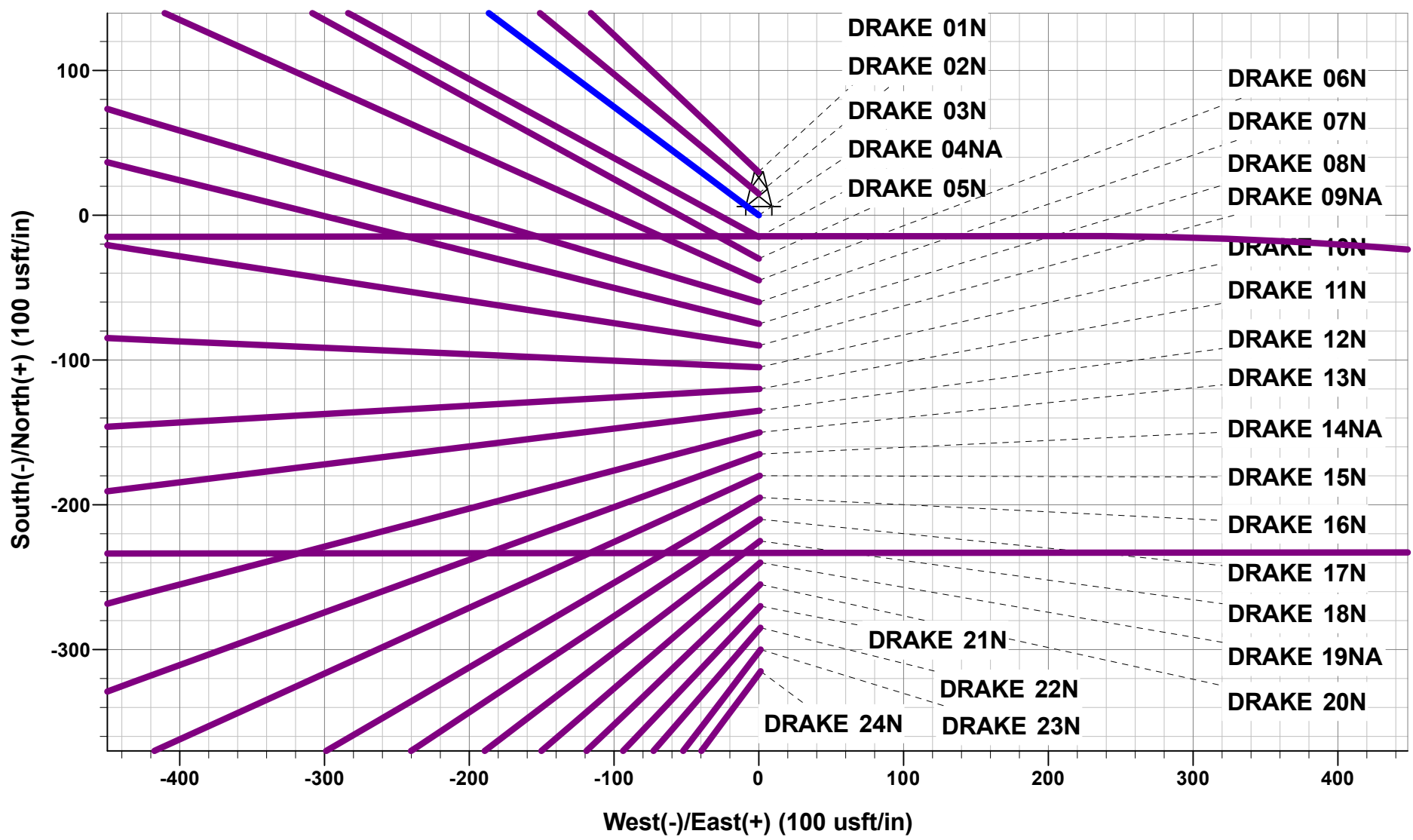




Project: WELD COUNTY, COLORADO (TRUE)  
Site: SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)  
Well: DRAKE 03N  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #1

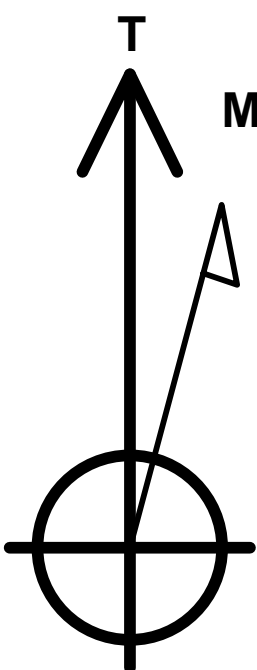
ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Dep	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 2086ft FNL & 1016ft FWL of Sec 17
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	START NUDGE (2.5°/100ft BUR)
1716.31	30.41	306.85	1660.01	189.06	-252.27	-218.42	315.25	EOB TO 30.41° INC
5467.04	30.41	306.85	4894.81	1327.53	-1771.46	-1533.76	2213.69	END OF TANGENT
6683.35	0.00	0.00	6054.82	1516.59	-2023.73	-1752.18	2528.94	EOD TO VERTICAL
6783.35	0.00	0.00	6154.82	1516.59	-2023.73	-1752.18	2528.94	KOP (8°/100ft BUR)
7720.85	75.00	89.96	6846.61	1516.96	-1492.90	-1228.26	3059.77	EP: 558ft FNL & 450ft FEL of Sec 18
7912.97	90.37	89.96	6871.00	1517.09	-1302.91	-1040.75	3249.76	HZ LANDING POINT
9085.08	90.37	89.96	6863.43	1517.89	-130.83	116.07	4421.84	END OF TANGENT
9571.10	90.37	80.24	6860.27	1559.35	352.83	600.07	4907.85	EOT TO 80.24° AZ
9671.10	90.37	80.24	6859.62	1576.30	451.38	700.07	5007.85	END OF TANGENT
10157.09	90.37	89.96	6856.45	1617.77	935.00	1184.04	5493.83	EOT TO 89.96° AZ
12707.09	90.37	89.96	6839.94	1619.55	3484.95	3700.78	8043.78	END OF TANGENT
13195.08	90.38	99.72	6836.73	1578.42	3970.60	4173.42	8531.75	EOT TO 99.72° AZ
13295.08	90.38	99.72	6836.07	1561.54	4069.16	4267.96	8631.75	END OF TANGENT
13783.06	90.38	89.96	6832.82	1520.42	4554.81	4740.59	9119.73	EOT TO 89.96° AZ
18537.06	90.38	89.96	6801.10	1523.73	9308.70	9432.58	13873.62	BHL: 557ft FNL & 200ft FEL of Sec 16



PROPOSED LOCAL COORDINATES:

SHL: 2086ft FNL & 1016ft FWL of Sec 17  
EP: 558ft FNL & 450ft FEL of Sec 18  
BHL: 558ft FNL & 200ft FEL of Sec 16

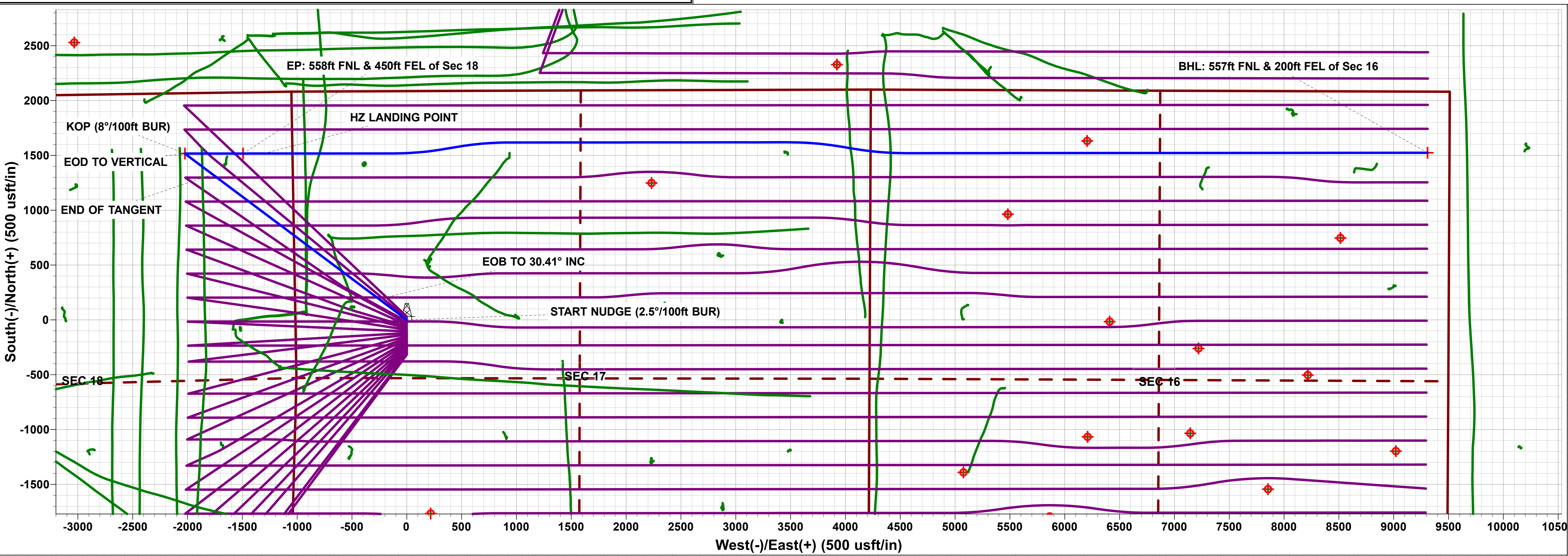
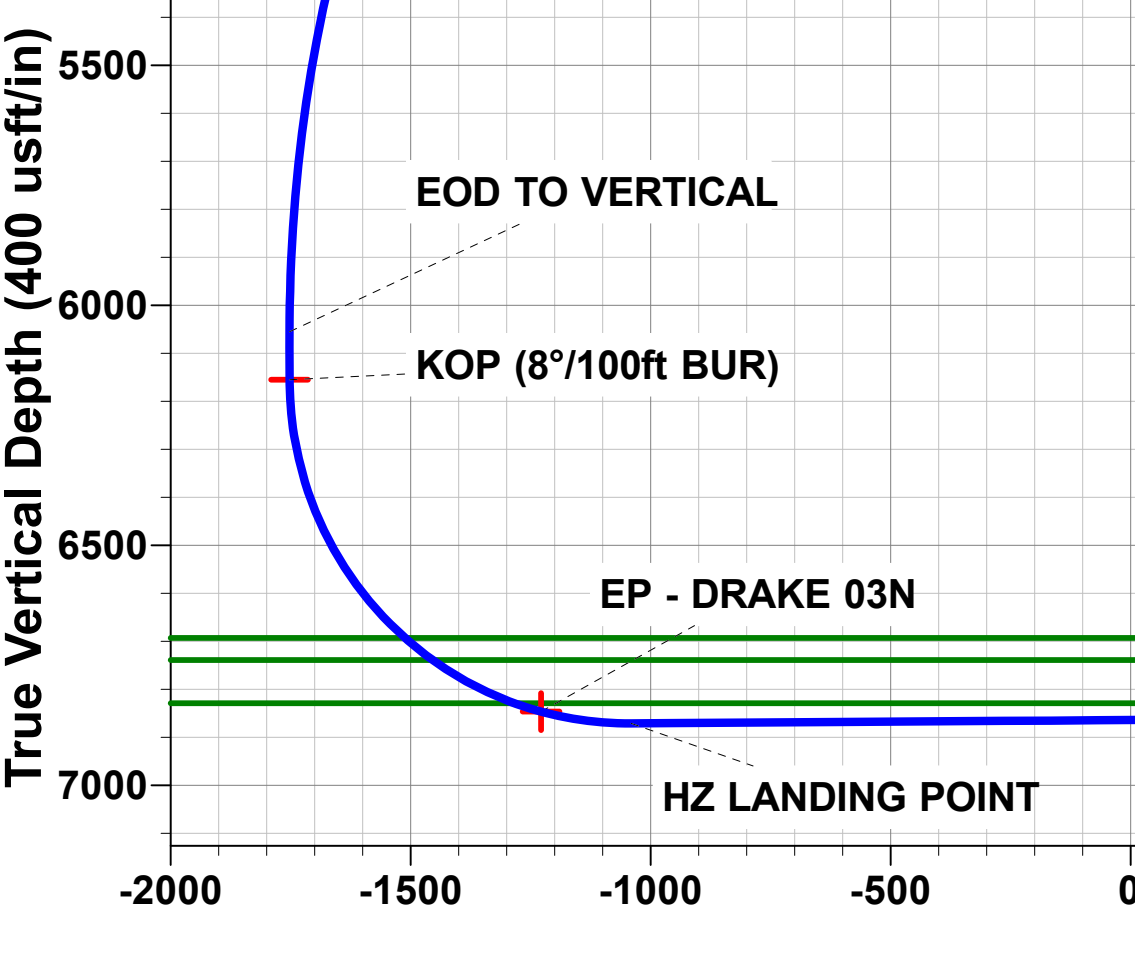
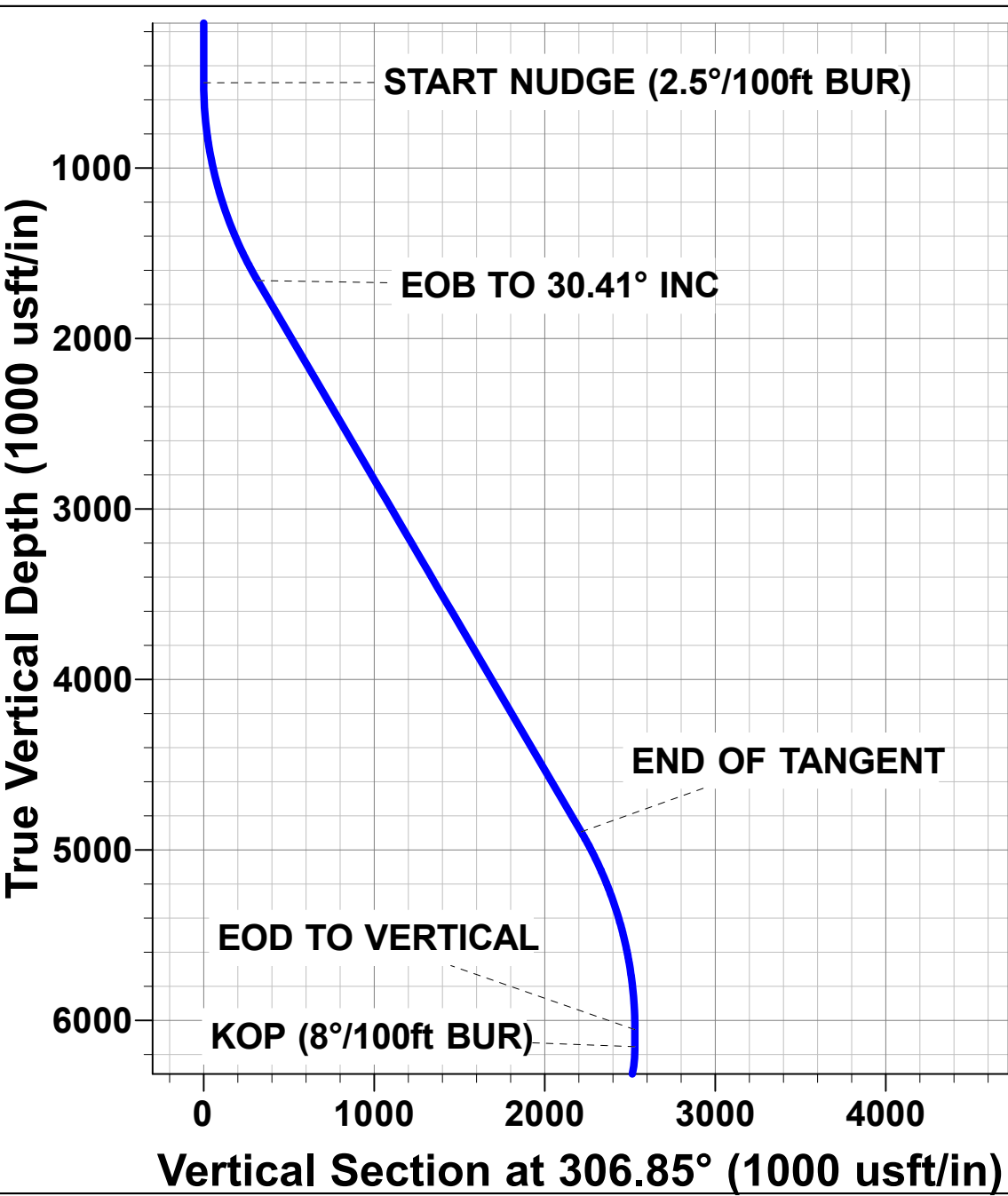


Azimuths to True North  
Magnetic North: 7.75°

Magnetic Field  
Strength: 51935.9nT  
Dip Angle: 66.61°  
Date: 2021-05-21  
Model: IGRF2020

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL - DRAKE 03N	6801.00	1523.62	9308.69	1360148.30	3265777.50	40.318087	-104.546851
EP - DRAKE 03N	6846.61	1516.96	-1492.90	1360029.61	3254977.02	40.318073	-104.585586
KOP - DRAKE 03N	6154.82	1516.59	-2023.73	1360023.74	3254446.24	40.318072	-104.587490



# **PDC ENERGY**

**WELD COUNTY, COLORADO (TRUE)  
SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)  
DRAKE 03N**

**ORIGINAL WELLBORE  
PROPOSAL #1**

## **Anticollision Report**

**26 May, 2021**

# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well DRAKE 03N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23ft @ 4761.00usft
<b>Reference Site:</b>	SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)	<b>MD Reference:</b>	KB 23ft @ 4761.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DRAKE 03N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<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>	MD + Stations Interval 98.43usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum centre distance of 9,999.98usft	<b>Error Surface:</b>	Ellipsoid Separation
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	2021-05-26		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	18,536.77	PROPOSAL #1 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SW NE SEC. 21 T4N R64W 6th P.M. (GEORGE)						
GEORGE 01N - ORIGINAL WELLBORE - PROPOSAL #	8,334.59	18,121.45	4,830.22	4,487.52	14.095	CC
GEORGE 01N - ORIGINAL WELLBORE - PROPOSAL #	18,011.78	8,529.86	4,832.85	4,476.25	13.552	ES
GEORGE 01N - ORIGINAL WELLBORE - PROPOSAL #	18,537.06	7,936.77	4,847.41	4,478.69	13.147	SF
GEORGE 02N - ORIGINAL WELLBORE - PROPOSAL #	8,334.18	18,011.63	5,049.67	4,706.31	14.707	CC
GEORGE 02N - ORIGINAL WELLBORE - PROPOSAL #	18,537.06	7,845.90	5,052.26	4,683.47	13.700	ES, SF
SW NE SEC. 8 T4N R64W 6th P.M. (HEN)						
ABDN DD ALTER C 16-28D - Wellbore #1 - Wellbore #1	15,978.90	7,193.70	566.22	286.70	2.026	CC, ES, SF
ABDN DD ALTER C 16-29D - ORIGINAL WELLBORE - W	14,833.34	6,895.39	505.34	278.17	2.225	CC, ES, SF
ABDN DD ALTER C 16-29D - SIDETRACK - SIDETRAC	14,543.07	6,798.04	768.42	552.91	3.566	CC
ABDN DD ALTER C 16-29D - SIDETRACK - SIDETRAC	14,566.90	6,798.62	768.79	552.83	3.560	ES, SF
ABDN HZ FRANKLIN C08-62HNX - ORIGINAL WELLBO	10,096.00	8,570.24	1,036.79	893.82	7.252	CC
ABDN HZ FRANKLIN C08-62HNX - ORIGINAL WELLBO	12,300.00	10,756.00	1,087.88	828.64	4.197	ES
ABDN HZ FRANKLIN C08-62HNX - ORIGINAL WELLBO	12,303.13	10,756.00	1,088.00	828.71	4.196	SF
ABDN HZ FRANKLIN C08-62HNX - SIDETRACK - SIDE	9,899.74	8,335.03	1,019.99	890.21	7.859	CC
ABDN HZ FRANKLIN C08-62HNX - SIDETRACK - SIDE	11,318.88	9,815.42	1,091.23	884.70	5.284	ES
ABDN HZ FRANKLIN C08-62HNX - SIDETRACK - SIDE	12,401.55	10,774.13	1,197.57	938.09	4.615	SF
ABDN VERT RYANN STATE C 16-27 - Wellbore #1 - We	17,324.68	6,718.92	352.21	73.40	1.263	Level 3, CC, ES, SF
ABDN VERT STATE 16-214 - Wellbore #1 - Wellbore #1	16,483.63	6,742.11	329.79	73.89	1.289	Level 3, CC, ES, SF
EXIST DD NGL C1C - Wellbore #1 - Wellbore #1	13,465.40	6,784.76	1,063.19	884.75	5.958	CC
EXIST DD NGL C1C - Wellbore #1 - Wellbore #1	13,484.23	6,785.48	1,063.41	884.64	5.949	ES
EXIST DD NGL C1C - Wellbore #1 - Wellbore #1	13,500.00	6,786.04	1,063.95	884.93	5.943	SF
EXIST HZ FRANKLIN C17-69HN - Wellbore #1 - Wellbor	11,045.97	9,560.88	545.38	353.39	2.841	CC
EXIST HZ FRANKLIN C17-69HN - Wellbore #1 - Wellbor	12,303.13	10,818.06	555.28	295.52	2.138	ES, SF
EXIST HZ JAGGED 11N - Wellbore #1 - Wellbore #1	7,400.00	10,199.86	930.95	798.98	7.055	SF
EXIST HZ JAGGED 11N - Wellbore #1 - Wellbore #1	10,182.30	7,414.00	863.26	756.52	8.087	CC
EXIST HZ JAGGED 11N - Wellbore #1 - Wellbore #1	10,236.20	7,378.93	863.75	756.17	8.029	ES
EXIST HZ JAGGED 12N - Wellbore #1 - Wellbore #1	7,400.00	10,137.84	696.26	564.26	5.275	SF
EXIST HZ JAGGED 12N - Wellbore #1 - Wellbore #1	10,067.72	7,527.07	617.51	512.77	5.896	CC
EXIST HZ JAGGED 12N - Wellbore #1 - Wellbore #1	10,100.00	7,510.00	617.97	512.73	5.872	ES
EXIST HZ MARK ALTER C16-79HN - Wellbore #1 - Well	13,641.27	7,592.88	42.50	-21.31	0.666	Level 3, CC, ES, SF
EXIST HZ SANDY HILLS PC C17-67HN - Wellbore #1 -	2,362.20	2,255.62	87.83	70.42	5.043	ES
EXIST HZ SANDY HILLS PC C17-67HN - Wellbore #1 -	2,370.64	2,263.54	87.79	70.42	5.054	CC
EXIST HZ SANDY HILLS PC C17-67HN - Wellbore #1 -	12,900.00	11,004.00	781.74	507.69	2.853	SF
EXIST HZ STOCKLEY C15-79HN - Wellbore #1 - Wellbo	18,537.06	10,753.34	368.04	253.97	3.226	CC, ES, SF
EXIST VERT CPC HARLESS 17-1 - Wellbore #1 - Wellb	12,697.70	6,796.89	100.22	-49.99	0.667	Level 3, CC, ES, 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 DRAKE 03N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23ft @ 4761.00usft
<b>Reference Site:</b>	SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)	<b>MD Reference:</b>	KB 23ft @ 4761.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DRAKE 03N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #1	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SW NE SEC. 8 T4N R64W 6th P.M. (HEN)						
EXIST VERT HARLESS PM C 17-2 - Wellbore #1 - Desi	11,453.97	6,825.15	370.20	116.26	1.458	Level 3, CC, ES, SF
EXIST VERT NGL C1A - Wellbore #1 - Design #1	13,056.71	6,795.65	735.05	440.51	2.496	CC
EXIST VERT NGL C1A - Wellbore #1 - Design #1	13,090.53	6,795.42	736.02	439.66	2.484	ES
EXIST VERT NGL C1A - Wellbore #1 - Design #1	13,100.00	6,795.36	736.65	439.85	2.482	SF
EXIST VERT ROHR 15-414 - Wellbore #1 - Wellbore #1	18,537.06	6,693.94	885.19	846.83	23.077	CC, ES, SF
EXIST VERT ROHR C 15-19 - Wellbore #1 - Wellbore #1	18,537.06	6,697.96	1,581.95	1,459.80	12.950	CC, ES, SF
EXIST VERT RYANN STATE C 16-1 - Wellbore #1 - Wel	17,868.98	6,709.92	169.54	-117.84	0.590	Level 3, CC, ES, SF
EXIST VERT STATE 16-314 - Wellbore #1 - Design #1	15,432.80	6,752.07	110.10	-246.34	0.309	Level 3, CC, ES, SF
EXIST VERT STATE 16-414 - Wellbore #1 - Design #1	14,709.09	6,764.38	557.70	217.26	1.638	CC, ES, SF
HEN 21N - ORIGINAL WELLBORE - PROPOSAL #1	12,713.94	9,534.82	809.43	601.13	3.886	CC
HEN 21N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	15,352.57	916.98	389.52	1.738	ES, SF
HEN 22N - ORIGINAL WELLBORE - PROPOSAL #1	12,713.74	9,574.06	635.58	429.75	3.088	CC
HEN 22N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	15,392.94	682.03	165.66	1.321	Level 3, ES, SF

# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well DRAKE 03N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23ft @ 4761.00usft
<b>Reference Site:</b>	SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)	<b>MD Reference:</b>	KB 23ft @ 4761.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DRAKE 03N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #1	<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
SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)						
ABDN DD SH C17-24D - Wellbore #1 - Wellbore #1	98.43	76.49	1,468.85	1,468.68	8,616.460	CC
ABDN DD SH C17-24D - Wellbore #1 - Wellbore #1	400.00	374.44	1,469.42	1,468.24	1,244.946	ES
ABDN DD SH C17-24D - Wellbore #1 - Wellbore #1	12,106.28	7,103.09	3,714.56	3,570.32	25.753	SF
ABDN DD STATE C 16-20D - Wellbore #1 - Wellbore #1	14,677.33	6,832.93	2,142.69	1,922.76	9.742	CC
ABDN DD STATE C 16-20D - Wellbore #1 - Wellbore #1	14,700.00	6,833.00	2,142.81	1,922.32	9.718	ES
ABDN DD STATE C 16-20D - Wellbore #1 - Wellbore #1	14,960.60	6,833.73	2,161.34	1,936.18	9.599	SF
ABDN HZ FRICK C #17-79HN - ORIGINAL WELLBORE	8,288.79	7,991.90	88.52	58.75	2.973	CC
ABDN HZ FRICK C #17-79HN - ORIGINAL WELLBORE	8,300.00	7,991.78	89.23	58.48	2.902	ES
ABDN HZ FRICK C #17-79HN - ORIGINAL WELLBORE	8,366.13	7,991.04	117.55	70.78	2.514	SF
ABDN HZ FRICK C #17-79HN - SIDETRACK - SIDETRA	8,419.50	8,018.04	16.02	-14.36	0.527	Level 3, CC, ES, SF
ABDN VERT ANGELA C17-25 - Wellbore #1 - Design #1	500.00	484.00	1,779.65	1,769.30	171.968	CC
ABDN VERT ANGELA C17-25 - Wellbore #1 - Design #1	590.55	574.53	1,780.89	1,768.51	143.835	ES
ABDN VERT ANGELA C17-25 - Wellbore #1 - Design #1	10,400.00	6,838.88	3,517.72	3,291.83	15.573	SF
ABDN VERT CHENOWETH 21-4 - Wellbore #1 - Wellbo	14,351.23	6,948.24	5,421.65	5,224.95	27.564	CC
ABDN VERT CHENOWETH 21-4 - Wellbore #1 - Wellbo	14,500.00	6,946.53	5,423.69	5,223.00	27.026	ES
ABDN VERT CHENOWETH 21-4 - Wellbore #1 - Wellbo	16,141.70	6,927.68	5,709.61	5,476.63	24.507	SF
ABDN VERT CHENOWETH #1 - Wellbore #1 - Design #1	15,375.25	6,790.19	5,677.23	5,317.86	15.797	CC
ABDN VERT CHENOWETH #1 - Wellbore #1 - Design #1	15,500.00	6,789.36	5,678.60	5,315.88	15.655	ES
ABDN VERT CHENOWETH #1 - Wellbore #1 - Design #1	16,732.25	6,781.14	5,837.15	5,448.16	15.006	SF
ABDN VERT CLEMONS 13-15 - Wellbore #1 - Wellbore	18,537.06	6,706.07	2,825.38	2,527.69	9.491	CC, ES, SF
ABDN VERT FRICK #32-18 - Wellbore #1 - Wellbore #1	6,007.71	5,400.00	1,856.29	1,802.70	34.639	CC
ABDN VERT FRICK #32-18 - Wellbore #1 - Wellbore #1	6,100.00	5,480.07	1,856.76	1,802.69	34.342	ES
ABDN VERT FRICK #32-18 - Wellbore #1 - Wellbore #1	6,791.33	6,168.80	1,867.48	1,811.80	33.542	SF
ABDN VERT FRICK C18-2 - Wellbore #1 - Wellbore #1	6,578.21	5,957.11	1,045.57	999.52	22.709	CC
ABDN VERT FRICK C18-2 - Wellbore #1 - Wellbore #1	6,594.48	5,972.89	1,045.60	999.52	22.689	ES
ABDN VERT FRICK C18-2 - Wellbore #1 - Wellbore #1	6,683.35	6,061.50	1,047.08	1,000.84	22.648	SF
ABDN VERT FRICK C18-8 - Wellbore #1 - Wellbore #1	3,445.47	3,154.50	966.85	939.81	35.750	CC
ABDN VERT FRICK C18-8 - Wellbore #1 - Wellbore #1	3,500.00	3,200.00	967.36	939.72	35.000	ES
ABDN VERT FRICK C18-8 - Wellbore #1 - Wellbore #1	8,366.13	6,863.24	1,743.01	1,686.91	31.072	SF
ABDN VERT HARLESS PM C17-8 - Wellbore #1 - Wellb	12,647.74	6,784.51	1,644.71	1,494.27	10.933	CC
ABDN VERT HARLESS PM C17-8 - Wellbore #1 - Wellb	12,696.83	6,784.52	1,645.45	1,493.79	10.850	ES
ABDN VERT HARLESS PM C17-8 - Wellbore #1 - Wellb	12,900.00	6,784.52	1,657.51	1,502.32	10.680	SF
ABDN VERT MARY MILLS #41-18 - Wellbore #1 - Wellb	7,557.99	6,814.36	53.42	15.37	1.404	Level 3, CC
ABDN VERT MARY MILLS #41-18 - Wellbore #1 - Wellb	7,578.73	6,823.94	56.52	7.46	1.152	Level 3, ES, SF
ABDN VERT OCOMA C17-10 - Wellbore #1 - Wellbore #	98.43	39.96	2,566.71	2,566.59	10,000.000	CC
ABDN VERT OCOMA C17-10 - Wellbore #1 - Wellbore #	295.28	229.39	2,567.14	2,566.36	3,310.632	ES
ABDN VERT OCOMA C17-10 - Wellbore #1 - Wellbore #	12,303.13	6,817.54	3,024.18	2,888.37	22.268	SF
ABDN VERT OCOMA C17-11 - Wellbore #1 - Wellbore #	507.99	465.79	1,411.88	1,410.46	994.529	CC, ES
ABDN VERT OCOMA C17-11 - Wellbore #1 - Wellbore #	11,023.60	6,832.60	2,801.08	2,697.66	27.085	SF
ABDN VERT OCOMA C17-13 - Wellbore #1 - Design #1	500.00	490.00	2,605.45	2,595.04	250.282	CC
ABDN VERT OCOMA C17-13 - Wellbore #1 - Design #1	600.00	589.97	2,606.31	2,593.66	205.968	ES
ABDN VERT OCOMA C17-13 - Wellbore #1 - Design #1	9,500.00	6,850.73	4,177.56	3,969.55	20.083	SF
ABDN VERT OCOMA C17-16 - Wellbore #1 - Wellbore #	13,362.70	6,996.46	4,040.87	3,872.76	24.037	CC
ABDN VERT OCOMA C17-16 - Wellbore #1 - Wellbore #	13,400.00	6,997.14	4,041.29	3,872.41	23.930	ES
ABDN VERT OCOMA C17-16 - Wellbore #1 - Wellbore #	14,000.00	7,011.33	4,151.86	3,972.92	23.202	SF
ABDN VERT OCOMA C17-23 - Wellbore #1 - Wellbore #	12,100.51	6,863.63	3,294.99	3,158.64	24.165	CC
ABDN VERT OCOMA C17-23 - Wellbore #1 - Wellbore #	12,200.00	6,862.64	3,296.49	3,157.56	23.727	ES
ABDN VERT OCOMA C17-23 - Wellbore #1 - Wellbore #	13,300.00	6,850.20	3,449.56	3,291.40	21.809	SF
ABDN VERT OCOMA C17-9 - Wellbore #1 - Wellbore #1	12,697.80	6,783.44	2,814.45	2,662.76	18.554	CC
ABDN VERT OCOMA C17-9 - Wellbore #1 - Wellbore #1	13,200.00	6,777.58	2,816.84	2,654.30	17.330	ES
ABDN VERT OCOMA C17-9 - Wellbore #1 - Wellbore #1	13,500.00	6,774.00	2,842.41	2,675.93	17.074	SF
ABDN VERT OCOMA-UPRR C7-15 - Wellbore #1 - Desi	6,783.35	6,223.82	1,429.81	1,283.26	9.757	CC

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

# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well DRAKE 03N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23ft @ 4761.00usft
<b>Reference Site:</b>	SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)	<b>MD Reference:</b>	KB 23ft @ 4761.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DRAKE 03N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #1	<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
SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)						
ABDN VERT OCOMA-UPRR C7-15 - Wellbore #1 - Desi	6,800.00	6,240.47	1,429.94	1,283.05	9.734	ES
ABDN VERT OCOMA-UPRR C7-15 - Wellbore #1 - Desi	6,950.00	6,388.97	1,443.49	1,293.70	9.637	SF
ABDN VERT OCOMA-UPRR C7-16 - Wellbore #1 - Well	6,683.35	6,063.54	1,114.60	1,061.63	21.040	SF
ABDN VERT OCOMA-UPRR C7-16 - Wellbore #1 - Well	7,500.00	6,798.64	1,068.34	1,022.79	23.453	ES
ABDN VERT OCOMA-UPRR C7-16 - Wellbore #1 - Well	7,522.64	6,809.92	1,068.16	1,023.07	23.690	CC
ABDN VERT RITER C18-10 - Wellbore #1 - Wellbore #1	4,045.80	3,658.29	2,669.01	2,635.24	79.030	CC
ABDN VERT RITER C18-10 - Wellbore #1 - Wellbore #1	4,133.85	3,726.68	2,669.50	2,634.73	76.786	ES
ABDN VERT RITER C18-10 - Wellbore #1 - Wellbore #1	6,850.00	6,228.08	2,864.83	2,811.67	53.895	SF
ABDN VERT RITER C18-16 - Wellbore #1 - Wellbore #1	394.00	400.00	3,007.21	3,006.10	2,709.165	CC
ABDN VERT RITER C18-16 - Wellbore #1 - Wellbore #1	492.13	482.25	3,007.45	3,006.08	2,199.124	ES
ABDN VERT RITER C18-16 - Wellbore #1 - Wellbore #1	10,800.00	6,912.18	5,218.59	5,132.31	60.486	SF
ABDN VERT RYANN STATE C16-22 - Wellbore #1 - Des	17,443.45	6,728.39	2,025.55	1,610.19	4.877	CC
ABDN VERT RYANN STATE C16-22 - Wellbore #1 - Des	17,500.00	6,728.02	2,026.34	1,609.61	4.863	ES
ABDN VERT RYANN STATE C16-22 - Wellbore #1 - Des	17,600.00	6,727.35	2,031.59	1,613.06	4.854	SF
ABDN VERT RYANN STATE C16-24 - Wellbore #1 - We	16,222.04	6,763.68	3,339.63	3,091.27	13.447	CC
ABDN VERT RYANN STATE C16-24 - Wellbore #1 - We	16,300.00	6,762.79	3,340.54	3,090.14	13.341	ES
ABDN VERT RYANN STATE C16-24 - Wellbore #1 - We	16,800.00	6,757.12	3,389.26	3,129.36	13.041	SF
ABDN VERT SANDY HILLS FARM C17-4 - Wellbore #1	8,822.58	6,865.16	90.17	35.02	1.635	CC, ES
ABDN VERT SANDY HILLS FARM C17-4 - Wellbore #1	8,858.25	6,866.21	96.97	35.47	1.577	SF
ABDN VERT SCHNEIDER #43-18 - Wellbore #1 - Wellbo	2,318.34	2,176.75	1,938.81	1,924.49	135.388	CC
ABDN VERT SCHNEIDER #43-18 - Wellbore #1 - Wellbo	2,460.63	2,314.03	1,939.82	1,923.92	121.978	ES
ABDN VERT SCHNEIDER #43-18 - Wellbore #1 - Wellbo	9,000.00	6,894.96	3,024.56	2,961.59	48.033	SF
ABDN VERT SCHNEIDER/DIC/COLTON #34-18 - Wellb	2,872.46	2,708.13	3,898.32	3,824.55	52.840	CC
ABDN VERT SCHNEIDER/DIC/COLTON #34-18 - Wellb	3,300.00	3,076.86	3,904.33	3,818.47	45.476	ES
ABDN VERT SCHNEIDER/DIC/COLTON #34-18 - Wellb	7,550.00	6,834.22	4,331.39	4,144.00	23.114	SF
ABDN VERT STATE 16-1214 - Wellbore #1 - Design #1	14,302.73	6,766.35	2,911.65	2,582.21	8.838	CC
ABDN VERT STATE 16-1214 - Wellbore #1 - Design #1	14,370.05	6,765.90	2,912.43	2,581.21	8.793	ES
ABDN VERT STATE 16-1214 - Wellbore #1 - Design #1	14,700.00	6,763.70	2,938.62	2,600.36	8.687	SF
ABDN VERT STATE 16-614 - Wellbore #1 - Design #1	15,636.75	6,747.45	1,537.74	1,172.06	4.205	CC
ABDN VERT STATE 16-614 - Wellbore #1 - Design #1	15,649.58	6,747.36	1,537.80	1,171.78	4.201	ES
ABDN VERT STATE 16-614 - Wellbore #1 - Design #1	15,748.00	6,746.71	1,541.76	1,173.82	4.190	SF
ABDN VERT STATE 16-714 - Wellbore #1 - Design #1	16,447.08	6,728.04	1,782.53	1,394.80	4.597	CC
ABDN VERT STATE 16-714 - Wellbore #1 - Design #1	16,500.00	6,727.69	1,783.32	1,394.31	4.584	ES
ABDN VERT STATE 16-714 - Wellbore #1 - Design #1	16,600.00	6,727.02	1,789.08	1,398.36	4.579	SF
ABDN VERT STATE 16-814 - Wellbore #1 - Wellbore #1	18,180.23	6,705.01	1,240.50	937.92	4.100	CC
ABDN VERT STATE 16-814 - Wellbore #1 - Wellbore #1	18,208.63	6,704.72	1,240.83	937.62	4.092	ES, SF
ABDN VERT STATE 16-914 - Wellbore #1 - Design #1	18,246.41	6,734.04	2,720.19	2,282.36	6.213	CC
ABDN VERT STATE 16-914 - Wellbore #1 - Design #1	18,307.05	6,733.63	2,720.87	2,281.51	6.193	ES
ABDN VERT STATE 16-914 - Wellbore #1 - Design #1	18,500.00	6,732.34	2,731.99	2,288.87	6.165	SF
ABDN VERT STATE A 14-16 - Wellbore #1 - Design #1	14,450.66	4,414.00	4,418.68	4,176.94	18.279	CC
ABDN VERT STATE A 14-16 - Wellbore #1 - Design #1	14,566.90	4,414.00	4,420.21	4,175.76	18.083	ES
ABDN VERT STATE A 14-16 - Wellbore #1 - Design #1	15,551.15	4,414.00	4,553.66	4,290.72	17.318	SF
ABDN VERT STATE A 14-16X - Wellbore #1 - Wellbore #	14,450.17	6,761.33	3,785.67	3,586.14	18.973	CC
ABDN VERT STATE A 14-16X - Wellbore #1 - Wellbore #	14,566.90	6,760.74	3,787.47	3,584.85	18.692	ES
ABDN VERT STATE A 14-16X - Wellbore #1 - Wellbore #	15,354.30	6,756.79	3,892.14	3,674.30	17.867	SF
ABDN VERT UPRR 36 PAN AM B #1 - Wellbore #1 - De	500.00	493.00	2,555.81	2,545.27	242.453	CC
ABDN VERT UPRR 36 PAN AM B #1 - Wellbore #1 - De	600.00	592.97	2,556.84	2,544.06	199.985	ES
ABDN VERT UPRR 36 PAN AM B #1 - Wellbore #1 - De	10,300.00	6,848.53	4,393.38	4,170.56	19.718	SF
ABDN VERT UPRR OCOMA C17-12 - Wellbore #1 - We	211.95	189.95	1,364.42	1,363.90	2,653.567	CC
ABDN VERT UPRR OCOMA C17-12 - Wellbore #1 - We	300.00	277.12	1,364.45	1,363.66	1,721.084	ES
ABDN VERT UPRR OCOMA C17-12 - Wellbore #1 - We	9,940.93	6,869.95	3,033.09	2,954.57	38.628	SF
DRAKE 01N - ORIGINAL WELLBORE - PROPOSAL #1	296.00	297.00	30.00	28.94	28.393	CC

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

# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well DRAKE 03N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23ft @ 4761.00usft
<b>Reference Site:</b>	SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)	<b>MD Reference:</b>	KB 23ft @ 4761.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DRAKE 03N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #1	<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
SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)						
DRAKE 01N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,631.24	437.35	-167.34	0.723	Level 3, ES, SF
DRAKE 02N - ORIGINAL WELLBORE - PROPOSAL #1	400.00	400.00	14.98	13.46	9.843	CC
DRAKE 02N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,517.02	232.83	-137.46	0.629	Level 3, ES, SF
DRAKE 04NA - ORIGINAL WELLBORE - PROPOSAL #1	500.00	500.00	14.97	13.00	7.596	CC
DRAKE 04NA - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,377.70	296.78	-53.72	0.847	Level 3, ES, SF
DRAKE 05N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	499.00	29.98	28.01	15.226	CC
DRAKE 05N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,361.97	443.78	-69.64	0.864	Level 3, ES, SF
DRAKE 06N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	499.00	44.92	42.95	22.814	CC
DRAKE 06N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,392.23	656.11	35.65	1.057	Level 3, ES, SF
DRAKE 07N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	498.00	59.96	57.99	30.488	CC, ES
DRAKE 07N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,294.20	877.99	263.35	1.428	Level 3, SF
DRAKE 08N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	498.00	74.97	73.00	38.120	CC, ES
DRAKE 08N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,352.08	1,093.58	472.53	1.761	SF
DRAKE 09NA - ORIGINAL WELLBORE - PROPOSAL #1	500.00	497.00	89.94	87.98	45.786	CC, ES
DRAKE 09NA - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,207.35	1,318.56	702.11	2.139	SF
DRAKE 10N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	497.00	104.92	102.95	53.408	CC, ES
DRAKE 10N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,252.80	1,533.19	913.21	2.473	SF
DRAKE 11N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	497.00	119.96	118.00	61.067	CC, ES
DRAKE 11N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,346.24	1,749.59	1,126.67	2.809	SF
DRAKE 12N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	496.00	134.94	132.97	68.767	CC, ES
DRAKE 12N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,278.62	1,970.06	1,348.98	3.172	SF
DRAKE 13N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	496.00	149.95	147.98	76.417	CC, ES
DRAKE 13N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,359.72	2,186.97	1,565.95	3.522	SF
DRAKE 14NA - ORIGINAL WELLBORE - PROPOSAL #1	500.00	496.00	164.96	162.99	84.066	CC, ES
DRAKE 14NA - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,279.88	2,408.57	1,788.64	3.885	SF
DRAKE 15N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	496.00	179.89	177.93	91.678	CC, ES
DRAKE 15N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,367.16	2,625.50	2,006.33	4.240	SF
DRAKE 16N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	496.00	194.94	192.98	99.346	CC, ES
DRAKE 16N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,470.78	2,843.00	2,223.27	4.587	SF
DRAKE 17N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	496.00	209.95	207.99	106.995	CC, ES
DRAKE 17N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,266.16	3,056.15	2,444.54	4.997	SF
DRAKE 18N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	495.00	224.92	222.96	114.758	CC, ES
DRAKE 18N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,584.07	3,280.34	2,661.56	5.301	SF
DRAKE 19NA - ORIGINAL WELLBORE - PROPOSAL #1	500.00	495.00	239.89	237.93	122.397	CC, ES
DRAKE 19NA - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,523.56	3,499.05	2,880.28	5.655	SF
DRAKE 20N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	495.00	254.90	252.94	130.055	CC, ES
DRAKE 20N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,629.88	3,718.39	3,099.57	6.009	SF
DRAKE 21N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	496.00	269.95	267.99	137.576	CC, ES
DRAKE 21N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,755.39	3,936.43	3,318.35	6.369	SF
DRAKE 22N - ORIGINAL WELLBORE - PROPOSAL #1	500.00	496.00	284.89	282.92	145.186	CC, ES
DRAKE 22N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,786.52	4,155.63	3,538.27	6.731	SF
DRAKE 23N - ORIGINAL WELLBORE - PROPOSAL #1	400.00	395.00	299.93	298.42	198.574	CC, ES
DRAKE 23N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,757.30	4,373.79	3,759.21	7.117	SF
DRAKE 24N - ORIGINAL WELLBORE - PROPOSAL #1	300.00	295.00	314.94	313.88	296.864	CC, ES
DRAKE 24N - ORIGINAL WELLBORE - PROPOSAL #1	18,537.06	18,931.07	4,517.66	3,900.66	7.322	SF
EXIST DD CRICKET C22-30D - Wellbore #1 - Wellbore #1	18,537.06	6,811.79	4,798.29	4,470.37	14.633	CC, ES, SF
EXIST DD FRANKLIN #C18-27D - Wellbore #1 - Wellbore #1	6,644.83	6,201.63	586.13	538.98	12.432	CC, ES
EXIST DD FRANKLIN #C18-27D - Wellbore #1 - Wellbore #1	6,791.33	6,344.52	588.60	541.14	12.402	SF
EXIST DD NEI C17-33D - Wellbore #1 - Wellbore #1	4,258.94	4,610.69	2,791.62	2,723.58	41.028	CC
EXIST DD NEI C17-33D - Wellbore #1 - Wellbore #1	4,330.70	4,657.04	2,792.25	2,723.04	40.344	ES
EXIST DD NEI C17-33D - Wellbore #1 - Wellbore #1	9,251.95	7,583.47	3,653.73	3,529.24	29.349	SF
EXIST DD NEI C18-21D - Wellbore #1 - Wellbore #1	6,008.96	5,536.60	2,407.99	2,343.39	37.275	CC

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

# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well DRAKE 03N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23ft @ 4761.00usft
<b>Reference Site:</b>	SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)	<b>MD Reference:</b>	KB 23ft @ 4761.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DRAKE 03N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #1	<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
SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)						
EXIST DD NEI C18-21D - Wellbore #1 - Wellbore #1	6,808.06	6,382.95	2,408.74	2,340.55	35.322	ES
EXIST DD NEI C18-21D - Wellbore #1 - Wellbore #1	6,850.00	6,427.89	2,409.42	2,341.15	35.290	SF
EXIST DD NEI C18-22D - Wellbore #1 - Wellbore #1	5,058.36	5,120.12	1,895.28	1,825.87	27.306	CC
EXIST DD NEI C18-22D - Wellbore #1 - Wellbore #1	5,118.10	5,165.85	1,895.67	1,825.32	26.946	ES
EXIST DD NEI C18-22D - Wellbore #1 - Wellbore #1	5,905.50	5,703.04	1,967.02	1,888.66	25.104	SF
EXIST DD NEI C18-23D - Wellbore #1 - Wellbore #1	4,093.61	4,076.26	2,948.03	2,889.53	50.393	CC
EXIST DD NEI C18-23D - Wellbore #1 - Wellbore #1	4,133.85	4,094.51	2,948.23	2,889.12	49.873	ES
EXIST DD NEI C18-23D - Wellbore #1 - Wellbore #1	8,759.83	7,530.09	3,930.74	3,829.13	38.682	SF
EXIST DD NEI C18-24D - Wellbore #1 - Wellbore #1	4,339.51	3,827.40	3,347.67	3,297.98	67.368	CC
EXIST DD NEI C18-24D - Wellbore #1 - Wellbore #1	4,429.13	3,882.13	3,348.37	3,297.40	65.691	ES
EXIST DD NEI C18-24D - Wellbore #1 - Wellbore #1	6,889.75	6,522.22	3,582.23	3,507.94	48.222	SF
EXIST DD OSTER C19-27D - Wellbore #1 - Wellbore #1	3,635.40	3,400.00	3,323.35	3,290.56	101.362	CC
EXIST DD OSTER C19-27D - Wellbore #1 - Wellbore #1	3,700.00	3,434.37	3,323.66	3,290.07	98.941	ES
EXIST DD OSTER C19-27D - Wellbore #1 - Wellbore #1	11,200.00	7,340.95	6,356.16	6,254.19	62.332	SF
EXIST DD PLUSS C17-32D - Wellbore #1 - Wellbore #1	1,955.31	1,817.23	292.82	280.60	23.960	CC
EXIST DD PLUSS C17-32D - Wellbore #1 - Wellbore #1	1,968.50	1,828.00	292.94	280.51	23.566	ES
EXIST DD PLUSS C17-32D - Wellbore #1 - Wellbore #1	2,165.35	1,976.70	320.33	305.28	21.286	SF
EXIST DD SH FARMS C17-3 - Wellbore #1 - Wellbore #1	10,157.09	7,028.95	104.62	-0.24	0.998	Level 3, ES, SF
EXIST DD SH FARMS C17-3 - Wellbore #1 - Wellbore #1	10,158.65	7,028.93	104.61	-0.17	0.998	Level 3, CC
EXIST DD SH FARMS C17-6 - Wellbore #1 - Wellbore #1	1,543.94	1,545.95	515.12	506.60	60.466	CC, ES
EXIST DD SH FARMS C17-6 - Wellbore #1 - Wellbore #1	10,600.00	6,978.64	1,626.21	1,510.19	14.017	SF
EXIST HZ COLLINS 18Q-221 - Wellbore #1 - Wellbore #	7,015.23	11,434.09	1,355.19	1,245.55	12.361	CC, ES
EXIST HZ COLLINS 18Q-221 - Wellbore #1 - Wellbore #	7,150.00	11,432.25	1,374.37	1,261.14	12.137	SF
EXIST HZ COLLINS 18Q-301 - Wellbore #1 - Wellbore #	7,009.29	11,575.00	1,610.89	1,501.75	14.760	CC, ES
EXIST HZ COLLINS 18Q-301 - Wellbore #1 - Wellbore #	7,150.00	11,575.00	1,630.67	1,518.31	14.513	SF
EXIST HZ COLLINS 18T-201 - Wellbore #1 - Wellbore #	7,163.90	11,245.52	576.97	478.13	5.837	CC
EXIST HZ COLLINS 18T-201 - Wellbore #1 - Wellbore #	7,200.00	11,245.30	579.00	476.52	5.650	ES
EXIST HZ COLLINS 18T-201 - Wellbore #1 - Wellbore #	7,283.45	11,244.47	598.85	489.46	5.475	SF
EXIST HZ COLLINS 18T-221 - ORIGINAL WELLBORE -	574.84	615.76	3,538.43	3,536.24	1,622.185	CC
EXIST HZ COLLINS 18T-221 - ORIGINAL WELLBORE -	700.00	741.15	3,538.66	3,535.93	1,298.073	ES
EXIST HZ COLLINS 18T-221 - ORIGINAL WELLBORE -	10,400.00	7,227.00	5,097.75	5,004.46	54.643	SF
EXIST HZ COLLINS 18T-221 - SIDETRACK - SIDETRAC	7,405.64	11,171.38	151.48	87.95	2.384	CC
EXIST HZ COLLINS 18T-221 - SIDETRACK - SIDETRAC	7,450.00	11,171.17	159.15	77.84	1.957	ES
EXIST HZ COLLINS 18T-221 - SIDETRACK - SIDETRAC	7,500.00	11,170.78	183.61	82.34	1.813	SF
EXIST HZ COLLINS 18T-321 - Wellbore #1 - Wellbore #	7,318.39	11,420.32	322.42	243.18	4.069	CC
EXIST HZ COLLINS 18T-321 - Wellbore #1 - Wellbore #	7,381.88	11,417.92	331.34	238.12	3.554	ES
EXIST HZ COLLINS 18T-321 - Wellbore #1 - Wellbore #	7,450.00	11,415.47	359.14	254.23	3.423	SF
EXIST HZ COLLINS 18T-341 - Wellbore #1 - Wellbore #	7,123.14	11,329.25	833.04	729.12	8.016	CC
EXIST HZ COLLINS 18T-341 - Wellbore #1 - Wellbore #	7,150.00	11,328.83	833.98	728.32	7.893	ES
EXIST HZ COLLINS 18T-341 - Wellbore #1 - Wellbore #	7,250.00	11,326.80	853.61	742.47	7.681	SF
EXIST HZ FRICK PC C17-65HN - Wellbore #1 - Wellbor	2,996.36	2,846.52	1,044.14	1,015.10	35.952	CC
EXIST HZ FRICK PC C17-65HN - Wellbore #1 - Wellbor	3,051.18	2,893.99	1,044.69	1,014.89	35.048	ES
EXIST HZ FRICK PC C17-65HN - Wellbore #1 - Wellbor	13,300.00	11,373.00	2,294.16	1,990.95	7.566	SF
EXIST HZ STOCKLEY C22-79HN - Wellbore #1 - Wellbo	18,537.06	6,050.00	4,675.98	4,357.43	14.679	CC, ES, SF
EXIST VERT CHENOWETH #21-2 - Wellbore #1 - Desig	16,730.94	6,763.15	5,419.15	5,022.92	13.676	CC
EXIST VERT CHENOWETH #21-2 - Wellbore #1 - Desig	16,900.00	6,762.02	5,421.79	5,021.07	13.530	ES
EXIST VERT CHENOWETH #21-2 - Wellbore #1 - Desig	17,900.00	6,755.35	5,543.81	5,122.59	13.161	SF
EXIST VERT CLEMONS #15-1 - Wellbore #1 - Wellbore	18,537.06	6,691.06	4,208.85	3,902.66	13.746	CC, ES, SF
EXIST VERT CPC-HARLESS #17-2 - Wellbore #1 - Well	11,579.43	6,866.74	1,472.56	1,350.46	12.061	CC
EXIST VERT CPC-HARLESS #17-2 - Wellbore #1 - Well	11,614.15	6,865.10	1,472.97	1,349.97	11.976	ES
EXIST VERT CPC-HARLESS #17-2 - Wellbore #1 - Well	11,811.00	6,856.14	1,490.62	1,363.88	11.761	SF
EXIST VERT MORIAH #17-15 - Wellbore #1 - Wellbore #	12,059.88	6,788.26	1,032.40	897.69	7.664	CC

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



# Anticollision Report

<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well DRAKE 03N
<b>Project:</b>	WELD COUNTY, COLORADO (TRUE)	<b>TVD Reference:</b>	KB 23ft @ 4761.00usft
<b>Reference Site:</b>	SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)	<b>MD Reference:</b>	KB 23ft @ 4761.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DRAKE 03N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	Database 1
<b>Reference Design:</b>	PROPOSAL #1	<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
SW NW SEC. 17 T4N R64W 6th P.M. (DRAKE)						
EXIST VERT MORIAH #17-15 - Wellbore #1 - Wellbore #	12,100.00	6,789.10	1,033.18	897.50	7.615	ES
EXIST VERT MORIAH #17-15 - Wellbore #1 - Wellbore #	12,200.00	6,791.21	1,041.86	904.72	7.597	SF
EXIST VERT OCOMA C17-15 - Wellbore #1 - Wellbore #	492.82	440.82	3,456.51	3,455.22	2,684.307	CC
EXIST VERT OCOMA C17-15 - Wellbore #1 - Wellbore #	500.00	447.49	3,456.51	3,455.20	2,642.360	ES
EXIST VERT OCOMA C17-15 - Wellbore #1 - Wellbore #	13,400.00	6,987.47	4,674.71	4,520.24	30.263	SF
EXIST VERT RYANN STATE C16-21 - Wellbore #1 - Des	16,371.18	6,752.55	2,556.65	2,170.51	6.621	CC
EXIST VERT RYANN STATE C16-21 - Wellbore #1 - Des	16,436.98	6,752.11	2,557.50	2,169.68	6.595	ES
EXIST VERT RYANN STATE C16-21 - Wellbore #1 - Des	16,633.83	6,750.80	2,570.11	2,178.38	6.561	SF
EXIST VERT RYANN STATE C16-23 - Wellbore #1 - Des	17,761.16	6,735.27	3,434.07	3,009.73	8.093	CC
EXIST VERT RYANN STATE C16-23 - Wellbore #1 - Des	17,814.93	6,734.92	3,434.49	3,008.74	8.067	ES
EXIST VERT RYANN STATE C16-23 - Wellbore #1 - Des	18,200.00	6,732.35	3,461.99	3,028.45	7.985	SF
EXIST VERT RYANN STATE C16-25 - Wellbore #1 - Des	15,089.04	6,757.10	3,313.12	2,962.30	9.444	CC
EXIST VERT RYANN STATE C16-25 - Wellbore #1 - Des	15,157.45	6,756.65	3,313.83	2,961.19	9.397	ES
EXIST VERT RYANN STATE C16-25 - Wellbore #1 - Des	15,600.00	6,753.69	3,352.29	2,990.42	9.264	SF
EXIST VERT RYANN STATE C21-27 - Wellbore #1 - We	17,508.24	6,723.12	4,621.54	4,337.41	16.266	CC
EXIST VERT RYANN STATE C21-27 - Wellbore #1 - We	17,618.08	6,723.07	4,622.84	4,335.79	16.104	ES
EXIST VERT RYANN STATE C21-27 - Wellbore #1 - We	18,500.00	6,722.68	4,726.75	4,422.78	15.550	SF
EXIST VERT SANDY HILLS FARM C17-5 - Wellbore #1	1,989.97	1,876.63	192.33	181.26	17.379	CC
EXIST VERT SANDY HILLS FARM C17-5 - Wellbore #1	2,000.00	1,885.23	192.40	181.22	17.220	ES
EXIST VERT SANDY HILLS FARM C17-5 - Wellbore #1	2,066.93	1,942.29	196.38	184.64	16.736	SF
EXIST VERT SH FARMS C17-19 - Wellbore #1 - Wellbo	1,362.74	1,321.16	572.33	567.42	116.686	CC
EXIST VERT SH FARMS C17-19 - Wellbore #1 - Wellbo	1,377.95	1,334.74	572.36	567.35	114.221	ES
EXIST VERT SH FARMS C17-19 - Wellbore #1 - Wellbo	9,600.00	6,849.99	1,091.97	1,017.75	14.712	SF
EXIST VERT STATE 16-1014 - Wellbore #1 - Design #1	17,079.94	6,751.82	3,066.60	2,660.82	7.557	CC
EXIST VERT STATE 16-1014 - Wellbore #1 - Design #1	17,125.95	6,751.51	3,066.94	2,659.95	7.536	ES
EXIST VERT STATE 16-1014 - Wellbore #1 - Design #1	17,421.23	6,749.54	3,085.53	2,672.42	7.469	SF
EXIST VERT STATE 16-1114 - Wellbore #1 - Design #1	15,435.20	6,753.79	2,587.95	2,227.64	7.183	CC
EXIST VERT STATE 16-1114 - Wellbore #1 - Design #1	15,500.00	6,753.36	2,588.76	2,226.78	7.152	ES
EXIST VERT STATE 16-1114 - Wellbore #1 - Design #1	15,748.00	6,751.71	2,606.78	2,239.84	7.104	SF
EXIST VERT STATE 16-1414 - Wellbore #1 - Design #1	15,281.05	6,762.82	4,270.97	3,914.73	11.989	CC
EXIST VERT STATE 16-1414 - Wellbore #1 - Design #1	15,400.00	6,762.03	4,272.63	3,913.24	11.889	ES
EXIST VERT STATE 16-1414 - Wellbore #1 - Design #1	16,100.00	6,757.36	4,348.78	3,974.80	11.629	SF
EXIST VERT STATE 16-1514 - Wellbore #1 - Design #1	16,921.15	6,738.88	4,045.79	3,644.74	10.088	CC
EXIST VERT STATE 16-1514 - Wellbore #1 - Design #1	17,027.53	6,738.17	4,047.19	3,643.34	10.022	ES
EXIST VERT STATE 16-1514 - Wellbore #1 - Design #1	17,519.65	6,734.89	4,089.82	3,675.76	9.877	SF
EXIST VERT STATE 16-1614 - Wellbore #1 - Design #1	18,234.81	6,729.11	4,057.19	3,619.83	9.277	CC
EXIST VERT STATE 16-1614 - Wellbore #1 - Design #1	18,307.05	6,728.63	4,057.83	3,618.57	9.238	ES
EXIST VERT STATE 16-1614 - Wellbore #1 - Design #1	18,537.06	6,727.00	4,068.32	3,623.70	9.150	SF
EXIST VERT STATE 16-514 - Wellbore #1 - Wellbore #1	14,345.74	6,759.96	1,386.38	1,189.72	7.050	CC
EXIST VERT STATE 16-514 - Wellbore #1 - Wellbore #1	14,370.05	6,759.78	1,386.59	1,189.31	7.028	ES
EXIST VERT STATE 16-514 - Wellbore #1 - Wellbore #1	14,468.48	6,759.06	1,391.80	1,192.66	6.989	SF
EXIST VERT STATE A 41-16 - Wellbore #1 - Design #1	17,742.57	6,706.40	776.45	353.30	1.835	CC, ES, SF
EXIST VERT THOUTT #1 - Wellbore #1 - Wellbore #1	18,031.75	6,730.08	5,466.13	5,167.69	18.316	CC
EXIST VERT THOUTT #1 - Wellbore #1 - Wellbore #1	18,200.00	6,731.11	5,468.72	5,165.82	18.054	ES
EXIST VERT THOUTT #1 - Wellbore #1 - Wellbore #1	18,537.06	6,733.18	5,489.32	5,178.42	17.657	SF
EXIST VERT UPRR OCOMA C17-4 - Wellbore #1 - Desi	500.00	470.00	2,775.98	2,765.87	274.709	CC
EXIST VERT UPRR OCOMA C17-4 - Wellbore #1 - Desi	590.55	560.53	2,777.49	2,765.36	228.812	ES
EXIST VERT UPRR OCOMA C17-4 - Wellbore #1 - Desi	11,515.73	6,817.65	4,403.22	4,152.19	17.540	SF

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