, CC, ES, SF	
WATERMELON 10N - ORIGINAL WELLBORE - PROPO	1,000.0	1,000.0	30.0	25.8	7.122 CC	
WATERMELON 10N - ORIGINAL WELLBORE - PROPO	17,447.3	17,638.7	513.0	-69.6	0.880 Level 1, ES, SF	
WATERMELON 1N - ORIGINAL WELLBORE - PROPOS	300.0	300.0	104.9	103.8	97.858 CC, ES	
WATERMELON 1N - ORIGINAL WELLBORE - PROPOS	17,100.0	16,962.6	1,874.8	1,313.4	3.339 SF	
WATERMELON 2N - ORIGINAL WELLBORE - PROPOS	400.0	400.0	90.0	88.5	59.143 CC, ES	
WATERMELON 2N - ORIGINAL WELLBORE - PROPOS	17,447.3	17,230.2	1,541.1	959.4	2.649 SF	
WATERMELON 3N - ORIGINAL WELLBORE - PROPOS	500.0	500.0	74.9	73.0	38.019 CC, ES	
WATERMELON 3N - ORIGINAL WELLBORE - PROPOS	17,447.3	17,294.2	1,286.1	705.1	2.214 SF	

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

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well WATERMELON 8N - Slot WATERMELON 8N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Reference Site:</b>	NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)	<b>MD Reference:</b>	KB 23' @ 4633.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	WATERMELON 8N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
NW NW SEC. 16 T5N R64W 6th P.M. (WATERMELON)						
WATERMELON 4N - ORIGINAL WELLBORE - PROPOS	600.0	600.0	60.0	57.5	24.769	CC, ES
WATERMELON 4N - ORIGINAL WELLBORE - PROPOS	17,447.3	17,237.2	1,028.0	446.0	1.766	SF
WATERMELON 5N - ORIGINAL WELLBORE - PROPOS	700.0	700.0	44.9	42.0	15.632	CC, ES
WATERMELON 5N - ORIGINAL WELLBORE - PROPOS	17,417.3	17,340.6	773.6	194.0	1.335	Level 3, SF
WATERMELON 6N - ORIGINAL WELLBORE - PROPOS	800.0	800.0	30.0	26.7	9.035	CC
WATERMELON 6N - ORIGINAL WELLBORE - PROPOS	17,447.3	17,308.4	513.3	-69.2	0.881	Level 1, ES, SF
WATERMELON 7N - ORIGINAL WELLBORE - PROPOS	900.0	900.0	15.0	11.2	3.977	CC
WATERMELON 7N - ORIGINAL WELLBORE - PROPOS	17,436.8	17,454.3	267.7	-294.7	0.476	Level 1, ES, SF
WATERMELON 9N - ORIGINAL WELLBORE - PROPOS	1,000.0	1,000.0	15.1	10.9	3.573	CC
WATERMELON 9N - ORIGINAL WELLBORE - PROPOS	17,447.3	17,602.1	270.7	-284.2	0.488	Level 1, ES, SF