



Project: WELD COUNTY, COLORADO  
Site: SW SE SEC. 26 T5N R65W 6th P.M.  
Well: BUNTING 26Q-214  
Wellbore: ORIGINAL WELLBORE  
Design: PROPOSAL #2

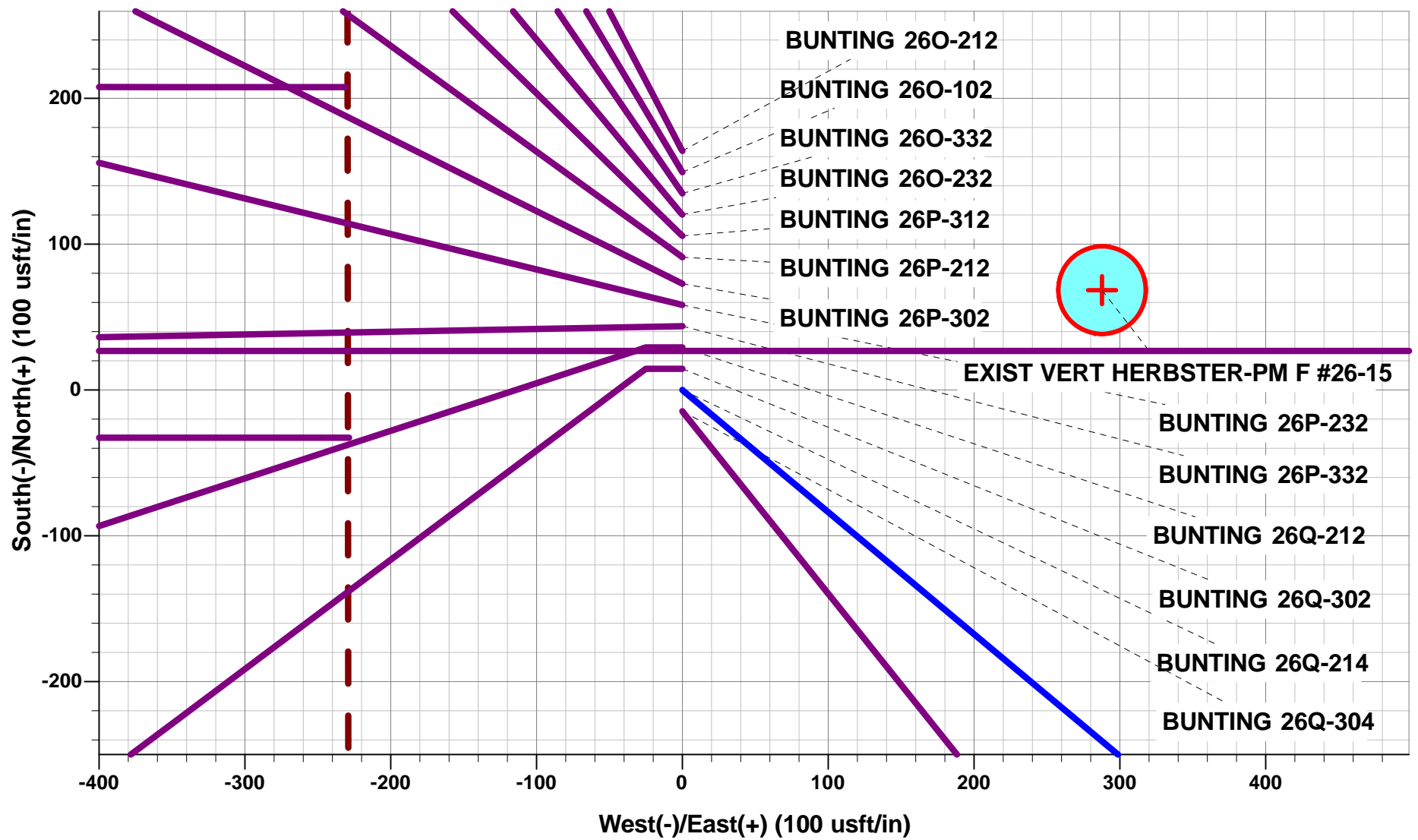


ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation
0.0	0.0	0.00	0.00	0.0	0.0	0.0	0.0	SHL: 745ft FSL & 2405ft FEL of Sec 26
400.0	400.0	0.00	0.00	0.0	0.0	0.0	0.0	START NUDGE (2°/100ft BUR)
995.5	999.9	12.00	129.93	-40.2	48.0	-45.9	62.6	EOB TO 12° INC
3254.3	3309.1	12.00	129.93	-348.3	416.1	-397.9	542.6	END OF TANGENT
3849.8	3909.0	0.00	0.00	-388.4	464.1	-443.8	605.2	EOD TO VERTICAL
6135.8	6195.0	0.00	0.00	-388.4	464.1	-443.8	605.2	KOP (8°/100ft BUR)
6852.0	7322.9	90.23	270.00	-388.4	-255.0	274.4	1324.3	HZ LP *NEW*: 354.6ft FSL & 2611ft FWL of Sec 26
6822.0	14714.7	90.23	270.00	-388.5	-7646.7	7656.6	8716.0	BHL: 335ft FSL & 500ft FWL of Sec 27

WELLBORE TARGET DETAILS (LAT/LONG)

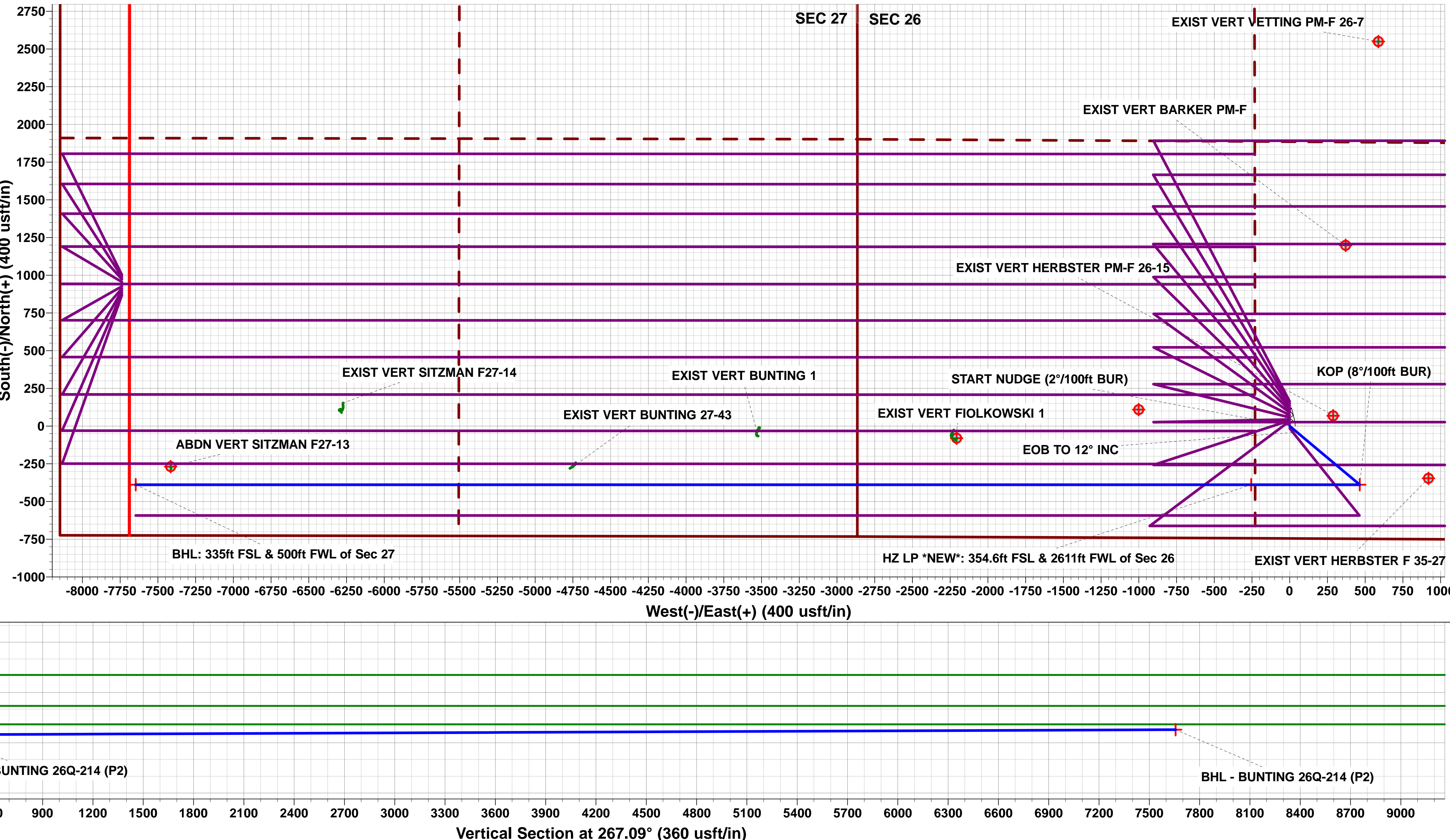
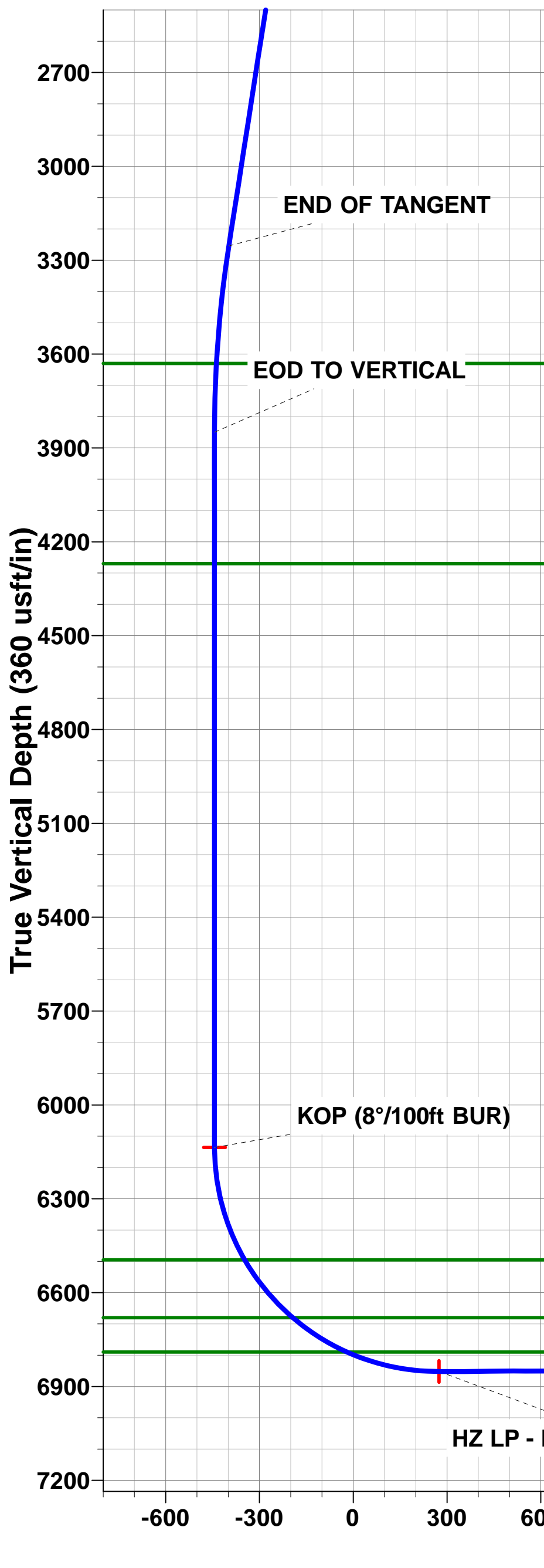
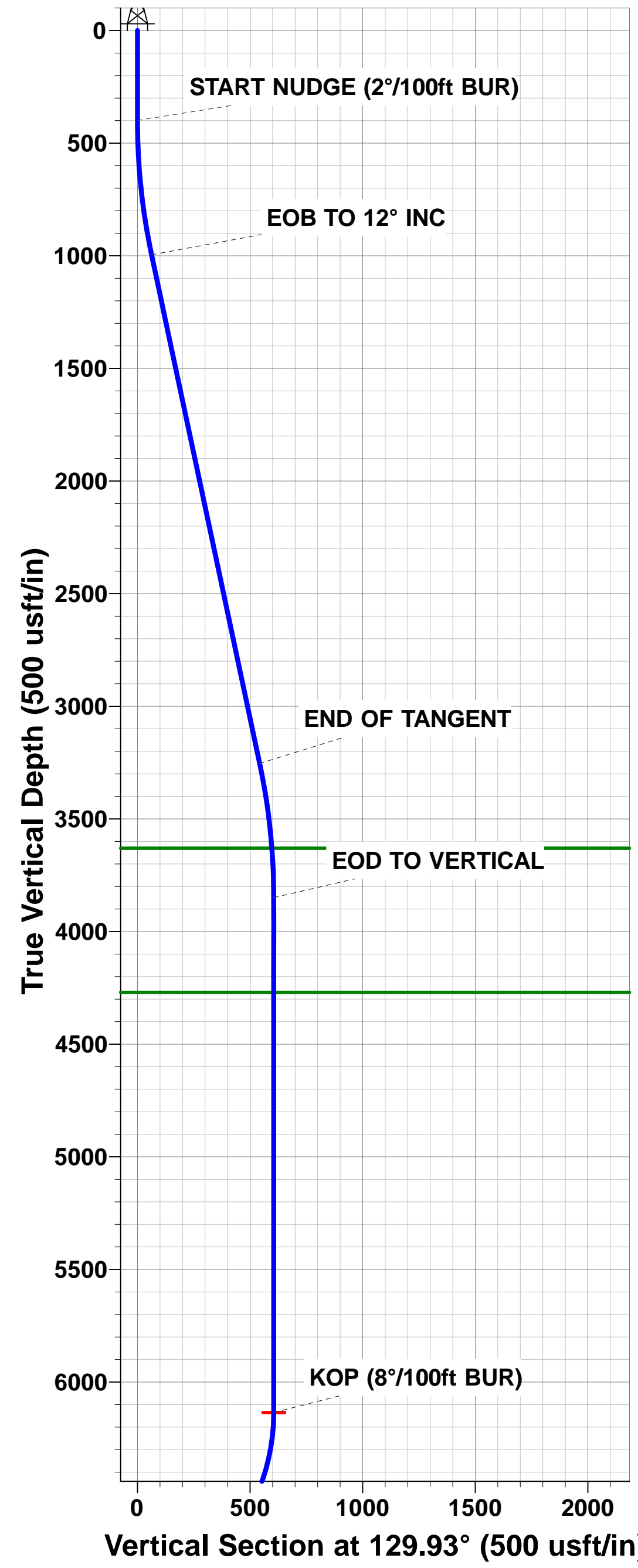
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
KOP - BUNTING 26Q-214 (P2)	6135.8	-388.4	464.1	40.363994	-104.627955
HZ LP - BUNTING 26Q-214 (P2)	6852.0	-388.4	-255.0	40.363994	-104.630535
BHL - BUNTING 26Q-214 (P2)	6822.0	-388.5	-7646.7	40.363990	-104.657060



PROPOSED LOCAL COORDINATES:  
SHL: 745ft FSL & 2405ft FEL of Sec 26  
HZ LP \*NEW\*: 354.6ft FSL & 2611ft FWL of Sec 26  
BHL: 335ft FSL & 500ft FWL of Sec 27

Azimuths to True North  
Magnetic North: 8.22°

Magnetic Field  
Strength: 52482.8snT  
Dip Angle: 66.87°  
Date: 23/08/2016  
Model: IGRF2015



# **PDC ENERGY**

**WELD COUNTY, COLORADO  
SW SE SEC. 26 T5N R65W 6th P.M.  
BUNTING 26Q-214**

**ORIGINAL WELLBORE  
PROPOSAL #2**

## **Anticollision Report**

**30 June, 2017**



## Anticollision Report



<b>Company:</b>	PDC ENERGY	<b>Local Co-ordinate Reference:</b>	Well BUNTING 26Q-214
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4672.0usft (Original Well Elev)
<b>Reference Site:</b>	SW SE SEC. 26 T5N R65W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4672.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	BUNTING 26Q-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

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

<b>Survey Tool Program</b>	<b>Date</b> 30/06/2017			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	14,714.7	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
NW SW SEC. 27 T5N R65W 6th P.M.						
ABDN VERT SITZMAN F27-13 - Wellbore #1 - Wellbore	14,497.1	2,700.0	4,108.4	4,047.3	67.243	CC
ABDN VERT SITZMAN F27-13 - Wellbore #1 - Wellbore	14,500.0	2,700.0	4,108.4	4,047.3	67.219	ES
ABDN VERT SITZMAN F27-13 - Wellbore #1 - Wellbore	14,714.7	2,700.0	4,114.2	4,051.5	65.626	SF
BOULTER FARMS 27G-202 - ORIGINAL WELLBORE -	7,298.0	14,544.9	2,192.1	1,954.4	9.221	CC
BOULTER FARMS 27G-202 - ORIGINAL WELLBORE -	14,714.7	7,128.3	2,194.1	1,953.3	9.112	ES, SF
BOULTER FARMS 27G-232 - ORIGINAL WELLBORE -	7,298.2	14,563.1	1,794.9	1,557.6	7.564	CC
BOULTER FARMS 27G-232 - ORIGINAL WELLBORE -	14,714.7	7,129.3	1,797.5	1,557.4	7.485	ES, SF
BOULTER FARMS 27G-332 - ORIGINAL WELLBORE -	7,299.9	14,613.0	1,991.6	1,753.7	8.374	CC
BOULTER FARMS 27G-332 - ORIGINAL WELLBORE -	7,300.0	14,613.0	1,991.6	1,753.7	8.374	ES
BOULTER FARMS 27G-332 - ORIGINAL WELLBORE -	14,714.7	7,166.3	1,995.1	1,755.0	8.309	SF
BOULTER FARMS 27H-202 - ORIGINAL WELLBORE -	10,211.8	11,617.1	845.0	613.7	3.654	CC
BOULTER FARMS 27H-202 - ORIGINAL WELLBORE -	14,714.7	7,108.1	846.3	606.6	3.531	ES, SF
BOULTER FARMS 27H-212 - ORIGINAL WELLBORE -	7,298.3	14,543.0	1,328.7	1,090.6	5.580	CC
BOULTER FARMS 27H-212 - ORIGINAL WELLBORE -	7,300.0	14,542.3	1,328.7	1,090.6	5.580	ES
BOULTER FARMS 27H-212 - ORIGINAL WELLBORE -	14,714.7	7,109.1	1,331.3	1,091.3	5.547	SF
BOULTER FARMS 27H-232 - ORIGINAL WELLBORE -	7,383.6	14,500.0	355.7	119.1	1.504	CC
BOULTER FARMS 27H-232 - ORIGINAL WELLBORE -	14,714.7	7,162.6	358.1	117.9	1.491	Level 3, ES, SF
BOULTER FARMS 27H-302 - ORIGINAL WELLBORE -	7,300.0	14,583.9	1,088.1	850.1	4.572	ES
BOULTER FARMS 27H-302 - ORIGINAL WELLBORE -	7,300.6	14,583.2	1,088.1	850.1	4.572	CC
BOULTER FARMS 27H-302 - ORIGINAL WELLBORE -	14,714.7	7,137.6	1,092.7	853.3	4.565	SF
BOULTER FARMS 27H-312 - ORIGINAL WELLBORE -	7,299.9	14,589.5	1,576.3	1,338.2	6.619	CC, ES
BOULTER FARMS 27H-312 - ORIGINAL WELLBORE -	14,714.7	7,140.7	1,580.4	1,340.6	6.591	SF
BOULTER FARMS 27H-332 - ORIGINAL WELLBORE -	7,299.1	14,619.8	596.1	358.7	2.510	CC, ES, SF
BOULTER FARMS 27I-312 - ORIGINAL WELLBORE - P	7,300.0	14,691.2	144.0	-83.8	0.632	Level 1, ES, SF
BOULTER FARMS 27I-312 - ORIGINAL WELLBORE - P	7,315.9	14,675.3	144.0	-83.7	0.632	Level 1, CC
EXIST VERT BUNTING 1 - Wellbore #1 - Wellbore #1	10,590.4	6,834.8	366.8	258.0	3.371	CC
EXIST VERT BUNTING 1 - Wellbore #1 - Wellbore #1	10,600.0	6,835.1	366.9	257.8	3.364	ES, SF
EXIST VERT BUNTING 27-43 - Wellbore #1 - Wellbore #	11,798.8	6,814.5	140.7	-1.4	0.990	Level 1, CC
EXIST VERT BUNTING 27-43 - Wellbore #1 - Wellbore #	11,800.0	6,814.5	140.7	-1.5	0.990	Level 1, ES, SF
EXIST VERT FOLKOWSKI 1 - Wellbore #1 - Wellbore #	9,302.4	6,800.0	339.3	266.4	4.659	CC, ES, SF
EXIST VERT FORD PM-F #26-16 - Wellbore #1 - Wellbore	5,946.9	5,882.2	1,374.4	1,357.7	82.423	CC, ES
EXIST VERT FORD PM-F #26-16 - Wellbore #1 - Wellbore	10,500.0	6,771.2	5,277.3	5,191.6	61.565	SF
EXIST VERT KEATON #8-26 - Wellbore #1 - Design #1	400.0	381.0	2,899.3	2,891.7	383.593	CC
EXIST VERT KEATON #8-26 - Wellbore #1 - Design #1	6,250.0	6,171.8	2,993.2	2,852.7	21.308	ES
EXIST VERT KEATON #8-26 - Wellbore #1 - Design #1	6,450.0	6,366.5	3,011.8	2,868.8	21.073	SF
EXIST VERT SITZMAN F27-14 - Wellbore #1 - Wellbore	13,351.2	6,819.9	479.3	293.3	2.577	CC, ES
EXIST VERT SITZMAN F27-14 - Wellbore #1 - Wellbore	13,400.0	6,819.5	481.8	294.4	2.571	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 BUNTING 26Q-214
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4672.0usft (Original Well Elev)
<b>Reference Site:</b>	SW SE SEC. 26 T5N R65W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4672.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	BUNTING 26Q-214	<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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
NW SW SEC. 27 T5N R65W 6th P.M.						
EXIST VERT VETTING PM F-#26-7 - Wellbore #1 - Desi	400.0	380.0	2,616.3	2,608.7	346.650	CC
EXIST VERT VETTING PM F-#26-7 - Wellbore #1 - Desi	500.0	480.0	2,617.1	2,607.3	267.571	ES
EXIST VERT VETTING PM F-#26-7 - Wellbore #1 - Desi	8,100.0	6,828.9	3,354.8	3,179.0	19.081	SF



## Anticollision Report



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<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4672.0usft (Original Well Elev)
<b>Reference Site:</b>	SW SE SEC. 26 T5N R65W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4672.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	BUNTING 26Q-214	<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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
SW SE SEC. 26 T5N R65W 6th P.M.						
BUNTING 26O-102 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	149.4	147.9	98.165	CC, ES
BUNTING 26O-102 - ORIGINAL WELLBORE - PROPOS	9,900.0	6,550.0	2,907.0	2,798.9	26.894	SF
BUNTING 26O-212 - ORIGINAL WELLBORE - PROPOS	300.0	300.0	163.9	162.9	152.909	CC, ES
BUNTING 26O-212 - ORIGINAL WELLBORE - PROPOS	10,400.0	6,650.0	3,394.1	3,270.6	27.476	SF
BUNTING 26O-232 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	120.2	118.7	79.007	CC, ES
BUNTING 26O-232 - ORIGINAL WELLBORE - PROPOS	9,100.0	6,577.8	2,039.4	1,953.6	23.781	SF
BUNTING 26O-332 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	134.8	133.3	88.583	CC, ES
BUNTING 26O-332 - ORIGINAL WELLBORE - PROPOS	9,600.0	6,650.0	2,518.6	2,417.7	24.951	SF
BUNTING 26P-212 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	91.1	89.6	59.854	CC, ES
BUNTING 26P-212 - ORIGINAL WELLBORE - PROPOS	8,400.0	6,650.0	1,305.9	1,239.6	19.713	SF
BUNTING 26P-232 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	58.3	56.8	38.306	CC, ES
BUNTING 26P-232 - ORIGINAL WELLBORE - PROPOS	7,900.0	6,812.0	718.7	665.6	13.537	SF
BUNTING 26P-302 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	72.9	71.3	47.883	CC, ES
BUNTING 26P-302 - ORIGINAL WELLBORE - PROPOS	8,200.0	6,722.1	1,013.4	952.1	16.533	SF
BUNTING 26P-312 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	105.6	104.1	69.430	CC, ES
BUNTING 26P-312 - ORIGINAL WELLBORE - PROPOS	8,800.0	6,650.0	1,678.8	1,600.7	21.503	SF
BUNTING 26P-332 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	43.7	42.2	28.730	CC, ES
BUNTING 26P-332 - ORIGINAL WELLBORE - PROPOS	7,700.0	6,967.5	427.3	377.7	8.624	SF
BUNTING 26Q-212 - ORIGINAL WELLBORE - PROPOS	300.0	300.0	29.1	28.1	27.184	CC
BUNTING 26Q-212 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	29.2	27.7	19.326	ES
BUNTING 26Q-212 - ORIGINAL WELLBORE - PROPOS	7,050.0	7,527.1	131.3	86.7	2.944	SF
BUNTING 26Q-302 - ORIGINAL WELLBORE - PROPOS	300.0	300.0	14.6	13.5	13.592	CC
BUNTING 26Q-302 - ORIGINAL WELLBORE - PROPOS	400.0	400.0	14.7	13.2	9.715	ES
BUNTING 26Q-302 - ORIGINAL WELLBORE - PROPOS	7,600.0	7,140.4	275.2	226.3	5.626	SF
BUNTING 26Q-304 - ORIGINAL WELLBORE - PROPOS	300.0	300.0	14.6	13.5	13.592	CC
BUNTING 26Q-304 - ORIGINAL WELLBORE - PROPOS	14,714.7	14,776.8	215.8	-205.6	0.512	Level 1, ES, SF
EXIST DD CONAGRA B30-32D - Wellbore #1 - Wellbore	6,121.1	6,198.7	7,674.9	7,642.0	232.873	CC
EXIST DD CONAGRA B30-32D - Wellbore #1 - Wellbore	6,200.0	6,261.4	7,675.0	7,641.8	231.029	ES
EXIST DD CONAGRA B30-32D - Wellbore #1 - Wellbore	9,000.0	7,038.4	9,997.4	9,916.6	123.740	SF
EXIST DD CONAGRA B30-33D - Wellbore #1 - Wellbore	5,795.6	5,851.5	7,432.4	7,415.1	431.547	CC
EXIST DD CONAGRA B30-33D - Wellbore #1 - Wellbore	5,800.0	5,853.6	7,432.4	7,415.1	431.342	ES
EXIST DD CONAGRA B30-33D - Wellbore #1 - Wellbore	9,100.0	6,919.0	9,924.7	9,856.9	146.394	SF
EXIST DD THISTLE DOWN B31-30D - Wellbore #1 - We	6,195.0	6,492.8	7,075.7	7,057.3	385.588	ES
EXIST DD THISTLE DOWN B31-30D - Wellbore #1 - We	6,213.4	6,515.2	7,075.4	7,058.1	408.712	CC
EXIST DD THISTLE DOWN B31-30D - Wellbore #1 - We	9,500.0	7,236.7	9,949.5	9,878.3	139.778	SF
EXIST HZ LASALLE 25G-402 - Wellbore #1 - Wellbore #	6,198.7	6,228.3	3,205.3	3,171.4	94.626	CC
EXIST HZ LASALLE 25G-402 - Wellbore #1 - Wellbore #	6,200.0	6,229.9	3,205.3	3,171.4	94.608	ES
EXIST HZ LASALLE 25G-402 - Wellbore #1 - Wellbore #	14,200.0	6,281.0	9,944.8	9,729.6	46.229	SF
EXIST HZ THISTLE DOWN STATE PC F36-69HN - Well	6,195.0	11,126.0	2,642.9	2,513.3	20.399	ES, SF
EXIST HZ THISTLE DOWN STATE PC F36-69HN - Well	6,356.7	11,126.0	2,620.1	2,566.3	48.684	CC
EXIST VERT HAMILTON 25-10B - Wellbore #1 - Wellbor	3,885.0	3,829.7	5,635.6	5,621.4	398.434	CC, ES
EXIST VERT HAMILTON 25-10B - Wellbore #1 - Wellbor	11,000.0	6,500.0	9,969.1	9,852.3	85.359	SF
EXIST VERT HAMILTON 25-11B - Wellbore #1 - Wellbor	5,654.7	5,600.0	3,942.0	3,926.7	258.644	CC
EXIST VERT HAMILTON 25-11B - Wellbore #1 - Wellbor	5,700.0	5,638.1	3,942.0	3,926.7	257.020	ES
EXIST VERT HAMILTON 25-11B - Wellbore #1 - Wellbor	12,800.0	6,845.5	9,996.6	9,826.0	58.610	SF
EXIST VERT HAMILTON 25-12B - Wellbore #1 - Wellbor	5,582.9	5,517.8	3,051.9	3,037.4	209.676	CC
EXIST VERT HAMILTON 25-12B - Wellbore #1 - Wellbor	5,600.0	5,531.1	3,051.9	3,037.3	209.210	ES
EXIST VERT HAMILTON 25-12B - Wellbore #1 - Wellbor	13,700.0	6,900.0	9,912.2	9,716.9	50.757	SF
EXIST VERT HAMILTON 25-13B - Wellbore #1 - Wellbor	5,949.8	5,916.6	2,720.7	2,703.6	158.555	CC, ES
EXIST VERT HAMILTON 25-13B - Wellbore #1 - Wellbor	6,195.0	6,112.6	2,723.1	2,705.5	154.405	SF
EXIST VERT HAMILTON 25-14B - Wellbore #1 - Wellbor	3,819.7	3,693.5	3,986.1	3,973.4	313.873	CC
EXIST VERT HAMILTON 25-14B - Wellbore #1 - Wellbor	3,909.0	3,819.9	3,986.7	3,973.3	297.259	ES
EXIST VERT HAMILTON 25-14B - Wellbore #1 - Wellbor	12,500.0	6,833.3	9,946.0	9,800.6	68.367	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 BUNTING 26Q-214
<b>Project:</b>	WELD COUNTY, COLORADO	<b>TVD Reference:</b>	KB-EST @ 4672.0usft (Original Well Elev)
<b>Reference Site:</b>	SW SE SEC. 26 T5N R65W 6th P.M.	<b>MD Reference:</b>	KB-EST @ 4672.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	BUNTING 26Q-214	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDM 5000.1 Single User Db
<b>Reference Design:</b>	PROPOSAL #2	<b>Offset TVD Reference:</b>	Offset Datum

## Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SW SE SEC. 26 T5N R65W 6th P.M.						
EXIST VERT HAMILTON 25-15B - Wellbore #1 - Wellboi	5,194.7	5,175.0	4,942.7	4,926.8	311.213	CC
EXIST VERT HAMILTON 25-15B - Wellbore #1 - Wellboi	5,200.0	5,178.4	4,942.7	4,926.8	311.031	ES
EXIST VERT HAMILTON 25-15B - Wellbore #1 - Wellboi	11,600.0	6,823.6	9,971.0	9,916.1	181.539	SF
EXIST VERT HAMILTON 25-16B - Wellbore #1 - Wellboi	6,219.6	6,463.8	6,425.2	6,408.1	374.862	CC, ES
EXIST VERT HAMILTON 25-16B - Wellbore #1 - Wellboi	10,100.0	6,883.7	9,905.8	9,811.1	104.630	SF
EXIST VERT HAMILTON 25-9B - Wellbore #1 - Wellbore	4,914.5	4,878.7	6,776.6	6,762.4	476.816	CC
EXIST VERT HAMILTON 25-9B - Wellbore #1 - Wellbore	5,000.0	4,950.9	6,776.7	6,762.4	472.044	ES
EXIST VERT HAMILTON 25-9B - Wellbore #1 - Wellbore	9,800.0	6,800.0	9,914.0	9,827.4	114.564	SF
EXIST VERT HAMILTON F 25-23 - Wellbore #1 - Wellbo	6,112.9	6,100.0	5,644.6	5,627.7	334.971	CC
EXIST VERT HAMILTON F 25-23 - Wellbore #1 - Wellbo	6,200.0	6,152.4	5,644.9	5,627.6	326.363	ES
EXIST VERT HAMILTON F 25-23 - Wellbore #1 - Wellbo	10,900.0	6,837.1	9,929.3	9,812.8	85.240	SF
EXIST VERT HAMILTON F 25-25 - Wellbore #1 - Wellbo	5,573.1	5,533.8	3,372.0	3,356.4	215.698	CC
EXIST VERT HAMILTON F 25-25 - Wellbore #1 - Wellbo	5,600.0	5,552.6	3,372.0	3,356.3	214.978	ES
EXIST VERT HAMILTON F 25-25 - Wellbore #1 - Wellbo	13,200.0	6,500.0	9,952.1	9,791.0	61.762	SF
EXIST VERT HAMILTON F 25-33 - Wellbore #1 - Wellbo	6,158.9	6,100.0	2,268.7	2,252.6	140.563	CC
EXIST VERT HAMILTON F 25-33 - Wellbore #1 - Wellbo	6,200.0	6,132.9	2,268.8	2,250.8	125.788	ES
EXIST VERT HAMILTON F 25-33 - Wellbore #1 - Wellbo	14,400.0	6,783.1	9,975.6	9,761.7	46.641	SF
EXIST VERT HAMILTON F25-20 - Wellbore #1 - Wellbor	5,365.6	5,280.5	3,814.1	3,800.3	277.471	CC
EXIST VERT HAMILTON F25-20 - Wellbore #1 - Wellbor	5,400.0	5,300.0	3,814.1	3,800.3	276.103	ES
EXIST VERT HAMILTON F25-20 - Wellbore #1 - Wellbor	13,200.0	6,686.7	9,994.6	9,813.7	55.234	SF
EXIST VERT HAMILTON F25-21 - Wellbore #1 - Wellbor	3,703.1	3,500.0	5,087.5	5,072.9	348.058	CC, ES
EXIST VERT HAMILTON F25-21 - Wellbore #1 - Wellbor	11,700.0	6,900.0	9,958.9	9,819.3	71.317	SF
EXIST VERT HAMILTON F25-24 - Wellbore #1 - Wellbor	5,170.3	5,136.8	4,601.3	4,586.4	309.195	CC
EXIST VERT HAMILTON F25-24 - Wellbore #1 - Wellbor	5,200.0	5,157.2	4,601.3	4,586.4	308.069	ES
EXIST VERT HAMILTON F25-24 - Wellbore #1 - Wellbor	12,000.0	6,838.7	9,961.3	9,813.6	67.441	SF

<b>Offset Design</b> NW SW SEC. 27 T5N R65W 6th P.M. - ABDN VERT SITZMAN F27-13 - 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 Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-92.07	-268.5	-7,415.4	7,420.2				
100.0	100.0	70.4	70.4	0.1	0.0	-92.07	-268.6	-7,415.4	7,420.3	7,420.2	0.12	N/A	
200.0	200.0	183.8	183.8	0.3	0.2	-92.08	-269.1	-7,415.6	7,420.5	7,420.0	0.49	N/A	
300.0	300.0	290.8	290.8	0.5	0.2	-92.08	-269.4	-7,415.5	7,420.4	7,419.7	0.75	9,876.926	
347.5	347.5	331.5	331.5	0.6	0.2	-92.08	-269.3	-7,415.5	7,420.4	7,419.5	0.86	8,639.003	
400.0	400.0	374.4	374.4	0.8	0.2	-92.08	-269.4	-7,415.5	7,420.4	7,419.4	0.98	7,595.668	
500.0	500.0	500.0	500.0	1.0	0.2	137.98	-269.6	-7,415.5	7,421.7	7,420.5	1.21	6,143.667	
600.0	599.8	580.0	580.0	1.2	0.3	137.95	-269.7	-7,415.4	7,425.5	7,424.1	1.43	5,179.616	
700.0	699.5	700.0	700.0	1.4	0.3	137.92	-269.9	-7,415.4	7,431.9	7,430.2	1.72	4,330.107	
800.0	798.7	775.0	775.0	1.7	0.3	137.85	-270.0	-7,415.3	7,440.9	7,438.9	2.00	3,728.118	
900.0	897.5	900.0	900.0	2.0	0.3	137.79	-269.9	-7,415.3	7,452.6	7,450.3	2.31	3,225.312	
999.9	995.5	981.8	981.8	2.3	0.4	137.68	-269.6	-7,415.2	7,466.7	7,464.0	2.68	2,785.789	
1,100.0	1,093.4	1,077.8	1,077.8	2.8	0.4	137.79	-269.4	-7,415.2	7,482.3	7,479.2	3.02	2,480.007	
1,200.0	1,191.3	1,171.0	1,171.0	3.2	0.4	137.89	-269.4	-7,415.2	7,497.8	7,494.5	3.36	2,233.478	
1,300.0	1,289.1	1,275.3	1,275.3	3.6	0.4	138.01	-269.0	-7,415.3	7,513.5	7,509.7	3.73	2,012.827	
1,400.0	1,386.9	1,400.0	1,400.0	4.1	0.5	138.14	-268.4	-7,415.0	7,528.9	7,524.8	4.13	1,825.156	
1,500.0	1,484.7	1,485.4	1,485.4	4.5	0.5	138.24	-268.2	-7,414.8	7,544.2	7,539.7	4.51	1,672.504	
1,600.0	1,582.5	1,581.6	1,581.6	5.0	0.5	138.34	-268.0	-7,414.6	7,559.7	7,554.8	4.90	1,542.219	
1,700.0	1,680.3	1,690.3	1,690.2	5.4	0.6	138.46	-268.0	-7,414.3	7,575.1	7,569.9	5.28	1,434.248	

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